



★ ALL-STAR 2017 | NORTH AMERICA TAPS EDITION

WIDIA™ GTD 



1872

Wiley & Russell
started to
produce taps

1912

Greenfield Tap &
Die (GTD) is formed

1915

GTD GUN™
tap patented

1982

Launched first
PVD TIN coated
taps (VTD)

1991

Greenfield
acquires VTD and
Lyndonville plant

1993

EM series tap
launched

2005

Launched new
generation HP
carbide tap line
(GX series)

2009

GTD brand becomes
part of WIDIA™
Products Group

2011

WIDIA-GTD launches
the new GT series of
HP HSS-E-PM taps

2013

New VariTap™
series launched

2015

Launched new
generation
HPP HSS-E-PM
taps for Ni, Ti, & Al
(GT series)

2016

VariTap
line expands
(VTSFT-TC)

PRIMED FOR PRODUCTIVITY

THE MOST POWERFUL TAPS IN THE BUSINESS PROUDLY BEAR OUR NAME.

WIDIA-GTD™ delivers a complete range of solid carbide, high performance, multipurpose, and general purpose tapping solutions for short-run to high-volume production needs.

And with over 145 years of hands-on experience, consistent quality, and relentless innovation, you can count on WIDIA-GTD to deliver a fast, competitive tap solution for each customer, every time.

Speed, power, and precision: there's never been a better time to put WIDIA-GTD taps to the test.

WIDIA™ GTD™ 

Tapping

Spiral-Point Taps	4-11
Multipurpose VariTap	5-8
Production GUN Taps	9-11
Spiral-Flute Taps	12-21
Multipurpose VariTap	13-19
General Purpose Production Taps	20-21
Straight-Flute Taps	22-32
Hand Taps/Hand Taps Sets	23-32
Solid Carbide Drills	34-41



ALL-STAR

The new WIDIA™ All-Star program guarantees immediate availability of the most popular products from our proven platforms by combining a complete assortment of high performance tools with:

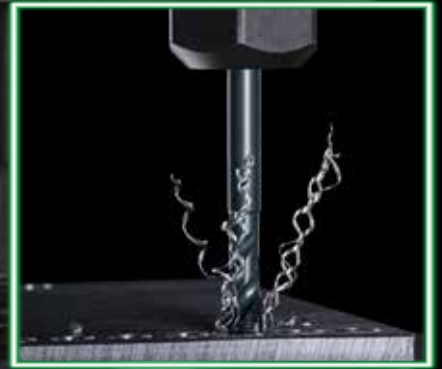
VERSATILITY: All-Star tooling solutions are specially selected to cover an extensive range of applications and materials – empowering you to do more and stock less.

VALUE: Proven to win time and time again for manufacturers everywhere, tools in the All-Star platform perform significantly better than general purpose tooling.

AVAILABILITY: Easy to find, select, and buy – All-Star tooling is guaranteed to be in stock and ship fast!

The WIDIA All-Star program empowers you to meet changing customer demands without sacrificing productivity and profitability.

Get what you need, when you need it to get the job done.



NEW! Announcing the WIDIA™ All-Star Lineup of Tapping Tooling

WIDIA is proud to launch the tapping tooling specially selected for the NEW WIDIA All-Star program! Win time and time again with taps that deliver high-performance results in a wide range of applications and work materials.



Spiral Point



WIDIA-GTD™ offers a wide range of options for tapping through holes in:

- Steel and steel alloys.
- Stainless steel.
- Cast iron.
- Wrought and cast aluminum.

Multipurpose VariTap™

- Unique spiral-point geometry provides low tapping torque while pushing chips ahead of the tap in through holes.
- Manufactured from high-vanadium HSS-E to provide long and consistent tool life.
- Ideal for customers who have a variety of materials to machine.

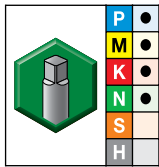
General Purpose Production Taps

- Spiral point GUN™ taps shoot chips ahead of the cutting action to reduce overloading and clogging in flutes, protecting the workpiece.
- Extended life in ductile materials.
- Advanced steam oxide finish and PVD coatings available.

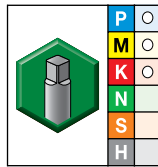
- WP42EG TiCN
- WP49EG oxide



■ VT-SPO • Form B Plug Chamfer • Machine Screw and Fractional • ANSI



grade WP42EG
TiCN



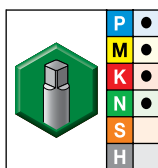
grade WP49EG
Oxide

- first choice
- alternate choice

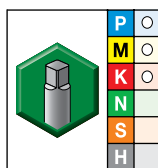
order #	order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
5357242	5357241	2 - 56	H2	UNC	2	.0698	.0686
-	5357244	2 - 56	H3	UNC	2	.0698	.0686
5357260	5357249	4 - 40	H2	UNC	2	.0893	.0876
5357264	5357263	4 - 40	H3	UNC	2	.0893	.0876
5357276	5357275	4 - 48	H2	UNF	2	.0931	.0917
5631491	5631490	5 - 40	H2	UNC	3	.1023	.1006
5631494	5631493	6 - 32	H2	UNC	3	.1096	.1076
5631497	5631496	6 - 32	H3	UNC	3	.1096	.1076
5631504	5631503	6 - 32	H5	UNC	3	.1096	.1076
5631516	5631515	6 - 40	H2	UNF	3	.1153	.1136
-	5631518	6 - 40	H3	UNF	3	.1153	.1136
5631520	5631519	8 - 32	H2	UNC	3	.1356	.1336
5631523	5631522	8 - 32	H3	UNC	3	.1356	.1336
5631530	5631529	8 - 32	H5	UNC	3	.1356	.1336
5631552	5631550	8 - 36	H2	UNF	3	.1387	.1369
5631558	5631556	10 - 24	H3	UNC	3	.1521	.1494
5631568	5631566	10 - 24	H5	UNC	3	.1521	.1494
5631600	5631598	10 - 32	H3	UNF	3	.1616	.1596
5631608	5631606	10 - 32	H4	UNF	3	.1616	.1596
5631614	5631612	10 - 32	H5	UNF	3	.1616	.1596
5631620	5631618	10 - 32	H6	UNF	3	.1616	.1596
5631635	5631634	12 - 24	H3	UNC	3	.1781	.1754
5631638	5631637	12 - 28	H3	UNF	3	.1835	.1812
5365807	5365806	1/4 - 20	H3	UNC	3	.2045	.2013
5365821	5365820	1/4 - 20	H5	UNC	3	.2045	.2013
5365825	5365823	1/4 - 20	H7	UNC	3	.2045	.2013
5365840	5365829	1/4 - 28	H3	UNF	3	.2175	.2152
5365844	5365843	1/4 - 28	H4	UNF	3	.2175	.2152
5365849	5365848	1/4 - 28	H5	UNF	3	.2175	.2152
5365922	5365921	1/4 - 28	H6	UNF	3	.2175	.2152
5365925	5365924	1/4 - 28	H7	UNF	3	.2175	.2152
5365932	5365931	5/16 - 18	H3	UNC	3	.2620	.2584
5365936	5365935	5/16 - 18	H5	UNC	3	.2620	.2584
5365939	5365938	5/16 - 18	H7	UNC	3	.2620	.2584
5365946	5365945	5/16 - 24	H3	UNF	3	.2746	.2719
5365963	5365962	5/16 - 24	H5	UNF	3	.2746	.2719

(continued)

(VT-SPO • Form B Plug Chamfer • Machine Screw and Fractional • ANSI — continued)



grade WP42EG
TiCN



grade WP49EG
Oxide

● first choice
○ alternate choice

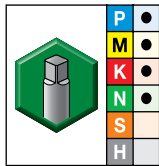
order #	order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
5365966	5365965	5/16 - 24	H6	UNF	3	.2746	.2719
5365975	5365974	3/8 - 16	H3	UNC	3	.3182	.3141
5366898	5366897	3/8 - 16	H5	UNC	3	.3182	.3141
5366954	5366953	3/8 - 24	H5	UNF	3	.3371	.3344
5366947	5366946	3/8 - 24	H3	UNF	3	.3371	.3344
5366951	5366950	3/8 - 24	H4	UNF	3	.3371	.3344
5366966	5366965	7/16 - 14	H3	UNC	3	.3726	.3679
5366970	5366969	7/16 - 14	H5	UNC	3	.3726	.3679
5366979	5366978	7/16 - 20	H3	UNF	3	.3920	.3888
5366983	5366982	7/16 - 20	H5	UNF	3	.3920	.3888
5366075	5366074	1/2 - 13	H3	UNC	3	.4301	.4251
5366079	5366078	1/2 - 13	H5	UNC	3	.4301	.4251
5366089	5366088	1/2 - 20	H3	UNF	3	.4545	.4513
5366113	5366112	1/2 - 20	H5	UNF	3	.4545	.4513
5366117	5366116	1/2 - 20	H7	UNF	3	.4545	.4513
5366133	5366132	9/16 - 12	H3	UNC	3	.4867	.4813
5366137	5366136	9/16 - 18	H3	UNF	3	.5120	.5084
5366141	5366140	5/8 - 11	H3	UNC	3	.5423	.5364
5366145	5366144	5/8 - 11	H5	UNC	3	.5423	.5364
5367005	5367004	5/8 - 18	H3	UNF	3	.5745	.5709
5367008	5367007	5/8 - 18	H5	UNF	3	.5745	.5709
5367035	5367034	3/4 - 10	H3	UNC	3	.6591	.6526
5367039	5367038	3/4 - 10	H5	UNC	3	.6591	.6526
5367066	5367065	3/4 - 16	H5	UNF	3	.6932	.6891
5367062	5367061	3/4 - 16	H3	UNF	3	.6932	.6891
5367073	5367072	7/8 - 9	H5	UNC	3	.7740	.7668
5367076	5367075	7/8 - 14	H4	UNF	3	.8101	.8054
5366406	5366404	1 - 8	H5	UNC	3	.8863	.8782
5366440	5366409	1 - 12	H4	UNF	3	.9242	.9188
-	5366442	1 1/8 - 7	H6	UNC	4	.9951	.9858
-	5366443	1 1/8 - 8	H6	UN	4	1.0113	1.0032
-	5366444	1 1/8 - 12	H5	UNF	4	1.0492	1.0438
-	5366445	1 1/4 - 7	H6	UNC	4	1.1201	1.1108
-	5366446	1 1/4 - 8	H6	UN	4	1.1363	1.1282
-	5366447	1 1/4 - 12	H5	UNF	4	1.1742	1.1688
-	5366448	1 3/8 - 6	H6	UNC	4	1.2235	1.2126
-	5366449	1 3/8 - 8	H6	UN	4	1.2613	1.2532
-	5366450	1 3/8 - 12	H5	UNF	4	1.2992	1.2938
-	5366451	1 1/2 - 6	H6	UNC	4	1.3485	1.3376
-	5366452	1 1/2 - 8	H6	UN	4	1.3863	1.3782
-	5366453	1 1/2 - 12	H5	UNF	4	1.4242	1.4188

NOTE: VariTap for 3B class of fit is suitable for UNJ aerospace internal threading applications.
For more information on class-of-fit, refer to the WIDIA-GTD™ Screw Thread Manual (A-17-05271) or contact WIDIA™ technical support (+1-888-539-5145).

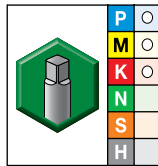
- WP42EG TiCN
- WP49EG oxide



■ VT-SPO • Form B Plug Chamfer • Metric • ANSI



grade WP42EG
TiCN



grade WP49EG
Oxide

- first choice
- alternate choice

order #	order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
5631641	5631640	M3 X 0,5	D3	M	3	2.55	2.51
5631647	5631646	M3,5 X 0,6	D4	M	3	2.95	2.92
5631652	5631651	M4 X 0,7	D4	M	3	3.36	3.32
5631659	5631658	M5 X 0,8	D4	M	3	4.27	4.22
5362704	5362703	M6 X 1	D5	M	3	5.09	5.03
5362710	5362709	M7 X 1	D5	M	3	6.09	6.03
5362715	5362714	M8 X 1	D5	MF	3	7.09	7.03
5362722	5362720	M8 X 1,25	D5	M	3	6.86	6.78
5362730	5362729	M10 X 1	D5	MF	3	9.09	9.03
5367305	5367304	M10 X 1,25	D5	MF	3	8.86	8.78
5367340	5367309	M10 X 1,5	D6	M	3	8.64	8.54
5367346	5367345	M12 X 1,25	D6	MF	3	10.86	10.78
5367351	5367350	M12 X 1,5	D6	MF	3	10.64	10.54
5367356	5367355	M12 X 1,75	D6	M	3	10.41	10.30
5367362	5367361	M14 X 1,5	D6	MF	3	12.64	12.54
5367365	5367364	M14 X 2	D7	M	3	12.18	12.05
5366476	5366475	M16 X 1,5	D6	MF	3	14.64	14.54
5366480	5366479	M16 X 2	D7	M	3	14.18	14.05
5366485	5366483	M18 X 1,5	D6	MF	3	16.64	16.54
5366488	5366487	M18 X 2,5	D7	M	3	15.73	15.56
5366491	5366490	M20 X 1,5	D6	MF	3	18.64	18.54
5366493	5366492	M20 X 2,5	D7	M	3	17.73	17.56
-	5366494	M22 X 1,5	D6	MF	3	20.64	20.54
-	5366495	M22 X 2,5	D7	M	3	19.73	19.56
-	5366496	M24 X 2	D7	MF	3	22.18	22.05
-	5366497	M24 X 3	D8	M	3	21.27	21.08
-	5366498	M27 X 1,5	D7	MF	4	25.64	25.54
-	5366499	M27 X 3	D8	M	4	24.27	24.08
-	5366510	M30 X 1,5	D6	MF	4	28.64	28.54
-	5366511	M30 X 3,5	D9	M	4	26.82	26.59

