



Leading Through Innovation

HSS-PM



SYNCHRO TAP

Synchro Gewindebohrer

- For High Speed Tapping on Rigid CNC Machine
- Für Hochgeschwindigkeits-Gewindebohren auf starren CNC-Maschinen

For High Speed Tapping on Rigid CNC Machine

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SYNCHRO TAP

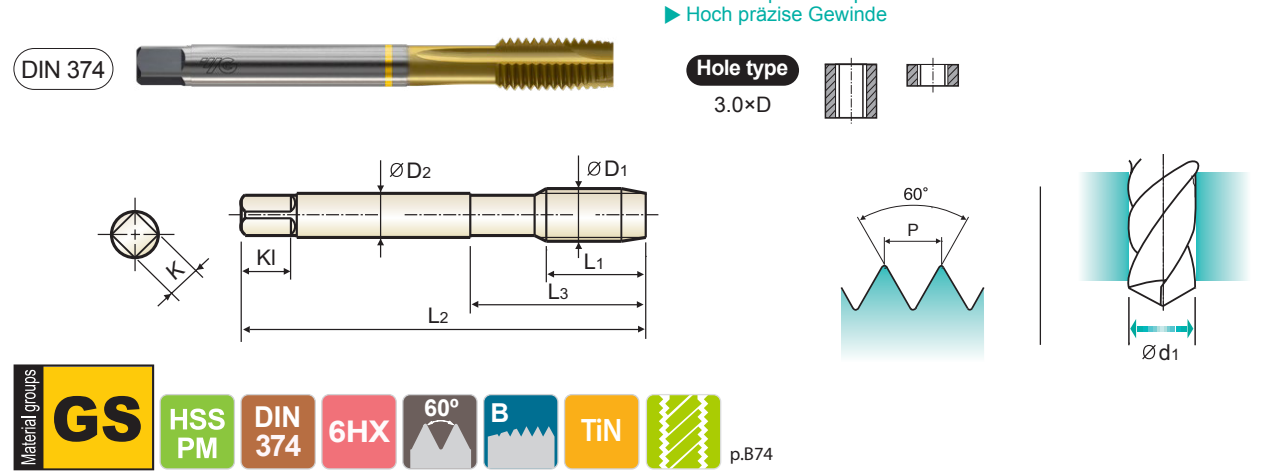
TTS34 SERIES

MF **ISO Metric Fine Threads DIN 13**

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

Machine taps
Maschinengewindebohrer

- | | |
|--|---|
| <ul style="list-style-type: none"> ▶ Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines ▶ Up to 3 times faster in tapping compared to conventional taps ▶ For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended ▶ High precision threads | <ul style="list-style-type: none"> ▶ Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgewindebohren auf starren CNC-Maschinen oder gleichwertige Maschinen ▶ Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern ▶ Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen ▶ Hoch präzise Gewinde |
|--|---|



										Unit : mm
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M8	× 1.0	TTS34376	10	90	36	6	4.9	8	3	7.0
M10	× 1.25	TTS34436	13	100	40	7	5.5	8	3	8.75
M10	× 1.0	TTS34446	10	90	40	7	5.5	8	3	9.0
M12	× 1.5	TTS34516	15	100	40	9	7	10	4	10.5
M12	× 1.25	TTS34526	13	100	40	9	7	10	4	10.75
M14	× 1.5	TTS34556	15	100	40	11	9	12	4	12.5
M16	× 1.5	TTS34616	15	100	40	12	9	12	4	14.5
M18	× 1.5	TTS34676	17	110	44	14	11	14	4	16.5
M20	× 1.5	TTS34726	17	125	50	16	12	15	4	18.5

► Coating (TiAlN) is available on your request.

