X Performer Forming Taps

XPF SERIES

Volume 7

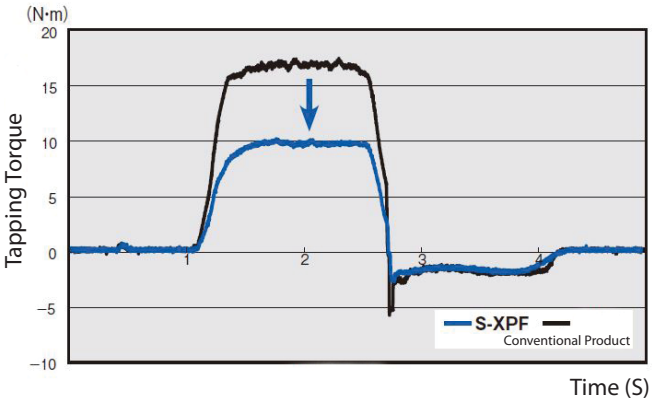
ECONOMICAL, HIGH QUALITY AND MULTI-PURPOSE TOOLS

X Performer Forming Tap Series (XPF)

1. Low-torque spec with specially designed threading
2. V-Coating : extreme wear resistance
3. Size range from M1 to M45

XPF is Different from Others !

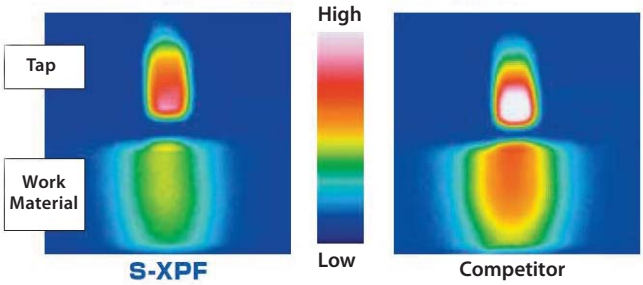
Reducing approx. 40% of machining torque



Restraining Burrs

Reducing approx. 20% of heat generation

A thermograph image taken immediately after tapping



* To photograph the process, machining was carried out by applying paste instead of using coolant, However, during normal machining, coolant should be used.

Resistance improved

Minimum Quantity Lubrication

XPF has a high durability even machining with chlorine-free coolant. S-OIL-XPF is also suitable for MQL machining operation.

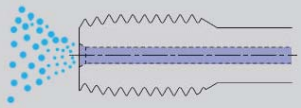
Useful Tips

Deciding Cutting Speed

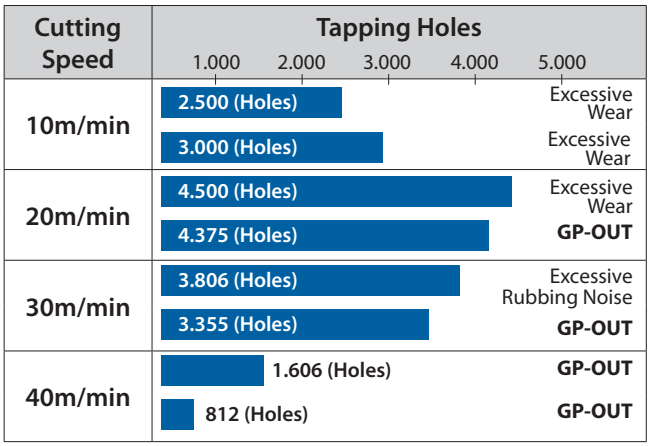
Does low cutting speed contribute to long tool life? It doesn't apply to XPF. Slow speed tapping, which generates less heat, causes bigger cutting resistance and tool wear. Cutting speed should be adjusted properly to find the most appropriate cutting speed for tool life.

Comparison of durability by the difference in cutting speed

Tool	S-OIL-XPF M8 x 1,25
Work Material	S50C
Hole Size	Ø 7,4 x 23 mm (Blind)
Tapping Length	18 mm (2,3D) (Blind)
Cutting Speed	10~40 m/min
Coolant	MQL 50cc/h (Internal)
Machine	Horizontal Machining Center



Special order products (center through coolant hole)



Choosing the Appropriate Coolant

High lubricant water-soluble coolant is highly recommended as well as non-soluble coolant. Water-soluble coolant must be used for high speed cutting. Non-soluble coolant can be used is only 20m/min or below.

Machining Holder and Work Holding

Please select the appropriate equipment depending on the maximum torque, torque curve, and others of the machine. XPF generates lower torque, as compared with the conventional forming taps.

Useful Tips

Calculation for torque

XPF achieves 30% reduction of torque, according to the calculation. The tapping data on page 3 shows 40% reduction of torque in synergy with appropriate cutting speed. Please refer to the following table for large diameter tapping and the formula for calculating torque.

Calculated machining torque of large diameter taps by work materials

Thread Size	Pitch Diameter	Coefficient of Work Material					
		2	4	8	11	12	14
		AC	ADC	Bs	SS400	S45C	SCM (~35HRC)
M18 X 2,5	16,376	14	28	56	77	84	98
M18 X 1,5	17,026	5	11	21	29	32	37
M20 X 2,5	18,376	16	32	63	87	95	110
M20 X 1,5	19,026	6	12	24	32	35	41
M22 X 2,5	20,376	17	35	70	96	105	122
M22 X 1,5	21,026	6	13	26	36	39	45
M24 X 3,0	22,051	27	54	109	150	163	191
M24 X 1,5	23,026	7	14	28	39	43	50
M27 X 3,0	25,051	31	62	124	170	186	217
M30 X 3,5	27,727	47	93	187	256	280	326
M33 X 3,5	30,727	52	103	207	284	310	362
M36 X 4,0	33,402	73	147	293	404	440	514
M42 X 4,5	39,077	109	217	435	597	652	760
M45 X 4,5	42,077	117	234	468	643	702	819

* Please note that this shows the theoretical values of machining torques in case of the external supply of water-soluble coolant
* It does not guarantee the actual torque.

Following formulas are used for calculating torque

Torque calculation for forming Tap

Conventional forming taps

$$T = 0{,}09806 \times K \times E \times P^2$$

XPF series

$$T = 0{,}06864 \times K \times E \times P^2$$

T : Torque

K : Coefficient of work material

E : Pitch diameter

P : Pitch

In case of M30 X 3,5 working on SCM440

$$T = 0{,}06864 \times 14 \times 27{,}727 \times 3{,}5^2 = 326\ N/m$$

Work Material	Coefficient
Aluminium Alloy	2
Aluminium Die Casting	3~4
Brass	6~8
Mild Steel	10~11
Carbon Steel	11~12
Alloy Steel (Hardened Steel	13~14

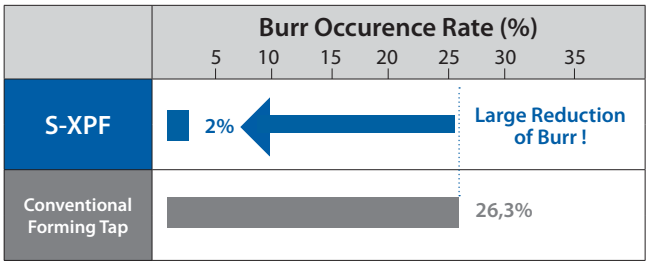
The above formulas are the guidliene in case of the external supply of water-soluble coolant.
Please note that the actual torque changes depending on the work environment.

