

V-TAPS

Advanced Tapping Solutions

METRIC

V-TAPS

Advanced Tapping Solutions

Vargus Ltd. introduces **V-Taps**, the new line of advanced tapping solutions.

Features and Benefits:

- Covers the most popular ISO Metric and American UN threading application standards
- Four different geometries in an assortment of types:
 - Straight Flute with Spiral Point
 - Spiral Flute
 - Straight Flute
 - Cold Forming
- Suitable for blind holes and thru hole operations
- Tools are designed to work on a wide range of materials
- 3 different grades:
 - **VHB** - Black oxide coating
 - **VHN** - TiN coated
 - **VHC** - TiCN coated
- Available in JIS* (Japanese Industrial Standards)



* Available in Q2 2022

V-TAPS

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V-Taps Ordering Code System

VT	M	10x1.5	-	SP	-	6H	-	DIN371	-	VHB
1	2	3		4		5		6		7

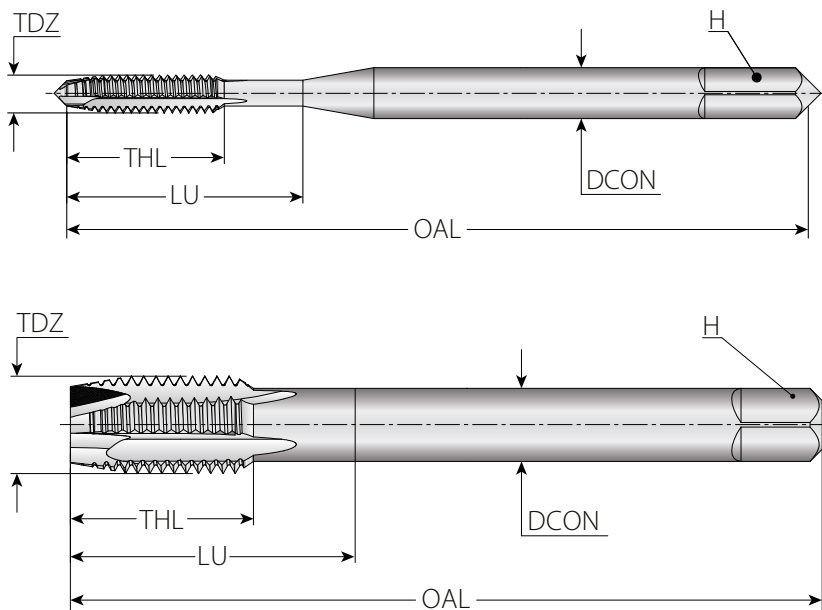
1 - Tool Type VT - Vargus Tap	2 - Thread Specifications M - ISO Metric coarse thread DIN13 MF - ISO Metric fine thread DIN13 UNF - Unified fine thread ASME B1.1 UNC - Unified coarse thread ASME B1.1	3 - Thread Size Nominal Dia. & Pitch/TPI	4 - Geometry SP - Spiral point (gun) SF - Spiral flute ST - Straight flute FM - Forming	5 - Precision Class 6H/ISO2 - ISO Pitch Diameter Tolerance Zone (high basic pitch diameter) 6HX - Pitch Diameter Tolerance Zone (with increased pitch diameter) 2B - Internal Inch UN Thread Medium Class of Fit
6 - Shank DIN 374 DIN 371 DIN 376 DIN 2174 JIS	7 - Grade VHB – HSS-E substrate with Black oxide coating VHN – HSS-E substrate, TiN coated VHC – HSS-E (HSS-E PM available for cold forming taps) substrate, TiCN coated			

Cutting Tool Dimensions According to ISO 13399

Vargus defines the **new V-Taps Line according to the ISO 13399 standard**.

The following is a list of dimensions which are used in this catalog.

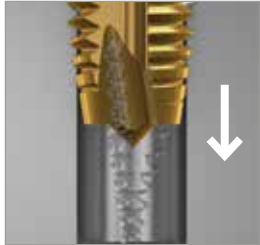
ISO 13399 is an international technical standard for the computer-interpretable representation and exchange of cutting tools and toolholders. The objective is to provide a system that allows for a neutral file exchange, and a basis for implementing and sharing product databases and archiving.



ISO 13399 Dimension	Description
TDZ	Thread diameter size
TP	Thread pitch
DCON	Connection diameter
OAL	Overall length
THL	Threading length
LU	Usable length
H	Shank height
SG	DIN standard
PHD	Pre-machined hole diameter
NOF	Flute count
THCHT	Threading chamfer type

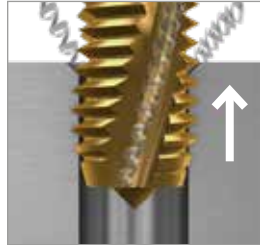
Tool Geometry

Straight Flutes with Spiral Point (SP)



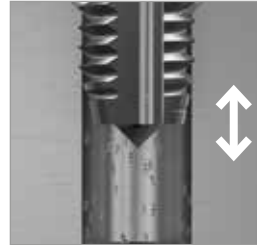
P M N S H

Spiral Flute (SF)



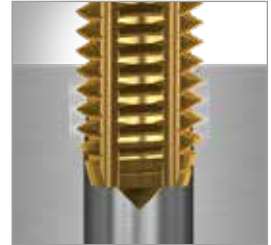
P M N S H

Straight Flute (ST)



K

Cold Forming (FM)



P N

Thread Form Type

M

Metric Coarse

UNC

Unified Coarse

MF

Metric Fine

UNF

Unified Fine

Threading Application



Thru Hole



Blind Hole

Basic Standard Group

DIN 376

DIN 376 – M Thread Standard

DIN 371/376

DIN Thread Standard (based on size range)
DIN 371 if $\varnothing \leq 10\text{mm}$ / DIN 376 if $\varnothing \geq 12\text{mm}$

DIN 2174

DIN 2174 – Forming Tap Standard

DIN 374

DIN 374 – MF Thread Standard

DIN 371/374

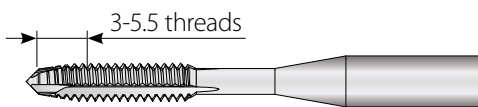
DIN Thread Standard (based on size range)
DIN 371 if $\varnothing \leq 10\text{mm}$ / DIN 374 if $\varnothing \geq 12\text{mm}$

DIN JIS

DIN JIS – Japanese Industrial Standards

Chamfer Types

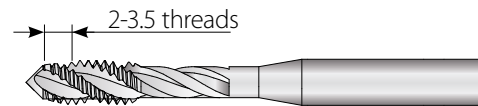
B 3.5-5.5



Form B

Medium, 3.5-5 threads, with spiral point, for all thru holes and deep tapping holes.

C 2-3.5



Form C

Long, 2-3.5 threads for blind holes and generally for aluminum, gray cast iron and glass.

Substrate

HSS-E

High speed cobalt steel tool material

HSS-E PM

High speed cobalt powder metal tool material

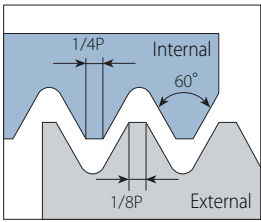
Usable Length Diameter Ratio

2.5xD

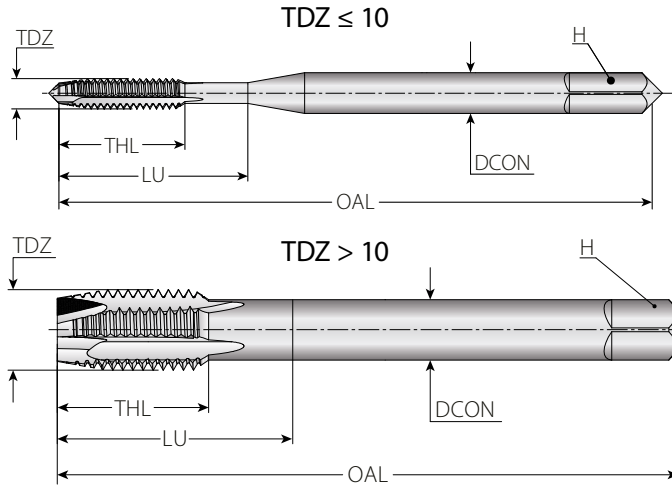
2.5xD Useable tool depth to diameter ratio

