

③ Spiral Pointed Tap Series for through hole

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓ _n	ℓ _s	D _s	K	ℓ _k

DIN

① Spiral Fluted Taps (for blind hole)

② Spiral Fluted Taps (for through hole)

③ Spiral Pointed Taps (for through hole)

④ Hand Taps

⑤ Cemented Carbide Taps

⑥ Roll Taps

⑦ Special Thread Taps Simple inspection tools

⑧ Pipe Taps

⑨ Thread Mills Premium Thread Mills

⑩ Dies

⑪ Center Drills Centering Tools

⑫ Precision Machinery/Medical Surgical Instruments

DIN

③-35



PO Spiral Pointed Taps



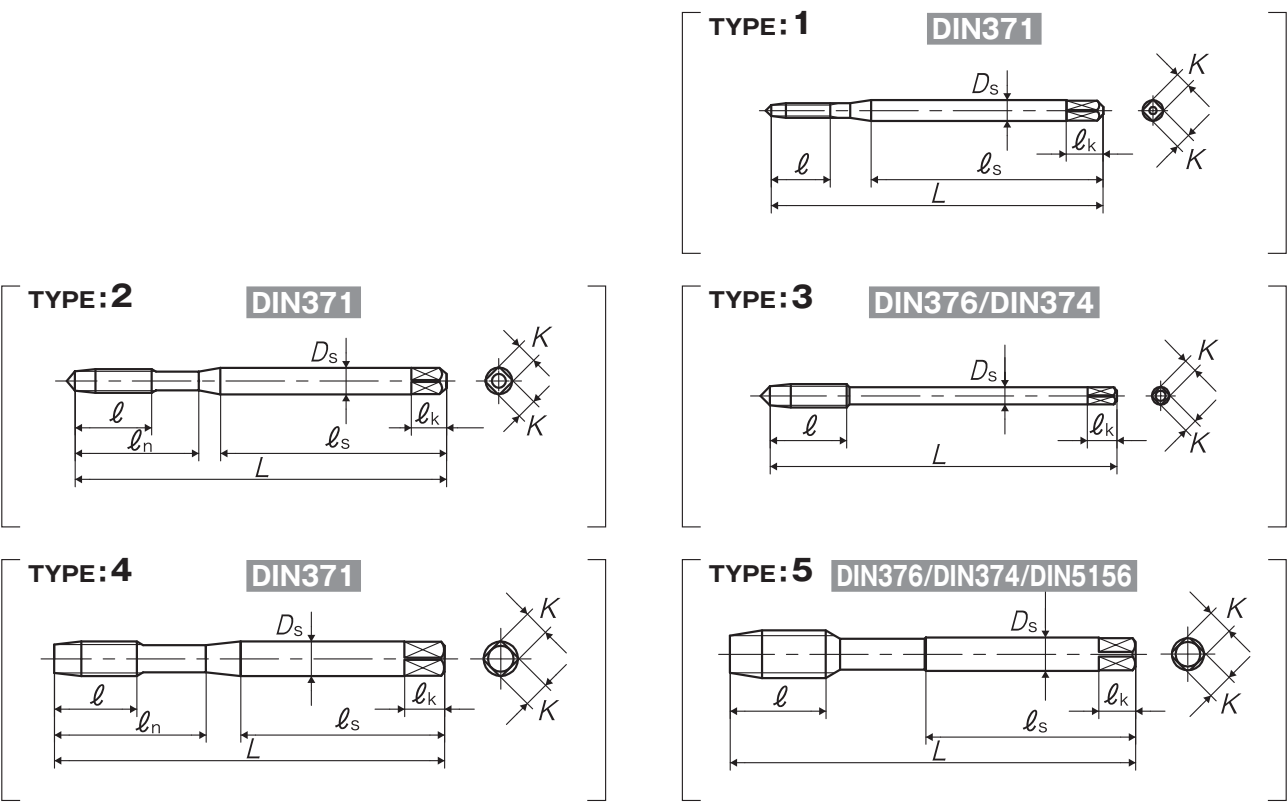
Specification



■ The PO taps push the chips forward and discharge them in the direction of tapping. These taps cut a stable thread with few problems due to chips, making them ideal for through hole machining.

Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼
5~10 (m/min)	5~10 (m/min)



Segment: 1F (G=1H)

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓ _n (mm)	ℓ _s (mm)	D _s (mm)	K (mm)	ℓ _k (mm)	No. of flutes	TYPE
For Metric Threads												
M2 × 0.4	ISO2	PD2.0EANEB	5P	45	8	-	32	2.8	2.1	5	3	1
M2.2 × 0.45	ISO2	PD2.2FANEB	5P	45	9	-	32	2.8	2.1	5	3	1
M2.3 × 0.4	ISO2	PD2.3EANEB	5P	45	9	-	32	2.8	2.1	5	3	1
M2.5 × 0.45	ISO2	PD2.5FANEB	5P	50	8	15	33	2.8	2.1	5	3	2
M2.6 × 0.45	ISO2	PD2.6FANEB	5P	50	8	15	33	2.8	2.1	5	3	2
M3 × 0.5	ISO2	PD3.0GANEB	5P	56	9	18	34	3.5	2.7	6	3	2
M3 × 0.5	ISO3	PD3.0GMNEB	5P	56	9	18	34	3.5	2.7	6	3	2
M3.5 × 0.6	ISO2	PD3.5HANEB	5P	56	11	20	32	4	3	6	3	2
M3.5 × 0.6	ISO3	PD3.5HMNEB	5P	56	11	20	32	4	3	6	3	2
M4 × 0.7	ISO2	PD4.0IANEB	5P	63	13	21	38	4.5	3.4	6	3	2
M4 × 0.7	ISO2	PG4.0IANEB	5P	63	13	-	-	2.8	2.1	5	3	3