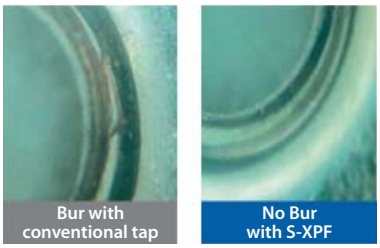
Useful Tips

Countermeasure for Burr

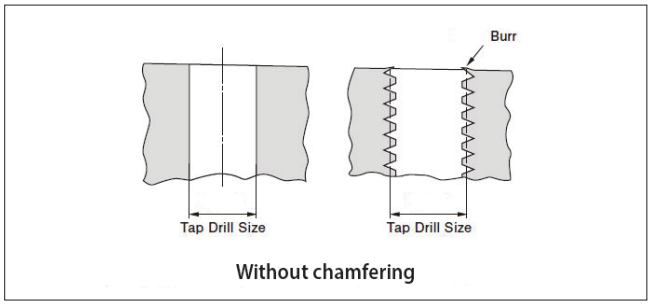
Comparing with the conventional forming taps, XPF reduces burr with low-torque spec.

Tool	S-XPF M3x0,5 4P	Conv. Forming Tap
Work Material	Brass	
Hole Size	Ø 2,76 x 3mm (Through)	
Tapping Length	3mm (Through)	
Cutting Speed	(N/A)	
Coolant	Non-Water Soluble	
Machine	Specialized Machine	

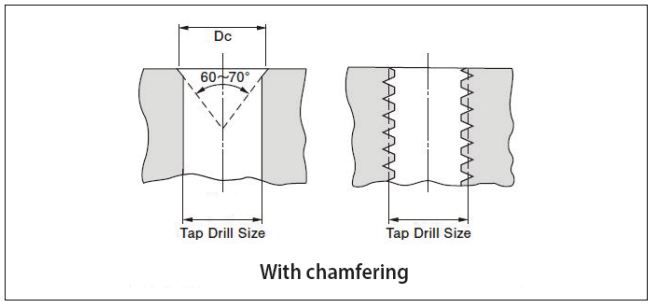




Recommending 60° for the chamfer



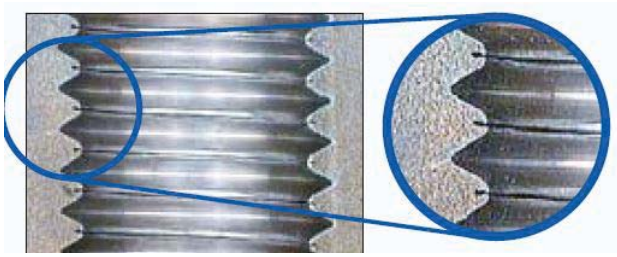
Forming tap forms the screw thread by plastic deformation. Therefore, without having chamfering, burr is made on the edge of the hole. To prevent burr, chamfering with 60° is highly recommended

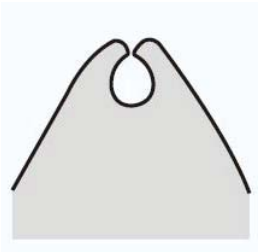


If 118° of chamfering is required for drilling, burr is prevented by setting the diameter of chamfering to screw size + 2 pitches
(Example: M10x1,5 ⇨ 10mm (1,5x2)=13mm

Shape of complete thread and it's difference

The formed thread has a small slit at the crest.

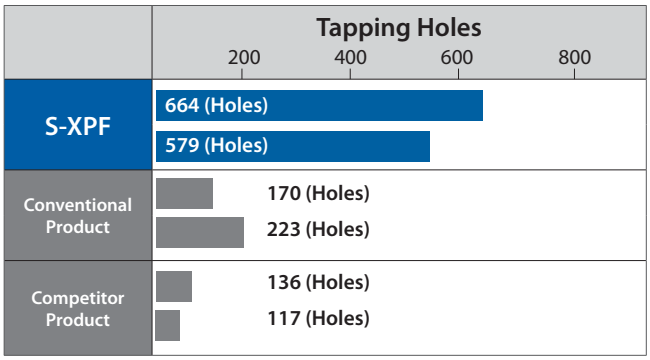




Processing Data

Forming taps are even 35HRC

Tool	S-XPF M6x1 4P
Work Material	SCM440 (35HRC)
Hole Size	Ø5,51~Ø5,52 x 16mm (Through)
Tapping Length	16mm (Through)
Cutting Speed	15m/min (796 min^{-1})
Coolant	Water Soluble Chlorine Free (External)
Machine	Horizontal Machine Center



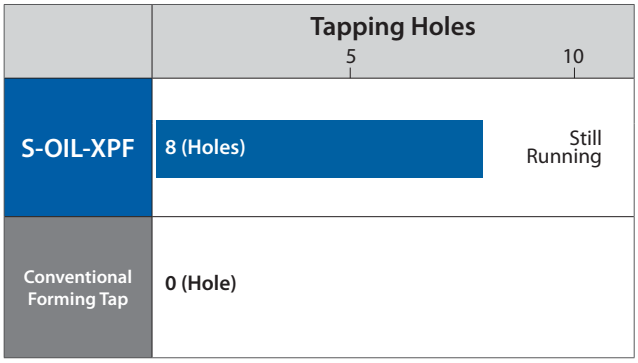
Thread-rolling process of M45 is no longer a dream

Tool	S-XPF M45x4,5 2P
Work Material	SS400
Hole Size	Ø42,65~Ø42,68 x 45,5mm (Blind)
Tapping Length	36mm (0,8D) (Blind)
Cutting Speed	5m/min (133 min^{-1})
Coolant	Water Soluble Chlorine Free (External)
Machine	Horizontal Machine Center

Torque for above machining process is equivalent to 674N-M. Water-soluble coolant and paste are also appropriate for this case.

Achieving high efficiency with MQL

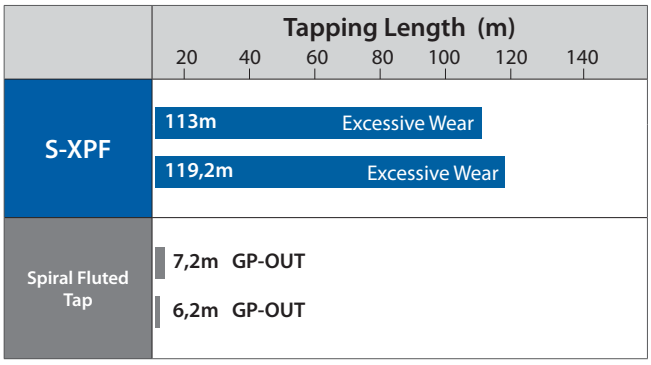
Tool	S-OIL-XPF M12x1,75 2P	Conventional Forming Tap
Work Material	SCM420	
Hole Size	Ø11,1x45mm (Blind)	
Tapping Length	36mm (3D) (Blind)	
Cutting Speed	40m/min (1.062 min^{-1})	
Coolant	MQL (Internal)	Water Soluble Chlorine Free (External)
Machine	Horizontal Machine Center	



Processing Data

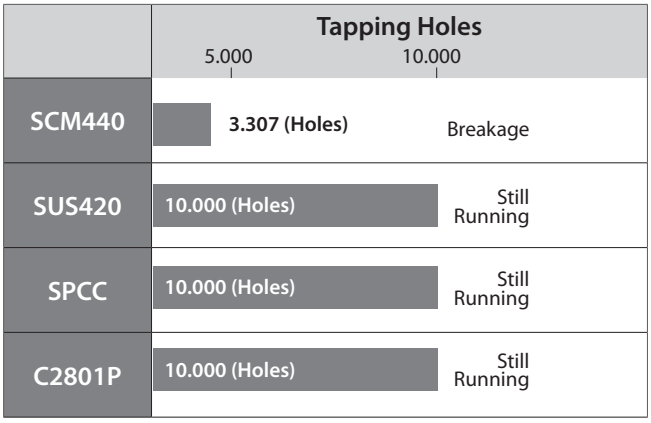
17 times the durability of cutting taps !

