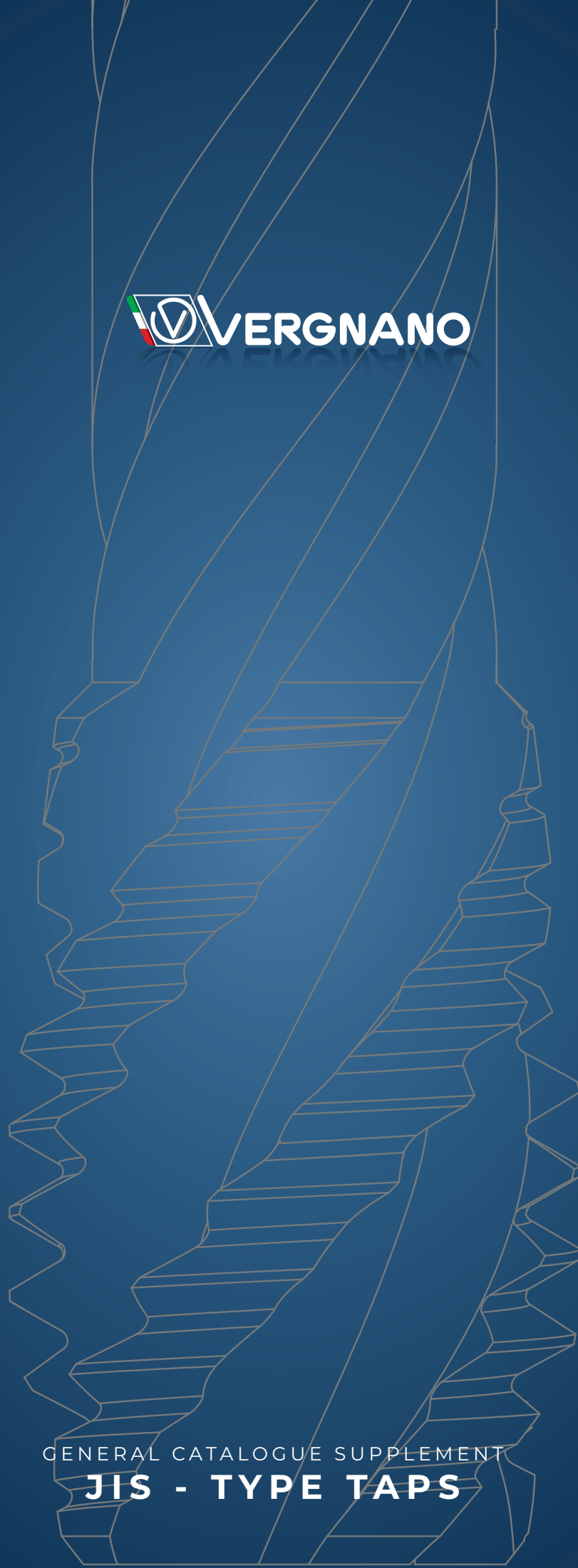


JIS TAPS



GENERAL CATALOGUE SUPPLEMENT

JIS - TYPE TAPS

64

A SERIES

- Taps for generic applications

P SERIES

- High performance taps

MATERIALS TABLE					
ISO 513	Material	Group	Application	R. N/mm ²	Lubrication
P	Steel	P.1	Mild / magnetic steel	200 - 400	E, O, MQL
		P.2	Construction steel, case hardening steel	350 - 700	E, O, MQL
		P.3	Carbon steel	350 - 850	E, O, MQL
		P.4	Alloyed steel / tempered steel	500 - 850	E, O, MQL
		P.5	Alloyed steel / tempered steel	850 - 1200	E, O, MQL
		P.6	Alloyed steel / high strength steel	1200 - 1600	O
		P.7	Ferritic stainless steel, martensitic stainless steel, precipitation hardening	< 1000	E, O, MQL
M	Stainless steel	M.1	Austenitic stainless steel	< 850	E, O, MQL
		M.2	Ferritic+austenitic (Duplex)	< 1000	O, MQL
K	Cast iron	K.1	Grey cast iron	< 1000	E, O, MQL
		K.2	Nodular cast iron, malleable cast iron, tempered cast iron	< 1000	E, O, MQL
		K.3	Austempered ductile iron (ADI)	< 1400	O, MQL
N	Aluminium Aluminium alloys	N.1	Pure aluminium	< 300	E, O, MQL
		N.2	Aluminium wrought and die cast alloys with Si < 0,5% (long chipping)	< 500	E, O, MQL
		N.3	Aluminium wrought and die cast alloys with Si < 10% (medium chipping)	< 500	E, O, MQL
		N.4	Aluminium die cast alloys with Si > 10% (short chipping)	< 600	E, O, MQL
	Copper Copper alloys Brass Bronze	N.5	Pure copper	250 - 350	E, O, MQL
		N.6	Copper alloys (long chipping), soft brass	< 700	E, O, MQL
		N.7	Copper alloys (short chipping), hard brass	< 700	E, O, MQL
		N.8	High strength bronze	700 - 1500	O
	Magnesium Magnesium alloys	N.9	Pure magnesium, magnesium alloys	120 - 300	E, O, MQL
		N.10	High strength magnesium alloys	240 - 400	E, O, MQL
S	Titanium Titanium alloys	S.1	Pure titanium	400 - 600	E, O, MQL
		S.2	Titanium alloys	600 - 1000	O, MQL
	Nickel Nickel alloys	S.3	Pure nickel	400 - 600	E, O, MQL
		S.4	Nickel alloys	600 - 1000	O, MQL