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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M4 × 0.7	ISO3	PD4.0IMNEB	5P	63	13	21	38	4.5	3.4	6	3	2
M4 × 0.5	ISO2	PM4.0GANEB	5P	63	9	-	-	2.8	2.1	5	3	3
M5 × 0.8	ISO2	PD5.0KANEB	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.8	ISO2	PG5.0KANEB	5P	70	14	-	-	3.5	2.7	6	3	3
M5 × 0.8	ISO3	PD5.0KMNEB	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.5	ISO2	PM5.0GANEB	5P	70	11	-	-	3.5	2.7	6	3	3
M6 × 1	ISO2	PD6.0MANEB	5P	80	15	30	45	6	4.9	8	3	2
M6 × 1	ISO2	PG6.0MANEB	5P	80	15	-	-	4.5	3.4	6	3	3
M6 × 1	ISO3	PD6.0MMNEB	5P	80	15	30	45	6	4.9	8	3	2
M6 × 0.75	ISO2	PM6.0JANEB	5P	80	13	-	-	4.5	3.4	6	3	3
M6 × 0.5	ISO2	PM6.0GANEB	5P	80	13	-	-	4.5	3.4	6	3	3
M7 × 1	ISO2	PD7.0MANEB	5P	80	15	30	45	7	5.5	8	3	4
M7 × 0.75	ISO2	PM7.0JANEB	5P	80	13	-	41	5.5	4.3	7	3	5
M7 × 0.5	ISO2	PM7.0GANEB	5P	80	13	-	41	5.5	4.3	7	3	5
M8 × 1.25	ISO2	PD8.0NANEB	5P	90	19	35	47	8	6.2	9	3	4
M8 × 1.25	ISO2	PG8.0NANEB	5P	90	19	-	46	6	4.9	8	3	5
M8 × 1.25	ISO3	PD8.0NMNEB	5P	90	19	35	47	8	6.2	9	3	4
M8 × 1	ISO2	PM8.0MANEB	5P	90	19	-	46	6	4.9	8	3	5
M8 × 0.75	ISO2	PM8.0JANEB	5P	80	19	-	41	6	4.9	8	3	5
M8 × 0.5	ISO2	PM8.0GANEB	5P	80	19	-	41	6	4.9	8	3	5
M9 × 1.25	ISO2	PD9.0NANEB	5P	90	19	35	48	9	7	10	3	4
M9 × 1.25	ISO2	PG9.0NANEB	5P	90	19	-	46	7	5.5	8	3	5
M9 × 1	ISO2	PM9.0MANEB	5P	90	19	-	46	7	5.5	8	3	5
M10 × 1.5	ISO2	PD010OANEB	5P	100	23	39	52.5	10	8	11	3	4
M10 × 1.5	ISO2	PG010OANEB	5P	100	23	-	51	7	5.5	8	3	5
M10 × 1.5	ISO3	PD010OMNEB	5P	100	23	39	52.5	10	8	11	3	4
M10 × 1.25	ISO2	PM010NANEB	5P	100	23	-	51	7	5.5	8	3	5
M10 × 1	ISO2	PM010MANEB	5P	90	19	-	46	7	5.5	8	3	5
M10 × 0.75	ISO2	PM010JANEB	5P	90	19	-	46	7	5.5	8	3	5
M11 × 1.5	ISO2	PG011OANEB	5P	100	23	-	51	8	6.2	9	3	5
M12 × 1.75	ISO2	PG012PANEB	5P	110	26	-	56	9	7	10	3	5
M12 × 1.75	ISO3	PG012PMNEB	5P	110	26	-	56	9	7	10	3	5
M12 × 1.5	ISO2	PM012OANEB	5P	100	21	-	51	9	7	10	3	5
M12 × 1.25	ISO2	PM012NANEB	5P	100	21	-	51	9	7	10	3	5
M12 × 1	ISO2	PM012MANEB	5P	100	21	-	51	9	7	10	3	5
M14 × 2	ISO2	PG014QANEB	5P	110	26	-	56	11	9	12	3	5
M14 × 2	ISO3	PG014QMNEB	5P	110	26	-	56	11	9	12	3	5
M14 × 1.5	ISO2	PM014OANEB	5P	100	21	-	51	11	9	12	3	5
M14 × 1.25	ISO2	PM014NANEB	5P	100	21	-	51	11	9	12	3	5
M14 × 1	ISO2	PM014MANEB	5P	100	21	-	51	11	9	12	3	5
M16 × 2	ISO2	PG016QANEB	5P	110	26	-	56	12	9	12	3	5
M16 × 2	ISO3	PG016QMNEB	5P	110	26	-	56	12	9	12	3	5
M16 × 1.5	ISO2	PM016OANEB	5P	100	21	-	51	12	9	12	3	5
M16 × 1	ISO2	PM016MANEB	5P	100	21	-	51	12	9	12	3	5
M18 × 2.5	ISO2	PG018RANEB	5P	125	33	-	64	14	11	14	3	5
M18 × 2	ISO2	PM018QANEB	5P	125	33	-	64	14	11	14	3	5
M18 × 1.5	ISO2	PM018OANEB	5P	110	24	-	56	14	11	14	3	5
M18 × 1	ISO2	PM018MANEB	5P	110	24	-	56	14	11	14	3	5
M20 × 2.5	ISO2	PG020RANEB	5P	140	33	-	71	16	12	15	3	5
M20 × 2	ISO2	PM020QANEB	5P	140	33	-	71	16	12	15	3	5

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- DIN
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(for blind hole) ①
- Spiral Fluted Taps
(for through hole) ②
- Spiral Pointed Taps
(for through hole) ③
- Hand Taps ④
- Cemented Carbide Taps ⑤
- Roll Taps ⑥
- Special Thread Taps
Simple Inspection Tools ⑦
- Pipe Taps ⑧
- Thread Mills
Premium Thread Mills ⑨
- Dies ⑩
- Center Drills
Centering Tools ⑪
- Precision Machinery/
Metal Surgical Instruments ⑫

