



Leading Through Innovation

HSS-E & HSS-PM

YG TAP FORMING

YG INNENGEWINDEFORMER

- Tapping by Forming Soft Materials
- Gewindeherstellung durch Formen von weichen Materialien

Tapping by Forming Soft Materials

[illegible]

CARBIDE

HSS

YG TAP FORMING

TY703 SERIES

M

ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13

ISO MÉTRIQUE DIN13

ISO Metrico passo grosso DIN 13

Cold forming taps with oil grooves

Gewindeformer mit Schmiernuten

Suitable for threading soft materials with at least 8-10% elongation.

The pre-drilling holes are bigger than normal sized holes.

Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.

Die Kernlochbohrungen sind größer als normale Kernlöcher.

DIN 371

DIN 376

Hole type

3.0×D

60°

P

L1

L2

L3

ØD1

ØD2

KI

K

Ød1

GV

HSS-E

DIN 371/376

6HX

60°

C

TiAlN

p.B265

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	TiAlN	L1	L2	L3	ØD2	K	KI	Ød1
M2	× 0.4	TY703136	8	45	13	2.8	2.1	5	1.83
M2.2	× 0.45	TY703156	8	45	13	2.8	2.1	5	2
*M2.3	× 0.4	TY703196	8	45	13	2.8	2.1	5	2.1
M2.5	× 0.45	TY703176	9	50	15	2.8	2.1	5	2.3
*M2.6	× 0.45	TY703496	9	50	15	2.8	2.1	5	2.4
M3	× 0.5	TY703206	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	TY703226	12	56	20	4	3	6	3.25
M4	× 0.7	TY703246	13	63	21	4.5	3.4	6	3.7
M4.5	× 0.75	TY703266	14	70	25	6	4.9	8	4.15
M5	× 0.8	TY703286	15	70	25	6	4.9	8	4.65
M6	× 1.0	TY703316	17	80	30	6	4.9	8	5.55
M7	× 1.0	TY703346	17	80	30	7	5.5	8	6.55
M8	× 1.25	TY703366	20	90	35	8	6.2	9	7.4
M9	× 1.25	TY703396	20	90	35	9	7	10	8.4
M10	× 1.5	TY703426	22	100	39	10	8	11	9.3
M11	× 1.5	TY703466	22	100	40	8	6.2	9	10.3
M12	× 1.75	TY703506	24	110	44	9	7	10	11.2
M14	× 2.0	TY703546	26	110	44	11	9	12	13
M16	× 2.0	TY703606	27	110	44	12	9	12	15
M18	× 2.5	TY703656	30	125	50	14	11	14	16.8
M20	× 2.5	TY703706	32	140	54	16	12	15	18.8

Suitable for threading soft materials with at least 8-10% elongation.

The pre-drilling holes are bigger than normal sized holes.

Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.

Die Kernlochbohrungen sind größer als normale Kernlöcher.

Material groups

GV

HSS-E

DIN 371/376

6HX

60°

C

TiAlN

p.B265

Unit : mm

ISO

	P										M										K														
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel					Grey cast iron					Nodular cast iron					Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	15	16	17	18	19	20	17	18	19	20	21				
HRc	125	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21		10	26	3	25	21	10	26	3	25	21					
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	180	260	160	250	130	230	160	250	130	230					
Recommended	◎	◎	◎			◎					○	○	○																						

ISO

	N										S										H														
Material Description	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials					Heat Resistant Super Alloys					Titanium Alloys					Hardened steel				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	31	32	33	34	35	36	37	38	39	40	41			
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34	200	280	250	350	320	400Rm	1050Rm	550	630	400	550	550	630	400	550					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	550	630	400	550	550	630	400	550						
Recommended	◎	◎	○	○		○		◎																											