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SYNCHRO TAP

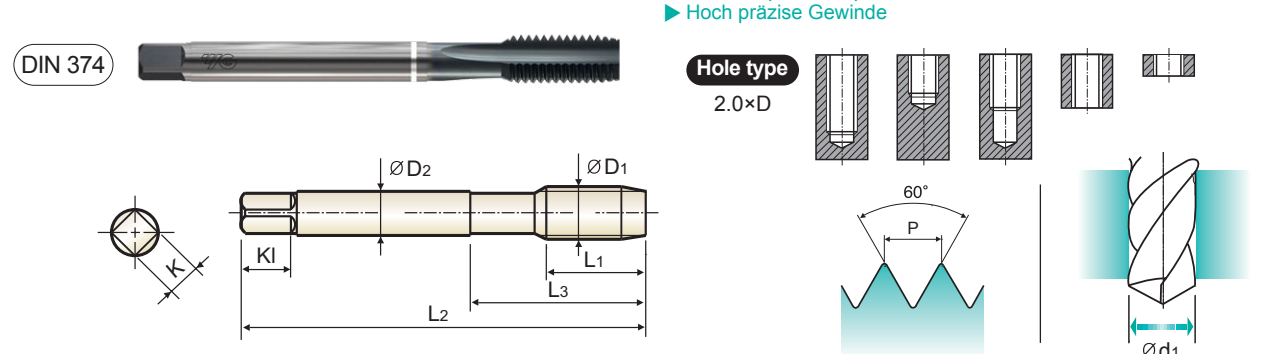
TKS36 SERIES

MF ISO Metric Fine Threads DIN 13

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

Machine taps
Maschinengewindebohrer

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- ▶ High precision threads



Material groups **GG** **HSS PM** **DIN 374** **6HX** **60°** **C** **TiCN**  p.B74

Unit : mm										
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M8	× 1.0	TKS36376	10	90	36	6	4.9	8	3	7.0
M10	× 1.25	TKS36436	13	100	40	7	5.5	8	4	8.75
M10	× 1.0	TKS36446	10	90	40	7	5.5	8	4	9.0
M12	× 1.25	TKS36526	13	100	40	9	7	10	4	10.75
M12	× 1.5	TKS36516	15	100	40	9	7	10	4	10.5
M16	× 1.5	TKS36616	15	100	40	12	9	12	4	14.5
M18	× 1.5	TKS36676	17	110	44	14	11	14	4	16.5
M20	× 1.5	TKS36726	17	125	50	16	12	15	4	18.5

- Coating (TiAlN) is available on your request.

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SYNCHRO TAP

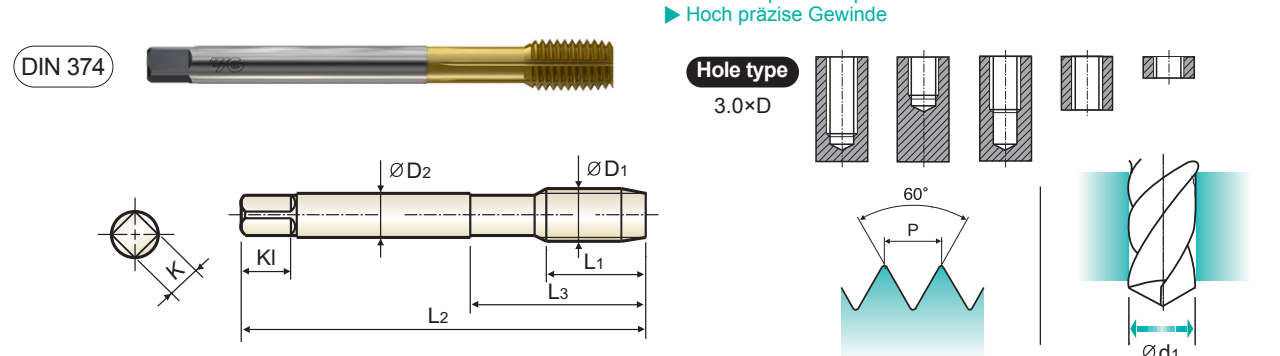
TTS38 SERIES

MF **ISO Metric Fine Threads DIN 13**

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

Machine taps
Maschinengewindebohrer

- | | |
|--|---|
| <ul style="list-style-type: none"> ▶ Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines ▶ Up to 3 times faster in tapping compared to conventional taps ▶ For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended ▶ High precision threads | <ul style="list-style-type: none"> ▶ Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgewindebohren auf starren CNC-Maschinen oder gleichwertige Maschinen ▶ Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern ▶ Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der Gewindequalität empfohlen ▶ Hoch präzise Gewinde |
|--|---|



Material groups

GV

HSS PM

DIN 374

6HX

60°

C

TiN

p.B74

										Unit : mm
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Number of Oil Groove	Tapping Drill Diameter
ØD ₁	P	TiN	L ₁	L ₂	L ₃	ØD ₂	K	Kl	Z	Ød ₁
M8	× 1.0	TTS38376	10	90	36	6	4.9	8	6	7.5
M10	× 1.25	TTS38436	13	100	40	7	5.5	8	6	9.4
M10	× 1.0	TTS38446	10	90	40	7	5.5	8	6	9.5
M12	× 1.25	TTS38526	13	100	40	9	7	10	6	11.4
M12	× 1.5	TTS38516	15	100	40	9	7	10	6	11.25
M14	× 1.5	TTS38556	15	100	40	11	9	12	8	13.25
M16	× 1.5	TTS38616	15	100	40	12	9	12	8	15.25
M18	× 1.5	TTS38676	17	110	44	14	11	14	8	17.25
M20	× 1.5	TTS38726	17	125	50	16	12	15	8	19.25

► Coating (TiAlN) is available on your request.