Multipurpose Taps

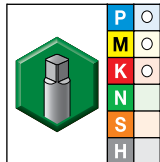
VariTap™ Spiral-Point HSS-E Extension Taps • Through Holes • 6" Length



• WP49EG oxide



■ VT-SPO • Form B Plug Chamfer • Machine Screw and Fractional • 6" Length • ANSI



grade WP49EG
Oxide

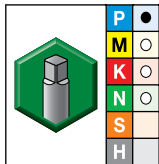
● first choice
○ alternate choice

order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
5608551	4 - 40	H2	UNC	2	.0893	.0876
5608552	6 - 32	H3	UNC	2	.1096	.1076
5608553	8 - 32	H3	UNC	2	.1356	.1336
5608554	10 - 24	H3	UNC	2	.1521	.1494
5608555	10 - 32	H3	UNF	2	.1616	.1596
5608556	1/4 - 20	H3	UNC	3	.2045	.2013
5608557	1/4 - 28	H3	UNF	3	.2175	.2152
5608558	5/16 - 18	H3	UNC	3	.2620	.2584
5608559	5/16 - 24	H3	UNF	3	.2746	.2719
5608570	3/8 - 16	H3	UNC	3	.3182	.3141
5608571	3/8 - 24	H3	UNF	3	.3371	.3344
5608572	7/16 - 14	H3	UNC	3	.3726	.3679
5608573	7/16 - 20	H3	UNF	3	.3920	.3888
5608575	1/2 - 13	H3	UNC	3	.4301	.4251
5608576	1/2 - 20	H3	UNF	3	.4545	.4513
5608577	5/8 - 11	H3	UNC	3	.5423	.5364

- Series 5301
- Uncoated



■ Series 5301 • Machine Screw and Fractional Sizes • Plug Chamfer



- first choice
- alternate choice

uncoated order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2750251	0 - 80	H1	UNF	2	.0486	.0478
2750249	0 - 80	H2	UNF	2	.0486	.0478
2750246	1 - 64	H2	UNC	2	.0588	.0578
2750243	1 - 72	H1	UNF	2	.0604	.0595
2750241	1 - 72	H2	UNF	2	.0604	.0595
2867066	2 - 56	H1	UNC	2	.0698	.0686
2867063	2 - 56	H2	UNC	2	.0698	.0686
2750238	2 - 64	H2	UNF	2	.0718	.0708
2750236	3 - 48	H2	UNC	2	.0801	.0787
2750231	3 - 56	H2	UNF	2	.0828	.0816
2750230	4 - 36	H2	UNS	2	.0867	.0849
2750228	4 - 40	H2	UNC	2	.0893	.0876
2750225	4 - 48	H2	UNF	2	.0931	.0917
2750220	5 - 40	H2	UNC	2	.1023	.1006
2750218	5 - 44	H2	UNF	2	.1043	.1029
2750212	6 - 32	H2	UNC	2	.1096	.1076
2750210	6 - 32	H3	UNC	2	.1096	.1076
2750206	6 - 40	H2	UNF	2	.1153	.1136
2750204	8 - 32	H1	UNC	2	.1356	.1336
2750202	8 - 32	H2	UNC	2	.1356	.1336
2750199	8 - 32	H3	UNC	2	.1356	.1336
2750193	8 - 36	H2	UNF	2	.1387	.1369
2750192	10 - 24	H1	UNC	2	.1521	.1494
2750190	10 - 24	H2	UNC	2	.1521	.1494
2409831	10 - 24	H3	UNC	2	.1521	.1494
2750179	10 - 32	H1	UNF	2	.1616	.1596
2750177	10 - 32	H2	UNF	2	.1616	.1596
2750175	10 - 32	H3	UNF	2	.1616	.1596
2750160	12 - 24	H3	UNC	2	.1781	.1754
2750159	12 - 28	H3	UNF	2	.1835	.1812
2750156	1/4 - 20	H1	UNC	2	.2045	.2013
2750154	1/4 - 20	H2	UNC	2	.2045	.2013

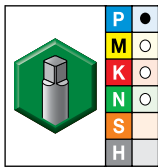
(continued)

Production Taps

GUN™ Taps • Through Holes in General Machining Applications



(Series 5301 • Machine Screw and Fractional Sizes • Plug Chamfer — continued)



● first choice
○ alternate choice

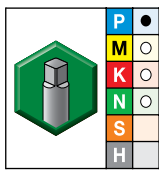
uncoated						
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2750152	1/4 - 20	H3	UNC	2	.2045	.2013
2750148	1/4 - 20	H3	UNC	3	.2045	.2013
2750143	1/4 - 20	H5	UNC	2	.2045	.2013
2750141	1/4 - 20	H5	UNC	3	.2045	.2013
2750135	1/4 - 28	H1	UNF	2	.2175	.2152
2750132	1/4 - 28	H2	UNF	2	.2175	.2152
2750129	1/4 - 28	H2	UNF	3	.2175	.2152
2750128	1/4 - 28	H3	UNF	2	.2175	.2152
2750119	1/4 - 28	H4	UNF	2	.2175	.2152
2750118	1/4 - 28	H4	UNF	3	.2175	.2152
2750115	5/16 - 18	H1	UNC	2	.2620	.2584
2750112	5/16 - 18	H2	UNC	2	.2620	.2584
2750111	5/16 - 18	H3	UNC	2	.2620	.2584
2750109	5/16 - 18	H3	UNC	3	.2620	.2584
2750105	5/16 - 18	H5	UNC	2	.2620	.2584
2750103	5/16 - 18	H5	UNC	3	.2620	.2584
2750094	5/16 - 24	H2	UNF	2	.2746	.2719
2750088	5/16 - 24	H3	UNF	2	.2746	.2719
2750086	5/16 - 24	H4	UNF	2	.2746	.2719
2750084	5/16 - 24	H4	UNF	3	.2746	.2719
2750082	3/8 - 16	H1	UNC	3	.3182	.3141
2750080	3/8 - 16	H2	UNC	3	.3182	.3141
2750078	3/8 - 16	H3	UNC	3	.3182	.3141
2750075	3/8 - 16	H5	UNC	3	.3182	.3141
2866897	3/8 - 24	H2	UNF	3	.3371	.3344
2750067	3/8 - 24	H3	UNF	3	.3371	.3344
2750066	3/8 - 24	H4	UNF	3	.3371	.3344
2750062	7/16 - 14	H2	UNC	3	.3726	.3679
2750060	7/16 - 14	H3	UNC	3	.3726	.3679
2750058	7/16 - 14	H5	UNC	3	.3726	.3679
2750055	7/16 - 20	H3	UNF	3	.3920	.3888
2750054	7/16 - 20	H5	UNF	3	.3920	.3888
2750053	1/2 - 13	H2	UNC	3	.4301	.4251
2750052	1/2 - 13	H3	UNC	3	.4301	.4251
2750047	1/2 - 13	H5	UNC	3	.4301	.4251
2750041	1/2 - 20	H2	UNF	3	.4545	.4513
2750040	1/2 - 20	H3	UNF	3	.4545	.4513
2750039	1/2 - 20	H5	UNF	3	.4545	.4513
2750036	5/8 - 11	H3	UNC	3	.5423	.5364
2750032	5/8 - 11	H5	UNC	3	.5423	.5364
2750028	5/8 - 18	H3	UNF	3	.5745	.5709
2750024	3/4 - 10	H3	UNC	3	.6591	.6526
2750023	3/4 - 10	H5	UNC	3	.6591	.6526

NOTE: GUN taps for 3B class of fit are suitable for UNJ aerospace internal threading applications.
For more information on class-of-fit, refer to the WIDIA-GTD™ Screw Thread Manual (A-17-05271) or contact WIDIA™ technical support (+1-888-539-5145).

- Series 5351
- Uncoated



■ Series 5351 • Spiral Point, Plug Chamfer • Metric ANSI



- first choice
- alternate choice

uncoated order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2750021	M1,6 X 0,35	D3	M	2	1.28	1.26
2750018	M2 X 0,4	D3	M	2	1.64	1.61
2750017	M2,5 X 0,45	D3	M	2	2.09	2.06
2750015	M3 X 0,5	D3	M	2	2.55	2.51
2750013	M3,5 X 0,6	D4	M	2	2.95	2.92
2750012	M4 X 0,7	D4	M	2	3.36	3.32
2750010	M4,5 X 0,75	D4	M	2	3.82	3.77
2750009	M5 X 0,8	D4	M	2	4.27	4.22
2750005	M6 X 1	D5	M	2	5.09	5.03
2750002	M6,3 X 1	D5	M	2	5.39	5.33
2750000	M7 X 1	D5	M	2	6.09	6.03
2749995	M8 X 1,25	D5	M	2	6.86	6.78
2749991	M10 X 1,5	D6	M	3	8.64	8.54
2749985	M12 X 1,75	D6	M	3	10.41	10.30
2749982	M14 X 2	D7	M	3	12.18	12.05
2749979	M16 X 2	D7	M	3	14.18	14.05
2749977	M18 X 2,5	D7	M	3	15.73	15.56
2749975	M20 X 2,5	D7	M	3	17.73	17.56

NOTE: Metric taps for 6H class of fit are suitable for MJ aerospace internal threading applications.
For more information on class-of-fit, refer to the WIDIA-GTD™ Screw Thread Manual (A-17-05271) or contact WIDIA™ technical support (+1-888-539-5145).
Metric taps are manufactured to USCTI specifications and dimensions.
Metric tap blank dimensions are equivalent to inch taps.
Metric D limits suitable for ISO 6H tolerance class.

Spiral Flute



WIDIA-GTD™ offers a wide range of options for tapping blind holes in:

- Steel and steel alloys.
- Stainless steel.
- Cast iron.
- Wrought and cast aluminum.

Multipurpose VariTap™

- Spiral-flute geometry optimized to provide efficient chip ejection in blind holes.
- Manufactured from high-vanadium HSS-E to provide long and consistent tool life.
- Geometry designed to allow tapping of a wide variety of ductile materials: carbon and alloy steels, stainless steels, ductile iron, and cast aluminum.
- Ideal for customers who have a variety of materials to machine.

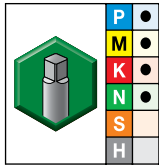
General Purpose Production Taps

- Versatile spiral-flute design for pulling chips out of the hole.
- Can be used in general machinery or CNC tapping applications.
- Advanced steam oxide finish and high-performance TiN and TiCN coatings with alternate tap coatings available as stock modifications.

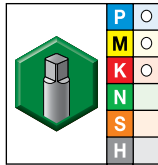
- WP42EG TiCN
- WP49EG oxide



■ VT-SFT TC • Form C Semi-Bottoming Chamfer • Machine Screw and Fractional • ANSI • Tension/Compression Holders



grade WP42EG
TiCN



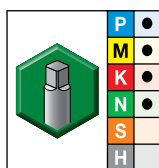
grade WP49EG
Oxide

- first choice
- alternate choice

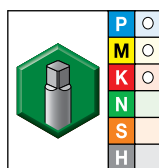
order #	order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
6140248	6140249	2 - 56	H2	UNC	2	.0698	.0686
6140250	6140271	3 - 48	H2	UNC	2	.0801	.0787
6140272	6140273	4 - 40	H2	UNC	2	.0893	.0876
6140274	6140275	4 - 40	H3	UNC	2	.0893	.0876
6140281	6140282	4 - 48	H2	UNF	2	.0931	.0917
6140283	6140284	5 - 40	H2	UNC	2	.1023	.1006
5886705	5886704	6 - 32	H3	UNC	3	.1096	.1076
-	5886706	6 - 32	H5	UNC	3	.1096	.1076
6140293	6140294	6 - 40	H2	UNF	2	.1153	.1136
-	6140295	6 - 40	H3	UNF	2	.1153	.1136
6140296	6140297	8 - 32	H2	UNC	3	.1356	.1336
5886708	5886707	8 - 32	H3	UNC	3	.1356	.1336
6140299	5886709	8 - 32	H5	UNC	3	.1356	.1336
-	6140305	8 - 36	H3	UNF	3	.1387	.1369
5887031	5886710	10 - 24	H3	UNC	3	.1521	.1494
6140308	5887032	10 - 24	H5	UNC	3	.1521	.1494
5887034	5887033	10 - 32	H3	UNF	3	.1616	.1596
-	6140314	10 - 32	H4	UNF	3	.1616	.1596
6140315	5887035	10 - 32	H5	UNF	3	.1616	.1596
-	6140316	10 - 32	H6	UNF	3	.1616	.1596
5887037	5887036	12 - 24	H3	UNC	3	.1781	.1754
6140321	6140322	12 - 28	H3	UNF	3	.1835	.1812
5887039	5887038	1/4 - 20	H3	UNC	3	.2045	.2013
6140183	5887040	1/4 - 20	H5	UNC	3	.2045	.2013
6140184	6140185	1/4 - 20	H7	UNC	3	.2045	.2013
5887042	5887041	1/4 - 28	H3	UNF	3	.2175	.2152
6140188	6140190	1/4 - 28	H4	UNF	3	.2175	.2152
6140191	5887043	1/4 - 28	H5	UNF	3	.2175	.2152
-	6140192	1/4 - 28	H6	UNF	3	.2175	.2152
6140193	6140195	1/4 - 28	H7	UNF	3	.2175	.2152
5887045	5887044	5/16 - 18	H3	UNC	3	.2620	.2584
6140198	5887046	5/16 - 18	H5	UNC	3	.2620	.2584
6140200	6140201	5/16 - 18	H7	UNC	3	.2620	.2584
5887048	5887047	5/16 - 24	H3	UNF	3	.2746	.2719
6140214	5887049	5/16 - 24	H5	UNF	3	.2746	.2719
6140215	6140216	5/16 - 24	H6	UNF	3	.2746	.2719