Tool	S-XPF M6x1 2P	Spiral fluted Tap M6x1
Work Material	S45C (90HRB)	
Hole Size	Ø5,55x25m-m(Through)	Ø5x15mm(Through)
Tapping Length	18mm (3D) (Blind)	12mm (2D) (Blind)
Cutting Speed	15m/min (796 min^{-1})	10m/min (530 min^{-1})
Coolant	Water Soluble Chlorine Free (10%)	
Machine	Horizontal Machine Center	



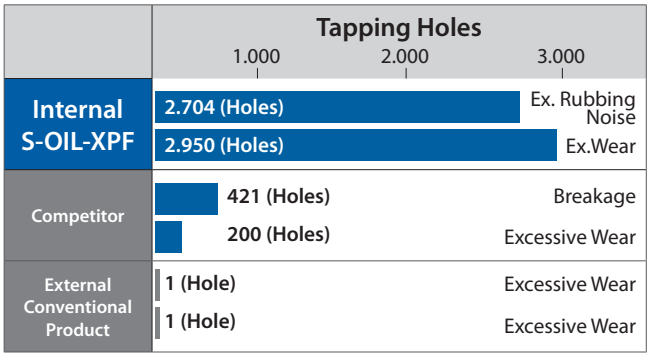
Ideal for work material especially for small diameter threads

Tool	S-XPF M1x0,25 2P			
Work Material	SCM440 Chrome Molybde-num Alloy	SUS420 (30HRC) Stainless Steel	SPCC Cold Rolled Steel	C2801P Brass
Hole Size	Ø0,89 ~ 0,90 x 4mm (Through)			
Tapping Length	2mm (2D) (Blind)			
Cutting Speed	5m/min (1.590 min^{-1})		10m/min (3.180 min^{-1})	
Coolant	Water Soluble Chlorine Free (10%)			
Machine	Vertical Machine Center			



Internally-fed coolant improve tool life

Tool	S-OIL-XPF M10x1,5 2P
Work Material	SCM440 (35HRC)
Hole Size	Ø9,3x24mm (Through)
Tapping Length	20mm (2D) (Blind)
Cutting Speed	20m/min
Coolant	Water Soluble Chlorine Free (5%)
Machine	Horizontal Machine Center



A-XPF

M | CPM | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric

- High performance forming tap
- For longer tool life

- Hochleistungsgewindeformer
- Preisgünstig

- Maschio a rullare ad alta performance
- Stabilità e durat

- Taraud à refouler à haute performance
- Outil à longue durée

- Yüksek performans ovalama kılavuzu
- Daha uzun takım ömrü

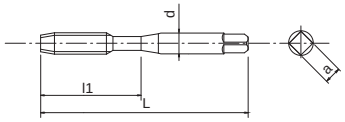
- High Performance rulletap
- Længere standtid

- High performance pressgängtapp
- Livslängd

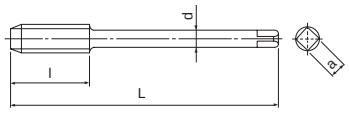
- Alta prestaciones, macho de laminación
- Duración mayor

- Высокопроизводительные накатные метчики
- С увеличенной стойкостью

- Wysoka wydajność wygniatania gwintów
- dłuższa żywotność



NEW	EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
	48133138	3	0,5	56	18	3,5	2,7	2,77~2,81	4	
	48133144	4	0,7	63	21	4,5	3,4	3,66~3,72	4	
	48133149	5	0,8	70	25	6	4,9	4,61~4,68	5	
	48133155	6	1	80	30	6	4,9	5,51~5,59	5	
	48133161	8	1,25	90	35	8	6,2	7,37~7,45	5	
	48133169	10	1,5	100	39	10	8	9,24~9,33	8	



M | CPM | V | ISO 2 6HX | C/2,5 | DIN 2174

NEW	EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48133179	12	1,75	110	17	9	7	11,10~11,20	8	
	48133191	14	2	110	20	11	9	12,96~13,08	8	
	48133202	16	2	110	20	12	9	14,96~15,08	8	
	48133214	18	2,5	125	20	14	11	16,66~16,81	8	
	48133228	20	2,5	140	20	16	12	18,66~18,81	8	
	48133238	22	2,5	140	20	18	14,5	20,66~20,81	8	
	48133247	24	3	160	24	18	14,5	22,39~22,56	8	
	48133262	27	3	160	18	20	16	25,39~25,56	8	
	48133271	30	3,5	180	21	22	18	28,09~28,68	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

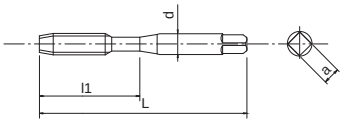
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

A-OIL-XPF

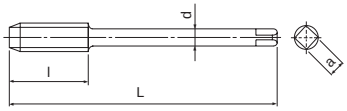
M | CPM | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric

- High performance forming tap
- Hochleistungsgewindeformer
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



NEW	EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
	48225149	5	0,8	70	25	6	4,9	4,61 ~ 4,68	5	
	48225155	6	1	80	30	6	4,9	5,51 ~ 5,59	5	
	48225161	8	1,25	90	35	8	6,2	7,37 ~ 7,45	5	
	48225169	10	1,5	100	39	10	8	9,24 ~ 9,33	8	



M | CPM | V | ISO 2 6HX | C/2,5 | D/4 (M ≥ 36) | DIN 2174

NEW	EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48225179	12	1,75	110	17	9	7	11,10 ~ 11,20	8	
	48225191	14	2	110	20	11	9	12,96 ~ 13,08	8	
	48225202	16	2	110	20	12	9	14,96 ~ 15,08	8	
	48225214	18	2,5	125	20	14	11	16,66 ~ 16,81	8	
	48225228	20	2,5	140	20	16	12	18,66 ~ 18,81	8	
	48225238	22	2,5	140	20	18	14,5	20,66 ~ 20,81	8	
	48225247	24	3	160	24	18	14,5	22,39 ~ 22,56	8	
	48225262	27	3	160	18	20	16	25,39 ~ 25,56	8	
	48225271	30	3,5	180	21	22	18	28,09 ~ 28,28	8	
	48225281	33	3,5	180	21	25	20	31,09 ~ 31,28	8	
	48225294	36	4	200	32	28	22	33,80 ~ 34,01	8	
	48225304	39	4	200	32	32	24	36,80 ~ 37,01	9	
	48225314	42	4,5	200	36	32	24	39,52 ~ 39,73	9	
	48225319	45	4,5	220	36	36	29	42,52 ~ 42,73	9	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