ISO Metric (M)

Internal



Tolerance class: 6H



M

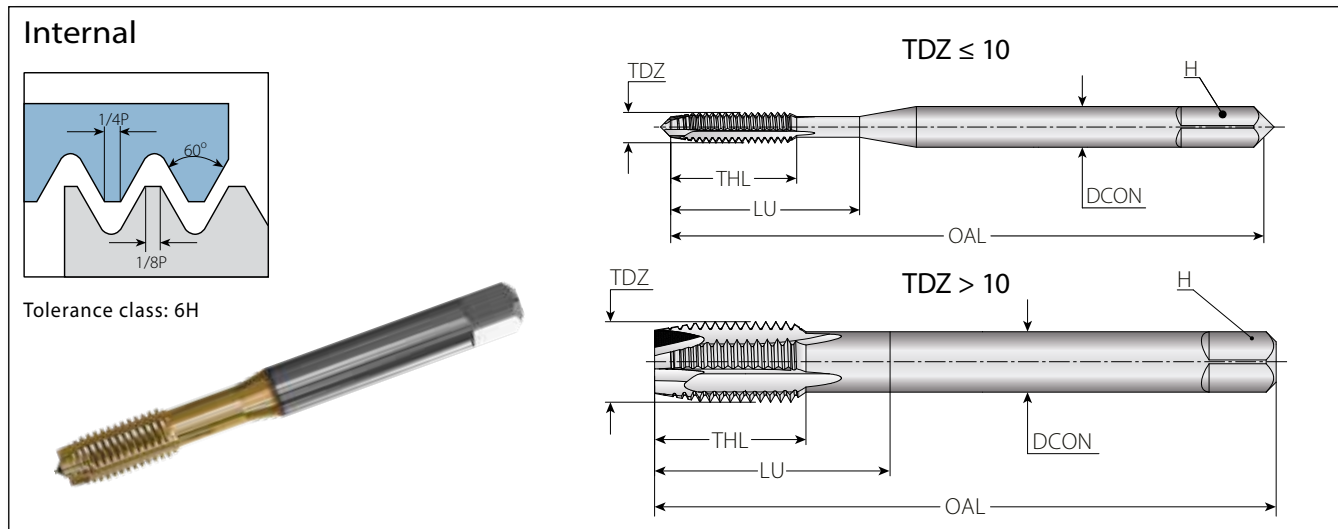
DIN
371/376
B
3.5-5.5
2.5xD
HSS-E

P
M
N
S
H

Straight Flutes with **Spiral Point Taps**

M Coarse	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade		
TDZ	TP	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHN	VHC
M2	0.40	VT-M2x0.4-SP-6H-DIN371-...	2.80	45	8	9	2.10	371	1.60	2	B	•	•	•
M2.5	0.45	VT-M2.5x0.45-SP-6H-DIN371-...	2.80	50	9	10	2.10		2.05	2	B	•	•	•
M3	0.50	VT-M3x0.5-SP-6H-DIN371-...	3.50	56	11	18	2.70		2.50	3	B	•	•	•
M4	0.70	VT-M4x0.7-SP-6H-DIN371-...	4.50	63	13	19	3.40		3.30	3	B	•	•	•
M5	0.80	VT-M5x0.8-SP-6H-DIN371-...	6.00	70	16	25	4.90		4.20	3	B	•	•	•
M6	1.00	VT-M6x1-SP-6H-DIN371-...	6.00	80	19	30	4.90		5.00	3	B	•	•	•
M8	1.25	VT-M8x1.25-SP-6H-DIN371-...	8.00	90	22	34	6.20		6.80	3	B	•	•	•
M10	1.50	VT-M10x1.5-SP-6H-DIN371-...	10.00	100	24	40	8.00	8.50	3	B	•	•	•	
M12	1.75	VT-M12x1.75-SP-6H-DIN376-...	9.00	110	28	-	7.00	376	10.20	3	B	•	•	•
M14	2.00	VT-M14x2-SP-6H-DIN376-...	11.00	110	30	-	9.00		12.00	3	B	•	•	•
M16	2.00	VT-M16x2-SP-6H-DIN376-...	12.00	110	32	-	9.00		14.00	3	B	•	•	•
M18	2.50	VT-M18x2.5-SP-6H-DIN376-...	14.00	125	36	-	11.00		15.50	4	B	•	•	•
M20	2.50	VT-M20x2.5-SP-6H-DIN376-...	16.00	140	36	-	12.00		17.50	4	B	•	•	•

• In stock

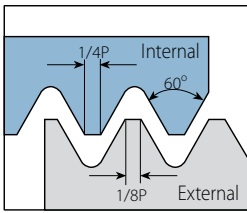


Straight Flutes with Spiral Point Taps

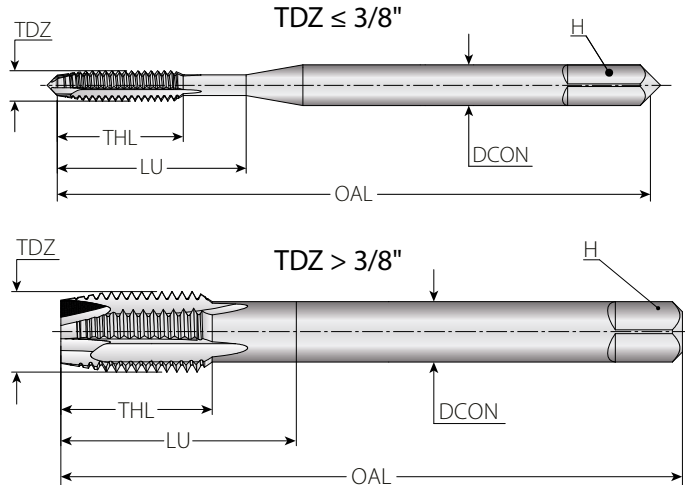
M Fine	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade		
TDZ	TP	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHN	VHC
MF4	0.50	VT-MF4x0.5-SP-6H-DIN371-...	4.50	63	12	19	3.40	371	3.50	3	B	•	•	•
MF5	0.50	VT-MF5x0.5-SP-6H-DIN371-...	6.00	70	12	25	4.90		4.50	3	B	•	•	•
MF6	0.50	VT-MF6x0.5-SP-6H-DIN371-...	6.00	80	15	30	4.90		5.50	3	B	•	•	•
MF6	0.75	VT-MF6x0.75-SP-6H-DIN371-...	6.00	80	15	30	4.90		6.20	3	B	•	•	•
MF8	1.00	VT-MF8x1-SP-6H-DIN371-...	8.00	90	22	34	6.20		7.00	3	B	•	•	•
MF10	1.00	VT-MF10x1-SP-6H-DIN371-...	10.00	90	20	36	8.00		9.00	3	B	•	•	•
MF10	1.25	VT-MF10x1.25-SP-6H-DIN371-...	10.00	100	24	40	8.00		8.80	3	B	•	•	•
MF12	1.00	VT-MF12x1-SP-6H-DIN374-...	9.00	100	22	-	7.00	374	11.00	3	B	•	•	•
MF12	1.25	VT-MF12x1.25-SP-6H-DIN374-...	9.00	100	22	-	7.00		10.80	3	B	•	•	•
MF14	1.25	VT-MF14x1.25-SP-6H-DIN374-...	11.00	100	22	-	9.00		12.80	3	B	•	•	•
MF16	1.50	VT-MF16x1.5-SP-6H-DIN374-...	12.00	100	22	-	9.00		14.50	3	B	•	•	•
MF18	1.50	VT-MF18x1.5-SP-6H-DIN374-...	14.00	110	26	-	11.00		16.50	4	B	•	•	•
MF20	1.50	VT-MF20x1.5-SP-6H-DIN374-...	16.00	125	26	-	12.00		18.50	4	B	•	•	•

