

THREADING

TECHNICAL INFO

Thread type

M	Metric-ISO threads coarse pitch
MF	Metric-ISO threads fine pitch
UNC	American Unified coarse threads
UNF	American Unified fine thread
BSW	Whitworth threads B.S.W.
G(BSP)	Whitworth pipe thread BSP.PI
EG-...	Helical Coil Threads

Material Groups

GS	Steels with good machinability $R_m < 850 \text{ N/mm}^2$
VG	Heat treated and heat-resistant steels $R_m < 850 \text{ N/mm}^2 \leq R_m \leq 1200 \text{ N/mm}^2$
HR	High alloyed steels $R_m > 1200 \text{ N/mm}^2$
VA	Satinless Steels
NW	Carbon steels with low contents of alloys $R_m < 700 \text{ N/mm}^2$
Ti	Titanium alloys
Ni	Nickel alloys
GV	Any material with at least 8~10% elongation
Al	Aluminum & Aluminum alloys
GG	Gray Cast Iron
Ms	Brass
MU	Multi-Purpose

Chamfer

Form B	With Gun-nose and Chamfer Lead 4~5 Thread
Form C	Chamfer Lead 2~3 Thread
Form D	Chamfer Lead 4~5 Thread
Form E	Chamfer Lead 4~5 Thread
LONG	Long Chamfer Lead for Nut Tap
I/III	2 Piece Set of Hand Tap
I/II/III	3 Piece Set of Hand Tap

Tool Material

HSS-PM	Powder Metallurgy High Speed Steel
HSS-E	5% Cobalt High Speed Steel
HSS	High Speed Steel
CARBIDE	Carbide

Surface Treatment

TiAlN	Titanium Aluminum Nitride Coating
TiN	Titanium Nitride Coating
TiCN	Titanium Carbon Nitride Coating
NI	Nitrided
VAP	Steam Tempered
Hardslick	TiAlN+WC/C Coating
Bright	Bright Finish

All Cutting Speed (Vc) parameters for specific materials in table are given in m/min

SELECTION GUIDE



GROUP					SHO40	SHO51	SHO53	SHO50	SCA04	SDA04	SCV04	SCA09	SDA09	SBA09	SCA06
PAGE with available sizes					22	22	22	22	22	22	22	22	22	22	22
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M
MATERIAL GROUPS					GS	GS	GS	GV	MU	MU	MU	MU	MU	MU	MU
HOLE TYPE					BLIND HOLE	THROUGH HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE
HOLE LENGTH					2,5D	3D	2D	3D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D
TOOL MATERIAL					HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
SURFACE TREATMENT					TiN	TiN	TiCN	TiN	Bright	TiN	VAP	Bright	TiN	VAP	Bright
CLASS OF THREAD (TOLERANCE)					6H	6HX	6HX	6HX	6H	6H	6H	4H	4H	4H	6H+0,1
CHAMFER (DIN 2197)					C	B	C	C	C	C	C	C	C	C	C
FLUTE TYPE					SPIRAL FLUTE	SPIRAL POINT	STRAIGHT FLUTE	COLD FORMING	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE
SPIRAL FLUTE ANGLE					R45°	-	-	-	R40°	R40°	R40°	R40°	R40°	R40°	R40°
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	COLD FORMING TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					For High Speed Tapping on Rygid CNC Machine				For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.						
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	1	2	3	4	5	6	7	8	9	10	11
P	Non-alloy steel	1	125		● 41-46	● 41-46	○ 41-46	● 41-46	○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 15-20
		2	190	13	● 41-46	● 41-46	○ 41-46	● 41-46	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20
		3	250	25	● 35-40	● 35-40	○ 35-40	● 35-40	● 12-18	● 18-24	● 12-18	● 12-18	● 18-24	● 12-18	● 12-18
		4	270	28	● 28-33	● 28-33	○ 28-33	● 28-33	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15
		5	300	32				● 6-10	● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 6-10
	Low alloy steel	6	180	10	● 28-33	● 28-33	○ 28-33	● 28-33	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15
		7	275	29	● 28-33	● 28-33	○ 28-33	● 28-33	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15
		8	300	32				● 6-10	● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 6-10
	High alloyed steel, and tool steel	9	350	38					● 3-5	● 5-7	● 3-5	● 3-5	● 5-7	● 3-5	● 3-5
		10	200	15					○ 3-5	○ 5-7	○ 3-5	○ 3-5	○ 5-7	○ 3-5	○ 3-5
		11	325	35											
M	Stainless steel	12	200	15	● 18-23	● 18-23		● 18-23	● 7-10	● 10-15	● 7-10	● 7-10	● 10-15	● 7-10	● 7-10
		13	240	23	● 13-18	● 13-18		● 13-18	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8
		14	180	10	○ 10-14	○ 10-14		● 10-14	● 4-6	● 6-8	● 4-6	● 4-6	● 6-8	● 4-6	● 4-6
	Grey cast iron	15	180	10	○ 28-33	○ 28-33	● 28-33		● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15
K	Nodular Cast Iron	16	260	26			● 13-18		● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8
		17	160	3	● 28-33	● 28-33	● 28-33		● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15
	Malleable cast iron	18	250	25			● 13-18		● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8
		19	130				○ 28-33								
N	Non Metallic Materials	20	230	21			○ 13-18								
		21	60					● 28-33							
	Copper and Copper Alloys (Bronze / Brass)	22	100					● 28-33							
		23	75		● 41-46	● 41-46	○ 41-46	● 41-46	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20
		24	90		● 41-46	● 41-46	○ 41-46	● 41-46							
		25	130		● 30-35	● 30-35	○ 30-35	○ 30-35							
	Aluminumcast, alloyed	26	110		● 45-50	● 45-50			● 25-35	● 35-40	● 25-35	● 25-35	● 35-40	● 25-35	● 25-35
		27	90						● 8-12	● 12-17	● 8-12	● 8-12	● 12-17	● 8-12	● 8-12
	Aluminumwrought alloy	28	100		○ 25-30	○ 25-30		● 25-30	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20
		29													
S	Heat Resistant Super Alloys	30													
		31	200	15											
		32	280	30											
		33	250	25											
		34	350	38											
	Titanium Alloys	35	320	34											
		36	400Rm												
H	Hardened steel	37	1050 Rm												
		38	550	55											
	Chilled Cast Iron	39	630	60											
		40	400	42											
	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



GROUP					SDA06	SBA06	SCA07	SDA07	SBA07	SCA08	SDA08	SBA08	SAA04	SAA33	SAA07	
PAGE with available sizes					22	22	22	22	22	22	22	22	22	22	22	
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M	
MATERIAL GROUPS					MU	MU	MU	MU	MU	MU	MU	MU	MU	MU	MU	
HOLE TYPE					BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	
HOLE LENGTH					2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	
TOOL MATERIAL					HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 357	DIN 371/376	
SURFACE TREATMENT					TiN	VAP	Bright	TiN	VAP	Bright	TiN	VAP	Bright	Bright	Bright	
CLASS OF THREAD (TOLERANCE)					6H+0,1	6H+0,1	6G	6G	6G	7G	7G	7G	6H	6H	6H	
CHAMFER (DIN 2197)					C	C	C	C	C	C	C	C	C	C	E	
FLUTE TYPE					SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	
SPIRAL FLUTE ANGLE					R40°	R40°	R40°	R40°	R40°	R40°	R40°	R40°	R40°	R40°	R40°	
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	
DESCRIPTION					For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.											
COOLANT HOLES					No	No	No	No	No	No	No	No	Yes	No	No	
ISO	Material Description	VDI 3323	HB	HRC	12	13	14	15	16	17	18	19	20	121	21	
P	Non-alloy steel	1	125		○	20-25	○	15-20	○	20-25	○	15-20	○	20-25	○	15-20
		2	190	13	●	20-25	●	15-20	●	20-25	●	15-20	●	20-25	●	15-20
		3	250	25	●	18-24	●	12-18	●	18-24	●	12-18	●	18-24	●	12-18
		4	270	28	●	15-20	●	10-15	●	10-15	●	10-15	●	15-20	●	10-15
		5	300	32	●	10-14	●	6-10	●	10-14	●	6-10	●	10-14	●	6-10
	Low alloy steel	6	180	10	●	15-20	●	10-15	●	15-20	●	10-15	●	15-20	●	10-15
		7	275	29	●	15-20	●	10-15	●	15-20	●	10-15	●	15-20	●	10-15
		8	300	32	●	10-14	●	6-10	●	10-14	●	6-10	●	10-14	●	6-10
		9	350	38	●	5-7	●	3-5	●	5-7	●	3-5	●	5-7	●	3-5
	High alloyed steel, and tool steel	10	200	15	○	5-7	○	3-5	○	5-7	○	3-5	○	5-7	○	3-5
	11	325	35													
M	Stainless steel	12	200	15	●	10-15	●	7-10	●	10-15	●	7-10	●	10-15	●	7-10
		13	240	23	●	8-11	●	5-8	●	8-11	●	5-8	●	8-11	●	5-8
		14	180	10	●	6-8	●	4-6	●	6-8	●	4-6	●	6-8	●	4-6
K	Grey cast iron	15	180	10	●	15-20	●	10-15	●	15-20	●	10-15	●	15-20	●	10-15
		16	260	26	●	8-11	●	5-8	●	8-11	●	5-8	●	8-11	●	5-8
	Nodular Cast Iron	17	160	3	●	15-20	●	10-15	●	15-20	●	10-15	●	15-20	●	10-15
		18	250	25	●	8-11	●	5-8	●	8-11	●	5-8	●	8-11	●	5-8
	Malleable cast iron	19	130													
N	Non Metallic Materials	20	230	21												
		21	60													
		22	100													
	Copper and Copper Alloys (Bronze / Brass)	23	75		●	20-25	●	15-20	●	20-25	●	15-20	●	20-25	●	15-20
		24	90													
		25	130													
	Aluminumcast, alloyed	26	110		●	35-40	●	25-35	●	35-40	●	25-35	●	35-40	●	25-35
		27	90		●	12-17	●	8-12	●	12-17	●	8-12	●	12-17	●	8-12
		28	100		●	20-25	●	15-20	●	20-25	●	15-20	●	20-25	●	15-20
	Aluminumwrought alloy	29														
30																
S	Heat Resistant Super Alloys	31	200	15												
		32	280	30												
		33	250	25												
		34	350	38												
		35	320	34												
	Titanium Alloys	36	400Rm													
37	1050 Rm															
H	Hardened steel	38	550	55												
		39	630	60												
	Chilled Cast Iron	40	400	42												
	Hardened Cast Iron	41	550	55												

SELECTION GUIDE



GROUP					SBB44	SAB44	SCA14	SDA14	SBA14	SCV05	SDV05	SBV05	SCV06	SDV06	SBV06
PAGE with available sizes					22	22	22	22	22	22	22	22	22	23	23
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M
MATERIAL GROUPS					VA	VA	MU	MU	MU	MU	MU	MU	MU	MU	MU
HOLE TYPE					BLIND HOLE	BLIND HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE
HOLE LENGTH					2,5D	2,5D	3D	3D	3D	3D	3D	3D	3D	3D	3D
TOOL MATERIAL					HSS-E	HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
SURFACE TREATMENT					VAP	VAP	Bright	TiN	VAP	Bright	TiN	VAP	Bright	TiN	VAP
CLASS OF THREAD (TOLERANCE)					6H	6H	6H	6H	6H	4H	4H	4H	6H+0,1	6H+0,1	6H+0,1
CHAMFER (DIN 2197)					C	C	B	B	B	B	B	B	B	B	B
FLUTE TYPE					SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT
SPIRAL FLUTE ANGLE					R45°	R45°	-	-	-	-	-	-	-	-	-
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.										
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	22	23	24	25	26	27	28	29	30	31	32
P	Non-alloy steel	1	125				○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ 20-25	○ 15-20
		2	190	13	○ 15-20	○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20
		3	250	25			● 12-18	● 18-24	● 12-18	● 12-18	● 18-24	● 12-18	● 12-18	● 18-24	● 12-18
		4	270	28	○ 10-15	○ 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15
		5	300	32			● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10
	Low alloy steel	6	180	10	○ 10-15	○ 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15
		7	275	29	○ 10-15	○ 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15
		8	300	32			● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10
	High alloyed steel, and tool steel	9	350	38			● 3-5	● 5-7	● 3-5	● 3-5	● 5-7	● 3-5	● 3-5	● 5-7	● 3-5
		10	200	15			○ 3-5	○ 5-7	○ 3-5	○ 3-5	○ 5-7	○ 3-5	○ 3-5	○ 5-7	○ 3-5
M	Stainless steel	11	325	35											
		12	200	15	● 7-10	● 7-10	● 7-10	● 10-15	● 7-10	● 7-10	● 10-15	● 7-10	● 7-10	● 10-15	● 7-10
		13	240	23	● 5-8	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8
		14	180	10	● 4-6	● 4-6	● 4-6	● 6-8	● 4-6	● 4-6	● 6-8	● 4-6	● 4-6	● 6-8	● 4-6
		15	180	10			● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15
K	Grey cast iron	16	260	26			● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8
		17	160	3			● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15
	Nodular Cast Iron	18	250	25			● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8
		19	130												
	Malleable cast iron	20	230	21											
N	Non Metallic Materials	21	60												
		22	100												
	Copper and Copper Alloys (Bronze / Brass)	23	75				● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20
		24	90												
		25	130												
	Aluminumcast, alloyed	26	110				● 25-35	● 35-40	● 25-35	● 25-35	● 35-40	● 25-35	● 25-35	● 35-40	● 25-35
		27	90				● 8-12	● 12-17	● 8-12	● 8-12	● 12-17	● 8-12	● 8-12	● 12-17	● 8-12
		28	100		○ 15-20	○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20
	Aluminumwrought alloy	29													
		30													
S	Heat Resistant Super Alloys	31	200	15											
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
H	Titanium Alloys	36	400Rm												
		37	1050 Rm												
	Hardened steel	38	550	55											
		39	630	60											
	Chilled Cast Iron	40	400	42											
H	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



GROUP					SCV07	SDV07	SBV07	SCV08	SDV08	SBV08	SAA14	SAB45	SBC28	SAC28	SCH11
PAGE with available sizes					23	23	23	23	23	23	23	26	23	23	23
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M
MATERIAL GROUPS					MU	MU	MU	MU	MU	MU	MU	MU	VA	VA	GS
HOLE TYPE					THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	BLIND HOLE
HOLE LENGTH					3D	3D	3D	3D	3D	3D	3D	3D	3D	3D	2,5D
TOOL MATERIAL					HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-PM	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN357	DIN 371/376	DIN 371/376	DIN 371/376
SURFACE TREATMENT					Bright	TiN	VAP	Bright	TiN	VAP	Bright	Bright	VAP	VAP	Bright
CLASS OF THREAD (TOLERANCE)					6G	6G	6G	7G	7G	7G	6H	6H	6H	6H	6H
CHAMFER (DIN 2197)					B	B	B	B	B	B	B	B	B	B	C
FLUTE TYPE					SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL FLUTE
SPIRAL FLUTE ANGLE					-	-	-	-	-	-	-	-	-	-	R40°
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.								For stainless steels and correct thread profiles & long tool life due to special tap geometry.		Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.
COOLANT HOLES					No	No	No	No	No	No	Yes	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	33	34	35	36	37	38	39	120	40	41	42
P	Non-alloy steel	1	125		○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ 15-20			○ 15-20
		2	190	13	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 15-20	○ 15-20	○ 15-20	● 15-20
		3	250	25	● 12-18	● 18-24	● 12-18	● 12-18	● 18-24	● 12-18	● 12-18	● 12-18			● 12-18
		4	270	28	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 10-15	○ 10-15	○ 10-15	● 10-15
		5	300	32	● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 6-10	● 6-10			○ 6-10
	Low alloy steel	6	180	10	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 10-15	○ 10-15	○ 10-15	● 10-15
		7	275	29	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 10-15	○ 10-15	○ 10-15	● 10-15
		8	300	32	● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 6-10	● 6-10			○ 6-10
		9	350	38	● 3-5	● 5-7	● 3-5	● 3-5	● 5-7	● 3-5	● 3-5	● 3-5			
	High alloyed steel, and tool steel	10	200	15	○ 3-5	○ 5-7	○ 3-5	○ 3-5	○ 5-7	○ 3-5	○ 3-5	○ 3-5			
M	Stainless steel	11	325	35											
		12	200	15	● 7-10	● 10-15	● 7-10	● 7-10	● 10-15	● 7-10	● 7-10	● 7-10	● 7-10	● 7-10	○ 7-10
		13	240	23	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 5-8	● 5-8	● 5-8	○ 5-8
		14	180	10	● 4-6	● 6-8	● 4-6	● 4-6	● 6-8	● 4-6	● 4-6	● 4-6	● 4-6	● 4-6	
		15	180	10	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 10-15			
K	Grey cast iron	16	260	26	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 5-8			
	Nodular Cast Iron	17	160	3	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 10-15			● 10-15
		18	250	25	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 5-8			● 5-8
	Malleable cast iron	19	130												
		20	230	21											
N	Non Metallic Materials	21	60												○ 10-15
		22	100												
	Copper and Copper Alloys (Bronze / Brass)	23	75		● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 15-20			○ 15-20
		24	90												○ 15-20
		25	130												● 10-15
	Aluminumcast, alloyed	26	110		● 25-35	● 35-40	● 25-35	● 25-35	● 35-40	● 25-35	● 25-35	● 25-35			○ 25-35
		27	90		● 8-12	● 12-17	● 8-12	● 8-12	● 12-17	● 8-12	● 8-12	● 8-12			
		28	100		● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 15-20	○ 15-20	○ 15-20	○ 15-20
	Aluminumwrought alloy	29													
		30													
S	Heat Resistant Super Alloys	31	200	15											
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
	Titanium Alloys	36	400Rm												
H	Hardened steel	37	1050 Rm												
		38	550	55											
	Chilled Cast Iron	39	630	60											
	Hardened Cast Iron	40	400	42											
		41	550	55											

SELECTION GUIDE



GROUP					SDH11	SCF17	SCA10	SCB27	SCA22	SDB27	SCC27	SDC27	SCC11	SCE63	SHA09
PAGE with available sizes					23	23	23	23	23	23	23	23	23	23	26
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M
MATERIAL GROUPS					GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS
HOLE TYPE					BLIND HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE
HOLE LENGTH					2,5D	2,5D	2,5D	3D	3D	3D	3D	3D	3D	2D	2D
TOOL MATERIAL					HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS
NORM					DIN 371/376	DIN 371/376	DIN352	DIN 371/376	DIN352	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN352
SURFACE TREATMENT					TiN	Bright	Bright	Bright	Bright	TiN	Bright	TiN	Bright	Bright	Bright
CLASS OF THREAD (TOLERANCE)					6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	2B
CHAMFER (DIN 2197)					C	C	C	B	B	B	B	B	C	C	I/II/III
FLUTE TYPE					SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL FLUTE	STRAIGHT FLUTE	STRAIGHT FLUTE
SPIRAL FLUTE ANGLE					R40°	R20°	R20°	-	-	-	-	-	L20°	-	-
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	SET OF HAND TAPS
DESCRIPTION					Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.				Suitable for through hole in more cutting speed than other taps due to thick web.				Left spiral flute and right hand thread tap to push chips ahead.		Suitable for tapping shallow holes.
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	43	44	45	46	47	48	49	50	51	52	122
P	Non-alloy steel	1	125		○ 20-25	○ 15-20	○ 15-20	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ HAND
		2	190	13	● 20-25	● 15-20	● 15-20	● 15-20	● 15-20	● 20-25	● 15-20	● 20-25	● 15-20	○ 15-20	○ HAND
		3	250	25	● 18-24	● 12-18	● 12-18	● 12-18	● 12-18	● 18-24	● 12-18	● 18-24	● 12-18	○ 12-18	○ HAND
		4	270	28	● 15-20	● 10-15	● 10-15	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	○ 10-15	○ HAND
		5	300	32	○ 10-14	○ 6-10	○ 6-10	○ 6-10	○ 6-10	○ 10-14	○ 6-10	○ 10-14	○ 6-10	○ 6-10	
	Low alloy steel	6	180	10	● 15-20	● 10-15	● 10-15	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	○ 10-15	○ HAND
		7	275	29	● 15-20	● 10-15	● 10-15	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	○ 10-15	○ HAND
		8	300	32	○ 10-14	○ 6-10	○ 6-10	○ 6-10	○ 6-10	○ 10-14	○ 6-10	○ 10-14	○ 6-10	○ 6-10	
		9	350	38											
	High alloyed steel, and tool steel	10	200	15											
		11	325	35											
M	Stainless steel	12	200	15	○ 10-13	○ 7-10	○ 7-10	○ 7-10	○ 7-10	○ 10-13	○ 7-10	○ 10-13	○ 7-10	○ 7-10	
		13	240	23	○ 8-11	○ 5-8	○ 5-8	○ 5-8	○ 5-8	○ 8-11	○ 5-8	○ 8-11	○ 5-8	○ 5-8	
		14	180	10											
		15	180	10											
K	Grey cast iron	16	260	26										○	
		17	160	3	● 15-20	● 10-15	● 10-15	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	○ 10-15	○ HAND
	Nodular Cast Iron	18	250	25	● 8-11	● 5-8	● 5-8	● 5-8	● 5-8	● 8-11	● 5-8	● 8-11	● 5-8	○ 5-8	○ HAND
		19	130												
	Malleable cast iron	20	230	21											
N	Non Metallic Materials	21	60		○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 10-15	○ 15-20	○ 10-15		
		22	100												
	Copper and Copper Alloys (Bronze / Brass)	23	75		○ 20-25	○ 15-20	○ 15-20	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 20-25	○ 15-20		
		24	90		○ 20-25	○ 15-20	○ 15-20	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 20-25	○ 15-20		
		25	130		● 15-20	● 10-15	● 10-15	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	○ 10-15	○ HAND
		26	110		○ 35-40	○ 25-35	○ 25-35	○ 25-35	○ 25-35	○ 35-40	○ 25-35	○ 35-40	○ 25-35	○ 25-35	○ HAND
	Aluminumcast, alloyed	27	90											○ 8-12	○ HAND
		28	100		○ 20-25	○ 15-20	○ 15-20	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 20-25	○ 15-20	○	
	Aluminumwrought alloy	29													
		30													
		31	200	15											
S	Heat Resistant Super Alloys	32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
		36	400Rm												
H	Titanium Alloys	37	1050 Rm												
		38	550	55											
	Hardened steel	39	630	60											
		40	400	42											
	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



