

GOLDTWIST

WINTWIST

**HEAD CHANGEABLE MODULAR DRILLS
WITH 12 MM SCREW-IN CONNECTION**

- ▶ Wide range of applications
- ▶ Modular design with interchangeable heads
- ▶ Reduced tool change and set-up time
- ▶ Easy use on Multi-spindle and Swiss type machines
- ▶ Available in internal coolant type
 - ▶ Boring depth: 3xD
 - ▶ Diameter range Ø6 - 20,9 mm



TOPON

PRODUCT OVERVIEW

Screw-in connections for the modular WinTwist series.

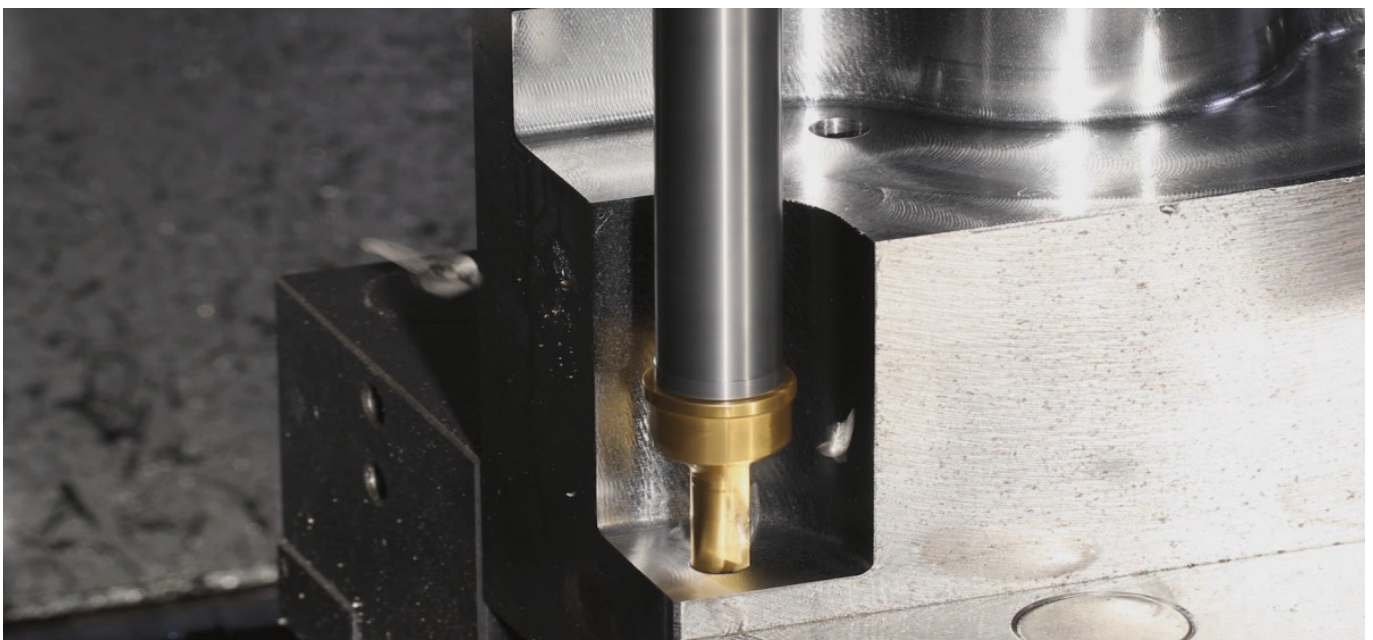
With the advantages of implementing complex shapes with high productivity, Multi-spindle and Swiss type machines are being applied across the industry landscape. Machining the various and complex shapes requires the capability of placing multiple tools in confined spaces. Additionally, the tools must be easy to mount and set.

Responding to these market demands comes the modular **WinTwist** line, which use the head changeable **GoldTwist** heads. Available in a wide variety of **TopON** shanks, the modular **WinTwist** line enables simplified set-up and the adaptability required for Multi-spindle and Swiss type machines.

The screw-in connection of the **WinTwist** series is compatible with many holders including HSK holders, C-Adapters, ER collets and Weldon shanks with 3 flat faces for multidirectional clamping.