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PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M20 × 1.5	ISO2	PM020OANEB	5P	125	24	-	64	16	12	15	3	5
M20 × 1	ISO2	PM020MANEB	5P	125	24	-	64	16	12	15	3	5
M22 × 2.5	ISO2	PG022RANEB	5P	140	33	-	71	18	14.5	17	3	5
M22 × 2	ISO2	PM022QANEB	5P	140	33	-	71	18	14.5	17	3	5
M22 × 1.5	ISO2	PM022OANEB	5P	125	24	-	64	18	14.5	17	3	5
M22 × 1	ISO2	PM022MANEB	5P	125	24	-	64	18	14.5	17	3	5
M24 × 3	ISO2	PG024SANEB	5P	160	37	-	82	18	14.5	17	3	5
M24 × 2	ISO2	PM024QANEB	5P	140	27	-	71	18	14.5	17	3	5
M24 × 1.5	ISO2	PM024OANEB	5P	140	27	-	71	18	14.5	17	3	5
M24 × 1	ISO2	PM024MANEB	5P	140	27	-	71	18	14.5	17	3	5
M25 × 1.5	ISO2	PM025OANEB	5P	140	27	-	71	18	14.5	17	3	5
M26 × 1.5	ISO2	PM026OANEB	5P	140	27	-	71	18	14.5	17	4	5
M27 × 3	ISO2	PG027SANEB	5P	160	37	-	82	20	16	19	4	5
M27 × 2	ISO2	PM027QANEB	5P	140	27	-	71	20	16	19	4	5
M27 × 1.5	ISO2	PM027OANEB	5P	140	27	-	71	20	16	19	4	5
M27 × 1	ISO2	PM027MANEB	5P	140	27	-	71	20	16	19	4	5
M28 × 2	ISO2	PM028QANEB	5P	140	27	-	71	20	16	19	4	5
M28 × 1.5	ISO2	PM028OANEB	5P	140	27	-	71	20	16	19	4	5
M28 × 1	ISO2	PM028MANEB	5P	140	27	-	71	20	16	19	4	5
M30 × 3.5	ISO2	PG030TANEB	5P	180	44	-	92	22	18	21	4	5
M30 × 2	ISO2	PM030QANEB	5P	150	27	-	77	22	18	21	4	5
M30 × 1.5	ISO2	PM030OANEB	5P	150	27	-	77	22	18	21	4	5
M30 × 1	ISO2	PM030MANEB	5P	150	27	-	77	22	18	21	4	5
M32 × 2	ISO2	PM032QANEB	5P	150	27	-	77	22	18	21	4	5
M32 × 1.5	ISO2	PM032OANEB	5P	150	27	-	77	22	18	21	4	5
M32 × 1	ISO2	PM032MANEB	5P	150	27	-	77	22	18	21	4	5
M33 × 3.5	ISO2	PG033TANEB	5P	180	46	-	92	25	20	23	4	5
M33 × 2	ISO2	PM033QANEB	5P	160	29	-	82	25	20	23	4	5
M33 × 1.5	ISO2	PM033OANEB	5P	160	29	-	82	25	20	23	4	5
M33 × 1	ISO2	PM033MANEB	5P	160	29	-	82	25	20	23	4	5
M36 × 4	ISO2	PG036UANEB	5P	200	52	-	102	28	22	25	4	5
M36 × 3	ISO2	PM036SANEB	5P	200	52	-	102	28	22	25	4	5
M36 × 2	ISO2	PM036QANEB	5P	170	29	-	87	28	22	25	4	5
M36 × 1.5	ISO2	PM036OANEB	5P	170	29	-	87	28	22	25	4	5
M36 × 1	ISO2	PM036MANEB	5P	170	29	-	87	28	22	25	4	5
M39 × 4	ISO2	PG039UANEB	5P	200	52	-	102	32	24	27	4	5
M39 × 2	ISO2	PM039QANEB	5P	170	29	-	87	32	24	27	4	5
M39 × 1.5	ISO2	PM039OANEB	5P	170	29	-	87	32	24	27	4	5
M39 × 1	ISO2	PM039MANEB	5P	170	29	-	87	32	24	27	4	5
M42 × 4.5	ISO2	PG042VANEB	5P	200	59	-	102	32	24	27	4	5
M42 × 2	ISO2	PM042QANEB	5P	170	29	-	87	32	24	27	4	5
M42 × 1.5	ISO2	PM042OANEB	5P	170	29	-	87	32	24	27	4	5
M42 × 1	ISO2	PM042MANEB	5P	170	29	-	87	32	24	27	4	5
M45 × 4.5	ISO2	PG045VANEB	5P	220	59	-	112	36	29	32	4	5
M45 × 3	ISO2	PM045SANEB	5P	200	49	-	102	36	29	32	4	5
M45 × 2	ISO2	PM045QANEB	5P	180	31	-	92	36	29	32	4	5
M45 × 1.5	ISO2	PM045OANEB	5P	180	31	-	92	36	29	32	4	5
M45 × 1	ISO2	PM045MANEB	5P	180	31	-	92	36	29	32	4	5
M48 × 5	ISO2	PG048WANEB	5P	250	65	-	128	36	29	32	4	5
M48 × 3	ISO2	PM048SANEB	5P	225	49	-	115	36	29	32	4	5

