



VERSATILITY. VALUE. WIDIA.

WIDIA ™

Europe | Asia-Pacific

 **ALL-STAR 2019**

METRIC



For more than 90 years, WIDIA™ has defined excellence in innovation, technology, and customer service — extending that excellence with our All-Star Programme:

- A wide range of metalcutting tooling that covers the majority of common materials and applications.
- The range is defined by a selection of the most relevant and versatile tool platforms.
- All-Star products perform significantly better than General Purpose tooling.



ALL-STAR 2019

Our All-Star Programme reinforces what WIDIA is known for — providing versatility and value, and the benefit of best-in-class availability.

VERSATILITY: Our All-Star tooling covers an extensive range of applications and materials.

VALUE: The most current tools and best technologies.

AVAILABILITY: All-Star tools are guaranteed to be in stock. Orders ship same day when placed before 4 pm CET, and delivered within two business days anywhere in EU countries.

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A Complete High-Performance Turning Portfolio • WIDIA™ Victory™

Specifically engineered multilayer coating provides high-speed capability for finishing to roughing operations. New geometries enhance chip control for better tool life and superior surface finishes.



Victory

- Market-leading technology.
- Longer tool life.
- Higher productivity through increased speed capability.

Steel and Stainless Steel Grades

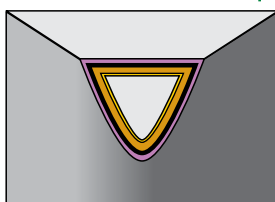
- Reduced cycle times — high speed and feed capability.
- Long tool life — new multilayer coating provides better wear resistance.
- Proven seating — smooth and secure seating surface.
- Outer layer is bronze-colored for easier wear detection.

Post-coat treatment

- Improves edge toughness.
- Long, predictable tool life.
- Reduces depth-of-cut notching.
- Wide range of applications.

New geometry identification system.

MT-CVD/CVD-TiN-TiCN-
Al₂O₃-ZrCN



Improved edge toughness

- Provides smooth outer surface to reduce forces, friction, and workpiece sticking.

Post-coat grinding

- Provides secure seating surface.

Alpha alumina layer

- Provides coating integrity at elevated speeds.
- Higher productivity and dependability at high cutting temperatures.

order number	catalogue number	grade
CCMT-FP • Finishing Positive		
4168778	CCMT060202FP	WM25CT
4169857	CCMT060202FP	WP15CT
4170140	CCMT060202FP	WP25CT
4170032	CCMT060204FP	WK20CT
4168779	CCMT060204FP	WM25CT
4169858	CCMT060204FP	WP15CT
4170141	CCMT060204FP	WP25CT
5684337	CCMT060204FP	WS10PT
5684340	CCMT060204FP	WS25PT
4170084	CCMT09T304FP	WK20CT
4168782	CCMT09T304FP	WM25CT
4169860	CCMT09T304FP	WP15CT
4170294	CCMT09T304FP	WP25CT
5684341	CCMT09T304FP	WS10PT
5684343	CCMT09T304FP	WS25PT
4170085	CCMT09T308FP	WK20CT
4168741	CCMT09T308FP	WM15CT
4169861	CCMT09T308FP	WP15CT
4170295	CCMT09T308FP	WP25CT
5684338	CCMT09T308FP	WS25PT
4170296	CCMT120404FP	WP25CT
4170297	CCMT120408FP	WP25CT
CCMT-MP • Medium Positive		
4170237	CCMT060204MP	WK20CT
4168906	CCMT060204MP	WM25CT
4170197	CCMT060204MP	WP15CT
4170217	CCMT060204MP	WP25CT
4170218	CCMT09T304MP	WP25CT
4170239	CCMT09T308MP	WK20CT
4168908	CCMT09T308MP	WM25CT
4170199	CCMT09T308MP	WP15CT
4170219	CCMT09T308MP	WP25CT
4168909	CCMT09T312MP	WM25CT
4170240	CCMT120408MP	WK20CT
4170221	CCMT120408MP	WP25CT
4170241	CCMT120412MP	WK20CT
4170222	CCMT120412MP	WP25CT
CCMT-MU • Medium Universal		
5623421	CCMT090304MU	WM25CT
5623420	CCMT090304MU	WP25CT
5623423	CCMT090308MU	WM25CT
5623425	CCMT090308MU	WP15CT
5623424	CCMT090308MU	WP25CT
5623432	CCMT09T304MU	WK20CT
5623427	CCMT09T304MU	WM25CT
5623431	CCMT09T304MU	WP15CT
5623430	CCMT09T304MU	WP25CT
5623428	CCMT09T304MU	WS10PT
5623426	CCMT09T304MU	WS25PT
5623433	CCMT09T308MU	WK20CT
5623435	CCMT09T308MU	WM25CT
5623434	CCMT09T308MU	WP15CT
5623436	CCMT09T308MU	WP25CT
5623439	CCMT09T308MU	WP35CT
5623438	CCMT09T308MU	WS10PT
5623437	CCMT09T308MU	WS25PT
5623441	CCMT120408MU	WK20CT
5623442	CCMT120408MU	WM25CT
5623443	CCMT120408MU	WP25CT
CCMW • Medium Wiper		
4170369	CCMW090304	WK20CT
4170370	CCMW090308	WK20CT
4170371	CCMW09T304	WK20CT

order number	catalogue number	grade
CNGG-FS • Finishing Sharp		
5548576	CNGG120401FS	WS10PT
5548575	CNGG120402FS	WS10PT
5548577	CNGG120404FS	WS10PT
5538204	CNGG120404FS	WS25PT
5548578	CNGG120408FS	WS10PT
CNGP • Medium Machining		
5549137	CNGP120401	WS10PT
5549207	CNGP120404	WU10HT
5549139	CNGP120404	WS10PT
5549208	CNGP120408	WU10HT
5549190	CNGP120408	WS10PT
CNMA • Roughing		
4171596	CNMA120408	WK05CT
4171864	CNMA120408	WK20CT
4171865	CNMA120412	WK20CT
4171866	CNMA120416	WK20CT
4171868	CNMA160612	WK20CT
4171869	CNMA160616	WK20CT
4171871	CNMA190612	WK20CT
4171872	CNMA190616	WK20CT
CNMG-ML • Medium Light		
4171390	CNMG120404ML	WK20CT
4171059	CNMG120404ML	WP15CT
4170458	CNMG120404ML	WP25CT
4171658	CNMG120408ML	WK05CT
4171391	CNMG120408ML	WK20CT
4171060	CNMG120408ML	WP15CT
4170459	CNMG120408ML	WP25CT
4171392	CNMG120412ML	WK20CT
4170460	CNMG120412ML	WP25CT
CNMG-MR • Medium Roughing		
4170546	CNMG120404MR	WP25CT
4170043	CNMG120404MR	WP35CT
4172955	CNMG120408MR	WM25CT
4171131	CNMG120408MR	WP15CT
4170547	CNMG120408MR	WP25CT
4170044	CNMG120408MR	WP35CT
4171132	CNMG120412MR	WP15CT
4170548	CNMG120412MR	WP25CT
4170045	CNMG120412MR	WP35CT
4170549	CNMG160608MR	WP25CT
4171135	CNMG160612MR	WP15CT
4170550	CNMG160612MR	WP25CT
4171136	CNMG160616MR	WP15CT
4172961	CNMG190612MR	WM25CT
4170552	CNMG190612MR	WP25CT
4172962	CNMG190616MR	WM25CT
4170563	CNMG190616MR	WP25CT

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(Victory ISO Turning Inserts — continued)

Turning

order number	catalogue number	grade
CNMG-MS • Medium Sharp		
5908742	CNMG120404MS	WS10PT
5908743	CNMG120404MS	WS25PT
5908745	CNMG120408MS	WS10PT
5908746	CNMG120408MS	WS25PT
5908748	CNMG120412MS	WS10PT
5908749	CNMG120412MS	WS25PT
5908754	CNMG160608MS	WS10PT
5908755	CNMG160608MS	WS25PT
5908759	CNMG160612MS	WU10HT
5908757	CNMG160612MS	WS10PT
5908758	CNMG160612MS	WS25PT
5908762	CNMG190608MS	WU10HT
5908761	CNMG190608MS	WS25PT
5908764	CNMG190612MS	WS25PT
CNMG-RH • Roughing Heavy		
4171903	CNMG120408RH	WK20CT
4173035	CNMG120408RH	WM25CT
4170979	CNMG120408RH	WP15CT
4171504	CNMG120408RH	WP25CT
5684356	CNMG120408RH	WP35CT
4171904	CNMG120412RH	WK20CT
4173036	CNMG120412RH	WM25CT
4170980	CNMG120412RH	WP15CT
4171505	CNMG120412RH	WP25CT
4171698	CNMG120412RH	WP35CT
4171905	CNMG120416RH	WK20CT
4170981	CNMG120416RH	WP15CT
4171699	CNMG120416RH	WP35CT
4171906	CNMG160608RH	WK20CT
4173038	CNMG160608RH	WM25CT
4170982	CNMG160608RH	WP15CT
4171507	CNMG160608RH	WP25CT
4171700	CNMG160608RH	WP35CT
4171907	CNMG160612RH	WK20CT
4170983	CNMG160612RH	WP15CT
4171508	CNMG160612RH	WP25CT
4171701	CNMG160612RH	WP35CT
4171908	CNMG160616RH	WK20CT
4170984	CNMG160616RH	WP15CT
4171509	CNMG160616RH	WP25CT
4171702	CNMG160616RH	WP35CT
4171510	CNMG190608RH	WP25CT
4171703	CNMG190608RH	WP35CT
4171910	CNMG190612RH	WK20CT
4173042	CNMG190612RH	WM25CT
4170986	CNMG190612RH	WP15CT
4171511	CNMG190612RH	WP25CT
4171704	CNMG190612RH	WP35CT
4171911	CNMG190616RH	WK20CT
4173043	CNMG190616RH	WM25CT
4171512	CNMG190616RH	WP25CT
4171705	CNMG190616RH	WP35CT
4171523	CNMG190624RH	WP25CT
CNMG-UF • Universal Finishing		
4169353	CNMG120404UF	WM15CT
5645600	CNMG120404UF	WS10PT
4169354	CNMG120408UF	WM15CT
5645588	CNMG120408UF	WS10PT
CNMG-UM • Universal Medium		
4172380	CNMG120404UM	WM25CT
4172335	CNMG120408UM	WM15CT
4172381	CNMG120408UM	WM25CT
4172411	CNMG120408UM	WM35CT
5645219	CNMG120408UM	WP25CT
4172382	CNMG120412UM	WM25CT

order number	catalogue number	grade
CNMG-UR • Universal Roughing		
4169444	CNMG120404UR	WM25CT
4170500	CNMG120404UR	WP25CT
5680085	CNMG120408UR	WK20CT
4169407	CNMG120408UR	WM15CT
4169445	CNMG120408UR	WM25CT
4169480	CNMG120408UR	WM35CT
4171093	CNMG120408UR	WP15CT
4170501	CNMG120408UR	WP25CT
4169960	CNMG120408UR	WP35CT
5301400	CNMG120408UR	WS10PT
5301402	CNMG120408UR	WS25PT
4171419	CNMG120412UR	WK20CT
4169446	CNMG120412UR	WM25CT
4169481	CNMG120412UR	WM35CT
4171094	CNMG120412UR	WP15CT
4170502	CNMG120412UR	WP25CT
4169961	CNMG120412UR	WP35CT
5301413	CNMG120412UR	WS10PT
5301416	CNMG120412UR	WS25PT
4169447	CNMG120416UR	WM25CT
5680170	CNMG120416UR	WS25PT
4169448	CNMG160608UR	WM25CT
4170504	CNMG160608UR	WP25CT
4171422	CNMG160612UR	WK20CT
4169449	CNMG160612UR	WM25CT
4170505	CNMG160612UR	WP25CT
4171423	CNMG160616UR	WK20CT
4169450	CNMG160616UR	WM25CT
4169485	CNMG160616UR	WM35CT
4171098	CNMG160616UR	WP15CT
4170506	CNMG160616UR	WP25CT
5578901	CNMG160616UR	WS25PT
4169451	CNMG190612UR	WM25CT
4170507	CNMG190612UR	WP25CT
4169964	CNMG190612UR	WP35CT
5512536	CNMG190612UR	WS25PT
4169487	CNMG190616UR	WM35CT
5579234	CNMG190616UR	WS25PT
CNMM-65 • Single Sided • Roughing		
5698347	CNMM12040865	WM25CT
5698348	CNMM12040865	WP15CT
5698349	CNMM12040865	WP25CT
5698360	CNMM12040865	WP35CT
5698362	CNMM12041265	WP15CT
5698368	CNMM16061265	WM25CT
5698370	CNMM16061265	WP25CT
5698374	CNMM19061265	WM25CT
5491016	CNMM19061265	WP25CT
5698376	CNMM19061265	WP35CT
5698377	CNMM19061665	WM25CT
5698378	CNMM19061665	WP15CT
5698410	CNMM19062465	WP15CT
5698411	CNMM19062465	WP25CT
CNMM-8 • Single Sided • Heavy Roughing		
5418451	CNMM1906168	WP25CT

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(Victory ISO Turning Inserts — continued)

order number	catalogue number	grade
CNMM-SR • Single Sided • Super Roughing		
5696642	CNMM190616SR	WM25CT
5696643	CNMM190616SR	WP15CT
5696644	CNMM190624SR	WP35CT
5696645	CNMM250924SR	WP15CT
5696646	CNMM250924SR	WP25CT
5696647	CNMM250924SR	WP35CT
CNMP • Sharp Machining		
4173552	CNMP120404	WM25CT
4172439	CNMP120404	WS10PT
4173653	CNMP120408	WM25CT
4172440	CNMP120408	WS10PT
4172614	CNMP120408	WS25PT
DCMT-FP • Finishing Positive		
4170300	DCMT070204FP	WP25CT
4168790	DCMT11T302FP	WM25CT
4170302	DCMT11T302FP	WP25CT
4168765	DCMT11T304FP	WM15CT
4168791	DCMT11T304FP	WM25CT
4169997	DCMT11T304FP	WP15CT
4170303	DCMT11T304FP	WP25CT
4168792	DCMT11T308FP	WM25CT
4169998	DCMT11T308FP	WP15CT
4170304	DCMT11T308FP	WP25CT
4170306	DCMT150404FP	WP25CT
4170001	DCMT150408FP	WP15CT
4170307	DCMT150408FP	WP25CT
DCMT-MP • Medium Positive		
4170242	DCMT11T304MP	WK20CT
4170201	DCMT11T304MP	WP15CT
4170223	DCMT11T304MP	WP25CT
4170243	DCMT11T308MP	WK20CT
4168912	DCMT11T308MP	WM25CT
4170202	DCMT11T308MP	WP15CT
4170224	DCMT11T308MP	WP25CT
4170213	DCMT11T312MP	WP15CT
DCMT-MU • Medium Universal		
5623587	DCMT11T304MU	WK20CT
5623581	DCMT11T304MU	WM25CT
5623585	DCMT11T304MU	WP15CT
5623583	DCMT11T304MU	WP25CT
5623582	DCMT11T304MU	WS10PT
5623584	DCMT11T304MU	WS25PT
5623589	DCMT11T308MU	WK20CT
5623588	DCMT11T308MU	WM25CT
5623600	DCMT11T308MU	WP15CT
6128278	DCMT11T308MU	WP25CT
5623601	DCMT11T308MU	WS10PT
5623603	DCMT11T308MU	WS25PT
5623604	DCMT150408MU	WM25CT
5623608	DCMT150408MU	WP25CT
5623610	DCMT150408MU	WS25PT
6128283	DCMT150412MU	WP25CT
DNGG-FS • Finishing Sharp		
5548678	DNGG150604FS	WS10PT
5548679	DNGG150608FS	WS10PT
DNMA • Roughing		
4171873	DNMA110408	WK20CT
4171874	DNMA110412	WK20CT
4171637	DNMA150608	WK05CT
4171878	DNMA150608	WK20CT
4171879	DNMA150612	WK20CT
4171880	DNMA150616	WK20CT

order number	catalogue number	grade
DNMG-ML • Medium Light		
4171394	DNMG110404ML	WK20CT
4171062	DNMG110404ML	WP15CT
4170461	DNMG110404ML	WP25CT
4171068	DNMG150604ML	WP15CT
4170485	DNMG150604ML	WP25CT
4171400	DNMG150608ML	WK20CT
4171069	DNMG150608ML	WP15CT
4170486	DNMG150608ML	WP25CT
4171070	DNMG150612ML	WP15CT
4170487	DNMG150612ML	WP25CT
DNMG-MR • Medium Roughing		
4170568	DNMG150604MR	WP25CT
4173023	DNMG150608MR	WM25CT
4171144	DNMG150608MR	WP15CT
4170569	DNMG150608MR	WP25CT
4171145	DNMG150612MR	WP15CT
DNMG-MS • Medium Sharp		
5908792	DNMG150604MS	WS10PT
5908793	DNMG150604MS	WS25PT
5908795	DNMG150608MS	WS10PT
5908796	DNMG150608MS	WS25PT
5908799	DNMG150612MS	WS25PT
DNMG-RH • Roughing Heavy		
4171524	DNMG150408RH	WP25CT
4171914	DNMG150608RH	WK20CT
4170991	DNMG150608RH	WP15CT
4171526	DNMG150608RH	WP25CT
4171709	DNMG150608RH	WP35CT
4171915	DNMG150612RH	WK20CT
4170992	DNMG150612RH	WP15CT
4171527	DNMG150612RH	WP25CT
4171710	DNMG150612RH	WP35CT
DNMG-UF • Universal Finishing		
4169361	DNMG150604UF	WM15CT
4169387	DNMG150604UF	WM25CT
4169362	DNMG150608UF	WM15CT
DNMG-UM • Universal Medium		
4172383	DNMG110404UM	WM25CT
4172389	DNMG150604UM	WM25CT
4172390	DNMG150608UM	WM25CT
4172391	DNMG150612UM	WM25CT
DNMG-UR • Universal Roughing		
4169488	DNMG110408UR	WM35CT
4170509	DNMG110408UR	WP25CT
4171431	DNMG150608UR	WK20CT
4169427	DNMG150608UR	WM15CT
4169456	DNMG150608UR	WM25CT
4169492	DNMG150608UR	WM35CT
4171105	DNMG150608UR	WP15CT
4170513	DNMG150608UR	WP25CT
4169969	DNMG150608UR	WP35CT
5579276	DNMG150608UR	WS25PT
5680172	DNMG150612UR	WK05CT
4171432	DNMG150612UR	WK20CT
4169428	DNMG150612UR	WM15CT
4171106	DNMG150612UR	WP15CT
4170514	DNMG150612UR	WP25CT
4169494	DNMG150616UR	WM35CT
4171107	DNMG150616UR	WP15CT

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(Victory ISO Turning Inserts – continued)

Turning

order number	catalogue number	grade
DNMM-65 • Single Sided • Roughing		
5698413	DNMM15060865	WP15CT
5698414	DNMM15060865	WP25CT
5698415	DNMM15060865	WP35CT
5494773	DNMM15061265	WP25CT
RCMT		
4170478	RCMT0602M0	WK20CT
4169975	RCMT0602M0	WP15CT
4170536	RCMT0602M0	WP25CT
4170479	RCMT0803M0	WK20CT
4169976	RCMT0803M0	WP15CT
4170537	RCMT0803M0	WP25CT
4170480	RCMT10T3M0	WK20CT
4169977	RCMT10T3M0	WP15CT
4170538	RCMT10T3M0	WP25CT
4170752	RCMT10T3M0	WP35CT
4170481	RCMT1204M0	WK20CT
4169978	RCMT1204M0	WP15CT
4170539	RCMT1204M0	WP25CT
4170803	RCMT1204M0	WP35CT
4170482	RCMT1606M0	WK20CT
4169979	RCMT1606M0	WP15CT
4170804	RCMT1606M0	WP35CT
RCMX		
4170543	RCMX2006M0T	WK20CT
4169980	RCMX2006M0T	WP15CT
4170541	RCMX2006M0T	WP25CT
4170805	RCMX2006M0T	WP35CT
RNMA • Roughing		
4171881	RNMA120400	WK20CT
RNMG-RH • Roughing Heavy		
4170996	RNMG120400RH	WP15CT
SCMT-FP • Finishing Positive		
4170309	SCMT09T308FP	WP25CT
4170311	SCMT120408FP	WP25CT
SCMT-MP • Medium Positive		
4170245	SCMT09T308MP	WK20CT
4170227	SCMT09T308MP	WP25CT
4170247	SCMT120408MP	WK20CT
4170215	SCMT120408MP	WP15CT
4170229	SCMT120408MP	WP25CT
4168917	SCMT120412MP	WM25CT
4170230	SCMT120412MP	WP25CT
SCMT-MU • Medium Universal		
5623447	SCMT09T304MU	WM25CT
5623449	SCMT09T308MU	WK20CT
5623448	SCMT09T308MU	WM25CT
5623464	SCMT09T308MU	WP25CT
5623462	SCMT09T308MU	WP35CT
5623460	SCMT09T308MU	WS10PT
SCMW • Medium Wiper		
4170380	SCMW120408	WK20CT
SNGG-FS • Finishing Sharp		
5549997	SNGG120408FS	WU10HT
SNMA • Roughing		
4171882	SNMA120408	WK20CT
4171883	SNMA120412	WK20CT
4171885	SNMA150608	WK20CT
4171889	SNMA190616	WK20CT
SNMG-ML • Medium Light		
4171403	SNMG120404ML	WK20CT
4171404	SNMG120408ML	WK20CT
4170489	SNMG120408ML	WP25CT
4171074	SNMG120412ML	WP15CT
4170490	SNMG120412ML	WP25CT

order number	catalogue number	grade
SNMG-MR • Medium Roughing		
4171146	SNMG120408MR	WP15CT
4170571	SNMG120408MR	WP25CT
4170057	SNMG120408MR	WP35CT
5684355	SNMG120412MR	WP25CT
4173029	SNMG150612MR	WM25CT
4171147	SNMG150612MR	WP15CT
4170572	SNMG190612MR	WP25CT
SNMG-MS • Medium Sharp		
5908847	SNMG120408MS	WS10PT
5908848	SNMG120408MS	WS25PT
5908922	SNMG120412MS	WU10HT
5908850	SNMG120412MS	WS10PT
SNMG-RH • Roughing Heavy		
4171918	SNMG120408RH	WK20CT
4170998	SNMG120408RH	WP15CT
4171533	SNMG120408RH	WP25CT
4171715	SNMG120408RH	WP35CT
4171919	SNMG120412RH	WK20CT
4170999	SNMG120412RH	WP15CT
4171534	SNMG120412RH	WP25CT
4171716	SNMG120412RH	WP35CT
4171535	SNMG120416RH	WP25CT
4171921	SNMG150608RH	WK20CT
4171001	SNMG150608RH	WP15CT
4171536	SNMG150608RH	WP25CT
4171922	SNMG150612RH	WK20CT
4171002	SNMG150612RH	WP15CT
4171537	SNMG150612RH	WP25CT
4171923	SNMG150616RH	WK20CT
4171003	SNMG150616RH	WP15CT
4171538	SNMG150616RH	WP25CT
4171720	SNMG150616RH	WP35CT
4171925	SNMG190612RH	WK20CT
4173056	SNMG190612RH	WM25CT
4171005	SNMG190612RH	WP15CT
4171540	SNMG190612RH	WP25CT
4171722	SNMG190612RH	WP35CT
4171926	SNMG190616RH	WK20CT
SNMG-UF • Universal Finishing		
5645610	SNMG120404UF	WS10PT
SNMG-UM • Universal Medium		
4172393	SNMG120404UM	WM25CT
4172394	SNMG120408UM	WM25CT
4172424	SNMG120408UM	WM35CT
4172395	SNMG120412UM	WM25CT
4172425	SNMG120412UM	WM35CT

(continued)

(Victory ISO Turning Inserts – continued)

order number	catalogue number	grade
SNMG-UR • Universal Roughing		
4171434	SNMG120408UR	WK20CT
4169458	SNMG120408UR	WM25CT
4171108	SNMG120408UR	WP15CT
4170516	SNMG120408UR	WP25CT
4169989	SNMG120408UR	WP35CT
4169459	SNMG120412UR	WM25CT
4171109	SNMG120412UR	WP15CT
4170517	SNMG120412UR	WP25CT
4169990	SNMG120412UR	WP35CT
4169460	SNMG120416UR	WM25CT
5680173	SNMG120416UR	WS25PT
4171437	SNMG150612UR	WK20CT
4169461	SNMG150612UR	WM25CT
4170518	SNMG150612UR	WP25CT
4169991	SNMG150612UR	WP35CT
4171112	SNMG150616UR	WP15CT
4170519	SNMG150616UR	WP25CT
4171439	SNMG190612UR	WK20CT
4169500	SNMG190612UR	WM35CT
4170520	SNMG190612UR	WP25CT
4169464	SNMG190616UR	WM25CT
SNMM-65 • Single Sided • Roughing		
5696553	SNMM12040865	WM25CT
5696554	SNMM12040865	WP25CT
5696555	SNMM12040865	WP35CT
5696557	SNMM12041265	WP25CT
5696615	SNMM19061665	WP15CT
SNMM-8 • Single Sided • Heavy Roughing		
6128309	SNMM1906168	WP25CT
5429112	SNMM2507248	WP15CT
5429111	SNMM2507248	WP25CT
5370813	SNMM2507248	WP35CT
SNMM-SR • Single Sided • Super Roughing		
5696648	SNMM190616SR	WM25CT
5478876	SNMM190616SR	WP15CT
5478877	SNMM190616SR	WP25CT
5429119	SNMM250724SR	WP25CT
5946214	SNMM250724SR	WP35CT
5402173	SNMM250924SR	WM25CT
5382277	SNMM250924SR	WP15CT
5382390	SNMM250924SR	WP25CT
5373074	SNMM250924SR	WP35CT
TCMT-FP • Finishing Positive		
4168800	TCMT110202FP	WM25CT
4168801	TCMT110204FP	WM25CT
4170006	TCMT110204FP	WP15CT
4170313	TCMT110204FP	WP25CT
4170008	TCMT16T304FP	WP15CT
4170315	TCMT16T304FP	WP25CT
4170100	TCMT16T308FP	WK20CT
4170316	TCMT16T308FP	WP25CT
TCMT-MP • Medium Positive		
4170232	TCMT16T304MP	WP25CT
4170251	TCMT16T308MP	WK20CT
4168919	TCMT16T308MP	WM25CT
4170216	TCMT16T308MP	WP15CT
4170233	TCMT16T308MP	WP25CT
4170252	TCMT16T312MP	WK20CT
TCMT-MU • Medium Universal		
5623616	TCMT16T304MU	WK20CT
5623613	TCMT16T304MU	WM25CT
5623614	TCMT16T304MU	WP15CT
5623615	TCMT16T304MU	WP25CT
5623617	TCMT16T304MU	WS25PT
5623618	TCMT16T308MU	WK20CT
5623619	TCMT16T308MU	WM25CT
5623621	TCMT16T308MU	WP15CT
5623620	TCMT16T308MU	WP25CT
5623622	TCMT16T308MU	WS10PT

order number	catalogue number	grade
TNGG-FS • Finishing Sharp		
5538231	TNGG160404FS	WS25PT
TNMA • Roughing		
4171890	TNMA160408	WK20CT
4171894	TNMA220412	WK20CT
4171895	TNMA220416	WK20CT
TNMG-ML • Medium Light		
4171075	TNMG160404ML	WP15CT
4170491	TNMG160404ML	WP25CT
4171410	TNMG160408ML	WK20CT
4171076	TNMG160408ML	WP15CT
4170492	TNMG160408ML	WP25CT
4171077	TNMG160412ML	WP15CT
TNMG-MR • Medium Roughing		
4171150	TNMG160404MR	WP15CT
4170573	TNMG160404MR	WP25CT
4171151	TNMG160408MR	WP15CT
4170574	TNMG160408MR	WP25CT
4171152	TNMG160412MR	WP15CT
TNMG-MS • Medium Sharp		
5908928	TNMG160404MS	WS25PT
5908930	TNMG160408MS	WS10PT
5908931	TNMG160408MS	WS25PT
TNMG-RH • Roughing Heavy		
4171927	TNMG160408RH	WK20CT
4171007	TNMG160408RH	WP15CT
4171542	TNMG160408RH	WP25CT
4171725	TNMG160412RH	WP35CT
TNMG-UF • Universal Finishing		
5432605	TNMG160404UF	WS10PT
TNMG-UM • Universal Medium		
5550226	TNMG160404UM	WS10PT
4172397	TNMG160408UM	WM25CT
TNMG-UR • Universal Roughing		
4171441	TNMG160408UR	WK20CT
4169465	TNMG160408UR	WM25CT
4171115	TNMG160408UR	WP15CT
4170522	TNMG160408UR	WP25CT
5579395	TNMG160408UR	WS25PT
4169466	TNMG160412UR	WM25CT
4169502	TNMG160412UR	WM35CT
4170523	TNMG160412UR	WP25CT
5680175	TNMG160412UR	WS25PT
4171443	TNMG160416UR	WK20CT
4171117	TNMG160416UR	WP15CT
TNMM-65 • Single Sided • Roughing		
5696619	TNMM16040865	WP35CT
5696621	TNMM22040865	WP15CT
5696622	TNMM22040865	WP25CT
5696623	TNMM22040865	WP35CT
VBMT-FP • Finishing Positive		
4168809	VBMT160402FP	WM25CT
4170321	VBMT160402FP	WP25CT
4170103	VBMT160404FP	WK20CT
4168776	VBMT160404FP	WM15CT
4168810	VBMT160404FP	WM25CT
4170013	VBMT160404FP	WP15CT
4170322	VBMT160404FP	WP25CT
4168811	VBMT160408FP	WM25CT
4170014	VBMT160408FP	WP15CT
4170323	VBMT160408FP	WP25CT

(continued)

(Victory ISO Turning Inserts — continued)

Turning

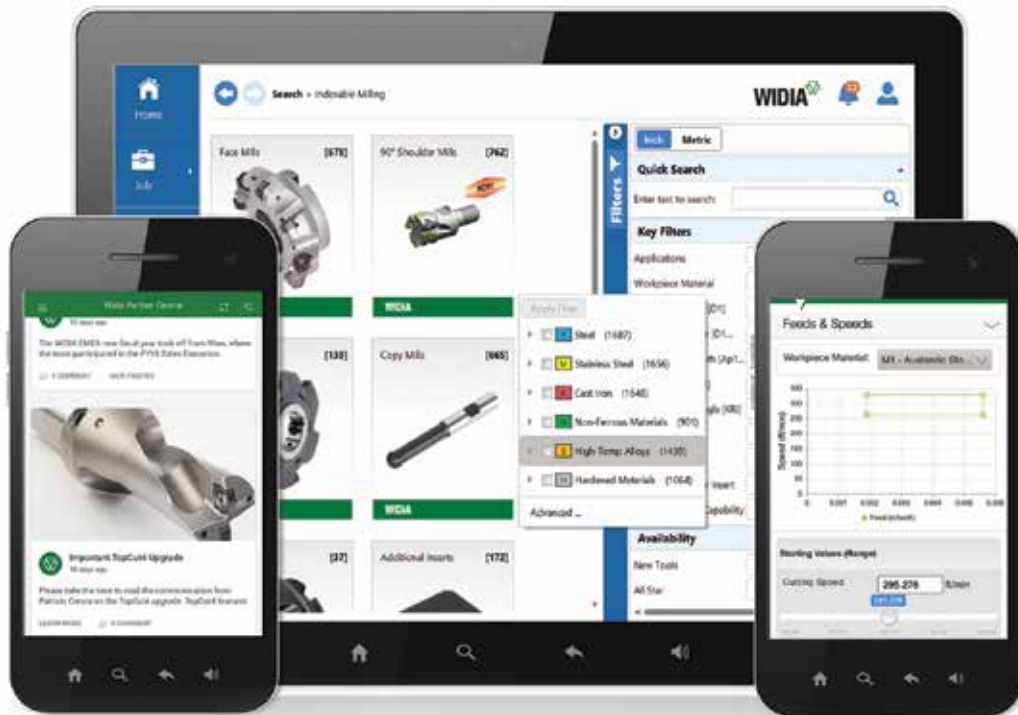
order number	catalogue number	grade
VBMT • Medium		
4169983	VBMT160404	WP15CT
4170553	VBMT160404	WP25CT
4170807	VBMT160404	WP35CT
4169984	VBMT160408	WP15CT
4170554	VBMT160408	WP25CT
4170808	VBMT160408	WP35CT
VBMT-MP • Medium Positive		
4168921	VBMT160404MP	WM25CT
4170235	VBMT160404MP	WP25CT
4170254	VBMT160408MP	WK20CT
4168922	VBMT160408MP	WM25CT
4170236	VBMT160408MP	WP25CT
VNGG-FS • Finishing Sharp		
5548684	VNGG160401FS	WS10PT
5548683	VNGG160402FS	WS10PT
VNMA • Roughing		
4171897	VNMA160408	WK20CT
VNMG-ML • Medium Light		
4171079	VNMG160404ML	WP15CT
4170495	VNMG160404ML	WP25CT
4171414	VNMG160408ML	WK20CT
4170496	VNMG160408ML	WP25CT
VNMG-MR • Medium Roughing		
4171157	VNMG160408MR	WP15CT
4170580	VNMG160408MR	WP25CT
VNMG-MS • Medium Sharp		
5908944	VNMG160404MS	WS10PT
5908945	VNMG160404MS	WS25PT
5908947	VNMG160408MS	WS10PT
5908948	VNMG160408MS	WS25PT
VNMG-UF • Universal Finishing		
4169372	VNMG160404UF	WM15CT
5645616	VNMG160404UF	WS10PT
VNMG-UR • Universal Roughing		
4171449	VNMG160408UR	WK20CT
4169473	VNMG160408UR	WM25CT
4170529	VNMG160408UR	WP25CT
4171450	VNMG160412UR	WK20CT
4169474	VNMG160412UR	WM25CT
4170530	VNMG160412UR	WP25CT
5680176	VNMG160412UR	WS10PT
WNGG-FS • Finishing Sharp		
5538234	WNGG080404FS	WS25PT
5550004	WNGG080408FS	WU10HT
5548688	WNGG080408FS	WS10PT
5538235	WNGG080408FS	WS25PT
WNMA • Roughing		
4171654	WNMA080408	WK05CT
4171900	WNMA080408	WK20CT
4171655	WNMA080412	WK05CT
4171901	WNMA080412	WK20CT
WNMG-ML • Medium Light		
4171678	WNMG080404ML	WK05CT
4171417	WNMG080404ML	WK20CT
4171083	WNMG080404ML	WP15CT
4170498	WNMG080404ML	WP25CT
4171679	WNMG080408ML	WK05CT
4171418	WNMG080408ML	WK20CT
4171084	WNMG080408ML	WP15CT
4170499	WNMG080408ML	WP25CT
WNMG-MR • Medium Roughing		
4173033	WNMG080408MR	WM25CT
4171158	WNMG080408MR	WP15CT
4170581	WNMG080408MR	WP25CT
4170067	WNMG080408MR	WP35CT
4170582	WNMG080412MR	WP25CT
4170068	WNMG080412MR	WP35CT

order number	catalogue number	grade
WNMG-MS • Medium Sharp		
5908967	WNMG060408MS	WS25PT
5908969	WNMG080404MS	WS10PT
5908970	WNMG080404MS	WS25PT
5908974	WNMG080408MS	WU10HT
5908972	WNMG080408MS	WS10PT
5908973	WNMG080408MS	WS25PT
WNMG-RH • Roughing Heavy		
4171932	WNMG080408RH	WK20CT
4173064	WNMG080408RH	WM25CT
4171019	WNMG080408RH	WP15CT
4171554	WNMG080408RH	WP25CT
4171736	WNMG080408RH	WP35CT
4171933	WNMG080412RH	WK20CT
4173065	WNMG080412RH	WM25CT
4171020	WNMG080412RH	WP15CT
4171555	WNMG080412RH	WP25CT
4171737	WNMG080412RH	WP35CT
4171556	WNMG080416RH	WP25CT
WNMG-UF • Universal Finishing		
5645619	WNMG080404UF	WS10PT
5645623	WNMG080408UF	WS10PT
4169378	WNMG080412UF	WM15CT
WNMG-UM • Universal Medium		
4172403	WNMG060404UM	WM25CT
4172377	WNMG080404UM	WM15CT
4172406	WNMG080404UM	WM25CT
4172435	WNMG080404UM	WM35CT
4172378	WNMG080408UM	WM15CT
4172407	WNMG080408UM	WM25CT
4172436	WNMG080408UM	WM35CT
4172408	WNMG080412UM	WM25CT
5645269	WNMG080412UM	WS10PT
WNMG-UR • Universal Roughing		
4169475	WNMG060408UR	WM25CT
4171453	WNMG080408UR	WK20CT
4169442	WNMG080408UR	WM15CT
4169476	WNMG080408UR	WM25CT
4169509	WNMG080408UR	WM35CT
4171127	WNMG080408UR	WP15CT
4170533	WNMG080408UR	WP25CT
4170040	WNMG080408UR	WP35CT
4171454	WNMG080412UR	WK20CT
4169443	WNMG080412UR	WM15CT
4169477	WNMG080412UR	WM25CT
4169510	WNMG080412UR	WM35CT
4171128	WNMG080412UR	WP15CT
4170534	WNMG080412UR	WP25CT
4170041	WNMG080412UR	WP35CT
5579420	WNMG080412UR	WS10PT

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WIDIA 

Modern machining operations performed on CNC machine tools and flexible production facilities require high-performance tools that provide straightforward design and application versatility. WIDIA™ offers an extensive range of toolholders for external turning to meet even the most exacting production demands across a broad spectrum of workpiece shapes and sizes.



Tools for External Turning

Whatever your operation requirements — from light finishing cuts at very high cutting speeds to heavy roughing applications — there is a WIDIA solution to meet your needs. The complete programme includes toolholders for pin-, screw-, or clamp-type holding.

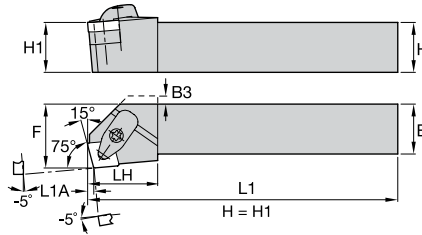
D-Style Clamping

- Used for negative style inserts.
- Clamp assembly contains clamp, screw, and retaining ring.
- Quick insert indexing.
- Ensures insert repeatability and seating.
- Reduced chatter and extended tool life.

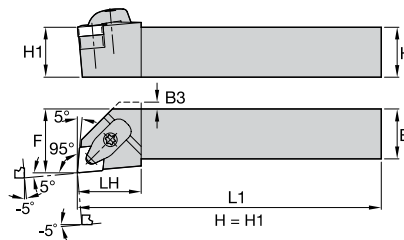
S-Style Clamping

- Screw clamping system for positive indexable inserts.
- Compact design for high reliability and cost efficiency.
- Carbide shim for additional tool protection.

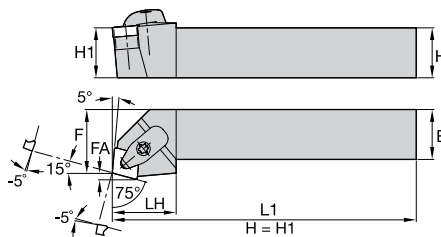




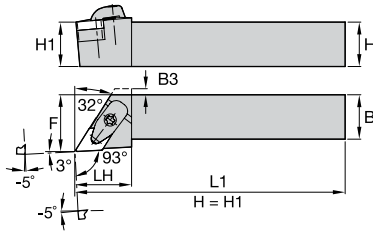
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	B3 (mm)
DCKN 75°								
right hand 5697857	DCKNR2525M12KC04	CN..120408	25	25	32,0	150	32,0	-
left hand 5697854	DCKNL2525M12KC04	CN..120408	25	25	32,0	150	32,0	-



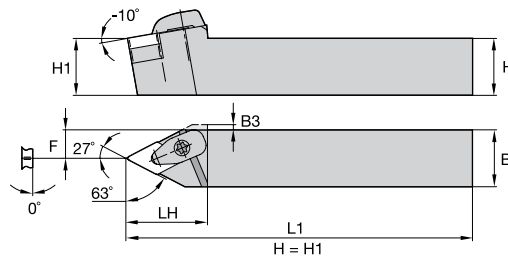
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	B3 (mm)
DCLN 95°								
right hand 5697893	DCLNR2525M12KC04	CN..120408	25	25	32,0	150	32,0	-
5697894	DCLNR2525M16KC06	CN..160612	25	25	32,0	150	33,0	-
left hand 5697884	DCLNL2525M12KC04	CN..120408	25	25	32,0	150	32,0	-
5697885	DCLNL2525M16KC06	CN..160612	25	25	32,0	150	33,0	-



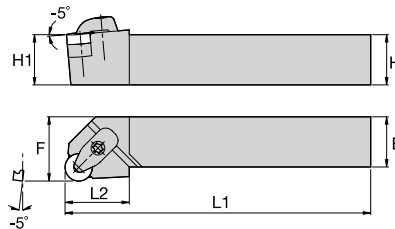
order number	catalogue number	gage insert	FA (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	B3 (mm)
DCRN 75°								
right hand 5697904	DCRNR2525M12KC04	CN..120408	25	25	32,0	150	32,0	3,34
left hand 5697900	DCRNL2525M12KC04	CN..120408	25	25	32,0	150	32,0	3,34



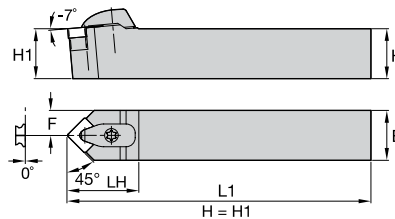
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	B3 (mm)
DDJN 93°								
right hand 5697930	DDJNR2525M15KC06	DN..150608	25	25	32,0	150	32,0	-
left hand 5697920	DDJNL2525M15KC06	DN..150608	25	25	32,0	150	32,0	-



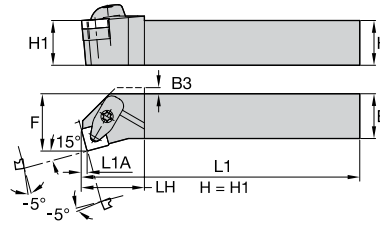
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	B3 (mm)
DDNN 63°								
right hand 5697942	DDNNR2525M15KC06	DN..150608	25	25	13,0	150	40,0	-
left hand 5697936	DDNNL2525M15KC06	DN..150608	25	25	13,0	150	40,0	-



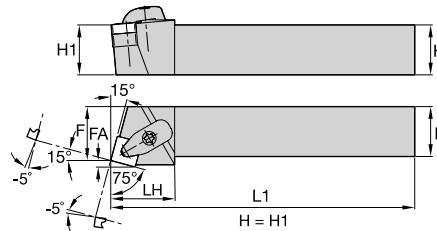
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	
DRGN								
right hand 5697948	DRGNR2525M12KC04	RN..120400	25	25	32,0	150	32,0	



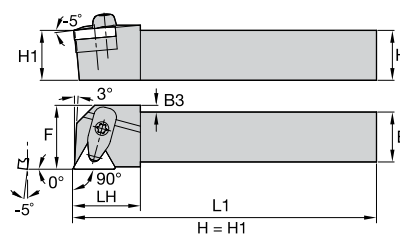
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	
DSDN 45°								
neutral 5697955	DSDNN2525M12KC04	SN..120408	25	25	12,0	150	36,0	



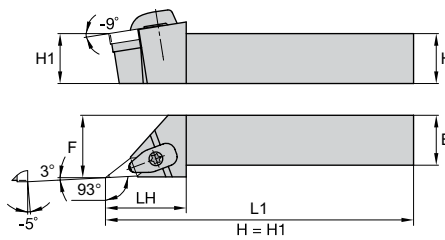
order number	catalogue number	gage insert	FA (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	L1A (mm)	B3 (mm)
DSKN 75°									
right hand 5696686	DSKNR2525M12KC04	SN..120408	25	25	32,0	150	32,0	3,05	4,0
left hand 5696682	DSKNL2525M12KC04	SN..120408	25	25	32,0	150	32,0	3,05	4,0



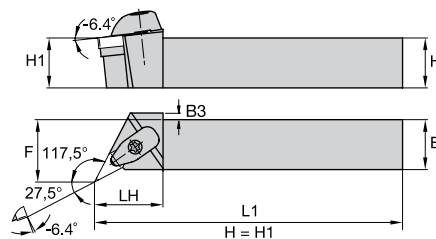
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DSRN 75°									
right hand 5696704	DSRNR2525M12KC04	SN..120408	25	25	27,0	150	32,0	3,3	
left hand 5696700	DSRNL2525M12KC04	SN..120408	25	25	27,0	150	32,0	3,3	



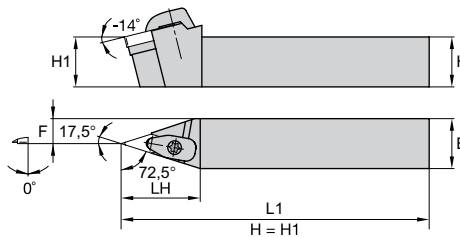
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	B3 (mm)	
DTGN 90°									
right hand 5696730	DTGNR2525M16KC04	TN..160408	25	25	32,0	150	25,0	-	
left hand 5696728	DTGNL2525M16KC04	TN..160408	25	25	32,0	150	25,0	-	



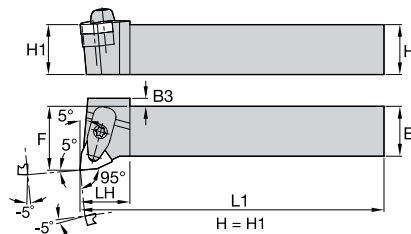
order number	catalogue number	gage number	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)
DVJN 93°							
right hand 5696738	DVJNR2525M16KC04	VN..160408	25	25	32,0	150	46,0
left hand 5696733	DVJNL2525M16KC04	VN..160408	25	25	32,0	150	46,0



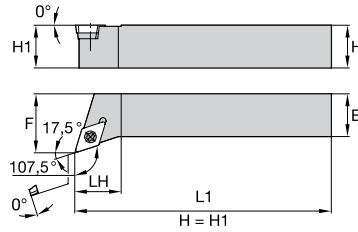
order number	catalogue number	gage number	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	B3 (mm)
DVON 117,5°								
right hand 5696746	DVONR2525M16KC04	VN..160408	25	25	32,0	150	38,0	-
left hand 5696743	DVONL2525M16KC04	VN..160408	25	25	32,0	150	38,0	-



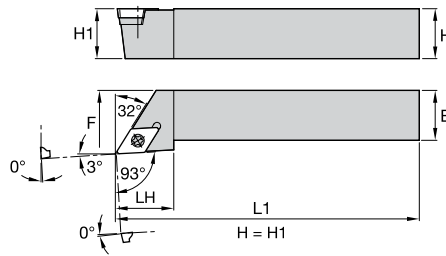
order number	catalogue number	gage number	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)
DVVN 72,5°							
neutral 5696749	DVVNN2525M16KC04	VN..160408	25	25	12,0	150	48,0



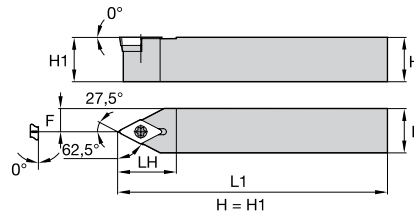
order number	catalogue number	gage number	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)	B3 (mm)
DWLN 95°								
right hand 5696760	DWLN R2525M08KC04	WN..080408	25	25	32,0	150	25,0	4,0
left hand 5696754	DWLN L2525M08KC04	WN..080408	25	25	32,0	150	25,0	4,0



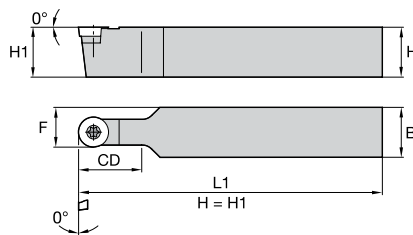
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)
SDHC 107,5°							
right hand 3879440	SDHCR2525M11	DC..11T308	25	25	32,0	150	20,0
left hand 3879438	SDHCL2525M11	DC..11T308	25	25	32,0	150	20,0



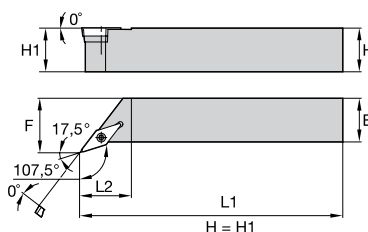
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)
SDJC 93°							
right hand 3879461	SDJCR2525M11	DC..11T308	25	25	32,0	150	22,0
left hand 3879453	SDJCL2525M11	DC..11T308	25	25	32,0	150	22,0



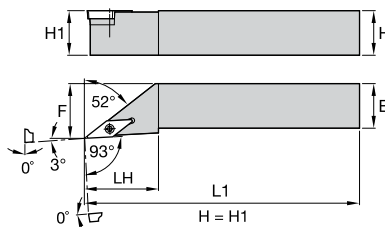
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)
SDNC 62,5°							
neutral 3879849	SDNCN2525M11	DC..11T308	25	25	12,5	150	25,0



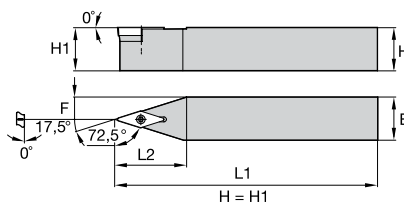
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	CD (mm)
SRDC							
neutral							
3900183	SRDCN2525M06	RC..0602M0	25	25	15,0	150	19,7
3879737	SRDCN2525M08	RC..0803M0	25	25	16,5	150	25,0
3879734	SRDCN2525M10	RC..10T3M0	25	25	17,5	150	25,0
3879738	SRDCN2525M12	RC..1204M0	25	25	18,5	150	25,0



order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	L2 (mm)
SVHB 107,5°							
right hand							
3879765	SVHBR2525M16	VB..160408	25	25	32,0	150	28,0
left hand							
3879766	SVHBL2525M16	VB..160408	25	25	32,0	150	28,0



order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	LH (mm)
SVJB 93°							
right hand							
3879775	SVJBR2525M16	VB..160408	25	25	32,0	150	35,0
left hand							
3879774	SVJBL2525M16	VB..160408	25	25	32,0	150	35,0



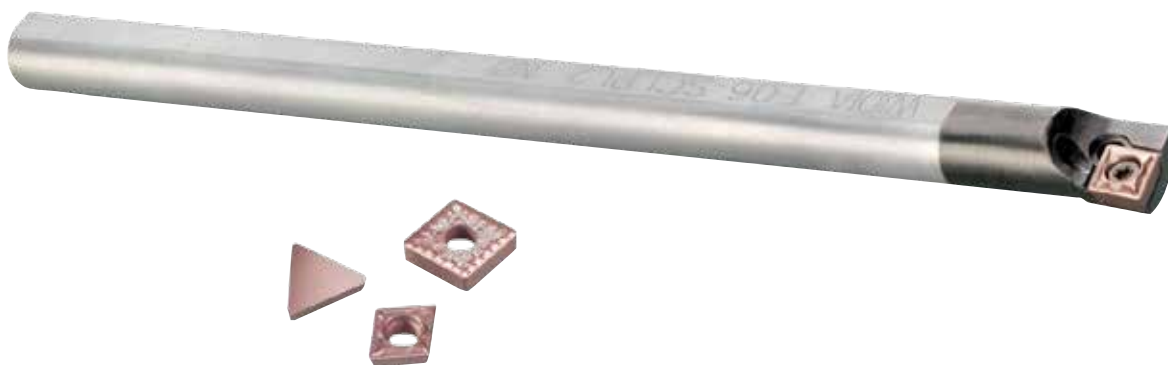
order number	catalogue number	gage insert	H (mm)	B (mm)	F (mm)	L1 (mm)	L2 (mm)
SVVB 72,5°							
neutral							
3879778	SVVBN2525M16	VB..160408	25	25	12,5	150	33,0

Today's modern boring operations require the most reliable, high-performance tools. WIDIA™ offers an extensive range of toolholders for internal boring to meet even the most precise production demands across a broad spectrum of workpiece shapes and sizes.

Tools for Internal Boring



WIDIA boring bars, available with both a conventional steel shank or a vibration-resistant carbide shank and coolant hole, guarantee consistent results and enhanced production reliability.



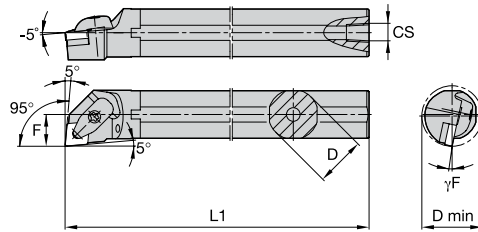
D-Style Clamping

- Used for negative style inserts.
- Clamp assembly contains clamp, screw, and retaining ring.
- Quick insert indexing.
- Ensures insert repeatability and seating.
- Reduced chatter and extended tool life.

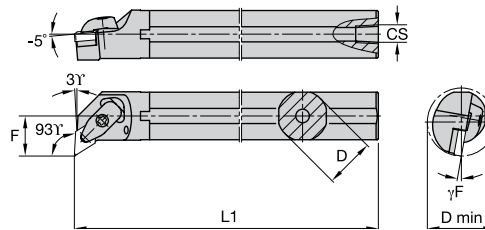
S-Style Clamping

- Screw clamping system for positive indexable inserts.
- Compact design for high reliability and cost efficiency.
- Carbide shim for additional tool protection.

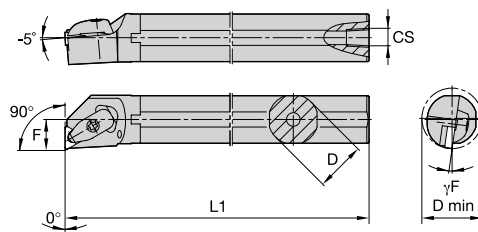




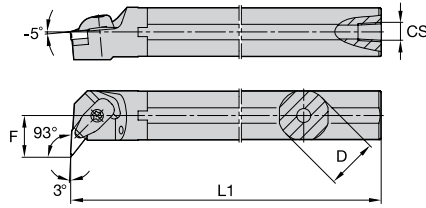
order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	CS	γF (deg)
A-DCLN 95°								
right hand								
5696071	A25RDCLNR12KC04	CN.120408	25	32,0	17,0	200	1/4-18 NPT	-12.0
5696073	A32SDCLNR12KC04	CN.120408	32	40,0	22,0	250	1/4-18 NPT	-12.0
left hand								
5696072	A25RDCLNL12KC04	CN.120408	25	32,0	17,0	200	1/4-18 NPT	-12.0
5696074	A32SDCLNL12KC04	CN.120408	32	40,0	22,0	250	1/4-18 NPT	-12.0



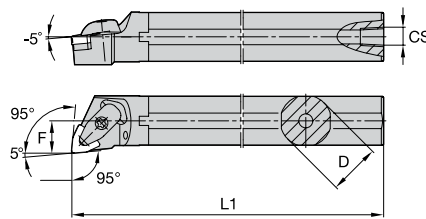
order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	CS	γF (deg)
A-DDUN 93°								
right hand								
5696211	A32SDDUNR11KC04	DN..110408	32	40,0	22,0	250	1/4-18 NPT	-12.0
5696213	A32SDDUNR15KC06	DN..150608	32	40,0	22,0	250	1/4-18 NPT	-12.0
left hand								
5696214	A32SDDUNL15KC06	DN..150608	32	40,0	22,0	250	1/4-18 NPT	-12.0



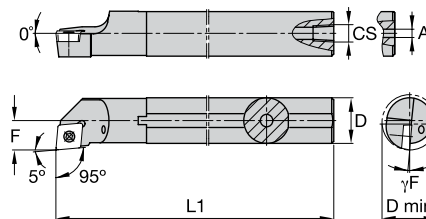
order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	CS	γF (deg)
A-DTFN 90°								
right hand								
5696219	A25RDTFNR16KC04	TN..160408	25	32,0	17,0	200	1/4-18 NPT	-14.0
5696261	A32SDTFNR16KC04	TN..160408	32	40,0	22,0	250	1/4-18 NPT	-12.0
left hand								
5696260	A25RDTFNL16KC04	TN..160408	25	32,0	17,0	200	1/4-18 NPT	-14.0



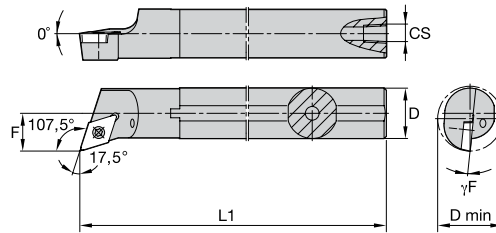
order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	CS	γF (deg)
A-DVUN 93°								
right hand 5696263	A32SDVUNR16KC04	VN..160408	32	40,0	22,0	250	1/4-18 NPT	-9.0
left hand 5696264	A32SDVUNL16KC04	VN..160408	32	40,0	22,0	250	1/4-18 NPT	-9.0



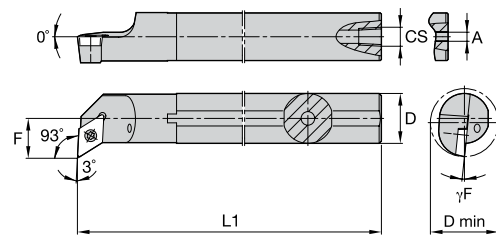
order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	CS	γF (deg)
A-DWLN 95°								
right hand 5696269	A25RDWLN R08KC04	WN..080408	25	32,0	17,0	200	1/4-18 NPT	-12.0
5696281	A32SDWLN R08KC04	WN..080408	32	40,0	22,0	250	1/4-18 NPT	-14.0
left hand 5696268	A25RDWLN L06KC04	WN..060408	25	32,0	17,0	200	1/4-18 NPT	-14.0
5696280	A25RDWLN L08KC04	WN..080408	25	32,0	17,0	200	1/4-18 NPT	-12.0
5696282	A32SDWLN L08KC04	WN..080408	32	40,0	22,0	250	1/4-18 NPT	-14.0



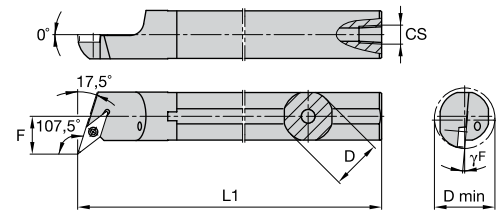
order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	A (mm)	CS	γF (deg)
A-SCLC 95°									
right hand 3883269	A20SSCLCR09	CC..09T308	20	25,0	13,0	250	4	1/8-27 NPT	-5.0
left hand 3883270	A20SSCLCL09	CC..09T308	20	25,0	13,0	250	—	1/8-27 NPT	-5.0



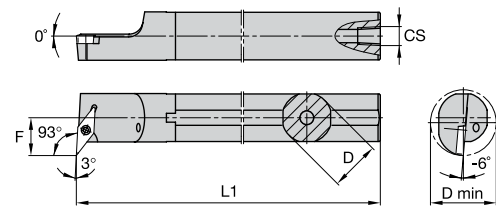
order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	CS	γF (deg)
A-SDQC 107,5°								
right hand								
3883474	A20SSDQCR11	DC..11T308	20	25,0	13,0	250	1/8-27 NPT	-5.0
3883462	A25TSDQCR11	DC..11T308	25	32,0	17,0	300	1/4-18 NPT	-4.0
left hand								
3883475	A20SSDQCL11	DC..11T308	20	25,0	13,0	250	1/8-27 NPT	-5.0
3883473	A25TSDQCL11	DC..11T308	25	32,0	17,0	300	1/4-18 NPT	-4.0



order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	CS	γF (deg)
A-SDUC 93°								
right hand								
3883291	A20SSDUCR11	DC..11T308	20	25,0	13,0	250	1/8-27 NPT	-5.0
3883288	A25TSDUCR11	DC..11T308	25	32,0	17,0	300	1/8-27 NPT	-4.0
left hand								
3883292	A20SSDUCL11	DC..11T308	20	25,0	13,0	250	1/8-27 NPT	-5.0
3883290	A25TSDUCL11	DC..11T308	25	32,0	17,0	300	1/8-27 NPT	-4.0



order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	CS	γF (deg)
A-SVQB 107,5°								
right hand								
3883434	A25TSVQBR16	VB..160408	25	32,0	17,0	300	1/4-18 NPT	-6.0
left hand								
3883435	A25TSVQBL16	VB..160408	25	32,0	17,0	300	1/4-18 NPT	-6.0



order number	catalogue number	gage insert	D (mm)	D min (mm)	F (mm)	L1 (mm)	CS	γF (deg)
A-SVUB 93°								
right hand								
3883438	A25TSVUBR16	VB..160408	25	32,0	17,0	300	1/4-18 NPT	-6.0
left hand								
3883439	A25TSVUBL16	VB..160408	25	32,0	17,0	300	1/4-18 NPT	-6.0



Victory™ -UR Geometry

-UR geometry offers a roughing solution for high-temp materials.

Available in WS10PT™ and WS25PT™, the -UR geometry provides smooth chip forming and improved coolant flow for increased tool life. This positive geometry, with its unique chipbreaker without inflection points, reduces cutting forces and improves depth-of-cut (DOC) notching resistance, while still providing superior edge stability.

To learn more, contact your local Authorised Distributor or visit widia.com.

WIDIA™
VICTORY

WMT™ System •

One Platform for Grooving, Face Grooving,
Cut-Off, and Profiling

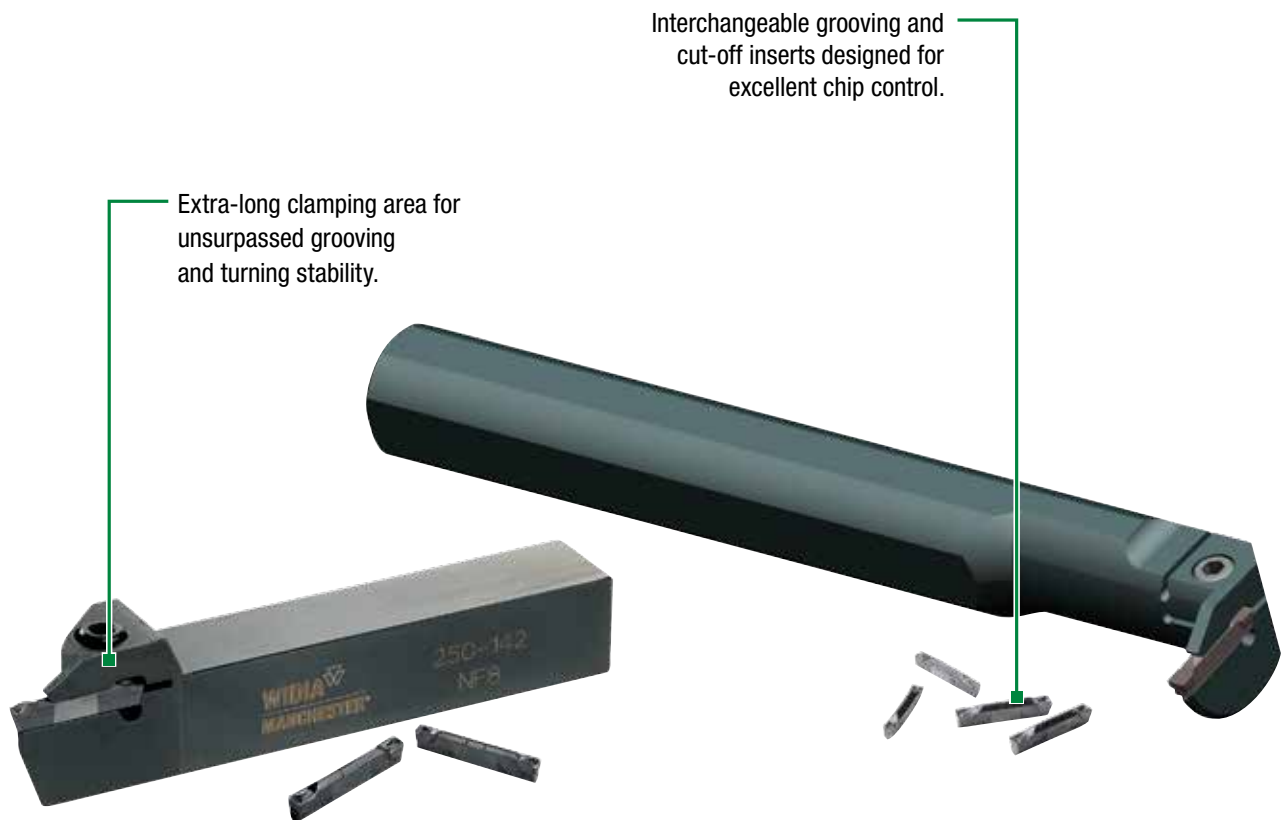


WMT

The WMT platform is the economical and reliable option for all your grooving, cut-off, turning, and profiling applications. Trust the WMT system to ensure precise insert positioning and provide only the most accurate machining with exceptionally fast cycle times and superior performance.

Versatile and Well-Constructed

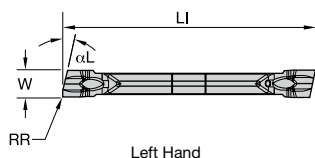
- Specifically designed to increase speeds and feeds.
- Excellent geometry for even your most demanding deep grooving applications.
- The WMT system enables heavy stock removal in turning applications.
- Ensures finer surface finishes and a long, reliable tool life.



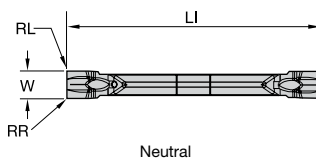
WMT™ Toolholders

- Outstanding system rigidity and clamping capabilities.
- Guarantees fast cycle times and limited turret indexes.
- Precise insert positioning for accurate machining.
- Double-V shape means operator-friendly insert indexing and optimum insert positioning.



