



High Performance Cutting Tools



**HIGH SPEED STEEL TAPS**

# ICON GALLERY

## TOOL MATERIAL

- HSS** High Speed Steel M2 Grade
- HSS-E** High Speed Steel 5% Cobalt
- HSS-E PM** High Speed Steel Powder Metallurgy

## HELIX ANGLE

Taps



## CHAMFER

- B/4-4.5P** 4 to 4.5 Chamfer
- C/2-3P** 2 to 3 Chamfer
- E/1.5-2P** 1.5 to 2 Chamfer
- T/B** Set of Taper & Bottom Hand Tap
- T/S/B** Set of Taper, Second & Bottom Hand Tap
- T** Taper Tap
- S** Second Tap
- B** Bottom Tap

## STANDARD

- ANSI 94.9** ANSI 94.9
- DIN 376** DIN376
- ISO 529** ISO 529
- DIN 371** DIN371
- DIN 374** DIN374

## HOLE TYPE

- Through Hole
- Blind Hole

## CLASS OF THREAD

- 6H** 6H
- 6HX** 6HX
- 6G** 6G
- 2B** 2B
- 2A** 2A
- ZONE 5** ZONE 5

## SURFACE TREATMENT

- BF** Bright Finish
- TiN** Titanium Nitride Coating
- TiAlN** Titanium Aluminium Nitride Coating
- TiCN** Titanium Carbonitride Coating
- AlCrN** Aluminium Chromium Nitride Coating
- TiAlN WC/C** Titanium Aluminium Nitride Tungsten Carbide/Carbon

## WORKING MATERIAL

- P** Steel
- M** Stainless Steel
- K** Cast Iron
- N** Non Ferrous
- S** Super Alloys
- H** Hard Part Machining



High Performance Cutting Tools



**HIGH SPEED STEEL TAPS**









High Performance Cutting Tools



# SPIRAL POINT TAPS SA SERIES

# CONTENTS



## SPIRAL POINT TAPS

SERIES	THREAD FORM	LENGTH STANDARD	WORKPIECE MATERIAL	1ST CHOICE	2ND CHOICE	TOOL MATERIAL	COATING	PAGE
SA1	M	DIN 371/ DIN376	Steel	P0, N4	N1, N2	HSSE	Bright	1.005
SA3	M	DIN 371/ DIN376	Steel	P0, P1	K2, K3	HSSE	TiN	
SA4	M	DIN 371/ DIN376	Steel	P0-P3	K1,K2	HSSE	TiAlN	
SAF3	M	DIN 371/ DIN376	Forged Steel	P1 P2	-	HSSE	TiN	1.006
SAF5	M	DIN 371/ DIN376	Forged Steel	P1- P3	-	HSSE	TiCN	
SAF7	M	DIN 371/ DIN376	Forged Steel	P2-P3	-	HSSE	AlCrN	
SAS3	M	DIN 371/ DIN376	Stainless Steel	M1	-	HSSE	TiN	1.007
SAS5	M	DIN 371/ DIN376	Stainless Steel	M1, M2	-	HSSE	TiCN	
SAS6	M	DIN 371/ DIN376	Stainless Steel	M1- M3	-	HSSE	TiAlN+WC/C	
SAI6	M	DIN 371/ DIN376	Super Alloys	S1- S4	-	HSSE-PM	TiAlN+WC/C	1.008
SAF5	M	DIN 371/ DIN376	Steel	P2-P3	-	HSSE-PM	TiCN	1.009
SAF7	M	DIN 371/ DIN376	Steel	P2-P4	-	HSSE-PM	AlCrN	
SA1	MF	DIN 374	Steel	P0, N4	N1, N2	HSSE	Bright	1.010
SA3	MF	DIN 374	Steel	P0, P1	K2, K3	HSSE	TiN	
SA4	MF	DIN 374	Steel	P0-P3	K1,K2	HSSE	TiAlN	
SAF3	MF	DIN 374	Forged Steel	P1 P2	-	HSSE	TiN	1.011
SAF5	MF	DIN 374	Forged Steel	P1- P3	-	HSSE	TiCN	
SAF7	MF	DIN 374	Forged Steel	P2-P3	-	HSSE	AlCrN	
SAS3	MF	DIN 374	Stainless Steel	M1	-	HSSE	TiN	1.012
SAS5	MF	DIN 374	Stainless Steel	M1, M2	-	HSSE	TiCN	
SAS6	MF	DIN 374	Stainless Steel	M1- M3	-	HSSE	TiAlN+WC/C	
SAI6	MF	DIN 374	Super Alloy	S1- S4	-	HSSE-PM	TiAlN+WC/C	1.013
SA1	UNC	DIN 371/ DIN376	Steel	P0, N4	N1, N2	HSSE	Bright	1.014
SA3	UNC	DIN 371/ DIN376	Steel	P0, P1	K2, K3	HSSE	TiN	
SA4	UNC	DIN 371/ DIN376	Steel	P0-P3	K1,K2	HSSE	TiAlN	





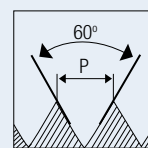
## SPIRAL POINT TAPS

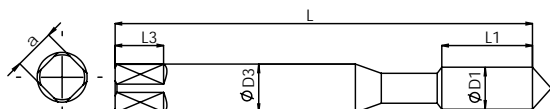
SERIES	THREAD FORM	LENGTH STANDARD	WORKPIECE MATERIAL	1ST CHOICE	2ND CHOICE	TOOL MATERIAL	COATING	PAGE
SAS3	UNC	DIN 371/ DIN376	Stainless Steel	M1	-	HSSE	TiN	1.015
SAS5	UNC	DIN 371/ DIN376	Stainless Steel	M1, M2	-	HSSE	TiCN	
SAS6	UNC	DIN 371/ DIN376	Stainless Steel	M1- M3	-	HSSE	TiAIN+WC/C	
SA1	UNF	DIN 374	Steel	P0, N4	N1, N2	HSSE	Bright	1.016
SA3	UNF	DIN 374	Steel	P0, P1	K2, K3	HSSE	TiN	
SA4	UNF	DIN 374	Steel	P0-P3	K1, K2	HSSE	TiAIN	
SAS3	UNF	DIN 374	Stainless Steel	M1	-	HSSE	TiN	1.017
SAS5	UNF	DIN 374	Stainless Steel	M1, M2	-	HSSE	TiCN	
SAS6	UNF	DIN 374	Stainless Steel	M1- M3	-	HSSE	TiAIN+WC/C	
SA1	M	ISO 529	Steel	P0, N4	N1, N2	HSSE	Bright	1.018
SA3	M	ISO 529	Steel	P0, P1	K2, K3	HSSE	TiN	
SA4	M	ISO 529	Steel	P0-P3	K1, K2	HSSE	TiAIN	
SAF3	M	ISO 529	Forged Steel	P1 P2	-	HSSE	TiN	1.019
SAF5	M	ISO 529	Forged Steel	P1- P3	-	HSSE	TiCN	
SAF7	M	ISO 529	Forged Steel	P2-P3	-	HSSE	AlCrN	
SAS3	M	ISO 529	Stainless Steel	M1	-	HSSE	TiN	1.020
SAS5	M	ISO 529	Stainless Steel	M1, M2	-	HSSE	TiCN	
SAS6	M	ISO 529	Stainless Steel	M1- M3	-	HSSE	TiAIN+WC/C	
SAI6	M	ISO 529	Super Alloys	S1- S4	-	HSSE-PM	TiAIN+WC/C	1.021
SAF5	M	ISO 529	Steel	P2-P3	-	HSSE-PM	TiCN	1.022
SAF7	M	ISO 529	Steel	P2-P4	-	HSSE-PM	AlCrN	
SA1	MF	ISO 529	Steel	P0, N4	N1, N2	HSSE	Bright	1.023
SA3	MF	ISO 529	Steel	P0, P1	K2, K3	HSSE	TiN	
SA4	MF	ISO 529	Steel	P0-P3	K1, K2	HSSE	TiAIN	



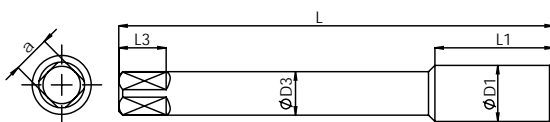
## SPIRAL POINT TAPS

SERIES	THREAD FORM	LENGTH STANDARD	WORKPIECE MATERIAL	1ST CHOICE	2ND CHOICE	TOOL MATERIAL	COATING	PAGE
SAF3	MF	ISO 529	Forged Steel	P1 P2	-	HSSE	TiN	1.024
SAF5	MF	ISO 529	Forged Steel	P1- P3	-	HSSE	TiCN	
SAF7	MF	ISO 529	Forged Steel	P2-P3	-	HSSE	AlCrN	
SAS3	MF	ISO 529	Stainless Steel	M1	-	HSSE	TiN	1.025
SAS5	MF	ISO 529	Stainless Steel	M1, M2	-	HSSE	TiCN	
SAS6	MF	ISO 529	Stainless Steel	M1- M3	-	HSSE	TiAlN+WC/C	
SAI6	MF	ISO 529	Super Alloy	S1- S4	-	HSSE-PM	TiAlN+WC/C	1.026
SA1	UNC	ISO 529	Steel	P0, N4	N1, N2	HSSE	Bright	1.027
SA3	UNC	ISO 529	Steel	P0, P1	K2, K3	HSSE	TiN	
SA4	UNC	ISO 529	Steel	P0-P3	K1,K2	HSSE	TiAlN	
SAS3	UNC	ISO 529	Stainless Steel	M1	-	HSSE	TiN	1.028
SAS5	UNC	ISO 529	Stainless Steel	M1, M2	-	HSSE	TiCN	
SAS6	UNC	ISO 529	Stainless Steel	M1- M3	-	HSSE	TiAlN+WC/C	
SA1	UNF	ISO 529	Steel	P0, N4	N1, N2	HSSE	Bright	1.029
SA3	UNF	ISO 529	Steel	P0, P1	K2, K3	HSSE	TiN	
SA4	UNF	ISO 529	Steel	P0-P3	K1,K2	HSSE	TiAlN	
SAS3	UNF	ISO 529	Stainless Steel	M1	-	HSSE	TiN	1.030
SAS5	UNF	ISO 529	Stainless Steel	M1, M2	-	HSSE	TiCN	
SAS6	UNF	ISO 529	Stainless Steel	M1- M3	-	HSSE	TiAlN+WC/C	
SA1	M	JIS	Steel	P0, N4	N1-N2	HSSE	Bright	1.031
SA4	M	JIS	Steel	P0-P3	K1-K2	HSSE	TiAlN	

**M**
**Metric coarse threads**

**HOLE TYPE**

**HSS-E**
**DIN 371/376**
**6HX**
**B/4-4.5P**


Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M20)



Series	SA1	SA3	SA4
Material - 1 <sup>st</sup> choice	P0, N4	P0-P1	P0-P3
Material - 2 <sup>nd</sup> choice	N1-N2	K2-K3	K1-K2
Coating	Bright	TiN	TiAlN

DIN 371		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
Nominal Diameter	Pitch	L	L1	ØD3	a	L3	Ød1			
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 3	0.5	56	11	3.5	2.7	6	2.5	FAB0203112	FAB0203123	FAB0204205
M 3.5	0.6	56	12	4	3	6	2.9	FAB0203113	FAB0203124	FAB0204206
M 4	0.7	63	13	4.5	3.4	6	3.3	FAB0203114	FAB0203125	FAB0204207
M 5	0.8	70	16	6	4.9	8	4.2	FAB0203115	FAB0203126	FAB0204208
M 6	1	80	19	6	4.9	8	5	FAB0203116	FAB0203127	FAB0204209
M 8	1.25	90	22	8	6.2	9	6.8	FAB0203118	FAB0203129	FAB0204210
M 10	1.5	100	24	10	8	11	8.5	FAB0203119	FAB0203130	FAB0204211

DIN 376		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
Nominal Diameter	Pitch	L	L1	ØD3	a	L3	Ød1			
M 12	1.75	110	28	9	7	10	10.3	FAB0203120	FAB0203131	FAB0204212
M 14	2	110	30	11	9	12	12	FAB0203121	FAB0203132	FAB0204213
M 16	2	110	32	12	9	12	14	FAB0203122	FAB0203133	FAB0204214
M 18	2.5	125	34	14	11	14	15.5	FAB0204201	FAB0204203	FAB0204215
M 20	2.5	140	34	16	12	15	17.5	FAB0204202	FAB0204204	FAB0204216

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

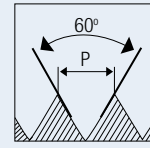
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



Spiral Point Taps

M

## Metric coarse threads



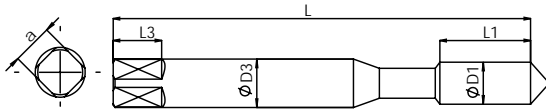
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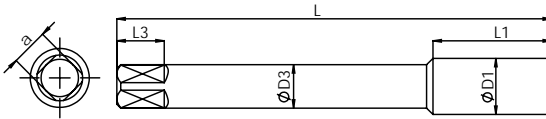
HSS-E

DIN  
371/376

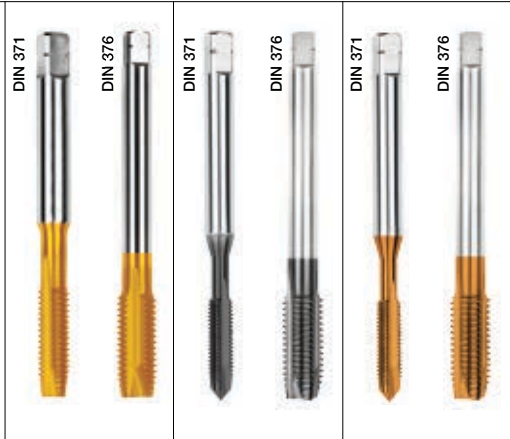
6HX



Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M20)



DIN 371							Series	SAF3	SAF5	SAF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P1-P2	P1-P3	P2-P3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 3	0.5	56	11	3.5	2.7	6	2.5	FAB0204217	FAB0204229	FAB0204740
M 3.5	0.6	56	12	4	3	6	2.9	FAB0204218	FAB0204230	FAB0205280
M 4	0.7	63	13	4.5	3.4	6	3.3	FAB0204219	FAB0204231	FAB0204741
M 5	0.8	70	16	6	4.9	8	4.2	FAB0204220	FAB0204232	FAB0204742
M 6	1	80	19	6	4.9	8	5	FAB0204221	FAB0204233	FAB0204743
M 8	1.25	90	22	8	6.2	9	6.8	FAB0204222	FAB0204234	FAB0204744
M 10	1.5	100	24	10	8	11	8.5	FAB0204223	FAB0204235	FAB0204745

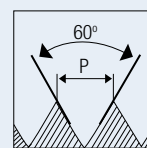
DIN 376							Series	SAF3	SAF5	SAF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 12	1.75	110	28	9	7	10	10.3	FAB0204224	FAB0204236	FAB0204746
M 14	2	110	30	11	9	12	12	FAB0204225	FAB0204237	FAB0204747
M 16	2	110	32	12	9	12	14	FAB0204226	FAB0204238	FAB0204748
M 18	2.5	125	34	14	11	14	15.5	FAB0204227	FAB0204239	FAB0204948
M 20	2.5	140	34	16	12	15	17.5	FAB0204228	FAB0204240	FAB0204749

Unit : mm

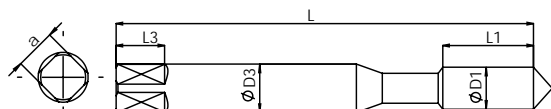
Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

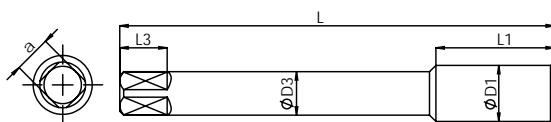
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**M**
**Metric coarse threads**


HOLE TYPE


**HSS-E**
**DIN 371/376**
**6HX**
**B/4-4.5P**


Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M20)



DIN 371							Series	SAS3	SAS5	SAS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 3	0.5	56	11	3.5	2.7	6	2.5	FAB0204675	FAB0204665	FAB0204778
M 4	0.7	63	13	4.5	3.4	6	3.3	FAB0204676	FAB0204666	FAB0204779
M 5	0.8	70	16	6	4.9	8	4.2	FAB0204677	FAB0204667	FAB0204780
M 6	1	80	19	6	4.9	8	5	FAB0204678	FAB0204668	FAB0204781
M 8	1.25	90	22	8	6.2	9	6.8	FAB0204679	FAB0204669	FAB0204782
M 10	1.5	100	24	10	8	11	8.5	FAB0204680	FAB0204670	FAB0204783

DIN 376							Series	SAS3	SAS5	SAS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 12	1.75	110	28	9	7	10	10.3	FAB0204681	FAB0204671	FAB0204784
M 14	2	110	30	11	9	12	12	FAB0204682	FAB0204672	FAB0204785
M 16	2	110	32	12	9	12	14	FAB0204683	FAB0204673	FAB0204786
M 18	2.5	125	34	14	11	14	15.5	FAB0205281	FAB0205282	FAB0205283
M 20	2.5	140	34	16	12	15	17.5	FAB0204684	FAB0204674	FAB0204897

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

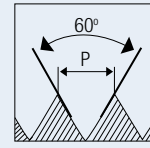
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



Spiral Point Taps

M

## Metric coarse threads

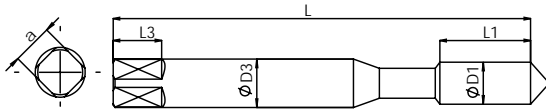


HOLE TYPE

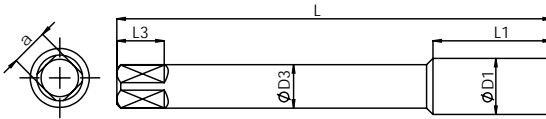
HSS-E  
PMDIN  
371/376

6HX

B/4-4.5P



Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12)



DIN 371								Series	SAI6
								Material - 1 <sup>st</sup> choice	S1-S4
								Material - 2 <sup>nd</sup> choice	-
								Coating	TiAlN + WC/C
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	56	11	3.5	2.7	6	2.5	FAB0204694	
M 4	0.7	63	13	4.5	3.4	6	3.3	FAB0204695	
M 5	0.8	70	16	6	4.9	8	4.2	FAB0204696	
M 6	1	80	19	6	4.9	8	5	FAB0204697	
M 8	1.25	90	22	8	6.2	9	6.8	FAB0204698	
M 10	1.5	100	24	10	8	11	8.5	FAB0204699	

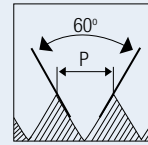
DIN 376								Series	SAI6
M 12	1.75	110	28	9	7	10	10.3	FAB0204700	

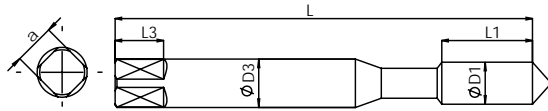
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

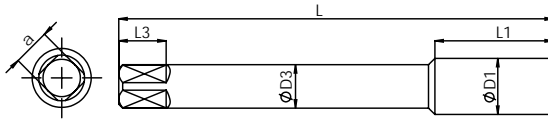
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**M**
**Metric coarse threads**

**HOLE TYPE**

**HSS-E  
PM**
**DIN  
371/376**
**6HX**
**B/4-4.5P**


Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M16)



DIN 371							Series	SAF5	SAF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P2-P3	P2-P4
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-
							Coating	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.
							Ød1		
M 3	0.5	56	11	3.5	2.7	6		FAB0205284	FAB0205293
M 4	0.7	63	13	4.5	3.4	6		FAB0205285	FAB0205294
M 5	0.8	70	16	6	4.9	8		FAB0205286	FAB0205295
M 6	1	80	19	6	4.9	8		FAB0205287	FAB0205296
M 8	1.25	90	22	8	6.2	9		FAB0205288	FAB0205297
M 10	1.5	100	24	10	8	11		FAB0205289	FAB0205298

DIN 376							Series	SAF5	SAF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P2-P3	P2-P4
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-
							Coating	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.
							Ød1		
M 12	1.75	110	28	9	7	10		FAB0205290	FAB0205299
M 14	2	110	30	11	9	12		FAB0205291	FAB0205300
M 16	2	110	32	12	9	12		FAB0205292	FAB0205301

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

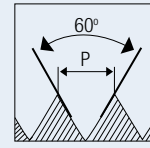
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



Spiral Point Taps

MF

Metric fine threads



HOLE TYPE

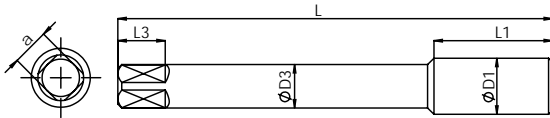


HSS-E

DIN  
374

6HX

B/4-4.5P



Male Centre (M6 - M10)  
Female Centre (M12 - M20)



DIN 374								Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice	Coating	EDP No.	EDP No.
M 6	0.75	80	19	4.5	3.4	6	5.3	N1-N2	Bright	FAB0204241	FAB0204252
M 8	1	90	22	6	4.9	8	7	K2-K3	TiN	FAB0204242	FAB0204253
M 10	1.25	100	20	7	5.5	8	8.8	K1-K2	TiAlN	FAB0204243	FAB0204254
M 10	1	90	20	7	5.5	8	9			FAB0204244	FAB0204255
M 12	1.5	100	22	9	7	10	10.5			FAB0204245	FAB0204256
M 12	1.25	100	22	9	7	10	10.8			FAB0204246	FAB0204257
M 14	1.5	100	22	11	9	12	12.5			FAB0204247	FAB0204258
M 14	1.25	100	22	11	9	12	12.8			FAB0204248	FAB0204259
M 16	1.5	100	22	12	9	12	14.5			FAB0204249	FAB0204260
M 18	1.5	110	25	14	11	14	16.5			FAB0204250	FAB0204261
M 20	1.5	125	25	16	12	15	18.5			FAB0204251	FAB0204262

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



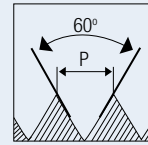


Silver cut

Spiral Point Taps

**MF**

**Metric fine threads**



HOLE TYPE

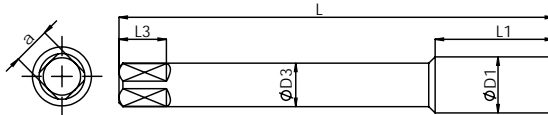


HSS-E

DIN 374

6HX

B/4-4.5P



Male Centre (M8 - M10)  
Female Centre (M12 - M20)



Series	SAF3	SAF5	SAF7
Material - 1 <sup>st</sup> choice	P1-P2	P1-P3	P2-P3
Material - 2 <sup>nd</sup> choice	-	-	-
Coating	TiN	TiCN	AlCrN

DIN 374		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
Nominal Diameter	Pitch	L	L1	ØD3	a	L3	Ød1			
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 8	1	90	22	6	4.9	8	7	FAB0204544	FAB0204550	FAB0204750
M 10	1.25	100	20	7	5.5	8	8.8	FAB0204545	FAB0204551	FAB0204751
M 10	1	90	20	7	5.5	8	9	FAB0204903	FAB0204929	FAB0204752
M 12	1.5	100	22	9	7	10	10.5	FAB0204547	FAB0204553	FAB0204753
M 12	1.25	100	22	9	7	10	10.8	FAB0204546	FAB0204552	FAB0204754
M 14	1.5	100	22	11	9	12	12.5	FAB0204548	FAB0203818	FAB0204755
M 16	1.5	100	22	12	9	12	14.5	FAB0204549	FAB0204555	FAB0204756
M 18	1.5	110	25	14	11	14	16.5	FAB0204904	FAB0204930	FAB0204757
M 20	1.5	125	25	16	12	15	18.5	FAB0204905	FAB0204931	FAB0204758

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

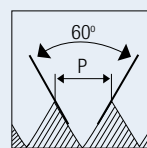
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



Spiral Point Taps

MF

## Metric fine threads



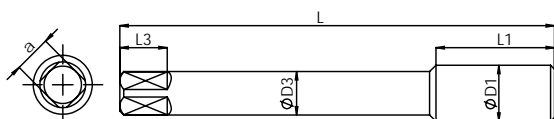
HOLE TYPE



HSS-E

DIN  
374

6HX



Male Centre (M8 - M10)  
Female Centre (M12 - M20)

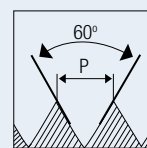


DIN 374							Series	SAS3	SAS5	SAS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 8	1	90	22	6	4.9	8	7	FAB0204832	FAB0204858	FAB0204787
M 10	1.25	100	20	7	5.5	8	8.8	FAB0204834	FAB0204860	FAB0204788
M 10	1	90	20	7	5.5	8	9	FAB0204833	FAB0204859	FAB0204789
M 12	1.5	100	22	9	7	10	10.5	FAB0204836	FAB0204862	FAB0204790
M 12	1.25	100	22	9	7	10	10.8	FAB0204835	FAB0204861	FAB0204791
M 14	1.5	100	22	11	9	12	12.5	FAB0204837	FAB0204863	FAB0204792
M 16	1.5	100	22	12	9	12	14.5	FAB0204838	FAB0204864	FAB0204793
M 18	1.5	110	25	14	11	14	16.5	FAB0205302	FAB0205304	FAB0205306
M 20	1.5	125	25	16	12	15	18.5	FAB0205303	FAB0205305	FAB0205307

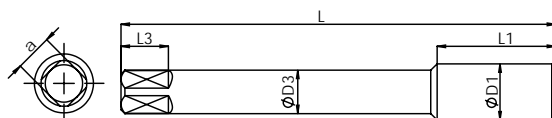
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

**MF**
**Metric fine threads**


HOLE TYPE


**HSS-E  
PM**
**DIN  
374**
**6HX**
**B/4-4.5P**

 Male Centre (M8 - M10)  
Female Centre (M12)


DIN 374							Series	SAI6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	S1-S4
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-
							Coating	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 8	1	90	22	6	4.9	8	7	FAB0204810
M 10	1.25	100	20	7	5.5	8	8.8	FAB0204811
M 10	1	90	20	7	5.5	8	9	FAB0204812
M 12	1.5	100	22	9	7	10	10.5	FAB0204815
M 12	1.25	100	22	9	7	10	10.8	FAB0204816

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

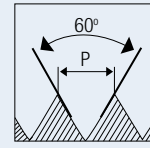


Silver cut

Spiral Point Taps

UNC

Unified coarse threads



HOLE TYPE

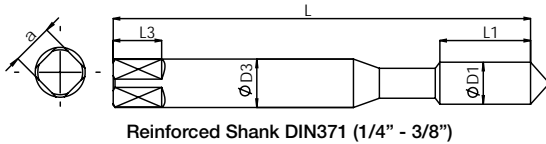


HSS-E

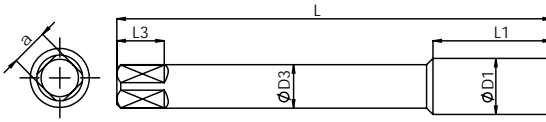
DIN  
371/376

2B

B/4-4.5P



Reinforced Shank DIN371 (1/4" - 3/8")



Reduced Shank DIN376 (7/16" - 1")



DIN 371							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
1/4"	20	80	19	7	5.5	8	P0, N4	FAB0204274	FAB0204283	FAB0204292
5/16"	18	90	22	8	6.2	9	N1-N2	FAB0204275	FAB0204284	FAB0204293
3/8"	16	100	24	10	8	11	K2-K3	FAB0204276	FAB0204285	FAB0204294

DIN 376							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
7/16"	14	110	24	8	6.2	9	P0, N4	FAB0204277	FAB0204286	FAB0204295
1/2"	13	110	28	9	7	10	N1-N2	FAB0204278	FAB0204287	FAB0204296
5/8"	11	110	32	12	9	12	K2-K3	FAB0204279	FAB0204288	FAB0204297
3/4"	10	125	34	14	11	14		FAB0204280	FAB0204289	FAB0204298
7/8"	9	140	34	18	14.5	17		FAB0204281	FAB0204290	FAB0204299
1"	8	160	38	18	14.5	17		FAB0204282	FAB0204291	FAB0204300

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

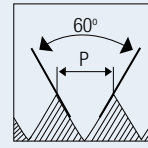


Silver cut

Spiral Point Taps

UNC

Unified coarse threads



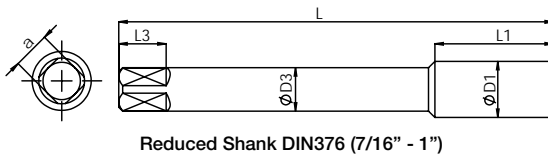
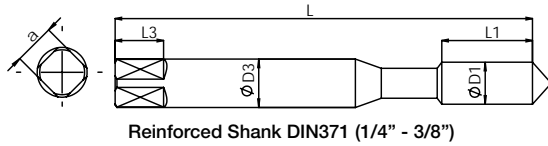
HOLE TYPE



HSS-E

DIN 371/376

2B



DIN 371							Series	SAS3	SAS5	SAS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
1/4"	20	80	19	7	5.5	8		FAB0205308	FAB0205317	FAB0205326
5/16"	18	90	22	8	6.2	9		FAB0205309	FAB0205318	FAB0205327
3/8"	16	100	24	10	8	11		FAB0205310	FAB0205319	FAB0205328

DIN 376							Series	SAS3	SAS5	SAS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
7/16"	14	110	24	8	6.2	9		FAB0205311	FAB0205320	FAB0205329
1/2"	13	110	28	9	7	10		FAB0205312	FAB0205321	FAB0205330
5/8"	11	110	32	12	9	12		FAB0205313	FAB0205322	FAB0205331
3/4"	10	125	34	14	11	14		FAB0205314	FAB0205323	FAB0205332
7/8"	9	140	34	18	14.5	17		FAB0205315	FAB0205324	FAB0205333
1"	8	160	38	18	14.5	17		FAB0205316	FAB0205325	FAB0205334

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

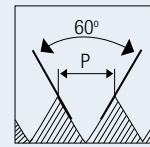


Silver cut

Spiral Point Taps

UNF

Unified fine threads



HOLE TYPE

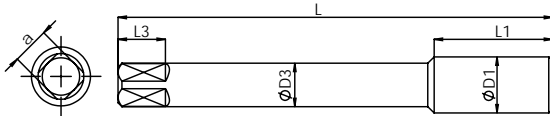


HSS-E

DIN  
374

2B

B/4-4.5P



Male Centre (1/4" - 3/8")  
Female Centre (7/16" - 1")



DIN 374							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
1/4"	28	80	19	4.5	3.4	6	5.5	FAB0204301	FAB0204310	FAB0204319
5/16"	24	90	22	6	4.9	8	6.9	FAB0204302	FAB0204311	FAB0204320
3/8"	24	90	20	7	5.5	8	8.5	FAB0204303	FAB0204312	FAB0204321
7/16"	20	90	20	8	6.2	9	9.9	FAB0204304	FAB0204313	FAB0204322
1/2"	20	100	22	9	7	10	11.5	FAB0204305	FAB0204314	FAB0204323
5/8"	18	100	22	12	9	12	14.5	FAB0204306	FAB0204315	FAB0204324
3/4"	16	110	25	14	11	14	17.5	FAB0204307	FAB0204316	FAB0204325
7/8"	14	125	25	18	14.5	17	20.5	FAB0204308	FAB0204317	FAB0204326
1"	12	140	28	18	14.5	17	23.3	FAB0204309	FAB0204318	FAB0204327

Unit : mm

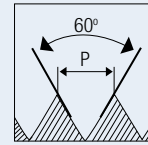
Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

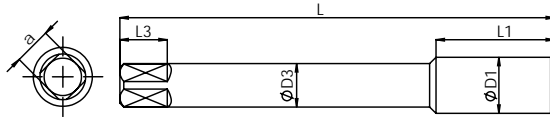
# UNF

## Unified fine threads



HOLE TYPE


**HSS-E**
**DIN**  
374

**2B**
**B/4-4.5P**

 Male Centre (1/4" - 3/8")  
 Female Centre (7/16" - 1")


DIN 374								Series	SAS3	SAS5	SAS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice	-	-	-
								Coating	TiN	TiCN	TiAlN + WC/C
								EDP No.	EDP No.	EDP No.	
1/4"	28	80	19	4.5	3.4	6	5.5	FAB0205335	FAB0205344	FAB0205353	
5/16"	24	90	22	6	4.9	8	6.9	FAB0205336	FAB0205345	FAB0205354	
3/8"	24	90	20	7	5.5	8	8.5	FAB0205337	FAB0205346	FAB0205355	
7/16"	20	90	20	9	6.2	9	9.9	FAB0205338	FAB0205347	FAB0205356	
1/2"	20	100	22	9	7	10	11.5	FAB0205339	FAB0205348	FAB0205357	
5/8"	18	100	22	12	9	12	14.5	FAB0205340	FAB0205349	FAB0205358	
3/4"	16	110	25	14	11	14	17.5	FAB0205341	FAB0205350	FAB0205359	
7/8"	14	125	25	18	14.5	17	20.5	FAB0205342	FAB0205351	FAB0205360	
1"	12	140	28	18	14.5	17	23.3	FAB0205343	FAB0205352	FAB0205361	

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

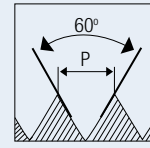
  

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



M

## Metric coarse threads



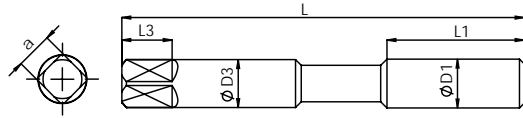
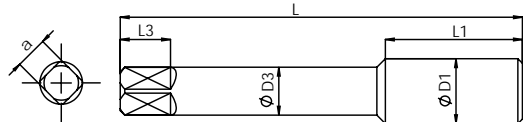
HOLE TYPE



HSS-E

ISO  
529

6HX

Reinforced Shank (M3 - M10)  
Male Centre upto M5

Reduced Shank (M12 - M20)



ISO529 / IS 6175 Part 2							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 3	0.5	48	11	3.15	2.5	5	2.5	FAB0200647	FAB0200648	FAB0203044
M 3.5	0.6	50	13	3.55	2.8	5	2.9	FAB0200653	FAB0200654	FAB0203045
M 4	0.7	53	13	4	3.15	6	3.3	FAB0200659	FAB0200661	FAB0200662
M 5	0.8	58	16	5	4	7	4.2	FAB0200671	FAB0200673	FAB0203046
M 6	1	66	19	6.3	5	8	5	FAB0200682	FAB0200684	FAB0200685
M 7	1	66	19	7.1	5.6	8	6	FAB0203033	FAB0203040	FAB0203047
M 8	1.25	72	22	8	6.3	9	6.8	FAB0200694	FAB0200696	FAB0200697
M 10	1.5	80	24	10	8	11	8.5	FAB0200718	FAB0200720	FAB0200721

ISO529 / IS 6175 Part 3							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 12	1.75	89	29	9	7.1	10	10.2	FAB0200748	FAB0200751	FAB0203052
M 14	2	95	30	11.2	9	12	12	FAB0200778	FAB0200780	FAB0203054
M 16	2	102	32	12.5	10	13	14	FAB0200799	FAB0200801	FAB0203055
M 18	2.5	112	37	14	11.2	14	15.5	FAB0203037	FAB0203043	FAB0203057
M 20	2.5	112	37	14	11.2	14	17.5	FAB0203039	FAB0200810	FAB0203059

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



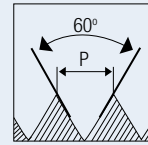


Silver cut

Spiral Point Taps

M

Metric coarse threads



HOLE TYPE

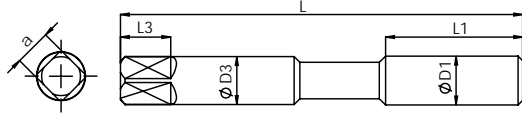


HSS-E

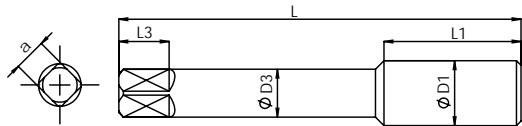
ISO 529

6HX

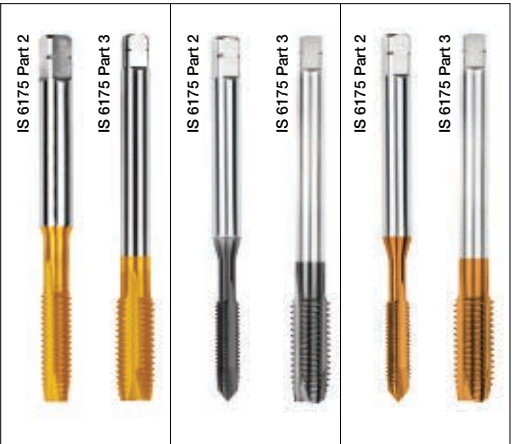
B/4-4.5P



Reinforced Shank (M3 - M10)  
Male Centre upto M5



Reduced Shank (M12 - M20)



ISO529 / IS 6175 Part 2							Series	SAF3	SAF5	SAF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P1-P2	P1-P3	P2-P3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 3	0.5	48	11	3.15	2.5	5	2.5	FAB0203060	FAB0203077	FAB0205124
M 3.5	0.6	50	13	3.55	2.8	5	2.9	FAB0205116	FAB0205120	FAB0205125
M 4	0.7	53	13	4	3.15	6	3.3	FAB0203061	FAB0203078	FAB0205126
M 5	0.8	58	16	5	4	7	4.2	FAB0203062	FAB0203079	FAB0205127
M 6	1	66	19	6.3	5	8	5	FAB0203063	FAB0203080	FAB0205128
M 7	1	66	19	7.1	5.6	8	6	FAB0205117	FAB0205121	FAB0205129
M 8	1.25	72	22	8	6.3	9	6.8	FAB0203065	FAB0203082	FAB0205130
M 10	1.5	80	24	10	8	11	8.5	FAB0203068	FAB0203085	FAB0205131

ISO529 / IS 6175 Part 3							Series	SAF3	SAF5	SAF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P1-P2	P1-P3	P2-P3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 12	1.75	89	29	9	7.1	10	10.2	FAB0203070	FAB0203087	FAB0205132
M 14	2	95	30	11.2	9	12	12	FAB0203072	FAB0203089	FAB0205133
M 16	2	102	32	12.5	10	13	14	FAB0203074	FAB0203091	FAB0205134
M 18	2.5	112	37	14	11.2	14	15.5	FAB0205118	FAB0205122	FAB0205135
M 20	2.5	112	37	14	11.2	14	17.5	FAB0205119	FAB0205123	FAB0205136

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

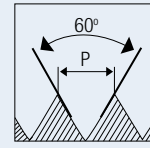
  

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



M

## Metric coarse threads



HOLE TYPE

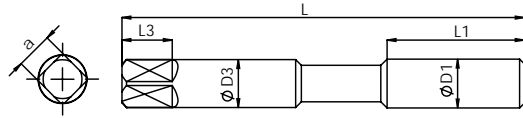
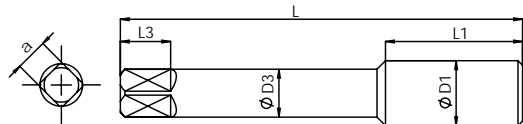


HSS-E

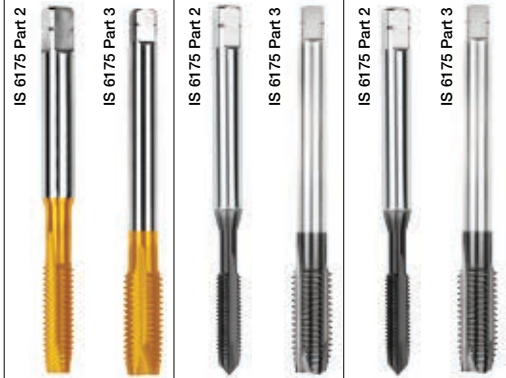
ISO  
529

6HX

B/4-4.5P

Reinforced Shank (M3 - M10)  
Male Centre upto M5

Reduced Shank (M12 - M16)



ISO529 / IS 6175 Part 2							Series	SAS3	SAS5	SAS6
							Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3
							Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	TiAlN + WC/C
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 3	0.5	48	11	3.15	2.5	5	2.5	FAB0203094	FAB0203103	FAB0205137
M 4	0.7	53	13	4	3.15	6	3.3	FAB0203095	FAB0203104	FAB0205138
M 5	0.8	58	16	5	4	7	4.2	FAB0203096	FAB0203105	FAB0205139
M 6	1	66	19	6.3	5	8	5	FAB0203097	FAB0203106	FAB0205140
M 8	1.25	72	22	8	6.3	9	6.8	FAB0203098	FAB0203107	FAB0205141
M 10	1.5	80	24	10	8	11	8.5	FAB0203099	FAB0203108	FAB0205142

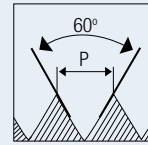
ISO529 / IS 6175 Part 3							Series	SAS3	SAS5	SAS6
							Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3
							Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	TiAlN + WC/C
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 12	1.75	89	29	9	7.1	10	10.2	FAB0203100	FAB0203109	FAB0205143
M 14	2	95	30	11.2	9	12	12	FAB0203101	FAB0203110	FAB0205144
M 16	2	102	32	12.5	10	13	14	FAB0203102	FAB0203111	FAB0205145

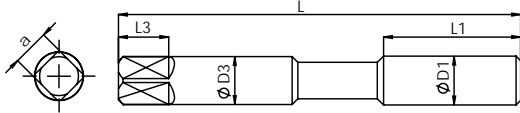
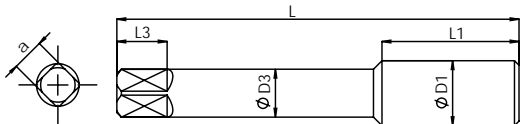
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**M**
**Metric coarse threads**

**HOLE TYPE**

**HSS-E  
PM**
**ISO  
529**
**6HX**
**B/4-4.5P**

**Reinforced Shank (M3 - M10)  
Male Centre upto M5**

**Reduced Shank (M12 - M16)**

IS 6175 Part 2

IS 6175 Part 3



ISO529 / IS 6175 Part 2								Series	SAI6
								Material - 1 <sup>st</sup> choice	S1-S4
								Material - 2 <sup>nd</sup> choice	-
								Coating	TiAlN + WC/C
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	48	11	3.15	2.5	5	2.5	FAB0204712	
M 4	0.7	53	13	4	3.15	6	3.3	FAB0204713	
M 5	0.8	58	16	5	4	7	4.2	FAB0204714	
M 6	1	66	19	6.3	5	8	5	FAB0204715	
M 8	1.25	72	22	8	6.3	9	6.8	FAB0204716	
M 10	1.5	80	24	10	8	11	8.5	FAB0204717	

ISO529 / IS 6175 Part 3									
M 12	1.75	89	29	9	7.1	10	10.2	FAB0204718	
M 14	2	95	30	11.2	9	12	12	FAB0204719	
M 16	2	102	32	12.5	10	13	14	FAB0204720	

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

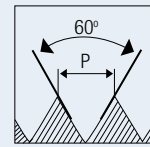
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	



Spiral Point Taps

M

## Metric coarse threads

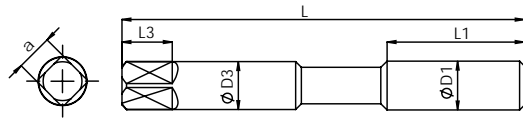
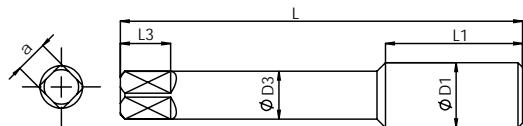


HOLE TYPE

HSS-E  
PMISO  
529

6HX

B/4-4.5P

Reinforced Shank (M3 - M10)  
Male Centre upto M5

Reduced Shank (M12 - M16)

IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3



Series	SAF5	SAF7
Material - 1 <sup>st</sup> choice	P2-P3	P2-P4
Material - 2 <sup>nd</sup> choice	-	-
Coating	TiCN	AlCrN
	EDP No.	EDP No.