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SYNCHRO TAP

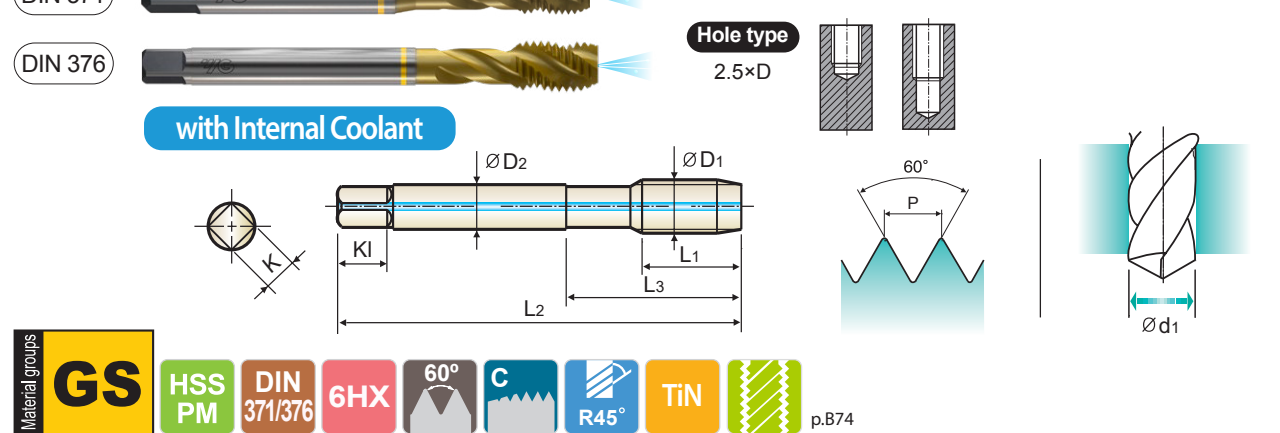
TTS41-IC SERIES

M **ISO Metric Coarse Threads DIN 13**

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

Machine taps
Maschinengewindebohrer

- ▶ Coated HSS-PM (Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
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 - ▶ For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
 - ▶ High precision threads



Unit : mm										
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M6	× 1.0	TTS41316IC	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	TTS41366IC	13	90	35	8	6.2	9	3	6.8
M10	× 1.25	TTS41426IC	15	100	39	10	8	11	3	8.5
M12	× 1.75	TTS41506IC	18	110	44	9	7	10	3	10.2
M14	× 2.0	TTS41546IC	20	110	52	11	9	12	3	12.0
M16	× 2.0	TTS41606IC	20	110	52	12	9	12	3	14.0
M18	× 2.5	TTS41656IC	25	125	66	14	11	14	4	15.5
M20	× 2.5	TTS41706IC	25	140	72	16	12	15	4	17.5