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◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF

M | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric

- High performance forming tap
- ISO 2/4HX for M≤1,4
- Oil groove with M ≥ 3

- Hochleistungsgewindeformer
- ISO 2/4HX für M≤1,4
- Mit Ölnut für M ≥ 3

- Maschio a rullare ad alta performance
- ISO 2/4HX per M≤1,4
- Maschi con scanalatura di lubrificazione per M ≥ 3

- Taraud à refouler à haute performance
- ISO 2/4HX pour M≤1,4
- Tarauds avec rainure d'huile pour M ≥ 3

- Yüksek performans ovalama kılavuzu
- ISO 2/4HX M≤1,4
- M ≥ 3 yağ oluğu

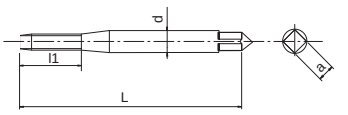
- High Performance rulletap
- ISO 2/4HX til M≤1,4
- Med oliespor M ≥ 3

- High performance pressgängtapp
- ISO 2/4HX och M≤1,4
- Oil sporr for M ≥ 3

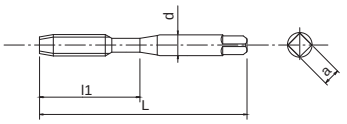
- Alta prestaciones, macho de laminación
- ISO 2/4HX para M≤1,4
- Ranuras de lubricación con M ≥ 3

- Высокопроизводительные накатные метчики
- ISO 2/4HX для M≤1,4
- Канавки для смазки с M ≥ 3

- Wysoka wydajność wygniatania gwintów
- ISO 2/4HX do M≤1,4
- Rowki olejowe od M ≥ 3

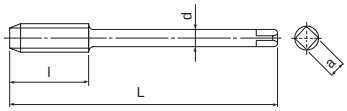


Type 1



Type 2

	EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Type	Price
	48030111	1	0,25	40	5,5	2,5	2,1	0,89 ~ 0,90	4	1	
NEW SIZES	48030112	1,1	0,25	40	5,5	2,5	2,1	0,99 ~ 1,00	4	1	
	48030113	1,2	0,25	40	5,5	2,5	2,1	1,09 ~ 1,10	4	1	
	48030115	1,4	0,3	40	7	2,5	2,1	1,26 ~ 1,28	4	1	
	48030118	1,6	0,35	40	8	2,5	2,1	1,45 ~ 1,48	4	1	
NEW SIZES	48030119	1,7	0,35	40	8	2,5	2,1	1,55 ~ 1,59	4	1	
NEW SIZES	48030120	1,8	0,35	40	8	2,5	2,1	1,65 ~ 1,69	4	1	
	48030125	2	0,4	45	8	2,8	2,1	1,82 ~ 1,86	4	1	
NEW SIZES	48030127	2,2	0,45	45	9	2,8	2,1	1,99 ~ 2,03	4	1	
NEW SIZES	48030128	2,3	0,4	45	9	2,8	2,1	2,12 ~ 2,16	4	1	
	48030133	2,5	0,45	50	9	2,8	2,1	2,29 ~ 2,33	4	1	
NEW SIZES	48030136	2,6	0,45	50	9	2,8	2,1	2,39 ~ 2,43	4	1	
	48030138	3	0,5	56	18	3,5	2,7	2,78 ~ 2,82	4	2	
NEW SIZES	48030142	3,5	0,6	56	20	4	3	3,23 ~ 3,27	4	2	
	48030144	4	0,7	63	21	4,5	3,4	3,67 ~ 3,72	4	2	
	48030149	5	0,8	70	25	6	4,9	4,62 ~ 4,68	5	2	
	48030155	6	1	80	30	6	4,9	5,52 ~ 5,59	5	2	
NEW SIZES	48030158	7	1	80	30	7	5,5	6,51 ~ 6,59	5	2	
	48030161	8	1,25	90	35	8	6,2	7,37 ~ 7,45	5	2	
	48030169	10	1,5	100	39	10	8	9,24 ~ 9,33	8	2	



M | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174

EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
48030179	12	1,75	110	17	9	7	11,10 ~ 11,20	8	
48030191	14	2	110	20	11	9	12,96 ~ 13,08	8	
48030202	16	2	110	20	12	9	14,96 ~ 15,08	8	
48069214	18	2,5	125	20	14	11	16,66 ~ 16,81	8	
48069228	20	2,5	140	20	16	12	18,66 ~ 18,81	8	
48069238	22	2,5	140	20	18	14,5	20,66 ~ 20,81	8	
48069247	24	3	160	24	18	14,5	22,39 ~ 22,56	8	
48069262	27	3	160	18	20	16	25,39 ~ 25,56	8	
48069271	30	3,5	180	21	22	18	28,09 ~ 28,28	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

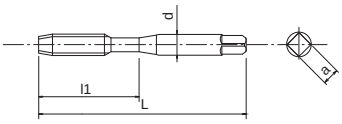
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-OIL-XPF

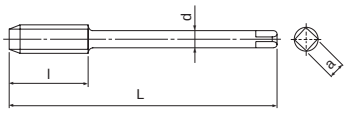
M | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric

- High performance forming tap
- Hochleistungsgewindeformer
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



	EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
NEW SIZES	48042149	5	0,8	70	25	6	4,9	4,61 ~ 4,68	5	
	48042155	6	1	80	30	6	4,9	5,51 ~ 5,59	5	
	48042161	8	1,25	90	35	8	6,2	7,37 ~ 7,45	5	
	48042169	10	1,5	100	39	10	8	9,24 ~ 9,33	8	



M | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174

EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
48042179	12	1,75	110	17	9	7	11,10 ~ 11,20	8	
48042191	14	2	110	20	11	9	12,96 ~ 13,08	8	
48042202	16	2	110	20	12	9	14,96 ~ 15,08	8	
48071214	18	2,5	125	20	14	11	16,66 ~ 16,81	8	
48071228	20	2,5	140	20	16	12	18,66 ~ 18,81	8	
48071238	22	2,5	140	20	18	14,5	20,66 ~ 20,81	8	
48071247	24	3	160	24	18	14,5	22,39 ~ 22,56	8	
48071262	27	3	160	18	20	16	25,39 ~ 25,56	8	
48071271	30	3,5	180	21	22	18	28,09 ~ 28,28	8	
48071281	33	3,5	180	21	25	20	31,09 ~ 31,28	8	
48071294	36	4	200	24	28	22	33,80 ~ 34,01	8	
48071304	39	4	200	24	32	24	36,80 ~ 37,01	9	
48071314	42	4,5	200	27	32	24	39,52 ~ 39,73	9	
48071319	45	4,5	220	27	36	29	42,52 ~ 42,73	9	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

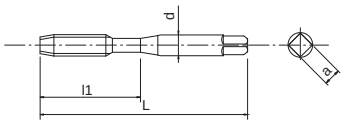
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF-6GX

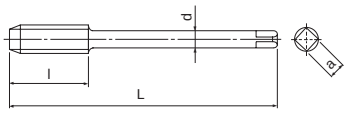
M | HSS-Co | V | ISO 3 6GX | C/2,5 | DIN 2174