ISO529 / IS 6175 Part 2	Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
	ØD1	p	L	L1	ØD3	a	L3	Ød1
	M 3	0.5	48	11	3.15	2.5	5	2.5
	M 4	0.7	53	13	4	3.15	6	3.3
	M 5	0.8	58	16	5	4	7	4.2
	M 6	1	66	19	6.3	5	8	5
	M 8	1.25	72	22	8	6.3	9	6.8
	M 10	1.5	80	24	10	8	11	8.5

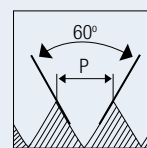
ISO529 / IS 6175 Part 3	Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
	M 12	1.75	89	29	9	7.1	10	10.2
	M 14	2	95	30	11.2	9	12	12
	M 16	2	102	32	12.5	10	13	14

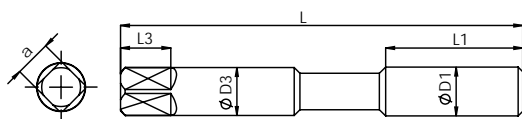
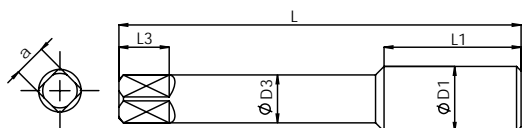
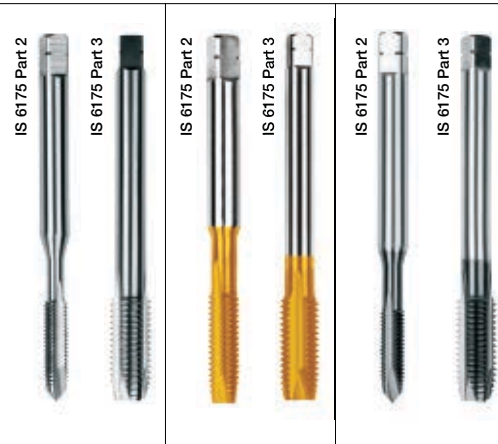
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**MF**
**Metric fine threads**

**HOLE TYPE**

**HSS-E**
**ISO 529**
**6HX**
**B/4-4.5P**

**Reinforced Shank (M8 - M10)**

**Reduced Shank (M12 - M20)**


ISO529 / IS 6175 Part 2							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 8	1	72	22	8	6.3	9	P0, N4	FAB0203034	FAB0203041	FAB0203048
M 10	1	80	24	10	8	11	N1-N2	FAB0203035	FAB0200702	FAB0203049
M 10	1.25	80	24	10	8	11	K2-K3	FAB0200708	FAB0200710	FAB0203050
M 12	1.5	89	29	9	7.1	10	K1-K2	FAB0200738	FAB0200740	FAB0203051
M 14	1.5	95	30	11.2	9	12		FAB0200769	FAB0200771	FAB0203053
M 16	1.5	102	32	12.5	10	13		FAB0200787	FAB0200789	FAB0200790
M 18	1.5	112	37	14	11.2	14		FAB0203036	FAB0203042	FAB0203056
M 20	1.5	112	37	14	11.2	14		FAB0203038	FAB0200807	FAB0203058

ISO529 / IS 6175 Part 3							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 12	1.5	89	29	9	7.1	10	P0, N4	FAB0200738	FAB0200740	FAB0203051
M 14	1.5	95	30	11.2	9	12	N1-N2	FAB0200769	FAB0200771	FAB0203053
M 16	1.5	102	32	12.5	10	13	K2-K3	FAB0200787	FAB0200789	FAB0200790
M 18	1.5	112	37	14	11.2	14	K1-K2	FAB0203036	FAB0203042	FAB0203056
M 20	1.5	112	37	14	11.2	14		FAB0203038	FAB0200807	FAB0203058

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

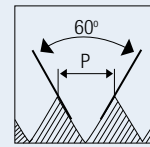
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



Spiral Point Taps

MF

Metric fine threads



HOLE TYPE

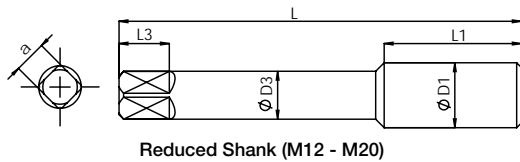
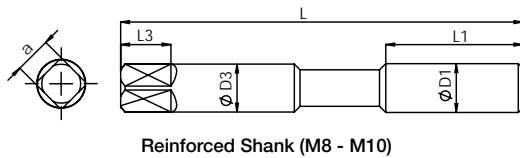


HSS-E

ISO  
529

6HX

B/4-4.5P



ISO529 / IS 6175 Part 2							Series	SAF3	SAF5	SAF7
							Material - 1 <sup>st</sup> choice	P1-P2	P1-P3	P2-P3
							Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	AlCrN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 8	1	72	22	8	6.3	9	7	FAB0203064	FAB0203081	FAB0205164
M 10	1	80	24	10	8	11	9	FAB0203066	FAB0203083	FAB0205165
M 10	1.25	80	24	10	8	11	8.8	FAB0203067	FAB0203084	FAB0205166

ISO529 / IS 6175 Part 3							Series	SAF3	SAF5	SAF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 12	1.5	89	29	9	7.1	10	10.5	FAB0203069	FAB0203086	FAB0205167
M 14	1.5	95	30	11.2	9	12	12.5	FAB0203071	FAB0203088	FAB0205168
M 16	1.5	102	32	12.5	10	13	14.5	FAB0203073	FAB0203090	FAB0205169
M 18	1.5	112	37	14	11.2	14	16.5	FAB0203075	FAB0203092	FAB0205170
M 20	1.5	112	37	14	11.2	14	18.5	FAB0203076	FAB0203093	FAB0205171

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

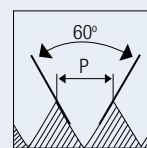


Silver cut

Spiral Point Taps

**MF**

**Metric fine threads**



HOLE TYPE

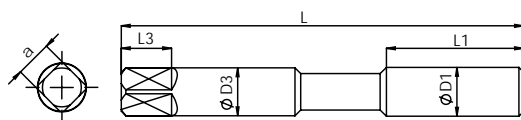


**HSS-E**

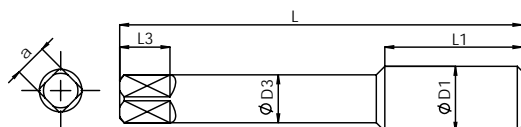
**ISO 529**

**6HX**

**B/4-4.5P**



Reinforced Shank (M8 - M10)



Reduced Shank (M12 - M20)



ISO529 / IS 6175 Part 2							Series	SAS3	SAS5	SAS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 8	1	72	22	8	6.3	9	7	FAB0205172	FAB0205180	FAB0205585
M 10	1	80	24	10	8	11	9	FAB0205173	FAB0205181	FAB0205586
M 10	1.25	80	24	10	8	11	8.8	FAB0205174	FAB0205182	FAB0205587

ISO529 / IS 6175 Part 3										
M 12	1.5	89	29	9	7.1	10	10.5	FAB0205175	FAB0205183	FAB0205588
M 14	1.5	95	30	11.2	9	12	12.5	FAB0205176	FAB0205184	FAB0205589
M 16	1.5	102	32	12.5	10	13	14.5	FAB0205177	FAB0205185	FAB0205590
M 18	1.5	112	37	14	11.2	14	16.5	FAB0205178	FAB0205186	FAB0205591
M 20	1.5	112	37	14	11.2	14	18.5	FAB0205179	FAB0205187	FAB0205592

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

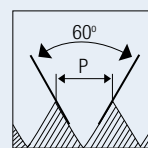
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	



Spiral Point Taps

MF

Metric fine threads

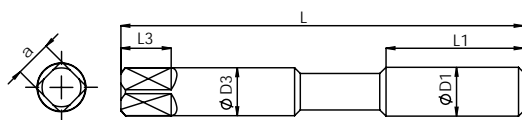


HOLE TYPE

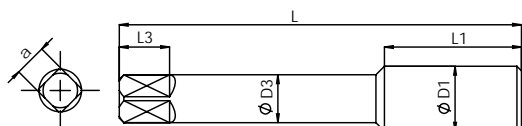
HSS-E  
PMISO  
529

6HX

B/4-4.5P



Reinforced Shank (M8 - M10)



Reduced Shank (M12 - M20)



Series	SAI6							
Material - 1 <sup>st</sup> choice	S1-S4							
Material - 2 <sup>nd</sup> choice	-							
Coating	TiAIN + WC/C							
ISO529 / IS 6175 Part 2								
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 8	1	72	22	8	6.3	9	7	FAB0205188
M 10	1	80	24	10	8	11	9	FAB0205189
M 10	1.25	80	24	10	8	11	8.8	FAB0205190

ISO529 / IS 6175 Part 3								
M 12	1.5	89	29	9	7.1	10	10.5	FAB0205191
M 14	1.5	95	30	11.2	9	12	12.5	FAB0205192
M 16	1.5	102	32	12.5	10	13	14.5	FAB0205193
M 18	1.5	112	37	14	11.2	14	16.5	FAB0205194
M 20	1.5	112	37	14	11.2	14	18.5	FAB0205195

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



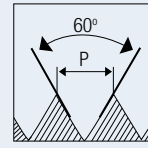


Silver cut

Spiral Point Taps

UNC

Unified coarse threads



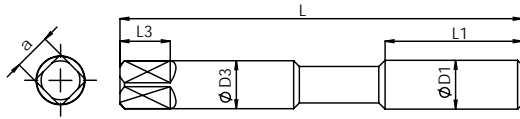
HOLE TYPE



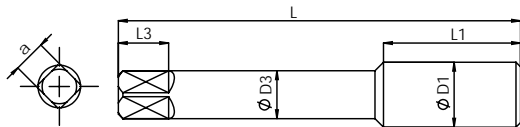
HSS-E

ISO 529

2B



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")



ISO529 / IS 6175 Part 2							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
1/4"	20	66	19	6.3	5	8	P0, N4	FAB0200573	FAB0200575	FAB0205196
5/16"	18	72	22	8	6.3	9	N1-N2	FAB0200582	FAB0200584	FAB0205197
3/8"	16	80	24	10	8	11	K2-K3	FAB0200593	FAB0200595	FAB0205198
							K1-K2			

ISO529 / IS 6175 Part 3							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
7/16"	14	85	25	8	6.3	9	P0, N4	FAB0200603	FAB0200605	FAB0205199
1/2"	13	89	29	9	7.1	10	N1-N2	FAB0200614	FAB0200616	FAB0205200
5/8"	11	102	32	12.5	10	13	K2-K3	FAB0200627	FAB0200629	FAB0205201
3/4"	10	112	37	14	11.2	14	K1-K2	FAB0200638	FAB0200640	FAB0205202

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

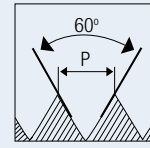


Silver cut

Spiral Point Taps

UNC

Unified coarse threads



HOLE TYPE

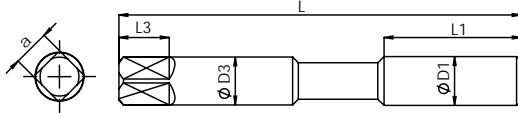


HSS-E

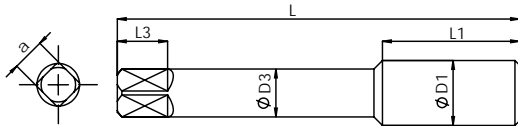
ISO  
529

2B

B/4-4.5P



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")



ISO529 / IS 6175 Part 2							Series	SAS3	SAS5	SAS6	
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3	
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-	
							Coating	TiN	TiCN	TiAlN + WC/C	
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	
Ød1								Ød1			
1/4"	20	66	19	6.3	5	8	3.2	FAB0205217	FAB0205224	FAB0205231	
5/16"	18	72	22	8	6.3	9	6.6	FAB0205218	FAB0205225	FAB0205232	
3/8"	16	80	24	10	8	11	8	FAB0205219	FAB0205226	FAB0205233	

ISO529 / IS 6175 Part 3							Series	SAS3	SAS5	SAS6	
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	M1	M1-M2	M1-M3	
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-	
							Coating	TiN	TiCN	TiAlN + WC/C	
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	
Ød1								Ød1			
7/16"	14	85	25	8	6.3	9	9.4	FAB0205220	FAB0205227	FAB0205234	
1/2"	13	89	29	9	7.1	10	10.8	FAB0205221	FAB0205228	FAB0205235	
5/8"	11	102	32	12.5	10	13	13.5	FAB0205222	FAB0205229	FAB0205236	
3/4"	10	112	37	14	11.2	14	16.5	FAB0205223	FAB0205230	FAB0205237	

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

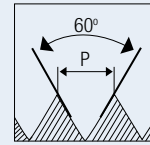


Silver cut

Spiral Point Taps

UNF

Unified fine threads



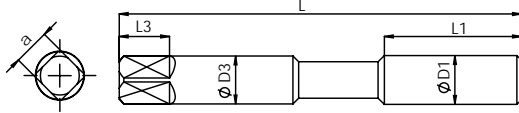
HOLE TYPE



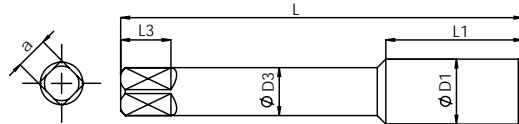
HSS-E

ISO 529

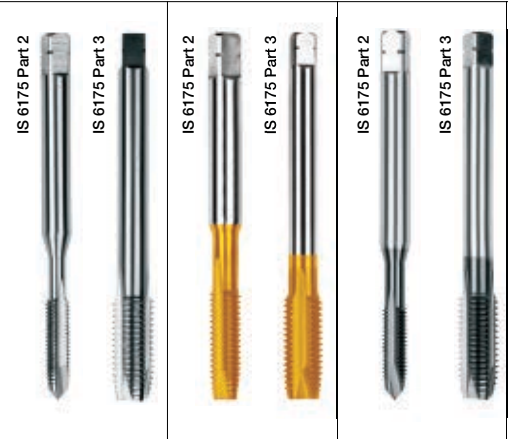
2B



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")



ISO529 / IS 6175 Part 2							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P0, N4	P0-P1	P0-P3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	N1-N2	K2-K3	K1-K2
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	FAB0200497	FAB0200499	FAB0205238
1/4"	28	66	19	6.3	5	8	5.5	FAB0200506	FAB0200508	FAB0205239
5/16"	24	72	22	8	6.3	9	6.9	FAB0200517	FAB0200519	FAB0205240
3/8"	24	80	24	10	8	11	8.5			

ISO529 / IS 6175 Part 3							Series	SA1	SA3	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P0, N4	P0-P1	P0-P3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	N1-N2	K2-K3	K1-K2
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	FAB0200528	FAB0200530	FAB0205241
7/16"	20	85	24	8	6.3	9	9.9	FAB0200539	FAB0200541	FAB0205242
1/2"	20	89	29	9	7.1	10	11.5	FAB0200552	FAB0200554	FAB0205243
5/8"	18	102	32	12.5	10	13	14.5	FAB0200563	FAB0200565	FAB0205244
3/4"	16	112	37	14	11.2	14	17.5			

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

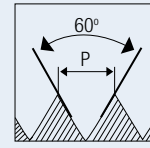


Silver cut

Spiral Point Taps

UNF

Unified fine threads



HOLE TYPE

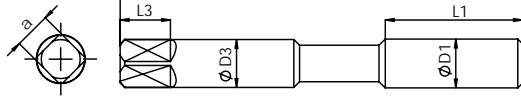


HSS-E

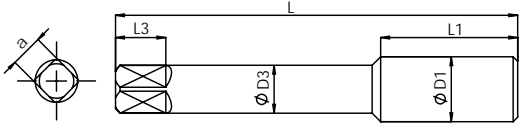
ISO  
529

2B

B/4-4.5P



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")



ISO529 / IS 6175 Part 2							Series	SAS3	SAS5	SAS6	
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice				
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice				
							Coating	TiN	TiCN	TiAlN + WC/C	
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	
							Ød1				
1/4"	28	66	19	6.3	5	8		5.5	FAB0205259	FAB0205266	FAB0205273
5/16"	24	72	22	8	6.3	9		6.9	FAB0205260	FAB0205267	FAB0205274
3/8"	24	80	24	10	8	11		8.5	FAB0205261	FAB0205268	FAB0205275

ISO529 / IS 6175 Part 3							Series	SAS3	SAS5	SAS6	
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice				
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice				
							Coating	TiN	TiCN	TiAlN + WC/C	
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	
							Ød1				
7/16"	20	82	24	8	6.3	9		9.9	FAB0205262	FAB0205269	FAB0205276
1/2"	20	84	29	9	7.1	10		11.5	FAB0205263	FAB0205270	FAB0205277
5/8"	18	95	32	12.5	10	13		14.5	FAB0205264	FAB0205271	FAB0205278
3/4"	16	104	37	14	11.2	14		17.5	FAB0205265	FAB0205272	FAB0205279

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

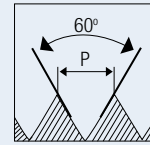


Silver cut

Spiral Point Taps

M/MF

Metric coarse & fine threads



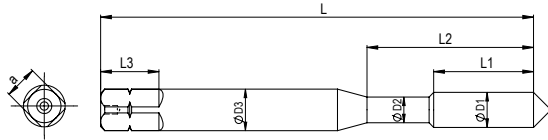
HOLE TYPE



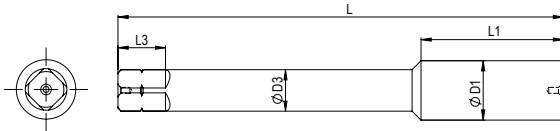
HSS-E

JIS

6HX



Reinforced Shank (M3 - M6)  
Male Centre upto M6



Reduced Shank (M8 - M20)



JIS								Series	SA1	SA4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice		
								Coating	Bright	TiAlN
								EDP No.	EDP No.	
M 3	0.5	46	11	4	3.2	6	2.5	N1-N2	FAB0205072	FAB0205613
M 4	0.7	52	13	5	4	7	3.3	P0, N4	FAB0205073	FAB0205614
M 5	0.8	60	16	5.5	4.5	7	4.2		FAB0205074	FAB0205615
M 6	1	62	19	6	4.5	7	5		FAB0205075	FAB0205616
M 8	1.25	70	22	6.2	5	8	6.8		FAB0205076	FAB0205617
M 8	1	70	22	6.2	5	8	7		FAB0205627	FAB0205618
M 10	1.5	75	24	7	5.5	8	8.5		FAB0205077	FAB0205619
M 10	1.25	75	24	7	5.5	8	8.8		FAB0205628	FAB0205620
M 12	1.75	82	29	8.5	6.5	9	10.3		FAB0205078	FAB0205621
M 12	1.5	82	29	8.5	6.5	9	10.5		FAB0205629	FAB0205622
M 14	2	88	30	10.5	8	11	12		FAB0205630	FAB0205623
M 16	2	95	32	12.5	10	13	14		FAB0205631	FAB0205624
M 18	2.5	100	37	14	11	14	15.5		FAB0205632	FAB0205625
M 20	2.5	105	37	15	12	15	17.5		FAB0205633	FAB0205626

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

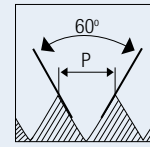
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



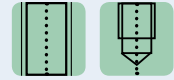
Spiral Point Taps

M

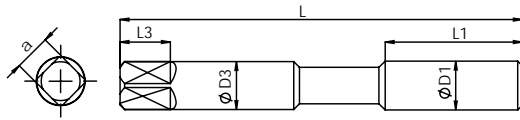
Metric coarse threads



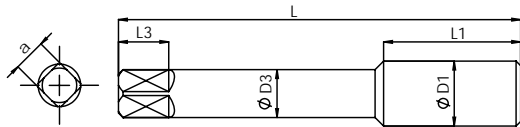
HOLE TYPE



HSS
6H
ISO 529
35°
B/4-4.5P



Reinforced Shank (M3 - M10)  
Male Centre upto M5



Reduced Shank (M12 - M20)



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 3	0.5	48	11	3.15	2.5	5	2.5	FAA0201810
M 3.5	0.6	50	13	3.55	2.8	5	2.9	FAA0201841
M 4	0.7	53	13	4	3.15	6	3.3	FAA0201872
M 5	0.8	58	16	5	4	7	4.2	FAA0201922
M 6	1	66	19	6.3	5	8	5	FAA0201965
M 7	1	66	19	7.1	5.6	8	6	FAA0201998
M 8	1.25	72	22	8	6.3	9	6.8	FAA0202028
M 10	1.5	80	24	10	8	11	8.5	FAA0202101
M 12	1.75	89	29	9	7.1	10	10.2	FAA0202163
M 14	2	95	30	11.2	9	12	12	FAA0202193
M 16	2	102	32	12.5	10	13	14	FAA0202225
M 18	2.5	112	37	14	11.2	14	15.5	FAA0202259
M 20	2.5	112	37	14	11.2	14	17.5	FAA0202286
M 24	3	130	45	18	14	18	21	FAA0202345
M 27	3	135	45	20	16	20	24	FAA0202373
M 30	3.5	180	48	20	16	20	26.5	FAA0202397
M 33	3.5	151	51	22.4	18	22	29.5	FAA0202414
M 36	4	162	57	25	20	24	32	FAA0202433

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



High Performance Cutting Tools



# SPIRAL FLUTE TAPS

## SB-SERIES

# CONTENTS



## SPIRAL FLUTE TAPS

SERIES	THREAD FORM	BLANK STANDARD	WORKPIECE MATERIAL	1ST CHOICE	2ND CHOICE	TOOL MATERIAL	COATING	PAGE
SB1	M	DIN 371/ DIN 376	Steel	P0-P1	N1 N2	HSSE	Bright	1.036
SB3	M	DIN 371/ DIN 376	Steel	P1-P2	K2, N3, N4	HSSE	TiN	
SB4	M	DIN 371/ DIN 376	Steel	P1-P2	K1-K2	HSSE	TiAlN	
SBF3	M	DIN 371/ DIN 376	Forged Steel	P2	-	HSSE	TiN	1.037
SBF5	M	DIN 371/ DIN 376	Forged Steel	P2-P3	-	HSSE	TiCN	
SBF7	M	DIN 371/ DIN 376	Forged Steel	P2-P3	-	HSSE	AlCrN	
SBS5	M	DIN 371/ DIN 376	Stainless Steel	M1 M2	-	HSSE	TiCN	1.038
SBS6	M	DIN 371/ DIN 376	Stainless Steel	M1-M3	-	HSSE	TiAlN + WC/C	
SBS5	M	DIN 371/ DIN 376	Stainless Steel	M1-M3	-	HSSE-PM	TiCN	1.039
SBI6	M	DIN 371/ DIN 376	Super Alloys	S1-S4	-	HSSE-PM	TiAlN + WC/C	
SBF7TC	M	DIN 371/ DIN 376	Forged Steel	P2-P4	-	HSSE	AlCrN	1.040
SB1	MF	DIN 374	Steel	P0-P1	N1 N2	HSSE	Bright	1.041
SB3	MF	DIN 374	Steel	P1-P2	K2, N3, N4	HSSE	TiN	
SB4	MF	DIN 374	Steel	P1-P2	K1-K2	HSSE	TiAlN	
SBF3	MF	DIN 374	Forged Steel	P2	-	HSSE	TiN	1.042
SBF5	MF	DIN 374	Forged Steel	P2-P3	-	HSSE	TiCN	
SBF7	MF	DIN 374	Forged Steel	P2-P3	-	HSSE	AlCrN	
SBS5	MF	DIN 374	Stainless Steel	M1 M2	-	HSSE	TiCN	1.043
SBS6	MF	DIN 374	Stainless Steel	M1-M3	-	HSSE	TiAlN + WC/C	
SBI6	MF	DIN 374	Super Alloys	S1-S4	-	HSSE-PM	TiAlN + WC/C	1.044
SBF7TC	MF	DIN 374	Forged Steel	P2-P4	-	HSSE	AlCrN	1.045
SB1	UNC	DIN 371/ DIN 376	Steel	P0-P1	N1 N2	HSSE	Bright	1.046
SB3	UNC	DIN 371/ DIN 376	Steel	P1-P2	K2, N3, N4	HSSE	TiN	
SBS5	UNC	DIN 371/ DIN 376	Stainless Steel	M1 M2	-	HSSE	TiCN	1.047
SBS5	UNC	DIN 371/ DIN 376	Stainless Steel	M1-M3	-	HSSE-PM	TiCN	1.048
SB1	UNF	DIN 374	Steel	P0-P1	N1 N2	HSSE	Bright	1.049
SB3	UNF	DIN 374	Steel	P1-P2	K2, N3, N4	HSSE	TiN	
SBS5	UNF	DIN 374	Stainless Steel	M1 M2	-	HSSE	TiCN	1.050
SBS5	UNF	DIN 374	Stainless Steel	M1-M3	-	HSSE-PM	TiCN	1.051



# CONTENTS



## SPIRAL FLUTE TAPS

SERIES	THREAD FORM	BLANK STANDARD	WORKPIECE MATERIAL	1ST CHOICE	2ND CHOICE	TOOL MATERIAL	COATING	PAGE
SB1	M	ISO 529	Steel	P0-P1	N1 N2	HSSE	Bright	1.052
SB3	M	ISO 529	Steel	P1-P2	K2, N3, N4	HSSE	TiN	
SB4	M	ISO 529	Steel	P1-P2	K1-K2	HSSE	TiAlN	
SBF3	M	ISO 529	Forged Steel	P2	-	HSSE	TiN	1.053
SBF5	M	ISO 529	Forged Steel	P2-P3	-	HSSE	TiCN	
SBF7	M	ISO 529	Forged Steel	P2-P3	-	HSSE	AlCrN	
SBS5	M	ISO 529	Stainless Steel	M1 M2	-	HSSE	TiCN	1.054
SBS6	M	ISO 529	Stainless Steel	M1-M3	-	HSSE	TiAlN + WC/C	
SBS5	M	ISO 529	Stainless Steel	M1-M3	-	HSSE-PM	TiCN	1.055
SBI6	M	ISO 529	Super Alloys	S1-S4	-	HSSE-PM	TiAlN + WC/C	
SBF7TC	M	ISO 529	Forged Steel	P2-P4	-	HSSE	AlCrN	1.056
SB1	MF	ISO 529	Steel	P0-P1	N1 N2	HSSE	Bright	1.057
SB3	MF	ISO 529	Steel	P1-P2	K2, N3, N4	HSSE	TiN	
SB4	MF	ISO 529	Steel	P1-P2	K1-K2	HSSE	TiAlN	
SBF3	MF	ISO 529	Forged Steel	P2	-	HSSE	TiN	1.058
SBF5	MF	ISO 529	Forged Steel	P2-P3	-	HSSE	TiCN	
SBF7	MF	ISO 529	Forged Steel	P2-P3	-	HSSE	AlCrN	
SBS5	MF	ISO 529	Stainless Steel	M1 M2	-	HSSE	TiCN	1.059
SBF7TC	MF	ISO 529	Forged Steel	P2-P4	-	HSSE	AlCrN	1.060
SB1	UNC	ISO 529	Steel	P0-P1	N1 N2	HSSE	Bright	1.061
SB3	UNC	ISO 529	Steel	P1-P2	K2, N3, N4	HSSE	TiN	
SBS5	UNC	ISO 529	Stainless Steel	M1 M2	-	HSSE	TiCN	1.062
SBS5	UNC	ISO 529	Stainless Steel	M1-M3	-	HSSE-PM	TiCN	1.063
SB1	UNF	ISO 529	Steel	P0-P1	N1 N2	HSSE	Bright	1.064
SB3	UNF	ISO 529	Steel	P1-P2	K2, N3, N4	HSSE	TiN	
SBS5	UNF	ISO 529	Stainless Steel	M1 M2	-	HSSE	TiCN	1.065
SBS5	UNF	ISO 529	Stainless Steel	M1-M3	-	HSSE-PM	TiCN	1.066
SB1	M	JIS	Steel	P0-P1	N1-N2	HSSE	Bright	1.067
SB4	M	JIS	Steel	P1-P2	K1-K2	HSSE	TiAlN	

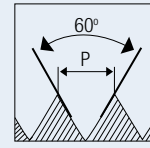


**Silver cut**

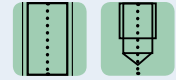
Spiral Flute Taps

M

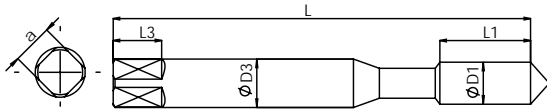
**Metric coarse threads**



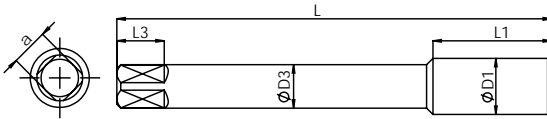
HOLE TYPE



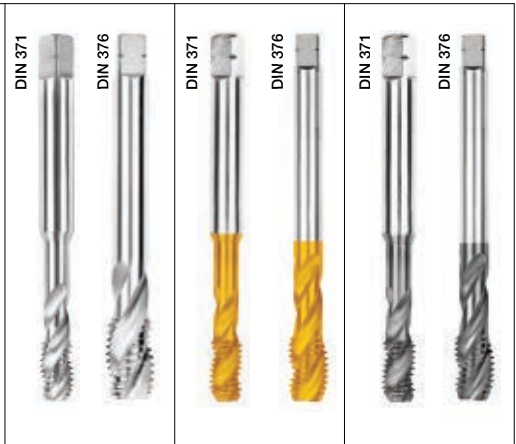
HSS-E
DIN 371/376
6HX
C/2-3P
35°



Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M20)



DIN 371							Series	SB1	SB3	SB4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 3	0.5	56	6	3.5	2.7	6	N1-N2	FAB0203197	FAB0203207	FAB0204334
M 3.5	0.6	56	7	4	3	6	K2, N3-N4	FAB0204328	FAB0204331	FAB0204335
M 4	0.7	63	8	4.5	3.4	6	K1-K2	FAB0203198	FAB0203208	FAB0200968
M 5	0.8	70	8	6	4.9	8		FAB0203199	FAB0203209	FAB0203685
M 6	1	80	10	6	4.9	8		FAB0203200	FAB0203210	FAB0203686
M 7	1	80	10	7	5.5	8		FAB0203201	FAB0203211	FAB0204336
M 8	1.25	90	13	8	6.2	9		FAB0203202	FAB0203212	FAB0203687
M 10	1.5	100	15	10	8	11		FAB0203203	FAB0203213	FAB0203688

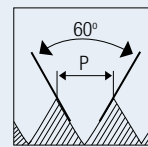
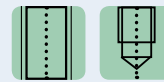
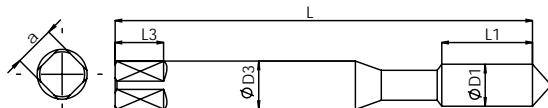
DIN 376							Series	SB1	SB3	SB4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
M 12	1.75	110	18	9	7	10	N1-N2	FAB0203204	FAB0203684	FAB0203689
M 14	2	110	20	11	9	12	K2, N3-N4	FAB0203205	FAB0203215	FAB0204337
M 16	2	110	20	12	9	12	K1-K2	FAB0203206	FAB0203216	FAB0204338
M 18	2.5	125	25	14	11	14		FAB0204329	FAB0204332	FAB0204339
M 20	2.5	140	25	16	12	15		FAB0204330	FAB0204333	FAB0204340

Unit : mm

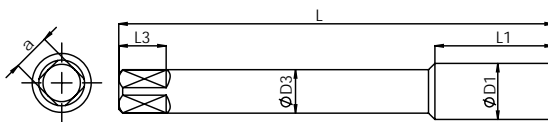
Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

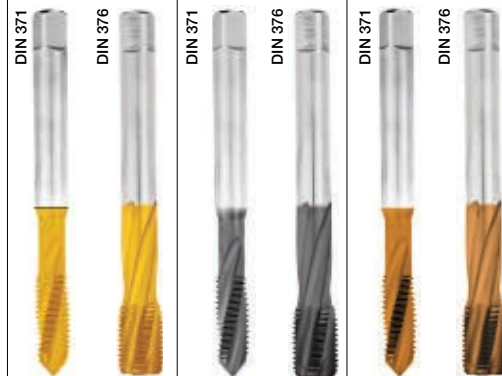
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**M**
**Metric coarse threads**

**HOLE TYPE**

**HSS-E**
**DIN 371/376**
**6HX**
**C/2-3P**
**15°**


Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M20)



DIN 371							Series	SBF3	SBF5	SBF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P2	P2-P3	P2-P3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 3	0.5	56	6	3.5	2.7	6		FAB0204556	FAB0204341	FAB0204759
M 3.5	0.6	56	7	4	3	6		FAB0205535	FAB0204342	FAB0205537
M 4	0.7	63	8	4.5	3.4	6		FAB0204557	FAB0204343	FAB0204760
M 5	0.8	70	8	6	4.9	8		FAB0204558	FAB0204344	FAB0204761
M 6	1	80	10	6	4.9	8		FAB0204559	FAB0204345	FAB0204762
M 7	1	80	10	7	5.5	8		FAB0205536	FAB0204346	FAB0205538
M 8	1.25	90	13	8	6.2	9		FAB0204560	FAB0204347	FAB0204763
M 10	1.5	100	15	10	8	11		FAB0204561	FAB0204348	FAB0204764

DIN 376							Series	SBF3	SBF5	SBF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P2	P2-P3	P2-P3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-	-
							Coating	TiN	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 12	1.75	110	18	9	7	10		FAB0204562	FAB0204349	FAB0204765
M 14	2	110	20	11	9	12		FAB0204563	FAB0204350	FAB0204766
M 16	2	110	20	12	9	12		FAB0204564	FAB0204351	FAB0204767
M 18	2.5	125	25	14	11	14		FAB0204908	FAB0204352	FAB0204934
M 20	2.5	140	25	16	12	15		FAB0204909	FAB0204353	FAB0204768

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

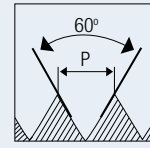


**Silver cut**

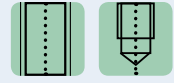
Spiral Flute Taps

M

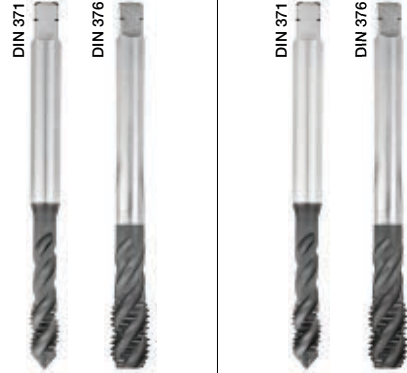
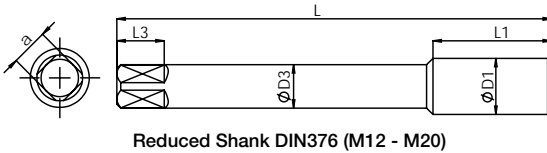
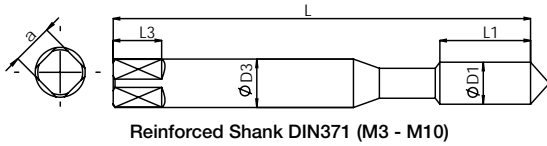
**Metric coarse threads**



HOLE TYPE



HSS-E
DIN 371/376
6HX
C/2-3P
45°



DIN 371							Series	SBS5	SBS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice		
							Coating	TiCN	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.	EDP No.
							Ød1		
M 3	0.5	56	6	3.5	2.7	6		FAB0204655	FAB0204794
M 4	0.7	63	8	4.5	3.4	6		FAB0204656	FAB0204795
M 5	0.8	70	8	6	4.9	8		FAB0204657	FAB0204796
M 6	1	80	10	6	4.9	8		FAB0204658	FAB0204797
M 8	1.25	90	13	8	6.2	9		FAB0204659	FAB0204798
M 10	1.5	100	15	10	8	11		FAB0204660	FAB0204799

DIN 376							Series	SBS5	SBS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice		
							Coating	TiCN	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.	EDP No.
							Ød1		
M 12	1.75	110	18	9	7	10		FAB0204661	FAB0204800
M 14	2	110	20	11	9	12		FAB0204662	FAB0204801
M 16	2	110	20	12	9	12		FAB0204663	FAB0204802
M 20	2.5	140	25	16	12	15		FAB0204664	-

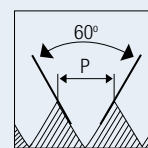
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

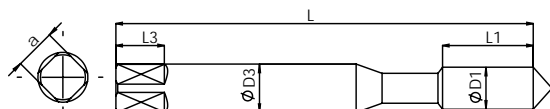
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

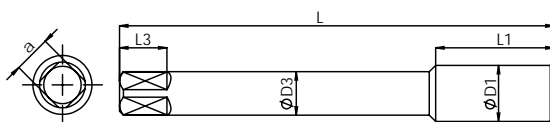
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**M**
**Metric coarse threads**