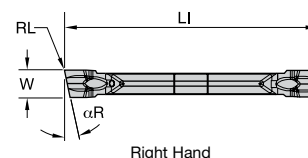


Left Hand



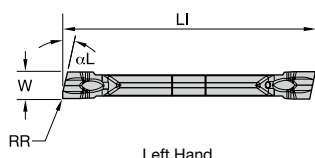
Neutral

RR = RL on neutral inserts

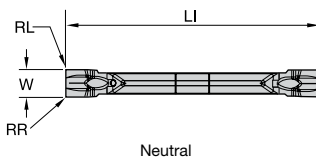


Right Hand

order number	catalogue number	grade	seat size	W (mm)	RL (mm)	RR (mm)	LI (mm)	αR	αL
WMT-CM • Cut-Off Medium									
right hand									
4169672	WMTC015R12CM08	WU25PT	1	1,50	0,08	–	19,28	12	–
4169670	WMTC015R05CM08	WU25PT	1	1,50	0,08	–	19,31	5	–
4169675	WMTC020R05CM08	WU25PT	2	2,00	0,08	–	19,26	5	–
4169678	WMTC020R12CM08	WU25PT	2	2,00	0,08	–	19,26	12	–
4169684	WMTC030R05CM17	WU25PT	3	3,00	0,17	–	25,40	5	–
4169688	WMTC030R12CM17	WU25PT	3	3,00	0,17	–	25,40	12	–
neutral									
4169668	WMTC015N00CM08	WU25PT	1	1,50	0,08	0,08	19,30	–	–
4169673	WMTC020N00CM08	WU25PT	2	2,00	0,08	0,08	19,21	–	–
4169682	WMTC030N00CM17	WU25PT	3	3,00	0,17	0,17	25,40	–	–
4169692	WMTC040N00CM17	WU25PT	4	4,00	0,17	0,17	25,40	–	–
left hand									
4169671	WMTC015L05CM08	WU25PT	1	1,50	–	0,08	19,31	–	5
4169677	WMTC020L05CM08	WU25PT	2	1,99	–	0,08	19,21	–	5
4169680	WMTC020L12CM08	WU25PT	2	2,00	–	0,08	19,25	–	12
4169686	WMTC030L05CM17	WU25PT	3	3,00	–	0,17	25,40	–	5
4169690	WMTC030L12CM17	WU25PT	3	3,00	–	0,17	25,40	–	12

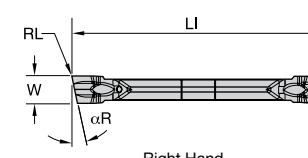


Left Hand



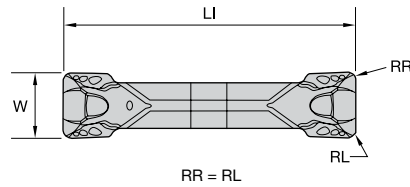
Neutral

RR = RL on neutral inserts



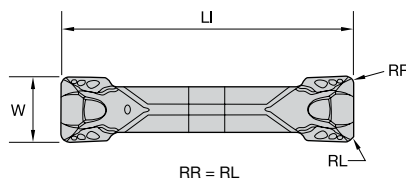
Right Hand

order number	catalogue number	grade	seat size	W (mm)	RL (mm)	RR (mm)	LI (mm)	αR	αL
WMT-CM • Cut-Off Medium with Wiper									
right hand									
4169676	WMTC020R05CMW08	WU25PT	2	2,00	0,08	–	19,20	5	–
4169679	WMTC020R12CMW08	WU25PT	2	2,00	0,08	–	19,27	12	–
4169685	WMTC030R05CMW17	WU25PT	3	3,00	0,17	–	25,40	5	–
4169689	WMTC030R12CMW17	WU25PT	3	3,00	0,17	–	25,40	12	–
neutral									
4169669	WMTC015N00CMW08	WU25PT	1	1,50	0,08	0,08	19,30	–	–
4169674	WMTC020N00CMW08	WU25PT	2	2,00	0,08	0,08	19,21	–	–
4169683	WMTC030N00CMW17	WU25PT	3	3,00	0,17	0,17	25,40	–	–
left hand									
4169681	WMTC020L12CMW08	WU25PT	2	2,00	–	0,08	19,27	–	12
4169687	WMTC030L05CMW17	WU25PT	3	3,00	–	0,17	25,40	–	5
4169691	WMTC030L12CMW17	WU25PT	3	3,00	–	0,17	25,40	–	12

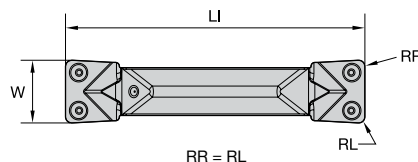


Turning

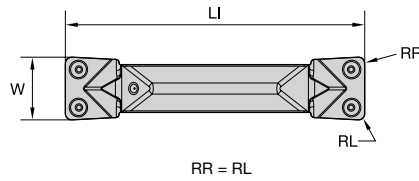
order number	catalogue number	grade	seat size	W (mm)	RR (mm)	LI (mm)
WMT-U-PT • Moulded • Plunge, Groove, and Turn Inserts						
neutral						
4169554	WMTS205M2U02PT	WP10CT	2	2,05	0,15	19,23
4169555	WMTS205M2U02PT	WP25CT	2	2,05	0,15	19,23
4116131	WMTS205M2U02PT	WU10PT	2	2,05	0,15	19,23
4116132	WMTS205M2U02PT	WU25PT	2	2,05	0,15	19,23
4169556	WMTS305M3U03PT	WP10CT	3	3,05	0,31	25,81
4169557	WMTS305M3U03PT	WP25CT	3	3,05	0,31	25,81
4113568	WMTS305M3U03PT	WU10PT	3	3,05	0,31	25,81
4113569	WMTS305M3U03PT	WU25PT	3	3,05	0,31	25,81
4169558	WMTS305M3U06PT	WP10CT	3	3,05	0,61	25,78
4169559	WMTS305M3U06PT	WP25CT	3	3,05	0,61	25,78
4113570	WMTS305M3U06PT	WU10PT	3	3,05	0,61	25,78
4113571	WMTS305M3U06PT	WU25PT	3	3,05	0,61	25,78
4169560	WMTS405M4U03PT	WP10CT	4	4,05	0,31	25,53
4169561	WMTS405M4U03PT	WP25CT	4	4,05	0,31	25,53
4113577	WMTS405M4U03PT	WU10PT	4	4,05	0,31	25,53
4113578	WMTS405M4U03PT	WU25PT	4	4,05	0,31	25,53
4169562	WMTS405M4U06PT	WP10CT	4	4,05	0,61	25,53
4169563	WMTS405M4U06PT	WP25CT	4	4,05	0,61	25,53
4113579	WMTS405M4U06PT	WU10PT	4	4,05	0,61	25,53
4113580	WMTS405M4U06PT	WU25PT	4	4,05	0,61	25,53
4169564	WMTS505M5U03PT	WP10CT	5	5,05	0,30	28,76
4169565	WMTS505M5U03PT	WP25CT	5	5,05	0,30	28,76
4116148	WMTS505M5U03PT	WU10PT	5	5,05	0,30	28,76
4116149	WMTS505M5U03PT	WU25PT	5	5,05	0,30	28,76
4169566	WMTS505M5U06PT	WP10CT	5	5,05	0,61	28,76
4169567	WMTS505M5U06PT	WP25CT	5	5,05	0,61	28,76
4116150	WMTS505M5U06PT	WU10PT	5	5,05	0,61	28,76
4116151	WMTS505M5U06PT	WU25PT	5	5,05	0,61	28,76
4169568	WMTS605M6U03PT	WP10CT	6	6,05	0,30	28,76
4169569	WMTS605M6U03PT	WP25CT	6	6,05	0,30	28,76
4117253	WMTS605M6U03PT	WU10PT	6	6,05	0,30	28,76
4117254	WMTS605M6U03PT	WU25PT	6	6,05	0,30	28,76
4169570	WMTS605M6U06PT	WP10CT	6	6,05	0,59	28,76
4169571	WMTS605M6U06PT	WP25CT	6	6,05	0,59	28,76
4117255	WMTS605M6U06PT	WU10PT	6	6,05	0,59	28,76
4117256	WMTS605M6U06PT	WU25PT	6	6,05	0,59	28,76



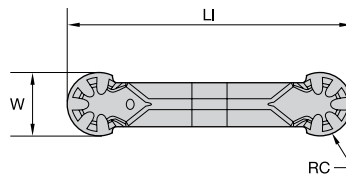
order number	catalogue number	grade	seat size	W (mm)	RR (mm)	LI (mm)
WMT-P-PT • Precision • Plunge, Groove, and Turn Inserts						
neutral						
4116129	WMTS200M2P02PT	WU10PT	2	2,00	0,15	19,10
4116130	WMTS200M2P02PT	WU25PT	2	2,00	0,15	19,10
4113566	WMTS300M3P03PT	WU10HT	3	3,00	0,31	25,65
4113563	WMTS300M3P03PT	WU10PT	3	3,00	0,31	25,65
4113565	WMTS300M3P06PT	WU10PT	3	3,00	0,61	25,65
4113564	WMTS300M3P03PT	WU25PT	3	3,00	0,31	25,65
4113567	WMTS300M3P06PT	WU25PT	3	3,00	0,61	25,65
4113573	WMTS400M4P03PT	WU10HT	4	4,00	0,31	25,40
4113572	WMTS400M4P03PT	WU10PT	4	4,00	0,31	25,40
4113575	WMTS400M4P06PT	WU10PT	4	4,00	0,60	25,40
4113574	WMTS400M4P03PT	WU25PT	4	4,00	0,31	25,40
4113576	WMTS400M4P06PT	WU25PT	4	4,00	0,60	25,40
4116145	WMTS500M5P03PT	WU10HT	5	5,00	0,30	28,63
4116143	WMTS500M5P03PT	WU10PT	5	5,00	0,30	28,63
4116146	WMTS500M5P06PT	WU10PT	5	5,00	0,61	28,63
4116144	WMTS500M5P03PT	WU25PT	5	5,00	0,30	28,63
4116147	WMTS500M5P06PT	WU25PT	5	5,00	0,61	28,63
4117239	WMTS600M6P03PT	WU10PT	6	6,00	0,30	28,63
4117241	WMTS600M6P06PT	WU10PT	6	6,00	0,58	28,63
4117240	WMTS600M6P03PT	WU25PT	6	6,00	0,30	28,63
4117242	WMTS600M6P06PT	WU25PT	6	6,00	0,58	28,63
4117259	WMTS800M8P15PT	WU10PT	8	8,00	1,50	28,57
4117258	WMTS800M8P06PT	WU25PT	8	8,00	0,61	28,57
4117260	WMTS800M8P15PT	WU25PT	8	8,00	1,50	28,57



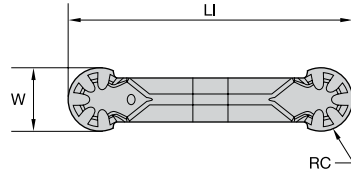
order number	catalogue number	grade	seat size	W (mm)	RR (mm)	LI (mm)
WMT-U-PH • Moulded • Plunge, Groove, and Turn Inserts						
neutral						
5346392	WMTS305M3U03PH	WU10PT	3	3,05	0,30	25,81
5346394	WMTS305M3U06PH	WU10PT	3	3,05	0,60	25,81
5346393	WMTS305M3U03PH	WU25PT	3	3,05	0,30	25,81
5346395	WMTS305M3U06PH	WU25PT	3	3,05	0,60	25,81
5346396	WMTS405M4U03PH	WU10PT	4	4,05	0,30	25,53
5346398	WMTS405M4U06PH	WU10PT	4	4,05	0,60	25,53
5346397	WMTS405M4U03PH	WU25PT	4	4,05	0,30	25,53
5346399	WMTS405M4U06PH	WU25PT	4	4,05	0,60	25,53
5346400	WMTS505M5U03PH	WU10PT	5	5,05	0,30	28,76
5346402	WMTS505M5U06PH	WU10PT	5	5,05	0,60	28,76
5346401	WMTS505M5U03PH	WU25PT	5	5,05	0,30	28,76
5346403	WMTS505M5U06PH	WU25PT	5	5,05	0,60	28,76
5346404	WMTS605M6U03PH	WU10PT	6	6,05	0,30	28,76
5346406	WMTS605M6U06PH	WU10PT	6	6,05	0,60	28,76
5346405	WMTS605M6U03PH	WU25PT	6	6,05	0,30	28,76
5346407	WMTS605M6U06PH	WU25PT	6	6,05	0,60	28,76



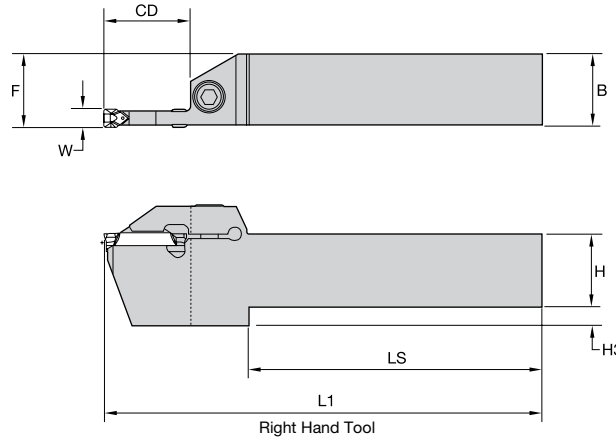
order number	catalogue number	grade	seat size	W (mm)	RR (mm)	LI (mm)
WMT-P-PH • Precision • Plunge, Groove, and Turn Inserts						
neutral						
5346414	WMTS300M3P03PH	WU10HT	3	3,00	0,30	25,65
5346412	WMTS300M3P03PH	WU10PT	3	3,00	0,30	25,65
5346415	WMTS300M3P06PH	WU10PT	3	3,00	0,60	25,65
5346413	WMTS300M3P03PH	WU25PT	3	3,00	0,30	25,65
5346416	WMTS300M3P06PH	WU25PT	3	3,00	0,60	25,65
5346420	WMTS400M4P03PH	WU10HT	4	4,00	0,30	25,40
5346418	WMTS400M4P03PH	WU10PT	4	4,00	0,30	25,40
5346421	WMTS400M4P06PH	WU10PT	4	4,00	0,60	25,40
5346419	WMTS400M4P03PH	WU25PT	4	4,00	0,30	25,40
5346422	WMTS400M4P06PH	WU25PT	4	4,00	0,60	25,40
5346426	WMTS500M5P03PH	WU10HT	5	5,00	0,30	28,63
5346424	WMTS500M5P03PH	WU10PT	5	5,00	0,30	28,63
5346427	WMTS500M5P06PH	WU10PT	5	5,00	0,60	28,63
5346425	WMTS500M5P03PH	WU25PT	5	5,00	0,30	28,63
5346428	WMTS500M5P06PH	WU25PT	5	5,00	0,60	28,63
5346430	WMTS600M6P03PH	WU10PT	6	6,00	0,30	28,63
5346432	WMTS600M6P06PH	WU10PT	6	6,00	0,60	28,63
5346431	WMTS600M6P03PH	WU25PT	6	6,00	0,30	28,63
5346433	WMTS600M6P06PH	WU25PT	6	6,00	0,60	28,63



order number	catalogue number	grade	seat size	W (mm)	RC (mm)	LI (mm)
WMT-U-PC • Moulded • Grooving and Profiling Inserts						
neutral						
4170172	WMTR305M3UPC	WU10PT	3	3,05	1,53	25,53
4170173	WMTR305M3UPC	WU25PT	3	3,05	1,53	25,53
4170177	WMTR405M4UPC	WU10PT	4	4,05	2,03	25,58
4170178	WMTR405M4UPC	WU25PT	4	4,05	2,03	25,58
4170182	WMTR505M5UPC	WU10PT	5	5,05	2,53	29,01
4170183	WMTR505M5UPC	WU25PT	5	5,05	2,53	29,01
4170187	WMTR605M6UPC	WU10PT	6	6,05	3,03	28,77
4170188	WMTR605M6UPC	WU25PT	6	6,05	3,03	28,77
4170189	WMTR605M6UPC	WP10CT	6	6,05	3,03	28,77
4170192	WMTR805M8UPC	WU10PT	8	8,05	4,03	29,22
4170193	WMTR805M8UPC	WU25PT	8	8,05	4,03	29,22



order number	catalogue number	grade	seat size	W (mm)	RC (mm)	LI (mm)
WMT-P-PC • Precision • Grooving and Profiling Inserts						
neutral						
4170170	WMTR300M3PPC	WU10PT	3	3,00	1,50	25,40
4170171	WMTR300M3PPC	WU25PT	3	3,00	1,50	25,40
4170176	WMTR400M4PPC	WU25PT	4	4,00	2,00	25,45
4170180	WMTR500M5PPC	WU10PT	5	5,00	2,50	28,88
4170181	WMTR500M5PPC	WU25PT	5	5,00	2,50	28,88
4170185	WMTR600M6PPC	WU10PT	6	6,00	3,00	28,65
4170186	WMTR600M6PPC	WU25PT	6	6,00	3,00	28,65
4170190	WMTR800M8PPC	WU10PT	8	8,00	4,00	29,08

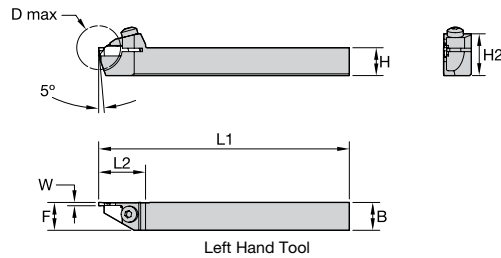


order number	catalogue number	seat size	W (mm)	H (mm)	B (mm)	CD (mm)	F (mm)	H3 (mm)	L1 (mm)	LS (mm)
Integral Toolholders • O.D. Grooving and Cut-Off										
right hand										
3650516	WMTSR2525M116	1	1,50	25,00	25,00	17,00	25,00	-	150	116
3650456	WMTSR1616K216	2	2,00	16,00	16,00	16,50	16,00	6,22	125	101
3650458	WMTSR2020K216	2	2,00	20,00	20,00	16,50	20,00	-	125	92
3650506	WMTSR2525M216	2	2,00	25,00	25,00	16,50	25,00	-	150	116
3650460	WMTSR1616K311	3	3,00	16,00	16,00	11,00	16,00	-	125	93
3650462	WMTSR1616K322	3	3,00	16,00	16,00	22,00	16,00	5,00	125	85
3650468	WMTSR2020K311	3	3,00	20,00	20,00	11,00	20,00	-	125	93
3650470	WMTSR2020K322	3	3,00	20,00	20,00	22,00	20,00	5,00	125	85
3650479	WMTSR2525M311	3	3,00	25,00	25,00	11,00	25,00	-	150	118
3650481	WMTSR2525M322	3	3,00	25,00	25,00	22,00	25,00	-	150	110
3653751	WMTSR2020K20	4	4,00	20,00	20,00	22,00	20,00	5,00	125	83
3650504	WMTSR2020K411	4	4,00	20,00	20,00	11,00	20,00	-	125	92
3650483	WMTSR2525M422	4	4,00	25,00	25,00	22,00	25,00	-	150	109
3650473	WMTSR2020K514	5	5,00	20,00	20,00	14,00	20,00	-	125	88
3650475	WMTSR2020L525	5	5,00	20,00	20,00	15,00	20,00	5,00	140	93
3650485	WMTSR2525M514	5	5,00	25,00	25,00	14,00	25,00	-	150	115
3650487	WMTSR2525M525	5	5,00	25,00	25,00	25,00	25,00	-	150	104
3650489	WMTSR2525M614	6	6,00	25,00	25,00	14,00	25,00	-	150	114
3650491	WMTSR2525M625	6	6,00	25,00	25,00	25,00	25,00	-	150	104

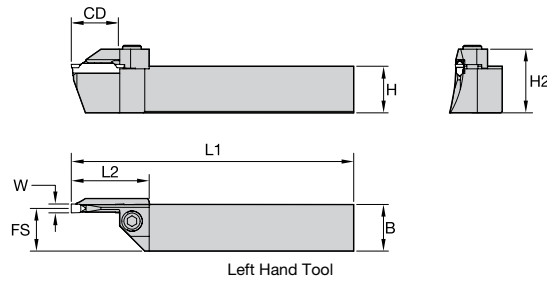
(continued)

(Integral Toolholders • O.D. Grooving and Cut-Off – continued)

order number	catalogue number	seat size	W (mm)	H (mm)	B (mm)	CD (mm)	F (mm)	H3 (mm)	L1 (mm)	LS (mm)
Integral Toolholders • O.D. Grooving and Cut-Off (continued)										
left hand										
3650457	WMTSL1616K216	2	2,00	16,00	16,00	16,50	16,00	6,22	125	101
3650459	WMTSL2020K216	2	2,00	20,00	20,00	16,50	20,00	-	125	92
3650507	WMTSL2525M216	2	2,00	25,00	25,00	16,50	25,00	-	150	116
3650463	WMTSL1616K322	3	3,00	16,00	16,00	22,00	16,00	5,00	125	85
3650469	WMTSL2020K311	3	3,00	20,00	20,00	11,00	20,00	-	125	93
3650471	WMTSL2020K322	3	3,00	20,00	20,00	22,00	20,00	5,00	125	85
3650480	WMTSL2525M311	3	3,00	25,00	25,00	11,00	25,00	-	150	118
3650482	WMTSL2525M322	3	3,00	25,00	25,00	22,00	25,00	-	150	110
3653763	WMTSL2525M11	4	4,00	25,00	25,00	11,00	25,00	-	150	117
3650484	WMTSL2525M422	4	4,00	25,00	25,00	22,00	25,00	-	150	109
3650474	WMTSL2020K514	5	5,00	20,00	20,00	14,00	20,00	-	125	88
3650486	WMTSL2525M514	5	5,00	25,00	25,00	14,00	25,00	-	150	113
3650488	WMTSL2525M525	5	5,00	25,00	25,00	25,00	25,00	-	150	104
3650490	WMTSL2525M614	6	6,00	25,00	25,00	14,00	25,00	-	150	114
3650493	WMTSL2525M625	6	6,00	25,00	25,00	25,00	25,00	-	150	104

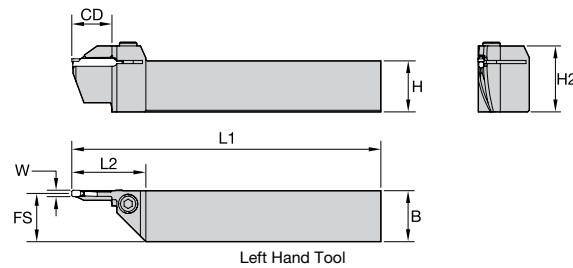


order number	catalogue number	seat size	W (mm)	H (mm)	B (mm)	F (mm)	D max (mm)	H2 (mm)	L1 (mm)	L2 (mm)
Integral Toolholders for Swiss-Style Machines • Swiss Grooving and Cut-Off										
right hand										
3650508	WMTCR1010H110	1	1,50	10,00	10,00	10,00	20	16	100	21
3650510	WMTCR1212H110	1	1,50	12,00	12,00	12,00	20	18	100	21
3650512	WMTCR1616K113	1	1,50	16,00	15,86	16,00	26	24	125	24
3653413	WMTCR1010H210	2	2,00	10,00	10,00	10,00	20	16	100	21
3653415	WMTCR1212H210	2	2,00	12,00	12,00	12,00	20	18	100	21
3653417	WMTCR1616K213	2	2,00	16,00	15,84	16,00	26	24	125	24
3539162	WMTCR1212H213	2	2,00	12,00	11,84	12,00	26	23,83	100	27,7
left hand										
3650509	WMTCL1010H110	1	1,50	10,00	10,00	10,00	20	16	100	21
3650513	WMTCL1616K113	1	1,50	16,00	15,86	16,00	26	24	125	24
3650511	WMTCL1212H110	1	1,50	12,00	12,00	12,00	20	18	100	21
3653414	WMTCL1010H210	2	2,00	10,00	10,00	10,00	20	16	100	21
3653416	WMTCL1212H210	2	2,00	12,00	12,00	12,00	20	18	100	21
3539163	WMTCL1212H213	2	2,00	12,00	11,84	12,00	26	23,83	100	27,7
3653418	WMTCL1616K213	2	2,00	16,00	15,84	16,00	26	24	125	24



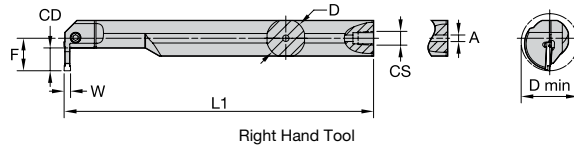
Left Hand Tool

order number	catalogue number	seat size	W (mm)	H (mm)	B (mm)	FS (mm)	CD (mm)	D max (mm)	D min (mm)	H2 (mm)	L1 (mm)	L2 (mm)
Integral Toolholders for Face Grooving • Curve Out												
right hand												
3653421	WMTBR2525M313-038-052	3	3,00	24,84	24,84	23,50	13,00	52	38	32	150	34
3653423	WMTBR2525M316-052-070	3	3,00	24,84	24,84	23,50	16,00	70	52	32	150	34
3653425	WMTBR2525M316-070-100	3	3,00	24,84	24,84	23,50	16,00	100	70	32	150	34
3653427	WMTBR2525M319-100-205	3	3,00	25,00	24,84	23,50	19,00	205	100	32	150	37
3653764	WMTBR2525M412-032-052	4	4,00	24,84	24,84	23,00	12,50	52	32	32	150	34
3653766	WMTBR2525M415-052-070	4	4,00	24,84	24,84	23,00	15,50	70	52	32	150	34
left hand												
3653422	WMTBL2525M313-038-052	3	3,00	24,84	24,84	23,50	13,00	52	38	32	150	34
3653424	WMTBL2525M316-052-070	3	3,00	24,84	24,84	23,50	16,00	70	52	32	150	34
3653426	WMTBL2525M316-070-100	3	3,00	24,84	24,84	23,50	16,00	100	70	32	150	34
3653428	WMTBL2525M319-100-205	3	3,00	24,84	24,84	23,50	19,00	205	100	32	150	37
3653765	WMTBL2525M412-032-052	4	4,00	24,84	24,84	23,00	12,50	52	32	32	150	34
3653771	WMTBL2525M418-100-205	4	4,00	24,84	24,84	23,00	18,50	205	100	32	150	37



Left Hand Tool

order number	catalogue number	seat size	W (mm)	H (mm)	B (mm)	FS (mm)	CD (mm)	D max (mm)	D min (mm)	H2 (mm)	L1 (mm)	L2 (mm)
Integral Toolholders for Face Grooving • Curve In												
right hand												
3634282	WMTAR2525M316-070-100	3	3,00	24,84	24,84	23,50	15,88	100	70	32	150	34
3634284	WMTAR2525M319-100-205	3	3,00	24,84	24,84	23,50	19,05	205	100	32	150	37
left hand												
3634285	WMTAL2525M319-100-205	3	3,00	24,84	24,84	23,50	19,05	205	100	32	150	37



order number	catalogue number	seat size	W (mm)	F (mm)	CD (mm)	D (mm)	D min (mm)	L1 (mm)	A (mm)	CS
Integral I.D. Grooving Boring Bars										
right hand										
5423874	A25RWMTER0316M	3	3,00	26,00	16,00	25,00	41	200	6,40	1/4-18 NPT
5423875	A32SWMTER0319M	3	3,00	29,00	19,00	32,00	47	250	6,40	1/4-18 NPT
5423876	A25RWMTER0416M	4	4,00	26,00	16,00	25,00	41	200	6,40	1/4-18 NPT
5423877	A32SWMTER0419M	4	4,00	29,00	19,00	32,00	47	250	6,40	1/4-18 NPT
5423878	A32SWMTER0519M	5	5,00	29,00	19,00	32,00	47	250	6,40	1/4-18 NPT
left hand										
5423882	A25RWMTEL0316M	3	3,00	26,00	16,00	25,00	41	200	6,40	1/4-18 NPT
5423883	A32SWMTEL0319M	3	3,00	29,00	19,00	32,00	47	250	6,40	1/4-18 NPT
5423884	A25RWMTEL0416M	4	4,00	26,00	16,00	25,00	41	200	6,40	1/4-18 NPT
5423885	A32SWMTEL0419M	4	4,00	29,00	19,00	32,00	47	250	6,40	1/4-18 NPT
5423886	A32SWMTEL0519M	5	5,00	29,00	19,00	32,00	47	250	6,40	1/4-18 NPT

One Series Meets Every Face Milling Need •

WIDIA™ Victory™ M1200 Mini Series

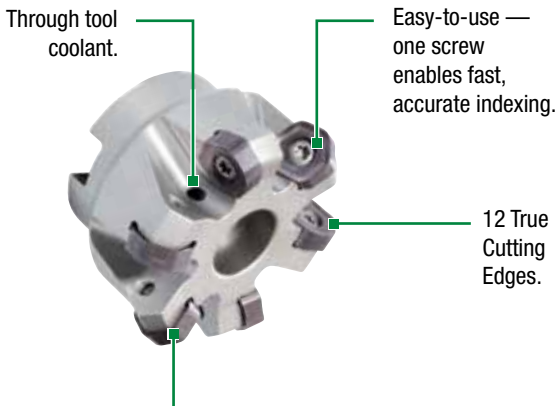
For consistent performance, look no further than the WIDIA Victory™ M1200 Mini. This easy-to-use product ensures great tool life, reduced machining time, and maximum productivity.



M1200 Mini









- Low cost per edge and high productivity.
- Reduced cutting forces due to soft cutting action.
- Significantly increased Metal Removal Rates (MRR).
- Victory™ M1200 Mini available in 15°, 45°, and 59° lead.
- WIDIA premium milling grades.
- Excellent tool life in light to heavy machining.
- Shorter machining cycle times.

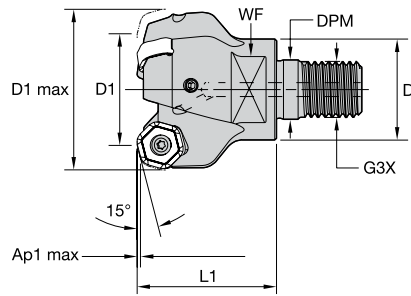
Best-in-class face milling platform to boost productivity on taper 40 spindle milling machines and driven tools.



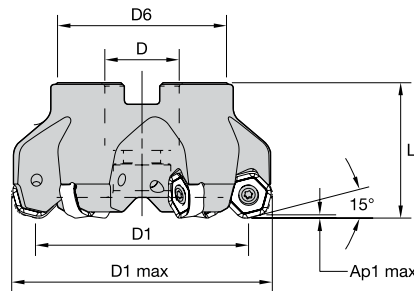
Comprehensive standard offering for coarse, medium, and fine pitch cutter bodies to match all shop floor needs.

Latest soft cutting edge insert design for all material groups

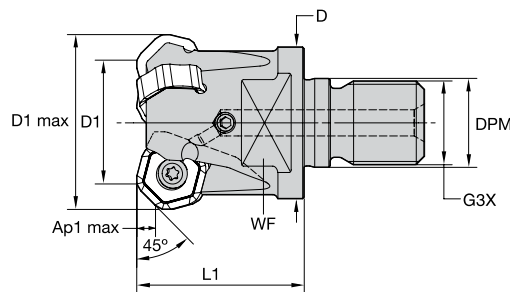
<p>-FNLDJ</p>   <p>Machining Aluminium</p>	<p>-ENLD</p>   <p>Light Machining</p>
<p>-SNGD</p>   <p>General Purpose</p>	<p>-SNHD</p>   <p>Heavy Machining</p>



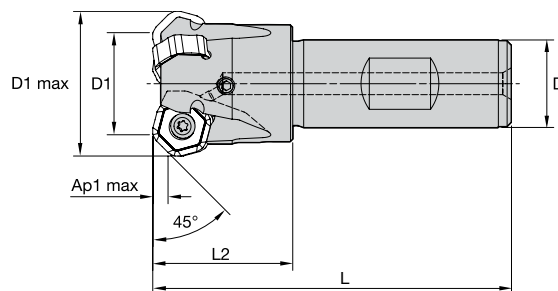
order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	DPM (mm)	G3X	L1 (mm)	WF (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory™ M1200 Mini HF • Screw-On End Mills												
4136875	M1200HF025Z03M16HN07	25	39,1	29	17	M16	32	22	1,7	3	20000	Yes



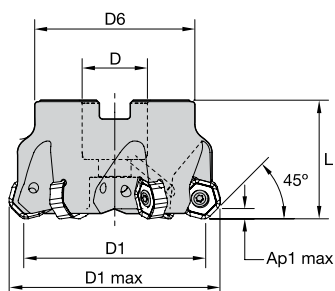
order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory M1200 Mini HF • Shell Mills										
4136884	M1200HF040Z05HN07	40	54,1	22	38	40	1,7	5	15800	Yes
4136885	M1200HF050Z05HN07	50	64,1	22	38	40	1,7	5	12700	Yes
4136886	M1200HF063Z06HN07	63	77,1	22	50	40	1,7	6	10100	Yes
4136887	M1200HF080Z08HN07	80	94,1	27	60	50	1,7	8	7900	Yes



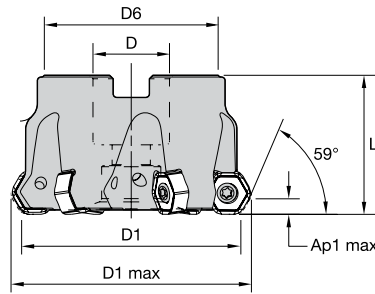
order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	DPM (mm)	G3X	L1 (mm)	WF (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory M1200 Mini • Screw-On End Mills												
3957840	M1200D025Z03M16HN07	25	33,7	29	17	M16	32	22	3,5	3	20000	Yes
3957841	M1200D032Z03M16HN07	32	40,7	29	17	M16	40	22	3,5	3	17600	Yes
3957842	M1200D032Z04M16HN07	32	40,7	29	17	M16	40	22	3,5	4	17600	Yes



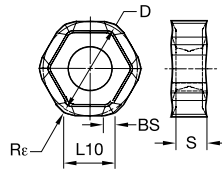
order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory™ M1200 Mini • Weldon® Shanks										
3958012	M1200D025Z03B20HN07	25	33,7	20	82	32	3,5	3	20000	Yes
3958023	M1200D032Z03B25HN07	32	40,7	25	97	40	3,5	3	17600	Yes
3958024	M1200D032Z04B25HN07	32	40,7	25	97	40	3,5	4	17600	Yes



order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory M1200 Mini • Shell Mills										
3957995	M1200D040Z04HN07	40	48,7	22	38	40	3,5	4	15800	Yes
3957996	M1200D040Z05HN07	40	48,7	22	38	40	3,5	5	15800	Yes
3957997	M1200D050Z04HN07	50	58,7	22	38	40	3,5	4	12700	Yes
3957998	M1200D050Z05HN07	50	58,7	22	38	40	3,5	5	12700	Yes
3957999	M1200D050Z06HN07	50	58,7	22	38	40	3,5	6	12700	Yes
3958000	M1200D063Z04HN07	63	71,7	22	50	40	3,5	4	10100	Yes
3958001	M1200D063Z06HN07	63	71,7	22	50	40	3,5	6	10100	Yes
3958002	M1200D063Z08HN07	63	71,7	22	50	40	3,5	8	10100	Yes
3958003	M1200D080Z05HN07	80	88,7	27	60	50	3,5	5	7900	Yes
3958004	M1200D080Z08HN07	80	88,7	27	60	50	3,5	8	7900	Yes
3958005	M1200D080Z10HN07	80	88,7	27	60	50	3,5	10	7900	Yes
3958006	M1200D100Z06HN07	100	108,7	32	80	50	3,5	6	6300	Yes
3958007	M1200D100Z09HN07	100	108,7	32	80	50	3,5	9	6300	Yes
3958008	M1200D100Z12HN07	100	108,7	32	80	50	3,5	12	6300	Yes



order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory™ M1200 Mini HD • Shell Mills										
4136863	M1200HD040Z05HN07	40	46,8	22	38	40	4,7	5	15800	Yes
4136865	M1200HD050Z05HN07	50	56,8	22	38	40	4,7	5	12700	Yes
4136867	M1200HD063Z06HN07	63	69,8	22	50	40	4,7	6	10100	Yes
4136868	M1200HD080Z05HN07	80	86,8	27	60	50	4,7	5	7900	Yes
4136869	M1200HD080Z08HN07	80	86,8	27	60	50	4,7	8	7900	Yes
4136870	M1200HD100Z06HN07	100	106,7	32	80	50	4,7	6	6300	Yes
4136871	M1200HD100Z09HN07	100	106,7	32	80	50	4,7	9	6300	Yes
4136872	M1200HD125Z08HN07	125	131,7	40	90	63	4,7	8	5050	Yes
4136873	M1200HD125Z12HN07	125	131,7	40	90	63	4,7	12	5050	Yes



order number	catalogue number	grade	cutting edges	D (mm)	L10 (mm)	S (mm)	BS (mm)	Re (mm)	hm (mm)
HNGJ-LDJ									
3954332	HNGJ0704ANFNLDJ	THM-U	12	12,7	6,80	4,48	1,60	1,20	0,08
HNGJ-LD									
5895291	HNGJ0704ANENLD	WP25PM	12	12,7	6,80	4,48	1,60	1,20	0,08
5528975	HNGJ0704ANENLD	WS30PM	12	12,7	6,80	4,48	1,60	1,20	0,08
5895292	HNGJ0704ANENLD	WP35CM	12	12,7	6,80	4,48	1,60	1,20	0,08
5550905	HNGJ0704ANENLD	WP40PM	12	12,7	6,80	4,48	1,60	1,20	0,08
6180295	HNGJ0704ANENLD	WS40PM	12	12,7	6,80	4,48	1,60	1,20	0,08
6180300	HNGJ070432ANENLD	WS40PM	12	12,7	6,80	4,48	-	3,21	0,08
HNPJ-GD									
5427374	HNPJ0704ANSNGD	WK15CM	12	12,7	6,80	4,45	1,27	1,20	0,10
5895293	HNPJ0704ANSNGD	WP25PM	12	12,7	6,80	4,45	1,27	1,20	0,10
5528976	HNPJ0704ANSNGD	WS30PM	12	12,7	6,80	4,45	1,27	1,20	0,10
5895294	HNPJ0704ANSNGD	WP35CM	12	12,7	6,80	4,45	1,27	1,20	0,10
5550906	HNPJ0704ANSNGD	WP40PM	12	12,7	6,80	4,45	1,27	1,20	0,10
6180297	HNPJ0704ANSNGD	WS40PM	12	12,7	6,80	4,45	1,27	1,20	0,10
HNPJ-HD									
5427375	HNPJ0704ANSNHD	WK15CM	12	12,7	6,80	4,41	1,25	1,20	0,14
5895295	HNPJ0704ANSNHD	WP25PM	12	12,7	6,80	4,41	1,25	1,20	0,14
5895296	HNPJ0704ANSNHD	WP35CM	12	12,7	6,80	4,41	1,25	1,20	0,14
5550907	HNPJ0704ANSNHD	WP40PM	12	12,7	6,80	4,41	1,25	1,20	0,14
6180299	HNPJ0704ANSNHD	WS40PM	12	12,7	6,80	4,41	1,25	1,20	0,14
5895297	HNPJ070432ANSNHD	WP40PM	12	12,7	6,80	4,42	-	3,20	0,14
6180311	HNPJ070432ANSNHD	WS40PM	12	12,7	6,80	4,42	-	3,20	0,14

One Series Meets Every Face Milling Need •

WIDIA™ Victory™ M1200 Series

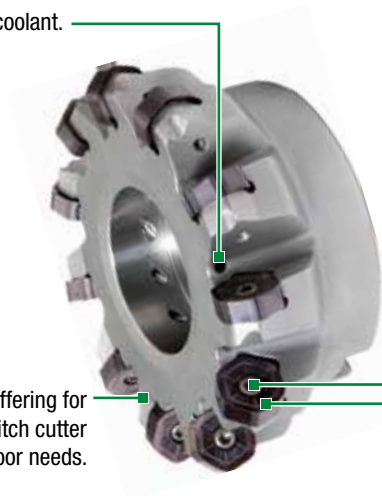
M1200



- Low cost per edge; high productivity.
- 14.5–59° lead angles.
- One series meets every face milling need.
- Available in WIDIA premium milling grades.
- Better tool life in light to heavy machining.

Best-in-class face milling platform to boost productivity on taper 50 spindle milling machines.

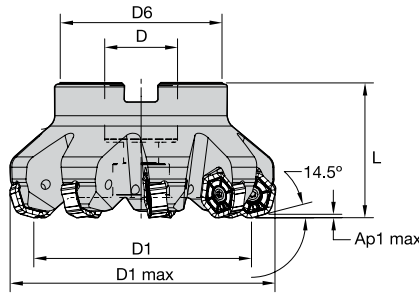
Through tool coolant.



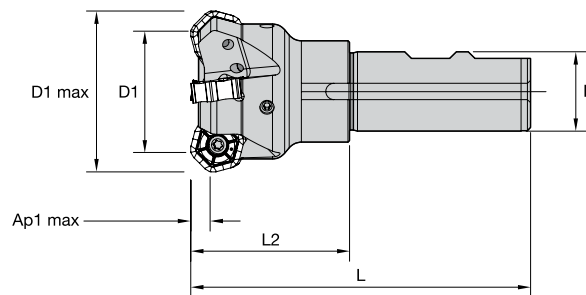
Comprehensive standard offering for coarse, medium, and fine pitch cutter bodies to match all shop floor needs.

Easy-to-use — one screw enables fast, accurate indexing.

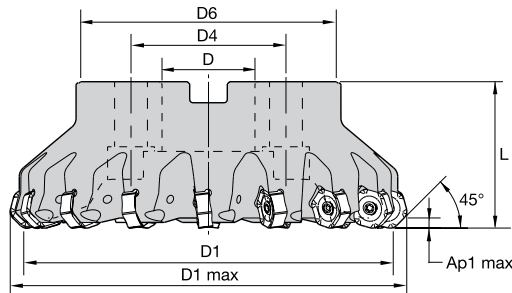
The latest technology with twelve true cutting edges and high-precision pressed and ground inserts.



order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory™ M1200 HF • Shell Mills										
3750370	M1200HF050Z04HN09	50	67,9	22	38	40	2,2	4	11400	Yes
3750372	M1200HF063Z05HN09	63	80,9	22	50	40	2,2	5	8950	Yes
3750434	M1200HF080Z06HN09	80	97,9	27	60	50	2,2	6	7300	Yes
3750435	M1200HF100Z08HN09	100	117,9	32	80	50	2,2	8	5900	Yes

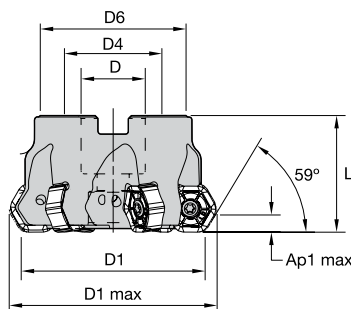


order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory M1200 • Weldon® Shank										
3325311	M1200D040Z04B25HN09	40	51,0	25	107	50	4,5	4	15800	Yes

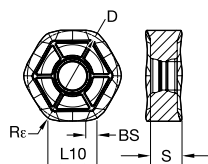


order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	D4 (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory M1200 • Shell Mills											
3957970	M1200D040Z03HN09	40	51,0	22	-	39	40	4,4	3	15800	Yes
3957971	M1200D040Z04HN09	40	51,0	22	-	39	40	4,4	4	15800	Yes
3325312	M1200D050Z04HN09	50	61,0	22	-	38	40	4,5	4	12700	Yes
3325693	M1200D050Z05HN09	50	61,0	22	-	38	40	4,5	5	12700	Yes
3650535	M1200D063Z04HN09	63	74,0	22	-	50	40	4,5	4	10100	Yes
3093594	M1200D063Z06HN09	63	74,0	22	-	50	40	4,5	6	10100	Yes
3025376	M1200D063Z07HN09	63	74,0	22	-	50	40	4,5	7	10100	Yes
3650536	M1200D080Z05HN09	80	91,0	27	-	60	50	4,5	5	7900	Yes
3081507	M1200D080Z06HN09	80	91,0	27	-	60	50	4,5	6	7900	Yes
3025377	M1200D080Z09HN09	80	91,0	27	-	60	50	4,5	9	7900	Yes
3650537	M1200D100Z06HN09	100	111,0	32	-	80	50	4,5	6	6300	Yes
3325694	M1200D100Z08HN09	100	111,0	32	-	80	50	4,5	8	6300	Yes
3025378	M1200D100Z11HN09	100	111,0	32	-	80	50	4,5	11	6300	Yes
3081508	M1200D125Z10HN09	125	135,9	40	-	90	63	4,5	10	5050	Yes
3066119	M1200D160Z16HN09	160	171,0	40	66,7	110	63	4,5	16	3900	Yes

Indexable Milling



order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	D4 (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
Victory™ M1200 HD • Shell Mills											
4152116	M1200HD063Z06HN09	63	71,5	22	-	50	40	6,0	6	10100	Yes
4152117	M1200HD080Z05HN09	80	88,5	27	-	60	50	6,0	5	7900	Yes
4152118	M1200HD080Z08HN09	80	88,5	27	-	60	50	6,0	8	7900	Yes
4152119	M1200HD100Z06HN09	100	108,5	32	-	80	50	6,0	6	6300	Yes
4152120	M1200HD100Z08HN09	100	108,5	32	-	80	50	6,0	8	6300	Yes
4152123	M1200HD160Z09HN09	160	168,5	40	66,7	110	63	6,0	9	3900	Yes



order number	catalogue number	grade	cutting edges	D (mm)	L10 (mm)	S (mm)	BS (mm)	Re (mm)	hm (mm)
HNGJ-LDJ									
3606383	HNGJ0905ANFNLDJ	THM-U	12	16	8,58	5,56	1,80	1,20	0,02
HNGJ-LD (not for M1200 HF Shell Mills)									
5895346	HNGJ0905ANENLD	WP25PM	12	16	8,58	5,56	1,80	1,20	0,05
5895347	HNGJ0905ANENLD	WP35CM	12	16	8,58	5,56	1,80	1,20	0,05
5895348	HNGJ0905ANENLD	WP40PM	12	16	8,58	5,56	1,80	1,20	0,05
5528973	HNGJ0905ANENLD	WS30PM	12	16	8,58	5,56	1,80	1,20	0,05
6180276	HNGJ0905ANENLD	WS40PM	12	16	8,58	5,56	1,80	1,20	0,05
HNPJ-GD									
5427372	HNPJ0905ANSNGD	WK15CM	12	16	8,58	5,56	1,80	1,20	0,10
5895374	HNPJ0905ANSNGD	WP25PM	12	16	8,58	5,56	1,80	1,20	0,10
5895375	HNPJ0905ANSNGD	WP35CM	12	16	8,58	5,56	1,80	1,20	0,10
5550908	HNPJ0905ANSNGD	WP40PM	12	16	8,58	5,56	1,80	1,20	0,10
6180278	HNPJ0905ANSNGD	WS40PM	12	16	8,58	5,56	1,80	1,20	0,10
HNGJ-GD									
5427370	HNGJ0905ANSNGD	WK15CM	12	16	8,58	5,56	1,80	1,20	0,10
5400965	HNGJ0905ANSNGD	WP25PM	12	16	8,58	5,56	1,80	1,20	0,10
5895349	HNGJ0905ANSNGD	WP35CM	12	16	8,58	5,56	1,80	1,20	0,10
5895350	HNGJ0905ANSNGD	WP40PM	12	16	8,58	5,56	1,80	1,20	0,10
5528974	HNGJ0905ANSNGD	WS30PM	12	16	8,58	5,56	1,80	1,20	0,10
6180280	HNGJ0905ANSNGD	WS40PM	12	16	8,58	5,56	1,80	1,20	0,10
HNPJ-HD									
5895378	HNPJ090543ANSNHD	WP25PM	12	16	8,50	5,44	-	4,34	0,13
5895379	HNPJ090543ANSNHD	WP35CM	12	16	8,50	5,44	-	4,34	0,13
5895380	HNPJ090543ANSNHD	WP40PM	12	16	8,50	5,44	-	4,34	0,13
6180294	HNPJ090543ANSNHD	WS40PM	12	16	8,50	5,44	-	4,34	0,13
5427371	HNPJ0905ANSNHD	WK15CM	12	16	8,59	5,46	1,66	1,20	0,18
5895376	HNPJ0905ANSNHD	WP25PM	12	16	8,59	5,46	1,66	1,20	0,18
5895377	HNPJ0905ANSNHD	WP35CM	12	16	8,59	5,46	1,66	1,20	0,18
5550909	HNPJ0905ANSNHD	WP40PM	12	16	8,59	5,46	1,66	1,20	0,18
6180279	HNPJ0905ANSNHD	WS40PM	12	16	8,59	5,46	1,66	1,20	0,18
HNGJ-HD									
5895371	HNGJ0905ANSNHD	WP25PM	12	16	8,59	5,46	1,66	1,20	0,17
5895372	HNGJ0905ANSNHD	WP35CM	12	16	8,59	5,46	1,66	1,20	0,17
5895373	HNGJ0905ANSNHD	WP40PM	12	16	8,59	5,46	1,66	1,20	0,17
6180291	HNGJ0905ANSNHD	WS40PM	12	16	8,59	5,46	1,66	1,20	0,17
6180292	HNGJ090543ANSNHD	WS40PM	12	16	8,49	5,44	-	4,35	0,20

NOVO KNOWS SEARCH

Searching for a tool has been enhanced by Advise and Select functions from NOVO™ applications — saving you time and money.

ADVISE

Uses a rules-based approach to provide cutting tool recommendations:

- Define Machining Feature (face milling, slotting, blind hole, etc.)
- Apply Constraint Requirements (geometric, material, tolerance, etc.)
- Set Machining Sequence (single or multi-step operations, rough then finish, etc.)
- Receive Ranked Results

SELECT

A method of selecting cutting tools from a tree structure via a hierarchy or parametric search:

- If you know which product you are looking for, a quick search can be performed by just the catalogue number or product description.
- Smart filters significantly reduce the amount of potential tooling solutions.
- After the tool is selected, NOVO also provides cutting and adaptive item options that fit with your solution.

NOVO applications can ensure you have the right tools on your machines, in the right sequence. Resulting in flawless execution that accelerates every job, and maximises every shift. widia.com/novo

When Low Cutting Forces Are Required •

M640 Series

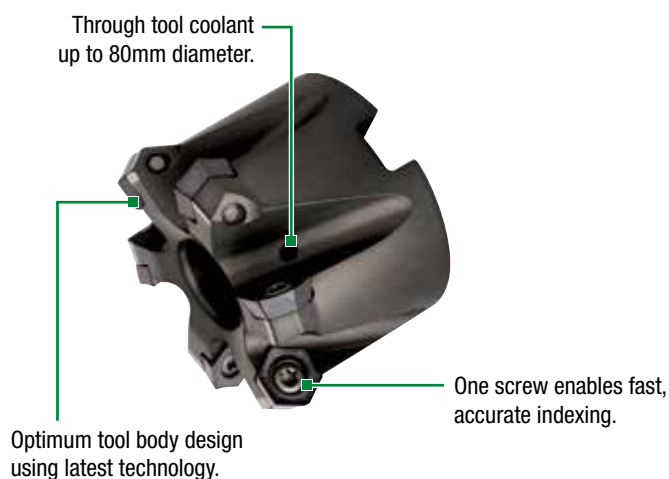
M640

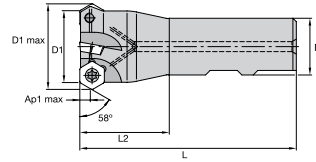


The M640 platform is the first choice when high productivity, superior finish operations, and soft cutting performance are a priority. With six effective cutting edges and a streamlined body design, this easy-to-use tool is ideal, even for low-power machines.

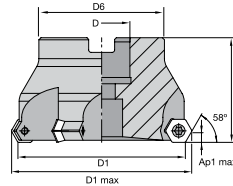
- Highly positive rake angle means extremely low cutting forces.
- Available in geometries and grades for all applications.
- Easy-to-use for fast, accurate indexing.

All pockets are machined into preheated material for excellent runout and pocket strength.

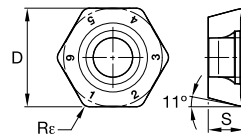




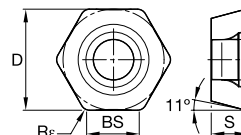
order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
M640 • Weldon® Shank										
2263165	12395405200	32	38,4	32	100	40	4,8	4	29500	Yes



order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
M640 • Shell Mills										
2263132	12395410200	50	56,4	22	47	40	4,8	4	19000	Yes
2263154	12395410400	63	69,4	22	50	40	4,8	5	15000	Yes
2263156	12395410600	80	86,4	27	60	50	4,8	6	11500	Yes
2263158	12395410800	100	106,4	32	78	50	4,8	7	9500	No



order number	catalogue number	grade	cutting edges	D (mm)	S (mm)	Re (mm)	hm (mm)
HPGT-LDAL							
2288106	HPGT06T3DZFRLDAL	THM	6	11	4,00	0,90	0,08
HPGT-LD							
5895784	HPGT06T3DZERLD	WP25PM	6	11	3,99	0,98	0,08
5895785	HPGT06T3DZERLD	WP40PM	6	11	3,99	0,98	0,08
6180312	HPGT06T3DZERLD	WS40PM	6	11	3,99	0,98	0,08
HPGT-GD							
2288066	HPGT06T3DZENG	TN7535	6	11	3,97	0,98	0,10
5427387	HPGT06T3DZENG	WK15CM	6	11	3,97	0,98	0,10
5528978	HPGT06T3DZENG	WS30PM	6	11	3,97	0,98	0,10
5895783	HPGT06T3DZENG	WP40PM	6	11	3,97	0,98	0,10
5895782	HPGT06T3DZENG	WP25PM	6	11	3,97	0,98	0,10
6180313	HPGT06T3DZENG	WS40PM	6	11	3,97	0,98	0,10
HPPT-GD							
6180315	HPPT06T3DZENG	WS40PM	6	11	3,97	0,98	0,10



order number	catalogue number	grade	cutting edges	D (mm)	S (mm)	BS (mm)	Re (mm)	hm (mm)
HPGT-GD Wiper								
5427388	HPGT06T3DZERGD3W	WK15CM	3	11	4,00	2,88	0,98	0,10
5895787	HPGT06T3DZERGD3W	WP40PM	3	11	4,00	2,88	0,98	0,10
5895786	HPGT06T3DZERGD3W	WP25PM	3	11	4,00	2,88	0,98	0,10
6180316	HPGT06T3DZERGD3W	WS40PM	3	11	4,00	2,88	0,98	0,10

VSM11



Victory Shoulder Mill 11 is a high-performance, versatile, robust, 90° square shoulder milling platform. VSM11 is designed for versatility, low horsepower consumption, and easy cutting action. Cutters can be used for profiling, face milling, slotting, ramping, helical interpolation, circular interpolation, and other milling applications. Inserts are specially designed with innovative geometries and features like variable rake angles, negative T-land, small hone, and the latest Victory grades, enhancing tool performance and versatility.

Take advantage of the high-performance, advanced carbide substrates, coatings, and surface treatment technologies of the available 6 Victory grades, 5 geometries, and broad range of cutter body product portfolio. This platform works with multiple material types and applications.

- State-of-the-art step down capability.
- Screw-on, end mill, and shell mill cutters with effective internal coolant supply.

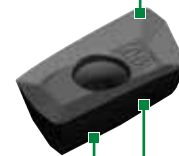
Features

- Insert geometries and grades for all workpiece materials.
- Insert corner radius from 0,4–3,1mm (.016–.122").

Benefits

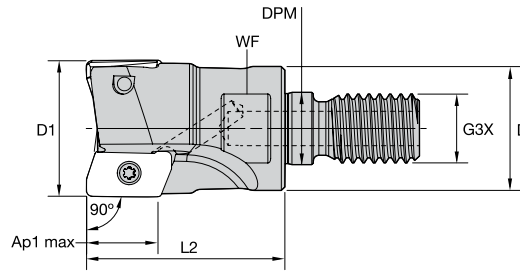
- Achieve 90° wall finish.
- Longer tool life.
- Latest WIDIA Victory milling grades for all workpiece materials.
- Soft cutting action, reduced cycle times, and low horsepower consumption.
- Stability and reliability.

Multiple corner nose radii available.

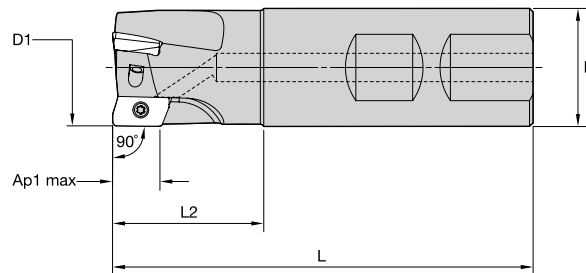


Optimised cutting edge and positive rake face for reduced cutting forces and softer cutting action.

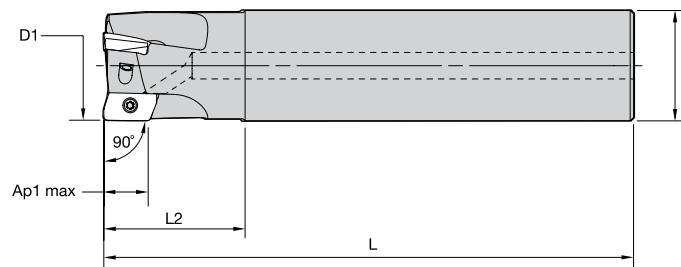
Innovative cutting geometry provides superior wall and surface finish.



order number	catalogue number	D1 (mm)	D (mm)	DMP (mm)	G3X (mm)	L2 (mm)	WF (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM11 • Screw-On End Mills												
5417011	VSM11D016Z02M08XD11	16	13	8.5	M8	25	10	11,5	2	10.0°	41400	Yes
5417013	VSM11D020Z03M10XD11	20	18	10.5	M10	28	15	11,6	3	7.8°	35100	Yes
5417015	VSM11D025Z04M12XD11	25	21	12.5	M12	32	17	11,5	4	5.3°	30200	Yes
5417017	VSM11D032Z04M16XD11	32	29	17.0	M16	40	24	11,4	4	3.6°	25800	Yes
5417019	VSM11D040Z06M16XD11	40	29	17.0	M16	40	24	11,4	6	2.6°	22600	Yes

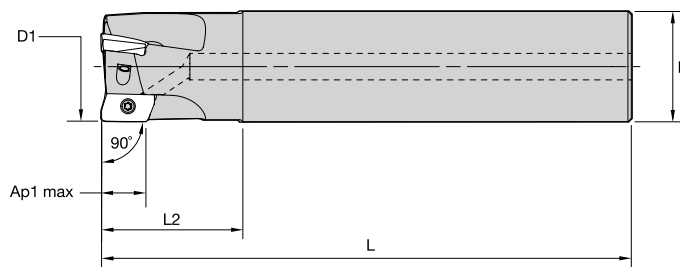


order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM11 • Weldon® End Mills										
5416454	VSM11D012Z01B16XD11	12	16	70	21	11,7	1	3.7°	53100	Yes
5416455	VSM11D016Z02B16XD11	16	16	70	21	11,5	2	10.0°	41400	Yes
5416457	VSM11D020Z02B20XD11	20	20	81	30	11,6	2	7.8°	35100	Yes
5416458	VSM11D020Z03B20XD11	20	20	81	30	11,6	3	7.8°	35100	Yes
5416459	VSM11D025Z03B25XD11	25	25	88	31	11,5	3	5.3°	30200	Yes
5416480	VSM11D025Z04B25XD11	25	25	88	31	11,5	4	5.3°	30200	Yes
5416481	VSM11D030Z04B25XD11	30	25	88	31	11,5	4	3.2°	26900	Yes
5416482	VSM11D032Z04B32XD11	32	32	100	39	11,4	4	3.6°	25800	Yes
5416483	VSM11D032Z05B32XD11	32	32	100	39	11,4	5	3.6°	25800	Yes

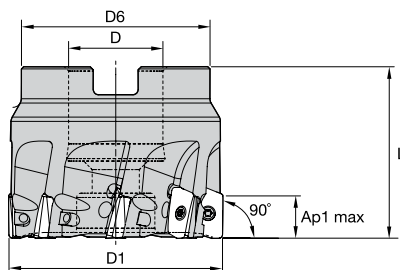


order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM11 • Cylindrical End Mills										
5416632	VSM11D012Z01A16XD11L100	12	16	100	25	11,7	1	3.7°	53100	Yes
5416633	VSM11D016Z02A16XD11L100	16	16	100	31	11,5	2	10.0°	41400	Yes
5416634	VSM11D020Z02A20XD11L110	20	20	110	31	11,6	2	7.8°	35100	Yes
5416635	VSM11D020Z03A20XD11L110	20	20	110	31	11,6	3	7.8°	35100	Yes
5416636	VSM11D025Z03A25XD11L120	25	25	120	33	11,5	3	5.3°	30200	Yes
5416637	VSM11D025Z04A25XD11L120	25	25	120	33	11,5	4	5.3°	30200	Yes
5416638	VSM11D032Z03A32XD11L130	32	32	130	41	11,4	3	3.6°	25800	Yes
5416639	VSM11D032Z05A32XD11L130	32	32	130	41	11,4	5	3.6°	25800	Yes

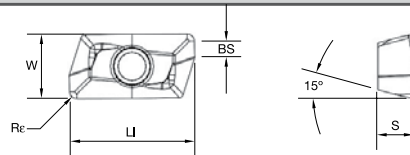
Indexable Milling



order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM11 • Cylindrical End Mills • Long Shanks										
5416700	VSM11D016Z02A16XD11L170	16	16	170	25	11,5	2	10.0°	41400	Yes
5416701	VSM11D018Z02A16XD11L170	18	16	170	25	11,6	2	9.7°	37900	Yes
5416702	VSM11D020Z02A20XD11L170	20	20	170	41	11,6	2	7.8°	35100	Yes
5416703	VSM11D020Z03A20XD11L170	20	20	170	41	11,6	3	7.8°	35100	Yes
5416704	VSM11D022Z03A20XD11L170	22	20	170	30	11,5	3	6.6°	32900	Yes
5416705	VSM11D025Z03A25XD11L210	25	25	210	50	11,5	3	5.3°	30200	Yes
5416706	VSM11D025Z04A25XD11L210	25	25	210	50	11,5	4	5.3°	30200	Yes
5416707	VSM11D032Z03A32XD11L250	32	32	250	65	11,4	3	3.6°	25800	Yes



order number	catalogue number	D1 (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM11 • Shell Mills										
5416316	VSM11D040Z04S016XD11	40	16	37	40	11,4	4	2.6°	22600	Yes
5416317	VSM11D040Z06S016XD11	40	16	37	40	11,4	6	2.6°	22600	Yes
5416318	VSM11D050Z05S022XD11	50	22	44	40	11,3	5	1.9°	19900	Yes
5416319	VSM11D050Z08S022XD11	50	22	44	40	11,3	8	1.9°	19900	Yes
5416340	VSM11D063Z06S022XD11	63	22	44	40	11,3	6	1.5°	17500	Yes
5416341	VSM11D063Z09S022XD11	63	22	44	40	11,3	9	1.5°	17500	Yes
5416342	VSM11D080Z08S027XD11	80	27	60	50	11,3	8	1.1°	15300	Yes
5416345	VSM11D100Z09S032XD11	100	32	80	50	11,3	9	0.9°	13600	Yes
5416347	VSM11D125Z011S040XD11	125	40	80	63	11,3	11	0.7°	12100	Yes



order number	catalogue number	grade	cutting edges	LI (mm)	BS (mm)	S (mm)	W (mm)	Re (mm)	hm (mm)
XDCT-ML									
5536671	XDCT110404PDERML	WP25PM	2	13,43	2,09	4,00	6,90	0,40	0,04
5536670	XDCT110404PDERML	WP35CM	2	13,43	2,09	4,00	6,90	0,40	0,04
5642230	XDCT110404PDERML	WP40PM	2	13,43	2,09	4,00	6,90	0,40	0,04
6180174	XDCT110404PDERML	WS40PM	2	13,43	2,09	4,00	6,90	0,40	0,04
5415549	XDCT110408PDERML	WK15CM	2	13,44	1,69	4,00	6,90	0,80	0,04
5415548	XDCT110408PDERML	WP25PM	2	13,44	1,69	4,00	6,90	0,80	0,04
5415547	XDCT110408PDERML	WP35CM	2	13,44	1,69	4,00	6,90	0,80	0,04
5545065	XDCT110408PDERML	WP40PM	2	13,44	1,69	4,00	6,90	0,80	0,04
5517826	XDCT110408PDERML	WS30PM	2	13,44	1,69	4,00	6,90	0,80	0,04
5415546	XDCT110408PDERML	WU35PM	2	13,44	1,69	4,00	6,90	0,80	0,04
6180173	XDCT110408PDERML	WS40PM	2	13,44	1,69	4,00	6,90	0,80	0,04
6408002	XDCT110412PDERML	WS40PM	2	13,44	1,29	4,00	6,90	1,20	-
5964861	XDCT110416PDERML	WP25PM	2	13,44	0,88	4,00	6,89	1,60	0,04
5964810	XDCT110416PDERML	WP40PM	2	13,44	0,88	4,00	6,89	1,60	0,04
6408004	XDCT110416PDERML	WS40PM	2	13,44	0,88	4,00	6,89	1,60	0,04
6408006	XDCT110424PDERML	WS40PM	2	13,44	0,16	4,00	6,88	2,40	-
6408007	XDCT110432PDERML	WS40PM	2	12,86	-	4,00	6,89	3,20	-
XDPT-MM									
5415428	XDPT110404PDSRMM	WK15CM	2	13,43	2,06	4,00	6,90	0,40	0,06
5642237	XDPT110404PDSRMM	WP25PM	2	13,43	2,06	4,00	6,90	0,40	0,06
5415450	XDPT110404PDSRMM	WP35CM	2	13,43	2,06	4,00	6,90	0,40	0,06
5642231	XDPT110404PDSRMM	WP40PM	2	13,43	2,06	4,00	6,90	0,40	0,06
6180149	XDPT110404PDSRMM	WS40PM	2	13,43	2,06	4,00	6,90	0,40	0,06
5415315	XDPT110408PDSRMM	WK15CM	2	13,44	1,68	4,00	6,90	0,79	0,06
5415319	XDPT110408PDSRMM	WP25PM	2	13,44	1,68	4,00	6,90	0,79	0,06
5415318	XDPT110408PDSRMM	WP35CM	2	13,44	1,68	4,00	6,90	0,79	0,06
5545063	XDPT110408PDSRMM	WP40PM	2	13,44	1,68	4,00	6,90	0,79	0,06
5519921	XDPT110408PDSRMM	WS30PM	2	13,44	1,68	4,00	6,90	0,79	0,06
5415317	XDPT110408PDSRMM	WU35PM	2	13,44	1,68	4,00	6,90	0,79	0,06
6180148	XDPT110408PDSRMM	WS40PM	2	13,44	1,68	4,00	6,90	0,79	0,06
5415310	XDPT110412PDSRMM	WK15CM	2	13,44	1,29	4,00	6,90	1,20	0,06
5415314	XDPT110412PDSRMM	WP25PM	2	13,44	1,29	4,00	6,90	1,20	0,06
5415313	XDPT110412PDSRMM	WP35CM	2	13,44	1,29	4,00	6,90	1,20	0,06
5642232	XDPT110412PDSRMM	WP40PM	2	13,44	1,29	4,00	6,90	1,20	0,06
5415312	XDPT110412PDSRMM	WU35PM	2	13,44	1,29	4,00	6,90	1,20	0,06
6180150	XDPT110412PDSRMM	WS40PM	2	13,44	1,29	4,00	6,90	1,20	0,06
5415250	XDPT110416PDSRMM	WK15CM	2	13,51	0,85	4,13	6,95	1,60	0,06
5415254	XDPT110416PDSRMM	WP25PM	2	13,51	0,85	4,13	6,95	1,60	0,06
5415253	XDPT110416PDSRMM	WP35CM	2	13,51	0,85	4,13	6,95	1,60	0,06
5642233	XDPT110416PDSRMM	WP40PM	2	13,51	0,85	4,13	6,95	1,60	0,06
6180172	XDPT110416PDSRMM	WS40PM	2	13,51	0,85	4,13	6,95	1,60	0,06
5980399	XDPT110420PDSRMM	WP25PM	2	13,51	0,45	4,13	6,95	2,00	0,06
5980400	XDPT110420PDSRMM	WP35CM	2	13,51	0,45	4,13	6,95	2,00	0,06
5980398	XDPT110420PDSRMM	WP40PM	2	13,51	0,45	4,13	6,95	2,00	0,06
6408095	XDPT110420PDSRMM	WS40PM	2	13,51	0,45	4,13	6,95	2,00	0,06
5901355	XDPT110424PDSRMM	WP25PM	2	13,37	-	4,01	6,94	2,40	0,06
5901354	XDPT110424PDSRMM	WP40PM	2	13,37	-	4,01	6,94	2,40	0,06
6408096	XDPT110424PDSRMM	WS40PM	2	13,37	-	4,01	6,94	2,40	0,06
5415422	XDPT110431PDSRMM	WK15CM	2	12,91	-	4,00	6,89	3,10	0,06
5415426	XDPT110431PDSRMM	WP25PM	2	12,91	-	4,00	6,89	3,10	0,06
5415425	XDPT110431PDSRMM	WP35CM	2	12,91	-	4,00	6,89	3,10	0,06
5642234	XDPT110431PDSRMM	WP40PM	2	12,91	-	4,00	6,89	3,10	0,06
5517827	XDPT110431PDSRMM	WS30PM	2	12,91	-	4,00	6,89	3,10	0,06
6279204	XDPT110431PDSRMM	WS40PM	2	12,91	-	4,00	6,89	3,10	0,06
XDPT-MH									
5415255	XDPT110408PDSRMH	WK15CM	2	13,44	1,68	4,00	6,90	0,79	0,13
5415257	XDPT110408PDSRMH	WP35CM	2	13,44	1,68	4,00	6,90	0,79	0,13
5545064	XDPT110408PDSRMH	WP40PM	2	13,44	1,68	4,00	6,90	0,79	0,13
5415256	XDPT110408PDSRMH	WU35PM	2	13,44	1,68	4,00	6,90	0,79	0,13
6408098	XDPT110408PDSRMH	WS40PM	2	13,44	1,68	4,00	6,90	0,79	0,13
5415360	XDPT110412PDSRMH	WK15CM	2	13,44	1,29	4,00	6,90	1,20	0,13
5415362	XDPT110412PDSRMH	WP35CM	2	13,44	1,29	4,00	6,90	1,20	0,13
5642235	XDPT110412PDSRMH	WP40PM	2	13,44	1,29	4,00	6,90	1,20	0,13
6408099	XDPT110412PDSRMH	WS40PM	2	13,44	1,29	4,00	6,90	1,20	0,13
5415364	XDPT110416PDSRMH	WK15CM	2	13,44	0,90	4,00	6,90	1,59	0,13
5415366	XDPT110416PDSRMH	WP35CM	2	13,44	0,90	4,00	6,90	1,59	0,13
5642236	XDPT110416PDSRMH	WP40PM	2	13,44	0,90	4,00	6,90	1,59	0,13
6408100	XDPT110416PDSRMH	WS40PM	2	13,44	0,90	4,00	6,90	1,59	0,13
XDCW-PCD									
5415420	XDCW110404PDFRPCD	WDN10U	1	13,43	2,10	4,00	6,90	0,40	0,02
5415421	XDCW110408PDFRPCD	WDN10U	1	13,44	1,70	4,00	6,90	0,80	0,02
XDCT-ALP									
5933940	XDCT110404PDFRALP	WN10HM	2	13,43	2,09	4,00	6,90	0,40	0,02
5417054	XDCT110404PDFRALP	WN25PM	2	13,43	2,09	4,00	6,90	0,40	0,02
5936171	XDCT110408PDFRALP	WN10HM	2	13,44	1,69	4,00	6,90	0,80	0,02
5417053	XDCT110408PDFRALP	WN25PM	2	13,44	1,69	4,00	6,90	0,80	0,02



VSM17

WIDIA Victory Shoulder Mill 17 is a high-performance, versatile, robust, 90° square shoulder milling platform. VSM17 is designed for versatility, low horsepower consumption, and easy cutting action. Cutters can be used for shoulder milling, profiling, face milling, slotting, ramping, helical interpolation, and circular interpolation milling applications. Inserts are specially designed with innovative geometries and features like variable rake angles, negative T-land, small hone, and the latest Victory grades, enhancing tool performance and versatility.