GROUP					SHA43	SBA73	SCA53	SQB23	SRA23	SCD12	SDD12	SBD12	SYD12	SBJ13	SQB10	
PAGE with available sizes					26	26	26	23	23	23	23	23	23	23	23	
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M	
MATERIAL GROUPS					GS	GS	GS	VG	VG	VG	VG	VG	VG	VG	VG	
HOLE TYPE					ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE	
HOLE LENGTH					2D	2D	2D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	3D	
TOOL MATERIAL					HSS	HSS-E	HSS-E	HSS-PM	HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-PM	
NORM					DIN352	DIN352	DIN352	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	
SURFACE TREATMENT					Bright	VAP	Bright	VAP	Bright	Bright	TiN	VAP	TiAlN	VAP	VAP	
CLASS OF THREAD (TOLERANCE)					6H	6HX	6H	6H	6H	6H	6H	6H	6H	6H	6H	
CHAMFER (DIN 2197)					I/II/III	I/II/III	I/II/III	C	C	C	C	C	C	C	B	
FLUTE TYPE					STRAIGHT FLUTE	STRAIGHT FLUTE	STRAIGHT FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	
SPIRAL FLUTE ANGLE					-	-	-	R40°	R40°	R40°	R40°	R40°	R40°	R40°	-	
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	
TOOL TYPE					SET OF HAND TAPS	SET OF HAND TAPS	SET OF HAND TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	
DESCRIPTION					This tap is a serial hand tap in set, First, Second and Bottoming. Bottoming tap of set has final internal thread dimensions only.				Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.				Suitable for threading blind holes due to excellent chip evacuation of tempered steels or similar work materials.		With recessed threads for machine tapping of deep blind holes.	Suitable for through hole in more cutting speed than other taps due to thick web and the best substrate.
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No	
ISO	Material Description	VDI 3323	HB	HRC	123	124	125	53	54	55	56	56	58	59	60	
P	Non-alloy steel	1	125		○ HAND	○ HAND	○ HAND	○	○	○	○	○	○	○	○	
		2	190	13	○ HAND	○ HAND	○ HAND	○	○	○	○	○	○	○	○	
		3	250	25	○ HAND	○ HAND	○ HAND	○	○	○	○	○	○	○	○	
		4	270	28	○ HAND	○ HAND	○ HAND	○	○	○	○	○	○	○	○	
		5	300	32				●	●	●	●	●	●	●	●	
	Low alloy steel	6	180	10	○ HAND	○ HAND	○ HAND	○	○	○	○	○	○	○	○	
		7	275	29	○ HAND	○ HAND	○ HAND	○	○	○	○	○	○	○	○	
		8	300	32				●	●	●	●	●	●	●	●	
		9	350	38				●	●	●	●	●	●	●	●	
	High alloyed steel, and tool steel	10	200	15				○	○	○	○	○	○	○	○	
		11	325	35												
M	Stainless steel	12	200	15		○ HAND									○ 7-10	
		13	240	23		○ HAND									○ 5-8	
		14	180	10		○ HAND		○	○	○	○	○	○	○	○	
K	Grey cast iron	15	180	10												
		16	260	26												
	Nodular Cast Iron	17	160	3	○ HAND											
		18	250	25	○ HAND											
	Malleable cast iron	19	130													
N	Non Metallic Materials	20	230	21												
		21	60													
	Copper and Copper Alloys (Bronze / Brass)	22	100													
		23	75													
		24	90													
		25	130		○ HAND											
	Aluminumcast, alloyed	26	110		○ HAND											
		27	90		○ HAND											
		28	100													
	Aluminumwrought alloy	29														
30																
S	Heat Resistant Super Alloys	31	200	15				○	○	○	○	○	○	○	○	
		32	280	30												
		33	250	25												
		34	350	38												
		35	320	34												
H	Titanium Alloys	36	400Rm					○	○	○	○	○	○	○	○	
		37	1050 Rm													
	Hardened steel	38	550	55												
		39	630	60												
	Chilled Cast Iron	40	400	42												
H	Hardened Cast Iron	41	550	55												

SELECTION GUIDE



GROUP					SRB10	SCE22	SDE22	SEE22	SYE22	SCT02	SCT03	SCD13	SBD13	SYD13	SCC83
PAGE with available sizes					24	24	24	24	24	24	24	24	24	24	24
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M
MATERIAL GROUPS					VG	VG	VG	VG	VG	HR	HR	HR	HR	HR	HR
HOLE TYPE					THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE
HOLE LENGTH					3D	3D	3D	3D	3D	2D	2D	2,5D	2,5D	2,5D	3D
TOOL MATERIAL					HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	CARBIDE	CARBIDE	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
SURFACE TREATMENT					Bright	Bright	TiN	NI	TiAlN	TiCN	TiCN	Bright	VAP	TiAlN	Bright
CLASS OF THREAD (TOLERANCE)					6H	6H	6H	6H	6H	6HX	6HX	6H	6H	6H	6H
CHAMFER (DIN 2197)					B	B	B	B	B	C	D	C	C	C	B
FLUTE TYPE					SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	STRAIGHT FLUTE	STRAIGHT FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT
SPIRAL FLUTE ANGLE					-	-	-	-	-	-	-	R40°	R40°	R40°	-
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					Suitable for through hole in more cutting speed than other taps due to thick web. Suitable for through hole in more cutting speed than other taps due to thick web. Recommended for tapping abrasive materials due to nitriding, not suitable for tapping tough or high strength materials. Suitable for through hole in more cutting speed than other taps due to thick web. Carbide tap can increase tool life longer than HSS taps due to higher hardness. Suitable for hardened steels (HRC50-60) Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation. Suitable for through hole in more cutting speed than other taps due to thick web.										
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	61	62	63	64	65	66	67	68	69	70	71
P	Non-alloy steel	1	125												
		2	190	13	○ 15-20	○ 15-20	○ 15-20	○ 20-25	○ 20-25						
		3	250	25	○ 12-18	○ 12-18	○ 12-18	○ 18-24	○ 18-24						
		4	270	28	○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 15-20						
		5	300	32	● 6-10	● 6-10	● 6-10	● 10-14	● 10-14						
	Low alloy steel	6	180	10	○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 15-20						
		7	275	29	○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 15-20			○ 10-15	○ 10-15	○ 10-15	○ 10-15
		8	300	32	● 6-10	● 6-10	● 6-10	● 10-14	● 10-14			○ 6-10	○ 6-10	○ 6-10	○ 6-10
		9	350	38	● 3-5	● 3-5	● 3-5	● 5-7	● 5-7	○ 5-8	○ 5-8	● 3-5	● 3-5	● 3-5	● 3-5
	High alloyed steel, and tool steel	10	200	15	○ 3-5	○ 3-5	○ 3-5	○ 5-7	○ 5-7						
M	Stainless steel	11	325	35											
		12	200	15	○ 7-10	○ 7-10	○ 7-10	○ 10-15	○ 10-15						
		13	240	23	○ 5-8	○ 5-8	○ 5-8	○ 8-11	○ 8-11						
		14	180	10	○ 4-6	○ 4-6	○ 4-6	○ 6-8	○ 6-8			○ 4-6	○ 4-6	○ 4-6	○ 4-6
		15	180	10											
K	Grey cast iron	16	260	26											
		17	160	3											
	Nodular Cast Iron	18	250	25											
		19	130												
	Malleable cast iron	20	230	21											
N	Non Metallic Materials	21	60												
		22	100												
	Copper and Copper Alloys (Bronze / Brass)	23	75												
		24	90												
		25	130												
		26	110									○ 25-35	○ 25-35	○ 25-35	○ 25-35
	Aluminumcast, alloyed	27	90												
		28	100												
	Aluminumwrought alloy	29													
		30													
S	Heat Resistant Super Alloys	31	200	15	○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 15-20						
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
	Titanium Alloys	36	400Rm		○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 15-20						
H	Hardened steel	37	1050 Rm												
		38	550	55						● 3-7	● 3-7				
	Chilled Cast Iron	39	630	60						● 3-7	● 3-7				
		40	400	42						● 3-7	● 3-7				
	Hardened Cast Iron	41	550	55						● 3-7	● 3-7				

SELECTION GUIDE



GROUP					SYC83	SBH11	SQ13	SRA13	SBJ14	SIJ14	SBF15	SBF16	SBF17	SBF18	SCH14
PAGE with available sizes					24	24	24	24	24	24	24	24	24	24	24
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M
MATERIAL GROUPS					HR	NW	NW	VA	VA NW	VA NW	VA NW	VA NW	VA NW	VA NW	VA NW
HOLE TYPE					THROUGH HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE
HOLE LENGTH					3D	2D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D
TOOL MATERIAL					HSS-E	HSS-E	HSS-PM	HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
SURFACE TREATMENT					TiAIN	VAP	VAP	Bright	VAP	TiCN	VAP	VAP	VAP	VAP	HardSlick
CLASS OF THREAD (TOLERANCE)					6H	6H	6H	6H	6H	6H	4H	6H+0,1	6G	8G	6H
CHAMFER (DIN 2197)					B	C	C	C	C	C	C	C	C	C	C
FLUTE TYPE					SPIRAL POINT	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE
SPIRAL FLUTE ANGLE					-	R40°	R40°	R40°	R40°	R40°	R40°	R40°	R40°	R40°	R40°
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					Suitable for through hole in more cutting speed than other taps due to thick web.			Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.			With recessed threads for machine tapping of deep blind holes. Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.				
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	72	73	74	75	76	77	78	79	80	81	82
P	Non-alloy steel	1	125			● 15-20	○ 15-20	○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 15-20	● 15-20	● 20-2S
		2	190	13		● 15-20	● 1S-20	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 15-20	● 15-20	● 20-2S
		3	250	25			○ 12-15	○ 12-15	○ 12-15	○ 15-24	○ 12-15	○ 12-15	○ 12-15	○ 12-15	○ 15-24
		4	270	28			○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 15-20
		5	300	32											
	Low alloy steel	6	180	10			○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 15-20
		7	275	29	○ 10-15										
		8	300	32	○ 6-10										
		9	350	38	● 3-5										
	High alloyed steel, and tool steel	10	200	15											
		11	325	35											
M	Stainless steel	12	200	15		○ 7-10	● 7-10	● 7-10	● 7-10	● 10-13	● 7-10	● 7-10	● 7-10	● 7-10	● 10-13
		13	240	23		○ 5-8	● 5-8	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 5-8	● 5-8	● 8-11
		14	180	10	○ 4-6	○ 4-6	● 4-6	● 4-6	● 4-6	● 6-8	● 4-6	● 4-6	● 4-6	● 4-6	● 6-8
		15	180	10											
		16	260	26											
K	Grey cast iron	17	160	3											
		18	250	25											
	Nodular Cast Iron	19	130												
		20	230	21											
	Malleable cast iron														
N	Non Metallic Materials	21	60			○ 10-15									
		22	100												
	Copper and Copper Alloys (Bronze / Brass)	23	75												
		24	90												
		25	130												
	Aluminumcast, alloyed	26	110		○ 25-35										
		27	90												
		28	100			○ 15-20									
	Aluminumwrought alloy	29													
		30													
S	Heat Resistant Super Alloys	31	200	15			○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 15-20
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
	Titanium Alloys	36	400Rm				○ 10-15	○ 10-15	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 15-20
H	Hardened steel	37	1050 Rm												
		38	550	55											
	Chilled Cast Iron	39	630	60											
		40	400	42											
	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



GROUP					SQI53	SRA10	SBG23	SCH23	SCT01	SEI21	SDI21	SII21	SYI21	SCB63	SEJ53
PAGE with available sizes					24	24	24	24	24	24	24	24	25	25	25
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M
MATERIAL GROUPS					VA	VA	VA NW	VA NW	GG	GG	GG	GG	GG	AI	AI
HOLE TYPE					BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE
HOLE LENGTH					2,5D	2,5D	2,5D	2,5D	2D	2D	2D	2D	2D	2,5D	2,5D
TOOL MATERIAL					HSS-PM	HSS-PM	HSS-E	HSS-E	CARBIDE	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
SURFACE TREATMENT					VAP	Bright	VAP	HardSlick	Bright	NI	TiN	TiCN	TiAlN	Bright	NI
CLASS OF THREAD (TOLERANCE)					6H	6H	6HX	6HX	6HX	6HX	6HX	6HX	6HX	6H	6H
CHAMFER (DIN 2197)					B	B	B	B	C	C	C	C	C	C	C
FLUTE TYPE					SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	STRAIGHT FLUTE	STRAIGHT FLUTE	STRAIGHT FLUTE	STRAIGHT FLUTE	STRAIGHT FLUTE	SPIRAL FLUTE	SPIRAL FLUTE
SPIRAL FLUTE ANGLE					-	-	-	-	-	-	-	-	-	R45°	R45°
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					Suitable for through hole in more cutting speed than other taps due to thick web and the best substrate.		Suitable for through hole in more cutting speed than other taps due to thick web.		Carbide tap. Suitable for cast iron and high silicon aluminums.	Suitable for tapping cast iron or similar work materials due to nitriding.		Suitable for tapping cast iron or similar work materials.		Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.	
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	83	84	85	86	87	88	89	90	91	92	93
P	Non-alloy steel	1	125		○ 15-20	○ 15-20	● 15-20	● 20-25						○ 15-20	
		2	190	13	● 15-20	● 15-20	● 15-20	● 20-25						○ 15-20	
		3	250	25	○ 12-15	○ 12-15	○ 12-15	○ 15-24						○ 12-18	○ 12-18
		4	270	28	○ 10-15	○ 10-15	○ 10-15	○ 15-20							
		5	300	32											
	Low alloy steel	6	180	10	○ 10-15	○ 10-15	○ 10-15	○ 15-20							
		7	275	29											
		8	300	32											
		9	350	38											
	High alloyed steel, and tool steel	10	200	15											
		11	325	35											
M	Stainless steel	12	200	15	● 7-10	● 7-10	● 7-10	● 10-13							
		13	240	23	● 5-8	● 5-8	● 5-8	● 8-11							
		14	180	10	● 4-6	● 4-6	● 4-6	● 6-8							
		15	180	10					● 10-15	● 10-15	● 15-20	● 15-20	● 15-20		
K	Grey cast iron	16	260	26					● 5-8	● 5-8	● 8-11	● 8-11	● 8-11		
		17	160	3					● 10-15	● 10-15	● 15-20	● 15-20	● 15-20		
	Nodular Cast Iron	18	250	25					● 5-8	● 5-8	● 8-11	● 8-11	● 8-11		
		19	130						○ 10-15	○ 10-15	○ 15-20	○ 15-20	○ 15-20		
	Malleable cast iron	20	230	21					○ 5-8	○ 5-8	○ 8-11	○ 8-11	○ 8-11		
N	Non Metallic Materials	21	60											● 10-15	○ 10-15
		22	100						● 15-20					● 10-15	○ 10-15
	Copper and Copper Alloys (Bronze / Brass)	23	75											● 15-20	○ 15-20
		24	90						● 10-15					● 15-20	○ 15-20
		25	130												● 10-15
		26	110												
	Aluminumcast, alloyed	27	90						○ 8-12	● 12-16	● 12-16	● 12-16	○ 8-12		
		28	100												
	Aluminumwrought alloy	29													
		30													
S	Heat Resistant Super Alloys	31	200	15	○ 10-15	○ 10-15	○ 10-15	○ 15-20							
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
	Titanium Alloys	36	400Rm		○ 10-15	○ 10-15	○ 10-15	○ 15-20							
H	Hardened steel	37	1050 Rm												
		38	550	55											
	Chilled Cast Iron	39	630	60											
	Hardened Cast Iron	40	400	42					● 3-5						
		41	550	55											

SELECTION GUIDE



GROUP					SEJ43	SCE33	SEE43	SYE33	SMJ03	SZJ03	SMC93	SZC93	SMJ33	SZJ33	SMJ23									
PAGE with available sizes					25	25	25	25	25	25	25	25	25	25	25									
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M									
MATERIAL GROUPS					Al	Ms	Ms	Ms	Ti	Ti	Ti	Ti	Ni	Ni	Ni									
HOLE TYPE					THROUGH HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE	THROUGH HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE									
HOLE LENGTH					3D	2D	2D	2D	2,5D	2,5D	3D	3D	2,5D	2,5D	3D									
TOOL MATERIAL					HSS-E	HSS-E	HSS-E	HSS-E	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM									
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376									
SURFACE TREATMENT					NI	Bright	NI	TAIIN	Bright	TiAIN	Bright	TiAIN	Bright	TiAIN	Bright									
CLASS OF THREAD (TOLERANCE)					6H	6H	6HX	6H	6H	6H	6H	6H	6H	6H	6H									
CHAMFER (DIN 2197)					B	C	C	C	C	C	B	B	C	C	B									
FLUTE TYPE					SPIRAL POINT	STRAIGHT FLUTE	STRAIGHT FLUTE	STRAIGHT FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL POINT	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT									
SPIRAL FLUTE ANGLE					-	-	-	-	R25°	R25°	-	-	R40°	R40°	-									
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°									
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS									
DESCRIPTION					Suitable for through hole in more cutting speed than other taps due to thick web.				Suitable for brass and short chip work materials.				Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.				Interrupted tap to reduce contact area and tapping torque, and to give more chip space.				For tapping Nickel alloys and heat resistant alloy steels which are used in aerospace and checmical industries.			
COOLANT HOLES					No				No				No				No				No			
ISO	Material Description		VDI 3323	HB	HRC	94	95	96	97	98	99	100	101	102	103	104								
P	Non-alloy steel	1	125																					
		2	190	13																				
		3	250	25	○ 12-18																			
		4	270	28																				
		5	300	32																				
	Low alloy steel	6	180	10										● 10-15	● 10-15	● 10-15								
		7	275	29					○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 10-15	● 10-15	● 10-15	● 10-15								
		8	300	32					○ 6-10	○ 6-10	○ 6-10	○ 6-10	○ 6-10	● 6-10	● 6-10	● 6-10								
		9	350	38					○ 3-5	○ 3-5	○ 3-5	○ 3-5	○ 3-5	● 3-5	● 3-5	● 3-5								
	High alloyed steel, and tool steel	10	200	15																				
		11	325	35																				
M	Stainless steel	12	200	15																				
		13	240	23																				
		14	180	10																				
K	Grey cast iron	15	180	10																				
		16	260	26																				
	Nodular Cast Iron	17	160	3																				
		18	250	25																				
	Malleable cast iron	19	130																					
20	230	21																						
N	Non Metallic Materials	21	60		○ 10-15																			
		22	100		○ 10-15																			
	Copper and Copper Alloys (Bronze / Brass)	23	75		○ 15-20																			
		24	90		○ 15-20																			
		25	130		● 10-15																			
	Aluminumcast, alloyed	26	110			● 25-35	● 25-35	● 35-40																
		27	90			○ 8-12	○ 8-12	○ 12-16																
		28	100			○ 15-20		○ 20-25																
	Aluminumwrought alloy	29																						
		30																						
S	Heat Resistant Super Alloys	31	200	15					○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 10-15	● 10-15	● 10-15	● 10-15								
		32	280	30							○ 10-15	○ 10-15	○ 10-15	● 10-15	● 10-15	● 10-15								
		33	250	25							○ 2-4	○ 2-4	○ 2-4	● 2-4	● 2-4	● 2-4								
		34	350	38							○ 2-4	○ 2-4	○ 2-4	● 2-4	● 2-4	● 2-4								
		35	320	34							○ 2-4	○ 2-4	○ 2-4	● 2-4	● 2-4	● 2-4								
	Titanium Alloys	36	400Rm						○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 10-15	● 4-6	● 4-6	○ 4-6								
		37	1050 Rm						● 4-6	● 4-6	● 4-6	● 4-6	○ 4-6	○ 4-6	○ 4-6	○ 4-6								
H	Hardened steel	38	550	55																				
		39	630	60																				
	Chilled Cast Iron	40	400	42							○ 3-5	○ 3-5				○ 3-5								
	Hardened Cast Iron	41	550	55																				