HOLE TYPE


**HSS-E  
PM**
**DIN  
371/376**
**6HX**
**C/2-3P**
**45°**
**18°**


Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M16)

DIN 371

DIN 376

DIN 371

DIN 376



DIN 371							Series	SBS5	SBI6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice		
							Coating	TiCN	TiAlN + WC/C
							Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	56	6	3.5	2.7	6	2.5	FAB0205539	FAB0204703
M 4	0.7	63	8	4.5	3.4	6	3.3	FAB0205540	FAB0204704
M 5	0.8	70	8	6	4.9	8	4.2	FAB0205541	FAB0204705
M 6	1	80	10	6	4.9	8	5	FAB0205542	FAB0204706
M 8	1.25	90	13	8	6.2	9	6.8	FAB0205543	FAB0204707
M 10	1.5	100	15	10	8	11	8.5	FAB0205544	FAB0204708

DIN 376								
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 12	1.75	110	18	9	7	10	10.2	FAB0205545
M 14	2	110	20	11	9	12	12	FAB0205546
M 16	2	110	20	12	9	12	14	FAB0205547

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

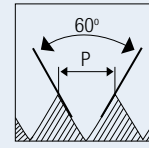
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



Spiral Flute Taps

M

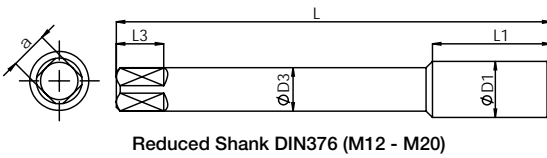
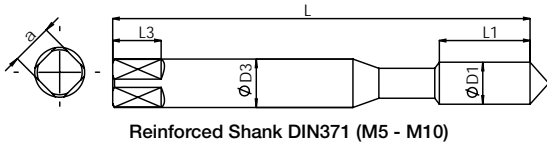
**Metric coarse threads**



HOLE TYPE



HSS-E
DIN 371/376
6HX
C/2-3P
15°



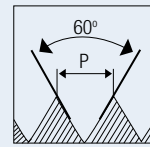
Series	SBF7TC
Material - 1 <sup>st</sup> choice	P2-P4
Material - 2 <sup>nd</sup> choice	-
Coating	AlCrN
Tapping Drill Diameter	EDP No.
Ød1	
M 5	FAB0204955
M 6	FAB0204956
M 8	FAB0204957
M 10	FAB0204958

DIN 376								
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 12	1.75	110	18	9	7	10	10.2	FAB0204959
M 14	2	110	20	11	9	12	12	FAB0204960
M 16	2	110	20	12	9	12	14	FAB0204961
M 18	2.5	125	25	14	11	14	15.5	FAB0204962
M 20	2.5	140	25	16	12	15	17.5	FAB0204963

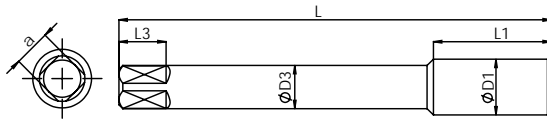
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

**MF**
**Metric fine threads**


HOLE TYPE


**HSS-E**
**DIN 374**
**6HX**
**C/2-3P**
**35°**

 Male centre (M6 - M10)  
Female centre (M12 - M20)


DIN 374							Series	SB1	SB3	SB4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	Coating		
							Tapping Drill Diameter	Bright	TiN	TiAlN
							Ød1	EDP No.	EDP No.	EDP No.
M 6	0.75	80	10	4.5	3.4	6	5.2	FAB0204354	FAB0204365	FAB0204375
M 8	1	90	13	6	4.9	8	7	FAB0204355	FAB0203297	FAB0204376
M 10	1.25	100	15	7	5.5	8	8.8	FAB0204356	FAB0204366	FAB0204377
M 10	1	90	15	7	5.5	8	9	FAB0204357	FAB0204367	FAB0204378
M 12	1.5	100	18	9	7	10	10.5	FAB0204358	FAB0204368	FAB0204379
M 12	1.25	100	18	9	7	10	10.8	FAB0204359	FAB0204369	FAB0204380
M 14	1.5	100	20	11	9	12	12.5	FAB0204360	FAB0204370	FAB0204381
M 16	1.5	100	20	12	9	12	14.5	FAB0204362	FAB0204372	FAB0204383
M 18	1.5	110	25	14	11	14	16.5	FAB0204363	FAB0204373	FAB0204384
M 20	1.5	125	25	16	12	15	18.5	FAB0204364	FAB0204374	FAB0204385

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

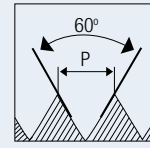


**Silver cut**

Spiral Flute Taps

**MF**

**Metric fine threads**



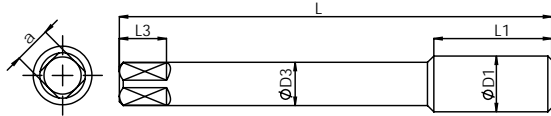
HOLE TYPE



HSS-E

DIN  
374

6HX



Male centre (M6 - M10)  
Female centre (M12 - M20)



Series	SBF3	SBF5	SBF7
Material - 1 <sup>st</sup> choice	P2	P2-P3	P2-P3
Material - 2 <sup>nd</sup> choice	-	-	-

DIN 374							Coating	Tapping Drill Diameter	TiN	TiCN	AlCrN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length		EDP No.	EDP No.	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1				
M 6	0.75	80	10	4.5	3.4	6	5.2	FAB0205548	FAB0204386	-	
M 8	1	90	13	6	4.9	8	7	FAB0204565	FAB0204387	FAB0204769	
M 10	1.25	100	15	7	5.5	8	8.8	FAB0204566	FAB0204388	FAB0204770	
M 10	1	90	15	7	5.5	8	9	FAB0204737	FAB0204389	FAB0204771	
M 12	1.5	100	18	9	7	10	10.5	FAB0204568	FAB0204390	FAB0204772	
M 12	1.25	100	18	9	7	10	10.8	FAB0204567	FAB0204391	FAB0204773	
M 14	1.5	100	20	11	9	12	12.5	FAB0204569	FAB0204392	FAB0204774	
M 16	1.5	100	20	12	9	12	14.5	FAB0204570	FAB0204394	FAB0204775	
M 18	1.5	110	25	14	11	14	16.5	FAB0204912	FAB0204395	FAB0204776	
M 20	1.5	125	25	16	12	15	18.5	FAB0204913	FAB0204396	FAB0204777	

Unit : mm

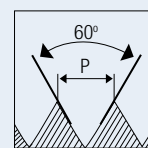
Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

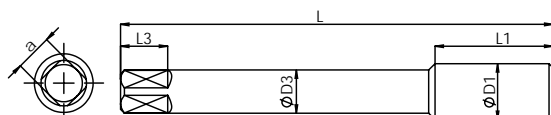
  

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



**MF**
**Metric fine threads**


HOLE TYPE


**HSS-E**
**DIN 374**
**6HX**
**C/2-3P**
**45°**

 Male centre (M8 - M10)  
 Female centre (M12 - M16)


DIN 374								Series	SBS5	SBS6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice		
								Coating	TiCN	TiAlN + WC/C
								EDP No.	EDP No.	EDP No.
M 8	1	90	13	6	4.9	8	7		FAB0204839	FAB0204803
M 10	1.25	100	15	7	5.5	8	8.8		FAB0204841	FAB0204804
M 10	1	90	15	7	5.5	8	9		FAB0204840	FAB0204805
M 12	1.5	100	18	9	7	10	10.5		FAB0204843	FAB0204806
M 12	1.25	100	18	9	7	10	10.8		FAB0204842	FAB0204807
M 14	1.5	100	20	11	9	12	12.5		FAB0204844	FAB0204808
M 16	1.5	100	20	12	9	12	14.5		FAB0204845	FAB0204809

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

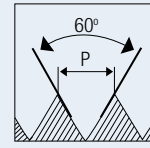


**Silver cut**

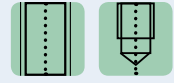
Spiral Flute Taps

**MF**

**Metric fine threads**



HOLE TYPE



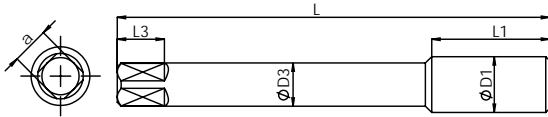
HSS-E  
PM

DIN  
374

6HX

C/2-3P

18°



Male centre (M8 - M10)  
Female centre (M12)

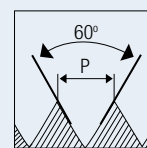


DIN 374								Series	SBI6
								Material - 1 <sup>st</sup> choice	S1-S4
								Material - 2 <sup>nd</sup> choice	-
								Coating	TiAIN + WC/C
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 8	1	90	13	6	4.9	8	7	FAB0204738	
M 10	1.25	100	15	7	5.5	8	8.8	FAB0204813	
M 10	1	90	15	7	5.5	8	9	FAB0204814	
M 12	1.5	100	18	9	7	10	10.5	FAB0204739	
M 12	1.25	100	18	9	7	10	10.8	FAB0204898	

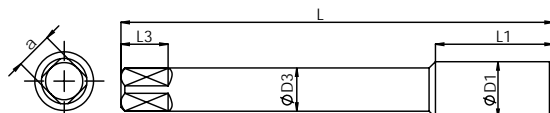
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

**MF**
**Metric fine threads**


HOLE TYPE


**HSS-E**
**DIN 374**
**6HX**
**C/2-3P**
**15°**

 Male centre (M8 - M10)  
 Female centre (M12)


Series	SBF7TC
Material - 1 <sup>st</sup> choice	P2-P4
Material - 2 <sup>nd</sup> choice	-
Coating	AlCrN

DIN 374		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
Nominal Diameter	Pitch							
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 8	1	90	13	6	4.9	8	7	FAB0204966
M 10	1.25	100	15	7	5.5	8	8.8	FAB0204968
M 10	1	90	15	7	5.5	8	9	FAB0204967
M 12	1.5	100	18	9	7	10	10.5	FAB0204970
M 12	1.25	100	18	9	7	10	10.8	FAB0204969
M 14	1.5	100	20	11	9	12	12.5	FAB0204971
M 16	1.5	100	20	12	9	12	14.5	FAB0204972
M 18	1.5	110	25	14	11	14	16.5	FAB0204973
M 20	1.5	125	25	16	12	15	18.5	FAB0204974

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

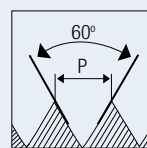


Silver cut

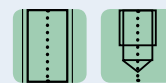
Spiral Flute Taps

UNC

Unified coarse threads



HOLE TYPE



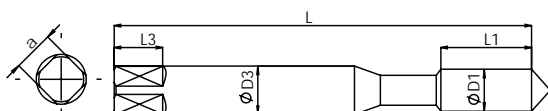
HSS-E

DIN 371/376

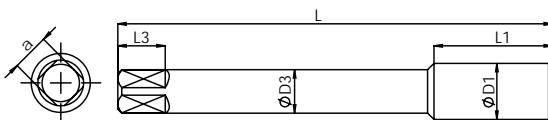
2B

C/2-3P

35°



Reinforced Shank DIN371 (1/4" - 3/8")



Reduced Shank DIN 376 (7/16" - 1")



Series	SB1	SB3
Material - 1 <sup>st</sup> choice	P0-P1	P1-P2
Material - 2 <sup>nd</sup> choice	N1-N2	K2, N3-N4
Coating	Bright	TiN
Tapping Drill Diameter	EDP No.	EDP No.

DIN 371							Tapping Drill Diameter	EDP No.	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length			
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	20	80	10	7	5.5	8	5.2	FAB0204397	FAB0204406
5/16"	18	90	13	8	6.2	9	6.6	FAB0204398	FAB0204407
3/8"	16	100	15	10	8	11	8	FAB0204399	FAB0204408

DIN 376							Tapping Drill Diameter	EDP No.	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length			
ØD1	p	L	L1	ØD3	a	L3	Ød1		
7/16"	14	100	18	8	6.2	9	9.4	FAB0204400	FAB0204409
1/2"	13	110	18	9	7	10	10.75	FAB0204401	FAB0204410
5/8"	11	110	20	12	9	12	13.5	FAB0204402	FAB0204411
3/4"	10	140	25	14	11	14	16.5	FAB0204403	FAB0204412
7/8"	9	140	25	18	14.5	17	19.5	FAB0204404	FAB0204413
1"	8	160	30	18	14.5	17	22.25	FAB0204405	FAB0204414

Unit : mm

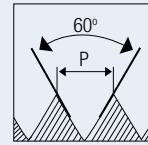
Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

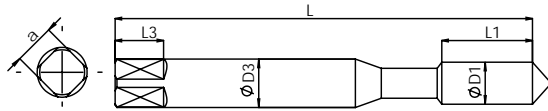
# UNC

## Unified coarse threads

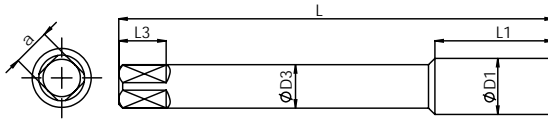


HOLE TYPE


**HSS-E**
**DIN**  
371/376

**2B**
**C/2-3P**
**45°**


Reinforced Shank DIN371 (1/4" - 3/8")



Reduced Shank DIN376 (7/16" - 1")

DIN 371

DIN 376



DIN 371								Series	SBS5
								Material - 1 <sup>st</sup> choice	M1-M2
								Material - 2 <sup>nd</sup> choice	-
								Coating	TiCN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	20	80	10	7	5.5	8	5.2	FAB0205549	
5/16"	18	90	13	8	6.2	9	6.6	FAB0205550	
3/8"	16	100	15	10	8	11	8	FAB0205551	
DIN 376									
7/16"	14	100	18	8	6.2	9	9.4	FAB0205552	
1/2"	13	110	18	9	7	10	10.75	FAB0205553	
5/8"	11	110	20	12	9	12	13.5	FAB0205554	
3/4"	10	140	25	14	11	14	16.5	FAB0205555	
7/8"	9	140	25	18	14.5	17	19.5	FAB0205556	
1"	8	160	30	18	14.5	17	22.25	FAB0205557	

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

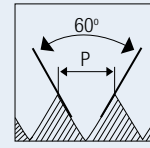


**Silver cut**

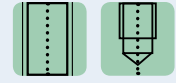
Spiral Flute Taps

**UNC**

**Unified coarse threads**



HOLE TYPE



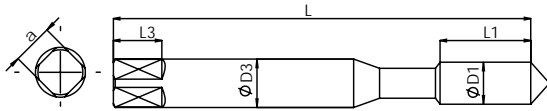
HSS-E  
PM

DIN  
371/376

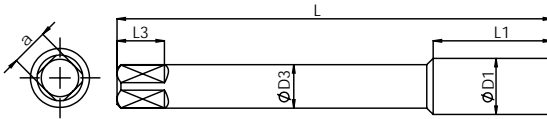
2B

C/2-3P

45°



Reinforced Shank DIN371 (1/4" - 3/8")



Reduced Shank DIN376 (7/16" - 1")



Series	SBS5
Material - 1 <sup>st</sup> choice	M1-M3
Material - 2 <sup>nd</sup> choice	-

DIN 371							Coating	Tapping Drill Diameter	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Ød1		
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	20	80	10	7	5.5	8	5.2	FAB0205558	
5/16"	18	90	13	8	6.2	9	6.6	FAB0205559	
3/8"	16	100	15	10	8	11	8	FAB0205560	

DIN 376							Tapping Drill Diameter	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Ød1	
ØD1	p	L	L1	ØD3	a	L3	Ød1	
7/16"	14	100	18	8	6.2	9	9.4	FAB0205561
1/2"	13	110	18	9	7	10	10.75	FAB0205562
5/8"	11	110	20	12	9	12	13.5	FAB0205563
3/4"	10	140	25	14	11	14	16.5	FAB0205564
7/8"	9	140	25	18	14.5	17	19.5	FAB0205565
1"	8	160	30	18	14.5	17	22.25	FAB0205566

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

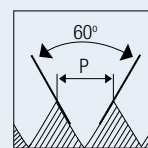
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

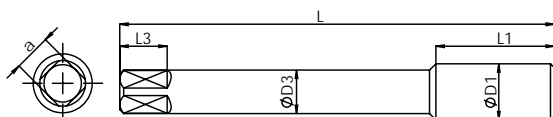
  

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

# UNF

## Unified fine threads


**HOLE TYPE**

**HSS-E**
**DIN 374**
**2B**
**C/2-3P**
**35°**


Male centre (1/4" - 3/8")  
Female centre (7/16" - 1")

DIN 371



DIN 374



DIN 371



DIN 374



DIN 374							Series	SB1	SB3
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice		
							Coating	Bright	TiN
							Tapping Drill Diameter	EDP No.	EDP No.
							Ød1		
1/4"	28	80	10	4.5	3.4	6	P0-P1	FAB0204415	FAB0204424
5/16"	24	90	13	6	4.9	8	N1-N2	FAB0204416	FAB0204425
3/8"	24	100	15	7	5.5	8	K2, N3-N4	FAB0204417	FAB0204426
7/16"	20	100	18	8	6.2	9		FAB0204418	FAB0204427
1/2"	20	100	18	9	7	10		FAB0204419	FAB0204428
5/8"	18	100	20	12	9	12		FAB0204420	FAB0204429
3/4"	16	110	25	14	11	14		FAB0204421	FAB0204430
7/8"	14	125	25	18	14.5	17		FAB0204422	FAB0204431
1"	12	140	30	18	14.5	17		FAB0204423	FAB0204432

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

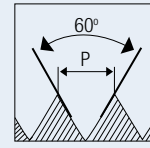


**Silver cut**

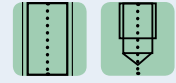
Spiral Flute Taps

**UNF**

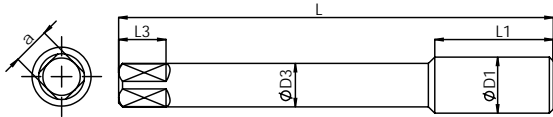
**Unified fine threads**



HOLE TYPE



HSS-E
DIN 374
2B
C/2-3P
45°



Male centre (1/4" - 3/8")  
Female centre (7/16" - 1")



Series	SBS5
Material - 1 <sup>st</sup> choice	M1-M2
Material - 2 <sup>nd</sup> choice	-

DIN 374							Coating	TICN	
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	28	80	10	4.5	3.4	6	5.5	FAB0205567	
5/16"	24	90	13	6	4.9	8	6.9	FAB0205568	
3/8"	24	100	15	7	5.5	8	8.5	FAB0205569	
7/16"	20	100	18	8	6.2	9	9.2	FAB0205570	
1/2"	20	100	18	9	7	10	11.5	FAB0205571	
5/8"	18	100	20	12	9	12	14.5	FAB0205572	
3/4"	16	110	25	14	11	14	17.5	FAB0205573	
7/8"	14	125	25	18	14.5	17	20.5	FAB0205574	
1"	12	140	30	18	14.5	17	23.25	FAB0205575	

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



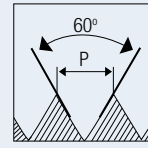


Silver cut

Spiral Flute Taps

UNF

Unified fine threads



HOLE TYPE



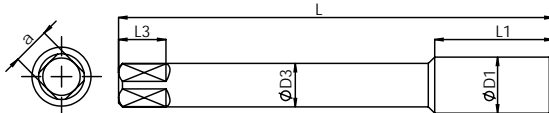
HSS-E  
PM

DIN  
374

2B

C/2-3P

45°



Male centre (1/4" - 3/8")  
Female centre (7/16" - 1")



DIN 374								Series	SBS5
								Material - 1 <sup>st</sup> choice	M1-M3
								Material - 2 <sup>nd</sup> choice	-
								Coating	TiCN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	28	80	10	4.5	3.4	6	5.5	FAB0205576	
5/16"	24	90	13	6	4.9	8	6.9	FAB0205577	
3/8"	24	100	15	7	5.5	8	8.5	FAB0205578	
7/16"	20	100	18	8	6.2	9	9.2	FAB0205579	
1/2"	20	100	18	9	7	10	11.5	FAB0205580	
5/8"	18	100	20	12	9	12	14.5	FAB0205581	
3/4"	16	110	25	14	11	14	17.5	FAB0205582	
7/8"	14	125	25	18	14.5	17	20.5	FAB0205583	
1"	12	140	30	18	14.5	17	23.25	FAB0205584	

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

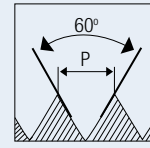


Silver cut

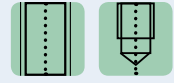
Spiral Flute Taps

M

Metric coarse threads



HOLE TYPE



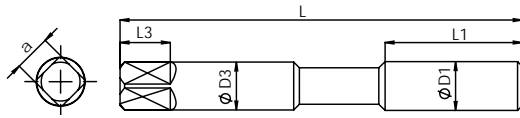
HSS-E

ISO 529

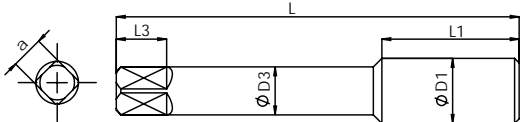
6HX

C/2-3P

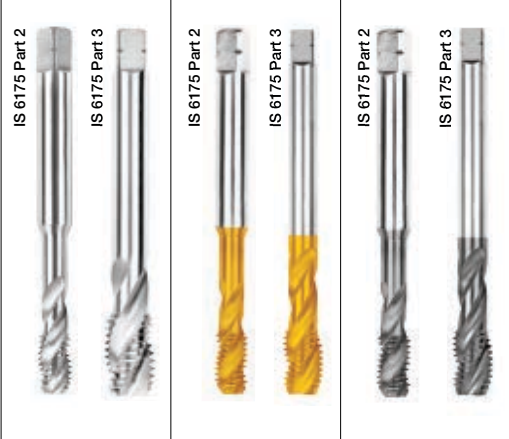
35°



Reinforced Shank (M3 - M10)  
Male centre upto M5



Reduced Shank (M12 - M20)



Series	SB1	SB3	SB4
Material - 1 <sup>st</sup> choice	P0-P1	P1-P2	P1-P2
Material - 2 <sup>nd</sup> choice	N1-N2	K2, N3-N4	K1-K2

ISO 529 / IS 6175 Part 2							Coating	Bright	TiN	TiAlN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 3	0.5	48	5	3.15	2.5	5	2.5	FAB0200649	FAB0200650	FAB0203145
M 3.5	0.6	50	6	3.55	2.8	5	2.9	FAB0203134	FAB0203142	FAB0203146
M 4	0.7	53	7	4	3.15	6	3.3	FAB0200663	FAB0200665	FAB0200666
M 5	0.8	58	8	5	4	7	4.2	FAB0200674	FAB0200676	FAB0200677
M 6	1	66	10	6.3	5	8	5	FAB0200686	FAB0200688	FAB0200689
M 7	1	66	10	7.1	5.6	8	6	FAB0203135	FAB0203143	FAB0203147
M 8	1.25	72	13	8	6.3	9	6.8	FAB0200698	FAB0200700	FAB0200701
M 10	1.5	80	15	10	8	11	8.5	FAB0200722	FAB0200724	FAB0200725

ISO 529 / IS 6175 Part 3										
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 12	1.75	89	18	9	7.1	10	10.25	FAB0200752	FAB0200754	FAB0200755
M 14	2	95	20	11.2	9	12	12	FAB0200781	FAB0200782	FAB0203152
M 16	2	102	20	12.5	10	13	14	FAB0200802	FAB0200804	FAB0203153
M 18	2.5	112	25	14	11.2	14	15.5	FAB0203139	FAB0202155	FAB0203155
M 20	2.5	112	25	14	11.2	14	17.5	FAB0203141	FAB0200812	FAB0203157

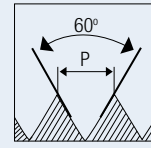
Unit : mm

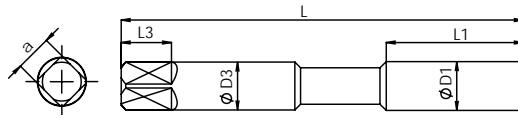
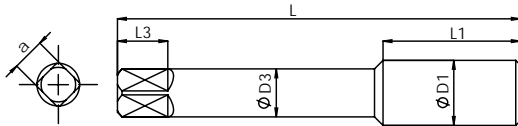
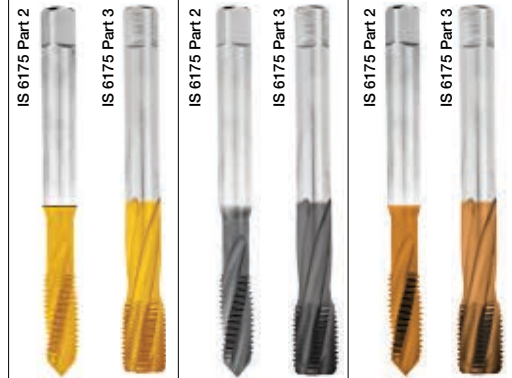
Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**M**
**Metric coarse threads**

**HOLE TYPE**

**HSS-E**
**ISO 529**
**6HX**
**C/2-3P**
**15°**

**Reinforced Shank (M3 - M10)  
Male centre upto M5**

**Reduced Shank (M12 - M20)**


ISO 529 / IS 6175 Part 2							Series	SBF3	SBF5	SBF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	TiN	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 3	0.5	48	5	3.15	2.5	5	2.5	FAB0204636	FAB0203158	FAB0205434
M 3.5	0.6	50	6	3.55	2.8	5	2.9	FAB0205427	FAB0205431	FAB0205435
M 4	0.7	53	7	4	3.15	6	3.3	FAB0204637	FAB0203159	FAB0205436
M 5	0.8	58	8	5	4	7	4.2	FAB0204638	FAB0203160	FAB0205437
M 6	1	66	10	6.3	5	8	5	FAB0204639	FAB0203161	FAB0205438
M 7	1	66	10	7.1	5.6	8	6	FAB0205428	FAB0205432	FAB0205439
M 8	1.25	72	13	8	6.3	9	6.8	FAB0204640	FAB0203163	FAB0205440
M 10	1.5	80	15	10	8	11	8.5	FAB0204641	FAB0203166	FAB0205441

ISO 529 / IS 6175 Part 3							Series	SBF3	SBF5	SBF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	TiN	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 12	1.75	89	18	9	7.1	10	10.25	FAB0204642	FAB0203169	FAB0205442
M 14	2	95	20	11.2	9	12	12	FAB0204643	FAB0203171	FAB0205443
M 16	2	102	20	12.5	10	13	14	FAB0204644	FAB0203173	FAB0205444
M 18	2.5	112	25	14	11.2	14	15.5	FAB0205429	FAB0205433	FAB0205445
M 20	2.5	112	25	14	11.2	14	17.5	FAB0205430	FAB0203176	FAB0205446

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

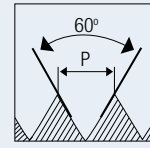


**Silver cut**

Spiral Flute Taps

**M**

**Metric coarse threads**



**HOLE TYPE**



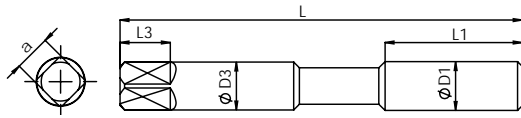
**HSS-E**

**ISO 529**

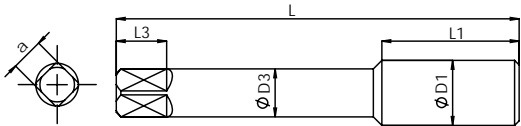
**6HX**

**C/2-3P**

**45°**



**Reinforced Shank (M3 - M10)  
Male centre upto M5**



**Reduced Shank (M12 - M20)**

IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3



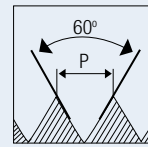
Series	SBS5	SBS6
Material - 1 <sup>st</sup> choice	M1-M2	M1-M3
Material - 2 <sup>nd</sup> choice	-	-
Coating	TiCN	TiAlN + WC/C
ISO 529 / IS 6175 Part 2		
Nominal Diameter		
Pitch		
Overall Length		
Thread Length		
Shank Diameter		
Square Size		
Square Length		
Tapping Drill Diameter		
	EDP No.	EDP No.
ØD1		
M 3	FAB0203187	FAB0205447
M 4	FAB0203188	FAB0205448
M 5	FAB0203189	FAB0205449
M 6	FAB0203190	FAB0205450
M 8	FAB0203191	FAB0205451
M 10	FAB0203192	FAB0205452

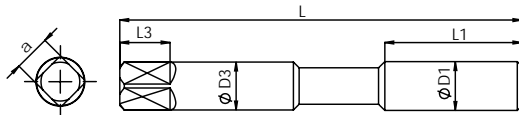
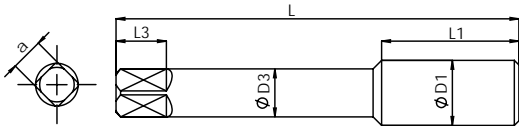
ISO 529 / IS 6175 Part 3									
M 12	1.75	89	18	9	7.1	10	10.25	FAB0203193	FAB0205453
M 14	2	95	20	11.2	9	12	12	FAB0203194	FAB0205454
M 16	2	102	20	12.5	10	13	14	FAB0203195	FAB0205455
M 20	2.5	112	25	14	11.2	14	17.5	FAB0203196	FAB0205456

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

**M**
**Metric coarse threads**

**HOLE TYPE**

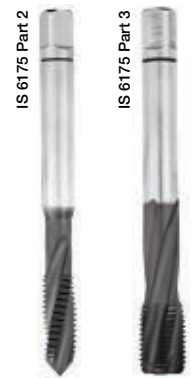
**HSS-E  
PM**
**ISO  
529**
**6HX**
**C/2-3P**
**45°**
**18°**

**Reinforced Shank (M3 - M10)  
Male centre upto M5**

**Reduced Shank (M12 - M16)**

IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3



ISO 529 / IS 6175 Part 2								Series	SBS5	SBI6
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice	M1-M3	S1-S4
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice	-	-
								Coating	TiCN	TiAlN + WC/C
								EDP No.		
M 3	0.5	48	5	3.15	2.5	5	2.5		FAB0205457	FAB0204721
M 4	0.7	53	7	4	3.15	6	3.3		FAB0205458	FAB0204722
M 5	0.8	58	8	5	4	7	4.2		FAB0205459	FAB0204723
M 6	1	66	10	6.3	5	8	5		FAB0205460	FAB0204724
M 8	1.25	72	13	8	6.3	9	6.8		FAB0205461	FAB0204725
M 10	1.5	80	15	10	8	11	8.5		FAB0205462	FAB0204726

ISO 529 / IS 6175 Part 3										
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Coating	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	TiCN	FAB0205463	FAB0204727
M 12	1.75	89	18	9	7.1	10	10.25		FAB0205463	FAB0204727
M 14	2	95	20	11.2	9	12	12		FAB0205464	FAB0204728
M 16	2	102	20	12.5	10	13	14		FAB0205465	FAB0204729

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

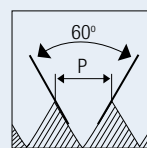


**Silver cut**

Spiral Flute Taps

M

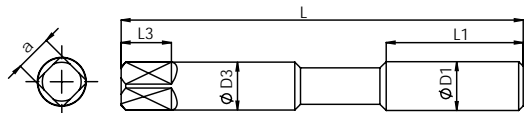
**Metric coarse threads**



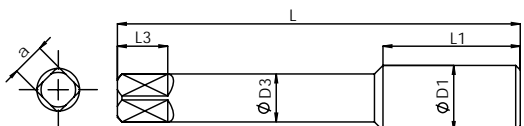
HOLE TYPE



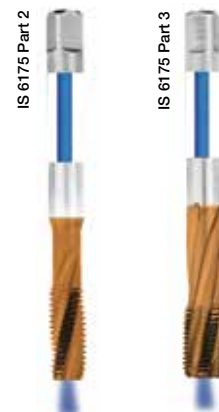
HSS-E
ISO 529
6HX
C/2-3P
15°



Reinforced Shank (M5 - M10)



Reduced Shank (M12 - M20)



Series	SBF7TC
Material - 1 <sup>st</sup> choice	P2-P4
Material - 2 <sup>nd</sup> choice	-
Coating	AlCrN
Tapping Drill Diameter	EDP No.

ISO 529 / IS 6175 Part 2

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 5	0.8	58	8	5	4	7	4.2	FAB0205468
M 6	1	66	10	6.3	5	8	5	FAB0205469
M 8	1.25	72	13	8	6.3	9	6.8	FAB0205470
M 10	1.5	80	15	10	8	11	8.5	FAB0205471

ISO 529 / IS 6175 Part 3

M 12	1.75	89	18	9	7.1	10	10.25	FAB0205472
M 14	2	95	20	11.2	9	12	12	FAB0205473
M 16	2	102	20	12.5	10	13	14	FAB0205474
M 18	2.5	112	25	14	11.2	14	15.5	FAB0205475
M 20	2.5	112	25	14	11.2	14	17.5	FAB0205476

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

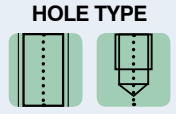
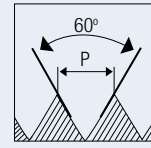


Silver cut

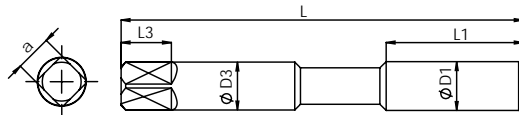
Spiral Flute Taps

**MF**

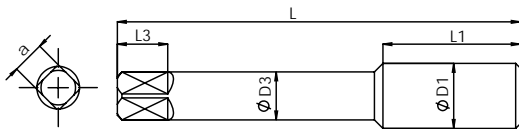
**Metric fine threads**



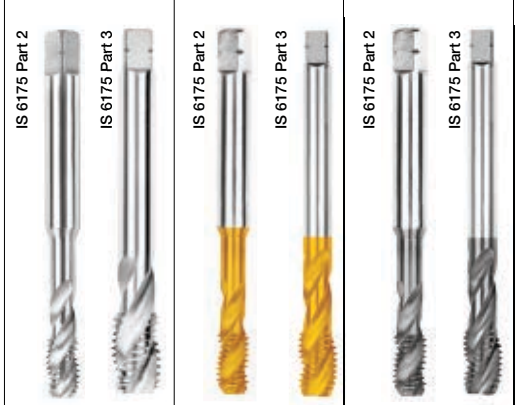
HSS-E
ISO 529
6HX
C/2-3P
35°



**Reinforced Shank (M3 - M10)**  
Male centre upto M5



**Reduced Shank (M12 - M20)**



ISO 529 / IS 6175 Part 2							Series	SB1	SB3	SB4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P0-P1	P1-P2	P1-P2
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	N1-N2	K2, N3-N4	K1-K2
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 8	1	72	13	8	6.3	9		FAB0203136	FAB0202157	FAB0203148
M 10	1	80	15	10	8	11		FAB0203137	FAB0200703	FAB0203149
M 10	1.25	80	15	10	8	11		FAB0200711	FAB0200713	FAB0203150

ISO 529 / IS 6175 Part 3							Series	SB1	SB3	SB4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P0-P1	P1-P2	P1-P2
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	N1-N2	K2, N3-N4	K1-K2
							Coating	Bright	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 12	1.25	89	18	9	7.1	10		FAB0200732	FAB0200733	FAB0204653
M 12	1.5	89	18	9	7.1	10		FAB0200741	FAB0200743	FAB0200744
M 14	1.5	95	20	11.2	9	12		FAB0200772	FAB0200774	FAB0203151
M 16	1.5	102	20	12.5	10	13		FAB0200791	FAB0200793	FAB0200794
M 18	1.5	112	25	14	11.2	14		FAB0203138	FAB0203144	FAB0203154
M 20	1.5	112	25	14	11.2	14		FAB0203140	FAB0200808	FAB0203156

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

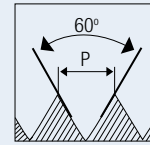


Silver cut

Spiral Flute Taps

MF

Metric fine threads



HOLE TYPE



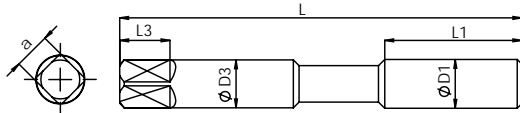
HSS-E

ISO 529

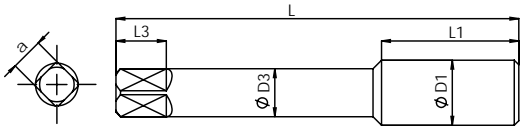
6HX

C/2-3P

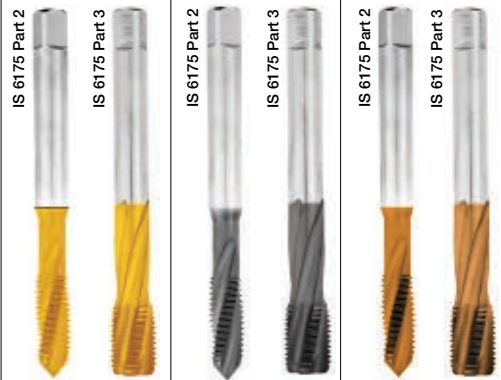
15°



Reinforced Shank (M8 - M10)



Reduced Shank (M12 - M20)



ISO 529 / IS 6175 Part 2							Series	SBF3	SBF5	SBF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	TiN	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 8	1	72	13	8	6.3	9		FAB0204645	FAB0203162	FAB0205480
M 10	1	80	15	10	8	11		FAB0205477	FAB0203164	FAB0205481
M 10	1.25	80	15	10	8	11		FAB0204646	FAB0203165	FAB0205482

ISO 529 / IS 6175 Part 3							Series	SBF3	SBF5	SBF7
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice			
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice			
							Coating	TiN	TiCN	AlCrN
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
							Ød1			
M 12	1.25	89	18	9	7.1	10		FAB0204648	FAB0203168	FAB0205483
M 12	1.5	89	18	9	7.1	10		FAB0204647	FAB0203167	FAB0205484
M 14	1.5	95	20	11.2	9	12		FAB0204649	FAB0203170	FAB0205485
M 16	1.5	102	20	12.5	10	13		FAB0204650	FAB0203172	FAB0205486
M 18	1.5	112	25	14	11.2	14		FAB0205478	FAB0203174	FAB0205487
M 20	1.5	112	25	14	11.2	14		FAB0205479	FAB0203175	FAB0205488

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



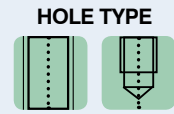
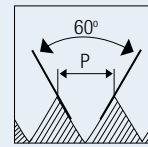


Silver cut

Spiral Flute Taps

**MF**

**Metric fine threads**



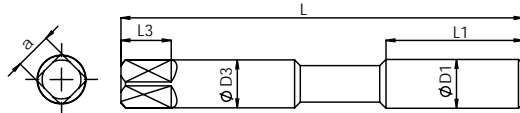
HSS-E

ISO 529

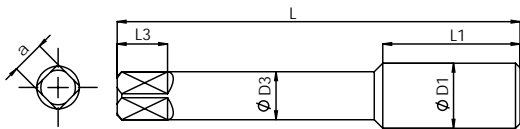
6HX

C/2-3P

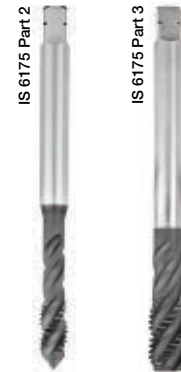
45°



Reinforced Shank (M8 - M10)



Reduced Shank (M12 - M20)



Series	SBS5
Material - 1 <sup>st</sup> choice	M1-M2
Material - 2 <sup>nd</sup> choice	-
Coating	TiCN

**ISO 529 / IS 6175 Part 2**

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 8	1	72	13	8	6.3	9	7	FAB0205489
M 10	1	80	15	10	8	11	9	FAB0205490
M 10	1.25	80	15	10	8	11	8.8	FAB0205491

**ISO 529 / IS 6175 Part 3**

M 12	1.25	89	18	9	7.1	10	10.5	FAB0205493
M 12	1.5	89	18	9	7.1	10	10.5	FAB0205492
M 14	1.5	95	20	11.2	9	12	12.5	FAB0205494
M 16	1.5	102	20	12.5	10	13	14.5	FAB0205495
M 18	1.5	112	25	14	11.2	14	16.5	FAB0205496
M 20	1.5	112	25	14	11.2	14	18.5	FAB0205497

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

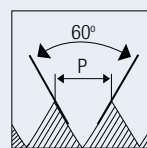


Silver cut

Spiral Flute Taps

MF

Metric fine threads



HOLE TYPE



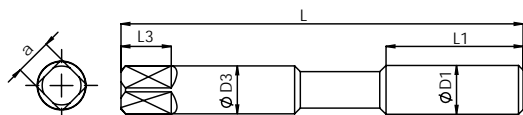
HSS-E

ISO  
529

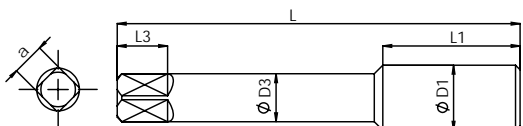
6HX

C/2-3P

15°

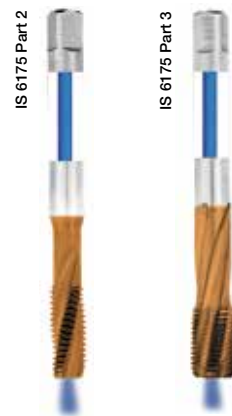


Reinforced Shank (M8 - M10)



Reduced Shank (M12 - M20)

IS 6175 Part 2



IS 6175 Part 3

Series	SBF7TC
Material - 1 <sup>st</sup> choice	P2-P4
Material - 2 <sup>nd</sup> choice	-
Coating	AlCrN
Tapping Drill Diameter	EDP No.
Ød1	
M 8	FAB0205498
M 10	FAB0205499
M 10	FAB0205500

ISO 529 / IS 6175 Part 2

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 8	1	72	13	8	6.3	9	7	FAB0205498
M 10	1	80	15	10	8	11	9	FAB0205499
M 10	1.25	80	15	10	8	11	8.8	FAB0205500

ISO 529 / IS 6175 Part 3

M 12	1.25	89	18	9	7.1	10	10.5	FAB0205502
M 12	1.5	89	18	9	7.1	10	10.5	FAB0205501
M 14	1.5	95	20	11.2	9	12	12.5	FAB0205503
M 16	1.5	102	20	12.5	10	13	14.5	FAB0205504
M 18	1.5	112	25	14	11.2	14	16.5	FAB0205505
M 20	1.5	112	25	14	11.2	14	18.5	FAB0205506

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

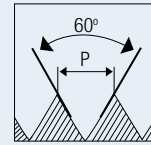


Silver cut

Spiral Flute Taps

UNC

Unified coarse threads



HOLE TYPE



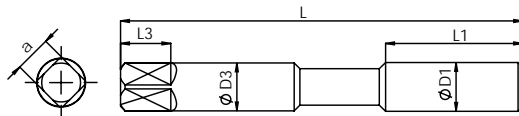
HSS-E

ISO 529

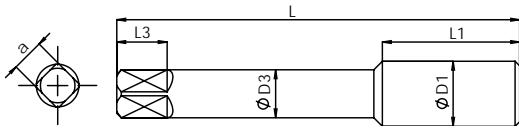
2B

C/2-3P

35°



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")

IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3



Series	SB1	SB3
Material - 1 <sup>st</sup> choice	P0-P1	P1-P2
Material - 2 <sup>nd</sup> choice	N1-N2	K2, N3-N4
Coating	Bright	TiN
EDP No.	EDP No.	EDP No.