- DIN 371 (M3-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

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SYNCHRO TAP

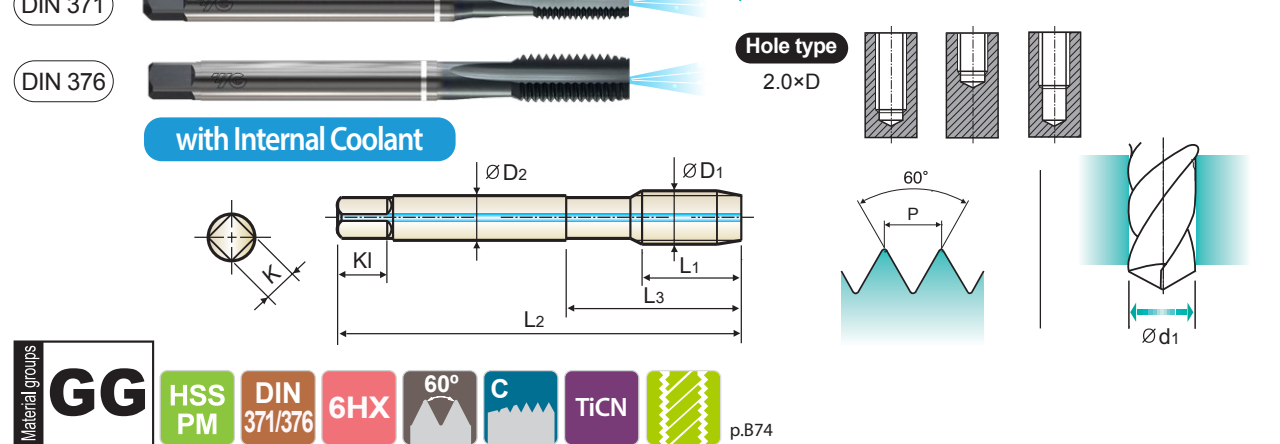
TKS43-IC SERIES

M **ISO Metric Coarse Threads DIN 13**

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

Machine taps
Maschinengewindebohrer

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 - ▶ High precision threads



Unit : mm										
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M6	× 1.0	TKS43316IC	10	80	30	6	4.9	8	3	5.0
M8	× 1.25	TKS43366IC	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	TKS43426IC	15	100	39	10	8	11	4	8.5
M12	× 1.75	TKS43506IC	18	110	44	9	7	10	4	10.2
M14	× 2.0	TKS43546IC	20	110	52	11	9	12	4	12.0
M16	× 2.0	TKS43606IC	20	110	52	12	9	12	4	14.0
M18	× 2.5	TKS43656IC	25	125	66	14	11	14	4	15.5
M20	× 2.5	TKS43706IC	25	140	72	16	12	15	4	17.5

- DIN 371 (M6-M10) and DIN 376 (M12-M20)
- Coating (TiAlN) is available on your request.

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SYNCHRO TAP

TTS45-RCP

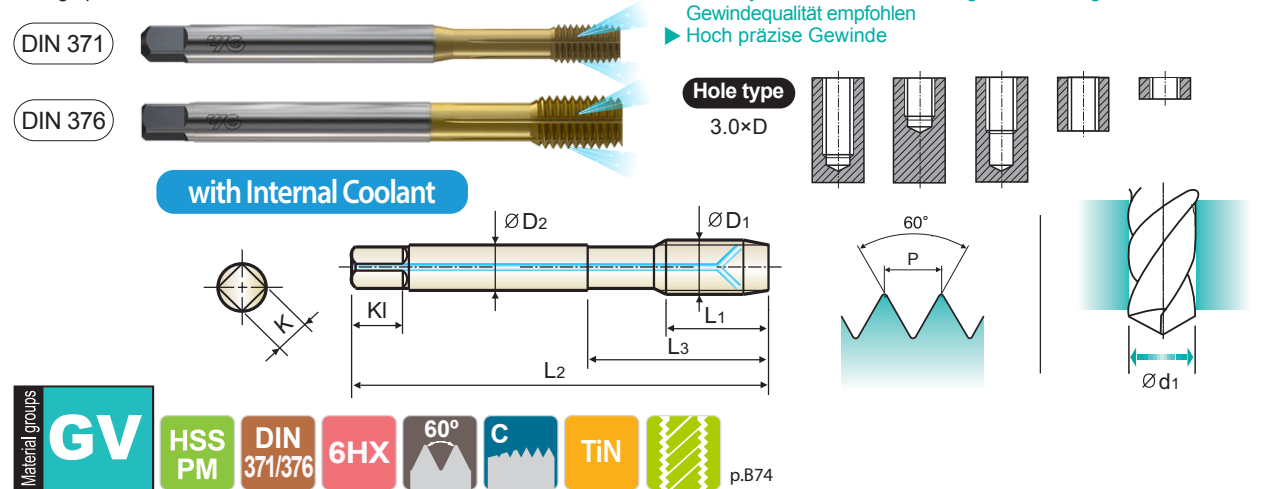
SERIES

M **ISO Metric Coarse Threads DIN 13**

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

Machine taps
Maschinengewindebohrer

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 - ▶ High precision threads
- ▶ Beschichtete HSS-PM-Gewindebohrer zum Hochgeschwindigkeitsgewindebohren auf starren CNC-Maschinen oder gleichwertige Maschinen
 - ▶ Bis zu dreimal schnelleres Gewindeschneiden als bei herkömmlichen Gewindebohrern
 - ▶ Beim Hochgeschwindigkeits-Gewindebohren wird die Verwendung eines Synchrofutters zur Erhöhung der Werkzeugstandzeit und der