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L	ℓ	ℓn	ℓs	Ds	K	ℓk

3

DIN

PO Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M48 × 2	ISO2	PM048QANEB	5P	190	31	-	97	36	29	32	4	5
M48 × 1.5	ISO2	PM048OANEB	5P	190	31	-	97	36	29	32	4	5
M48 × 1	ISO2	PM048MANEB	5P	190	31	-	97	36	29	32	4	5
For Unified Threads												
No.4-40UNC	2B	PDUN4HXNEB	5P	56	9	18	34	3.5	2.7	6	3	2
No.4-48UNF	2B	PDUN4FXNEB	5P	56	9	18	34	3.5	2.7	6	3	2
No.5-40UNC	2B	PDUN5HXNEB	5P	56	11	18	34	3.5	2.7	6	3	2
No.5-44UNF	2B	PDUN5GXNEB	5P	56	11	18	34	3.5	2.7	6	3	2
No.6-32UNC	2B	PDUN6JXNEB	5P	56	11	19	32	4	3	6	3	2
No.6-40UNF	2B	PDUN6HXNEB	5P	56	11	19	32	4	3	6	3	2
No.8-32UNC	2B	PDUN8JXNEB	5P	63	13	21	38	4.5	3.4	6	3	2
No.8-36UNF	2B	PDUN8IXNEB	5P	63	13	21	38	4.5	3.4	6	3	2
No.10-24UNC	2B	PDUNAMXNEB	5P	70	14	24	39	6	4.9	8	3	2
No.10-32UNF	2B	PDUNAJXNEB	5P	70	14	24	39	6	4.9	8	3	2
No.12-24UNC	2B	PDUNCMXNEB	5P	80	15	28	45	6	4.9	8	3	2
No.12-28UNF	2B	PDUNCKXNEB	5P	80	15	28	45	6	4.9	8	3	2
1/4-20UNC	2B	PDU04NXNEB	5P	80	15	30	42	7	5.5	8	3	2
1/4-28UNF	2B	PDU04KXNEB	5P	80	15	30	42	7	5.5	8	3	2
5/16-18UNC	2B	PDU05OXNEB	5P	90	19	35	47	8	6.2	9	3	4
5/16-24UNF	2B	PMU05MXNEB	5P	90	19	-	46	6	4.9	8	3	5
3/8-16UNC	2B	PDU06PXNEB	5P	100	23	39	54.5	9	7	10	3	4
3/8-24UNF	2B	PMU06MXNEB	5P	100	23	-	51	7	5.5	8	3	5
7/16-14UNC	2B	PGU07QXNEB	5P	100	23	-	51	8	6.2	9	3	5
7/16-20UNF	2B	PMU07NXNEB	5P	100	23	-	51	8	6.2	9	3	5
1/2-13UNC	2B	PGU08RXNEB	5P	110	26	-	56	9	7	10	3	5
1/2-20UNF	2B	PMU08NXNEB	5P	100	21	-	51	9	7	10	3	5
9/16-12UNC	2B	PGU09SXNEB	5P	110	26	-	56	11	9	12	3	5
9/16-18UNF	2B	PMU09OXNEB	5P	100	21	-	51	11	9	12	3	5
5/8-11UNC	2B	PGU10UXNEB	5P	110	26	-	56	12	9	12	3	5
5/8-18UNF	2B	PMU10OXNEB	5P	100	21	-	51	12	9	12	3	5
3/4-10UNC	2B	PGU12VXNEB	5P	125	33	-	64	14	11	14	3	5
3/4-16UNF	2B	PMU12PXNEB	5P	110	24	-	56	14	11	14	3	5
7/8-9UNC	2B	PGU14WXNEB	5P	140	33	-	71	18	14.5	17	3	5
7/8-14UNF	2B	PMU14QXNEB	5P	125	24	-	64	18	14.5	17	3	5
1 -8UNC	2B	PGU16XXNEB	5P	160	37	-	82	18	14.5	17	3	5
1 -12UNF	2B	PMU16SXNEB	5P	140	27	-	71	18	14.5	17	3	5
1 1/8-7UNC	2B	PGU18YXNEB	5P	180	44	-	92	22	18	21	4	5
1 1/8-12UNF	2B	PMU18SXNEB	5P	150	27	-	77	22	18	21	4	5
1 1/4-7UNC	2B	PGU20YXNEB	5P	180	49	-	92	22	18	21	4	5
1 1/4-12UNF	2B	PMU20SXNEB	5P	150	27	-	77	22	18	21	4	5
1 3/8-6UNC	2B	PGU22ZXNEB	5P	200	55	-	102	28	22	25	4	5
1 3/8-12UNF	2B	PMU22SXNEB	5P	170	29	-	87	28	20	23	4	5
1 1/2-6UNC	2B	PGU24ZXNEB	5P	200	59	-	102	32	24	27	4	5
1 1/2-12UNF	2B	PMU24SXNEB	5P	170	29	-	87	32	24	27	4	5
1 3/4-5UNC	2B	PGU280XNEB	5P	220	65	-	112	36	29	32	4	5
1 3/4-12UN	2B	PMU28SXNEB	5P	180	31	-	92	36	29	32	4	5
For G Threads												
G 1/16-28	-	PVG0010NEB	5P	90	19	-	46	6	4.9	8	3	5
G 1/8-28	-	PVG0020NEB	5P	90	19	-	46	7	5.5	8	3	5
G 1/4-19	-	PVG0040NEB	5P	100	21	-	51	11	9	12	3	5