ISO 529 / IS 6175 Part 2

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	20	66	10	6.3	5	8	5.5	FAB0200576	FAB0200578
5/16"	18	72	15	8	6.3	9	6.9	FAB0200585	FAB0200587
3/8"	16	80	15	10	8	11	8.5	FAB0200596	FAB0200598

ISO 529 / IS 6175 Part 3

7/16"	14	85	19	8	6.3	9	9.2	FAB0200606	FAB0200608
1/2"	13	89	19	9	7.1	10	10.75	FAB0200617	FAB0200619
5/8"	11	102	20	12.5	10	13	13.5	FAB0200631	FAB0200633
3/4"	10	112	25	14	11.2	14	16.5	FAB0200641	FAB0200643

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

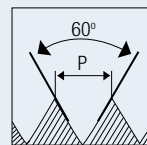


Silver cut

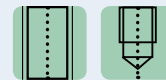
Spiral Flute Taps

UNC

Unified coarse threads



HOLE TYPE



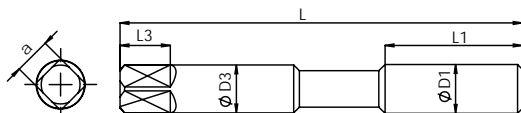
HSS-E

ISO  
529

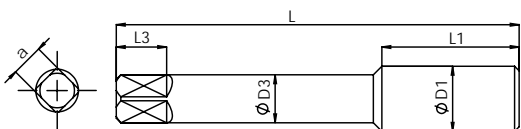
2B

C/2-3P

45°



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")

IS 6175 Part 2



IS 6175 Part 3



Series	SBS5
Material - 1 <sup>st</sup> choice	M1-M2
Material - 2 <sup>nd</sup> choice	-
Coating	TiCN

ISO 529 / IS 6175 Part 2							Tapping Drill Diameter	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Ød1	
ØD1	p	L	L1	ØD3	a	L3	Ød1	
1/4"	20	66	10	6.3	5	8	5.5	FAB0205507
5/16"	18	72	15	8	6.3	9	6.9	FAB0205508
3/8"	16	80	15	10	8	11	8.5	FAB0205509

ISO 529 / IS 6175 Part 3								Tapping Drill Diameter	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Ød1		
7/16"	14	85	19	8	6.3	9	9.2	FAB0205510	
1/2"	13	89	19	9	7.1	10	10.75	FAB0205511	
5/8"	11	102	20	12.5	10	13	13.5	FAB0205512	
3/4"	10	112	25	14	11.2	14	16.5	FAB0205513	

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

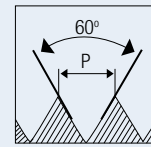
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

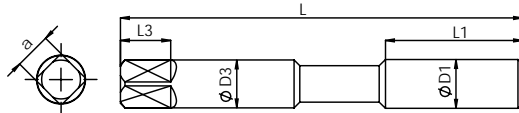
  

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

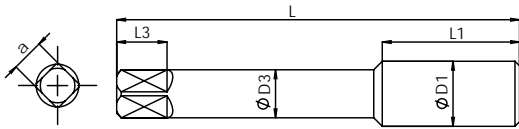
# UNC

## Unified coarse threads


**HOLE TYPE**

**HSS-E  
PM**
**ISO  
529**
**2B**
**C/2-3P**
**45°**


Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")

IS 6175 Part 2

IS 6175 Part 3



ISO 529 / IS 6175 Part 2								Series	SBS5
								Material - 1 <sup>st</sup> choice	M1-M3
								Material - 2 <sup>nd</sup> choice	-
								Coating	TiCN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	20	66	10	6.3	5	8	5.5	FAB0205514	
5/16"	18	72	15	8	6.3	9	6.9	FAB0205515	
3/8"	16	80	15	10	8	11	8.5	FAB0205516	

ISO 529 / IS 6175 Part 3									
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter		EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
7/16"	14	85	19	8	6.3	9	9.2		FAB0205517
1/2"	13	89	19	9	7.1	10	10.75		FAB0205518
5/8"	11	102	20	12.5	10	13	13.5		FAB0205519
3/4"	10	112	25	14	11.2	14	16.5		FAB0205520

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

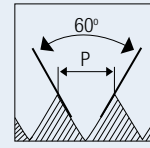


Silver cut

Spiral Flute Taps

UNF

Unified fine threads



HOLE TYPE



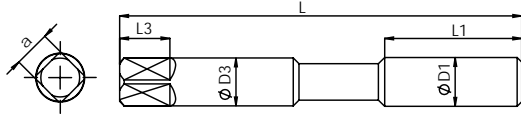
HSS-E

ISO 529

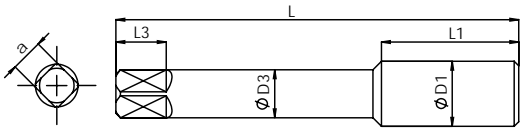
2B

C/2-3P

35°



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")

IS 6175 Part 2



IS 6175 Part 3



IS 6175 Part 2



IS 6175 Part 3



Series	SB1	SB3
Material - 1 <sup>st</sup> choice	P0-P1	P1-P2
Material - 2 <sup>nd</sup> choice	N1-N2	K2, N3-N4
Coating	Bright	TiN
EDP No.		

ISO 529 / IS 6175 Part 2

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	28	66	10	6.3	5	8	5.5	FAB0200500	FAB0200501
5/16"	24	72	15	8	6.3	9	6.9	FAB0200510	FAB0200512
3/8"	24	80	15	10	8	11	8.5	FAB0200520	FAB0200522

ISO 529 / IS 6175 Part 3

7/16"	20	85	19	8	6.3	9	9.8	FAB0200531	FAB0200533
1/2"	20	89	19	9	7.1	10	11.5	FAB0200542	FAB0200544
5/8"	18	102	20	12.5	10	13	14.5	FAB0200555	FAB0200557
3/4"	16	112	20	14	11.2	14	17.5	FAB0200566	FAB0200568

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

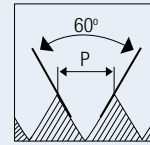
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

# UNF

## Unified fine threads



HOLE TYPE



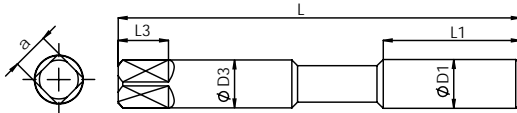
HSS-E

 ISO  
529

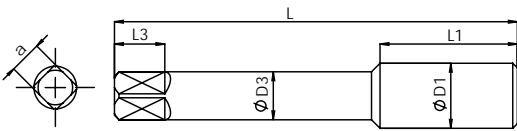
2B

C/2-3P

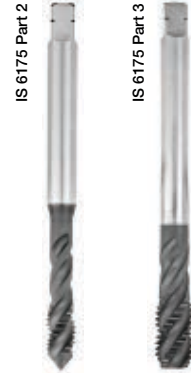
45°



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")



Series	SBS5
Material - 1 <sup>st</sup> choice	M1-M2
Material - 2 <sup>nd</sup> choice	-
Coating	TiCN
Tapping Drill Diameter	EDP No.
Ød1	
1/4"	FAB0205521
5/16"	FAB0205522
3/8"	FAB0205523

**ISO 529 / IS 6175 Part 2**

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
1/4"	28	66	10	6.3	5	8	5.5	FAB0205521
5/16"	24	72	15	8	6.3	9	6.9	FAB0205522
3/8"	24	80	15	10	8	11	8.5	FAB0205523

**ISO 529 / IS 6175 Part 3**

7/16"	20	85	19	8	6.3	9	9.2	FAB0205524
1/2"	20	89	19	9	7.1	10	11.5	FAB0205525
5/8"	18	102	20	12.5	10	13	14.5	FAB0205526
3/4"	16	112	20	14	11.2	14	17.5	FAB0205527

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

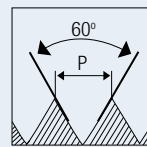


**Silver cut**

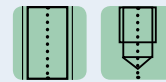
Spiral Flute Taps

**UNF**

**Unified fine threads**



HOLE TYPE



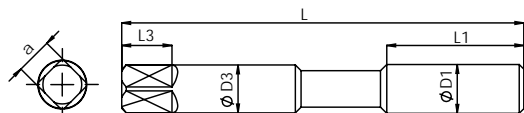
HSS-E  
PM

ISO  
529

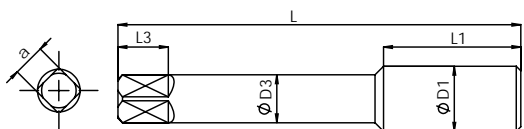
2B

C/2-3P

45°



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")

IS 6175 Part 2



IS 6175 Part 3



Series	SBS5
Material - 1 <sup>st</sup> choice	M1-M3
Material - 2 <sup>nd</sup> choice	-
Coating	TiCN

ISO 529 / IS 6175 Part 2

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
1/4"	28	66	10	6.3	5	8	5.5	FAB0205528
5/16"	24	72	15	8	6.3	9	6.9	FAB0205529
3/8"	24	80	15	10	8	11	8.5	FAB0205530

ISO 529 / IS 6175 Part 3

7/16"	20	85	19	8	6.3	9	9.9	FAB0205531
1/2"	20	89	19	9	7.1	10	11.6	FAB0205532
5/8"	18	102	20	12.5	10	13	14.6	FAB0205533
3/4"	16	112	20	14	11.2	14	17.6	FAB0205534

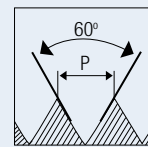
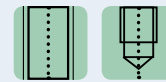
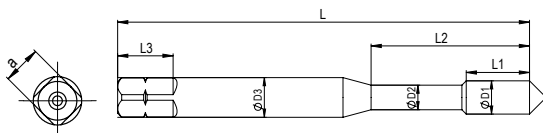
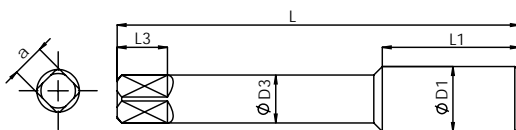
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



**M/MF**
**Metric coarse & fine threads**

**HOLE TYPE**

**HSS-E**
**JIS**
**6HX**
**C/2-3P**
**35°**

**Reinforced Shank (M3 - M6)  
Male Centre upto M6**

**Reduced Shank (M8- M20)**


JIS								Series	SB1	SB4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice		
								Coating	Bright	TiAlN
								EDP No.	EDP No.	
M 3	0.5	46	6	4	3.2	6	2.5	N1-N2	FAB0205079	FAB0205593
M 4	0.7	52	7.2	5	4	7	3.3	P1-P2	FAB0205080	FAB0205594
M 5	0.8	60	9.6	5.5	4.5	7	4.2		FAB0205081	FAB0205595
M 6	1	62	12	6	4.5	7	5		FAB0205082	FAB0205596
M 8	1.25	70	15	6.2	5	8	6.8		FAB0205083	FAB0205597
M 8	1	70	15	6.2	5	8	7		FAB0205607	FAB0205598
M 10	1.5	75	18	7	5.5	8	8.5		FAB0205084	FAB0205599
M 10	1.25	75	18	7	5.5	8	8.8		FAB0205608	FAB0205600
M 12	1.75	82	21	8.5	6.5	9	10.3		FAB0205085	FAB0205601
M 12	1.5	82	21	8.5	6.5	9	10.5		FAB0205609	FAB0205602
M 14	2	88	24	10.5	8	11	12		FAB0205610	FAB0205603
M 16	2	95	24	12.5	10	13	14		FAB0205611	FAB0205604
M 18	2.5	100	30	14	11	14	15.5		FAB0205612	FAB0205605
M 20	2.5	105	30	15	12	15	17.5		FAB0205613	FAB0205606

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

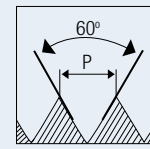
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	



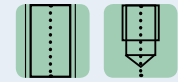
Spiral Flute Taps

M

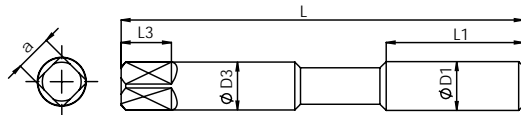
Metric coarse threads



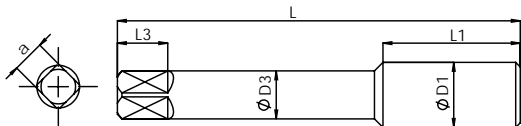
HOLE TYPE



HSS
6H
ISO 529
35°
C/2-3P



Reinforced Shank (M3 - M10)  
Male centre upto M5



Reduced Shank (M12 - M20)



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 3	0.5	48	5	3.15	2.5	5	2.5	FAB0201290
M 3.5	0.6	50	6	3.55	2.8	5	2.9	FAB0201293
M 4	0.7	53	7	4	3.15	6	3.3	FAB0201295
M 5	0.8	58	8	5	4	7	4.2	FAB0201299
M 6	1	66	10	6.3	5	8	5	FAB0201303
M 7	1	66	10	7.1	5.6	8	6	FAB0201310
M 8	1.25	72	13	8	6.3	9	6.8	FAB0201314
M 10	1.5	80	15	10	8	11	8.5	FAB0201324
M 12	1.75	89	18	9	7.1	10	10.2	FAB0201334
M 14	2	95	20	11.2	9	12	12	FAB0201341
M 16	2	102	20	12.5	10	13	14	FAB0201347
M 18	2.5	112	25	14	11.2	14	15.5	FAB0201351
M 20	2.5	112	25	14	11.2	14	17.5	FAB0201355
M 22	2.5	118	25	16	12.5	16	19.5	FAB0201358
M 24	3	130	30	18	14	18	21	FAB0201360
M 27	3	135	30	20	16	20	24	FAB0201365
M 30	3.5	138	35	20	16	20	26.5	FAB0201366
M 36	4	162	40	25	20	24	32	FAB0201368

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



High Performance Cutting Tools



# STRAIGHT FLUTE TAPS

## SC-SERIES



## STRAIGHT FLUTE TAPS

SERIES	THREAD FORM	LENGTH STANDARD	WORKPIECE MATERIAL	1ST CHOICE	2ND CHOICE	TOOL MATERIAL	COATING	PAGE
SC3	M	DIN 371/DIN376	CAST IRON	K1,K2	N2,N3	HSSE	TiN	1.072
SC4	M	DIN 371/DIN376	CAST IRON	K1-K3	-	HSSE	TiAIN	
SCF5	M	DIN 371/DIN376	STEEL	P2-P3	-	HSSE	TiCN	1.073
SC4TC	M	DIN 371/DIN376	CAST IRON	K1-K3	-	HSSE	TiAIN	
SC4	M	DIN 371/DIN376	CAST IRON	K1-K3	-	HSSE PM	TiAIN	1.074
SC4TC	M	DIN 371/DIN376	CAST IRON	K1-K3	-	HSSE PM	TiAIN	
SC3	MF	DIN 374	CAST IRON	K1,K2	N2,N3	HSSE	TiN	1.075
SC4	MF	DIN 374	CAST IRON	K1-K3	-	HSSE	TiAIN	
SCF5	MF	DIN 374	STEEL	P2-P3	-	HSSE	TiCN	1.076
SC4TC	MF	DIN 374	CAST IRON	K1-K3	-	HSSE	TiAIN	
SC3	UNC	DIN 371/DIN376	CAST IRON	K1-K2	N2,N3	HSSE	TiN	1.077
SC4	UNC	DIN 371/DIN376	CAST IRON	K1,K3	-	HSSE	TiAIN	
SC3	UNF	DIN 374	CAST IRON	K1,K2	N2,N3	HSSE	TiN	1.078
SC4	UNF	DIN 374	CAST IRON	K1,K3	-	HSSE	TiAIN	
SC3	M	ISO 529	CAST IRON	K1,K2	N2,N3	HSSE	TiN	1.079
SC4	M	ISO 529	CAST IRON	K1-K3	-	HSSE	TiAIN	

# CONTENTS



## STRAIGHT FLUTE TAPS

SERIES	THREAD FORM	LENGTH STANDARD	WORKPIECE MATERIAL	1ST CHOICE	2ND CHOICE	TOOL MATERIAL	COATING	PAGE
SCF5	M	ISO 529	STEEL	P2-P3	-	HSSE	TiCN	1.080
SC4TC	M	ISO 529	CAST IRON	K1-K3	-	HSSE	TiAlN	
SC4	M	ISO 529	CAST IRON	K1-K3	-	HSSE PM	TiAlN	1.081
SC4TC	M	ISO 529	CAST IRON	K1-K3	-	HSSE PM	TiAlN	
SC3	MF	ISO 529	CAST IRON	K1,K2	N2,N3	HSSE	TiN	1.082
SC4	MF	ISO 529	CAST IRON	K1-K3	-	HSSE	TiAlN	
SCF5	MF	ISO 529	STEEL	P2-P3	-	HSSE	TiCN	1.083
SC4TC	MF	ISO 529	CAST IRON	K1-K3	-	HSSE	TiAlN	
SC3	UNC	ISO 529	CAST IRON	K1,K2	N2,N3	HSSE	TiN	1.084
SC4	UNC	ISO 529	CAST IRON	K1-K3	-	HSSE	TiAlN	
SC3	UNF	ISO 529	CAST IRON	K1,K2	N2,N3	HSSE	TiN	1.085
SC4	UNF	ISO 529	CAST IRON	K1-K3	-	HSSE	TiAlN	
SC1	M	JIS	CAST IRON	K1-K2	N2,N3	HSSE	TiN	1.086
SC4	M	JIS	CAST IRON	K1-K3	-	HSSE	TiAlN	

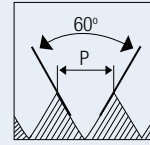


Silver cut

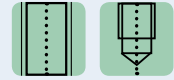
Straight Flute Tap

M

Metric coarse threads



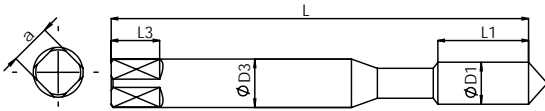
HOLE TYPE



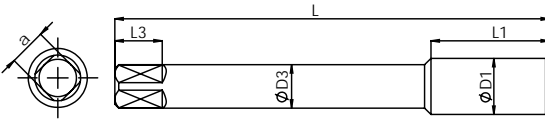
HSS-E

DIN 371/376

6HX



Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M20)



Series	SC3	SC4
Material - 1 <sup>st</sup> choice	K1-K2	K1-K3
Material - 2 <sup>nd</sup> choice	N2-N3	-
Coating	TiN	TiAlN
	EDP No.	EDP No.

DIN 371							Tapping Drill Diameter	EDP No.	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length			
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	56	11	3.5	2.7	6	2.5	FAB0204433	FAB0204441
M 4	0.7	63	13	4.5	3.4	6	3.3	FAB0204434	FAB0204442
M 5	0.8	70	16	6	4.9	8	4.2	FAB0203676	FAB0204443
M 6	1	80	19	6	4.9	8	5	FAB0203677	FAB0203679
M 8	1.25	90	22	8	6.2	9	6.8	FAB0203678	FAB0203680
M 10	1.5	100	24	10	8	11	8.5	FAB0200969	FAB0203682

DIN 376							Tapping Drill Diameter	EDP No.	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length			
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 12	1.75	110	28	9	7	10	10.2	FAB0200975	FAB0203683
M 14	2	110	30	11	9	12	12	FAB0204437	FAB0204446
M 16	2	110	32	12	9	12	14	FAB0204438	FAB0204447
M 18	2.5	125	34	14	11	14	15.5	FAB0204439	FAB0204448
M 20	2.5	140	34	16	12	15	17.5	FAB0204440	FAB0204449

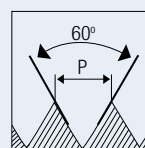
Unit : mm

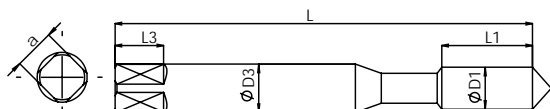
Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

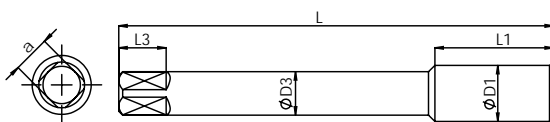
  

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**M**
**Metric coarse threads**

**HOLE TYPE**

**HSS-E**
**DIN 371/376**
**6HX**


Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M20)

DIN 371

DIN 376

DIN 371

DIN 376



DIN 371							Series	SCF5	SC4TC
							Material - 1 <sup>st</sup> choice	P2-P3	K1-K3
							Material - 2 <sup>nd</sup> choice	-	-
							Coating	TiCN	TiAlN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	56	11	3.5	2.7	6	2.5	FAB0204586	FAB0204873
M 4	0.7	63	13	4.5	3.4	6	3.3	FAB0204587	FAB0204874
M 5	0.8	70	16	6	4.9	8	4.2	FAB0204588	FAB0204875
M 6	1	80	19	6	4.9	8	5	FAB0204589	FAB0204876
M 8	1.25	90	22	8	6.2	9	6.8	FAB0204590	FAB0204877
M 10	1.5	100	24	10	8	11	8.5	FAB0204591	FAB0204878

DIN 376							Series	SCF5	SC4TC
							Material - 1 <sup>st</sup> choice	P2-P3	K1-K3
							Material - 2 <sup>nd</sup> choice	-	-
							Coating	TiCN	TiAlN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 12	1.75	110	28	9	7	10	10.2	FAB0204592	FAB0204879
M 14	2	110	30	11	9	12	12	FAB0204593	FAB0204880
M 16	2	110	32	12	9	12	14	FAB0204594	FAB0204881
M 18	2.5	125	34	14	11	14	15.5	FAB0204939	FAB0204882
M 20	2.5	140	34	16	12	15	17.5	FAB0204940	FAB0204883

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

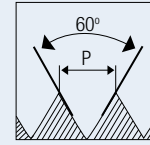


Silver cut

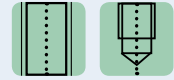
Straight Flute Tap

M

Metric coarse threads



HOLE TYPE

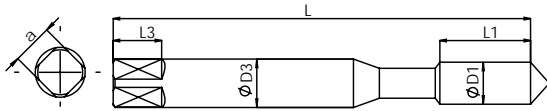


HSS-E  
PM

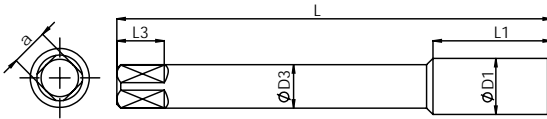
DIN  
371/376

6HX

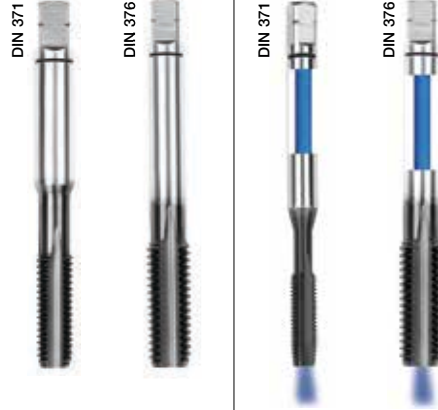
E/1.5-2P



Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M20)



Series	SC4	SC4TC
Material - 1 <sup>st</sup> choice	K1-K3	K1-K3
Material - 2 <sup>nd</sup> choice	-	-
Coating	TiAIN	TiAIN
Tapping Drill Diameter	EDP No.	EDP No.

DIN 371							Tapping Drill Diameter	EDP No.	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length			
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	56	11	3.5	2.7	6	2.5	FAB0205405	FAB0205405
M 4	0.7	63	13	4.5	3.4	6	3.3	FAB0205406	FAB0205406
M 5	0.8	70	16	6	4.9	8	4.2	FAB0205407	FAB0205407
M 6	1	80	19	6	4.9	8	5	FAB0205408	FAB0205408
M 8	1.25	90	22	8	6.2	9	6.8	FAB0205409	FAB0205409
M 10	1.5	100	24	10	8	11	8.5	FAB0205410	FAB0205410

DIN 376							Tapping Drill Diameter	EDP No.	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length			
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 12	1.75	110	28	9	7	10	10.2	FAB0205411	FAB0205411
M 14	2	110	30	11	9	12	12	FAB0205412	FAB0205412
M 16	2	110	32	12	9	12	14	FAB0205413	FAB0205413
M 18	2.5	125	34	14	11	14	15.5	FAB0205414	FAB0205414
M 20	2.5	140	34	16	12	15	17.5	FAB0205415	FAB0205415

Unit : mm

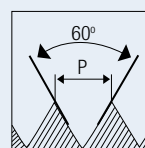
Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

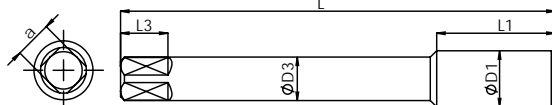
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



**MF**
**Metric fine threads**

**HOLE TYPE**

**HSS-E**
**DIN 374**
**6HX**

 Male centre (M8 - M10)  
 Female centre (M12 - M20)


DIN 374								Series	SC3	SC4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice	Coating	
									TiN	TiAlN
									EDP No.	EDP No.
M 8	1	90	22	6	4.9	8	7		FAB0204451	FAB0204460
M 10	1.25	100	24	7	5.5	8	8.8		FAB0203681	FAB0204461
M 10	1	90	20	7	5.5	8	9		FAB0204452	FAB0204462
M 12	1.5	100	22	9	7	10	10.5		FAB0204453	FAB0204463
M 12	1.25	100	22	9	7	10	10.8		FAB0204454	FAB0204464
M 14	1.5	100	22	11	9	12	12.5		FAB0204455	FAB0204465
M 16	1.5	100	22	12	9	12	14.5		FAB0204456	FAB0204466
M 18	1.5	110	25	14	11	14	16.5		FAB0204457	FAB0204467
M 20	1.5	125	25	16	12	15	18.5		FAB0204458	FAB0204468

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

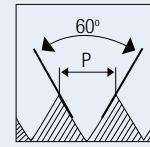


**Silver cut**

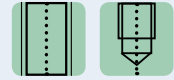
Straight Flute Tap

**MF**

**Metric fine threads**



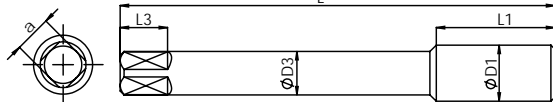
HOLE TYPE



HSS-E

DIN 374

6HX



Male centre (M8 - M10)  
Female centre (M12 - M20)



Series	SCF5	SC4TC
Material - 1 <sup>st</sup> choice	P2-P3	K1-K3
Material - 2 <sup>nd</sup> choice	-	-

DIN 374							Coating	TICN	TiAIN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 8	1	90	22	6	4.9	8	7	FAB0204595	FAB0204886
M 10	1.25	100	24	7	5.5	8	8.8	FAB0204596	FAB0204888
M 10	1	90	20	7	5.5	8	9	FAB0204943	FAB0204887
M 12	1.5	100	22	9	7	10	10.5	FAB0204598	FAB0204890
M 12	1.25	100	22	9	7	10	10.8	FAB0204597	FAB0204889
M 14	1.5	100	22	11	9	12	12.5	FAB0204599	FAB0204891
M 16	1.5	100	22	12	9	12	14.5	FAB0204600	FAB0204892
M 18	1.5	110	25	14	11	14	16.5	FAB0204944	FAB0204893
M 20	1.5	125	25	16	12	15	18.5	FAB0204945	FAB0204894

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

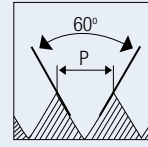


Silver cut

Straight Flute Tap

UNC

Unified coarse threads



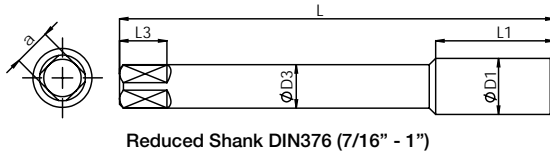
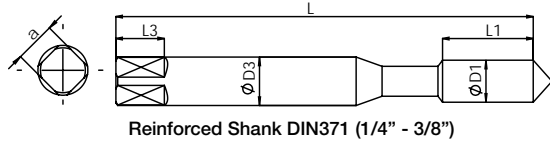
HOLE TYPE



HSS-E

DIN 371/376

2B



DIN 371							Series	SC3	SC4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	K1-K2	K1-K3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	N2-N3	-
							Coating	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	20	80	19	7	5.5	8	5.2	FAB0204469	FAB0204478
5/16"	18	90	22	8	6.2	9	6.6	FAB0204470	FAB0204479
3/8"	16	100	24	10	8	11	8	FAB0204471	FAB0204480
DIN 376							Series	SC3	SC4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice	Material - 2 <sup>nd</sup> choice
ØD1	p	L	L1	ØD3	a	L3	Ød1	K1-K2	K1-K3
ØD1	p	L	L1	ØD3	a	L3	Ød1	N2-N3	-
							Coating	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
7/16"	14	110	24	8	6.2	9	9.4	FAB0204472	FAB0204481
1/2"	13	110	28	9	7	10	10.75	FAB0204473	FAB0204482
5/8"	11	110	32	12	9	12	13.5	FAB0204474	FAB0204483
3/4"	10	125	34	14	11	14	16.5	FAB0204475	FAB0204484
7/8"	9	140	34	18	14.5	17	19.5	FAB0204476	FAB0204485
1"	8	160	38	18	14.5	17.5	22.25	FAB0204477	FAB0204486

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

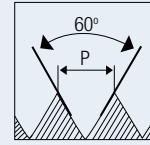


Silver cut

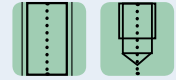
Straight Flute Tap

UNF

Unified fine threads



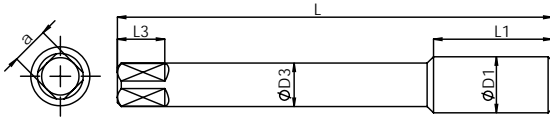
HOLE TYPE



HSS-E

DIN  
374

2B



Male centre (1/4" - 3/8")  
Female centre (7/16" - 1")



Series	SC3	SC4
Material - 1 <sup>st</sup> choice	K1-K2	K1, K3
Material - 2 <sup>nd</sup> choice	N2-N3	-

Coating	TiN	TiAlN
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DIN 374		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
Nominal Diameter	Pitch							EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
1/4"	28	80	19	4.5	3.4	8	5.5	FAB0204487	FAB0204496
5/16"	24	90	22	6	4.9	8	6.9	FAB0204488	FAB0204497
3/8"	24	100	20	7	5.5	8	8.5	FAB0204489	FAB0204498
7/16"	20	100	22	8	6.2	9	9.9	FAB0204490	FAB0204499
1/2"	20	100	22	9	7	10	11.5	FAB0204491	FAB0204500
5/8"	18	100	22	12	9	12	14.5	FAB0204492	FAB0204501
3/4"	16	110	25	14	11	14	17.5	FAB0204493	FAB0204502
7/8"	14	125	25	18	14.5	17	20.5	FAB0204494	FAB0204503
1"	12	140	28	18	14.5	17	23.25	FAB0204495	FAB0204504

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

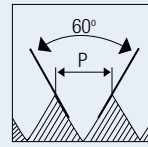
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



# Straight Flute Tap

M

## Metric coarse threads



HOLE TYPE

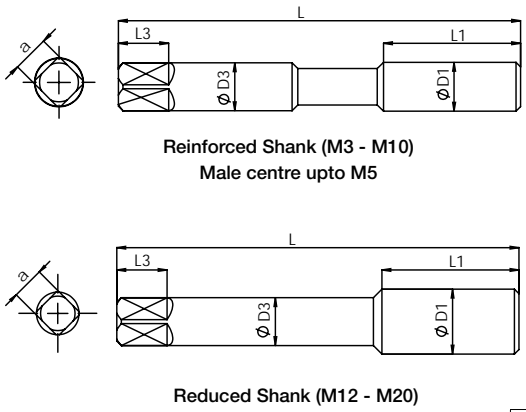


HSS-E

ISO 529

6HX

E/1.5-2P



Reinforced Shank (M3 - M10)  
Male centre upto M5

Reduced Shank (M12 - M20)



ISO529 / IS 6175 Part 2							Series	SC3	SC4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	K1-K2	K1-K3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	N2-N3	-
							Coating	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.
							Ød1		
M 3	0.5	48	11	3.15	2.5	5	2.5	FAB0200645	FAB0200646
M 3.5	0.6	50	13	3.55	2.8	5	2.9	FAB0200652	FAB0203220
M 4	0.7	53	13	4	3.15	6	3.3	FAB0200657	FAB0200658
M 5	0.8	58	16	5	4	7	4.2	FAB0200669	FAB0200670
M 6	1	66	19	6.3	5	8	5	FAB0200680	FAB0200681
M 8	1.25	72	22	8	6.3	9	6.8	FAB0200692	FAB0200693
M 10	1.5	80	24	10	8	11	8.5	FAB0200716	FAB0200717

ISO529 / IS 6175 Part 3									
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 12	1.75	89	29	9	7.1	10	10.2	FAB0200747	FAB0200871
M 14	2	95	30	11.2	9	12	12	FAB0200776	FAB0200777
M 16	2	102	32	12.5	10	13	14	FAB0200797	FAB0200798
M 20	2.5	112	37	14	11.2	14	17.5	FAB0203219	FAB0200809

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

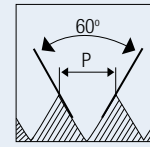


Silver cut

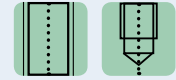
Straight Flute Tap

M

## Metric coarse threads



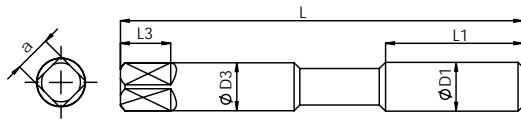
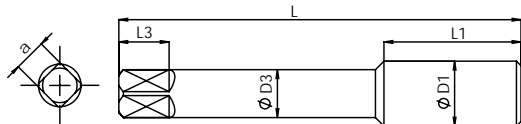
HOLE TYPE



HSS-E

ISO  
529

6HX

Reinforced Shank (M3 - M10)  
Male centre upto M5

Reduced Shank (M12 - M20)

IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3

Series	SCF5	SC4TC
Material - 1 <sup>st</sup> choice	P2-P3	K1-K3
Material - 2 <sup>nd</sup> choice	-	-
Coating	TiCN	TiAlN
	EDP No.	EDP No.