SELECTION GUIDE



GROUP					SZJ23	SQI33	SRA33	SQI73	SRA73	SDH03	SEH03	SYH03	SQH03	SDH13	SEH13
PAGE with available sizes					25	25	25	25	25	25	25	25	25	25	25
THREAD TYPE					M	M	M	M	M	M	M	M	M	M	M
MATERIAL GROUPS					Ni	Ti Ni	Ti Ni	Ti Ni	Ti Ni	GV	GV	GV	GV	GV	GV
HOLE TYPE					THROUGH HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE	THROUGH HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE
HOLE LENGTH					3D	2,5D	2,5D	3D	3D	3D	3D	3D	3D	3D	3D
TOOL MATERIAL					HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-PM	HSS-E	HSS-E	HSS-E	HSS-PM	HSS-E	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
SURFACE TREATMENT					TiAIN	VAP	Bright	VAP	Bright	TiN	NI	TiAIN	VAP	TiN	NI
CLASS OF THREAD (TOLERANCE)					6H	6H	6H	6H	6H	6HX	6HX	6HX	6HX	6GX	6GX
CHAMFER (DIN 2197)					B	C	C	B	B	C	C	C	C	C	C
FLUTE TYPE					SPIRAL POINT	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL POINT	COLD FORMING	COLD FORMING	COLD FORMING	COLD FORMING	COLD FORMING	COLD FORMING
SPIRAL FLUTE ANGLE					-	R40°	R40°	-	-	-	-	-	-	-	-
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	COLD FORMING TAPS	COLD FORMING TAPS	COLD FORMING TAPS	COLD FORMING TAPS	COLD FORMING TAPS	COLD FORMING TAPS
DESCRIPTION					For tapping Nickel alloys and heat resistant alloy steels.		Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.		Suitable for through hole in more cutting speed than other taps due to thick web and the best substrate.		Suitable for threading soft materials with at least 8-10% elongation. The pre-drilling holes are bigger than normal sized holes.				
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	105	106	107	108	109	110	111	112	113	114	115
P	Non-alloy steel	1	125							● 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
		3	250	25						● 12-18	● 12-18	● 12-18	● 12-18	● 12-18	● 12-18
		4	270	28											
		5	300	32											
	Low alloy steel	6	180	10	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15
		7	275	29	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15						
		8	300	32	● 6-10	● 6-10	● 6-10	● 6-10	● 6-10						
		9	350	38	● 3-5	● 3-5	● 3-5	● 3-5	● 3-5						
	High alloyed steel, and tool steel	10	200	15											
		11	325	35											
M	Stainless steel	12	200	15						○ 10-13	○ 7-10	○ 10-13	○ 7-10	○ 10-13	○ 7-10
		13	240	23						○ 8-11	○ 5-8	○ 8-11	○ 5-8	○ 8-11	○ 5-8
		14	180	10						○ 6-8	○ 4-6	○ 6-8	○ 4-6	○ 6-8	○ 4-6
		15	180	10											
K	Grey cast iron	16	260	26											
	Nodular Cast Iron	17	160	3											
		18	250	25											
	Malleable cast iron	19	130												
		20	230	21											
N	Non Metallic Materials	21	60							● 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
	Copper and Copper Alloys (Bronze / Brass)	23	75							○ 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
		25	130												
		26	110							○ 25-35	○ 25-35	○ 25-35	○ 25-35	○ 25-35	○ 25-35
	Aluminumcast, alloyed	27	90												
		28	100							○ 15-20	○ 15-20	● 15-20	○ 15-20	● 15-20	○ 15-20
	Aluminumwrought alloy	29													
		30													
S	Heat Resistant Super Alloys	31	200	15	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15						
		32	280	30	● 10-15	● 10-15	● 10-15	● 10-15	● 10-15						
		33	250	25	● 2-4	● 2-4	● 2-4	● 2-4	● 2-4						
		34	350	38	● 2-4	● 2-4	● 2-4	● 2-4	● 2-4						
		35	320	34	● 2-4	● 2-4	● 2-4	● 2-4	● 2-4						
	Titanium Alloys	36	400Rm		○ 10-15	○ 10-15	○ 10-15	○ 10-15	○ 10-15						
		37	1050 Rm		● 4-6	● 4-6	● 4-6	● 4-6	● 4-6						
H	Hardened steel	38	550	55	○ 3-5										
		39	630	60											
	Chilled Cast Iron	40	400	42	○ 3-5			○ 3-5	○ 3-5						
	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



GROUP					SQA23	SEH23	SDH23	SCI03	SCG22	SCA44	SDA44	SBA44	SCA19	SDA19	SBC54	
PAGE with available sizes					25	25	25	33	25	27	27	27	27	27	27	
THREAD TYPE					M	M	M	M	M-Az	MF	MF	MF	MF	MF	MF	
MATERIAL GROUPS					GV	GV	GV	GS	AI	MU	MU	MU	MU	MU	VA	
HOLE TYPE					ALL TYPES OF HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	THROUGH HOLE	THROUGH HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	
HOLE LENGTH					3D	3D	3D	2D	3D	2,5D	2,5D	2,5D	2,5D	2,5D	2,5D	
TOOL MATERIAL					HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN357	DIN 371/376	DIN374	DIN374	DIN374	DIN374	DIN374	DIN374	
SURFACE TREATMENT					VAP	NI	TiN	Bright	Bright	Bright	TiN	VAP	Bright	TiN	VAP	
CLASS OF THREAD (TOLERANCE)					6HX	6HX	6HX	6H	6H	6H	6H	6H	6G	6G	6H	
CHAMFER (DIN 2197)					C	C	C	Long	B	C	C	C	C	C	C	
FLUTE TYPE					COLD FORMING	COLD FORMING	COLD FORMING	STRAIGHT FLUTE	SPIRAL POINT	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	
SPIRAL FLUTE ANGLE					-	-	-	-	-	R40°	R40°	R40°	R40°	R40°	R45°	
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	
TOOL TYPE					COLD FORMING TAPS	COLD FORMING TAPS	COLD FORMING TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	
DESCRIPTION					Suitable for threading soft materials with at least 8-10%elongation in the best substrate. The pre-drilling holes are bigger than normal sized holes.					For making nuts on machines. The work pieces can be taken out from shank side only.	Interrupted tap to reduce contact area and tapping torque, and to give more chip space.	For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.				
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No	
ISO	Material Description	VDI 3323	HB	HRC	116	117	118	214	119	127	128	129	130	131	132	
P	Non-alloy steel	1	125		● 15-20	● 15-20	● 15-20	○ 15-20	○ 15-20	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ 20-25	
		2	190	13	● 15-20	● 15-20	● 15-20	○ 15-20	○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	○ 15-20	
		3	250	25	● 12-18	● 12-18	● 12-18	○ 12-18	○ 12-18	● 12-18	● 18-24	● 12-18	● 12-18	● 18-24		
		4	270	28				○ 10-15		● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	○ 10-15	
		5	300	32						● 6-10	● 10-14	● 6-10	● 6-10	● 10-14		
	Low alloy steel	6	180	10	● 10-15	● 10-15	● 10-15	○ 10-15		● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	○ 10-15	
		7	275	29				○ 10-15		● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	○ 10-15	
		8	300	32						● 6-10	● 10-14	● 6-10	● 6-10	● 10-14		
		9	350	38						● 3-5	● 5-7	● 3-5	● 3-5	● 5-7		
	High alloyed steel, and tool steel	10	200	15						○ 3-5	○ 5-7	○ 3-5	○ 3-5	○ 5-7		
	11	325	35													
M	Stainless steel	12	200	15	○ 7-10	○ 7-10	○ 10-13			● 7-10	● 10-15	● 7-10	● 7-10	● 10-15	● 7-10	
		13	240	23	○ 5-8	○ 5-8	○ 8-11			● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	
		14	180	10	○ 4-6	○ 4-6	○ 6-8			● 4-6	● 6-8	● 4-6	● 4-6	● 6-8	● 4-6	
K	Grey cast iron	15	180	10						● 10-15	● 15-20	● 10-15	● 10-15	● 15-20		
		16	260	26						● 5-8	● 8-11	● 5-8	● 5-8	● 8-11		
		17	160	3				○ 10-15		● 10-15	● 15-20	● 10-15	● 10-15	● 15-20		
	Nodular Cast Iron	18	250	25				○ 5-8		● 5-8	● 8-11	● 5-8	● 5-8	● 8-11		
		19	130													
20	230	21														
N	Non Metallic Materials	21	60		● 10-15	● 10-15	● 10-15		● 10-15							
		22	100		● 10-15	● 10-15	● 10-15		● 10-15							
	Copper and Copper Alloys (Bronze / Brass)	23	75		○ 15-20	○ 15-20	○ 15-20		● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25		
		24	90		○ 10-15	○ 10-15	○ 10-15		● 15-20							
		25	130					○ 10-15								
	Aluminumcast, alloyed	26	110		○ 25-35	○ 25-35	○ 25-35		○ 25-35	● 25-35	● 35-40	● 25-35	● 25-35	● 35-40		
		27	90					○ 8-12	○ 8-12	● 8-12	● 12-17	● 8-12	● 8-12	● 12-17		
		28	100		○ 15-20	○ 15-20	● 15-20			● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	○ 15-20	
	Aluminumwrought alloy	29														
		30														
S	Heat Resistant Super Alloys	31	200	15												
		32	280	30												
		33	250	25												
		34	350	38												
		35	320	34												
Titanium Alloys	36	400Rm														
	37	1050 Rm														
H	Hardened steel	38	550	55												
		39	630	60												
	Chilled Cast Iron	40	400	42												
		41	550	55												

SELECTION GUIDE



GROUP					SAC54	SCA54	SDA54	SBA54	SCV09	SDV09	SA A38	SAD38	SCE11	SDE11	SCC22
PAGE with available sizes					27	27	27	27	27	27	27	27	27	27	27
THREAD TYPE					MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF
MATERIAL GROUPS					VA	MU	MU	MU	MU	MU	VA	VA	GS	GS	GS
HOLE TYPE					BLIND HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE
HOLE LENGTH					2,5D	3D	3D	3D	3D	3D	3D	3D	2,5D	2,5D	3D
TOOL MATERIAL					HSS-PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-PM	HSS-E	HSS-E	HSS-E
NORM					DIN374	DIN374	DIN374	DIN374	DIN374	DIN374	DIN374	DIN374	DIN374	DIN374	DIN374
SURFACE TREATMENT					VAP	Bright	TiN	VAP	Bright	TiN	VAP	VAP	Bright	TiN	Bright
CLASS OF THREAD (TOLERANCE)					6H	6H	6H	6H	6G	6G	6H	6H	6H	6H	6H
CHAMFER (DIN 2197)					C	B	B	B	B	B	B	B	C	C	B
FLUTE TYPE					SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT
SPIRAL FLUTE ANGLE					-	-	-	-	-	-	-	-	R40°	R40°	-
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.						For stainless steels and correct thread profiles & long tool life due to special tap geometry.		Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.		Suitable for through hole in more cutting speed.
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	135	136	136	137	138	139	140	141	142	143	144
P	Non-alloy steel	1	125			○ 15-20	● 15-20	○ 20-25	○ 15-20	○ 15-20	○ 20-25		○ 15-20	○ 15-20	○ 15-20
		2	190	13	○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	○ 15-20	○ 15-20	● 15-20	● 20-25	● 15-20
		3	250	25		● 12-18	● 18-24	● 12-18	● 12-18	● 18-24			● 12-18	● 18-24	● 12-18
		4	270	28	○ 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	○ 10-15	○ 10-15	● 10-15	● 15-20	● 10-15
		5	300	32		● 6-10	● 10-14	● 6-10	● 6-10	● 10-14			○ 6-10	○ 10-14	○ 6-10
	Low alloy steel	6	180	10	○ 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	○ 10-15	○ 10-15	● 10-15	● 15-20	● 10-15
		7	275	29	○ 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	○ 10-15	○ 10-15	● 10-15	● 15-20	● 10-15
		8	300	32		● 6-10	● 10-14	● 6-10	● 6-10	● 10-14			○ 6-10	○ 10-14	○ 6-10
		9	350	38		● 3-5	● 5-7	● 3-5	● 3-5	● 5-7					
	High alloyed steel, and tool steel	10	200	15		○ 3-5	○ 5-7	○ 3-5	○ 3-5	○ 5-7					
		11	325	35											
M	Stainless steel	12	200	15	● 7-10	● 7-10	● 10-15	● 7-10	● 7-10	● 10-15	● 7-10	● 7-10	○ 7-10	○ 10-13	○ 7-10
		13	240	23	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	○ 5-8	○ 8-11	○ 5-8
		14	180	10	● 4-6	● 4-6	● 6-8	● 4-6	● 4-6	● 6-8	● 4-6	● 4-6			
		15	180	10		● 10-15	● 15-20	● 10-15	● 10-15	● 15-20					
K	Grey cast iron	16	260	26		● 5-8	● 8-11	● 5-8	● 5-8	● 8-11					
		17	160	3		● 10-15	● 15-20	● 10-15	● 10-15	● 15-20			● 10-15	● 15-20	● 10-15
	Nodular Cast Iron	18	250	25		● 5-8	● 8-11	● 5-8	● 5-8	● 8-11			● 5-8	● 8-11	● 5-8
		19	130												
	Malleable cast iron	20	230	21											
N	Non Metallic Materials	21	60										○ 10-15	○ 15-20	○ 10-15
		22	100												
	Copper and Copper Alloys (Bronze / Brass)	23	75			● 15-20	● 20-25	● 15-20	● 15-20	● 20-25			○ 15-20	○ 20-25	○ 15-20
		24	90										○ 15-20	○ 20-25	○ 15-20
		25	130										● 10-15	● 15-20	● 10-15
		26	110			● 25-35	● 35-40	● 25-35	● 25-35	● 35-40			○ 25-35	○ 35-40	○ 25-35
	Aluminumcast, alloyed	27	90			● 8-12	● 12-17	● 8-12	● 8-12	● 12-17					
		28	100		○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	○ 15-20	○ 15-20	○ 15-20	○ 20-25	○ 15-20
	Aluminumwrought alloy	29													
		30													
S	Heat Resistant Super Alloys	31	200	15											
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
	Titanium Alloys	36	400Rm												
H	Hardened steel	37	1050 Rm												
		38	550	55											
	Chilled Cast Iron	39	630	60											
		40	400	42											
	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



GROUP					SDC22	SCE73	SHB09	SCE13	SDE13	SCC63	SDC63	SBB83	SBB23	SEE03	SCJ63
PAGE with available sizes					27	27	27	27	27	27	27	27	27	27	27
THREAD TYPE					MF	MF	MF	MF	MF	MF	MF	MF	MF	MF	MF
MATERIAL GROUPS					GS	GS	GS	VG	VG	VG	VG		VA NW	GG	AI
HOLE TYPE					THROUGH HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE	THROUGH HOLE	BLIND HOLE	BLIND HOLE	ALL TYPES OF HOLE	BLIND HOLE
HOLE LENGTH					3D	2D	2D	2,5D	2,5D	3D	3D	2,5D	2,5D	2D	2,5D
TOOL MATERIAL					HSS-E	HSS-E	HSS	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN374	DIN374	DIN2181	DIN374	DIN374	DIN374	DIN374	DIN374	DIN374	DIN374	DIN374
SURFACE TREATMENT					TiN	Bright	Bright	Bright	TiN	Bright	TiN	VAP	VAP	NI	Bright
CLASS OF THREAD (TOLERANCE)					6H	6H	6H	6H	6H	6H	6H		6HX	6HX	6H
CHAMFER (DIN 2197)					B	C	I/III	C	C	B	B	C	B	C	C
FLUTE TYPE					SPIRAL POINT	STRAIGHT FLUTE	STRAIGHT FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL POINT	SPIRAL FLUTE	SPIRAL POINT	STRAIGHT FLUTE	SPIRAL FLUTE
SPIRAL FLUTE ANGLE					-	-	-	R40°	R40°	-	-	R40°	-	-	R45°
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	SET OF HAND TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					Suitable for through hole in more cutting speed.	Suitable for tapping shallow holes.	This tap is a serial hand tap in set, First and Bottoming.	Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.	Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.	Suitable for through hole in more cutting speed than other taps due to thick web.	Suitable for tapping blind holes.	Suitable for through hole in more cutting speed.	Suitable for tapping cast iron or similar work materials.	Suitable For tapping blind holes.	
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	145	146	126	147	148	149	150	151	152	153	154
P	Non-alloy steel	1	125		○ 20-25	○ 15-20	○ HAND	○ 15-20	○ 20-25	○ 15-20	○ 15-20	● 15-20	● 15-20		○ 15-20
		2	190	13	● 20-25	○ 15-20	○ HAND	○ 12-18	○ 18-24	○ 12-18	○ 12-18	○ 12-15	○ 12-15		○ 15-20
		3	250	25	● 18-24	○ 12-18	○ HAND	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15		○ 12-18
		4	270	28	● 15-20	○ 10-15	○ HAND	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15		
		5	300	32	○ 10-14	○ 6-10		● 6-10	● 10-14	● 6-10	● 6-10				
	Low alloy steel	6	180	10	○ 15-20	○ 10-15	○ HAND	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15		
		7	275	29	● 15-20	○ 10-15	○ HAND	○ 10-15	○ 15-20	○ 10-15	○ 10-15				
		8	300	32	○ 10-14	○ 6-10		● 6-10	● 10-14	● 6-10	● 6-10				
		9	350	38				● 3-5	● 5-7	● 3-5	● 3-5				
	High alloyed steel, and tool steel	10	200	15				○ 3-5	○ 5-7	○ 3-5	○ 3-5				
		11	325	35											
M	Stainless steel	12	200	15	○ 10-13	○ 7-10				○ 7-10	○ 7-10	● 7-10	● 7-10		
		13	240	23	○ 8-11	○ 5-8				○ 5-8	○ 5-8	● 5-8	● 5-8		
		14	180	10				○ 4-6	○ 6-8	○ 4-6	○ 4-6	● 4-6	● 4-6		
		15	180	10										● 10-15	
K	Grey cast iron	16	260	26										● 5-8	
		17	160	3	● 15-20	○ 10-15	○ HAND							● 10-15	
	Nodular Cast Iron	18	250	25	● 8-11	○ 5-8	○ HAND							● 5-8	
		19	130											○ 10-15	
	Malleable cast iron	20	230	21										○ 5-8	
N	Non Metallic Materials	21	60		○ 15-20										● 10-15
		22	100												● 10-15
	Copper and Copper Alloys (Bronze / Brass)	23	75		○ 20-25										● 15-20
		24	90		○ 20-25										● 15-20
		25	130		● 15-20	○ 10-15	○ HAND								
		26	110		○ 35-40	○ 25-35	○ HAND								
	Aluminumcast, alloyed	27	90		○ 8-12	○ HAND								○ 8-12	○ 8-12
		28	100		○ 20-25	○									
	Aluminumwrought alloy	29													
		30													
S	Heat Resistant Super Alloys	31	200	15				○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15		
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
H	Titanium Alloys	36	400Rm					○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15		
		37	1050 Rm												
	Hardened steel	38	550	55											
		39	630	60											
	Chilled Cast Iron	40	400	42											
	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



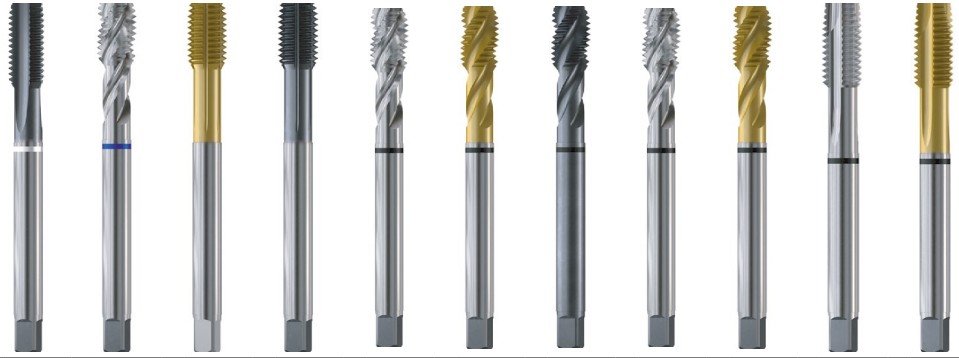
GROUP					SDH33	SEH33	SCA24	SDA24	SBA24	SCA63	SDA63	SCA34	SDA34	SBA34	SCV01
PAGE with available sizes					27	27	28	28	28	28	28	28	28	28	28
THREAD TYPE					MF	MF	UNC	UNC	UNC	UNC	UNC	UNC	UNC	UNC	UNC
MATERIAL GROUPS					GV	GV	MU	MU	MU	MU	MU	MU	MU	MU	MU
HOLE TYPE					ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	THROUGH HOLE
HOLE LENGTH					3D	3D	2,5D	2,5D	2,5D	2,5D	2,5D	3D	3D	3D	3D
TOOL MATERIAL					HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN374	DIN374	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
SURFACE TREATMENT					TiN	NI	Bright	TiN	VAP	Bright	TiN	Bright	TiN	VAP	Bright
CLASS OF THREAD (TOLERANCE)					6HX	6HX	2B	2B	2B	3B	3B	2B	2B	2B	3B
CHAMFER (DIN 2197)					C	C	C	C	C	C	C	B	B	B	B
FLUTE TYPE					COLD FORMING	COLD FORMING	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT
SPIRAL FLUTE ANGLE					-	-	R40°	R40°	R40°	R40°	R40°	-	-	-	-
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					COLD FORMING TAPS	COLD FORMING TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					Suitable for threading soft materials with at least 8-10% elongation.					For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.					
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	155	156	157	158	159	160	161	162	163	164	165
P	Non-alloy steel	1	125		● 15-20	● 15-20	○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 20-25	○ 15-20	○ 15-20
		2	190	13	● 15-20	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 20-25	● 15-20	● 15-20
		3	250	25	● 12-18	● 12-18	● 12-18	● 18-24	● 12-18	● 12-18	● 18-24	● 12-18	● 18-24	● 12-18	● 12-18
		4	270	28			● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	● 10-15
		5	300	32			● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 10-14	● 6-10	● 6-10
	Low alloy steel	6	180	10	● 10-15	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	● 10-15
		7	275	29			● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	● 10-15
		8	300	32			● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 10-14	● 6-10	● 6-10
		9	350	38			● 3-5	● 5-7	● 3-5	● 3-5	● 5-7	● 3-5	● 5-7	● 3-5	● 3-5
	High alloyed steel, and tool steel	10	200	15			○ 3-5	○ 5-7	○ 3-5	○ 3-5	○ 5-7	○ 3-5	○ 5-7	○ 3-5	○ 3-5
		11	325	35											
M	Stainless steel	12	200	15	○ 10-13	○ 7-10	● 7-10	● 10-15	● 7-10	● 7-10	● 10-15	● 7-10	● 10-15	● 7-10	● 7-10
		13	240	23	○ 8-11	○ 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 8-11	● 5-8	● 5-8
		14	180	10	○ 6-8	○ 4-6	● 4-6	● 6-8	● 4-6	● 4-6	● 6-8	● 4-6	● 6-8	● 4-6	● 4-6
		15	180	10			● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	● 10-15
		16	260	26			● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 8-11	● 5-8	● 5-8
K	Grey cast iron	17	160	3			● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20	● 10-15	● 10-15
		18	250	25			● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 8-11	● 5-8	● 5-8
	Nodular Cast Iron	19	130												
		20	230	21											
	Malleable cast iron	21	230	21											
N	Non Metallic Materials	22	100		● 10-15	● 10-15									
		23	75		○ 15-20	○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 20-25	● 15-20	● 15-20
	Copper and Copper Alloys (Bronze / Brass)	24	90		○ 10-15	○ 10-15									
		25	130												
		26	110		○ 25-35	○ 25-35	● 25-35	● 35-40	● 25-35	● 25-35	● 35-40	● 25-35	● 35-40	● 25-35	● 25-35
	Aluminumcast, alloyed	27	90				● 8-12	● 12-17	● 8-12	● 8-12	● 12-17	● 8-12	● 12-17	● 8-12	● 8-12
		28	100		○ 15-20	○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 20-25	● 15-20	● 15-20
	Aluminumwrought alloy	29													
		30													
		31	200	15											
S	Heat Resistant Super Alloys	32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
		36	400Rm												
H	Titanium Alloys	37	1050 Rm												
		38	550	55											
	Hardened steel	39	630	60											
		40	400	42											
	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