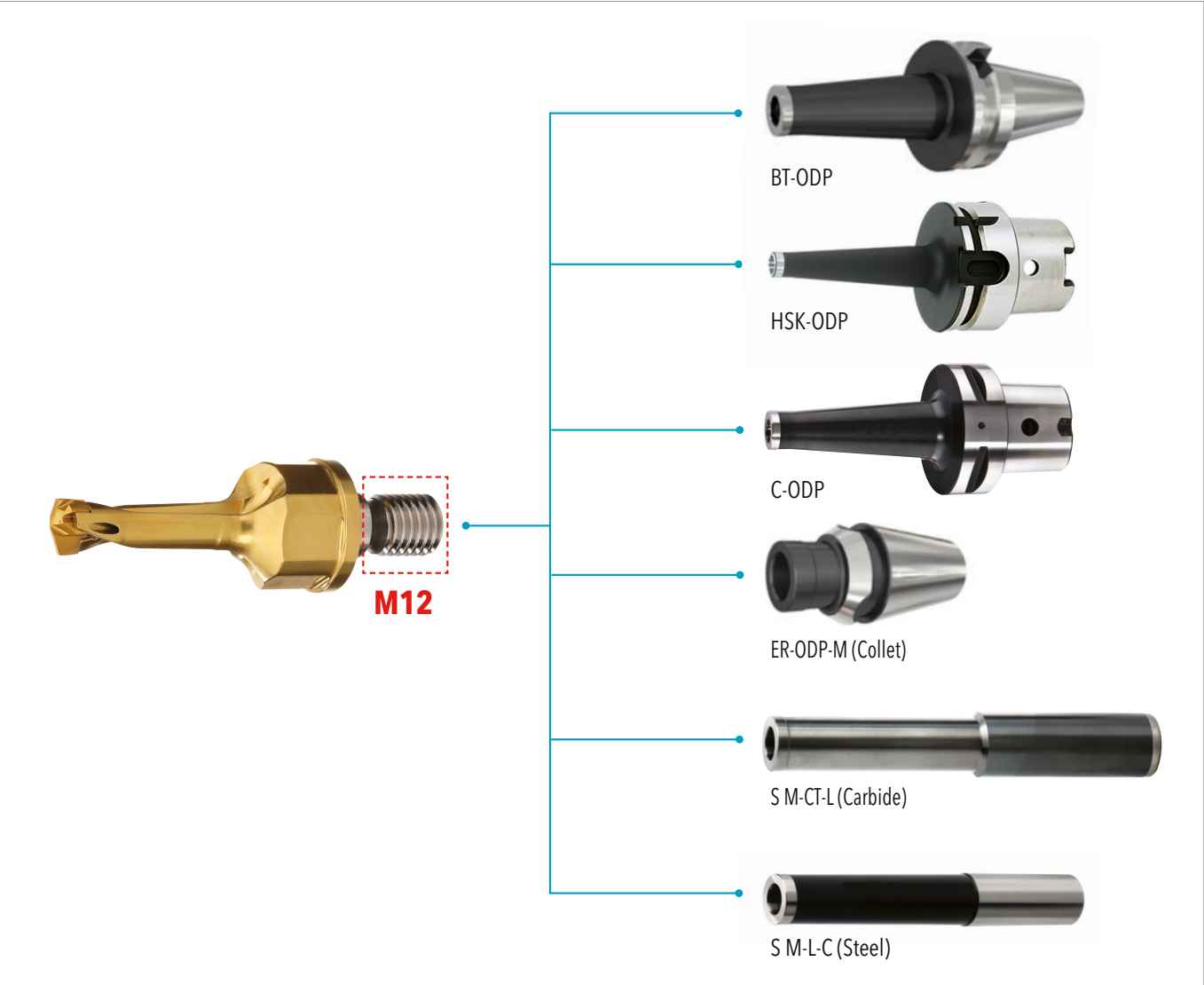
TECHNICAL FEATURES & ADVANTAGES

- Wide range of applications due to the **WinTwist** screw-in type mills and adaptors' compatibility and flexibility
- Available in **TopON** holders for side clamping
- Modular design with interchangeable heads means reduced tool change and set-up time
- Shorter tool lengths allow for easy use on Multi-spindle and Swiss type machines
- Compatibility with the existing **GoldTwist** heads means applicability depending on the operation and material type
- With internal coolant



MOUNTING LINE-UP

(Thread type: M12)