Take advantage of the high-performance, advanced carbide substrates, coatings, and surface treatment technologies of the available 7 Victory grades, 4 geometries, and a broad-range cutter body product portfolio. This platform works with multiple material types and applications.

- Up to 16,33mm (.65") depth-of-cut capabilities.
- State-of-the-art step down capability.
- Screw-on, end mill, and shell mill cutters with effective internal coolant supply.

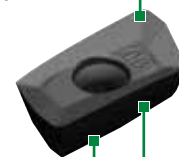
Features

- Insert geometries and grades for all workpiece materials.
- Insert corner radius from 0,4–4mm (.015–.157").
- Max axial depth of cut 16,3mm (0.65").

Benefits

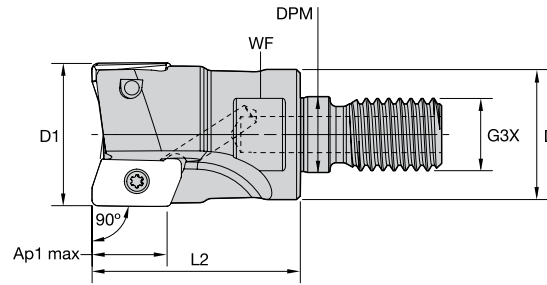
- Achieve true 90° wall finish.
- High performance and longer tool life.
- Latest WIDIA Victory milling grades for all workpiece materials.
- High positive geometry, soft cutting action, reduced cycle times, and low horsepower consumption.
- Stability and reliability.

Multiple corner nose radii available.

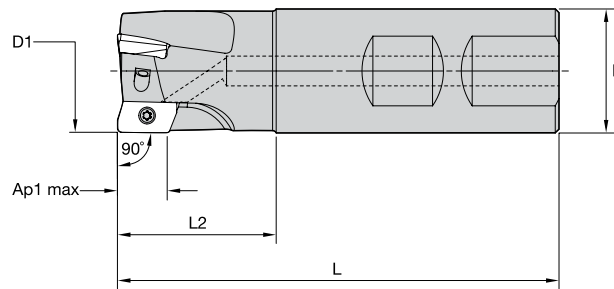


Optimised cutting edge and positive rake face for reduced cutting forces and softer cutting action.

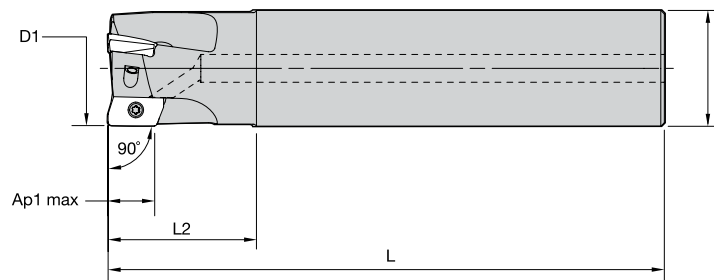
Innovative cutting geometry provides superior wall and surface finish.



order number	catalogue number	D1 (mm)	D (mm)	DPM (mm)	G3X (mm)	L2 (mm)	WF (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM17 • Screw-On End Mills												
5988091	VSM17D025Z02M12XD17	25	21	12,5	M12	35	17	16,4	2	8.8	41800	Yes
5988092	VSM17D032Z03M16XD17	32	29	17,0	M16	40	24	16,3	3	5.7	34700	Yes
5988131	VSM17D40Z03M016XD17	40	29	17,0	M16	40	24	16,2	3	4.0	29800	Yes
5988093	VSM17D040Z04M16XD17	40	29	17,0	M16	40	24	16,2	4	4.0	29800	Yes

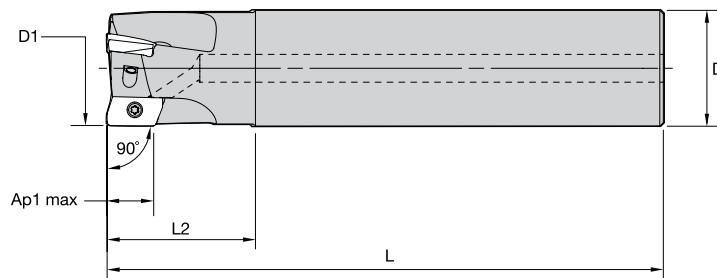


order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM17 • Weldon® End Mills										
5988102	VSM17D025Z02B25XD17	25	25	90	33	16,4	2	8.8	41800	Yes
5988103	VSM17D032Z03B32XD17	32	32	100	39	16,3	3	5.7	34700	Yes
5988104	VSM17D040Z04B40XD17	40	40	110	39	16,2	4	4.0	29800	Yes

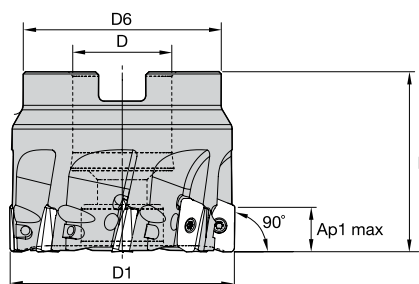


order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM17 • Cylindrical End Mills										
5988055	VSM17D025Z02A25XD17L110	25	25	110	44	16,4	2	8.8	41800	Yes
5988056	VSM17D025Z02A25XD17L170	25	25	170	44	16,4	2	8.8	41800	Yes
5988107	VSM17D032Z02A32XD17L120	32	32	120	50	16,3	2	5.7	34700	Yes
5988057	VSM17D032Z03A32XD17L120	32	32	120	50	16,3	3	5.7	34700	Yes
5988109	VSM17D040Z03A32XD17L130	40	32	130	50	16,2	3	4.0	29800	Yes
5988059	VSM17D040Z04A32XD17L130	40	32	130	50	16,2	4	4.0	29800	Yes

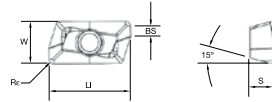
Indexable Milling



order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM17 • Cylindrical End Mills • Long Shank										
5988108	VSM17D032Z02A32XD17L210	32	32	210	50	16,3	2	5.7	34700	Yes
5988058	VSM17D032Z03A32XD17L210	32	32	210	50	16,3	3	5.7	34700	Yes
5988110	VSM17D040Z03A32XD17L250	40	32	250	50	16,2	3	4.0	29800	Yes
5988060	VSM17D040Z04A32XD17L250	40	32	250	50	16,2	4	4.0	29800	Yes



order number	catalogue number	D1 (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
VSM17 • Shell Mills										
5988094	VSM17D040Z04S16XD17	40	16	37	40	16,2	4	4.0	29800	Yes
5988095	VSM17D050Z04S22XD17	50	22	45	40	16,1	4	3.0	25800	Yes
5988096	VSM17D050Z05S22XD17	50	22	45	40	16,1	5	3.0	25800	Yes
5988134	VSM17D050Z06S22XD17	50	22	45	40	16,1	6	3.0	25800	Yes
5988097	VSM17D063Z05S22XD17	63	22	50	40	16,0	5	2.1	22400	Yes
5988135	VSM17D063Z06S22XD17	63	22	50	40	16,0	6	2.1	22400	Yes
5988098	VSM17D080Z06S27XD17	80	27	60	50	15,9	6	1.6	19500	Yes
5988133	VSM17D080Z07S27XD17	80	27	60	50	15,9	7	1.6	19500	Yes
5988099	VSM17D100Z08S32XD17	100	32	80	50	15,8	8	1.2	17200	Yes
5988100	VSM17D125Z09S40XD17	125	40	90	63	15,7	9	0.9	15200	Yes
5988101	VSM17D160Z12S40XD17	160	40	100	63	15,8	12	0.7	13300	Yes



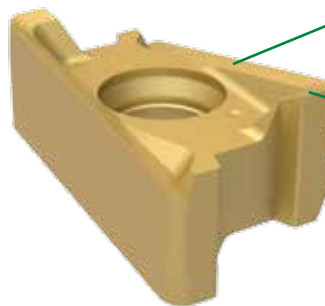
order number	catalogue number	grade	cutting edges	LI (mm)	BS (mm)	S (mm)	W (mm)	R _e (mm)	hm (mm)
XDCT-ML									
5989010	XDCT170404PEERML	WP25PM	2	19,15	2,62	4,90	9,60	0,40	0,04
5988983	XDCT170408PEERML	WP25PM	2	19,15	2,22	4,90	9,60	0,80	0,04
5988982	XDCT170408PEERML	WP35CM	2	19,15	2,22	4,90	9,60	0,80	0,04
5988981	XDCT170408PEERML	WP40PM	2	19,15	2,22	4,90	9,60	0,80	0,04
6180180	XDCT170408PEERML	WS40PM	2	19,15	2,22	4,90	9,60	0,80	0,04
5988988	XDCT170412PEERML	WP25PM	2	19,16	1,82	4,90	9,60	1,20	0,04
5988987	XDCT170412PEERML	WP35CM	2	19,16	1,82	4,90	9,60	1,20	0,04
5988986	XDCT170412PEERML	WP40PM	2	19,16	1,82	4,90	9,60	1,20	0,04
6180211	XDCT170412PEERML	WS40PM	2	19,16	1,82	4,90	9,60	1,20	0,04
6001257	XDCT170416PEERML	WP25PM	2	19,17	1,42	4,90	9,60	1,60	0,04
6425261	XDCT170416PEERML	WS40PM	2	19,17	1,42	4,90	9,60	1,60	0,04
6001255	XDCT170420PEERML	WP25PM	2	19,17	1,01	4,90	9,60	2,00	0,04
6425263	XDCT170420PEERML	WS40PM	2	19,17	1,01	4,90	9,60	2,00	0,04
6001253	XDCT170424PEERML	WP25PM	2	19,17	0,63	4,90	9,60	2,40	0,04
6425264	XDCT170424PEERML	WS40PM	2	19,17	0,63	4,90	9,60	2,40	0,04
6001251	XDCT170432PEERML	WP25PM	2	18,85	-	4,88	9,59	3,20	0,04
6425265	XDCT170432PEERML	WS40PM	2	18,85	-	4,88	9,59	3,20	0,04
6001239	XDCT170440PEERML	WP25PM	2	18,33	-	4,87	9,59	4,00	0,04
6425266	XDCT170440PEERML	WS40PM	2	18,33	-	4,87	9,59	4,00	0,04
6232053	XDCT170460PEERML	WS40PM	2	17,02	-	4,80	9,56	6,00	0,04
XDCT-ALP									
6007341	XDCT170404PEFRALP	WN10HM	2	19,15	2,62	4,90	9,60	0,40	0,02
6007220	XDCT170404PEFRALP	WN25PM	2	19,15	2,62	4,90	9,60	0,40	0,02
6007345	XDCT170408PEFRALP	WN10HM	2	19,15	2,22	4,90	9,60	0,80	0,02
6007344	XDCT170408PEFRALP	WN25PM	2	19,15	2,22	4,90	9,60	0,80	0,02
6007342	XDCT170412PEFRALP	WN10HM	2	19,16	1,82	4,90	9,60	1,20	0,02
6001537	XDCT170412PEFRALP	WN25PM	2	19,16	1,82	4,90	9,60	1,20	0,02
6001256	XDCT170416PEFRALP	WN25PM	2	19,17	1,42	4,90	9,60	1,60	0,02
6001254	XDCT170420PEFRALP	WN25PM	2	19,17	1,01	4,90	9,60	2,00	0,02
6001252	XDCT170424PEFRALP	WN25PM	2	19,17	0,63	4,90	9,60	2,40	0,02
6001240	XDCT170432PEFRALP	WN25PM	2	18,85	-	4,88	9,59	3,20	0,02
6001238	XDCT170440PEFRALP	WN25PM	2	18,33	-	4,87	9,59	4,00	0,02
XDPT-MM									
5987689	XDPT170404PESRMM	WP40PM	2	19,15	2,52	4,90	9,60	0,40	0,10
5987690	XDPT170404PESRMM	WU35PM	2	19,15	2,52	4,90	9,60	0,40	0,10
5987948	XDPT170408PESRMM	WK15CM	2	19,15	2,15	4,90	9,60	0,80	0,10
5987949	XDPT170408PESRMM	WP25PM	2	19,15	2,15	4,90	9,60	0,80	0,10
5987947	XDPT170408PESRMM	WP35CM	2	19,15	2,15	4,90	9,60	0,80	0,10
5987946	XDPT170408PESRMM	WP40PM	2	19,15	2,15	4,90	9,60	0,80	0,10
5987950	XDPT170408PESRMM	WU35PM	2	19,15	2,15	4,90	9,60	0,80	0,10
6180212	XDPT170408PESRMM	WS40PM	2	19,15	2,15	4,90	9,60	0,80	0,10
5988138	XDPT170412PESRMM	WK15CM	2	19,16	1,77	4,90	9,60	1,20	0,10
5988151	XDPT170412PESRMM	WP25PM	2	19,16	1,77	4,90	9,60	1,20	0,10
5988140	XDPT170412PESRMM	WP35CM	2	19,16	1,77	4,90	9,60	1,20	0,10
5988139	XDPT170412PESRMM	WP40PM	2	19,16	1,77	4,90	9,60	1,20	0,10
5988152	XDPT170412PESRMM	WU35PM	2	19,16	1,77	4,90	9,60	1,20	0,10
6180213	XDPT170412PESRMM	WS40PM	2	19,16	1,77	4,90	9,60	1,20	0,10
5988153	XDPT170416PESRMM	WK15CM	2	19,17	1,38	4,90	9,60	1,60	0,10
5988155	XDPT170416PESRMM	WP25PM	2	19,17	1,38	4,90	9,60	1,60	0,10
5988156	XDPT170416PESRMM	WP35CM	2	19,17	1,38	4,90	9,60	1,60	0,10
5988154	XDPT170416PESRMM	WP40PM	2	19,17	1,38	4,90	9,60	1,60	0,10
6180214	XDPT170416PESRMM	WS40PM	2	19,17	1,38	4,90	9,60	1,60	0,10
5988158	XDPT170420PESRMM	WP25PM	2	19,17	0,99	4,90	9,60	2,00	0,10
5988160	XDPT170420PESRMM	WP35CM	2	19,17	0,99	4,90	9,60	2,00	0,10
5988159	XDPT170420PESRMM	WP40PM	2	19,17	0,99	4,90	9,60	2,00	0,10
6425145	XDPT170420PESRMM	WS40PM	2	19,17	0,99	4,90	9,60	2,00	0,10
5988203	XDPT170424PESRMM	WP25PM	2	19,17	0,62	4,90	9,60	2,40	0,10
5988202	XDPT170424PESRMM	WP40PM	2	19,17	0,62	4,90	9,60	2,40	0,10
6425146	XDPT170424PESRMM	WS40PM	2	19,17	0,62	4,90	9,60	2,40	0,10
5988206	XDPT170432PESRMM	WP25PM	2	18,85	-	4,89	9,59	3,20	0,10
5988204	XDPT170432PESRMM	WP35CM	2	18,85	-	4,89	9,59	3,20	0,10
5988205	XDPT170432PESRMM	WP40PM	2	18,85	-	4,89	9,59	3,20	0,10
5988970	XDPT170440PESRMM	WP25PM	2	18,33	-	4,87	9,59	4,00	0,10
5988969	XDPT170440PESRMM	WP40PM	2	18,33	-	4,87	9,59	4,00	0,10
6425147	XDPT170440PESRMM	WS40PM	2	18,33	-	4,87	9,59	4,00	0,10
XDPT-MH									
5989053	XDPT170408PESRMH	WK15CM	2	19,15	2,10	4,91	9,60	0,80	0,13
5989054	XDPT170408PESRMH	WP35CM	2	19,15	2,10	4,91	9,60	0,80	0,13
5989052	XDPT170408PESRMH	WP40PM	2	19,15	2,10	4,91	9,60	0,80	0,13
6425148	XDPT170408PESRMH	WS40PM	2	19,15	2,10	4,91	9,60	0,80	0,13
5991817	XDPT170412PESRMH	WK15CM	2	19,16	1,73	4,91	9,60	1,20	0,13
5991816	XDPT170412PESRMH	WP35CM	2	19,16	1,73	4,91	9,60	1,20	0,13
5991815	XDPT170412PESRMH	WP40PM	2	19,16	1,73	4,91	9,60	1,20	0,13
6425149	XDPT170412PESRMH	WS40PM	2	19,16	1,73	4,91	9,60	1,20	0,13

4-Edged, Double-Sided 90° Victory Shoulder Mill •
VSM490™ -10

VSM490-10



- True 90° roughing tool with embedded finishing capabilities all in one tool.
- Up to A_{p1} max = 10mm.
- Best-in-class wall finish in axial stepping-down jobs.
- Lower cutting forces and real soft cutting action.
- Perfect fit for taper 40 spindles and driven units.



Super-positive rake design for low machine power consumption.

Integrated wiper facet for great surface floor finish.

Four insert geometries for all material groups in shoulder milling applications.

-ALP



N

For non-ferrous materials.

-ML



P M K S H

First choice for stainless steel, light machining, and finishing jobs.

-MM



P M K S H

First choice for general purpose in all material groups.

-MH



P K

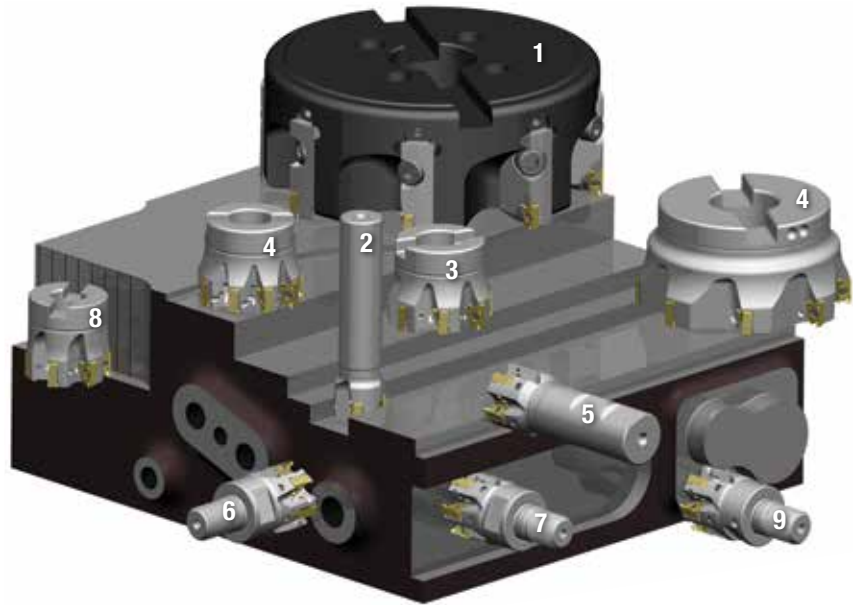
First choice for HPC roughing cast iron. Strongest edge protection with additional margins.

Finishing Capabilities/Lower Cutting Forces

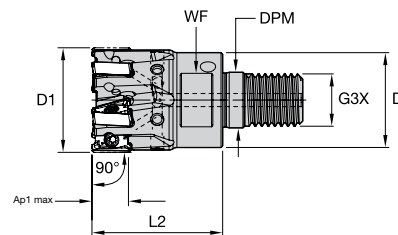
Geometry Strengthening

Applications

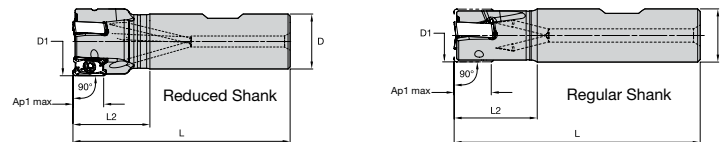
1. Face milling with modular M4000 cartridge milling system. (*M4000 is not included in the All-Star*).
2. Full slotting with 100% radial engagement.
3. Shoulder milling with step-down capabilities and great wall finish.
4. Shoulder milling with low axial and high radial engagement.
5. Shoulder milling with low radial and high axial engagement.
6. HPC face milling. Excellent choice to clean up castings.
7. Trochoidal slot milling.
8. Z-axis plunge milling.
9. Contour milling.



Indexable Milling

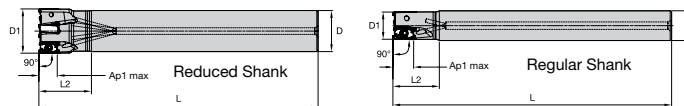


order number	catalogue number	D1 (mm)	D (mm)	DPM (mm)	G3X	L2 (mm)	WF (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
VSM490 • Screw-On End Mills											
6425553	VSM490D016Z02M08XN10	16	13	8,5	M8	25	10	10,0	2	48000	Yes
6425554	VSM490D020Z03M10XN10	20	18	10,5	M10	28	15	10,0	3	40200	Yes
6425555	VSM490D025Z04M12XN10	25	21	12,5	M12	32	17	10,0	4	34300	Yes
6425556	VSM490D032Z05M16XN10	32	29	17,0	M16	40	24	10,0	5	29200	Yes
6425557	VSM490D032Z06M16XN10	32	29	17,0	M16	40	24	10,0	6	29200	Yes



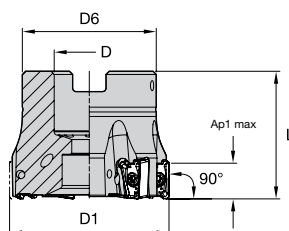
order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
VSM490 • Weldon® End Mills									
6425558	VSM490D016Z02B16XN10	16	16	74	25	10,0	2	48000	Yes
6425559	VSM490D020Z02B20XN10	20	20	79	28	10,0	2	40200	Yes
6425560	VSM490D020Z03B20XN10	20	20	79	28	10,0	3	40200	Yes
6425571	VSM490D025Z03B20XN10	25	20	79	28	10,0	3	34300	Yes
6425572	VSM490D025Z03B25XN10	25	25	89	32	10,0	3	34300	Yes
6425573	VSM490D025Z04B25XN10	25	25	89	32	10,0	4	34300	Yes
6425574	VSM490D032Z04B25XN10	32	25	89	32	10,0	4	29200	Yes
6425575	VSM490D032Z05B25XN10	32	25	89	32	10,0	5	29200	Yes

NOTE: Weldon type not recommended for finishing operations.

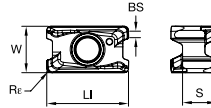


Indexable Milling

order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
VSM490 • Cylindrical End Mills (Regular and Long Version)									
6425502	VSM490D016Z02A16XN10L090	16	16	90	25	10,0	2	48000	Yes
6425503	VSM490D016Z02A16XN10L150	16	16	150	25	10,0	2	48000	Yes
6425504	VSM490D018Z02A16XN10L150	18	16	150	25	10,0	2	43500	Yes
6425506	VSM490D020Z02A20XN10L150	20	20	150	28	10,0	2	40200	Yes
6425505	VSM490D020Z03A20XN10L090	20	20	90	28	10,0	3	40200	Yes
6425507	VSM490D020Z03A20XN10L150	20	20	150	28	10,0	3	40200	Yes
6425508	VSM490D022Z03A20XN10L150	22	20	150	28	10,0	3	37500	Yes
6425509	VSM490D025Z03A20XN10L100	25	20	100	28	10,0	3	34300	Yes
6425511	VSM490D025Z03A25XN10L170	25	25	170	43	10,0	3	34300	Yes
6425510	VSM490D025Z04A25XN10L100	25	25	100	43	10,0	4	34300	Yes
6425512	VSM490D025Z04A25XN10L170	25	25	170	43	10,0	4	34300	Yes
6425513	VSM490D028Z04A25XN10L170	28	25	170	32	10,0	4	31800	Yes
6425514	VSM490D032Z04A25XN10L110	32	25	110	32	10,0	4	29200	Yes
6425516	VSM490D032Z04A25XN10L200	32	25	200	32	10,0	4	29200	Yes
6425515	VSM490D032Z05A25XN10L110	32	25	110	32	10,0	5	29200	Yes
6425517	VSM490D032Z05A25XN10L200	32	25	200	32	10,0	5	29200	Yes



order number	catalogue number	D1 (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
VSM490 • Shell Mills									
6425434	VSM490D040Z04S16XN10	40	16	37	40	10,0	4	25400	Yes
6425435	VSM490D040Z06S16XN10	40	16	37	40	10,0	6	25400	Yes
6425436	VSM490D040Z07S16XN10	40	16	37	40	10,0	7	25400	Yes
6425437	VSM490D050Z05S22XN10	50	22	42	40	10,0	5	22300	Yes
6425438	VSM490D050Z07S22XN10	50	22	42	40	10,0	7	22300	Yes
6425439	VSM490D050Z09S22XN10	50	22	42	40	10,0	9	22300	Yes
6425440	VSM490D063Z05S22XN10	63	22	49	40	10,0	5	19500	Yes
6425481	VSM490D063Z07S22XN10	63	22	49	40	10,0	7	19500	Yes
6425482	VSM490D063Z09S22XN10	63	22	49	40	10,0	9	19500	Yes
6425483	VSM490D080Z06S27XN10	80	27	60	50	10,0	6	17100	Yes
6425484	VSM490D080Z08S27XN10	80	27	60	50	10,0	8	17100	Yes
6425485	VSM490D080Z10S27XN10	80	27	60	50	10,0	10	17100	Yes
6425486	VSM490D100Z08S32XN10	100	32	80	50	10,0	8	15200	Yes
6425487	VSM490D100Z12S32XN10	100	32	80	50	10,0	12	15200	Yes
6425488	VSM490D125Z10S40XN10	125	40	90	63	10,0	10	13500	Yes
6425489	VSM490D125Z14S40XN10	125	40	90	63	10,0	14	13500	Yes



order number	catalogue number	grade	cutting edges	LI (mm)	S (mm)	W (mm)	BS (mm)	Re (mm)	hm (mm)
XNGU-ALP									
6425382	XNGU100404ERALP	WN25PM	4	11,66	4,83	6,60	1,37	0,40	0,02
6425411	XNGU100408ERALP	WN25PM	4	11,66	4,83	6,60	1,00	0,80	0,02
XNGU-ML									
6425414	XNGU100404ERML	WP25PM	4	11,66	4,83	6,60	1,37	0,40	0,02
6425415	XNGU100404ERML	WS40PM	4	11,66	4,83	6,60	1,37	0,40	0,02
6425369	XNGU100408ERML	WP25PM	4	11,66	4,83	6,60	1,00	0,80	0,02
6425370	XNGU100408ERML	WS40PM	4	11,66	4,83	6,60	1,00	0,80	0,02
6425421	XNGU100408ERML	WU10PM	4	11,66	4,83	6,60	1,00	0,80	0,02
XNGU-MM									
6425416	XNGU100404SRMM	WP25PM	4	11,66	4,83	6,60	1,37	0,40	0,08
6425417	XNGU100404SRMM	WS40PM	4	11,66	4,83	6,60	1,37	0,40	0,08
6425422	XNGU100408SRMM	WP25PM	4	11,66	4,83	6,60	1,00	0,80	0,08
6425423	XNGU100408SRMM	WS40PM	4	11,66	4,83	6,60	1,00	0,80	0,08
6425424	XNGU100408SRMM	WU10PM	4	11,66	4,83	6,60	1,00	0,80	0,08
XNGU-MH									
6425359	XNGU100408SRMH	WK15CM	4	11,66	4,83	6,60	0,90	0,80	0,08
6425356	XNGU100408SRMH	WP25PM	4	11,66	4,83	6,60	0,90	0,80	0,08
6425360	XNGU100408SRMH	WP35CM	4	11,66	4,83	6,60	0,90	0,80	0,08
6425357	XNGU100408SRMH	WP40PM	4	11,66	4,83	6,60	0,90	0,80	0,08
XNPU-ML									
6425366	XNPU100408ERML	WK15PM	4	11,60	4,83	6,60	0,90	0,80	0,02
6425367	XNPU100408ERML	WP25PM	4	11,60	4,83	6,60	0,90	0,80	0,02
6425368	XNPU100408ERML	WS40PM	4	11,60	4,83	6,60	0,90	0,80	0,02
XNPU-MM									
6425364	XNPU100408SRMM	WK15CM	4	11,60	4,83	6,60	0,90	0,80	0,08
6425270	XNPU100408SRMM	WK15PM	4	11,60	4,83	6,60	0,90	0,80	0,08
6425361	XNPU100408SRMM	WP25PM	4	11,60	4,83	6,60	0,90	0,80	0,08
6425365	XNPU100408SRMM	WP35CM	4	11,60	4,83	6,60	0,90	0,80	0,08
6425363	XNPU100408SRMM	WP40PM	4	11,60	4,83	6,60	0,90	0,80	0,08
6425362	XNPU100408SRMM	WS40PM	4	11,60	4,83	6,60	0,90	0,80	0,08
6425355	XNPU100412SRMM	WK15CM	4	11,61	4,83	6,60	0,50	1,20	0,08
6425352	XNPU100412SRMM	WP25PM	4	11,61	4,83	6,60	0,50	1,20	0,08
6425354	XNPU100412SRMM	WP40PM	4	11,61	4,83	6,60	0,50	1,20	0,08
6425353	XNPU100412SRMM	WS40PM	4	11,61	4,83	6,60	0,50	1,20	0,08
6425267	XNPU100416SRMM	WP25PM	4	11,61	4,83	6,60	0,10	1,60	0,08
6425269	XNPU100416SRMM	WP40PM	4	11,61	4,83	6,60	0,10	1,60	0,08
6425268	XNPU100416SRMM	WS40PM	4	11,61	4,83	6,60	0,10	1,60	0,08

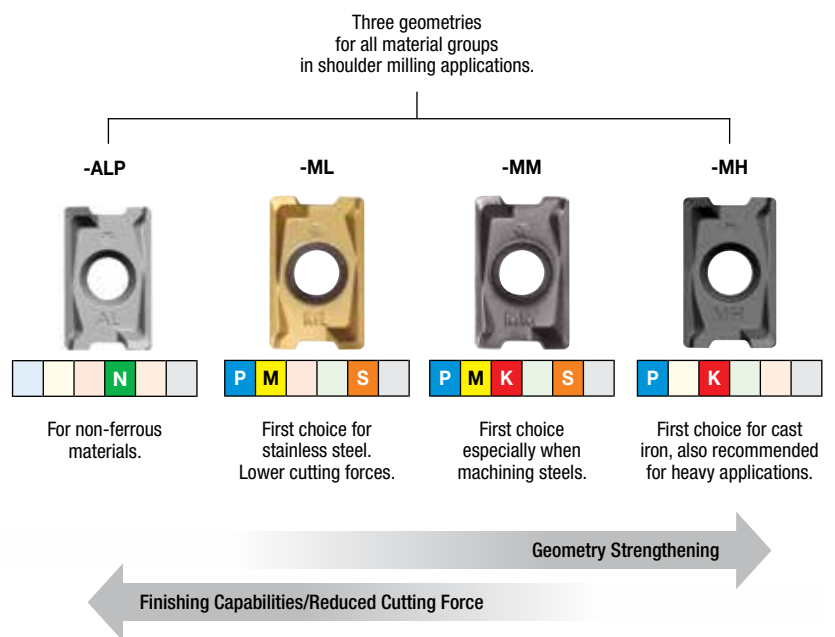
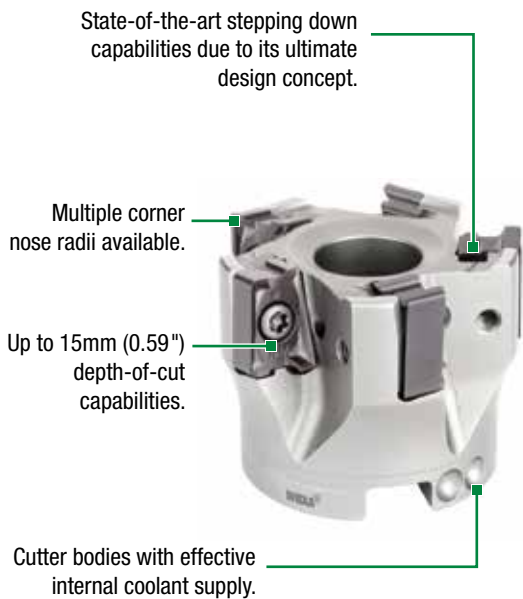
Double-Sided Shoulder Mill •
VSM490™ -15

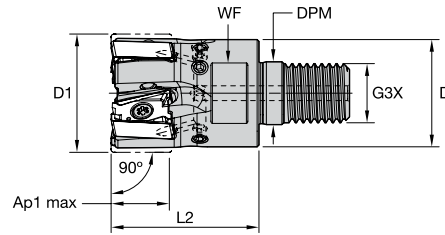
VSM490-15



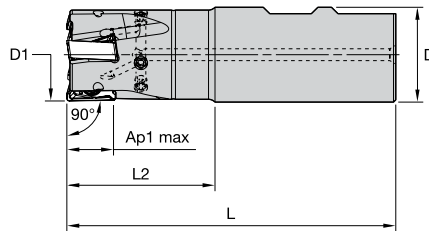
WIDIA™ Victory™ Shoulder Milling Series (VSM series) is specially engineered to achieve excellent surface quality as well as higher material removal rates in shoulder milling applications. The VSM490 series, with its unique design, enables the tool to be applied in multiple passes (stepping down) with outstanding results. VSM490-15 is applicable in a wide range of workpiece materials: steel, cast iron, stainless steel, and titanium, from roughing to finishing applications.

- Double-sided strong insert with 4 cutting edges.
- High positive geometry for lower cutting forces.
- Superior wall and surface finish capabilities.

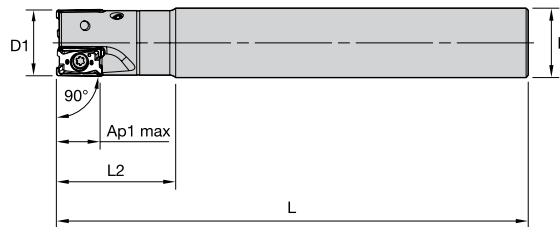




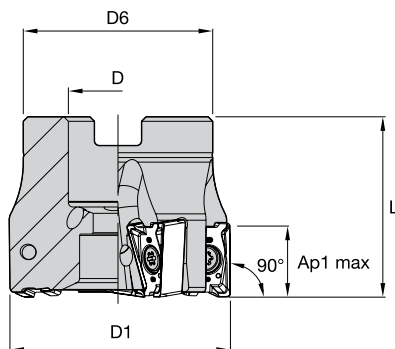
order number	catalogue number	D1 (mm)	D (mm)	DPM (mm)	G3X	L2 (mm)	WF (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
VSM490 • Screw-On End Mills											
5873211	VSM490D025Z02M12XN15	25	21	13	M12	32	17	15,0	2	26700	Yes
5873212	VSM490D032Z03M16XN15	32	29	17	M16	40	24	15,0	3	22000	Yes
5873213	VSM490D032Z04M16XN15	32	29	17	M16	40	24	15,0	4	22000	Yes
5873214	VSM490D035Z04M16XN15	35	29	17	M16	40	24	15,0	4	20600	Yes



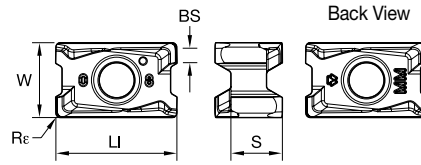
order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
VSM490 • Weldon® End Mills									
5710285	VSM490D025Z02B25XN15	25	25	89	32	15,0	2	26700	Yes
5710286	VSM490D032Z03B32XN15	32	32	111	50	15,0	3	22000	Yes
5873215	VSM490D040Z03B32XN15	40	32	111	50	15,0	3	18800	Yes



order number	catalogue number	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
VSM490 • Cylindrical End Mills									
5873216	VSM490D025Z02A25XN15L100	25	25	100	43	15,0	2	26700	Yes
5710287	VSM490D025Z02A25XN15L170	25	25	170	43	15,0	2	26700	Yes
5873217	VSM490D032Z03A32XN15L110	32	32	110	49	15,0	3	22000	Yes
5873218	VSM490D032Z04A32XN15L110	32	32	110	49	15,0	4	22000	Yes
5710288	VSM490D032Z03A32XN15L200	32	32	200	50	15,0	3	22000	Yes
5873219	VSM490D032Z04A32XN15L200	32	32	200	50	15,0	4	22000	Yes



order number	catalogue number	D1 (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max RPM	coolant supply
VSM490 - Shell Mill									
5710289	VSM490D040Z04S16XN15	40	16	37	40	15,0	4	18800	Yes
5710520	VSM490D040Z05S16XN15	40	16	37	40	15,0	5	18800	Yes
5873221	VSM490D050Z04S22XN15	50	22	42	40	15,0	4	16300	Yes
5710521	VSM490D050Z05S22XN15	50	22	42	40	15,0	5	16300	Yes
5710522	VSM490D050Z06S22XN15	50	22	42	40	15,0	6	16300	Yes
5873222	VSM490D063Z05S22XN15	63	22	50	40	15,0	5	14200	Yes
5710523	VSM490D063Z06S22XN15	63	22	50	40	15,0	6	14200	Yes
5710524	VSM490D063Z07S22XN15	63	22	50	40	15,0	7	14200	Yes
5873223	VSM490D080Z05S27XN15	80	27	60	50	15,0	5	12300	Yes
5873224	VSM490D080Z09S27XN15	80	27	60	50	15,0	9	12300	Yes
5710525	VSM490D080Z07S27XN15	80	27	60	50	15,0	7	12300	Yes
5710526	VSM490D100Z08S32XN15	100	32	80	50	15,0	8	10900	Yes
5873225	VSM490D100Z11S32XN15	100	32	80	50	15,0	11	10900	Yes
5873226	VSM490D125Z09S40XN15	125	40	90	63	15,0	9	9600	Yes
5873227	VSM490D125Z12S40XN15	125	40	90	63	15,0	12	9600	Yes
5873228	VSM490D160Z12S40XN15	160	40	110	63	15,0	12	8400	Yes



order number	catalogue number	grade	cutting edges	LI (mm)	S (mm)	W (mm)	BS (mm)	Rε (mm)	hm (mm)
XNGU-ALP • Aluminium Machining									
6082644	XNGU15T604ERALP	WN25PM	4	16,20	6,88	10,00	2,20	0,40	0,03
6082645	XNGU15T608ERALP	WN25PM	4	16,20	6,88	10,00	1,80	0,80	0,03
XNPU-ML • Precision Finishing									
5890821	XNGU15T604ERML	WP25PM	4	16,20	6,88	10,00	2,20	0,40	0,08
5890822	XNGU15T604ERML	WP40PM	4	16,20	6,88	10,00	2,20	0,40	0,08
5890823	XNGU15T604ERML	WU35PM	4	16,20	6,88	10,00	2,20	0,40	0,08
6180323	XNGU15T604ERML	WS40PM	4	16,20	6,88	10,00	2,20	0,40	0,08
5873481	XNGU15T608ERML	WP25PM	4	16,20	6,88	10,00	1,80	0,80	0,08
5873482	XNGU15T608ERML	WP40PM	4	16,20	6,88	10,00	1,80	0,80	0,08
5873483	XNGU15T608ERML	WU35PM	4	16,20	6,88	10,00	1,80	0,80	0,08
6180324	XNGU15T608ERML	WS40PM	4	16,20	6,88	10,00	1,80	0,80	0,08
XNGU-MM • Precision Finishing									
6242521	XNGU15T604SRMM	WK15PM	4	16,20	6,88	10,00	2,20	0,40	0,10
5949204	XNGU15T604SRMM	WP25PM	4	16,20	6,88	10,00	2,20	0,40	0,10
5949205	XNGU15T604SRMM	WP40PM	4	16,20	6,88	10,00	2,20	0,40	0,10
5949206	XNGU15T604SRMM	WU35PM	4	16,20	6,88	10,00	2,20	0,40	0,10
6242522	XNGU15T608SRMM	WK15PM	4	16,20	6,88	10,00	1,90	0,80	0,10
5710527	XNGU15T608SRMM	WP25PM	4	16,20	6,88	10,00	1,90	0,80	0,10
5710528	XNGU15T608SRMM	WP40PM	4	16,20	6,88	10,00	1,90	0,80	0,10
5710529	XNGU15T608SRMM	WU35PM	4	16,20	6,88	10,00	1,90	0,80	0,10
XNPU-ML • Utility Roughing									
5883097	XNPU15T608ERML	WP25PM	4	16,10	6,88	10,00	1,90	0,80	0,08
5883098	XNPU15T608ERML	WP40PM	4	16,10	6,88	10,00	1,90	0,80	0,08
5883099	XNPU15T608ERML	WU35PM	4	16,10	6,88	10,00	1,90	0,80	0,08
XNPU-MM • Utility Roughing									
5873420	XNPU15T608SRMM	WK15CM	4	16,10	6,88	10,00	1,90	0,80	0,10
5873419	XNPU15T608SRMM	WK15PM	4	16,10	6,88	10,00	1,90	0,80	0,10
5873415	XNPU15T608SRMM	WP25PM	4	16,10	6,88	10,00	1,90	0,80	0,10
5873418	XNPU15T608SRMM	WP35CM	4	16,10	6,88	10,00	1,90	0,80	0,10
5873416	XNPU15T608SRMM	WP40PM	4	16,10	6,88	10,00	1,90	0,80	0,10
5873417	XNPU15T608SRMM	WU35PM	4	16,10	6,88	10,00	1,90	0,80	0,10
6180320	XNPU15T608SRMM	WS40PM	4	16,10	6,88	10,00	1,90	0,80	0,10
5890763	XNPU15T612SRMM	WK15CM	4	16,10	6,88	10,00	1,50	1,20	0,10
5890762	XNPU15T612SRMM	WK15PM	4	16,10	6,88	10,00	1,50	1,20	0,10
5890728	XNPU15T612SRMM	WP25PM	4	16,10	6,88	10,00	1,50	1,20	0,10
5890761	XNPU15T612SRMM	WP35CM	4	16,10	6,88	10,00	1,50	1,20	0,10
5890729	XNPU15T612SRMM	WP40PM	4	16,10	6,88	10,00	1,50	1,20	0,10
5890730	XNPU15T612SRMM	WU35PM	4	16,10	6,88	10,00	1,50	1,20	0,10
6180321	XNPU15T612SRMM	WS40PM	4	16,10	6,88	10,00	1,50	1,20	0,10
5883522	XNPU15T616SRMM	WK15CM	4	16,10	6,88	10,00	1,10	1,60	0,10
5883521	XNPU15T616SRMM	WK15PM	4	16,10	6,88	10,00	1,10	1,60	0,10
5883447	XNPU15T616SRMM	WP25PM	4	16,10	6,88	10,00	1,10	1,60	0,10
5883450	XNPU15T616SRMM	WP35CM	4	16,10	6,88	10,00	1,10	1,60	0,10
5883448	XNPU15T616SRMM	WP40PM	4	16,10	6,88	10,00	1,10	1,60	0,10
5883449	XNPU15T616SRMM	WU35PM	4	16,10	6,88	10,00	1,10	1,60	0,10
6180322	XNPU15T616SRMM	WS40PM	4	16,10	6,88	10,00	1,10	1,60	0,10
XNGU-MH • Utility Roughing									
6003725	XNGU15T608SRMH	WK15CM	4	16,20	6,88	10,00	1,80	0,80	0,10
6003724	XNGU15T608SRMH	WK15PM	4	16,20	6,88	10,00	1,80	0,80	0,10
6003570	XNGU15T608SRMH	WP25PM	4	16,20	6,88	10,00	1,80	0,80	0,10
6003723	XNGU15T608SRMH	WP35CM	4	16,20	6,88	10,00	1,80	0,80	0,10
6003721	XNGU15T608SRMH	WP40PM	4	16,20	6,88	10,00	1,80	0,80	0,10
6003722	XNGU15T608SRMH	WU35PM	4	16,20	6,88	10,00	1,80	0,80	0,10



VHSC

- Developed specifically to achieve true HSC cutting of aluminium components up to 3000 m/min.
- Latest cutter body technology allows for heavy feeding and ramping.
- Flutes and internal coolant channels engineered to support improved chip evacuation.
- Best-in-class solution for thin-walled machining.
- Productivity booster up to 8600 cm³/min MRR.

High-Speed Cutting Inserts XDET-ALP



Sharp cutting edge "F" preparation for roughing and finishing jobs.



Honed cutting edge "E" preparation for heavy roughing jobs and demanding castings.

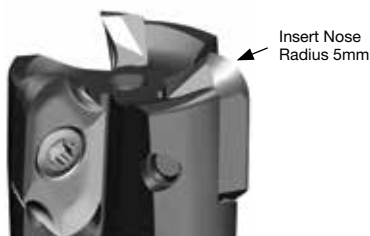
- First choice for non-ferrous materials.
- Super-positive ALP geometry with polished rake to reduce built-up edge.
- Wear-resistant micro-grain carbide grade.
- Precision periphery ground.

Finishing Capabilities/Lower Cutting Forces

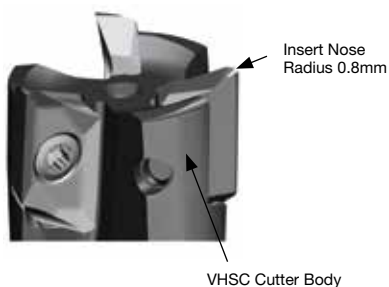
Geometry Strengthening

User-friendly Setup Makes a Big Difference

Large Corner Radius

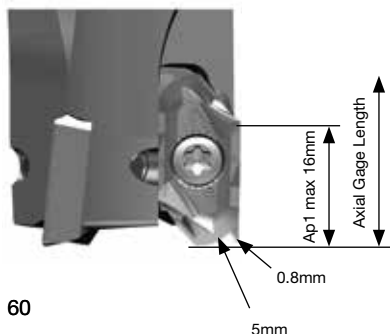


Small Corner Radius

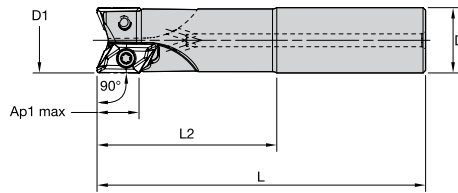


- Unique feature has a great impact on significant cost savings.
- Only one cutter body needed to load inserts with corner nose radii from R0.4 to R6.0 max.
- All other suppliers require modification and rebalance of the cutter body.

Insert Overlay



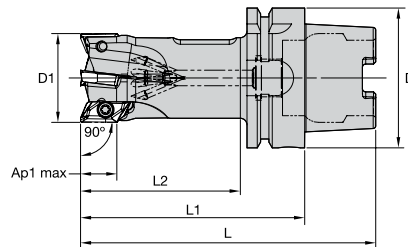
- Axial gage length on the cutter body will always be the same, no matter which insert nose radius is applied.
- Preferred by CNC programmers and operators.
- Ap1 max will always remain 16mm, no matter which insert nose radius is applied.



■ High-Speed Cutting Cylindrical End Mills

order number	catalogue number	D1	D	L	L2	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg
6425258	VHSC025Z02A25XD16	25	25	131	75	16	2	14.7°	50000	Yes	0,39

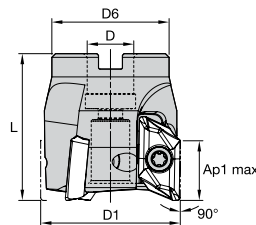
NOTE: Pre-balanced to G6.3/30000 RPM.



■ High-Speed Cutting Monoblocks • HSK63A

order number	catalogue number	D1	D	L	L1	L2	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg
6425451	VHSC040Z04HSK63XD16	40	63	133	101	75	16	4	7.8°	35000	Yes	1,09
6425453	VHSC050Z04HSK63XD16	50	63	133	101	75	15	4	7.8°	30000	Yes	1,41

NOTE: Pre-Balanced G6.3/30000 RPM.



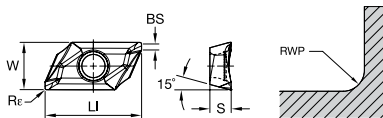
■ High-Speed Cutting Shell Mills

order number	catalogue number	D1	D	D6	L	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg
6425291	VHSC040Z03S16XD16	40	16	32	45	16	3	7.6°	35000	Yes	0,20
6425292	VHSC050Z04S22XD16	50	22	45	45	16	4	7.8°	30000	Yes	0,31
6425293	VHSC063Z04S22XD16	63	22	50	45	16	4	5.9°	26000	Yes	0,55

■ Spare Parts

D1	insert screw	Nm	Torx driver
25 - 80	DP5009A	6,1	DT20IP

NOTE: It is important to change the screw each time the insert is changed to ensure the highest security. A dynamometric key and the correct insert screw torque value are key for HSC applications. Adjustable torque wrench (order number 6197561) and Torx Plus 20 bit (order number 6205891) may be purchased separately.



- first choice
- alternate choice

P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey

■ High-Speed Cutting Inserts XDET-ALP

Order number	catalogue number	grade	cutting edges	LI (mm)	S (mm)	W (mm)	BS (mm)	R _r (mm)	RWP* (mm)	hm (mm)
6425772	XDET16M5PDFRALP	WN10HM	2	22,92	5,00	11,25	1,42	0,30	0,30	0,02
6425773	XDET16M504FRALP	WN10HM	2	23,02	5,00	11,25	1,27	0,40	0,40	0,02
6425774	XDET16M508FRALP	WN10HM	2	23,02	5,00	11,25	0,87	0,80	0,80	0,02
6425775	XDET16M520FRALP	WN10HM	2	23,02	5,00	11,25	0,58	2,10	2,00	0,02
6425776	XDET16M530ERALP	WN10HM	2	23,02	5,00	11,25	0,48	3,10	3,00	0,03
6425777	XDET16M530FRALP	WN10HM	2	23,02	5,00	11,25	0,48	3,10	3,00	0,02

NOTE: RWP* = Resultant workpiece radius.

■ Insert Selection Guide

Material Group	Light Machining		General Purpose		Heavy Machining	
	Geometry	Grade	Geometry	Grade	Geometry	Grade
N1-N2	.F..ALP	WN10HM	.F..ALP	WN10HM	.E..ALP	WN10HM
N3	.F..ALP	WN10HM	.F..ALP	WN10HM	.E..ALP	WN10HM

■ Recommended Starting Speeds For Wet Machining [m/min]

Material Group	WN10HM		
	1	2	3
N	2950	1800	875
	2950	1800	875
	1600	850	480

NOTE: FIRST choice starting speeds are in **bold** type.
As the average chip thickness increases, the speed should be decreased.

Indexable Milling

■ **Recommended Starting Feeds [mm]**

Light Machining	General Purpose	Heavy Machining
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Insert Geometry	Programmed Feed per Tooth (fz) as a % of Radial Depth of Cut (ae)															Insert Geometry
	5%			10%			20%			30%			40-100%			
.F..ALP	0,12	0,45	0,81	0,08	0,33	0,58	0,06	0,25	0,43	0,06	0,21	0,38	0,05	0,20	0,35	.F..ALP
.E..ALP	0,15	0,50	0,92	0,11	0,36	0,66	0,08	0,27	0,50	0,07	0,24	0,43	0,07	0,22	0,40	.E..ALP

NOTE: Use "Light Machining" values as starting feed rate.

Recommendations for High Speed Machining at 8000 RPM or above

- Check spindle condition:
 - Runout
 - Clamping of the attachment in traction
 - Marking and cleanliness
- Check that the tool is suitable for the required use.
- Inserts must be locked positively in the pocket and secured using the torx screw provided. The screw must be torqued to the correct value as indicated in the charts on the product pages.
- Because of heavy force to the screw, it is important to change the screw when changing the insert.
- Check the balancing of the assembled tool: cutter body, inserts, and attachment.
- Before start up, note the maximum RPM engraved on the tool. The maximum RPM is linked to a precise balancing value.
- Ensure that the field of application of the tool shown in our technical documents and technological parameters is observed:
 - Ae (mm) Width of cut, lateral engagement (radial)
 - ap (mm) Axial depth of cut
 - fz (mm/tooth) mm per tooth
 - n (RPM) Revolutions per minute



WIDIA™ cannot accept responsibility for misuse of this product due to:

- Non-observance of the above instructions
- Machine without casing
- Incorrect clamping of workpieces
- No safety device on the machine
- Any misuse or incorrect clamping

The optimum rotation must be determined by condition of the spindle. The spindle must be rigid to run at these higher RPMs.

Under no circumstances must any attempt be made to repair this tool. The only permitted maintenance is the indexing or replacement of the inserts.

When assembling the cutter to a Shrink Fit holder, the maximum protrusion cannot exceed 10% of the reach of tool.

Balancing:

- Cylindrical shank and HSK63A integral shanks are designed and balanced to G6.3 at 30000 RPM for diameters up to 50mm.
- Cylindrical shank tools mounted in a Shrink Fit holder or any other chuck mill holder + inserts + screws must be re-inspected for balance as an assembly by the end-user when at or exceeding 8000 RPM. End-user must balance the assembly at a G6.3 at 30000 RPM maximum.
- Shell mills are not balanced. These tools must be re-inspected for balance as an assembly, cutter + inserts + screws by the end-user for high speed machining at 8000 RPM or above. End-user must balance the assembly at a G6.3 value minimum.
- Balancing requires removing some material by drilling or milling operations.
- For each new shell mill installed on the same toolholder, re-balance the assembly.

Tighten the bolt between the shell mill and toolholder; with lubricant, apply the torque value of:

Thread sizes (mm)	Cutter Bore Size (mm)	Torque Values Nm
M6	13	10
M8	16	30
M10	22	50
M12	27	80
M16	32	110
M20	40	120

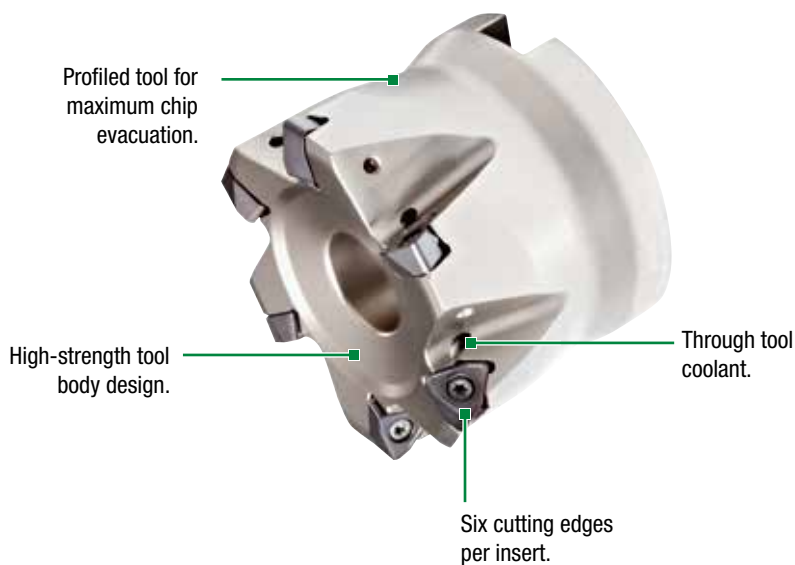
High-Feed Applications •
M370™ Series

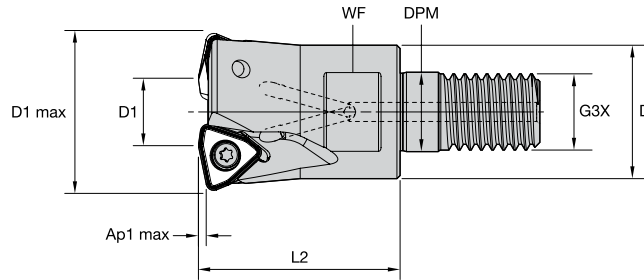
M370



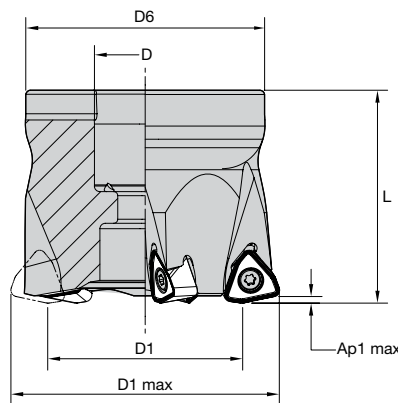
Designed for high feed rate productivity, M370 Series provides the latest insert technology with outstanding performance and reliability. Its double-sided concept and six cutting edges provide security and optimal metal removal with an efficient cost per edge.

- Double-sided design offers six cutting edges per insert.
- Extremely high metal removal rates.
- First choice for high-feed roughing applications.

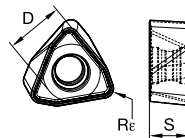




order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	DPM (mm)	G3X	L2 (mm)	WF (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M370 • IC08 • Screw-On End Mills													
4056186	M370D025Z02M12WO08	25	11	21	12,5	M12	35	17	1,3	2	2.1	46000	Yes
4170918	M370D025Z03M12WO08	25	11	21	12,5	M12	35	17	1,3	3	2.1	46000	Yes
4056187	M370D032Z04M16WO08	32	18	29	17,0	M16	43	24	1,3	4	1.4	38700	Yes
4056188	M370D042Z05M16WO08	42	28	29	17,0	M16	43	24	1,3	5	1.0	32500	Yes



order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M370 • IC08 • Shell Mills											
4056193	M370D040Z04WO08	40	26	16	37	40	1,3	4	1.1	33500	Yes
4170922	M370D040Z05WO08	40	26	16	37	40	1,3	5	1.1	33500	Yes
4008276	M370D050Z05WO08	50	36	22	44	40	1,3	5	0.8	29200	Yes
4171223	M370D050Z06WO08	50	36	22	44	40	1,3	6	0.8	29200	Yes
4056194	M370D052Z05WO08	52	38	22	44	50	1,3	5	0.5	28600	Yes
4171224	M370D052Z06WO08	52	38	22	44	50	1,3	6	0.8	28600	Yes
4056195	M370D063Z06WO08	63	49	22	60	50	1,3	6	0.7	25500	Yes
4008277	M370D066Z06WO08	66	52	27	60	50	1,3	6	0.6	24900	Yes
4171225	M370D080Z07WO08	80	66	27	60	50	1,3	7	0.5	24900	Yes



order number	catalogue number	grade	cutting edges	D (mm)	S (mm)	Rε (mm)
WOEJ-MM						
4113916	WOEJ080412SRMM	TN7535	6	7,79	4,70	1,22
5520248	WOEJ080412SRMM	WS30PM	6	7,79	4,70	1,22
5544753	WOEJ080412SRMM	WP40PM	6	7,79	4,70	1,22
5564597	WOEJ080412SRMM	WP25PM	6	7,79	4,70	1,22
6333665	WOEJ080412SRMM	WS40PM	6	7,79	4,70	1,22
WOEJ-MH						
4068517	WOEJ080412SRMH	TN7535	6	7,79	4,75	1,22
5427443	WOEJ080412SRMH	WK15CM	6	7,79	4,75	1,22
5544752	WOEJ080412SRMH	WP40PM	6	7,79	4,75	1,22
5564596	WOEJ080412SRMH	WP25PM	6	7,79	4,75	1,22
6333664	WOEJ080412SRMH	WS40PM	6	7,79	4,75	1,22

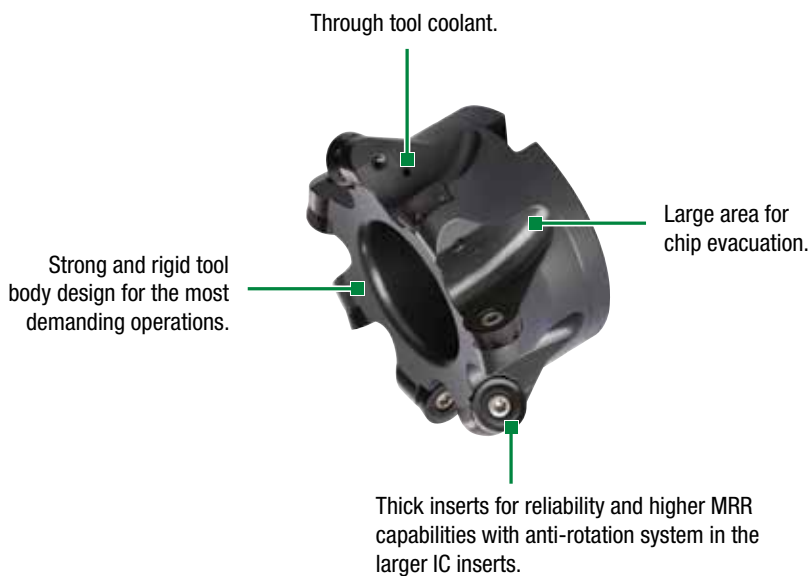
Versatile Platform for All Materials and Applications •
M100™ Series Copy Mills

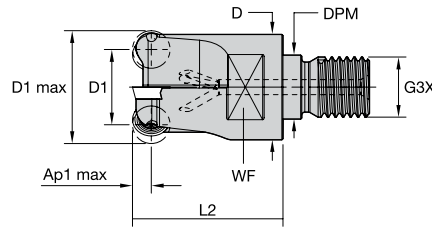


M100

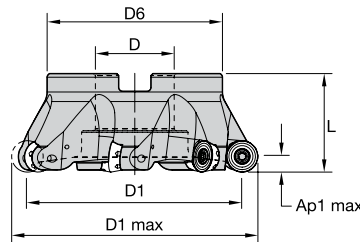
A trusted multipurpose solution for profiling and copy applications, the M100 Series ensures a reliable platform for all of your copy milling, face milling, helical interpolation, and roughing needs. The strong and rigid body design ensures superior results in even the most demanding operations.

- Thick inserts ensure reliability and consistent results.
- Anti-rotation systems in larger IC inserts provide higher MRR capabilities.
- Increased chip evacuation and through tool coolant for enhanced performance.

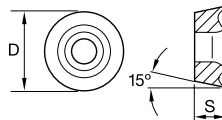




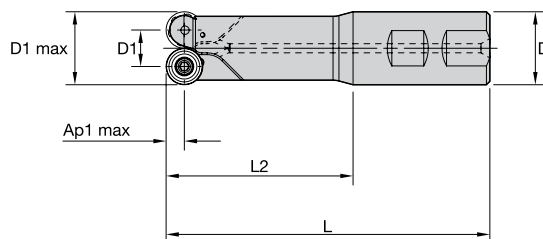
order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	DPM (mm)	G3X	L (mm)	L2 (mm)	WF (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M100 Series • IC12 • Screw-On End Mills														
2021374	12391050200	24	12	22	12,5	M12	52	30	19	6,0	2	10.0	23000	Yes
2021378	12391051000	35	23	28	17,0	M16	63	40	22	6,0	3	10.8	19000	Yes
2021379	12391051200	40	28	28	17,0	M16	63	40	22	6,0	4	8.3	17000	Yes



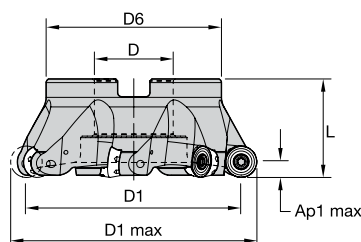
order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M100 Series • IC12 • Shell Mills											
2021342	12391020000	50	38	22	40	40	6,0	4	6.8	15000	Yes
2021361	12391024000	52	40	22	40	40	6,0	4	6.5	15000	Yes
2021343	12391020200	63	51	27	48	40	6,0	5	4.5	14000	Yes
2021344	12391020400	80	68	27	60	50	6,0	6	3.5	12000	Yes
2021345	12391020600	100	88	32	78	50	6,0	6	2.5	11000	No



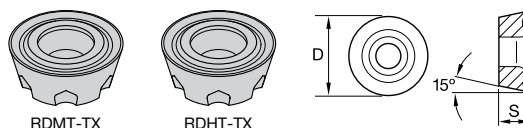
order number	catalogue number	grade	number of indexes	D (mm)	S (mm)	hm (mm)
RDHT-TX						
2020775	RDHT1204M0TX	TN7525	6	12,00	4,76	0,12
RDHW-MH						
2012484	RDHW1204M0MH	TN2510	6	12,00	4,76	0,14
RDPT-MMX						
5176975	RDPT1204M0SMMX	TN7535	6	12,00	4,76	0,18
5176974	RDPT1204M0SMMX	TN6540	6	12,00	4,76	0,18
6412898	RDPT1204M0SMMX4	WS40PM	4	12,00	4,76	-
RDMT-TX						
2109552	RDMT1204M0TX	TN2510	6	12,00	4,76	0,15
2012544	RDMT1204M0TX	THM	6	12,00	4,76	0,15
2020763	RDMT1204M0TX	TN7525	6	12,00	4,76	0,15
2957430	RDMT1204M0TX	TN6525	6	12,00	4,76	0,15
2957432	RDMT1204M0TX	TN6540	6	12,00	4,76	0,15
2109542	RDMT1204M0TX	TN7535	6	12,00	4,76	0,15
5520247	RDMT1204M0TX	WS30PM	6	12,00	4,76	0,15
RDMW-TX						
2109440	RDMW1204M0TX	TN7525	6	12,00	4,76	0,15
2012594	RDMW1204M0TX	TN2510	6	12,00	4,76	0,15
2020741	RDMW1204M0TX	TN7535	6	12,00	4,76	0,15
3353281	RDMW1204M0TX	TN6540	6	12,00	4,76	0,15
5427441	RDMW1204M0TX	WK15CM	6	12,00	4,76	0,15



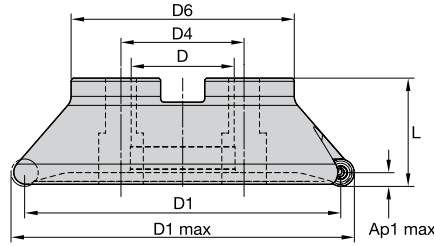
order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	L (mm)	L2 (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M100 Series • Weldon® Shank RD1605..											
2021341	12391013800	32	16	32	142	82	8,0	2	7.8	19000	Yes



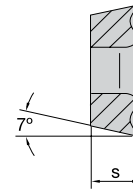
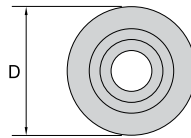
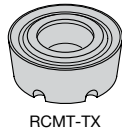
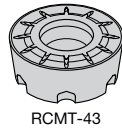
order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M100 Series • Shell Mills RD1605..											
2021347	12391021000	50	34	22	40	40	8,0	4	10.3	13000	Yes
2021348	12391021200	63	47	27	48	40	8,0	4	7.0	12000	Yes
2021349	12391021400	80	64	27	60	50	8,0	5	4.8	10000	Yes



order number	catalogue number	grade	D (mm)	S (mm)	hm (mm)
RDMT-TX					
2020767	RDMT1605M0TX	TN7525	16,00	5,56	0,18
2957533	RDMT1605M0TX	TN6540	16,00	5,56	0,18
2207645	RDMT1605M0TX	TN7535	16,00	5,56	0,18
RDMW-TX					
2020749	RDMW1605M0TX	TN7535	16,00	5,56	0,15
3523083	RDMW1605M0TX	TN6540	16,00	5,56	0,15



order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	D4 (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M100 Series • Shell Mills RC1606..												
2021358	12391023400	50	34	22	-	40	40	8.0	4	6.0	13000	Yes
2021359	12391023600	52	36	22	-	40	40	8.0	4	5.8	13000	Yes
2021357	12391023200	63	47	27	-	48	40	8.0	5	4.0	12000	Yes
2021352	12391022000	80	64	27	-	60	50	8.0	6	2.8	10000	Yes
2021353	12391022200	100	84	32	-	78	50	8.0	7	2.3	9000	No
2021354	12391022400	125	109	40	-	89	50	8.0	8	1.8	8000	No
2021355	12391022600	160	144	40	67	90	63	8.0	9	1.3	7000	No



order number	catalogue number	grade	D (mm)	S (mm)	hm (mm)
RCMT-43					
2067140	RCMT1606M043M	TN7535	16,00	6,35	0,20
2020771	RCMT1606M043M	TN7525	16,00	6,35	0,20
2957537	RCMT1606M043M	TN6540	16,00	6,35	0,20
RCMT-TX					
2012416	RCMT1606M0TX	TN2510	16,00	6,35	0,24
2012418	RCMT1606M0TX	TN7525	16,00	6,35	0,24
2020781	RCMT1606M0TX	TN7535	16,00	6,35	0,24
2957427	RCMT1606M0TX	TN6540	16,00	6,35	0,24
2957535	RCMT1606M0TX	TN6525	16,00	6,35	0,24
5427442	RCMT1606M0TX	WK15CM	16,00	6,35	0,24

Double-Sided Round Insert •

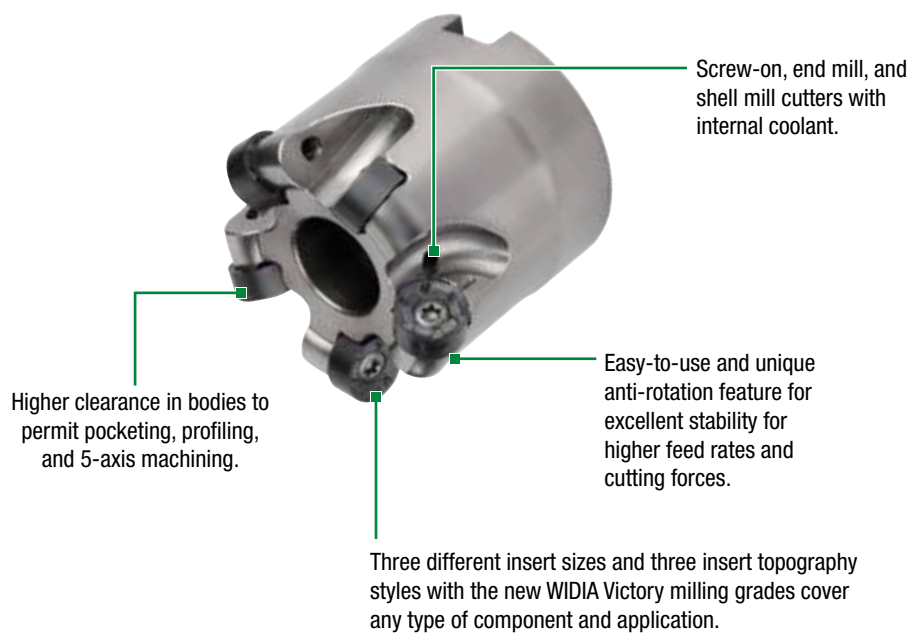
M200™ Series

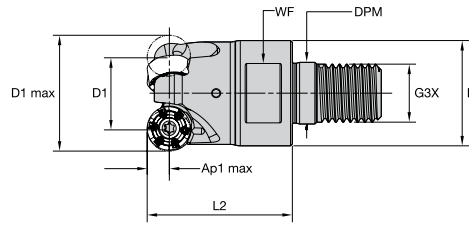
Revolutionary double-sided round insert, capable of running in multiple types of milling operations and workpiece materials, increases customers' productivity with the most efficient cost per edge.