(continued)

(VT-SFT TC • Form C Semi-Bottoming Chamfer • Machine Screw and Fractional • ANSI • Tension/Compression Holders — continued)



grade WP42EG
TiCN



grade WP49EG
Oxide

● first choice
○ alternate choice

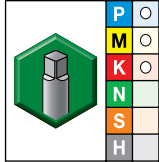
order #	order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
5887051	5887050	3/8 - 16	H3	UNC	3	.3182	.3141
6140222	5887052	3/8 - 16	H5	UNC	3	.3182	.3141
5887054	5887053	3/8 - 24	H3	UNF	3	.3371	.3344
6140227	6140228	3/8 - 24	H4	UNF	3	.3371	.3344
6140229	5887055	3/8 - 24	H5	UNF	3	.3371	.3344
5887057	5887056	7/16 - 14	H3	UNC	3	.3726	.3679
6140235	5887058	7/16 - 14	H5	UNC	3	.3726	.3679
5887061	5887059	7/16 - 20	H3	UNF	3	.3920	.3888
6140240	5887062	7/16 - 20	H5	UNF	3	.3920	.3888
5887064	5887063	1/2 - 13	H3	UNC	3	.4301	.4251
6140422	5887065	1/2 - 13	H5	UNC	3	.4301	.4251
5887068	5887067	1/2 - 20	H3	UNF	3	.4545	.4513
6140427	5887069	1/2 - 20	H5	UNF	3	.4545	.4513
6140429	6140430	1/2 - 20	H7	UNF	3	.4545	.4513
6140434	6140436	9/16 - 12	H3	UNC	3	.4867	.4813
6140440	6140452	9/16 - 18	H3	UNF	3	.5120	.5084
5887071	5887070	5/8 - 11	H3	UNC	3	.5423	.5364
6140456	5887072	5/8 - 11	H5	UNC	3	.5423	.5364
5887074	5887073	5/8 - 18	H3	UNF	3	.5745	.5709
-	5887075	5/8 - 18	H5	UNF	3	.5745	.5709
5887077	5887076	3/4 - 10	H3	UNC	4	.6591	.6526
6140465	5887078	3/4 - 10	H5	UNC	4	.6591	.6526
5887080	5887079	3/4 - 16	H3	UNF	4	.6932	.6891
6140467	5887081	3/4 - 16	H5	UNF	4	.6932	.6891
6140471	6140473	7/8 - 9	H5	UNC	4	.7740	.7668
6140475	6140477	7/8 - 14	H4	UNF	4	.8101	.8054
-	5887083	1 - 8	H5	UNC	4	.8863	.8782
6140479	6140481	1 - 12	H4	UNF	4	.9242	.9188
-	6140483	1 1/8 - 7	H6	UNC	4	.9951	.9858
-	6140484	1 1/8 - 8	H6	UN	4	1.0113	1.0032
-	6140486	1 1/8 - 12	H5	UNF	4	1.0492	1.0438
-	6140488	1 1/4 - 7	H6	UNC	4	1.1201	1.1108
-	6140492	1 1/4 - 8	H6	UN	4	1.1363	1.1282
-	6140490	1 1/4 - 12	H5	UNF	4	1.1742	1.1688
-	6140494	1 3/8 - 6	H6	UNC	5	1.2235	1.2126
-	6140498	1 3/8 - 8	H6	UN	5	1.2613	1.2532
-	6140496	1 3/8 - 12	H5	UNF	5	1.2992	1.2938
-	6140500	1 1/2 - 6	H6	UNC	5	1.3485	1.3376
-	6140502	1 1/2 - 8	H6	UN	5	1.3863	1.3782
-	6140504	1 1/2 - 12	H5	UNF	5	1.4242	1.4188

NOTE: Suitable for tension/compression holders.

• WP49EG oxide



■ VT-SFT TC • Form E Bottoming Chamfer • Machine Screw and Fractional • ANSI • Tension/Compression Holders



grade WP49EG
Oxide

● first choice
○ alternate choice

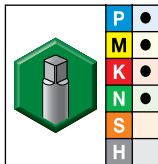
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
6140539	4 - 40	H2	UNC	2	.0893	.0876
6140540	4 - 40	H3	UNC	2	.0893	.0876
6140542	5 - 40	H2	UNC	2	.1023	.1006
6140543	6 - 32	H2	UNC	2	.1096	.1076
6140544	6 - 32	H3	UNC	2	.1096	.1076
6140545	6 - 32	H5	UNC	2	.1096	.1076
6140546	6 - 40	H2	UNF	2	.1153	.1136
6140547	6 - 40	H3	UNF	2	.1153	.1136
6140548	8 - 32	H2	UNC	3	.1356	.1336
6140549	8 - 32	H3	UNC	3	.1356	.1336
6140550	8 - 32	H5	UNC	3	.1356	.1336
6140561	10 - 24	H3	UNC	3	.1521	.1494
6140562	10 - 24	H5	UNC	3	.1521	.1494
6140563	10 - 32	H3	UNF	3	.1616	.1596
6140564	10 - 32	H5	UNF	3	.1616	.1596
6140565	1/4 - 20	H3	UNC	3	.2045	.2013
6140566	1/4 - 20	H5	UNC	3	.2045	.2013
6140567	1/4 - 28	H3	UNF	3	.2175	.2152
6140568	1/4 - 28	H5	UNF	3	.2175	.2152
6140569	5/16 - 18	H3	UNC	3	.2620	.2584
6140570	5/16 - 18	H5	UNC	3	.2620	.2584
6140571	5/16 - 24	H3	UNF	3	.2746	.2719
6140572	5/16 - 24	H5	UNF	3	.2746	.2719
6140573	3/8 - 16	H5	UNC	3	.3182	.3141
6140574	3/8 - 16	H3	UNC	3	.3182	.3141
6140579	3/8 - 24	H3	UNF	3	.3371	.3344
6140580	3/8 - 24	H4	UNF	3	.3371	.3344
6140581	3/8 - 24	H5	UNF	3	.3371	.3344
6140582	7/16 - 14	H3	UNC	3	.3726	.3679
6140583	7/16 - 14	H5	UNC	3	.3726	.3679
6140584	7/16 - 20	H3	UNF	3	.3920	.3888
6140585	7/16 - 20	H5	UNF	3	.3920	.3888
6140586	1/2 - 13	H3	UNC	3	.4301	.4251
6140587	1/2 - 13	H5	UNC	3	.4301	.4251
6140588	1/2 - 20	H3	UNF	3	.4545	.4513
6140589	9/16 - 12	H3	UNC	3	.4867	.4813
6140590	9/16 - 18	H3	UNF	3	.5120	.5084
6140591	5/8 - 11	H3	UNC	3	.5423	.5364
6140592	5/8 - 11	H5	UNC	3	.5423	.5364
6140593	5/8 - 18	H3	UNF	3	.5745	.5709
6140595	5/8 - 18	H5	UNF	3	.5745	.5709
6140597	3/4 - 10	H3	UNC	4	.6591	.6526
6140599	3/4 - 16	H3	UNF	4	.6932	.6891

NOTE: Suitable for tension/compression holders.

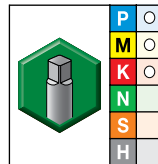
- WP42EG TiCN
- WP49EG oxide



■ VT-SFT TC • Form C Semi-Bottoming Chamfer • Metric • ANSI • Tension/Compression Holders



grade WP42EG
TiCN



grade WP49EG
Oxide

- first choice
- alternate choice

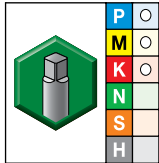
order #	order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
5887085	5887084	M3 X 0,5	D3	M	3	2.55	2.51
6141630	6141781	M3,5 X 0,6	D4	M	2	2.95	2.92
5887087	5887086	M4 X 0,7	D4	M	3	3.36	3.32
5887089	5887088	M5 X 0,8	D4	M	3	4.27	4.22
5887091	5887090	M6 X 1	D5	M	3	5.09	5.03
6141791	6141792	M7 X 1	D5	M	3	6.09	6.03
6141796	6141797	M8 X 1	D5	MF	3	7.09	7.03
5887093	5887092	M8 X 1,25	D5	M	3	6.86	6.78
6141804	6141805	M10 X 1,25	D5	MF	3	8.86	8.78
6141808	6141809	M10 X 1,5	D6	M	3	8.64	8.54
6140507	6140508	M12 X 1,25	D5	MF	3	10.86	10.78
6140511	6140512	M12 X 1,5	D6	MF	3	10.64	10.54
5887097	5887096	M12 X 1,75	D6	M	3	10.41	10.30
6140517	6140518	M14 X 1,5	D6	MF	3	12.64	12.54
6140519	6140520	M14 X 2	D7	M	3	12.18	12.05
6140521	6140522	M16 X 1,5	D6	MF	3	14.64	14.54
5887099	5887098	M16 X 2	D7	M	3	14.18	14.05
6140523	6140524	M18 X 1,5	D6	MF	4	16.64	16.54
6140525	6140526	M18 X 2,5	D7	M	4	15.73	15.56
6140527	6140528	M20 X 1,5	D6	MF	4	18.64	18.54
6140529	6140530	M20 X 2,5	D7	M	4	17.73	17.56
-	6140531	M22 X 1,5	D6	MF	4	20.64	20.54
-	6140532	M22 X 2,5	D7	M	4	19.73	19.56
-	6140533	M24 X 1,5	D6	MF	4	22.64	22.54
-	6140534	M24 X 3	D8	M	4	21.27	21.08
-	6140535	M27 X 1,5	D7	MF	4	25.64	25.54
-	6140536	M27 X 3	D8	M	4	24.27	24.08
-	6140537	M30 X 1,5	D6	MF	4	28.64	28.54
-	6140538	M30 X 3,5	D9	M	4	26.82	26.59

NOTE: Suitable for tension/compression holders.

• WP49EG oxide



■ VT-SFT TC • Form E Bottoming Chamfer • Metric • ANSI • Tension/Compression Holders



grade WP49EG
Oxide

- first choice
- alternate choice

order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
6140343	M3 X 0,5	D3	M	2	2.55	2.51
6140344	M3,5 X 0,6	D4	M	2	2.95	2.92
6140345	M4 X 0,7	D4	M	3	3.36	3.32
6140346	M5 X 0,8	D4	M	3	4.27	4.22
6140347	M6 X 1	D5	M	3	5.09	5.03
6140348	M7 X 1	D5	M	3	6.09	6.03
6140350	M8 X 1	D5	MF	3	7.09	7.03
6140349	M8 X 1,25	D5	M	3	6.86	6.78
6140392	M10 X 1,25	D5	MF	3	8.86	8.78
6140391	M10 X 1,5	D6	M	3	8.64	8.54
6140395	M12 X 1,25	D5	MF	3	10.86	10.78
6140394	M12 X 1,5	D5	MF	3	10.64	10.54
6140393	M12 X 1,75	D6	M	3	10.41	10.30
6140397	M14 X 1,5	D6	MF	3	12.64	12.54
6140396	M14 X 2	D7	M	3	12.18	12.05
6140399	M16 X 1,5	D6	MF	3	14.64	14.54
6140398	M16 X 2	D7	M	3	14.18	14.05
6140400	M18 X 1,5	D6	MF	4	16.64	16.54

NOTE: Suitable for tension/compression holders.

Multipurpose Taps

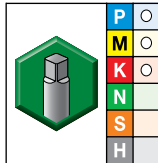
VariTap™ Spiral-Flute HSS-E Extension Taps • Blind Holes • 6" Length



• WP49EG oxide



■ VT-SFT TC • Form C Semi-Bottoming Chamfer • Machine Screw and Fractional • 6" Length • ANSI • Tension/Compression Holders



● first choice
○ alternate choice

grade WP49EG
Oxide

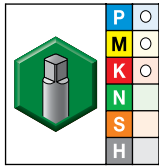
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
5601929	4 - 40	H2	UNC	2	.0893	.0876
5602110	6 - 32	H3	UNC	2	.1096	.1076
5602111	8 - 32	H3	UNC	3	.1356	.1336
5602112	10 - 24	H3	UNC	3	.1521	.1494
5602113	10 - 32	H3	UNF	3	.1616	.1596
5602114	1/4 - 20	H3	UNC	3	.2045	.2013
5602115	1/4 - 28	H3	UNF	3	.2175	.2152
5602116	5/16 - 18	H3	UNC	3	.2620	.2584
5602117	5/16 - 24	H3	UNF	3	.2746	.2719
5602118	3/8 - 16	H3	UNC	3	.3182	.3141
5602119	3/8 - 24	H3	UNF	3	.3371	.3344
5602120	7/16 - 14	H3	UNC	3	.3726	.3679
5602121	7/16 - 20	H3	UNF	3	.3920	.3888
5602122	1/2 - 13	H3	UNC	3	.4301	.4251
5602123	1/2 - 20	H3	UNF	3	.4545	.4513
5602124	5/8 - 11	H3	UNC	3	.5423	.5364

NOTE: Suitable for tension/compression holders.

• WP49EG oxide



■ VT-SFT TC • Form E Bottoming Chamfer • Machine Screw and Fractional • 6" Length • ANSI • Tension/Compression Holders



grade WP49EG
Oxide

● first choice
○ alternate choice

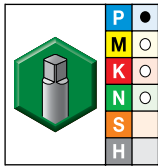
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
5602131	4 - 40	H2	UNC	2	.0893	.0876
5602132	6 - 32	H3	UNC	2	.1096	.1076
5602133	8 - 32	H3	UNC	3	.1356	.1336
5602134	10 - 32	H3	UNF	3	.1616	.1596
5602135	1/4 - 20	H3	UNC	3	.2045	.2013
5602136	1/4 - 28	H3	UNF	3	.2175	.2152
5602137	5/16 - 18	H3	UNC	3	.2620	.2584
5602138	3/8 - 16	H3	UNC	3	.3182	.3141
5602139	3/8 - 24	H3	UNF	3	.3371	.3344
5602140	7/16 - 14	H3	UNC	3	.3726	.3679

NOTE: Suitable for tension/compression holders.