RECOMMENDED CUTTING DATA

Boring heads					
Boring head:	TNA_R01	TPA_R01	TMA_R01	TKA_R01	TPF - _R01
Geometry for:	Aluminum machining	general steel machining	stainless steel machining	cast iron machining	flat ground
Boring heads					
Boring head:	TPC_R01				
Geometry for:	self-centering				

ISO	material	cutting speed V _c [m/min]	feed rate f _u [mm]						1 st choice grade / geometry
			6,0 - 9,9	10,0 - 11,9	12,0 - 13,9	14,0 - 15,9	16,0 - 19,9	20,0 - 25,9	
P	unalloyed steel	70 - 140	0,09 - 0,22	0,15 - 0,28	0,18 - 0,30	0,20 - 0,35	0,25 - 0,45	0,25 - 0,45	IN2505 / TPA
	alloyed steel 800 N/mm ²	50 - 110	0,09 - 0,25	0,14 - 0,28	0,16 - 0,32	0,18 - 0,35	0,23 - 0,40	0,25 - 0,45	IN2505 / TPA
	alloyed steel 1100 N/mm ²	40 - 80	0,09 - 0,20	0,12 - 0,22	0,14 - 0,25	0,16 - 0,28	0,18 - 0,30	0,22 - 0,33	IN2505 / TPA
M	stainless steel	30 - 70	0,10 - 0,15	0,12 - 0,18	0,14 - 0,20	0,16 - 0,24	0,18 - 0,26	0,20 - 0,28	IN2505 / TMA
K	gray cast iron	80 - 160	0,12 - 0,30	0,20 - 0,35	0,25 - 0,40	0,30 - 0,45	0,35 - 0,55	0,35 - 0,60	IN2505 / TKA
	nodular cast iron	90 - 180	0,12 - 0,30	0,20 - 0,35	0,25 - 0,40	0,30 - 0,45	0,35 - 0,55	0,35 - 0,60	IN2505 / TKA
N	aluminum	90 - 220	0,20 - 0,35	0,25 - 0,35	0,30 - 0,45	0,35 - 0,50	0,40 - 0,60	0,45 - 0,70	IN05S / TNA
S	high temperature alloys	20 - 60	0,06 - 0,11	0,08 - 0,13	0,10 - 0,15	0,12 - 0,18	0,12 - 0,20	0,14 - 0,22	IN2505 / TMA
	titanium alloys	20 - 50	0,06 - 0,12	0,08 - 0,15	0,10 - 0,18	0,12 - 0,20	0,14 - 0,22	0,16 - 0,24	IN2505 / TMA
H	hard machining < 54 HRC	20 - 50	0,06 - 0,12	0,08 - 0,15	0,10 - 0,18	0,12 - 0,20	0,14 - 0,22	0,16 - 0,24	IN2505 / TPA
	hard machining < 63 HRC	20 - 50	0,06 - 0,12	0,08 - 0,15	0,10 - 0,18	0,12 - 0,20	0,14 - 0,22	0,16 - 0,24	IN2505 / TPA

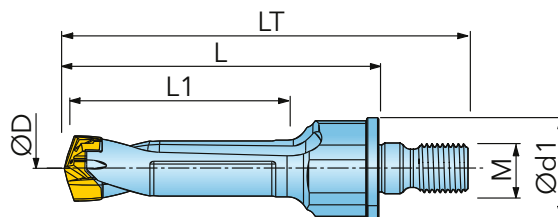
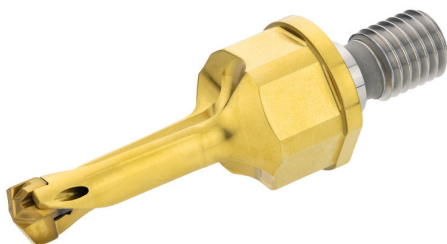
The indicated data are guide values, which can deviate according to your application.
The optimum chip shape is generated by variation of cutting speed and feed rate.

TIPS

- When drill retracts from borehole a disc drops down, so at rotating workpieces a risk of accidents exists.
Please take care for respective safety measures!
- At through holes take care, that the drill head is guided when the drill drops out.
- For drills with L/D = 8 and 12xD use lower feed rates, if necessary reduce lower feed rate by 50 % for spot-drilling.
- If necessary use pilot boring for drills with L/D = 8 and 12xD.
- Drill must always be supplied with enough coolant via internal coolant supply to ensure an optimum chip flow.
- For drilling with TPFxxxxR01 head please use the lower feed rate values (f_u).