M200

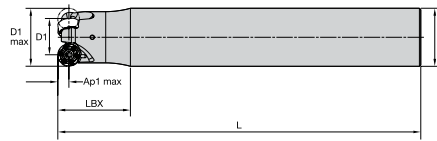


- Up to 12 cutting edges per insert.
- Effective anti-rotation feature.
- Able to apply in all type of materials and milling applications.
- Latest WIDIA™ Victory™ grades offered.

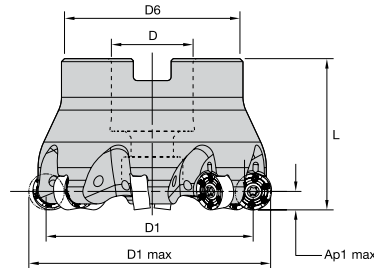




order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	DPM (mm)	G3X	L2 (mm)	WF (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M200 Series • IC12 • Screw-On End Mills													
4147560	M200D32Z03M16RN12	32	20	29	17,0	M16	40	24	3,0	3	0.5	39160	Yes
4147561	M200D35Z03M16RN12	35	23	29	17,0	M16	40	24	3,0	3	0.4	37440	Yes

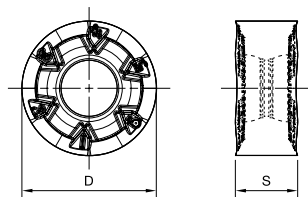


order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	L (mm)	LBX	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M200 Series • Cylindrical End Mills											
4147566	M200D32Z03A32RN12L200	32	20	32	200	40	3,0	3	0.5	39160	Yes



order number	catalogue number	D1 max (mm)	D1 (mm)	D (mm)	D6 (mm)	L (mm)	Ap1 max (mm)	Z	max ramp angle	max RPM	coolant supply
M200 Series • Shell Mills											
4147568	M200D40Z04RN12	40	28	16	38	40	3,0	4	0.4	35020	Yes
4147569	M200D50Z04RN12	50	38	22	42	40	3,0	4	0.5	31330	Yes
4147570	M200D50Z05RN12	50	38	22	42	40	3,0	5	0.3	31330	Yes
4147571	M200D52Z05RN12	52	40	22	49	50	3,0	5	0.5	30720	Yes
4147572	M200D63Z05RN12	63	51	22	49	50	3,0	5	0.5	27910	Yes
4147573	M200D63Z07RN12	63	51	22	49	50	3,0	7	0.3	27910	Yes
4147574	M200D66Z07RN12	66	54	27	60	50	3,0	7	0.3	27260	Yes
4147575	M200D80Z06RN12	80	68	27	60	50	3,0	6	0.5	24760	Yes
4147576	M200D80Z08RN12	80	68	27	60	50	3,0	8	0.2	24760	Yes
4147577	M200D100Z07RN12	100	88	32	78	50	3,0	7	0.2	22150	Yes
4147578	M200D100Z09RN12	100	88	32	78	50	3,0	9	0.2	22150	Yes

Indexable Milling



Indexable Milling

order number	catalogue number	grade	number of indexes	D (mm)	S (mm)	hm (mm)
RNGJ-ALP						
6065661	RNGJ1204M0FALP	WN25PM	12	12,00	4,75	0,02
RNGJ-ML						
5123863	RNGJ1204M0EML	WP25PM	12	12,00	4,75	0,04
5520350	RNGJ1204M0EML	WS30PM	12	12,00	4,75	0,04
6408153	RNGJ1204M0EML	WS40PM	12	12,00	4,75	0,04
5123864	RNGJ1204M0EML	WU35PM	12	12,00	4,75	0,04
RNGJ-MM						
5123867	RNGJ1204M0SMM	WP25PM	12	12,00	4,75	0,09
5123869	RNGJ1204M0SMM	WP35CM	12	12,00	4,75	0,09
5520351	RNGJ1204M0SMM	WS30PM	12	12,00	4,75	0,09
5123868	RNGJ1204M0SMM	WU35PM	12	12,00	4,75	0,09
RNGJ-MH						
5123900	RNGJ1204M0SMH	WK15PM	12	12,00	4,75	0,19
5123901	RNGJ1204M0SMH	WP25PM	12	12,00	4,75	0,19
5123903	RNGJ1204M0SMH	WP35CM	12	12,00	4,75	0,19
6408154	RNGJ1204M0SMH	WS40PM	12	12,00	4,75	0,19
5123902	RNGJ1204M0SMH	WU35PM	12	12,00	4,75	0,19
RNPJ-MM						
5276361	RNPJ1204M0SMM	WP25PM	12	12,00	4,75	0,09
5276360	RNPJ1204M0SMM	WP35CM	12	12,00	4,75	0,09
5542329	RNPJ1204M0SMM	WP40PM	12	12,00	4,75	0,09
5476634	RNPJ1204M0SMM	WU35PM	12	12,00	4,75	0,09
6344113	RNPJ1204M0SMM	WS40PM	12	12,00	4,75	0,09
RNPJ-MH						
5276366	RNPJ1204M0SMH	WK15CM	12	12,00	4,75	0,18
5276364	RNPJ1204M0SMH	WP25PM	12	12,00	4,75	0,18
5276363	RNPJ1204M0SMH	WP35CM	12	12,00	4,75	0,18
5542340	RNPJ1204M0SMH	WP40PM	12	12,00	4,75	0,18
5476635	RNPJ1204M0SMH	WU35PM	12	12,00	4,75	0,18

WIDIA™ Victory™



WS40PM

Breakthrough in the latest substrate and coating technology to boost productivity in **stainless steels and high-temp alloys**



Advanced Milling Grade for Titanium

Multilayer PVD AlTiN-TiN Coating

- Improved chemical and abrasive wear resistance.
- Consistent tool life performance.
- Primarily for wet machining. Also great results in dry machining.

New Medium-Grained Substrate

- Minimises tendency for thermal cracking.
- Excellent fatigue resistance and edge strength.
- Rich in cobalt content for improved toughness.

High-Performance Solid Carbide End Mills •
VariMill I™

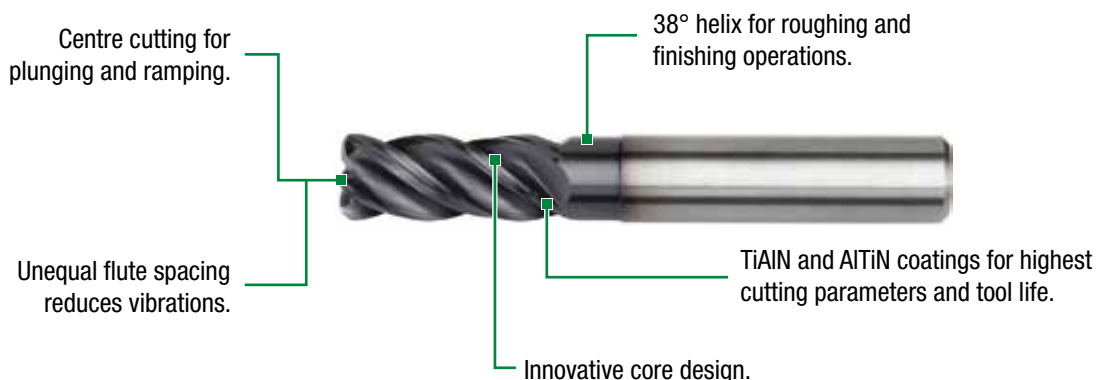
VariMill I

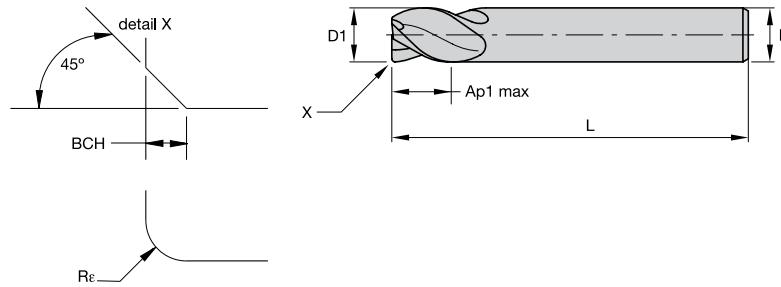


WIDIA HANITA 

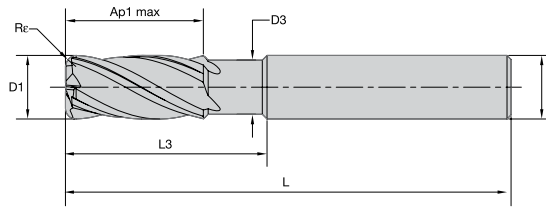
VariMill I offers plunging, slotting, and profiling at the highest possible feed rates for a wide range of materials. They are designed to provide maximum Metal Removal Rates (MRR) and to achieve superior surface conditions. A wide range of diameters and corner configurations, such as chamfer, radii, and sharp edges, are available from stock.

- High-performance universal tools for almost all workpiece materials.
- Roughing and finishing with one tool.
- Various length-of-cut, long reach and necked versions, ball nose, corner chamfer, and corner radius available.

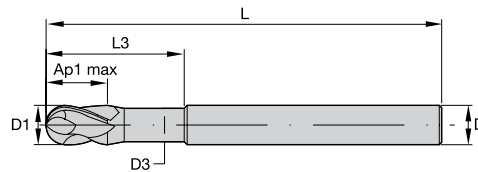




order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	R _c (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 4777 • VariMill I • Victory™ Grades										
5576753	477704001T	WP15PE	4,0	6	12,00	55	0,20	—	4	Straight-Cylindrical
5576751	477704002T	WP15PE	4,0	6	12,00	55	—	0,40	4	Straight-Cylindrical
5576752	477704002W	WP15PE	4,0	6	12,00	55	—	0,40	4	Weldon®
5576754	4777040Z2T	WP15PE	4,0	6	12,00	55	—	—	4	Straight-Cylindrical
5576755	477705002T	WP15PE	5,0	6	13,00	57	—	0,40	4	Straight-Cylindrical
5576756	477705002W	WP15PE	5,0	6	13,00	57	—	0,40	4	Weldon
5576757	477705012T	WP15PE	5,0	6	13,00	57	0,20	—	4	Straight-Cylindrical
5576758	4777050Z2T	WP15PE	5,0	6	13,00	57	—	—	4	Straight-Cylindrical
5576759	477706002T	WP15PE	6,0	6	13,00	57	—	0,40	4	Straight-Cylindrical
5576760	477706002W	WP15PE	6,0	6	13,00	57	—	0,40	4	Weldon
5576761	477706012T	WP15PE	6,0	6	13,00	57	0,20	—	4	Straight-Cylindrical
5576762	4777060Z2T	WP15PE	6,0	6	13,00	57	—	—	4	Straight-Cylindrical
5576763	477707003T	WP15PE	7,0	8	16,00	63	—	0,40	4	Straight-Cylindrical
5576764	477707003W	WP15PE	7,0	8	16,00	63	—	0,40	4	Weldon
5576765	477707013T	WP15PE	7,0	8	16,00	63	0,20	—	4	Straight-Cylindrical
5576766	4777070Z3T	WP15PE	7,0	8	16,00	63	—	—	4	Straight-Cylindrical
5576767	477708003T	WP15PE	8,0	8	16,00	63	—	0,40	4	Straight-Cylindrical
5576768	477708003W	WP15PE	8,0	8	16,00	63	—	0,40	4	Weldon
5576769	477708013T	WP15PE	8,0	8	16,00	63	0,20	—	4	Straight-Cylindrical
5576770	4777080Z3T	WP15PE	8,0	8	16,00	63	—	—	4	Straight-Cylindrical
5576771	477709004T	WP15PE	9,0	10	19,00	72	—	0,50	4	Straight-Cylindrical
5576773	477709014T	WP15PE	9,0	10	19,00	72	0,20	—	4	Straight-Cylindrical
5576774	4777090Z4T	WP15PE	9,0	10	19,00	72	—	—	4	Straight-Cylindrical
5576775	477710004T	WP15PE	10,0	10	22,00	72	—	0,50	4	Straight-Cylindrical
5576776	477710004W	WP15PE	10,0	10	22,00	72	—	0,50	4	Weldon
5576777	477710024T	WP15PE	10,0	10	22,00	72	0,30	—	4	Straight-Cylindrical
5576778	4777100Z4T	WP15PE	10,0	10	22,00	72	—	—	4	Straight-Cylindrical
5576779	4777110Z5T	WP15PE	11,0	12	26,00	83	—	—	4	Straight-Cylindrical
5576790	477712005T	WP15PE	12,0	12	26,00	83	—	0,50	4	Straight-Cylindrical
5576791	477712005W	WP15PE	12,0	12	26,00	83	—	0,50	4	Weldon
5576792	477712025T	WP15PE	12,0	12	26,00	83	0,30	—	4	Straight-Cylindrical
5576793	4777120Z5T	WP15PE	12,0	12	26,00	83	—	—	4	Straight-Cylindrical
5576794	477714015T	WP15PE	14,0	14	26,00	83	—	0,50	4	Straight-Cylindrical
5576795	477714014W	WP15PE	14,0	14	26,00	83	—	0,50	4	Weldon
5576796	477716006T	WP15PE	16,0	16	32,00	92	—	0,50	4	Straight-Cylindrical
5576797	477716006W	WP15PE	16,0	16	32,00	92	—	0,50	4	Weldon
5576798	477716026T	WP15PE	16,0	16	32,00	92	0,30	—	4	Straight-Cylindrical
5576799	4777160Z6T	WP15PE	16,0	16	32,00	92	—	—	4	Straight-Cylindrical
5576810	477718018T	WP15PE	18,0	18	32,00	92	—	0,50	4	Straight-Cylindrical
5576812	477720007T	WP15PE	20,0	20	38,00	104	—	0,50	4	Straight-Cylindrical
5576813	477720007W	WP15PE	20,0	20	38,00	104	—	0,50	4	Weldon
5576814	47772002T	WP15PE	20,0	20	38,00	104	0,30	—	4	Straight-Cylindrical
5576815	4777200Z7T	WP15PE	20,0	20	38,00	104	—	—	4	Straight-Cylindrical
5576816	477725008T	WP15PE	25,0	25	45,00	121	—	0,50	4	Straight-Cylindrical
5576817	477725008W	WP15PE	25,0	25	45,00	121	—	0,50	4	Weldon



order number	catalogue number	grade	D1 (mm)	D (mm)	D3 (mm)	length of cut Ap1 max (mm)	L3 (mm)	L (mm)	Re (mm)	number of flutes	Adaptor Style Machine Side
Series 47N7 • VariMill I • With Neck											
3462457	47N706002LT	TiALN-LT	6,0	6	5,5	13,00	21,00	57	0,50	4	Straight-Cylindrical
3462459	47N706012LT	TiALN-LT	6,0	6	5,5	13,00	21,00	57	1,00	4	Straight-Cylindrical
3462462	47N708003LT	TiALN-LT	8,0	8	7,5	16,00	27,00	63	0,50	4	Straight-Cylindrical
3462464	47N708013LT	TiALN-LT	8,0	8	7,5	16,00	27,00	63	1,00	4	Straight-Cylindrical
3462468	47N710004LT	TiALN-LT	10,0	10	9,5	22,00	32,00	72	0,50	4	Straight-Cylindrical
3462470	47N710014LT	TiALN-LT	10,0	10	9,5	22,00	32,00	72	1,00	4	Straight-Cylindrical
3462473	47N710034LT	TiALN-LT	10,0	10	9,5	22,00	32,00	72	2,00	4	Straight-Cylindrical
3462475	47N712005LT	TiALN-LT	12,0	12	11,5	26,00	38,00	83	0,50	4	Straight-Cylindrical
3462477	47N712015LT	TiALN-LT	12,0	12	11,5	26,00	38,00	83	1,00	4	Straight-Cylindrical
3462480	47N712035LT	TiALN-LT	12,0	12	11,5	26,00	38,00	83	2,00	4	Straight-Cylindrical
3462482	47N712045LT	TiALN-LT	12,0	12	11,5	26,00	38,00	83	4,00	4	Straight-Cylindrical
3462484	47N716006LT	TiALN-LT	16,0	16	15	32,00	44,00	92	1,00	4	Straight-Cylindrical
3462486	47N716016LT	TiALN-LT	16,0	16	15	32,00	44,00	92	2,00	4	Straight-Cylindrical
3462488	47N716026LT	TiALN-LT	16,0	16	15	32,00	44,00	92	4,00	4	Straight-Cylindrical
3462491	47N720007MT	ALTIN-MT	20,0	20	19	38,00	55,00	104	1,00	4	Straight-Cylindrical
3462492	47N720017LT	TiALN-LT	20,0	20	19	38,00	55,00	104	2,00	4	Straight-Cylindrical



order number	catalogue number	grade	D1 (mm)	D (mm)	D3 (mm)	length of cut Ap1 max (mm)	L3 (mm)	L (mm)	number of flutes	Adaptor Style Machine Side	
Series 47N0 • VariMill I • Ball Nose • Victory™ Grades											
5576818	47N005002T	WP15PE	5,0	6	4,70	9,00	15,00	57	4	Straight-Cylindrical	
5576819	47N006002T	WP15PE	6,0	6	5,64	10,00	15,00	57	4	Straight-Cylindrical	
5576820	47N008003T	WP15PE	8,0	8	7,52	12,00	20,00	63	4	Straight-Cylindrical	
5576821	47N010004T	WP15PE	10,0	10	9,4	14,00	25,00	72	4	Straight-Cylindrical	
5576822	47N012005T	WP15PE	12,0	12	11,28	16,00	30,00	83	4	Straight-Cylindrical	
5576823	47N016006T	WP15PE	16,0	16	15,04	22,00	38,00	92	4	Straight-Cylindrical	
5576824	47N020007T	WP15PE	20,0	20	18,80	26,00	50,00	104	4	Straight-Cylindrical	

Good for You, Better for the Environment!

The WIDIA™ Carbide Recycling Programme can turn accumulated scrap carbide tooling in your shop into cash.

Carbide Recycling

We pay cash for used carbide tooling, including coated or non-coated carbide inserts, drills, end mills, reamers, and taps, regardless of brand.

It's good for the environment and a responsible way to dispose of scrap carbide.

Our carbide recycling programme features:

- Easy-to-use web portal that shows what your scrap carbide is worth before sending it to us.
- Online forms that make it easy to ship scrap carbide to WIDIA.
- Green Box™ containers for safe, convenient shipping of scrap carbide to WIDIA.
- Cash payment for used carbide tooling.



For more information, contact your local WIDIA
Authorised Distributor or visit widia.com/services.

WIDIA 

High-Performance Solid Carbide End Mills •

VariMill II™

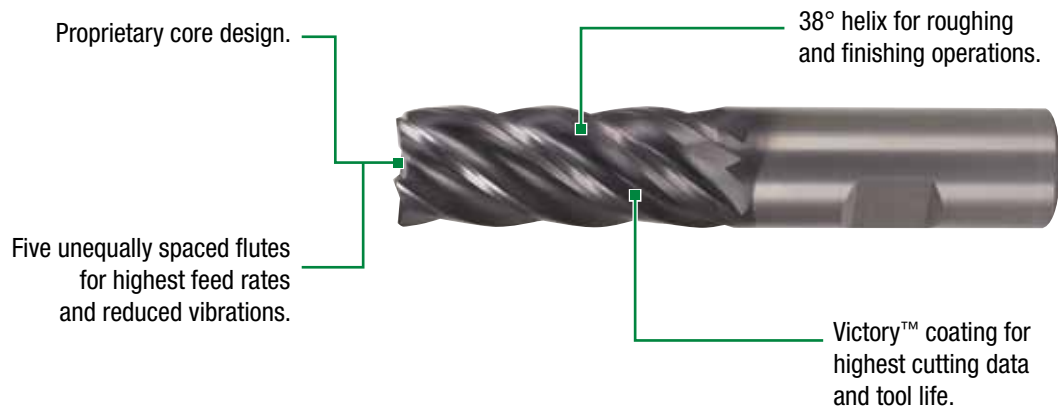
VariMill II



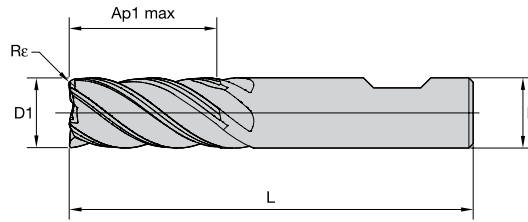
WIDIA HANITA 

VariMill II end mills are the proven leader in the field of high-performance, chatter-free machining. They are designed to provide maximum metal removal rates and to achieve supreme surface conditions. Utilising an innovative and proprietary design with unequal flute spacing, VariMill II carbide end mills provide users with the most versatile technology available, capable of outperforming other high-performance tools.

- 1 x D slotting in titanium and stainless steels with five unequally spaced flutes.
- Roughing and finishing with one tool.
- Various lengths-of-cut; necked and corner radius versions available.

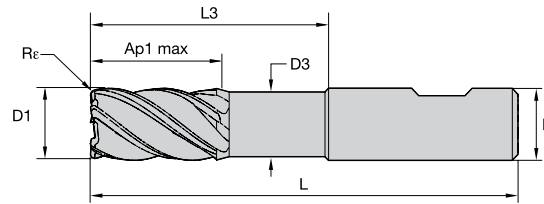


WIDIA
VICTORY



order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	Re (mm)	number of flutes	Adaptor Style Machine Side
Series 577C • VariMill II • With Centre Cut • Victory™ Grades									
5578866	577C04002T	WP15PE	4,0	6	11,00	55	0,25	5	Straight-Cylindrical
5578867	577C04002W	WP15PE	4,0	6	11,00	55	0,25	5	Weldon®
5578868	577C04012T	WP15PE	4,0	6	11,00	55	—	5	Straight-Cylindrical
5578990	577C05002T	WP15PE	5,0	6	13,00	57	0,25	5	Straight-Cylindrical
5578991	577C05002W	WP15PE	5,0	6	13,00	57	0,25	5	Weldon
5578992	577C06002T	WP15PE	6,0	6	13,00	57	0,40	5	Straight-Cylindrical
5578993	577C06002W	WP15PE	6,0	6	13,00	57	0,40	5	Weldon
5578994	577C06012T	WP15PE	6,0	6	13,00	57	—	5	Straight-Cylindrical
5578997	577C08003T	WP15PE	8,0	8	19,00	63	0,50	5	Straight-Cylindrical
5578998	577C08003W	WP15PE	8,0	8	19,00	63	0,50	5	Weldon
5578999	577C08013T	WP15PE	8,0	8	19,00	63	—	5	Straight-Cylindrical
5579023	577C10004T	WP15PE	10,0	10	22,00	72	0,50	5	Straight-Cylindrical
5579024	577C10004W	WP15PE	10,0	10	22,00	72	0,50	5	Weldon
5579025	577C10014T	WP15PE	10,0	10	22,00	72	—	5	Straight-Cylindrical
5579026	577C12005T	WP15PE	12,0	12	26,00	83	0,75	5	Straight-Cylindrical
5579027	577C12005W	WP15PE	12,0	12	26,00	83	0,75	5	Weldon
5579028	577C12015T	WP15PE	12,0	12	26,00	83	—	5	Straight-Cylindrical
5579029	577C14004T	WP15PE	14,0	14	26,00	83	0,75	5	Straight-Cylindrical
5579040	577C14004W	WP15PE	14,0	14	26,00	83	0,75	5	Weldon
5579041	577C14014T	WP15PE	14,0	14	26,00	83	—	5	Straight-Cylindrical
5579042	577C16006T	WP15PE	16,0	16	32,00	92	0,75	5	Straight-Cylindrical
5579043	577C16006W	WP15PE	16,0	16	32,00	92	0,75	5	Weldon
5579044	577C16016T	WP15PE	16,0	16	32,00	92	—	5	Straight-Cylindrical
5579047	577C20007T	WP15PE	20,0	20	38,00	104	0,75	5	Straight-Cylindrical
5579048	577C20007W	WP15PE	20,0	20	38,00	104	0,75	5	Weldon
5579049	577C20017T	WP15PE	20,0	20	38,00	104	—	5	Straight-Cylindrical

Solid End Milling



Solid End Milling

order number	catalogue number	grade	D1 (mm)	D (mm)	D3 (mm)	length of cut Ap1 max (mm)	L3 (mm)	L (mm)	Re (mm)	number of flutes	Adaptor Style Machine Side
Series 57NC • VariMill II • With Neck • With Centre Cut • Victory™ Grades											
5598906	57NC06002T	WS15PE	6,0	6	5,64	13,00	18,00	63	—	5	Straight-Cylindrical
5598907	57NC06022T	WS15PE	6,0	6	5,64	13,00	18,00	63	0,50	5	Straight-Cylindrical
5598909	57NC06032T	WS15PE	6,0	6	5,64	13,00	18,00	63	1,00	5	Straight-Cylindrical
5599071	57NC06042W	WS15PE	6,0	6	5,64	13,00	18,00	63	1,50	5	Weldon
5599072	57NC08003T	WS15PE	8,0	8	7,52	19,00	24,00	76	—	5	Straight-Cylindrical
5599073	57NC08023T	WS15PE	8,0	8	7,52	19,00	24,00	76	0,50	5	Straight-Cylindrical
5599074	57NC08023W	WS15PE	8,0	8	7,52	19,00	24,00	76	0,50	5	Weldon
5599075	57NC08033T	WS15PE	8,0	8	7,52	19,00	24,00	76	1,00	5	Straight-Cylindrical
5599076	57NC08033W	WS15PE	8,0	8	7,52	19,00	24,00	76	1,00	5	Weldon
5599077	57NC08053W	WS15PE	8,0	8	7,52	19,00	24,00	76	2,00	5	Weldon
5599078	57NC10004T	WS15PE	10,0	10	9,4	22,00	30,00	76	—	5	Straight-Cylindrical
5599079	57NC10024T	WS15PE	10,0	10	9,4	22,00	30,00	76	0,50	5	Straight-Cylindrical
5599080	57NC10024W	WS15PE	10,0	10	9,4	22,00	30,00	76	0,50	5	Weldon
5599081	57NC10034T	WS15PE	10,0	10	9,4	22,00	30,00	76	1,00	5	Straight-Cylindrical
5599082	57NC10034W	WS15PE	10,0	10	9,4	22,00	30,00	76	1,00	5	Weldon
5599083	57NC10054T	WS15PE	10,0	10	9,4	22,00	30,00	76	2,00	5	Straight-Cylindrical
5599085	57NC12005T	WS15PE	12,0	12	11,28	26,00	36,00	83	—	5	Straight-Cylindrical
5599086	57NC12025T	WS15PE	12,0	12	11,28	26,00	36,00	83	0,50	5	Straight-Cylindrical
5599087	57NC12025W	WS15PE	12,0	12	11,28	26,00	36,00	83	0,50	5	Weldon
5599088	57NC12035T	WS15PE	12,0	12	11,28	26,00	36,00	83	1,00	5	Straight-Cylindrical
5599090	57NC12055T	WS15PE	12,0	12	11,28	26,00	36,00	83	2,00	5	Straight-Cylindrical
5599091	57NC12055W	WS15PE	12,0	12	11,28	26,00	36,00	83	2,00	5	Weldon
5599092	57NC16006T	WS15PE	16,0	16	15,04	32,00	48,00	100	—	5	Straight-Cylindrical
5599093	57NC16026T	WS15PE	16,0	16	15,04	32,00	48,00	100	0,50	5	Straight-Cylindrical
5598905	57NC16026W	WS15PE	16,0	16	15,04	32,00	48,00	100	0,50	5	Weldon
5599094	57NC16036T	WS15PE	16,0	16	15,04	32,00	48,00	100	1,00	5	Straight-Cylindrical
5599095	57NC16036W	WS15PE	16,0	16	15,04	32,00	48,00	100	1,00	5	Weldon
5599096	57NC16056T	WS15PE	16,0	16	15,04	32,00	48,00	100	2,00	5	Straight-Cylindrical
5599098	57NC16076T	WS15PE	16,0	16	15,04	32,00	48,00	100	3,00	5	Straight-Cylindrical
5599099	57NC16076W	WS15PE	16,0	16	15,04	32,00	48,00	100	3,00	5	Weldon
5599100	57NC20007T	WS15PE	20,0	20	18,8	38,00	60,00	115	—	5	Straight-Cylindrical
5599101	57NC20027T	WS15PE	20,0	20	18,8	38,00	60,00	115	0,50	5	Straight-Cylindrical
5599102	57NC20027W	WS15PE	20,0	20	18,8	38,00	60,00	115	0,50	5	Weldon
5599103	57NC20037T	WS15PE	20,0	20	18,8	38,00	60,00	115	1,00	5	Straight-Cylindrical
5599104	57NC20037W	WS15PE	20,0	20	18,8	38,00	60,00	115	1,00	5	Weldon
5599105	57NC20057T	WS15PE	20,0	20	18,8	38,00	60,00	115	2,00	5	Straight-Cylindrical
5599107	57NC20077T	WS15PE	20,0	20	18,8	38,00	60,00	115	3,00	5	Straight-Cylindrical
5599108	57NC20077W	WS15PE	20,0	20	18,8	38,00	60,00	115	3,00	5	Weldon
5599112	57NC25028T	WS15PE	25,0	20	23,50	45,00	75,00	135	0,50	5	Straight-Cylindrical
5599116	57NC25058T	WS15PE	25,0	20	23,50	45,00	75,00	135	2,00	5	Straight-Cylindrical

NOVO KNOWS SEARCH

Searching for a tool has been enhanced by Advise and Select functions from NOVO™ applications — saving you time and money.

ADVISE

Uses a rules-based approach to provide cutting tool recommendations:

- Define Machining Feature (face milling, slotting, blind hole, etc.)
- Apply Constraint Requirements (geometric, material, tolerance, etc.)
- Set Machining Sequence (single or multi-step operations, rough then finish, etc.)
- Receive Ranked Results

SELECT

A method of selecting cutting tools from a tree structure via a hierarchy or parametric search:

- If you know which product you are looking for, a quick search can be performed by just the catalogue number or product description.
- Smart filters significantly reduce the amount of potential tooling solutions.
- After the tool is selected, NOVO also provides cutting and adaptive item options that fit with your solution.

NOVO applications can ensure you have the right tools on your machines, in the right sequence. Resulting in flawless execution that accelerates every job, and maximises every shift. widia.com/novo

High-Performance Solid Carbide End Mills •

VariMill II™ ER

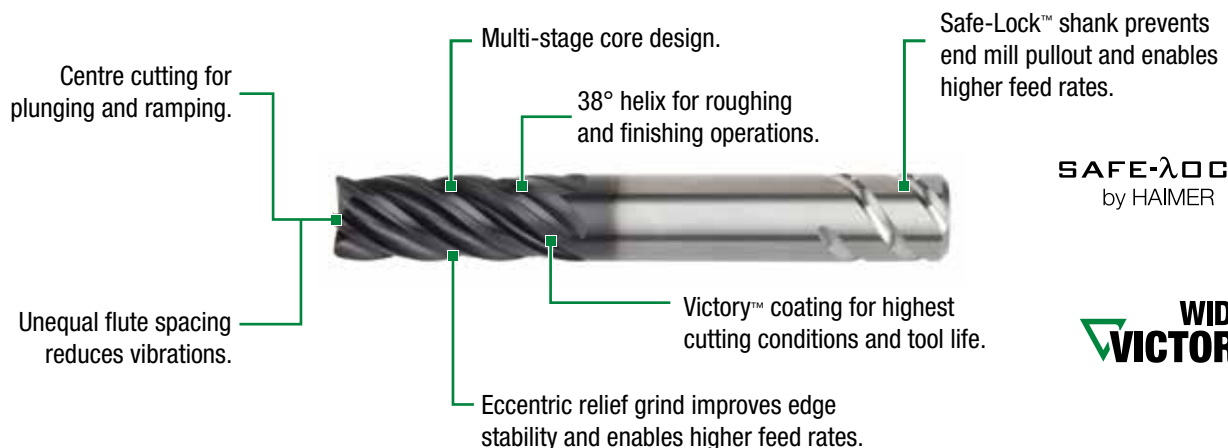
VariMill II ER



WIDIA HANITA 

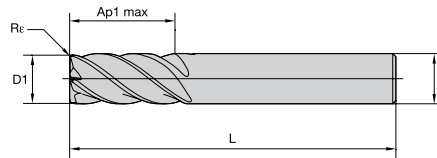
Engineered with Eccentric Relief (ER) grind at the cutting edges for greater edge strength, enabling higher metal removal rates and increased productivity. The new VariMill II ER is the first WIDIA™ off-the-shelf end mill available with Safe-Lock™ by HAIMER, providing excellent stability, eliminating end mill pullout, and increasing concentric tool clamping. Though primarily designed for roughing and finishing applications in the aerospace industry, VariMill II ER can be used as a solution for any titanium or stainless steel application and is capable of slotting, ramping, and plunging.

- High-performance tools for titanium and stainless steel workpiece materials.
- Roughing and finishing with one tool, lowering tool costs.
- Various radius and necked versions available.
- Standard offering with Safe-Lock™ by HAIMER.

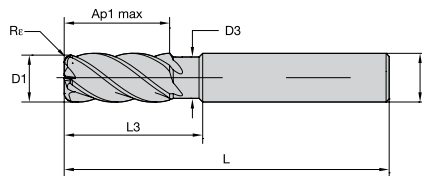


SAFE-LOCK®
by HAIMER

WIDIA
VICTORY



order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	Re (mm)	number of flutes	Adaptor Style Machine Side
Series 577E • VariMill II™ ER • Victory™ Grades									
5599176	577E12015W	WS15PE	12,0	12	26,00	83	0,75	5	Weldon
5599177	577E16006V	WS15PE	16,0	16	32,00	92	—	5	Safe-Lock
5599178	577E16016V	WS15PE	16,0	16	32,00	92	0,75	5	Safe-Lock
5599179	577E16016W	WS15PE	16,0	16	32,00	92	0,75	5	Weldon
5599180	577E20007V	WS15PE	20,0	20	38,00	104	—	5	Safe-Lock
5599181	577E20017V	WS15PE	20,0	20	38,00	104	0,75	5	Safe-Lock
5599182	577E20017W	WS15PE	20,0	20	38,00	104	0,75	5	Weldon



order number	catalogue number	grade	D1 (mm)	D (mm)	D3 (mm)	length of cut Ap1 max (mm)	L3 (mm)	L (mm)	Re (mm)	number of flutes	Adaptor Style Machine Side
Series 57NE • VariMill II ER • With Neck • Victory Grades											
5599122	57NE10004T	WS15PE	10,0	10	9,4	22,00	30,00	76	—	5	Straight-Cylindrical
5599123	57NE10024T	WS15PE	10,0	10	9,4	22,00	30,00	76	0,50	5	Straight-Cylindrical
5599124	57NE10024W	WS15PE	10,0	10	9,4	22,00	30,00	76	0,50	5	Weldon
5599125	57NE10034T	WS15PE	10,0	10	9,4	22,00	30,00	76	1,00	5	Straight-Cylindrical
5599126	57NE10034W	WS15PE	10,0	10	9,4	22,00	30,00	76	1,00	5	Weldon
5599127	57NE10054T	WS15PE	10,0	10	9,4	22,00	30,00	76	2,00	5	Straight-Cylindrical
5599128	57NE10054W	WS15PE	10,0	10	9,4	22,00	30,00	76	2,00	5	Weldon
5599129	57NE12005V	WS15PE	12,0	12	11,28	26,00	36,00	83	—	5	Safe-Lock
5599130	57NE12025V	WS15PE	12,0	12	11,28	26,00	36,00	83	0,50	5	Safe-Lock
5599131	57NE12025W	WS15PE	12,0	12	11,28	26,00	36,00	83	0,50	5	Weldon
5599132	57NE12035V	WS15PE	12,0	12	11,28	26,00	36,00	83	1,00	5	Safe-Lock
5599133	57NE12035W	WS15PE	12,0	12	11,28	26,00	36,00	83	1,00	5	Weldon
5599134	57NE12055V	WS15PE	12,0	12	11,28	26,00	36,00	83	2,00	5	Safe-Lock
5599135	57NE12055W	WS15PE	12,0	12	11,28	26,00	36,00	83	2,00	5	Weldon
5599136	57NE16006V	WS15PE	16,0	16	15,04	32,00	48,00	100	—	5	Safe-Lock
5599137	57NE16026V	WS15PE	16,0	16	15,04	32,00	48,00	100	0,50	5	Safe-Lock
5599138	57NE16026W	WS15PE	16,0	16	15,04	32,00	48,00	100	0,50	5	Weldon
5599139	57NE16036V	WS15PE	16,0	16	15,04	32,00	48,00	100	1,00	5	Safe-Lock
5599140	57NE16036W	WS15PE	16,0	16	15,04	32,00	48,00	100	1,00	5	Weldon
5599141	57NE16056V	WS15PE	16,0	16	15,04	32,00	48,00	100	2,00	5	Safe-Lock
5599142	57NE16056W	WS15PE	16,0	16	15,04	32,00	48,00	100	2,00	5	Weldon
5599143	57NE20007V	WS15PE	20,0	20	18,8	38,00	60,00	115	—	5	Safe-Lock
5599145	57NE20027W	WS15PE	20,0	20	18,8	38,00	60,00	115	0,50	5	Weldon
5599146	57NE20037V	WS15PE	20,0	20	18,8	38,00	60,00	115	1,00	5	Safe-Lock
5599148	57NE20057V	WS15PE	20,0	20	18,8	38,00	60,00	115	2,00	5	Safe-Lock
5599160	57NE20087V	WS15PE	20,0	20	18,8	38,00	60,00	115	4,00	5	Safe-Lock
5599161	57NE20087W	WS15PE	20,0	20	18,8	38,00	60,00	115	4,00	5	Weldon
5599165	57NE25038V	WS15PE	25,0	25	23,50	45,00	75,00	135	1,00	5	Safe-Lock

High-Performance Solid Carbide End Mills •
VariMill II™ Long

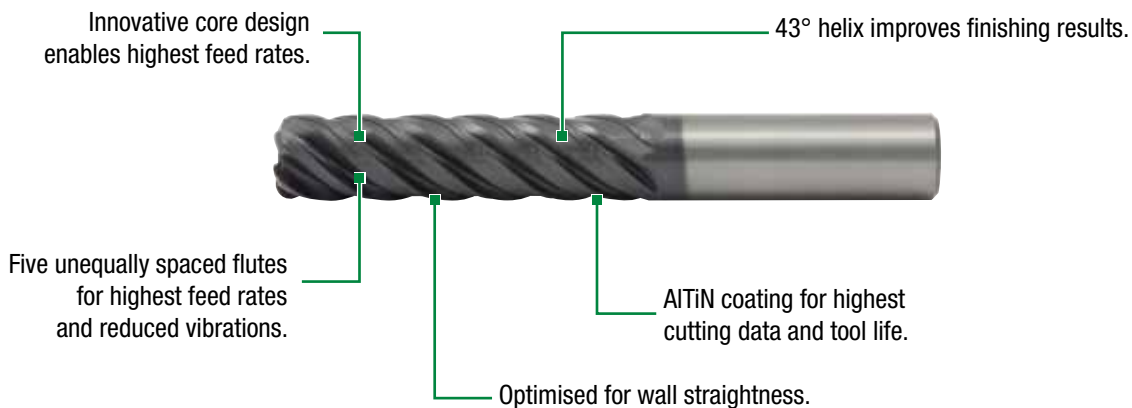
VariMill II Long

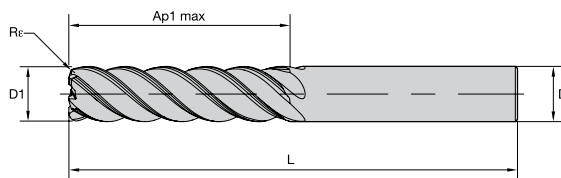


WIDIA HANITA 

Designed to achieve highest surface quality and tool life in titanium, stainless steels, and steels. Innovative core and tool geometry design enable chatter-free corner machining in one pass. VariMill II Long covers 4 x D lengths-of-cut for semi-finishing and fine finishing operations with radii and sharp corner versions from stock.

- Tailored 43° helix improves surface finish.
- Less passes in side milling with 4 x D length-of-cut capability.
- One tool for semi-finishing and fine finishing operations.
- No need for feed rate reduction when machining corners.





order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	Rε (mm)	number of flutes	Adaptor Style Machine Side
Series 5718 • VariMill II Long • 4 x D Length of Cut									
5096567	571806012MT	ALTIN-MT	6,0	6	24,00	76	0,50	5	Straight-Cylindrical
5096568	571806022MT	ALTIN-MT	6,0	6	24,00	76	1,00	5	Straight-Cylindrical
5096660	571808013MT	ALTIN-MT	8,0	8	32,00	76	0,50	5	Straight-Cylindrical
5096661	571808023MT	ALTIN-MT	8,0	8	32,00	76	1,00	5	Straight-Cylindrical
4124297	571810004MT	ALTIN-MT	10,0	10	40,00	100	—	5	Straight-Cylindrical
5096662	571810014MT	ALTIN-MT	10,0	10	40,00	100	0,50	5	Straight-Cylindrical
5096666	571812015MT	ALTIN-MT	12,0	12	48,00	125	0,50	5	Straight-Cylindrical
4124298	571812005MT	ALTIN-MT	12,0	12	48,00	125	—	5	Straight-Cylindrical
5096667	571812025MT	ALTIN-MT	12,0	12	48,00	125	1,00	5	Straight-Cylindrical
5096755	571814054MT	ALTIN-MT	14,0	14	56,00	120	4,00	5	Straight-Cylindrical
4124300	571816006MT	ALTIN-MT	16,0	16	64,00	141	—	5	Straight-Cylindrical
5096756	571816016MT	ALTIN-MT	16,0	16	64,00	141	0,50	5	Straight-Cylindrical
5096757	571816026MT	ALTIN-MT	16,0	16	64,00	141	1,00	5	Straight-Cylindrical
5096758	571816036MT	ALTIN-MT	16,0	16	64,00	141	2,00	5	Straight-Cylindrical
5096759	571816046MT	ALTIN-MT	16,0	16	64,00	141	3,00	5	Straight-Cylindrical
5096800	571816056MT	ALTIN-MT	16,0	16	64,00	141	4,00	5	Straight-Cylindrical
4124302	571820007MT	ALTIN-MT	20,0	20	80,00	150	—	5	Straight-Cylindrical
5096805	571820017MT	ALTIN-MT	20,0	20	80,00	150	0,50	5	Straight-Cylindrical
5096806	571820027MT	ALTIN-MT	20,0	20	80,00	150	1,00	5	Straight-Cylindrical
5096807	571820037MT	ALTIN-MT	20,0	20	80,00	150	2,00	5	Straight-Cylindrical
5096808	571820047MT	ALTIN-MT	20,0	20	80,00	150	3,00	5	Straight-Cylindrical
5096809	571820057MT	ALTIN-MT	20,0	20	80,00	150	4,00	5	Straight-Cylindrical
4124323	571825008MT	ALTIN-MT	25,0	25	100,00	170	—	5	Straight-Cylindrical
5096860	571825018MT	ALTIN-MT	25,0	25	100,00	170	0,50	5	Straight-Cylindrical
5096861	571825028MT	ALTIN-MT	25,0	25	100,00	170	1,00	5	Straight-Cylindrical
5096862	571825038MT	ALTIN-MT	25,0	25	100,00	170	2,00	5	Straight-Cylindrical
5096863	571825048MT	ALTIN-MT	25,0	25	100,00	170	3,00	5	Straight-Cylindrical

High-Performance Solid Carbide End Mills •
VariMill III™ ER

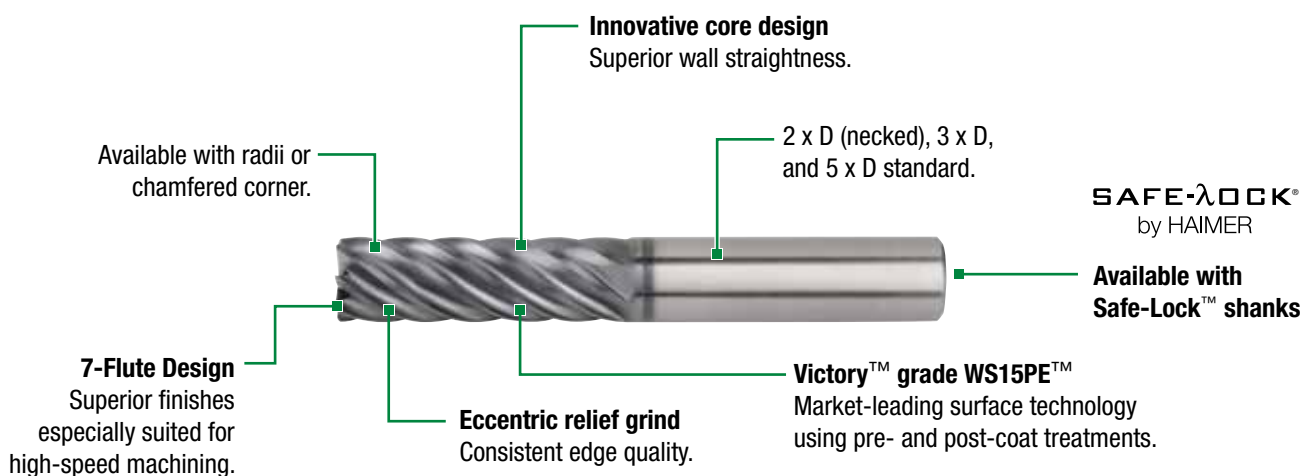


VariMill III ER

WIDIA HANITA 

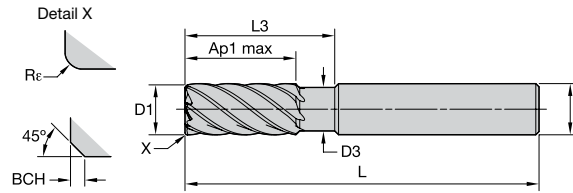
The trend towards more efficiency and increased productivity using high-speed machining techniques such as trochoidal and peel milling will continue to be a focus for aerospace components. The new VariMill III ER is designed to provide the highest Metal Removal Rates (MRR) and extended tool life in the most demanding materials in the aerospace industry. VariMill III ER is designed to be applied in titanium and stainless steel workpiece materials for both semi-finishing and finishing applications.

- 7-flute eccentric relief design provides edge strength along with high productivity.
- Superior surface finishes and wall straightness capability from specialised core.
- Finishing and semi-finishing at up to 30% of the diameter with one tool.
- First choice for high-speed machining in difficult-to-cut workpiece materials.

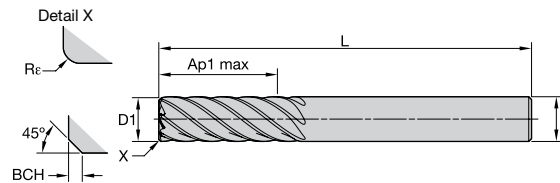


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VICTORY

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order number	catalogue number	grade	D1 (mm)	D (mm)	D3 (mm)	length of cut Ap1 max (mm)	L3 (mm)	L (mm)	Re (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 77NE • VariMill III ER • With Neck • Victory™ Grades												
5978039	77NE10004T	WS15PE	10,0	10	9,40	22,00	30,00	76	—	0,50	7	Straight-Cylindrical
5978040	77NE10024T	WS15PE	10,0	10	9,40	22,00	30,00	76	0,50	—	7	Straight-Cylindrical
5978096	77NE12005T	WS15PE	12,0	12	11,28	26,00	36,00	83	—	0,50	7	Straight-Cylindrical
5978097	77NE12025T	WS15PE	12,0	12	11,28	26,00	36,00	83	0,50	—	7	Straight-Cylindrical
5978104	77NE16006T	WS15PE	16,0	16	15,04	32,00	48,00	100	—	0,50	7	Straight-Cylindrical
5978105	77NE16026T	WS15PE	16,0	16	15,04	32,00	48,00	100	0,50	—	7	Straight-Cylindrical
5978112	77NE20007T	WS15PE	20,0	20	18,80	38,00	60,00	115	—	0,50	7	Straight-Cylindrical
5978113	77NE20027T	WS15PE	20,0	20	18,80	38,00	60,00	115	0,50	—	7	Straight-Cylindrical



order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	Re (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 771E 772E • VariMill III ER • Victory Grades										
5978092	771E10004T	WS15PE	10,0	10	30,00	76	—	0,50	7	Straight-Cylindrical
5978093	771E10024T	WS15PE	10,0	10	30,00	76	0,50	—	7	Straight-Cylindrical
5978094	772E10004T	WS15PE	10,0	10	50,00	100	—	0,50	7	Straight-Cylindrical
5978095	772E10024T	WS15PE	10,0	10	50,00	100	0,50	—	7	Straight-Cylindrical
5978098	771E12005T	WS15PE	12,0	12	36,00	100	—	0,50	7	Straight-Cylindrical
5978099	771E12025T	WS15PE	12,0	12	36,00	100	0,50	—	7	Straight-Cylindrical
5978100	772E12005T	WS15PE	12,0	12	60,00	125	—	0,50	7	Straight-Cylindrical
5978102	772E12005V	WS15PE	12,0	12	60,00	125	—	0,50	7	Straight-Cylindrical Safe-Lock™
5978101	772E12025T	WS15PE	12,0	12	60,00	125	0,50	—	7	Straight-Cylindrical Safe-Lock
5978103	772E12025V	WS15PE	12,0	12	60,00	125	0,50	—	7	Straight-Cylindrical Safe-Lock
5978106	771E16006T	WS15PE	16,0	16	48,00	110	—	0,50	7	Straight-Cylindrical
5978107	771E16026T	WS15PE	16,0	16	48,00	110	0,50	—	7	Straight-Cylindrical
5978108	772E16006T	WS15PE	16,0	16	80,00	141	—	0,50	7	Straight-Cylindrical
5978110	772E16006V	WS15PE	16,0	16	80,00	141	—	0,50	7	Straight-Cylindrical Safe-Lock
5978109	772E16026T	WS15PE	16,0	16	80,00	141	0,50	—	7	Straight-Cylindrical
5978111	772E16026V	WS15PE	16,0	16	80,00	141	0,50	—	7	Straight-Cylindrical Safe-Lock
5978114	771E20007T	WS15PE	20,0	20	60,00	125	—	0,50	7	Straight-Cylindrical
5978115	771E20027T	WS15PE	20,0	20	60,00	125	0,50	—	7	Straight-Cylindrical
5978116	772E20007T	WS15PE	20,0	20	100,00	166	—	0,50	7	Straight-Cylindrical
5978117	772E20027T	WS15PE	20,0	20	100,00	166	0,50	—	7	Straight-Cylindrical

Solid End Milling

High-Performance Solid Carbide •
Roughers

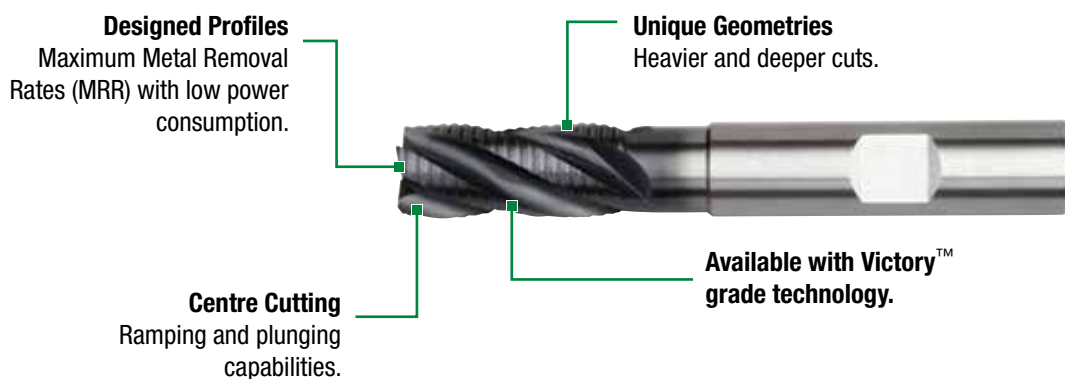
HP ROUGHER



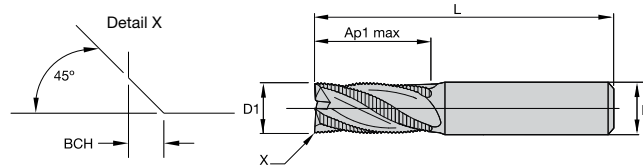
WIDIA HANITA 

Special proprietary carbide substrates and state-of-the-art surface technology, combined with unique geometries, provides end users with the capability to significantly reduce machining time with heavier and deeper cuts, fewer passes, and faster surface speed. WIDIA™ geometries are uniquely formed and fine-tuned to optimise chip form, size, and evacuation generated by a given workpiece material.

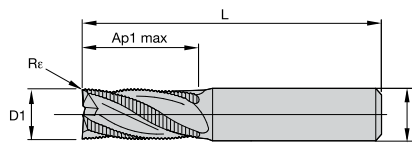
- For all ferrous workpiece materials.
- Low power consumption at high speeds with long tool life.
- Provides maximum metal removal rates in both slotting and profiling operations.
- Alternative solution for productivity gains on light machines.



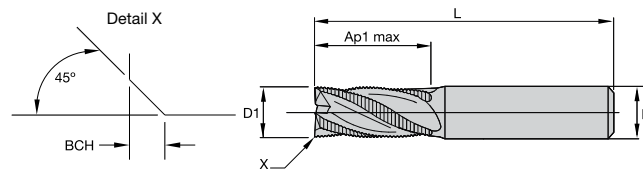
WIDIA
VICTORY



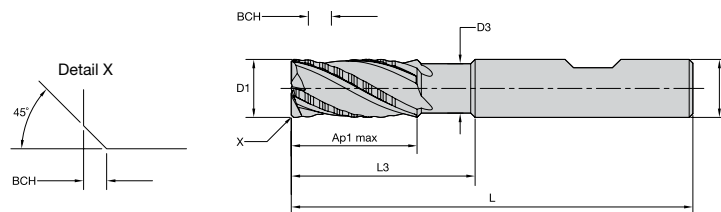
order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 4976 • Victory™ Grades									
5560708	497604002T	WP15PE	4,0	6	8,00	57	0,30	3	Straight-Cylindrical
5560709	497605002T	WP15PE	5,0	6	13,00	57	0,30	3	Straight-Cylindrical
5560710	497606002T	WP15PE	6,0	6	13,00	57	0,30	3	Straight-Cylindrical
5560711	497608003T	WP15PE	8,0	8	16,00	63	0,30	3	Straight-Cylindrical
5560712	497610004T	WP15PE	10,0	10	22,00	72	0,50	4	Straight-Cylindrical
5560713	497612005T	WP15PE	12,0	12	26,00	83	0,50	4	Straight-Cylindrical
5560714	497614014T	WP15PE	14,0	14	26,00	83	0,50	4	Straight-Cylindrical
5560715	497616006T	WP15PE	16,0	16	32,00	92	0,50	4	Straight-Cylindrical
5560717	497620007T	WP15PE	20,0	20	38,00	104	0,50	4	Straight-Cylindrical



order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 4U80 • Victory™ Grades									
6431246	4U80M060R2TC	ALTIN-MT	6,0	6	13,00	57	0,30	4	Straight-Cylindrical
6431247	4U80M080R3TC	ALTIN-MT	8,0	8	16,00	63	0,30	4	Straight-Cylindrical
6431248	4U80M100R4TE	ALTIN-MT	10,0	10	22,00	72	0,50	4	Straight-Cylindrical
6431249	4U80M120R5TE	ALTIN-MT	12,0	12	26,00	83	0,50	4	Straight-Cylindrical
6431250	4U80M160R6TE	ALTIN-MT	16,0	16	32,00	92	0,50	6	Straight-Cylindrical
6431401	4U80M200R7TG	ALTIN-MT	20,0	20	38,00	104	1,00	6	Straight-Cylindrical
6431402	4U80M250R8TG	ALTIN-MT	25,0	25	45,00	121	1,00	6	Straight-Cylindrical



order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 4U70 • Victory Grades									
5583437	4U7008003W	WP15PE	8,0	8	16,00	63	1,00	4	Weldon®
5583439	4U7012005W	WP15PE	12,0	12	26,00	83	0,60	4	Weldon
5583440	4U7016006W	WP15PE	16,0	16	32,00	92	1,00	6	Weldon
5583431	4U7016046T	WP15PE	16,0	16	32,00	92	1,12	4	Straight-Cylindrical
5583433	4U7020047T	WP15PE	20,0	20	38,00	104	0,40	4	Straight-Cylindrical



order number	catalogue number	grade	D1 (mm)	D (mm)	D3 (mm)	length of cut Ap1 max (mm)	L3 (mm)	L (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 49N6 • With Neck											
3474585	49N606002MW	ALTIN-MW	6,0	6	5,5	13,00	21,00	57	0,30	3	Weldon
3474587	49N608003MW	ALTIN-MW	8,0	8	7,5	16,00	27,00	63	0,30	3	Weldon
3474589	49N610004MW	ALTIN-MW	10,0	10	9,5	22,00	32,00	72	0,50	4	Weldon
3474591	49N612005MW	ALTIN-MW	12,0	12	11	26,00	38,00	83	0,50	4	Weldon
3474594	49N616006MW	ALTIN-MW	16,0	16	15	32,00	44,00	92	0,50	4	Weldon

High-Performance Finishing Solid Carbide End Mills

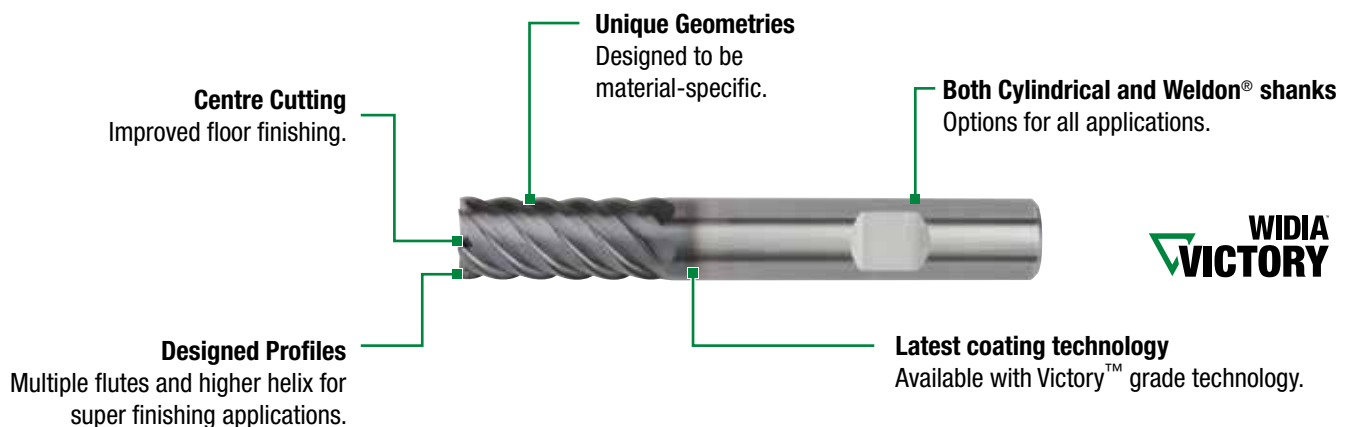
HP Finishers

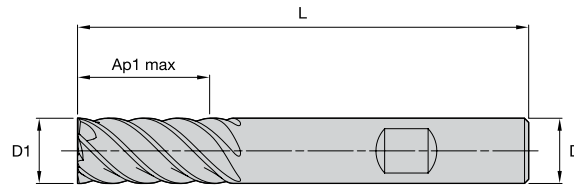


WIDIA HANITA 

Only the finest carbide substrates with market-leading geometries and state-of-the-art surface technology are used to ensure the very best quality finishing end mills are produced. These tools are fully compliant with NAS, DIN, and JIS specifications. Whether you require higher metal removal rates, improved surface finishes, fewer passes, or longer tool life, WIDIA-Hanita™ high-performance finishing end mills deliver the reliability and consistency you can depend on during your critical finishing operations.

- Specific geometries targeted for steels, stainless steels, high-temperature alloys, and titanium.
- Stub, regular, long, and extra long lengths for all applications.
- Special designs with higher number of flutes and increased helix angles for super finishing applications.
- Latest coating technology, including Victory™ grades.





order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	number of flutes	Adaptor Style Machine Side
Series D507 D517 • Victory™ Grades								
5559100	D50706002W	WP15PE	6,0	6	10,00	54	6	Weldon®
5559108	D51706002W	WP15PE	6,0	6	13,00	57	6	Weldon
5559101	D50708003W	WP15PE	8,0	8	12,00	58	6	Weldon
5559109	D51708003W	WP15PE	8,0	8	19,00	63	6	Weldon
5559102	D50710004W	WP15PE	10,0	10	14,00	66	6	Weldon
5559110	D51710004W	WP15PE	10,0	10	22,00	72	6	Weldon
5559103	D50712005W	WP15PE	12,0	12	16,00	73	6	Weldon
5559111	D51712005W	WP15PE	12,0	12	26,00	83	6	Weldon
5559105	D50716006W	WP15PE	16,0	16	22,00	82	6	Weldon
5559113	D51716006W	WP15PE	16,0	16	32,00	92	6	Weldon

2-Flute End Mills •
General Purpose

General Purpose

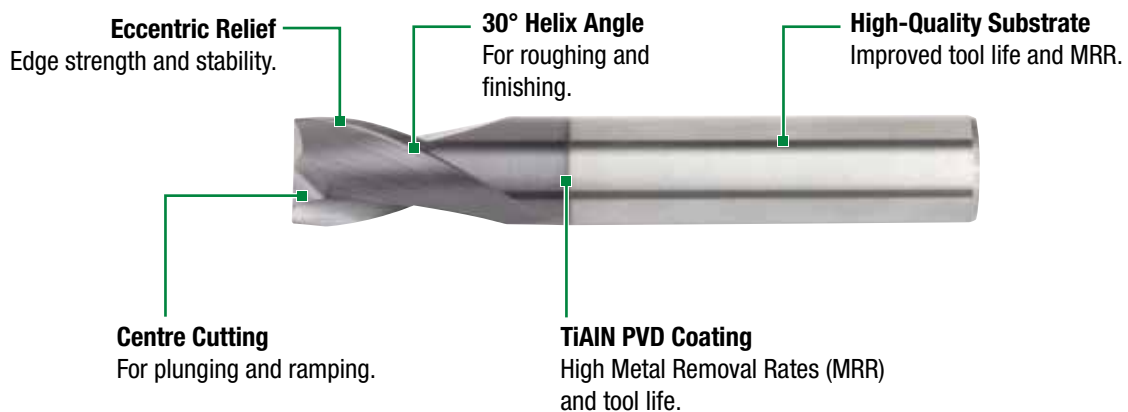


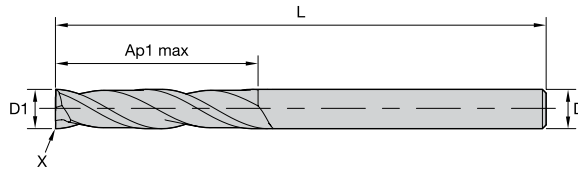
General purpose offers plunging, slotting, and profiling for a wide range of materials and applications. Designed to provide high metal removal rates and excellent surface conditions at a value price. A wide range of diameters, lengths, and corner styles (such as chamfered, sharp edge, and ball nose) are available from stock.

