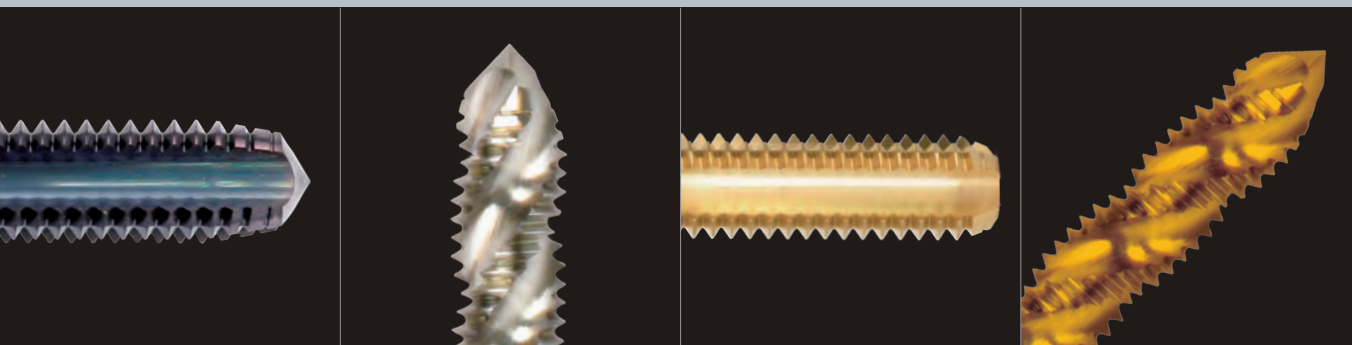


# TAP series



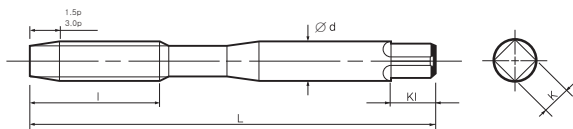


}	Carbide Tap Series	385
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## Tap Series

WIDIN

	EDP. No.	APPEARANCE	FEATURE	STOCK	PAGE
Carbide Tap Series	Straight Taps (Uncoated)		WSOM...series	•	385
	Straight Taps (Coated TiCN)		WSCM...series	•	386
	Spiral Taps (Uncoated)		WPOM...series	•	387
	Spiral Taps (Coated TiCN)		WPCM...series	•	388
	Roll Taps (Uncoated)		WROM...series	•	389
	Roll Taps (Coated TiCN)		WRCM...series	•	390
	Spiral Roll Taps (Uncoated)		WFOM...series	•	391
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	Straight Taps (Coated TiCN)		VSCM...series	•	395
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	Spiral Taps (Uncoated)		VPOM...series	•	399
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	Spiral Taps (Coated TiCN)		VPCM...series	•	401
	Roll Taps (Uncoated)		VROM...series	•	402
	Roll Taps (Coated TiN)		VRTM...series	•	403
	Roll Taps (Coated TiCN)		VRCM...series	•	404
	Spiral Roll Taps (Uncoated)		VFOM...series	•	405
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	Spiral Roll Taps (Coated TiCN)		VFCM...series	•	407



### STRAIGHT TAPS

- Designed for high mass production for general workpieces such as Cast Iron, C.Br, Plastics and so on.

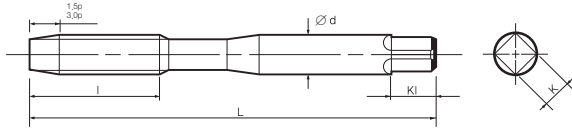
## WSOM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	Flutes	STOCK
1.5P	3P									
WSOM0305015	WSOM0305030	M3 X 0.5	WH3	46	11	4	3.2	6	3	•
WSOM0407015	WSOM0407030	M4 X 0.7		52	13	5	4	7		•
WSOM0508015	WSOM0508030	M5 X 0.8		60	16	5.5	4.5	7		•
WSOM0610015	WSOM0610030	M6 X 1.0		62	19	6	4.5	7		•
WSOM0810015	WSOM0810030	M8 X 1.0	WH4	70	22	6.2	5	8	4	•
WSOM0812515	WSOM0812530	M8 X 1.25		75	24	7	5.5	8		•
WSOM1010015	WSOM1010030	M10 X 1.0								•
WSOM1012515	WSOM1012530	M10 X 1.25								•
WSOM1015015	WSOM1015030	M10 X 1.5	WH5	82	29	8.5	6.5	9	4	•
WSOM1210015	WSOM1210030	M12 X 1.0								•
WSOM1212515	WSOM1212530	M12 X 1.25								•
WSOM1215015	WSOM1215030	M12 X 1.5								•
WSOM1217515	WSOM1217530	M12 X 1.75								•

#### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic	
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC					
										☉	○		○	○	☉		○	○	○				☉	



## STRAIGHT TAPS

- Designed for high mass production for general workpieces such as Cast Iron, C.Br, Plastics, and so on.
- By applying TiCN coating, it provides stable and highly efficient operation due to enhanced durability.

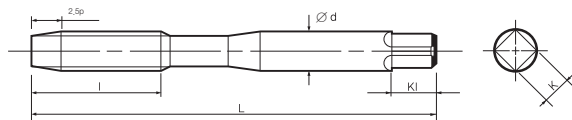
## WSCM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	Flutes	STOCK
1.5P	3P									
WSCM0305015	WSCM0305030	M3 X 0.5	WH3	46	11	4	3.2	6	3	•
WSCM0407015	WSCM0407030	M4 X 0.7		52	13	5	4	7		•
WSCM0508015	WSCM0508030	M5 X 0.8		60	16	5.5	4.5	7		•
WSCM0610015	WSCM0610030	M6 X 1.0		62	19	6	4.5	7		•
WSCM0810015	WSCM0810030	M8 X 1.0	WH4	70	22	6.2	5	8	4	•
WSCM0812515	WSCM0812530	M8 X 1.25		75	24	7	5.5	8		•
WSCM1010015	WSCM1010030	M10 X 1.0		75	24	7	5.5	8		•
WSCM1012515	WSCM1012530	M10 X 1.25		75	24	7	5.5	8		•
WSCM1015015	WSCM1015030	M10 X 1.5	WH5	82	29	8.5	6.5	9	4	•
WSCM1210015	WSCM1210030	M12 X 1.0		82	29	8.5	6.5	9		•
WSCM1212515	WSCM1212530	M12 X 1.25		82	29	8.5	6.5	9		•
WSCM1215015	WSCM1215030	M12 X 1.5		82	29	8.5	6.5	9		•
WSCM1217515	WSCM1217530	M12 X 1.75								•

### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic	
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC					
										☉	○		○	○	☉		○	○	○				☉	



### SPIRAL TAPS

- Designed for high mass production for general workpieces such as Cast Iron, C.Br, Plastics and so on.
- Suitable for tapping of through and blind holes.

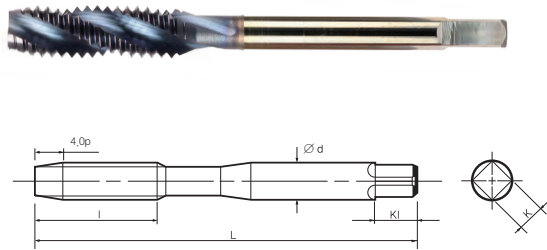
## WPOM...series



EDP. No. 2.5P	Thread Size	Limits	L	l	d	K	KI	STOCK
WPOM0305025	M3 X 0.5	WH3	46	11	4	3.2	6	•
WPOM0407025	M4 X 0.7		52	13	5	4	7	•
WPOM0508025	M5 X 0.8		60	16	5.5	4.5	7	•
WPOM0610025	M6 X 1.0		62	19	6	4.5	7	•
WPOM0810025	M8 X 1.0	WH4	70	22	6.2	5	8	•
WPOM0812525	M8 X 1.25		75	24	7	5.5	8	•
WPOM1010025	M10 X 1.0		75	24	7	5.5	8	•
WPOM1012525	M10 X 1.25		75	24	7	5.5	8	•
WPOM1015025	M10 X 1.5	WH5	82	29	8.5	6.5	9	•
WPOM1210025	M12 X 1.0		82	29	8.5	6.5	9	•
WPOM1212525	M12 X 1.25		82	29	8.5	6.5	9	•
WPOM1215025	M12 X 1.5		82	29	8.5	6.5	9	•
WPOM1217525	M12 X 1.75		82	29	8.5	6.5	9	•

#### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
										○	◎	◎	◎	◎	○	○	○	○	○				◎



## SPIRAL TAPS

- Designed for high mass production for general work pieces such as Cast Iron, C.Br, Plastics and so on.
- Suitable for tapping of through and blind holes.
- By applying TiCN coating, it provides stable and highly efficient operation due to enhanced durability.