E: Emulsion**O:** Oil**MQL:** Minimum quantity lubrication

JIS - TYPE

Taps



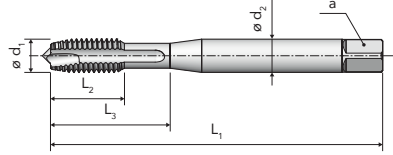
JA15 S
BRIGHT

JA15 S
TiN

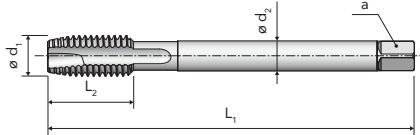
JIS TYPE

A SERIES

JIS B4430
≤ M6



JIS B4430
≥ M8



APPLICATION RANGE - CUTTING SPEED m/min

ISO	MG	JA15 S BRIGHT	JA15 S TiN
P	P.2	● 20-25	● 30-35
	P.3	● 15-20	● 25-30
	P.4	● 12-15	● 20-25
	P.5		● 10-15
	P.7		● 10-15
M	M.1		● 10-15
K	K.2	● 15-20	● 25-30
N	N.2-3	● 20-25	● 30-35
	N.6	● 15-18	● 25-30



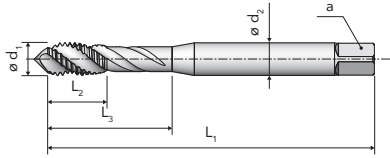
Ød ₁	P	L ₁ js 16	L ₂	L ₃	Ød ₂ h9	a h12	Z		JA15 S BRIGHT	JA15 S TiN
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[-]	[mm]		
M 3	0,5	46	10	18	4	3,2	3	2,5	●	●
4	0,7	52	12	21	5	4	3	3,3	●	●
5	0,8	60	14	25	5,5	4,5	3	4,2	●	●
6	1	62	16	30	6	4,5	3	5	●	●
8	1,25	70	18	-	6,2	5	3	6,8	●	●
10	1,5	75	20	-	7	5,5	3	8,5	●	●
12	1,75	82	22	-	8,5	6,5	4	10,2	●	●
14	2	88	25	-	10,5	8	4	12	●	●
16	2	95	28	-	12,5	10	4	14	●	●
20	2,5	105	32	-	15	12	4	17,5	●	●



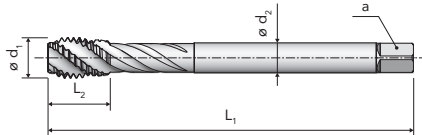
JA70 S
BRIGHT

JA70 S
TiN

JIS B4430
≤ M6



JIS B4430
≥ M8



JIS TYPE

A SERIES

APPLICATION RANGE - CUTTING SPEED m/min

ISO	MG	JA70 S BRIGHT	JA70 S TiN
P	P.2	● 15-20	● 25-30
	P.3	● 12-15	● 20-25
	P.4	● 10-12	● 15-20
	P.5		● 5-10
	P.7		● 8-10
M	M.1		● 8-10
K	K.2	● 12-15	● 20-25
N	N.3	● 15-18	● 25-30
	N.6	● 15-18	● 25-30