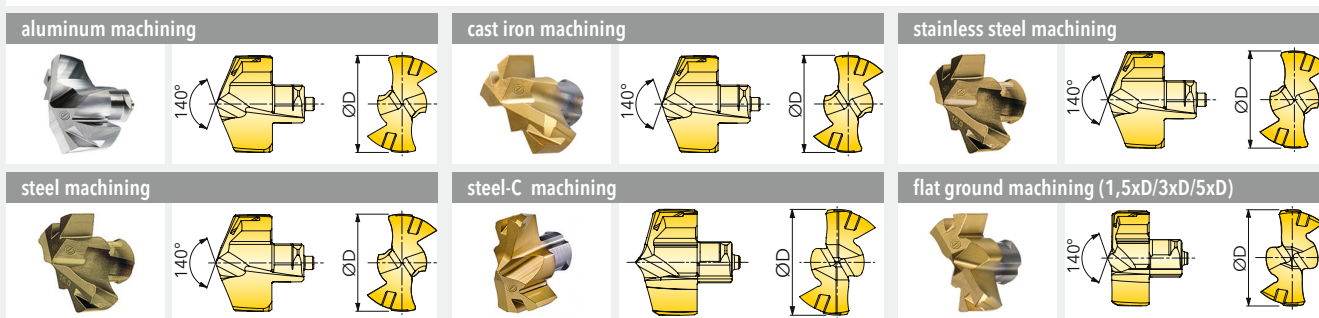
WINTWIST EXCHANGEABLE HEAD DRILL 3D ...X Ø6,0-Ø20,9

WITH SCREW-IN TYPE CONNECTION



Designation	D min.	D max.	d1	LT	L	L1	M	Z	Bs	wrench	IK	kg
TD0600018X7R00	6,0	6,4	25	64,0	42,0	19,0	M12	2	6	KTD6.0-9.9	✓	0,075
TD0650020X7R00	6,5	6,9	25	66,3	44,3	20,7	M12	2	6,5	KTD6.0-9.9	✓	0,100
TD0700021X7R00	7,0	7,4	25	67,6	45,6	22,0	M12	2	7	KTD6.0-9.9	✓	0,105
TD0750023X7R00	7,5	7,9	25	69,6	47,6	23,6	M12	2	7,5	KTD6.0-9.9	✓	0,105
TD0800024X7R00	8,0	8,4	25	71,4	49,4	25,2	M12	2	8	KTD6.0-9.9	✓	0,105
TD0850026X7R00	8,5	8,9	25	72,4	50,4	26,8	M12	2	8,5	KTD6.0-9.9	✓	0,105
TD0900027X7R00	9,0	9,4	25	74,8	52,8	28,4	M12	2	9	KTD6.0-9.9	✓	0,075
TD0950029X7R00	9,5	9,9	25	76,8	54,8	29,9	M12	2	9,5	KTD6.0-9.9	✓	0,110
TD1000030X7R00	10,0	10,4	25	78,2	56,2	31,5	M12	2	10	KTD10.0-19.9	✓	0,115
TD1050032X7R00	10,5	10,9	25	80,2	58,2	33,1	M12	2	10,5	KTD10.0-19.9	✓	0,110
TD1100033X7R00	11,0	11,4	25	81,6	59,6	34,7	M12	2	11	KTD10.0-19.9	✓	0,110
TD1150035X7R00	11,5	11,9	25	83,6	61,6	36,3	M12	2	11,5	KTD10.0-19.9	✓	0,110
TD1200036X7R00	12,0	12,4	25	85,0	63,0	37,8	M12	2	12	KTD10.0-19.9	✓	0,124
TD1250038X7R00	12,5	12,9	25	86,0	64,0	39,4	M12	2	12,5	KTD10.0-19.9	✓	0,115
TD1300039X7R00	13,0	13,4	25	88,6	66,6	41,0	M12	2	13	KTD10.0-19.9	✓	0,120
TD1350041X7R00	13,5	13,9	25	90,6	68,6	42,6	M12	2	13,5	KTD10.0-19.9	✓	0,130
TD1400042X7R00	14,0	14,4	25	92,2	70,2	44,1	M12	2	14	KTD10.0-19.9	✓	0,125
TD1450044X7R00	14,5	14,9	25	94,2	72,2	45,7	M12	2	14,5	KTD10.0-19.9	✓	0,135
TD1500045X7R00	15,0	15,9	25	95,7	73,7	47,3	M12	2	15	KTD10.0-19.9	✓	0,145
TD1600048X7R00	16,0	16,9	25	99,3	77,3	50,4	M12	2	16	KTD10.0-19.9	✓	0,140
TD1700051X7R00	17,0	17,9	25	102,9	80,9	53,6	M12	2	17	KTD10.0-19.9	✓	0,155
TD1800054X7R00	18,0	18,9	25	106,5	84,5	56,7	M12	2	18	KTD10.0-19.9	✓	0,165
TD1900057X7R00	19,0	19,9	25	110,0	88,0	59,9	M12	2	19	KTD10.0-19.9	✓	0,180
TD2000060X7R00	20,0	20,9	25	113,6	91,6	63	M12	2	20	KTD20.0-26.9	✓	0,210