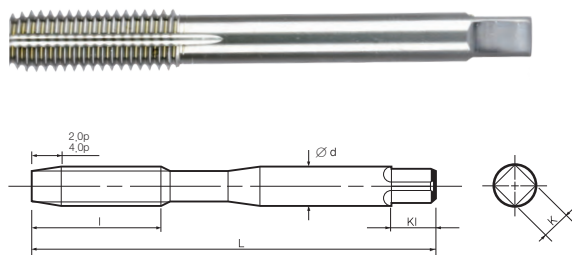
## WPCM...series



EDP. No. 2.5P	Thread Size	Limits	L	l	d	K	KI	STOCK
WPCM0305025	M3 X 0.5	WH3	46	11	4	3.2	6	•
WPCM0407025	M4 X 0.7		52	13	5	4	7	•
WPCM0508025	M5 X 0.8		60	16	5.5	4.5	7	•
WPCM0610025	M6 X 1.0		62	19	6	4.5	7	•
WPCM0810025	M8 X 1.0	WH4	70	22	6.2	5	8	•
WPCM0812525	M8 X 1.25							•
WPCM1010025	M10 X 1.0		75	24	7	5.5	8	•
WPCM1012525	M10 X 1.25							•
WPCM1015025	M10 X 1.5						•	
WPCM1210025	M12 X 1.0	WH5	82	29	8.5	6.5	9	•
WPCM1212525	M12 X 1.25							•
WPCM1215025	M12 X 1.5							•
WPCM1217525	M12 X 1.75							•

### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
										○	◎	◎	◎	◎	○	○	◎	◎	◎			○	◎



### ROLL TAPS

- Designed for high performance of threading Nonferrous metals.
- Suitable for tapping of through and blind holes.

## WROM...series

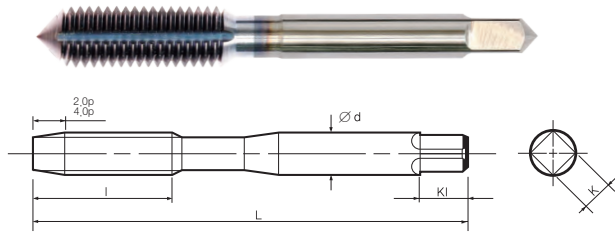


EDP. No.		Thread Size	Limits	L	l	d	K	Kl	Oil Groove	STOCK
2P	4P									
WROM0305020S	WROM0305040S	M3 X 0.5	GH5	46	11	4	3.2	6	1	•
WROM0305020M	WROM0305040M								4	•
WROM0407020S	WROM0407040S	M4 X 0.7	GH6	52	13	5	4	7	1	•
WROM0407020M	WROM0407040M								4	•
WROM0508020S	WROM0508040S	M5 X 0.8	GH6	60	16	5.5	4.5	7	1	•
WROM0508020M	WROM0508040M								4	•
WROM0610020S	WROM0610040S	M6 X 1.0	GH7	62	19	6	4.5	7	1	•
WROM0610020M	WROM0610040M								4	•
WROM0812520S	WROM0812540S	M8 X 1.25	GH7	70	22	6.2	5	8	1	•
WROM0812520M	WROM0812540M								4	•
WROM1012520S	WROM1012540S	M10 X 1.25	GH7	75	24	7	5.5	8	1	•
WROM1012520M	WROM1012540M								4	•
WROM1015020S	WROM1015040S	M10 X 1.50	GH7	75	24	7	5.5	8	1	•
WROM1015020M	WROM1015040M								4	•
WROM1210020S	WROM1210040S	M12 X 1.0	GH7	82	29	8.5	6.5	9	1	•
WROM1210020M	WROM1210040M								4	•
WROM1212520S	WROM1212540S	M12 X 1.25	GH7	82	29	8.5	6.5	9	1	•
WROM1212520M	WROM1212540M								4	•
WROM1215020S	WROM1215040S	M12 X 1.5	GH7	82	29	8.5	6.5	9	1	•
WROM1215020M	WROM1215040M								4	•
WROM1217520S	WROM1217540S	M12 X 1.75	GH8	82	29	8.5	6.5	9	1	•
WROM1217520M	WROM1217540M								4	•

#### ■ Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic	
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC					
												◎	◎	◎		◎	◎		◎					





## ROLL TAPS

- It is applicable regardless of steel or Nonferrous alloys.
- By applying TiCN coating, it provides stable and highly efficient operation due to enhanced durability.

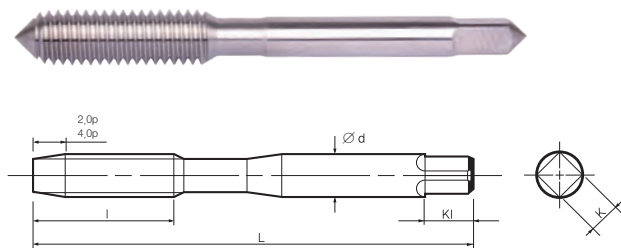
## WRCM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	Oil Groove	STOCK
2P	4P									
WRCM0305020S	WRCM0305040S	M3 X 0.5	GH5	46	11	4	3.2	6	1	•
WRCM0305020M	WRCM0305040M								4	•
WRCM0407020S	WRCM0407040S	M4 X 0.7	GH6	52	13	5	4	7	1	•
WRCM0407020M	WRCM0407040M								4	•
WRCM0508020S	WRCM0508040S	M5 X 0.8	GH6	60	16	5.5	4.5	7	1	•
WRCM0508020M	WRCM0508040M								4	•
WRCM0610020S	WRCM0610040S	M6 X 1.0	GH7	62	19	6	4.5	7	1	•
WRCM0610020M	WRCM0610040M								4	•
WRCM0812520S	WRCM0812540S	M8 X 1.25	GH7	70	22	6.2	5	8	1	•
WRCM0812520M	WRCM0812540M								4	•
WRCM1012520S	WRCM1012540S	M10 X 1.25	GH7	75	24	7	5.5	8	1	•
WRCM1012520M	WRCM1025040M								4	•
WRCM1015020S	WRCM1015040S	M10 X 1.50	GH7	75	24	7	5.5	8	1	•
WRCM1015020M	WRCM1015040M								4	•
WRCM1210020S	WRCM1210040S	M12 X 1.0	GH7	82	29	8.5	6.5	9	1	•
WRCM1210020M	WRCM1210040M								4	•
WRCM1212520S	WRCM1212540S	M12 X 1.25	GH7	82	29	8.5	6.5	9	1	•
WRCM1212520M	WRCM1212540M								4	•
WRCM1215020S	WRCM1215040S	M12 X 1.5	GH7	82	29	8.5	6.5	9	1	•
WRCM1215020M	WRCM1215040M								4	•
WRCM1217520S	WRCM1217540S	M12 X 1.75	GH8	82	29	8.5	6.5	9	1	•
WRCM1217520M	WRCM1217540M								4	•

### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○				○					○	○	○		○	○		○				



### SPIRAL ROLL TAPS

- Designed for high performance of threading  
Nonferrous alloys, Aluminum, Magnesium,  
Zinc and Copper.

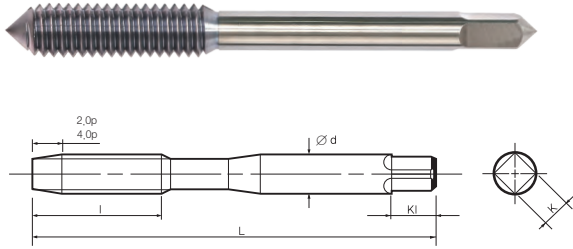
## WFOM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	STOCK
2P	4P								
WFOM0305020	WFOM0305040	M3 X 0.5	GH6	46	18	4	3.2	6	•
WFOM03506020	WFOM03506040	M3.5 X 0.6	GH6	46	18	4	3.2	6	•
WFOM0407020	WFOM0305040	M4 X 0.7	GH7	52	20	5	4	7	•
WFOM0508020	WFOM0508040	M5 X 0.8	GH7	60	22	5.5	4.5	7	•
WFOM0610020	WFOM0610040	M6 X 1.0	GH7	62	24	6	4.5	7	•

#### ■ Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0,25%	C0,25% -0,45%	C 0,45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
												◎	◎	◎		◎	◎		◎				



### SPIRAL ROLL TAPS

- Designed for high performance of threading Steel, Nonferrous alloys and Stainless steel.
- By applying TiCN coating, it provides stable and highly efficient operation due to enhanced durability.