Ød ₁	P	L ₁ js 16	L ₂	L ₃	Ød ₂ h9	a h12	Z		JA70 S BRIGHT	JA70 S TiN
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[-]	[mm]		
M 3	0,5	46	7	15	4	3,2	3	2,5	●	●
4	0,7	52	8,5	18	5	4	3	3,3	●	●
5	0,8	60	10	24,5	5,5	4,5	3	4,2	●	●
6	1	62	12	30	6	4,5	3	5	●	●
8	1,25	70	15	-	6,2	5	3	6,8	●	●
10	1,5	75	18	-	7	5,5	3	8,5	●	●
12	1,75	82	18	-	8,5	6,5	4	10,2	●	●
14	2	88	20,5	-	10,5	8	4	12	●	●
16	2	95	20,5	-	12,5	10	4	14	●	●
20	2,5	105	29,5	-	15	12	4	17,5	●	●

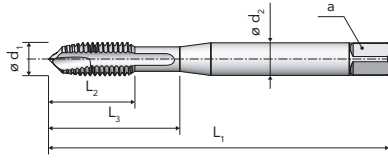


JP15
TiN

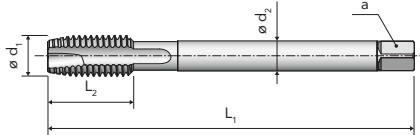
JP15
TiH1

JIS TYPE

JIS B4430
≤ M6



JIS B4430
≥ M8



APPLICATION RANGE - CUTTING SPEED m/min

ISO	MG	JP15 TiN	JP15 TiH1
P	P.3	● 25-35	● 25-35
	P.4	● 20-30	● 20-30
	P.5	● 10-20	● 10-20
	P.6	● 8-10	● 8-10
	P.7	● 10-20	● 10-20
M	M.1	● 10-20	● 10-20
	M.2	● 6-8	● 6-8
K	K.2	● 25-35	● 25-35
N	N.2-3	● 30-40	● 30-40
	N.6	● 25-35	● 25-35

6HX

6HX



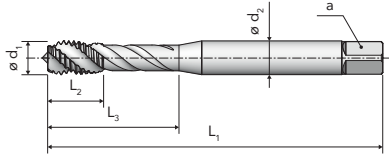
Ød ₁	P	L ₁ js 16	L ₂	L ₃	Ød ₂ h9	a h12	Z		JP15 TiN	JP15 TiH1
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[-]	[mm]		
M 3	0,5	46	10	18	4	3,2	3	2,5	●	●
4	0,7	52	12	21	5	4	3	3,3	●	●
5	0,8	60	14	25	5,5	4,5	3	4,2	●	●
6	1	62	16	30	6	4,5	3	5	●	●
8	1,25	70	18	-	6,2	5	3	6,8	●	●
10	1,5	75	20	-	7	5,5	3	8,5	●	●
12	1,75	82	22	-	8,5	6,5	4	10,2	●	●
14	2	88	25	-	10,5	8	4	12	●	●
16	2	95	28	-	12,5	10	4	14	●	●
20	2,5	105	32	-	15	12	4	17,5	●	●



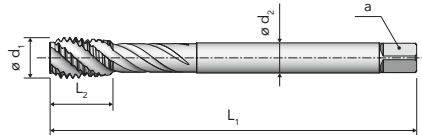
JP70
TiN

JP70
TiH1

JIS B4430
≤ M6



JIS B4430
≥ M8



JIS TYPE

P SERIES

APPLICATION RANGE - CUTTING SPEED m/min

ISO	MG	JP70 TiN	JP70 TiH1
P	P.3	● 20-30	● 20-30
	P.4	● 15-25	● 15-25
	P.5	● 5-15	● 5-15
	P.7	● 10-15	● 10-15
M	M.1	● 10-15	● 10-15
	M.2	● 5-7	● 5-7
K	K.2	● 20-30	● 20-30
N	N.3	● 25-35	● 25-35
	N.6	● 25-35	● 25-35
S	S.1		● 10-15
	S.3	● 10-15	● 10-15



Ød ₁	P	L ₁ js 16	L ₂	L ₃	Ød ₂ h9	a h12	Z		JP70 TiN	JP70 TiH1
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[-]	[mm]		
M 3	0,5	46	7	15	4	3,2	3	2,5	●	●
4	0,7	52	8,5	18	5	4	3	3,3	●	●
5	0,8	60	10	24,5	5,5	4,5	3	4,2	●	●
6	1	62	12	30	6	4,5	3	5	●	●
8	1,25	70	14	-	6,2	5	3	6,8	●	●
10	1,5	75	17	-	7	5,5	3	8,5	●	●
12	1,75	82	18	-	8,5	6,5	4	10,2	●	●
14	2	88	20,5	-	10,5	8	4	12	●	●
16	2	95	20,5	-	12,5	10	4	14	●	●
20	2,5	105	25,5	-	15	12	4	17,5	●	●