## ISO529 / IS 6175 Part 2

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter		
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	48	11	3.15	2.5	5	2.5	FAB0204616	-
M 4	0.7	53	13	4	3.15	6	3.3	FAB0204617	-
M 5	0.8	58	16	5	4	7	4.2	FAB0204618	FAB0205365
M 6	1	66	19	6.3	5	8	5	FAB0204619	FAB0205366
M 8	1.25	72	22	8	6.3	9	6.8	FAB0204620	FAB0205367
M 10	1.5	80	24	10	8	11	8.5	FAB0204621	FAB0205368

## ISO529 / IS 6175 Part 3

M 12	1.75	89	29	9	7.1	10	10.2	FAB0204622	FAB0205369
M 14	2	95	30	11.2	9	12	12	FAB0204623	FAB0205370
M 16	2	102	32	12.5	10	13	14	FAB0204624	FAB0205371
M 20	2.5	112	37	14	11.2	14	17.5	FAB0205362	FAB0205372

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

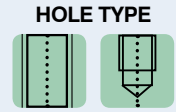
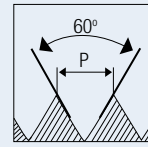


Silver cut

Straight Flute Tap

M

Metric coarse threads

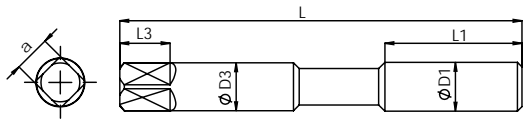


HSS-E PM

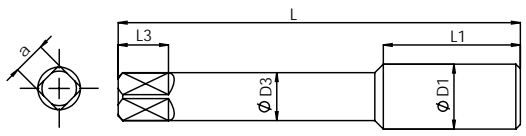
ISO 529

6HX

E/1.5-2P



Reinforced Shank (M3 - M10)  
Male centre upto M5



Reduced Shank (M12 - M20)

IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3



Series	SC4	SC4TC
Material - 1 <sup>st</sup> choice	K1-K3	K1-K3
Material - 2 <sup>nd</sup> choice	-	-

ISO529 / IS 6175 Part 2							Coating	TiAlN	TiAlN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	48	11	3.15	2.5	5	2.5	FAB0205373	-
M 3.5	0.6	50	13	3.55	2.8	5	2.9	FAB0205374	-
M 4	0.7	53	13	4	3.15	6	3.3	FAB0205375	-
M 5	0.8	58	16	5	4	7	4.2	FAB0205376	FAB0205387
M 6	1	66	19	6.3	5	8	5	FAB0205377	FAB0205388
M 8	1.25	72	22	8	6.3	9	6.8	FAB0205378	FAB0205389
M 10	1.5	80	24	10	8	11	8.5	FAB0205379	FAB0205390

ISO529 / IS 6175 Part 3									
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 12	1.75	89	29	9	7.1	10	10.2	FAB0205380	FAB0205391
M 14	2	95	30	11.2	9	12	12	FAB0205381	FAB0205392
M 16	2	102	32	12.5	10	13	14	FAB0205382	FAB0205393
M 20	2.5	112	37	14	11.2	14	17.5	FAB0205383	FAB0205394

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

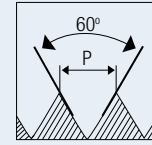


Silver cut

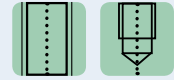
Straight Flute Tap

MF

Metric fine threads



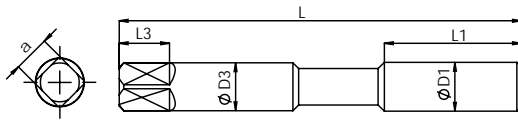
HOLE TYPE



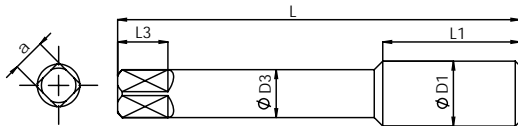
HSS-E

ISO  
529

6HX



Reinforced Shank (M8 - M10)



Reduced Shank (M12 - M20)

IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3



Series

SC3

SC4

Material - 1<sup>st</sup> choice

K1-K2

K1, K3

Material - 2<sup>nd</sup> choice

N2-N3

-

Coating

TiN

TiAlN

ISO529 / IS 6175 Part 2

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 8	1	69	19	8	6.3	9	7	FAB0202976	FAB0203740
M 10	1.25	76	20	10	8	11	8.75	FAB0200706	FAB0200707

ISO529 / IS 6175 Part 3

M 12	1.25	84	24	9	7.1	10	10.75	FAB0200727	FAB0200728
M 12	1.5	89	29	9	7.1	10	10.5	FAB0200736	FAB0200737
M 14	1.5	95	30	11.2	9	12	12.5	FAB0200767	FAB0200768
M 16	1.5	102	32	12.5	10	13	14.5	FAB0200785	FAB0200786
M 18	1.5	104	29	14	11.2	14	16.5	FAB0203217	FAB0200805
M 20	1.5	104	29	14	11.2	14	18.5	FAB0203218	FAB0200806

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



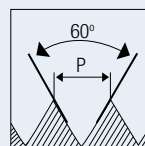


Silver cut

Straight Flute Tap

MF

Metric fine threads



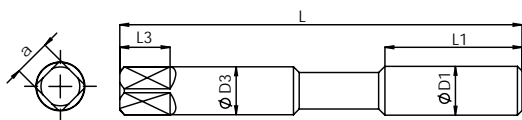
HOLE TYPE



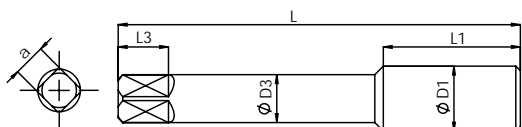
HSS-E

ISO 529

6HX



Reinforced Shank (M8 - M10)



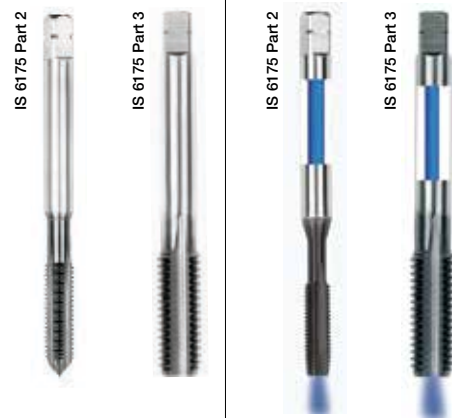
Reduced Shank (M12 - M20)

IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3



ISO529 / IS 6175 Part 2							Series	SCF5	SC4TC
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	P2-P3	K1-K3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	-	-
M 8	1	69	19	8	6.3	9	Coating	TiCN	TiAlN
M 10	1.25	76	22	10	8	11	Tapping Drill Diameter	EDP No.	EDP No.
							Ød1	FAB0204625	FAB0205397
								FAB0204626	FAB0205398

ISO529 / IS 6175 Part 3									
M 12	1.25	84	24	9	7.1	10	10.75	FAB0204627	FAB0205399
M 12	1.5	89	29	9	7.1	10	10.5	FAB0204628	FAB0205400
M 14	1.5	95	30	11.2	9	12	12.5	FAB0204629	FAB0205401
M 16	1.5	102	32	12.5	10	13	14.5	FAB0204630	FAB0205402
M 18	1.5	112	37	14	11.2	14	16.5	FAB0205395	FAB0205403
M 20	1.5	112	29	14	11.2	14	18.5	FAB0205396	FAB0205404

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

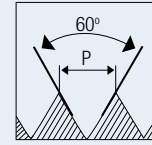


Silver cut

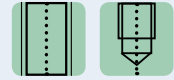
Straight Flute Tap

UNC

Unified coarse threads



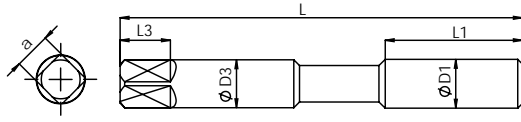
HOLE TYPE



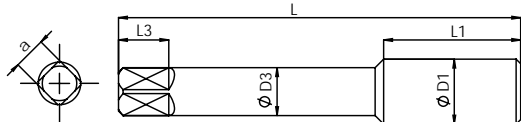
HSS-E

ISO 529

2B



Reinforced Shank (1/4" - 3/8")



Reduced Shank (7/16" - 3/4")

IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3



ISO529 / IS 6175 Part 2							Series	SC3	SC4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice		
							Coating	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.
							Ød1		
1/4"	20	66	19	6.3	5	8	5,5	FAB0200571	FAB0200572
5/16"	18	72	22	8	6.3	9	6.9	FAB0200581	FAB0203289
3/8"	16	80	24	10	8	11	8.5	FAB0200591	FAB0200592

ISO529 / IS 6175 Part 2								
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
7/16"	14	85	25	8	6.3	9	9.9	FAB0200601
1/2"	13	89	29	9	7.1	10	11.5	FAB0200612
5/8"	11	102	32	12.5	10	13	14.5	FAB0200625
3/4"	10	112	37	14	11.2	14	17.5	FAB0200636

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

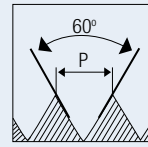


Silver cut

Straight Flute Tap

UNF

Unified fine threads



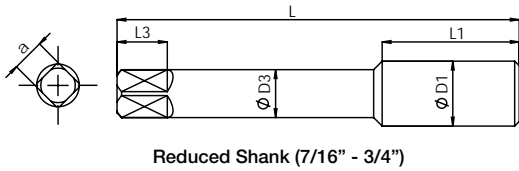
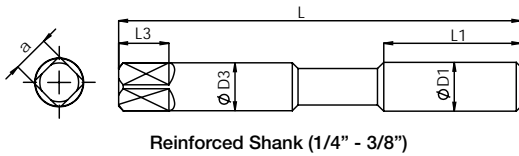
HOLE TYPE



HSS-E

ISO 529

2B



IS 6175 Part 2

IS 6175 Part 3

IS 6175 Part 2

IS 6175 Part 3



ISO529 / IS 6175 Part 2							Series	SC3	SC4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	K1-K2	K1, K3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	N2-N3	-
							Coating	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.
Ød1							Ød1		
1/4"	28	66	19	6.3	5	8	5.5	FAB0200495	FAB0200496
5/16"	24	72	22	8	6.3	9	6.9	FAB0200504	FAB0200505
3/8"	24	80	24	10	8	11	8.5	FAB0200515	FAB0200516

ISO529 / IS 6175 Part 3							Series	SC3	SC4
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice	K1-K2	K1, K3
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice	N2-N3	-
							Coating	TiN	TiAlN
							Tapping Drill Diameter	EDP No.	EDP No.
Ød1							Ød1		
7/16"	20	85	25	8	6.3	9	9.9	FAB0200526	FAB0200527
1/2"	20	87	29	9	7.1	10	11.5	FAB0200537	FAB0200538
5/8"	18	100	32	12.5	10	13	14.5	FAB0200550	FAB0200551
3/4"	16	112	32	14	11.2	14	17.5	FAB0200561	FAB0200562

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

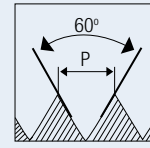


Silver cut

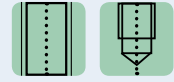
Straight Flute Tap

M/MF

Metric coarse & fine threads



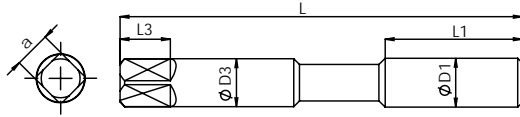
HOLE TYPE



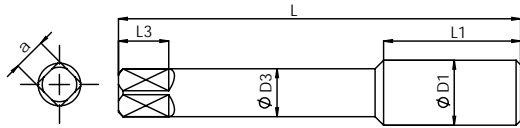
HSS-E

JIS

6HX



Reinforced Shank (M3 - M10)  
Male Centre upto M5



Reduced Shank (M12 - M20)



Series	SC3	SC4
Material - 1 <sup>st</sup> choice	P0, N4	P0-P3
Material - 2 <sup>nd</sup> choice	N1-N2	K1-K2
Coating	TiN	TiAlN

JIS							Tapping Drill Diameter	EDP No.	EDP No.
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length			
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	46	4	4	3.2	6	2.5	FAB0205644	FAB0205659
M 4	0.7	52	5.6	5	4	7	3.3	FAB0205645	FAB0205660
M 5	0.8	60	6.4	5.5	4.5	7	4.2	FAB0205646	FAB0205661
M 6	1	62	8	6	4.5	7	5	FAB0205647	FAB0205662
M 8	1.25	70	15	6.2	5	8	6.8	FAB0205648	FAB0205663
M 8	1	70	15	6.2	5	8	7	FAB0205649	FAB0205664
M 10	1.5	75	18	7	5.5	8	8.5	FAB0205650	FAB0205665
M 10	1.25	75	18	7	5.5	8	8.8	FAB0205651	FAB0205666
M 12	1.75	82	21	8.5	6.5	9	10.3	FAB0205652	FAB0205667
M 12	1.5	82	21	8.5	6.5	9	10.5	FAB0205653	FAB0205668
M 12	1.25	82	21	8.5	6.5	9	10.8	FAB0205654	FAB0205669
M 14	2	88	24	10.5	8	11	12	FAB0205655	FAB0205670
M 16	2	95	24	12.5	10	13	14	FAB0205656	FAB0205671
M 18	2.5	100	30	14	11	14	15.5	FAB0205657	FAB0205672
M 20	2.5	105	30	15.0	12.0	15.0	17.50	FAB0205658	FAB0205673

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



High Performance Cutting Tools



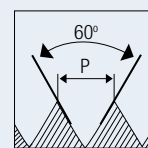
# FORMING TAPS SD-SERIES



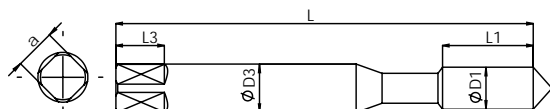
## FORMING TAPS

SERIES	THREAD FORM	BLANK STANDARD	WORKPIECE MATERIAL	1ST CHOICE	2ND CHOICE	TOOL MATERIAL	COATING	PAGE
SD1	M	DIN 371/DIN376	NON-FERROUS	N1-N2	-	HSSE	Bright	1.089
SD3	M	DIN 371/DIN376	NON-FERROUS	P0-P2, N1-N3	-	HSSE	TiN	
SD4	M	DIN 371/DIN376	STEEL	P1-P2	-	HSSE	TiAIN	1.090
SD1*	M	DIN 371/DIN376	NON-FERROUS	N1-N2	-	HSSE	Bright	1.091
SD3*	M	DIN 371/DIN376	NON-FERROUS	P0-P2	N1-N3	HSSE	TiN	
SDF5	M	DIN 371/DIN376	STEEL	P1-P2	-	HSSE	TiCN	1.092
SD1	MF	DIN 374	NON-FERROUS	N1-N2	-	HSSE	Bright	1.093
SD3	MF	DIN 374	NON-FERROUS	P0-P2, N1-N3	-	HSSE	TiN	
SD4	MF	DIN 374	STEEL	P1-P2	-	HSSE	TiAIN	1.094
SD1	M	ISO 529	NON-FERROUS	N1-N2	-	HSSE	Bright	1.095
SD3	M	ISO 529	NON-FERROUS	P0-P2, N1-N3	-	HSSE	TiAIN	
SDF5	M	ISO 529	STEEL	P1-P2	-	HSSE	TiCN	1.096
SD1	MF	ISO 529	NON-FERROUS	N1-N2	-	HSSE	Bright	1.097
SD3	MF	ISO 529	NON-FERROUS	P0-P2, N1-N3	-	HSSE	TiN	
SDF5	MF	ISO 529	STEEL	P1-P2	-	HSSE	TiAIN	1.098
SD1	M / MF	JIS	NON-FERROUS	N1-N2	-	HSSE	Bright	1.099
SD3	M / MF	JIS	NON-FERROUS	P0-P2, N1-N3	-	HSSE	TiN	

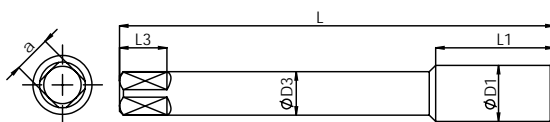
\* without oil groove

**M**
**Metric coarse threads**


HOLE TYPE


**HSS-E**
**DIN 371/376**
**6HX**
**C/2-3P**


Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M16)



DIN 371								Series	SD1	SD3
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice		
								Coating	Bright	TiN
								EDP No.	EDP No.	
M 3	0.5	56	11	3.5	2.7	6	2.8	-	FAB0200954	FAB0200961
M 3.5	0.6	56	12	4	3	6	3.3	-	FAB0204505	FAB0204507
M 4	0.7	63	13	4.5	3.4	6	3.7	-	FAB0200955	FAB0200962
M 5	0.8	70	16	6	4.9	8	4.7	-	FAB0200956	FAB0200963
M 6	1	80	19	6	4.9	8	5.55	-	FAB0200957	FAB0200964
M 7	1	80	19	7	5.5	8	6.55	-	FAB0204506	FAB0204508
M 8	1.25	90	22	8	6.2	9	7.4	-	FAB0200958	FAB0200965
M 10	1.5	100	24	10	8	11	9.3	-	FAB0200959	FAB0200966

DIN 376								Series	SD1	SD3
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice		
								Coating	Bright	TiN
								EDP No.	EDP No.	
M 12	1.75	110	28	9	7	10	11.2	-	FAB0200960	FAB0200967
M 14	2	110	30	11	9	12	13.1	-	FAB0203285	FAB0203287
M 16	2	110	32	12	9	12	15.1	-	FAB0203286	FAB0203288

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

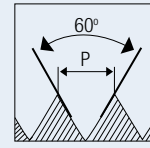
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



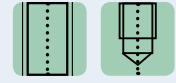
Forming Taps

M

## Metric coarse threads



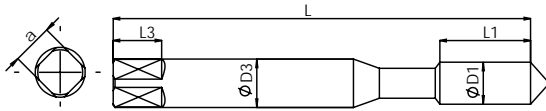
HOLE TYPE



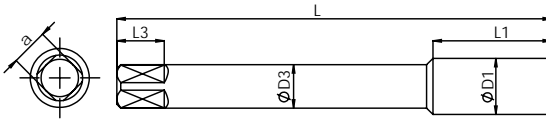
HSS-E

DIN  
371/376

6HX



Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M16)



Series	SD4
Material - 1 <sup>st</sup> choice	P1-P2
Material - 2 <sup>nd</sup> choice	-
Coating	TiAIN

DIN 371		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
Nominal Diameter	Pitch							
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 3	0.5	56	11	3.5	2.7	6	2.8	FAB0204509
M 3.5	0.6	56	12	4	3	6	3.3	FAB0204510
M 4	0.7	63	13	4.5	3.4	6	3.7	FAB0204511
M 5	0.8	70	16	6	4.9	8	4.7	FAB0204512
M 6	1	80	19	6	4.9	8	5.55	FAB0204513
M 7	1	80	19	7	5.5	8	6.55	FAB0204514
M 8	1.25	90	22	8	6.2	9	7.4	FAB0204515
M 10	1.5	100	24	10	8	11	9.3	FAB0204516

DIN 376		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
Nominal Diameter	Pitch							
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 12	1.75	110	28	9	7	10	11.2	FAB0204517
M 14	2	110	30	11	9	12	13.1	FAB0204518
M 16	2	110	32	12	9	12	15.1	FAB0204519

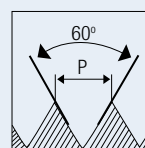
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

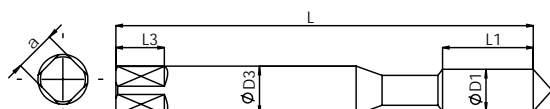
P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



**M**
**Metric coarse threads  
(without oil groove)**


HOLE TYPE


**HSS-E**
**DIN  
371**
**6HX**
**C/2-3P**


Reinforced Shank DIN371 (M3 - M8)



DIN 371								Series	SD1	SD3
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice		
M 3	0.5	56	11	3.5	2.7	6	2.8	-	Bright	TiN
M 4	0.7	63	13	4.5	3.4	6	3.7	-		
M 5	0.8	70	16	6	4.9	8	4.7	-		
M 6	1	80	19	6	4.9	8	5.5	-		
M 8	1.25	90	22	8	6.2	9	7.4	-		
								Coating	Bright	TiN
								EDP No.	EDP No.	EDP No.
								FAB0203614	FAB0203619	FAB0203619
								FAB0203615	FAB0203620	FAB0203620
								FAB0203616	FAB0203621	FAB0203621
								FAB0203617	FAB0203622	FAB0203622
								FAB0203618	FAB0203623	FAB0203623

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

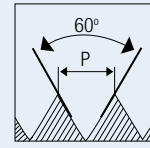
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



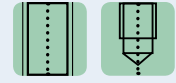
Forming Taps

M

## Metric coarse threads



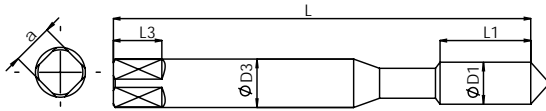
HOLE TYPE



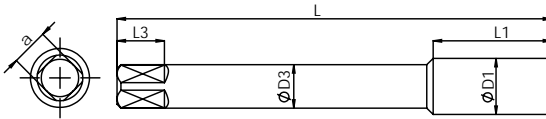
HSS-E

DIN  
371/376

6HX



Reinforced Shank DIN371 (M3 - M10)



Reduced Shank DIN376 (M12 - M16)

DIN 371



DIN 376



Series

SDF5

Material - 1<sup>st</sup> choice

P1-P2

Material - 2<sup>nd</sup> choice

Coating

TiCN

DIN 371		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
Nominal Diameter	Pitch							
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 3	0.5	56	11	3.5	2.7	6	2.8	FAB0205097
M 3.5	0.6	56	12	4	3	6	3.3	FAB0205098
M 4	0.7	63	13	4.5	3.4	6	3.7	FAB0205099
M 5	0.8	70	16	6	4.9	8	4.7	FAB0205100
M 6	1	80	19	6	4.9	8	5.5	FAB0205101
M 7	1	80	19	7	5.5	8	6.5	FAB0205102
M 8	1.25	90	22	8	6.2	9	7.4	FAB0205103
M 10	1.5	100	24	10	8	11	9.3	FAB0205104

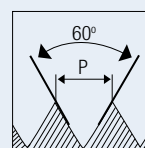
DIN 376		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
Nominal Diameter	Pitch							
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 12	1.75	110	28	9	7	10	11.2	FAB0205105
M 14	2	110	30	11	9	12	13.1	FAB0205106
M 16	2	110	32	12	9	12	15.1	FAB0205107

Unit : mm

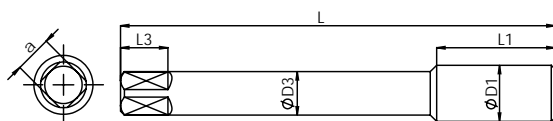
Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**MF**
**Metric fine threads**


HOLE TYPE


**HSS-E**
**DIN 374**
**6HX**
**C/2-3P**

 Male Centre (M8 - M10)  
Female Centre (M12 - M20)

DIN 371



DIN 376



DIN 374								Series	SD1	SD3
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	Material - 1 <sup>st</sup> choice	N1-N2	P0-P2, N1-N3
ØD1	p	L	L1	ØD3	a	L3	Ød1	Material - 2 <sup>nd</sup> choice	-	-
								Coating	Bright	TiN
								EDP No.	EDP No.	
M 8	1	90	17	6	4.9	8	7.6		FAB0204520	FAB0204528
M 10	1.25	100	22	7	5.5	8	9.5		FAB0204521	FAB0204529
M 12	1.5	100	22	9	7	10	11.3		FAB0204522	FAB0204530
M 12	1.25	100	22	9	7	10	11.4		FAB0204523	FAB0204531
M 14	1.5	100	22	11	9	12	13.3		FAB0204524	FAB0204532
M 16	1.5	100	22	12	9	12	15.3		FAB0204525	FAB0204533
M 18	1.5	110	25	14	11	14	17.3		FAB0204526	FAB0204534
M 20	1.5	125	25	16	12	15	19.3		FAB0204527	FAB0204535

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

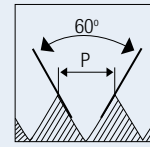


Silver cut

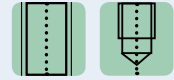
Forming Taps

MF

## Metric fine threads



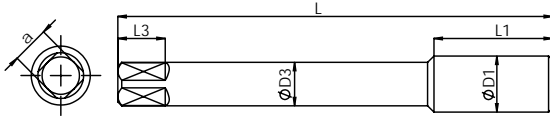
HOLE TYPE



HSS-E

DIN  
374

6HX



Male Centre (M8 - M10)  
Female Centre (M12 - M20)

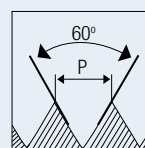


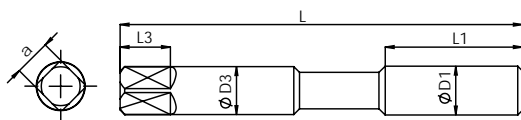
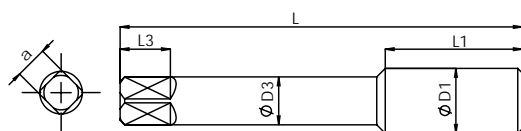
DIN 374								Series	SD4
								Material - 1 <sup>st</sup> choice	P1-P2
								Material - 2 <sup>nd</sup> choice	-
								Coating	TiAIN
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 8	1	90	17	6	4.9	8	7.5	FAB0204536	
M 10	1.25	100	22	7	5.5	8	9.4	FAB0204537	
M 12	1.5	100	22	9	7	10	11.3	FAB0204538	
M 12	1.25	100	22	9	7	10	11.45	FAB0204539	
M 14	1.5	100	22	11	9	12	13.3	FAB0204540	
M 16	1.5	100	22	12	9	12	15.3	FAB0204541	
M 18	1.5	110	25	14	11	14	17.3	FAB0204542	
M 20	1.5	125	25	16	12	15	19.3	FAB0204543	

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4	
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-	
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70	

**M**
**Metric coarse threads**

**HOLE TYPE**

**HSS-E**
**ISO 529**
**6HX**

**Reinforced Shank (M3 - M10)  
Male Centre upto M5**

**Reduced Shank (M12 - M16)**


ISO 529 / IS 6175 Part 2							Series	SD1	SD3
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice		
							Coating	Bright	TiN
							Tapping Drill Diameter	EDP No.	EDP No.
							Ød1		
M 3	0.5	48	11	3.15	2.5	5	2.8	FAB0201417	FAB0202740
M 3	0.6	50	13	3.55	2.8	5	3.25	FAB0203221	FAB0203231
M 4	0.7	53	13	4	3.15	6	3.7	FAB0201421	FAB0202747
M 5	0.8	58	16	5	4	7	4.65	FAB0201420	FAB0202748
M 6	1	66	19	6.3	5	8	5.55	FAB0201422	FAB0202749
M 7	1	66	19	7.1	5.6	8	6.55	FAB0203222	FAB0203232
M 8	1.25	72	22	8	6.3	9	7.4	FAB0201425	FAB0202750
M 10	1.5	80	24	10	8	9	9.25	FAB0201426	FAB0202751

ISO 529 / IS 6175 Part 3							Series	SD1	SD3
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice		
M 12	1.75	89	29	9	7.1	10	11.2	FAB0201428	FAB0202752
M 14	2	95	30	11.2	9	12	13.1	FAB0203228	FAB0203238
M 16	2	102	32	12.5	10	13	15.1	FAB0203230	FAB0203240

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

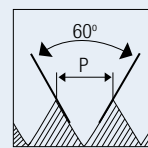
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



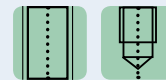
Forming Taps

M

## Metric coarse threads



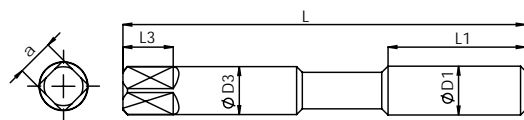
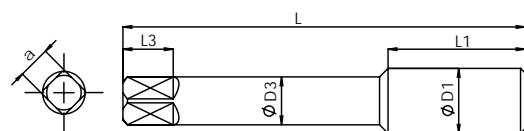
HOLE TYPE



HSS-E

ISO  
529

6HX

Reinforced Shank (M3 - M10)  
Male Centre upto M5

Reduced Shank (M12 - M16)

IS 6175 Part 2



IS 6175 Part 3



Series

SDF5

Material - 1<sup>st</sup> choice

P1-P2

Material - 2<sup>nd</sup> choice

-

Coating

TiCN

ISO 529 / IS 6175 Part 2

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 3	0.5	48	11	3.15	2.5	5	2.8	FAB0203241
M 4	0.7	53	13	4	3.15	6	3.7	FAB0203242
M 5	0.8	58	16	5	4	7	4.65	FAB0203243
M 6	1	66	19	6.3	5	8	5.55	FAB0203244
M 8	1.25	72	22	8	6.3	9	7.4	FAB0203246
M 10	1.5	80	24	10	8	9	9.25	FAB0203249

ISO 529 / IS 6175 Part 3

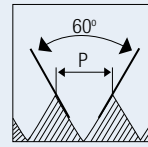
M 12	1.75	89	29	9	7.1	10	11.2	FAB0203251
M 14	2	95	30	11.2	9	12	13.1	FAB0205095
M 16	2	102	32	12.5	10	13	15.1	FAB0205096

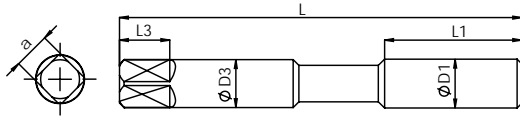
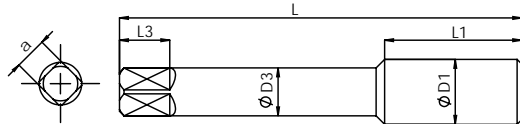
Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70

**MF**
**Metric fine threads**

**HOLE TYPE**

**HSS-E**
**ISO 529**
**6HX**

**Reinforced Shank (M8 - M10)**

**Reduced Shank (M12 - M16)**

IS 6175 Part 2



IS 6175 Part 3



IS 6175 Part 2



IS 6175 Part 3



ISO 529 / IS 6175 Part 2							Series	SD1	SD3
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Material - 1 <sup>st</sup> choice		
ØD1	p	L	L1	ØD3	a	L3	Material - 2 <sup>nd</sup> choice		
							Coating	Bright	TiN
							Tapping Drill Diameter	EDP No.	EDP No.
							Ød1		
M 8	1	72	22	8	6.3	9	P0-P2, N1-N3	FAB0203223	FAB0203233
M 10	1	80	24	10	8	11	P1-P2, N1-N3	FAB0203224	FAB0203234
M 10	1.25	80	24	10	8	11	-	FAB0203225	FAB0203235
M 12	1.5	89	29	9	7.1	10	-	FAB0203226	FAB0203236
M 14	1.5	95	30	11.2	9	12	-	FAB0203227	FAB0203237
M 16	1.5	102	32	12.5	10	13	-	FAB0203229	FAB0203239

Unit : mm

 Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

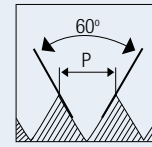
N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



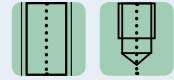
Forming Taps

MF

## Metric fine threads



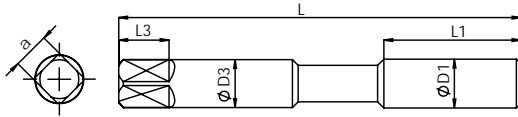
HOLE TYPE



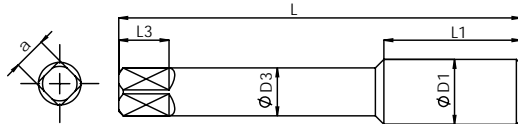
HSS-E

ISO  
529

6HX



Reinforced Shank (M8 - M10)



Reduced Shank (M12 - M16)

IS 6175 Part 2



IS 6175 Part 3



Series

SDF5

Material - 1<sup>st</sup> choice

P1-P2

Material - 2<sup>nd</sup> choice

-

Coating

TiCN

ISO 529 / IS 6175 Part 2

Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 8	1	72	22	8	6.3	9	7.5	FAB0203245
M 10	1	80	24	10	8	11	9.5	FAB0203247
M 10	1.25	80	24	10	8	11	9.4	FAB0203248

ISO 529 / IS 6175 Part 3

M 12	1.5	89	29	9	7.1	10	11.3	FAB0203250
M 14	1.5	95	30	11.2	9	12	13.3	FAB0203252
M 16	1.5	102	32	12.5	10	13	15.3	FAB0203253

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70



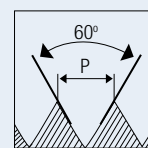


Silver cut

Forming Taps

M/MF

Metric coarse & fine threads



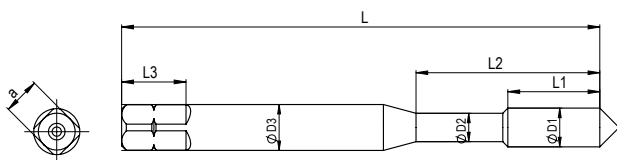
HOLE TYPE



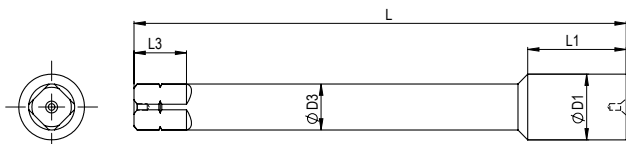
HSS-E

JIS

6HX



Reinforced Shank (M3 - M6)  
Male Centre upto M5



Reduced Shank (M8 - M12)



Series	SD1	SD3
Material - 1 <sup>st</sup> choice	N1-N2	P0-P2, N1-N3
Material - 2 <sup>nd</sup> choice	-	-
Coating	Bright	TiN

JIS		Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.
Nominal Diameter	Pitch							EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1		
M 3	0.5	46	9	4	3.2	6	2.8	FAB0205634	FAB0205060
M 4	0.7	52	10	5	4	7	3.7	FAB0205635	FAB0205061
M 5	0.8	60	10	5.5	4.5	7	4.65	FAB0205636	FAB0205062
M 6	1	62	10	6	4.5	7	5.55	FAB0205637	FAB0205063
M 8	1.25	70	12	6.2	5	8	7.4	FAB0205638	FAB0205064
M 8	1	70	12	6.2	5	8	7.55	FAB0205639	FAB0205065
M 10	1.5	75	15	7	5.5	8	9.3	FAB0205640	FAB0205066
M 10	1.25	75	15	7	5.5	8	9.4	FAB0205641	FAB0205067
M 12	1.75	82	18	8.5	6.5	9	11.2	FAB0205642	FAB0205069
M 12	1.5	82	18	8.5	6.5	9	11.3	FAB0205643	FAB0205070

Unit : mm

Tensile strength: N/mm<sup>2</sup> | Hardness: HRC

P0	P1	P2	P3	P4	P5	P6	M1	M2	M3	K1	K2	K3
<530	<530	<530	600-850	850-1400	600-900	900-1350	<600	600-800	<800	125-500	<600	>600
-	-	<25	<35	35-48	<35	35-48	-	<25	<30	<32	<28	<43

N1	N2	N3	N4	S1-Fe Based	S2-Co Based	S3-Ni Based	S4-Ti Based	H1	H2	H3	H4
Wrought Al	Si<12.2%	Si>12.2%	Cu, Zn Alloy	500-1200	1000-1500	600-1700	900-1600	-	-	-	-
-	-	-	-	25-48	25-48	<48	33-48	44-48	48-55	56-60	61-70





High Performance Cutting Tools



**HAND TAPS /  
SHORT MACHINE TAPS**

## HSS HAND TAPS



These are straight flute general purpose taps which can be used for both machine or hand tapping. They are generally the most economical tool for use on production runs, but are best on materials that produce chips, or where the swarf breaks readily. Where deep holes are to be tapped, in materials which produce stringy swarf, other types of taps may be needed, especially for coarse threads.

Hand taps can be supplied in sets of three; bottom, second and taper leads, or individually.

**BOTTOM TAPS** have a chamfer (lead) of 1–2 threads, the angle of the lead being around 18 degrees per side. They are used to produce threads close to the bottom of blind holes.

**SECOND TAPS** have a lead of 3-5 threads at 8 degrees per side. They are the most popular and can be used for through holes, or blind holes where the thread does not need to go right to the bottom.

**TAPER TAPS** have a lead of 7-10 threads at 5 degrees per side. The taper lead distributes the cutting force over a large area, and the taper shape helps the thread to start. They can therefore be used to start a thread prior to use of second or bottom leads, or for through holes.



## HSS HAND TAPS

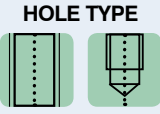
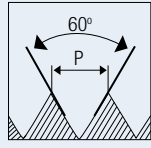
THREAD FORM	BLANK STANDARD	TOLERANCE	LEAD CHAMFER	COATING	PAGE
M	ISO	6H	T/S/B	Bright	1.104
MF	ISO	6H	T/B	Bright	1.106
M	ISO Long Shank	6H	5°	Bright	1.109
M	ISO Long Shank	6H	10°	Bright	1.110
M/MF	ISO Long Shank	6H	20°	Bright	1.111
M/MF	ISO Long Shank	6H	B/4-4.5P	Bright	1.113
M	ISO	6H	Serial Form	Bright	1.114
BSW	ISO	Class 2	T/S/B	Bright	1.115
BSF	ISO	Class 2	T/S/B	Bright	1.116
BA	ISO	Class 2	T/S/B	Bright	1.117
BSB	ISO	Class 2	T/S/B	Bright	1.118
BS Con	ISO	Class 2	T/B	Bright	1.119
ME	ISO	Class 2	T/S/B	Bright	1.120
BSP	ISO 2284	-	T/B	Bright	1.121
BSPT	ISO 2284	-	T/B	Bright	1.122
UNC	ISO	2B	T/S/B	Bright	1.123
UNF	ISO	2B	T/S/B	Bright	1.125
NPT	ANSI	-	T/B	Bright	1.127
NPS	ANSI	-	T/B	Bright	1.128
M	ISO 529	6H	C/2-3P	Bright	1.129
M	ISO 529	6H	B/4-4.5P	Bright	1.130



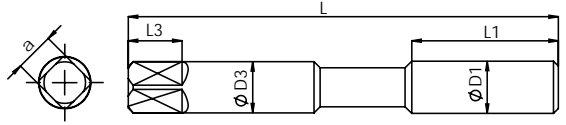
HSS Hand Taps

M

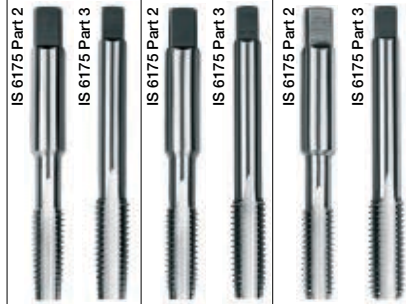
**Metric Coarse threads**



**HSS** **ISO 529** **6H**



Reinforced Shank (M3 - M10)



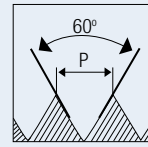
ISO 529 / IS 6175 Part 1							Lead Chamfer	Taper	Second	Bottom	Set
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
M 1.6	0.35	41	8	2.5	2	4	1.25	FAA0201730	FAA0201731	FAA0201732	FAA0201729
M 2.0	0.4	41	8	2.5	2	4	1.6	FAA0201747	FAA0201750	FAA0201753	FAA0201745
M 2.2	0.45	44.5	9.5	2.8	2.24	5	1.75	FAA0201762	FAA0201763	FAA0201764	FAA0201761
M 2.3	0.4	44.5	9.5	2.8	2.24	5	1.9	FAA0201767	FAA0201768	FAA0201769	FAA0201766
M 2.5	0.45	44.5	9.5	2.8	2.24	5	2.05	FAA0201772	FAA0201773	FAA0201775	FAA0201771
M 2.6	0.45	44.5	9.5	2.8	2.24	5	2.15	FAA0201783	FAA0201784	FAA0201785	FAA0201782

ISO 529 / IS 6175 Part 2							Lead Chamfer	Taper	Second	Bottom	Set
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
M 3.0	0.5	48	11	3.15	2.5	5	2.5	FAA0201792	FAA0201798	FAA0201804	FAA0201787
M 3.5	0.6	50	13	3.55	2.8	5	2.9	FAA0201832	FAA0201835	FAA0201838	FAA0201828
M 4.0	0.7	53	13	4	3.15	6	3.3	FAA0201854	FAA0201861	FAA0201866	FAA0201847
M 4.5	0.75	53	13	4.5	3.55	6	3.75	FAA0201892	FAA0201893	FAA0201894	FAA0201889
M 5.0	0.8	58	16	5	4	7	4.2	FAA0201904	FAA0201910	FAA0201917	FAA0201897
M 6.0	1	66	19	6.3	5	8	5	FAA0201947	FAA0201953	FAA0201959	FAA0201939
M 7.0	1	66	19	7.1	5.6	8	6	FAA0201989	FAA0201992	FAA0201995	FAA0201985
M 8.0	1.25	72	22	8	6.3	9	6.75	FAA0202009	FAA0202014	FAA0202020	FAA0202003
M 9.0	1.25	72	22	9	7.1	10	7.75	FAA0202055	FAA0202059	FAA0202063	FAA0202051
M 10.0	1.5	80	24	10	8	11	8.5	FAA0202080	FAA0202086	FAA0202093	FAA0202072

Unit : mm

M

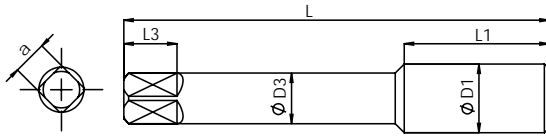
Metric coarse threads



HOLE TYPE



HSS ISO 529 6H



Reduced Shank (M12 - M30)

IS 6175 Part 3

IS 6175 Part 3

IS 6175 Part 3

ISO 529 / IS 6175 Part 3							Lead Chamfer	Taper	Second	Bottom	Set
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
M 11.0	1.5	85	25	8	6.3	9	9.5	FAA0202127	FAA0202131	FAA0202136	FAA0202123
M 12.0	1.75	89	29	9	7.1	10	10.25	FAA0202147	FAA0202153	FAA0202157	FAA0202141
M 14	2	95	30	11.2	9	12	12	FAA0202181	FAA0202185	FAA0202189	FAA0202177
M 16	2	102	32	12.5	10	13	14	FAA0202209	FAA0202214	FAA0202219	FAA0202204
M 18	2.5	112	37	14	11.2	14	15.5	FAA0202251	FAA0202253	FAA0202256	FAA0202247
M 20	2.5	112	37	14	11.2	14	17.5	FAA0202271	FAA0202276	FAA0202281	FAA0202265
M 22	2.5	118	38	16	12.5	16	19.5	FAA0202306	FAA0202310	FAA0202314	FAA0202302
M 24	3	130	45	18	14	18	21	FAA0202330	FAA0202335	FAA0202340	FAA0202325
M 27	3	135	45	20	16	20	24	FAA0202364	FAA0202367	FAA0202370	FAA0202360
M 30	3.5	138	48	20	16	20	26.5	FAA0202385	FAA0202389	FAA0202393	FAA0202381
M 33	3.5	151	51	22.4	18	22	29.5	FAA0202408	FAA0202409	FAA0202410	FAA0202405
M 36	4	162	57	25	20	24	32	FAA0202421	FAA0202425	FAA0202429	FAA0202418
M 39	4	170	60	28	22.4	26	35	FAA0202443	FAA0202444	FAA0202445	FAA0202440
M 42	4.5	170	60	28	22.4	26	37.5	FAA0202452	FAA0202454	FAA0202455	FAA0202449
M 45	4.5	187	67	31.5	25	28	40.5	FAA0202462	FAA0202463	FAA0202464	FAA0202459
M 48	5	187	67	31.5	25	28	43	FAA0202471	FAA0202472	FAA0202473	FAA0202468
M 52	5	200	70	35.5	28	31	47	FAA0202478	FAA0202479	FAA0202480	FAA0202477
M 56	5.5	200	70	35.5	28	31	50.5	FAA0202482	FAA0202483	FAA0202484	FAA0202481