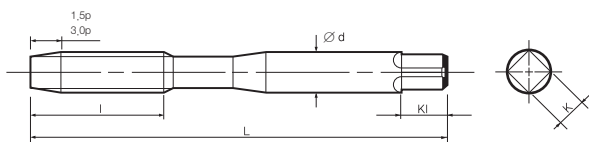
## WFCM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	STOCK
2P	4P								
WFCM0305020	WFCM0305040	M3 X 0.5	GH6	46	18	4	3.2	6	•
WFCM03506020	WFCM03506040	M3.5 X 0.6	GH6	46	18	4	3.2	6	•
WFCM0407020	WFCM0407040	M4 X 0.7	GH7	52	20	5	4	7	•
WFCM0508020	WFCM0508040	M5 X 0.8	GH7	60	22	5.5	4.5	7	•
WFCM0610020	WFCM0610040	M6 X 1.0	GH7	62	24	6	4.5	7	•

#### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0,25% -0,45%	C 0,45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○				○					○	○	○		○	○		○				



## STRAIGHT TAPS

- Designed for high performance of threading Cast Iron, Medium Carbon steel, Nonferrous metals and so on.

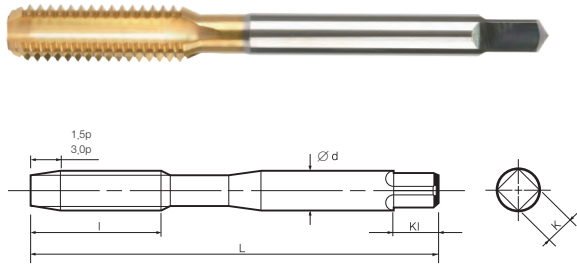
## VSOM...series



EDP. No.		Thread Size	Limits	L	l	d	K	Kl	Flutes	STOCK
1.5P	3P									
VSOM0305015	VSOM0305030	M3 X 0.5	WH2	46	11	4	3.2	6	3	•
VSOM0407015	VSOM0407030	M4 X 0.7	WH2	52	13	5	4	7	3	•
VSOM0508015	VSOM0508030	M5 X 0.8	WH2	60	16	5.5	4.5	7	3	•
VSOM0610015	VSOM0610030	M6 X 1.0	WH2	62	19	6	4.5	7	3	•
VSOM0812515	VSOM0812530	M8 X 1.25	WH2	70	22	6.2	5	8	4	•
VSOM1012515	VSOM1012530	M10 X 1.25	WH2	75	24	7	5.5	8	4	•
VSOM1015015	VSOM1015030	M10 X 1.5	WH3	75	24	7	5.5	8	4	•
VSOM1210015	VSOM1210030	M12 X 1.0	WH2	82	29	8.5	6.5	9	4	•
VSOM1212515	VSOM1212530	M12 X 1.25	WH2	82	29	8.5	6.5	9	4	•
VSOM1215015	VSOM1215030	M12 X 1.5	WH3	82	29	8.5	6.5	9	4	•
VSOM1217515	VSOM1217530	M12 X 1.75	WH3	82	29	8.5	6.5	9	4	•
VSOM1415015	VSOM1415030	M14 X 1.5	WH3	88	30	10.5	8	11	4	•
VSOM1420015	VSOM1420030	M14 X 2.0	WH3	88	30	10.5	8	11	4	•
VSOM1615015	VSOM1615030	M16 X 1.5	WH3	95	32	12.5	10	13	4	•
VSOM1620015	VSOM1620030	M16 X 2.0	WH3	95	32	12.5	10	13	4	•
VSOM1815015	VSOM1815030	M18 X 1.5	WH3	100	37	14	11	14	4	•
VSOM1825015	VSOM1825030	M18 X 2.5	WH3	100	37	14	11	14	4	•
VSOM2015015	VSOM2015030	M20 X 1.5	WH3	105	37	15	12	15	4	•
VSOM2025015	VSOM2025030	M20 X 2.5	WH3	105	37	15	12	15	4	•

### ■ Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○										○		○	○	○	○	○	○	○				



## STRAIGHT TAPS

- Designed for high performance of threading Carbon steel, Alloy steel and Nonferrous metals.
- Suitable for tapping of through and blind holes.
- By applying TiN coating, it provides stable and highly efficient operation due to enhanced durability.

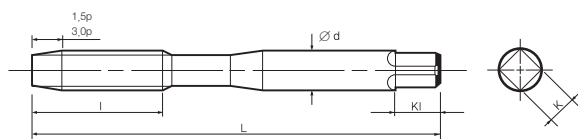
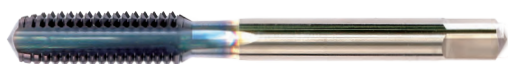
## VSTM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	Flutes	STOCK
1.5P	3P									
VSTM0305015	VSTM0305030	M3 X 0.5	WH2	46	11	4	3.2	6	3	•
VSTM0407015	VSTM0407030	M4 X 0.7	WH2	52	13	5	4	7	3	•
VSTM0508015	VSTM0508030	M5 X 0.8	WH2	60	16	5.5	4.5	7	3	•
VSTM0610015	VSTM0610030	M6 X 1.0	WH2	62	19	6	4.5	7	3	•
VSTM0812515	VSTM0812530	M8 X 1.25	WH2	70	22	6.2	5	8	4	•
VSTM1012515	VSTM1012530	M10 X 1.25	WH2	75	24	7	5.5	8	4	•
VSTM1015015	VSTM1015030	M10 X 1.5	WH3	75	24	7	5.5	8	4	•
VSTM1210015	VSTM1210030	M12 X 1.0	WH2	82	29	8.5	6.5	9	4	•
VSTM1212515	VSTM1212530	M12 X 1.25	WH2	82	29	8.5	6.5	9	4	•
VSTM1215015	VSTM1215030	M12 X 1.5	WH3	82	29	8.5	6.5	9	4	•
VSTM1217515	VSTM1217530	M12 X 1.75	WH3	82	29	8.5	6.5	9	4	•
VSTM1415015	VSTM1415030	M14 X 1.5	WH3	88	30	10.5	8	11	4	•
VSTM1420015	VSTM1420030	M14 X 2.0	WH3	88	30	10.5	8	11	4	•
VSTM1615015	VSTM1615030	M16 X 1.5	WH3	95	32	12.5	10	13	4	•
VSTM1620015	VSTM1620030	M16 X 2.0	WH3	95	32	12.5	10	13	4	•
VSTM1815015	VSTM1815030	M18 X 1.5	WH3	100	37	14	11	14	4	•
VSTM1825015	VSTM1825030	M18 X 2.5	WH3	100	37	14	11	14	4	•
VSTM2015015	VSTM2015030	M20 X 1.5	WH3	105	37	15	12	15	4	•
VSTM2025015	VSTM2025030	M20 X 2.5	WH3	105	37	15	12	15	4	•

### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%--	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○	○									○	○	○	○	○	○	○				



## STRAIGHT TAPS

- Designed for high performance of threading Carbon steel, Alloy steel and Nonferrous metals.
- Suitable for tapping of through and blind holes.
- By applying TiCN coating, it provides stable and highly efficient operation due to enhanced durability.