GROUP					SDV01	SCB44	SCC14	SCE24	SHV63	SCB74	SDB74	SCC44	SDC44	SBJ04	SBC64
PAGE with available sizes					28	28	28	28	29	28	28	28	28	28	28
THREAD TYPE					UNC	UNC	UNC	UNC	UNC	UNC	UNC	UNC	UNC	UNC	UNC
MATERIAL GROUPS					MU	GS	GS	GS	GS	VG	VG	VG	VG	VA NW	VA NW
HOLE TYPE					THROUGH HOLE	BLIND HOLE	THROUGH HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE	THROUGH HOLE	BLIND HOLE	BLIND HOLE
HOLE LENGTH					3D	2,5D	3D	2D	2D	2,5D	2,5D	3D	3D	2,5D	2,5D
TOOL MATERIAL					HSS-E	HSS-E	HSS-E	HSS-E	HSS	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN351	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
SURFACE TREATMENT					TiN	Bright	Bright	Bright	Bright	Bright	TiN	Bright	TiN	VAP	VAP
CLASS OF THREAD (TOLERANCE) HAND					3B	2B	2B	2B	2B	2B	2B	2B	2B		2B
CHAMFER (DIN 2197)					B	C	B	C	I/II/III	C	C	B	B	C	B
FLUTE TYPE					SPIRAL POINT	SPIRAL FLUTE	SPIRAL POINT	STRAIGHT FLUTE	STRAIGHT FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL POINT	SPIRAL FLUTE	SPIRAL POINT
SPIRAL FLUTE ANGLE					-	R40°	-	-	-	R40°	R40°	-	-	R40°	-
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	SET OF HAND TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					For using multi-purpose and correct thread profiles.	Suitable for tapping blind holes.	Suitable for through hole in more cutting speed.	Suitable for tapping shallow holes.	This tap is a serial hand tap in set, First, Second and Bottoming.	Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.	Suitable for through hole in more cutting speed than other taps due to thick web.	Suitable for tapping blind holes.	Suitable for through hole in more cutting speed.		
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	166	167	168	169	181	170	171	172	173	174	175
P	Non-alloy steel	1	125		○ 20-25	○ 15-20	○ 15-20	○ 15-20	○ HAND	○ 15-20	○ 20-25	○ 15-20	○ 15-20	● 15-20	● 15-20
		2	190	13	● 20-25	● 15-20	● 15-20	○ 15-20	○ HAND	○ 12-18	○ 18-24	○ 12-18	○ 12-18	○ 12-15	○ 12-15
		3	250	25	● 18-24	● 12-18	● 12-18	○ 12-18	○ HAND	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15
		4	270	28	● 15-20	● 10-15	● 10-15	○ 10-15	○ HAND	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15
		5	300	32	● 10-14	○ 6-10	○ 6-10	○ 6-10		● 6-10	● 10-14	● 6-10	● 6-10	○ 10-15	○ 10-15
	Low alloy steel	6	180	10	● 15-20	● 10-15	● 10-15	○ 10-15	○ HAND	○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15
		7	275	29	● 15-20	● 10-15	● 10-15	○ 10-15	○ HAND	○ 10-15	○ 15-20	○ 10-15	○ 10-15		
		8	300	32	● 10-14	○ 6-10	○ 6-10	○ 6-10		● 6-10	● 10-14	● 6-10	● 6-10		
		9	350	38	● 5-7					● 3-5	● 5-7	● 3-5	● 3-5		
		10	200	15	○ 5-7					○ 3-5	○ 5-7	○ 3-5	○ 3-5		
M	Stainless steel	11	325	35											
		12	200	15	● 10-15	○ 7-10	○ 7-10	○ 7-10				○ 7-10	○ 7-10	● 7-10	● 7-10
		13	240	23	● 8-11	○ 5-8	○ 5-8	○ 5-8				○ 5-8	○ 5-8	● 5-8	● 5-8
		14	180	10	● 6-8					○ 4-6	○ 6-8	○ 4-6	○ 4-6	● 4-6	● 4-6
		15	180	10	● 15-20			○ 10-15							
K	Grey cast iron	16	260	26	● 8-11			○ 5-8							
		17	160	3	● 15-20	● 10-15	● 10-15	○ 10-15	○ HAND						
	Nodular Cast Iron	18	250	25	● 8-11	● 5-8	● 5-8	○ 5-8	○ HAND						
		19	130												
	Malleable cast iron	20	230	21											
N	Non Metallic Materials	21	60			○ 10-15	○ 10-15								
		22	100												
	Copper and Copper Alloys (Bronze / Brass)	23	75		● 20-25	○ 15-20	○ 15-20								
		24	90			○ 15-20	○ 15-20								
		25	130		● 10-15	● 10-15	○ 10-15	○ HAND							
	Aluminumcast, alloyed	26	110		● 35-40	○ 25-35	○ 25-35	○ 25-35	○ HAND						
		27	90		● 12-17			○ 8-12	○ HAND						
		28	100		● 20-25	○ 15-20	○ 15-20								
	Aluminumwrought alloy	29													
		30													
S	Heat Resistant Super Alloys	31	200	15						○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
	Titanium Alloys	36	400Rm							○ 10-15	○ 15-20	○ 10-15	○ 10-15	○ 10-15	○ 10-15
		37	1050 Rm												
H	Hardened steel	38	550	55											
		39	630	60											
	Chilled Cast Iron	40	400	42											
	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



GROUP					SEE34	SCB69	SDH12	SEH04	SCA64	SDA64	SBA64	SCA02	SDA02	SCA74	SDA74
PAGE with available sizes					28	28	29	29	29	29	29	29	29	30	30
THREAD TYPE					UNC	UNC	UNC	UNC	UNF	UNF	UNF	UNF	UNF	UNF	UNF
MATERIAL GROUPS					GG	AI	GV	GV	MU	MU	MU	MU	MU	MU	MU
HOLE TYPE					ALL TYPES OF HOLE	BLIND HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE	THROUGH HOLE
HOLE LENGTH					2D	2,5D	3D	3D	2,5D	2,5D	2,5D	2,5D	2,5D	3D	3D
TOOL MATERIAL					HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/374	DIN 371/374	DIN 371/374	DIN 371/374	DIN 371/374	DIN 371/374	DIN 371/374
SURFACE TREATMENT					NI	Bright	TiN	NI	Bright	TiN	VAP	Bright	TiN	Bright	TiN
CLASS OF THREAD (TOLERANCE)					2BX	2B	2BX	2BX	2B	2B	2B	3B	3B	2B	2B
CHAMFER (DIN 2197)					C	C	C	C	C	C	C	C	C	B	B
FLUTE TYPE					STRAIGHT FLUTE	SPIRAL FLUTE	COLD FORMING	COLD FORMING	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL POINT
SPIRAL FLUTE ANGLE					-	R45°	-	-	R40°	R40°	R40°	R40°	R40°	-	-
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	COLD FORMING TAPS	COLD FORMING TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					Suitable for tapping cast iron or similar work materials.					For threading soft materials with at least 8-10% elongation.					For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	176	177	179	180	182	183	184	185	186	191	192
P	Non-alloy steel	1	125			○ 15-20	● 15-20	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 20-25
		2	190	13		○ 15-20	● 15-20	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 20-25
		3	250	25		○ 12-18	● 12-18	● 12-18	● 12-18	● 18-24	● 12-18	● 12-18	● 18-24	● 12-18	● 18-24
		4	270	28					● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20
		5	300	32					● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 10-14
	Low alloy steel	6	180	10			● 10-15	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20
		7	275	29					● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20
		8	300	32					● 6-10	● 10-14	● 6-10	● 6-10	● 10-14	● 6-10	● 10-14
		9	350	38					● 3-5	● 5-7	● 3-5	● 3-5	● 5-7	● 3-5	● 5-7
	High alloyed steel, and tool steel	10	200	15					○ 3-5	○ 5-7	○ 3-5	○ 3-5	○ 5-7	○ 3-5	○ 5-7
M	Stainless steel	11	325	35											
		12	200	15			○ 10-13	○ 7-10	● 7-10	● 10-15	● 7-10	● 7-10	● 10-15	● 7-10	● 10-15
		13	240	23			○ 8-11	○ 5-8	● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 8-11
		14	180	10			○ 6-8	○ 4-6	● 4-6	● 6-8	● 4-6	● 4-6	● 6-8	● 4-6	● 6-8
K	Grey cast iron	15	180	10	● 10-15				● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20
		16	260	26	● 5-8				● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 8-11
	Nodular Cast Iron	17	160	3	● 10-15				● 10-15	● 15-20	● 10-15	● 10-15	● 15-20	● 10-15	● 15-20
		18	250	25	● 5-8				● 5-8	● 8-11	● 5-8	● 5-8	● 8-11	● 5-8	● 8-11
	Malleable cast iron	19	130		○ 10-15										
N	Non Metallic Materials	20	230	21	○ 5-8										
		21	60			● 10-15	● 10-15	● 10-15							
	Copper and Copper Alloys (Bronze / Brass)	22	100			● 10-15	● 10-15	● 10-15							
		23	75			● 15-20	○ 15-20	○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 20-25
		24	90			● 15-20	○ 10-15	○ 10-15							
		25	130												
	Aluminumcast, alloyed	26	110				○ 25-35	○ 25-35	● 25-35	● 35-40	● 25-35	● 25-35	● 35-40	● 25-35	● 35-40
		27	90		○ 8-12	○ 8-12			● 8-12	● 12-17	● 8-12	● 8-12	● 12-17	● 8-12	● 12-17
	Aluminumwrought alloy	28	100				○ 15-20	○ 15-20	● 15-20	● 20-25	● 15-20	● 15-20	● 20-25	● 15-20	● 20-25
		29													
		30													
S	Heat Resistant Super Alloys	31	200	15											
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
H	Titanium Alloys	36	400Rm												
		37	1050 Rm												
	Hardened steel	38	550	55											
		39	630	60											
	Chilled Cast Iron	40	400	42											
	Hardened Cast Iron	41	550	55											

SELECTION GUIDE



GROUP					SBA74	SCV02	SDV02	SCB24	SCC34	SHF09	SCB84	SCC54	SBJ24	SBC74	SEE54
PAGE with available sizes					30	30	30	29	30	30	29	30	29	30	30
THREAD TYPE					UNF	UNF	UNF	UNF	UNF	UNF	UNF	UNF	UNF	UNF	UNF
MATERIAL GROUPS					MU	MU	MU	GS	GS	GS	VG	VG	VA NW	VA NW	GG
HOLE TYPE					THROUGH HOLE	THROUGH HOLE	THROUGH HOLE	BLIND HOLE	THROUGH HOLE	ALL TYPES OF HOLE	BLIND HOLE	THROUGH HOLE	BLIND HOLE	BLIND HOLE	ALL TYPES OF HOLE
HOLE LENGTH					3D	3D	3D	2,5D	3D	2D	2,5D	3D	2,5D	2,5D	2D
TOOL MATERIAL					HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN 371/374	DIN 371/374	DIN 371/374	DIN 371/374	DIN 371/374	DIN2181	DIN 371/374	DIN 371/374	DIN 371/374	DIN 371/374	DIN 371/374
SURFACE TREATMENT					VAP	Bright	TiN	Bright	Bright	Bright	Bright	Bright	VAP	VAP	NI
CLASS OF THREAD (TOLERANCE)					2B	3B	3B	2B	2B	2B	2B	2B		2B	2BX
CHAMFER (DIN 2197)					B	B	B	C	B	I/III	C	B	C	B	C
FLUTE TYPE					SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL FLUTE	SPIRAL POINT	STRAIGHT FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL FLUTE	SPIRAL POINT	STRAIGHT FLUTE
SPIRAL FLUTE ANGLE					-	-	-	R40°	-	-	R40°	-	R40°	-	-
THREAD ANGLE					60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	SET OF HAND TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.			Suitable for tapping blind holes.	Suitable for through hole in more cutting speed.	This tap is a serial hand tap in set, First and Bottoming.	Suitable for tapping blind holes.	Suitable for through hole in more cutting speed.	Suitable for tapping blind holes.	Suitable for through hole in more cutting speed.	Suitable for tapping cast iron due to nitriding.
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	193	194	195	187	196	200	184	197	189	198	199
P	Non-alloy steel	1	125		○ 15-20	○ 15-20	○ 20-25	○ 15-20	○ 15-20	○ HAND			● 15-20	● 15-20	
		2	190	13	● 15-20	● 15-20	● 20-25	● 15-20	● 15-20	○ HAND	○ 15-20	○ 15-20	● 15-20	● 15-20	
		3	250	25	● 12-18	● 12-18	● 18-24	● 12-18	● 12-18	○ HAND	○ 12-18	○ 12-18	○ 12-15	○ 12-15	
		4	270	28	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	○ HAND	○ 10-15	○ 10-15	○ 10-15	○ 10-15	
		5	300	32	● 6-10	● 6-10	● 10-14	○ 6-10	○ 6-10		● 6-10	● 6-10			
	Low alloy steel	6	180	10	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	○ HAND	○ 10-15	○ 10-15	○ 10-15	○ 10-15	
		7	275	29	● 10-15	● 10-15	● 15-20	○ 10-15	● 10-15	○ HAND	○ 10-15	○ 10-15			
		8	300	32	● 6-10	● 6-10	● 10-14	○ 6-10	○ 6-10		● 6-10	● 6-10			
	High alloyed steel, and tool steel	9	350	38	● 3-5	● 3-5	● 5-7				● 3-5	● 3-5			
		10	200	15	○ 3-5	○ 3-5	○ 5-7				○ 3-5	○ 3-5			
M	Stainless steel	11	325	35											
		12	200	15	● 7-10	● 7-10	● 10-15	○ 7-10	○ 7-10			○ 7-10	● 7-10	● 7-10	
		13	240	23	● 5-8	● 5-8	● 8-11	○ 5-8	○ 5-8			○ 5-8	● 5-8	● 5-8	
		14	180	10	● 4-6	● 4-6	● 6-8				○ 4-6	○ 4-6	● 4-6	● 4-6	
K	Grey cast iron	15	180	10	● 10-15	● 10-15	● 15-20								● 10-15
		16	260	26	● 5-8	● 5-8	● 8-11								● 5-8
	Nodular Cast Iron	17	160	3	● 10-15	● 10-15	● 15-20	● 10-15	● 10-15	○ HAND					● 10-15
		18	250	25	● 5-8	● 5-8	● 8-11	● 5-8	● 5-8	○ HAND					● 5-8
	Malleable cast iron	19	130												○ 10-15
N	Non Metallic Materials	20	230	21											○ 5-8
		21	60					○ 10-15	○ 10-15						
	Copper and Copper Alloys (Bronze / Brass)	22	100												
		23	75		● 15-20	● 15-20	● 20-25	○ 15-20	○ 15-20						
		24	90					○ 15-20	○ 15-20						
	Aluminumcast, alloyed	25	130					● 10-15	● 10-15	○ HAND					
		26	110		● 25-35	● 25-35	● 35-40	○ 25-35	○ 25-35	○ HAND					
		27	90		● 8-12	● 8-12	● 12-17			○ HAND					○ 8-12
	Aluminumwrought alloy	28	100		● 15-20	● 15-20	● 20-25	○ 15-20	○ 15-20						
		29													
S	Heat Resistant Super Alloys	30													
		31	200	15							○ 10-15	○ 10-15	○ 10-15	○ 10-15	
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
	Titanium Alloys	36	400Rm								○ 10-15	○ 10-15	○ 10-15	○ 10-15	
H	Hardened steel	37	1050 Rm												
		38	550	55											
	Chilled Cast Iron	39	630	60											
	Hardened Cast Iron	40	400	42											
		41	550	55											

SELECTION GUIDE

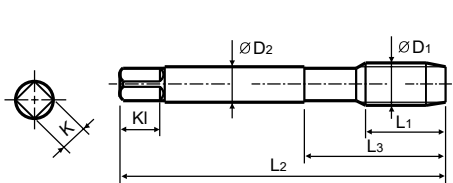


GROUP					SCB70	SCB34	SCC24	SHD09	SHW09	SCH28	SCH29	SBF14	SCH27	SCJ09	SCJ73
PAGE with available sizes					29	30	31	31	31	31	31	31	31	32	32
THREAD TYPE					UNF	BSW	BSW	BSW	G(BSP)	G(BSP)	G(BSP)	G(BSP)	G(BSP)	EG-M	EG-M
MATERIAL GROUPS					AI	GS	GS	GS	GS	GS	VG	VA NW	GS	AI	AI
HOLE TYPE					BLIND HOLE	BLIND HOLE	THROUGH HOLE	ALL TYPES OF HOLE	ALL TYPES OF HOLE	BLIND HOLE	BLIND HOLE	BLIND HOLE	THROUGH HOLE	BLIND HOLE	BLIND HOLE
HOLE LENGTH					2,5D	2,5D	3D	2D	2D	2,5D	2,5D	2,5D	3D	2,5D	2,5D
TOOL MATERIAL					HSS-E	HSS-E	HSS-E	HSS	HSS	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
NORM					DIN 371/374	DIN 2182/2183	DIN 2182/2183	DIN 351	DIN 5156/5157	DIN 5156/5157	DIN 5156/5157	DIN 5156/5157	DIN 5156/5157	DIN 371/376	DIN 371/376
SURFACE TREATMENT					Bright	Bright	Bright	Bright	Bright	Bright	Bright	VAP	Bright	Bright	Bright
CLASS OF THREAD (TOLERANCE)					2B	-	-	-	-	-	-	-	-	6H Mod.	6H Mod.
CHAMFER (DIN 2197)					C	C	B	I/II/III	I/III	C	C	C	B	C	B
FLUTE TYPE					SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	STRAIGHT FLUTE	STRAIGHT FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL POINT	SPIRAL FLUTE	SPIRAL POINT
SPIRAL FLUTE ANGLE					R45°	R40°	-	-	-	R40°	R40°	R40°	-	R40°	-
THREAD ANGLE					60°	55°	55°	55°	55°	55°	55°	55°	55°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	SET OF HAND TAPS	SET OF HAND TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					Suitable for tapping blind holes.	Suitable for tapping blind holes.	Suitable for through hole.	Serial hand tap in set, First, Second and Bottoming.	Serial hand tap set in First and Bottoming.	Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.			Wire insert threads are used for increasing fastening strength in soft materials.		
COOLANT HOLES					No	No	No	No	No	No	No	No	No	No	No
ISO	Material Description	VDI 3323	HB	HRC	190	201	202	203	204	205	206	207	208	209	210
P	Non-alloy steel	1	125		○ 15-20	○ 15-20	○ 15-20	○ HAND	○ HAND			● 15-20		○ 15-20	○ 15-20
		2	190	13	○ 15-20	● 15-20	● 15-20	○ HAND	○ HAND	● 15-20		● 15-20	● 15-20	○ 15-20	○ 15-20
		3	250	25	○ 12-18	● 12-18	● 12-18	○ HAND	○ HAND	● 12-18			● 12-18	○ 12-18	○ 12-18
		4	270	28		● 10-15	● 10-15	○ HAND		● 10-15			● 10-15		
		5	300	32		○ 6-10	○ 6-10								
	Low alloy steel	6	180	10		● 10-15	● 10-15	○ HAND	○ HAND	● 10-15	○ 10-15		● 10-15		
		7	275	29		● 10-15	● 10-15	○ HAND		● 10-15	○ 10-15		● 10-15		
		8	300	32		○ 6-10	○ 6-10				● 6-10				
		9	350	38							● 3-5				
		10	200	15											
M	Stainless steel	11	325	35											
		12	200	15		○ 7-10	○ 7-10					● 7-10			
		13	240	23		○ 5-8	○ 5-8					● 5-8			
		14	180	10							○ 4-6	● 4-6			
K	Grey cast iron	15	180	10					○ HAND						
	Nodular Cast Iron	16	260	26					○ HAND						
		17	160	3		● 10-15	● 10-15	○ HAND		● 10-15			● 10-15		
		18	250	25		● 5-8	● 5-8	○ HAND		● 5-8			● 5-8		
	Malleable cast iron	19	130												
N	Non Metallic Materials	20	230	21											
		21	60		● 10-15	○ 10-15	○ 10-15		○ HAND	○ 10-15			○ 10-15	● 10-15	● 10-15
	Copper and Copper Alloys (Bronze / Brass)	22	100		● 10-15				○ HAND	○ 10-15			○ 10-15	● 10-15	● 10-15
		23	75		● 15-20	○ 15-20	○ 15-20		○ HAND	○ 15-20			○ 15-20	● 15-20	● 15-20
		24	90		● 15-20	○ 15-20	○ 15-20			○ 15-20			○ 15-20	● 15-20	● 15-20
		25	130		● 10-15	● 10-15	○ HAND			● 10-15			● 10-15		
	Aluminumcast, alloyed	26	110			○ 25-35	○ 25-35	○ HAND		○ 25-35			● 25-35		
		27	90		○ 8-12			○ HAND		○ 8-12			○ 8-12	● 8-12	● 8-12
	Aluminumwrought alloy	28	100			○ 15-20	○ 15-20								
		29													
S	Heat Resistant Super Alloys	30													
		31	200	15											
		32	280	30											
		33	250	25											
		34	350	38											
		35	320	34											
	Titanium Alloys	36	400Rm												
H	Hardened steel	37	1050 Rm												
		38	550	55											
	Chilled Cast Iron	39	630	60											
	Hardened Cast Iron	40	400	42											
		41	550	55											