- Series 5314
- Uncoated



■ Series 5314 • Machine Screw and Fractional • Bottoming Chamfer



- first choice
- alternate choice

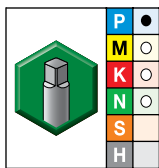
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2748375	4 - 40	H2	UNC	2	.0893	.0876
2748370	5 - 40	H2	UNC	2	.1023	.1006
2748367	6 - 32	H3	UNC	2	.1096	.1076
3083563	8 - 32	H3	UNC	3	.1356	.1336
2748361	10 - 24	H3	UNC	3	.1521	.1494
2748356	10 - 32	H3	UNF	3	.1616	.1596
2748353	12 - 24	H3	UNC	3	.1781	.1754
2748351	1/4 - 20	H3	UNC	3	.2045	.2013
1775500	1/4 - 28	H3	UNF	3	.2175	.2152
2748339	5/16 - 18	H3	UNC	3	.2620	.2584
3012779	5/16 - 24	H3	UNF	3	.2746	.2719
3083460	3/8 - 16	H3	UNC	3	.3182	.3141
2748329	3/8 - 24	H3	UNF	3	.3371	.3344
2748325	7/16 - 14	H3	UNC	3	.3726	.3679
2748321	7/16 - 20	H3	UNF	3	.3920	.3888
2748317	1/2 - 13	H3	UNC	3	.4301	.4251
2748314	1/2 - 20	H3	UNF	3	.4545	.4513
2748309	5/8 - 11	H3	UNC	4	.5423	.5364
3083458	3/4 - 10	H3	UNC	4	.6591	.6526

- Series 5364
- Uncoated



WIDIA GTD

■ Series 5364 • Bottoming Chamfer • Metric ANSI



- first choice
- alternate choice

uncoated						
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2748300	M3 X 0,5	D3	M	2	2.55	2.51
2748296	M4 X 0,7	D4	M	3	3.36	3.32
2748293	M5 X 0,8	D4	M	3	4.27	4.22
2748288	M6 X 1	D5	M	3	5.09	5.03
2748284	M8 X 1,25	D5	M	3	6.86	6.78
2748275	M10 X 1,5	D6	M	3	8.64	8.54
2748271	M12 X 1,75	D6	M	3	10.41	10.30

NOTE: Metric D limits are suitable for ISO 6H tolerance class.
Metric taps are manufactured to USCTI specifications and dimensions.
Metric tap blank dimensions are equivalent to inch taps.

Straight Flute



WIDIA-GTD™ offers a wide range of straight-flute options for tapping through and blind holes in:

- Steel and steel alloys.
- Stainless steel.
- Cast iron.
- Aluminum.

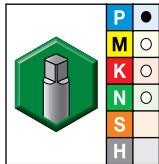
General Purpose Production Taps

- Straight-flute taps manufactured with HSS for use in through and blind hole applications.
- Multiple chamfer options.
- Can be used in general machinery or CNC tapping applications.
- Store chips in their flutes during threading, which protects the workpiece.

- Series 5305
- Uncoated



■ Series 5305 • Machine Screw Sizes • Taper Chamfer



- first choice
- alternate choice

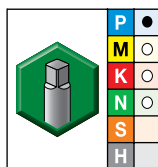
uncoated	order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
	2748991	0 - 80	H1	UNF	2	.0486	.0478
	2748975	1 - 64	H1	UNC	2	.0588	.0578
	2748964	1 - 72	H1	UNF	2	.0604	.0595
	2748956	2 - 56	H1	UNC	3	.0698	.0686
	2748951	2 - 56	H2	UNC	3	.0698	.0686
	2748935	2 - 64	H2	UNF	3	.0718	.0708
	2748925	3 - 48	H2	UNC	3	.0801	.0787
	2748913	3 - 56	H2	UNF	3	.0828	.0816
	2748887	4 - 40	H2	UNC	3	.0893	.0876
	2748869	4 - 48	H2	UNF	3	.0931	.0917
	2865323	5 - 40	H2	UNC	3	.1023	.1006
	2748858	5 - 44	H2	UNF	3	.1043	.1029
	2865295	6 - 32	H1	UNC	3	.1096	.1076
	2748845	6 - 32	H2	UNC	3	.1096	.1076
	2865268	6 - 32	H3	UNC	3	.1096	.1076
	2748827	6 - 40	H2	UNF	3	.1153	.1136
	2748806	8 - 32	H2	UNC	4	.1356	.1336
	2748787	8 - 32	H3	UNC	4	.1356	.1336
	2748764	8 - 36	H2	UNF	4	.1387	.1369
	2748747	10 - 24	H2	UNC	4	.1521	.1494
	2748738	10 - 24	H3	UNC	4	.1521	.1494
	2748708	10 - 32	H1	UNF	4	.1616	.1596
	2748694	10 - 32	H2	UNF	4	.1616	.1596
	2748679	10 - 32	H3	UNF	4	.1616	.1596
	2748645	12 - 24	H3	UNC	4	.1781	.1754
	2748631	12 - 28	H3	UNF	4	.1835	.1812

NOTE: Hand taps for 3B class of fit are suitable for UNJ aerospace internal threading applications.
For more information on class of fit, refer to the WIDIA-GTD Screw Thread Manual (A-17-05271) or contact WIDIA technical support (+1-888-539-5145).

- Series 5303
- Uncoated



■ Series 5303 • Fractional Sizes • Taper Chamfer



- first choice
- alternate choice

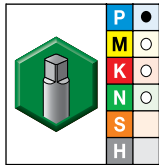
uncoated						
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2749838	1/4 - 20	H1	UNC	4	.2045	.2013
2749832	1/4 - 20	H2	UNC	4	.2045	.2013
3139335	1/4 - 20	H3	UNC	4	.2045	.2013
2749775	1/4 - 28	H3	UNF	4	.2175	.2152
2749737	5/16 - 18	H3	UNC	4	.2620	.2584
2749689	5/16 - 24	H3	UNF	4	.2746	.2719
2749651	3/8 - 16	H3	UNC	4	.3182	.3141
2749611	3/8 - 24	H3	UNF	4	.3371	.3344
2749586	7/16 - 14	H3	UNC	4	.3726	.3679
2749568	7/16 - 20	H3	UNF	4	.3920	.3888
2749543	1/2 - 13	H3	UNC	4	.4301	.4251
2749514	1/2 - 20	H3	UNF	4	.4545	.4513
3139336	9/16 - 12	H3	UNC	4	.4867	.4813
2749476	9/16 - 18	H3	UNF	4	.5120	.5084
2749460	5/8 - 11	H3	UNC	4	.5423	.5364
2749432	5/8 - 18	H3	UNF	4	.5745	.5709
2749406	11/16 - 11	H3	UNS	4	.6048	.5989
2749400	11/16 - 16	H3	UN	4	.6307	.6266
2749394	3/4 - 10	H3	UNC	4	.6591	.6526
2749374	3/4 - 16	H3	UNF	4	.6932	.6891
2749356	7/8 - 9	H4	UNC	4	.7740	.7668
2749340	7/8 - 14	H4	UNF	4	.8101	.8054
2749327	1 - 8	H4	UNC	4	.8863	.8782
2749308	1 - 12	H4	UNF	4	.9242	.9188
2749294	1 - 14	H4	UNS	4	.9351	.9304
2749281	1 1/8 - 7	H4	UNC	4	.9951	.9858
2749274	1 1/8 - 12	H4	UNF	4	1.0492	1.0438
2749265	1 1/4 - 7	H4	UNC	4	1.1201	1.1108
3171056	1 1/4 - 12	H4	UNF	6	1.1742	1.1688
3012774	1 3/8 - 6	H4	UNC	4	1.2235	1.2126
3171057	1 3/8 - 12	H4	UNF	6	1.2992	1.2938
2749241	1 1/2 - 6	H4	UNC	4	1.3485	1.3376
3012776	1 1/2 - 12	H4	UNF	6	1.4242	1.4188

NOTE: Hand taps for 3B class of fit are suitable for UNJ aerospace internal threading applications.
For more information on class-of-fit, refer to the WIDIA-GTD™ Screw Thread Manual (A-17-05271) or contact WIDIA™ technical support (+1-888-539-5145).

- Series 5305
- Uncoated



■ Series 5305 • Machine Screw Sizes • Plug Chamfer



- first choice
- alternate choice

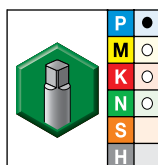
uncoated	order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
	2748988	0 - 80	H1	UNF	2	.0486	.0478
	2748979	0 - 80	H2	UNF	2	.0486	.0478
	2748972	1 - 64	H1	UNC	2	.0588	.0578
	2748966	1 - 64	H2	UNC	2	.0588	.0578
	2748963	1 - 72	H1	UNF	2	.0604	.0595
	2748959	1 - 72	H2	UNF	2	.0604	.0595
	2865450	2 - 56	H1	UNC	3	.0698	.0686
	2748950	2 - 56	H2	UNC	3	.0698	.0686
	2748933	2 - 64	H2	UNF	3	.0718	.0708
	2748924	3 - 48	H2	UNC	3	.0801	.0787
	2748911	3 - 56	H2	UNF	3	.0828	.0816
	2748885	4 - 40	H2	UNC	3	.0893	.0876
	2748867	4 - 48	H2	UNF	3	.0931	.0917
	2865319	5 - 40	H2	UNC	3	.1023	.1006
	2748855	5 - 44	H2	UNF	3	.1043	.1029
	2865292	6 - 32	H1	UNC	3	.1096	.1076
	2865279	6 - 32	H2	UNC	3	.1096	.1076
	2748843	6 - 32	H3	UNC	3	.1096	.1076
	2748825	6 - 40	H2	UNF	3	.1153	.1136
	2748813	8 - 32	H1	UNC	4	.1356	.1336
	2748804	8 - 32	H2	UNC	4	.1356	.1336
	2748785	8 - 32	H3	UNC	4	.1356	.1336
	2748761	8 - 36	H2	UNF	4	.1387	.1369
	2748749	10 - 24	H1	UNC	4	.1521	.1494
	2748746	10 - 24	H2	UNC	4	.1521	.1494
	2748736	10 - 24	H3	UNC	4	.1521	.1494
	2748706	10 - 32	H1	UNF	4	.1616	.1596
	2748692	10 - 32	H2	UNF	4	.1616	.1596
	2748678	10 - 32	H3	UNF	4	.1616	.1596
	2748643	12 - 24	H3	UNC	4	.1781	.1754
	2748628	12 - 28	H3	UNF	4	.1835	.1812

NOTE: Hand taps for 3B class of fit are suitable for UNJ aerospace internal threading applications.
For more information on class-of-fit, refer to the WIDIA-GTD™ Screw Thread Manual (A-17-05271) or contact WIDIA™ technical support (+1-888-539-5145).

- Series 5303
- Uncoated



■ Series 5303 • Fractional Sizes • Plug Chamfer



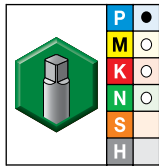
uncoated

- first choice
- alternate choice

order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2749837	1/4 - 20	H1	UNC	4	.2045	.2013
2749830	1/4 - 20	H2	UNC	4	.2045	.2013
2957247	1/4 - 20	H3	UNC	4	.2045	.2013
2749795	1/4 - 20	H5	UNC	4	.2045	.2013
2749780	1/4 - 28	H2	UNF	4	.2175	.2152
2749772	1/4 - 28	H3	UNF	4	.2175	.2152
2749751	1/4 - 28	H4	UNF	4	.2175	.2152
2749744	5/16 - 18	H1	UNC	4	.2620	.2584
2435312	5/16 - 18	H2	UNC	4	.2620	.2584
2749734	5/16 - 18	H3	UNC	4	.2620	.2584
2749709	5/16 - 18	H5	UNC	4	.2620	.2584
2749694	5/16 - 24	H1	UNF	4	.2746	.2719
2749691	5/16 - 24	H2	UNF	4	.2746	.2719
2749686	5/16 - 24	H3	UNF	4	.2746	.2719
2749666	5/16 - 24	H4	UNF	4	.2746	.2719
2749659	3/8 - 16	H1	UNC	4	.3182	.3141
2749655	3/8 - 16	H2	UNC	4	.3182	.3141
2749649	3/8 - 16	H3	UNC	4	.3182	.3141
2749629	3/8 - 16	H5	UNC	4	.3182	.3141
2749613	3/8 - 24	H2	UNF	4	.3371	.3344
2749609	3/8 - 24	H3	UNF	4	.3371	.3344
2749591	3/8 - 24	H4	UNF	4	.3371	.3344
2749584	7/16 - 14	H3	UNC	4	.3726	.3679
2749572	7/16 - 14	H5	UNC	4	.3726	.3679
1951473	7/16 - 20	H3	UNF	4	.3920	.3888
2749550	7/16 - 20	H5	UNF	4	.3920	.3888
2866262	1/2 - 13	H1	UNC	4	.4301	.4251
2415661	1/2 - 13	H3	UNC	4	.4301	.4251
2957246	1/2 - 13	H5	UNC	4	.4301	.4251
2749517	1/2 - 20	H1	UNF	4	.4545	.4513
2749513	1/2 - 20	H3	UNF	4	.4545	.4513
2749491	1/2 - 20	H5	UNF	4	.4545	.4513