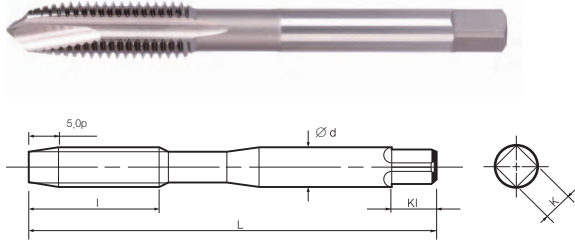
## VSCM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	Flutes	STOCK
1.5P	3P									
VSCM0305015	VSCM0305030	M3 X 0.5	WH2	46	11	4	3.2	6	3	•
VSCM0407015	VSCM0407030	M4 X 0.7	WH2	52	13	5	4	7	3	•
VSCM0508015	VSCM0508030	M5 X 0.8	WH2	60	16	5.5	4.5	7	3	•
VSCM0610015	VSCM0610030	M6 X 1.0	WH2	62	19	6	4.5	7	3	•
VSCM0812515	VSCM0812530	M8 X 1.25	WH2	70	22	6.2	5	8	4	•
VSCM1012515	VSCM1012530	M10 X 1.25	WH2	75	24	7	5.5	8	4	•
VSCM1015015	VSCM1015030	M10 X 1.5	WH3	75	24	7	5.5	8	4	•
VSCM1210015	VSCM1210030	M12 X 1.0	WH2	82	29	8.5	6.5	9	4	•
VSCM1212515	VSCM1212530	M12 X 1.25	WH2	82	29	8.5	6.5	9	4	•
VSCM1215015	VSCM1215030	M12 X 1.5	WH3	82	29	8.5	6.5	9	4	•
VSCM1217515	VSCM1217530	M12 X 1.75	WH3	82	29	8.5	6.5	9	4	•
VSCM1415015	VSCM1415030	M14 X 1.5	WH3	88	30	10.5	8	11	4	•
VSCM1420015	VSCM1420030	M14 X 2.0	WH3	88	30	10.5	8	11	4	•
VSCM1615015	VSCM1615030	M16 X 1.5	WH3	95	32	12.5	10	13	4	•
VSCM1620015	VSCM1620030	M16 X 2.0	WH3	95	32	12.5	10	13	4	•
VSCM1815015	VSCM1815030	M18 X 1.5	WH3	100	37	14	11	14	4	•
VSCM1825015	VSCM1825030	M18 X 2.5	WH3	100	37	14	11	14	4	•
VSCM2015015	VSCM2015030	M20 X 1.5	WH3	105	37	15	12	15	4	•
VSCM2025015	VSCM2025030	M20 X 2.5	WH3	105	37	15	12	15	4	•

### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○	○									○	○	○	○	○	○	○				



### POINT TAPS

- Designed for high performance of threading Carbon steel, Alloy steel and Nonferrous metals.
- Suitable for tapping of through holes.

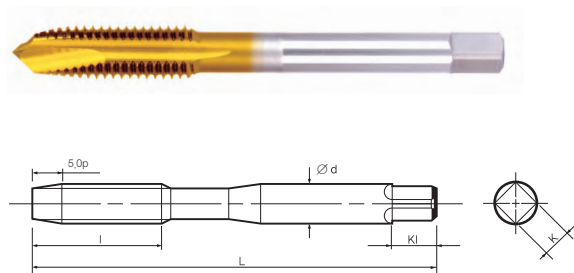
## VNOM...series



EDP. No. 5P	Thread Size	Limits	L	l	d	K	KI	STOCK
VNOM0305050	M3 X 0.5	WH2	46	11	4	3.2	6	•
VNOM0407050	M4 X 0.7	WH2	52	13	5	4	7	•
VNOM0508050	M5 X 0.8	WH2	60	16	5.5	4.5	7	•
VNOM0610050	M6 X 1.0	WH2	62	19	6	4.5	7	•
VNOM0812550	M8 X 1.25	WH2	70	22	6.2	5	8	•
VNOM1012550	M10 X 1.25	WH2	75	24	7	5.5	8	•
VNOM1015050	M10 X 1.5	WH3	75	24	7	5.5	8	•
VNOM1210050	M12 X 1.0	WH2	82	29	8.5	6.5	9	•
VNOM1212550	M12 X 1.25	WH2	82	29	8.5	6.5	9	•
VNOM1215050	M12 X 1.5	WH3	82	29	8.5	6.5	9	•
VNOM1217550	M12 X 1.75	WH3	82	29	8.5	6.5	9	•
VNOM1415050	M14 X 1.5	WH3	88	30	10.5	8	11	•
VNOM1420050	M14 X 2.0	WH3	88	30	10.5	8	11	•
VNOM1615050	M16 X 1.5	WH3	95	32	12.5	10	13	•
VNOM1620050	M16 X 2.0	WH3	95	32	12.5	10	13	•
VNOM1815050	M18 X 1.5	WH3	100	37	14	11	14	•
VNOM1825050	M18 X 2.5	WH3	100	37	14	11	14	•
VNOM2015050	M20 X 1.5	WH3	105	37	15	12	15	•
VNOM2025050	M20 X 2.5	WH3	105	37	15	12	15	•

#### ■ Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	◎							○	○	○	○	○	○	◎	○	○	○				○



### POINT TAPS

- Designed for high performance of threading Carbon steel, Alloy steel and Nonferrous metals.
- Suitable for tapping of through holes.
- By applying TiN coating, it provides stable and highly efficient operation due to enhanced durability.

## VNTM...series

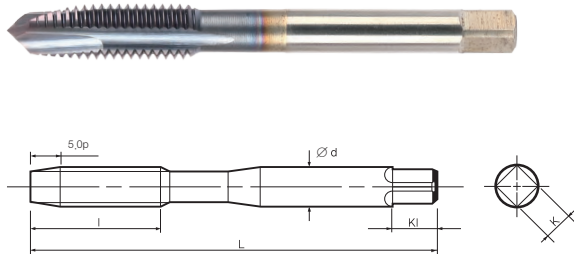


EDP. No. 5P	Thread Size	Limits	L	l	d	K	Kl	STOCK
VNTM0305050	M3 X 0.5	WH2	46	11	4	3.2	6	•
VNTM0407050	M4 X 0.7	WH2	52	13	5	4	7	•
VNTM0508050	M5 X 0.8	WH2	60	16	5.5	4.5	7	•
VNTM0610050	M6 X 1.0	WH2	62	19	6	4.5	7	•
VNTM0812550	M8 X 1.25	WH2	70	22	6.2	5	8	•
VNTM1012550	M10 X 1.25	WH2	75	24	7	5.5	8	•
VNTM1015050	M10 X 1.5	WH3	75	24	7	5.5	8	•
VNTM1210050	M12 X 1.0	WH2	82	29	8.5	6.5	9	•
VNTM1212550	M12 X 1.25	WH2	82	29	8.5	6.5	9	•
VNTM1215050	M12 X 1.5	WH3	82	29	8.5	6.5	9	•
VNTM1217550	M12 X 1.75	WH3	82	29	8.5	6.5	9	•
VNTM1415050	M14 X 1.5	WH3	88	30	10.5	8	11	•
VNTM1420050	M14 X 2.0	WH3	88	30	10.5	8	11	•
VNTM1615050	M16 X 1.5	WH3	95	32	12.5	10	13	•
VNTM1620050	M16 X 2.0	WH3	95	32	12.5	10	13	•
VNTM1815050	M18 X 1.5	WH3	100	37	14	11	14	•
VNTM1825050	M18 X 2.5	WH3	100	37	14	11	14	•
VNTM2015050	M20 X 1.5	WH3	105	37	15	12	15	•
VNTM2025050	M20 X 2.5	WH3	105	37	15	12	15	•

#### ■ Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%--	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○				◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○





## POINT TAPS

- Designed for high performance of threading Carbon steel, Alloy steel and Nonferrous metals.
- Suitable for tapping of through holes.
- By applying TiCN coating, it provides stable and highly efficient operation due to enhanced durability.