• In stock

Internal



Tolerance class: 2B



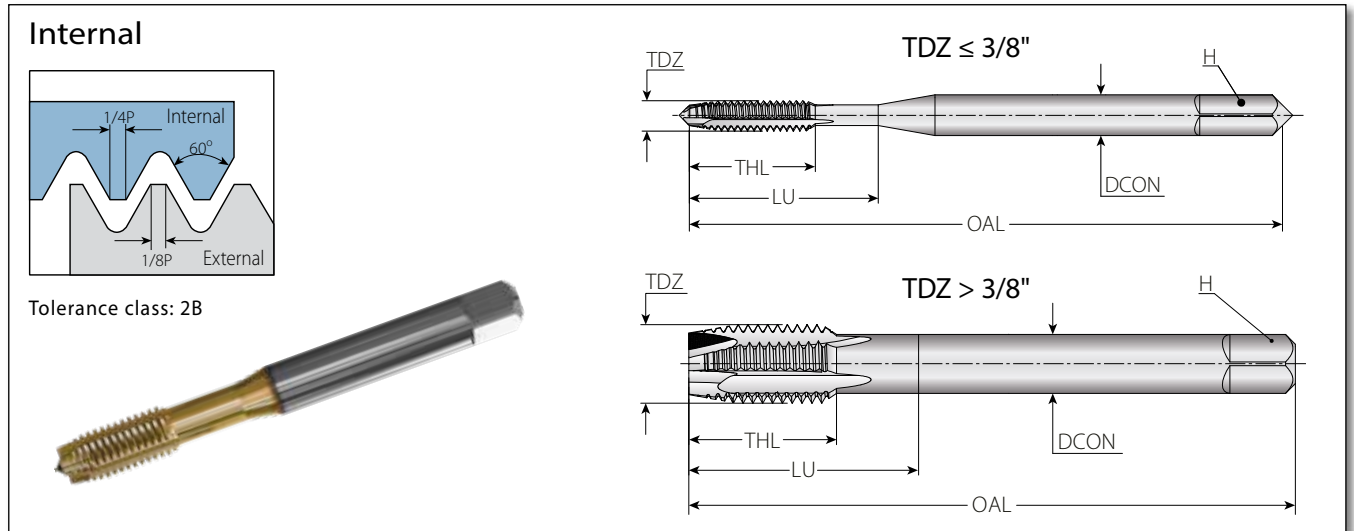
UNC  DIN 371/376  B 3.5-5.5 2.5xD HSS-E

P M N S H

Straight Flutes with **Spiral Point Taps**

UNC	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade		
TDZ	TPI	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHN	VHC
No.4	40	VT-UNC4x40-SP-2B-DIN371-...	3.50	56	11	17	2.70	371	2.30	2	B	•	•	•
No.5	40	VT-UNC5x40-SP-2B-DIN371-...	3.50	56	11	18	2.70		2.60	3	B	•	•	•
No.6	32	VT-UNC6x32-SP-2B-DIN371-...	4.00	56	12	18	3.00		2.85	3	B	•	•	•
No.8	32	VT-UNC8x32-SP-2B-DIN371-...	4.50	63	13	21	3.40		3.50	3	B	•	•	•
No.10	24	VT-UNC10x24-SP-2B-DIN371-...	6.00	70	16	25	4.90		3.90	3	B	•	•	•
No.12	24	VT-UNC12x24-SP-2B-DIN371-...	6.00	80	19	30	4.90		4.50	3	B	•	•	•
1/4"	20	VT-UNC1/4x20-SP-2B-DIN371-...	7.00	80	19	31	5.50		5.20	3	B	•	•	•
5/16"	18	VT-UNC5/16x18-SP-2B-DIN371-...	8.00	90	22	34	6.20		6.60	3	B	•	•	•
3/8"	16	VT-UNC3/8x16-SP-2B-DIN371-...	9.00	90	22	39	7.00		8.00	3	B	•	•	•
7/16"	14	VT-UNC7/16x14-SP-2B-DIN376-...	8.00	100	25	-	6.20		9.40	3	B	•	•	•
1/2"	13	VT-UNC1/2x13-SP-2B-DIN376-...	9.00	110	28	-	7.00	10.75	3	B	•	•	•	
9/16"	12	VT-UNC9/16x12-SP-2B-DIN376-...	11.00	110	30	-	9.00	12.25	3	B	•	•	•	
5/8"	11	VT-UNC5/8x11-SP-2B-DIN376-...	12.00	110	33	-	9.00	13.50	3	B	•	•	•	
3/4"	10	VT-UNC3/4x10-SP-2B-DIN376-...	14.00	125	38	-	11.00	16.50	4	B	•	•	•	
7/8"	9	VT-UNC7/8x9-SP-2B-DIN376-...	18.00	140	41	-	14.50	19.50	4	B	•	•	•	
1"	8	VT-UNC1x8-SP-2B-DIN376-...	18.00	160	47	-	14.50	22.25	4	B	•	•	•	

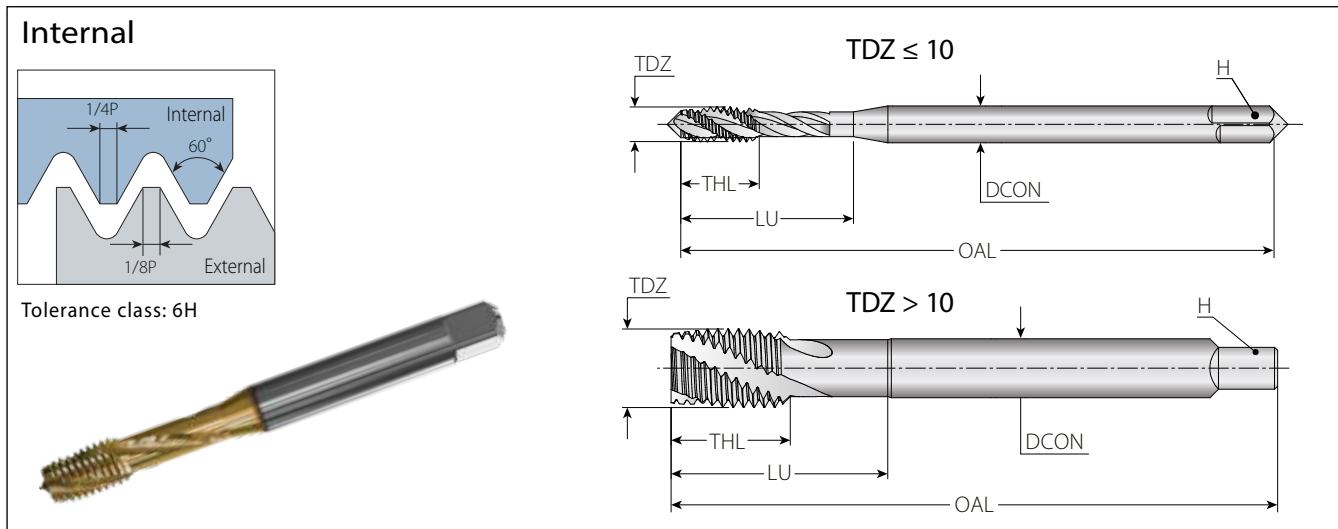
• In stock



Straight Flutes with **Spiral Point** Taps

UNF	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade		
TDZ	TPI	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHN	VHC
No.4	48	VT-UNF4x48-SP-2B-DIN371-...	3.50	56	11	17	2.70	371	2.40	2	B	•	•	•
No.5	44	VT-UNF5x44-SP-2B-DIN371-...	3.50	56	11	18	2.70		2.70	3	B	•	•	•
No.6	40	VT-UNF6x40-SP-2B-DIN371-...	4.00	56	12	18	3.00		3.00	3	B	•	•	•
No.8	36	VT-UNF8x36-SP-2B-DIN371-...	4.50	63	13	21	3.40		3.50	3	B	•	•	•
No.10	32	VT-UNF10x32-SP-2B-DIN371-...	6.00	70	16	25	4.90		4.10	3	B	•	•	•
No.12	28	VT-UNF12x28-SP-2B-DIN371-...	6.00	80	19	30	4.90		4.70	3	B	•	•	•
1/4"	28	VT-UNF1/4x28-SP-2B-DIN371-...	7.00	80	19	31	5.50		5.50	3	B	•	•	•
5/16"	24	VT-UNF5/16x24-SP-2B-DIN371-...	8.00	90	22	34	6.20		6.90	3	B	•	•	•
3/8"	24	VT-UNF3/8x24-SP-2B-DIN371-...	9.00	90	22	39	7.00		8.50	3	B	•	•	•
7/16"	20	VT-UNF7/16x20-SP-2B-DIN374-...	8.00	100	21	-	6.20		9.90	3	B	•	•	•
1/2"	20	VT-UNF1/2x20-SP-2B-DIN374-...	9.00	100	22	-	7.00	11.50	3	B	•	•	•	
9/16"	18	VT-UNF9/16x18-SP-2B-DIN374-...	11.00	100	22	-	9.00	12.90	3	B	•	•	•	
5/8"	18	VT-UNF5/8x18-SP-2B-DIN374-...	12.00	110	32	-	9.00	14.50	4	B	•	•	•	
3/4"	16	VT-UNF3/4x16-SP-2B-DIN374-...	14.00	125	37	-	11.00	17.50	4	B	•	•	•	
7/8"	14	VT-UNF7/8x14-SP-2B-DIN374-...	18.00	125	38	-	14.50	20.40	4	B	•	•	•	
1"	12	VT-UNC1x8-SP-2B-DIN376-...	20.00	140	38	-	16.00	23.25	4	B	•	•	•	