WIDIA HANITA 

General Purpose • 2-Flute

- General purpose tools for a wide range of workpiece materials.
- Roughing and finishing with one tool.
- Various lengths-of-cut and overall lengths with different front end designs available.
- Two flutes for high flexibility in unstable conditions.





order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 4002 4012 • General Purpose • 2 Flutes									
5873484	40020100T004	TIALN	1,0	3	4,00	38	—	2	Straight-Cylindrical
5873485	40020150T004	TIALN	1,5	3	4,00	38	—	2	Straight-Cylindrical
5873486	40020180T004	TIALN	1,8	3	4,00	38	—	2	Straight-Cylindrical
5873487	40020200T006	TIALN	2,0	3	6,30	38	—	2	Straight-Cylindrical
5873488	40020250T006	TIALN	2,5	3	6,30	38	—	2	Straight-Cylindrical
5873489	40020300T009	TIALN	3,0	3	9,50	38	—	2	Straight-Cylindrical
5873490	40020300T019	TIALN	3,0	3	19,00	63	—	2	Straight-Cylindrical
5873491	40120300T025	TIALN	3,0	3	25,00	75	—	2	Straight-Cylindrical
5873492	40020350T012	TIALN	3,5	4	12,00	50	—	2	Straight-Cylindrical
5873493	40020400T012	TIALN	4,0	4	12,00	50	0,10	2	Straight-Cylindrical
6092621	40020400T012S	TIALN	4,0	4	12,00	50	—	2	Straight-Cylindrical
5873494	40020400T019	TIALN	4,0	4	19,00	63	0,10	2	Straight-Cylindrical
6092622	40020400T019S	TIALN	4,0	4	19,00	63	—	2	Straight-Cylindrical
5873495	40120400T031	TIALN	4,0	4	31,00	75	0,10	2	Straight-Cylindrical
6092623	40120400T031S	TIALN	4,0	4	31,00	75	—	2	Straight-Cylindrical
6092624	40020450T014S	TIALN	4,5	6	14,00	50	—	2	Straight-Cylindrical
5873498	40020500T014	TIALN	5,0	5	14,00	50	0,10	2	Straight-Cylindrical
6092627	40020500T014S	TIALN	5,0	5	14,00	50	—	2	Straight-Cylindrical
5873499	40020500T020	TIALN	5,0	5	20,00	63	0,10	2	Straight-Cylindrical
6092628	40020500T020S	TIALN	5,0	5	20,00	63	—	2	Straight-Cylindrical
5873500	40120500T031	TIALN	5,0	5	31,00	100	0,10	2	Straight-Cylindrical
6092631	40120500T031S	TIALN	5,0	5	31,00	100	—	2	Straight-Cylindrical
5873501	40020550T014	TIALN	5,5	6	14,00	50	0,10	2	Straight-Cylindrical
6092632	40020550T014S	TIALN	5,5	6	14,00	50	—	2	Straight-Cylindrical
5873502	40020600T016	TIALN	6,0	6	16,00	50	0,10	2	Straight-Cylindrical
6092633	40020600T016S	TIALN	6,0	6	16,00	50	—	2	Straight-Cylindrical
5873503	40020600T028	TIALN	6,0	6	28,00	76	0,10	2	Straight-Cylindrical
6092634	40020600T028S	TIALN	6,0	6	28,00	76	—	2	Straight-Cylindrical
5873504	40120600T038	TIALN	6,0	6	38,00	100	0,10	2	Straight-Cylindrical
6092636	40120600T038S	TIALN	6,0	6	38,00	100	—	2	Straight-Cylindrical
5873505	40020700T020	TIALN	7,0	7	20,00	63	0,10	2	Straight-Cylindrical
6092637	40020700T020S	TIALN	7,0	7	20,00	63	—	2	Straight-Cylindrical
5873506	40020800T020	TIALN	8,0	8	20,00	63	0,20	2	Straight-Cylindrical
6092638	40020800T020S	TIALN	8,0	8	20,00	63	—	2	Straight-Cylindrical
5873507	40020800T028	TIALN	8,0	8	28,00	76	0,20	2	Straight-Cylindrical
6092639	40020800T028S	TIALN	8,0	8	28,00	76	—	2	Straight-Cylindrical
5873508	40120800T041	TIALN	8,0	8	41,00	100	0,20	2	Straight-Cylindrical
6092640	40120800T041S	TIALN	8,0	8	41,00	100	—	2	Straight-Cylindrical
5873509	40020900T020	TIALN	9,0	9	20,00	63	0,20	2	Straight-Cylindrical
6092641	40020900T020S	TIALN	9,0	9	20,00	63	—	2	Straight-Cylindrical
5873510	40021000T022	TIALN	10,0	10	22,00	72	0,20	2	Straight-Cylindrical
6092643	40021000T022S	TIALN	10,0	10	22,00	72	—	2	Straight-Cylindrical
5873511	40021000T032	TIALN	10,0	10	32,00	89	0,20	2	Straight-Cylindrical
6092644	40021000T032S	TIALN	10,0	10	32,00	89	—	2	Straight-Cylindrical
5873512	40121000T045	TIALN	10,0	10	45,00	100	0,20	2	Straight-Cylindrical
6092645	40121000T045S	TIALN	10,0	10	45,00	100	—	2	Straight-Cylindrical
5873513	40021100T025	TIALN	11,0	11	25,00	76	0,30	2	Straight-Cylindrical
6092646	40021100T025S	TIALN	11,0	11	25,00	76	—	2	Straight-Cylindrical
5873514	40021200T025	TIALN	12,0	12	25,00	76	0,30	2	Straight-Cylindrical
6092647	40021200T025S	TIALN	12,0	12	25,00	76	—	2	Straight-Cylindrical
5873515	40021200T045	TIALN	12,0	12	45,00	100	0,30	2	Straight-Cylindrical
6092648	40021200T045S	TIALN	12,0	12	45,00	100	—	2	Straight-Cylindrical
5873516	40121200T075	TIALN	12,0	12	75,00	150	0,30	2	Straight-Cylindrical
6092650	40121200T075S	TIALN	12,0	12	75,00	150	—	2	Straight-Cylindrical
5873517	40021400T032	TIALN	14,0	14	32,00	83	0,30	2	Straight-Cylindrical
6092651	40021400T032S	TIALN	14,0	14	32,00	83	—	2	Straight-Cylindrical
5873518	40021400T050	TIALN	14,0	14	50,00	100	0,30	2	Straight-Cylindrical
6092653	40021400T050S	TIALN	14,0	14	50,00	100	—	2	Straight-Cylindrical
5873519	40121400T075	TIALN	14,0	14	75,00	150	0,30	2	Straight-Cylindrical
6092654	40121400T075S	TIALN	14,0	14	75,00	150	—	2	Straight-Cylindrical
5873520	40021600T032	TIALN	16,0	16	32,00	89	0,30	2	Straight-Cylindrical
6092657	40021600T032S	TIALN	16,0	16	32,00	89	—	2	Straight-Cylindrical
5873531	40021600T056	TIALN	16,0	16	56,00	110	0,30	2	Straight-Cylindrical
6092658	40021600T056S	TIALN	16,0	16	56,00	110	—	2	Straight-Cylindrical
5873532	40121600T075	TIALN	16,0	16	75,00	150	0,30	2	Straight-Cylindrical
6092659	40121600T075S	TIALN	16,0	16	75,00	150	—	2	Straight-Cylindrical
5873533	40021800T038	TIALN	18,0	18	38,00	100	0,30	2	Straight-Cylindrical
6092660	40021800T038S	TIALN	18,0	18	38,00	100	—	2	Straight-Cylindrical
5873534	40021800T060	TIALN	18,0	18	60,00	125	0,30	2	Straight-Cylindrical
6092681	40021800T060S	TIALN	18,0	18	60,00	125	—	2	Straight-Cylindrical
5873536	40022000T038	TIALN	20,0	20	38,00	104	0,30	2	Straight-Cylindrical
6092683	40022000T038S	TIALN	20,0	20	38,00	104	—	2	Straight-Cylindrical
6092684	40022000T056S	TIALN	20,0	20	56,00	125	—	2	Straight-Cylindrical
5873538	40122000T075	TIALN	20,0	20	75,00	150	0,30	2	Straight-Cylindrical
6092685	40122000T075S	TIALN	20,0	20	75,00	150	—	2	Straight-Cylindrical

3-Flute End Mills •
General Purpose



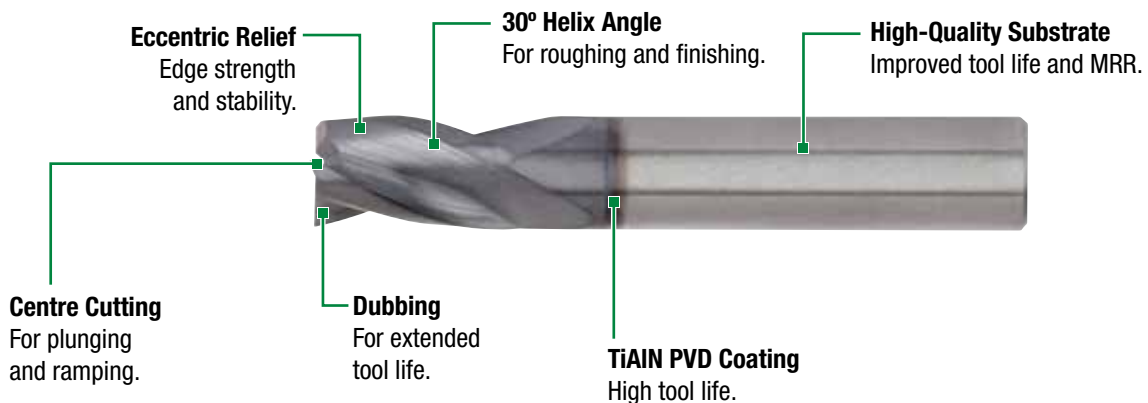
General Purpose

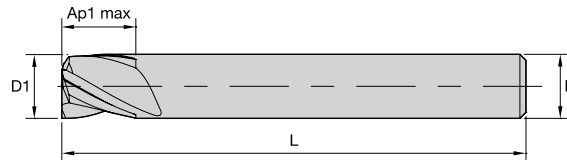
General purpose offers plunging, slotting, and profiling for a wide range of materials and applications. Designed to provide high metal removal rates and excellent surface conditions at a value price. A wide range of diameters, lengths, and corner styles (such as chamfered and sharp edge) are available from stock.



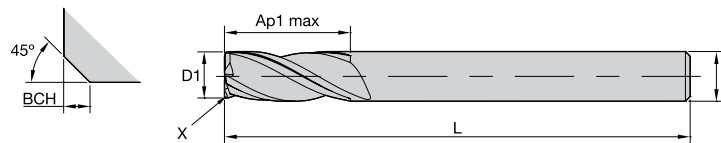
General Purpose • 3-Flute

- General purpose tools for a wide range of workpiece materials.
- Roughing and finishing with one tool.
- Various lengths-of-cut and overall lengths with different front end designs available.
- Three flutes for slotting in unstable conditions.





order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	number of flutes	Adaptor Style Machine Side
Series 4003..S 4013..S • General Purpose • 3 Flutes								
6144056	40030100T004S	TIALN	1,0	3	4,00	38	3	Straight-Cylindrical
6144057	40030150T004S	TIALN	1,5	3	4,00	38	3	Straight-Cylindrical
6144058	40030200T006S	TIALN	2,0	3	6,30	38	3	Straight-Cylindrical
6144059	40030250T006S	TIALN	2,5	3	6,30	38	3	Straight-Cylindrical
6144060	40030300T009S	TIALN	3,0	3	9,50	38	3	Straight-Cylindrical
6145199	40130300T019S	TIALN	3,0	6	19,00	63	3	Straight-Cylindrical
6144551	40030400T012S	TIALN	4,0	4	12,00	50	3	Straight-Cylindrical
6145200	40130400T019S	TIALN	4,0	4	19,00	63	3	Straight-Cylindrical
6144552	40030500T014S	TIALN	5,0	6	14,00	50	3	Straight-Cylindrical
6145231	40130500T020S	TIALN	5,0	6	20,00	63	3	Straight-Cylindrical
6144553	40030600T016S	TIALN	6,0	6	16,00	50	3	Straight-Cylindrical
6145232	40130600T028S	TIALN	6,0	6	28,00	75	3	Straight-Cylindrical
6144554	40030800T019S	TIALN	8,0	8	19,00	63	3	Straight-Cylindrical
6145233	40130800T028S	TIALN	8,0	8	28,00	75	3	Straight-Cylindrical
6144555	40031000T022S	TIALN	10,0	10	22,00	76	3	Straight-Cylindrical
6145234	40131000T032S	TIALN	10,0	10	32,00	89	3	Straight-Cylindrical
6144556	40031200T025S	TIALN	12,0	12	25,00	75	3	Straight-Cylindrical
6145235	40131200T045S	TIALN	12,0	12	45,00	100	3	Straight-Cylindrical
6144557	40031600T032S	TIALN	16,0	16	32,00	89	3	Straight-Cylindrical
6145238	40131600T056S	TIALN	16,0	16	56,00	110	3	Straight-Cylindrical
6145241	40132000T064S	TIALN	20,0	20	64,00	125	3	Straight-Cylindrical



order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 4003 4013 • General Purpose • 3 Flutes									
6145107	40030400T012	TIALN	4,0	4	12,00	50	0,10	3	Straight-Cylindrical
6145181	40130400T019	TIALN	4,0	4	19,00	63	0,10	3	Straight-Cylindrical
6145182	40130500T020	TIALN	5,0	6	20,00	63	0,10	3	Straight-Cylindrical
6145109	40030600T016	TIALN	6,0	6	16,00	50	0,10	3	Straight-Cylindrical
6145183	40130600T028	TIALN	6,0	6	28,00	75	0,10	3	Straight-Cylindrical
6145110	40030800T019	TIALN	8,0	8	19,00	63	0,20	3	Straight-Cylindrical
6145184	40130800T028	TIALN	8,0	8	28,00	75	0,20	3	Straight-Cylindrical
6145171	40031000T022	TIALN	10,0	10	22,00	76	0,20	3	Straight-Cylindrical
6145185	40131000T032	TIALN	10,0	10	32,00	89	0,20	3	Straight-Cylindrical
6145172	40031200T025	TIALN	12,0	12	25,00	75	0,30	3	Straight-Cylindrical
6145186	40131200T045	TIALN	12,0	12	45,00	100	0,30	3	Straight-Cylindrical
6145173	40031600T032	TIALN	16,0	16	32,00	89	0,30	3	Straight-Cylindrical
6145187	40131600T056	TIALN	16,0	16	56,00	110	0,30	3	Straight-Cylindrical

Solid End Milling

4-Flute End Mills •
General Purpose

General Purpose

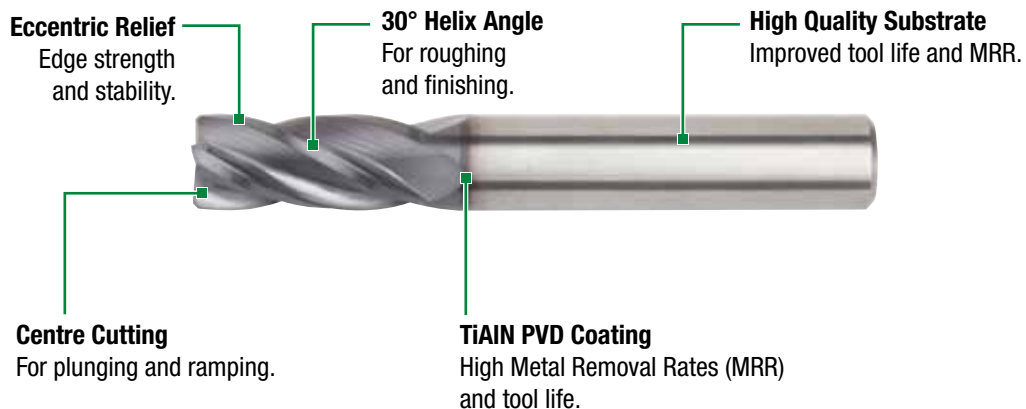


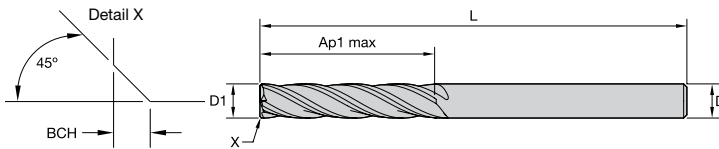
WIDIA HANITA 

General purpose offers plunging, slotting, and profiling for a wide range of materials and applications. Designed to provide high metal removal rates and excellent surface conditions at a value price. A wide range of diameters, lengths, and corner styles (such as chamfered, sharp edge, and ball nose) are available from stock.

General Purpose • 4-Flute

- General purpose tools for a wide range of workpiece materials.
- Roughing and finishing with one tool.
- Various lengths-of-cut and overall lengths with different front-end designs available.
- Four flutes for high Metal Removal Rates (MRR) and tool life.





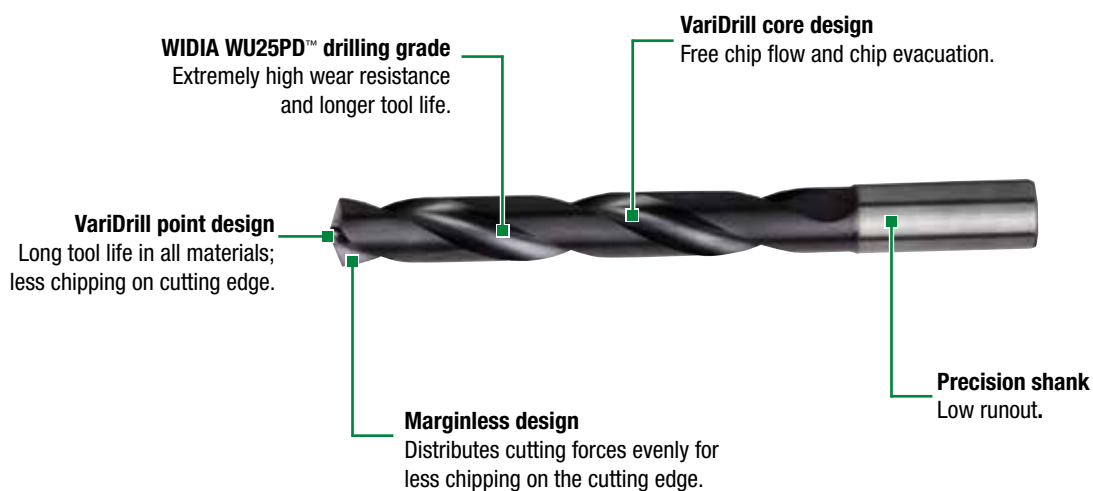
order number	catalogue number	grade	D1 (mm)	D (mm)	length of cut Ap1 max (mm)	L (mm)	BCH (mm)	number of flutes	Adaptor Style Machine Side
Series 4004 4014 4024 • General Purpose • 4 Flutes									
5826016	40040100T004	TIALN	1,0	3	4,00	38	—	4	Straight-Cylindrical
5826017	40040150T004	TIALN	1,5	3	4,00	38	—	4	Straight-Cylindrical
5826018	40040200T006	TIALN	2,0	3	6,30	38	—	4	Straight-Cylindrical
5826019	40040250T006	TIALN	2,5	3	6,30	38	—	4	Straight-Cylindrical
5826020	40040300T009	TIALN	3,0	3	9,50	38	—	4	Straight-Cylindrical
5826021	40140300T019	TIALN	3,0	3	19,00	63	—	4	Straight-Cylindrical
5826022	40240300T025	TIALN	3,0	3	25,00	75	—	4	Straight-Cylindrical
5826023	40040350T012	TIALN	3,5	4	12,00	50	—	4	Straight-Cylindrical
5826024	40040400T011	TIALN	4,0	4	11,00	50	0,10	4	Straight-Cylindrical
6085576	40040400T011S	TIALN	4,0	4	11,00	50	—	4	Straight-Cylindrical
5826025	40140400T019	TIALN	4,0	4	19,00	63	0,10	4	Straight-Cylindrical
6085577	40140400T019S	TIALN	4,0	4	19,00	63	—	4	Straight-Cylindrical
5826026	40240400T031	TIALN	4,0	4	31,00	75	0,10	4	Straight-Cylindrical
6085578	40240400T031S	TIALN	4,0	4	31,00	75	—	4	Straight-Cylindrical
5826027	40040450T014	TIALN	4,5	5	14,00	50	0,10	4	Straight-Cylindrical
6085579	40040450T014S	TIALN	4,5	5	14,00	50	—	4	Straight-Cylindrical
5826028	40040500T013	TIALN	5,0	5	13,00	50	0,10	4	Straight-Cylindrical
6085580	40040500T013S	TIALN	5,0	5	13,00	50	—	4	Straight-Cylindrical
5826029	40040500T020	TIALN	5,0	5	20,00	63	0,10	4	Straight-Cylindrical
6085581	40040500T020S	TIALN	5,0	5	20,00	63	—	4	Straight-Cylindrical
5826030	40140500T030	TIALN	5,0	5	30,00	75	0,10	4	Straight-Cylindrical
6085582	40140500T030S	TIALN	5,0	5	30,00	75	—	4	Straight-Cylindrical
5826031	40240500T031	TIALN	5,0	5	31,00	100	0,10	4	Straight-Cylindrical
6085583	40240500T031S	TIALN	5,0	5	31,00	100	—	4	Straight-Cylindrical
5826032	40040600T016	TIALN	6,0	6	16,00	50	0,10	4	Straight-Cylindrical
6085584	40040600T016S	TIALN	6,0	6	16,00	50	—	4	Straight-Cylindrical
5826033	40140600T028	TIALN	6,0	6	28,00	75	0,10	4	Straight-Cylindrical
6085585	40140600T028S	TIALN	6,0	6	28,00	75	—	4	Straight-Cylindrical
5826034	40240600T038	TIALN	6,0	6	38,00	100	0,10	4	Straight-Cylindrical
6085586	40240600T038S	TIALN	6,0	6	38,00	100	—	4	Straight-Cylindrical
5826035	40040700T020	TIALN	7,0	8	20,00	63	0,10	4	Straight-Cylindrical
6085587	40040700T020S	TIALN	7,0	8	20,00	63	—	4	Straight-Cylindrical
5826036	40040800T020	TIALN	8,0	8	20,00	50	0,20	4	Straight-Cylindrical
6085588	40040800T020S	TIALN	8,0	8	20,00	50	—	4	Straight-Cylindrical
5826037	40140800T028	TIALN	8,0	8	28,00	75	0,20	4	Straight-Cylindrical
6085589	40140800T028S	TIALN	8,0	8	28,00	75	—	4	Straight-Cylindrical
5826038	40240800T041	TIALN	8,0	8	41,00	100	0,20	4	Straight-Cylindrical
6085590	40240800T041S	TIALN	8,0	8	41,00	100	—	4	Straight-Cylindrical
5826039	40040900T020	TIALN	9,0	9	20,00	63	0,20	4	Straight-Cylindrical
6085591	40040900T020S	TIALN	9,0	9	20,00	63	—	4	Straight-Cylindrical
5826040	40041000T022	TIALN	10,0	10	22,00	72	0,20	4	Straight-Cylindrical
6085592	40041000T022S	TIALN	10,0	10	22,00	72	—	4	Straight-Cylindrical
5826041	40141000T032	TIALN	10,0	10	32,00	89	0,20	4	Straight-Cylindrical
6085593	40141000T032S	TIALN	10,0	10	32,00	89	—	4	Straight-Cylindrical
5826042	40241000T045	TIALN	10,0	10	45,00	100	0,20	4	Straight-Cylindrical
6085594	40241000T045S	TIALN	10,0	10	45,00	100	—	4	Straight-Cylindrical
5826043	40041200T025	TIALN	12,0	12	25,00	89	0,30	4	Straight-Cylindrical
6085595	40041200T025S	TIALN	12,0	12	25,00	89	—	4	Straight-Cylindrical
5826044	40141200T045	TIALN	12,0	12	45,00	100	0,30	4	Straight-Cylindrical
6085596	40141200T045S	TIALN	12,0	12	45,00	100	—	4	Straight-Cylindrical
5826045	40241200T075	TIALN	12,0	12	75,00	150	0,30	4	Straight-Cylindrical
6085597	40241200T075S	TIALN	12,0	12	75,00	150	—	4	Straight-Cylindrical
5826046	40041400T032	TIALN	14,0	14	32,00	83	0,30	4	Straight-Cylindrical
6085598	40041400T032S	TIALN	14,0	14	32,00	83	—	4	Straight-Cylindrical
5826047	40141400T050	TIALN	14,0	14	50,00	100	0,30	4	Straight-Cylindrical
6085599	40141400T050S	TIALN	14,0	14	50,00	100	—	4	Straight-Cylindrical
5826049	40241400T075	TIALN	14,0	14	75,00	150	0,30	4	Straight-Cylindrical
6085600	40241400T075S	TIALN	14,0	14	75,00	150	—	4	Straight-Cylindrical
5826061	40041600T032	TIALN	16,0	16	32,00	92	0,30	4	Straight-Cylindrical
6085601	40041600T032S	TIALN	16,0	16	32,00	92	—	4	Straight-Cylindrical
5826062	40141600T056	TIALN	16,0	16	56,00	110	0,30	4	Straight-Cylindrical
6085602	40141600T056S	TIALN	16,0	16	56,00	110	—	4	Straight-Cylindrical
5826063	40241600T075	TIALN	16,0	16	75,00	150	0,30	4	Straight-Cylindrical
6085603	40241600T075S	TIALN	16,0	16	75,00	150	—	4	Straight-Cylindrical
5826064	40041800T038	TIALN	18,0	18	38,00	100	0,30	4	Straight-Cylindrical
6085604	40041800T038S	TIALN	18,0	18	38,00	100	—	4	Straight-Cylindrical
5826065	40141800T060	TIALN	18,0	18	60,00	125	0,30	4	Straight-Cylindrical
6085605	40141800T060S	TIALN	18,0	18	60,00	125	—	4	Straight-Cylindrical
5826066	40241800T075	TIALN	18,0	18	75,00	150	0,30	4	Straight-Cylindrical
6085606	40241800T075S	TIALN	18,0	18	75,00	150	—	4	Straight-Cylindrical
5826067	40042000T038	TIALN	20,0	20	38,00	104	0,30	4	Straight-Cylindrical
6085607	40042000T038S	TIALN	20,0	20	38,00	104	—	4	Straight-Cylindrical
5826068	40142000T056	TIALN	20,0	20	56,00	125	0,30	4	Straight-Cylindrical
6085608	40142000T056S	TIALN	20,0	20	56,00	125	—	4	Straight-Cylindrical
5826069	40242000T075	TIALN	20,0	20	75,00	150	0,30	4	Straight-Cylindrical
6085609	40242000T075S	TIALN	20,0	20	75,00	150	—	4	Straight-Cylindrical

VariDrill



The VariDrill advanced-point geometry design offers the ultimate solution for multipurpose drilling operations. It offers dependable tool life in all materials due to less chipping on the cutting edge.

- Reduced chipping on cutting edge means longer tool life.
- Geometry design offers strength and versatility.
- Delivers proper surface finish across multiple materials: steel, stainless steel, cast iron, aluminium, and high-temp alloys.



Innovative Technology

VariDrill™ is a technologically advanced holemaking solution. These high-performance solid carbide drills were designed in Germany to provide the transportation, aerospace, general engineering, and energy industries with a tool that performs on multiple materials.

Elegance, Strength, and Versatility

The engineers at WIDIA™ developed an innovative new design to deliver drilling performance. These solid carbide drills have a distinctive geometry and marginless design. The VariDrill point is versatile enough to work through steel, stainless steel, cast iron, aluminium, and a range of high-temp alloys.

Optimum Hole Quality

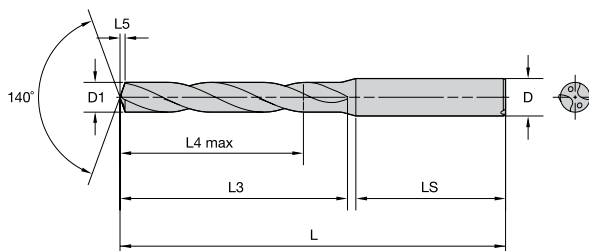
The unique marginless design reduces chipping on the tool's edge and stabilises cutting forces. This unique tool geometry enables chips to roll smoothly and evacuate easily, resulting in noticeably less friction, heat, jamming, and scratching. By minimising these drilling issues, VariDrill delivers an optimum surface finish with every hole — no matter the material.

More Options and Longer Tool Life

Aside from its uniquely engineered design, VariDrill also offers a broad portfolio of drilling options. With more than 2,200 items, VariDrill offers more choices than any other drill for general engineering operations. And because most drills can be reconditioned, your tools will gain extended life.

*VariDrill — Innovatively designed and technologically advanced.
Make VariDrill your go-to drill for hole after hole...after hole.*





order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS201A • 3 x D • Non-Coolant										
4144195	VDS201A01000	WU25PD	1,000	0.0394	5	7	0,1	58	28	4
4144200	VDS201A01100	WU25PD	1,100	0.0433	5	7	0,2	58	28	4
4144523	VDS201A01200	WU25PD	1,200	0.0472	5	7	0,2	58	28	4
4144524	VDS201A01300	WU25PD	1,300	0.0512	5	7	0,2	58	28	4
4144527	VDS201A01400	WU25PD	1,400	0.0551	5	7	0,2	58	28	4
4144528	VDS201A01500	WU25PD	1,500	0.0591	6	9	0,2	58	28	4
4144529	VDS201A01600	WU25PD	1,600	0.0630	6	9	0,2	58	28	4
4144530	VDS201A01700	WU25PD	1,700	0.0669	6	9	0,3	58	28	4
4144531	VDS201A01800	WU25PD	1,800	0.0709	6	9	0,3	58	28	4
4144532	VDS201A01900	WU25PD	1,900	0.0748	6	9	0,3	58	28	4
4144533	VDS201A01984	WU25PD	1,984	0.0781	10	13	0,3	58	28	4
4144534	VDS201A02000	WU25PD	2,000	0.0787	10	13	0,3	58	28	4
4144535	VDS201A02100	WU25PD	2,100	0.0827	10	13	0,3	58	28	4
4144536	VDS201A02200	WU25PD	2,200	0.0866	10	13	0,3	58	28	4
4144537	VDS201A02300	WU25PD	2,300	0.0906	10	13	0,4	58	28	4
4144539	VDS201A02400	WU25PD	2,400	0.0945	12	17	0,4	58	28	4
4144542	VDS201A02500	WU25PD	2,500	0.0984	12	17	0,4	58	28	4
4144544	VDS201A02600	WU25PD	2,600	0.1024	12	17	0,4	58	28	4
4144546	VDS201A02700	WU25PD	2,700	0.1063	12	17	0,4	58	28	4
4144549	VDS201A02800	WU25PD	2,800	0.1102	12	17	0,5	58	28	4
4144552	VDS201A02900	WU25PD	2,900	0.1142	12	17	0,5	58	28	4
4143907	VDS201A03000	WU25PD	3,000	0.1181	14	20	0,5	62	36	6
4143909	VDS201A03100	WU25PD	3,100	0.1220	14	20	0,5	62	36	6
4143911	VDS201A03200	WU25PD	3,200	0.1260	14	20	0,5	62	36	6
4143913	VDS201A03300	WU25PD	3,300	0.1299	14	20	0,5	62	36	6
4143914	VDS201A03400	WU25PD	3,400	0.1339	14	20	0,6	62	36	6
4143916	VDS201A03500	WU25PD	3,500	0.1378	14	20	0,6	62	36	6
4143918	VDS201A03600	WU25PD	3,600	0.1417	14	20	0,6	62	36	6
4143920	VDS201A03700	WU25PD	3,700	0.1457	14	20	0,6	62	36	6
4143922	VDS201A03800	WU25PD	3,800	0.1496	17	24	0,6	66	36	6
4143923	VDS201A03900	WU25PD	3,900	0.1535	17	24	0,6	66	36	6
4143925	VDS201A04000	WU25PD	4,000	0.1575	17	24	0,7	66	36	6
4143926	VDS201A04039	WU25PD	4,039	0.1590	17	24	0,7	66	36	6
4143928	VDS201A04100	WU25PD	4,100	0.1614	17	24	0,7	66	36	6
4143929	VDS201A04200	WU25PD	4,200	0.1654	17	24	0,7	66	36	6
4143931	VDS201A04300	WU25PD	4,300	0.1693	17	24	0,7	66	36	6
4143933	VDS201A04400	WU25PD	4,400	0.1732	17	24	0,7	66	36	6
4143934	VDS201A04500	WU25PD	4,500	0.1772	17	24	0,7	66	36	6
4143935	VDS201A04600	WU25PD	4,600	0.1811	17	24	0,8	66	36	6
4143937	VDS201A04700	WU25PD	4,700	0.1850	17	24	0,8	66	36	6
4143938	VDS201A04763	WU25PD	4,763	0.1875	20	28	0,8	66	36	6
4143939	VDS201A04800	WU25PD	4,800	0.1890	20	28	0,8	66	36	6
4143941	VDS201A04900	WU25PD	4,900	0.1929	20	28	0,8	66	36	6
4143942	VDS201A05000	WU25PD	5,000	0.1969	20	28	0,8	66	36	6
4143943	VDS201A05100	WU25PD	5,100	0.2008	20	28	0,8	66	36	6
4143946	VDS201A05200	WU25PD	5,200	0.2047	20	28	0,9	66	36	6
4143947	VDS201A05300	WU25PD	5,300	0.2087	20	28	0,9	66	36	6
4143948	VDS201A05400	WU25PD	5,400	0.2126	20	28	0,9	66	36	6
4143950	VDS201A05500	WU25PD	5,500	0.2165	20	28	0,9	66	36	6
4143952	VDS201A05600	WU25PD	5,600	0.2205	20	28	0,9	66	36	6
4143954	VDS201A05700	WU25PD	5,700	0.2244	20	28	1,0	66	36	6
4143955	VDS201A05800	WU25PD	5,800	0.2283	20	28	1,0	66	36	6
4143956	VDS201A05900	WU25PD	5,900	0.2323	20	28	1,0	66	36	6
4143958	VDS201A06000	WU25PD	6,000	0.2362	20	28	1,0	66	36	6
4143959	VDS201A06100	WU25PD	6,100	0.2402	24	34	1,0	79	36	8
4143960	VDS201A06200	WU25PD	6,200	0.2441	24	34	1,0	79	36	8
4143961	VDS201A06300	WU25PD	6,300	0.2480	24	34	1,1	79	36	8
4143963	VDS201A06400	WU25PD	6,400	0.2520	24	34	1,1	79	36	8
4143964	VDS201A06500	WU25PD	6,500	0.2559	24	34	1,1	79	36	8

Holemaking

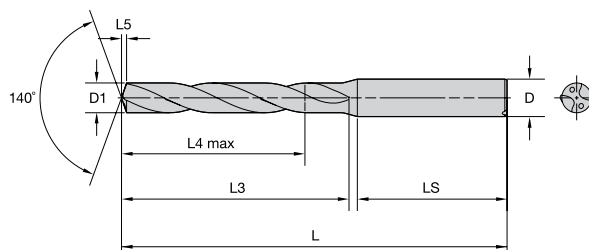
(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS201A • 3 x D • Non-Coolant (continued)										
4143966	VDS201A06600	WU25PD	6,600	0.2598	24	34	1,1	79	36	8
4143968	VDS201A06700	WU25PD	6,700	0.2638	24	34	1,1	79	36	8
4143970	VDS201A06800	WU25PD	6,800	0.2677	24	34	1,1	79	36	8
4143971	VDS201A06900	WU25PD	6,900	0.2717	24	34	1,2	79	36	8
4143972	VDS201A07000	WU25PD	7,000	0.2756	24	34	1,2	79	36	8
4143973	VDS201A07100	WU25PD	7,100	0.2795	29	41	1,2	79	36	8
4143975	VDS201A07200	WU25PD	7,200	0.2835	29	41	1,2	79	36	8
4143976	VDS201A07300	WU25PD	7,300	0.2874	29	41	1,2	79	36	8
4143977	VDS201A07400	WU25PD	7,400	0.2913	29	41	1,3	79	36	8
4143978	VDS201A07500	WU25PD	7,500	0.2953	29	41	1,3	79	36	8
4143980	VDS201A07600	WU25PD	7,600	0.2992	29	41	1,3	79	36	8
4143981	VDS201A07700	WU25PD	7,700	0.3031	29	41	1,3	79	36	8
4143982	VDS201A07800	WU25PD	7,800	0.3071	29	41	1,3	79	36	8
4143983	VDS201A07900	WU25PD	7,900	0.3110	29	41	1,3	79	36	8
4143985	VDS201A08000	WU25PD	8,000	0.3150	29	41	1,4	79	36	8
4143986	VDS201A08100	WU25PD	8,100	0.3189	35	47	1,4	89	40	10
4143987	VDS201A08200	WU25PD	8,200	0.3228	35	47	1,4	89	40	10
4143988	VDS201A08300	WU25PD	8,300	0.3268	35	47	1,4	89	40	10
4143990	VDS201A08400	WU25PD	8,400	0.3307	35	47	1,4	89	40	10
4143992	VDS201A08500	WU25PD	8,500	0.3346	35	47	1,4	89	40	10
4143993	VDS201A08600	WU25PD	8,600	0.3386	35	47	1,5	89	40	10
4143994	VDS201A08700	WU25PD	8,700	0.3425	35	47	1,5	89	40	10
4143996	VDS201A08800	WU25PD	8,800	0.3465	35	47	1,5	89	40	10
4143997	VDS201A08900	WU25PD	8,900	0.3504	35	47	1,5	89	40	10
4143998	VDS201A09000	WU25PD	9,000	0.3543	35	47	1,5	89	40	10
4143999	VDS201A09100	WU25PD	9,100	0.3583	35	47	1,5	89	40	10
4144001	VDS201A09200	WU25PD	9,200	0.3622	35	47	1,6	89	40	10
4144002	VDS201A09300	WU25PD	9,300	0.3661	35	47	1,6	89	40	10
4144004	VDS201A09400	WU25PD	9,400	0.3701	35	47	1,6	89	40	10
4144005	VDS201A09500	WU25PD	9,500	0.3740	35	47	1,6	89	40	10
4144007	VDS201A09600	WU25PD	9,600	0.3780	35	47	1,6	89	40	10
4144008	VDS201A09700	WU25PD	9,700	0.3819	35	47	1,7	89	40	10
4144009	VDS201A09800	WU25PD	9,800	0.3858	35	47	1,7	89	40	10
4144010	VDS201A09900	WU25PD	9,900	0.3898	35	47	1,7	89	40	10
4144172	VDS201A10000	WU25PD	10,000	0.3937	35	47	1,7	89	40	10
4144423	VDS201A10100	WU25PD	10,100	0.3976	40	55	1,7	102	45	12
4144424	VDS201A10200	WU25PD	10,200	0.4016	40	55	1,7	102	45	12
4144425	VDS201A10300	WU25PD	10,300	0.4055	40	55	1,8	102	45	12
4144427	VDS201A10400	WU25PD	10,400	0.4094	40	55	1,8	102	45	12
4144428	VDS201A10500	WU25PD	10,500	0.4134	40	55	1,8	102	45	12
4144429	VDS201A10600	WU25PD	10,600	0.4173	40	55	1,8	102	45	12
4144430	VDS201A10700	WU25PD	10,700	0.4213	40	55	1,8	102	45	12
4144432	VDS201A10800	WU25PD	10,800	0.4252	40	55	1,8	102	45	12
4144433	VDS201A10900	WU25PD	10,900	0.4291	40	55	1,9	102	45	12
4144434	VDS201A11000	WU25PD	11,000	0.4331	40	55	1,9	102	45	12
4144435	VDS201A11100	WU25PD	11,100	0.4370	40	55	1,9	102	45	12
4144437	VDS201A11200	WU25PD	11,200	0.4409	40	55	1,9	102	45	12
4144438	VDS201A11300	WU25PD	11,300	0.4449	40	55	1,9	102	45	12
4144440	VDS201A11500	WU25PD	11,500	0.4528	40	55	2,0	102	45	12
4144442	VDS201A11600	WU25PD	11,600	0.4567	40	55	2,0	102	45	12
4144443	VDS201A11700	WU25PD	11,700	0.4606	40	55	2,0	102	45	12
4144444	VDS201A11800	WU25PD	11,800	0.4646	40	55	2,0	102	45	12
4144445	VDS201A11900	WU25PD	11,900	0.4685	40	55	2,0	102	45	12
4144447	VDS201A12000	WU25PD	12,000	0.4724	40	55	2,1	102	45	12
4144448	VDS201A12100	WU25PD	12,100	0.4764	43	60	2,1	107	45	14
4144449	VDS201A12200	WU25PD	12,200	0.4803	43	60	2,1	107	45	14
4144450	VDS201A12300	WU25PD	12,300	0.4843	43	60	2,1	107	45	14
4144453	VDS201A12500	WU25PD	12,500	0.4921	43	60	2,1	107	45	14
4144454	VDS201A12600	WU25PD	12,600	0.4961	43	60	2,2	107	45	14
4144455	VDS201A12700	WU25PD	12,700	0.5000	43	60	2,2	107	45	14
4144456	VDS201A12800	WU25PD	12,800	0.5039	43	60	2,2	107	45	14
4144458	VDS201A13000	WU25PD	13,000	0.5118	43	60	2,2	107	45	14
4144460	VDS201A13100	WU25PD	13,100	0.5157	43	60	2,3	107	45	14
4144461	VDS201A13200	WU25PD	13,200	0.5197	43	60	2,3	107	45	14
4144464	VDS201A13500	WU25PD	13,500	0.5315	43	60	2,3	107	45	14
4144465	VDS201A13600	WU25PD	13,600	0.5354	43	60	2,3	107	45	14

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(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS201A • 3 x D • Non-Coolant (continued)										
4144466	VDS201A13700	WU25PD	13,700	0.5394	43	60	2,4	107	45	14
4144467	VDS201A13800	WU25PD	13,800	0.5433	43	60	2,4	107	45	14
4144470	VDS201A14000	WU25PD	14,000	0.5512	43	60	2,4	107	45	14
4144471	VDS201A14100	WU25PD	14,100	0.5551	45	65	2,4	115	48	16
4144472	VDS201A14200	WU25PD	14,200	0.5591	45	65	2,5	115	48	16
4144474	VDS201A14300	WU25PD	14,300	0.5630	45	65	2,5	115	48	16
4144476	VDS201A14500	WU25PD	14,500	0.5709	45	65	2,5	115	48	16
4144480	VDS201A14800	WU25PD	14,800	0.5827	45	65	2,6	115	48	16
4144482	VDS201A15000	WU25PD	15,000	0.5906	45	65	2,6	115	48	16
4144484	VDS201A15100	WU25PD	15,100	0.5945	45	65	2,6	115	48	16
4144486	VDS201A15300	WU25PD	15,300	0.6024	45	65	2,6	115	48	16
4144489	VDS201A15500	WU25PD	15,500	0.6102	45	65	2,7	115	48	16
4144491	VDS201A15700	WU25PD	15,700	0.6181	45	65	2,7	115	48	16
4144492	VDS201A15800	WU25PD	15,800	0.6220	45	65	2,7	115	48	16
4144495	VDS201A16000	WU25PD	16,000	0.6299	45	65	2,8	115	48	16
4144496	VDS201A16100	WU25PD	16,100	0.6339	51	73	2,8	123	48	18
4144497	VDS201A16200	WU25PD	16,200	0.6378	51	73	2,8	123	48	18
4144499	VDS201A16300	WU25PD	16,300	0.6417	51	73	2,8	123	48	18
4144500	VDS201A16400	WU25PD	16,400	0.6457	51	73	2,8	123	48	18
4144501	VDS201A16500	WU25PD	16,500	0.6496	51	73	2,9	123	48	18
4144505	VDS201A16700	WU25PD	16,700	0.6575	51	73	2,9	123	48	18
4144508	VDS201A17000	WU25PD	17,000	0.6693	51	73	2,9	123	48	18
4144510	VDS201A17200	WU25PD	17,200	0.6772	51	73	3,0	123	48	18
4144514	VDS201A17500	WU25PD	17,500	0.6890	51	73	3,0	123	48	18
4144517	VDS201A17800	WU25PD	17,800	0.7008	51	73	3,1	123	48	18
4144590	VDS201A18000	WU25PD	18,000	0.7087	51	73	3,1	123	48	18
4144591	VDS201A18100	WU25PD	18,100	0.7126	55	79	3,1	131	50	20
4144592	VDS201A18200	WU25PD	18,200	0.7165	55	79	3,2	131	50	20
4144596	VDS201A18500	WU25PD	18,500	0.7283	55	79	3,2	131	50	20
4144597	VDS201A18600	WU25PD	18,600	0.7323	55	79	3,2	131	50	20
4144602	VDS201A19000	WU25PD	19,000	0.7480	55	79	3,3	131	50	20
4144604	VDS201A19100	WU25PD	19,100	0.7520	55	79	3,3	131	50	20
4144613	VDS201A20000	WU25PD	20,000	0.7874	55	79	3,5	131	50	20



order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS401A • 3 x D • Through Coolant										
4140270	VDS401A01500	WU25PD	1,500	0.0591	6	9	0,2	58	28	4
4140271	VDS401A01600	WU25PD	1,600	0.0630	6	9	0,2	58	28	4
4140272	VDS401A01700	WU25PD	1,700	0.0669	6	9	0,3	58	28	4
4140423	VDS401A01800	WU25PD	1,800	0.0709	6	9	0,3	58	28	4
4140424	VDS401A01900	WU25PD	1,900	0.0748	6	9	0,3	58	28	4
4140426	VDS401A02000	WU25PD	2,000	0.0787	10	13	0,3	58	28	4
4140427	VDS401A02100	WU25PD	2,100	0.0827	10	13	0,3	58	28	4
4140428	VDS401A02200	WU25PD	2,200	0.0866	10	13	0,3	58	28	4
4140429	VDS401A02300	WU25PD	2,300	0.0906	10	13	0,4	58	28	4
4140431	VDS401A02400	WU25PD	2,400	0.0945	12	17	0,4	58	28	4
4140434	VDS401A02500	WU25PD	2,500	0.0984	12	17	0,4	58	28	4
4140436	VDS401A02600	WU25PD	2,600	0.1024	12	17	0,4	58	28	4
4140438	VDS401A02700	WU25PD	2,700	0.1063	12	17	0,4	58	28	4
4140441	VDS401A02800	WU25PD	2,800	0.1102	12	17	0,5	58	28	4
4140444	VDS401A02900	WU25PD	2,900	0.1142	12	17	0,5	58	28	4
4140299	VDS401A03000	WU25PD	3,000	0.1181	14	20	0,5	62	36	6
4140300	VDS401A03048	WU25PD	3,048	0.1200	14	20	0,5	62	36	6
4140301	VDS401A03100	WU25PD	3,100	0.1220	14	20	0,5	62	36	6
4140303	VDS401A03200	WU25PD	3,200	0.1260	14	20	0,5	62	36	6

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(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS401A • 3 x D • Through Coolant (continued)										
4140305	VDS401A03300	WU25PD	3,300	0.1299	14	20	0,5	62	36	6
4140306	VDS401A03400	WU25PD	3,400	0.1339	14	20	0,6	62	36	6
4140308	VDS401A03500	WU25PD	3,500	0.1378	14	20	0,6	62	36	6
4140310	VDS401A03600	WU25PD	3,600	0.1417	14	20	0,6	62	36	6
4140312	VDS401A03700	WU25PD	3,700	0.1457	14	20	0,6	62	36	6
4140314	VDS401A03800	WU25PD	3,800	0.1496	17	24	0,6	66	36	6
4140315	VDS401A03900	WU25PD	3,900	0.1535	17	24	0,6	66	36	6
4140317	VDS401A04000	WU25PD	4,000	0.1575	17	24	0,7	66	36	6
4140320	VDS401A04100	WU25PD	4,100	0.1614	17	24	0,7	66	36	6
4140321	VDS401A04200	WU25PD	4,200	0.1654	17	24	0,7	66	36	6
4140323	VDS401A04300	WU25PD	4,300	0.1693	17	24	0,7	66	36	6
4140325	VDS401A04400	WU25PD	4,400	0.1732	17	24	0,7	66	36	6
4140326	VDS401A04500	WU25PD	4,500	0.1772	17	24	0,7	66	36	6
4140328	VDS401A04600	WU25PD	4,600	0.1811	17	24	0,8	66	36	6
4140330	VDS401A04700	WU25PD	4,700	0.1850	17	24	0,8	66	36	6
4140332	VDS401A04800	WU25PD	4,800	0.1890	20	28	0,8	66	36	6
4140334	VDS401A04900	WU25PD	4,900	0.1929	20	28	0,8	66	36	6
4140335	VDS401A05000	WU25PD	5,000	0.1969	20	28	0,8	66	36	6
4140336	VDS401A05100	WU25PD	5,100	0.2008	20	28	0,8	66	36	6
4140339	VDS401A05200	WU25PD	5,200	0.2047	20	28	0,9	66	36	6
4140340	VDS401A05300	WU25PD	5,300	0.2087	20	28	0,9	66	36	6
4140341	VDS401A05400	WU25PD	5,400	0.2126	20	28	0,9	66	36	6
4140343	VDS401A05500	WU25PD	5,500	0.2165	20	28	0,9	66	36	6
4140345	VDS401A05600	WU25PD	5,600	0.2205	20	28	0,9	66	36	6
4140347	VDS401A05700	WU25PD	5,700	0.2244	20	28	1,0	66	36	6
4140348	VDS401A05800	WU25PD	5,800	0.2283	20	28	1,0	66	36	6
4140349	VDS401A05900	WU25PD	5,900	0.2323	20	28	1,0	66	36	6
4140351	VDS401A06000	WU25PD	6,000	0.2362	20	28	1,0	66	36	6
4140352	VDS401A06100	WU25PD	6,100	0.2402	24	34	1,0	79	36	8
4140353	VDS401A06200	WU25PD	6,200	0.2441	24	34	1,0	79	36	8
4140354	VDS401A06300	WU25PD	6,300	0.2480	24	34	1,1	79	36	8
4140356	VDS401A06400	WU25PD	6,400	0.2520	24	34	1,1	79	36	8
4140357	VDS401A06500	WU25PD	6,500	0.2559	24	34	1,1	79	36	8
4140359	VDS401A06600	WU25PD	6,600	0.2598	24	34	1,1	79	36	8
4140361	VDS401A06700	WU25PD	6,700	0.2638	24	34	1,1	79	36	8
4140363	VDS401A06800	WU25PD	6,800	0.2677	24	34	1,1	79	36	8
4140364	VDS401A06900	WU25PD	6,900	0.2717	24	34	1,2	79	36	8
4140365	VDS401A07000	WU25PD	7,000	0.2756	24	34	1,2	79	36	8
4140366	VDS401A07100	WU25PD	7,100	0.2795	29	41	1,2	79	36	8
4140368	VDS401A07200	WU25PD	7,200	0.2835	29	41	1,2	79	36	8
4140369	VDS401A07300	WU25PD	7,300	0.2874	29	41	1,2	79	36	8
4140370	VDS401A07400	WU25PD	7,400	0.2913	29	41	1,3	79	36	8
4140371	VDS401A07500	WU25PD	7,500	0.2953	29	41	1,3	79	36	8
4140373	VDS401A07600	WU25PD	7,600	0.2992	29	41	1,3	79	36	8
4140374	VDS401A07700	WU25PD	7,700	0.3031	29	41	1,3	79	36	8
4140375	VDS401A07800	WU25PD	7,800	0.3071	29	41	1,3	79	36	8
4140376	VDS401A07900	WU25PD	7,900	0.3110	29	41	1,3	79	36	8
4140378	VDS401A08000	WU25PD	8,000	0.3150	29	41	1,4	79	36	8
4140379	VDS401A08100	WU25PD	8,100	0.3189	35	47	1,4	89	40	10
4140380	VDS401A08200	WU25PD	8,200	0.3228	35	47	1,4	89	40	10
4140381	VDS401A08300	WU25PD	8,300	0.3268	35	47	1,4	89	40	10
4140383	VDS401A08400	WU25PD	8,400	0.3307	35	47	1,4	89	40	10
4140385	VDS401A08500	WU25PD	8,500	0.3346	35	47	1,4	89	40	10
4140386	VDS401A08600	WU25PD	8,600	0.3386	35	47	1,5	89	40	10
4140387	VDS401A08700	WU25PD	8,700	0.3425	35	47	1,5	89	40	10
4140389	VDS401A08800	WU25PD	8,800	0.3465	35	47	1,5	89	40	10
4140390	VDS401A08900	WU25PD	8,900	0.3504	35	47	1,5	89	40	10
4140391	VDS401A09000	WU25PD	9,000	0.3543	35	47	1,5	89	40	10
4140392	VDS401A09100	WU25PD	9,100	0.3583	35	47	1,5	89	40	10
4140394	VDS401A09200	WU25PD	9,200	0.3622	35	47	1,6	89	40	10
4140395	VDS401A09300	WU25PD	9,300	0.3661	35	47	1,6	89	40	10
4140397	VDS401A09400	WU25PD	9,400	0.3701	35	47	1,6	89	40	10
4140398	VDS401A09500	WU25PD	9,500	0.3740	35	47	1,6	89	40	10
4140400	VDS401A09600	WU25PD	9,600	0.3780	35	47	1,6	89	40	10
4140401	VDS401A09700	WU25PD	9,700	0.3819	35	47	1,7	89	40	10
4140402	VDS401A09800	WU25PD	9,800	0.3858	35	47	1,7	89	40	10

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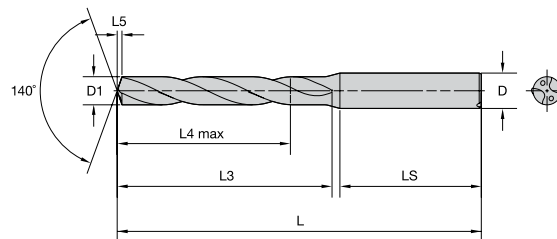
(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS401A • 3 x D • Through Coolant (continued)										
4140403	VDS401A09900	WU25PD	9,900	0.3898	35	47	1,7	89	40	10
4140001	VDS401A10000	WU25PD	10,000	0.3937	35	47	1,7	89	40	10
4140002	VDS401A10100	WU25PD	10,100	0.3976	40	55	1,7	102	45	12
4140163	VDS401A10200	WU25PD	10,200	0.4016	40	55	1,7	102	45	12
4140164	VDS401A10300	WU25PD	10,300	0.4055	40	55	1,8	102	45	12
4140166	VDS401A10400	WU25PD	10,400	0.4094	40	55	1,8	102	45	12
4140167	VDS401A10500	WU25PD	10,500	0.4134	40	55	1,8	102	45	12
4140168	VDS401A10600	WU25PD	10,600	0.4173	40	55	1,8	102	45	12
4140169	VDS401A10700	WU25PD	10,700	0.4213	40	55	1,8	102	45	12
4140171	VDS401A10800	WU25PD	10,800	0.4252	40	55	1,8	102	45	12
4140172	VDS401A10900	WU25PD	10,900	0.4291	40	55	1,9	102	45	12
4140173	VDS401A11000	WU25PD	11,000	0.4331	40	55	1,9	102	45	12
4140174	VDS401A11100	WU25PD	11,100	0.4370	40	55	1,9	102	45	12
4140176	VDS401A11200	WU25PD	11,200	0.4409	40	55	1,9	102	45	12
4140177	VDS401A11300	WU25PD	11,300	0.4449	40	55	1,9	102	45	12
4140178	VDS401A11400	WU25PD	11,400	0.4488	40	55	2,0	102	45	12
4140179	VDS401A11500	WU25PD	11,500	0.4528	40	55	2,0	102	45	12
4140181	VDS401A11600	WU25PD	11,600	0.4567	40	55	2,0	102	45	12
4140182	VDS401A11700	WU25PD	11,700	0.4606	40	55	2,0	102	45	12
4140183	VDS401A11800	WU25PD	11,800	0.4646	40	55	2,0	102	45	12
4140184	VDS401A11900	WU25PD	11,900	0.4685	40	55	2,0	102	45	12
4140186	VDS401A12000	WU25PD	12,000	0.4724	40	55	2,1	102	45	12
4140187	VDS401A12100	WU25PD	12,100	0.4764	43	60	2,1	107	45	14
4140188	VDS401A12200	WU25PD	12,200	0.4803	43	60	2,1	107	45	14
4140189	VDS401A12300	WU25PD	12,300	0.4843	43	60	2,1	107	45	14
4140191	VDS401A12400	WU25PD	12,400	0.4882	43	60	2,1	107	45	14
4140192	VDS401A12500	WU25PD	12,500	0.4921	43	60	2,1	107	45	14
4140194	VDS401A12600	WU25PD	12,600	0.4961	43	60	2,2	107	45	14
4140195	VDS401A12700	WU25PD	12,700	0.5000	43	60	2,2	107	45	14
4140196	VDS401A12800	WU25PD	12,800	0.5039	43	60	2,2	107	45	14
4140197	VDS401A12900	WU25PD	12,900	0.5079	43	60	2,2	107	45	14
4140198	VDS401A13000	WU25PD	13,000	0.5118	43	60	2,2	107	45	14
4140200	VDS401A13100	WU25PD	13,100	0.5157	43	60	2,3	107	45	14
4140201	VDS401A13200	WU25PD	13,200	0.5197	43	60	2,3	107	45	14
4140202	VDS401A13300	WU25PD	13,300	0.5236	43	60	2,3	107	45	14
4140203	VDS401A13400	WU25PD	13,400	0.5276	43	60	2,3	107	45	14
4140204	VDS401A13500	WU25PD	13,500	0.5315	43	60	2,3	107	45	14
4140205	VDS401A13600	WU25PD	13,600	0.5354	43	60	2,3	107	45	14
4140206	VDS401A13700	WU25PD	13,700	0.5394	43	60	2,4	107	45	14
4140207	VDS401A13800	WU25PD	13,800	0.5433	43	60	2,4	107	45	14
4140209	VDS401A13900	WU25PD	13,900	0.5472	43	60	2,4	107	45	14
4140210	VDS401A14000	WU25PD	14,000	0.5512	43	60	2,4	107	45	14
4140211	VDS401A14100	WU25PD	14,100	0.5551	45	65	2,4	115	48	16
4140212	VDS401A14200	WU25PD	14,200	0.5591	45	65	2,5	115	48	16
4140214	VDS401A14300	WU25PD	14,300	0.5630	45	65	2,5	115	48	16
4140215	VDS401A14400	WU25PD	14,400	0.5669	45	65	2,5	115	48	16
4140216	VDS401A14500	WU25PD	14,500	0.5709	45	65	2,5	115	48	16
4140217	VDS401A14600	WU25PD	14,600	0.5748	45	65	2,5	115	48	16
4140219	VDS401A14700	WU25PD	14,700	0.5787	45	65	2,5	115	48	16
4140220	VDS401A14800	WU25PD	14,800	0.5827	45	65	2,6	115	48	16
4140221	VDS401A14900	WU25PD	14,900	0.5866	45	65	2,6	115	48	16
4140222	VDS401A15000	WU25PD	15,000	0.5906	45	65	2,6	115	48	16
4140224	VDS401A15100	WU25PD	15,100	0.5945	45	65	2,6	115	48	16
4140225	VDS401A15200	WU25PD	15,200	0.5984	45	65	2,6	115	48	16
4140226	VDS401A15300	WU25PD	15,300	0.6024	45	65	2,6	115	48	16
4140227	VDS401A15400	WU25PD	15,400	0.6063	45	65	2,7	115	48	16
4140229	VDS401A15500	WU25PD	15,500	0.6102	45	65	2,7	115	48	16
4140230	VDS401A15600	WU25PD	15,600	0.6142	45	65	2,7	115	48	16
4140231	VDS401A15700	WU25PD	15,700	0.6181	45	65	2,7	115	48	16
4140232	VDS401A15800	WU25PD	15,800	0.6220	45	65	2,7	115	48	16
4140234	VDS401A15900	WU25PD	15,900	0.6260	45	65	2,8	115	48	16
4140235	VDS401A16000	WU25PD	16,000	0.6299	45	65	2,8	115	48	16
4140236	VDS401A16100	WU25PD	16,100	0.6339	51	73	2,8	123	48	18
4140237	VDS401A16200	WU25PD	16,200	0.6378	51	73	2,8	123	48	18
4140239	VDS401A16300	WU25PD	16,300	0.6417	51	73	2,8	123	48	18
4140241	VDS401A16400	WU25PD	16,400	0.6457	51	73	2,8	123	48	18

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(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS401A • 3 x D • Through Coolant (continued)										
4140242	VDS401A16500	WU25PD	16,500	0.6496	51	73	2,9	123	48	18
4140243	VDS401A16600	WU25PD	16,600	0.6535	51	73	2,9	123	48	18
4140245	VDS401A16700	WU25PD	16,700	0.6575	51	73	2,9	123	48	18
4140246	VDS401A16800	WU25PD	16,800	0.6614	51	73	2,9	123	48	18
4140247	VDS401A16900	WU25PD	16,900	0.6654	51	73	2,9	123	48	18
4140248	VDS401A17000	WU25PD	17,000	0.6693	51	73	2,9	123	48	18
4140249	VDS401A17100	WU25PD	17,100	0.6732	51	73	3,0	123	48	18
4140250	VDS401A17200	WU25PD	17,200	0.6772	51	73	3,0	123	48	18
4140251	VDS401A17300	WU25PD	17,300	0.6811	51	73	3,0	123	48	18
4140252	VDS401A17400	WU25PD	17,400	0.6850	51	73	3,0	123	48	18
4140254	VDS401A17500	WU25PD	17,500	0.6890	51	73	3,0	123	48	18
4140255	VDS401A17600	WU25PD	17,600	0.6929	51	73	3,1	123	48	18
4140256	VDS401A17700	WU25PD	17,700	0.6969	51	73	3,1	123	48	18
4140257	VDS401A17800	WU25PD	17,800	0.7008	51	73	3,1	123	48	18
4140449	VDS401A18000	WU25PD	18,000	0.7087	51	73	3,1	123	48	18
4140450	VDS401A18100	WU25PD	18,100	0.7126	55	79	3,1	131	50	20
4140451	VDS401A18200	WU25PD	18,200	0.7165	55	79	3,2	131	50	20
4140463	VDS401A18300	WU25PD	18,300	0.7205	55	79	3,2	131	50	20
4140464	VDS401A18400	WU25PD	18,400	0.7244	55	79	3,2	131	50	20
4140465	VDS401A18500	WU25PD	18,500	0.7283	55	79	3,2	131	50	20
4140466	VDS401A18600	WU25PD	18,600	0.7323	55	79	3,2	131	50	20
4140468	VDS401A18700	WU25PD	18,700	0.7362	55	79	3,2	131	50	20
4140469	VDS401A18800	WU25PD	18,800	0.7402	55	79	3,3	131	50	20
4140470	VDS401A18900	WU25PD	18,900	0.7441	55	79	3,3	131	50	20
4140471	VDS401A19000	WU25PD	19,000	0.7480	55	79	3,3	131	50	20
4140473	VDS401A19100	WU25PD	19,100	0.7520	55	79	3,3	131	50	20
4140474	VDS401A19200	WU25PD	19,200	0.7559	55	79	3,3	131	50	20
4140475	VDS401A19300	WU25PD	19,300	0.7598	55	79	3,4	131	50	20
4140476	VDS401A19400	WU25PD	19,400	0.7638	55	79	3,4	131	50	20
4140477	VDS401A19500	WU25PD	19,500	0.7677	55	79	3,4	131	50	20
4140478	VDS401A19600	WU25PD	19,600	0.7717	55	79	3,4	131	50	20
4140479	VDS401A19700	WU25PD	19,700	0.7756	55	79	3,4	131	50	20
4140480	VDS401A19800	WU25PD	19,800	0.7795	55	79	3,4	131	50	20
4140481	VDS401A19900	WU25PD	19,900	0.7835	55	79	3,5	131	50	20
4140482	VDS401A20000	WU25PD	20,000	0.7874	55	79	3,5	131	50	20



order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS202A • 5 x D • Non-Coolant										
4148000	VDS202A01000	WU25PD	1,000	0.0394	6	9	0,1	58	28	4
4148005	VDS202A01100	WU25PD	1,100	0.0433	6	9	0,2	58	28	4
4148008	VDS202A01200	WU25PD	1,200	0.0472	6	9	0,2	58	28	4
4148009	VDS202A01300	WU25PD	1,300	0.0512	6	9	0,2	58	28	4
4148012	VDS202A01400	WU25PD	1,400	0.0551	6	9	0,2	58	28	4
4148013	VDS202A01500	WU25PD	1,500	0.0591	9	12	0,2	58	40	4
4148014	VDS202A01600	WU25PD	1,600	0.0630	9	12	0,2	58	28	4
4148015	VDS202A01700	WU25PD	1,700	0.0669	9	12	0,3	58	28	4
4148016	VDS202A01800	WU25PD	1,800	0.0709	9	12	0,3	58	28	4
4148017	VDS202A01900	WU25PD	1,900	0.0748	9	12	0,3	58	28	4
4148019	VDS202A02000	WU25PD	2,000	0.0787	14	18	0,3	58	28	4
4148020	VDS202A02100	WU25PD	2,100	0.0827	14	18	0,3	58	28	4

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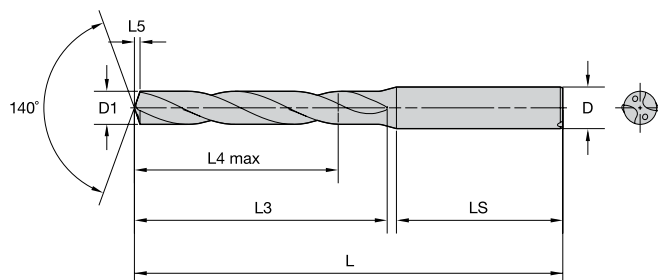
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order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS202A • 5 x D • Non-Coolant (continued)										
4148021	VDS202A02200	WU25PD	2,200	0.0866	14	18	0,3	58	28	4
4148022	VDS202A02300	WU25PD	2,300	0.0906	14	18	0,4	58	28	4
4148024	VDS202A02400	WU25PD	2,400	0.0945	17	22	0,4	58	28	4
4148027	VDS202A02500	WU25PD	2,500	0.0984	17	22	0,4	58	28	4
4148029	VDS202A02600	WU25PD	2,600	0.1024	17	22	0,4	58	28	4
4148031	VDS202A02700	WU25PD	2,700	0.1063	17	22	0,4	58	28	4
4148034	VDS202A02800	WU25PD	2,800	0.1102	17	22	0,5	58	28	4
4148037	VDS202A02900	WU25PD	2,900	0.1142	17	22	0,5	58	28	4
4148142	VDS202A03000	WU25PD	3,000	0.1181	23	28	0,5	66	36	6
4148144	VDS202A03100	WU25PD	3,100	0.1220	23	28	0,5	66	36	6
4148146	VDS202A03200	WU25PD	3,200	0.1260	23	28	0,5	66	36	6
4148148	VDS202A03300	WU25PD	3,300	0.1299	23	28	0,5	66	36	6
4148149	VDS202A03400	WU25PD	3,400	0.1339	23	28	0,6	66	36	6
4148151	VDS202A03500	WU25PD	3,500	0.1378	23	28	0,6	66	36	6
4148153	VDS202A03600	WU25PD	3,600	0.1417	23	28	0,6	66	36	6
4148155	VDS202A03700	WU25PD	3,700	0.1457	23	28	0,6	66	36	6
4148157	VDS202A03800	WU25PD	3,800	0.1496	29	36	0,6	74	36	6
4148158	VDS202A03900	WU25PD	3,900	0.1535	29	36	0,6	74	36	6
4148160	VDS202A04000	WU25PD	4,000	0.1575	29	36	0,7	74	36	6
4148163	VDS202A04100	WU25PD	4,100	0.1614	29	36	0,7	74	36	6
4148164	VDS202A04200	WU25PD	4,200	0.1654	29	36	0,7	74	36	6
4148166	VDS202A04300	WU25PD	4,300	0.1693	29	36	0,7	74	36	6
4148168	VDS202A04400	WU25PD	4,400	0.1732	29	36	0,7	74	36	6
4148169	VDS202A04500	WU25PD	4,500	0.1772	29	36	0,7	74	36	6
4148170	VDS202A04600	WU25PD	4,600	0.1811	29	36	0,8	74	36	6
4148172	VDS202A04700	WU25PD	4,700	0.1850	29	36	0,8	74	36	6
4148174	VDS202A04800	WU25PD	4,800	0.1890	35	44	0,8	82	36	6
4148176	VDS202A04900	WU25PD	4,900	0.1929	35	44	0,8	82	36	6
4148177	VDS202A05000	WU25PD	5,000	0.1969	35	44	0,8	82	36	6
4148178	VDS202A05100	WU25PD	5,100	0.2008	35	44	0,8	82	36	6
4148181	VDS202A05200	WU25PD	5,200	0.2047	35	44	0,9	82	36	6
4148182	VDS202A05300	WU25PD	5,300	0.2087	35	44	0,9	82	36	6
4148183	VDS202A05400	WU25PD	5,400	0.2126	35	44	0,9	82	36	6
4148185	VDS202A05500	WU25PD	5,500	0.2165	35	44	0,9	82	36	6
4148187	VDS202A05600	WU25PD	5,600	0.2205	35	44	0,9	82	36	6
4148189	VDS202A05700	WU25PD	5,700	0.2244	35	44	1,0	82	36	6
4148190	VDS202A05800	WU25PD	5,800	0.2283	35	44	1,0	82	36	6
4148191	VDS202A05900	WU25PD	5,900	0.2323	35	44	1,0	82	36	6
4148193	VDS202A06000	WU25PD	6,000	0.2362	35	44	1,0	82	36	6
4148194	VDS202A06100	WU25PD	6,100	0.2402	43	53	1,0	91	36	8
4148195	VDS202A06200	WU25PD	6,200	0.2441	43	53	1,0	91	36	8
4148196	VDS202A06300	WU25PD	6,300	0.2480	43	53	1,1	91	36	8
4148198	VDS202A06400	WU25PD	6,400	0.2520	43	53	1,1	91	36	8
4148199	VDS202A06500	WU25PD	6,500	0.2559	43	53	1,1	91	36	8
4148201	VDS202A06600	WU25PD	6,600	0.2598	43	53	1,1	91	36	8
4148203	VDS202A06700	WU25PD	6,700	0.2638	43	53	1,1	91	36	8
4148205	VDS202A06800	WU25PD	6,800	0.2677	43	53	1,1	91	36	8
4148206	VDS202A06900	WU25PD	6,900	0.2717	43	53	1,2	91	36	8
4148207	VDS202A07000	WU25PD	7,000	0.2756	43	53	1,2	91	36	8
4148208	VDS202A07100	WU25PD	7,100	0.2795	43	53	1,2	91	36	8
4148210	VDS202A07200	WU25PD	7,200	0.2835	43	53	1,2	91	36	8
4148211	VDS202A07300	WU25PD	7,300	0.2874	43	53	1,2	91	36	8
4148212	VDS202A07400	WU25PD	7,400	0.2913	43	53	1,3	91	36	8
4148213	VDS202A07500	WU25PD	7,500	0.2953	43	53	1,3	91	36	8
4148215	VDS202A07600	WU25PD	7,600	0.2992	43	53	1,3	91	36	8
4148216	VDS202A07700	WU25PD	7,700	0.3031	43	53	1,3	91	36	8
4148217	VDS202A07800	WU25PD	7,800	0.3071	43	53	1,3	91	36	8
4148218	VDS202A07900	WU25PD	7,900	0.3110	43	53	1,3	91	36	8
4148220	VDS202A08000	WU25PD	8,000	0.3150	43	53	1,4	91	36	8
4148221	VDS202A08100	WU25PD	8,100	0.3189	49	61	1,4	103	40	10
4148222	VDS202A08200	WU25PD	8,200	0.3228	49	61	1,4	103	40	10
4148223	VDS202A08300	WU25PD	8,300	0.3268	49	61	1,4	103	40	10
4148225	VDS202A08400	WU25PD	8,400	0.3307	49	61	1,4	103	40	10
4148227	VDS202A08500	WU25PD	8,500	0.3346	49	61	1,4	103	40	10
4148228	VDS202A08600	WU25PD	8,600	0.3386	49	61	1,5	103	40	10
4148229	VDS202A08700	WU25PD	8,700	0.3425	49	61	1,5	103	40	10