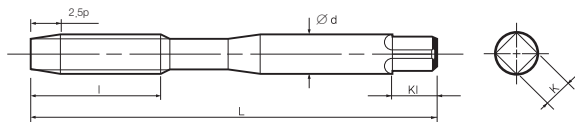
## VNCM...series



EDP. No. 5P	Thread Size	Limits	L	l	d	K	Kl	STOCK
VNCM0305050	M3 X 0.5	WH2	46	11	4	3.2	6	•
VNCM0407050	M4 X 0.7	WH2	52	13	5	4	7	•
VNCM0508050	M5 X 0.8	WH2	60	16	5.5	4.5	7	•
VNCM0610050	M6 X 1.0	WH2	62	19	6	4.5	7	•
VNCM0812550	M8 X 1.25	WH2	70	22	6.2	5	8	•
VNCM1012550	M10 X 1.25	WH2	75	24	7	5.5	8	•
VNCM1015050	M10 X 1.5	WH3	75	24	7	5.5	8	•
VNCM1210050	M12 X 1.0	WH2	82	29	8.5	6.5	9	•
VNCM1212550	M12 X 1.25	WH2	82	29	8.5	6.5	9	•
VNCM1215050	M12 X 1.5	WH3	82	29	8.5	6.5	9	•
VNCM1217550	M12 X 1.75	WH3	82	29	8.5	6.5	9	•
VNCM1415050	M14 X 1.5	WH3	88	30	10.5	8	11	•
VNCM1420050	M14 X 2.0	WH3	88	30	10.5	8	11	•
VNCM1615050	M16 X 1.5	WH3	95	32	12.5	10	13	•
VNCM1620050	M16 X 2.0	WH3	95	32	12.5	10	13	•
VNCM1815050	M18 X 1.5	WH3	100	37	14	11	14	•
VNCM1825050	M18 X 2.5	WH3	100	37	14	11	14	•
VNCM2015050	M20 X 1.5	WH3	105	37	15	12	15	•
VNCM2025050	M20 X 2.5	WH3	105	37	15	12	15	•

### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



## SPIRAL TAPS

- Suitable for Carbon steel, Alloy steel and Nonferrous metals and the unique shape of the groove is designed for high release of chips.
- Suitable for tapping of blind holes.

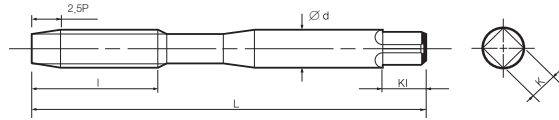
## VPOM...series



EDP. No. 2.5P	Thread Size	Limits	L	l	d	K	Kl	Flutes	STOCK
VPOM0305025	M3 X 0.5	WH2	46	11	4	3.2	6	3	•
VPOM0407025	M4 X 0.7	WH2	52	13	5	4	7	3	•
VPOM0508025	M5 X 0.8	WH2	60	16	5.5	4.5	7	3	•
VPOM0610025	M6 X 1.0	WH2	62	19	6	4.5	7	3	•
VPOM0812525	M8 X 1.25	WH2	70	22	6.2	5	8	3	•
VPOM1012525	M10 X 1.25	WH2	75	24	7	5.5	8	3	•
VPOM1015025	M10 X 1.5	WH3	75	24	7	5.5	8	3	•
VPOM1210025	M12 X 1.0	WH2	82	29	8.5	6.5	9	3	•
VPOM1212525	M12 X 1.25	WH2	82	29	8.5	6.5	9	3	•
VPOM1215025	M12 X 1.5	WH3	82	29	8.5	6.5	9	3	•
VPOM1217525	M12 X 1.75	WH3	82	29	8.5	6.5	9	3	•
VPOM1415025	M14 X 1.5	WH3	88	30	10.5	8	11	3	•
VPOM1420025	M14 X 2.0	WH3	88	30	10.5	8	11	3	•
VPOM1615025	M16 X 1.5	WH3	95	32	12.5	10	13	3	•
VPOM1620025	M16 X 2.0	WH3	95	32	12.5	10	13	3	•
VPOM1815025	M18 X 1.5	WH3	100	37	14	11	14	4	•
VPOM1825025	M18 X 2.5	WH3	100	37	14	11	14	4	•
VPOM2015025	M20 X 1.5	WH3	105	37	15	12	15	4	•
VPOM2025025	M20 X 2.5	WH3	105	37	15	12	15	4	•

### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○			◎								○	○	○	○	○	○	○	○	○				○



## SPIRAL TAPS

- Suitable for Carbon steel, Alloy steel and Nonferrous metals and the unique shape of the groove is designed for high release of chips.
- Suitable for tapping of blind holes.
- By applying TiN coating, it provides stable and highly efficient operation due to enhanced durability.

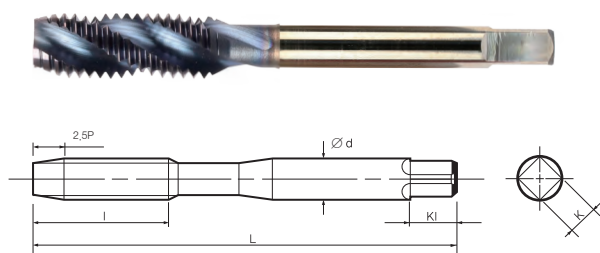
## VPTM...series



EDP. No. 2.5P	Thread Size	Limits	L	l	d	K	KI	Flutes	STOCK
VPTM0305025	M3 X 0.5	WH2	46	11	4	3.2	6	3	•
VPTM0407025	M4 X 0.7	WH2	52	13	5	4	7	3	•
VPTM0508025	M5 X 0.8	WH2	60	16	5.5	4.5	7	3	•
VPTM0610025	M6 X 1.0	WH2	62	19	6	4.5	7	3	•
VPTM0812525	M8 X 1.25	WH2	70	22	6.2	5	8	3	•
VPTM1012525	M10 X 1.25	WH2	75	24	7	5.5	8	3	•
VPTM1015025	M10 X 1.5	WH3	75	24	7	5.5	8	3	•
VPTM1210025	M12 X 1.0	WH2	82	29	8.5	6.5	9	3	•
VPTM1212525	M12 X 1.25	WH2	82	29	8.5	6.5	9	3	•
VPTM1215025	M12 X 1.5	WH3	82	29	8.5	6.5	9	3	•
VPTM1217525	M12 X 1.75	WH3	82	29	8.5	6.5	9	3	•
VPTM1415025	M14 X 1.5	WH3	88	30	10.5	8	11	3	•
VPTM1420025	M14 X 2.0	WH3	88	30	10.5	8	11	3	•
VPTM1615025	M16 X 1.5	WH3	95	32	12.5	10	13	3	•
VPTM1620025	M16 X 2.0	WH3	95	32	12.5	10	13	3	•
VPTM1815025	M18 X 1.5	WH3	100	37	14	11	14	4	•
VPTM1825025	M18 X 2.5	WH3	100	37	14	11	14	4	•
VPTM2015025	M20 X 1.5	WH3	105	37	15	12	15	4	•
VPTM2025025	M20 X 2.5	WH3	105	37	15	12	15	4	•

### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○				○	○	○		○	○	○	○	○	○	○	○	○	○			○



### SPIRAL TAPS

- Suitable for Carbon steel, Alloy steel and Nonferrous metals and the unique shape of the groove is designed for high release of chips.
- Suitable for tapping of blind holes.
- By applying TiCN coating, it provides stable and highly efficient operation due to enhanced durability.

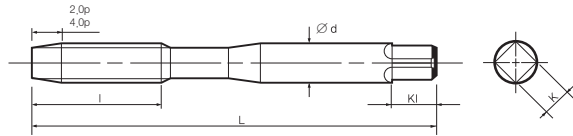
## VPCM...series



EDP. No. 2.5P	Thread Size	Limits	L	l	d	K	Kl	Flutes	STOCK
VPCM0305025	M3 X 0.5	WH2	46	11	4	3.2	6	3	•
VPCM0407025	M4 X 0.7	WH2	52	13	5	4	7	3	•
VPCM0508025	M5 X 0.8	WH2	60	16	5.5	4.5	7	3	•
VPCM0610025	M6 X 1.0	WH2	62	19	6	4.5	7	3	•
VPCM0812525	M8 X 1.25	WH2	70	22	6.2	5	8	3	•
VPCM1012525	M10 X 1.25	WH2	75	24	7	5.5	8	3	•
VPCM1015025	M10 X 1.5	WH3	75	24	7	5.5	8	3	•
VPCM1210025	M12 X 1.0	WH2	82	29	8.5	6.5	9	3	•
VPCM1212525	M12 X 1.25	WH2	82	29	8.5	6.5	9	3	•
VPCM1215025	M12 X 1.5	WH3	82	29	8.5	6.5	9	3	•
VPCM1217525	M12 X 1.75	WH3	82	29	8.5	6.5	9	3	•
VPCM1415025	M14 X 1.5	WH3	88	30	10.5	8	11	3	•
VPCM1420025	M14 X 2.0	WH3	88	30	10.5	8	11	3	•
VPCM1615025	M16 X 1.5	WH3	95	32	12.5	10	13	3	•
VPCM1620025	M16 X 2.0	WH3	95	32	12.5	10	13	3	•
VPCM1815025	M18 X 1.5	WH3	100	37	14	11	14	4	•
VPCM1825025	M18 X 2.5	WH3	100	37	14	11	14	4	•
VPCM2015025	M20 X 1.5	WH3	105	37	15	12	15	4	•
VPCM2025025	M20 X 2.5	WH3	105	37	15	12	15	4	•

#### ■ Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	◎	◎	○				○	○	○		○	○	○	○	○	○	◎	○	○	○	○		○



## ROLL TAPS

- Designed for high performance of threading  
Aluminum, Zinc, Copper and other Nonferrous alloys.

