

# TUNGALOY® STYLE INDEXABLE DRILLS

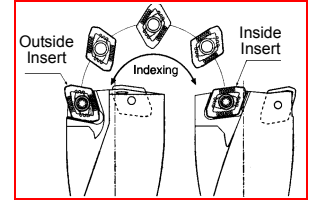
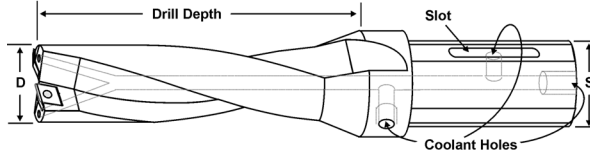
## INDEXABLE DRILLS Coolant Through

### QUADEX™

- FEATURES:**
- Exceptional reliability
  - Uses high positive XPMT inserts- Produces a great finish!
  - Manufactured from H-13 steel for greater tool strength
  - Economical-4 cutting edges per insert!
  - 3 different coolant ports
  - Reduce inventory- two insert grades cut everything!
  - Made in the USA!



Shank Dia: 0.750" to 1.500"  
Drill Dia: 0.687" to 2.000"  
Drill Depths: 1" to 6"



D		S		Drill Depth 1.00"		Drill Depth 2.00"		Drill Depth 3.00"		Drill Depth 4.00" and Over		
Drill Dia.	Shank Size	Part Number	Drill Price	Part Number	Drill Price	Part Number	Drill Price	Flute Len.	Part Number	Drill Price		
<b>0.750 - 0.812 Drill Diameter- 0.236 Insert I.C.</b>												
0.750	1.00	TD0750-1010-236	\$232.05	TD0750-2010-236	\$265.65							
0.812	1.00	TD0812-1010-236	\$232.05	TD0812-2010-236	\$265.65							
<b>0.875 - 1.000 Drill Diameter- 0.276 Insert I.C.</b>												
0.875	1.00	TD0875-1010-276	\$232.05	TD0875-2010-276	\$265.65							
0.875	1.25	TD0875-1012-276	\$232.05	-	-							
0.937	1.00	TD0937-1010-276	\$232.05	TD0937-2010-276	\$265.65							
1.000	1.00	TD1000-1010-276	\$239.40	TD1000-2010-276	\$271.95	-	-	4"	TD1000-4010-276	\$339.15		

**WHILE SUPPLIES LAST!**

<b>1.031 - 1.250 Drill Diameter- 0.335 Insert I.C.</b>												
1.031	1.25	TD1031-1012-335	\$239.40	TD1031-2012-335	\$271.95	TD1031-3012-335	\$305.55	4"	TD1031-4012-335	\$339.15		
1.062	1.25	TD1062-1012-335	\$239.40	TD1062-2012-335	\$271.95	TD1062-3012-335	\$305.55	4"	TD1062-4012-335	\$339.15		
1.125	1.25	TD1125-1012-335	\$239.40	TD1125-2012-335	\$271.95	TD1125-3012-335	\$305.55	4"	TD1125-4012-335	\$339.15		
1.187	1.25	TD1187-1012-335	\$239.40	TD1187-2012-335	\$271.95	TD1187-3012-335	\$305.55	4"	TD1187-4012-335	\$339.15		
1.250	1.25	TD1250-1012-335	\$245.70	TD1250-2012-335	\$279.30	TD1250-3012-335	\$319.20	4"	TD1250-4012-335	\$345.45		

<b>1.312 - 1.625 Drill Diameter- 0.441 Insert I.C.</b>												
1.312	1.25	TD1312-1012-441	\$245.70	TD1312-2012-441	\$279.30	TD1312-3012-441	\$319.20	4"	TD1312-4012-441	\$345.45		
1.375	1.25	TD1375-1012-441	\$245.70	TD1375-2012-441	\$279.30	TD1375-3012-441	\$319.20	4"	TD1375-4012-441	\$345.45		
1.437	1.25	TD1437-1012-441	\$245.70	TD1437-2012-441	\$279.30	TD1437-3012-441	\$319.20	4"	TD1437-4012-441	\$345.45		
1.500	1.25	TD1500-1012-441	\$259.35	TD1500-2012-441	\$285.60	TD1500-3012-441	\$325.50	4"	TD1500-4012-441	\$351.75		
1.562	1.25	TD1562-1012-441	\$259.35	TD1562-2012-441	\$285.60	TD1562-3012-441	\$325.50	4"	TD1562-4012-441	\$351.75		
1.625	1.25	TD1625-1012-441	\$259.35	TD1625-2012-441	\$285.60	TD1625-3012-441	\$325.50	4"	TD1625-4012-441	\$351.75		