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(for blind hole)

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Thread Mills
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Dies

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Centering Tools

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Precision Machinery/
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DIN

③-38

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G 3/8-19	-	PVG0060NEB	5P	100	21	-	51	12	9	12	3	5
G 1/2-14	-	PVG0080NEB	5P	125	24	-	64	16	12	15	3	5
G 5/8-14	-	PVG0100NEB	5P	125	24	-	64	18	14.5	17	3	5
G 3/4-14	-	PVG0120NEB	5P	140	27	-	71	20	16	19	4	5
G 7/8-14	-	PVG0140NEB	5P	150	27	-	77	22	18	21	4	5
G 1 -11	-	PVG0160NEB	5P	160	29	-	82	25	20	23	4	5
G 1 1/8-11	-	PVG0180NEB	5P	170	29	-	87	28	22	25	4	5
G 1 1/4-11	-	PVG0200NEB	5P	170	29	-	87	32	24	27	4	5
G 1 1/2-11	-	PVG0240NEB	5P	190	31	-	97	36	29	32	4	5

① Spiral Fluted Taps (for blind hole)

② Spiral Fluted Taps (for through hole)

③ Spiral Pointed Taps (for through hole)

④ Hand Taps

⑤ Cemented Carbide Taps

⑥ Roll Taps

⑦ Special Thread Taps (Simple inspection tools)

⑧ Pipe Taps

⑨ Thread Mills (Premium Thread Mills)

⑩ Dies

⑪ Center Drills (Centering Tools)

⑫ Precision Machinery/ Medical Surgical Instruments

DIN

③-39



This product is different from JIS products in shape and dimensions, please be careful when using.