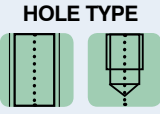
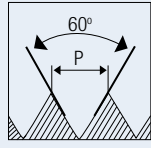
Unit : mm



HSS Hand Taps

**MF**

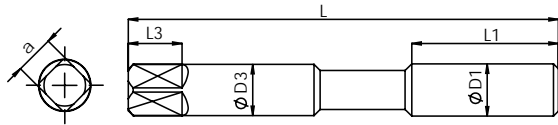
**Metric fine threads**



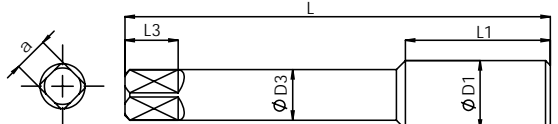
**HSS**

**ISO 529**

**6H**



Reinforced Shank (M3 - M10)



Reduced Shank (M12 - M30)



ISO 529 / IS 6175 Part 2							Lead Chamfer	Taper	Bottom	Pair
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 3	0.35	48	11	3.15	2.5	5	2.12	FAA0202551	FAA0202555	FAA0202535
M 3	0.6	48	11	3.15	2.5	5	2.12	FAA0202542	FAA0202544	FAA0202541
M 4	0.5	53	13	4	3.15	6	2.8	FAA0202565	FAA0202569	FAA0202564
M 4	0.75	53	13	4	3.15	6	2.8	FAA0202576	FAA0202578	FAA0202575
M 5	0.5	58	16	5	4	7	3.55	FAA0202589	FAA0202593	FAA0202588
M 5.5	0.9	62	17	5.6	4.5	7	4	FAA0202615	FAA0202616	FAA0202614
M 6	0.5	66	19	6.3	5	8	4.5	FAA0202627	FAA0202629	FAA0202626
M 6	0.75	66	19	6.3	5	8	4.5	FAA0202634	FAA0202640	FAA0202633
M 7	0.75	66	19	7.1	5.6	8	5.3	FAA0202666	FAA0202670	FAA0202665
M 8	1	69	19	8	6.3	9	6	FAA0202698	FAA0202704	FAA0202697
M 9	1	69	19	9	7.1	10	7.1	FAA0202732	FAA0202736	FAA0202731
M 10	1	76	20	10	8	11	7.5	FAA0202759	FAA0202764	FAA0202758
M 10	1.25	76	20	10	8	11	7.5	FAA0202787	FAA0202793	FAA0202786

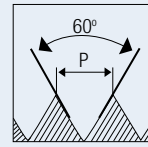
ISO 529 / IS 6175 Part 3										
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 11	1.25	82	22	8	6.3	9	9.8	FAA0202830	FAA0202831	FAA0202829
M 12	1	84	24	9	7.1	10	11	FAA0202846	FAA0202855	FAA0202845
M 12	1.25	84	24	9	7.1	10	10.8	FAA0202870	FAA0202874	FAA0202869
M 12	1.5	89	29	9	7.1	10	10.5	FAA0202895	FAA0202903	FAA0202893
M 14	1	87	22	11.2	9	12	13	FAA0202946	FAA0202951	FAA0202945
M 14	1.25	90	25	11.2	9	12	12.8	FAA0202967	FAA0202973	FAA0202966
M 14	1.5	95	30	11.2	9	12	12.5	FAA0202989	FAA0202997	FAA0202988

Unit : mm



**MF**

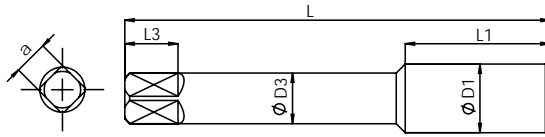
**Metric fine threads**



HOLE TYPE



**HSS** **ISO 529** **6H**



Reduced Shank (M12 - M30)

IS 6175 Part 3



IS 6175 Part 3



ISO 529 / IS 6175 Part 3							Lead Chamfer	Taper	Bottom	Pair
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
M 16	1	92	22	12.5	10	13	15	FAA0203042	FAA0203046	FAA0203041
M 16	1.5	102	32	12.5	10	13	14.5	FAA0203064	FAA0203072	FAA0203063
M 18	1	97	22	14	11.2	14	17	FAA0203098	FAA0203101	FAA0203097
M 18	1.5	104	29	14	11.2	14	16.5	FAA0203107	FAA0203115	FAA0203106
M 18	2	112	37	14	11.2	14	16	FAA0203130	FAA0203132	FAA0203129
M 20	1	102	27	14	11.2	14	19	FAA0203147	FAA0203149	FAA0203146
M 20	1.5	104	29	14	11.2	14	18.5	FAA0203156	FAA0203164	FAA0203155
M 20	2	112	37	14	11.2	14	18	FAA0203181	FAA0203185	FAA0203180
M 22	1	109	29	16	12.5	16	21	FAA0203196	FAA0203198	FAA0203195
M 22	1.5	113	33	16	12.5	16	20.5	FAA0203202	FAA0203208	FAA0203201
M 22	2	118	38	16	12.5	16	20	FAA0203219	FAA0203221	FAA0203218
M 24	1	114	29	18	14	18	23	FAA0203228	FAA0203229	FAA0203227
M 24	1.5	120	35	18	14	18	22.5	FAA0203234	FAA0203239	FAA0203233
M 24	2	120	35	18	14	18	22	FAA0203254	FAA0203258	FAA0203253
M 25	1	114	29	18	14	18	24	FAA0203267	FAA0203269	FAA0203266
M 25	1.5	120	35	18	14	18	23.5	FAA0203274	FAA0203278	FAA0203273
M 27	1.5	127	37	20	16	20	25.5	FAA0203307	FAA0203309	FAA0203306
M 27	2	127	37	20	16	20	25	FAA0203316	FAA0203320	FAA0203315
M 28	1.5	127	37	20	16	20	26.5	FAA0203329	FAA0203331	FAA0203328
M 30	1.5	127	37	20	16	20	28.5	FAA0203344	FAA0203348	FAA0203343

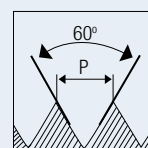
Unit : mm



HSS Hand Taps

**MF**

**Metric fine threads**



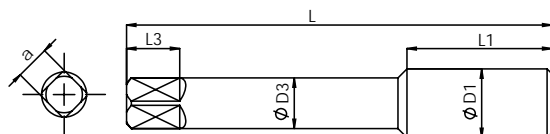
HOLE TYPE



**HSS**

**ISO 529**

**6H**



Reduced Shank (M12 - M30)

IS 6175 Part 3



IS 6175 Part 3

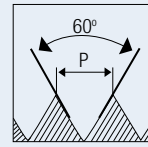


ISO 529 / IS 6175 Part 3							Lead Chamfer		Taper	Bottom	Pair
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	
ØD1	p	L	L1	ØD3	a	L3	Ød1				
M 30	2	127	37	20	16	20	28	FAA0203359	FAA0203363	FAA0203358	
M 30	3	138	48	20	16	20	27	FAA0203371	FAA0203373	FAA0203370	
M 32	1.5	137	37	22.4	18	22	30.5	FAA0203385	FAA0203389	FAA0203384	
M 33	1.5	137	37	22.4	18	22	31.5	FAA0203398	FAA0203399	FAA0203397	
M 33	2	137	37	22.4	18	22	31	FAA0203403	FAA0203405	FAA0203402	
M 33	3	151	51	22.4	18	22	30	FAA0203409	FAA0203411	FAA0203408	
M 36	1.5	144	39	25	20	24	34.5	FAA0203435	FAA0203437	FAA0203434	
M 36	2	144	39	25	20	24	34	FAA0203442	FAA0203444	FAA0203441	
M 36	3	162	57	25	20	24	33	FAA0203450	FAA0203452	FAA0203449	
M 39	1.5	149	39	28	22.4	26	37.5	FAA0203464	FAA0203465	FAA0203463	
M 39	2	149	39	28	22.4	26	37		FAA0203467	FAA0203466	
M 39	3	170	60	28	22.4	26	36	FAA0203470	FAA0203472	FAA0203469	
M 40	1.5	149	39	28	22.4	26	38.5	FAA0203477	FAA0203479	FAA0203476	
M 42	1.5	149	39	28	22.4	26	40.5	FAA0203490	FAA0203491	FAA0203489	
M 42	3	170	60	28	22.4	26	39	FAA0203500	FAA0203502	FAA0203499	
M 45	1.5	165	45	31.5	25	28	43.5	FAA0203521	FAA0203522	FAA0203520	
M 45	3	187	67	31.5	25	28	42	FAA0203529	FAA0203531	FAA0203528	
M 48	1.5	165	45	31.5	25	28	46.5	FAA0203533	FAA0203534	FAA0203532	
M 48	2	165	45	31.5	25	28	46	FAA0203539	FAA0203541	FAA0203538	
M 48	3	187	67	31.5	25	28	45	FAA0203546	FAA0203548	FAA0203545	

Unit : mm

M

Metric Long Shank Coarse threads

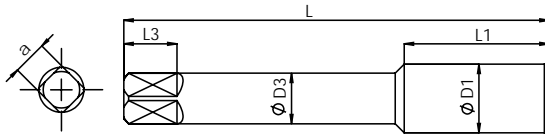


(Taper-Type A)

HOLE TYPE



HSS ISO 2283 6H



ISO 2283 / IS 6175 Part 4							Lead Chamfer	5°
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 3	0.5	66	11	2.24	1.8	4	2.5	FAA0203714
M 4	0.7	73	13	3.15	2.5	5	3.3	FAA0203721
M 5	0.8	79	16	4	3.15	6	4.2	FAA0203738
M 6	1	89	19	4.5	3.55	6	5	FAA0203747
M 8	1.25	97	22	6.3	5	8	6.75	FAA0203770
M 10	1.5	108	24	8	6.3	9	8.5	FAA0203794
M 12	1.75	119	29	9	7.1	10	10.25	FAA0203816
M 14	2	127	30	11.2	9	12	12.5	FAA0207063
M 16	2	137	32	12.5	10	13	14	FAA0203852
M 18	2.5	149	37	14	11.2	14	15.5	FAA0203867
M 20	2.5	149	37	14	11.2	14	17.5	FAA0203884

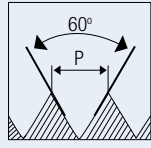
Unit : mm



HSS Machine Taps

M

ISO Metric Long Shank Coarse threads



(Second-Type D)

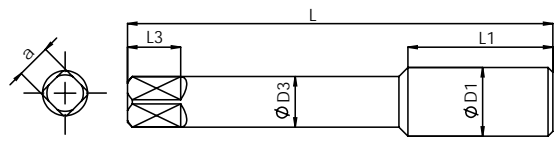
HOLE TYPE



HSS

ISO 2283

6H



ISO 2283 / IS 6175 Part 4							Lead Chamfer	10°
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 3	0.5	66	11	2.24	0.1	4	2.5	FAA0203715
M 4	0.7	73	13	3.15	2.5	5	3.3	FAA0203722
M 5	0.8	79	16	4	3.15	6	4.2	FAA0203739
M 6	1	89	19	4.5	3.55	6	5	FAA0203748
M 8	1.25	97	22	6.3	5	8	6.75	FAA0203771
M 10	1.5	108	24	8	6.3	9	8.5	FAA0203795
M 12	1.75	119	29	9	7	10	10.25	FAA0203817
M 14	2	127	30	11.2	9	12	12	FAA0207305
M 16	2	137	32	12.5	10	13	14	FAA0203853
M 18	2.5	149	37	14	11.2	14	15.5	FAA0207306
M 20	2.5	149	37	14	11.2	14	17.5	FAA0203885

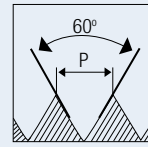
Unit : mm



HSS Machine Taps

M/MF

# Metric Long Shank Coarse & fine threads



(Bottom-Type C)

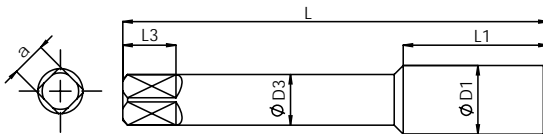
HOLE TYPE



HSS

ISO 2283

6H



ISO 2283 / IS 6175 Part 4							Lead Chamfer	20°
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 3	0.5	66	11	2.24	1.8	4	2.5	FAA0203716
M 3.5	0.6	68	13	2.5	2	4	2.9	FAA0203719
M 4	0.7	73	13	3.15	2.5	5	3.3	FAA0203723
M 5	0.8	79	16	4	3.15	6	4.2	FAA0203740
M 6	1	89	19	4.5	3.55	6	5	FAA0203749
M 7	1	89	19	5.6	4.5	7	6	FAA0203759
M 8	1	97	19	6.3	5	8	7	FAA0203767
M 8	1.25	97	22	6.3	5	8	6.75	FAA0203772
M 9	1.25	97	22	7.1	5.6	8	7.75	FAA0203781
M 10	1	108	20	8	6.3	9	9	FAA0203786
M 10	1.25	108	20	8	6.3	9	8.75	FAA0203792
M 10	1.5	108	24	8	6.3	9	8.5	FAA0203796
M 12	1.25	119	24	9	7.1	10	10.75	FAA0203808
M 12	1.5	119	29	9	7.1	10	10.5	FAA0203813

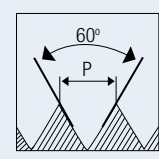
Unit : mm



HSS Machine Taps

M/MF

**Metric Long Shank Coarse & fine threads**



(Bottom-Type C)

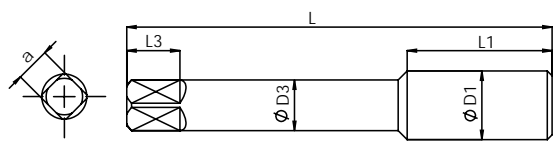
HOLE TYPE



HSS

ISO 2283

6H

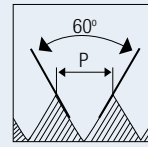


ISO 2283 / IS 6175 Part 4							Lead Chamfer	20°
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 12	1.75	119	29	9	7.1	10	10.25	FAA0203818
M 14	1.25	127	25	11.2	9	12	12.75	FAA0203828
M 14	1.5	127	30	11.2	9	12	12.5	FAA0203832
M 14	2	127	30	11.2	9	12	12	FAA0203841
M 16	1.5	137	32	12.5	10	13	14.5	FAA0203849
M 16	2	137	32	12.5	10	13	14	FAA0203854
M 18	1.5	149	29	14	11.2	14	16.5	FAA0203864
M 18	2.5	149	37	14	11.2	14	15.5	FAA0203868
M 20	1.5	149	29	14	11.2	14	18.5	FAA0203875
M 20	2.5	149	37	14	11.2	14	17.5	FAA0203886
M 22	2.5	158	38	16	12.5	16	19.5	FAA0203902
M 24	3	172	45	18	14	18	21	FAA0203918
M 27	3	180	45	20	16	20	24	FAA0203940
M 30	3.5	183	48	20	16	20	26.5	FAA0203955

Unit : mm

M/MF

**Metric Long Shank Coarse & fine threads**



(SPPT-Type B)

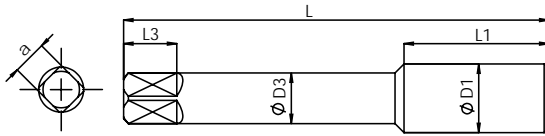
HOLE TYPE



HSS

ISO 2283

6H



ISO 2283 / IS 6175 Part 4							Spiral Point with 10° lead chamfer	
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1	
M 3	0.5	66	11	2.24	1.8	4	2.5	FAA0203717
M 3.5	0.6	68	13	2.5	2	4	2.9	FAA0203720
M 4	0.7	73	13	3.15	2.5	5	3.3	FAA0203726
M 5	0.8	79	16	4	3.15	6	4.2	FAA0203743
M 6	1	89	19	4.5	3.55	6	5	FAA0203753
M 8	1.25	97	22	6.3	5	8	6.75	FAA0203775
M 10	1.25	108	20	8	6.3	9	8.75	FAA0203793
M 10	1.5	108	24	8	6.3	9	8.5	FAA0203798
M 12	1.5	119	29	9	7.1	10	10.5	FAA0203815
M 12	1.75	119	29	9	7.1	10	10.25	FAA0203821
M 14	1.5	127	30	11.2	9	12	12.5	FAA0203835
M 14	2	127	30	11.2	9	12	12	FAA0203842
M 16	1.5	137	32	12.5	10	13	14.5	FAA0203851
M 16	2	137	32	12.5	10	13	14	FAA0203857
M 18	1.5	142	29	14	11.2	14	16.5	FAA0203865
M 18	2.5	149	37	14	11.2	14	15.5	FAA0203869
M 20	1.5	142	29	14	11.2	14	18.5	FAA0203878
M 20	2.5	149	37	14	11.2	14	17.5	FAA0203888
M 22	2.5	158	38	16	12.5	16	19.5	FAA0203903
M 24	3	172	45	18	14	18	21	FAA0203920

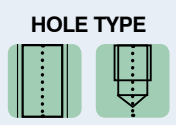
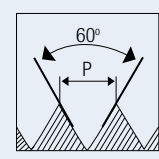
Unit : mm



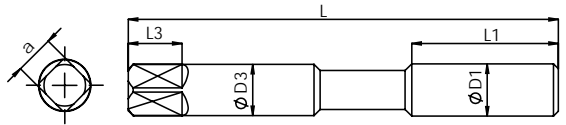
HSS Hand Taps

M

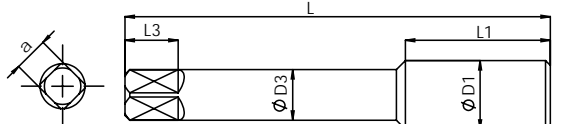
**Metric serial form coarse threads**



**HSS** **ISO 529** **6H**



Reinforced Shank (M3 - M10)



Reduced Shank (M12 - M30)



ISO 529 / IS 6175 Part 2							Lead Chamfer	Rougher	Intermediate	Finisher	Set
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
M 3	0.5	48	11	3.15	2.5	5	2.5	FAA0201821	FAA0201822	FAA0201804	FAA0201820
M 4	0.7	53	13	4	3.15	6	3.3	FAA0201881	FAA0201882	FAA0201866	FAA0201880
M 5	0.8	58	16	5	4	7	4.2	FAA0201932	FAA0201933	FAA0201917	FAA0201931
M 6	1	66	19	6.3	5	8	5	FAA0201977	FAA0201978	FAA0201959	FAA0201976
M 8	1.25	72	22	8	6.3	9	6.75	FAA0202037	FAA0202038	FAA0202020	FAA0202036
M 10	1.5	80	24	10	8	11	8.5	FAA0202108	FAA0202109	FAA0202093	FAA0202107

ISO 529 / IS 6175 Part 3											
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
M 12	1.75	89	29	9	7.1	10	10.25	FAA0202171	FAA0202172	FAA0202157	FAA0202170
M 14	2	95	30	11.2	9	12	12	FAA0202198	FAA0202199	FAA0202189	FAA0202197
M 16	2	102	32	12.5	10	13	14	FAA0202233	FAA0202234	FAA0202219	FAA0202232
M 18	2.5	112	37	14	11.2	14	15.5	FAA0202263	FAA0202264	FAA0202256	FAA0202262
M 20	2.5	112	37	14	11.2	14	17.5	FAA0202293	FAA0202294	FAA0202281	FAA0202292
M 22	2.5	118	38	16	12.5	16	19.5	FAA0202306	FAA0202310	FAA0202314	FAA0202321
M 24	3	130	45	18	14	18	21	FAA0202349	FAA0202350	FAA0202340	FAA0202348
M 27	3	135	45	20	16	20	24	FAA0202376	FAA0202377	FAA0202370	FAA0202375
M 30	3.5	138	48	20	16	20	26.5	FAA0202401	FAA0202402	FAA0202393	FAA0202400

Unit : mm

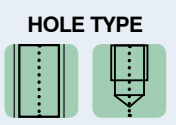
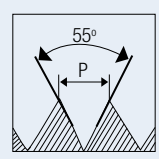




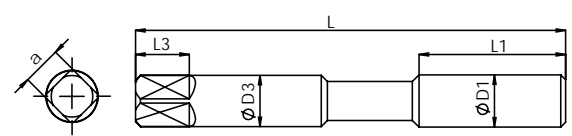
HSS Hand Taps

**BSW**

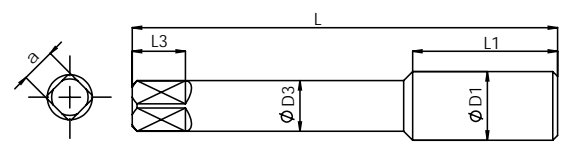
**Whitworth coarse threads**



**HSS** **ISO 529** **Class 2**



Reinforced Shank (1/8" - 3/8")



Reduced Shank (7/16" - 2")



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Second	Bottom	Set
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
1/8"	40	48	11	3.15	2.5	5	2.55	FAA0200011	FAA0200013	FAA0200015	FAA0200009
5/32"	32	53	13	4	3.15	6	3.2	FAA0200022	FAA0200024	FAA0200026	FAA0200020
3/16"	24	58	16	5	4	7	3.7	FAA0200038	FAA0200042	FAA0200045	FAA0200034
1/4"	20	66	19	6.3	5	8	5.1	FAA0200065	FAA0200070	FAA0200075	FAA0200061
5/16"	18	72	22	8	6.3	9	6.5	FAA0200098	FAA0200102	FAA0200106	FAA0200094
3/8"	16	80	24	10	8	11	7.9	FAA0200120	FAA0200124	FAA0200127	FAA0200115
7/16"	14	85	25	8	6.3	9	9.3	FAA0200143	FAA0200147	FAA0200151	FAA0200139
1/2"	12	89	29	9.5	7.5	10	10.5	FAA0200162	FAA0200165	FAA0200168	FAA0200159
9/16"	12	95	30	11.2	9	12	12.1	FAA0200178	FAA0200180	FAA0200182	FAA0200177
5/8"	11	102	32	12.5	10	13	13.5	FAA0200193	FAA0200197	FAA0200201	FAA0200189
11/16"	11	112	37	14	11.2	14	15.1	FAA0200231	FAA0200232	FAA0200233	FAA0200230
3/4"	10	112	37	14	11.2	14	16.25	FAA0200213	FAA0200217	FAA0200221	FAA0200211
7/8"	9	118	38	16	12.5	16	19.25	FAA0200237	FAA0200241	FAA0200245	FAA0200235
1"	8	130	45	18	14	18	22	FAA0200257	FAA0200261	FAA0200265	FAA0200254
1.1/8"	7	138	48	20	16	20	24.75	FAA0200275	FAA0200277	FAA0200279	FAA0200274
1.1/4"	7	151	51	22.4	18	22	28	FAA0200282	FAA0200284	FAA0200286	FAA0200281
1.3/8"	6	162	57	25	20	24	30.1	FAA0200291	FAA0200292	FAA0200293	FAA0200290
1.1/2"	6	170	60	28	22.4	26	33.5	FAA0200295	FAA0200297	FAA0200299	FAA0200294
1.5/8"	5	170	60	28	22.4	26	35.7			FAA0200303	FAA0200302
1.3/4"	5	187	67	31.5	25	28	39	FAA0200305	FAA0200306	FAA0200307	FAA0200304
1.7/8"	4.5	187	67	31.5	25	28	41.3	FAA0200309	FAA0200310	FAA0200311	FAA0200308
2"	4.5	200	70	35.5	28	31	44.5	FAA0200313	FAA0200314	FAA0200315	FAA0200312

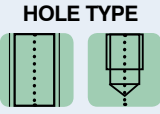
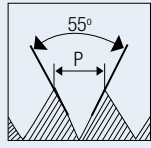
Unit : mm



HSS Hand Taps

**BSF**

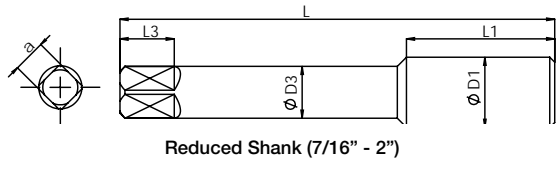
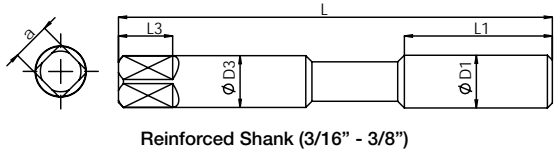
**Withworth fine threads**



**HSS**

**ISO 529**

**Class 2**

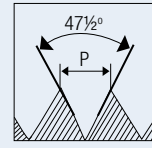


Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Second	Bottom	Set
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
3/16"	32	58	16	5	4	7	4	FAA0200348	FAA0200349	FAA0200350	FAA0200346
1/4"	26	66	19	6.3	5	8	5.3	FAA0200363	FAA0200366	FAA0200369	FAA0200360
5/16"	22	72	22	8	6.3	9	6.8	FAA0200383	FAA0200385	FAA0200387	FAA0200381
3/8"	20	80	24	10	8	11	8.3	FAA0200397	FAA0200399	FAA0200401	FAA0200394
7/16"	18	85	25	8	6.3	9	9.7	FAA0200409	FAA0200412	FAA0200415	FAA0200407
1/2"	16	89	29	9.5	7.5	10	11.1	FAA0200421	FAA0200423	FAA0200425	FAA0200419
9/16"	16	95	30	11.2	9	12	12.7	FAA0200432	FAA0200433	FAA0200434	FAA0200431
5/8"	14	102	32	12.5	10	13	14	FAA0200440	FAA0200443	FAA0200446	FAA0200437
11/16"	14	112	37	14	11.2	14	15.5	FAA0200451	FAA0200452	FAA0200453	FAA0200450
3/4"	12	112	37	14	11.2	14	16.75	FAA0200455	FAA0200457	FAA0200459	FAA0200454
7/8"	11	118	38	16	12.5	16	19.75	FAA0200464	FAA0200466	FAA0200467	FAA0200462
1"	10	130	45	18	14	18	22.75	FAA0200472	FAA0200474	FAA0200476	FAA0200470
1.1/8"	9	138	48	20	16	20	25.5	FAA0200479	FAA0200480	FAA0200481	FAA0200478
1.1/4"	9	151	51	22.4	18	22	28.5	FAA0200483	FAA0200484	FAA0200485	FAA0200482
1.3/8"	8	162	57	25	20	24	31.5	FAA0200487	FAA0200488	FAA0200489	FAA0200486
1.1/2"	8	170	60	28	22.4	26	34.5	FAA0200491	FAA0200492	FAA0200493	FAA0200490
1.5/8"	8	170	60	28	22.4	26	37.7	FAA0200496			FAA0200494
1.3/4"	7	187	67	31.5	25	28	41				FAA0200495
2"	7	200	70	35.5	28	31	47	FAA0200498	FAA0200499	FAA0200500	FAA0200497

Unit : mm

BA

British association threads



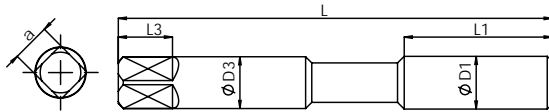
HOLE TYPE



HSS

ISO 529

Class 2



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Second	Bottom	Set
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
12	90.9	40	7	2.5	2	4	1.05	FAA0200647	FAA0200648	FAA0200649	FAA0200646
11	81.9	41	8	2.5	2	4	1.2	FAA0200643	FAA0200644	FAA0200645	FAA0200642
10	72.6	41	8	2.5	2	4	1.4	FAA0200635	FAA0200637	FAA0200639	FAA0200632
9	65.1	41	8	2.5	2	4	1.55	FAA0200625	FAA0200627	FAA0200629	FAA0200623
8	59.1	44.5	9.5	2.8	2.24	5	1.8	FAA0200616	FAA0200618	FAA0200620	FAA0200613
7	52.9	44.5	9.5	2.8	2.24	5	2.05	FAA0200603	FAA0200606	FAA0200609	FAA0200601
6	47.9	44.5	9.5	2.8	2.24	5	2.3	FAA0200590	FAA0200593	FAA0200596	FAA0200588
5	43	48	11	3.15	2.5	5	2.65	FAA0200578	FAA0200581	FAA0200584	FAA0200576
4	38.5	50	13	3.55	2.8	5	3	FAA0200564	FAA0200567	FAA0200570	FAA0200562
3	34.8	53	13	4.5	3.55	6	3.4	FAA0200555	FAA0200557	FAA0200559	FAA0200552
2	31.4	58	16	5	4	7	4	FAA0200541	FAA0200544	FAA0200547	FAA0200539
1	28.2	62	17	5.6	4.5	7	4.5	FAA0200529	FAA0200532	FAA0200535	FAA0200527
0	25.4	66	19	6.3	5	8	5.1	FAA0200517	FAA0200520	FAA0200523	FAA0200515

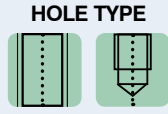
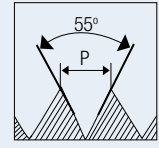
Unit : mm



HSS Hand Taps

**BSB**

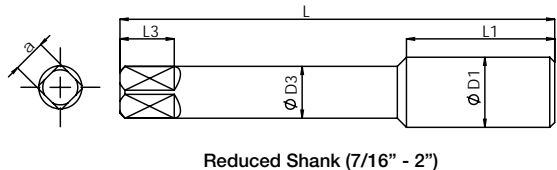
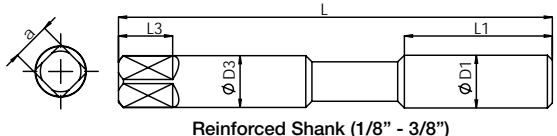
**British brass threads**



**HSS**

**ISO 529**

**Class 2**



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Second	Bottom	Set
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
1/4"	26	66	19	6.3	5	8	5.3	FAA0200653	FAA0200654	FAA0200655	FAA0200651
5/16"	26	69	19	8	6.3	9	5.8	FAA0200658	FAA0200659	FAA0200660	FAA0200656
3/8"	26	76	20	10	8	11	8.4	FAA0200663	FAA0200664	FAA0200665	FAA0200661
7/16"	26	82	22	8	6.3	9	10	FAA0200668	FAA0200669	FAA0200670	FAA0200666
1/2"	26	84	24	9	7.1	10	11.5	FAA0200673	FAA0200674	FAA0200675	FAA0200671
9/16"	26	90	25	11.2	9	12	13.1	FAA0200678	FAA0200679	FAA0200680	FAA0200676
5/8"	26	95	25	12.5	10	13	14.7	FAA0200683	FAA0200684	FAA0200685	FAA0200681
3/4"	26	104	29	14	11.2	14	17.8	FAA0200687	FAA0200688	FAA0200689	FAA0200686
7/8"	26	113	33	16	12.5	16	21	FAA0200691	FAA0200692	FAA0200693	FAA0200690
1"	26	120	35	18	14	18	24.2	FAA0200694		FAA0200695	FAA0207315

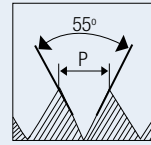
Unit : mm



HSS Hand Taps

BS Con

British standard conduit threads



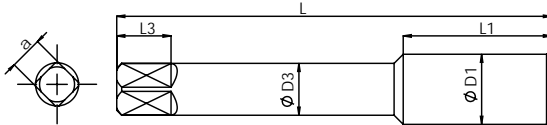
HOLE TYPE



HSS

ISO 529

Class 2



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Bottom	Pair
							Tapping Drill Diameter			
ØD1	p	L	L1	ØD3	a	L3	Ød1			
1/2"	18	84	24	9	7.1	10	11.5	FAA0200697	FAA0200698	FAA0200696
5/8"	18	95	25	12.5	10	13	14.2	-	FAA0200700	FAA0200699
3/4"	16	104	29	14	11.2	14	17.5	FAA0200702	FAA0200704	FAA0200701
1"	16	120	35	18	14	18	23.8	FAA0200707	FAA0200708	FAA0200706

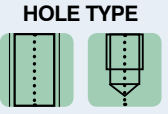
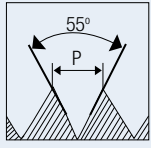
Unit : mm



HSS Hand Taps

ME

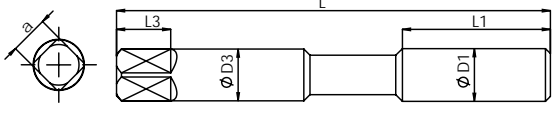
Metric English threads



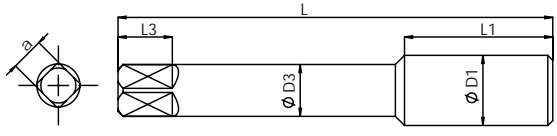
HSS

ISO 529

Class 2



Reinforced Shank (1/8" - 3/8")



Reduced Shank (7/16" - 2")



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer		Taper	Second	Bottom	EDP No.
							Tapping Drill Diameter	EDP No.				
ØD1	p	L	L1	ØD3	a	L3	Ød1					
1/8	40	48	11	3.15	2.5	5	2.55					FAA0207317
5/32	40	53	13	4	3.15	6	3.3	FAA0200720	FAA0200721	FAA0200722		FAA0200718
3/16	40	58	16	5	4	7	4	FAA0200724	FAA0200725	FAA0200726		FAA0200723
7/32	40	62	17	5.6	4.5	7	4.8	FAA0200729	FAA0200730	FAA0200731		FAA0200727
1/4	40	66	13	6.3	5	8	5.5	FAA0200733	FAA0200734	FAA0200735		FAA0200732
9/32	32	66	19	7.1	5.6	8	6.1	FAA0200739	FAA0200740	FAA0200741		FAA0200737
5/16	32	66	16	8	6.3	9	7	FAA0200743	FAA0200744	FAA0200745		FAA0200742
3/8	32	73	16	10	8	11	8.6	FAA0200748	FAA0200749	FAA0200750		FAA0200746
7/16	32	80	20	8	6.3	9	10.3					FAA0207320
1/2	32	80	20	9	10	7.1	11.9					FAA0207324

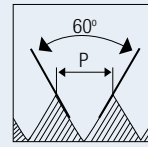
Unit : mm



HSS Hand Taps

BSP

British pipe threads

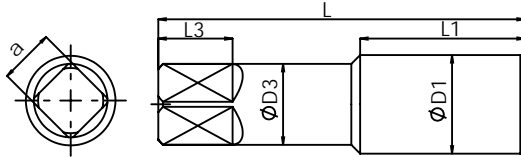


HOLE TYPE



HSS

ISO 2284



							Lead Chamfer	Taper	Second	Bottom	Set
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
1/8	28	59	15	8	6.3	9	8.8	FAA0204606	FAA0204610	FAA0204614	FAA0204602
1/4	19	67	19	10	8	11	11.8	FAA0204627	FAA0204631	FAA0204634	FAA0204623
3/8	19	75	21	12.5	10	13	15.25	FAA0204648	FAA0204652	FAA0204656	FAA0204644
1/2	14	87	26	16	12.5	16	19	FAA0204665	FAA0204669	FAA0204673	FAA0204662
5/8	14	91	26	18	14	18	21	FAA0204680	FAA0204682	FAA0204684	FAA0204678
3/4	14	96	28	20	16	20	24.5	FAA0204689	FAA0204692	FAA0204695	FAA0204686
7/8	14	102	29	22.4	18	22	28.25	FAA0204702		FAA0204704	FAA0204700
1"	11	109	33	25	20	24	30.75	FAA0204708	FAA0204713	FAA0204715	FAA0204706
1.1/4"	11	119	36	31.5	25	28	39.5	FAA0204722	FAA0204724	FAA0204727	FAA0204721
1.1/2"	11	125	37	35.5	28	31	45	FAA0204733	FAA0204735	FAA0204738	FAA0204732
1.3/4"	11	132	39	35.5	28	31	51	FAA0204743		FAA0204744	FAA0204742
2"	11	140	41	40	31.5	34	57	FAA0204746		FAA0204749	FAA0204745

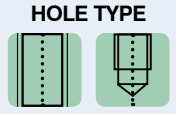
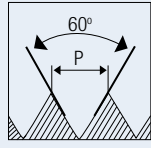
Unit : mm



HSS Hand Taps

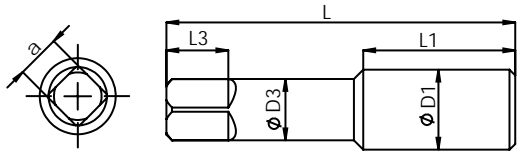
**BSPT**

**British taper pipe threads**



**HSS**

**ISO 2284**



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Bottom	Pair
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
1/8	28	59	15	8	6.3	9	8.8	FAA0204836	FAA0204840	FAA0204833
1/4	19	67	19	10	8	11	11.8	FAA0204849	FAA0204852	FAA0204846
3/8	19	75	21	12.5	10	13	15.25	FAA0204857	FAA0204859	FAA0204855
1/2	14	87	26	16	12.5	16	19	FAA0204865	FAA0204868	FAA0204863
3/4	14	96	28	20	16	20	24.5	FAA0204873	FAA0204876	FAA0204871
1"	11	109	33	25	20	24	30.75	FAA0204881	FAA0204883	FAA0204880
1.1/4"	11	119	36	31.5	25	28	39.5	FAA0204890	FAA0204891	FAA0204889
1.1/2"	11	125	37	35.5	28	31	45	FAA0204893	FAA0204894	FAA0204892
2"	11	140	41	40	31.5	34	57			FAA0204895

Unit : mm

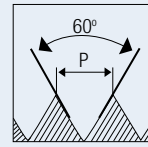




HSS Hand Taps

UNC

Unified coarse threads



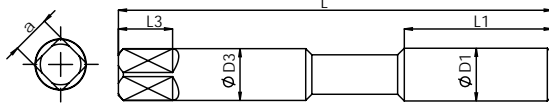
HOLE TYPE



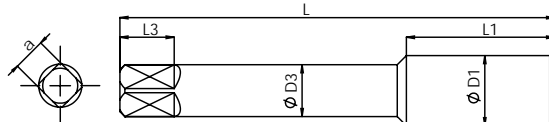
HSS

ISO 529

2B



Reinforced Shank (1/8" - 3/8")



Reduced Shank (7/16" - 2")



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Second	Bottom	Set
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
1/4	20	66	19	6.3	5	8	5.1	FAA0200880	FAA0200885	FAA0200891	FAA0200875
5/16	18	72	22	8	6.3	9	6.6	FAA0200912	FAA0200916	FAA0200920	FAA0200907
3/8	16	80	24	10	8	11	8	FAA0200945	FAA0200949	FAA0200953	FAA0200940
7/16	14	85	25	8	6.3	9	9.4	FAA0200984	FAA0200987	FAA0200990	FAA0200980
1/2	13	89	29	9	7.1	10	10.8	FAA0201011	FAA0201014	FAA0201017	FAA0201007
9/16	12	95	30	11.2	9	12	12.2	FAA0201044	FAA0201046	FAA0201048	FAA0201042
5/8	11	102	32	12.5	10	13	13.5	FAA0201062	FAA0201065	FAA0201068	FAA0201058
3/4	10	112	37	14	11.2	14	16.5	FAA0201095	FAA0201098	FAA0201101	FAA0201092
7/8	9	118	38	16	12.5	16	19.5	FAA0201127	FAA0201130	FAA0201133	FAA0201125
1	8	130	45	18	14	18	22.25	FAA0201155	FAA0201158	FAA0201161	FAA0201151
1.1/8"	7	138	48	20	16	20	25	FAA0201182	FAA0201183	FAA0201184	FAA0201181
1.1/4"	7	151	51	22.4	18	22	28	FAA0201193	FAA0201194	FAA0201195	FAA0201192
1.3/8"	6	162	57	25	20	24	30.75	FAA0201201	FAA0201202	FAA0201203	FAA0201200
1.1/2"	6	170	60	28	22.4	26	34	FAA0201209	FAA0201210	FAA0201211	FAA0201208
1.3/4"	5	187	67	31.5	25	28	39.5	FAA0201220	FAA0201221	FAA0201222	FAA0201219
2"	4.5	200	70	35.5	28	31	45	FAA0201225	FAA0201226	FAA0201227	FAA0201224