ISO

	P										M										K														
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel					Grey cast iron					Nodular cast iron					Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	15	16	17	18	19	20	17	18	19	20	21				
HRc	125	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21		10	26	3	25	21	10	26	3	25	21					
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	180	260	160	250	130	230	160	250	130	230					
Recommended	◎	◎	◎			◎					○	○	○																						

ISO

	N										S										H														
Material Description	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials					Heat Resistant Super Alloys					Titanium Alloys					Hardened steel				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	31	32	33	34	35	36	37	38	39	40	41			
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34	200	280	250	350	320	400Rm	1050Rm	550	630	400	550	550	630	400	550					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	550	630	400	550	550	630	400	550						
Recommended	◎	◎	○	○		○		◎																											

ISO

	P										M										K														
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel					Grey cast iron					Nodular cast iron					Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	15	16	17	18	19	20	17	18	19	20	21				
HRc	125	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21		10	26	3	25	21	10	26	3	25	21					
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	180	260	160	250	130	230	160	250	130	230					
Recommended	◎	◎	◎			◎					○	○	○																						

ISO

	N										S										H														
Material Description	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials					Heat Resistant Super Alloys					Titanium Alloys					Hardened steel				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	31	32	33	34	35	36	37	38	39	40	41			
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34	200	280	250	350	320	400Rm	1050Rm	550	630	400	550	550	630	400	550					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	550	630	400	550	550	630	400	550						
Recommended	◎	◎	○	○		○		◎																											

ISO

	P										M										K														
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel					Grey cast iron					Nodular cast iron					Malleable cast iron				
VDI 3323	1	2	3	4	5	6																													



YG TAP

FORMING

TE713 SERIES

M ISO metric coarse threads DIN 13

- 🇩🇪 Metrisches ISO-Gewinde DIN 13
- 🇫🇷 ISO MÉTRIQUE DIN13
- 🇮🇹 ISO Metrico passo grosso DIN 13

Cold forming taps with oil grooves
Gewindeformer mit Schmiernuten

- Suitable for threading soft materials with at least 8-10% elongation.
- The pre-drilling holes are bigger than normal sized holes.

- Aus bestem Werkstoff geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- Die Kernlochbohrungen sind größer als normale Kernlöcher.

Material groups **GV** **HSS-E** **DIN 371/376** **6GX** **60°** **C** **Nitride**  p.B265

Unit : mm									
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	KI	Ød1
M2.5	× 0.45	TE713176	9	50	15	2.8	2.1	5	2.3
M3	× 0.5	TE713206	11	56	18	3.5	2.7	6	2.8
M4	× 0.7	TE713246	13	63	21	4.5	3.4	6	3.7
M5	× 0.8	TE713286	15	70	25	6	4.9	8	4.65
M6	× 1.0	TE713316	17	80	30	6	4.9	8	5.55
M8	× 1.25	TE713366	20	90	35	8	6.2	9	7.4
M10	× 1.5	TE713426	22	100	39	10	8	11	9.3
M12	× 1.75	TE713506	24	110	44	9	7	10	11.2
M14	× 2.0	TE713546	26	110	44	11	9	12	13
M16	× 2.0	TE713606	27	110	44	12	9	12	15