(continued)

(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS202A • 5 x D • Non-Coolant (continued)										
4148231	VDS202A08800	WU25PD	8,800	0.3465	49	61	1,5	103	40	10
4148232	VDS202A08900	WU25PD	8,900	0.3504	49	61	1,5	103	40	10
4148233	VDS202A09000	WU25PD	9,000	0.3543	49	61	1,5	103	40	10
4148234	VDS202A09100	WU25PD	9,100	0.3583	49	61	1,6	103	40	10
4148236	VDS202A09200	WU25PD	9,200	0.3622	49	61	1,6	103	40	10
4148237	VDS202A09300	WU25PD	9,300	0.3661	49	61	1,6	103	40	10
4148239	VDS202A09400	WU25PD	9,400	0.3701	49	61	1,6	103	40	10
4148240	VDS202A09500	WU25PD	9,500	0.3740	49	61	1,6	103	40	10
4148243	VDS202A09700	WU25PD	9,700	0.3819	49	61	1,7	103	40	10
4148244	VDS202A09800	WU25PD	9,800	0.3858	49	61	1,7	103	40	10
4148245	VDS202A09900	WU25PD	9,900	0.3898	49	61	1,7	103	40	10
4148258	VDS202A10000	WU25PD	10,000	0.3937	49	61	1,7	103	40	10
4148259	VDS202A10100	WU25PD	10,100	0.3976	56	71	1,7	118	45	12
4148260	VDS202A10200	WU25PD	10,200	0.4016	56	71	1,7	118	45	12
4148261	VDS202A10300	WU25PD	10,300	0.4055	56	71	1,8	118	45	12
4148284	VDS202A10500	WU25PD	10,500	0.4134	56	71	1,8	118	45	12
4148285	VDS202A10600	WU25PD	10,600	0.4173	56	71	1,8	118	45	12
4148286	VDS202A10700	WU25PD	10,700	0.4213	56	71	1,8	118	45	12
4148288	VDS202A10800	WU25PD	10,800	0.4252	56	71	1,8	118	45	12
4148289	VDS202A10900	WU25PD	10,900	0.4291	56	71	1,9	118	45	12
4148290	VDS202A11000	WU25PD	11,000	0.4331	56	71	1,9	118	45	12
4148291	VDS202A11100	WU25PD	11,100	0.4370	56	71	1,9	118	45	12
4148293	VDS202A11200	WU25PD	11,200	0.4409	56	71	1,9	118	45	12
4148294	VDS202A11300	WU25PD	11,300	0.4449	56	71	1,9	118	45	12
4148296	VDS202A11500	WU25PD	11,500	0.4528	56	71	2,0	118	45	12
4148298	VDS202A11600	WU25PD	11,600	0.4567	56	71	2,0	118	45	12
4148299	VDS202A11700	WU25PD	11,700	0.4606	56	71	2,0	118	45	12
4148300	VDS202A11800	WU25PD	11,800	0.4646	56	71	2,0	118	45	12
4148301	VDS202A11900	WU25PD	11,900	0.4685	56	71	2,0	118	45	12
4148313	VDS202A12000	WU25PD	12,000	0.4724	56	71	2,1	118	45	12
4148314	VDS202A12100	WU25PD	12,100	0.4764	60	77	2,1	124	45	14
4148315	VDS202A12200	WU25PD	12,200	0.4803	60	77	2,1	124	45	14
4148319	VDS202A12500	WU25PD	12,500	0.4921	60	77	2,1	124	45	14
4148320	VDS202A12600	WU25PD	12,600	0.4961	60	77	2,2	124	45	14
4148321	VDS202A12700	WU25PD	12,700	0.5000	60	77	2,2	124	45	14
4148322	VDS202A12800	WU25PD	12,800	0.5039	60	77	2,2	124	45	14
4148343	VDS202A12900	WU25PD	12,900	0.5079	60	77	2,2	124	45	14
4148344	VDS202A13000	WU25PD	13,000	0.5118	60	77	2,2	124	45	14
4148346	VDS202A13100	WU25PD	13,100	0.5157	60	77	2,3	124	45	14
4148347	VDS202A13200	WU25PD	13,200	0.5197	60	77	2,3	124	45	14
4148350	VDS202A13500	WU25PD	13,500	0.5315	60	77	2,3	124	45	14
4148353	VDS202A13800	WU25PD	13,800	0.5433	60	77	2,4	124	45	14
4148356	VDS202A14000	WU25PD	14,000	0.5512	60	77	2,4	124	45	14
4148357	VDS202A14100	WU25PD	14,100	0.5551	63	83	2,4	133	48	16
4148358	VDS202A14200	WU25PD	14,200	0.5591	63	83	2,5	133	48	16
4148360	VDS202A14300	WU25PD	14,300	0.5630	63	83	2,5	133	48	16
4148362	VDS202A14500	WU25PD	14,500	0.5709	63	83	2,5	133	48	16
4148366	VDS202A14800	WU25PD	14,800	0.5827	63	83	2,6	133	48	16
4148367	VDS202A14900	WU25PD	14,900	0.5866	63	83	2,6	133	48	16
4148368	VDS202A15000	WU25PD	15,000	0.5906	63	83	2,6	133	48	16
4148370	VDS202A15100	WU25PD	15,100	0.5945	63	83	2,6	133	48	16
4148371	VDS202A15200	WU25PD	15,200	0.5984	63	83	2,6	133	48	16
4148375	VDS202A15500	WU25PD	15,500	0.6102	63	83	2,7	133	48	16
4148378	VDS202A15800	WU25PD	15,800	0.6220	63	83	2,7	133	48	16
4148381	VDS202A16000	WU25PD	16,000	0.6299	63	83	2,8	133	48	16
4148382	VDS202A16100	WU25PD	16,100	0.6339	71	93	2,8	143	48	18
4148387	VDS202A16500	WU25PD	16,500	0.6496	71	93	2,9	143	48	18
4148393	VDS202A17000	WU25PD	17,000	0.6693	71	93	2,9	143	48	18
4148394	VDS202A17100	WU25PD	17,100	0.6732	71	93	3,0	143	48	18
4148399	VDS202A17500	WU25PD	17,500	0.6890	71	93	3,0	143	48	18
4147921	VDS202A18000	WU25PD	18,000	0.7087	71	93	3,1	143	48	18
4148307	VDS202A18500	WU25PD	18,500	0.7283	77	101	3,2	153	50	20
4148329	VDS202A19500	WU25PD	19,500	0.7677	77	101	3,4	153	50	20
4148333	VDS202A19900	WU25PD	19,900	0.7835	77	101	3,5	153	50	20
4148334	VDS202A20000	WU25PD	20,000	0.7874	77	101	3,5	153	50	20



order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS402A • 5 x D • Through Coolant										
4142871	VDS402A01500	WU25PD	1,500	0.0591	9	12	0,2	58	40	4
4142884	VDS402A01600	WU25PD	1,600	0.0630	9	12	0,2	58	28	4
4142887	VDS402A01700	WU25PD	1,700	0.0669	9	12	0,3	58	28	4
4142890	VDS402A01800	WU25PD	1,800	0.0709	9	12	0,3	58	28	4
4142893	VDS402A01900	WU25PD	1,900	0.0748	9	12	0,3	58	28	4
4142899	VDS402A02000	WU25PD	2,000	0.0787	14	18	0,3	58	28	4
4142902	VDS402A02100	WU25PD	2,100	0.0827	14	18	0,3	58	28	4
4142905	VDS402A02200	WU25PD	2,200	0.0866	14	18	0,3	58	28	4
4142908	VDS402A02300	WU25PD	2,300	0.0906	14	18	0,4	58	28	4
4142924	VDS402A02400	WU25PD	2,400	0.0945	17	22	0,4	58	28	4
4142933	VDS402A02500	WU25PD	2,500	0.0984	17	22	0,4	58	28	4
4142939	VDS402A02600	WU25PD	2,600	0.1024	17	22	0,4	58	28	4
4142945	VDS402A02700	WU25PD	2,700	0.1063	17	22	0,4	58	28	4
4142964	VDS402A02800	WU25PD	2,800	0.1102	17	22	0,5	58	28	4
4142973	VDS402A02900	WU25PD	2,900	0.1142	17	22	0,5	58	28	4
4142844	VDS402A03000	WU25PD	3,000	0.1181	23	28	0,5	66	36	6
4142846	VDS402A03048	WU25PD	3,048	0.1200	23	28	0,5	66	36	6
4142847	VDS402A03100	WU25PD	3,100	0.1220	23	28	0,5	66	36	6
4142851	VDS402A03200	WU25PD	3,200	0.1260	23	28	0,5	66	36	6
4142865	VDS402A03300	WU25PD	3,300	0.1299	23	28	0,5	66	36	6
4142867	VDS402A03400	WU25PD	3,400	0.1339	23	28	0,6	66	36	6
4142872	VDS402A03500	WU25PD	3,500	0.1378	23	28	0,6	66	36	6
4142888	VDS402A03600	WU25PD	3,600	0.1417	23	28	0,6	66	36	6
4142894	VDS402A03700	WU25PD	3,700	0.1457	23	28	0,6	66	36	6
4142900	VDS402A03800	WU25PD	3,800	0.1496	29	36	0,6	74	36	6
4142903	VDS402A03900	WU25PD	3,900	0.1535	29	36	0,6	74	36	6
4142909	VDS402A04000	WU25PD	4,000	0.1575	29	36	0,7	74	36	6
4142928	VDS402A04100	WU25PD	4,100	0.1614	29	36	0,7	74	36	6
4142931	VDS402A04200	WU25PD	4,200	0.1654	29	36	0,7	74	36	6
4142937	VDS402A04300	WU25PD	4,300	0.1693	29	36	0,7	74	36	6
4142943	VDS402A04400	WU25PD	4,400	0.1732	29	36	0,7	74	36	6
4142946	VDS402A04500	WU25PD	4,500	0.1772	29	36	0,7	74	36	6
4142949	VDS402A04600	WU25PD	4,600	0.1811	29	36	0,8	74	36	6
4142952	VDS402A04623	WU25PD	4,623	0.1820	29	36	0,8	74	36	6
4142965	VDS402A04700	WU25PD	4,700	0.1850	29	36	0,8	74	36	6
4142971	VDS402A04800	WU25PD	4,800	0.1890	35	44	0,8	82	36	6
4142977	VDS402A04900	WU25PD	4,900	0.1929	35	44	0,8	82	36	6
4142979	VDS402A05000	WU25PD	5,000	0.1969	35	44	0,8	82	36	6
4142981	VDS402A05100	WU25PD	5,100	0.2008	35	44	0,8	82	36	6
4142997	VDS402A05200	WU25PD	5,200	0.2047	35	44	0,9	82	36	6
4142999	VDS402A05300	WU25PD	5,300	0.2087	35	44	0,9	82	36	6
4143000	VDS402A05400	WU25PD	5,400	0.2126	35	44	0,9	82	36	6
4143002	VDS402A05500	WU25PD	5,500	0.2165	35	44	0,9	82	36	6
4143003	VDS402A05558	WU25PD	5,558	0.2188	35	44	0,9	82	36	6
4143004	VDS402A05600	WU25PD	5,600	0.2205	35	44	0,9	82	36	6
4143006	VDS402A05700	WU25PD	5,700	0.2244	35	44	1,0	82	36	6
4143007	VDS402A05800	WU25PD	5,800	0.2283	35	44	1,0	82	36	6
4143008	VDS402A05900	WU25PD	5,900	0.2323	35	44	1,0	82	36	6
4143010	VDS402A06000	WU25PD	6,000	0.2362	35	44	1,0	82	36	6
4143011	VDS402A06100	WU25PD	6,100	0.2402	43	53	1,0	91	36	8
4143012	VDS402A06200	WU25PD	6,200	0.2441	43	53	1,0	91	36	8
4143023	VDS402A06300	WU25PD	6,300	0.2480	43	53	1,1	91	36	8
4143025	VDS402A06400	WU25PD	6,400	0.2520	43	53	1,1	91	36	8
4143026	VDS402A06500	WU25PD	6,500	0.2559	43	53	1,1	91	36	8
4143028	VDS402A06600	WU25PD	6,600	0.2598	43	53	1,1	91	36	8
4143030	VDS402A06700	WU25PD	6,700	0.2638	43	53	1,1	91	36	8
4143032	VDS402A06800	WU25PD	6,800	0.2677	43	53	1,1	91	36	8

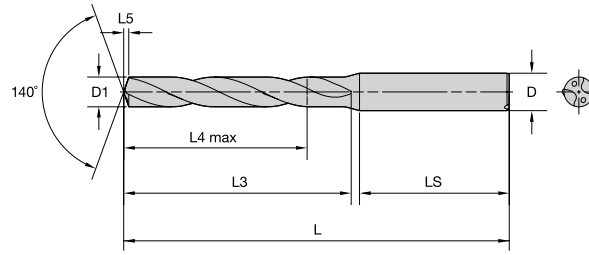
(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS402A • 5 x D • Through Coolant (continued)										
4143043	VDS402A06900	WU25PD	6,900	0.2717	43	53	1,2	91	36	8
4143044	VDS402A07000	WU25PD	7,000	0.2756	43	53	1,2	91	36	8
4143045	VDS402A07100	WU25PD	7,100	0.2795	43	53	1,2	91	36	8
4143047	VDS402A07200	WU25PD	7,200	0.2835	43	53	1,2	91	36	8
4143048	VDS402A07300	WU25PD	7,300	0.2874	43	53	1,2	91	36	8
4143049	VDS402A07400	WU25PD	7,400	0.2913	43	53	1,3	91	36	8
4143050	VDS402A07500	WU25PD	7,500	0.2953	43	53	1,3	91	36	8
4143052	VDS402A07600	WU25PD	7,600	0.2992	43	53	1,3	91	36	8
4143063	VDS402A07700	WU25PD	7,700	0.3031	43	53	1,3	91	36	8
4143064	VDS402A07800	WU25PD	7,800	0.3071	43	53	1,3	91	36	8
4143065	VDS402A07900	WU25PD	7,900	0.3110	43	53	1,3	91	36	8
4143067	VDS402A08000	WU25PD	8,000	0.3150	43	53	1,4	91	36	8
4143068	VDS402A08100	WU25PD	8,100	0.3189	49	61	1,4	103	40	10
4143069	VDS402A08200	WU25PD	8,200	0.3228	49	61	1,4	103	40	10
4143070	VDS402A08300	WU25PD	8,300	0.3268	49	61	1,4	103	40	10
4143072	VDS402A08400	WU25PD	8,400	0.3307	49	61	1,4	103	40	10
4143084	VDS402A08500	WU25PD	8,500	0.3346	49	61	1,4	103	40	10
4143085	VDS402A08600	WU25PD	8,600	0.3386	49	61	1,5	103	40	10
4143086	VDS402A08700	WU25PD	8,700	0.3425	49	61	1,5	103	40	10
4143088	VDS402A08800	WU25PD	8,800	0.3465	49	61	1,5	103	40	10
4143089	VDS402A08900	WU25PD	8,900	0.3504	49	61	1,5	103	40	10
4143090	VDS402A09000	WU25PD	9,000	0.3543	49	61	1,5	103	40	10
4143091	VDS402A09100	WU25PD	9,100	0.3583	49	61	1,5	103	40	10
4143103	VDS402A09200	WU25PD	9,200	0.3622	49	61	1,6	103	40	10
4143104	VDS402A09300	WU25PD	9,300	0.3661	49	61	1,6	103	40	10
4143106	VDS402A09400	WU25PD	9,400	0.3701	49	61	1,6	103	40	10
4143107	VDS402A09500	WU25PD	9,500	0.3740	49	61	1,6	103	40	10
4143109	VDS402A09600	WU25PD	9,600	0.3780	49	61	1,6	103	40	10
4143110	VDS402A09700	WU25PD	9,700	0.3819	49	61	1,7	103	40	10
4143111	VDS402A09800	WU25PD	9,800	0.3858	49	61	1,7	103	40	10
4143112	VDS402A09900	WU25PD	9,900	0.3898	49	61	1,7	103	40	10
4142823	VDS402A10000	WU25PD	10,000	0.3937	49	61	1,7	103	40	10
4142825	VDS402A10100	WU25PD	10,100	0.3976	56	71	1,7	118	45	12
4142827	VDS402A10200	WU25PD	10,200	0.4016	56	71	1,7	118	45	12
4142829	VDS402A10300	WU25PD	10,300	0.4055	56	71	1,8	118	45	12
4142832	VDS402A10400	WU25PD	10,400	0.4094	56	71	1,8	118	45	12
4142834	VDS402A10500	WU25PD	10,500	0.4134	56	71	1,8	118	45	12
4142836	VDS402A10600	WU25PD	10,600	0.4173	56	71	1,8	118	45	12
4142838	VDS402A10700	WU25PD	10,700	0.4213	56	71	1,8	118	45	12
4142842	VDS402A10800	WU25PD	10,800	0.4252	56	71	1,8	118	45	12
4142855	VDS402A10900	WU25PD	10,900	0.4291	56	71	1,9	118	45	12
4142857	VDS402A11000	WU25PD	11,000	0.4331	56	71	1,9	118	45	12
4142858	VDS402A11100	WU25PD	11,100	0.4370	56	71	1,9	118	45	12
4142862	VDS402A11200	WU25PD	11,200	0.4409	56	71	1,9	118	45	12
4142873	VDS402A11300	WU25PD	11,300	0.4449	56	71	1,9	118	45	12
4142874	VDS402A11400	WU25PD	11,400	0.4488	56	71	2,0	118	45	12
4142875	VDS402A11500	WU25PD	11,500	0.4528	56	71	2,0	118	45	12
4142877	VDS402A11600	WU25PD	11,600	0.4567	56	71	2,0	118	45	12
4142878	VDS402A11700	WU25PD	11,700	0.4606	56	71	2,0	118	45	12
4142879	VDS402A11800	WU25PD	11,800	0.4646	56	71	2,0	118	45	12
4142880	VDS402A11900	WU25PD	11,900	0.4685	56	71	2,0	118	45	12
4142882	VDS402A12000	WU25PD	12,000	0.4724	56	71	2,1	118	45	12
4142913	VDS402A12100	WU25PD	12,100	0.4764	60	77	2,1	124	45	14
4142914	VDS402A12200	WU25PD	12,200	0.4803	60	77	2,1	124	45	14
4142915	VDS402A12300	WU25PD	12,300	0.4843	60	77	2,1	124	45	14
4142917	VDS402A12400	WU25PD	12,400	0.4882	60	77	2,1	124	45	14
4142918	VDS402A12500	WU25PD	12,500	0.4921	60	77	2,1	124	45	14
4142919	VDS402A12600	WU25PD	12,600	0.4961	60	77	2,2	124	45	14
4142920	VDS402A12700	WU25PD	12,700	0.5000	60	77	2,2	124	45	14
4142921	VDS402A12800	WU25PD	12,800	0.5039	60	77	2,2	124	45	14
4142922	VDS402A12900	WU25PD	12,900	0.5079	60	77	2,2	124	45	14
4142953	VDS402A13000	WU25PD	13,000	0.5118	60	77	2,2	124	45	14
4142955	VDS402A13100	WU25PD	13,100	0.5157	60	77	2,3	124	45	14

(continued)

(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
4142956	VDS402A13200	WU25PD	13,200	0.5197	60	77	2,3	124	45	14
VDS402A • 5 x D • Through Coolant (continued)										
4142957	VDS402A13300	WU25PD	13,300	0.5236	60	77	2,3	124	45	14
4142958	VDS402A13400	WU25PD	13,400	0.5276	60	77	2,3	124	45	14
4142959	VDS402A13500	WU25PD	13,500	0.5315	60	77	2,3	124	45	14
4142960	VDS402A13600	WU25PD	13,600	0.5354	60	77	2,3	124	45	14
4142961	VDS402A13700	WU25PD	13,700	0.5394	60	77	2,4	124	45	14
4142962	VDS402A13800	WU25PD	13,800	0.5433	60	77	2,4	124	45	14
4142984	VDS402A13900	WU25PD	13,900	0.5472	60	77	2,4	124	45	14
4142985	VDS402A14000	WU25PD	14,000	0.5512	60	77	2,4	124	45	14
4142986	VDS402A14100	WU25PD	14,100	0.5551	63	83	2,4	133	48	16
4142987	VDS402A14200	WU25PD	14,200	0.5591	63	83	2,5	133	48	16
4142989	VDS402A14300	WU25PD	14,300	0.5630	63	83	2,5	133	48	16
4142990	VDS402A14400	WU25PD	14,400	0.5669	63	83	2,5	133	48	16
4142991	VDS402A14500	WU25PD	14,500	0.5709	63	83	2,5	133	48	16
4142992	VDS402A14600	WU25PD	14,600	0.5748	63	83	2,5	133	48	16
4143014	VDS402A14700	WU25PD	14,700	0.5787	63	83	2,5	133	48	16
4143015	VDS402A14800	WU25PD	14,800	0.5827	63	83	2,6	133	48	16
4143016	VDS402A14900	WU25PD	14,900	0.5866	63	83	2,6	133	48	16
4143017	VDS402A15000	WU25PD	15,000	0.5906	63	83	2,6	133	48	16
4143019	VDS402A15100	WU25PD	15,100	0.5945	63	83	2,6	133	48	16
4143020	VDS402A15200	WU25PD	15,200	0.5984	63	83	2,6	133	48	16
4143021	VDS402A15300	WU25PD	15,300	0.6024	63	83	2,6	133	48	16
4143022	VDS402A15400	WU25PD	15,400	0.6063	63	83	2,7	133	48	16
4143034	VDS402A15500	WU25PD	15,500	0.6102	63	83	2,7	133	48	16
4143035	VDS402A15600	WU25PD	15,600	0.6142	63	83	2,7	133	48	16
4143036	VDS402A15700	WU25PD	15,700	0.6181	63	83	2,7	133	48	16
4143037	VDS402A15800	WU25PD	15,800	0.6220	63	83	2,7	133	48	16
4143039	VDS402A15900	WU25PD	15,900	0.6260	63	83	2,8	133	48	16
4143040	VDS402A16000	WU25PD	16,000	0.6299	63	83	2,8	133	48	16
4143041	VDS402A16100	WU25PD	16,100	0.6339	71	93	2,8	143	48	18
4143042	VDS402A16200	WU25PD	16,200	0.6378	71	93	2,8	143	48	18
4143054	VDS402A16300	WU25PD	16,300	0.6417	71	93	2,8	143	48	18
4143055	VDS402A16400	WU25PD	16,400	0.6457	71	93	2,8	143	48	18
4143056	VDS402A16500	WU25PD	16,500	0.6496	71	93	2,9	143	48	18
4143057	VDS402A16600	WU25PD	16,600	0.6535	71	93	2,9	143	48	18
4143059	VDS402A16700	WU25PD	16,700	0.6575	71	93	2,9	143	48	18
4143060	VDS402A16800	WU25PD	16,800	0.6614	71	93	2,9	143	48	18
4143061	VDS402A16900	WU25PD	16,900	0.6654	71	93	2,9	143	48	18
4143062	VDS402A17000	WU25PD	17,000	0.6693	71	93	2,9	143	48	18
4143073	VDS402A17100	WU25PD	17,100	0.6732	71	93	3,0	143	48	18
4143074	VDS402A17200	WU25PD	17,200	0.6772	71	93	3,0	143	48	18
4143075	VDS402A17300	WU25PD	17,300	0.6811	71	93	3,0	143	48	18
4143076	VDS402A17400	WU25PD	17,400	0.6850	71	93	3,0	143	48	18
4143078	VDS402A17500	WU25PD	17,500	0.6890	71	93	3,0	143	48	18
4143079	VDS402A17600	WU25PD	17,600	0.6929	71	93	3,1	143	48	18
4143080	VDS402A17700	WU25PD	17,700	0.6969	71	93	3,1	143	48	18
4143081	VDS402A17800	WU25PD	17,800	0.7008	71	93	3,1	143	48	18
4143093	VDS402A17900	WU25PD	17,900	0.7047	71	93	3,1	143	48	18
4142803	VDS402A18000	WU25PD	18,000	0.7087	71	93	3,1	143	48	18
4142804	VDS402A18100	WU25PD	18,100	0.7126	77	101	3,1	153	50	20
4142805	VDS402A18200	WU25PD	18,200	0.7165	77	101	3,2	153	50	20
4142807	VDS402A18300	WU25PD	18,300	0.7205	77	101	3,2	153	50	20
4142808	VDS402A18400	WU25PD	18,400	0.7244	77	101	3,2	153	50	20
4142809	VDS402A18500	WU25PD	18,500	0.7283	77	101	3,2	153	50	20
4142810	VDS402A18600	WU25PD	18,600	0.7323	77	101	3,2	153	50	20
4142812	VDS402A18700	WU25PD	18,700	0.7362	77	101	3,3	153	50	20
4142824	VDS402A18800	WU25PD	18,800	0.7402	77	101	3,3	153	50	20
4142826	VDS402A18900	WU25PD	18,900	0.7441	77	101	3,3	153	50	20
4142828	VDS402A19000	WU25PD	19,000	0.7480	77	101	3,3	153	50	20
4142833	VDS402A19100	WU25PD	19,100	0.7520	77	101	3,3	153	50	20
4142835	VDS402A19200	WU25PD	19,200	0.7559	77	101	3,3	153	50	20
4142837	VDS402A19300	WU25PD	19,300	0.7598	77	101	3,4	153	50	20
4142839	VDS402A19400	WU25PD	19,400	0.7638	77	101	3,4	153	50	20
4142841	VDS402A19500	WU25PD	19,500	0.7677	77	101	3,4	153	50	20
4142853	VDS402A19600	WU25PD	19,600	0.7717	77	101	3,4	153	50	20
4142854	VDS402A19700	WU25PD	19,700	0.7756	77	101	3,4	153	50	20
4142856	VDS402A19800	WU25PD	19,800	0.7795	77	101	3,4	153	50	20



order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS403A • 8 x D • Through Coolant										
4143700	VDS403A01500	WU25PD	1,500	0.0591	15	18	0,2	58	28	4
4143701	VDS403A01600	WU25PD	1,600	0.0630	15	18	0,2	58	28	4
4143702	VDS403A01700	WU25PD	1,700	0.0669	15	18	0,3	58	28	4
4143723	VDS403A01800	WU25PD	1,800	0.0709	15	18	0,3	58	28	4
4143724	VDS403A01900	WU25PD	1,900	0.0748	15	18	0,3	58	28	4
4143726	VDS403A02000	WU25PD	2,000	0.0787	22	26	0,3	66	28	4
4143727	VDS403A02100	WU25PD	2,100	0.0827	22	26	0,3	66	28	4
4143728	VDS403A02200	WU25PD	2,200	0.0866	22	26	0,3	66	28	4
4143729	VDS403A02300	WU25PD	2,300	0.0906	22	26	0,4	66	28	4
4143731	VDS403A02400	WU25PD	2,400	0.0945	25	30	0,4	66	28	4
4143734	VDS403A02500	WU25PD	2,500	0.0984	25	30	0,4	66	28	4
4143736	VDS403A02600	WU25PD	2,600	0.1024	25	30	0,4	66	28	4
4143738	VDS403A02700	WU25PD	2,700	0.1063	25	30	0,4	66	28	4
4143741	VDS403A02800	WU25PD	2,800	0.1102	25	30	0,5	66	28	4
4143744	VDS403A02900	WU25PD	2,900	0.1142	25	30	0,5	66	28	4
4143746	VDS403A03000	WU25PD	3,000	0.1181	33	40	0,5	78	36	6
4143748	VDS403A03100	WU25PD	3,100	0.1220	33	40	0,5	78	36	6
4143750	VDS403A03200	WU25PD	3,200	0.1260	33	40	0,5	78	36	6
4143752	VDS403A03300	WU25PD	3,300	0.1299	33	40	0,5	78	36	6
4143753	VDS403A03400	WU25PD	3,400	0.1339	33	40	0,6	78	36	6
4143755	VDS403A03500	WU25PD	3,500	0.1378	33	49	0,6	78	36	6
4143757	VDS403A03600	WU25PD	3,600	0.1417	33	40	0,6	78	36	6
4143759	VDS403A03700	WU25PD	3,700	0.1457	33	40	0,6	78	36	6
4143761	VDS403A03800	WU25PD	3,800	0.1496	41	49	0,6	87	36	6
4143762	VDS403A03900	WU25PD	3,900	0.1535	41	40	0,6	87	36	6
4143764	VDS403A04000	WU25PD	4,000	0.1575	41	40	0,7	87	36	6
4143767	VDS403A04100	WU25PD	4,100	0.1614	41	49	0,7	87	36	6
4143768	VDS403A04200	WU25PD	4,200	0.1654	41	49	0,7	87	36	6
4143770	VDS403A04300	WU25PD	4,300	0.1693	41	49	0,7	87	36	6
4143772	VDS403A04400	WU25PD	4,400	0.1732	41	49	0,7	87	36	6
4143773	VDS403A04500	WU25PD	4,500	0.1772	41	49	0,7	87	36	6
4143774	VDS403A04600	WU25PD	4,600	0.1811	41	49	0,8	87	36	6
4143776	VDS403A04700	WU25PD	4,700	0.1850	41	49	0,8	87	36	6
4143778	VDS403A04800	WU25PD	4,800	0.1890	48	56	0,8	94	36	6
4143780	VDS403A04900	WU25PD	4,900	0.1929	48	56	0,8	94	36	6
4143781	VDS403A05000	WU25PD	5,000	0.1969	48	56	0,8	94	36	6
4143782	VDS403A05100	WU25PD	5,100	0.2008	48	56	0,8	94	36	6
4143785	VDS403A05200	WU25PD	5,200	0.2047	48	56	0,9	94	36	6
4143786	VDS403A05300	WU25PD	5,300	0.2087	48	56	0,9	94	36	6
4143787	VDS403A05400	WU25PD	5,400	0.2126	48	56	0,9	94	36	6
4143789	VDS403A05500	WU25PD	5,500	0.2165	48	56	0,9	94	36	6
4143791	VDS403A05600	WU25PD	5,600	0.2205	48	56	0,9	94	36	6
4143793	VDS403A05700	WU25PD	5,700	0.2244	48	56	1,0	94	36	6
4143794	VDS403A05800	WU25PD	5,800	0.2283	48	67	1,0	94	36	6
4143795	VDS403A05900	WU25PD	5,900	0.2323	48	56	1,0	94	36	6
4143797	VDS403A06000	WU25PD	6,000	0.2362	48	67	1,0	94	36	6
4143798	VDS403A06100	WU25PD	6,100	0.2402	57	67	1,0	105	36	8
4143799	VDS403A06200	WU25PD	6,200	0.2441	57	67	1,0	105	36	8
4143800	VDS403A06300	WU25PD	6,300	0.2480	57	67	1,1	105	36	8
4143802	VDS403A06400	WU25PD	6,400	0.2520	57	67	1,1	105	36	8
4143803	VDS403A06500	WU25PD	6,500	0.2559	57	67	1,1	105	36	8
4143805	VDS403A06600	WU25PD	6,600	0.2598	57	67	1,1	105	36	8
4143807	VDS403A06700	WU25PD	6,700	0.2638	57	67	1,1	105	36	8
4143809	VDS403A06800	WU25PD	6,800	0.2677	57	67	1,1	105	36	8

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(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS403A • 8 x D • Through Coolant (continued)										
4143810	VDS403A06900	WU25PD	6,900	0.2717	57	67	1,2	105	36	8
4143811	VDS403A07000	WU25PD	7,000	0.2756	57	72	1,2	105	36	8
4143812	VDS403A07100	WU25PD	7,100	0.2795	61	72	1,2	110	36	8
4143814	VDS403A07200	WU25PD	7,200	0.2835	61	72	1,2	110	36	8
4143815	VDS403A07300	WU25PD	7,300	0.2874	61	72	1,2	110	36	8
4143816	VDS403A07400	WU25PD	7,400	0.2913	61	72	1,3	110	36	8
4143817	VDS403A07500	WU25PD	7,500	0.2953	61	72	1,3	110	36	8
4143819	VDS403A07600	WU25PD	7,600	0.2992	61	72	1,3	110	36	8
4143820	VDS403A07700	WU25PD	7,700	0.3031	61	72	1,3	110	36	8
4143821	VDS403A07800	WU25PD	7,800	0.3071	61	80	1,3	110	36	8
4143822	VDS403A07900	WU25PD	7,900	0.3110	61	72	1,3	110	36	8
4143824	VDS403A08000	WU25PD	8,000	0.3150	61	80	1,4	110	36	8
4143825	VDS403A08100	WU25PD	8,100	0.3189	68	80	1,4	122	40	10
4143826	VDS403A08200	WU25PD	8,200	0.3228	68	80	1,4	122	40	10
4143827	VDS403A08300	WU25PD	8,300	0.3268	68	80	1,4	122	40	10
4143829	VDS403A08400	WU25PD	8,400	0.3307	68	80	1,4	122	40	10
4143831	VDS403A08500	WU25PD	8,500	0.3346	68	80	1,4	122	40	10
4143832	VDS403A08600	WU25PD	8,600	0.3386	68	80	1,5	122	40	10
4143833	VDS403A08700	WU25PD	8,700	0.3425	68	72	1,5	122	40	10
4143835	VDS403A08800	WU25PD	8,800	0.3465	68	72	1,5	122	40	10
4143836	VDS403A08900	WU25PD	8,900	0.3504	68	80	1,5	122	40	10
4143837	VDS403A09000	WU25PD	9,000	0.3543	68	72	1,5	122	40	10
4143838	VDS403A09100	WU25PD	9,100	0.3583	68	80	1,6	122	40	10
4143840	VDS403A09200	WU25PD	9,200	0.3622	68	80	1,6	122	40	10
4143841	VDS403A09300	WU25PD	9,300	0.3661	68	80	1,6	122	40	10
4143843	VDS403A09400	WU25PD	9,400	0.3701	68	80	1,6	122	40	10
4143844	VDS403A09500	WU25PD	9,500	0.3740	68	80	1,6	122	40	10
4143846	VDS403A09600	WU25PD	9,600	0.3780	68	80	1,6	122	40	10
4143847	VDS403A09700	WU25PD	9,700	0.3819	68	80	1,7	122	40	10
4143848	VDS403A09800	WU25PD	9,800	0.3858	68	80	1,7	122	40	10
4143849	VDS403A09900	WU25PD	9,900	0.3898	68	80	1,7	122	40	10
4143421	VDS403A10000	WU25PD	10,000	0.3937	68	80	1,7	122	40	10
4143422	VDS403A10100	WU25PD	10,100	0.3976	79	94	1,7	141	45	12
4143473	VDS403A10200	WU25PD	10,200	0.4016	79	94	1,7	141	45	12
4143474	VDS403A10300	WU25PD	10,300	0.4055	79	94	1,8	141	45	12
4143476	VDS403A10400	WU25PD	10,400	0.4094	79	94	1,8	141	45	12
4143477	VDS403A10500	WU25PD	10,500	0.4134	79	94	1,8	141	45	12
4143478	VDS403A10600	WU25PD	10,600	0.4173	79	94	1,8	141	45	12
4143479	VDS403A10700	WU25PD	10,700	0.4213	79	94	1,8	141	45	12
4143481	VDS403A10800	WU25PD	10,800	0.4252	79	94	1,9	141	45	12
4143482	VDS403A10900	WU25PD	10,900	0.4291	79	94	1,9	141	45	12
4143483	VDS403A11000	WU25PD	11,000	0.4331	79	94	1,9	141	45	12
4143484	VDS403A11100	WU25PD	11,100	0.4370	79	94	1,9	141	45	12
4143486	VDS403A11200	WU25PD	11,200	0.4409	79	94	1,9	141	45	12
4143487	VDS403A11300	WU25PD	11,300	0.4449	79	94	1,9	141	45	12
4143488	VDS403A11400	WU25PD	11,400	0.4488	79	94	2,0	141	45	12
4143489	VDS403A11500	WU25PD	11,500	0.4528	79	94	2,0	141	45	12
4143491	VDS403A11600	WU25PD	11,600	0.4567	79	94	2,0	141	45	12
4143492	VDS403A11700	WU25PD	11,700	0.4606	79	94	2,0	141	45	12
4143493	VDS403A11800	WU25PD	11,800	0.4646	79	94	2,0	141	45	12
4143494	VDS403A11900	WU25PD	11,900	0.4685	79	94	2,0	141	45	12
4143496	VDS403A12000	WU25PD	12,000	0.4724	79	94	2,1	141	45	12
4143497	VDS403A12100	WU25PD	12,100	0.4764	91	108	2,1	155	45	14
4143498	VDS403A12200	WU25PD	12,200	0.4803	91	108	2,1	155	45	14
4143499	VDS403A12300	WU25PD	12,300	0.4843	91	108	2,1	155	45	14
4143501	VDS403A12400	WU25PD	12,400	0.4882	91	108	2,1	155	45	14
4143502	VDS403A12500	WU25PD	12,500	0.4921	91	108	2,1	155	45	14
4143503	VDS403A12600	WU25PD	12,600	0.4961	91	108	2,2	155	45	14
4143504	VDS403A12700	WU25PD	12,700	0.5000	91	108	2,2	155	45	14
4143505	VDS403A12800	WU25PD	12,800	0.5039	91	108	2,2	155	45	14
4143506	VDS403A12900	WU25PD	12,900	0.5079	91	108	2,2	155	45	14
4143507	VDS403A13000	WU25PD	13,000	0.5118	91	108	2,2	155	45	14
4143509	VDS403A13100	WU25PD	13,100	0.5157	91	108	2,3	155	45	14
4143510	VDS403A13200	WU25PD	13,200	0.5197	91	108	2,3	155	45	14

(continued)

(VariDrill – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L4 max (mm)	L3 (mm)	L5 (mm)	L (mm)	LS (mm)	D (mm)
VDS403A • 8 x D • Through Coolant (continued)										
4143511	VDS403A13300	WU25PD	13,300	0.5236	91	108	2,3	155	45	14
4143512	VDS403A13400	WU25PD	13,400	0.5276	91	108	2,3	155	45	14
4143513	VDS403A13500	WU25PD	13,500	0.5315	91	108	2,3	155	45	14
4143514	VDS403A13600	WU25PD	13,600	0.5354	91	108	2,3	155	45	14
4143515	VDS403A13700	WU25PD	13,700	0.5394	91	108	2,4	155	45	14
4143516	VDS403A13800	WU25PD	13,800	0.5433	91	108	2,4	155	45	14
4143518	VDS403A13900	WU25PD	13,900	0.5472	91	108	2,4	155	45	14
4143519	VDS403A14000	WU25PD	14,000	0.5512	91	108	2,4	155	45	14
4143520	VDS403A14100	WU25PD	14,100	0.5551	101	121	2,4	171	48	16
4143521	VDS403A14200	WU25PD	14,200	0.5591	101	121	2,5	171	48	16
4143523	VDS403A14300	WU25PD	14,300	0.5630	101	121	2,5	171	48	16
4143524	VDS403A14400	WU25PD	14,400	0.5669	101	121	2,5	171	48	16
4143525	VDS403A14500	WU25PD	14,500	0.5709	101	121	2,5	171	48	16
4143526	VDS403A14600	WU25PD	14,600	0.5748	101	121	2,5	171	48	16
4143528	VDS403A14700	WU25PD	14,700	0.5787	101	121	2,5	171	48	16
4143529	VDS403A14800	WU25PD	14,800	0.5827	101	121	2,6	171	48	16
4143530	VDS403A14900	WU25PD	14,900	0.5866	101	121	2,6	171	48	16
4143531	VDS403A15000	WU25PD	15,000	0.5906	101	121	2,6	171	48	16
4143533	VDS403A15100	WU25PD	15,100	0.5945	101	121	2,6	171	48	16
4143534	VDS403A15200	WU25PD	15,200	0.5984	101	121	2,6	171	48	16
4143535	VDS403A15300	WU25PD	15,300	0.6024	101	121	2,6	171	48	16
4143536	VDS403A15400	WU25PD	15,400	0.6063	101	121	2,7	171	48	16
4143538	VDS403A15500	WU25PD	15,500	0.6102	101	121	2,7	171	48	16
4143539	VDS403A15600	WU25PD	15,600	0.6142	101	121	2,7	171	48	16
4143540	VDS403A15700	WU25PD	15,700	0.6181	101	121	2,7	171	48	16
4143541	VDS403A15800	WU25PD	15,800	0.6220	101	121	2,7	171	48	16
4143543	VDS403A15900	WU25PD	15,900	0.6260	101	121	2,8	171	48	16
4143544	VDS403A16000	WU25PD	16,000	0.6299	101	121	2,8	171	48	16
4143546	VDS403A16200	WU25PD	16,200	0.6378	113	135	2,8	185	48	18
4143550	VDS403A16500	WU25PD	16,500	0.6496	113	135	2,9	185	48	18
4143553	VDS403A16700	WU25PD	16,700	0.6575	113	135	2,9	185	48	18
4143554	VDS403A16800	WU25PD	16,800	0.6614	113	135	2,9	185	48	18
4143556	VDS403A17000	WU25PD	17,000	0.6693	113	135	2,9	185	48	18
4143562	VDS403A17500	WU25PD	17,500	0.6890	113	135	3,0	185	48	18
4143563	VDS403A17600	WU25PD	17,600	0.6929	113	135	3,1	185	48	18
4143565	VDS403A17800	WU25PD	17,800	0.7008	113	135	3,1	185	48	18
4144209	VDS403A18000	WU25PD	18,000	0.7087	113	135	3,1	185	48	18
4144211	VDS403A18100	WU25PD	18,100	0.7126	124	148	3,1	200	50	20
4144212	VDS403A18200	WU25PD	18,200	0.7165	124	148	3,2	200	50	20
4144250	VDS403A18500	WU25PD	18,500	0.7283	124	148	3,2	200	50	20
4144258	VDS403A18800	WU25PD	18,800	0.7402	124	148	3,3	200	50	20
4144262	VDS403A19000	WU25PD	19,000	0.7480	124	148	3,3	200	50	20
4144285	VDS403A19500	WU25PD	19,500	0.7677	124	148	3,4	200	50	20
4144291	VDS403A19800	WU25PD	19,800	0.7795	124	148	3,4	200	50	20
4144305	VDS403A20000	WU25PD	20,000	0.7874	124	148	3,5	200	50	20

Application-Specific Drilling •

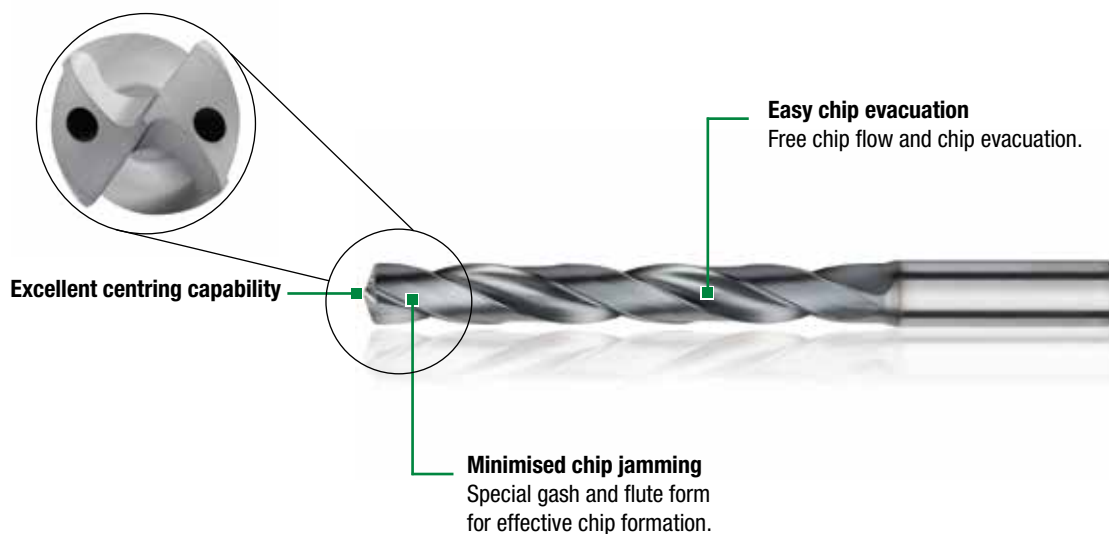
WIDIA™ TOP DRILL S™ for Steel and Cast Iron

TOP DRILL S



TOP DRILL S is the WIDIA line of solid carbide drills engineered to provide maximum performance and superior finish for application-specific tasks. Available in two material applications, TDS for steel and cast iron are each specially designed and coated to maximise output and increase tool life — offering less cost-per-hole and greater productivity.

- Designed for maximum productivity and longer tool life for steel and cast iron.
- Easy to choose and apply.
- One of the broadest ranges on the market for diameter selection, length series, and coolant options.
- Highest metal removal rates possible without sacrificing tool life.
- Latest Victory™ grades from WIDIA.



TOP DRILL S™ for Steel

TOP DRILL S for steel is a high-performance solid carbide drill with an application-specific design. Although the point geometry is strong enough to drill stainless steel and cast iron, it is engineered to maximise performance when drilling steel. The WP20PD™ grade, designed to resist high heat and wear, is the latest in WIDIA™ technology. The two-margin design facilitates excellent hole quality and less friction when drilling steel at high speeds.

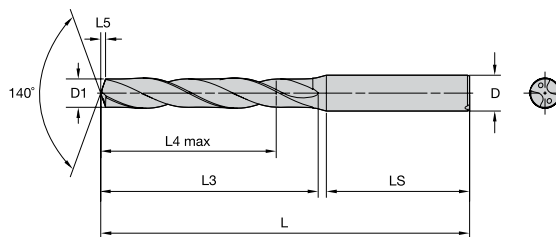
TOP DRILL S for Cast Iron

TOP DRILL S for cast iron is designed with application-specific point geometry for maximum performance in cast iron materials. The point features corner chamfers that minimise breakout on exit holes. A four-margin design improves hole straightness, increasing tool life and extending cross-hole and inclined exit capabilities when drilling tough cast iron. The technologically advanced WK15PD™ grade is specially engineered to withstand high wear.

WIDIA Advantage

- Application-specific geometry with the latest WIDIA grade technology.
- Lower cost-per-hole due to high MRR and long tool life.
- Consistent performance from internally controlled supply chain:
Powder > Rod > Grinding > Coating
- Part of the complete WIDIA holemaking solution.
- Broad range of standard lengths, diameters, and coolant options in one line, including extensive intermediate metric, inch, fraction, and wire sizes.



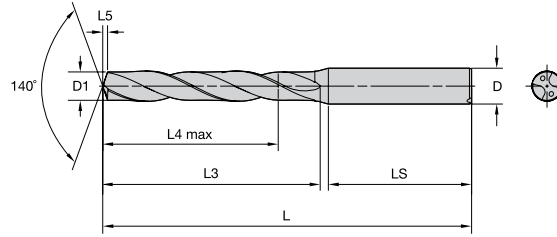


order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	D (mm)
TDS401A • 3 x D • Through Coolant										
4163315	TDS401A03000	WP20PD	3,000	0.1181	62	20	14	0,5	36	6
4163338	TDS401A03100	WP20PD	3,100	0.1220	62	20	14	0,5	36	6
4163340	TDS401A03200	WP20PD	3,200	0.1260	62	20	14	0,5	36	6
4163342	TDS401A03300	WP20PD	3,300	0.1299	62	20	14	0,5	36	6
4163463	TDS401A03400	WP20PD	3,400	0.1339	62	20	14	0,6	36	6
4163465	TDS401A03500	WP20PD	3,500	0.1378	62	20	14	0,6	36	6
4163467	TDS401A03600	WP20PD	3,600	0.1417	62	20	14	0,6	36	6
4163469	TDS401A03700	WP20PD	3,700	0.1457	62	20	14	0,6	36	6
4163471	TDS401A03800	WP20PD	3,800	0.1496	66	24	17	0,6	36	6
4163472	TDS401A03900	WP20PD	3,900	0.1535	66	24	17	0,6	36	6
4163474	TDS401A04000	WP20PD	4,000	0.1575	66	24	17	0,7	36	6
4163477	TDS401A04100	WP20PD	4,100	0.1614	66	24	17	0,7	36	6
4163478	TDS401A04200	WP20PD	4,200	0.1654	66	24	17	0,7	36	6
4163480	TDS401A04300	WP20PD	4,300	0.1693	66	24	17	0,7	36	6
4163482	TDS401A04400	WP20PD	4,400	0.1732	66	24	17	0,7	36	6
4163483	TDS401A04500	WP20PD	4,500	0.1772	66	24	17	0,7	36	6
4163484	TDS401A04600	WP20PD	4,600	0.1811	66	24	17	0,8	36	6
4163486	TDS401A04700	WP20PD	4,700	0.1850	66	24	17	0,8	36	6
4163488	TDS401A04800	WP20PD	4,800	0.1890	66	28	20	0,8	36	6
4163490	TDS401A04900	WP20PD	4,900	0.1929	66	28	20	0,8	36	6
4163491	TDS401A05000	WP20PD	5,000	0.1969	66	28	20	0,8	36	6
4163492	TDS401A05100	WP20PD	5,100	0.2008	66	28	20	0,8	36	6
4163495	TDS401A05200	WP20PD	5,200	0.2047	66	28	20	0,9	36	6
4163496	TDS401A05300	WP20PD	5,300	0.2087	66	28	20	0,9	36	6
4163497	TDS401A05400	WP20PD	5,400	0.2126	66	28	20	0,9	36	6
4163499	TDS401A05500	WP20PD	5,500	0.2165	66	28	20	0,9	36	6
4163501	TDS401A05600	WP20PD	5,600	0.2205	66	28	20	0,9	36	6
4163503	TDS401A05700	WP20PD	5,700	0.2244	66	28	20	1,0	36	6
4163504	TDS401A05800	WP20PD	5,800	0.2283	66	28	20	1,0	36	6
4163505	TDS401A05900	WP20PD	5,900	0.2323	66	28	20	1,0	36	6
4163507	TDS401A06000	WP20PD	6,000	0.2362	66	28	20	1,0	36	6
4163508	TDS401A06100	WP20PD	6,100	0.2402	79	34	24	1,0	36	8
4163509	TDS401A06200	WP20PD	6,200	0.2441	79	34	24	1,0	36	8
4163510	TDS401A06300	WP20PD	6,300	0.2480	79	34	24	1,1	36	8
4163512	TDS401A06400	WP20PD	6,400	0.2520	79	34	24	1,1	36	8
4163513	TDS401A06500	WP20PD	6,500	0.2559	79	34	24	1,1	36	8
4163515	TDS401A06600	WP20PD	6,600	0.2598	79	34	24	1,1	36	8
4163517	TDS401A06700	WP20PD	6,700	0.2638	79	34	24	1,1	36	8
4163519	TDS401A06800	WP20PD	6,800	0.2677	79	34	24	1,1	36	8
4163520	TDS401A06900	WP20PD	6,900	0.2717	79	34	24	1,2	36	8
4163521	TDS401A07000	WP20PD	7,000	0.2756	79	34	24	1,2	36	8
4163522	TDS401A07100	WP20PD	7,100	0.2795	79	41	29	1,2	36	8
4163524	TDS401A07200	WP20PD	7,200	0.2835	79	41	29	1,2	36	8
4163525	TDS401A07300	WP20PD	7,300	0.2874	79	41	29	1,2	36	8
4163526	TDS401A07400	WP20PD	7,400	0.2913	79	41	29	1,3	36	8
4163527	TDS401A07500	WP20PD	7,500	0.2953	79	41	29	1,3	36	8
4163529	TDS401A07600	WP20PD	7,600	0.2992	79	41	29	1,3	36	8
4163530	TDS401A07700	WP20PD	7,700	0.3031	79	41	29	1,3	36	8
4163531	TDS401A07800	WP20PD	7,800	0.3071	79	41	29	1,3	36	8
4163532	TDS401A07900	WP20PD	7,900	0.3110	79	41	29	1,3	36	8
4163534	TDS401A08000	WP20PD	8,000	0.3150	79	41	29	1,4	36	8
4163535	TDS401A08100	WP20PD	8,100	0.3189	89	47	35	1,4	40	10
4163536	TDS401A08200	WP20PD	8,200	0.3228	89	47	35	1,4	40	10
4163537	TDS401A08300	WP20PD	8,300	0.3268	89	47	35	1,4	40	10
4163539	TDS401A08400	WP20PD	8,400	0.3307	89	47	35	1,4	40	10
4163541	TDS401A08500	WP20PD	8,500	0.3346	89	47	35	1,4	40	10
4163542	TDS401A08600	WP20PD	8,600	0.3386	89	47	35	1,5	40	10

(continued)

(TOP DRILL S – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	D (mm)
TDS401A • 3 x D • Through Coolant (continued)										
4163543	TDS401A08700	WP20PD	8,700	0.3425	89	47	35	1,5	40	10
4163545	TDS401A08800	WP20PD	8,800	0.3465	89	47	35	1,5	40	10
4163546	TDS401A08900	WP20PD	8,900	0.3504	89	47	35	1,5	40	10
4163547	TDS401A09000	WP20PD	9,000	0.3543	89	47	35	1,5	40	10
4163548	TDS401A09100	WP20PD	9,100	0.3583	89	47	35	1,5	40	10
4163550	TDS401A09200	WP20PD	9,200	0.3622	89	47	35	1,6	40	10
4163551	TDS401A09300	WP20PD	9,300	0.3661	89	47	35	1,6	40	10
4163553	TDS401A09400	WP20PD	9,400	0.3701	89	47	35	1,6	40	10
4163554	TDS401A09500	WP20PD	9,500	0.3740	89	47	35	1,6	40	10
4163556	TDS401A09600	WP20PD	9,600	0.3780	89	47	35	1,6	40	10
4163557	TDS401A09700	WP20PD	9,700	0.3819	89	47	35	1,7	40	10
4163558	TDS401A09800	WP20PD	9,800	0.3858	89	47	35	1,7	40	10
4163559	TDS401A09900	WP20PD	9,900	0.3898	89	47	35	1,7	40	10
4162950	TDS401A10000	WP20PD	10,000	0.3937	89	47	35	1,7	40	10
4162951	TDS401A10100	WP20PD	10,100	0.3976	102	55	40	1,7	45	12
4162952	TDS401A10200	WP20PD	10,200	0.4016	102	55	40	1,7	45	12
4163343	TDS401A10300	WP20PD	10,300	0.4055	102	55	40	1,8	45	12
4163345	TDS401A10400	WP20PD	10,400	0.4094	102	55	40	1,8	45	12
4163346	TDS401A10500	WP20PD	10,500	0.4134	102	55	40	1,8	45	12
4163347	TDS401A10600	WP20PD	10,600	0.4173	102	55	40	1,8	45	12
4163348	TDS401A10700	WP20PD	10,700	0.4213	102	55	40	1,8	45	12
4163350	TDS401A10800	WP20PD	10,800	0.4252	102	55	40	1,8	45	12
4163351	TDS401A10900	WP20PD	10,900	0.4291	102	55	40	1,9	45	12
4163352	TDS401A11000	WP20PD	11,000	0.4331	102	55	40	1,9	45	12
4163353	TDS401A11100	WP20PD	11,100	0.4370	102	55	40	1,9	45	12
4163355	TDS401A11200	WP20PD	11,200	0.4409	102	55	40	1,9	45	12
4163356	TDS401A11300	WP20PD	11,300	0.4449	102	55	40	1,9	45	12
4163357	TDS401A11400	WP20PD	11,400	0.4488	102	55	40	2,0	45	12
4163358	TDS401A11500	WP20PD	11,500	0.4528	102	55	40	2,0	45	12
4163360	TDS401A11600	WP20PD	11,600	0.4567	102	55	40	2,0	45	12
4163361	TDS401A11700	WP20PD	11,700	0.4606	102	55	40	2,0	45	12
4163362	TDS401A11800	WP20PD	11,800	0.4646	102	55	40	2,0	45	12
4163365	TDS401A12000	WP20PD	12,000	0.4724	102	55	40	2,1	45	12
4163366	TDS401A12100	WP20PD	12,100	0.4764	107	60	43	2,1	45	14
4163367	TDS401A12200	WP20PD	12,200	0.4803	107	60	43	2,1	45	14
4163368	TDS401A12300	WP20PD	12,300	0.4843	107	60	43	2,1	45	14
4163370	TDS401A12400	WP20PD	12,400	0.4882	107	60	43	2,1	45	14
4163371	TDS401A12500	WP20PD	12,500	0.4921	107	60	43	2,1	45	14
4163372	TDS401A12600	WP20PD	12,600	0.4961	107	60	43	2,2	45	14
4163373	TDS401A12700	WP20PD	12,700	0.5000	107	60	43	2,2	45	14
4163374	TDS401A12800	WP20PD	12,800	0.5039	107	60	43	2,2	45	14
4163375	TDS401A12900	WP20PD	12,900	0.5079	107	60	43	2,2	45	14
4163376	TDS401A13000	WP20PD	13,000	0.5118	107	60	43	2,2	45	14
4163378	TDS401A13100	WP20PD	13,100	0.5157	107	60	43	2,3	45	14
4163379	TDS401A13200	WP20PD	13,200	0.5197	107	60	43	2,3	45	14
4163380	TDS401A13300	WP20PD	13,300	0.5236	107	60	43	2,3	45	14
4163381	TDS401A13400	WP20PD	13,400	0.5276	107	60	43	2,3	45	14
4163382	TDS401A13500	WP20PD	13,500	0.5315	107	60	43	2,3	45	14
4163383	TDS401A13600	WP20PD	13,600	0.5354	107	60	43	2,3	45	14
4163384	TDS401A13700	WP20PD	13,700	0.5394	107	60	43	2,4	45	14
4163385	TDS401A13800	WP20PD	13,800	0.5433	107	60	43	2,4	45	14
4163387	TDS401A13900	WP20PD	13,900	0.5472	107	60	43	2,4	45	14
4163388	TDS401A14000	WP20PD	14,000	0.5512	107	60	43	2,4	45	14
4163390	TDS401A14200	WP20PD	14,200	0.5591	115	65	45	2,5	48	16
4163392	TDS401A14300	WP20PD	14,300	0.5630	115	65	45	2,5	48	16
4163394	TDS401A14500	WP20PD	14,500	0.5709	115	65	45	2,5	48	16
4163397	TDS401A14700	WP20PD	14,700	0.5787	115	65	45	2,5	48	16
4163400	TDS401A15000	WP20PD	15,000	0.5906	115	65	45	2,6	48	16
4163413	TDS401A16000	WP20PD	16,000	0.6299	115	65	45	2,8	48	16
4163419	TDS401A16500	WP20PD	16,500	0.6496	123	73	51	2,9	48	18
4163425	TDS401A17000	WP20PD	17,000	0.6693	123	73	51	2,9	48	18
4163431	TDS401A17500	WP20PD	17,500	0.6890	123	73	51	3,0	48	18
4163271	TDS401A18000	WP20PD	18,000	0.7087	123	73	51	3,1	48	18
4163293	TDS401A19000	WP20PD	19,000	0.7480	131	79	55	3,3	50	20
4163304	TDS401A20000	WP20PD	20,000	0.7874	131	79	55	3,5	50	20



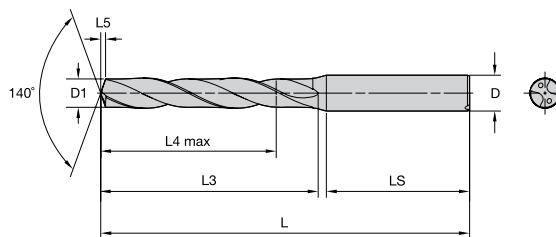
order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	D (mm)
TDS411A • 3 x D • Through Coolant										
4157799	TDS411A03000	WK15PD	3,000	0.1181	62	20	14	0,5	36	6
4157801	TDS411A03100	WK15PD	3,100	0.1220	62	20	14	0,5	36	6
4157803	TDS411A03200	WK15PD	3,200	0.1260	62	20	14	0,5	36	6
4157805	TDS411A03300	WK15PD	3,300	0.1299	62	20	14	0,5	36	6
4157806	TDS411A03400	WK15PD	3,400	0.1339	62	20	14	0,6	36	6
4157808	TDS411A03500	WK15PD	3,500	0.1378	62	20	14	0,6	36	6
4157810	TDS411A03600	WK15PD	3,600	0.1417	62	20	14	0,6	36	6
4157812	TDS411A03700	WK15PD	3,700	0.1457	62	20	14	0,6	36	6
4157814	TDS411A03800	WK15PD	3,800	0.1496	66	24	17	0,6	36	6
4157815	TDS411A03900	WK15PD	3,900	0.1535	66	24	17	0,6	36	6
4157817	TDS411A04000	WK15PD	4,000	0.1575	66	24	17	0,7	36	6
4157820	TDS411A04100	WK15PD	4,100	0.1614	66	24	17	0,7	36	6
4157821	TDS411A04200	WK15PD	4,200	0.1654	66	24	17	0,7	36	6
4157823	TDS411A04300	WK15PD	4,300	0.1693	66	24	17	0,7	36	6
4157825	TDS411A04400	WK15PD	4,400	0.1732	66	24	17	0,7	36	6
4157826	TDS411A04500	WK15PD	4,500	0.1772	66	24	17	0,7	36	6
4157827	TDS411A04600	WK15PD	4,600	0.1811	66	24	17	0,8	36	6
4157829	TDS411A04700	WK15PD	4,700	0.1850	66	24	17	0,8	36	6
4157831	TDS411A04800	WK15PD	4,800	0.1890	66	28	20	0,8	36	6
4157833	TDS411A04900	WK15PD	4,900	0.1929	66	28	20	0,8	36	6
4157834	TDS411A05000	WK15PD	5,000	0.1969	66	28	20	0,8	36	6
4157835	TDS411A05100	WK15PD	5,100	0.2008	66	28	20	0,8	36	6
4157838	TDS411A05200	WK15PD	5,200	0.2047	66	28	20	0,9	36	6
4157839	TDS411A05300	WK15PD	5,300	0.2087	66	28	20	0,9	36	6
4157840	TDS411A05400	WK15PD	5,400	0.2126	66	28	20	0,9	36	6
4157842	TDS411A05500	WK15PD	5,500	0.2165	66	28	20	0,9	36	6
4157844	TDS411A05600	WK15PD	5,600	0.2205	66	28	20	0,9	36	6
4157846	TDS411A05700	WK15PD	5,700	0.2244	66	28	20	1,0	36	6
4157847	TDS411A05800	WK15PD	5,800	0.2283	66	28	20	1,0	36	6
4157848	TDS411A05900	WK15PD	5,900	0.2323	66	28	20	1,0	36	6
4157850	TDS411A06000	WK15PD	6,000	0.2362	66	28	20	1,0	36	6
4157851	TDS411A06100	WK15PD	6,100	0.2402	79	34	24	1,0	36	8
4157852	TDS411A06200	WK15PD	6,200	0.2441	79	34	24	1,0	36	8
4157853	TDS411A06300	WK15PD	6,300	0.2480	79	34	24	1,1	36	8
4157855	TDS411A06400	WK15PD	6,400	0.2520	79	34	24	1,1	36	8
4157856	TDS411A06500	WK15PD	6,500	0.2559	79	34	24	1,1	36	8
4157858	TDS411A06600	WK15PD	6,600	0.2598	79	34	24	1,1	36	8
4157860	TDS411A06700	WK15PD	6,700	0.2638	79	34	24	1,1	36	8
4157862	TDS411A06800	WK15PD	6,800	0.2677	79	34	24	1,1	36	8
4157863	TDS411A06900	WK15PD	6,900	0.2717	79	34	24	1,2	36	8
4157864	TDS411A07000	WK15PD	7,000	0.2756	79	34	24	1,2	36	8
4157865	TDS411A07100	WK15PD	7,100	0.2795	79	41	29	1,2	36	8
4157867	TDS411A07200	WK15PD	7,200	0.2835	79	41	29	1,2	36	8
4157868	TDS411A07300	WK15PD	7,300	0.2874	79	41	29	1,2	36	8
4157869	TDS411A07400	WK15PD	7,400	0.2913	79	41	29	1,3	36	8
4157870	TDS411A07500	WK15PD	7,500	0.2953	79	41	29	1,3	36	8
4157872	TDS411A07600	WK15PD	7,600	0.2992	79	41	29	1,3	36	8
4157873	TDS411A07700	WK15PD	7,700	0.3031	79	41	29	1,3	36	8
4157874	TDS411A07800	WK15PD	7,800	0.3071	79	41	29	1,3	36	8
4157875	TDS411A07900	WK15PD	7,900	0.3110	79	41	29	1,3	36	8
4157877	TDS411A08000	WK15PD	8,000	0.3150	79	41	29	1,4	36	8
4157878	TDS411A08100	WK15PD	8,100	0.3189	89	47	35	1,4	40	10
4157879	TDS411A08200	WK15PD	8,200	0.3228	89	47	35	1,4	40	10
4157880	TDS411A08300	WK15PD	8,300	0.3268	89	47	35	1,4	40	10
4157882	TDS411A08400	WK15PD	8,400	0.3307	89	47	35	1,4	40	10
4157884	TDS411A08500	WK15PD	8,500	0.3346	89	47	35	1,4	40	10
4157885	TDS411A08600	WK15PD	8,600	0.3386	89	47	35	1,5	40	10

(continued)