• In stock



Tolerance class: 6H

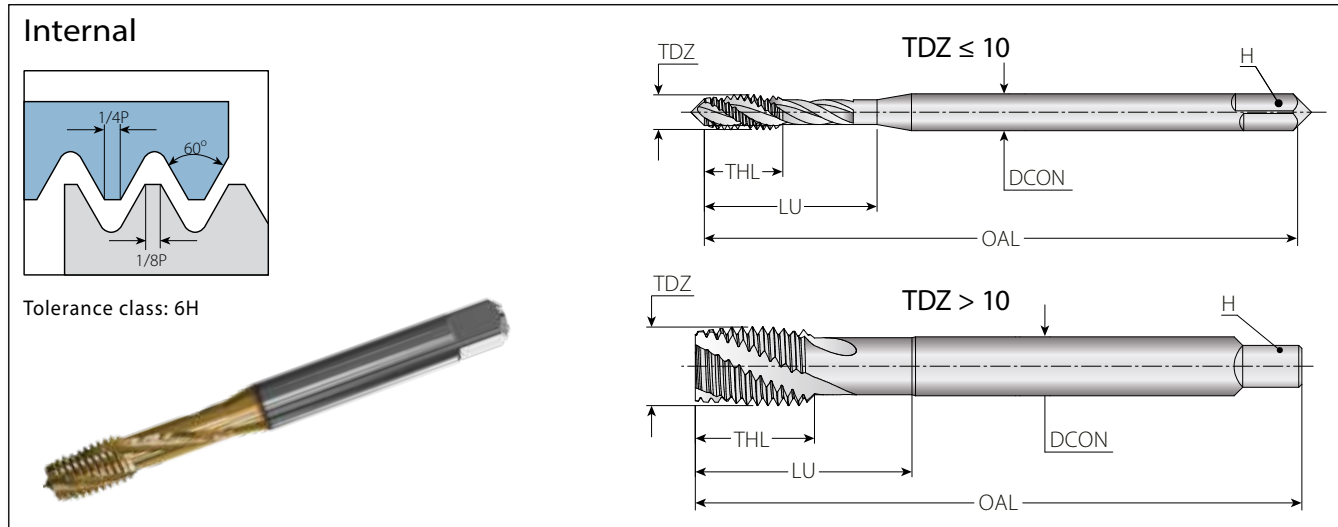


Spiral Flute Taps

M Coarse	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade		
TDZ	TP	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHN	VHC
M2	0.40	VT-M2x0.4-SF-6H-DIN371-...	2.80	45	8	9	2.10	371	1.60	3	C	•	•	•
M2.5	0.45	VT-M2.5x0.45-SF-6H-DIN371-...	2.80	50	9	10	2.10		2.05	3	C	•	•	•
M3	0.50	VT-M3x0.5-SF-6H-DIN371-...	3.50	56	11	18	2.70		2.50	3	C	•	•	•
M4	0.70	VT-M4x0.7-SF-6H-DIN371-...	4.50	63	13	19	3.40		3.30	3	C	•	•	•
M5	0.80	VT-M5x0.8-SF-6H-DIN371-...	6.00	70	16	25	4.90		4.20	3	C	•	•	•
M6	1.00	VT-M6x1-SF-6H-DIN371-...	6.00	80	19	30	4.90		5.00	3	C	•	•	•
M8	1.25	VT-M8x1.25-SF-6H-DIN371-...	8.00	90	22	36	6.20		6.80	3	C	•	•	•
M10	1.50	VT-M10x1.5-SF-6H-DIN371-...	10.00	100	24	40	8.00	8.50	3	C	•	•	•	
M12	1.75	VT-M12x1.75-SF-6H-DIN376-...	9.00	110	28	-	7.00	376	10.20	3	C	•	•	•
M14	2.00	VT-M14x2-SF-6H-DIN376-...	11.00	110	30	-	9.00		12.00	3	C	•	•	•
M16	2.00	VT-M16x2-SF-6H-DIN376-...	12.00	110	32	-	9.00		14.00	4	C	•	•	•
M18	2.50	VT-M18x2.5-SF-6H-DIN376-...	14.00	125	34	-	11.00		15.50	4	C	•	•	•
M20	2.50	VT-M20x2.5-SF-6H-DIN376-...	16.00	140	34	-	12.00		17.50	4	C	•	•	•

• In stock

ISO Metric (MF)



MF

DIN 371/374
C 2-3.5
2.5xD
HSS-E

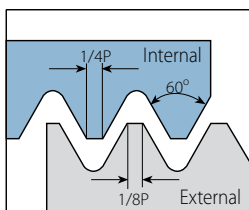
P
M
N
S
H

Spiral Flute Taps

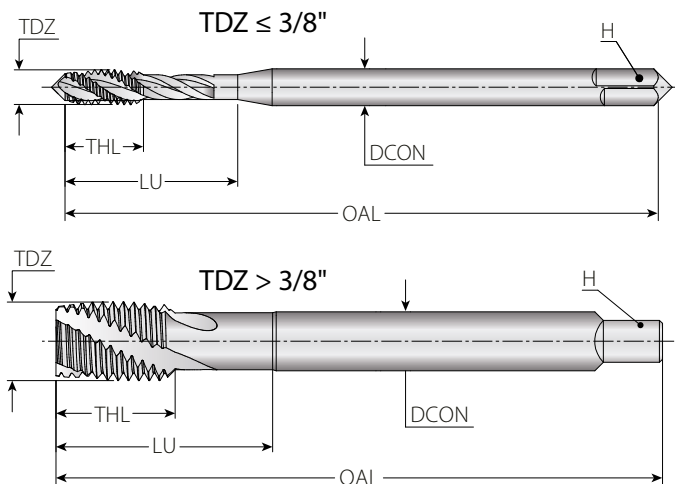
M Fine	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade		
TDZ	TP	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHN	VHC
MF4	0.50	VT-MF4x0.5-SF-6H-DIN371-...	4.50	63	10	19	3.40	371	3.50	3	C	•	•	•
MF5	0.50	VT-MF5x0.5-SF-6H-DIN371-...	6.00	70	12	25	4.90		4.50	3	C	•	•	•
MF6	0.50	VT-MF6x0.5-SF-6H-DIN371-...	6.00	80	14	30	4.90		5.50	3	C	•	•	•
MF6	0.75	VT-MF6x0.75-SF-6H-DIN371-...	6.00	80	14	30	4.90		5.20	3	C	•	•	•
MF8	1.00	VT-MF8x1-SF-6H-DIN371-...	8.00	90	22	36	6.20		7.00	3	C	•	•	•
MF10	1.00	VT-MF10x1-SF-6H-DIN371-...	10.00	90	20	39	8.00		9.00	3	C	•	•	•
MF10	1.25	VT-MF10x1.25-SF-6H-DIN371-...	10.00	100	24	40	8.00		8.80	3	C	•	•	•
MF12	1.00	VT-MF12x1-SF-6H-DIN374-...	9.00	100	22	-	7.00	374	11.00	4	C	•	•	•
MF12	1.25	VT-MF12x1.25-SF-6H-DIN374-...	9.00	100	22	-	7.00		10.80	4	C	•	•	•
MF14	1.25	VT-MF14x1.25-SF-6H-DIN374-...	11.00	100	22	-	9.00		12.80	4	C	•	•	•
MF16	1.50	VT-MF16x1.5-SF-6H-DIN374-...	12.00	100	22	-	9.00		14.50	4	C	•	•	•
MF18	1.50	VT-MF18x1.5-SF-6H-DIN374-...	14.00	110	25	-	11.00		16.50	4	C	•	•	•
MF20	1.50	VT-MF20x1.5-SF-6H-DIN374-...	16.00	125	25	-	12.00		18.50	4	C	•	•	•