- ▶ DIN 371(M2~M10) and DIN 376(M11~M20)
- ▶ * DIN profile not ISO

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YG TAP

FORMING

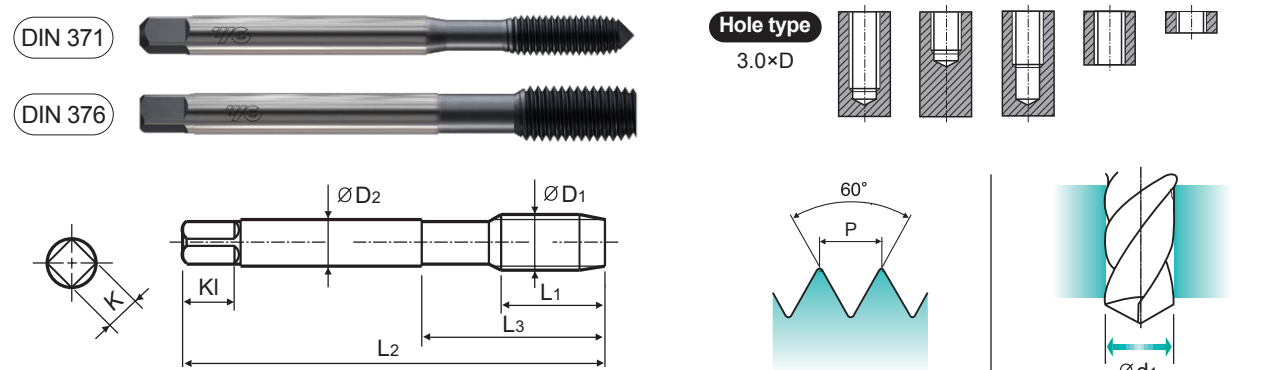
TE723 SERIES

M **ISO metric coarse threads DIN 13**

- 🇩🇪 **Metrisches ISO-Gewinde DIN 13**
- 🇫🇷 **ISO MÉTRIQUE DIN13**
- 🇮🇹 **ISO Metrico passo grosso DIN 13**

Cold forming taps
Gewindeformer

- Suitable for threading soft materials with at least 8-10% elongation.
 - The pre-drilling holes are bigger than normal sized holes.
- Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
 - Die Kernlochbohrungen sind größer als normale Kernlöcher.



Material groups **GV** **HSS-E** **DIN 371/376** **6HX** **60°** **C** **Nitride**  p.B265

									Unit : mm
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	KI	Ød1
M2	× 0.4	TE723136	8	45	13	2.8	2.1	5	1.83
M2.5	× 0.45	TE723176	9	50	15	2.8	2.1	5	2.3
M3	× 0.5	TE723206	11	56	18	3.5	2.7	6	2.8
M3.5	× 0.6	TE723226	12	56	20	4	3	6	3.25
M4	× 0.7	TE723246	13	63	21	4.5	3.4	6	3.7
M5	× 0.8	TE723286	15	70	25	6	4.9	8	4.65
M6	× 1.0	TE723316	17	80	30	6	4.9	8	5.55
M8	× 1.25	TE723366	20	90	35	8	6.2	9	7.4
M10	× 1.5	TE723426	22	100	39	10	8	11	9.3
M12	× 1.75	TE723506	24	110	44	9	7	10	11.2
M14	× 2.0	TE723546	26	110	44	11	9	12	13
M16	× 2.0	TE723606	27	110	44	12	9	12	15
M18	× 2.5	TE723656	30	125	50	14	11	14	16.8
M20	× 2.5	TE723706	32	140	54	16	12	15	18.8

- ▶ DIN 371(M2~M10) and DIN 376(M11~M20)
- ▶ * DIN profile not ISO

[illegible]



**YG TAP
FORMING**

TD733 SERIES

MF **ISO metric fine threads DIN 13**
 🇩🇪 **Metrisches ISO-Feingewinde DIN 13**
 🇫🇷 **ISO MÉTRIQUE PAS FINS DIN13**
 🇮🇹 **ISO Metrico passo fine DIN 13**

Cold forming taps with oil grooves
 Gewindeformer

- Suitable for threading soft materials with at least 8-10% elongation.
- The pre-drilling holes are bigger than normal sized holes.

- Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- Die Kernlochbohrungen sind größer als normale Kernlöcher.