Holemaking

(TOP DRILL S – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	D (mm)
TDS411A • 3 x D • Through Coolant (continued)										
4157886	TDS411A08700	WK15PD	8,700	0.3425	89	47	35	1,5	40	10
4157888	TDS411A08800	WK15PD	8,800	0.3465	89	47	35	1,5	40	10
4157889	TDS411A08900	WK15PD	8,900	0.3504	89	47	35	1,5	40	10
4157890	TDS411A09000	WK15PD	9,000	0.3543	89	47	35	1,5	40	10
4157891	TDS411A09100	WK15PD	9,100	0.3583	89	47	35	1,5	40	10
4157893	TDS411A09200	WK15PD	9,200	0.3622	89	47	35	1,6	40	10
4157894	TDS411A09300	WK15PD	9,300	0.3661	89	47	35	1,6	40	10
4157896	TDS411A09400	WK15PD	9,400	0.3701	89	47	35	1,6	40	10
4157897	TDS411A09500	WK15PD	9,500	0.3740	89	47	35	1,6	40	10
4157899	TDS411A09600	WK15PD	9,600	0.3780	89	47	35	1,6	40	10
4157900	TDS411A09700	WK15PD	9,700	0.3819	89	47	35	1,7	40	10
4157901	TDS411A09800	WK15PD	9,800	0.3858	89	47	35	1,7	40	10
4157902	TDS411A09900	WK15PD	9,900	0.3898	89	47	35	1,7	40	10
4156562	TDS411A10000	WK15PD	10,000	0.3937	89	47	35	1,7	40	10
4156603	TDS411A10100	WK15PD	10,100	0.3976	102	55	40	1,7	45	12
4156604	TDS411A10200	WK15PD	10,200	0.4016	102	55	40	1,7	45	12
4156605	TDS411A10300	WK15PD	10,300	0.4055	102	55	40	1,8	45	12
4156607	TDS411A10400	WK15PD	10,400	0.4094	102	55	40	1,8	45	12
4156608	TDS411A10500	WK15PD	10,500	0.4134	102	55	40	1,8	45	12
4156609	TDS411A10600	WK15PD	10,600	0.4173	102	55	40	1,8	45	12
4156610	TDS411A10700	WK15PD	10,700	0.4213	102	55	40	1,8	45	12
4156612	TDS411A10800	WK15PD	10,800	0.4252	102	55	40	1,8	45	12
4156613	TDS411A10900	WK15PD	10,900	0.4291	102	55	40	1,9	45	12
4156614	TDS411A11000	WK15PD	11,000	0.4331	102	55	40	1,9	45	12
4156615	TDS411A11100	WK15PD	11,100	0.4370	102	55	40	1,9	45	12
4156617	TDS411A11200	WK15PD	11,200	0.4409	102	55	40	1,9	45	12
4156618	TDS411A11300	WK15PD	11,300	0.4449	102	55	40	1,9	45	12
4156619	TDS411A11400	WK15PD	11,400	0.4488	102	55	40	2,0	45	12
4156620	TDS411A11500	WK15PD	11,500	0.4528	102	55	40	2,0	45	12
4156622	TDS411A11600	WK15PD	11,600	0.4567	102	55	40	2,0	45	12
4156623	TDS411A11700	WK15PD	11,700	0.4606	102	55	40	2,0	45	12
4156624	TDS411A11800	WK15PD	11,800	0.4646	102	55	40	2,0	45	12
4156625	TDS411A11900	WK15PD	11,900	0.4685	102	55	40	2,0	45	12
4156627	TDS411A12000	WK15PD	12,000	0.4724	102	55	40	2,1	45	12
4156628	TDS411A12100	WK15PD	12,100	0.4764	107	60	43	2,1	45	14
4156629	TDS411A12200	WK15PD	12,200	0.4803	107	60	43	2,1	45	14
4156630	TDS411A12300	WK15PD	12,300	0.4843	107	60	43	2,1	45	14
4156632	TDS411A12400	WK15PD	12,400	0.4882	107	60	43	2,1	45	14
4156633	TDS411A12500	WK15PD	12,500	0.4921	107	60	43	2,1	45	14
4156634	TDS411A12600	WK15PD	12,600	0.4961	107	60	43	2,2	45	14
4156635	TDS411A12700	WK15PD	12,700	0.5000	107	60	43	2,2	45	14
4156636	TDS411A12800	WK15PD	12,800	0.5039	107	60	43	2,2	45	14
4156637	TDS411A12900	WK15PD	12,900	0.5079	107	60	43	2,2	45	14
4156638	TDS411A13000	WK15PD	13,000	0.5118	107	60	43	2,2	45	14
4156640	TDS411A13100	WK15PD	13,100	0.5157	107	60	43	2,3	45	14
4156641	TDS411A13200	WK15PD	13,200	0.5197	107	60	43	2,3	45	14
4156642	TDS411A13300	WK15PD	13,300	0.5236	107	60	43	2,3	45	14
4156643	TDS411A13400	WK15PD	13,400	0.5276	107	60	43	2,3	45	14
4156644	TDS411A13500	WK15PD	13,500	0.5315	107	60	43	2,3	45	14
4156645	TDS411A13600	WK15PD	13,600	0.5354	107	60	43	2,3	45	14
4156646	TDS411A13700	WK15PD	13,700	0.5394	107	60	43	2,4	45	14
4156647	TDS411A13800	WK15PD	13,800	0.5433	107	60	43	2,4	45	14
4156649	TDS411A13900	WK15PD	13,900	0.5472	107	60	43	2,4	45	14
4156650	TDS411A14000	WK15PD	14,000	0.5512	107	60	43	2,4	45	14
4156652	TDS411A14200	WK15PD	14,200	0.5591	115	65	45	2,5	48	16
4156654	TDS411A14300	WK15PD	14,300	0.5630	115	65	45	2,5	48	16
4156656	TDS411A14500	WK15PD	14,500	0.5709	115	65	45	2,5	48	16
4156659	TDS411A14700	WK15PD	14,700	0.5787	115	65	45	2,5	48	16
4156662	TDS411A15000	WK15PD	15,000	0.5906	115	65	45	2,6	48	16
4156675	TDS411A16000	WK15PD	16,000	0.6299	115	65	45	2,8	48	16
4156681	TDS411A16500	WK15PD	16,500	0.6496	123	73	51	2,9	48	18
4156687	TDS411A17000	WK15PD	17,000	0.6693	123	73	51	2,9	48	18
4156693	TDS411A17500	WK15PD	17,500	0.6890	123	73	51	3,0	48	18
4156699	TDS411A18000	WK15PD	18,000	0.7087	123	73	51	3,1	48	18
4156721	TDS411A19000	WK15PD	19,000	0.7480	131	79	55	3,3	50	20
4156732	TDS411A20000	WK15PD	20,000	0.7874	131	79	55	3,5	50	20

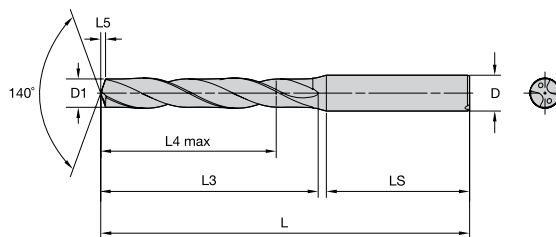


order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	D (mm)
TDS402A • 5 x D • Through Coolant										
4162967	TDS402A03000	WP20PD	3,000	0.1181	66	28	23	0,5	36	6
4162969	TDS402A03100	WP20PD	3,100	0.1220	66	28	23	0,5	36	6
4162972	TDS402A03200	WP20PD	3,200	0.1260	66	28	23	0,5	36	6
4162984	TDS402A03300	WP20PD	3,300	0.1299	66	28	23	0,5	36	6
4162985	TDS402A03400	WP20PD	3,400	0.1339	66	28	23	0,6	36	6
4162987	TDS402A03500	WP20PD	3,500	0.1378	66	28	23	0,6	36	6
4162989	TDS402A03600	WP20PD	3,600	0.1417	66	28	23	0,6	36	6
4162991	TDS402A03700	WP20PD	3,700	0.1457	66	28	23	0,6	36	6
4162993	TDS402A03800	WP20PD	3,800	0.1496	74	36	29	0,6	36	6
4162994	TDS402A03900	WP20PD	3,900	0.1535	74	36	29	0,6	36	6
4162996	TDS402A04000	WP20PD	4,000	0.1575	74	36	29	0,7	36	6
4162999	TDS402A04100	WP20PD	4,100	0.1614	74	36	29	0,7	36	6
4163000	TDS402A04200	WP20PD	4,200	0.1654	74	36	29	0,7	36	6
4163002	TDS402A04300	WP20PD	4,300	0.1693	74	36	29	0,7	36	6
4163014	TDS402A04400	WP20PD	4,400	0.1732	74	36	29	0,7	36	6
4163015	TDS402A04500	WP20PD	4,500	0.1772	74	36	29	0,7	36	6
4163016	TDS402A04600	WP20PD	4,600	0.1811	74	36	29	0,8	36	6
4163018	TDS402A04700	WP20PD	4,700	0.1850	74	36	29	0,8	36	6
4163020	TDS402A04800	WP20PD	4,800	0.1890	82	44	35	0,8	36	6
4163022	TDS402A04900	WP20PD	4,900	0.1929	82	44	35	0,8	36	6
4163023	TDS402A05000	WP20PD	5,000	0.1969	82	44	35	0,8	36	6
4163024	TDS402A05100	WP20PD	5,100	0.2008	82	44	35	0,8	36	6
4163027	TDS402A05200	WP20PD	5,200	0.2047	82	44	35	0,9	36	6
4163028	TDS402A05300	WP20PD	5,300	0.2087	82	44	35	0,9	36	6
4163029	TDS402A05400	WP20PD	5,400	0.2126	82	44	35	0,9	36	6
4163031	TDS402A05500	WP20PD	5,500	0.2165	82	44	35	0,9	36	6
4163034	TDS402A05600	WP20PD	5,600	0.2205	82	44	35	0,9	36	6
4163036	TDS402A05700	WP20PD	5,700	0.2244	82	44	35	1,0	36	6
4163037	TDS402A05800	WP20PD	5,800	0.2283	82	44	35	1,0	36	6
4163038	TDS402A05900	WP20PD	5,900	0.2323	82	44	35	1,0	36	6
4163040	TDS402A06000	WP20PD	6,000	0.2362	82	44	35	1,0	36	6
4163041	TDS402A06100	WP20PD	6,100	0.2402	91	53	43	1,0	36	8
4163042	TDS402A06200	WP20PD	6,200	0.2441	91	53	43	1,0	36	8
4163043	TDS402A06300	WP20PD	6,300	0.2480	91	53	43	1,1	36	8
4163045	TDS402A06400	WP20PD	6,400	0.2520	91	53	43	1,1	36	8
4163046	TDS402A06500	WP20PD	6,500	0.2559	91	53	43	1,1	36	8
4163048	TDS402A06600	WP20PD	6,600	0.2598	91	53	43	1,1	36	8
4163050	TDS402A06700	WP20PD	6,700	0.2638	91	53	43	1,1	36	8
4163052	TDS402A06800	WP20PD	6,800	0.2677	91	53	43	1,1	36	8
4163053	TDS402A06900	WP20PD	6,900	0.2717	91	53	43	1,2	36	8
4163054	TDS402A07000	WP20PD	7,000	0.2756	91	53	43	1,2	36	8
4163055	TDS402A07100	WP20PD	7,100	0.2795	91	53	43	1,2	36	8
4163057	TDS402A07200	WP20PD	7,200	0.2835	91	53	43	1,2	36	8
4163058	TDS402A07300	WP20PD	7,300	0.2874	91	53	43	1,2	36	8
4163059	TDS402A07400	WP20PD	7,400	0.2913	91	53	43	1,3	36	8
4163060	TDS402A07500	WP20PD	7,500	0.2953	91	53	43	1,3	36	8
4163062	TDS402A07600	WP20PD	7,600	0.2992	91	53	43	1,3	36	8
4163063	TDS402A07700	WP20PD	7,700	0.3031	91	53	43	1,3	36	8
4163064	TDS402A07800	WP20PD	7,800	0.3071	91	53	43	1,3	36	8
4163065	TDS402A07900	WP20PD	7,900	0.3110	91	53	43	1,3	36	8
4163067	TDS402A08000	WP20PD	8,000	0.3150	91	53	43	1,4	36	8
4163068	TDS402A08100	WP20PD	8,100	0.3189	103	61	49	1,4	40	10
4163069	TDS402A08200	WP20PD	8,200	0.3228	103	61	49	1,4	40	10
4163070	TDS402A08300	WP20PD	8,300	0.3268	103	61	49	1,4	40	10
4163072	TDS402A08400	WP20PD	8,400	0.3307	103	61	49	1,4	40	10
4163074	TDS402A08500	WP20PD	8,500	0.3346	103	61	49	1,4	40	10
4163075	TDS402A08600	WP20PD	8,600	0.3386	103	61	49	1,5	40	10

(continued)

(TOP DRILL S – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	D (mm)
TDS402A • 5 x D • Through Coolant (continued)										
4163077	TDS402A08700	WP20PD	8,700	0.3425	103	61	49	1,5	40	10
4163079	TDS402A08800	WP20PD	8,800	0.3465	103	61	49	1,5	40	10
4163080	TDS402A08900	WP20PD	8,900	0.3504	103	61	49	1,5	40	10
4163081	TDS402A09000	WP20PD	9,000	0.3543	103	61	49	1,5	40	10
4163082	TDS402A09100	WP20PD	9,100	0.3583	103	61	49	1,5	40	10
4163084	TDS402A09200	WP20PD	9,200	0.3622	103	61	49	1,6	40	10
4163085	TDS402A09300	WP20PD	9,300	0.3661	103	61	49	1,6	40	10
4163087	TDS402A09400	WP20PD	9,400	0.3701	103	61	49	1,6	40	10
4163088	TDS402A09500	WP20PD	9,500	0.3740	103	61	49	1,6	40	10
4163090	TDS402A09600	WP20PD	9,600	0.3780	103	61	49	1,6	40	10
4163091	TDS402A09700	WP20PD	9,700	0.3819	103	61	49	1,7	40	10
4163092	TDS402A09800	WP20PD	9,800	0.3858	103	61	49	1,7	40	10
4163093	TDS402A09900	WP20PD	9,900	0.3898	103	61	49	1,7	40	10
4162803	TDS402A10000	WP20PD	10,000	0.3937	103	61	49	1,7	40	10
4162804	TDS402A10100	WP20PD	10,100	0.3976	118	71	56	1,7	45	12
4162805	TDS402A10200	WP20PD	10,200	0.4016	118	71	56	1,7	45	12
4162806	TDS402A10300	WP20PD	10,300	0.4055	118	71	56	1,8	45	12
4162808	TDS402A10400	WP20PD	10,400	0.4094	118	71	56	1,8	45	12
4162809	TDS402A10500	WP20PD	10,500	0.4134	118	71	56	1,8	45	12
4162810	TDS402A10600	WP20PD	10,600	0.4173	118	71	56	1,8	45	12
4162811	TDS402A10700	WP20PD	10,700	0.4213	118	71	56	1,8	45	12
4162813	TDS402A10800	WP20PD	10,800	0.4252	118	71	56	1,8	45	12
4162814	TDS402A10900	WP20PD	10,900	0.4291	118	71	56	1,9	45	12
4162815	TDS402A11000	WP20PD	11,000	0.4331	118	71	56	1,9	45	12
4162818	TDS402A11200	WP20PD	11,200	0.4409	118	71	56	1,9	45	12
4162819	TDS402A11300	WP20PD	11,300	0.4449	118	71	56	1,9	45	12
4162820	TDS402A11400	WP20PD	11,400	0.4488	118	71	56	2,0	45	12
4162821	TDS402A11500	WP20PD	11,500	0.4528	118	71	56	2,0	45	12
4162823	TDS402A11600	WP20PD	11,600	0.4567	118	71	56	2,0	45	12
4162824	TDS402A11700	WP20PD	11,700	0.4606	118	71	56	2,0	45	12
4162825	TDS402A11800	WP20PD	11,800	0.4646	118	71	56	2,0	45	12
4162828	TDS402A12000	WP20PD	12,000	0.4724	118	71	56	2,1	45	12
4162829	TDS402A12100	WP20PD	12,100	0.4764	124	77	60	2,1	45	14
4162830	TDS402A12200	WP20PD	12,200	0.4803	124	77	60	2,1	45	14
4162831	TDS402A12300	WP20PD	12,300	0.4843	124	77	60	2,1	45	14
4162833	TDS402A12400	WP20PD	12,400	0.4882	124	77	60	2,1	45	14
4162834	TDS402A12500	WP20PD	12,500	0.4921	124	77	60	2,1	45	14
4162835	TDS402A12600	WP20PD	12,600	0.4961	124	77	60	2,2	45	14
4162836	TDS402A12700	WP20PD	12,700	0.5000	124	77	60	2,2	45	14
4162837	TDS402A12800	WP20PD	12,800	0.5039	124	77	60	2,2	45	14
4162838	TDS402A12900	WP20PD	12,900	0.5079	124	77	60	2,2	45	14
4162839	TDS402A13000	WP20PD	13,000	0.5118	124	77	60	2,2	45	14
4162841	TDS402A13100	WP20PD	13,100	0.5157	124	77	60	2,3	45	14
4162842	TDS402A13200	WP20PD	13,200	0.5197	124	77	60	2,3	45	14
4162843	TDS402A13300	WP20PD	13,300	0.5236	124	77	60	2,3	45	14
4162844	TDS402A13400	WP20PD	13,400	0.5276	124	77	60	2,3	45	14
4162845	TDS402A13500	WP20PD	13,500	0.5315	124	77	60	2,3	45	14
4162846	TDS402A13600	WP20PD	13,600	0.5354	124	77	60	2,3	45	14
4162847	TDS402A13700	WP20PD	13,700	0.5394	124	77	60	2,4	45	14
4162848	TDS402A13800	WP20PD	13,800	0.5433	124	77	60	2,4	45	14
4162850	TDS402A13900	WP20PD	13,900	0.5472	124	77	60	2,4	45	14
4162851	TDS402A14000	WP20PD	14,000	0.5512	124	77	60	2,4	45	14
4162853	TDS402A14200	WP20PD	14,200	0.5591	133	83	63	2,5	48	16
4162855	TDS402A14300	WP20PD	14,300	0.5630	133	83	63	2,5	48	16
4162857	TDS402A14500	WP20PD	14,500	0.5709	133	83	63	2,5	48	16
4162860	TDS402A14700	WP20PD	14,700	0.5787	133	83	63	2,5	48	16
4162863	TDS402A15000	WP20PD	15,000	0.5906	133	83	63	2,6	48	16
4162876	TDS402A16000	WP20PD	16,000	0.6299	133	83	63	2,8	48	16
4162882	TDS402A16500	WP20PD	16,500	0.6496	143	93	71	2,9	48	18
4162888	TDS402A17000	WP20PD	17,000	0.6693	143	93	71	2,9	48	18
4162894	TDS402A17500	WP20PD	17,500	0.6890	143	93	71	3,0	48	18
4162274	TDS402A18000	WP20PD	18,000	0.7087	143	93	71	3,1	48	18
4162396	TDS402A19000	WP20PD	19,000	0.7480	153	101	77	3,3	50	20
4162407	TDS402A20000	WP20PD	20,000	0.7874	153	101	77	3,5	50	20



order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	D (mm)
TDS412A • 5 x D • Through Coolant										
4158757	TDS412A03000	WK15PD	3,000	0.1181	66	28	23	0,5	36	6
4158759	TDS412A03100	WK15PD	3,100	0.1220	66	28	23	0,5	36	6
4158761	TDS412A03200	WK15PD	3,200	0.1260	66	28	23	0,5	36	6
4158793	TDS412A03300	WK15PD	3,300	0.1299	66	28	23	0,5	36	6
4158794	TDS412A03400	WK15PD	3,400	0.1339	66	28	23	0,6	36	6
4158796	TDS412A03500	WK15PD	3,500	0.1378	66	28	23	0,6	36	6
4158798	TDS412A03600	WK15PD	3,600	0.1417	66	28	23	0,6	36	6
4158800	TDS412A03700	WK15PD	3,700	0.1457	66	28	23	0,6	36	6
4158802	TDS412A03800	WK15PD	3,800	0.1496	74	36	29	0,6	36	6
4158803	TDS412A03900	WK15PD	3,900	0.1535	74	36	29	0,6	36	6
4158805	TDS412A04000	WK15PD	4,000	0.1575	74	36	29	0,7	36	6
4158808	TDS412A04100	WK15PD	4,100	0.1614	74	36	29	0,7	36	6
4158809	TDS412A04200	WK15PD	4,200	0.1654	74	36	29	0,7	36	6
4158811	TDS412A04300	WK15PD	4,300	0.1693	74	36	29	0,7	36	6
4158813	TDS412A04400	WK15PD	4,400	0.1732	74	36	29	0,7	36	6
4158814	TDS412A04500	WK15PD	4,500	0.1772	74	36	29	0,7	36	6
4158815	TDS412A04600	WK15PD	4,600	0.1811	74	36	29	0,8	36	6
4158817	TDS412A04700	WK15PD	4,700	0.1850	74	36	29	0,8	36	6
4158819	TDS412A04800	WK15PD	4,800	0.1890	82	44	35	0,8	36	6
4158821	TDS412A04900	WK15PD	4,900	0.1929	82	44	35	0,8	36	6
4158822	TDS412A05000	WK15PD	5,000	0.1969	82	44	35	0,8	36	6
4158823	TDS412A05100	WK15PD	5,100	0.2008	82	44	35	0,8	36	6
4158826	TDS412A05200	WK15PD	5,200	0.2047	82	44	35	0,9	36	6
4158827	TDS412A05300	WK15PD	5,300	0.2087	82	44	35	0,9	36	6
4158828	TDS412A05400	WK15PD	5,400	0.2126	82	44	35	0,9	36	6
4158830	TDS412A05500	WK15PD	5,500	0.2165	82	44	35	0,9	36	6
4158832	TDS412A05600	WK15PD	5,600	0.2205	82	44	35	0,9	36	6
4158834	TDS412A05700	WK15PD	5,700	0.2244	82	44	35	1,0	36	6
4158835	TDS412A05800	WK15PD	5,800	0.2283	82	44	35	1,0	36	6
4158836	TDS412A05900	WK15PD	5,900	0.2323	82	44	35	1,0	36	6
4158838	TDS412A06000	WK15PD	6,000	0.2362	82	44	35	1,0	36	6
4158839	TDS412A06100	WK15PD	6,100	0.2402	91	53	43	1,0	36	8
4158840	TDS412A06200	WK15PD	6,200	0.2441	91	53	43	1,0	36	8
4158841	TDS412A06300	WK15PD	6,300	0.2480	91	53	43	1,1	36	8
4158843	TDS412A06400	WK15PD	6,400	0.2520	91	53	43	1,1	36	8
4158844	TDS412A06500	WK15PD	6,500	0.2559	91	53	43	1,1	36	8
4158846	TDS412A06600	WK15PD	6,600	0.2598	91	53	43	1,1	36	8
4158848	TDS412A06700	WK15PD	6,700	0.2638	91	53	43	1,1	36	8
4158850	TDS412A06800	WK15PD	6,800	0.2677	91	53	43	1,1	36	8
4158851	TDS412A06900	WK15PD	6,900	0.2717	91	53	43	1,2	36	8
4158852	TDS412A07000	WK15PD	7,000	0.2756	91	53	43	1,2	36	8
4158853	TDS412A07100	WK15PD	7,100	0.2795	91	53	43	1,2	36	8
4158855	TDS412A07200	WK15PD	7,200	0.2835	91	53	43	1,2	36	8
4158856	TDS412A07300	WK15PD	7,300	0.2874	91	53	43	1,2	36	8
4158857	TDS412A07400	WK15PD	7,400	0.2913	91	53	43	1,3	36	8
4158858	TDS412A07500	WK15PD	7,500	0.2953	91	53	43	1,3	36	8
4158860	TDS412A07600	WK15PD	7,600	0.2992	91	53	43	1,3	36	8
4158861	TDS412A07700	WK15PD	7,700	0.3031	91	53	43	1,3	36	8
4158862	TDS412A07800	WK15PD	7,800	0.3071	91	53	43	1,3	36	8
4158863	TDS412A07900	WK15PD	7,900	0.3110	91	53	43	1,3	36	8
4158865	TDS412A08000	WK15PD	8,000	0.3150	91	53	43	1,4	36	8
4158866	TDS412A08100	WK15PD	8,100	0.3189	103	61	49	1,4	40	10
4158867	TDS412A08200	WK15PD	8,200	0.3228	103	61	49	1,4	40	10
4158868	TDS412A08300	WK15PD	8,300	0.3268	103	61	49	1,4	40	10
4158870	TDS412A08400	WK15PD	8,400	0.3307	103	61	49	1,4	40	10
4158872	TDS412A08500	WK15PD	8,500	0.3346	103	61	49	1,4	40	10
4158873	TDS412A08600	WK15PD	8,600	0.3386	103	61	49	1,5	40	10

(continued)

(TOP DRILL S – continued)

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	L (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	D (mm)
TDS412A • 5 x D • Through Coolant (continued)										
4158874	TDS412A08700	WK15PD	8,700	0.3425	103	61	49	1,5	40	10
4158876	TDS412A08800	WK15PD	8,800	0.3465	103	61	49	1,5	40	10
4158877	TDS412A08900	WK15PD	8,900	0.3504	103	61	49	1,5	40	10
4158878	TDS412A09000	WK15PD	9,000	0.3543	103	61	49	1,5	40	10
4158879	TDS412A09100	WK15PD	9,100	0.3583	103	61	49	1,5	40	10
4158881	TDS412A09200	WK15PD	9,200	0.3622	103	61	49	1,6	40	10
4158882	TDS412A09300	WK15PD	9,300	0.3661	103	61	49	1,6	40	10
4158884	TDS412A09400	WK15PD	9,400	0.3701	103	61	49	1,6	40	10
4158885	TDS412A09500	WK15PD	9,500	0.3740	103	61	49	1,6	40	10
4158887	TDS412A09600	WK15PD	9,600	0.3780	103	61	49	1,6	40	10
4158888	TDS412A09700	WK15PD	9,700	0.3819	103	61	49	1,7	40	10
4158889	TDS412A09800	WK15PD	9,800	0.3858	103	61	49	1,7	40	10
4158890	TDS412A09900	WK15PD	9,900	0.3898	103	61	49	1,7	40	10
4156602	TDS412A10000	WK15PD	10,000	0.3937	103	61	49	1,7	40	10
4156733	TDS412A10100	WK15PD	10,100	0.3976	118	71	56	1,7	45	12
4156734	TDS412A10200	WK15PD	10,200	0.4016	118	71	56	1,7	45	12
4156735	TDS412A10300	WK15PD	10,300	0.4055	118	71	56	1,8	45	12
4156737	TDS412A10400	WK15PD	10,400	0.4094	118	71	56	1,8	45	12
4156738	TDS412A10500	WK15PD	10,500	0.4134	118	71	56	1,8	45	12
4156739	TDS412A10600	WK15PD	10,600	0.4173	118	71	56	1,8	45	12
4156740	TDS412A10700	WK15PD	10,700	0.4213	118	71	56	1,8	45	12
4156742	TDS412A10800	WK15PD	10,800	0.4252	118	71	56	1,8	45	12
4156743	TDS412A10900	WK15PD	10,900	0.4291	118	71	56	1,9	45	12
4156744	TDS412A11000	WK15PD	11,000	0.4331	118	71	56	1,9	45	12
4156745	TDS412A11100	WK15PD	11,100	0.4370	118	71	56	1,9	45	12
4156747	TDS412A11200	WK15PD	11,200	0.4409	118	71	56	1,9	45	12
4156748	TDS412A11300	WK15PD	11,300	0.4449	118	71	56	1,9	45	12
4156749	TDS412A11400	WK15PD	11,400	0.4488	118	71	56	2,0	45	12
4156750	TDS412A11500	WK15PD	11,500	0.4528	118	71	56	2,0	45	12
4156752	TDS412A11600	WK15PD	11,600	0.4567	118	71	56	2,0	45	12
4156753	TDS412A11700	WK15PD	11,700	0.4606	118	71	56	2,0	45	12
4156754	TDS412A11800	WK15PD	11,800	0.4646	118	71	56	2,0	45	12
4156755	TDS412A11900	WK15PD	11,900	0.4685	118	71	56	2,0	45	12
4156757	TDS412A12000	WK15PD	12,000	0.4724	118	71	56	2,1	45	12
4156758	TDS412A12100	WK15PD	12,100	0.4764	124	77	60	2,1	45	14
4156759	TDS412A12200	WK15PD	12,200	0.4803	124	77	60	2,1	45	14
4156760	TDS412A12300	WK15PD	12,300	0.4843	124	77	60	2,1	45	14
4156762	TDS412A12400	WK15PD	12,400	0.4882	124	77	60	2,1	45	14
4156763	TDS412A12500	WK15PD	12,500	0.4921	124	77	60	2,1	45	14
4156764	TDS412A12600	WK15PD	12,600	0.4961	124	77	60	2,2	45	14
4156765	TDS412A12700	WK15PD	12,700	0.5000	124	77	60	2,2	45	14
4156766	TDS412A12800	WK15PD	12,800	0.5039	124	77	60	2,2	45	14
4156767	TDS412A12900	WK15PD	12,900	0.5079	124	77	60	2,2	45	14
4156768	TDS412A13000	WK15PD	13,000	0.5118	124	77	60	2,2	45	14
4156770	TDS412A13100	WK15PD	13,100	0.5157	124	77	60	2,3	45	14
4156771	TDS412A13200	WK15PD	13,200	0.5197	124	77	60	2,3	45	14
4156772	TDS412A13300	WK15PD	13,300	0.5236	124	77	60	2,3	45	14
4156773	TDS412A13400	WK15PD	13,400	0.5276	124	77	60	2,3	45	14
4156774	TDS412A13500	WK15PD	13,500	0.5315	124	77	60	2,3	45	14
4156775	TDS412A13600	WK15PD	13,600	0.5354	124	77	60	2,3	45	14
4156776	TDS412A13700	WK15PD	13,700	0.5394	124	77	60	2,4	45	14
4156777	TDS412A13800	WK15PD	13,800	0.5433	124	77	60	2,4	45	14
4156779	TDS412A13900	WK15PD	13,900	0.5472	124	77	60	2,4	45	14
4156780	TDS412A14000	WK15PD	14,000	0.5512	124	77	60	2,4	45	14
4156782	TDS412A14200	WK15PD	14,200	0.5591	133	83	63	2,5	48	16
4156784	TDS412A14300	WK15PD	14,300	0.5630	133	83	63	2,5	48	16
4156786	TDS412A14500	WK15PD	14,500	0.5709	133	83	63	2,5	48	16
4156789	TDS412A14700	WK15PD	14,700	0.5787	133	83	63	2,5	48	16
4156792	TDS412A15000	WK15PD	15,000	0.5906	133	83	63	2,6	48	16
4156805	TDS412A16000	WK15PD	16,000	0.6299	133	83	63	2,8	48	16
4156811	TDS412A16500	WK15PD	16,500	0.6496	143	93	71	2,9	48	18
4156817	TDS412A17000	WK15PD	17,000	0.6693	143	93	71	2,9	48	18
4156823	TDS412A17500	WK15PD	17,500	0.6890	143	93	71	3,0	48	18
4156853	TDS412A18000	WK15PD	18,000	0.7087	143	93	71	3,1	48	18
4156865	TDS412A19000	WK15PD	19,000	0.7480	153	101	77	3,3	50	20
4156876	TDS412A20000	WK15PD	20,000	0.7874	153	101	77	3,5	50	20

Deep-Hole Drilling without Piloting •

WIDIA™ TOP DRILL S+™ 12 x D

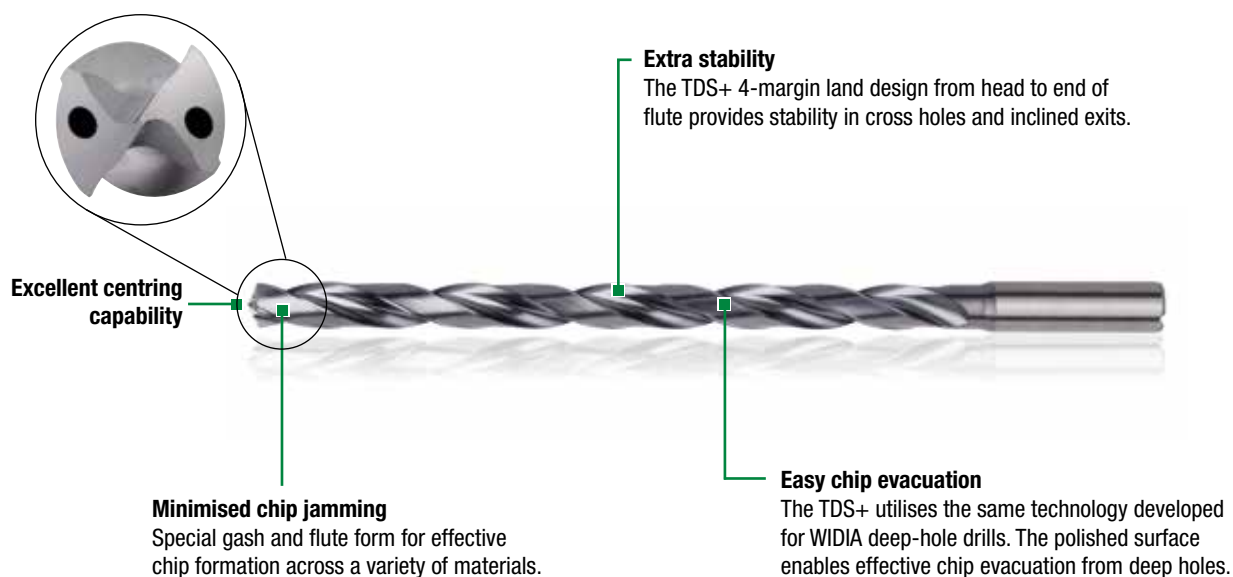
The versatile TOP DRILL S+ provides reliable performance across a broad scope of applications, including alloyed and unalloyed steel, cast iron, and some stainless steels and high-temperature alloys. TDS+ is now available in 12 x D, adding to its already wide range of options from 3–8 x D.



TOP DRILL S+ 12 x D

TDS+ 12 x D is capable of drilling an array of materials. The 4-margin land configuration offers stability, minimises chipping and jamming, and promotes chip evacuation. Because TDS+ 12 x D does not require a pilot drill, it increases efficiency by reducing the number of steps required for basic applications.

- 12 x D fits the gap between 8 x D and 15 x D.
- One drill that covers all materials.
- Can be used without a pilot.



Improved Productivity

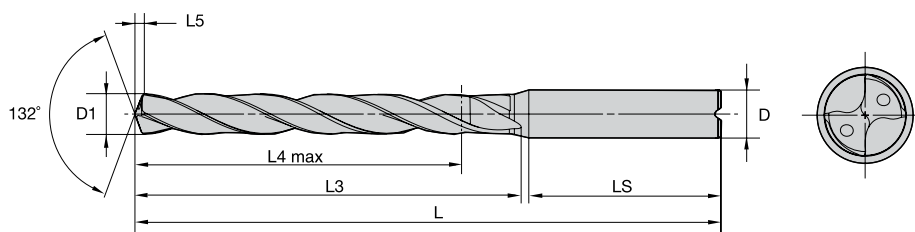
- Excellent centring capability — the new TDS+ 12 x D point is engineered to provide excellent centring capability.
- No pilot drill required — save time and money by reducing the number of steps required for your 12 x D application.

Increased Tool Life

- Minimised runout — cylindrical body design provides guidance, and precision h6 shank is standard for better runout and less breakage.
- New WU20PD™ grade — designed specifically for long tool life.
- Factory regrind service — available through your WIDIA™ reconditioning service.

WIDIA Advantage

- Lower cost-per-hole due to high MRR and long tool life.
- Consistent performance from internally controlled supply chain:
Powder > Rod > Grinding > Coating
- Part of the complete WIDIA holemaking solution.
- Get more predictable results from local regrind services using OEM standards to recondition, ensuring value throughout the entire life of the drill.
- Broad range of standard lengths, diameters, and coolant options in one line. Includes extensive intermediate metric, inch, fraction, and wire size, including tap drill sizes.



order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	D (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	L (mm)
TDS504A • 12 x D • Through Coolant										
4173459	TDS504A03000	WU20PD	3,000	0.1181	6	52,0	44	0,6	36	93
4173462	TDS504A03500	WU20PD	3,500	0.1378	6	53,0	44	0,7	36	93
4173464	TDS504A04000	WU20PD	4,000	0.1575	6	66,0	56	0,8	36	107
4173465	TDS504A04500	WU20PD	4,500	0.1772	6	67,0	56	0,9	36	107
4173466	TDS504A04600	WU20PD	4,600	0.1811	6	68,0	57	1,0	36	107
4173468	TDS504A04800	WU20PD	4,800	0.1890	6	82,0	69	1,0	36	125
4173469	TDS504A05000	WU20PD	5,000	0.1969	6	83,0	70	1,1	36	125
4173470	TDS504A05100	WU20PD	5,100	0.2008	6	83,0	70	1,1	36	125
4173471	TDS504A05200	WU20PD	5,200	0.2047	6	83,0	70	1,1	36	125
4173472	TDS504A05300	WU20PD	5,300	0.2087	6	84,0	71	1,1	36	125
4173474	TDS504A05500	WU20PD	5,500	0.2165	6	84,0	71	1,2	36	125
4173476	TDS504A05600	WU20PD	5,600	0.2205	6	85,0	72	1,2	36	125
4173477	TDS504A05700	WU20PD	5,700	0.2244	6	85,0	72	1,2	36	125
4173478	TDS504A05800	WU20PD	5,800	0.2283	6	85,0	71	1,2	36	125
4173479	TDS504A06000	WU20PD	6,000	0.2362	6	86,0	72	1,3	36	125
4173480	TDS504A06200	WU20PD	6,200	0.2441	8	97,0	82	1,3	36	139
4173482	TDS504A06500	WU20PD	6,500	0.2559	8	98,0	83	1,4	36	139
4173484	TDS504A06600	WU20PD	6,600	0.2598	8	99,0	84	1,4	36	139
4173486	TDS504A06800	WU20PD	6,800	0.2677	8	99,0	83	1,4	36	139
4173488	TDS504A07000	WU20PD	7,000	0.2756	8	100,0	84	1,5	36	139
4173490	TDS504A07500	WU20PD	7,500	0.2953	8	112,0	95	1,6	36	153
4173492	TDS504A07700	WU20PD	7,700	0.3031	8	113,0	96	1,6	36	153
4173493	TDS504A07800	WU20PD	7,800	0.3071	8	113,0	95	1,7	36	153
4173495	TDS504A08000	WU20PD	8,000	0.3150	8	114,0	96	1,7	36	153
4173496	TDS504A08100	WU20PD	8,100	0.3189	10	136,0	116	1,7	40	185
4173499	TDS504A08500	WU20PD	8,500	0.3346	10	137,0	117	1,8	40	185
4173500	TDS504A08700	WU20PD	8,700	0.3425	10	138,0	118	1,9	40	185
4173502	TDS504A09000	WU20PD	9,000	0.3543	10	139,0	118	1,9	40	185
4173503	TDS504A09100	WU20PD	9,100	0.3583	10	139,0	118	1,9	40	185
4173505	TDS504A09500	WU20PD	9,500	0.3740	10	140,0	119	2,0	40	185
4173508	TDS504A10000	WU20PD	10,000	0.3937	10	142,0	120	2,1	40	185
4173509	TDS504A10200	WU20PD	10,200	0.4016	12	164,0	140	2,2	45	218
4173510	TDS504A10300	WU20PD	10,300	0.4055	12	165,0	141	2,2	45	218
4173512	TDS504A10500	WU20PD	10,500	0.4134	12	165,0	141	2,2	45	218
4173514	TDS504A10800	WU20PD	10,800	0.4252	12	166,0	141	2,3	45	218
4173515	TDS504A11000	WU20PD	11,000	0.4331	12	167,0	142	2,4	45	218
4173517	TDS504A11500	WU20PD	11,500	0.4528	12	168,0	143	2,5	45	218
4173518	TDS504A11800	WU20PD	11,800	0.4646	12	169,0	143	2,5	45	218
4173519	TDS504A12000	WU20PD	12,000	0.4724	12	170,0	144	2,6	45	218
4173520	TDS504A12100	WU20PD	12,100	0.4764	14	192,0	164	2,6	45	246
4148906	TDS504A12500	WU20PD	12,500	0.4921	14	193,0	165	2,7	45	246
4173522	TDS504A12700	WU20PD	12,700	0.5000	14	194,0	166	2,7	45	246
4173523	TDS504A13000	WU20PD	13,000	0.5118	14	195,0	166	2,8	45	246
4173524	TDS504A13100	WU20PD	13,100	0.5157	14	195,0	166	2,8	45	246
4173525	TDS504A13500	WU20PD	13,500	0.5315	14	196,0	167	2,9	45	246
4173526	TDS504A14000	WU20PD	14,000	0.5512	14	198,0	168	3,0	45	246
4173527	TDS504A14100	WU20PD	14,100	0.5551	16	220,0	188	3,0	48	277
4173529	TDS504A14500	WU20PD	14,500	0.5709	16	221,0	189	3,1	48	277
4173531	TDS504A15000	WU20PD	15,000	0.5906	16	223,0	190	3,2	48	277
4173532	TDS504A15500	WU20PD	15,500	0.6102	16	224,0	191	3,3	48	277
4173534	TDS504A16000	WU20PD	16,000	0.6299	16	226,0	192	3,4	48	277
4173535	TDS504A16500	WU20PD	16,500	0.6496	18	249,0	213	3,6	48	305
4173536	TDS504A17000	WU20PD	17,000	0.6693	18	250,0	214	3,7	48	305
4173538	TDS504A17500	WU20PD	17,500	0.6890	18	252,0	215	3,8	48	305
4173539	TDS504A18000	WU20PD	18,000	0.7087	18	253,0	216	3,9	48	305
4173540	TDS504A18500	WU20PD	18,500	0.7283	20	277,0	237	4,0	50	334
4173541	TDS504A19000	WU20PD	19,000	0.7480	20	278,0	238	4,1	50	334
4173543	TDS504A19500	WU20PD	19,500	0.7677	20	280,0	239	4,2	50	334
4173544	TDS504A20000	WU20PD	20,000	0.7874	20	281,0	240	4,3	50	334

Tap into the power of the original.



WIDIA™ VariTap™

A heritage of hard work, innovation, and excellence. That's what makes an original.

Built on a 140-year legacy of providing the industry with the highest quality performance in taps, dies, and gages. Our history propels us to keep delivering the most advanced solutions.

The WIDIA VariTap is the next application of our commitment to innovation.

- Extensive range of sizes, fits, styles, and coatings, equipped with optimised geometry, offering the largest portfolio solution of multipurpose taps available.
- Capable of working with a wide variety of materials.
- Long and consistent tool life leading to lower inventory costs.
- Unique spiral-point geometry provides low tapping torque, while pushing chips ahead of the tap in through holes.
- Superior thread finish.

To learn more about the unmatched benefits of WIDIA VariTap, call 800.979.4342, contact your local Authorised Distributor, or visit widia.com/varitap.

VariTap can be found on pages 144–154.

WIDIA 

Superior Deep-Hole Drilling •

WIDIA™ TOP DRILL™ Deep-Hole Drills for Steel and Cast Iron



TOP DRILL Deep-Hole Drills

Solid carbide deep-hole drills outperform gun drills and HSS deep-hole drills in deep-hole applications up to 30 x D by increasing metal removal rates by 3–4 times. Increased MRR equals bottom-line savings to customers in throughput, machine time, and personnel hours.

The TDD1*Z* Series in the WU20PD™ grade offers secure and consistent performance, excellent hole quality, and reduced cycle times. The standard lines are available from 3 to 13mm and lengths of 15, 20, 25, and 30 x D. It eliminates the traditional HSS or gun drilling without pecking, at up to 100% increased penetration rates.

132° TDS Point Geometry

- Low thrust.
- Excellent centring capabilities.
- Easy to regrind.

30° Helix with Optimised Flute Profile

- Reduces risk of chip jamming and catastrophic failure.

Four-Margin Lands

- Improves hole straightness.
- Improves hole alignment when drilling through cross holes and inclined exits.

Highly Polished Surfaces

- Reduction of friction in the chip flute and on the lands, resulting in superior chip evacuation.
- Shorter drilling time through omission of reversing cycles.

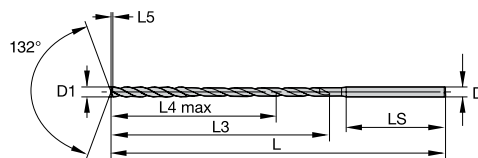
WU20PD™ Grade

- Advanced TiAlN multilayer PVD coating for steel and cast iron.
- Ultra fine-grain carbide ensures process reliability at high feed rates.

Customisation

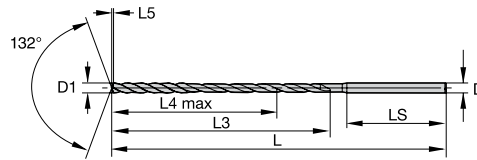
- Intermediate sizes, even up to 16mm diameter, available as semi-standards.
- Length variations, including longer versions up to 550mm, available as custom solutions.
- For drilling non-ferrous and uncoated materials, sharp versions are recommended and available as custom solutions.
- Excellent surface finish and concentricity.





order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	D (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	L (mm)
Deep-Hole Drills • 2 Flute • WU20PD™ • 15 x D • Z Shank										
3899626	TDD105Z03000	WU20PD	3,000	0.1181	3	52	45	0,6	30	86
3899628	TDD105Z03500	WU20PD	3,500	0.1378	4	68	59	0,7	32	105
3899632	TDD105Z04000	WU20PD	4,000	0.1575	4	70	60	0,8	32	105
3899685	TDD105Z04500	WU20PD	4,500	0.1772	5	85	74	0,9	34	124
3899688	TDD105Z05000	WU20PD	5,000	0.1969	5	87	75	1,0	34	124
3899691	TDD105Z05500	WU20PD	5,500	0.2165	6	102	89	1,1	36	143
3899694	TDD105Z06000	WU20PD	6,000	0.2362	6	104	90	1,2	36	143
3899697	TDD105Z06500	WU20PD	6,500	0.2559	7	119	104	1,4	38	162
3899700	TDD105Z06800	WU20PD	6,800	0.2677	7	120	104	1,4	38	162
3899702	TDD105Z07000	WU20PD	7,000	0.2756	7	121	105	1,5	38	162
3900633	TDD105Z07500	WU20PD	7,500	0.2953	8	136	119	1,6	40	181
3900636	TDD105Z08000	WU20PD	8,000	0.3150	8	138	120	1,7	40	181
3900639	TDD105Z08500	WU20PD	8,500	0.3346	9	153	134	1,8	42	200
3900641	TDD105Z09000	WU20PD	9,000	0.3543	9	155	135	1,9	42	200
3900643	TDD105Z09500	WU20PD	9,500	0.3740	10	170	149	2,0	44	219
3900647	TDD105Z10000	WU20PD	10,000	0.3937	10	172	150	2,1	44	219
3900650	TDD105Z10500	WU20PD	10,500	0.4134	11	187	164	2,2	46	238
3900652	TDD105Z11000	WU20PD	11,000	0.4331	11	189	165	2,3	46	238
3900654	TDD105Z11500	WU20PD	11,500	0.4528	12	204	179	2,4	48	257
3900656	TDD105Z12000	WU20PD	12,000	0.4724	12	206	180	2,5	48	257
3900660	TDD105Z13000	WU20PD	13,000	0.5118	13	223	195	2,8	50	276

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	D (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	L (mm)
Deep-Hole Drills • 2 Flute • WU20PD • 20 x D • Z Shank										
3899782	TDD106Z03000	WU20PD	3,000	0.1181	3	67	60	0,6	30	101
3899804	TDD106Z03500	WU20PD	3,500	0.1378	4	86	77	0,7	32	125
3899808	TDD106Z04000	WU20PD	4,000	0.1575	4	90	80	0,8	32	125
3899811	TDD106Z04500	WU20PD	4,500	0.1772	5	108	97	0,9	34	149
3899814	TDD106Z05000	WU20PD	5,000	0.1969	5	112	100	1,0	34	149
3899818	TDD106Z05500	WU20PD	5,500	0.2165	6	130	117	1,1	36	173
3899821	TDD106Z06000	WU20PD	6,000	0.2362	6	134	120	1,2	36	173
3899824	TDD106Z06500	WU20PD	6,500	0.2559	7	152	137	1,4	38	197
3899827	TDD106Z06800	WU20PD	6,800	0.2677	7	154	138	1,4	38	197
3899829	TDD106Z07000	WU20PD	7,000	0.2756	7	156	140	1,5	38	197
3899764	TDD106Z07500	WU20PD	7,500	0.2953	8	174	157	1,6	40	221
3899767	TDD106Z08000	WU20PD	8,000	0.3150	8	178	160	1,7	40	221
3899770	TDD106Z08500	WU20PD	8,500	0.3346	9	196	177	1,8	42	245
3899772	TDD106Z09000	WU20PD	9,000	0.3543	9	200	180	1,9	42	245
3899784	TDD106Z09500	WU20PD	9,500	0.3740	10	218	197	2,0	44	269
3899788	TDD106Z10000	WU20PD	10,000	0.3937	10	222	200	2,1	44	269
3899791	TDD106Z10500	WU20PD	10,500	0.4134	11	240	217	2,2	46	293
3899793	TDD106Z11000	WU20PD	11,000	0.4331	11	244	220	2,3	46	293
3899795	TDD106Z11500	WU20PD	11,500	0.4528	12	262	237	2,4	48	317
3899797	TDD106Z12000	WU20PD	12,000	0.4724	12	266	240	2,5	48	317
3899799	TDD106Z12500	WU20PD	12,500	0.4921	13	284	257	2,7	50	341
3899801	TDD106Z13000	WU20PD	13,000	0.5118	13	288	260	2,8	50	341



order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	D (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	L (mm)
Deep-Hole Drills • 2 Flute • WU20PD™ • 25 x D • Z Shank										
3899708	TDD107Z03000	WU20PD	3,000	0.1181	3	82	75	0,6	30	116
3899710	TDD107Z03500	WU20PD	3,500	0.1378	4	103	94	0,7	32	145
3899734	TDD107Z04000	WU20PD	4,000	0.1575	4	110	100	0,8	32	145
3899737	TDD107Z04500	WU20PD	4,500	0.1772	5	130	119	0,9	34	174
3899740	TDD107Z05000	WU20PD	5,000	0.1969	5	137	125	1,0	34	174
3899743	TDD107Z05500	WU20PD	5,500	0.2165	6	157	144	1,1	36	203
3899746	TDD107Z06000	WU20PD	6,000	0.2362	6	164	150	1,2	36	203
3899749	TDD107Z06500	WU20PD	6,500	0.2559	7	184	169	1,4	38	232
3899754	TDD107Z07000	WU20PD	7,000	0.2756	7	191	175	1,5	38	232
3899569	TDD107Z08000	WU20PD	8,000	0.3150	8	218	200	1,7	40	261
3899572	TDD107Z08500	WU20PD	8,500	0.3346	9	238	219	1,8	42	290
3899604	TDD107Z09000	WU20PD	9,000	0.3543	9	245	225	1,9	42	290
3899606	TDD107Z09500	WU20PD	9,500	0.3740	10	265	244	2,0	44	319
3899610	TDD107Z10000	WU20PD	10,000	0.3937	10	272	250	2,1	44	319
3899611	TDD107Z10300	WU20PD	10,300	0.4055	11	290	267	2,2	46	348
3899613	TDD107Z10500	WU20PD	10,500	0.4134	11	292	269	2,2	46	348
3899615	TDD107Z11000	WU20PD	11,000	0.4331	11	299	275	2,3	46	348
3899617	TDD107Z11500	WU20PD	11,500	0.4528	12	319	294	2,4	48	377
3899619	TDD107Z12000	WU20PD	12,000	0.4724	12	326	300	2,5	48	377
3899621	TDD107Z12500	WU20PD	12,500	0.4921	13	346	319	2,7	50	406
3899623	TDD107Z13000	WU20PD	13,000	0.5118	13	353	325	2,8	50	406

order number	catalogue number	grade	D1 diameter (mm)	D1 diameter (inch)	D (mm)	L3 (mm)	L4 max (mm)	L5 (mm)	LS (mm)	L (mm)
Deep-Hole Drills • 2 Flute • WU20PD • 30 x D • Z Shank										
3899539	TDD108Z03000	WU20PD	3,000	0.1181	3	97	90	0,6	30	131
3899541	TDD108Z03500	WU20PD	3,500	0.1378	4	121	112	0,7	32	165
3899575	TDD108Z04000	WU20PD	4,000	0.1575	4	130	120	0,8	32	165
3899578	TDD108Z04500	WU20PD	4,500	0.1772	5	153	142	0,9	34	199
3899581	TDD108Z05000	WU20PD	5,000	0.1969	5	162	150	1,0	34	199
3899584	TDD108Z05500	WU20PD	5,500	0.2165	6	185	172	1,1	36	233
3899587	TDD108Z06000	WU20PD	6,000	0.2362	6	194	180	1,2	36	233
3899590	TDD108Z06500	WU20PD	6,500	0.2559	7	217	202	1,4	38	267
3899593	TDD108Z06800	WU20PD	6,800	0.2677	7	222	206	1,4	38	267
3899595	TDD108Z07000	WU20PD	7,000	0.2756	7	226	210	1,5	38	267
3899601	TDD108Z07500	WU20PD	7,500	0.2953	8	249	232	1,6	40	301
3899654	TDD108Z08000	WU20PD	8,000	0.3150	8	258	240	1,7	40	301
3899657	TDD108Z08500	WU20PD	8,500	0.3346	9	281	262	1,8	42	335
3899659	TDD108Z09000	WU20PD	9,000	0.3543	9	290	270	1,9	42	335
3899661	TDD108Z09500	WU20PD	9,500	0.3740	10	313	292	2,0	44	369
3899665	TDD108Z10000	WU20PD	10,000	0.3937	10	322	300	2,1	44	369
3899668	TDD108Z10500	WU20PD	10,500	0.4134	11	345	322	2,2	46	403
3899670	TDD108Z11000	WU20PD	11,000	0.4331	11	354	330	2,3	46	403
3899672	TDD108Z11500	WU20PD	11,500	0.4528	12	377	352	2,4	48	437
3899674	TDD108Z12000	WU20PD	12,000	0.4724	12	386	360	2,5	48	437
3899676	TDD108Z12500	WU20PD	12,500	0.4921	13	409	382	2,7	50	471
3899678	TDD108Z13000	WU20PD	13,000	0.5118	13	418	390	2,8	50	471

TOP DRILL M1™ Modular Drill System

TOP DRILL M1

With performance levels and metal removal rates comparable to that of solid carbide drills, WIDIA™ TOP DRILL M1 offers all the quality and performance you need in one versatile, economical package. The unique front clamping system enables inserts to be changed quickly, even inside the machine tool, saving setup time and manufacturing costs.

The TDM1 platform offers UP(M) drill-point design in WU25PD™ grade — a wide application range geometry, specially developed for cost-efficient drilling of steel, cast iron, and stainless steel. It covers diameter ranges from 8–25,99mm within the standard offering in L/D ratios of 3, 5, and 8 x D.

With its high level of performance, wide application range, and proven point geometry, TDM1 combines all of the economic benefits of a modular drilling system with the machining performance and hole quality to tackle even your most challenging operations.



UP Point Design — Versatility and Productivity

- One insert style for all your work in steel, cast iron, and even stainless steels.
- Low cutting forces and excellent centring capabilities.
- Universal point style for consistent performance and excellent hole quality.

Easy Insert Change

- No screws or clamps required.
- Insert blades can be changed with a simple wrench that comes with each holder.

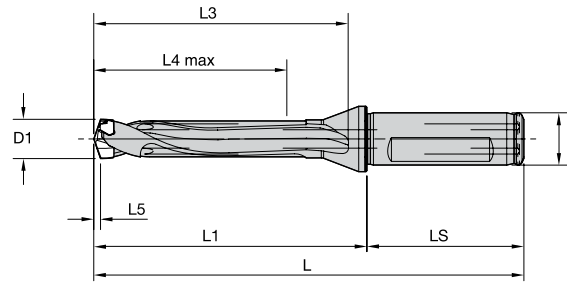
Disposable

- No reconditioning costs.
- Consistent performance from tip to tip.
- Eliminates number of tools waiting for reconditioning, thus avoiding hidden costs.

Customisation

- All intermediate diameters are quickly available as semi-standards.
- Multiple step drills available as customised solutions.
- New TopSTEP range of inserts offer extended chamfering and counterboring to your one-shot drilling solution.



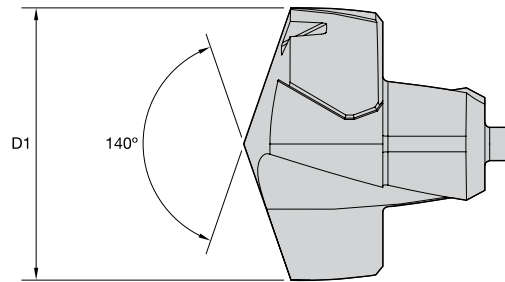


order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	LS (mm)	insert blade seat size
TOP DRILL M1 • 3 x D • Flanged • Metric											
3850904	TDM080R3SCF12M	7,94	8,49	12	86	41	35	26	1,5	45	W10
3850906	TDM085R3SCF12M	8,50	8,99	12	88	43	37	27	1,6	45	W11
3850908	TDM090R3SCF12M	9,00	9,49	12	90	45	39	29	1,7	45	W12
3850910	TDM095R3SCF12M	9,50	9,99	12	92	47	41	30	1,8	45	W13
3850912	TDM100R3SCF16M	10,00	10,49	16	97	49	43	32	1,9	48	W14
3850924	TDM105R3SCF16M	10,50	10,99	16	99	51	45	33	2,0	48	W15
3850926	TDM110R3SCF16M	11,00	11,49	16	101	53	47	35	2,1	48	W16
3850928	TDM115R3SCF16M	11,50	11,99	16	103	55	49	36	2,2	48	W17
3850930	TDM120R3SCF16M	12,00	12,49	16	106	58	52	38	2,3	48	W18
3850932	TDM125R3SCF16M	12,50	12,99	16	108	60	54	39	2,4	48	W19
3850934	TDM130R3SCF16M	13,00	13,49	16	110	62	56	41	2,5	48	W20
3850936	TDM135R3SCF16M	13,50	13,99	16	112	64	58	42	2,6	48	W21
3850938	TDM140R3SCF16M	14,00	14,49	16	114	66	60	44	2,7	48	W22
3850940	TDM145R3SCF16M	14,50	14,99	16	116	68	62	45	2,8	48	W23
3850942	TDM150R3SCF20M	15,00	15,99	20	122	72	66	48	2,8	50	W24
3850944	TDM160R3SCF20M	16,00	16,99	20	126	76	70	51	3,0	50	W25
3850946	TDM170R3SCF20M	17,00	17,99	20	131	81	75	54	3,2	50	W26
3850948	TDM180R3SCF25M	18,00	18,99	25	141	85	79	57	3,4	56	W27
3850950	TDM190R3SCF25M	19,00	19,99	25	144	89	83	60	3,6	56	W28
3850952	TDM200R3SCF25M	20,00	20,99	25	149	93	87	63	3,8	56	W29
3992070	TDM210R3SCF25M	21,00	21,99	25	153	97	91	66	3,7	56	W30
3992071	TDM220R3SCF25M	22,00	22,99	25	158	102	96	69	3,9	56	W31
3992072	TDM230R3SCF25M	23,00	23,99	25	162	106	100	72	4,1	56	W32
3992483	TDM240R3SCF25M	24,00	24,99	25	166	110	104	75	4,2	56	W33
3992484	TDM250R3SCF25M	25,00	25,99	25	170	114	108	78	4,4	56	W34
TOP DRILL M1 • 5 x D • Flanged • Metric											
3850905	TDM080R5SCF12M	7,94	8,49	12	104	59	53	43	1,5	45	W10
3850907	TDM085R5SCF12M	8,50	8,99	12	107	62	56	45	1,6	45	W11
3850909	TDM090R5SCF12M	9,00	9,49	12	110	65	59	48	1,7	45	W12
3850911	TDM095R5SCF12M	9,50	9,99	12	114	69	63	50	1,8	45	W13
3850923	TDM100R5SCF16M	10,00	10,49	16	120	72	66	53	1,9	48	W14
3850925	TDM105R5SCF16M	10,50	10,99	16	123	75	69	55	2,0	48	W15
3850927	TDM110R5SCF16M	11,00	11,49	16	126	78	72	58	2,1	48	W16
3850929	TDM115R5SCF16M	11,50	11,99	16	129	81	75	60	2,2	48	W17
3850931	TDM120R5SCF16M	12,00	12,49	16	132	84	78	63	2,3	48	W18
3850933	TDM125R5SCF16M	12,50	12,99	16	135	87	81	65	2,4	48	W19
3850935	TDM130R5SCF16M	13,00	13,49	16	138	90	84	68	2,5	48	W20
3850937	TDM135R5SCF16M	13,50	13,99	16	142	94	88	70	2,6	48	W21
3850939	TDM140R5SCF16M	14,00	14,49	16	145	97	91	73	2,7	48	W22
3850941	TDM145R5SCF16M	14,50	14,99	16	148	100	94	75	2,8	48	W23
3850943	TDM150R5SCF20M	15,00	15,99	20	156	106	100	80	2,8	50	W24
3850945	TDM160R5SCF20M	16,00	16,99	20	162	112	106	85	3,0	50	W25
3850947	TDM170R5SCF20M	17,00	17,99	20	169	119	113	90	3,2	50	W26
3850949	TDM180R5SCF25M	18,00	18,99	25	181	125	119	95	3,4	56	W27
3850951	TDM190R5SCF25M	19,00	19,99	25	187	131	125	100	3,6	56	W28
3850953	TDM200R5SCF25M	20,00	20,99	25	193	137	131	105	3,8	56	W29
3992485	TDM210R5SCF25M	21,00	21,99	25	200	144	138	110	3,7	56	W30
3992486	TDM220R5SCF25M	22,00	22,99	25	206	150	144	115	3,9	56	W31
3992487	TDM230R5SCF25M	23,00	23,99	25	212	156	150	120	4,1	56	W32
3992488	TDM240R5SCF25M	24,00	24,99	25	218	162	156	125	4,2	56	W33
3992489	TDM250R5SCF25M	25,00	25,99	25	225	169	163	130	4,4	56	W34

(continued)

(TOP DRILL M1 – continued)

order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	LS (mm)	insert blade seat size
TOP DRILL M1 • 8 x D • Flanged • Metric											
3992141	TDM080R8SCF12M	7,94	8,49	12	129	84	79	68	1,4	45	W10
3992142	TDM085R8SCF12M	8,50	8,99	12	134	89	83	72	1,5	45	W11
3992213	TDM090R8SCF12M	9,00	9,49	12	138	93	88	76	1,6	45	W12
3992214	TDM095R8SCF12M	9,50	9,99	12	144	99	93	80	1,7	45	W13
3992215	TDM100R8SCF16M	10,00	10,49	16	151	103	98	84	1,8	48	W14
3992216	TDM105R8SCF16M	10,50	10,99	16	156	108	102	88	1,9	48	W15
3992217	TDM110R8SCF16M	11,00	11,49	16	160	112	107	92	2,0	48	W16
3992218	TDM115R8SCF16M	11,50	11,99	16	165	117	111	96	2,1	48	W17
3992219	TDM120R8SCF16M	12,00	12,49	16	169	121	116	100	2,1	48	W18
3992220	TDM125R8SCF16M	12,50	12,99	16	174	126	120	104	2,2	48	W19
3992221	TDM130R8SCF16M	13,00	13,49	16	178	130	125	108	2,3	48	W20
3992222	TDM135R8SCF16M	13,50	13,99	16	184	136	130	112	2,4	48	W21
3992223	TDM140R8SCF16M	14,00	14,49	16	188	140	135	116	2,5	48	W22
3992224	TDM145R8SCF16M	14,50	14,99	16	193	145	139	120	2,6	48	W23
3992225	TDM150R8SCF20M	15,00	15,99	20	204	154	148	128	2,7	50	W24
3992226	TDM160R8SCF20M	16,00	16,99	20	213	163	157	136	2,8	50	W25
3992227	TDM170R8SCF20M	17,00	17,99	20	223	173	167	144	3,0	50	W26
3992228	TDM180R8SCF25M	18,00	18,99	25	238	182	176	152	3,2	56	W27
3992229	TDM190R8SCF25M	19,00	19,99	25	247	191	185	160	3,4	56	W28
3992230	TDM200R8SCF25M	20,00	20,99	25	256	200	194	168	3,6	56	W29
3992231	TDM210R8SCF25M	21,00	21,99	25	266	210	204	176	3,7	56	W30
3992232	TDM220R8SCF25M	22,00	22,99	25	275	219	213	184	3,9	56	W31
3992233	TDM230R8SCF25M	23,00	23,99	25	284	228	222	192	4,1	56	W32
3992234	TDM240R8SCF25M	24,00	24,99	25	293	237	231	200	4,2	56	W33
3992235	TDM250R8SCF25M	25,00	25,99	25	303	247	241	208	4,4	56	W34



order number	catalogue number	grade	D1 diameter (mm)	seat size/series
TOP DRILL M1 • UP(M)				
3848984	TDM0800UPM	WU25PD	8,00	W10
3848988	TDM0850UPM	WU25PD	8,50	W11
3849043	TDM0900UPM	WU25PD	9,00	W12
3849048	TDM0950UPM	WU25PD	9,50	W13
3849049	TDM0960UPM	WU25PD	9,60	W13
3849051	TDM1000UPM	WU25PD	10,00	W14
3849052	TDM1010UPM	WU25PD	10,10	W14
3849053	TDM1020UPM	WU25PD	10,20	W14
3849054	TDM1030UPM	WU25PD	10,30	W14
3849055	TDM1040UPM	WU25PD	10,40	W14
3849056	TDM1050UPM	WU25PD	10,50	W15
3849057	TDM1060UPM	WU25PD	10,60	W15
3849059	TDM1080UPM	WU25PD	10,80	W15
3849061	TDM1100UPM	WU25PD	11,00	W16
3849063	TDM1120UPM	WU25PD	11,20	W16
3849064	TDM1130UPM	WU25PD	11,30	W16
3849065	TDM1140UPM	WU25PD	11,40	W16
3849066	TDM1150UPM	WU25PD	11,50	W17
3849068	TDM1170UPM	WU25PD	11,70	W17
3849071	TDM1200UPM	WU25PD	12,00	W18
3849072	TDM1210UPM	WU25PD	12,10	W18
3849073	TDM1220UPM	WU25PD	12,20	W18
3850986	TDM1230UPM	WU25PD	12,30	W18
3849075	TDM1250UPM	WU25PD	12,50	W19
3849076	TDM1260UPM	WU25PD	12,60	W19
3850988	TDM1270UPM	WU25PD	12,70	W19
3849077	TDM1280UPM	WU25PD	12,80	W19
3849078	TDM1300UPM	WU25PD	13,00	W20
3850990	TDM1310UPM	WU25PD	13,10	W20
3849080	TDM1330UPM	WU25PD	13,30	W20
3849082	TDM1350UPM	WU25PD	13,50	W21
3849085	TDM1380UPM	WU25PD	13,80	W21
3849086	TDM1400UPM	WU25PD	14,00	W22
3849087	TDM1410UPM	WU25PD	14,10	W22
3849088	TDM1420UPM	WU25PD	14,20	W22
3849089	TDM1430UPM	WU25PD	14,30	W22
3849090	TDM1440UPM	WU25PD	14,40	W22
3849091	TDM1450UPM	WU25PD	14,50	W23
3849092	TDM1460UPM	WU25PD	14,60	W23
3849094	TDM1480UPM	WU25PD	14,80	W23
3849096	TDM1500UPM	WU25PD	15,00	W24
3849097	TDM1510UPM	WU25PD	15,10	W24
3849099	TDM1530UPM	WU25PD	15,30	W24
3849100	TDM1540UPM	WU25PD	15,40	W24
3849101	TDM1550UPM	WU25PD	15,50	W24
3849103	TDM1570UPM	WU25PD	15,70	W24
3849104	TDM1580UPM	WU25PD	15,80	W24
3849105	TDM1600UPM	WU25PD	16,00	W25
3849110	TDM1650UPM	WU25PD	16,50	W25
3849111	TDM1660UPM	WU25PD	16,60	W25
3849112	TDM1670UPM	WU25PD	16,70	W25
3849119	TDM1700UPM	WU25PD	17,00	W26

(continued)

(TOP DRILL M1 – continued)

order number	catalogue number	grade	D1 diameter (mm)	seat size/series
TOP DRILL M1 • UP(M) (continued)				
3849121	TDM1720UPM	WU25PD	17,20	W26
3849193	TDM1740UPM	WU25PD	17,40	W26
3849194	TDM1750UPM	WU25PD	17,50	W26
3849196	TDM1770UPM	WU25PD	17,70	W26
3849199	TDM1800UPM	WU25PD	18,00	W27
3849204	TDM1850UPM	WU25PD	18,50	W27
3849208	TDM1890UPM	WU25PD	18,90	W27
3849209	TDM1900UPM	WU25PD	19,00	W28
3849211	TDM1920UPM	WU25PD	19,20	W28
3849214	TDM1950UPM	WU25PD	19,50	W28
3849217	TDM1980UPM	WU25PD	19,80	W28
3849219	TDM2000UPM	WU25PD	20,00	W29
3849220	TDM2010UPM	WU25PD	20,10	W29
3849221	TDM2020UPM	WU25PD	20,20	W29
3851017	TDM2024UPM	WU25PD	20,24	W29
3849222	TDM2030UPM	WU25PD	20,30	W29
3849223	TDM2040UPM	WU25PD	20,40	W29
3849224	TDM2050UPM	WU25PD	20,50	W29
3849226	TDM2070UPM	WU25PD	20,70	W29
3849227	TDM2080UPM	WU25PD	20,80	W29
3849228	TDM2090UPM	WU25PD	20,90	W29
3849229	TDM2099UPM	WU25PD	20,99	W29
4003225	TDM2100UPM	WU25PD	21,00	W30
4003203	TDM2144UPM	WU25PD	21,44	W30
3969291	TDM2150UPM	WU25PD	21,50	W30
4003226	TDM2200UPM	WU25PD	22,00	W31
4003204	TDM2223UPM	WU25PD	22,23	W31
4003205	TDM2245UPM	WU25PD	22,45	W31
4003227	TDM2250UPM	WU25PD	22,50	W31
4003228	TDM2300UPM	WU25PD	23,00	W32
4003229	TDM2350UPM	WU25PD	23,50	W32
4003206	TDM2381UPM	WU25PD	23,81	W32
4003230	TDM2400UPM	WU25PD	24,00	W33
4003231	TDM2450UPM	WU25PD	24,50	W33
4003207	TDM2461UPM	WU25PD	24,61	W33
4003232	TDM2500UPM	WU25PD	25,00	W34
4003208	TDM2540UPM	WU25PD	25,40	W34
4002444	TDM2550UPM	WU25PD	25,50	W34
4003209	TDM2568UPM	WU25PD	25,68	W34
4003210	TDM2581UPM	WU25PD	25,81	W34
3992013	TDM2599UPM	WU25PD	25,99	W34

WIDIA™ Top Cut 4™ •

New Generation Indexable Drilling System

Top Cut 4



The new WIDIA Top Cut 4 (TC4) portfolio is a broad offering for customers looking for a versatile indexable drilling platform.