Metric

- High performance forming tap
- Hochleistungsgewindeformer
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



EDP	M	P	oversize	L	l1	d	a	Drill Hole Size	ZΔ	Price
NEW SIZES 48086125	2	0,4	+0,019	45	8	2,8	2,1	1,85 ~ 1,89	4	
NEW SIZES 48086133	2,5	0,45	+0,020	50	9	2,8	2,1	2,30 ~ 2,34	4	
48086138	3	0,5	+0,020	56	18	3,5	2,7	2,79 ~ 2,82	4	
NEW SIZES 48086142	3,5	0,6	+0,021	56	20	4	3	3,24 ~ 3,30	4	
48086144	4	0,7	+0,022	63	21	4,5	3,4	3,69 ~ 3,75	4	
48086149	5	0,8	+0,024	70	25	6	4,9	4,64 ~ 4,71	5	
48086155	6	1	+0,026	80	30	6	4,9	5,55 ~ 5,63	5	
48086161	8	1,25	+0,028	90	35	8	6,2	7,40 ~ 7,47	5	
48086169	10	1,5	+0,032	100	39	10	8	9,26 ~ 9,35	8	



M | HSS-Co | V | ISO 3 6GX | C/2,5 | DIN 2174

EDP	M	P	oversize	L	l	d	a	Drill Hole Size	ZΔ	Price
48086179	12	1,75	+0,034	110	17	9	7	11,14 ~ 11,24	8	
48086191	14	2	+0,038	110	20	11	9	13,00 ~ 13,12	8	
48086202	16	2	+0,038	110	20	12	9	15,00 ~ 15,12	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

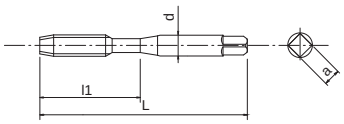
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF-7GX

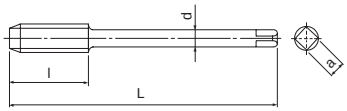
M | HSS-Co | V | 7GX | C/2,5 | DIN 2174

Metric

- High performance forming tap
- Hochleistungsgewindeformer
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



EDP	M	P	oversize	L	l1	d	a	Drill Hole Size	ZΔ	Price
NEW SIZES 48087125	2	0,4	+0,038	45	8	2,8	2,1	1,86 ~ 1,90	4	
NEW SIZES 48087133	2,5	0,45	+0,040	50	9	2,8	2,1	2,81 ~ 2,85	4	
48087138	3	0,5	+0,040	56	18	3,5	2,7	2,81 ~ 2,85	4	
NEW SIZES 48087142	3,5	0,6	+0,044	56	20	4	3	3,71 ~ 3,77	4	
48087144	4	0,7	+0,044	63	21	4,5	3,4	3,71 ~ 3,77	4	
48087149	5	0,8	+0,048	70	25	6	4,9	4,66 ~ 4,73	5	
48087155	6	1	+0,052	80	30	6	4,9	5,56 ~ 5,64	5	
48087161	8	1,25	+0,056	90	35	8	6,2	7,42 ~ 7,50	5	
48087169	10	1,5	+0,064	100	39	10	8	9,30 ~ 9,39	8	



M | HSS-Co | V | 7GX | C/2,5 | DIN 2174

EDP	M	P	oversize	L	l	d	a	Drill Hole Size	ZΔ	Price
48087179	12	1,75	+0,068	110	17	9	7	11,17 ~ 11,28	8	
48087191	14	2	+0,076	110	20	11	9	13,04 ~ 13,16	8	
48087202	16	2	+0,076	110	20	12	9	15,04 ~ 15,16	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF (FORM D)

M | HSS-Co | V | ISO 2 6HX | D/4 | DIN 2174

Metric

- High performance forming tap
- 4P chamfer

- Hochleistungsgewindeformer
- 4 Gang. Anschnittlänge

- Maschio a rullare ad alta performance
- 4 filleti

- Taraud à refouler à haute performance
- 4 entrée gun

- Yüksek performans ovalama kılavuzu
- 4p pah

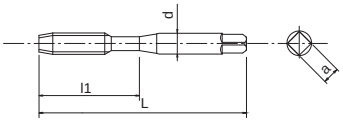
- High Performance rulletap
- 4 x stigning på opløb

- High performance pressgängtapp
- 4 x stigning

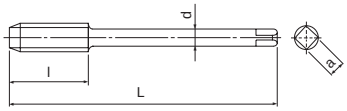
- Alta prestaciones, macho de laminación
- 4 pasos

- Высокопроизводительные накатные метчики
- 4 витка

- Wysoka wydajność wygniatania gwintów
- Nakrój - 4p



EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
48088138	3	0,5	56	18	3,5	2,7	2,77~2,81	4	
48088144	4	0,7	63	21	4,5	3,4	3,66~3,72	4	
48088149	5	0,8	70	25	6	4,9	4,61~4,68	5	
48088155	6	1	80	30	6	4,9	5,51~5,59	5	
48088161	8	1,25	90	35	8	6,2	7,37~7,45	5	
48088169	10	1,5	100	39	10	8	9,24~9,33	8	



M | HSS-Co | V | ISO 2 6HX | D/4 | DIN 2174

EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
48088179	12	1,75	110	17	9	7	11,10~11,20	8	
48088191	14	2	110	20	11	9	12,96~13,08	8	
48088202	16	2	110	20	12	9	14,96~15,08	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF (FORM E)

M | HSS-Co | V | ISO 2 6HX | E/1,5 | DIN 2174

Metric

- High performance forming tap
- Short chamfer

- Hochleistungsgewindeformer
- Kurzer Anschnitt

- Maschio a rullare ad alta performance
- imbocco corto

- Taraud à refouler à haute performance
- Entrée courte

- Yüksek performans ovalama kılavuzu
- Kısa pah

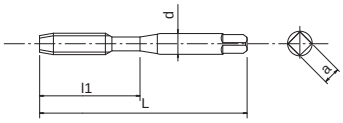
- High Performance rulletap
- Kort indløb

- High performance pressgängtapp
- Kort faslängd

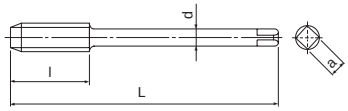
- Alta prestaciones, macho de laminación
- Chaflàn corto

- Высокопроизводительные накатные метчики
- Короткий заход

- Wysoka wydajność wygniatania gwintów
- Krótki nakró



	EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
NEW SIZES	48089125	2	0,4	45	8	2,8	2,1	1,82 ~ 1,86	4	
NEW SIZES	48089133	2,5	0,45	50	9	2,8	2,1	2,29 ~ 2,33	4	
	48089138	3	0,5	56	18	3,5	2,7	2,77 ~ 2,81	4	
NEW SIZES	48089142	3,5	0,6	56	20	4	3	3,23 ~ 3,27	4	
	48089144	4	0,7	63	21	4,5	3,4	3,66 ~ 3,72	4	
	48089149	5	0,8	70	25	6	4,9	4,61 ~ 4,68	5	
	48089155	6	1	80	30	6	4,9	5,51 ~ 5,59	5	
	48089161	8	1,25	90	35	8	6,2	7,37 ~ 7,45	5	
	48089169	10	1,5	100	39	10	8	9,24 ~ 9,33	8	