(continued)

(Series 5303 • Fractional Sizes • Plug Chamfer — continued)



● first choice
○ alternate choice

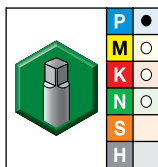
uncoated						
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2866187	9/16 - 12	H3	UNC	4	.4867	.4813
2749481	9/16 - 12	H5	UNC	4	.4867	.4813
2749478	9/16 - 18	H2	UNF	4	.5120	.5084
2749475	9/16 - 18	H3	UNF	4	.5120	.5084
2749463	9/16 - 18	H5	UNF	4	.5120	.5084
2749461	5/8 - 11	H2	UNC	4	.5423	.5364
2749458	5/8 - 11	H3	UNC	4	.5423	.5364
2749444	5/8 - 11	H5	UNC	4	.5423	.5364
2749434	5/8 - 18	H2	UNF	4	.5745	.5709
2749431	5/8 - 18	H3	UNF	4	.5745	.5709
2749414	5/8 - 18	H5	UNF	4	.5745	.5709
2749405	11/16 - 11	H3	UNS	4	.6048	.5989
2749397	11/16 - 16	H3	UN	4	.6307	.6266
2749392	3/4 - 10	H3	UNC	4	.6591	.6526
2749379	3/4 - 10	H5	UNC	4	.6591	.6526
1825322	3/4 - 16	H3	UNF	4	.6932	.6891
2710849	3/4 - 16	H4	UNF	4	.6932	.6891
2749359	3/4 - 16	H5	UNF	4	.6932	.6891
2749354	7/8 - 9	H4	UNC	4	.7740	.7668
2749342	7/8 - 9	H6	UNC	4	.7740	.7668
2749338	7/8 - 14	H4	UNF	4	.8101	.8054
2749329	7/8 - 14	H6	UNF	4	.8101	.8054
2749326	1 - 8	H4	UNC	4	.8863	.8782
2749311	1 - 8	H6	UNC	4	.8863	.8782
2749305	1 - 12	H4	UNF	4	.9242	.9188
2749297	1 - 14	H2	UNS	4	.9351	.9304
2749292	1 - 14	H4	UNS	4	.9351	.9304
2749280	1 1/8 - 7	H4	UNC	4	.9951	.9858
2749271	1 1/8 - 12	H4	UNF	4	1.0492	1.0438
2749263	1 1/4 - 7	H4	UNC	4	1.1201	1.1108
2749258	1 1/4 - 12	H4	UNF	6	1.1742	1.1688
2749252	1 3/8 - 6	H4	UNC	4	1.2235	1.2126
2749247	1 3/8 - 12	H4	UNF	6	1.2992	1.2938
3012775	1 1/2 - 6	H4	UNC	4	1.3485	1.3376
2749234	1 1/2 - 12	H4	UNF	6	1.4242	1.4188

NOTE: Hand taps for 3B class of fit are suitable for UNJ aerospace internal threading applications.
For more information on class-of-fit, refer to the WIDIA-GTD™ Screw Thread Manual (A-17-05271) or contact WIDIA™ technical support (+1-888-539-5145).

- Series 5305
- Uncoated



■ Series 5305 • Machine Screw Sizes • Bottoming Chamfer



- first choice
- alternate choice

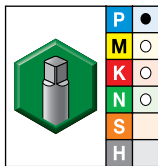
uncoated	order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
	2748985	0 - 80	H1	UNF	2	.0486	.0478
	2748977	0 - 80	H2	UNF	2	.0486	.0478
	2748970	1 - 64	H1	UNC	2	.0588	.0578
	2748962	1 - 72	H1	UNF	2	.0604	.0595
	3049563	1 - 72	H2	UNF	2	.0604	.0595
	2748955	2 - 56	H1	UNC	3	.0698	.0686
	2748947	2 - 56	H2	UNC	3	.0698	.0686
	2748930	2 - 64	H2	UNF	3	.0718	.0708
	2748920	3 - 48	H2	UNC	3	.0801	.0787
	2748906	3 - 56	H2	UNF	3	.0828	.0816
	2748882	4 - 40	H2	UNC	3	.0893	.0876
	2748864	4 - 48	H2	UNF	3	.0931	.0917
	2865316	5 - 40	H2	UNC	3	.1023	.1006
	2748852	5 - 44	H2	UNF	3	.1043	.1029
	2865289	6 - 32	H1	UNC	3	.1096	.1076
	2865277	6 - 32	H2	UNC	3	.1096	.1076
	2748840	6 - 32	H3	UNC	3	.1096	.1076
	2748820	6 - 40	H2	UNF	3	.1153	.1136
	2748811	8 - 32	H1	UNC	4	.1356	.1336
	2748803	8 - 32	H2	UNC	4	.1356	.1336
	2748781	8 - 32	H3	UNC	4	.1356	.1336
	2748758	8 - 36	H2	UNF	4	.1387	.1369
	2748744	10 - 24	H2	UNC	4	.1521	.1494
	2748733	10 - 24	H3	UNC	4	.1521	.1494
	2748702	10 - 32	H1	UNF	4	.1616	.1596
	2748689	10 - 32	H2	UNF	4	.1616	.1596
	2748675	10 - 32	H3	UNF	4	.1616	.1596
	2748641	12 - 24	H3	UNC	4	.1781	.1754
	2748624	12 - 28	H3	UNF	4	.1835	.1812

NOTE: Hand taps for 3B class of fit are suitable for UNJ aerospace internal threading applications.
 For more information on class-of-fit, refer to the WIDIA-GTD™ Screw Thread Manual (A-17-05271) or contact WIDIA™ technical support (+1-888-539-5145).

- Series 5303
- Uncoated



■ Series 5303 • Fractional Sizes • Bottoming Chamfer



- first choice
- alternate choice

uncoated						
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2749836	1/4 - 20	H1	UNC	4	.2045	.2013
2749826	1/4 - 20	H2	UNC	4	.2045	.2013
2749818	1/4 - 20	H3	UNC	4	.2045	.2013
2749793	1/4 - 20	H5	UNC	4	.2045	.2013
2749766	1/4 - 28	H3	UNF	4	.2175	.2152
1854370	1/4 - 28	H4	UNF	4	.2175	.2152
2749742	5/16 - 18	H1	UNC	4	.2620	.2584
2749739	5/16 - 18	H2	UNC	4	.2620	.2584
2749732	5/16 - 18	H3	UNC	4	.2620	.2584
2749706	5/16 - 18	H5	UNC	4	.2620	.2584
2038474	5/16 - 24	H3	UNF	4	.2746	.2719
2749662	5/16 - 24	H4	UNF	4	.2746	.2719
2749656	3/8 - 16	H1	UNC	4	.3182	.3141
2749652	3/8 - 16	H2	UNC	4	.3182	.3141
2749647	3/8 - 16	H3	UNC	4	.3182	.3141
2749625	3/8 - 16	H5	UNC	4	.3182	.3141
1951472	3/8 - 24	H3	UNF	4	.3371	.3344
2749589	3/8 - 24	H4	UNF	4	.3371	.3344
2749582	7/16 - 14	H3	UNC	4	.3726	.3679
2749570	7/16 - 14	H5	UNC	4	.3726	.3679
2038865	7/16 - 20	H3	UNF	4	.3920	.3888
2749548	7/16 - 20	H5	UNF	4	.3920	.3888
2749545	1/2 - 13	H1	UNC	4	.4301	.4251
2749540	1/2 - 13	H3	UNC	4	.4301	.4251
2749520	1/2 - 13	H5	UNC	4	.4301	.4251
1951476	1/2 - 20	H3	UNF	4	.4545	.4513
2866184	9/16 - 12	H3	UNC	4	.4867	.4813
2749474	9/16 - 18	H3	UNF	4	.5120	.5084
2749456	5/8 - 11	H3	UNC	4	.5423	.5364
2749441	5/8 - 11	H5	UNC	4	.5423	.5364
2749428	5/8 - 18	H3	UNF	4	.5745	.5709
2749411	5/8 - 18	H5	UNF	4	.5745	.5709

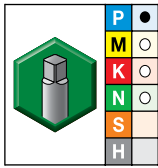
(continued)

Production Taps

Hand Taps • Blind Holes in General Machining Applications



(Series 5303 • Fractional Sizes • Bottoming Chamfer — continued)



- first choice
- alternate choice

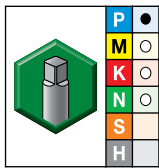
uncoated						
order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2749403	11/16 - 11	H3	UNS	4	.6048	.5989
2749396	11/16 - 16	H3	UN	4	.6307	.6266
3180808	3/4 - 10	H3	UNC	4	.6591	.6526
2749376	3/4 - 10	H5	UNC	4	.6591	.6526
2749370	3/4 - 16	H3	UNF	4	.6932	.6891
2749358	3/4 - 16	H5	UNF	4	.6932	.6891
2749352	7/8 - 9	H4	UNC	4	.7740	.7668
2749336	7/8 - 14	H4	UNF	4	.8101	.8054
2749324	1 - 8	H4	UNC	4	.8863	.8782
3006761	1 - 12	H4	UNF	4	.9242	.9188
3180807	1 - 14	H4	UNS	4	.9351	.9304
2749278	1 1/8 - 7	H4	UNC	4	.9951	.9858
2749269	1 1/8 - 12	H4	UNF	4	1.0492	1.0438
2749261	1 1/4 - 7	H4	UNC	4	1.1201	1.1108
2749256	1 1/4 - 12	H4	UNF	6	1.1742	1.1688
2749251	1 3/8 - 6	H4	UNC	4	1.2235	1.2126
2749246	1 3/8 - 12	H4	UNF	6	1.2992	1.2938
2749240	1 1/2 - 6	H4	UNC	4	1.3485	1.3376
2749233	1 1/2 - 12	H4	UNF	6	1.4242	1.4188

NOTE: Hand taps for 3B class of fit are suitable for UNJ aerospace internal threading applications.
For more information on class-of-fit, refer to the WIDIA-GTD™ Screw Thread Manual (A-17-05271) or contact WIDIA™ technical support (+1-888-539-5145).

- Series 5305
- Uncoated



■ Series 5305 • Machine Screw Sizes • Sets of One Each Taper, Plug, and Bottoming Chamfer

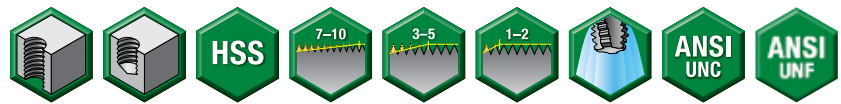


- first choice
- alternate choice

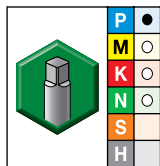
uncoated order #	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2748981	0 - 80	H1	UNF	2	.0486	.0478
2748968	1 - 64	H1	UNC	2	.0588	.0578
2748961	1 - 72	H1	UNF	2	.0604	.0595
2748945	2 - 56	H2	UNC	3	.0698	.0686
2748928	2 - 64	H2	UNF	3	.0718	.0708
2748918	3 - 48	H2	UNC	3	.0801	.0787
2748902	3 - 56	H2	UNF	3	.0828	.0816
2748880	4 - 40	H2	UNC	3	.0893	.0876
2748863	4 - 48	H2	UNF	3	.0931	.0917
2865313	5 - 40	H2	UNC	3	.1023	.1006
2748851	5 - 44	H2	UNF	3	.1043	.1029
2865286	6 - 32	H1	UNC	3	.1096	.1076
2865274	6 - 32	H2	UNC	3	.1096	.1076
2748838	6 - 32	H3	UNC	3	.1096	.1076
2748818	6 - 40	H2	UNF	3	.1153	.1136
2748801	8 - 32	H2	UNC	4	.1356	.1336
2865185	8 - 32	H3	UNC	4	.1356	.1336
2748756	8 - 36	H2	UNF	4	.1387	.1369
2748743	10 - 24	H2	UNC	4	.1521	.1494
2748731	10 - 24	H3	UNC	4	.1521	.1494
2748685	10 - 32	H2	UNF	4	.1616	.1596
2748670	10 - 32	H3	UNF	4	.1616	.1596
2748637	12 - 24	H3	UNC	4	.1781	.1754
2748623	12 - 28	H3	UNF	4	.1835	.1812

NOTE: Hand taps for 3B class of fit are suitable for UNJ aerospace internal threading applications.
For more information on class-of-fit, refer to the WIDIA-GTD™ Screw Thread Manual (A-17-05271) or contact WIDIA™ technical support (+1-888-539-5145).
Tap sets include one of each: taper, plug, and bottoming chamfer.