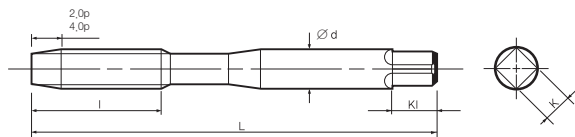
## VROM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	Oil Groove	STOCK
2P	4P									
VROM0305020S	VROM0305040S	M3 X 0.5	GH5	46	11	4	3.2	6	1	•
VROM0305020M	VROM0305040M								4	•
VROM0407020S	VROM0407040S	M4 X 0.7	GH6	52	13	5	4	7	1	•
VROM0407020M	VROM0407040M								4	•
VROM0508020S	VROM0508040S	M5 X 0.8	GH6	60	16	5.5	4.5	7	1	•
VROM0508020M	VROM0508040M								4	•
VROM0610020S	VROM0610040S	M6 X 1.0	GH7	62	19	6	4.5	7	1	•
VROM0610020M	VROM0610040M								4	•
VROM0812520S	VROM0812540S	M8 X 1.25	GH7	70	22	6.2	5	8	1	•
VROM0812520M	VROM0812540M								4	•
VROM1012520S	VROM1012540S	M10 X 1.25	GH7	75	24	7	5.5	8	1	•
VROM1012520M	VROM1012540M								4	•
VROM1015020S	VROM1015040S	M10 X 1.50	GH7	75	24	7	5.5	8	1	•
VROM1015020M	VROM1015040M								4	•
VROM1210020S	VROM1210040S	M12 X 1.0	GH7	82	29	8.5	6.5	9	1	•
VROM1210020M	VROM1210040M								4	•
VROM1212520S	VROM1212540S	M12 X 1.25	GH7	82	29	8.5	6.5	9	1	•
VROM1212520M	VROM1212540M								4	•
VROM1215020S	VROM1215040S	M12 X 1.5	GH7	82	29	8.5	6.5	9	1	•
VROM1215020M	VROM1215040M								4	•
VROM1217520S	VROM1217540S	M12 X 1.75	GH8	82	29	8.5	6.5	9	1	•
VROM1217520M	VROM1217540M								4	•

### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic	
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC					
												○	○	○	○	○	○		◎					



### ROLL TAPS

- It is applicable regardless of steel or Nonferrous alloys.
- By applying TiN coating, it provides stable and highly efficient operation due to enhanced durability.

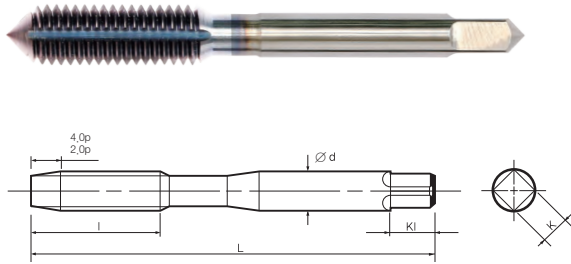
## VRTM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	Oil Groove	STOCK
2P	4P									
VRTM0305020S	VRTM0305040S	M3 X 0.5	GH5	46	11	4	3.2	6	1	•
VRTM0305020M	VRTM0305040M								4	•
VRTM0407020S	VRTM0407040S	M4 X 0.7	GH6	52	13	5	4	7	1	•
VRTM0407020M	VRTM0407040M								4	•
VRTM0508020S	VRTM0508040S	M5 X 0.8	GH6	60	16	5.5	4.5	7	1	•
VRTM0508020M	VRTM0508040M								4	•
VRTM0610020S	VRTM0610040S	M6 X 1.0	GH7	62	19	6	4.5	7	1	•
VRTM0610020M	VRTM0610040M								4	•
VRTM0812520S	VRTM0812540S	M8 X 1.25	GH7	70	22	6.2	5	8	1	•
VRTM0812520M	VRTM0812540M								4	•
VRTM1012520S	VRTM1012540S	M10 X 1.25	GH7	75	24	7	5.5	8	1	•
VRTM1012520M	VRTM1015040M								4	•
VRTM1015020S	VRTM1015040S	M10 X 1.50	GH7	75	24	7	5.5	8	1	•
VRTM1015020M	VRTM1015040M								4	•
VRTM1210020S	VRTM1210040S	M12 X 1.0	GH7	82	29	8.5	6.5	9	1	•
VRTM1210020M	VRTM1210040M								4	•
VRTM1212520S	VRTM1212540S	M12 X 1.25	GH7	82	29	8.5	6.5	9	1	•
VRTM1212520M	VRTM1212540M								4	•
VRTM1215020S	VRTM1215040S	M12 X 1.5	GH7	82	29	8.5	6.5	9	1	•
VRTM1215020M	VRTM1215040M								4	•
VRTM1217520S	VRTM1217540S	M12 X 1.75	GH8	82	29	8.5	6.5	9	1	•
VRTM1217520M	VRTM1217540M								4	•

■ Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0.25% -0.45%	C 0.45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○				◎	○	○		○	○	○	○									



### ROLL TAPS

- It is applicable regardless of steel or Nonferrous alloys.
- By applying TiCN coating, it provides stable and highly efficient operation due to enhanced durability.

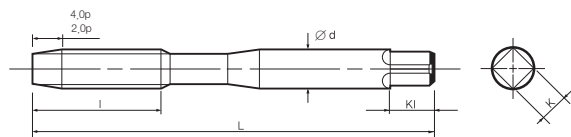
## VRCM...series



EDP. No.		Thread Size	Limits	L	l	d	K	Kl	Oil Groove	STOCK
2P	4P									
VRCM0305020S	VRCM0305040S	M3 X 0.5	GH5	46	11	4	3.2	6	1	•
VRCM0305020M	VRCM0305040M								4	•
VRCM0407020S	VRCM0407040S	M4 X 0.7	GH6	52	13	5	4	7	1	•
VRCM0407020M	VRCM0407040M								4	•
VRCM0508020S	VRCM0508040S	M5 X 0.8	GH6	60	16	5.5	4.5	7	1	•
VRCM0508020M	VRCM0508040M								4	•
VRCM0610020S	VRCM0610040S	M6 X 1.0	GH7	62	19	6	4.5	7	1	•
VRCM0610020M	VRCM0610040M								4	•
VRCM0812520S	VRCM0812540S	M8 X 1.25	GH7	70	22	6.2	5	8	1	•
VRCM0812520M	VRCM0812540M								4	•
VRCM1012520S	VRCM1012540S	M10 X 1.25	GH7	75	24	7	5.5	8	1	•
VRCM1012520M	VRCM1012540M								4	•
VRCM1015020S	VRCM1015040S	M10 X 1.50	GH7	75	24	7	5.5	8	1	•
VRCM1015020M	VRCM1015040M								4	•
VRCM1210020S	VRCM1210040S	M12 X 1.0	GH7	82	29	8.5	6.5	9	1	•
VRCM1210020M	VRCM1210040M								4	•
VRCM1212520S	VRCM1212540S	M12 X 1.25	GH7	82	29	8.5	6.5	9	1	•
VRCM1212520M	VRCM1212540M								4	•
VRCM1215020S	VRCM1215040S	M12 X 1.5	GH7	82	29	8.5	6.5	9	1	•
VRCM1215020M	VRCM1215040M								4	•
VRCM1217520S	VRCM1217540S	M12 X 1.75	GH8	82	29	8.5	6.5	9	1	•
VRCM1217520M	VRCM1217540M								4	•

#### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C	C	C	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
-0.25%	0.25% -0.45%	0.45% -					◎					◎	◎	◎		◎	◎		◎				
◎	◎	○	○				◎					◎	◎	◎		◎	◎		◎				



### SPIRAL ROLL TAPS

- Designed for high performance of threading  
Aluminum, Zinc, Magnesium, Copper and other  
Nonferrous alloys.