• In stock

Internal



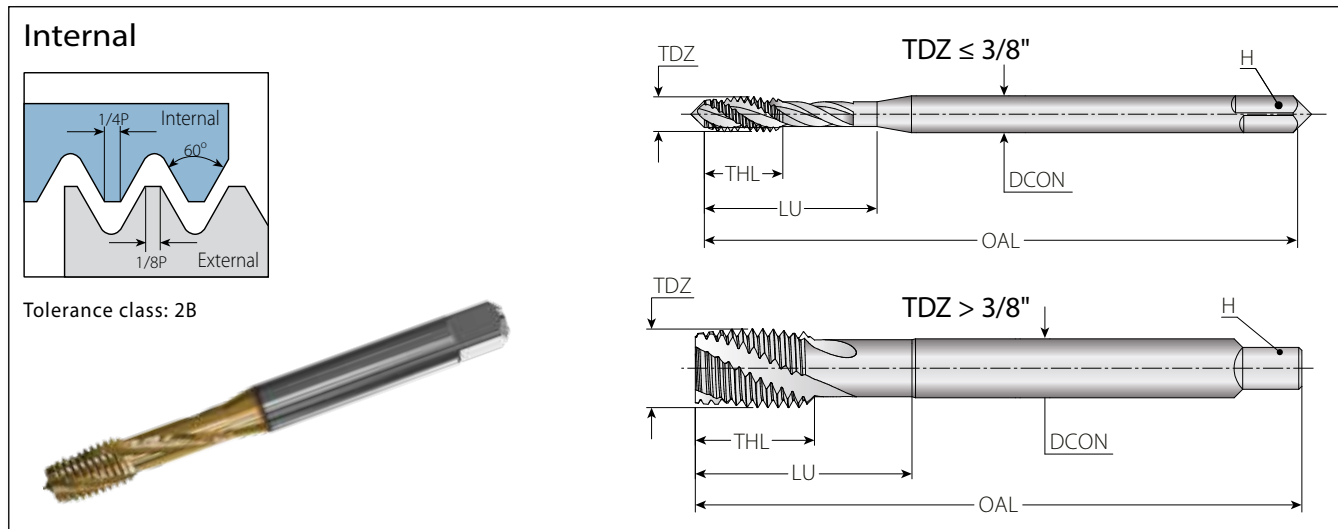
Tolerance class: 2B



Spiral Flute Taps

UNC	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade		
TDZ	TPI	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHN	VHC
No.4	40	VT-UNC4x40-SF-2B-DIN371-...	3.50	56	11	17	2.70	371	2.30	3	C	•	•	•
No.5	40	VT-UNC5x40-SF-2B-DIN371-...	3.50	56	11	18	2.70		2.60	3	C	•	•	•
No.6	32	VT-UNC6x32-SF-2B-DIN371-...	4.00	56	12	18	3.00		2.85	3	C	•	•	•
No.8	32	VT-UNC8x32-SF-2B-DIN371-...	4.50	63	13	21	3.40		3.50	3	C	•	•	•
No.10	24	VT-UNC10x24-SF-2B-DIN371-...	6.00	70	16	25	4.90		3.90	3	C	•	•	•
No.12	24	VT-UNC12x24-SF-2B-DIN371-...	6.00	80	19	30	4.90		4.50	3	C	•	•	•
1/4"	20	VT-UNC1/4x20-SF-2B-DIN371-...	7.00	80	19	31	5.50		5.20	3	C	•	•	•
5/16"	18	VT-UNC5/16x18-SF-2B-DIN371-...	8.00	90	22	36	6.20		6.60	3	C	•	•	•
3/8"	16	VT-UNC3/8x16-SF-2B-DIN371-...	9.00	90	22	42	7.00		8.00	3	C	•	•	•
7/16"	14	VT-UNC7/16x14-SF-2B-DIN376-...	8.00	100	24	-	6.20		9.40	3	C	•	•	•
1/2"	13	VT-UNC1/2x13-SF-2B-DIN376-...	9.00	110	28	-	7.00	10.75	3	C	•	•	•	
9/16"	12	VT-UNC9/16x12-SF-2B-DIN376-...	11.00	110	30	-	9.00	12.25	3	C	•	•	•	
5/8"	11	VT-UNC5/8x11-SF-2B-DIN376-...	12.00	110	32	-	9.00	376	13.50	4	C	•	•	•
3/4"	10	VT-UNC3/4x10-SF-2B-DIN376-...	14.00	125	34	-	11.00		16.50	4	C	•	•	•
7/8"	9	VT-UNC7/8x9-SF-2B-DIN376-...	18.00	140	34	-	14.50		19.50	4	C	•	•	•
1"	8	VT-UNC1x8-SF-2B-DIN376-...	19.00	160	38	-	14.50		22.25	4	C	•	•	•