DRILL HEADS FOR WINTWIST/GOLDT WIST DRILLS



D	Designation						grade
	aluminum	cast iron	stainless steel	steel	steel-C	flat ground	
6,0	TNA0600R01						IN 05S
6,0		TKA0600R01	TMA0600R01	TPA0600R01	TPC0600R01		IN 2505
6,1		TKA0610R01	TMA0610R01	TPA0610R01			IN 2505
6,2		TKA0620R01	TMA0620R01	TPA0620R01			IN 2505
6,3		TKA0630R01	TMA0630R01	TPA0630R01			IN 2505
6,4		TKA0640R01	TMA0640R01	TPA0640R01			IN 2505
6,5	TNA0650R01						IN 05S
6,5		TKA0650R01	TMA0650R01	TPA0650R01	TPC0650R01		IN 2505
6,6		TKA0660R01	TMA0660R01	TPA0660R01			IN 2505
6,7		TKA0670R01	TMA0670R01	TPA0670R01			IN 2505
6,8	TNA0680R01						IN 05S
6,8		TKA0680R01	TMA0680R01	TPA0680R01	TPC0680R01		IN 2505
6,9		TKA0690R01	TMA0690R01	TPA0690R01			IN 2505
7,0	TNA0700R01						IN 05S
7,0		TKA0700R01	TMA0700R01	TPA0700R01	TPC0700R01	TPF0700R01	IN 2505
7,1		TKA0710R01	TMA0710R01	TPA0710R01			IN 2505
7,2		TKA0720R01	TMA0720R01	TPA0720R01			IN 2505
7,3		TKA0730R01	TMA0730R01	TPA0730R01			IN 2505
7,4		TKA0740R01	TMA0740R01	TPA0740R01			IN 2505
7,5	TNA0750R01						IN 05S
7,5		TKA0750R01	TMA0750R01	TPA0750R01	TPC0750R01	TPF0750R01	IN 2505
7,6		TKA0760R01	TMA0760R01	TPA0760R01			IN 2505
7,7		TKA0770R01	TMA0770R01	TPA0770R01			IN 2505
7,8		TKA0780R01	TMA0780R01	TPA0780R01			IN 2505
7,9		TKA0790R01	TMA0790R01	TPA0790R01			IN 2505
8,0	TNA0800R01						IN 05S
8,0		TKA0800R01	TMA0800R01	TPA0800R01	TPC0800R01	TPF0800R01	IN 2505
8,1		TKA0810R01	TMA0810R01	TPA0810R01			IN 2505
8,2		TKA0820R01	TMA0820R01	TPA0820R01			IN 2505
8,3		TKA0830R01	TMA0830R01	TPA0830R01			IN 2505
8,4		TKA0840R01	TMA0840R01	TPA0840R01			IN 2505
8,5	TNA0850R01						IN 05S
8,5		TKA0850R01	TMA0850R01	TPA0850R01	TPC0850R01	TPF0850R01	IN 2505
8,6		TKA0860R01	TMA0860R01	TPA0860R01			IN 2505
8,7		TKA0870R01	TMA0870R01	TPA0870R01			IN 2505
8,8		TKA0880R01	TMA0880R01	TPA0880R01			IN 2505
8,9		TKA0890R01	TMA0890R01	TPA0890R01			IN 2505
9,0	TNA0900R01						IN 05S
9,0		TKA0900R01	TMA0900R01	TPA0900R01	TPC0900R01	TPF0900R01	IN 2505
9,1		TKA0910R01	TMA0910R01	TPA0910R01			IN 2505