## VFOM...series

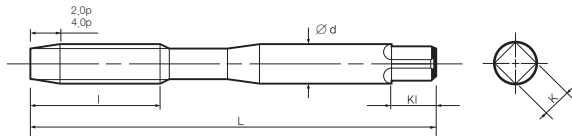


EDP. No.		Thread Size	Limits	L	l	d	K	KI	STOCK
2P	4P								
VFOM0305020	VFOM0305040	M3 X 0.5	GH6	46	18	4	3.2	6	•
VFOM03506020	VFOM03506040	M3.5 X 0.6	GH6	46	18	4	3.2	6	•
VFOM0407020	VFOM0407040	M4 X 0.7	GH7	52	20	5	4	7	•
VFOM0508020	VFOM0508040	M5 X 0.8	GH7	60	22	5.5	4.5	7	•
VFOM0610020	VFOM0610040	M6 X 1.0	GH7	62	24	6	4.5	7	•

#### ■ Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0,25%	C0,25% -0,45%	C 0,45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
												○	○	○	○	○	○		◎				





### SPIRAL ROLL TAPS

- Designed for high performance of threading Nonferrous alloys, Steel, and Stainless steel.
- By applying TiN coating, it provides stable and highly efficient operation due to enhanced durability.

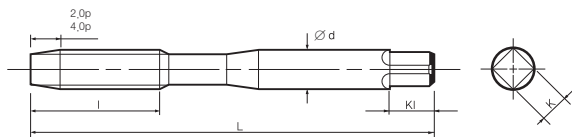
## VFTM...series



EDP. No.		Thread Size	Limits	L	l	d	K	KI	STOCK
2P	4P								
VFTM0305020	VFTM0305040	M3 X 0.5	GH6	46	18	4	3.2	6	•
VFTM03506020	VFTM03506040	M3.5 X 0.6	GH6	46	18	4	3.2	6	•
VFTM0407020	VFTM0407040	M4 X 0.7	GH7	52	20	5	4	7	•
VFTM0508020	VFTM0508040	M5 X 0.8	GH7	60	22	5.5	4.5	7	•
VFTM0610020	VFTM0610040	M6 X 1.0	GH7	62	24	6	4.5	7	•

#### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic	
C -0.25%	C0,25% -0,45%	C 0,45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC					
○	○	○	○				◎	○	○		○	○	○	○										



### SPIRAL ROLL TAPS

- Designed for high performance of threading Nonferrous alloys, Steel, and Stainless steel.
- By applying TiCN coating, it provides stable and highly efficient operation due to enhanced durability.

## VFCM...series



EDP. No.		Thread Size	Limits	L	l	d	K	Kl	STOCK
2P	4P								
VFCM0305020	VFCM0305040	M3 X 0.5	GH6	46	18	4	3.2	6	•
VFCM0306020	VFCM0306040	M3.5 X 0.6	GH6	46	18	4	3.2	6	•
VFCM0407020	VFCM0407040	M4 X 0.7	GH7	52	20	5	4	7	•
VFCM0508020	VFCM0508040	M5 X 0.8	GH7	60	22	5.5	4.5	7	•
VFCM0610020	VFCM0610040	M6 X 1.0	GH7	62	24	6	4.5	7	•

#### Work Material

Low Carbon Steels	Medium Carbon Steels	High Carbon Steels	Alloy Steels	Hardened Steels			Stainless Steels	Tool Steels	Cast Steels	Cast Iron	Ductile Cast Iron	Copper	Brass	Brass Casting	Bronze	Aluminum Rolled	Aluminum Alloy Casting	Magnesium Alloy Casting	Zinc Alloy Casting	Titanium Alloys	Nickel Alloys	Thermo Setting Plastic	Thermo Plastic
C -0.25%	C0,25% -0,45%	C 0,45%-	SCM	25-45 HRC	45-55 HRC	50-60 HRC	SUS	SKD	SC	FC	FCD	Cu	Bs	BsC	PB	AL	AC,ADC	MC	ZDC				
○	○	○	○				○					○	○	○		○	○		○				

# WH Limits

## WH Limits

WIDIN applies a unique WH limits system in order to fulfill the degree of an internal screw and provides users the best tools for suitable working and operating conditions.

1.  $\{p \leq 0.6 (T.P.I \geq 40)\}$

Upper Limits :  $0.010 + 0.015 \times n$

Lower Limits : Upper Limits - 0.015

Unit :mm (n=WH)

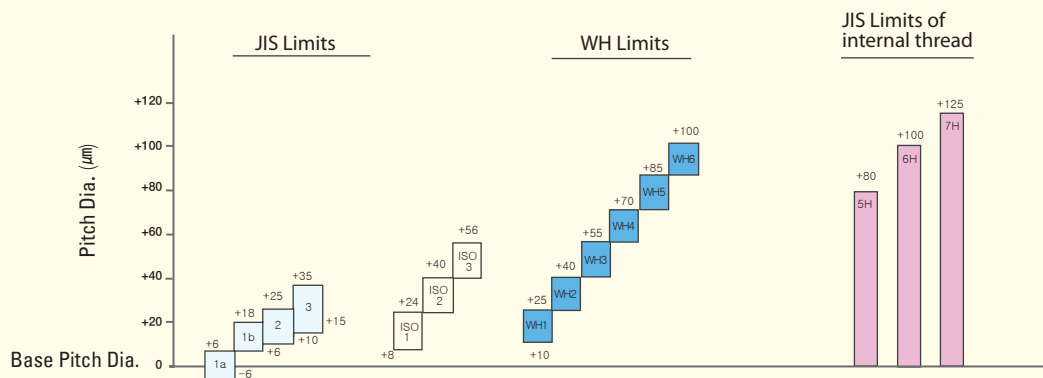
2.  $\{p \leq 0.7 (T.P.I \leq 36)\}$

Upper Limits :  $0.020 \times n$

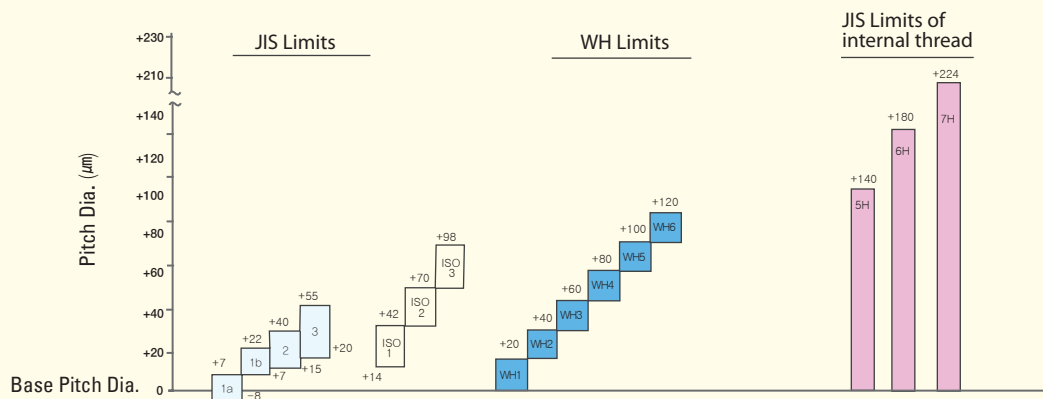
Lower Limits : Upper Limits - 0.020

Unit:mm (n=WH)