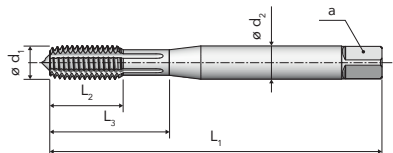


HSSE

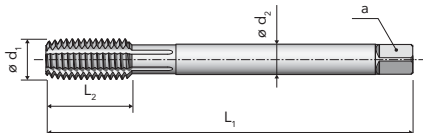
JA80 N
TiN

JIS TYPE

JIS B4430
≤ M6



JIS B4430
≥ M8



A SERIES



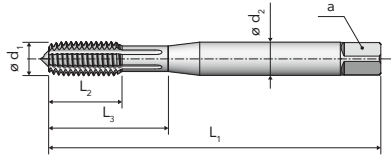
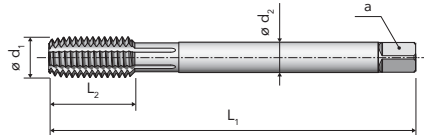
APPLICATION RANGE - CUTTING SPEED m/min

ISO	MG	JA80 N TiN			
P	P.1-2	● 40-45			
	P.3	● 35-40			
N	N.1-2	● 40-45			
	N.3	● 35-40			
	N.5-6	● 40-45			



Ød ₁ [mm]	P [mm]	L ₁ js 16 [mm]	L ₂ [mm]	L ₃ [mm]	Ød ₂ h9 [mm]	a h12 [mm]	Z [-]		Ød ₁ [mm]	JA80 N TiN			
M 3	0,5	46	10	18	4	3,2	4	2,8		●			
4	0,7	52	12	21	5	4	5	3,7		●			
5	0,8	60	14	25	5,5	4,5	5	4,65		●			
6	1	62	16	30	6	4,5	5	5,55		●			
8	1,25	70	18	-	6,2	5	5	7,4		●			
10	1,5	75	20	-	7	5,5	5	9,3		●			
12	1,75	82	22	-	8,5	6,5	5	11,2		●			


JP80 N
 TiN

JIS B4430
 $\leq M6$

JIS B4430
 $\geq M8$

JIS TYPE
P SERIES

APPLICATION RANGE - CUTTING SPEED m/min

ISO	MG	JP80 N TiN			
P	P.1-2	● 40-45			
	P.3	● 35-40			
	P.4	● 30-35			
	P.5	● 15-20			
	P.7	● 15-20			
M	M.1	● 15-20			
N	N.1-2	● 40-45			
	N.3	● 35-40			
	N.5-6	● 40-45			
S	S.3	● 10-15			

6HX


$\varnothing d_1$	P	L_1 js 16	L_2	L_3	$\varnothing d_2$ h9	a h12	Z		JP80 N TiN					
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[-]	[mm]						
M 3	0,5	46	10	18	4	3,2	4	2,8	●					
4	0,7	52	12	21	5	4	5	3,7	●					
5	0,8	60	14	25	5,5	4,5	5	4,65	●					
6	1	62	16	30	6	4,5	5	5,55	●					
8	1,25	70	18	-	6,2	5	5	7,4	●					
10	1,5	75	20	-	7	5,5	5	9,3	●					
12	1,75	82	22	-	8,5	6,5	5	11,2	●					

ICON DESCRIPTION

TAP GEOMETRY



Tap with straight flutes and spiral point



Tap with 40° right hand spiral



Tap with 45° right hand spiral



Forming tap with oil grooves



Back tapering

HOLE TYPE AND DEPTH



Through, up to 2,5 x d_1



Through, up to 3 x d_1



Blind, up to 2,5 x d_1



Blind, up to 3 x d_1



Blind and through, up to 2,5 x d_1



Blind and through, up to 3 x d_1

DIRECTION OF CUT



Right hand cut

TYPE OF CHIP



Medium to long chipping



Plastic deformation without chip formation

TAP TOLERANCE



Tolerance 6H / ISO2



Tolerance 6HX

MATERIAL



Material: conventional high speed steel



Material: powder metallurgy high speed steel



Material: high performance powder metallurgy high speed steel



Material: high performance powder metallurgy high speed steel

APPLICATION INFORMATION



High tool life

CHAMFER FORM



Chamfer form B: 4 - 5 threads for through holes



Chamfer form C: 2 - 3 threads for blind and through holes

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