DRILL HEADS FOR WINTWIST/GOLDT WIST DRILLS

D	Designation						grade
	aluminum	cast iron	stainless steel	steel	steel-C	flat ground	
9,2		TKA0920R01	TMA0920R01	TPA0920R01			IN 2505
9,3		TKA0930R01	TMA0930R01	TPA0930R01			IN 2505
9,4		TKA0940R01	TMA0940R01	TPA0940R01			IN 2505
9,5	TNA0950R01						IN 05S
9,5		TKA0950R01	TMA0950R01	TPA0950R01	TPC0950R01	TPF0950R01	IN 2505
9,6		TKA0960R01	TMA0960R01	TPA0960R01			IN 2505
9,7		TKA0970R01	TMA0970R01	TPA0970R01			IN 2505
9,8		TKA0980R01	TMA0980R01	TPA0980R01			IN 2505
9,9		TKA0990R01	TMA0990R01	TPA0990R01			IN 2505
10,0	TNA1000R01						IN 05S
10,0		TKA1000R01	TMA1000R01	TPA1000R01	TPC1000R01	TPF1000R01	IN 2505
10,1		TKA1010R01	TMA1010R01	TPA1010R01			IN 2505
10,2	TNA1020R01						IN 05S
10,2		TKA1020R01	TMA1020R01	TPA1020R01	TPC1020R01		IN 2505
10,3		TKA1030R01	TMA1030R01	TPA1030R01			IN 2505
10,4		TKA1040R01	TMA1040R01	TPA1040R01			IN 2505
10,5	TNA1050R01						IN 05S
10,5		TKA1050R01	TMA1050R01	TPA1050R01	TPC1050R01	TPF1050R01	IN 2505
10,6		TKA1060R01	TMA1060R01	TPA1060R01			IN 2505
10,7		TKA1070R01	TMA1070R01	TPA1070R01			IN 2505
10,8		TKA1080R01	TMA1080R01	TPA1080R01			IN 2505
10,9		TKA1090R01	TMA1090R01	TPA1090R01			IN 2505
11,0	TNA1100R01						IN 05S
11,0		TKA1100R01	TMA1100R01	TPA1100R01	TPC1100R01	TPF1100R01	IN 2505
11,1		TKA1110R01	TMA1110R01	TPA1110R01			IN 2505
11,2		TKA1120R01	TMA1120R01	TPA1120R01			IN 2505
11,3		TKA1130R01	TMA1130R01	TPA1130R01			IN 2505
11,4		TKA1140R01	TMA1140R01	TPA1140R01			IN 2505
11,5	TNA1150R01						IN 05S
11,5		TKA1150R01	TMA1150R01	TPA1150R01	TPC1150R01	TPF1150R01	IN 2505
11,6		TKA1160R01	TMA1160R01	TPA1160R01			IN 2505
11,7		TKA1170R01	TMA1170R01	TPA1170R01			IN 2505
11,8		TKA1180R01	TMA1180R01	TPA1180R01			IN 2505
11,9		TKA1190R01	TMA1190R01	TPA1190R01			IN 2505
12,0	TNA1200R01						IN 05S
12,0		TKA1200R01	TMA1200R01	TPA1200R01	TPC1200R01	TPF1200R01	IN 2505
12,1		TKA1210R01	TMA1210R01	TPA1210R01			IN 2505
12,2		TKA1220R01	TMA1220R01	TPA1220R01			IN 2505
12,3		TKA1230R01	TMA1230R01	TPA1230R01			IN 2505
12,4		TKA1240R01	TMA1240R01	TPA1240R01			IN 2505
12,5	TNA1250R01						IN 05S
12,5		TKA1250R01	TMA1250R01	TPA1250R01	TPC1250R01	TPF1250R01	IN 2505
12,6		TKA1260R01	TMA1260R01	TPA1260R01			IN 2505
12,7		TKA1270R01	TMA1270R01	TPA1270R01	TPC1270R01		IN 2505
12,8		TKA1280R01	TMA1280R01	TPA1280R01			IN 2505
12,9		TKA1290R01	TMA1290R01	TPA1290R01			IN 2505
13,0	TNA1300R01						IN 05S
13,0		TKA1300R01	TMA1300R01	TPA1300R01	TPC1300R01	TPF1300R01	IN 2505
13,1		TKA1310R01	TMA1310R01	TPA1310R01			IN 2505
13,2		TKA1320R01	TMA1320R01	TPA1320R01			IN 2505