Material groups

GV

HSS-E

DIN 374

6HX

60°

C

TiN



p.B265

Unit : mm									
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
∅D1	P	TiN	L1	L2	L3	∅D2	K	Kl	∅d1
M4	× 0.5	TD733256	10	63	21	2.8	2.1	5	3.75
M5	× 0.5	TD733296	11	70	25	3.5	2.7	6	4.75
M6	× 0.5	TD733336	13	80	30	4.5	3.4	6	5.75
M7	× 0.75	TD733356	14	80	30	5.5	4.3	7	6.65
M8	× 1.0	TD733376	17	90	36	6	4.9	8	7.5
M8	× 0.75	TD733386	14	80	30	6	4.9	8	7.65
M10	× 1.25	TD733436	22	100	40	7	5.5	8	9.4
M10	× 1.0	TD733446	18	90	36	7	5.5	8	9.5
M12	× 1.5	TD733516	22	100	40	9	7	10	11.25
M12	× 1.25	TD733526	22	100	40	9	7	10	11.4
M12	× 1.0	TD733536	18	100	40	9	7	10	11.5
M14	× 1.5	TD733556	22	100	40	11	9	12	13.25
M14	× 1.25	TD733566	22	100	40	11	9	12	13.4
M16	× 1.5	TD733616	22	100	40	12	9	12	15.25
M18	× 1.5	TD733676	25	110	44	14	11	14	17.25
M20	× 1.5	TD733726	25	125	50	16	12	15	19.25

◎: Excellent ○: Good

[illegible]


**YG TAP
FORMING**

TD704 SERIES

UNC Unified coarse threads
 🇩🇪 Unified Grobgewinde
 🇺🇸 UNC
 🇮🇹 Unificato passo grosso

Cold forming taps with oil grooves
 Gewindeformer mit Schmiernuten

- Suitable for threading soft materials with at least 8-10% elongation.
- The pre-drilling holes are bigger than normal sized holes.

- Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.
- Die Kernlochbohrungen sind größer als normale Kernlöcher.

Material groups **GV** **HSS-E** **DIN 371/376** **2BX** **60°** **C** **TiN**  p.B265

Unit : mm									
SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD ₁		TiN	L ₁	L ₂	L ₃	ØD ₂	K	KI	Ød ₁
#5	- 40 UNC	TD704202	11	56	18	3.5	2.7	6	2.87
#6	- 32 UNC	TD704242	12	56	20	4	3	6	3.1
#8	- 32 UNC	TD704282	13	63	21	4.5	3.4	6	3.8
#12	- 24 UNC	TD704362	16	80	30	6	4.9	8	4.95
1/4	- 20 UNC	TD704402	17	80	30	7	5.5	8	5.75
5/16	- 18 UNC	TD704442	20	90	35	8	6.2	9	7.25
3/8	- 16 UNC	TD704482	22	100	39	9	7	10	8.75
1/2	- 13 UNC	TD704562	25	110	44	9	7	10	11.7
9/16	- 12 UNC	TD704602	26	110	40	11	9	12	13.2
5/8	- 11 UNC	TD704642	27	110	44	12	9	12	14.7
3/4	- 10 UNC	TD704702	30	125	50	14	11	14	17.8

► DIN 371(#4~3/8) and DIN 376(7/16~3/4)

[illegible]

THREAD MILL

SYNCHRO TAP

PRIME TAP

COMBO TAP

YG TAP STEEL

YG TAP CHIP BREAKER

YG TAP INOX

YG TAP CAST IRON

YG TAP HARDENED STEEL

YG TAP Ti Ni

YG TAP ALU

YG TAP FORMING

YG TAP GENERAL

PIPE TAP

STI TAP

NUT TAP

UNC

Unified coarse threads

Unified Grobgewinde

UNC

Unificato passo grosso

Cold forming taps with oil grooves

Gewindeformer mit Schmiernuten

► Suitable for threading soft materials with at least 8-10% elongation.

► The pre-drilling holes are bigger than normal sized holes.

Geeignet zum Gewindeformen weicher Werkstoffe mit mindestens 8-10% Dehnung.

Die Kernlochbohrungen sind größer als normale Kernlöcher.