### Example M3×0.5



### Example M10×1.5



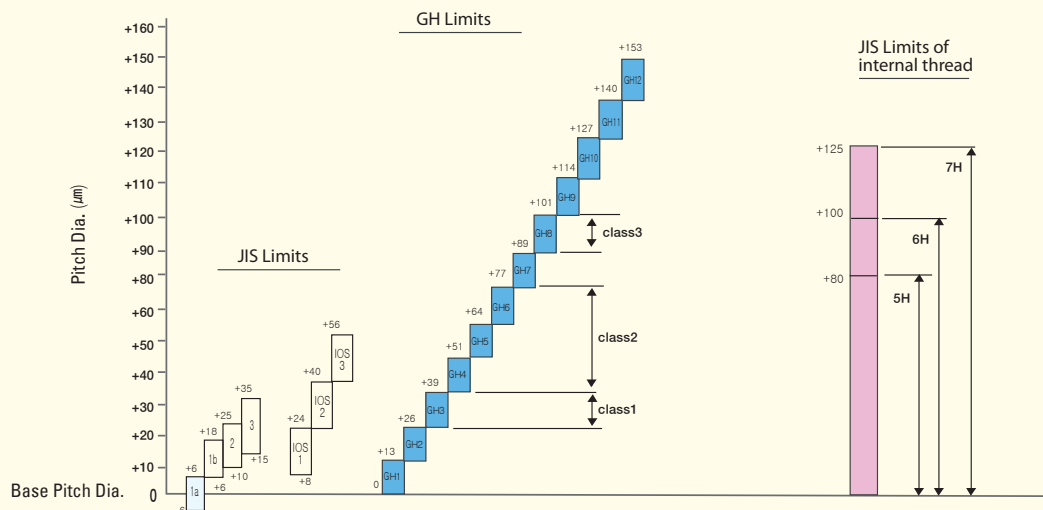
# GH Limits

## GH Limits

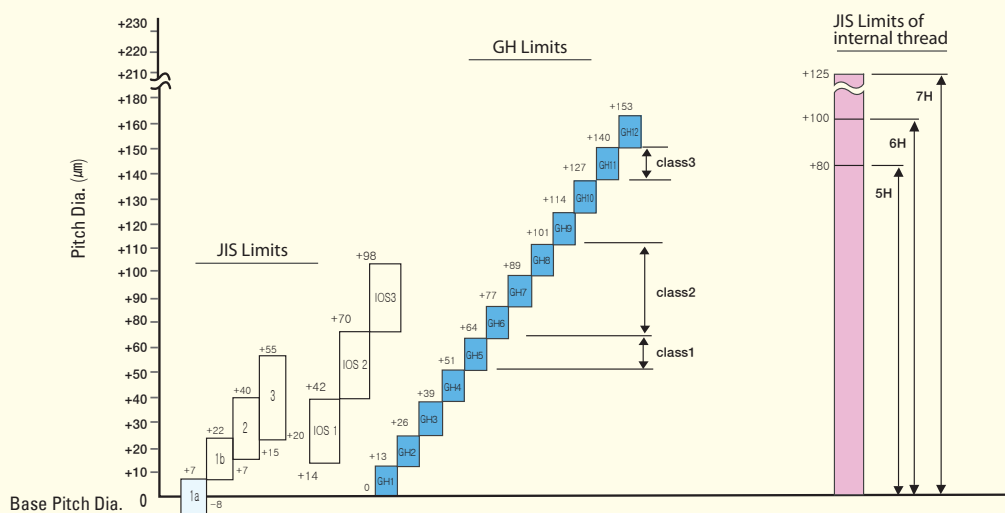
WIDIN applies the strict tap pitch diameter limits because Fluteless taps need to be managed by the rigid diameter of a bottom hole (unlike other normal taps) for it to be able to make precise tapping process of an internal screw by Plastic working.

WIDIN adopts the limits tolerance of  $12.7\ \mu\text{m}$  (0.0005) increments.

### Example M3x0.5



### Example M10x1.5



## Recommended tapping speeds and lubricants

Tapping speeds depend on very important factors such as material and type of tap, chamfer length, dimension of holes, work materials and fluids.

Users need to check every aspect before applying it.

Moreover, lubricant, cooling and abrasion resistance are three important factors affecting cutting fluids.

Therefore, users should provide enough fluids during the tapping process.

### Recommended tapping speeds and lubricants

Work Material		Speed(m/min)							Lubricants			
		Straight Fluted Tap	Spiral Fluted Tap	Spiral Pointed Tap	Tungsten Carbide Tap	Fluteless Tap	HighSpeed Synchro Tap	Pipe Thread Tap	Non Water-soluble	Water-soluble	Semi-dry	Dry
Low Carbon Steels	C ~0.25%	8~13	8~13	15~25	-	8~13	27~32	3~6	◎	○	△	△
Medium Carbon Steels	C0.25% ~0.45%	7~12	7~12	10~15	-	7~10	27~32	3~6	◎	○	△	△
High Carbon Steels	C 0.45%~	6~9	6~9	8~13	-	5~8	22~27	2~5	◎	○	△	△
Alloy Steels	SCM	7~12	7~12	10~15	-	5~8	22~27	2~5	◎	△	△	△
Hardened Steels	25~45 HRC	3~5 (4~8)	3~5 (4~8)	4~6 (6~10)	-	-	15~20	2~5	◎	△	-	-
Stainless Steels	SUS	4~7	5~8	8~13	-	5~10	-	3~6	◎	○	-	-
Precipitation Hardened Steels	SUS630 SUS631	3~5	3~5	4~6	-	-	-	2~5	◎	-	-	-
Tool Steels	SKD	6~9	6~9	7~10	-	-	-	2~5	◎	-	-	-
Cast Steels	SC	6~11	6~11	10~15	-	-	17~22	2~5	◎	○	-	-
Cast Iron	FC	10~15	-	-	10~20	-	-	2~5	◎	○	○	○
Ductile Cast Iron	FCD	7~12	7~12	10~20	10~20	-	-	4~8	◎	○	○	-
Copper	Cu	6~9	6~11	7~12	10~20	7~12	27~32	2~5	○	○	-	-
Brass, Brass Casting	Bs, Bsc	10~15	10~20	15~25	15~25	7~12	27~32	5~10	○	○	○	○
Bronze, Bronze Casting	PB, PBC	6~11	6~11	10~20	10~20	7~12	-	6~11	○	○	-	-
Aluminum Rolled	AL	10~20	10~20	15~25	-	10~20	100~300	5~10	◎	○	△	-
Aluminum Alloy Casting	AC, ADC	10~15	10~15	15~20	10~20	10~25	80~300	10~15	◎	○	△	-
Magnesium Alloy Casting	MC	7~12	7~12	10~15	10~20	-	-	10~15	◎	○	○	-
Zinc Alloy Casting	ZDC	1~12	7~12	10~15	10~20	7~12	27~100	10~15	◎	○	△	-
Thermo Setting Plastic	Bakelite, Phenol Epoxy	10~20	-	-	15~25	-	-	5~10	-	○	○	○
Thermo Plastic	Vinyl Chloride Nylon	10~20	10~15	10~20	10~20	-	27~32	5~10	-	○	○	○

◎: Ideal / ○: Good / △: Applicable / -: Not Applicable

## Drill hole Size for Metric Screw Threads in Accordance with 2nd Class of Limits

### □ Straight Tap, Spiral tap

Thread Size	Drill Size(mm)	mm	
		Min	Max
M3 X 0.5	2.50	2.459	2.599
M4 X 0.7	3.30	3.242	3.422
M5 X 0.8	4.20	4.134	4.334
M6 X 1.0	5.00	4.917	5.153
M8 X 1.25	6.80	6.647	6.912
M10 X 1.25	8.80	8.647	8.912
M10 X 1.5	8.50	8.376	8.676
M12 X 1.0	11.00	10.917	11.153
M12 X 1.25	10.80	10.647	10.912
M12 X 1.5	10.50	10.376	10.676
M12 X 1.75	10.30	10.106	10.441
M14 X 1.5	12.50	12.376	12.676
M14 X 2.0	12.00	11.835	12.21
M16 X 1.5	14.50	14.376	14.676
M16 X 2.0	14.00	13.835	14.21
M18 X 1.5	16.50	16.376	16.676
M18 X 2.5	15.50	15.294	15.744
M20 X 1.5	18.50	18.376	18.676
M20 X 2.5	17.50	17.294	17.744

### □ Roll tap

Thread Size	Drill Size(mm)	mm	
		Min	Max
M3 X 0.5	2.80	2.76	2.81
M4 X 0.7	3.70	3.65	3.7
M5 X 0.8	4.60	4.59	4.66
M6 X 1.0	5.50	5.48	5.57
M8 X 1.25	7.40	7.34	7.41
M10 X 1.25	9.40	9.34	9.41
M10 X 1.5	9.20	9.18	9.28
M12 X 1.0	11.50	11.48	11.57
M12 X 1.25	11.40	11.34	11.41
M12 X 1.5	11.20	11.18	11.28
M12 X 1.75	11.10	11.05	11.15