SELECTION GUIDE

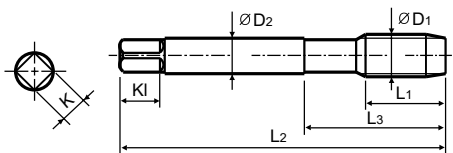


GROUP					SCJ44	SCJ34	SCJ54
PAGE with available sizes					32	32	33
THREAD TYPE					EG-UNC	EG-UNC	EG-UNF
MATERIAL GROUPS					AI	AI	AI
HOLE TYPE					BLIND HOLE	BLIND HOLE	BLIND HOLE
HOLE LENGTH					2,5D	2,5D	2,5D
TOOL MATERIAL					HSS-E	HSS-E	HSS-E
NORM					DIN 371/376	DIN 371/376	DIN 371/374
SURFACE TREATMENT					Bright	Bright	Bright
CLASS OF THREAD (TOLERANCE)					2B	2B	2B
CHAMFER (DIN 2197)					C	B	B
FLUTE TYPE					SPIRAL FLUTE	SPIRAL POINT	SPIRAL POINT
SPIRAL FLUTE ANGLE					R40°	-	-
THREAD ANGLE					60°	60°	60°
TOOL TYPE					MACHINE TAPS	MACHINE TAPS	MACHINE TAPS
DESCRIPTION					Wire insert threads are used for increasing fastening strength in soft materials.		
COOLANT HOLES					No	No	No
ISO	Material Description	VDI 3323	HB	HRC	211	212	213
P	Non-alloy steel	1	125		○ 15-20	○ 15-20	○ 15-20
		2	190	13	○ 15-20	○ 15-20	○ 15-20
		3	250	25	○ 12-18	○ 12-18	○ 12-18
		4	270	28			
		5	300	32			
	Low alloy steel	6	180	10			
		7	275	29			
		8	300	32			
		9	350	38			
	High alloyed steel, and tool steel	10	200	15			
		11	325	35			
M	Stainless steel	12	200	15			
		13	240	23			
		14	180	10			
		15	180	10			
K	Grey cast iron	16	260	26			
		17	160	3			
	Nodular Cast Iron	18	250	25			
		19	130				
	Malleable cast iron	20	230	21			
N	Non Metallic Materials	21	60		● 10-15	● 10-15	● 10-15
		22	100		● 10-15	● 10-15	● 10-15
	Copper and Copper Alloys (Bronze / Brass)	23	75		● 15-20	● 15-20	● 15-20
		24	90		● 15-20	● 15-20	● 15-20
		25	130				
	Aluminumcast, alloyed	26	110				
		27	90		● 8-12	● 8-12	● 8-12
		28	100				
	Aluminumwrought alloy	29					
		30					
S	Heat Resistant Super Alloys	31	200	15			
		32	280	30			
		33	250	25			
		34	350	38			
		35	320	34			
	Titanium Alloys	36	400Rm				
		37	1050 Rm				
H	Hardened steel	38	550	55			
		39	630	60			
	Chilled Cast Iron	40	400	42			
	Hardened Cast Iron	41	550	55			

TAPS AVAILABLE SIZES - M Metric-ISO threads coarse pitch


GROUP											SHO40	SHO51	SHO53	SHO50	SCA04	SDA04	SCV04	SCA09	SDA09	SBA09	SCA06	SDA06	SBA06	SCA07	SDA07
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M2	0,4	136	371	8	45	13	2,8	2,1	5	3					•	•	•	•	•	•	•	•	•	•	•
M2.2	0,45	156	371	8	45	13	2,8	2,1	5	3					•	•	•	•	•	•	•	•	•	•	•
M2.3	0,4	196		8	45	13	2,8	2,1	5	3					•	•	•	•	•	•	•	•	•	•	•
M2.5	0,45	176	371	9	50	15	2,8	2,1	5	3					•	•	•	•	•	•	•	•	•	•	•
M2.6	0,45	496		9	50	15	2,8	2,1	5	3					•	•	•	•	•	•	•	•	•	•	•
M3	0,5	206	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M3.5	0,6	226	371	7	56	20	4	3	6	3					•	•	•	•	•	•	•	•	•	•	•
M4	0,7	246	371	7	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M4.5	0,75	266	371	8	70	25	6	4,9	8	3					•	•	•	•	•	•	•	•	•	•	•
M5	0,8	286	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M6	1	316	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M7	1	346	371	10	80	30	7	5,5	8	3					•	•	•	•	•	•	•	•	•	•	•
M8	1,25	366	371	13	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M9	1,25	396	371	13	90	35	9	7	10	3					•	•	•	•	•	•	•	•	•	•	•
M10	1,5	426	371	15	100	39	10	8	11	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M11	1,5	466	376	17	100	40	8	6,2	9	3					•	•	•	•	•	•	•	•	•	•	•
M12	1,75	506	376	18	110	44	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M14	2	546	376	20	110	44	11	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M16	2	606	376	20	110	44	12	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M18	2,5	656	376	25	125	50	14	11	14	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M20	2,5	706	376	25	140	54	16	12	15	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M22	2,5	746	376	25	140	54	18	14,5	17	4					•	•	•	•	•	•	•	•	•	•	•
M24	3	786	376	30	160	60	18	14,5	17	4					•	•	•	•	•	•	•	•	•	•	•
M27	3	866	376	30	160	60	20	16	19	4					•	•	•	•	•	•	•	•	•	•	•
M30	3,5	946	376	35	180	70	22	18	21	4					•	•	•	•	•	•	•	•	•	•	•

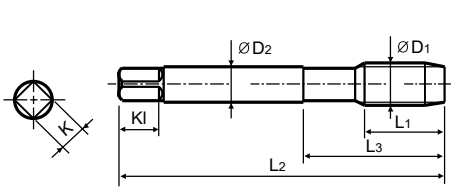
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available



GROUP											SBA07	SCA08	SDA08	SBA08	SAA04	SAA07	SBB44	SAB44	SCA14	SDA14	SBA14	SCV05	SDV05	SBV05	SCV06
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
M2	0,4	136	371	8	45	13	2,8	2,1	5	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M2.2	0,45	156	371	8	45	13	2,8	2,1	5	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M2.3	0,4	196		8	45	13	2,8	2,1	5	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M2.5	0,45	176	371	9	50	15	2,8	2,1	5	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M2.6	0,45	496		9	50	15	2,8	2,1	5	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M3	0,5	206	371	6	56	18	3,5	2,7	6	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M3.5	0,6	226	371	7	56	20	4	3	6	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M4	0,7	246	371	7	63	21	4,5	3,4	6	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M4.5	0,75	266	371	8	70	25	6	4,9	8	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M5	0,8	286	371	8	70	25	6	4,9	8	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M6	1	316	371	10	80	30	6	4,9	8	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M7	1	346	371	10	80	30	7	5,5	8	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M8	1,25	366	371	13	90	35	8	6,2	9	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M9	1,25	396	371	13	90	35	9	7	10	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M10	1,5	426	371	15	100	39	10	8	11	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M11	1,5	466	376	17	100	40	8	6,2	9	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M12	1,75	506	376	18	110	44	9	7	10	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M14	2	546	376	20	110	44	11	9	12	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M16	2	606	376	20	110	44	12	9	12	3	•	•	•	•		•		•	•	•	•	•	•	•	•
M18	2,5	656	376	25	125	50	14	11	14	4	•	•	•	•		•		•	•	•	•	•	•	•	•
M20	2,5	706	376	25	140	54	16	12	15	4	•	•	•	•		•		•	•	•	•	•	•	•	•
M22	2,5	746	376	25	140	54	18	14,5	17	4	•	•	•	•		•		•	•	•	•	•	•	•	•
M24	3	786	376	30	160	60	18	14,5	17	4	•	•	•	•		•		•	•	•	•	•	•	•	•
M27	3	866	376	30	160	60	20	16	19	4	•	•	•	•		•		•	•	•	•	•	•	•	•
M30	3,5	946	376	35	180	70	22	18	21	4	•	•	•	•		•		•	•	•	•	•	•	•	•

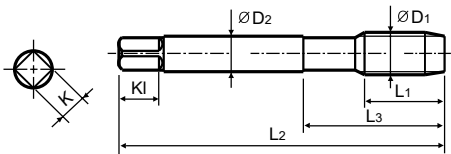
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TAPS AVAILABLE SIZES -M Metric-ISO threads coarse pitch



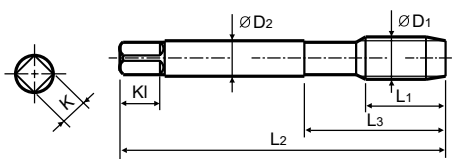
GROUP											SDV06	SBV06	SCV07	SDV07	SBV07	SCV08	SDV08	SBV08	SA14	SBC28	SAC28	SCH11	SDH11	SCF17	SCA10
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
M2	0,4	136	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•			•	•	•	•	
M2.2	0,45	156	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•			•	•	•	•	
M2.3	0,4	196		8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•			•	•	•	•	
M2.5	0,45	176	371	9	50	15	2,8	2,1	5	3	•	•	•	•	•	•	•	•			•	•	•	•	
M2.6	0,45	496		9	50	15	2,8	2,1	5	3	•	•	•	•	•	•	•	•			•	•	•	•	
M3	0,5	206	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•			•	•	•	•	•
M3.5	0,6	226	371	7	56	20	4	3	6	3	•	•	•	•	•	•	•	•			•	•	•	•	
M4	0,7	246	371	7	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•			•	•	•	•	•
M4.5	0,75	266	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•			•	•	•	•	•
M5	0,8	286	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•			•	•	•	•	•
M6	1	316	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•			•	•	•	•
M7	1	346	371	10	80	30	7	5,5	8	3	•	•	•	•	•	•	•	•			•	•	•	•	
M8	1,25	366	371	13	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•			•	•	•	•
M9	1,25	396	371	13	90	35	9	7	10	3	•	•	•	•	•	•	•	•			•	•	•	•	
M10	1,5	426	371	15	100	39	10	8	11	3	•	•	•	•	•	•	•	•	•			•	•	•	•
M11	1,5	466	376	17	100	40	8	6,2	9	3	•	•	•	•	•	•	•	•			•	•	•	•	
M12	1,75	506	376	18	110	44	9	7	10	3	•	•	•	•	•	•	•	•	•			•	•	•	•
M14	2	546	376	20	110	44	11	9	12	3	•	•	•	•	•	•	•	•	•	•			•	•	•
M16	2	606	376	20	110	44	12	9	12	3	•	•	•	•	•	•	•	•	•			•	•	•	•
M18	2,5	656	376	25	125	50	14	11	14	4	•	•	•	•	•	•	•	•	•			•	•	•	•
M20	2,5	706	376	25	140	54	16	12	15	4	•	•	•	•	•	•	•	•	•			•	•	•	•
M22	2,5	746	376	25	140	54	18	14,5	17	4	•	•	•	•	•	•	•	•	•			•	•	•	•
M24	3	786	376	30	160	60	18	14,5	17	4	•	•	•	•	•	•	•	•	•			•	•	•	•
M27	3	866	376	30	160	60	20	16	19	4	•	•	•	•	•	•	•	•	•			•	•	•	•
M30	3,5	946	376	35	180	70	22	18	21	4	•	•	•	•	•	•	•	•	•			•	•	•	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available



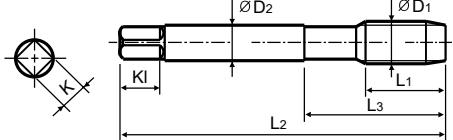
GROUP											SCB27	SCA22	SDB27	SCC27	SDC27	SCC11	SCE63	SQB23	SRA23	SCD12	SDD12	SBD12	SYD12	SBJ13	SQB10
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
M2	0,4	136	371	8	45	13	2,8	2,1	5	3	•	•	•			•	•	•	•	•	•	•	•	•	•
M2.2	0,45	156	371	8	45	13	2,8	2,1	5	3	•	•	•			•	•	•	•	•	•	•	•	•	•
M2.3	0,4	196		8	45	13	2,8	2,1	5	3	•	•	•			•	•	•	•	•	•	•	•	•	•
M2.5	0,45	176	371	9	50	15	2,8	2,1	5	3	•	•	•			•	•	•	•	•	•	•	•	•	•
M2.6	0,45	496		9	50	15	2,8	2,1	5	3	•	•	•			•	•	•	•	•	•	•	•	•	•
M3	0,5	206	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M3.5	0,6	226	371	7	56	20	4	3	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M4	0,7	246	371	7	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M4.5	0,75	266	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M5	0,8	286	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M6	1	316	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M7	1	346	371	10	80	30	7	5,5	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M8	1,25	366	371	13	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M9	1,25	396	371	13	90	35	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M10	1,5	426	371	15	100	39	10	8	11	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M11	1,5	466	376	17	100	40	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M12	1,75	506	376	18	110	44	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M14	2	546	376	20	110	44	11	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M16	2	606	376	20	110	44	12	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M18	2,5	656	376	25	125	50	14	11	14	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M20	2,5	706	376	25	140	54	16	12	15	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M22	2,5	746	376	25	140	54	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M24	3	786	376	30	160	60	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M27	3	866	376	30	160	60	20	16	19	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M30	3,5	946	376	35	180	70	22	18	21	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

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TAPS AVAILABLE SIZES - M Metric-ISO threads coarse pitch


GROUP											SRB10	SCE22	SDE22	SEE22	SYE22	SCT02	SCT03	SCD13	SBD13	SYD13	SCC83	SYC83	SBH11	SQI13	SRA13
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
M2	0,4	136	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•			•	•	•	•	•	•	•	•
M2.2	0,45	156	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•			•	•	•	•	•	•	•	•
M2.3	0,4	196		8	45	13	2,8	2,1	5	3		•	•	•	•			•	•	•	•	•	•	•	
M2.5	0,45	176	371	9	50	15	2,8	2,1	5	3	•	•	•	•	•			•	•	•	•	•	•	•	•
M2.6	0,45	496		9	50	15	2,8	2,1	5	3		•	•	•	•			•	•	•	•	•	•	•	
M3	0,5	206	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M3.5	0,6	226	371	7	56	20	4	3	6	3	•	•	•	•	•			•	•	•	•	•	•	•	•
M4	0,7	246	371	7	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M4.5	0,75	266	371	8	70	25	6	4,9	8	3	•	•	•	•	•			•	•	•	•	•	•	•	•
M5	0,8	286	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M6	1	316	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M7	1	346	371	10	80	30	7	5,5	8	3	•	•	•	•	•			•	•	•	•	•	•	•	•
M8	1,25	366	371	13	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M9	1,25	396	371	13	90	35	9	7	10	3	•	•	•	•	•			•	•	•	•	•	•	•	•
M10	1,5	426	371	15	100	39	10	8	11	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M11	1,5	466	376	17	100	40	8	6,2	9	3		•	•	•	•			•	•	•	•	•	•	•	•
M12	1,75	506	376	18	110	44	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M14	2	546	376	20	110	44	11	9	12	3		•	•	•	•	•	•	•	•	•	•	•	•	•	•
M16	2	606	376	20	110	44	12	9	12	3		•	•	•	•	•	•	•	•	•	•	•	•	•	•
M18	2,5	656	376	25	125	50	14	11	14	4		•	•	•	•	•	•	•	•	•	•	•	•	•	•
M20	2,5	706	376	25	140	54	16	12	15	4		•	•	•	•	•	•	•	•	•	•	•	•	•	•
M22	2,5	746	376	25	140	54	18	14,5	17	4		•	•	•	•			•	•	•	•	•	•	•	•
M24	3	786	376	30	160	60	18	14,5	17	4		•	•	•	•			•	•	•	•	•	•	•	•
M27	3	866	376	30	160	60	20	16	19	4		•	•	•	•			•	•	•	•	•	•	•	•
M30	3,5	946	376	35	180	70	22	18	21	4		•	•	•	•			•	•	•	•	•	•	•	•

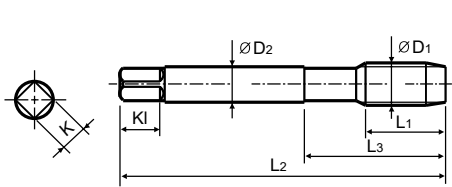
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available



GROUP											SBJ14	SIJ14	SBF15	SBF16	SBF17	SBF18	SCH14	SQI53	SRA10	SBG23	SCH23	SCT01	SEI21	SDI21	SIJ21
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
M2	0,4	136	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•		•	•	•
M2.2	0,45	156	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•		•	•	•
M2.3	0,4	196		8	45	13	2,8	2,1	5	3		•	•	•	•	•			•	•	•		•	•	•
M2.5	0,45	176	371	9	50	15	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•		•	•	•
M2.6	0,45	496		9	50	15	2,8	2,1	5	3		•	•	•	•	•			•	•	•		•	•	•
M3	0,5	206	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M3.5	0,6	226	371	7	56	20	4	3	6	3	•	•	•	•	•	•	•	•	•	•	•		•	•	•
M4	0,7	246	371	7	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•	•	•		•	•	•
M4.5	0,75	266	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•		•	•	•
M5	0,8	286	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M6	1	316	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M7	1	346	371	10	80	30	7	5,5	8	3	•	•	•	•	•	•	•	•	•	•	•		•	•	•
M8	1,25	366	371	13	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M9	1,25	396	371	13	90	35	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•		•	•	•
M10	1,5	426	371	15	100	39	10	8	11	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M11	1,5	466	376	17	100	40	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•		•	•	•
M12	1,75	506	376	18	110	44	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M14	2	546	376	20	110	44	11	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M16	2	606	376	20	110	44	12	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M18	2,5	656	376	25	125	50	14	11	14	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M20	2,5	706	376	25	140	54	16	12	15	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M22	2,5	746	376	25	140	54	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M24	3	786	376	30	160	60	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M27	3	866	376	30	160	60	20	16	19	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M30	3,5	946	376	35	180	70	22	18	21	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

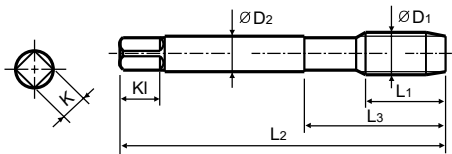
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TAPS AVAILABLE SIZES - M Metric-ISO threads coarse pitch



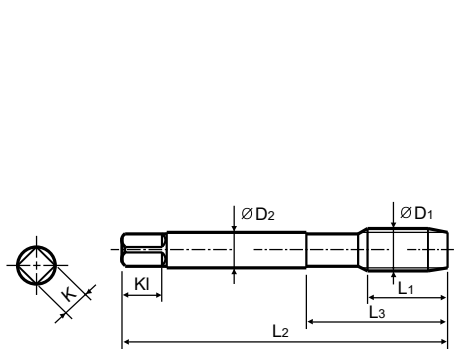
GROUP											SYI21	SCB63	SEJ53	SEJ43	SCE33	SEE43	SYE33	SMJ03	SZJ03	SMC93	SZC93	SMJ33	SZJ33	SMJ23	SZJ23
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
M2	0,4	136	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M2.2	0,45	156	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M2.3	0,4	196		8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M2.5	0,45	176	371	9	50	15	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M2.6	0,45	496		9	50	15	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M3	0,5	206	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M3.5	0,6	226	371	7	56	20	4	3	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M4	0,7	246	371	7	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M4.5	0,75	266	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M5	0,8	286	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M6	1	316	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M7	1	346	371	10	80	30	7	5,5	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M8	1,25	366	371	13	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M9	1,25	396	371	13	90	35	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M10	1,5	426	371	15	100	39	10	8	11	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M11	1,5	466	376	17	100	40	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M12	1,75	506	376	18	110	44	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M14	2	546	376	20	110	44	11	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M16	2	606	376	20	110	44	12	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M18	2,5	656	376	25	125	50	14	11	14	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M20	2,5	706	376	25	140	54	16	12	15	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M22	2,5	746	376	25	140	54	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M24	3	786	376	30	160	60	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M27	3	866	376	30	160	60	20	16	19	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M30	3,5	946	376	35	180	70	22	18	21	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