M | HSS-Co | V | ISO 2 6HX | E/1,5 | DIN 2174

EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
48089179	12	1,75	110	17	9	7	11,10 ~ 11,20	8	
48089191	14	2	110	20	11	9	12,96 ~ 13,08	8	
48089202	16	2	110	20	12	9	14,96 ~ 15,08	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-LT-XPF

Metric

- High performance forming tap
- Long shank

- Hochleistungsgewindeformer
- Langt Schaft

- Maschio a rullare ad alta performance
- Gambo lungo

- Taraud à refouler à haute performance
- Queue longue

- Yüksek performans ovalama kılavuzu
- Uzun şaft

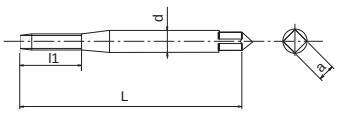
- High Performance rulletap
- Langt skaft

- High performance pressgängtapp
- Långt skaft

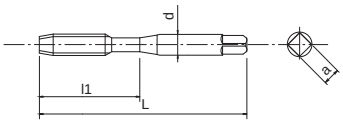
- Alta prestaciones, macho de laminación
- Mango larga

- Высокопроизводительные накатные метчики
- Длинный хвостовик

- Wysoka wydajność wygniatania gwintów
- Długi chwyt

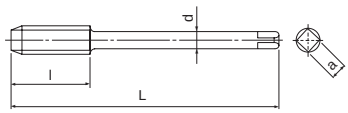


Type 1



Type 2

EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Type	Price
48115125	2	0,4	80	8	2,8	2,1	1,82 ~ 1,86	0	1	
48115133	2,5	0,45	100	9	2,8	2,1	2,29 ~ 2,33	0	1	
48115138	3	0,5	100	18	3,5	2,7	2,77 ~ 2,81	4	2	
48115144	4	0,7	125	21	4,5	3,4	3,66 ~ 3,72	4	2	
48115149	5	0,8	140	25	6	4,9	4,61 ~ 4,68	5	2	
48115155	6	1	160	30	6	4,9	5,51 ~ 5,59	5	2	
48115161	8	1,25	180	35	8	6,2	7,37 ~ 7,45	5	2	
48115169	10	1,5	200	39	10	8	9,24 ~ 9,33	8	2	



EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
48115179	12	1,75	200	17	9	7	11,10 ~ 11,20	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF

M | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174 | DIN 1835

Metric

- High performance forming tap
- Oil groove with M ≥ 3
- Weldon

- Hochleistungsgewindeformer
- Mit Ölnut für M ≥ 3
- Weldon Schaft

- Maschio a rullare ad alta performance
- Maschi con scanalatura di lubrificazione per M ≥ 3
- Weldon

- Taraud à refouler à haute performance
- Tarauds avec rainure d'huile pour M ≥ 3
- Queue Weldon

- Yüksek performans ovalama kılavuzu
- M ≥ 3 yağ oluğu
- Weldon şaftlı

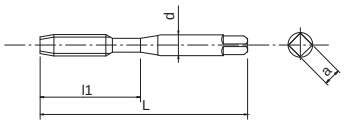
- High Performance rulletap
- Med oliespor M ≥ 3
- Weldon skaft

- High performance pressgängtapp
- Oil sporr for M ≥ 3
- Weldon

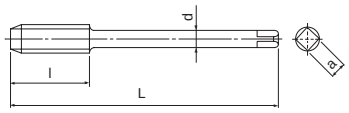
- Alta prestaciones, macho de laminación
- Ranuras de lubricación con M ≥ 3
- Mango Weldon

- Высокопроизводительные накатные метчики
- Канавки для смазки с M ≥ 3
- для Weldon

- Wysoka wydajność wygniatania gwintów
- Rowki olejowe od M ≥ 3
- Weldon



NEW	EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
	48222138	3	0,5	56	18	6	4,9	2,77 ~ 2,81	4	
	48222144	4	0,7	63	21	6	4,9	3,66 ~ 3,72	4	
	48222149	5	0,8	70	25	6	4,9	4,61 ~ 4,68	5	
	48222155	6	1	80	30	6	4,9	5,51 ~ 5,59	5	
	48222161	8	1,25	90	35	8	6,2	7,37 ~ 7,45	5	
	48222169	10	1,5	100	39	10	8	9,24 ~ 9,33	8	



M | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174 | DIN 1835

NEW	EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48222179	12	1,75	110	17	12	9	11,10, ~ 11,20	8	
	48222191	14	2	110	20	14	11	12,96 ~ 13,08	8	
	48222202	16	2	110	20	16	12	14,96 ~ 15,08	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		◯ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		◯ 10~30 m/min					

S-XPF-LH

LH | M | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric

- High performance forming tap
- Oil groove with M ≥ 3
- Left hand

- Hochleistungsgewindeformer PM-Material
- Mit Ölnut für M ≥ 3
- Links

- Maschio a rullare ad alta performance
- Maschi con scanalatura di lubrificazione per M ≥ 3
- Sinistri

- Taraud à refouler à haute performance
- Tarauds avec rainure d'huile pour M ≥ 3
- Coupe à gauche

- Yüksek performans ovalama kılavuzu
- M ≥ 3 yağ oluğu
- Sol Helis

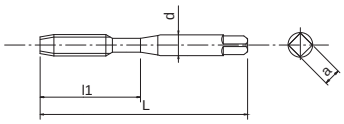
- High Performance rulletap
- Med oliespor M ≥ 3
- venstre

- High performance pressgängtapp
- Oil sporr for M ≥ 3
- vänster skärande

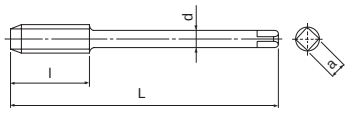
- Alta prestaciones, macho de laminación
- Ranuras de lubricación con M ≥ 3
- Mano izquierda

- Высокопроизводительные накатные метчики
- Канавки для смазки с M ≥ 3
- левая

- Wysoka wydajność wygniatania gwintów
- Rowki olejowe od M ≥ 3
- lewa ręka



NEW	EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
	48219138	3	0,5	56	18	3,5	2,7	2,77 ~ 2,81	4	
	48219144	4	0,7	63	21	4,5	3,4	3,66 ~ 3,72	4	
	48219149	5	0,8	70	25	6	4,9	4,61 ~ 4,68	5	
	48219155	6	1	80	30	6	4,9	5,51 ~ 5,59	5	
	48219161	8	1,25	90	35	8	6,2	7,37 ~ 7,45	5	
	48219169	10	1,5	100	39	10	8	9,24 ~ 9,33	8	



LH | M | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174

NEW	EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48219179	12	1,75	110	17	9	7	11,10 ~ 11,20	8	
	48219191	14	2	110	20	11	9	12,96 ~ 13,08	8	
	48219202	16	2	110	20	12	9	14,96 ~ 15,08	8	
	48219214	18	2,5	125	20	14	11	16,66 ~ 16,81	8	
	48219228	20	2,5	140	20	16	12	18,66 ~ 18,81	8	
	48219238	22	2,5	140	20	18	14,5	20,66 ~ 20,81	8	
	48219247	24	3	160	24	18	14,5	22,39 ~ 22,56	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

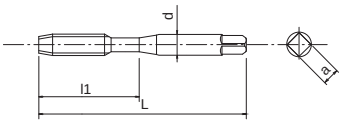
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