DRILL HEADS FOR WINTWIST/GOLDT WIST DRILLS

D	Designation						
	aluminum	cast iron	stainless steel	steel	steel-C	flat ground	grade
13,3		TKA1330R01	TMA1330R01	TPA1330R01			IN 2505
13,4		TKA1340R01	TMA1340R01	TPA1340R01			IN 2505
13,5	TNA1350R01						IN 05S
13,5		TKA1350R01	TMA1350R01	TPA1350R01	TPC1350R01	TPF1350R01	IN 2505
13,6		TKA1360R01	TMA1360R01	TPA1360R01			IN 2505
13,7		TKA1370R01	TMA1370R01	TPA1370R01			IN 2505
13,8		TKA1380R01	TMA1380R01	TPA1380R01			IN 2505
13,9		TKA1390R01	TMA1390R01	TPA1390R01			IN 2505
14,0	TNA1400R01						IN 05S
14,0		TKA1400R01	TMA1400R01	TPA1400R01	TPC1400R01	TPF1400R01	IN 2505
14,1		TKA1410R01	TMA1410R01	TPA1410R01			IN 2505
14,2		TKA1420R01	TMA1420R01	TPA1420R01			IN 2505
14,3		TKA1430R01	TMA1430R01	TPA1430R01			IN 2505
14,4		TKA1440R01	TMA1440R01	TPA1440R01			IN 2505
14,5	TNA1450R01						IN 05S
14,5		TKA1450R01	TMA1450R01	TPA1450R01	TPC1450R01	TPF1450R01	IN 2505
14,6		TKA1460R01	TMA1460R01	TPA1460R01			IN 2505
14,7		TKA1470R01	TMA1470R01	TPA1470R01			IN 2505
14,8		TKA1480R01	TMA1480R01	TPA1480R01			IN 2505
14,9		TKA1490R01	TMA1490R01	TPA1490R01			IN 2505
15,0	TNA1500R01						IN 05S
15,0		TKA1500R01	TMA1500R01	TPA1500R01	TPC1500R01	TPF1500R01	IN 2505
15,1		TKA1510R01	TMA1510R01	TPA1510R01			IN 2505
15,2		TKA1520R01	TMA1520R01	TPA1520R01			IN 2505
15,3		TKA1530R01	TMA1530R01	TPA1530R01			IN 2505
15,4		TKA1540R01	TMA1540R01	TPA1540R01			IN 2505
15,5	TNA1550R01						IN 05S
15,5		TKA1550R01	TMA1550R01	TPA1550R01	TPC1550R01	TPF1550R01	IN 2505
15,6		TKA1560R01	TMA1560R01	TPA1560R01			IN 2505
15,7		TKA1570R01	TMA1570R01	TPA1570R01			IN 2505
15,8		TKA1580R01	TMA1580R01	TPA1580R01			IN 2505
15,9		TKA1590R01	TMA1590R01	TPA1590R01			IN 2505
16,0	TNA1600R01						IN 05S
16,0		TKA1600R01	TMA1600R01	TPA1600R01	TPC1600R01	TPF1600R01	IN 2505
16,1		TKA1610R01	TMA1610R01	TPA1610R01			IN 2505
16,2		TKA1620R01	TMA1620R01	TPA1620R01			IN 2505
16,3		TKA1630R01	TMA1630R01	TPA1630R01			IN 2505
16,4		TKA1640R01	TMA1640R01	TPA1640R01			IN 2505
16,5	TNA1650R01						IN 05S
16,5		TKA1650R01	TMA1650R01	TPA1650R01	TPC1650R01	TPF1650R01	IN 2505
16,6		TKA1660R01	TMA1660R01	TPA1660R01			IN 2505
16,7		TKA1670R01	TMA1670R01	TPA1670R01			IN 2505
16,8		TKA1680R01	TMA1680R01	TPA1680R01			IN 2505
16,9		TKA1690R01	TMA1690R01	TPA1690R01			IN 2505
17,0	TNA1700R01						IN 05S
17,0		TKA1700R01	TMA1700R01	TPA1700R01	TPC1700R01	TPF1700R01	IN 2505
17,1		TKA1710R01	TMA1710R01	TPA1710R01			IN 2505
17,2		TKA1720R01	TMA1720R01	TPA1720R01			IN 2505
17,3		TKA1730R01	TMA1730R01	TPA1730R01			IN 2505
17,4		TKA1740R01	TMA1740R01	TPA1740R01			IN 2505