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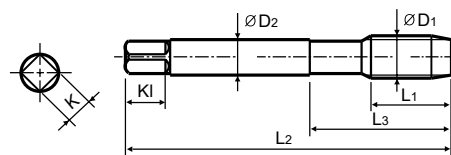
GROUP											SQI33	SRA33	SQI73	SRA73	SDH03	SEH03	SYH03	SQH03	SDH13	SEH13	SQA23	SEH23	SDH23	SCG22
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	106	107	108	109	110	111	112	113	114	115	116	117	118	119
M2	0,4	136	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M2.2	0,45	156	371	8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M2.3	0,4	196		8	45	13	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M2.5	0,45	176	371	9	50	15	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M2.6	0,45	496		9	50	15	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M3	0,5	206	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M3.5	0,6	226	371	7	56	20	4	3	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M4	0,7	246	371	7	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M4.5	0,75	266	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M5	0,8	286	371	8	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M6	1	316	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M7	1	346	371	10	80	30	7	5,5	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M8	1,25	366	371	13	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M9	1,25	396	371	13	90	35	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M10	1,5	426	371	15	100	39	10	8	11	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M11	1,5	466	376	17	100	40	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M12	1,75	506	376	18	110	44	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M14	2	546	376	20	110	44	11	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M16	2	606	376	20	110	44	12	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M18	2,5	656	376	25	125	50	14	11	14	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M20	2,5	706	376	25	140	54	16	12	15	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M22	2,5	746	376	25	140	54	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M24	3	786	376	30	160	60	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M27	3	866	376	30	160	60	20	16	19	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M30	3,5	946	376	35	180	70	22	18	21	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available

TAPS AVAILABLE SIZES - M Metric-ISO threads coarse pitch


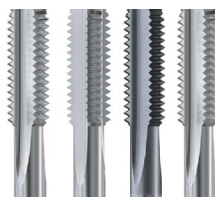
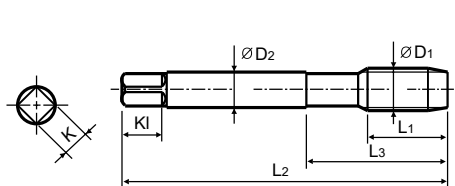
GROUP											SAB45	SAA33
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length K1	No. of Flute Z	120	121
M3	0,5	206	371	11		18	3,5	2,7	6	3	•	•
M4	0,7	246	371	13		21	4,5	3,4	6	3	•	•
M5	0,8	286	371	15		25	6	4,9	8	3	•	•
M6	1	316	371	17		30	6	4,9	8	3	•	•
M8	1,25	366	371	20		35	8	6,2	9	3	•	•
M10	1,5	426	371	22		39	10	8	11	3	•	•
M12	1,75	506	376	24		44	9	7	10	3	•	•
M14	2	546	376	26		44	11	9	12	3	•	•
M16	2	606	376	27		44	12	9	12	3	•	•
M20	2,5	706	376	32		54	16	12	15	4	•	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



GROUP											SHB09	
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length K1	No. of Flute Z	126	
M3	0,35	219		9	40	18	3,5	2,7	6	3	•	
M4	0,5	259		10	45	18	4,5	3,4	6	3	•	
M5	0,5	299		13	52	22	6	4,9	8	3	•	
M6	0,75	329		14	56	24	6	4,9	8	3	•	
M6	0,5	339		13	56	24	6	4,9	8	3	•	
M7	0,75	359		14	56	27	6	4,9	8	3	•	
M8	1	379		17	63	27	6	4,9	8	3	•	
M8	0,75	389		14	63	27	6	4,9	8	3	•	
M8	0,5	939		14	63	27	6	4,9	8	3	•	
M9	1	409		17	63	27	7	5,5	8	4	•	
M10	1,25	439		22	70	32	7	5,5	8	4	•	
M10	1	449		18	63	27	7	5,5	8	4	•	
M10	0,75	459		18	63	27	7	5,5	8	4	•	
M11	1	479		18	63	27	8	6,2	9	4	•	
M12	1,5	519		20	70	32	9	7	10	4	•	
M12	1,25	529		20	70	32	9	7	10	4	•	
M12	1	539		18	70	32	9	7	10	4	•	
M13	1,5	N19		20	70	32	11	9	12	4	•	
M13	1	N29		18	70	32	11	9	12	4	•	
M14	1,5	559		20	70	32	11	9	12	4	•	
M14	1,25	569		20	70	32	11	9	12	4	•	
M14	1	579		18	70	32	11	9	12	4	•	
M15	1,5	589		20	70	32	12	9	12	4	•	
M15	1	599		18	70	32	12	9	12	4	•	
M16	1,5	619		20	70	32	12	9	12	4	•	
M16	1	629		18	70	32	12	9	12	4	•	
M18	2	669		22	80	35	14	11	14	4	•	
M18	1,5	679		22	80	35	14	11	14	4	•	
M18	1	689		18	80	35	14	11	14	4	•	
M20	2	719		22	80	35	16	12	15	4	•	
M20	1,5	729		22	80	35	16	12	15	4	•	
M20	1	739		18	80	35	16	12	15	4	•	
M22	2	759		22	80	35	18	14,5	17	4	•	
M22	1,5	769		22	80	35	18	14,5	17	4	•	
M22	1	779		18	80	35	18	14,5	17	4	•	
M24	2	799		22	90	40	18	14,5	17	4	•	
M24	1,5	809		22	90	40	18	14,5	17	4	•	
M24	1	819		18	90	40	18	14,5	17	4	•	
M25	1,5	839		22	90	40	18	14,5	17	4	•	
M25	1	849		18	90	40	18	14,5	17	4	•	
M26	1,5	859		22	90	40	18	14,5	17	4	•	
M26	1	N59		18	90	40	18	14,5	17	4	•	
M27	2	879		22	90	40	20	16	19	4	•	
M27	1,5	889		22	90	40	20	16	19	4	•	
M27	1	899		18	90	40	20	16	19	4	•	
M28	2	909		22	90	40	20	16	19	4	•	
M28	1,5	919		22	90	40	20	16	19	4	•	
M30	2	969		22	90	40	22	18	21	4	•	
M30	1,5	979		22	90	40	22	18	21	4	•	
M30	1	989		18	90	40	22	18	21	4	•	

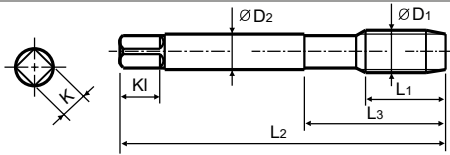
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



GROUP											SHA09	SHA43	SBA73	SCA53
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length K1	No. of Flute Z	122	123	124	125
M2	0,4	139	352	8	36	13	2,8	2,1	5	3	•			
M2.2	0,45	159	352	9	36	13	2,8	2,1	5	3	•			
M2.3	0,4	199		9	36	13	2,8	2,1	5	3	•			
M2.5	0,45	179	352	9	40	15	2,8	2,1	5	3	•			
M2.6	0,45	499		9	40	15	2,8	2,1	5	3	•			
M3	0,5	209	352	11	40	18	3,5	2,7	6	3	•	•	•	•
M3.5	0,6	229	352	13	45	21	4	3	6	3	•	•	•	•
M4	0,7	249	352	13	45	21	4,5	3,4	6	3	•	•	•	•
M4.5	0,75	269	352	16	50	25	6	4,9	8	3	•	•	•	•
M5	0,8	289	352	16	52	26	6	4,9	8	3	•	•	•	•
M5.5	0,9	N69	352	18	56	27	6	4,9	8	3	•			
M6	1	319	352	18	56	27	6	4,9	8	3	•	•	•	•
M7	1	349	352	18	56	28,5	6	4,9	8	3	•			
M8	1,25	369	352	20	63	34	6	4,9	8	3	•	•	•	•
M9	1,25	399	352	20	63	34	7	5,5	8	4	•			
M10	1,5	429	352	22	70	38	7	5,5	8	4	•	•	•	•
M11	1,5	469	352	22	70	38	8	6,2	9	4	•			
M12	1,75	509	352	24	80	45	9	7	10	4	•	•	•	•
M14	2	549	352	26	80	45	11	9	12	4	•	•	•	•
M16	2	609	352	27	80	45	12	9	12	4	•	•	•	•
M18	2,5	659	352	30	95	58	14	11	14	4	•	•	•	•
M20	2,5	709	352	32	95	58	16	12	15	4	•	•	•	•
M22	2,5	749	352	32	100	62	18	14,5	17	4	•	•		
M24	3	789	352	34	110	69	18	14,5	17	4	•	•		
M27	3	869	352	36	110	69	20	16	19	4	•	•		
M30	3,5	949	352	40	125	77	22	18	21	4	•	•		
M33	3,5	A49	352	40	125	77	25	20	23	4	•			
M36	4	B39	352	50	150	88	28	22	25	4	•			
M39	4	C09	352	50	150	88	32	24	27	4	•			
M42	4,5	C89	352	56	150	88	32	24	27	4	•			
M45	4,5	D59	352	58	160	93	36	29	32	4	•			
M48	5	E29	352	65	180	102	36	29	32	4	•			
M52	5	F39	352	65	180	102	40	32	35	4	•			

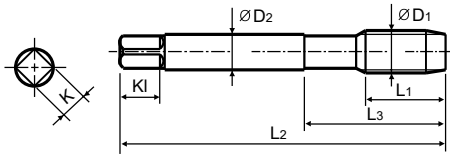
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available

TAPS AVAILABLE SIZES -MF Metric-ISO threads fine pitch



GROUP											SCA44	SDA44	SBA44	SCA19	SDA19	SBC54	SAC54	SCA54	SDA54	SBA54	SCV09	SDV09	SAA38	SAD38	SCE11
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	127	128	129	130	131	132	134	135	136	137	138	139	140	141	142
M4	0,5	256	374	5	63	21	2,8	2,1	5	3	•	•	•	•	•		•	•	•	•	•			•	•
M5	0,5	296	374	5	70	25	3,5	2,7	6	3	•	•	•	•	•		•	•	•	•	•			•	•
M6	0,75	326	374	8	80	30	4,5	3,4	6	3	•	•	•	•	•		•	•	•	•	•			•	•
M6	0,5	336	374	5	80	30	4,5	3,4	6	3	•	•	•	•	•		•	•	•	•	•			•	•
M7	0,75	356	374	10	80	30	5,5	4,3	7	3	•	•	•	•	•		•	•	•	•	•			•	•
M8	1	376	374	10	90	36	6	4,9	8	3	•	•	•	•	•		•	•	•	•	•			•	•
M8	0,75	386	374	8	80	30	6	4,9	8	3	•	•	•	•	•		•	•	•	•	•			•	•
M10	1,25	436	374	16	100	40	7	5,5	8	3	•	•	•	•	•		•	•	•	•	•			•	•
M10	1	446	374	10	90	36	7	5,5	8	3	•	•	•	•	•		•	•	•	•	•			•	•
M10	0,75	456	374	10	90	36	7	5,5	8	3	•	•	•	•	•		•	•	•	•	•			•	•
M12	1,5	516	374	15	100	40	9	7	10	3	•	•	•	•	•		•	•	•	•	•			•	•
M12	1,25	526	374	15	100	40	9	7	10	3	•	•	•	•	•		•	•	•	•	•			•	•
M12	1	536	374	11	100	40	9	7	10	3	•	•	•	•	•		•	•	•	•	•			•	•
M14	1,5	556	374	15	100	40	11	9	12	3	•	•	•	•	•		•	•	•	•	•			•	•
M14	1,25	566	374	15	100	40	11	9	12	3	•	•	•	•	•		•	•	•	•	•			•	•
M14	1	576	374	11	100	40	11	9	12	3	•	•	•	•	•		•	•	•	•	•			•	•
M16	1,5	616	374	15	100	40	12	9	12	3	•	•	•	•	•		•	•	•	•	•			•	•
M16	1	626	374	12	100	40	12	9	12	3	•	•	•	•	•		•	•	•	•	•			•	•
M18	1,5	676	374	17	110	44	14	11	14	4	•	•	•	•	•		•	•	•	•	•			•	•
M18	1	686	374	13	110	44	14	11	14	4	•	•	•	•	•		•	•	•	•	•			•	•
M20	1,5	726	374	17	125	50	16	12	15	4	•	•	•	•	•		•	•	•	•	•			•	•
M20	1	736	374	14	125	50	16	12	15	4	•	•	•	•	•		•	•	•	•	•			•	•
M22	1,5	766	374	17	125	50	18	14,5	17	4	•	•	•	•	•		•	•	•	•	•			•	•
M22	1	776	374	14	125	50	18	14,5	17	4	•	•	•	•	•		•	•	•	•	•			•	•
M24	2	796	374	20	140	54	18	14,5	17	4	•	•	•	•	•		•	•	•	•	•			•	•
M24	1,5	806	374	20	140	54	18	14,5	17	4	•	•	•	•	•		•	•	•	•	•			•	•
M26	1,5	856	374	20	140	54	18	14,5	17	4	•	•	•	•	•		•	•	•	•	•			•	•
M27	2	876	374	20	140	54	20	16	19	4	•	•	•	•	•		•	•	•	•	•			•	•
M27	1,5	886	374	20	140	54	20	16	19	4	•	•	•	•	•		•	•	•	•	•			•	•
M28	1,5	916	374	20	140	54	20	16	19	4	•	•	•	•	•		•	•	•	•	•			•	•
M30	2	966	374	22	150	57	22	18	21	4	•	•	•	•	•		•	•	•	•	•			•	•
M30	1,5	976	374	22	150	57	22	18	21	4	•	•	•	•	•		•	•	•	•	•			•	•

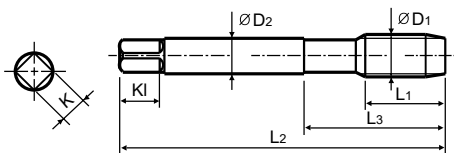
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available



GROUP											SDE11	SCC22	SDC22	SCE73	SCE13	SDE13	SCC63	SDC63	SBB83	SBB23	SEE03	SCJ63	SDH33	SEH33
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	143	144	145	146	147	148	149	150	151	152	153	154	155	156
M4	0,5	256	374	5	63	21	2,8	2,1	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M5	0,5	296	374	5	70	25	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M6	0,75	326	374	8	80	30	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M6	0,5	336	374	5	80	30	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M7	0,75	356	374	10	80	30	5,5	4,3	7	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M8	1	376	374	10	90	36	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M8	0,75	386	374	8	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M10	1,25	436	374	16	100	40	7	5,5	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M10	1	446	374	10	90	36	7	5,5	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M10	0,75	456	374	10	90	36	7	5,5	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M12	1,5	516	374	15	100	40	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M12	1,25	526	374	15	100	40	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M12	1	536	374	11	100	40	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M14	1,5	556	374	15	100	40	11	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M14	1,25	566	374	15	100	40	11	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M14	1	576	374	11	100	40	11	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M16	1,5	616	374	15	100	40	12	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M16	1	626	374	12	100	40	12	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M18	1,5	676	374	17	110	44	14	11	14	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M18	1	686	374	13	110	44	14	11	14	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M20	1,5	726	374	17	125	50	16	12	15	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M20	1	736	374	14	125	50	16	12	15	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M22	1,5	766	374	17	125	50	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M22	1	776	374	14	125	50	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M24	2	796	374	20	140	54	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M24	1,5	806	374	20	140	54	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M26	1,5	856	374	20	140	54	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M27	2	876	374	20	140	54	20	16	19	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M27	1,5	886	374	20	140	54	20	16	19	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M28	1,5	916	374	20	140	54	20	16	19	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M30	2	966	374	22	150	57	22	18	21	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M30	1,5	976	374	22	150	57	22	18	21	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•

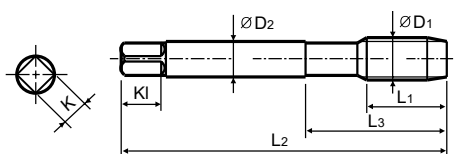
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available

TAPS AVAILABLE SIZES - UNC American Unified coarse threads



GROUP											SCA24	SDA24	SBA24	SCA63	SDA63	SCA34	SDA34	SBA34	SCV01	SDV01	SCB44	SCC14	SCE24	SCB74	SDB74
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171
#4	40 UNC	162	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
#5	40 UNC	202	371	7	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
#6	32 UNC	242	371	7	56	20	4	3	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
#8	32 UNC	282	371	8	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
#10	24 UNC	322	371	10	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
#12	24 UNC	362	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1/4	20 UNC	402	371	13	80	30	7	5,5	8	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
5/16	18 UNC	442	371	14	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
3/8	16 UNC	482	371	16	100	39	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
7/16	14 UNC	522	376	17	100	40	8	6,2	9	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1/2	13 UNC	562	376	20	110	44	9	7	10	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
9/16	12 UNC	602	376	20	110	44	11	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
5/8	11 UNC	642	376	22	110	44	12	9	12	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
3/4	10 UNC	702	376	25	125	50	14	11	14	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
7/8	9 UNC	742	376	27	140	54	18	14,5	17	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1	8 UNC	782	376	30	160	60	20	16	19	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1-1/8	7 UNC	822	376	35	180	65	22	18	21	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

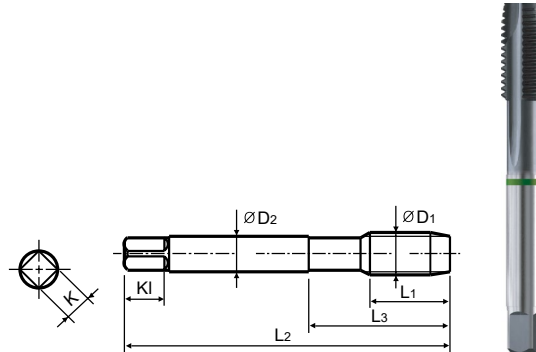
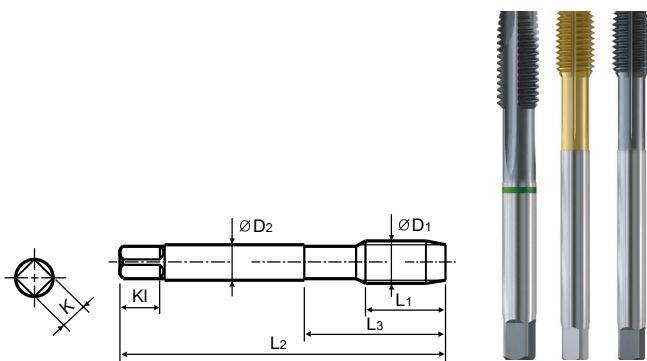
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available



GROUP											SCC44	SDC44	SBJ04	SBC64	SEE34	SCB69
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	172	173	174	175	176	177
#4	40 UNC	162	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•
#5	40 UNC	202	371	7	56	18	3,5	2,7	6	3	•	•	•	•	•	•
#6	32 UNC	242	371	7	56	20	4	3	6	3	•	•	•	•	•	•
#8	32 UNC	282	371	8	63	21	4,5	3,4	6	3	•	•	•	•	•	•
#10	24 UNC	322	371	10	70	25	6	4,9	8	3	•	•	•	•	•	•
#12	24 UNC	362	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•
1/4	20 UNC	402	371	13	80	30	7	5,5	8	3	•	•	•	•	•	•
5/16	18 UNC	442	371	14	90	35	8	6,2	9	3	•	•	•	•	•	•
3/8	16 UNC	482	371	16	100	39	9	7	10	3	•	•	•	•	•	•
7/16	14 UNC	522	376	17	100	40	8	6,2	9	3	•	•	•	•	•	•
1/2	13 UNC	562	376	20	110	44	9	7	10	3	•	•	•	•	•	•
9/16	12 UNC	602	376	20	110	44	11	9	12	3	•	•	•	•	•	•
5/8	11 UNC	642	376	22	110	44	12	9	12	3	•	•	•	•	•	•
3/4	10 UNC	702	376	25	125	50	14	11	14	4	•	•	•	•	•	•
7/8	9 UNC	742	376	27	140	54	18	14,5	17	4	•	•	•	•	•	•
1	8 UNC	782	376	30	160	60	20	16	19	4	•	•	•	•	•	•
1-1/8	7 UNC	822	376	35	180	65	22	18	21	4	•	•	•	•	•	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available

TAPS AVAILABLE SIZES - UNC American Unified coarse threads UNF American Unified fine thread

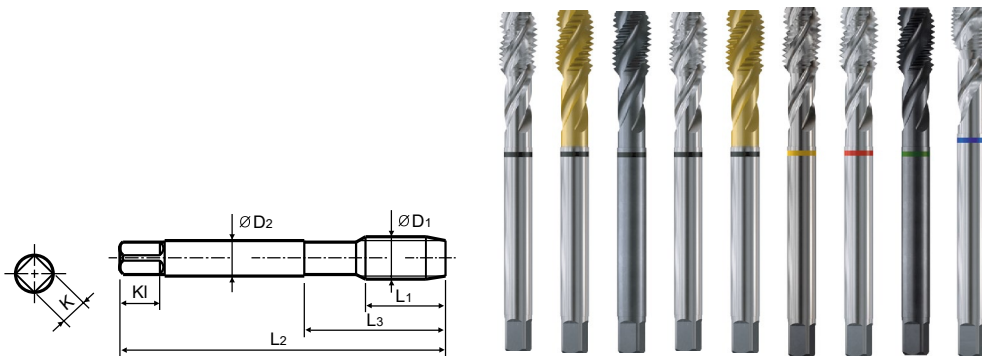


GROUP											SBC64	SDH12	SEH04
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	178	179	180
#4	40 UNC	162	371	11	56	18	3,5	2,7	6	3	●		
#5	40 UNC	202	371	11	56	18	3,5	2,7	6	3	●	●	●
#6	32 UNC	242	371	12	56	20	4	3	6	3	●	●	●
#8	32 UNC	282	371	13	63	21	4,5	3,4	6	3	●	●	●
#10	24 UNC	322	371	15	70	25	6	4,9	8	3	●	●	●
#12	24 UNC	362	371	16	80	30	6	4,9	8	3	●	●	●
1/4	20 UNC	402	371	17	80	30	7	5,5	8	3	●	●	●
5/16	18 UNC	442	371	20	90	35	8	6,2	9	3	●	●	●
3/8	16 UNC	482	371	22	100	39	9	7	10	3	●	●	●
7/16	14 UNC	522	376	22	100	44	8	6,2	9	3	●	●	●
1/2	13 UNC	562	376	25	110	44	9	7	10	3	●	●	●
9/16	12 UNC	602	376	26	110	44	11	9	12	3	●	●	●
5/8	11 UNC	642	376	27	110	44	12	9	12	3	●	●	●
3/4	10 UNC	702	376	30	125	50	14	11	14	4	●	●	●
7/8	9 UNC	742	376	32	140	54	18	14,5	17	4	●		
1	8 UNC	782	376	36	160	60	20	16	17	4	●		
1-1/8	7 UNC	822	376	40	180	70	22	18	21	4	●		