• In stock



Tolerance class: 2B

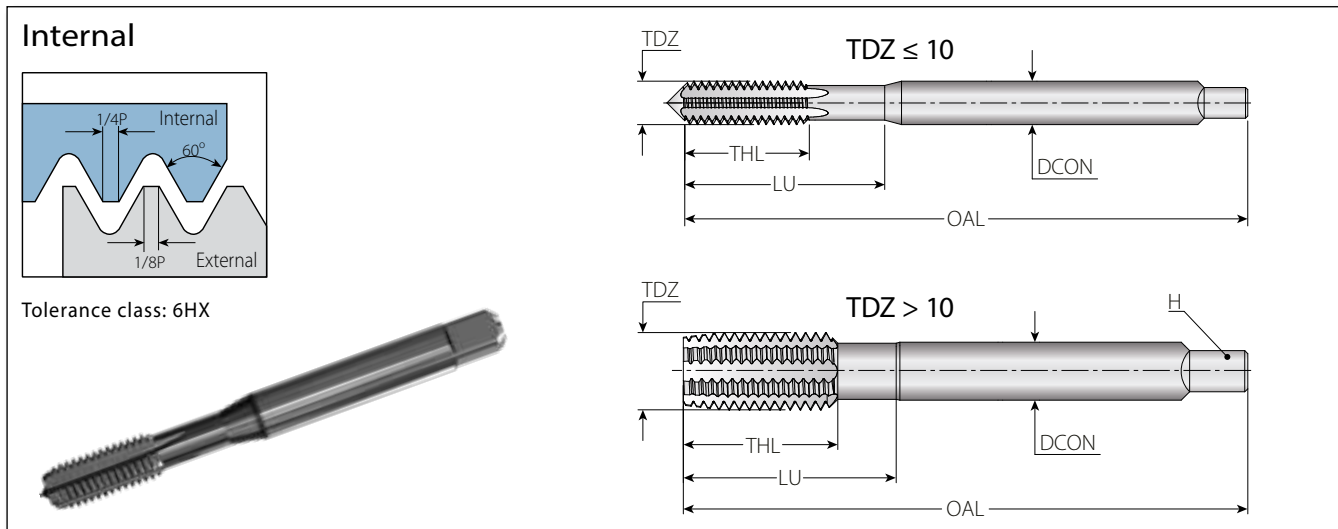
UNF DIN 371/374 2.5xD

P **M** **N** **S** **H**

Spiral Flute Taps

UNF	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade		
TDZ	TP	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHN	VHC
No.4	48	VT-UNF4x48-SF-2B-DIN371-...	3.50	56	11	17	2.70	371	2.40	3	C	•	•	•
No.5	44	VT-UNF5x44-SF-2B-DIN371-...	3.50	56	11	18	2.70		2.70	3	C	•	•	•
No.6	40	VT-UNF6x40-SF-2B-DIN371-...	4.00	56	12	18	3.00		3.00	3	C	•	•	•
No.8	36	VT-UNF8x36-SF-2B-DIN371-...	4.50	63	13	21	3.40		3.50	3	C	•	•	•
No.10	32	VT-UNF10x32-SF-2B-DIN371-...	6.00	70	16	25	4.90		4.10	3	C	•	•	•
No.12	28	VT-UNF12x28-SF-2B-DIN371-...	6.00	80	19	30	4.90		4.70	3	C	•	•	•
1/4"	28	VT-UNF1/4x28-SF-2B-DIN371-...	7.00	80	19	31	5.50		5.50	3	C	•	•	•
5/16"	24	VT-UNF5/16x24-SF-2B-DIN371-...	8.00	90	22	36	6.20	6.90	3	C	•	•	•	
3/8"	24	VT-UNF3/8x24-SF-2B-DIN371-...	9.00	90	22	42	7.00	8.50	3	C	•	•	•	
7/16"	20	VT-UNF7/16x20-SF-2B-DIN374-...	8.00	100	20	-	6.20	9.90	4	C	•	•	•	
1/2"	20	VT-UNF1/2x20-SF-2B-DIN374-...	9.00	100	22	-	7.00	11.50	4	C	•	•	•	
9/16"	18	VT-UNF9/16x18-SF-2B-DIN374-...	11.00	100	22	-	9.00	12.90	4	C	•	•	•	
5/8"	18	VT-UNF5/8x18-SF-2B-DIN374-...	12.00	110	32	-	9.00	14.50	4	C	•	•	•	
3/4"	16	VT-UNF3/4x16-SF-2B-DIN374-...	14.00	125	34	-	11.00	17.50	4	C	•	•	•	
7/8"	14	VT-UNF7/8x14-SF-2B-DIN374-...	18.00	125	38	-	14.50	20.40	4	C	•	•	•	
1"	12	VT-UNF1x12-SF-2B-DIN374-...	18.00	140	28	-	14.50	23.25	4	C	•	•	•	

• In stock

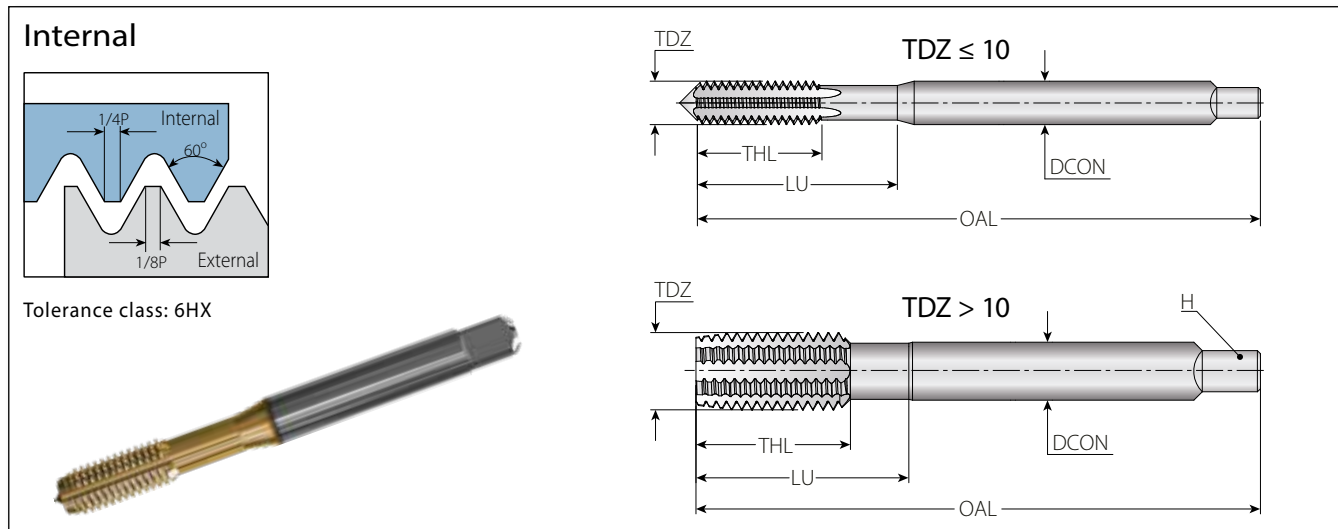


K

Straight Flute Taps

M Coarse	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade
TDZ	TP	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHC
M3	0.50	VT-M3x0.5-ST-6HX-DIN371-...	3.50	56	11	18	2.70	371	2.50	3	C	•
M4	0.70	VT-M4x0.7-ST-6HX-DIN371-...	4.50	63	13	19	3.40		3.30	3	C	•
M5	0.80	VT-M5x0.8-ST-6HX-DIN371-...	6.00	70	16	25	4.90		4.20	3	C	•
M6	1.00	VT-M6x1-ST-6HX-DIN371-...	6.00	80	19	30	4.90		5.00	4	C	•
M8	1.25	VT-M8x1.25-ST-6HX-DIN371-...	8.00	90	22	34	6.20		6.80	4	C	•
M10	1.50	VT-M10x1.5-ST-6HX-DIN371-...	10.00	100	24	40	8.00		8.50	4	C	•
M12	1.75	VT-M12x1.75-ST-6HX-DIN376-...	9.00	110	28	-	7.00	376	10.20	4	C	•
M14	2.00	VT-M14x2-ST-6HX-DIN376-...	11.00	110	30	-	9.00		12.00	4	C	•
M16	2.00	VT-M16x2-ST-6HX-DIN376-...	12.00	110	32	-	9.00		14.00	4	C	•
M18	2.50	VT-M18x2.5-ST-6HX-DIN376-...	14.00	125	34	-	11.00		15.50	4	C	•
M20	2.50	VT-M20x2.5-ST-6HX-DIN376-...	16.00	140	34	-	12.00		17.50	4	C	•