C-OIL-XPF

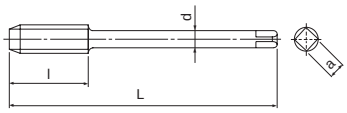
M | CARBIDE | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric

- High performance forming tap
- Hochleistungsgewindeformer PM-Material
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



NEW	EDP	M	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
	48226149	5	0,8	70	25	6	4,9	4,61 ~ 4,68	5	
	48226155	6	1	80	30	6	4,9	5,51 ~ 5,59	5	
	48226161	8	1,25	90	35	8	6,2	7,37 ~ 7,45	5	
	48226169	10	1,5	100	39	10	8	9,24 ~ 9,33	8	



M | CARBIDE | V | ISO 2 6HX | C/2,5 | DIN 2174

NEW	EDP	M	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48226179	12	1,75	110	17	9	7	11,10 ~ 11,20	8	
	48226191	14	2	110	20	11	9	12,96 ~ 13,08	8	
	48226202	16	2	110	20	12	9	14,96 ~ 15,08	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

A-XPF

MF | CPM | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric Fine

- High performance forming tap
- ISO 2/4HX for M≤1,6
- For longer tool life

- Hochleistungsgewindeformer PM-Material
- ISO 2/4HX für M≤1,6
- Preisgünstig

- Maschio a rullare ad alta performance
- ISO 2/4HX per M≤1,6
- Stabilità e durat

- Taraud à refouler à haute performance
- ISO 2/4HX pour M≤1,6
- Outil à longue durée

- Yüksek performans ovalama kılavuzu
- ISO 2/4HX M≤1,6
- Daha uzun takım ömrü

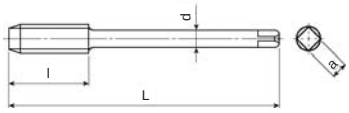
- High Performance rulletap
- ISO 2/4HX til M≤1,6
- Længere standtid

- High performance pressgängtapp
- ISO 2/4HX och M≤1,6
- Livslängd

- Alta prestaciones, macho de laminación
- ISO 2/4HX para M≤1,6
- Duración mayor

- Высокопроизводительные накатные метчики
- ISO 2/4HX для M≤1,6
- С увеличенной стойкостью

- Wysoka wydajność wygniatania gwintów
- ISO 2/4HX do M≤1,6
- dłuższa żywotność



NEW	EDP	MF	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48133162	8	1	90	10	6	4,9	7,51 ~ 7,59	5	
	48133171	10	1	90	12	7	5,5	9,51 ~ 9,59	8	
	48133170	10	1,25	100	12	7	5,5	9,37 ~ 9,45	8	
	48133182	12	1	100	15	9	7	11,52 ~ 11,60	8	
	48133181	12	1,25	100	15	9	7	11,39 ~ 11,46	8	
	48133180	12	1,5	100	15	9	7	11,25 ~ 11,34	8	
	48133193	14	1,25	100	15	11	9	13,39 ~ 13,46	8	
	48133192	14	1,5	100	15	11	9	13,25 ~ 13,34	8	
	48133203	16	1,5	100	15	12	9	15,25 ~ 15,34	8	
	48133216	18	1,5	110	15	14	11	17,25 ~ 17,34	8	
	48133230	20	1,5	125	15	16	12	19,25 ~ 19,34	8	
	48133240	22	1,5	125	15	18	14,5	21,25 ~ 21,34	8	
	48133250	24	1,5	140	15	18	14,5	23,25 ~ 23,34	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

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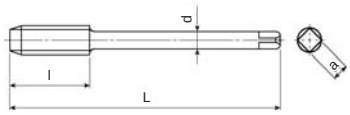
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

A-OIL-XPF

MF | CPM | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric Fine

- High performance forming tap
- Hochleistungsgewindeformer PM-Material
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



NEW	EDP	MF	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48225162	8	1	90	10	6	4,9	7,51 ~ 7,59	5	
	48225171	10	1	90	12	7	5,5	9,51 ~ 9,59	8	
	48225170	10	1,25	100	12	7	5,5	9,37 ~ 9,45	8	
	48225182	12	1	100	15	9	7	11,52 ~ 11,60	8	
	48225181	12	1,25	100	15	9	7	11,39 ~ 11,46	8	
	48225180	12	1,5	100	15	9	7	11,25 ~ 11,34	8	
	48225193	14	1,25	100	15	11	9	13,39 ~ 13,46	8	
	48225192	14	1,5	100	15	11	9	13,25 ~ 13,34	8	
	48225203	16	1,5	100	15	12	9	15,25 ~ 15,34	8	
	48225216	18	1,5	110	15	14	11	17,25 ~ 17,34	8	
	48225230	20	1,5	125	15	16	12	19,25 ~ 19,34	8	
	48225240	22	1,5	125	15	18	14,5	21,25 ~ 21,34	8	
	48225250	24	1,5	140	15	18	14,5	23,25 ~ 23,34	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

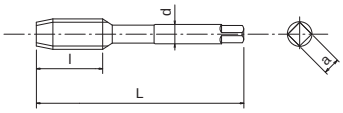
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF

MF | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric Fine

- High performance forming tap
- Hochleistungsgewindeformer PM-Material
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



	EDP	MF	P	L	l	d	a	Drill Hole Size	ZΔ	Price
NEW SIZES	48030145	4	0,5	63	8	4,5	3,4	3,77 ~ 3,81	4	
NEW SIZES	48030151	5	0,5	70	8	6	4,9	4,77 ~ 4,81	5	
NEW SIZES	48030157	6	0,5	80	8	6	4,9	5,78 ~ 5,84	5	
NEW SIZES	48030156	6	0,75	80	8	6	4,9	5,65 ~ 5,72	5	
NEW SIZES	48030160	7	0,75	80	8	7	5,5	6,65 ~ 6,72	5	
NEW SIZES	48030164	8	0,5	80	10	6	4,9	7,78 ~ 7,84	5	
NEW SIZES	48030163	8	0,75	80	10	6	4,9	7,65 ~ 7,72	5	
	48030162	8	1	90	10	6	4,9	7,51 ~ 7,59	5	
	48030171	10	1	90	12	7	5,5	9,51 ~ 9,59	8	
	48030170	10	1,25	100	12	7	5,5	9,37 ~ 9,45	8	
	48030182	12	1	100	15	9	7	11,52 ~ 11,60	8	
	48030181	12	1,25	100	15	9	7	11,39 ~ 11,46	8	
	48030180	12	1,5	100	15	9	7	11,25 ~ 11,34	8	
NEW SIZES	48030194	14	1	100	15	11	9	13,52 ~ 13,60	8	
	48030193	14	1,25	100	15	11	9	13,39 ~ 13,46	8	
	48030192	14	1,5	100	15	11	9	13,25 ~ 13,34	8	
NEW SIZES	48030204	16	1	100	15	12	9	15,52 ~ 15,60	8	
	48030203	16	1,5	100	15	12	9	15,25 ~ 15,34	8	
NEW SIZES	48030218	18	1	110	15	14	11	17,52 ~ 17,60	8	
	48030216	18	1,5	110	15	14	11	17,25 ~ 17,34	8	
NEW SIZES	48030232	20	1	125	15	16	12	19,52 ~ 19,60	8	
	48030230	20	1,5	125	15	16	12	19,25 ~ 19,34	8	
	48030240	22	1,5	125	15	18	14,5	21,25 ~ 21,34	8	
	48030250	24	1,5	140	15	18	14,5	23,25 ~ 23,34	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