- Series 5303
- Uncoated



■ Series 5303 • Fractional Sizes • Sets of One Each Taper, Plug, and Bottoming Chamfer



- first choice
- alternate choice

uncoated	tap size	pitch diameter limit	thread series	number of flutes	drill size 70% thread	drill size 75% thread
2749834	1/4 - 20	H1	UNC	4	.2045	.2013
2749824	1/4 - 20	H2	UNC	4	.2045	.2013
2749815	1/4 - 20	H3	UNC	4	.2045	.2013
2749764	1/4 - 28	H3	UNF	4	.2175	.2152
2749729	5/16 - 18	H3	UNC	4	.2620	.2584
2749680	5/16 - 24	H3	UNF	4	.2746	.2719
2749644	3/8 - 16	H3	UNC	4	.3182	.3141
2749605	3/8 - 24	H3	UNF	4	.3371	.3344
2749581	7/16 - 14	H3	UNC	4	.3726	.3679
2749560	7/16 - 20	H3	UNF	4	.3920	.3888
2749538	1/2 - 13	H3	UNC	4	.4301	.4251
2749503	1/2 - 20	H3	UNF	4	.4545	.4513
2749488	9/16 - 12	H3	UNC	4	.4867	.4813
2749472	9/16 - 18	H3	UNF	4	.5120	.5084
2749454	5/8 - 11	H3	UNC	4	.5423	.5364
2749426	5/8 - 18	H3	UNF	4	.5745	.5709
2749402	11/16 - 11	H3	UNS	4	.6048	.5989
2749388	3/4 - 10	H3	UNC	4	.6591	.6526
2749368	3/4 - 16	H3	UNF	4	.6932	.6891
2749350	7/8 - 9	H4	UNC	4	.7740	.7668
2749335	7/8 - 14	H4	UNF	4	.8101	.8054
2749320	1 - 8	H4	UNC	4	.8863	.8782
3303777	1 - 12	H4	UNF	4	.9242	.9188
2749288	1 - 14	H4	UNS	4	.9351	.9304
2749275	1 1/8 - 7	H4	UNC	4	.9951	.9858
2749267	1 1/8 - 12	H4	UNF	4	1.0492	1.0438
2749260	1 1/4 - 7	H4	UNC	4	1.1201	1.1108
2749254	1 1/4 - 12	H4	UNF	6	1.1742	1.1688
2749249	1 3/8 - 6	H4	UNC	4	1.2235	1.2126
2749243	1 3/8 - 12	H4	UNF	6	1.2992	1.2938
2749237	1 1/2 - 6	H4	UNC	4	1.3485	1.3376
2749231	1 1/2 - 12	H4	UNF	6	1.4242	1.4188

NOTE: Hand taps for 3B class of fit are suitable for UNJ aerospace internal threading applications.
 For more information on class of fit, refer to the WIDIA-GTD Screw Thread Manual (A-17-05271) or contact WIDIA technical support (+1-888-539-5145).
 Tap sets include one of each: taper, plug, and bottoming chamfer.

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 catalog 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 maximizes every shift. widia.com/novo

The ultimate solution for multiple-material drilling • **VariDrill**

VariDrill™



Holemaking Made Easy and Economical

The VariDrill advanced-point geometry design offers the ultimate solution for multiple-material drilling. 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, aluminum, and high-temp alloys.

Prep for tapping success with the complete range of **WIDIA™ VariDrill 5 x D** drills

Use this reference guide to quick-start your tapping operations with the complete range of 5 x D VariDrill drills from WIDIA. For more information on the WIDIA comprehensive line of 3 x D through 30 x D solid and coolant-fed drills for all applications and workpiece materials, visit the **NOVO™** applications site or **widia.com**.

NEW! Announcing the WIDIA All-Star Lineup of Tapping Tooling

WIDIA is proud to launch the tapping tooling specially selected for the NEW WIDIA All-Star Program! Win time and time again with taps that deliver high-performance results in a wide range of applications and work materials.

Coming Soon! WIDIA All-Star Program for Holemaking

The new WIDIA All-Star program guarantees immediate availability of the most popular products from our proven platforms. Stay tuned for more information on the launch of the new All-Star program for drills and other WIDIA tooling!

Innovative Technology

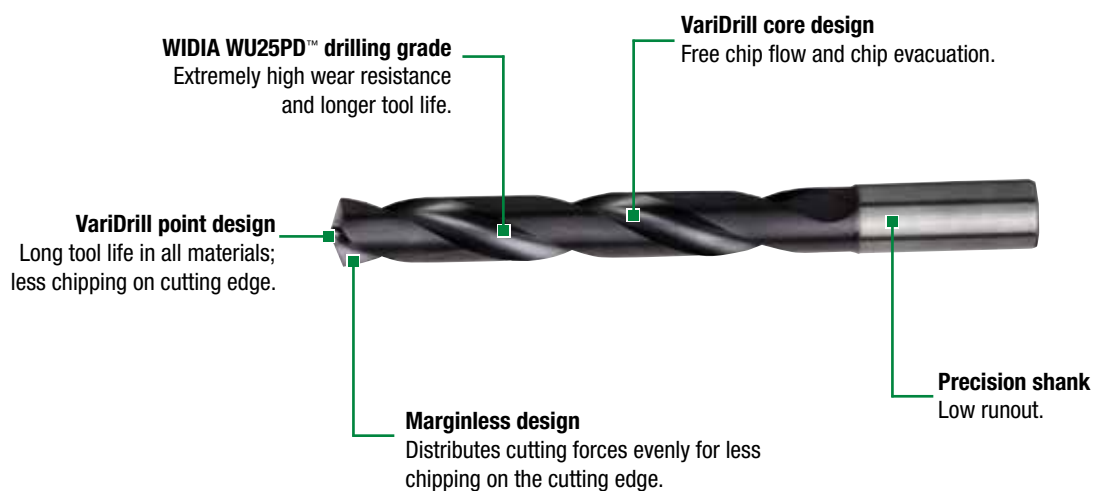
VariDrill™ is a technologically advanced holemaking solution. These high-performance solid carbide drills were designed in Germany to provide the transportation, aerospace, general engineering, and energy industries with a tool that performs on multiple materials.

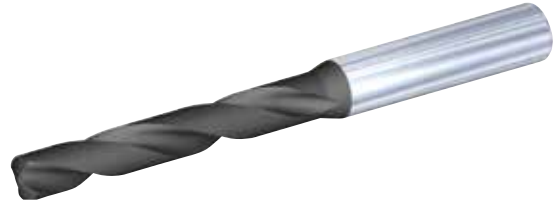
Elegance, Strength, and Versatility

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, aluminum, and a range of high-temp alloys.

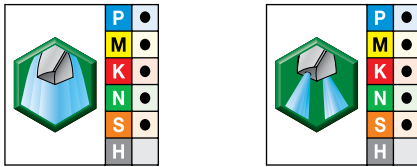
Optimum Hole Quality

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





■ VDS202A • VDS402A • 5 x D

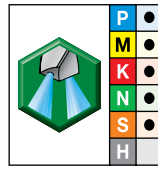
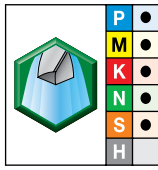


● first choice
○ alternate choice

D1 diameter

grade WU25PD TiAlN		grade WU25PD TiAlN		D1 diameter				L4 max	L3	L5	L	LS	D
order #	catalog #	order #	catalog #	mm	in	fraction	wire size						
4148000	VDS202A01000	-	-	1,000	.0394	-	-	6	9	0,1	58	28	4
4148001	VDS202A01016	-	-	1,016	.0400	-	-	6	9	0,1	58	28	4
4148002	VDS202A01041	-	-	1,041	.0410	-	-	6	9	0,2	58	28	4
4148003	VDS202A01067	-	-	1,067	.0420	-	-	6	9	0,2	58	28	4
4148004	VDS202A01092	-	-	1,092	.0430	-	-	6	9	0,2	58	28	4
4148005	VDS202A01100	-	-	1,100	.0433	-	-	6	9	0,2	58	28	4
4148006	VDS202A01181	-	-	1,181	.0465	-	-	6	9	0,2	58	28	4
4148007	VDS202A01191	-	-	1,191	.0469	-	-	6	9	0,2	58	28	4
4148008	VDS202A01200	-	-	1,200	.0472	-	-	6	9	0,2	58	28	4
4148009	VDS202A01300	-	-	1,300	.0512	-	-	6	9	0,2	58	28	4
4148010	VDS202A01321	-	-	1,321	.0520	-	-	6	9	0,2	58	28	4
4148011	VDS202A01397	-	-	1,397	.0550	-	-	6	9	0,2	58	28	4
4148012	VDS202A01400	-	-	1,400	.0551	-	-	6	9	0,2	58	28	4
4148013	VDS202A01500	4142871	VDS402A01500	1,500	.0591	-	-	9	12	0,2	58	40	4
4148014	VDS202A01600	4142884	VDS402A01600	1,600	.0630	-	-	9	12	0,2	58	28	4
4148015	VDS202A01700	4142887	VDS402A01700	1,700	.0669	-	-	9	12	0,3	58	28	4
4148016	VDS202A01800	4142890	VDS402A01800	1,800	.0709	-	-	9	12	0,3	58	28	4
4148017	VDS202A01900	4142893	VDS402A01900	1,900	.0748	-	-	9	12	0,3	58	28	4
4148018	VDS202A01984	4142896	VDS402A01984	1,984	.0781	-	-	14	18	0,3	58	28	4
4148019	VDS202A02000	4142899	VDS402A02000	2,000	.0787	-	-	14	18	0,3	58	28	4
4148020	VDS202A02100	4142902	VDS402A02100	2,100	.0827	-	-	14	18	0,3	58	28	4
4148021	VDS202A02200	4142905	VDS402A02200	2,200	.0866	-	-	14	18	0,3	58	28	4
4148022	VDS202A02300	4142908	VDS402A02300	2,300	.0906	-	-	14	18	0,4	58	28	4
4148023	VDS202A02383	4142911	VDS402A02383	2,383	.0938	3/32	-	17	22	0,4	58	28	4
4148024	VDS202A02400	4142924	VDS402A02400	2,400	.0945	-	-	17	22	0,4	58	28	4
4148025	VDS202A02439	4142927	VDS402A02439	2,439	.0960	-	41	17	22	0,4	58	28	4
4148026	VDS202A02489	4142930	VDS402A02489	2,489	.0980	-	40	17	22	0,4	58	28	4
4148027	VDS202A02500	4142933	VDS402A02500	2,500	.0984	-	-	17	22	0,4	58	28	4
4148028	VDS202A02578	4142936	VDS402A02578	2,578	.1015	-	38	17	22	0,4	58	28	4
4148029	VDS202A02600	4142939	VDS402A02600	2,600	.1024	-	-	17	22	0,4	58	28	4
4148030	VDS202A02642	4142942	VDS402A02642	2,642	.1040	-	37	17	22	0,4	58	28	4
4148031	VDS202A02700	4142945	VDS402A02700	2,700	.1063	-	-	17	22	0,4	58	28	4
4148032	VDS202A02705	4142948	VDS402A02705	2,705	.1065	-	36	17	22	0,4	58	28	4
4148033	VDS202A02779	4142951	VDS402A02779	2,779	.1094	7/64	-	17	22	0,4	58	28	4
4148034	VDS202A02800	4142964	VDS402A02800	2,800	.1102	-	-	17	22	0,5	58	28	4
4148035	VDS202A02820	4142967	VDS402A02820	2,820	.1110	-	34	17	22	0,5	58	28	4
4148036	VDS202A02870	4142970	VDS402A02870	2,870	.1130	-	33	17	22	0,5	58	28	4
4148037	VDS202A02900	4142973	VDS402A02900	2,900	.1142	-	-	17	22	0,5	58	28	4
4148038	VDS202A02947	4142976	VDS402A02947	2,947	.1160	-	32	17	22	0,5	58	28	4
4148142	VDS202A03000	4142844	VDS402A03000	3,000	.1181	-	-	23	28	0,5	66	36	6
4148143	VDS202A03048	4142846	VDS402A03048	3,048	.1200	-	31	23	28	0,5	66	36	6
4148144	VDS202A03100	4142847	VDS402A03100	3,100	.1220	-	-	23	28	0,5	66	36	6
4148145	VDS202A03175	4142849	VDS402A03175	3,175	.1250	1/8	-	23	28	0,5	66	36	6
4148146	VDS202A03200	4142851	VDS402A03200	3,200	.1260	-	-	23	28	0,5	66	36	6

(VDS202A • VDS402A • 5 x D — continued)

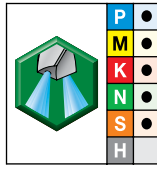
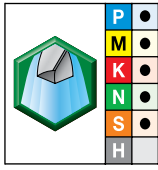