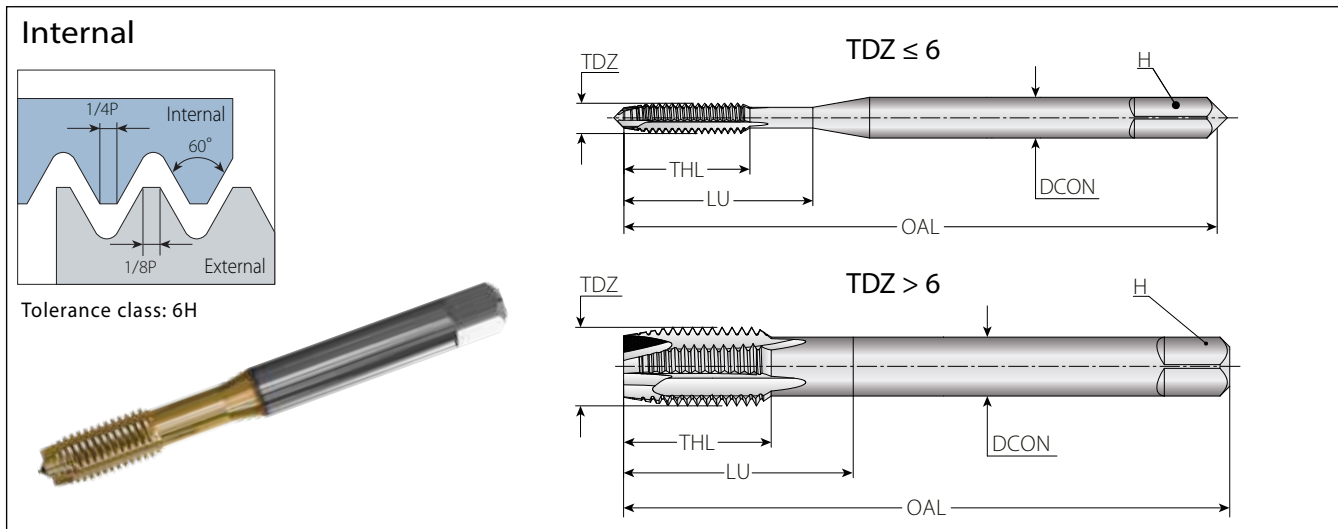
• In stock



Cold Forming Taps

M Coarse	Pitch mm	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade
TDZ	TP	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHN
M2.5	0.45	VT-M2.5x0.45-FM-6HX-DIN2174-...	2.8	50	9	-	2.10	2174	2.30	3	C	•
M3	0.50	VT-M3x0.5-FM-6HX-DIN2174-...	3.5	56	11	18	2.70		2.80	4	C	•
M4	0.70	VT-M4x0.7-FM-6HX-DIN2174-...	4.5	63	13	19	3.40		3.70	5	C	•
M5	0.80	VT-M5x0.8-FM-6HX-DIN2174-...	6	70	16	25	4.90		4.65	5	C	•
M6	1.00	VT-M6x1-FM-6HX-DIN2174-...	6	80	19	28	4.90		5.55	5	C	•
M8	1.25	VT-M8x1.25-FM-6HX-DIN2174-...	8	90	22	34	6.20		7.40	5	C	•
M10	1.50	VT-M10x1.5-FM-6HX-DIN2174-...	10	100	24	40	8.00		9.30	5	C	•
M12	1.75	VT-M12x1.75-FM-6HX-DIN2174-...	9	110	28	-	7.00		11.20	5	C	•
M14	2.00	VT-M14x2-FM-6HX-DIN2174-...	11	110	30	-	9.00		13.10	6	C	•
M16	2.00	VT-M16x2-FM-6HX-DIN2174-...	12	110	32	-	9.00		15.10	6	C	•
M18	2.50	VT-M18x2.5-FM-6HX-DIN2174-...	14	125	34	-	11.00		16.90	7	C	•
M20	2.50	VT-M20x2.5-FM-6HX-DIN2174-...	16	140	34	-	12.00		18.90	7	C	•

• In stock

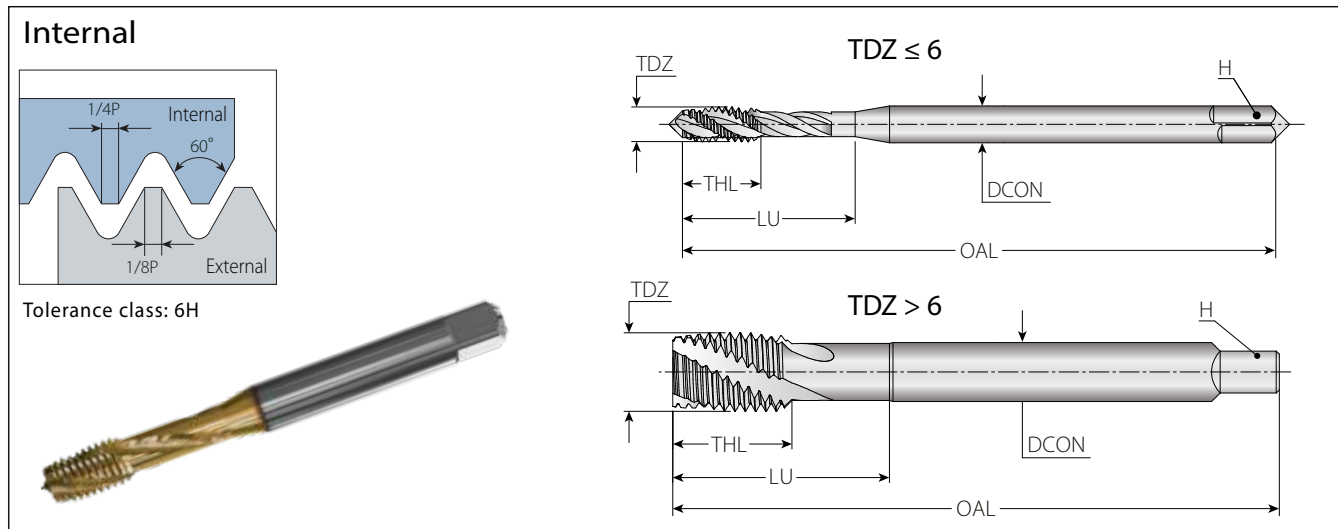


Straight Flutes with Spiral Point Taps

JIS	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade	
TDZ	TP	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHC
M3	0.50	VT-M3x0.5-SP-6H-JIS-... *	4.00	46	18	18	3.20	JIS	2.50	3	B	•	•
M4	0.70	VT-M4x0.7-SP-6H-JIS-... *	5.00	52	20	20	4.00		3.30	3	B	•	•
M5	0.80	VT-M5x0.8-SP-6H-JIS-... *	5.50	60	22	25	4.50		4.20	3	B	•	•
M6	1.00	VT-M6x1-SP-6H-JIS-... *	6.00	62	24	30	4.50		5.00	3	B	•	•
M8	1.25	VT-M8x1.25-SP-6H-JIS-... *	6.20	70	30	-	5.00		6.80	3	B	•	•
M10	1.50	VT-M10x1.5-SP-6H-JIS-... *	7.00	75	32	-	5.50		8.50	3	B	•	•
M12	1.75	VT-M12x1.75-SP-6H-JIS-... *	8.50	82	38	-	6.50		10.20	3	B	•	•
M14	2.00	VT-M14x2-SP-6H-JIS-... *	10.50	88	42	-	8.00		12.00	3	B	•	•
M16	2.00	VT-M16x2-SP-6H-JIS-... *	12.50	95	45	-	10.00	14.00	3	B	•	•	

• In stock

* Available in Q2 2022



Spiral Flute Taps




JIS	Pitch	Ordering Code	Dimensions mm					DIN	Drill Hole	No. of Flutes	Chamfer	Grade	
TDZ	TP	Internal	DCON	OAL	THL	LU	H	SG	PHD	NOF	THCHT	VHB	VHC
M3	0.50	VT-M3x0.5-SF-6H-JIS-... *	4.00	46	18	18	3.20	JIS	2.50	3	B	•	•
M4	0.70	VT-M4x0.7-SF-6H-JIS-... *	5.00	52	20	20	4.00		3.30	3	B	•	•
M5	0.80	VT-M5x0.8-SF-6H-JIS-... *	5.50	60	22	25	4.50		4.20	3	B	•	•
M6	1.00	VT-M6x1-SF-6H-JIS-... *	6.00	62	24	30	4.50		5.00	3	B	•	•
M8	1.25	VT-M8x1.25-SF-6H-JIS-... *	6.20	70	30	-	5.00		6.80	3	B	•	•
M10	1.50	VT-M10x1.5-SF-6H-JIS-... *	7.00	75	32	-	5.50		8.50	3	B	•	•
M12	1.75	VT-M12x1.75-SF-6H-JIS-... *	8.50	82	38	-	6.50		10.20	3	B	•	•
M14	2.00	VT-M14x2-SF-6H-JIS-... *	10.50	88	42	-	8.00		12.00	3	B	•	•
M16	2.00	VT-M16x2-SF-6H-JIS-... *	12.50	95	45	-	10.00		14.00	3	B	•	•