The newly developed TC4 features improved centring capabilities and inserts with four cutting edges for both pocket seats (central and periphery). This, in combination with the renowned WIDIA grade technology, leads to outstanding flexibility and efficiency.

The TC4 platform offers three easy-to-select grades and two geometries applicable for steel, cast iron, and stainless steel materials. It covers the diameter range from 12–68mm within the standard offering in L/D ratios of 2–5 x D.

One Comprehensive Platform

- Standard diameter range covering 12–68mm in 2 x D, 3 x D, 4 x D, and 5 x D.
- Four real cutting edges each for entire platform.
- Eight insert sizes to cover complete diameter range.

Easy to Apply

- No risk of mixing up inner and outer insert due to clear visual differences.
- Easy-to-change inserts, laser marked with geometries and grades.
- Easy-to-use nomenclature guide enabling the tool body and the related insert selection to avoid order failures.

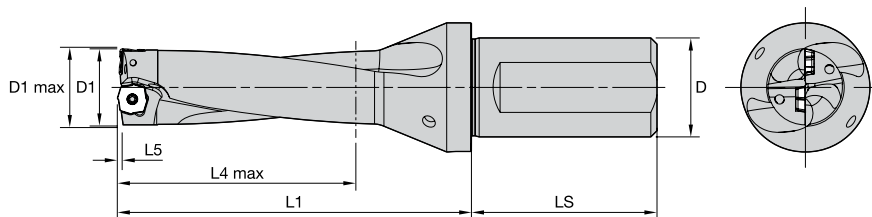
Highly Versatile

- Breadth of application capabilities include through and cross holes, inclined entry and exit opportunity, 45° corner, half cylindrical, concave, or chain drilling.
- Various geometries and grades available.

Highest Performance

- 2x four true cutting edges.
- Cutting edge profile of central and periphery insert work together, leading to high stabilisation of the drill, preventing drifting of the tool even on irregular surfaces.
- X-offset design to adjust diameter size on turning machines and optimise tolerances on machining centres.
- Apply where speed and economy are prime considerations.
- Three grades to achieve higher tool life at accelerated speeds:
 - WU25CH grade for highest metal removal rate in general applications.
 - WU40PH grade for high toughness demands.
 - WPK10CH grade for high-speed applications.





For information on LS, visit widia.com/novo.

order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	L1 (mm)	L4 max (mm)	L5 (mm)	insert size	periphery insert	centre insert
Top Cut 4 Drill • Metric • 2 x D • Side Lock Shank										
5537778	TCF120R2SLR20MA	12,00	12,50	20	43,4	24,0	0,43	A	TCF040204AP	TCF040203AC
5537861	TCF130R2SLR20MA	13,00	13,50	20	46,5	26,5	0,56	A	TCF040204AP	TCF040203AC
5577828	TCF140R2SLR25MB	14,00	14,50	25	48,5	28,5	0,42	B	TCF050204BP	TCF060203BC
5577920	TCF150R2SLR25MB	15,00	15,50	25	51,5	30,5	0,49	B	TCF050204BP	TCF060203BC
5577922	TCF160R2SLR25MB	16,00	16,50	25	54,6	32,6	0,60	B	TCF050204BP	TCF060203BC
5577923	TCF165R2SLR25MB	16,50	17,00	25	56,6	33,6	0,68	B	TCF050204BP	TCF060203BC
5577924	TCF170R2SLR25MB	17,00	17,50	25	57,6	34,6	0,74	B	TCF050204BP	TCF060203BC
5577925	TCF175R2SLR25MB	17,50	18,00	25	59,6	35,6	0,79	B	TCF050204BP	TCF060203BC
5577926	TCF180R2SLR25MB	18,00	18,50	25	60,6	36,6	0,86	B	TCF050204BP	TCF060203BC
5577927	TCF185R2SLR25MB	18,50	19,00	25	62,7	37,7	0,83	B	TCF050204BP	TCF060203BC
5578820	TCF190R2SLR25MC	19,00	19,50	25	63,7	38,7	0,60	C	TCF070306CP	TCF070304CC
5578821	TCF195R2SLR25MC	19,50	20,00	25	65,7	39,7	0,70	C	TCF070306CP	TCF070304CC
5578822	TCF200R2SLR25MC	20,00	20,50	25	66,7	40,7	0,70	C	TCF070306CP	TCF070304CC
5578825	TCF220R2SLR25MC	22,00	22,50	25	73,8	44,8	1,00	C	TCF070306CP	TCF070304CC
5537167	TCF240R2SLR25MD	24,00	25,00	25	76,9	48,9	0,78	D	TCF080308DP	TCF090305DC
5537168	TCF250R2SLR32MD	25,00	26,00	32	80,9	50,9	0,86	D	TCF080308DP	TCF090305DC
5537169	TCF260R2SLR32MD	26,00	27,00	32	83,9	52,9	0,97	D	TCF080308DP	TCF090305DC
5537821	TCF270R2SLR32MD	27,00	28,00	32	87,0	55,0	1,15	D	TCF080308DP	TCF090305DC
5537822	TCF280R2SLR32MD	28,00	29,00	32	90,0	57,0	1,30	D	TCF080308DP	TCF090305DC
5537823	TCF290R2SLR32MD	29,00	30,00	32	93,0	59,0	1,45	D	TCF080308DP	TCF090305DC
5537937	TCF300R2SLR32ME	30,00	31,00	32	93,1	61,1	0,63	E	TCF100408EP	TCF120405EC
5537938	TCF310R2SLR32ME	31,00	32,00	32	96,1	63,1	0,72	E	TCF100408EP	TCF120405EC
5537939	TCF320R2SLR32ME	32,00	33,00	32	99,2	65,2	0,82	E	TCF100408EP	TCF120405EC
5537940	TCF330R2SLR40ME	33,00	34,00	40	103,2	67,2	0,95	E	TCF100408EP	TCF120405EC
5537941	TCF340R2SLR40ME	34,00	35,00	40	106,2	69,2	1,14	E	TCF100408EP	TCF120405EC
5537942	TCF350R2SLR40ME	35,00	36,00	40	109,2	71,2	1,30	E	TCF100408EP	TCF120405EC
5537943	TCF360R2SLR40ME	36,00	37,00	40	112,3	73,3	1,45	E	TCF100408EP	TCF120405EC
5578602	TCF390R2SLR40MF	39,00	40,00	40	121,4	79,4	1,36	F	TCF120412FP	TCF150406FC
5578603	TCF400R2SLR40MF	40,00	41,00	40	123,4	81,4	1,47	F	TCF120412FP	TCF150406FC
5578607	TCF440R2SLR40MF	44,00	45,00	40	135,6	89,6	2,10	F	TCF120412FP	TCF150406FC
5578608	TCF450R2SLR40MF	45,00	46,00	40	138,6	91,6	2,21	F	TCF120412FP	TCF150406FC
5578698	TCF500R2SLR40MG	50,00	51,00	40	147,8	101,8	1,87	G	TCF150512GP	TCF180508GC
5578714	TCF550R2SLR40MG	55,00	56,00	40	161,9	111,9	1,92	G	TCF150512GP	TCF180508GC
Top Cut 4 Drill • Metric • 3 x D • Side Lock Shank										
5537863	TCF120R3SLR20MA	12,00	12,50	20	55,4	36,4	0,41	A	TCF040204AP	TCF040203AC
5537867	TCF130R3SLR20MA	13,00	13,50	20	59,5	39,5	0,56	A	TCF040204AP	TCF040203AC
5577928	TCF140R3SLR25MB	14,00	14,50	25	62,5	42,5	0,42	B	TCF050204BP	TCF060203BC
5577930	TCF150R3SLR25MB	15,00	15,50	25	66,5	45,5	0,49	B	TCF050204BP	TCF060203BC
5577932	TCF160R3SLR25MB	16,00	16,50	25	70,6	48,6	0,60	B	TCF050204BP	TCF060203BC
5577933	TCF165R3SLR25MB	16,50	17,00	25	73,1	50,1	0,68	B	TCF050204BP	TCF060203BC
5577934	TCF170R3SLR25MB	17,00	17,50	25	74,6	51,6	0,74	B	TCF050204BP	TCF060203BC

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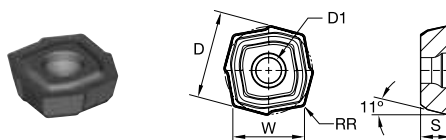
(Top Cut 4 – continued)

order number	catalogue number	D1 (mm)	D1 max (mm)	D (mm)	L1 (mm)	L4 max (mm)	L5 (mm)	insert size	periphery insert	centre insert
Top Cut 4 Drill • Metric • 3 x D • Side Lock Shank (continued)										
5577935	TCF175R3SLR25MB	17,50	18,00	25	77,1	53,1	0,79	B	TCF050204BP	TCF060203BC
5577936	TCF180R3SLR25MB	18,00	18,50	25	78,6	54,6	0,86	B	TCF050204BP	TCF060203BC
5577937	TCF185R3SLR25MB	18,50	19,00	25	81,2	56,2	0,83	B	TCF050204BP	TCF060203BC
5578828	TCF190R3SLR25MC	19,00	19,50	25	82,7	57,7	0,60	C	TCF070306CP	TCF070304CC
5578829	TCF195R3SLR25MC	19,50	20,00	25	85,2	59,2	0,70	C	TCF070306CP	TCF070304CC
5578830	TCF200R3SLR25MC	20,00	20,50	25	86,7	60,7	0,70	C	TCF070306CP	TCF070304CC
5578832	TCF210R3SLR25MC	21,00	21,50	25	91,8	63,8	0,80	C	TCF070306CP	TCF070304CC
5578833	TCF220R3SLR25MC	22,00	22,50	25	95,8	66,8	1,00	C	TCF070306CP	TCF070304CC
5537824	TCF240R3SLR25MD	24,00	25,00	25	100,9	72,9	0,78	D	TCF080308DP	TCF090305DC
5537825	TCF250R3SLR32MD	25,00	26,00	32	105,9	75,9	0,91	D	TCF080308DP	TCF090305DC
5537826	TCF260R3SLR32MD	26,00	27,00	32	109,9	78,9	0,97	D	TCF080308DP	TCF090305DC
5537828	TCF270R3SLR32MD	27,00	28,00	32	114,0	82,0	1,15	D	TCF080308DP	TCF090305DC
5537829	TCF280R3SLR32MD	28,00	29,00	32	118,0	85,0	1,30	D	TCF080308DP	TCF090305DC
5537830	TCF290R3SLR32MD	29,00	30,00	32	122,0	88,0	1,45	D	TCF080308DP	TCF090305DC
5537944	TCF300R3SLR32ME	30,00	31,00	32	123,1	91,1	0,63	E	TCF100408EP	TCF120405EC
5537945	TCF310R3SLR32ME	31,00	32,00	32	127,1	94,1	0,72	E	TCF100408EP	TCF120405EC
5537946	TCF320R3SLR32ME	32,00	33,00	32	131,2	97,2	0,82	E	TCF100408EP	TCF120405EC
5537947	TCF330R3SLR40ME	33,00	34,00	40	136,2	100,2	0,95	E	TCF100408EP	TCF120405EC
5537948	TCF340R3SLR40ME	34,00	35,00	40	140,2	103,2	1,14	E	TCF100408EP	TCF120405EC
5537949	TCF350R3SLR40ME	35,00	36,00	40	144,2	106,2	1,30	E	TCF100408EP	TCF120405EC
5537950	TCF360R3SLR40ME	36,00	37,00	40	148,3	109,3	1,45	E	TCF100408EP	TCF120405EC
5578612	TCF390R3SLR40MF	39,00	40,00	40	160,4	118,4	1,36	F	TCF120412FP	TCF150406FC
5578613	TCF400R3SLR40MF	40,00	41,00	40	163,4	121,4	1,47	F	TCF120412FP	TCF150406FC
5578617	TCF440R3SLR40MF	44,00	45,00	40	179,6	133,6	2,10	F	TCF120412FP	TCF150406FC
5578618	TCF450R3SLR40MF	45,00	46,00	40	183,6	136,6	2,21	F	TCF120412FP	TCF150406FC
5578720	TCF500R3SLR40MG	50,00	51,00	40	197,8	151,8	1,87	G	TCF150512GP	TCF180508GC
5578727	TCF550R3SLR40MG	55,00	56,00	40	216,9	166,9	2,73	G	TCF150512GP	TCF180508GC
Top Cut 4 Drill • Metric • 4 x D • Side Lock Shank										
5537869	TCF120R4SLR20MA	12,00	12,50	20	67,4	48,4	0,41	A	TCF040204AP	TCF040203AC
5537872	TCF130R4SLR20MA	13,00	13,50	20	72,5	52,5	0,56	A	TCF040204AP	TCF040203AC
5577938	TCF140R4SLR25MB	14,00	14,50	25	76,5	56,5	0,42	B	TCF050204BP	TCF060203BC
5577940	TCF150R4SLR25MB	15,00	15,50	25	81,5	60,5	0,49	B	TCF050204BP	TCF060203BC
5577942	TCF160R4SLR25MB	16,00	16,50	25	86,6	64,6	0,60	B	TCF050204BP	TCF060203BC
5577943	TCF165R4SLR25MB	16,50	17,00	25	89,6	66,6	0,68	B	TCF050204BP	TCF060203BC
5577944	TCF170R4SLR25MB	17,00	17,50	25	91,6	68,6	0,74	B	TCF050204BP	TCF060203BC
5577945	TCF175R4SLR25MB	17,50	18,00	25	94,6	70,6	0,79	B	TCF050204BP	TCF060203BC
5577946	TCF180R4SLR25MB	18,00	18,50	25	96,6	72,6	0,86	B	TCF050204BP	TCF060203BC
5577947	TCF185R4SLR25MB	18,50	19,00	25	99,7	74,7	0,83	B	TCF050204BP	TCF060203BC
5578836	TCF190R4SLR25MC	19,00	19,50	25	101,7	76,7	0,60	C	TCF070306CP	TCF070304CC
5578837	TCF195R4SLR25MC	19,50	20,00	25	104,7	78,7	0,70	C	TCF070306CP	TCF070304CC
5578838	TCF200R4SLR25MC	20,00	20,50	25	106,7	80,7	0,70	C	TCF070306CP	TCF070304CC
5578840	TCF210R4SLR25MC	21,00	21,50	25	112,8	84,8	0,80	C	TCF070306CP	TCF070304CC
5578841	TCF220R4SLR25MC	22,00	22,50	25	117,8	88,8	1,00	C	TCF070306CP	TCF070304CC
5537831	TCF240R4SLR25MD	24,00	25,00	25	124,9	96,9	0,78	D	TCF080308DP	TCF090305DC
5537832	TCF250R4SLR32MD	25,00	26,00	32	130,9	100,9	0,86	D	TCF080308DP	TCF090305DC
5537833	TCF260R4SLR32MD	26,00	27,00	32	135,9	104,9	0,97	D	TCF080308DP	TCF090305DC
5537835	TCF270R4SLR32MD	27,00	28,00	32	141,0	109,0	1,15	D	TCF080308DP	TCF090305DC
5537836	TCF280R4SLR32MD	28,00	29,00	32	146,0	113,0	1,30	D	TCF080308DP	TCF090305DC
5537837	TCF290R4SLR32MD	29,00	30,00	32	151,0	117,0	1,45	D	TCF080308DP	TCF090305DC
5537951	TCF300R4SLR32ME	30,00	31,00	32	153,1	121,1	0,63	E	TCF100408EP	TCF120405EC
5537952	TCF310R4SLR32ME	31,00	32,00	32	158,1	125,1	0,72	E	TCF100408EP	TCF120405EC
5537953	TCF320R4SLR32ME	32,00	33,00	32	163,2	129,2	0,82	E	TCF100408EP	TCF120405EC
5537954	TCF330R4SLR40ME	33,00	34,00	40	165,2	133,2	0,95	E	TCF100408EP	TCF120405EC
5537955	TCF340R4SLR40ME	34,00	35,00	40	174,2	137,2	1,14	E	TCF100408EP	TCF120405EC
5537956	TCF350R4SLR40ME	35,00	36,00	40	179,2	141,2	1,30	E	TCF100408EP	TCF120405EC
5537957	TCF360R4SLR40ME	36,00	37,00	40	184,3	145,3	1,45	E	TCF100408EP	TCF120405EC
5578622	TCF390R4SLR40MF	39,00	40,00	40	200,8	156,0	1,36	F	TCF120412FP	TCF150406FC
5578623	TCF400R4SLR40MF	40,00	41,00	40	205,1	160,0	1,47	F	TCF120412FP	TCF150406FC
5578627	TCF440R4SLR40MF	44,00	45,00	40	222,4	176,0	2,10	F	TCF120412FP	TCF150406FC
5578628	TCF450R4SLR40MF	45,00	46,00	40	228,6	181,6	1,59	F	TCF120412FP	TCF150406FC
5578733	TCF500R4SLR40MG	50,00	51,00	40	247,8	201,8	1,87	G	TCF150512GP	TCF180508GC
5578739	TCF550R4SLR40MG	55,00	56,00	40	271,9	221,9	1,92	G	TCF150512GP	TCF180508GC

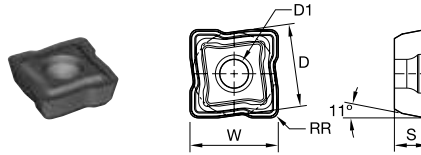
(continued)

(Top Cut 4 – continued)

Top Cut 4 Drill • Metric • 5 x D • Side Lock Shank										
5578846	TCF200R5SLR25MC	20,00	20,00	25	126,7	100,7	0,70	C	TCF070306CP	TCF070304CC
5578848	TCF210R5SLR25MC	21,00	21,00	25	133,8	105,8	0,80	C	TCF070306CP	TCF070304CC
5578849	TCF220R5SLR25MC	22,00	22,00	25	139,8	110,8	1,00	C	TCF070306CP	TCF070304CC
5537838	TCF240R5SLR25MD	24,00	24,00	25	148,9	120,9	0,78	D	TCF080308DP	TCF090305DC
5537839	TCF250R5SLR32MD	25,00	25,00	32	155,9	125,9	0,86	D	TCF080308DP	TCF090305DC
5537840	TCF260R5SLR32MD	26,00	26,00	32	161,9	130,9	0,94	D	TCF080308DP	TCF090305DC
5537961	TCF330R5SLR40ME	33,00	33,00	40	202,2	166,2	0,95	E	TCF100408EP	TCF120405EC
5578643	TCF400R5SLR40MF	40,00	—	40	245,1	200,0	1,47	F	TCF120412FP	TCF150406FC



order number	catalogue number	grade	D (mm)	D1 (mm)	W (mm)	S (mm)	RR (mm)	insert size
Top Cut 4 Drill • Centre Inserts • V34								
5541817	TCF040203ACV34	WU25CH	4,47	2,10	3,65	2,00	0,300	A
5541818	TCF040203ACV34	WU40PH	4,47	2,10	3,65	2,00	0,300	A
5542602	TCF060203BCV34	WU25CH	6,00	2,40	4,90	2,40	0,300	B
5542604	TCF060203BCV34	WU40PH	6,00	2,40	4,90	2,40	0,300	B
5542642	TCF070304CCV34	WU25CH	7,59	2,60	6,20	2,80	0,400	C
5542643	TCF070304CCV34	WU40PH	7,59	2,60	6,20	2,80	0,400	C
5538554	TCF090305DCV34	WU25CH	9,55	2,80	7,80	3,00	0,500	D
5538555	TCF090305DCV34	WU40PH	9,55	2,80	7,80	3,00	0,500	D
5538603	TCF120405ECV34	WU25CH	12,00	3,40	9,80	3,60	0,500	E
5538604	TCF120405ECV34	WU40PH	12,00	3,40	9,80	3,60	0,500	E
5542623	TCF150406FCV34	WU25CH	14,94	4,80	12,20	4,20	0,600	F
5542624	TCF150406FCV34	WU40PH	14,94	4,80	12,20	4,20	0,600	F
5542475	TCF180508GCV34	WU25CH	17,88	6,00	14,60	5,40	0,800	G
5542476	TCF180508GCV34	WU40PH	17,88	6,00	14,60	5,40	0,800	G
5542002	TCF210608HCV34	WU25CH	21,68	7,50	17,70	6,50	0,800	H
5542003	TCF210608HCV34	WU40PH	21,68	7,50	17,70	6,50	0,800	H
Top Cut 4 Drill • Centre Inserts • V36								
5541819	TCF040203ACV36	WU25CH	4,47	2,10	3,65	2,00	0,300	A
5541840	TCF040203ACV36	WU40PH	4,47	2,10	3,65	2,00	0,300	A
5542606	TCF060203BCV36	WU25CH	6,00	2,40	4,90	2,40	0,300	B
5542607	TCF060203BCV36	WU40PH	6,00	2,40	4,90	2,40	0,300	B
5542644	TCF070304CCV36	WU25CH	7,59	2,60	6,20	2,80	0,400	C
5542645	TCF070304CCV36	WU40PH	7,59	2,60	6,20	2,80	0,400	C
5538556	TCF090305DCV36	WU25CH	9,55	2,80	7,80	3,00	0,500	D
5538557	TCF090305DCV36	WU40PH	9,55	2,80	7,80	3,00	0,500	D
5538606	TCF120405ECV36	WU25CH	12,00	3,40	9,80	3,60	0,500	E
5538607	TCF120405ECV36	WU40PH	12,00	3,40	9,80	3,60	0,500	E
5542625	TCF150406FCV36	WU25CH	14,94	4,80	12,20	4,20	0,600	F
5542626	TCF150406FCV36	WU40PH	14,94	4,80	12,20	4,20	0,600	F
5542477	TCF180508GCV36	WU25CH	17,88	6,00	14,60	5,40	0,800	G
5542478	TCF180508GCV36	WU40PH	17,88	6,00	14,60	5,40	0,800	G
5542004	TCF210608HCV36	WU25CH	21,68	7,50	17,70	6,50	0,800	H
5542005	TCF210608HCV36	WU40PH	21,68	7,50	17,70	6,50	0,800	H



order number	catalogue number	grade	D (mm)	D1 (mm)	W (mm)	S (mm)	RR (mm)	insert size
Top Cut 4 Drill • Periphery Inserts • V34								
5541843	TCF040204APV34	WPK10CH	4,14	2,10	4,40	2,00	0,400	A
5541841	TCF040204APV34	WU25CH	4,14	2,10	4,40	2,00	0,400	A
5541842	TCF040204APV34	WU40PH	4,14	2,10	4,40	2,00	0,400	A
5542620	TCF050204BPV34	WPK10CH	5,07	2,40	5,40	2,40	0,400	B
5542608	TCF050204BPV34	WU25CH	5,07	2,40	5,40	2,40	0,400	B
5542609	TCF050204BPV34	WU40PH	5,07	2,40	5,40	2,40	0,400	B
5542648	TCF070306CPV34	WPK10CH	6,67	2,60	7,10	2,80	0,600	C
5542646	TCF070306CPV34	WU25CH	6,67	2,60	7,10	2,80	0,600	C
5542647	TCF070306CPV34	WU40PH	6,67	2,60	7,10	2,80	0,600	C
5538600	TCF080308DPV34	WPK10CH	8,08	2,80	8,60	3,00	0,800	D
5538558	TCF080308DPV34	WU25CH	8,08	2,80	8,60	3,00	0,800	D
5538559	TCF080308DPV34	WU40PH	8,08	2,80	8,60	3,00	0,800	D
5538610	TCF100408EPV34	WPK10CH	9,96	3,40	10,60	3,60	0,800	E
5538608	TCF100408EPV34	WU25CH	9,96	3,40	10,60	3,60	0,800	E
5538609	TCF100408EPV34	WU40PH	9,96	3,40	10,60	3,60	0,800	E
5542629	TCF120412FPV34	WPK10CH	12,59	4,80	13,40	4,20	1,200	F
5542627	TCF120412FPV34	WU25CH	12,59	4,80	13,40	4,20	1,200	F
5542628	TCF120412FPV34	WU40PH	12,59	4,80	13,40	4,20	1,200	F
5542601	TCF150512GPV34	WPK10CH	15,13	6,00	16,10	5,40	1,200	G
5542479	TCF150512GPV34	WU25CH	15,13	6,00	16,10	5,40	1,200	G
5542600	TCF150512GPV34	WU40PH	15,13	6,00	16,10	5,40	1,200	G
5542008	TCF180614HPV34	WPK10CH	18,04	7,50	19,20	6,50	1,400	H
5542006	TCF180614HPV34	WU25CH	18,04	7,50	19,20	6,50	1,400	H
5542007	TCF180614HPV34	WU40PH	18,04	7,50	19,20	6,50	1,400	H
Top Cut 4 Drill • Periphery Inserts • V36								
5541844	TCF040204APV36	WU25CH	4,14	2,10	4,40	2,00	0,400	A
5541845	TCF040204APV36	WU40PH	4,14	2,10	4,40	2,00	0,400	A
5542621	TCF050204BPV36	WU25CH	5,07	2,40	5,40	2,40	0,400	B
5542622	TCF050204BPV36	WU40PH	5,07	2,40	5,40	2,40	0,400	B
5542649	TCF070306CPV36	WU25CH	6,67	2,60	7,10	2,80	0,600	C
5542650	TCF070306CPV36	WU40PH	6,67	2,60	7,10	2,80	0,600	C
5538601	TCF080308DPV36	WU25CH	8,08	2,80	8,60	3,00	0,800	D
5538602	TCF080308DPV36	WU40PH	8,08	2,80	8,60	3,00	0,800	D
5538611	TCF100408EPV36	WU25CH	9,96	3,40	10,60	3,60	0,800	E
5538612	TCF100408EPV36	WU40PH	9,96	3,40	10,60	3,60	0,800	E
5542640	TCF120412FPV36	WU25CH	12,59	4,80	13,40	4,20	1,200	F
5542641	TCF120412FPV36	WU40PH	12,59	4,80	13,40	4,20	1,200	F
5542603	TCF150512GPV36	WU25CH	15,13	6,00	16,10	5,40	1,200	G
5542605	TCF150512GPV36	WU40PH	15,13	6,00	16,10	5,40	1,200	G
5542009	TCF180614HPV36	WU25CH	18,04	7,50	19,20	6,50	1,400	H
5542020	TCF180614HPV36	WU40PH	18,04	7,50	19,20	6,50	1,400	H

High-Performance Solution for Multipurpose Tapping •

VariTap™

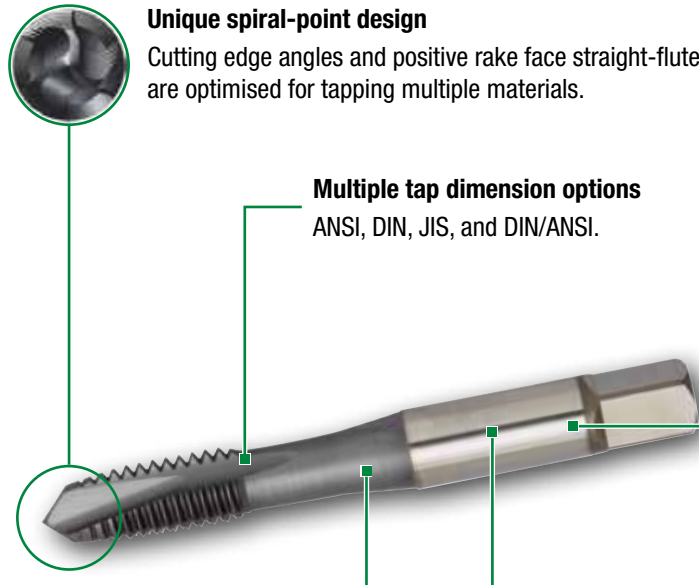
VariTap



VariTap is the high-performance multipurpose tapping solution from WIDIA™. VariTap has an optimised geometry capable of working in a wide variety of ductile materials — including carbon and alloy steels, stainless steels, ductile iron, and cast aluminium. VariTap reduces inventory costs without losing the benefit of high-quality threads and consistent tool life.

With a wide range of inch and metric standard sizes, pitch diameter limits, classes of fit, chamfer styles, and coatings, VariTap offers the most expansive portfolio of multipurpose taps available on the market. VariTap now includes ISO pipe taps for through and blind hole applications.

**Multipurpose Taps for Steel, Stainless Steel,
Cast Aluminium, and Ductile Iron**



Unique spiral-point design
Cutting edge angles and positive rake face straight-flutes are optimised for tapping multiple materials.

Multiple tap dimension options
ANSI, DIN, JIS, and DIN/ANSI.

Precision ground shanks
Low runout.

High-vanadium HSS-E
Improved wear characteristics and longer tool life.

PVD coatings and surface treatments
For use with various workpiece materials:

WP42EG	WU41EG	WP49EG	WU40EG
TiCN	TiN	Oxide	Bright

Multipurpose Taps for Steel, Stainless Steel, Cast Aluminium, and Ductile Iron

Advanced spiral-flute design
Smooth ejection of chips to reduce and eliminate bird-nesting.

Multiple tap dimension options
ANSI, DIN, JIS, and DIN/ANSI.

Precision ground shanks
Low runout.

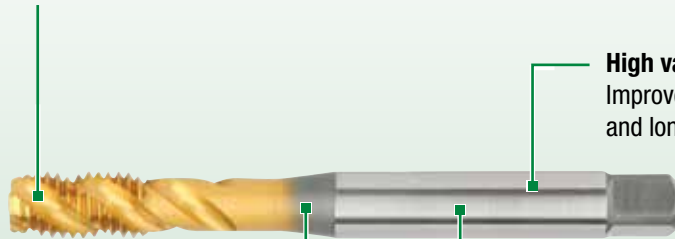
High-vanadium HSS-E
Improved wear resistance and longer life.

PVD coatings and surface treatments
For use with various workpiece materials:

WP42EG	WU41EG	WP49EG	WU40EG
TiCN	TiN	Oxide	Bright

Multipurpose HSS-E Spiral-Flute Taps
For Use in Tension/Compression Tap Holders

Advanced spiral-flute design
Smooth ejection of chips to reduce and eliminate bird-nesting.

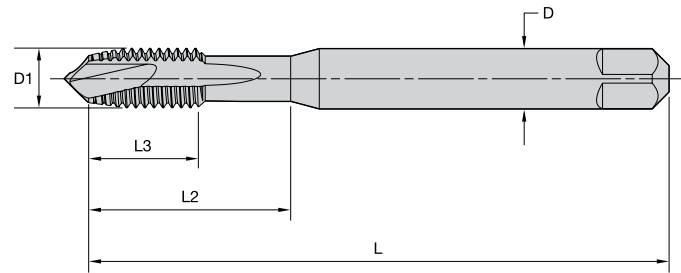


High vanadium HSS-E
Improved wear characteristics and longer tool life.

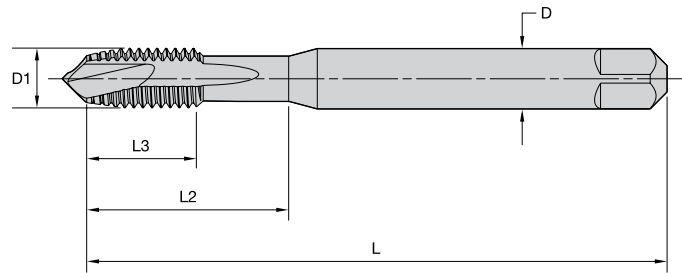
Precision ground shanks
Low runout.

PVD coatings and surface treatment
For use in various workpiece materials:

WU41EG TiN	WP49EG Oxide
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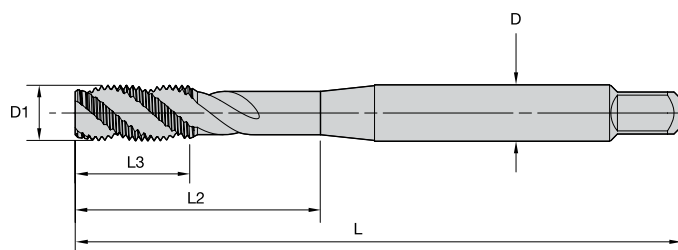


order number	catalogue number	grade	D1 size	L (mm)	L3 (mm)	L2 (mm)	D (mm)	number of flutes	dimension standard	class of fit
VT-SPO • Form B Plug Chamfer • Metric DIN 371, 374, and 376 • Through Holes										
5366666	VTSP06510	WU41EG	M3 X 0,5	56	8	18	3,5	2	DIN 371	6H
5366668	VTSP06510	WP49EG	M3 X 0,5	56	8	18	3,5	2	DIN 371	6H
5366676	VTSP06513	WP42EG	M4 X 0,7	63	11	21	4,5	2	DIN 371	6H
5366675	VTSP06513	WU41EG	M4 X 0,7	63	11	21	4,5	2	DIN 371	6H
5366677	VTSP06513	WP49EG	M4 X 0,7	63	11	21	4,5	2	DIN 371	6H
5366681	VTSP06515	WP42EG	M5 X 0,8	70	12	25	6,0	2	DIN 371	6H
5366680	VTSP06515	WU41EG	M5 X 0,8	70	12	25	6,0	2	DIN 371	6H
5366682	VTSP06515	WP49EG	M5 X 0,8	70	12	25	6,0	2	DIN 371	6H
5366687	VTSP06517	WP42EG	M6 X 1	80	12	30	6,0	3	DIN 371	6H
5366686	VTSP06517	WU41EG	M6 X 1	80	12	30	6,0	3	DIN 371	6H
5366688	VTSP06517	WP49EG	M6 X 1	80	12	30	6,0	3	DIN 371	6H
5366700	VTSP06521	WP42EG	M8 X 1,25	90	15	35	8,0	3	DIN 371	6H
5366698	VTSP06521	WU41EG	M8 X 1,25	90	15	35	8,0	3	DIN 371	6H
5366701	VTSP06521	WP49EG	M8 X 1,25	90	15	35	8,0	3	DIN 371	6H
5366706	VTSP06523	WP42EG	M10 X 1,5	100	18	39	10,0	3	DIN 371	6H
5366705	VTSP06523	WU41EG	M10 X 1,5	100	18	39	10,0	3	DIN 371	6H
5366707	VTSP06523	WP49EG	M10 X 1,5	100	18	39	10,0	3	DIN 371	6H
5368553	VTSP06531	WP42EG	M12 X 1,75	110	21	44	9,0	3	DIN 376	6H
5368552	VTSP06531	WU41EG	M12 X 1,75	110	21	44	9,0	3	DIN 376	6H
5368554	VTSP06531	WP49EG	M12 X 1,75	110	21	44	9,0	3	DIN 376	6H
5368557	VTSP06533	WU41EG	M14 X 2	110	24	52	11,0	3	DIN 376	6H
5368559	VTSP06533	WP49EG	M14 X 2	110	24	52	11,0	3	DIN 376	6H
5368562	VTSP06535	WU41EG	M16 X 2	110	24	51	12,0	3	DIN 376	6H
5368565	VTSP06535	WP49EG	M16 X 2	110	24	51	12,0	3	DIN 376	6H
5368568	VTSP06537	WU41EG	M18 X 2,5	125	30	58	14,0	3	DIN 376	6H
5368570	VTSP06537	WP49EG	M18 X 2,5	125	30	58	14,0	3	DIN 376	6H
5368572	VTSP06538	WU41EG	M20 X 2,5	140	30	64	16,0	3	DIN 376	6H
5368574	VTSP06538	WP49EG	M20 X 2,5	140	30	64	16,0	3	DIN 376	6H
5368622	VTSP06555	WP49EG	M10 X 1,25	100	18	39	7,0	3	DIN 374	6H
5368628	VTSP06558	WP49EG	M12 X 1,25	100	21	39	9,0	3	DIN 374	6H
5368630	VTSP06559	WP49EG	M12 X 1,5	100	21	39	9,0	3	DIN 374	6H
5368634	VTSP06561	WP49EG	M14 X 1,25	100	21	47	11,0	3	DIN 374	6H
5368636	VTSP06562	WP49EG	M14 X 1,5	100	21	47	11,0	3	DIN 374	6H
5368640	VTSP06564	WP49EG	M16 X 1,5	100	21	46	12,0	3	DIN 374	6H
5368683	VTSP06566	WP49EG	M18 X 1,5	110	21	50	14,0	3	DIN 374	6H



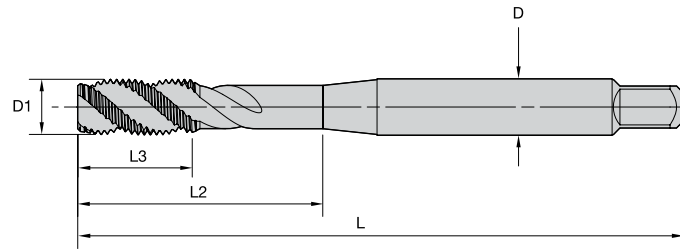
order number	catalogue number	grade	D1 size	L (mm)	L3 (mm)	L2 (mm)	D (mm)	number of flutes	dimension standard	class of fit
VT-SPO • Form B Plug Chamfer • Machine Screw and Fractional • DIN 371 and 376 • Through Holes										
5387708	VTSP06008	WP49EG	6 - 32	56	9	20	4,0	2	DIN 371	2B
5472636	VTSP06008	WU41EG	6 - 32	56	9	20	4,0	2	DIN 371	2B
5387760	VTSP06010	WP49EG	6 - 40	56	9	20	4,0	2	DIN 371	2B
5472638	VTSP06010	WU41EG	6 - 40	56	9	20	4,0	2	DIN 371	2B
5387761	VTSP06011	WP49EG	8 - 32	63	11	21	4,5	2	DIN 371	2B
5472639	VTSP06011	WU41EG	8 - 32	63	11	21	4,5	2	DIN 371	2B
5387763	VTSP06013	WP49EG	10 - 24	70	12	25	6,0	2	DIN 371	2B
5472641	VTSP06013	WU41EG	10 - 24	70	12	25	6,0	2	DIN 371	2B
5387764	VTSP06014	WP49EG	10 - 32	70	12	25	6,0	2	DIN 371	2B
5472644	VTSP06014	WU41EG	10 - 32	70	12	25	6,0	2	DIN 371	2B
5387766	VTSP06016	WP49EG	1/4 - 20	80	15	30	7,0	3	DIN 371	2B
5472646	VTSP06016	WU41EG	1/4 - 20	80	15	30	7,0	3	DIN 371	2B
5387767	VTSP06017	WP49EG	1/4 - 28	80	15	30	7,0	3	DIN 371	2B
5472647	VTSP06017	WU41EG	1/4 - 28	80	15	30	7,0	3	DIN 371	2B
5387769	VTSP06019	WP49EG	5/16 - 18	90	15	35	8,0	3	DIN 371	2B
5472649	VTSP06019	WU41EG	5/16 - 18	90	15	35	8,0	3	DIN 371	2B
5387770	VTSP06020	WP49EG	5/16 - 24	90	15	35	8,0	3	DIN 371	2B
5472650	VTSP06020	WU41EG	5/16 - 24	90	15	35	8,0	3	DIN 371	2B
5387772	VTSP06022	WP49EG	3/8 - 16	100	19	39	10,0	3	DIN 371	2B
5472652	VTSP06022	WU41EG	3/8 - 16	100	19	39	10,0	3	DIN 371	2B
5387773	VTSP06023	WP49EG	3/8 - 24	100	19	39	10,0	3	DIN 371	2B
5472653	VTSP06023	WU41EG	3/8 - 24	100	19	39	10,0	3	DIN 371	2B
5387776	VTSP06025	WP49EG	7/16 - 14	100	18	41	8,0	3	DIN 376	2B
5472655	VTSP06025	WU41EG	7/16 - 14	100	18	41	8,0	3	DIN 376	2B
5387777	VTSP06026	WP49EG	7/16 - 20	100	18	41	8,0	3	DIN 376	2B
5472656	VTSP06026	WU41EG	7/16 - 20	100	18	41	8,0	3	DIN 376	2B
5387779	VTSP06028	WP49EG	1/2 - 13	110	23	47	9,0	3	DIN 376	2B
5472658	VTSP06028	WU41EG	1/2 - 13	110	23	47	9,0	3	DIN 376	2B
5387780	VTSP06029	WP49EG	1/2 - 20	110	23	47	9,0	3	DIN 376	2B
5472659	VTSP06029	WU41EG	1/2 - 20	110	23	47	9,0	3	DIN 376	2B
5387782	VTSP06031	WP49EG	9/16 - 12	110	25	53	11,0	3	DIN 376	2B
5472661	VTSP06031	WU41EG	9/16 - 12	110	25	53	11,0	3	DIN 376	2B
5387783	VTSP06032	WP49EG	9/16 - 18	110	25	53	11,0	3	DIN 376	2B
5472662	VTSP06032	WU41EG	9/16 - 18	110	25	53	11,0	3	DIN 376	2B
5387784	VTSP06033	WP49EG	5/8 - 11	110	24	51	12,0	3	DIN 376	2B
5472663	VTSP06033	WU41EG	5/8 - 11	110	24	51	12,0	3	DIN 376	2B
5387785	VTSP06034	WP49EG	5/8 - 18	110	24	51	12,0	3	DIN 376	2B
5472664	VTSP06034	WU41EG	5/8 - 18	110	24	51	12,0	3	DIN 376	2B
5387786	VTSP06035	WP49EG	3/4 - 10	140	30	64	16,0	3	DIN 376	2B
5472665	VTSP06035	WU41EG	3/4 - 10	140	30	64	16,0	3	DIN 376	2B
5387787	VTSP06036	WP49EG	3/4 - 16	140	30	64	16,0	3	DIN 376	2B
5472666	VTSP06036	WU41EG	3/4 - 16	140	30	64	16,0	3	DIN 376	2B

Tapping



order number	catalogue number	grade	D1 size	L (mm)	L3 (mm)	L2 (mm)	D (mm)	number of flutes	dimension standard	class of fit
VT-SFT • Form C Semi-Bottoming Chamfer • Metric DIN 371, 374, and 376 • Rigid and Synchronous Holders • Blind Holes										
5368724	VTSFT6511	WP49EG	M3 X 0,5	56	8	18	3,5	2	DIN 371	6H
5368732	VTSFT6514	WP49EG	M4 X 0,7	63	11	21	4,5	3	DIN 371	6H
5368737	VTSFT6516	WP49EG	M5 X 0,8	70	12	25	6,0	3	DIN 371	6H
5368742	VTSFT6518	WP49EG	M6 X 1	80	12	30	6,0	3	DIN 371	6H
5368748	VTSFT6521	WU41EG	M8 X 1,25	90	15	35	8,0	3	DIN 371	6H
5368750	VTSFT6521	WP49EG	M8 X 1,25	90	15	35	8,0	3	DIN 371	6H
5368753	VTSFT6523	WU41EG	M10 X 1,5	100	18	39	10,0	3	DIN 371	6H
5368755	VTSFT6523	WP49EG	M10 X 1,5	100	18	39	10,0	3	DIN 371	6H
5402199	VTSFT6556	WP49EG	M12 X 1,25	100	21	39	9,0	3	DIN 374	6H
5402202	VTSFT6557	WP49EG	M12 X 1,5	100	21	39	9,0	3	DIN 374	6H
5402207	VTSFT6560	WP49EG	M14 X 1,5	100	21	47	11,0	3	DIN 374	6H
5402210	VTSFT6562	WP49EG	M16 X 1,5	100	21	46	12,0	3	DIN 374	6H
5402214	VTSFT6564	WP49EG	M18 X 1,5	110	21	50	14,0	4	DIN 374	6H
5402259	VTSFT6531	WU41EG	M12 X 1,75	110	21	44	9,0	3	DIN 376	6H
5402261	VTSFT6531	WP49EG	M12 X 1,75	110	21	44	9,0	3	DIN 376	6H
5402264	VTSFT6533	WU41EG	M14 X 2	110	24	52	11,0	3	DIN 376	6H
5402266	VTSFT6533	WP49EG	M14 X 2	110	24	52	11,0	3	DIN 376	6H
5402269	VTSFT6535	WU41EG	M16 X 2	110	24	51	12,0	3	DIN 376	6H
5402270	VTSFT6535	WP49EG	M16 X 2	110	24	51	12,0	3	DIN 376	6H
5402277	VTSFT6538	WP49EG	M20 X 2,5	140	30	64	16,0	4	DIN 376	6H
VT-SFT • Form E Bottoming Chamfer • Metric DIN 371, 374, and 376 • Blind Holes										
5387478	VTSFT6586	WP49EG	M10 X 1,25	100	18	39	7,0	3	DIN 374	6H

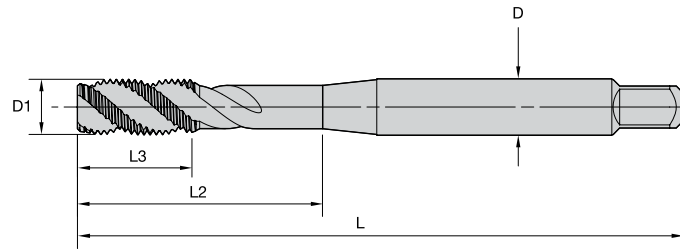
NOTE: Suggested for use in rigid and synchronous holders.



order number	catalogue number	grade	D1 size	L (mm)	L3 (mm)	L2 (mm)	D (mm)	number of flutes	dimension standard	class of fit
VT-SFT TC • Form C Semi-Bottoming Chamfer • Metric DIN 371, 374, and 376 • Tension/Compression Holders • Blind Holes										
6172436	VTSFT-TC6508	WP49EG	M3 X 0,5	56	5	19	3,5	3	DIN 371	6H
6172438	VTSFT-TC6508	WU41EG	M3 X 0,5	56	5	19	3,5	3	DIN 371	6H
6172440	VTSFT-TC6510	WP49EG	M4 X 0,7	63	7	21	4,5	3	DIN 371	6H
6172442	VTSFT-TC6510	WU41EG	M4 X 0,7	63	7	21	4,5	3	DIN 371	6H
6172444	VTSFT-TC6511	WP49EG	M5 X 0,8	70	8	26	6,0	3	DIN 371	6H
6172446	VTSFT-TC6511	WU41EG	M5 X 0,8	70	8	26	6,0	3	DIN 371	6H
6172448	VTSFT-TC6512	WP49EG	M5 X 0,8	70	8	27	3,5	3	DIN 376	6H
6172450	VTSFT-TC6512	WU41EG	M5 X 0,8	70	8	27	3,5	3	DIN 376	6H
6172466	VTSFT-TC6514	WP49EG	M6 X 1	80	10	30	6,0	3	DIN 371	6H
6172468	VTSFT-TC6514	WU41EG	M6 X 1	80	10	30	6,0	3	DIN 371	6H
6172469	VTSFT-TC6515	WP49EG	M6 X 1	80	10	34	4,5	3	DIN 376	6H
6172470	VTSFT-TC6515	WU41EG	M6 X 1	80	10	34	4,5	3	DIN 376	6H
6172482	VTSFT-TC6516	WU41EG	M8 X 0,75	90	13	37	6,0	3	DIN 374	6H
6172487	VTSFT-TC6519	WP49EG	M8 X 1,25	90	13	37	6,0	3	DIN 376	6H
6172488	VTSFT-TC6519	WU41EG	M8 X 1,25	90	13	37	6,0	3	DIN 376	6H
6172485	VTSFT-TC6518	WP49EG	M8 X 1,25	90	13	37	8,0	3	DIN 371	6H
6172486	VTSFT-TC6518	WU41EG	M8 X 1,25	90	13	37	8,0	3	DIN 371	6H
6172493	VTSFT-TC6522	WP49EG	M10 X 1,25	100	15	44	7,0	3	DIN 374	6H
6172494	VTSFT-TC6522	WU41EG	M10 X 1,25	100	15	44	7,0	3	DIN 374	6H
6172495	VTSFT-TC6550	WP49EG	M10 X 1,5	100	15	41	10,0	3	DIN 371	6H
6172496	VTSFT-TC6550	WU41EG	M10 X 1,5	100	15	41	10,0	3	DIN 371	6H
6172497	VTSFT-TC6524	WP49EG	M10 X 1,5	100	15	44	7,0	3	DIN 376	6H
6172498	VTSFT-TC6524	WU41EG	M10 X 1,5	100	15	44	7,0	3	DIN 376	6H
6172501	VTSFT-TC6526	WP49EG	M12 X 1,25	100	13	50	9,0	3	DIN 374	6H
6172502	VTSFT-TC6526	WU41EG	M12 X 1,25	100	13	50	9,0	3	DIN 374	6H
6172503	VTSFT-TC6527	WP49EG	M12 X 1,5	100	13	50	9,0	3	DIN 374	6H
6172504	VTSFT-TC6527	WU41EG	M12 X 1,5	100	13	50	9,0	3	DIN 374	6H
6172505	VTSFT-TC6528	WP49EG	M12 X 1,75	110	18	55	9,0	3	DIN 376	6H
6172506	VTSFT-TC6528	WU41EG	M12 X 1,75	110	18	55	9,0	3	DIN 376	6H
6172509	VTSFT-TC6530	WP49EG	M14 X 1,25	100	15	41	11,0	4	DIN 374	6H
6172510	VTSFT-TC6530	WU41EG	M14 X 1,25	100	15	41	11,0	4	DIN 374	6H
6172511	VTSFT-TC6536	WP49EG	M14 X 1,5	100	15	41	11,0	4	DIN 374	6H
6172512	VTSFT-TC6536	WU41EG	M14 X 1,5	100	15	41	11,0	4	DIN 374	6H
6172671	VTSFT-TC6532	WP49EG	M14 X 2	110	20	50	11,0	3	DIN 376	6H
6172672	VTSFT-TC6532	WU41EG	M14 X 2	110	20	50	11,0	3	DIN 376	6H
6172673	VTSFT-TC6534	WP49EG	M16 X 1,5	100	15	45	12,0	4	DIN 374	6H
6172674	VTSFT-TC6534	WU41EG	M16 X 1,5	100	15	45	12,0	4	DIN 374	6H
6172675	VTSFT-TC6564	WP49EG	M16 X 2	110	20	55	12,0	4	DIN 376	6H
6172676	VTSFT-TC6564	WU41EG	M16 X 2	110	20	55	12,0	4	DIN 376	6H
6172677	VTSFT-TC6537	WP49EG	M18 X 1,5	110	17	55	14,0	4	DIN 374	6H
6172678	VTSFT-TC6537	WU41EG	M18 X 1,5	110	17	55	14,0	4	DIN 374	6H
6172680	VTSFT-TC6538	WU41EG	M18 X 2	125	25	61	14,0	4	DIN 374	6H
6172691	VTSFT-TC6539	WP49EG	M18 X 2,5	125	25	61	14,0	4	DIN 376	6H
6172692	VTSFT-TC6539	WU41EG	M18 X 2,5	125	25	61	14,0	4	DIN 376	6H
6172693	VTSFT-TC6541	WP49EG	M20 X 1,5	125	17	56	16,0	4	DIN 374	6H
6172694	VTSFT-TC6541	WU41EG	M20 X 1,5	125	17	56	16,0	4	DIN 374	6H
6172697	VTSFT-TC6543	WP49EG	M20 X 2,5	140	25	65	16,0	4	DIN 376	6H
6172698	VTSFT-TC6543	WU41EG	M20 X 2,5	140	25	65	16,0	4	DIN 376	6H

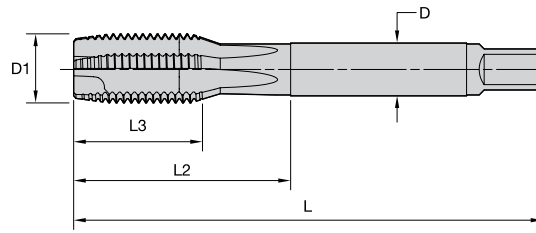
NOTE: Suitable for tension/compression holders.

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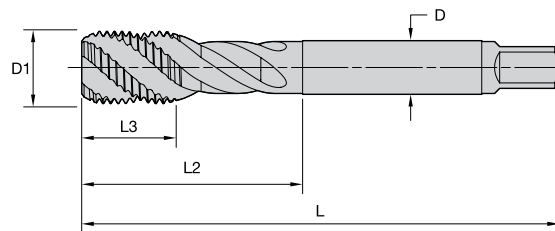
order number	catalogue number	grade	D1 size	L (mm)	L3 (mm)	L2 (mm)	D (mm)	number of flutes	dimension standard	class of fit
VT-SFT TC • Form C Semi-Bottoming Chamfer • Machine Screw and Fractional • DIN 371, 374, and 376 • Tension/Compression Holders • Blind Holes										
6172747	VTSFT-TC6008	WP49EG	6 - 32	56	7	21	4,0	3	DIN 371	2B
6172748	VTSFT-TC6008	WU41EG	6 - 32	56	7	21	4,0	3	DIN 371	2B
6172749	VTSFT-TC6009	WP49EG	6 - 40	56	7	21	4,0	3	DIN 371	2B
6172750	VTSFT-TC6009	WU41EG	6 - 40	56	7	21	4,0	3	DIN 371	2B
6172781	VTSFT-TC6010	WP49EG	8 - 32	63	7	21	4,5	3	DIN 371	2B
6172782	VTSFT-TC6010	WU41EG	8 - 32	63	7	21	4,5	3	DIN 371	2B
6172783	VTSFT-TC6011	WP49EG	8 - 36	63	7	21	4,5	3	DIN 371	2B
6172784	VTSFT-TC6011	WU41EG	8 - 36	63	7	21	4,5	3	DIN 371	2B
6172785	VTSFT-TC6012	WP49EG	10 - 24	70	8	25	6,0	3	DIN 371	2B
6172786	VTSFT-TC6012	WU41EG	10 - 24	70	8	25	6,0	3	DIN 371	2B
6172787	VTSFT-TC6013	WP49EG	10 - 32	70	8	25	6,0	3	DIN 371	2B
6172788	VTSFT-TC6013	WU41EG	10 - 32	70	8	25	6,0	3	DIN 371	2B
6172793	VTSFT-TC6016	WP49EG	1/4 - 20	80	10	29	7,0	3	DIN 371	2B
6172794	VTSFT-TC6016	WU41EG	1/4 - 20	80	10	29	7,0	3	DIN 371	2B
6172797	VTSFT-TC6018	WP49EG	1/4 - 28	80	10	29	7,0	3	DIN 371	2B
6172798	VTSFT-TC6018	WU41EG	1/4 - 28	80	10	29	7,0	3	DIN 371	2B
6172801	VTSFT-TC6052	WP49EG	5/16 - 18	90	13	37	8,0	3	DIN 371	2B
6172802	VTSFT-TC6052	WU41EG	5/16 - 18	90	13	37	8,0	3	DIN 371	2B
6172805	VTSFT-TC6054	WP49EG	5/16 - 24	90	13	37	6,0	3	DIN 374	2B
6172806	VTSFT-TC6054	WU41EG	5/16 - 24	90	13	37	6,0	3	DIN 374	2B
6172807	VTSFT-TC6056	WP49EG	3/8 - 16	100	15	42	10,0	3	DIN 371	2B
6172808	VTSFT-TC6056	WU41EG	3/8 - 16	100	15	42	10,0	3	DIN 371	2B
6172811	VTSFT-TC6058	WP49EG	3/8 - 24	90	15	40	7,0	3	DIN 374	2B
6172812	VTSFT-TC6058	WU41EG	3/8 - 24	90	15	40	7,0	3	DIN 374	2B
6172813	VTSFT-TC6060	WP49EG	7/16 - 14	100	15	47	8,0	3	DIN 376	2B
6172814	VTSFT-TC6060	WU41EG	7/16 - 14	100	15	47	8,0	3	DIN 376	2B
6172815	VTSFT-TC6027	WP49EG	7/16 - 20	100	15	47	8,0	3	DIN 374	2B
6172816	VTSFT-TC6027	WU41EG	7/16 - 20	100	15	47	8,0	3	DIN 374	2B
6172817	VTSFT-TC6062	WP49EG	1/2 - 13	110	18	50	9,0	3	DIN 376	2B
6172818	VTSFT-TC6062	WU41EG	1/2 - 13	110	18	50	9,0	3	DIN 376	2B
6172819	VTSFT-TC6029	WP49EG	1/2 - 20	100	13	44	9,0	3	DIN 374	2B
6172820	VTSFT-TC6029	WU41EG	1/2 - 20	100	13	44	9,0	3	DIN 374	2B
6172836	VTSFT-TC6030	WP49EG	9/16 - 12	110	20	55	11,0	4	DIN 376	2B
6172837	VTSFT-TC6030	WU41EG	9/16 - 12	110	20	55	11,0	4	DIN 376	2B
6172838	VTSFT-TC6031	WP49EG	9/16 - 18	100	15	44	11,0	4	DIN 374	2B
6172839	VTSFT-TC6031	WU41EG	9/16 - 18	100	15	44	11,0	4	DIN 374	2B
6172840	VTSFT-TC6032	WP49EG	5/8 - 11	110	20	55	12,0	4	DIN 376	2B
6172911	VTSFT-TC6032	WU41EG	5/8 - 11	110	20	55	12,0	4	DIN 376	2B
6172912	VTSFT-TC6033	WP49EG	5/8 - 18	100	15	45	12,0	4	DIN 374	2B
6172913	VTSFT-TC6033	WU41EG	5/8 - 18	100	15	45	12,0	4	DIN 374	2B
6172914	VTSFT-TC6034	WP49EG	3/4 - 10	125	25	65	14,0	4	DIN 376	2B
6172915	VTSFT-TC6034	WU41EG	3/4 - 10	125	25	65	14,0	4	DIN 376	2B
6172916	VTSFT-TC6035	WP49EG	3/4 - 16	110	17	55	14,0	4	DIN 374	2B
6172917	VTSFT-TC6035	WU41EG	3/4 - 16	110	17	55	14,0	4	DIN 374	2B

NOTE: Suitable for tension/compression holders.



order number	catalogue number	grade	D1 TPI	L (mm)	L2 (mm)	L3 (mm)	D (mm)	number of flutes	type of thread
VTSP0 • (G) Whitworth Pipe Thread • DIN EN ISO 228 • Form B									
• Tension/Compression Holders • Through Holes									
6058784	VTSP08605	WP49EG	1/8 - 28	90	35	15	7	3	G
6058785	VTSP08605	WU41EG	1/8 - 28	90	35	15	7	3	G
6058786	VTSP08606	WP49EG	1/4 - 19	100	44	22	11	3	G
6058787	VTSP08606	WU41EG	1/4 - 19	100	44	22	11	3	G
6058788	VTSP08607	WP49EG	3/8 - 19	100	47	22	12	4	G
6058790	VTSP08607	WU41EG	3/8 - 19	100	47	22	12	4	G
6058791	VTSP08608	WP49EG	1/2 - 14	125	55	25	16	4	G
6058792	VTSP08608	WU41EG	1/2 - 14	125	55	25	16	4	G
6058793	VTSP08609	WP49EG	5/8 - 14	125	61	25	18	4	G
6058794	VTSP08609	WU41EG	5/8 - 14	125	61	25	18	4	G
6058796	VTSP08610	WP49EG	3/4 - 14	140	60	25	20	4	G
6058797	VTSP08610	WU41EG	3/4 - 14	140	60	25	20	4	G
6058798	VTSP08611	WP49EG	7/8 - 14	150	68	28	22	4	G
6058799	VTSP08611	WU41EG	7/8 - 14	150	68	28	22	4	G
6058800	VTSP08612	WP49EG	1 - 11	160	68	30	25	5	G
6058811	VTSP08612	WU41EG	1 - 11	160	68	30	25	5	G

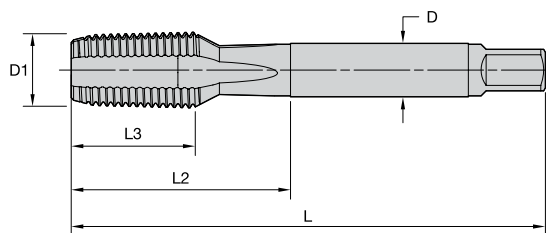
NOTE: Suitable for tension/compression holders.



order number	catalogue number	grade	D1 TPI	L (mm)	L2 (mm)	L3 (mm)	D (mm)	number of flutes	type of thread
VTSFT • (G) Whitworth Pipe Thread • DIN EN ISO 228 • Form C • Blind Holes									
6058814	VTSFT8605	WP49EG	1/8 - 28	90	35	15	7	3	G
6058815	VTSFT8605	WU41EG	1/8 - 28	90	35	15	7	3	G
6058816	VTSFT8606	WP49EG	1/4 - 19	100	44	15	11	3	G
6058817	VTSFT8606	WU41EG	1/4 - 19	100	44	15	11	3	G
6058818	VTSFT8607	WP49EG	3/8 - 19	100	47	15	12	4	G
6058819	VTSFT8607	WU41EG	3/8 - 19	100	47	15	12	4	G
6058820	VTSFT8608	WP49EG	1/2 - 14	125	55	18	16	4	G
6058871	VTSFT8608	WU41EG	1/2 - 14	125	55	18	16	4	G
6058874	VTSFT8610	WP49EG	3/4 - 14	140	65	20	20	4	G
6058875	VTSFT8610	WU41EG	3/4 - 14	140	65	20	20	4	G
6058879	VTSFT8612	WU41EG	1 - 11	160	74	24	25	5	G

NOTE: Suitable for tension/compression holders.

Tapping



order number	catalogue number	grade	D1 TPI	L (mm)	L2 (mm)	L3 (mm)	D (mm)	number of flutes	type of thread
VTSTR • NPT and NPTF • Standard Projection • Form C									
6058953	VTSTR8301	WU40EG	1/16 - 27	90	35	13	6	3	NPT
6058960	VTSTR8801	WU40EG	1/16 - 27	90	35	13	6	3	NPTF
6058954	VTSTR8302	WU40EG	1/8 - 27	90	36	13	7	4	NPT
6059011	VTSTR8802	WU40EG	1/8 - 27	90	36	13	7	4	NPTF
6058955	VTSTR8303	WU40EG	1/4 - 18	100	39	20	11	4	NPT
6059012	VTSTR8803	WU40EG	1/4 - 18	100	39	20	11	4	NPTF
6058956	VTSTR8304	WU40EG	3/8 - 18	110	39	20	12	4	NPT
6059013	VTSTR8804	WU40EG	3/8 - 18	110	39	20	12	4	NPTF
6058957	VTSTR8305	WU40EG	1/2 - 14	125	56	26	16	4	NPT
6059014	VTSTR8805	WU40EG	1/2 - 14	125	56	26	16	4	NPTF
6058958	VTSTR8306	WU40EG	3/4 - 14	140	55	26	20	4	NPT
6059015	VTSTR8806	WU40EG	3/4 - 14	140	55	26	20	4	NPTF
6058959	VTSTR8307	WU40EG	1 - 11.5	160	71	32	25	5	NPT
6059016	VTSTR8807	WU40EG	1 - 11.5	160	71	32	25	5	NPTF

NOTE: Suitable for tension/compression holders.

All-Star Guaranteed Availability:

We guarantee 99% stock availability of All-Star products.

If a customer order for All-Star products confirmed by WIDIA™ cannot be shipped on the confirmed shipment date, the customer can elect to receive a suitable replacement at a 30% discount, in an amount necessary to prevent disruption of the customer's operation. The WIDIA general terms and conditions apply — available on simple request from your WIDIA customer service representative.

IMPORTANT SAFETY INSTRUCTIONS: Read before using the tools in this catalogue

METALCUTTING SAFETY

Projectile and Fragmentation Hazards

Modern metalcutting operations involve high spindle and cutter speeds and high temperatures and cutting forces. Hot metal chips may fly off the workpiece during metalcutting. Although cutting tools are designed and manufactured to withstand high cutting forces and temperatures, they can sometimes fragment, particularly if they are subjected to over-stress, severe impact, or other abuse.

To avoid injury:

- Always wear appropriate personal protective equipment, including safety goggles, when operating metalcutting machines or working nearby.
- Always make sure all machine guards are in place.

Breathing and Skin Contact Hazards

Grinding carbide or other advanced cutting tool materials produces dust or mist containing metallic particles. Breathing this dust or mist — especially over an extended period — can cause temporary or permanent lung disease or make existing medical conditions worse. Contact with this dust or mist can irritate eyes, skin, and mucous membranes and may make existing skin conditions worse.

To avoid injury:

- Always wear breathing protection and safety goggles when grinding.
- Provide ventilation control and collect and properly dispose of dust, mist, or sludge from grinding.
- Avoid skin contact with dust or mist.

For more information, read the applicable Material Safety Data Sheet provided by WIDIA and consult General Industry Safety and Health Regulations, Part 1910, Title 29 of the Code of Federal Regulations.

These safety instructions are general guidelines. Many variables affect machining operations. It is impossible to cover every specific situation. The technical information included in this catalogue and recommendations on machining practices may not apply to your particular operation.

For more information, consult the WIDIA Metalcutting Safety booklet, available free from WIDIA at +1 724 539 5747 or fax +1 724 539 5439. For specific product safety and environmental questions, contact our Corporate Environmental Health and Safety Office at +1 724 539 5066 or fax +1 724 539 5372.

Green Box, M100, M200, M370, NOVO, Top Cut 4, TOP DRILL, TOP DRILL M1, TOP DRILL S, TOP DRILL S+, VariDrill, VariMill I, VariMill II, VariMill III, VariTap, Victory, Victory Shoulder Mill 11, Victory Shoulder Mill 17, VSM11, VSM17, VSM490-10, VSM490-15, WIDIA, WIDIA-Hanita, WK15PD, WMT, WP20PD, WS10PT, WS15PE, WS25PT, WU20PD, and WU25PD are trademarks of Kennametal, Inc. and are used as such herein. The absence of a product, service name, or logo from this list does not constitute a waiver of the Kennametal trademark or other intellectual property rights concerning that name or logo.

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