DRILL HEADS FOR WINTWIST/GOLDT WIST DRILLS

D	Designation						grade
	aluminum	cast iron	stainless steel	steel	steel-C	flat ground	
17,5	TNA1750R01						IN 05S
17,5		TKA1750R01	TMA1750R01	TPA1750R01	TPC1750R01	TPF1750R01	IN 2505
17,6		TKA1760R01	TMA1760R01	TPA1760R01			IN 2505
17,7		TKA1770R01	TMA1770R01	TPA1770R01			IN 2505
17,8		TKA1780R01	TMA1780R01	TPA1780R01			IN 2505
17,9		TKA1790R01	TMA1790R01	TPA1790R01			IN 2505
18,0	TNA1800R01						IN 05S
18,0		TKA1800R01	TMA1800R01	TPA1800R01	TPC1800R01	TPF1800R01	IN 2505
18,1		TKA1810R01	TMA1810R01	TPA1810R01			IN 2505
18,2		TKA1820R01	TMA1820R01	TPA1820R01			IN 2505
18,3		TKA1830R01	TMA1830R01	TPA1830R01			IN 2505
18,4		TKA1840R01	TMA1840R01	TPA1840R01			IN 2505
18,5	TNA1850R01						IN 05S
18,5		TKA1850R01	TMA1850R01	TPA1850R01	TPC1850R01	TPF1850R01	IN 2505
18,6		TKA1860R01	TMA1860R01	TPA1860R01			IN 2505
18,7		TKA1870R01	TMA1870R01	TPA1870R01			IN 2505
18,8		TKA1880R01	TMA1880R01	TPA1880R01			IN 2505
18,9		TKA1890R01	TMA1890R01	TPA1890R01			IN 2505
19,0	TNA1900R01						IN 05S
19,0		TKA1900R01	TMA1900R01	TPA1900R01	TPC1900R01	TPF1900R01	IN 2505
19,1		TKA1910R01	TMA1910R01	TPA1910R01			IN 2505
19,2		TKA1920R01	TMA1920R01	TPA1920R01			IN 2505
19,3		TKA1930R01	TMA1930R01	TPA1930R01			IN 2505
19,4		TKA1940R01	TMA1940R01	TPA1940R01			IN 2505
19,5	TNA1950R01						IN 05S
19,5		TKA1950R01	TMA1950R01	TPA1950R01	TPC1950R01	TPF1950R01	IN 2505
19,6		TKA1960R01	TMA1960R01	TPA1960R01			IN 2505
19,7		TKA1970R01	TMA1970R01	TPA1970R01			IN 2505
19,8		TKA1980R01	TMA1980R01	TPA1980R01			IN 2505
19,9		TKA1990R01	TMA1990R01	TPA1990R01			IN 2505
20,0	TNA2000R01						IN 05S
20,0		TKA2000R01	TMA2000R01	TPA2000R01	TPC2000R01	TPF2000R01	IN 2505
20,1		TKA2010R01	TMA2010R01	TPA2010R01			IN 2505
20,2		TKA2020R01	TMA2020R01	TPA2020R01			IN 2505
20,3		TKA2030R01	TMA2030R01	TPA2030R01			IN 2505
20,4		TKA2040R01	TMA2040R01	TPA2040R01			IN 2505
20,5	TNA2050R01						IN 05S
20,5		TKA2050R01	TMA2050R01	TPA2050R01	TPC2050R01	TPF2050R01	IN 2505
20,6		TKA2060R01	TMA2060R01	TPA2060R01			IN 2505
20,7		TKA2070R01	TMA2070R01	TPA2070R01			IN 2505
20,8		TKA2080R01	TMA2080R01	TPA2080R01			IN 2505
20,9		TKA2090R01	TMA2090R01	TPA2090R01			IN 2505

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