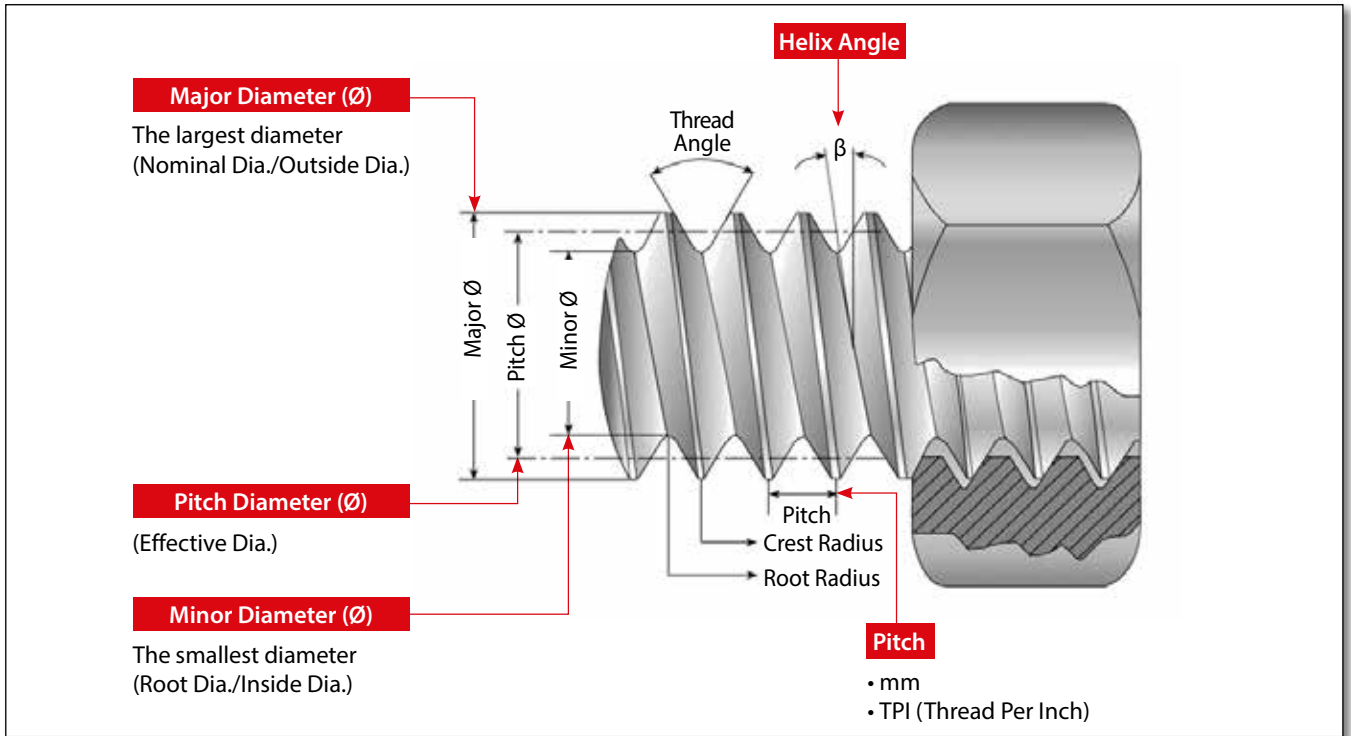
• In stock

* Available in Q2 2022

Recommended Grades and Cutting Speeds Vc [m/min]

Material Group	Vardex No.	Material		Hardness Brinell HB	Vc [m/min]
					VHB / VHN / VHC
P Steel	1	Unalloyed Steel	Low Carbon (C=0.1-0.25%)	125	20-25
	2		Medium Carbon (C=0.25-0.55%)	150	20-25
	3		High Carbon (C=0.55-0.85%)	170	20-25
	4	Low Alloy Steel (alloying elements≤5%)	Non Hardened	180	15-25
	5		Hardened	275	15-25
	6		Hardened	350	15-25
	7	High Alloy Steel (alloying elements>5%)	Annealed	200	10-20
	8		Hardened	325	10-20
	9	Cast Steel	Low Alloy (alloying elements <5%)	200	10-15
	10		High Alloy (alloying elements >5%)	225	10-15
M Stainless Steel	11	Stainless Steel Ferritic	Non Hardened	200	4-8
	12		Hardened	330	4-8
	13	Stainless Steel Austenitic	Austenitic	180	3-7
	14		Super Austenitic	200	3-7
	15	Stainless Steel Cast Ferritic	Non Hardened	200	2-5
	16		Hardened	330	2-5
	17	Stainless Steel Cast Austenitic	Austenitic	200	4-8
	18		Hardened	330	3-7
K Cast Iron	28	Malleable Cast Iron	Ferritic (short chips)	130	10-15
	29		Pearlitic (long chips)	230	5-10
	30	Grey Cast Iron	Low Tensile Strength	180	5-10
	31		High Tensile Strength	260	4-8
	32	Nodular Sg Iron	Ferritic	160	5-10
33	Pearlitic		260	4-8	
N(K) Non-Ferrous Metals	34	Aluminum Alloys Wrought	Non Aging	60	10-15
	35		Aged	100	10-15
	36	Aluminum Alloys	Cast	75	10-15
	37		Cast & Aged	90	10-15
	38	Aluminum Alloys	Cast Si 13-22%	130	6-12
	39	Copper and Copper Alloys	Brass	90	25-35
	40		Bronze And Non Leaded Copper	100	25-35
S(M) Heat Resistant Material	19	High Temperature Alloys	Annealed (iron based)	200	5-10
	20		Aged (iron based)	280	3-6
	21		Annealed (nickel or cobalt based)	250	3-6
	22		Aged (nickel or cobalt based)	350	2-5
	23	Titanium Alloys	Pure 99.5 Ti	400Rm	5-12
	24		α+β alloys	1050Rm	2-5
H(K) Hardened Material	25	Extra Hard Steel	Hardened & Tempered	45-50HRc	5-10
	26			51-60HRc	3-5

Grade	Application	Sample
VHB	HSS-E substrate for general purpose applications with Black oxide coating	
VHN	HSS-E substrate for general purpose applications, TiN coated	
VHC	HSS-E (HSS-E PM available for cold forming geometry) for general purpose applications	



ISO Metric

M Coarse

Thread	Minor Ø min	Minor Ø max	Drill Ø
2x0.4	1.567	1.679	1.6
2.2x0.45	1.713	1.838	1.75
2.5x0.45	2.013	2.138	2.05
3x0.5	2.459	2.599	2.5
3.5x0.6	2.850	3.010	2.9
4x0.7	3.242	3.422	3.3
4.5x0.75	3.688	3.878	3.7
5x0.8	4.134	4.334	4.2
6x1	4.917	5.153	5
7x1	5.917	6.153	6
8x1.25	6.647	6.912	6.8
10x1.5	8.376	8.676	8.5
12x1.75	10.106	10.441	10.2
14x2	11.835	12.210	12
16x2	13.835	14.210	14
18x2.5	15.294	15.744	15.5
20x2.5	17.294	17.744	17.5

M Fine

Thread	Minor Ø min	Minor Ø max	Drill Ø
4x0.35	3.621	3.721	3.65
4x0.5	3.459	3.599	3.5
4.5x0.5	3.959	4.099	4
5x0.5	4.459	4.599	4.5
6x0.5	5.459	5.599	5.5
6x0.75	5.188	5.378	5.2
7x0.75	6.188	6.378	6.2
8x0.5	7.459	7.599	7.5
8x0.75	7.188	7.378	7.2
8x1	6.917	7.153	7
9x1	7.917	8.153	8
10x0.75	9.188	9.378	9.2
10x1	8.917	9.153	9
10x1.25	8.647	8.912	8.8
11x1	9.917	10.153	10
12x1	10.917	11.153	11
12x1.25	10.647	10.912	10.8
12x1.5	10.376	10.676	10.5
14x1	12.917	13.153	13
14x1.25	12.647	12.912	12.8
14x1.5	12.376	12.676	12.5
15x1	13.917	14.153	14
15x1.5	13.376	13.676	13.5
16x1	14.917	15.153	15
16x1.5	14.376	14.676	14.5
18x1	16.917	17.153	17
18x1.5	16.376	16.676	16.5
18x2	15.835	16.210	16
20x1	18.917	19.153	19
20x1.5	18.376	18.676	18.5
20x2	17.835	18.210	18

American UN

UNC

Thread	Minor Ø min	Minor Ø max	Drill Ø
No.4 -40	2.156	2.385	2.3
No.5 -40	2.487	2.697	2.6
No.6 -32	2.642	2.896	2.85
No.8 -32	3.302	3.531	3.5
No.10 -24	3.683	3.962	3.9
No.12 -24	4.343	4.597	4.5
¼-20	4.978	5.258	5.2
⅝-18	6.401	6.731	6.6
¾-16	7.798	8.153	8
⅞-14	9.144	9.550	9.4
1½-13	10.592	11.024	10.75
⅞-12	11.989	12.446	12.25
⅝-11	13.386	13.868	13.5
¾-10	16.307	16.840	16.6
⅞-9	19.177	19.761	19.5
1-8	21.971	22.606	22.25

UNF

Thread	Minor Ø min	Minor Ø max	Drill Ø
No.4-48	2.271	2.459	2.4
No.5-44	2.550	2.741	2.7
No.6-40	2.819	3.023	3.0
No.8-36	3.404	3.607	3.5
No.10-32	3.962	4.166	4.1
No.12-28	4.496	4.724	4.7
¼-28	5.359	5.588	5.5
⅝-24	6.782	7.036	6.9
¾-24	8.382	8.636	8.5
⅞-20	9.728	10.033	9.9
1½-20	11.328	11.608	11.5
⅞-18	12.751	13.081	12.9
⅝-18	14.351	14.681	14.5
¾-16	17.323	17.678	17.5
⅞-14	20.269	20.676	20.4
1-12	23.114	23.571	23.25

V-TAPS
Advanced Tapping Solutions

VARDEX
Advanced Threading Solutions