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available

GROUP											SHV63
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	181
#2	56UNC	089	351	9	36	13	2,8	2,1	5	3	●
#3	48UNC	129	351	10	40	15	2,8	2,1	5	3	●
#4	40UNC	169	351	10	42	18	3,5	2,7	6	3	●
#5	40UNC	209	351	10	42	18	3,5	2,7	6	3	●
#6	32UNC	249	351	11	45	18	4	3	6	3	●
#8	32UNC	289	351	12	48	23	4,5	3,4	6	3	●
#10	24UNC	329	351	14	52	26	6	4,9	6	3	●
#12	24UNC	369	351	16	56	27	6	4,9	8	3	●
1/4	20UNC	409	351	16	56	27	6	4,9	8	3	●
5/16	18UNC	449	351	20	63	34	6	4,9	8	3	●
3/8	16UNC	489	351	22	70	38	7	5,5	8	4	●
7/16	14UNC	529	351	22	70	38	8	6,2	9	4	●
1/2	13UNC	569	351	25	80	45	9	7	10	4	●
9/16	12UNC	609	351	26	80	45	11	9	12	4	●
5/8	11UNC	649	351	27	90	55	12	9	12	4	●
3/4	10UNC	709	351	32	105	65	14	11	14	4	●
7/8	9UNC	749	351	32	110	69	18	14,5	17	4	●
1	8UNC	789	351	36	110	69	20	16	19	4	●
1-1/8	7UNC	829	351	40	125	77	22	18	21	4	●
1-1/4	7UNC	869	351	40	125	77	25	20	23	4	●
1-1/8	6UNC	909	351	50	150	88	28	22	25	4	●
1-1/2	6UNC	949	351	50	150	88	32	24	27	4	●
1-3/4	5UNC	B89	351	58	160	93	36	29	32	4	●
2	4UNC	D29	351	65	180	102	40	32	35	4	●

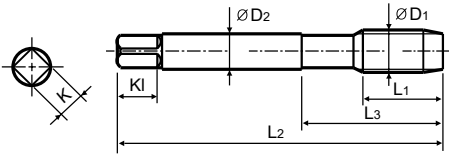
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available



GROUP											SCA64	SDA64	SBA64	SCA02	SDA02	SCB24	SCB84	SBJ24	SCB70
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	182	183	184	185	186	187	188	189	190
#4	48 UNF	182	371	6	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•
#5	44 UNF	222	371	7	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•
#6	40 UNF	262	371	7	56	20	4	3	6	3	•	•	•	•	•	•	•	•	•
#8	36 UNF	302	371	8	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•
#10	32 UNF	342	371	10	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•
#12	28 UNF	382	371	10	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•
1/4	28 UNF	422	371	10	80	30	7	5,5	8	3	•	•	•	•	•	•	•	•	•
5/16	24 UNF	462	371	10	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•
3/8	24 UNF	502	371	10	100	39	9	7	10	3	•	•	•	•	•	•	•	•	•
7/16	20 UNF	542	374	13	100	40	8	6,2	9	3	•	•	•	•	•	•	•	•	•
1/2	20 UNF	582	374	13	100	40	9	7	10	3	•	•	•	•	•	•	•	•	•
9/16	18 UNF	622	374	15	100	40	11	9	12	3	•	•	•	•	•	•	•	•	•
5/8	18 UNF	662	374	15	100	40	12	9	12	3	•	•	•	•	•	•	•	•	•
3/4	16 UNF	722	374	17	110	44	14	11	14	4	•	•	•	•	•	•	•	•	•
7/8	14 UNF	762	374	17	125	50	18	14,5	17	4	•	•	•	•	•	•	•	•	•
1	12 UNF	802	374	20	140	54	20	16	19	4	•	•	•	•	•	•	•	•	•
1-1/8	12 UNF	842	374	22	180	60	22	18	21	4	•	•	•	•	•	•	•	•	•

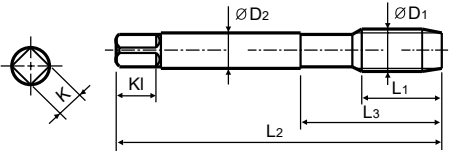
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available

TAPS AVAILABLE SIZES - UNF American Unified fine thread BSW Whitworth threads B.S.W.



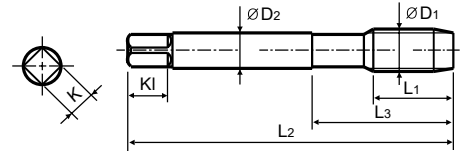
GROUP											SCA74	SDA74	SBA74	SCV02	SDV02	SCC34	SCC54	SBC74	SEE54
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	191	192	193	194	195	196	197	198	199
#4	48 UNF	182	371	11	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•
#5	44 UNF	222	371	11	56	18	3,5	2,7	6	3	•	•	•	•	•	•	•	•	•
#6	40 UNF	262	371	12	56	20	4	3	6	3	•	•	•	•	•	•	•	•	•
#8	36 UNF	302	371	13	63	21	4,5	3,4	6	3	•	•	•	•	•	•	•	•	•
#10	32 UNF	342	371	15	70	25	6	4,9	8	3	•	•	•	•	•	•	•	•	•
#12	28 UNF	382	371	16	80	30	6	4,9	8	3	•	•	•	•	•	•	•	•	•
1/4	28 UNF	422	371	17	80	30	7	5,5	8	3	•	•	•	•	•	•	•	•	•
5/16	24 UNF	462	371	17	90	35	8	6,2	9	3	•	•	•	•	•	•	•	•	•
3/8	24 UNF	502	371	18	100	39	9	7	10	3	•	•	•	•	•	•	•	•	•
7/16	20 UNF	542	374	22	100	40	8	6,2	9	3	•	•	•	•	•	•	•	•	•
1/2	20 UNF	582	374	22	100	40	9	7	10	3	•	•	•	•	•	•	•	•	•
9/16	18 UNF	622	374	22	100	40	11	9	12	3	•	•	•	•	•	•	•	•	•
5/8	18 UNF	662	374	22	100	40	12	9	12	3	•	•	•	•	•	•	•	•	•
3/4	16 UNF	722	374	25	110	44	14	11	14	4	•	•	•	•	•	•	•	•	•
7/8	14 UNF	762	374	26	125	50	18	14,5	17	4	•	•	•	•	•	•	•	•	•
1	12 UNF	802	374	28	140	54	20	16	19	4	•	•	•	•	•	•	•	•	•
1-1/8	12 UNF	842	374	30	150	60	22	18	21	4	•	•	•	•	•	•	•	•	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



GROUP											SHF09
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	200
#4	48 UNF	182	371	10	42	18	3,5	2,7	6	3	•
#5	44 UNF	222	371	10	42	18	3,5	2,7	6	3	•
#6	40 UNF	262	371	11	45	18	4	3	6	3	•
#8	36 UNF	302	371	12	48	23	4,5	3,4	6	3	•
#10	32 UNF	342	371	14	52	22	6	4,9	8	3	•
#12	28 UNF	382	371	16	56	24	6	4,9	8	3	•
1/4	28 UNF	422	371	16	56	24	7	5,5	8	3	•
5/16	24 UNF	462	371	17	63	27	8	6,2	9	3	•
3/8	24 UNF	502	371	18	63	27	9	7	10	3	•
7/16	20 UNF	542	374	20	70	32	8	6,2	9	3	•
1/2	20 UNF	582	374	20	70	32	9	7	10	3	•
9/16	18 UNF	622	374	20	70	32	11	9	12	3	•
5/8	18 UNF	662	374	20	70	32	12	9	12	3	•
3/4	16 UNF	722	374	22	80	38	14	11	14	4	•
7/8	14 UNF	762	374	22	80	38	18	14,5	17	4	•
1	12 UNF	802	374	22	90	40	20	16	19	4	•
1-1/8	12 UNF	842	374	22	90	40	22	18	21	4	•

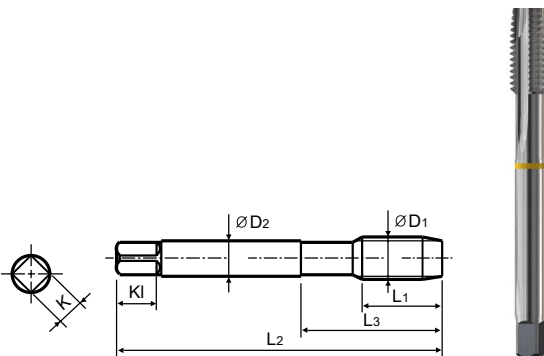
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



GROUP											SCB34
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	201
W 1/8	40	200	2182	7	56	18	3,5	2,7	6	3	•
W 5/32	32	280	2182	7	63	21	4,5	3,4	6	3	•
W 3/16	24	320	2182	10	70	25	6	4,9	8	3	•
W 7/32	24	360	2182	10	80	30	6	4,9	8	3	•
W 1/4	20	400	2182	13	80	30	7	5,5	8	3	•
W 5/16	18	440	2182	14	90	35	8	6,2	9	3	•
W 3/8	16	480	2182	16	100	39	9	7	10	3	•
W 7/16	14	520	2183	17	100	40	8	6,2	9	3	•
W 1/2	12	560	2183	20	110	44	9	7	10	3	•
W 9/16	12	600	2183	20	110	44	11	9	12	3	•
W 5/8	11	640	2183	22	110	40	12	9	12	3	•
W 3/4	10	700	2183	25	125	50	14	11	14	4	•
W 7/8	9	740	2183	27	140	54	18	14,5	17	4	•
W 1	8	780	2183	30	160	60	20	16	19	4	•
W 1-1/8	7	820	2183	35	180	65	22	18	21	4	•

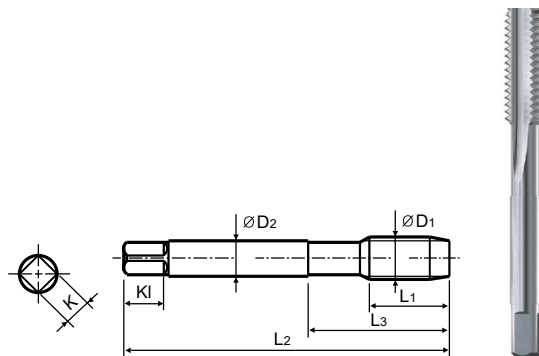
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available

TAPS AVAILABLE SIZES - BSW Whitworth threads B.S.W. G(BSP) Whitworth pipe thread BSP.PI



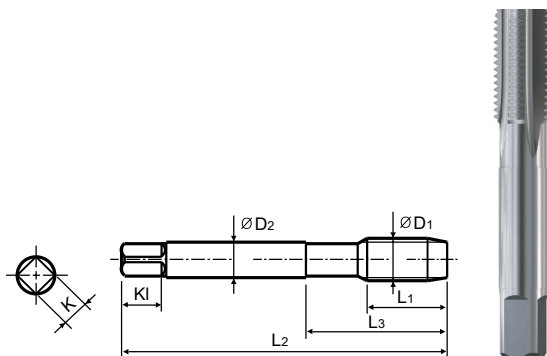
GROUP											SCC24
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	202
W 1/8	40	200	2182	11	56	18	3,5	2,7	6	3	•
W 5/32	32	280	2182	13	63	21	4,5	3,4	6	3	•
W 3/16	24	320	2182	15	70	25	6	4,9	8	3	•
W 7/32	24	360	2182	16	80	30	6	4,9	8	3	•
W 1/4	20	400	2182	17	80	30	7	5,5	8	3	•
W 5/16	18	440	2182	20	90	35	8	6,2	9	3	•
W 3/8	16	480	2182	22	100	39	9	7	10	3	•
W 7/16	14	520	2183	22	100	40	8	6,2	9	3	•
W 1/2	12	560	2183	25	110	44	9	7	10	3	•
W 9/16	12	600	2183	26	110	44	11	9	12	3	•
W 5/8	11	640	2183	27	110	40	12	9	12	3	•
W 3/4	10	700	2183	30	125	50	14	11	14	4	•
W 7/8	9	740	2183	32	140	54	18	14,5	17	4	•
W 1	8	780	2183	36	160	60	20	16	19	4	•
W 1-1/8	7	820	2183	40	180	65	22	18	21	4	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



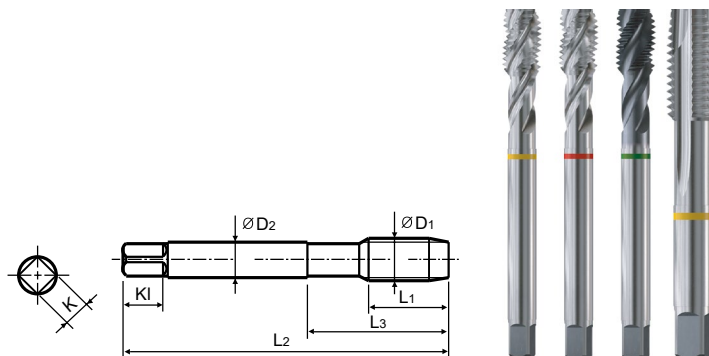
GROUP											SHD09
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	203
W 3/32	48	129	351	10	40	15	2,8	2,1	5	3	•
W 1/8	40	209	351	10	42	18	3,5	2,7	6	3	•
W 5/32	32	289	351	12	48	23	4,5	3,4	6	3	•
W 3/16	24	329	351	14	52	26	6	4,9	8	3	•
W 7/32	24	369	351	16	56	27	6	4,9	8	3	•
W 1/4	20	409	351	16	56	27	6	4,9	8	3	•
W 5/16	18	449	351	20	63	34	6	4,9	8	3	•
W 3/8	16	489	351	22	70	38	7	5,5	8	4	•
W 7/16	14	529	351	22	70	38	8	6,2	9	4	•
W 1/2	12	569	351	25	80	45	9	7	10	4	•
W 9/16	12	609	351	26	80	45	11	9	12	4	•
W 5/8	11	649	351	27	90	55	12	9	12	4	•
W 3/4	10	709	351	32	105	65	14	11	14	4	•
W 7/8	9	749	351	32	110	69	18	14,5	17	4	•
W 1	8	789	351	36	110	69	20	16	19	4	•
W 1-1/8	7	829	351	40	125	77	22	18	21	4	•
W 1-1/4	7	869	351	40	125	77	25	20	23	4	•
W 1-3/8	6	909	351	50	150	88	28	22	25	4	•
W 1-1/2	6	949	351	50	150	88	32	24	27	4	•
W 1-5/8	5	B29	351	56	150	88	32	24	27	4	•
W 1-3/4	5	B89	351	58	160	93	36	29	32	4	•
W 1-7/8	4½	C69	351	65	180	102	36	29	32	4	•
W 2	4½	D29	351	65	180	102	40	32	35	4	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



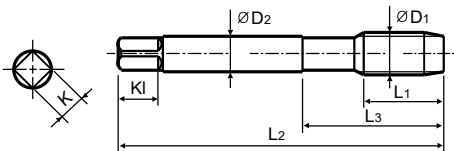
GROUP											SHW09
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	204
G1/16	28	029	5157	22	56	26	6	4,9	8	3	•
G1/8	28	209	5157	20	63	27	7	5,5	8	4	•
G1/4	19	409	5157	22	70	32	11	9	12	4	•
G3/8	19	489	5157	22	70	32	12	9	12	4	•
G1/2	14	569	5157	22	80	35	16	12	15	4	•
G3/4	14	709	5157	22	90	40	20	16	19	4	•
G1	11	789	5157	25	100	45	25	20	23	6	•
G1-1/4	11	869	5157	40	125	77	32	24	27	6	•
G1-1/2	11	949	5157	40	140	85	36	29	32	6	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



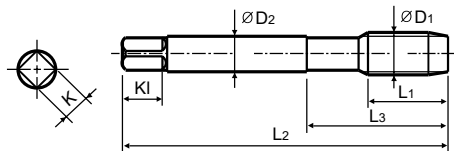
GROUP											SCH28	SCH29	SBF14	SCH27
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	205	206	207	208
G1/8	28	209	5157	20	63	27	7	5,5	8	4	•	•	•	•
G1/4	19	409	5157	22	70	32	11	9	12	4	•	•	•	•
G3/8	19	489	5157	22	70	32	12	9	12	4	•	•	•	•
G1/2	14	569	5157	22	80	35	16	12	15	4	•	•	•	•
G3/4	14	709	5157	22	90	40	20	16	19	4	•	•	•	•
G1	11	789	5157	25	100	45	25	20	23	6	•	•	•	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available

TAPS AVAILABLE SIZES - EG-M, EG-UNC Helical Coil Threads


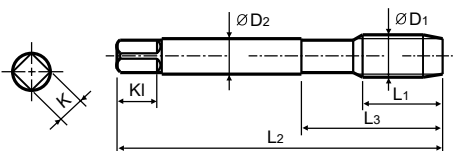
GROUP												SCJ09
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length K1	No. of Flute Z	Tapping Drill Diameter	209
M2.5	0,45	176	371	6	56	18	3,5	2,7	6	3	2,65	●
M3	0,5	206	371	5	63	21	4,5	3,4	6	3	3,15	●
M3.5	0,6	226	371	8	70	25	6	4,9	8	3	3,7	●
M4	0,7	246	371	8	70	25	6	4,9	8	3	4,2	●
M5	0,8	286	371	8	80	30	6	4,9	8	3	5,25	●
M6	1	316	371	10	90	35	8	6,2	9	3	6,3	●
M8	1,25	366	371	16	100	39	10	8	11	3	8,4	●
M10	1,5	426	376	15	110	44	9	7	10	3	10,4	●
M12	1,75	506	376	20	110	44	11	9	12	3	12,5	●
M14	2	546	376	22	110	44	12	9	12	3	14,5	●
M16	2	606	376	25	125	50	14	11	14	4	16,5	●
M18	2,5	656	376	27	140	54	18	14,5	17	4	18,75	●
M20	2,5	706	376	30	160	60	18	14,5	17	4	20,75	●

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



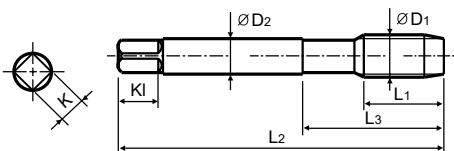
GROUP												SCJ73
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length K1	No. of Flute Z	Tapping Drill Diameter	210
M2.5	0,45	176	371	11	56	18	3,5	2,7	6	3	2,65	•
M3	0,5	206	371	10	63	21	4,5	3,4	6	3	3,15	•
M3.5	0,6	226	371	14	70	25	6	4,9	8	3	3,7	•
M4	0,7	246	371	13	70	25	6	4,9	8	3	4,2	•
M5	0,8	286	371	13	80	30	6	4,9	8	3	5,25	•
M6	1	316	371	17	90	35	8	6,2	9	3	6,3	•
M8	1,25	366	371	18	100	39	10	8	11	3	8,4	•
M10	1,5	426	376	22	110	44	9	7	10	3	10,4	•
M12	1,75	506	376	26	110	44	11	9	12	3	12,5	•
M14	2	546	376	27	110	44	12	9	12	3	14,5	•
M16	2	606	376	30	125	50	14	11	14	4	16,5	•
M18	2,5	656	376	32	140	54	18	14,5	17	4	18,75	•
M20	2,5	706	376	34	160	60	18	14,5	17	4	20,75	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



GROUP												SCJ44
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length K1	No. of Flute Z	Tapping Drill Diameter	21
#4	40 UNC	162	371	7	63	21	4,5	3,4	6	3	3,1	●
#5	40 UNC	202	371	7	63	21	4,5	3,4	6	3	3,4	●
#6	32 UNC	242	371	8	70	25	6	4,9	8	3	3,8	●
#8	32 UNC	282	371	8	80	25	6	4,9	8	3	4,4	●
#10	24 UNC	322	371	10	80	30	7	5,5	8	3	5,2	●
#12	24 UNC	362	371	10	80	30	7	5,5	8	3	5,8	●
1/4	20 UNC	402	371	14	90	35	8	6,2	9	3	6,7	●
5/16	18 UNC	442	371	16	100	39	10	8	11	3	8,4	●
3/8	16 UNC	482	371	16	110	39	12	9	12	3	10	●
7/16	14 UNC	522	376	20	110	44	11	9	12	3	11,6	●
1/2	13 UNC	562	376	22	110	44	12	9	12	3	13,3	●
9/16	12 UNC	602	376	22	125	50	14	11	14	3	15	●
5/8	11 UNC	642	376	25	125	50	14	11	14	4	16,5	●
3/4	10 UNC	702	376	27	140	56	18	14,5	17	4	19,75	●