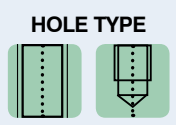
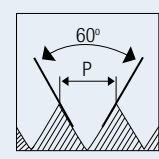
Unit : mm



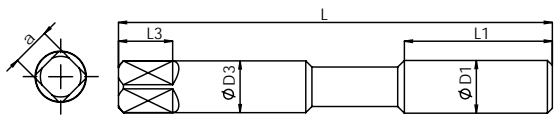
HSS Hand Taps

UNC

Unified coarse threads



HSS ISO 529 2B



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Second	Bottom	Set
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
1	64	41	8	2.5	2	4	1.55	FAA0200811	FAA0200812	FAA0200813	FAA0200810
2	56	44.5	9.5	2.8	2.24	5	1.85	FAA0200815	FAA0200816	FAA0200817	FAA0200814
3	48	44.5	9.5	2.8	2.24	5	2.1	FAA0200820	FAA0200821	FAA0200822	FAA0200819
4	40	48	11	3.15	2.5	5	2.35	FAA0200826	FAA0200828	FAA0200830	FAA0200824
5	40	48	11	3.15	2.5	5	2.65	FAA0200834	FAA0200835	FAA0200836	FAA0200833
6	32	50	13	3.55	2.8	5	2.85	FAA0200839	FAA0200840	FAA0200841	FAA0200838
8	32	53	13	4.5	3.55	6	3.5	FAA0200847	FAA0200849	FAA0200851	FAA0200845
10	24	58	16	5	4	7	3.9	FAA0200857	FAA0200859	FAA0200862	FAA0200855
12	24	62	17	5.6	4.5	7	4.5	FAA0200867	FAA0200868	FAA0200869	FAA0200866

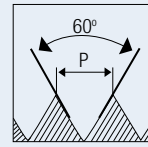
Unit : mm



HSS Hand Taps

UNF

Unified fine threads



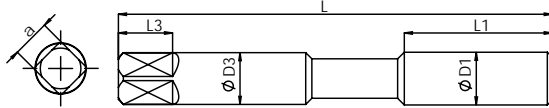
HOLE TYPE



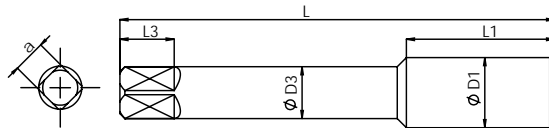
HSS

ISO 529

2B



Reinforced Shank (1/8" - 3/8")



Reduced Shank (7/16" - 2")



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Second	Bottom	Set
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
1/4	28	66	19	6.3	5	8	5.5	FAA0201319	FAA0201324	FAA0201329	FAA0201315
5/16	24	69	19	8	6.3	9	6.9	FAA0201353	FAA0201357	FAA0201362	FAA0201349
3/8	24	76	20	10	8	11	8.5	FAA0201394	FAA0201398	FAA0201402	FAA0201390
7/16	20	82	22	8	6.3	9	9.9	FAA0201433	FAA0201436	FAA0201439	FAA0201430
1/2	20	84	24	9	7.1	10	11.5	FAA0201457	FAA0201460	FAA0201463	FAA0201455
9/16	18	90	25	11.2	9	12	12.9	FAA0201489	FAA0201491	FAA0201493	FAA0201488
5/8	18	95	25	12.5	10	13	14.5	FAA0201506	FAA0201509	FAA0201512	FAA0201503
3/4	16	104	29	14	11.2	14	17.5	FAA0201532	FAA0201535	FAA0201538	FAA0201528
7/8	14	113	33	16	12.5	16	20.4	FAA0201557	FAA0201560	FAA0201563	FAA0201555
1"	12	120	35	18	14	18	23.25	FAA0201588	FAA0201591	FAA0201594	FAA0201586
1.1/8"	12	127	37	20	16	20	26.5	FAA0201611	FAA0201612	FAA0201613	FAA0201610
1.1/4"	12	137	37	22.4	18	22	29.5	FAA0201623	FAA0201624	FAA0201625	FAA0201622
1.3/8"	12	144	37	25	20	24	32.75	FAA0201630	FAA0201631	FAA0201632	FAA0201629
1.1/2"	12	149	39	28	22.4	26	36	FAA0201638	FAA0201639	FAA0201640	FAA0201637

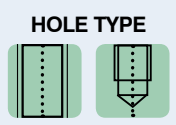
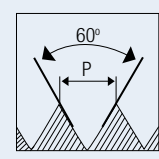
Unit : mm



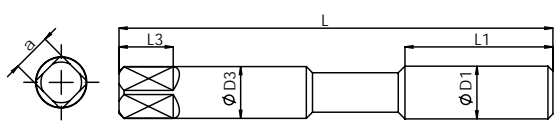
HSS Hand Taps

UNF

Unified fine threads



HSS ISO 529 2B



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Second	Bottom	Set
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
0	80	41	8	2.5	2	4	1.25	FAA0201237	FAA0201238	FAA0201239	FAA0201236
1	72	41	8	2.5	2	4	1.55		FAA0201241	FAA0201242	FAA0201240
2	64	44.5	9.5	2.8	2.24	5	1.9	FAA0201244	FAA0201245	FAA0201246	FAA0201243
3	56	44.5	9.5	2.8	2.24	5	2.15	FAA0201249	FAA0201250	FAA0201251	FAA0201248
4	48	48	11	3.15	2.5	5	2.4	FAA0201254	FAA0201255	FAA0201256	FAA0201253
5	44	48	11	3.15	2.5	5	2.7	FAA0201259	FAA0201260	FAA0201261	FAA0201258
6	40	50	13	3.55	2.8	5	2.95	FAA0201264	FAA0201265	FAA0201266	FAA0201263
8	36	53	13	4.5	3.55	6	3.5	FAA0201269	FAA0201270	FAA0201271	FAA0201268
10	32	58	16	5	4	7	4.1	FAA0201276	FAA0201280	FAA0201283	FAA0201275
12	28	62	17	5.6	4.5	7	4.7	FAA0201303	FAA0201305	FAA0201307	FAA0201302

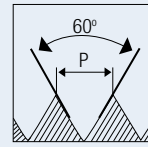
Unit : mm



HSS Hand Taps

NPT

Pipe threads

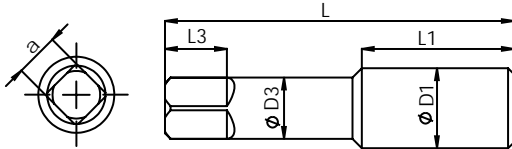


HOLE TYPE



HSS

ANSI 94.9



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Bottom	Pair
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1			
1/16	27	2.1/8	11/16	0.312	0.234	3/8	6.3	FAA0204897	FAA0204898	FAA0204896
1/8	27	2.1/8	3/4	0.437	0.328	3/8	8.7	FAA0204901	FAA0204903	FAA0204899
1/4	18	2.7/16	1.1/16	0.562	0.421	7/16	11.1	FAA0204911	FAA0204914	FAA0204909
3/8	18	2.9/16	1.1/16	0.7	0.531	1/2	14.5	FAA0204921	FAA0204925	FAA0204919
1/2	14	3.1/8	1.3/8	0.687	0.515	5/8	18	FAA0204932	FAA0204934	FAA0204928
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	23.25	FAA0204943	FAA0204946	FAA0204942
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	29	FAA0204951	FAA0204954	FAA0204950
1.1/4"	11.5	4	1.3/4	1.312	0.984	15/16	38	FAA0204958	FAA0204959	FAA0204957
1.1/2"	11.5	4.1/4	1.3/4	1.5	1.125	1	44	FAA0204963	FAA0204964	FAA0204962
2"	11.5	4.1/2	1.3/4	1.875	1.406	1.1/8	56	FAA0204969	FAA0204968	FAA0204967
2.1/2"	8	5.1/2	2.9/16	2.25	1.687	1.1/4	65.48			FAA0204970
3"	8	6	2.5/8	2.625	1.968	1.3/8	-			FAA0207340

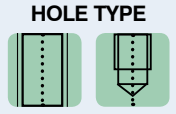
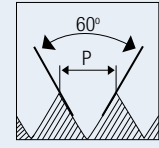
Unit : mm



HSS Hand Taps

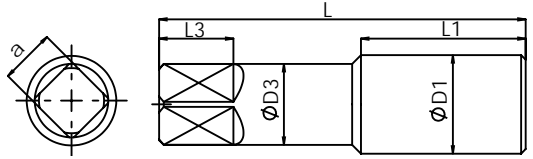
NPS

Pipe threads special



HSS

ANSI 94.9



Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Lead Chamfer	Taper	Second	Bottom	Set
							Tapping Drill Diameter	EDP No.	EDP No.	EDP No.	EDP No.
ØD1	p	L	L1	ØD3	a	L3	Ød1				
1/16"	27	2.1/8	11/16	0.312	0.234	3/8	6.3				FAA0207341
1/8"	27	2.1/8	3/4	0.437	0.328	3/8	8.7	FAA0205003	FAA0205004	FAA0205005	FAA0205002
1/4"	18	2.7/16	1.1/16	0.562	0.421	7/16	11.1	FAA0205006	FAA0205007	FAA0205008	FAA0207342
3/8"	18	2.9/16	1.1/16	0.7	0.531	1/2	14.5	FAA0205009	FAA0205010	FAA0205011	FAA0207343
1/2"	14	3.1/8	1.3/8	0.687	0.515	5/8	18	FAA0205012	FAA0205013	FAA0205014	FAA0207344
3/4"	14	3.1/4	1.3/8	0.906	0.679	11/16	23.25	FAA0205015	FAA0205016	FAA0205017	FAA0207345
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	29				FAA0207346
1.1/4"	11.5	4	1.3/4	1.312	0.984	15/16	38			FAA0205018	FAA0207349
1.1/2"	11.5	4.1/4	1.3/4	1.5	1.125	1	44				FAA0207351
2"	11.5	4.1/2	1.3/4	1.875	1.406	1.1/8	56				FAA0207354

Unit : mm



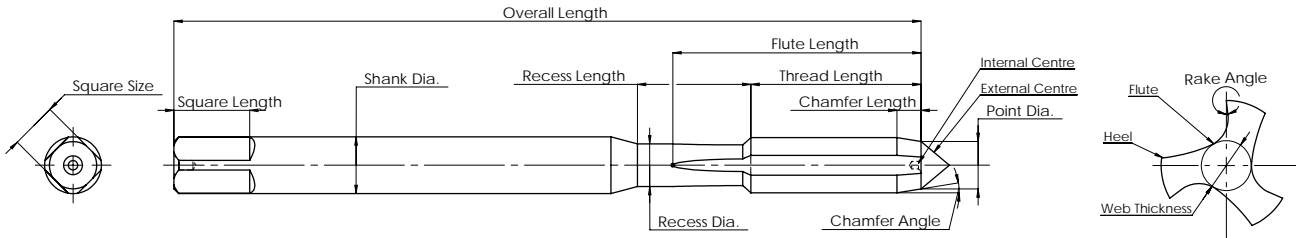
High Performance Cutting Tools



**TECHNICAL DETAILS**



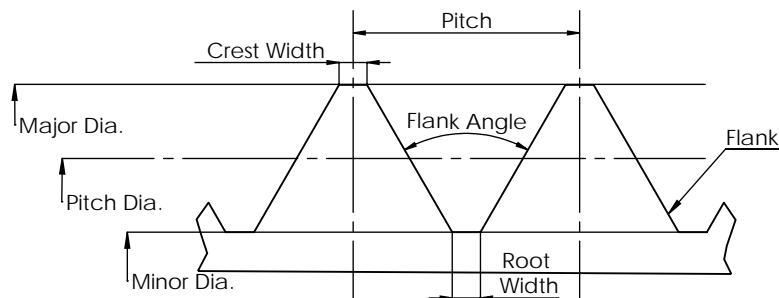
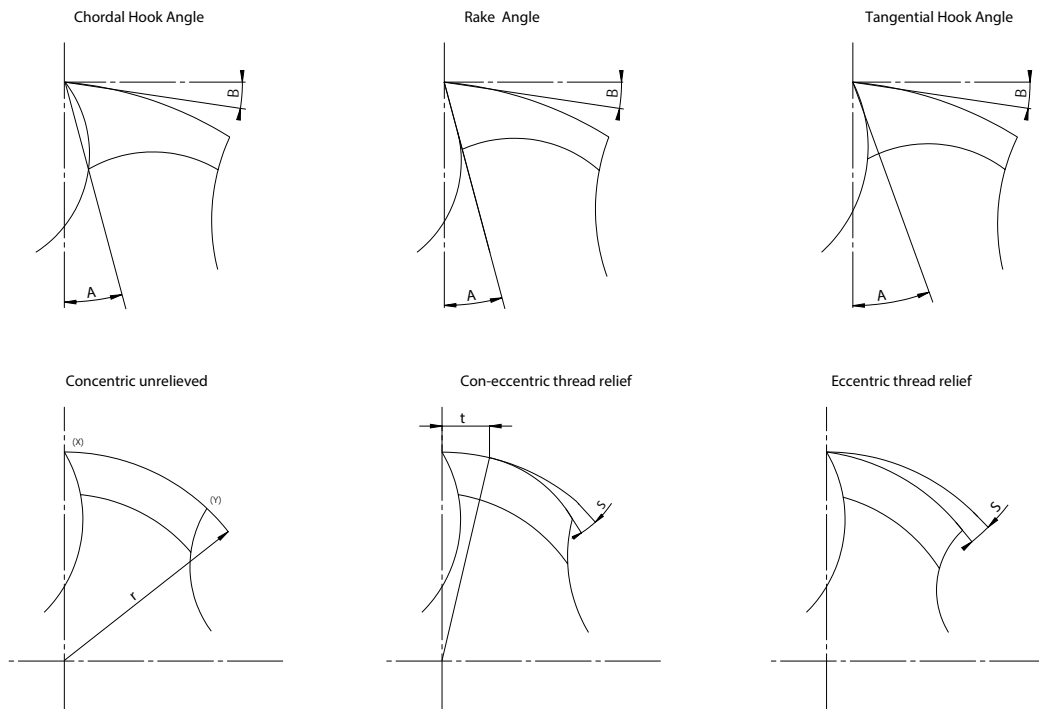
## TAP NOMENCLATURE



- **THREAD LENGTH:** It is a total length of threaded portion.
- **OVERALL LENGTH:** The axial distance between the two extreme ends of a tap is called as the overall length of the tap.
- **SQUARE:** The square end of the tap shank, for holding it in the tap wrench.
- **SHANK :** It is the cylindrical part of tap which is used for hold or drive.
- **CUTTING EDGE :** The edge formed by the intersection of the flute face and the form of the thread, imposed on the land
- **FLUTE :** It is the groove in the body of tap which provides cutting edge. Permits removal of chips and allows coolant or lubricant to reach the cutting edge.
- **LAND :** It is the surface between cutting edge and non-cutting edge
- **WEB :** The central portion of tap which joins the land and extends along the fluted portion of tap
- **WEB TAPER :** It is the increase in the web thickness from the entering end of the Tap towards the shank end of the flutes.
- **HEEL :** It is the edge formed by the intersection of the relieved surface behind the cutting edge and the flute
- **CHAMFER :** The taper on the threads at the front end of the tap made by grinding and relieving the crest of the first few teeth
- **RAKE ANGLE :** The angular relationship of the straight cutting face of the tooth with respect to a radial line through the crest of the tooth of cutting edge. There are three types of rake angle. The details given below. Positive rake means that the crest of the cutting face is angularly ahead. Negative rake means that the crest of the cutting face is angularly behind. Zero radial rake means the cutting face is directly on a radial line
- **CREST :** It is the prominent part of thread i.e. Top surface joining the two sides of thread
- **ROOT :** It is the bottom of groove between sides of two adjacent threads
- **FLANK :** The flank angle is the angle between individual flank and perpendicular to axis of thread, it is equal to half the angle of thread
- **INCLUDED ANGLE :** It is the angle between two flanks of thread



## TAP NOMENCLATURE



### Thread Profile

- **DEPTH OF THREAD :** It is the distance between the crest and root of single thread
- **MINOR DIAMETER :** It is the diameter between the two root of opposite thread.
- **THREAD RELIEF :** The clearance produced on the land by gradually reducing the diameter of the entire thread form between the cutting edge and the non cutting edge
- **EFFECTIVE DIAMETER (PCD) :** The pitch circle diameter of thread as generated by straight line parallel to axis of tap. This straight line is called as Pitch line. Along the pitch line the width of threads and width of spaces are equal on a perfect thread. This is the important parameter in screw thread and it decides the quality of fit between the two threaded assembly.
- **MAJOR DIAMETER :** It is the diameter over the crest of thread. Basic major diameter, it is the nominal diameter

# USE YOUR TAPS SELECTOR

Select execution of tool considering blind or through hole



Select thread form and find page number, select from DIN/ISO/JIS standard length



Select your work piece material from this table with desired Vc



DIN 371 / DIN 376 / DIN 374 / ISO 529 / JIS													
Page No. DIN / ISO / JIS	M	5 / 18 / 31	5 / 18	5 / 18 / 31	36 / 52 / 67	36 / 52	36 / 52 / 67	90	6 / 19	6 / 19	6 / 19	9 / 22	9 / 22
MF	10 / 23	10 / 23	10 / 23	41 / 57	41 / 57	41 / 57	94	11 / 24	11 / 24	11 / 24	-	-	-
LUNC	14 / 27	14 / 27	14 / 27	46 / 61	46 / 61	-	-	-	-	-	-	-	-
LUNF	16 / 29	16 / 29	16 / 29	49 / 64	49 / 64	-	-	-	-	-	-	-	-
Series	SA1	SA3	SA4	SB1	SB3	SB4	SD4	SAF3	SAF5	SAF7	SAF5	SAF7	SAF7
Execution	Spiral Point	Spiral Point	Spiral Point	Spiral Flute	Spiral Flute	Spiral Flute	Forming	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point	Spiral Point
Tool Material	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE-PM	HSSE-PM	HSSE-PM
Helix	-	-	-	35	35	35	-	-	-	-	-	-	-
Coating	Bright	TiN	TiAlN	Bright	TiN	TiAlN	TiAlN	TiN	TiCN	AlCrN	TiCN	AlCrN	AlCrN
Chamfer	B/ 4-4.5P	B/ 4-4.5P	B/ 4-4.5P	C/2-3P	C/2-3P	C/2-3P	C/ 2-3P	B/ 4-4.5P	B/ 4-4.5P	B/ 4-4.5P	B/ 4-4.5P	B/ 4-4.5P	B/ 4-4.5P
Hole Type	Through	Through	Through	Blind/ Through	Blind/ Through	Blind/ Through	Through / Blind	Through	Through	Through	Through	Through	Through
Coolant Feed	No	No	No	No	No	No	No	No	No	No	No	No	No
Oil Groove	-	-	-	-	-	-	Yes	-	-	-	-	-	-
P0	10-12	15-20	20-25	8-12									
P1		15-20	15-20	8-12	10-15	15-20	15-20	15-20	15-25				
P2			15-20		8-15	10-18	12-15	15-20	15-25	15-25	25-30	25-30	
P3			8-12							15-20	15-20	20-25	20-25
P4													12-16
P5													
P6													
M1													
M2													
M3													
K1			30-35				10-20						
K2		15-20	20-25			8-12	8-12						
K3		12-15											
N1	15-20			15-25									
N2	15-20			15-25									
N3						15-20							
N4	25-30					20-25							
S1													
S2													
S3													
S4													

SB  
DIN  
HSS TAPS



Go to desired page number find your tool on the page

## M Metric coarse threads

60°

35°

HSS-E

DIN 371/376

6HX

C/2-3P

35°

Reinforced Shank DIN371 (M3 - M10)

Reduced Shank DIN376 (M12 - M20)

DIN 371		SB1		SB3		SB4	
Nominal Diameter	Pitch	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	Tapping Drill Diameter
ØD1	p	L	L1	ØD3	a	L3	Ød1
M 3	0.5	56	6	3.5	2.7	6	2.5
M 3.5	0.6	56	7	4	3	6	2.9
M 4	0.7	63	8	4.5	3.4	6	3.3
M 5	0.8	70	8	6	4.9	8	4.2
M 6	1	80	10	6	4.9	8	5
M 7	1	80	10	7	5.5	8	6
M 8	1.25	90	13	8	6.2	9	6.8
M 10	1.5	100	15	10	8	11	8.5

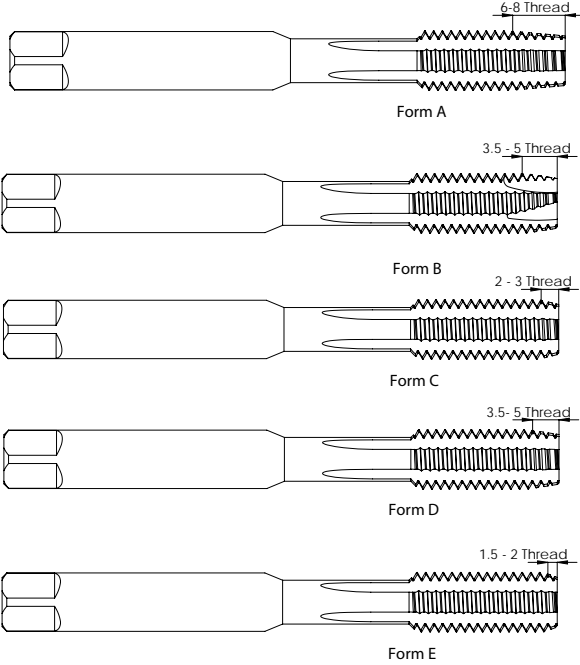
Series	SB1	SB3	SB4
Material - 1 <sup>st</sup> choice	P0-P1	P1-P2	P1-P2
Material - 2 <sup>nd</sup> choice	N1-N2	K2, N3-N4	K1-K2
Coating	Bright	TiN	TiAlN
EDP No.			

Select the size of nominal diameter required



\* For best result use Totem range of pre tapping drills

## CHAMFER FORMS



### Form A

6 - 8 threads for short through hole

### Form B

3.5 - 5 threads with spiral point for all through holes and deep tapping holes

### Form C

2 - 3 threads for blind holes; generally for aluminium and grey cast iron.

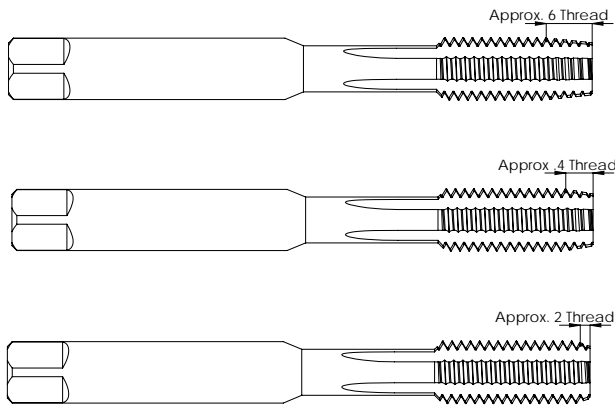
### Form D

3.5 - 5 threads for short through hole

### Form E

1.5 - 2 threads for blind holes with small run-out depth

### Chamfer length for set of 3 taps



### Taper Tap

6 threads approx.

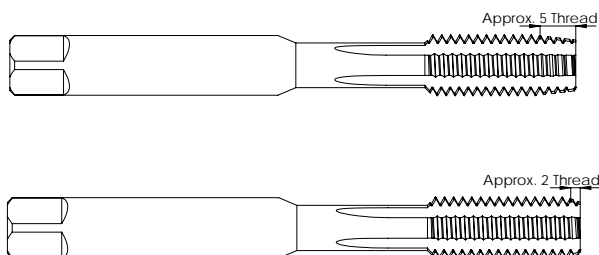
### Second Tap

4 threads approx.

### Bottom Tap

2 threads approx.

### Chamfer length for set of 2 taps (Pairs)



### Taper Tap

5 threads approx.

### Bottom Tap

2 threads approx.

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.



## MATERIAL DETAILS

Material Group	Material Description	Content	Tensile Strength RM (MPa)*	Hardness (HB)	Hardness (HRC)
P0	Low-Carbon Steels, Long Chipping	C <0,25%	<530	<125	—
P1	Low-Carbon Steels, Short Chipping, Free Machining	C <0,25%	<530	<125	—
P2	Medium- and High-Carbon Steels	C >0,25%	<530	<220	<25
P3	Alloy Steels and Tool Steels	C >0,25%	600-850	<330	<35
P4	Alloy Steels and Tool Steels	C >0,25%	850-1400	340-450	35-48
P5	Ferritic, Martensitic, and PH Stainless Steels	—	600-900	<330	<35
P6	High-Strength Ferritic, Martensitic, and PH Stainless Steels	—	900-1350	350-450	35-48
M1	Austenitic Stainless Steel	—	<600	130-200	-
M2	High-Strength Austenitic Stainless and Cast Stainless Steels	—	600-800	150-230	<25
M3	Duplex Stainless Steel	—	<800	135-275	<30
K1	Grey Cast Iron	—	125-500	120-290	<32
K2	Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI)	—	<600	130-260	<28
K3	High-Strength Ductile Irons and Austempered Ductile Iron (ADI)	—	>600	180-350	<43
N1	Wrought Aluminium	—	—	—	—
N2	Low-Silicon Aluminium Alloys and Magnesium Alloys	Si <12,2%	—	—	—
N3	High-Silicon Aluminium Alloys and Magnesium Alloys	Si > 12,2%	—	—	—
N4	Copper-, Brass-, Zinc-Based on Machinability Index Range of 70-100	—	—	—	—
N5	Nylon, Plastics, Rubbers, Phenolics, Resins, Fibreglass	—	—	—	—
N6	Carbon, Graphite Composites, CFRP	—	—	—	—
N7	Metal Matrix Composites (MMC)	—	—	—	—
S1	Iron-Based, Heat-Resistant Alloys	—	500-1200	160-260	25-48
S2	Cobalt-Based, Heat-Resistant Alloys	—	1000-1500	250-450	25-48
S3	Nickel-Based, Heat-Resistant Alloys	—	600-1700	160-450	<48
S4	Titanium and Titanium Alloys	—	900-1600	300-400	33-48
H1	Hardened Materials	—	—	—	44-48
H2	Hardened Materials	—	—	—	48-55
H3	Hardened Materials	—	—	—	56-60
H4	Hardened Materials	—	—	—	>60

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.



**MATERIAL DETAILS**

Material Group	ANSI	DIN
P0	A36, 1008, 1010, 1018 through 1029; 1108, 1117	
P1	10L18, 1200 Series, 1213, 12L14	C15, Ck22, ST37-2, S235JR, 9SMnPb28, GS38
P2	1035, 1045, 10L45, 1050, 10L50, 1080, 1137, 1144, 11L44, 1525, 1545, 1572	ST52, S355JR, C35, GS60, Cf53
P3	1300, 2000, 3000, 4000, 5000, 8000, P20, SAE: A, D, H, O, S, M, T	16MnCr5, Ck45, 21CrMoV5-7, 38SMn28
P4	1300, 2000, 3000, 4000, 5000, 8000, P20, SAE: A, D, H, O, S, M, T	100Cr6, 30CrNiMo8, 42CrMo4, C70W2, S6525, X120Mn12
P5	15-5 PH, 13-8 PH, 17-4 PH, 400 and 500 Series	100Cr6, 30CrNiMo8, 42CrMo4, C70W2, S6525, X120Mn12
P6	15-5 PH, 13-8 PH, 17-4 PH, 400 and 500 Series	X102CrMo17, G-X120Cr29
M1	200 Series, 301, 302, 304, 304L, 309	X5CrNi 18 10, X2CrNiMo 17 13 2, G-X25CrNiSi18 9, X15CrNiSi 20 12
M2	310, 316, 316L, 321, 347, 384 ASTM Cast XM-1, XM-5, XM-7, XM-21	X2CrNiMo 13 4, X5NiCr 32 21, X5CrNiNb 18 10, G-X15CrNi 25-20
M3	323, 329, F55, 2205, S329000	X8CrNiMo27 5, X2CrNiMoN22 5 3, X20CrNiSi25 4, G-X40CrNiSi27 4
K1	class 20, 25, 30, 35, 40, 45, 50, 55, 60, G1800, G3000, G3500, G4000	GG15, GG25, GG30, GG40, GTW40
K2	60-40-18, 65-45-12, 80-55-06, SAE J434:D4018, D4512, D5506, ASTM A47: Grade 32510, 35018, SAE J158: Grade M3210, M4504, M5003, M5503, M7002, ASTM A842: Grade 250, 300, 350, 400, 450	GGG40, GTS35
K3	ASTM A536:100-70-03, 120-90-02, SAE J434: D7003, SAE J158:Grade M8501AST A897: 125-80-10, 150-100-7, 175-125-4, 200-150-1, 230-185	GGG60, GTW55, GTS65
N1	2025, 5050, 7050, 1000, 2017	AlMg1, Al99.5, AlCuMg1, AlCuBiPb, AlMgSi1, ALMgSiPb
N2	2024, 6061, 7075	GAISiCu4, GDAISi10Mg
N3	—	G-ALSi12, G-AISi17Cu4, G-AISi21CuNiMg
N4	C81500	CuZn40, Ms60, G-CuSn5ZnPb, CuZn37, CuSi3Mn
N5	—	LEXAN®, HOSTALEN™, Polystyrol, Makralon®
N6	Graphite, CFK, CFRP	CFK, GFK
N7	C63000	—
S1	INCOLOY® 800 Series, A608, A567, Discaloy™, INVAR®, N-155, 16-25-6, 19-9 DL; Cast: ASTM A-297, A-351, A-567, A-608	X1NiCrMoCu32 28 7, X12NiCrSi36 16, X5NiCrAlTi31 20, X40CoCrNi20 20
S2	Haynes® 25 (L605), Haynes 188, J-1570, Stellite®, AiResist 213; Cast: AiResist 13, Haynes 21, MAR-M302, MAR-M509, NASA Co-W-Re, WI-52	Haynes® 188, Stellite® 6,21,31
S3	Astroloy™, Hastelloy® B/C/ C-276 /X, INCONEL® 600 and 700 Series, IN102,INCOLOY 900 Series, Rene 41, Waspalloy®, Monel®, K-500, MAR-M20, NIMONIC®, UDIMET®	INCONEL® 690, INCONEL 625, Hastelloy®, NIMONIC® 75
S4	Pure: Ti 98.8, Ti 98.9, Ti 99.9; Alloyed: Ti 5Al-2.5Sn, Ti6Al-4V, Ti6Al-2Sn-4Zr-2Mo, Ti-3Al-8V-6Cr-4Mo-4Zr, Ti-10V-2Fe-3Al, Ti-13V-11Cr-3Al	Ti1, TiAl5Sn2, TiAl6V4, TiAl4Mo4Sn2
H1	Tool Steel H10, H11, H13, D2, D3, 4340, P20	GX260NiCr42, GX330NiCr42, GX300CrNiSi952, GX300CrMo153, HARDOX® 400
H2	Tool Steel H10, H11, H13, D2, D3, 4340, P20	—
H3	Tool Steel H10, H11, H13, D2, D3, 4340, P20	—
H4	Tool Steel H10, H11, H13, D2, D3, 4340, P20	—

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.



## P-Steel

Steel is the most used workpiece material in metal cutting. Steel as a material is comprised mainly of iron and carbon, often with a modest mixture of alloying elements. Steel has a typical carbon content of 0.05% to 1.5 %

### Plain Carbon Steel

This category of steels includes those materials that are a combination of iron and carbon with no alloying elements. As the carbon content in these materials is increased, the ductility of the material is reduced. The carbon content is usually 0.8%. The hardness varies from 90 up to 350HB

Typical uses of this steel include: Axles, shafts, tubes, forgings, welded constructions, structural steel, deep drawn and stamped products, pressure vessel steel, and a variety of cast steels.

### Alloy Steels

Plain carbon steels are made up primarily of iron and carbon, while alloy steels include these same elements with many other elemental additions. The purpose of alloying steel is either to enhance the material's physical properties or its ultimate manufacturability. The physical property enhancements include improved toughness, tensile strength, hardenability, ductility and wear resistance. Alloyed steels have a carbon content lower than 1.7 % and alloying elements such as Ni, Cr, Mo, V and W.

The machinability of steel differs, depending on alloying elements, heat treatment and manufacturing process (forged, rolled, cast, etc.).

Components manufactured from this steel include Crank Shafts, Connecting Rods, Cam Shafts, Hubs, Axles, Shafts, other forging components.

## M-Stainless steel

As the name implies, this group of materials is designed to resist oxidation and other forms of corrosion, in addition to heat in some instances. These materials tend to have significantly greater corrosion resistance and strength at high temperatures than their plain or alloy steel counterparts due to the substantial additions of Chromium, Nickel, Molybdenum, Niobium and Titanium supply different characteristics, such as resistance towards corrosion and strength at high temperatures. These additions combine with Oxygen to create a passivating layer on the surface of the steel, which provides a non-corrosive property to the material.

Stainless steels are used extensively in the food processing, medical – surgical implants, chemical and petroleum industries to transfer corrosive liquids between processing and storage facilities. Stainless steels can be cold formed, forged, machined, welded or extruded.

### Ferritic and martensitic stainless steel

Ferritic steels have magnetic properties. Martensitic stainless steels have relatively high carbon content, which make them hardenable. Weldability is low for both ferritic and martensitic and medium to low resistance against corrosion, which increases with a larger Cr-content.

### Austenitic stainless steel

Austenitic Stainless steel are the most common and familiar types of stainless steel. They are most easily recognized as nonmagnetic. They are extremely formable and weldable, and they can be successfully used from cryogenic temperatures to the red-hot temperatures of furnaces and jet engines. They contain between about 16 and 25% chromium, and they can also contain nitrogen in solution, both of which contribute to their high corrosion resistance. Were it not for the cost of the nickel that helps stabilize their austenitic structure, these alloys would be used even more widely.

Work hardening produces hard surfaces and hard chips, which in turn lead to notch wear. It also creates adhesion and produces built-up edge. It has a relative machinability of 60%. The hardening condition can tear coating and substrate material from the edge, resulting in chipping and bad surface finish. Austenite produces tough, long, continuous chips, which are difficult to break. Generates lot of heat during machining.



## K-Cast iron

Cast iron is an iron carbon mixture that is generally used to pour sand castings, as opposed to making billets or bar stock. It has excellent flow properties and therefore, when it is heated to extreme temperatures. Ideal material for complex cast shapes and intricate moulds.

This material is often used for automotive engine blocks, cylinder heads, valve bodies, manifolds, heavy equipment oil pans and machine bases.

### Grey Cast Iron

Grey cast iron is an extremely versatile, very machinable relatively low strength cast iron used for pipe, automotive engine blocks, farm implements and fittings. This material receives its dark grey colour from the excess carbon in the form of graphite flakes, which give it its name. It has graphite in typical flake form and the main properties are low impact strength, good thermal conductivity, less heat when engine operates and low heat in cutting process; good dampening properties, absorbs the vibrations in the engine.

### Malleable Cast Iron

When white cast iron castings are annealed, malleable iron castings are formed. Malleable iron castings result when hard, brittle cementite in white iron castings is transformed into tempered carbon or graphite in the form of rounded nodules or aggregate. The resulting material is a strong, ductile, tough and very machinable product that is used on a broad scope of applications.

### Nodular Cast Iron

Nodular or “ductile” iron is used to manufacture a wide range of automotive engine components including cam shafts, crank shafts, bearing caps and cylinder heads. This material is also frequently used for heavy equipment cast parts as well as heavy machinery faceplates and guides. Nodular iron is strong, ductile, tough and extremely shock resistant.

Components manufactured from this material include hubs, tubing, rollers, exhaust manifolds, crankshafts, differential housings, bearing caps, exhaust manifolds, bedplates, turbo charger housings, clutch plates and fly wheels.

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## N-Non-ferrous materials

Non-ferrous metals are metals that do not contain iron. Non-ferrous metals are used because of desirable properties such as low weight (e.g., Aluminium), higher conductivity (e.g., Copper), non-magnetic property or resistance to corrosion (e.g., Zinc).

Aluminium (Al) alloys comprising less than 12-13% Silicon (Si) represent the largest part.

### LM2 (ADC 12)

One of the two most widely used alloys for all types of die-castings. Mainly used in Automobile Industry for manufacturing components like Crank case, cylinder head, transmission housings, brackets.

### LM4

The most versatile of the alloys, has very good casting characteristics and is used for a very wide range of applications.

### LM5

Suitable for sand and chill castings requiring maximum corrosion resistance. Mainly used for castings in marine application.

### LM6

Suitable for large, intricate and thin walled castings in all types of moulds. Also used where corrosion resistance or ductility is required.

### LM9

Used for applications especially in low pressure die casting, requiring the characteristics of LM6 with higher tensile strength after heat treatment.

### LM13

Used in applications where thermal stresses are more e.g. Piston. This alloy can withstand higher temperature and load. It has a good wear resistance properties and machinability. But it requires heat treatment.

### LM 24

Suitable for large, intricate and thin walled castings in all types of moulds, also used where corrosion resistance or ductility is required



## FORMULAS

### TAP DRILL SIZE

- A. Tap Drill Size (Inch Size Cut Taps)  
 Drill  $\emptyset$  = Basic O.D. OF Thread – ((0.0130 X % of Full Thread)/Pitch (T.P.I.))
- B. Tap Drill Size (Inch Size Roll Form Taps)  
 Drill  $\emptyset$  = BASIC O.D. OF Thread – ((0.0068 X % of Full Thread)/Pitch (T.P.I.))
- C. Tap Drill Size (Metric Size Cut Taps)  
 Drill  $\emptyset$  = Basic O.D. OF Thread – ((Pitch in mm X % of Full Thread)/76.98)
- D. Tap Drill Size (Metric Size Roll Form Taps)  
 DRILL  $\emptyset$  = BASIC O.D. OF THD – ((Pitch in mm X % of Full Thread)/147.06).

### OR

Drill Diameter = Nominal diameter - Pitch

### INCH – METRIC CONVERSIONS

- A. INCHES TO MILLIMETERS MM = INCH X 25.4
- B. MILLIMETERS TO INCHES INCH = MM/25.4 - OR – INCH = MM X 0.03937

### THREADING FORMULAS

$$\text{Cutting Speed (Vc)} = \frac{N \times 3.14 \times D}{1000} \text{ (m/min)}$$

$$\text{RPM (N)} = \frac{Vc \times 1000}{3.14 \times D} \text{ (RPM)}$$

$$\text{Torque (Md)} = \frac{P^2 \times D \times Kc}{8000} \text{ (Nm)}$$

$$\text{Power (P)} = \frac{Md \times 2 \times 3.14 \times N}{60} \text{ (KW)}$$

Vc - Cutting Speed (m/min)

P - Pitch (mm)

Kc - Specific cutting force (N/mm<sup>2</sup>)

P - Power (KW)

Md - Torque (Nm)

D - Nominal Dia (mm)

N - RPM





## HARDNESS AND TENSILE STRENGTH

Vickers Hardness No. HV	Rockwell C. Scale Hardness No. HRC	Brinell Hardness No. HB	Tensile strength N/mm <sup>2</sup>
940	68		
900	67		
864	66		
829	65		
800	64		
773	63		
745	62		
720	61		
698	60		
675	59		
655	58	2200	
650	618	2180	
640	608	2145	
639	57	607	2140
630	599	2105	
620	589	2070	
615	56	584	2050
610	580	2030	
600	570	1995	
596	55	567	1980
590	561	1955	
580	551	1920	
578	54	549	1910
570	542	1880	
560	53	532	1845
550	523	1810	
544	52	517	1790
540	513	1775	
530	504	1740	
527	51	501	1730
520	494	1700	
514	50	488	1680
510	485	1665	
500	475	1630	
497	49	472	1620
490	466	1595	
484	48	460	1570
480	456	1555	
473	47	449	1530
470	447	1520	
460	437	1485	
458	46	435	1480
450	428	1455	
446	45	424	1440
440	418	1420	

Vickers Hardness No. HV	Rockwell C. Scale Hardness No. HRC	Brinell Hardness No. HB	Tensile strength N/mm <sup>2</sup>
434	44	413	1400
423	43	402	1360
413	42	393	1330
403	41	383	1300
392	40	372	1260
382	39	363	1230
373	38	354	1200
364	37	346	1170
355	36	337	1140
350	333	1125	
345	35	328	1110
340	323	1095	
336	34	319	1080
330	314	1060	
327	33	311	1050
320	304	1030	
317	32	301	1020
310	31	295	995
302	30	287	970
300	285	965	
295	280	950	
293	29	278	940
290	276	930	
287	28	273	920
285	271	915	
280	27	266	900
275	261	880	
272	26	258	870
270	257	865	
268	25	255	860
265	252	850	
260	24	247	835
255	23	242	820
250	22	238	800
245	233	785	
243	21	231	780
240	228	770	
235	223	755	
230	219	740	
225	214	720	
220	209	705	
215	204	690	
210	199	675	
205	195	660	
200	190	640	

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.