<b>1.687 - 2.000 Drill Diameter- 0.591 Insert I.C.</b>												
1.687	1.25	TD1687-1012-591	\$259.35	TD1687-2012-591	\$285.60	TD1687-3012-591	\$325.50	4"	TD1687-4012-591	\$351.75		
1.750	1.25	TD1750-1012-591	\$265.65	TD1750-2012-591	\$291.90	TD1750-3012-591	\$331.80	4"	TD1750-4012-591	\$359.10		
1.750	1.50	-	-	-	-	-	-	4"	TD1750-4015-591	\$359.10		
1.750	1.25	-	-	-	-	-	-	5"	TD1750-5012-591	\$385.35		
1.750	1.50	-	-	-	-	-	-	5"	TD1750-5015-591	\$385.35		
1.812	1.25	TD1812-1012-591	\$265.65	TD1812-2012-591	\$291.90	TD1812-3012-591	\$331.80	4"	TD1812-4012-591	\$359.10		
1.875	1.25	TD1875-1012-591	\$265.65	TD1875-2012-591	\$291.90	TD1875-3012-591	\$331.80	4"	TD1875-4012-591	\$359.10		
1.937	1.25	TD1937-1012-591	\$265.65	TD1937-2012-591	\$291.90	TD1937-3012-591	\$331.80	4"	TD1937-4012-591	\$359.10		
2.000	1.25	TD2000-1012-591	\$339.15	TD2000-2012-591	\$385.35	TD2000-3012-591	\$425.25	4"	TD2000-4012-591	\$465.15		
2.000	1.50	-	-	-	-	-	-	4"	TD2000-4015-591	\$465.15		
2.000	1.25	-	-	-	-	-	-	5"	TD2000-5012-591	\$491.40		
2.000	1.500	-	-	-	-	-	-	5"	TD2000-5015-591	\$491.40		
2.000	1.250	-	-	-	-	-	-	6"	TD2000-6012-591	\$517.65		
2.000	1.500	-	-	-	-	-	-	6"	TD2000-6015-591	\$517.65		

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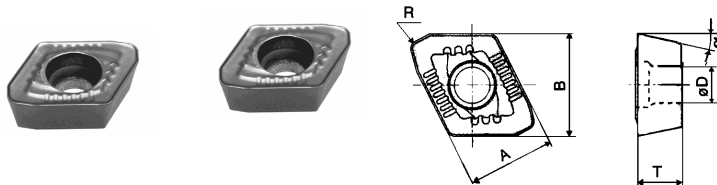
MRO & SAFETY  
FLAT STOCK/DRILL ROD

# TUNGALOY® STYLE INDEXABLE DRILL INSERTS

## XPMT INSERTS

### INSERT FEATURES:

- High positive XPMT inserts
- Increased insert thickness and new edge honing increases tool life.
- Economical! Four cutting edges per insert!
- 2 grades cut everything!
- Inserts sold in box quantities only



Drill Dia	I. C.	T	Length	Tungaloy Reference No.	AH120/AH6030	AH725	BOX QTY Price Each	Screws \$1.00	Wrench \$2.00
					For non-ferrous, Stainless, Hi Temp Alloys	For Steel, Alloy steel (High Feed, Alum)			
0.500 to 0.562	0.169	0.063	0.177	XPMT040104R	TO-169-AH120	TO-169-AH725	\$8.78	SC-03	TX-06F
0.625	0.203	0.094	0.213	XPMT050204R	TO-203-AH120	TO-203-AH725	\$10.45	SC-04	TX-06F
0.687 to 0.812	0.236	0.118	0.276	XPMT06X308R	TO-236-AH120	TO-236-AH725	\$10.45	SC-05	TX-07F
0.875 to 1.000	0.276	0.142	0.323	XPMT07H308R	TO-276-AH120	TO-276-AH725	\$11.30	SC-06	TX-08F
1.031 to 1.2500	0.335	0.156	0.390	XPMT08T308R	TO-335-AH120	TO-335-AH725	\$15.30	SC-07	TX-09F
1.312 to 1.625	0.441	0.187	0.492	XPMT110412R	TO-441-AH120	TO-441-AH725	\$15.30	SC-08	TX-15F
1.687 to 2.000	0.591	0.219	0.634	XPMT150512R	TO-591-AH120	TO-591-AH725	\$21.30	SC-09	TX-20F