● first choice
○ alternate choice

grade WU25PD TiAlN		grade WU25PD TiAlN		D1 diameter				L4 max	L3	L5	L	LS	D
order #	catalog #	order #	catalog #	mm	in	fraction	wire size						
4148147	VDS202A03264	4142864	VDS402A03264	3,264	.1285	—	30	23	28	0,5	66	36	6
4148148	VDS202A03300	4142865	VDS402A03300	3,300	.1299	—	—	23	28	0,5	66	36	6
4148149	VDS202A03400	4142867	VDS402A03400	3,400	.1339	—	—	23	28	0,6	66	36	6
4148150	VDS202A03455	4142869	VDS402A03455	3,455	.1360	—	29	23	28	0,6	66	36	6
4148151	VDS202A03500	4142872	VDS402A03500	3,500	.1378	—	—	23	28	0,6	66	36	6
4148152	VDS202A03571	4142885	VDS402A03571	3,571	.1406	9/64	—	23	28	0,6	66	36	6
4148153	VDS202A03600	4142888	VDS402A03600	3,600	.1417	—	—	23	28	0,6	66	36	6
4148154	VDS202A03658	4142891	VDS402A03658	3,658	.1440	—	27	23	28	0,6	66	36	6
4148155	VDS202A03700	4142894	VDS402A03700	3,700	.1457	—	—	23	28	0,6	66	36	6
4148156	VDS202A03734	4142897	VDS402A03734	3,734	.1470	—	26	23	28	0,6	66	36	6
4148157	VDS202A03800	4142900	VDS402A03800	3,800	.1496	—	—	29	36	0,6	74	36	6
4148158	VDS202A03900	4142903	VDS402A03900	3,900	.1535	—	—	29	36	0,6	74	36	6
4148159	VDS202A03970	4142906	VDS402A03970	3,970	.1563	5/32	—	29	36	0,7	74	36	6
4148160	VDS202A04000	4142909	VDS402A04000	4,000	.1575	—	—	29	36	0,7	74	36	6
4148161	VDS202A04039	4142912	VDS402A04039	4,039	.1590	—	21	29	36	0,7	74	36	6
4148162	VDS202A04090	4142925	VDS402A04090	4,090	.1610	—	20	29	36	0,7	74	36	6
4148163	VDS202A04100	4142928	VDS402A04100	4,100	.1614	—	—	29	36	0,7	74	36	6
4148164	VDS202A04200	4142931	VDS402A04200	4,200	.1654	—	—	29	36	0,7	74	36	6
4148165	VDS202A04217	4142934	VDS402A04217	4,217	.1660	—	19	29	36	0,7	74	36	6
4148166	VDS202A04300	4142937	VDS402A04300	4,300	.1693	—	—	29	36	0,7	74	36	6
4148167	VDS202A04366	4142940	VDS402A04366	4,366	.1719	11/64	—	29	36	0,7	74	36	6
4148168	VDS202A04400	4142943	VDS402A04400	4,400	.1732	—	—	29	36	0,7	74	36	6
4148169	VDS202A04500	4142946	VDS402A04500	4,500	.1772	—	—	29	36	0,7	74	36	6
4148170	VDS202A04600	4142949	VDS402A04600	4,600	.1811	—	—	29	36	0,8	74	36	6
4148171	VDS202A04623	4142952	VDS402A04623	4,623	.1820	—	14	29	36	0,8	74	36	6
4148172	VDS202A04700	4142965	VDS402A04700	4,700	.1850	—	13	29	36	0,8	74	36	6
4148173	VDS202A04763	4142968	VDS402A04763	4,763	.1875	3/16	—	35	44	0,8	82	36	6
4148174	VDS202A04800	4142971	VDS402A04800	4,800	.1890	—	12	35	44	0,8	82	36	6
4148175	VDS202A04852	4142974	VDS402A04852	4,852	.1910	—	11	35	44	0,8	82	36	6
4148176	VDS202A04900	4142977	VDS402A04900	4,900	.1929	—	—	35	44	0,8	82	36	6
4148177	VDS202A05000	4142979	VDS402A05000	5,000	.1969	—	—	35	44	0,8	82	36	6
4148178	VDS202A05100	4142981	VDS402A05100	5,100	.2008	—	—	35	44	0,8	82	36	6
4148179	VDS202A05106	4142994	VDS402A05106	5,106	.2010	—	7	35	44	0,8	82	36	6
4148180	VDS202A05159	4142996	VDS402A05159	5,159	.2031	13/64	—	35	44	0,9	82	36	6
4148181	VDS202A05200	4142997	VDS402A05200	5,200	.2047	—	—	35	44	0,9	82	36	6
4148182	VDS202A05300	4142999	VDS402A05300	5,300	.2087	—	—	35	44	0,9	82	36	6
4148183	VDS202A05400	4143000	VDS402A05400	5,400	.2126	—	—	35	44	0,9	82	36	6
4148184	VDS202A05410	4143001	VDS402A05410	5,410	.2130	—	3	35	44	0,9	82	36	6
4148185	VDS202A05500	4143002	VDS402A05500	5,500	.2165	—	—	35	44	0,9	82	36	6
4148186	VDS202A05558	4143003	VDS402A05558	5,558	.2188	7/32	—	35	44	0,9	82	36	6
4148187	VDS202A05600	4143004	VDS402A05600	5,600	.2205	—	—	35	44	0,9	82	36	6
4148188	VDS202A05616	4143005	VDS402A05616	5,616	.2211	—	2	35	44	0,9	82	36	6
4148189	VDS202A05700	4143006	VDS402A05700	5,700	.2244	—	—	35	44	1,0	82	36	6
4148190	VDS202A05800	4143007	VDS402A05800	5,800	.2283	—	—	35	44	1,0	82	36	6
4148191	VDS202A05900	4143008	VDS402A05900	5,900	.2323	—	—	35	44	1,0	82	36	6
4148192	VDS202A05954	4143009	VDS402A05954	5,954	.2344	15/64	—	35	44	1,0	82	36	6
4148193	VDS202A06000	4143010	VDS402A06000	6,000	.2362	—	—	35	44	1,0	82	36	6
4148194	VDS202A06100	4143011	VDS402A06100	6,100	.2402	—	—	43	53	1,0	91	36	8
4148195	VDS202A06200	4143012	VDS402A06200	6,200	.2441	—	—	43	53	1,0	91	36	8
4148196	VDS202A06300	4143023	VDS402A06300	6,300	.2480	—	—	43	53	1,1	91	36	8
4148197	VDS202A06350	4143024	VDS402A06350	6,350	.2500	1/4	E	43	53	1,1	91	36	8
4148198	VDS202A06400	4143025	VDS402A06400	6,400	.2520	—	—	43	53	1,1	91	36	8

(continued)

(VDS202A • VDS402A • 5 x D — continued)

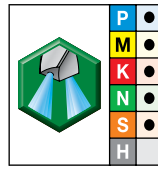
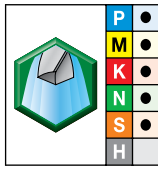


- first choice
- alternate choice

grade WU25PD TiAlN		grade WU25PD TiAlN		D1 diameter				L4 max	L3	L5	L	LS	D
order #	catalog #	order #	catalog #	mm	in	fraction	wire size						
4148199	VDS202A06500	4143026	VDS402A06500	6,500	.2559	—	—	43	53	1,1	91	36	8
4148200	VDS202A06528	4143027	VDS402A06528	6,528	.2570	—	F	43	53	1,1	91	36	8
4148201	VDS202A06600	4143028	VDS402A06600	6,600	.2598	—	—	43	53	1,1	91	36	8
4148202	VDS202A06630	4143029	VDS402A06630	6,630	.2610	—	G	43	53	1,1	91	36	8
4148203	VDS202A06700	4143030	VDS402A06700	6,700	.2638	—	—	43	53	1,1	91	36	8
4148204	VDS202A06746	4143031	VDS402A06746	6,746	.2656	17/64	—	43	53	1,1	91	36	8
4148205	VDS202A06800	4143032	VDS402A06800	6,800	.2677	—	—	43	53	1,1	91	36	8
4148206	VDS202A06900	4143043	VDS402A06900	6,900	.2717	—	—	43	53	1,2	91	36	8
4148207	VDS202A07000	4143044	VDS402A07000	7,000	.2756	—	—	43	53	1,2	91	36	8
4148208	VDS202A07100	4143045	VDS402A07100	7,100	.2795	—	—	43	53	1,2	91	36	8
4148209	VDS202A07145	4143046	VDS402A07145	7,145	.2813	9/32	—	43	53	1,2	91	36	8
4148210	VDS202A07200	4143047	VDS402A07200	7,200	.2835	—	—	43	53	1,2	91	36	8
4148211	VDS202A07300	4143048	VDS402A07300	7,300	.2874	—	—	43	53	1,2	91	36	8
4148212	VDS202A07400	4143049	VDS402A07400	7,400	.2913	—	—	43	53	1,3	91	36	8
4148213	VDS202A07500	4143050	VDS402A07500	7,500	.2953	—	—	43	53	1,3	91	36	8
4148214	VDS202A07541	4143051	VDS402A07541	7,541	.2969	19/64	—	43	53	1,3	91	36	8
4148215	VDS202A07600	4143052	VDS402A07600	7,600	.2992	—	—	43	53	1,3	91	36	8
4148216	VDS202A07700	4143063	VDS402A07700	7,700	.3031	—	—	43	53	1,3	91	36	8
4148217	VDS202A07800	4143064	VDS402A07800	7,800	.3071	—	—	43	53	1,3	91	36	8
4148218	VDS202A07900	4143065	VDS402A07900	7,900	.3110	—	—	43	53	1,3	91	36	8
4148219	VDS202A07938	4143066	VDS402A07938	7,938	.3125	5/16	—	43	53	1,3	91	36	8
4148220	VDS202A08000	4143067	VDS402A08000	8,000	.3150	—	—	43	53	1,4	91	36	8
4148221	VDS202A08100	4143068	VDS402A08100	8,100	.3189	—	—	49	61	1,4	103	40	10
4148222	VDS202A08200	4143069	VDS402A08200	8,200	.3228	—	—	49	61	1,4	103	40	10
4148223	VDS202A08300	4143070	VDS402A08300	8,300	.3268	—	—	49	61	1,4	103	40	10
4148224	VDS202A08334	4143071	VDS402A08334	8,334	.3281	21/64	—	49	61	1,4	103	40	10
4148225	VDS202A08400	4143072	VDS402A08400	8,400	.3307	—	—	49	61	1,4	103	40	10
4148226	VDS202A08433	4143083	VDS402A08433	8,433	.3320	—	Q	49	61	1,4	103	40	10
4148227	VDS202A08500	4143084	VDS402A08500	8,500	.3346	—	—	49	61	1,4	103	40	10
4148228	VDS202A08600	4143085	VDS402A08600	8,600	.3386	—	—	49	61	1,5	103	40	10
4148229	VDS202A08700	4143086	VDS402A08700	8,700	.3425	—	—	49	61	1,5	103	40	10
4148230	VDS202A08733	4143087	VDS402A08733	8,733	.3438	11/32	—	49	61	1,5	103	40	10
4148231	VDS202A08800	4143088	VDS402A08800	8,800	.3465	—	—	49	61	1,5	103	40	10
4148232	VDS202A08900	4143089	VDS402A08900	8,900	.3504	—	—	49	61	1,5	103	40	10
4148233	VDS202A09000	4143090	VDS402A09000	9,000	.3543	—	—	49	61	1,5	103	40	10
4148234	VDS202A09100	4143091	VDS402A09100	9,100	.3583	—	—	49	61	1,5	103	40	10
4148235	VDS202A09129	4143092	VDS402A09129	9,129	.3594	23/64	—	49	61	1,6	103	40	10
4148236	VDS202A09200	4143103	VDS402A09200	9,200	.3622	—	—	49	61	1,6	103	40	10
4148237	VDS202A09300	4143104	VDS402A09300	9,300	.3661	—	—	49	61	1,6	103	40	10
4148238	VDS202A09347	4143105	VDS402A09347	9,347	.3680	—	U	49	61	1,6	103	40	10
4148239	VDS202A09400	4143106	VDS402A09400	9,400	.3701	—	—	49	61	1,6	103	40	10
4148240	VDS202A09500	4143107	VDS402A09500	9,500	.3740	—	—	49	61	1,6	103	40	10
4148241	VDS202A09525	4143108	VDS402A09525	9,525	.3750	3/8	—	49	61	1,6	103	40	10
4148242	VDS202A09600	4143109	VDS402A09600	9,600	.3780	—	—	49	61	1,6	103	40	10
4148243	VDS202A09700	4143110	VDS402A09700	9,700	.3819	—	—	49	61	1,7	103	40	10
4148244	VDS202A09800	4143111	VDS402A09800	9,800	.3858	—	—	49	61	1,7	103	40	10
4148245	VDS202A09900	4143112	VDS402A09900	9,900	.3898	—	—	49	61	1,7	103	40	10
4148246	VDS202A09921	4143113	VDS402A09921	9,921	.3906	25/64	—	49	61	1,7	103	40	10
4148258	VDS202A10000	4142823	VDS402A10000	10,000	.3937	—	—	49	61	1,7	103	40	10
4148259	VDS202A10100	4142825	VDS402A10100	10,100	.3976	—	—	56	71	1,7	118	45	12
4148260	VDS202A10200	4142827	VDS402A10200	10,200	.4016	—	—	56	71	1,7	118	45	12
4148261	VDS202A10300	4142829	VDS402A10300	10,300	.4055	—	—	56	71	1,8	118	45	12

(continued)

(VDS202A • VDS402A • 5 x D — continued)