## TABLE CUTTING SPEEDS

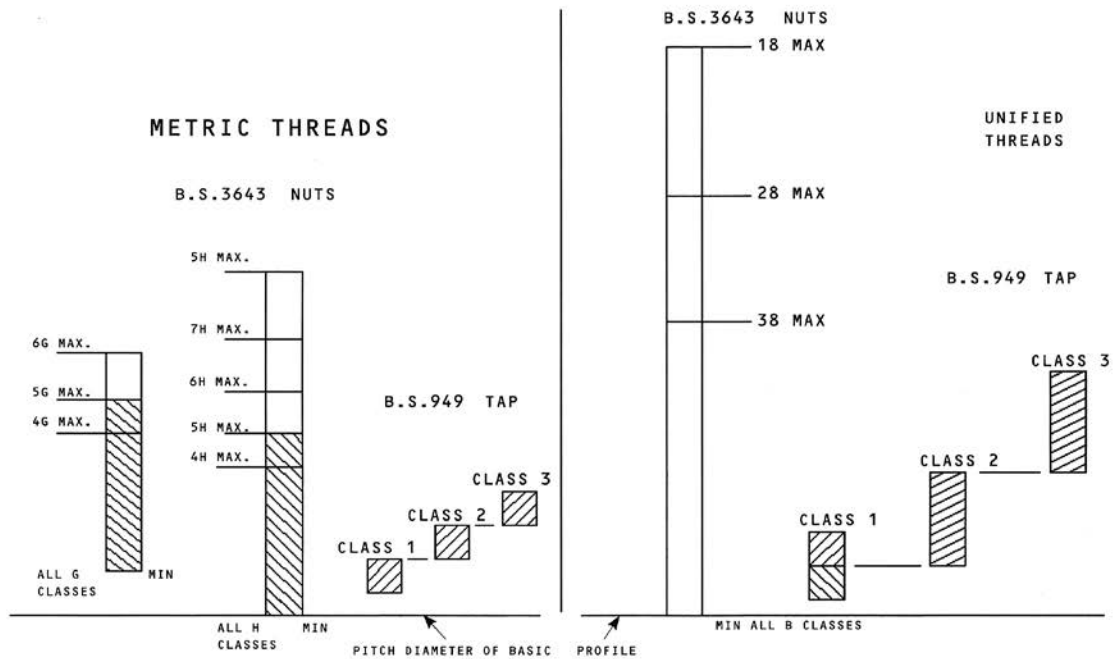
M/min	5	8	10	15	20	25	30	40	50	60	70	80	90	100	110	150
Tool dia mm /inch	Revolutions Per Minute (RPM)															
1	1592	2546	3138	4775	6366	7958	9549	12732	15916	19099	22282	25465	28648	31831	35014	47747
1.5	1061	1698	2122	3183	4244	5305	6366	8488	10610	12732	14854	16977	19099	21221	23343	31831
2	796	1273	1592	2387	3183	3979	4775	6366	7958	9549	11141	12732	14324	15916	17507	23873
2.5	637	1019	1273	1910	2546	3183	3820	5093	6366	7639	8913	10186	11459	12732	14006	19099
3	531	849	1061	1592	2122	2653	3183	4244	5305	6366	7427	8488	9549	10610	11671	15916
1/8"	500	801	1001	1501	2002	2502	3003	4004	5005	6006	7007	8008	9009	10010	11011	15015
3.5	455	728	909	1364	1819	2274	2728	3638	4547	5457	6366	7176	8185	9095	10004	13642
4	398	637	796	1194	1592	1989	2387	3183	3979	4775	5570	6366	7162	7958	8754	11937
4.5	354	566	707	1061	1415	1768	2122	2829	3537	4244	4951	5659	6366	7074	7781	10610
3/16"	334	535	669	1003	1337	1672	2006	2675	3344	4012	4681	5350	6018	6687	7356	10031
5	318	509	637	955	1273	1592	1910	2546	3183	3820	4456	5093	5730	6366	7003	9549
6	265	424	531	796	1061	1326	1592	2122	2653	3183	3714	4244	4775	5305	5836	7958
1/4"	251	401	501	752	1003	1253	1504	2005	2506	3008	3509	4010	4511	5013	5514	7519
7	227	364	455	682	909	1137	1364	1819	2274	2728	3183	3638	4093	4547	5002	6821
5/16"	200	321	401	601	802	1002	1203	1604	2004	2405	2806	3207	3608	4009	4410	6013
8	199	318	398	597	796	995	1194	1592	1989	2387	2785	3183	3581	3979	4377	5968
9	177	283	354	531	707	884	1061	1415	1768	2122	2476	2829	3183	3537	3890	5305
3/8"	167	267	334	501	668	835	1002	1336	1670	2004	2338	2672	3006	3340	3674	5010
10	159	255	318	477	637	796	955	1273	1592	1910	2228	2546	2865	3183	3501	4775
7/16"	143	229	287	430	573	716	860	1146	1433	1719	2006	2292	2579	2865	3152	4298
12	133	212	265	398	531	663	796	1061	1326	1592	1857	2122	2387	2653	2918	3979
1/2"	125	201	251	376	501	627	752	1003	1253	1504	1754	2005	2256	2506	2757	3760
14	114	182	227	341	455	568	682	909	1137	1364	1592	1819	2046	2274	2501	3410
9/16"	111	178	223	334	446	557	668	891	1114	1337	1559	1782	2005	2228	2450	3341
15	106	170	212	318	424	531	637	849	1061	1273	1485	1698	1910	2122	2334	3183

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.

**RECOMMENDED TAP TOLERANCES**

Tap Tolerance BS 949	Class 1	Class 2	Class 3
Metric BS 3643	Classes 4H, 5H	Classes 6H, 4G, 5G	Classes 7H, 8H, 9G
Unified BS 1580	Class 3B	Class 2B	Class 1B
Whitworth BS 84	Close Class	Medium Class	Normal Class
B.A. BS 93	-	Normal Class	-

**DISPOSITION OF TAP TOLERANCES IN RELATION TO NUT TOLERANCES FOR METRIC AND UNIFIED THREADS**



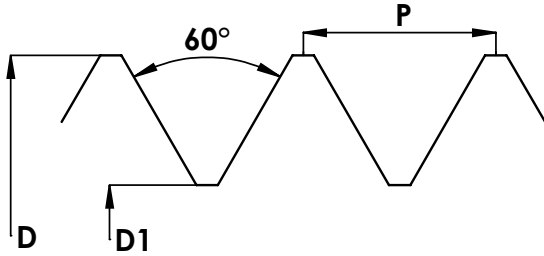
**THREAD TOLERANCES FOR TAP TO ANSI 9-49**

up to 1" Diameter	GH 2	Basic pitch diameter, plus 0.0005", plus 0.0010"
up to 1" Diameter	GH 3	Basic pitch diameter, plus 0.0010", plus 0.0015"
up to 1" Diameter	GH 4	Basic pitch diameter, plus 0.0015", plus 0.0020"
Over 1" Dia. to 1 1/2" Dia.	GH 4	Basic pitch diameter, plus 0.0010", plus 0.0020"
Over 1 1/2" Dia.	GH 7	Basic pitch diameter, plus 0.0015", plus 0.0035"

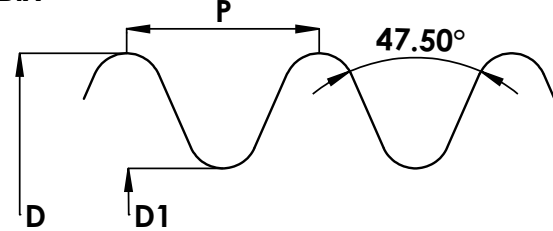
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## THREAD FORMS

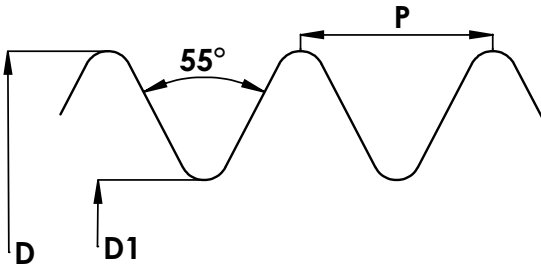
**Metric ISO - UNC - UNF**



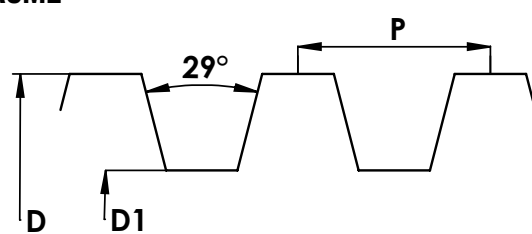
**B.A**



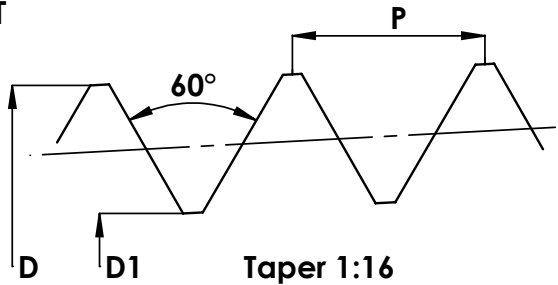
**BSW - BSF - BSP**



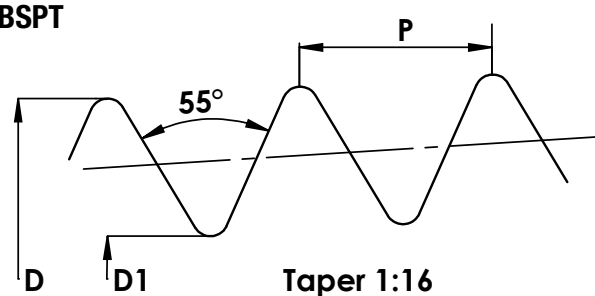
**ACME**



**NPT**



**BSPT**

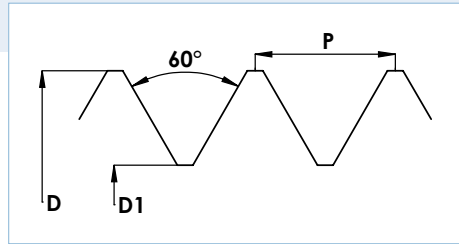


ACME	: Acme Thread
BA	: British Association Standard Thread
BSF	: British Standard Fine Thread Series
BSP	: British Standard Pipe
BSPT	: British Standard Taper Pipe Thread
BSW	: British Standard Whitworth Coarse Thread Series
M	: Metric Screw Thread Series
NGT	: National Gas Taper Thread (See "SGT")
NPS	: for Tap marking only (See NPSC, NPSM)
NPSF	: Dryseal American National Standard Fuel Internal Straight Pipe Thread
NPSI	: Dryseal American National Standard Intermediate Internal Straight Pipe Thread

NPT	: American National Standard Taper Pipe Thread
NPTF	: Dryseal American National Standard Taper Pipe Thread
PG	: Panzer Gewinder
STI	: Special Thread for Helical Coil Wire Screw Thread Inserts
UN	: Unified Constant Pitch Thread Series
UNC	: Unified Coarse Thread Series
UNEF	: Unified Extra Fine Thread Series
UNF	: Unified Fine Thread Series
UNS	: Unified Thread-Special
WW	: British Standard Whitworth Special Thread

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.

**RECOMMENDED TAP DRILL SIZES**



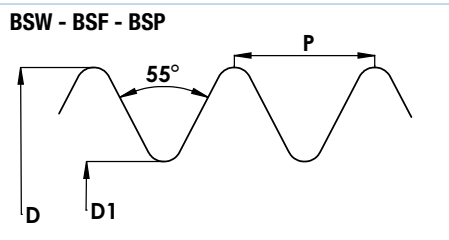
Metric Coarse		
Nominal Diameter	Pitch	Drill Size
ØD		
2	0.4	1.6
2.2	0.45	1.75
2.3	0.4	1.9
2.5	0.45	2.05
2.6	0.45	2.1
3	0.5	2.5
3.5	0.6	2.9
4	0.7	3.3
4.5	0.75	3.7
5	0.8	4.2
6	1	5
7	1	6
8	1.25	6.8
9	1.25	7.8
10	1.5	8.5
11	1.5	9.5
12	1.75	10.2
14	2	12
16	2	14
18	2.5	15.5
20	2.5	17.5
22	2.5	19.5
24	3	21
27	3	24
30	3.5	26.5
33	3.5	29.5
36	4	32
39	4	35
42	4.5	37.5
45	4.5	40.5
48	5	43
52	5	47
56	5.5	50.5
60	5.5	54.5
64	6	58
68	6	62

Metric Fine		
Nominal Diameter	Pitch	Drill Size
ØD		
2.5	0.35	2.15
3	0.35	2.65
3.5	0.35	3.15
4	0.5	3.5
4.5	0.5	4
5	0.5	4.5
6	0.75	5.2
7	0.75	6.2
8	0.75	7.2
8	1	7
9	1	8
10	0.75	9.2
10	1	9
10	1.25	8.8
11	1	10
12	1	11
12	1.25	10.8
12	1.5	10.5
14	1	13
14	1.25	12.8
14	1.5	12.5
15	1	14
15	1.5	13.5
16	1	15
16	1.5	14.5
17	1	16
17	1.5	15.5
18	1.5	16.5
18	2	16
20	1	19
20	1.5	18.5
20	2	18
22	1	21
22	1.5	20.5
22	2	20
24	1	23
24	1.5	22.5
24	2	22
24	1	24
25	1.5	23.5

Metric Fine		
Nominal Diameter	Pitch	Drill Size
ØD		
26	1.5	24.5
27	1	26
27	1.5	25.5
27	2	25
28	1.5	26.5
28	2	26
30	1	29
30	1.5	28.5
30	2	28
32	1.5	30.5
32	2	30
33	1.5	31.5
33	2	31
33	3	30
35	1.5	33.5
36	1.5	34.5
36	2	34
36	3	33
38	1.5	36.5
39	1.5	37.5
39	2	37
39	3	36
40	1.5	38.5
40	2	38
40	3	37
42	1.5	40.5
42	2	40
42	3	39
45	1.5	43.5
45	2	43
45	3	42
48	1.5	46.5
48	2	46
48	3	45
50	1.5	48.5
50	2	48
50	3	47
52	1.5	50.5
52	2	50
52	3	49

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.

## RECOMMENDED TAP DRILL SIZES

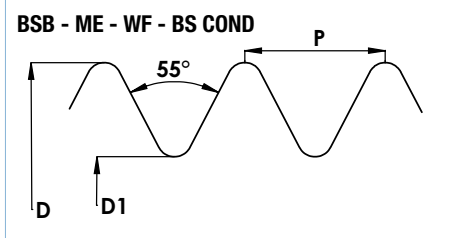


BSW		
Nominal Diameter	TPI	Drill Size in mm
ØD		
1/16"	60	1.2
3/32"	48	1.9
1/8"	40	2.6
5/32"	32	3.2
3/16"	24	3.7
7/32"	24	4.5
1/4"	20	5.1
9/32"	20	5.8
5/16"	18	6.5
3/8"	16	7.9
7/16"	14	9.3
1/2"	12	10.5
9/16"	12	12.1
5/8"	11	13.5
11/16"	11	15.1
3/4"	10	16.3
7/8"	9	19.3
15/16"	9	20.6
1"	8	22.0
1.1/8"	7	24.8
1.1/4"	7	28.0
1.3/8"	6	30.5
1.1/2"	6	33.5
1.5/8"	5	36.0
1.3/4"	5	39.0
1.7/8"	4 ½	41.3
2"	4 ½	44.5

BSF		
Nominal Diameter	TPI	Drill Size in mm
ØD		
3/16"	32	4
7/32"	28	4.6
1/4"	26	5.30
9/32"	26	6.00
5/16"	22	6.80
3/8"	20	8.30
7/16"	18	9.70
1/2"	16	11.10
9/16"	16	12.70
5/8"	14	14.00
11/16"	14	15.50
3/4"	12	16.75
7/8"	11	19.75
15/16"	11	21.50
1"	10	22.75
1.1/8"	9	25.50
1.1/4"	9	28.50
1.3/8"	8	31.50
1.1/2"	8	34.50
1.5/8"	8	37.70
1.3/4"	7	41.00
1.7/8"	7	43.70
2"	7	47.00

BSP		
Nominal Diameter	TPI	Drill Size in mm
ØD		
1/8"	28	8.80
1/4"	19	11.80
3/8"	19	15.25
1/2"	14	19.00
5/8"	14	21.00
3/4"	14	24.50
7/8"	14	28.25
1"	11	30.75
1.1/4"	11	39.50
1.1/2"	11	45.00
1.3/4"	11	51.00
2"	11	57.00

**RECOMMENDED TAP DRILL SIZES**



BSB		
Nominal Diameter	TPI	Drill Size in mm
ØD		
1/4"	26	5.3/4
9/32"	26	6.10
5/16"	26	6.90
3/8"	26	8.40
7/16"	26	10.00
1/2"	26	11.50
9/16"	26	13.1/13
5/8"	26	14.70
11/16"	26	16.50
3/4"	26	17.80
7/8"	26	21.00
1"	26	24.20
1.1/8"	26	27.50
1.1/4"	26	30.50
1.3/8"	26	33.70
1.1/2"	26	36.90
2	26	49.60

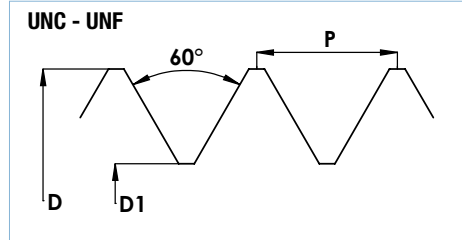
ME		
Nominal Diameter	TPI	Drill Size in mm
ØD		
1/8"	40	2.55
5/32"	40	3.30
3/16"	40	4.00
7/32"	40	4.80
1/4"	40	5.50
9/32"	32	6.10
5/16"	32	7.00
3/8"	32	8.60
7/16"	26	10.00
1/2"	26	11.50

BS COND.		
Nominal Diameter	TPI	Drill Size in mm
ØD		
1/2"	18	11.50
5/8"	18	14.20
3/4"	16	17.50
7/8"	16	20.60
1"	16	23.80
1.1/4"	16	30.10
1.1/2"	14	36.10
2	14	48.80

WHITWORTH FORM SPECIAL		
Nominal Diameter	TPI	Drill Size in mm
ØD		
1/4"	24/28/32	5.3, 5.4, 5.5
5/16"	24/40	6.75, 7.3
3/8"	24,40	8.4, 8.9
7/16"	20/24/40	9.8/10, 10.5
1/2"	20/24/40	11.5, 11.9, 12
9/16"	20	13.1
5/8"	20	14.5
11/16"	20	16.2
3/4"	14/20	17.1, 17.8
7/8"	14/16/20	20.0, 20.6, 21.0
1"	12/20	23.0, 24.0

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## RECOMMENDED TAP DRILL SIZES

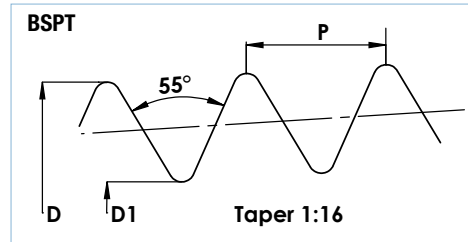
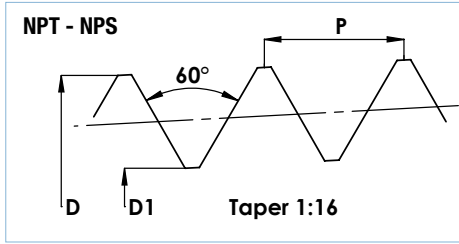


UNC		
Nominal Diameter	Pitch	Drill Size
ØD		
#1	64	1.5
#2	56	1.8
#3	48	2.1
#4	40	2.3
#5	40	2.6
#6	32	2.85
#8	32	3.5
#10	24	3.9
#12	24	4.5
1/4"	20	5.2
5/16"	18	6.6
3/8"	16	8
7/16"	14	9.4
1/2"	13	10.75
9/16"	12	12.25
5/8"	11	13.5
3/4"	10	16.5
7/8"	9	19.5
1"	8	22.25
1.1/8"	7	25
1.1/4"	7	28.25
1.3/8"	6	30.75
1.1/2"	6	34
1.3/4"	5	39.5
2"	4.5	45.25

UNF		
Nominal Diameter	Pitch	Drill Size
ØD		
#1	80	1.3
#2	72	1.6
#3	64	1.9
#4	56	2.1
#5	48	2.4
#6	44	2.7
#8	40	3
#10	36	3.5
#12	32	4.1
1/4"	28	4.7
5/16"	28	5.5
3/8"	24	6.9
7/16"	24	8.5
1/2"	20	9.9
9/16"	20	11.5
5/8"	18	12.9
3/4"	18	14.5
7/8"	16	17.5
1"	14	20.5
1.1/8"	12	23.25
1.1/4"	12	26.5
1.3/8"	12	29.5
1.1/2"	12	32.7
2"	12	36

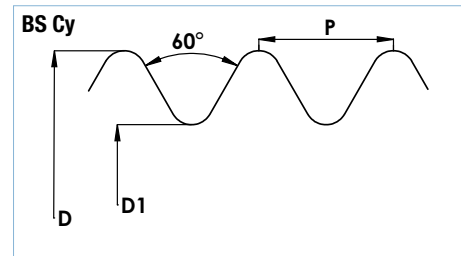
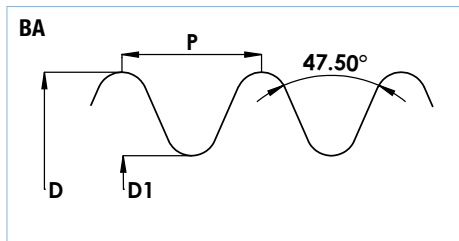


**RECOMMENDED TAP DRILL SIZES**



NPT & NPS			
Nominal Diameter ØD	TPI	Drill Size in mm	
		Tapping With Reamer	Tapping Without Reamer
1/16"	27	6.00	6.30
1/8"	27	8.40	8.70
1/4"	18	10.70	11.10
3/8"	18	14.25	14.50
1/2"	14	17.50	18.00
3/4"	14	22.75	23.25
1"	11.5	28.50	29.00
1.1/4"	11.5	37.50	38.00
1.1/2"	11.5	43.50	44.00
2" BA	11.5	55.00	56.00

BSPT		
Nominal Diameter ØD	TPI	Drill Size in mm
		1/8"
1/4"	19	11.80
3/8"	19	15.25
1/2"	14	19.00
5/8"	14	21.00
3/4"	14	24.50
7/8"	14	28.25
1"	11	30.75
1.1/4"	11	39.50
1.1/2"	11	45.00
1.3/4"	11	51.00
2	11	57.00



BA			
Size	Diameter	TPI	Drill Size in mm
0	0.2362	25.4	5.10
1	0.2087	28.2	4.50
2	0.1850	31.4	4.00
3	0.1614	34.8	3.40
4	0.1417	38.5	3.00
5	0.1260	43	2.65
6	0.1102	47.9	2.30
7	0.0984	52.9	2.05
8	0.0866	59.1	1.80
9	0.0748	65.1	1.55
10	0.0669	72.6	1.40
11	0.0591	81.9	1.20
12	0.0512	90.9	1.05

BS Cy		
Size	TPI	Drill Size in mm
1/8"	40	2.65
5/32"	32	3.30
3/16"	32	4.10
7/32"	26	4.80
1/4"	26	5.60
5/16"	26	7.20
3/8"	26	8.70
7/16"	26	10.30
1/2"	26	11.90
9/16"	26	13.50
5/8"	26	15.00
3/4"	26	18.20
1"	24	24.50

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.



## SURFACE TREATMENT

While selecting the correct type of tap for a job, the material to be tapped should also be considered. This may determine the surface coating that should be applied to the tap in order to extend its life. Most taps are supplied with no surface treatment. They are referred to as 'Bright Finish'. These taps are mainly for use on non-ferrous materials, or steels that do not cold weld. Bright finish taps are therefore suitable for all hand operations, where speeds are too low for cold welding to occur, and for most machine operations.

### **STEAM OXIDE:**

A black oxidized surface ( $Fe_3O_4$ ) produced on the surface of a finished tap by means of a steam furnace. This oxidized surface is porous and helps retain cutting fluid in the working portion of the tap. The materials on which steam oxide has shown improvement in performance are stainless steels, steel forgings, tool and die steels, hot and cold rolled steels, and high nickel alloys.

### **TITANIUM NITRIDE (TiN):**

A thin deposit (approx. 0.0001") applied to the surface of a finished tap utilizing PVD coating technology. TiN coating increases the surface hardness and wear resistance. Use of TiN coating on standard tools will help increase tool life in harder materials (up to 32 HRC), such as stainless steels, steel forgings, tool and die steels and hot and cold rolled steels. TiN coating also works very well with water-base cutting fluids.

### **TITANIUM CARBONITRIDE (TiCN):**

Similar to TiN, TiCN is applied utilizing PVD coating technology. This coating combines high hardness (approx. 2800 vickers) with the anti-seizure properties of Nitride. A lower coefficient of friction helps reduce welding by 75% over TiN coated tools. These features make TiCN especially beneficial in non-ferrous material and hardened steels.

### **TITANIUM ALUMINUM NITRIDE (TiAlN):**

TiAlN is applied using PVD coating technology. The addition of aluminum reduces friction and increases the coating oxidation temperature. As a result, TiAlN has increased resistance to heat and oxidation wear. This makes TiAlN better suited for High Speed/High Heat applications. TiAlN coating is incorporated into many of our tools.



## CUTTING SPEEDS BASED ON MACHINING CONDITION

**Tapping speeds are determined by many factors. The main ones are:-**

- a) Thread pitch
- b) Material being tapped
- c) Hole depth
- d) Hole type, through or blind
- e) Depth of thread
- f) Lubricant quality and flow rate

**Tapping speeds should be decreased if :-**

- a) Lubricant is poor, or flow is restricted
- b) Bottom lead or Spiral flute taps are used
- c) Thread depth (%) increases.
- d) Thread pitch is coarse
- e) Cutting taper threads (50% normal speed)
- f) Cutting Acme or Trapezoidal threads (40% normal speed)

**Tapping speeds can be increased if:-**

- a) Thread depth decreases
- b) Thread pitch is fine
- c) Coolant flow and quality is good
- d) Spiral point or Fluteless (Roll) taps are used



## TROUBLESHOOTING

Many factors can affect the quality of a tapped thread.  
Some more common problems are listed along with probable causes.

### POOR THREAD FINISH

Misalignment of tap and work piece  
Incorrect feed rate  
Chips/swarf not being cleared properly  
Tapping device or machine faulty  
Insufficient or incorrect lubricant  
Incorrectly ground or blunt tap  
Wrong tap selection

### OVERSIZE/BELL MOUTHED

Misalignment  
Incorrect feed rate  
Incorrect tapping drill  
Tapping device or machine faulty  
Insufficient or incorrect lubricant  
Incorrectly ground or eccentric tap  
Wrong tap selection

### EXCESSIVE TAP WEAR

Wrong tap selection  
Blunt or incorrectly sharpened tap  
Insufficient or incorrect lubricant  
Tapping speed too high  
Hole work hardened  
Taps Technical Information

### COLD WELDING

Wrong material composition  
Blunt or incorrectly sharpened tap  
Insufficient or incorrect lubricant  
Tapping speed too high  
Material too soft

### TAP BREAKING

Incorrectly sharpened/blunt tap  
Tap hits bottom of hole  
Machine or tapping device faulty  
Wrong tap selection  
Incorrect or insufficient lubricant  
Tapping speed too high  
Hole work hardened  
Inefficient chip or swarf removal  
Incorrect tapping drill size

### TAP TEETH CHIPPING

Incorrectly sharpened/blunt tap  
Tap hits bottom of hole  
Machine or tapping device faulty

In order to minimize problems the following rules should be followed:-

- 1) Use a pitch controlled tapping attachment
- 2) Choose the correct lubricant
- 3) Use the correct type of tap for the job
- 4) Use the correct tapping drill size
- 5) Choose the correct speeds and feeds
- 6) Keep taps sharp. Regrind with a proper machine
- 7) Ensure accurate alignment
- 8) Check hardness of material, especially when changing batches
- 9) Ensure thread gauging is recently certified – they do wear !



**CASE STUDIES**

Industry Segment	Automotive
Tap series	SA3
Size	M8 X 1.25 SA3 6HX DIN 371
Component	Bush
Work material	EN8
Type of hole	Through hole
Hole dia	6.8 mm
Drill depth	12 mm
Tapping depth	12 mm
Machine	Radial drilling
Tapping direction	Vertical
Speed (Vc)	20 m/min
Coolant	Tapping Oil
Tool Life	40m
Competitor tool life	25m

Industry Segment	Automotive
Tap series	SAF5
Size	M12X1.25 SAF5 DIN 374
Component	Wheel Hub
Work material	16MnCr5
Type of hole	Through hole
Hole dia	10.75 mm
Drill depth	12 mm
Tapping depth	12 mm
Machine	HMC (2 spindle)
Tapping direction	Horizontal
Speed (Vc)	22 m/min
Coolant	Water Soluble Oil
Tool Life	754 nos
Competitor tool life	400 nos

Industry Segment	Automotive
Tap series	SA3
Size	M3 X 0.5 SA3
Component	Hub
Work material	S45C
Type of hole	Through hole (4holes)
Hole dia	2.5 mm
Drill depth	6.0 mm
Tapping depth	6.0 mm
Machine	Tapping Machine
Tapping direction	Vertical
Speed (Vc)	25 m/min
Coolant	Neat cutting oil
Tool Life	730 nos
Competitor tool life	600 nos

Industry Segment	Automotive
Tap series	SBF5
Size	M14 X 1.5 SBF5
Component	Housing
Work material	C40
Type of hole	Blind hole
Hole dia	12.5 mm
Drill depth	40.0 mm
Tapping depth	35.0 mm
Machine	Tapping Machine
Tapping direction	Vertical
Speed (Vc)	15 m/min
Coolant	Water Soluble Oil
Tool Life	470 nos
Competitor tool life	430 nos

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.



## CASE STUDIES

Industry Segment	Automotive
Tap series	SC4
Size	M8 X 1.25 SC4 DIN 371
Component	Cylinder Head
Work material	Grey Cast Iron (220BHN)
Type of hole	Blind hole
Hole dia	6.8 mm
Drill depth	20.0 mm
Tapping depth	16.0 mm
Machine	Makino HMC
Tapping direction	Horizontal
Speed (Vc)	50 m/min
Coolant	Water Soluble Oil
Tool Life	67 mtrs
Competitor tool life	58 mtrs

Industry Segment	Automotive
Tap series	SD3
Size	M6 X 1 SD3 DIN 371
Component	Under Bracket
Work material	EN8D
Type of hole	Through hole
Hole dia	5.55 mm
Drill depth	10.0 mm
Tapping depth	10.0 mm
Machine	AMS - VMC
Tapping direction	Vertical
Speed (Vc)	20 m/min
Coolant	Water Soluble Oil
Tool Life	2200 nos
Competitor tool life	800 nos

Industry Segment	Automotive
Tap series	SD3
Size	M6 X 1 SD3 DIN 371
Component	Bracket
Work material	AC4C (Al. Casting)
Type of hole	Blind hole
Hole dia	5.55 mm
Drill depth	23.0 mm
Tapping depth	20.0 mm
Machine	AMS
Tapping direction	Vertical
Speed (Vc)	30 m/min
Coolant	Water Soluble Oil
Tool Life	353 mtrs
Competitor tool life	240 mtrs

Industry Segment	Automotive
Tap series	SAF5
Size	HPT 12X1.25 SAF5 OAL 110
Component	Bearing Hub
Work material	C56 E2
Type of hole	Through hole (4nos)
Hole dia	10.75 mm
Drill depth	12.0 mm
Tapping depth	12.0 mm
Machine	Hyundai - VMC
Tapping direction	Vertical
Speed (Vc)	20 m/min
Coolant	Water Soluble Oil
Tool Life	505 comp
Competitor tool life	400 comp



**CASE STUDIES**

Industry Segment	Automotive
Tap series	SBF TC
Size	7/16 UNF SBF3 1B OAL 110
Component	Crank Shaft
Work material	41Cr4 (30 - 32 HRC)
Type of hole	Blind hole
Hole dia	9.2 mm
Drill depth	77.0 mm
Tapping depth	70.0 mm
Machine	VMC
Tapping direction	Vertical
Speed (Vc)	300 RPM
Coolant	Water Soluble Oil
Tool Life	26 mtrs
Competitor tool life	21 mtrs

Industry Segment	Automotive
Tap series	SBF
Size	M24X1.5 SBF3 ISO
Component	Axle
Work material	Forged Steel
Type of hole	Blind Hole
Hole dia	22.5 mm
Drill depth	45.0 mm
Tapping depth	39.0 mm
Machine	Radial Drilling M/c
Tapping direction	Vertical
Speed (Vc)	150 RPM
Coolant	Water Soluble Oil
Tool Life	20 mts
Competitor tool life	18 mts

Industry Segment	Automotive
Tap series	SD3
Size	M6X1X100 OAL SD3
Component	Crank Case
Work material	ADC12
Type of hole	Blind hole (8holes / Comp)
Hole dia	5.5 mm
Drill depth	9.0 mm
Tapping depth	8.0 mm
Machine	VMC
Tapping direction	Vertical
Speed (Vc)	2100 RPM
Coolant	Water Soluble Oil
Tool Life	118 mtrs
Competitor tool life	96 mtrs

Industry Segment	Automotive
Tap series	SBF TC
Size	M14X1.5 SBF7 TC DIN 374
Component	Tie Rod
Work material	S45C Forged Steel (220-260 BHN)
Type of hole	Blind hole
Hole dia	12.50 mm
Drill depth	45.0 mm
Tapping depth	38.0 mm
Machine	VMC
Tapping direction	Vertical
Speed (Vc)	300 RPM
Coolant	Water Soluble Oil
Tool Life	17.6 mtrs
Competitor tool life	16.5 mtrs

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.



## CASE STUDIES

Industry Segment	Automotive
Tap series	SA3
Size	M6X1 SA3 6G ISO
Component	Hub
Work material	S45C (25 - 30 HRC)
Type of hole	Through hole (4holes)
Hole dia	5.0 mm
Drill depth	6.0 mm
Tapping depth	6.0 mm
Machine	Tapping Machine
Tapping direction	Vertical
Speed (Vc)	515 RPM
Coolant	Neat cutting oil
Tool Life	30 mtrs
Competitor tool life	22 mtrs

Industry Segment	Automotive
Tap series	SC4
Size	M12X1.75 SC4 ISO
Component	Flange
Work material	S.G. Iron (200 - 230 BHN)
Type of hole	Blind / Through hole
Hole dia	10.25 mm
Drill depth	16.0 mm
Tapping depth	12.0 mm
Machine	VMC
Tapping direction	Vertical
Speed (Vc)	650 RPM
Coolant	Water Soluble Oil
Tool Life	13.2 mtrs
Competitor tool life	11.3 mtrs

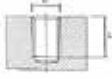
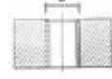

Industry Segment	Automotive
Tap series	SB3
Size	M6X1 SB3 ISO
Component	Housing STR MTR
Work material	Aluminium Casting
Type of hole	Blind (2 holes / component)
Hole dia	5mm
Drill depth	27mm
Tapping depth	17mm
Machine	VMC
Tapping direction	Vertical
Speed (Vc)	1000 RPM
Coolant	Castrol
Tool Life	68 mts
Competitor tool life	41 mts

Industry Segment	Automotive
Tap series	SB4
Size	M8X1.25 SB4 DIN 371
Component	Cylinder Head
Work material	Aluminium Casting
Type of hole	Blind (17 holes / component)
Hole dia	6.8mm
Drill depth	23mm
Tapping depth	18mm
Machine	VMC
Tapping direction	Vertical
Speed (Vc)	800 RPM
Coolant	Water Soluble Oil
Tool Life	107 mts
Competitor tool life	87 mts





**CUSTOM TOOL REQUEST FORM - HSS TAPS**

<b>Customer:</b>			
Customer Name		Date	
Address:			
Contact Person:			
Contact No.	Tel. _____	Mobile: _____	
Email : _____			
<b>Tap Details:</b>		<b>Work material Details:</b>	
Tap Size :		Component Name:	
Tolerance/Gauge Details:		Material Type:	
Standard:		Hardness:	
Tap Dimensional Details (For Special)		Tensile Strength	
<b>Pre Tapping Hole</b>			
<b>Type Of Hole</b>			
<input type="checkbox"/> Drilled	<input type="checkbox"/> Reamed	<input type="checkbox"/> Punched	<input type="checkbox"/> Cast
<input type="checkbox"/> Blind Hole	<input type="checkbox"/> Through Hole	<input type="checkbox"/> Stepped Hole	
			
Drill /Hole Dia	Hole Depth:	Thread Depth:	
<b>Machine Details</b>			
<b>Machine make/ Type :</b>			
<b>Operation:</b>	<input type="checkbox"/> Vertical	<input type="checkbox"/> Horizontal	<input type="checkbox"/> Angular
	<input type="checkbox"/> Hand Tapping	<input type="checkbox"/> Machine Tapping	
<b>Type Of Tap Holder:</b>	<input type="checkbox"/> Rigid Type	<input type="checkbox"/> Floating Type	<input type="checkbox"/> Collect Chuck
<b>Cutting Speed</b>	_____RPM	_____M/Min	M/c Power:_____hp
<b>Lubrication</b>	<input type="checkbox"/> Oil	<input type="checkbox"/> Water Soluble	<input type="checkbox"/> Brush
	<input type="checkbox"/> Air/Dry	<input type="checkbox"/> Other	
<b>Type Of Chips:</b>	<input type="checkbox"/> Continuous	<input type="checkbox"/> Semi Continuous	<input type="checkbox"/> Short
	<input type="checkbox"/> Powder		
<b>Coatings:</b>	<input type="checkbox"/> Tin	<input type="checkbox"/> TiAIN	<input type="checkbox"/> TiCn
	<input type="checkbox"/> Other		
<b>Current Supplier's Detail</b>			
Tool Make:		Consumption/mth.: _____	
Tool Size: _____		Tool Price: _____	
Tool Life : _____		Cost Per Component: _____	
<b>Additional Information if any:</b>			
<b>Sales Engineer</b>		<b>Branch Manager</b>	
DSO:			

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.



## TRIAL TOOL RESULTS FORM

Customer Name		Ref No.	
Address		Date	
		Sales/Apl. Engg.:	
Contact Person's Name & Dept.:		Contact No.:	
<b>Tool Description:</b>			
Component Details:		Operation Details:	
Component Name:		Type :	
Material:		Hole/Drill Depth:	
Hardness:		Hole Type:	
Tensile Strength:		Gauge Details:	
<b>Recommended Parameters:</b>			
Size:		Coolant:	
Speed:		These parameters are for only as a guide can vary according to working conditions	
Feed:			
<b>Machine/Tapping Details:</b>			
<b>Present Status</b>		<b>Trial Status</b>	
M/c. Type		Tool-1	Tool-2
Spindle rpm:			
Speed:			
Feed:			
Coolant:			
Tap Make:			
No Of Flutes:			
Type /Tool No:			
Life Obtained			
Kind of Failure		Thread Chip off / Thread worn out / No Go answering / Go Tight / Tap Breakage / Reverse Cutting / Chip Clogging / Built up edge	
Tool Consumption /Quarter:			
Cost / Component:			
Cycle time of operation:			
<b>Trial Result Summary:</b>			
<b>Additional Information if any:</b>			
Sales Engineer		Branch Manager	
DSO:			

## DIVISIONAL SALES OFFICES ADDRESS / PH. NO.

### AHMEDABAD

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Fax: +91 (0) 80 43230110

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Chennai - 600001  
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### NEW DELHI

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New Delhi - 110002  
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Fax: +91 (0) 11 43000130

### KOLKATA

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### AURANGABAD

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Telephone: +91 (0) 22 28471861



**High Performance Cutting Tools**



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