## RECOMMENDED CUTTING CONDITIONS

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Work Materials	First Choice	High Feed	High-Speed	Troubleshooting			Cutting Speed Vc (SFM)	Series L/D	Feed (ipr)			
				Break-age	Wear	Surface Finish			0.500 - 0.687	0.750-1.00	1.062-1.250	1.312-2.00
Low Carbon Steels (C<3) JIS SS400, SM490, S25C, etc.	DS AH725	-	-	DW AH725	-	DW AH120	525-1050	2D,3D	.0015-.005	.002-.004	.002-.004	.002-.004
Carbon Steels (C<3) JIS S45C, S55C, etc.	DJ AH725	DW AH725	DS AH120	DW AH725	DJ T1015	DW AH740	250-800	2D,3D	.002-.005	.002-.006	.002-.006	.003-.007
Low alloy steels JIS SCM415, etc.	DS AH725	-	-	DW AH725	-	DW AH725	525-800	4D,5D	.002-.003	.002-.004	.002-.005	.003-.006
Alloy Steels JIS SCM440, SCr420, etc.	DJ AH725	DW AH725	DS AH120	DW AH725	DJ T1015	DW AH725	250-650	2D,3D	.002-.005	.002-.006	.002-.006	.003-.007
Stainless Steels Austenitic JIS SUS304, SUS316, etc.	DS AH725	-	-	DS AH725	-	DW AH120	325-650	4D,5D	.002-.003	.002-.004	.002-.005	.003-.006
Stainless steels Martensitic and Ferritic JIS SUS430, SUS416, etc.	DS AH725	-	-	DS AH725	-	DW AH120	325-725	2D,3D	.0015-.003	.002-.004	.002-.005	.002-.005
Stainless Steels Precipitation Hardening JIS SUS630, etc.	DS AH725	-	-	DS AH725	-	DW A H120	250-400	4D,5D	.002-.003	.002-.003	.002-.004	.002-.004
Gray Cast Irons JIS FC250, etc.	DJ T1015	DJ AH725	-	DJ AH725	-	DW AH740	250-800	2D,3D	.002-.005	.002-.006	.002-.007	.003-.008
Ductile Cast Irons JIS FCD700, etc.	DJ T1015	DJ AH725	-	DJ AH725	-	DW AH740	250-650	4D,5D	.002-.004	.002-.005	.002-.006	.003-.006
Aluminum Alloys JIS A2017, ADC12, etc.	DW AH725	-	-	-	-	-	650-1300	2D,3D	.004-.006	.006-.008	.006-.008	.006-.010
Super Alloys	DS AH120	-	-	-	-	-	100-200	4D,5D	.003-.005	.005-.006	.005-.006	.005-.008
Titanium	DS AH120	-	-	-	-	-	100-200	2D,3D	.002-.004	.002-.004	.002-.004	.002-.004
								4D,5D	.002-.004	.005-.004	.002-.003	.002-.003

## INDEXABLE DRILL TROUBLESHOOTING TIPS:

### Inserts Chipping or Breaking-

- **Inadequate coolant supply-** Check coolant volume and pressure
- **Speeds and feeds being used are incorrect-** Adjust speed and feeds according to tables provided
- **Insert screws may be damaged-** Check screw head and thread for nicks and burrs. Do not overtighten screws
- **Inserts not seating properly-** Make sure the inserts are seated properly in the pocket bottoms. Clean insert pockets whenever inserts are replaced or indexed making sure no nicks or burrs are present.
- **Misaligned drill/offcenter drill-** Check toolholder TIR. Replace or adjust TIR as necessary.
- **Drill not seating properly in tool holder, spindle or turret-** Make sure there are no nicks, burrs or chips in tool shank and/or holder. Use a feeler gauge to check parting line between tool shank and socket.
- **Too much tool deflection or lack of tool rigidity due to too much tool overhang-** Check if tool can be held shorter.



### Rough Cutting Action-Tool Makes Rumbling Noise and Deflects-

- **Excessive thrust, Feed rate too high-** Lower feed rate and/or increase speed.
- **Chips being recut-** Add more coolant flow.

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