● first choice
○ alternate choice

D1 diameter

grade WU25PD TiAlN		grade WU25PD TiAlN		D1 diameter				L4 max	L3	L5	L	LS	D
order #	catalog #	order #	catalog #	mm	in	fraction	wire size						
4148262	VDS202A10320	4142831	VDS402A10320	10,320	.4063	13/32	—	56	71	1,8	118	45	12
4148283	VDS202A10400	4142832	VDS402A10400	10,400	.4094	—	—	56	71	1,8	118	45	12
4148284	VDS202A10500	4142834	VDS402A10500	10,500	.4134	—	—	56	71	1,8	118	45	12
4148285	VDS202A10600	4142836	VDS402A10600	10,600	.4173	—	—	56	71	1,8	118	45	12
4148286	VDS202A10700	4142838	VDS402A10700	10,700	.4213	—	—	56	71	1,8	118	45	12
4148287	VDS202A10716	4142840	VDS402A10716	10,716	.4219	27/64	—	56	71	1,8	118	45	12
4148288	VDS202A10800	4142842	VDS402A10800	10,800	.4252	—	—	56	71	1,8	118	45	12
4148289	VDS202A10900	4142855	VDS402A10900	10,900	.4291	—	—	56	71	1,9	118	45	12
4148290	VDS202A11000	4142857	VDS402A11000	11,000	.4331	—	—	56	71	1,9	118	45	12
4148291	VDS202A11100	4142858	VDS402A11100	11,100	.4370	—	—	56	71	1,9	118	45	12
4148292	VDS202A11113	4142861	VDS402A11113	11,113	.4375	7/16	—	56	71	1,9	118	45	12
4148293	VDS202A11200	4142862	VDS402A11200	11,200	.4409	—	—	56	71	1,9	118	45	12
4148294	VDS202A11300	4142873	VDS402A11300	11,300	.4449	—	—	56	71	1,9	118	45	12
4148295	VDS202A11400	4142874	VDS402A11400	11,400	.4488	—	—	56	71	2,0	118	45	12
4148296	VDS202A11500	4142875	VDS402A11500	11,500	.4528	—	—	56	71	2,0	118	45	12
4148297	VDS202A11509	4142876	VDS402A11509	11,509	.4531	29/64	—	56	71	2,0	118	45	12
4148298	VDS202A11600	4142877	VDS402A11600	11,600	.4567	—	—	56	71	2,0	118	45	12
4148299	VDS202A11700	4142878	VDS402A11700	11,700	.4606	—	—	56	71	2,0	118	45	12
4148300	VDS202A11800	4142879	VDS402A11800	11,800	.4646	—	—	56	71	2,0	118	45	12
4148301	VDS202A11900	4142880	VDS402A11900	11,900	.4685	—	—	56	71	2,0	118	45	12
4148302	VDS202A11908	4142881	VDS402A11908	11,908	.4688	15/32	—	56	71	2,0	118	45	12
4148313	VDS202A12000	4142882	VDS402A12000	12,000	.4724	—	—	56	71	2,1	118	45	12
4148314	VDS202A12100	4142913	VDS402A12100	12,100	.4764	—	—	60	77	2,1	124	45	14
4148315	VDS202A12200	4142914	VDS402A12200	12,200	.4803	—	—	60	77	2,1	124	45	14
4148316	VDS202A12300	4142915	VDS402A12300	12,300	.4843	—	—	60	77	2,1	124	45	14
4148317	VDS202A12304	4142916	VDS402A12304	12,304	.4844	31/64	—	60	77	2,1	124	45	14
4148318	VDS202A12400	4142917	VDS402A12400	12,400	.4882	—	—	60	77	2,1	124	45	14
4148319	VDS202A12500	4142918	VDS402A12500	12,500	.4921	—	—	60	77	2,1	124	45	14
4148320	VDS202A12600	4142919	VDS402A12600	12,600	.4961	—	—	60	77	2,2	124	45	14
4148321	VDS202A12700	4142920	VDS402A12700	12,700	.5000	1/2	—	60	77	2,2	124	45	14
4148322	VDS202A12800	4142921	VDS402A12800	12,800	.5039	—	—	60	77	2,2	124	45	14
4148343	VDS202A12900	4142922	VDS402A12900	12,900	.5079	—	—	60	77	2,2	124	45	14
4148344	VDS202A13000	4142953	VDS402A13000	13,000	.5118	—	—	60	77	2,2	124	45	14
4148345	VDS202A13096	4142954	VDS402A13096	13,096	.5156	33/64	—	60	77	2,3	124	45	14
4148346	VDS202A13100	4142955	VDS402A13100	13,100	.5157	—	—	60	77	2,3	124	45	14
4148347	VDS202A13200	4142956	VDS402A13200	13,200	.5197	—	—	60	77	2,3	124	45	14
4148348	VDS202A13300	4142957	VDS402A13300	13,300	.5236	—	—	60	77	2,3	124	45	14
4148349	VDS202A13400	4142958	VDS402A13400	13,400	.5276	—	—	60	77	2,3	124	45	14
4148350	VDS202A13500	4142959	VDS402A13500	13,500	.5315	—	—	60	77	2,3	124	45	14
4148351	VDS202A13600	4142960	VDS402A13600	13,600	.5354	—	—	60	77	2,3	124	45	14
4148352	VDS202A13700	4142961	VDS402A13700	13,700	.5394	—	—	60	77	2,4	124	45	14
4148353	VDS202A13800	4142962	VDS402A13800	13,800	.5433	—	—	60	77	2,4	124	45	14
4148354	VDS202A13891	4142983	VDS402A13891	13,891	.5469	35/64	—	60	77	2,4	124	45	14
4148355	VDS202A13900	4142984	VDS402A13900	13,900	.5472	—	—	60	77	2,4	124	45	14
4148356	VDS202A14000	4142985	VDS402A14000	14,000	.5512	—	—	60	77	2,4	124	45	14
4148357	VDS202A14100	4142986	VDS402A14100	14,100	.5551	—	—	63	83	2,4	133	48	16
4148358	VDS202A14200	4142987	VDS402A14200	14,200	.5591	—	—	63	83	2,5	133	48	16
4148359	VDS202A14288	4142988	VDS402A14288	14,288	.5625	9/16	—	63	83	2,5	133	48	16
4148360	VDS202A14300	4142989	VDS402A14300	14,300	.5630	—	—	63	83	2,5	133	48	16
4148361	VDS202A14400	4142990	VDS402A14400	14,400	.5669	—	—	63	83	2,5	133	48	16
4148362	VDS202A14500	4142991	VDS402A14500	14,500	.5709	—	—	63	83	2,5	133	48	16
4148363	VDS202A14600	4142992	VDS402A14600	14,600	.5748	—	—	63	83	2,5	133	48	16

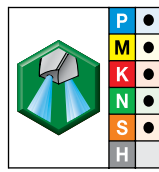
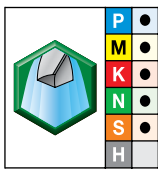
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Solid Carbide Drills

VariDrill™ • Steel, Stainless Steel, Cast Iron, Aluminum, and High-Temp Alloys • 5 x D



(VDS202A • VDS402A • 5 x D — continued)



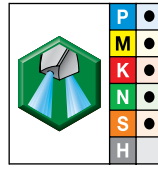
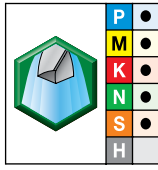
- first choice
- alternate choice

D1 diameter

grade WU25PD TiAlN		grade WU25PD TiAlN		D1 diameter				L4 max	L3	L5	L	LS	D
order #	catalog #	order #	catalog #	mm	in	fraction	wire size						
4148364	VDS202A14684	4143013	VDS402A14684	14,684	.5781	37/64	—	63	83	2,5	133	48	16
4148365	VDS202A14700	4143014	VDS402A14700	14,700	.5787	—	—	63	83	2,5	133	48	16
4148366	VDS202A14800	4143015	VDS402A14800	14,800	.5827	—	—	63	83	2,6	133	48	16
4148367	VDS202A14900	4143016	VDS402A14900	14,900	.5866	—	—	63	83	2,6	133	48	16
4148368	VDS202A15000	4143017	VDS402A15000	15,000	.5906	—	—	63	83	2,6	133	48	16
4148369	VDS202A15083	4143018	VDS402A15083	15,083	.5938	19/32	—	63	83	2,6	133	48	16
4148370	VDS202A15100	4143019	VDS402A15100	15,100	.5945	—	—	63	83	2,6	133	48	16
4148371	VDS202A15200	4143020	VDS402A15200	15,200	.5984	—	—	63	83	2,6	133	48	16
4148372	VDS202A15300	4143021	VDS402A15300	15,300	.6024	—	—	63	83	2,6	133	48	16
4148373	VDS202A15400	4143022	VDS402A15400	15,400	.6063	—	—	63	83	2,7	133	48	16
4148374	VDS202A15479	4143033	VDS402A15479	15,479	.6094	39/64	—	63	83	2,7	133	48	16
4148375	VDS202A15500	4143034	VDS402A15500	15,500	.6102	—	—	63	83	2,7	133	48	16
4148376	VDS202A15600	4143035	VDS402A15600	15,600	.6142	—	—	63	83	2,7	133	48	16
4148377	VDS202A15700	4143036	VDS402A15700	15,700	.6181	—	—	63	83	2,7	133	48	16
4148378	VDS202A15800	4143037	VDS402A15800	15,800	.6220	—	—	63	83	2,7	133	48	16
4148379	VDS202A15875	4143038	VDS402A15875	15,875	.6250	5/8	—	63	83	2,7	133	48	16
4148380	VDS202A15900	4143039	VDS402A15900	15,900	.6260	—	—	63	83	2,8	133	48	16
4148381	VDS202A16000	4143040	VDS402A16000	16,000	.6299	—	—	63	83	2,8	133	48	16
4148382	VDS202A16100	4143041	VDS402A16100	16,100	.6339	—	—	71	93	2,8	143	48	18
4148383	VDS202A16200	4143042	VDS402A16200	16,200	.6378	—	—	71	93	2,8	143	48	18
4148384	VDS202A16271	4143053	VDS402A16271	16,271	.6406	41/64	—	71	93	2,8	143	48	18
4148385	VDS202A16300	4143054	VDS402A16300	16,300	.6417	—	—	71	93	2,8	143	48	18
4148386	VDS202A16400	4143055	VDS402A16400	16,400	.6457	—	—	71	93	2,8	143	48	18
4148387	VDS202A16500	4143056	VDS402A16500	16,500	.6496	—	—	71	93	2,9	143	48	18
4148388	VDS202A16600	4143057	VDS402A16600	16,600	.6535	—	—	71	93	2,9	143	48	18
4148389	VDS202A16670	4143058	VDS402A16670	16,670	.6563	21/32	—	71	93	2,9	143	48	18
4148390	VDS202A16700	4143059	VDS402A16700	16,700	.6575	—	—	71	93	2,9	143	48	18
4148391	VDS202A16800	4143060	VDS402A16800	16,800	.6614	—	—	71	93	2,9	143	48	18
4148392	VDS202A16900	4143061	VDS402A16900	16,900	.6654	—	—	71	93	2,9	143	48	18
4148393	VDS202A17000	4143062	VDS402A17000	17,000	.6693	—	—	71	93	2,9	143	48	18
4148394	VDS202A17100	4143073	VDS402A17100	17,100	.6732	—	—	71	93	3,0	143	48	18
4148395	VDS202A17200	4143074	VDS402A17200	17,200	.6772	—	—	71	93	3,0	143	48	18
4148396	VDS202A17300	4143075	VDS402A17300	17,300	.6811	—	—	71	93	3,0	143	48	18
4148397	VDS202A17400	4143076	VDS402A17400	17,400	.6850	—	—	71	93	3,0	143	48	18
4148398	VDS202A17463	4143077	VDS402A17463	17,463	.6875	11/16	—	71	93	3,0	143	48	18
4148399	VDS202A17500	4143078	VDS402A17500	17,500	.6890	—	—	71	93	3,0	143	48	18
4148400	VDS202A17600	4143079	VDS402A17600	17,600	.6929	—	—	71	93	3,1	143	48	18
4148401	VDS202A17700	4143080	VDS402A17700	17,700	.6969	—	—	71	93	3,1	143	48	18
4148402	VDS202A17800	4143081	VDS402A17800	17,800	.7008	—	—	71	93	3,1	143	48	18
4148403	VDS202A17859	4143082	VDS402A17859	17,859	.7031	45/64	—	71	93	3,1	143	48	18
4148404	VDS202A17900	4143093	VDS402A17900	17,900	.7047	—	—	71	93	3,1	143	48	18
4147921	VDS202A18000	4142803	VDS402A18000	18,000	.7087	—	—	71	93	3,1	143	48	18
4147922	VDS202A18100	4142804	VDS402A18100	18,100	.7126	—	—	77	101	3,1	153	50	20
4148303	VDS202A18200	4142805	VDS402A18200	18,200	.7165	—	—	77	101	3,2	153	50	20
4148304	VDS202A18258	4142806	VDS402A18258	18,258	.7188	23/32	—	77	101	3,2	153	50	20
4148305	VDS202A18300	4142807	VDS402A18300	18,300	.7205	—	—	77	101	3,2	153	50	20
4148306	VDS202A18400	4142808	VDS402A18400	18,400	.7244	—	—	77	101	3,2	153	50	20
4148307	VDS202A18500	4142809	VDS402A18500	18,500	.7283	—	—	77	101	3,2	153	50	20
4148308	VDS202A18600	4142810	VDS402A18600	18,600	.7323	—	—	77	101	3,2	153	50	20
4148309	VDS202A18654	4142811	VDS402A18654	18,654	.7344	47/64	—	77	101	3,2	153	50	20
4148310	VDS202A18700	4142812	VDS402A18700	18,700	.7362	—	—	77	101	3,2	153	50	20
4148311	VDS202A18800	4142824	VDS402A18800	18,800	.7402	—	—	77	101	3,3	153	50	20

(continued)

(VDS202A • VDS402A • 5 x D — continued)



- first choice
- alternate choice

grade WU25PD TiAlN		grade WU25PD TiAlN		D1 diameter				L4 max	L3	L5	L	LS	D
order #	catalog #	order #	catalog #	mm	in	fraction	wire size						
4148312	VDS202A18900	4142826	VDS402A18900	18,900	.7441	—	—	77	101	3,3	153	50	20
4148323	VDS202A19000	4142828	VDS402A19000	19,000	.7480	—	—	77	101	3,3	153	50	20
4148324	VDS202A19050	4142830	VDS402A19050	19,050	.7500	3/4	—	77	101	3,3	153	50	20
4148325	VDS202A19100	4142833	VDS402A19100	19,100	.7520	—	—	77	101	3,3	153	50	20
4148326	VDS202A19200	4142835	VDS402A19200	19,200	.7559	—	—	77	101	3,3	153	50	20
4148327	VDS202A19300	4142837	VDS402A19300	19,300	.7598	—	—	77	101	3,4	153	50	20
4148328	VDS202A19400	4142839	VDS402A19400	19,400	.7638	—	—	77	101	3,4	153	50	20
4148329	VDS202A19500	4142841	VDS402A19500	19,500	.7677	—	—	77	101	3,4	153	50	20
4148330	VDS202A19600	4142853	VDS402A19600	19,600	.7717	—	—	77	101	3,4	153	50	20
4148331	VDS202A19700	4142854	VDS402A19700	19,700	.7756	—	—	77	101	3,4	153	50	20
4148332	VDS202A19800	4142856	VDS402A19800	19,800	.7795	—	—	77	101	3,4	153	50	20
4148333	VDS202A19900	4142859	VDS402A19900	19,900	.7835	—	—	77	101	3,5	153	50	20
4148334	VDS202A20000	4142860	VDS402A20000	20,000	.7874	—	—	77	101	3,5	153	50	20

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

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 catalog 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.

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