										Unit : mm
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	Number of Oil Groove	Tapping Drill Diameter
ØD ₁	P	TiN	L ₁	L ₂	L ₃	ØD ₂	K	Kl	Z	Ød ₁
M5	× 0.8	TTS45286RCP	8	70	25	6	4.9	8	5	4.65
M6	× 1.0	TTS45316RCP	10	80	30	6	4.9	8	5	5.55
M8	× 1.25	TTS45366RCP	13	90	35	8	6.2	9	6	7.4
M10	× 1.5	TTS45426RCP	15	100	39	10	8	11	6	9.3
M12	× 1.75	TTS45506RCP	18	110	44	9	7	10	6	11.2
M14	× 2.0	TTS45546RCP	20	110	52	11	9	12	8	13.0
M16	× 2.0	TTS45606RCP	20	110	52	12	9	12	8	15.0
M18	× 2.5	TTS45656RCP	25	125	66	14	11	14	8	16.8
M20	× 2.5	TTS45706RCP	25	140	72	16	12	15	8	18.8

- ▶ DIN 371 (M5-M10) and DIN 376 (M12-M20)
- ▶ Coating (TiAlN) is available on your request.

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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

					TTS31,TTS32	TTS33,TTS34	TKS35,TKS36	TTS37,TTS38	TTS39
ISO	VDI 3323	Material Description	HB	HRC	Vc (m/min.)				
P	1	Non-alloy steel	125		41-46	41-46	41-46	41-46	30-35
	2		190	13	41-46	41-46	41-46	41-46	41-46
	3		250	25	35-40	35-40	35-40	35-40	35-40
	4		270	28	28-33	28-33	28-33	28-33	28-33
	5		300	32					
	6	Low alloy steel	180	10	28-33	28-33	28-33	28-33	28-33
	7		275	29	28-33	28-33	28-33	28-33	28-33
M	12	Stainless steel	200	15	18-23	18-23		18-23	18-23
	13		240	23	13-18	13-18		13-18	13-18
	14		180	10	10-14	10-14		10-14	10-14
K	15	Grey cast iron	180	10	28-33	28-33	28-33		
	16		260	26			28-33		
	17	Nodular cast iron	160	3	28-33	28-33	28-33		
	18		250	25			28-33		
	19	Malleable cast iron	130				28-33		
	20		230	21			28-33		
N	21	Aluminum-wrought alloy	60					28-33	28-33
	22		100					28-33	28-33
	23	Aluminum-cast, alloyed	75		41-46	41-46	30-35	41-46	41-46
	24		90		41-46	41-46	30-35	41-46	41-46
	25		130		30-35	30-35	30-35	30-35	30-35
	26	Copper and Copper Alloys (Bronze / Brass)	110		45-50	45-50			
	27		90						
	28		100		25-30	25-30		25-30	25-30

					TTS41-IC	TTS42-RCP	TKS43-IC	TKS44-RCP	TTS45-RCP
ISO	VDI 3323	Material Description	HB	HRC	Vc (m/min.)				
P	1	Non-alloy steel	125		41-57	41-57	41-57	41-57	41-57
	2		190	13	41-57	41-57	41-57	41-57	41-57
	3		250	25	35-50	35-50	35-50	35-50	35-50
	4		270	28	28-41	28-41	28-41	28-41	28-41
	5		300	32					
	6	Low alloy steel	180	10	28-41	28-41	28-41	28-41	28-41
	7		275	29	28-41	28-41	28-41	28-41	28-41
M	12	Stainless steel	200	15	18-28	18-28			18-28
	13		240	23	13-22	13-22			13-22
	14		180	10	10-17	10-17			10-17
K	15	Grey cast iron	180	10	28-41	28-41	28-41	28-41	
	16		260	26			28-41	28-41	
	17	Nodular cast iron	160	3	28-41	28-41	28-41	28-41	
	18		250	25			28-41	28-41	
	19	Malleable cast iron	130				28-41	28-41	
	20		230	21			28-41	28-41	
N	21	Aluminum-wrought alloy	60						28-41
	22		100						28-41
	23	Aluminum-cast, alloyed	75		41-57	41-57	30-43	30-43	41-57
	24		90		41-57	41-57	30-43	30-43	41-57
	25		130		30-43	30-43	30-43	30-43	30-43
	26	Copper and Copper Alloys (Bronze / Brass)	110		45-62	45-62			
	27		90						
	28		100		25-37	25-37			25-37