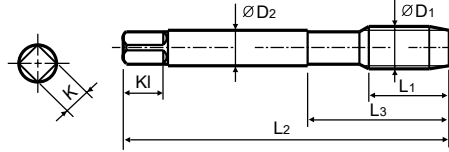
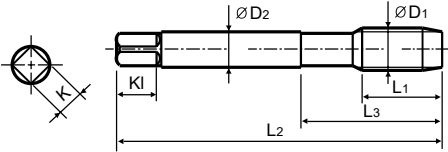
To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available



GROUP												SCJ34
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length K1	No. of Flute Z	Tapping Drill Diameter	212
#4	40 UNC	162	371	13	63	21	4,5	3,4	6	3	3,1	●
#5	40 UNC	202	371	13	63	21	4,5	3,4	6	3	3,4	●
#6	32 UNC	242	371	14	70	25	6	4,9	8	3	3,8	●
#8	32 UNC	282	371	13	80	25	6	4,9	8	3	4,4	●
#10	24 UNC	322	371	17	80	30	7	5,5	8	3	5,2	●
#12	24 UNC	362	371	17	80	30	7	5,5	8	3	5,8	●
1/4	20 UNC	402	371	20	90	35	8	6,2	9	3	6,7	●
5/16	18 UNC	442	371	22	100	39	10	8	11	3	8,4	●
3/8	16 UNC	482	371	21	110	39	12	9	12	3	10	●
7/16	14 UNC	522	376	26	110	44	11	9	12	3	11,6	●
1/2	13 UNC	562	376	27	110	44	12	9	12	3	13,3	●
9/16	12 UNC	602	376	30	125	50	14	11	14	3	15	●
5/8	11 UNC	642	376	30	125	50	14	11	14	4	16,5	●
3/4	10 UNC	702	376	32	140	56	18	14,5	17	4	19,75	●

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (*) are available

TAPS AVAILABLE SIZES - EG-UNF Helical Coil Threads



GROUP												SCJ54
SIZE (D1)	PITCH TPI	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	Tapping Drill Diameter	213
#4	48UNF	182	371	12	56	20	4	3	6	3	3,1	•
#6	40UNF	262	371	14	70	25	6	4,9	8	3	3,7	•
#8	36UNF	302	371	13	70	25	6	4,9	8	3	4,4	•
#10	32UNF	342	371	13	80	25	6	4,9	8	3	5,1	•
1/4	28UNF	422	371	17	90	35	8	6,2	9	3	6,6	•
5/16	24UNF	462	371	18	100	39	10	8	11	3	8,25	•
3/8	24UNF	502	371	18	110	39	12	9	12	3	9,8	•
7/16	20UNF	542	374	22	100	40	9	7	10	3	11,5	•
1/2	20UNF	582	374	22	100	40	11	9	12	3	13,1	•
9/16	18UNF	622	374	22	100	40	12	9	12	3	14,75	•
5/8	18UNF	662	374	25	110	44	14	11	14	4	16,25	•
3/4	16UNF	722	374	25	125	50	16	12	15	4	19,5	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available

GROUP												SCI03
SIZE (D1)	PITCH	CODE	DIN	Thread Length L1	Overall Length L2	Neck Length L3	Shank Dia. D2	Square Size K	Square Length KI	No. of Flute Z	Tapping Drill Diameter	214
M4	0,7	246	357	25	90	45	2,8	2,1	5	3	3,3	•
M5	0,8	286	357	28	100	50	3,5	2,7	6	3	4,2	•
M6	1	316	357	32	110	55	4,5	3,4	6	3	5	•
M7	1	346	357	36	110	55	5,5	4,3	7	3	6	•
M8	1,25	366	357	40	125	62	6	4,9	8	3	6,8	•
M10	1,5	426	357	45	140	70	7	5,5	8	3	8,5	•
M12	1,75	506	357	50	180	90	9	7	10	3	10,2	•
M14	2	546	357	56	200	100	11	9	12	4	12	•
M16	2	606	357	63	200	100	12	9	12	4	14	•
M18	2,5	656	357	63	220	110	14	11	14	4	15,5	•
M20	2,5	706	357	70	250	125	16	12	15	4	17,5	•

To place an order to GROUP name add CODE (SHO40136)
only taps designated by (•) are available

TECHNICAL INFORMATION

Metric-ISO threads coarse pitch			
M	Pitch	Maximum core dia.	Drill size
1	0.25	0.785	0.75
1.1	0.25	0.885	0.85
1.2	0.25	0.985	0.95
1.4	0.30	1.160	1.10
1.6	0.35	1.321	1.25
1.7	0.35	1.346	1.30
1.8	0.35	1.521	1.45
2	0.40	1.679	1.60
2.2	0.45	1.838	1.75
2.3	0.40	1.920	1.90
2.5	0.45	2.138	2.05
2.6	0.45	2.176	2.10
3	0.50	2.599	2.50
3.5	0.60	3.010	2.90
4	0.70	3.422	3.30
4.5	0.75	3.878	3.70
5	0.80	4.334	4.20
6	1.00	5.153	5.00
7	1.00	6.153	6.00
8	1.25	6.912	6.80
9	1.25	7.912	7.80
10	1.50	8.676	8.50
11	1.50	9.676	9.50
12	1.75	10.441	10.20
14	2.00	12.210	12.00
16	2.00	14.210	14.00
18	2.50	15.744	15.50
20	2.50	17.744	17.50
22	2.50	19.744	19.50
24	3.00	21.252	21.00
27	3.00	24.252	24.00
30	3.50	26.771	26.50
33	3.50	29.771	29.50
36	4.00	32.270	32.00
39	4.00	35.270	35.00
42	4.50	37.799	37.50
45	4.50	40.799	40.50
48	5.00	43.297	43.00
52	5.00	47.297	47.00
56	5.50	50.796	50.50
60	5.50	54.796	54.50
64	6.00	58.305	58.00
68	6.00	62.305	62.00

Metric-ISO threads fine pitch			
MF	Pitch	Maximum core dia.	Drill size
2.5	0.35	2.221	2.15
3	0.35	2.271	2.65
3.5	0.35	3.221	3.15
4	0.50	3.599	3.50
4.5	0.50	4.099	4.00
5	0.50	4.599	4.50
5.5	0.50	5.099	5.00
6	0.75	5.378	5.20
7	0.75	6.378	6.20
8	0.75	7.378	7.20
8	1.00	7.153	7.00
9	0.75	8.378	8.20
9	1.00	8.153	8.00
10	0.75	9.378	9.20
10	1.00	9.153	9.00
10	1.25	8.912	8.80
11	0.75	10.378	10.20
11	1.00	10.153	10.00
12	1.00	11.153	11.00
12	1.25	10.912	10.80
12	1.50	10.676	10.50
14	1.00	13.153	13.00
14	1.25	12.912	12.80
14	1.50	12.676	12.50
15	1.00	14.153	14.00
15	1.50	13.676	13.50
16	1.00	15.153	15.00
16	1.50	14.676	14.50
17	1.00	16.153	16.00
17	1.50	15.676	15.50
18	1.00	17.153	17.00
18	1.50	16.676	16.50
18	2.00	16.210	16.00
20	1.00	19.153	19.00
20	1.50	18.676	18.50
20	2.00	18.210	18.00
22	1.00	21.153	21.00
22	1.50	20.676	20.50
22	2.00	20.210	20.00
24	1.00	23.153	23.00
24	1.50	22.676	22.50
24	2.00	22.210	22.00
25	1.00	24.153	24.00
25	1.50	23.676	23.50
25	2.00	23.210	23.00

Metric-ISO threads fine pitch			
MF	Pitch	Maximum core dia.	Drill size
26	1.50	24.676	24.50
27	1.00	26.153	26.00
27	1.50	25.676	25.50
27	2.00	25.210	25.00
28	1.00	27.153	27.00
28	1.50	26.676	26.50
28	2.00	26.210	26.00
30	1.00	29.153	29.00
30	1.50	28.676	28.50
30	2.00	28.210	28.00
30	3.00	27.252	27.00
32	1.50	30.675	30.50
32	2.00	30.210	30.00
33	1.50	31.676	31.50
33	2.00	31.210	31.00
33	3.00	30.252	30.00
35	1.50	33.676	33.50
36	1.50	34.676	34.50
36	2.00	34.210	34.00
36	3.00	33.252	33.00
38	1.50	36.676	36.50
39	1.50	37.676	37.50
39	2.00	37.210	37.00
39	3.00	36.252	36.00
40	1.50	38.676	38.50
40	2.00	38.210	38.00
40	3.00	37.252	37.00
42	1.50	40.676	40.50
42	2.00	40.210	40.00
42	3.00	39.252	39.00
45	1.50	43.676	43.50
45	2.00	43.210	43.00
45	3.00	42.252	42.00
48	1.50	46.676	46.50
48	2.00	46.210	46.00
48	3.00	45.252	45.00
50	1.50	48.676	48.50
50	2.00	48.210	48.00
50	3.00	47.252	47.00
52	1.50	50.676	50.50
52	2.00	50.210	50.00
52	3.00	49.252	49.00

TECHNICAL INFORMATION

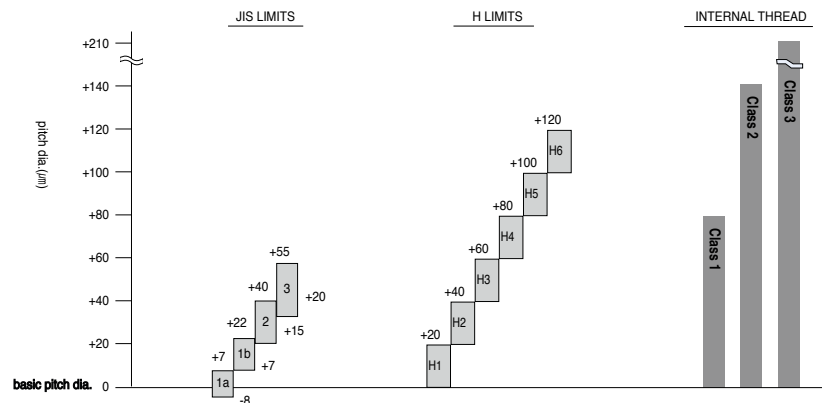
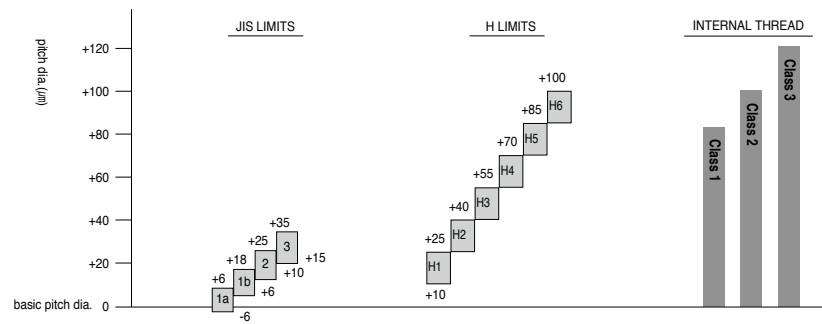
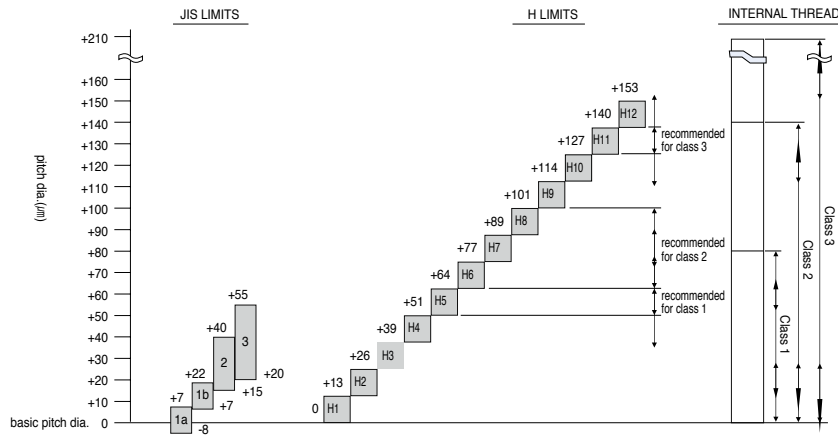
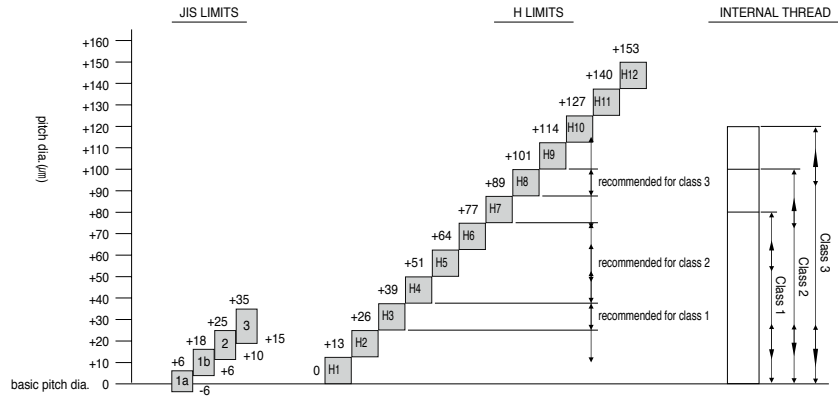
American Unified coarse threads			
UNC	T.P.I	Max. core dia.	Drill size
#1	64	1.585	1.50
#2	56	1.872	1.80
#3	48	2.146	2.10
#4	40	2.385	2.30
#5	40	2.697	2.60
#6	32	2.896	2.85
#8	32	3.528	3.50
#10	24	3.950	3.90
#12	24	4.590	4.50
1/4"	20	5.250	5.20
5/16"	18	6.680	6.60
3/8"	16	8.082	8.00
7/16"	14	9.441	9.40
1/2"	13	10.881	10.75
9/16"	12	12.301	12.25
5/8"	11	13.693	13.50
3/4"	10	16.624	16.50
7/8"	9	19.520	19.50
1"	8	22.344	22.25
1*1/8"	7	25.082	25.00
1*1/4"	7	28.258	28.25
1*3/8"	6	30.851	30.75
1*1/2"	6	34.026	34.00
1*3/4"	5	39.560	39.50
2"	4.5	45.367	45.25

American Unified fine threads			
UNF	T.P.I	Maximum core dia.	Drill size
#0	80	1.306	1.30
#1	72	1.613	1.60
#2	64	1.913	1.90
#3	56	2.197	2.10
#4	48	2.459	2.40
#5	44	2.741	2.70
#6	40	3.012	3.00
#8	36	3.597	3.50
#10	32	4.168	4.10
#12	28	4.717	4.70
1/4"	28	5.563	5.50
5/16"	24	6.995	6.90
3/8"	24	8.565	8.50
7/16"	20	9.947	9.90
1/2"	20	11.524	11.50
9/16"	18	12.969	12.90
5/8"	18	14.554	14.50
3/4"	16	17.546	17.50
7/8"	14	20.493	20.50
1"	12	23.363	23.25
1*1/8"	12	26.538	26.50
1*1/4"	12	29.713	29.50
1*3/8"	12	32.888	32.70
1*1/2"	12	36.063	36.00

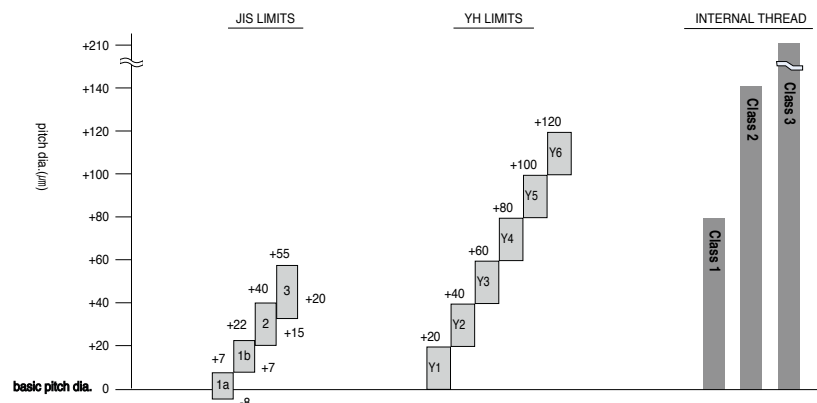
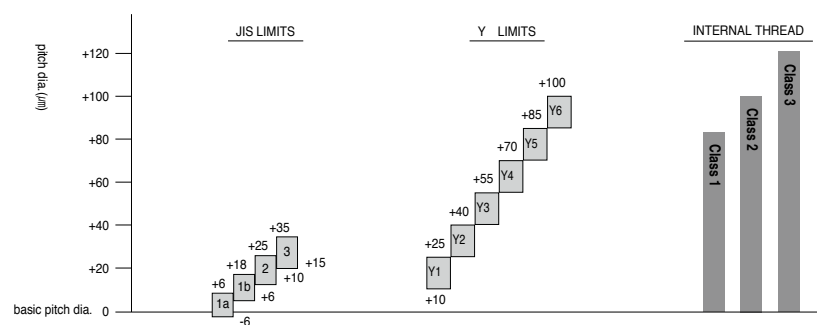
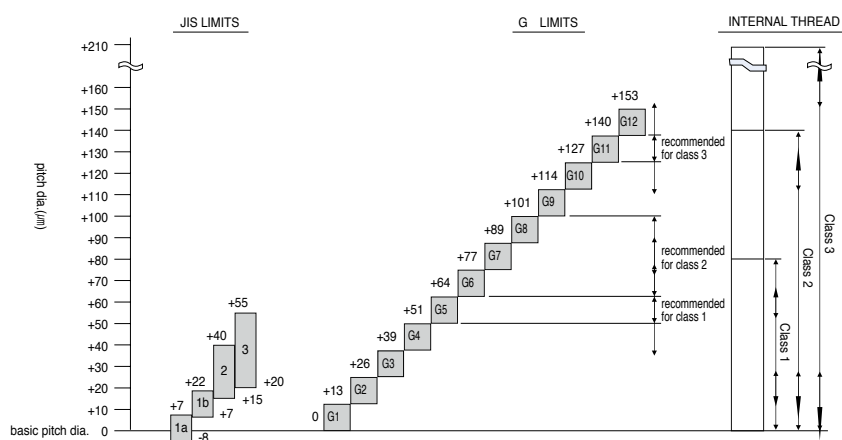
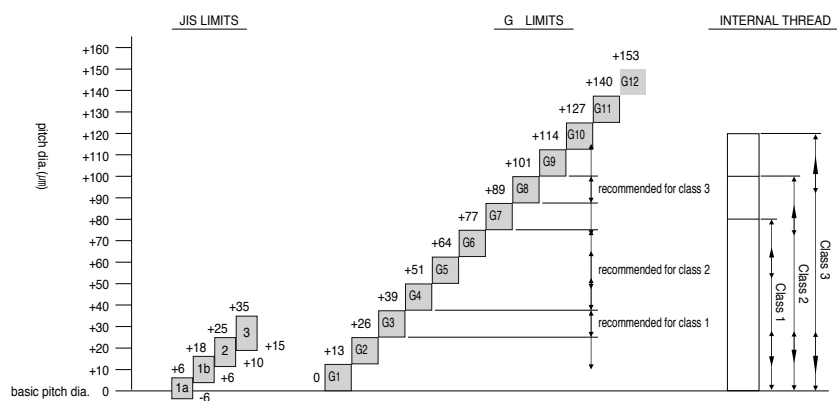
Whitworth threads B.S.W.			
BSW	T.P.I	Maximum core dia.	Drill size
3/32"	48	1.910	1.80
1/8"	40	2.590	2.50
5/32"	32	3.211	3.10
3/16"	24	3.743	3.60
7/32"	24	4.538	4.40
1/4"	20	5.224	5.10
5/16"	18	6.661	6.50
3/8"	16	8.052	7.90
7/16"	14	9.379	9.30
1/2"	12	10.610	10.50
9/16"	12	12.176	12.00
5/8"	11	13.598	13.50
3/4"	10	16.538	16.50
7/8"	9	19.411	19.25
1"	8	22.185	22.00
1*1/8"	7	24.879	24.75
1*1/4"	7	28.054	27.75
1*3/8"	6	30.555	30.50
1*1/2"	6	33.730	33.50
1*5/8"	5	35.921	35.50
1*3/4"	5	39.096	39.00
1*7/8"	4.5	41.648	41.50
2"	4.5	44.823	44.50
2*1/4"	4	50.420	50.00
2*1/2"	4	56.770	56.50
2*3/4"	3.5	62.108	62.00
3"	3.5	68.459	68.50

Whitworth pipe thread BSP.PI			
G(BSP)	T.P.I	Maximum core dia.	Drill size
1/8"	28	8.848	8.80
1/4"	19	11.890	11.80
3/8"	19	15.395	15.25
1/2"	14	19.172	19.00
5/8"	14	21.128	21.00
3/4"	14	24.658	24.50
7/8"	14	28.418	28.25
1"	11	30.931	30.75
1*1/8"	11	35.579	35.50
1*1/4"	11	39.592	39.50
1*3/8"	11	42.005	42.00
1*1/2"	11	45.485	45.20
1*5/8"	11	49.670	49.60
1*3/4"	11	51.428	51.40
2"	11	57.296	57.20
2*1/4"	11	63.392	63.30
2*3/8"	11	67.080	67.00
2*1/2"	11	72.866	72.80
2*3/4"	11	79.216	79.10
3"	11	85.566	85.50
3*1/4"	11	91.662	91.50
3*1/2"	11	98.012	98.00
3*3/4"	11	104.362	104.00
4"	11	110.712	110.50

TECHNICAL INFORMATION



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