DIN 371

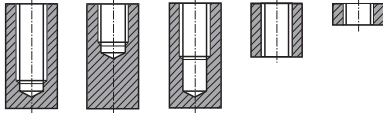


DIN 376

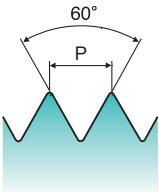


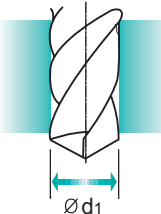
Hole type

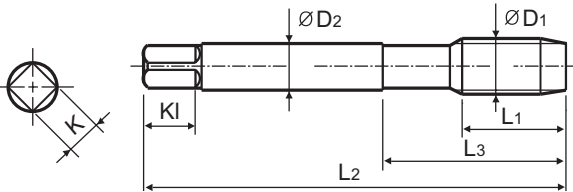
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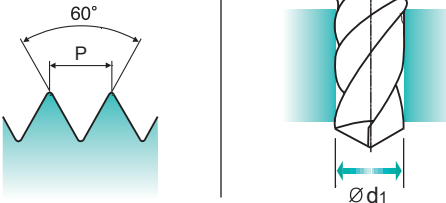


60°









Material groups

GV

HSS-E

DIN 371/376

2BX

60°

C

Nitride



p.B265

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1		Ni	L1	L2	L3	ØD2	K	Kl	Ød1
#5	- 40 UNC	TE704202	11	56	18	3.5	2.7	6	2.87
#8	- 32 UNC	TE704282	13	63	21	4.5	3.4	6	3.8
#12	- 24 UNC	TE704362	16	80	30	6	4.9	8	4.95
1/4	- 20 UNC	TE704402	17	80	30	7	5.5	8	5.75
5/16	- 18 UNC	TE704442	20	90	35	8	6.2	9	7.25
3/8	- 16 UNC	TE704482	22	100	39	9	7	10	8.75
7/16	- 14 UNC	TE704522	22	100	40	8	6.2	9	10.2

► DIN 371 (#4~3/8) and DIN 376(7/16~3/4)

CARBIDE

HSS

YG TAP FORMING

RECOMMENDED CUTTING CONDITIONS

EMPFOHLENE SCHNEIDKONDITIONEN

						TD703 TD733 TD704	TE703 TE733 TE704	TY703	TQ703	TD713	TE713	TQ723	TE723	TD723
ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min)									
P	1	Non-alloy steel	125		15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20
	2		190	13	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20
	3	Low alloy steel	250	25	12-18	12-18	12-18	12-18	12-18	12-18	12-18	12-18	12-18	12-18
	6		180	10	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
M	12	Stainless steel	200	15	10-13	7-10	10-13	7-10	10-13	7-10	7-10	7-10	7-10	10-13
	13		240	23	8-11	5-8	8-11	5-8	8-11	5-8	5-8	5-8	5-8	8-11
	14		180	10	6-8	4-6	6-8	4-6	6-8	4-6	4-6	4-6	4-6	6-8
N	21	Aluminum-wrought alloy	60		10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	22		100		10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	23	Aluminum-cast, alloyed	75		15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20
	24		90		10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15	10-15
	26	Copper and Copper Alloys (Bronze / Brass)	110		25-35	25-35	25-35	25-35	25-35	25-35	25-35	25-35	25-35	25-35
	28		100		15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20	15-20

YG-1 CO., LTD.

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B265

◎ : Excellent ○ : Good

ISO	P										M				K								
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230			
Recommended	◎	◎	◎			◎						○	○	○									
ISO	N										S							H					
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials	Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
HRc											15	30	25	38	34			55	60	42	55		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550		
Recommended	◎	◎	○	○		○		○															

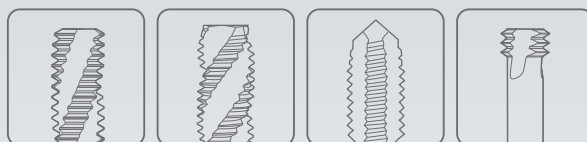
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Global Cutting Tool Leader **YG-1**



THREADING