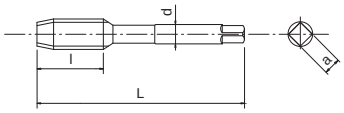
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-OIL-XPF

MF | HSS-Co | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric Fine

- High performance forming tap
- Hochleistungsgewindeformer PM-Material
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



	EDP	MF	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48042162	8	1	90	10	6	4,9	7,51 ~ 7,59	5	
	48042171	10	1	90	12	7	5,5	9,51 ~ 9,59	8	
	48042170	10	1,25	100	12	7	5,5	9,37 ~ 9,45	8	
NEW SIZES	48042182	12	1	100	15	9	7	11,52 ~ 11,60	8	
	48042181	12	1,25	100	15	9	7	11,39 ~ 11,46	8	
	48042180	12	1,5	100	15	9	7	11,25 ~ 11,34	8	
NEW SIZES	48042194	14	1	100	15	11	9	13,52 ~ 13,60	8	
	48042193	14	1,25	100	15	11	9	13,39 ~ 13,46	8	
	48042192	14	1,5	100	15	11	9	13,25 ~ 13,34	8	
NEW SIZES	48042204	16	1	100	15	12	9	15,52 ~ 15,60	8	
	48042203	16	1,5	100	15	12	9	15,25 ~ 15,34	8	
NEW SIZES	48042218	18	1	110	15	14	11	17,52 ~ 17,60	8	
	48042216	18	1,5	110	15	14	11	17,25 ~ 17,34	8	
NEW SIZES	48042232	20	1	125	15	16	12	19,52 ~ 19,60	8	
	48071230	20	1,5	125	15	16	12	19,25 ~ 19,34	8	
	48071240	22	1,5	125	15	18	14,5	21,25 ~ 21,34	8	
	48071250	24	1,5	140	15	18	14,5	23,25 ~ 23,34	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

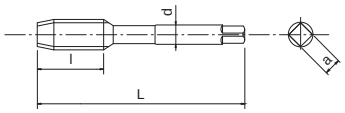
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF-6GX

MF | HSS-Co | V | ISO 3 6GX | C/2,5 | DIN 2174

Metric Fine

- High performance forming tap
- Hochleistungsgewindeformer PM-Material
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



NEW EDP	MF	P	oversize	L	l	d	a	Drill Hole Size	ZΔ	Price
48086162	8	1	+0,026	90	10	6	4,9	7,55 ~ 7,63	5	
48086171	10	1	+0,026	90	12	7	5,5	9,55 ~ 9,63	8	
48086170	10	1,25	+0,028	100	12	7	5,5	9,40 ~ 9,43	8	
48086182	12	1	+0,026	100	15	9	7	11,55 ~ 11,63	8	
48086181	12	1,25	+0,028	100	15	9	7	11,42 ~ 11,49	8	
48086180	12	1,5	+0,032	100	15	9	7	11,28 ~ 11,37	8	
48086193	14	1,25	+0,028	100	15	11	9	13,42 ~ 13,49	8	
48086192	14	1,5	+0,032	100	15	11	9	13,28 ~ 13,37	8	
48086203	16	1,5	+0,032	100	15	12	9	15,28 ~ 15,37	8	
48086216	18	1,5	+0,032	110	15	14	11	17,28 ~ 17,37	8	
48086230	20	1,5	+0,032	125	15	16	12	19,28 ~ 19,37	8	
48086240	22	1,5	+0,032	125	15	18	14,5	21,28 ~ 21,37	8	
48086250	24	1,5	+0,032	140	15	18	14,5	23,28 ~ 23,37	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF (FORM D)

MF | HSS-Co | V | ISO 2 6HX | D/4 | DIN 2174

Metric Fine

- High performance forming tap
- 4P chamfer

- Hochleistungsgewindeformer PM-Material
- 4 Gang. Anschnittlänge

- Maschio a rullare ad alta performance
- 4 filleti

- Taraud à refouler à haute performance
- 4 entrée gun

- Yüksek performans ovalama kılavuzu
- 4p pah

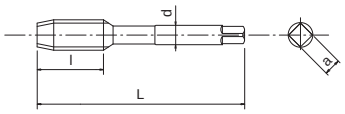
- High Performance rulletap
- 4 x stigning på opløb

- High performance pressgängtapp
- 4 x stigning

- Alta prestaciones, macho de laminación
- 4 pasos

- Высокопроизводительные накатные метчики
- 4 витка

- Wysoka wydajność wygniatania gwintów
- Nakrój - 4p



EDP	MF	P	L	l	d	a	Drill Hole Size	ZΔ	Price
48088162	8	1	90	10	6	4,9	7,51 ~ 7,59	5	
48088171	10	1	90	12	7	5,5	9,51 ~ 9,59	8	
48088170	10	1,25	100	12	7	5,5	9,37 ~ 9,45	8	
48088182	12	1	100	15	9	7	11,52 ~ 11,60	8	
48088181	12	1,25	100	15	9	7	11,39 ~ 11,46	8	
48088180	12	1,5	100	15	9	7	11,25 ~ 11,34	8	
48088192	14	1,5	100	15	11	9	13,25 ~ 13,34	8	
48088203	16	1,5	100	15	12	9	15,25 ~ 15,34	8	
48088216	18	1,5	110	15	14	11	17,25 ~ 17,34	8	
48088230	20	1,5	125	15	16	12	19,25 ~ 19,34	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF (FORM E)

MF | HSS-Co | V | ISO 2 6HX | E/1,5 | DIN 2174

Metric Fine

- High performance forming tap
- 1,5 chamfer

- Hochleistungsgewindeformer PM-Material
- 1,5 Gang. Anschnittlänge

- Maschio a rullare ad alta performance
- 1,5 filleti

- Taraud à refouler à haute performance
- 1,5 entrée gun

- Yüksek performans ovalama kılavuzu
- 1,5p pah

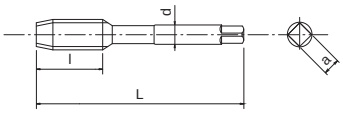
- High Performance rulletap
- 1,5 x stigning på opløb

- High performance pressgängtapp
- 1,5 x stigning

- Alta prestaciones, macho de laminación
- 1,5 pasos

- Высокопроизводительные накатные метчики
- 1,5 витка

- Wysoka wydajność wygniatania gwintów
- Nakrój - 1,5 p



NEW	EDP	MF	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48089171	10	1	90	12	7	5,5	9,51 ~ 9,59	8	
	48089180	12	1,5	100	15	9	7	11,25 ~ 11,34	8	
	48089192	14	1,5	100	15	11	9	13,25 ~ 13,34	8	
	48089203	16	1,5	100	15	12	9	15,25 ~ 15,34	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

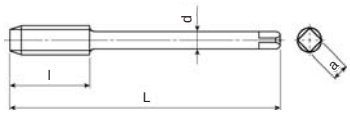
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

C-OIL-XPF

MF | CARBIDE | V | ISO 2 6HX | C/2,5 | DIN 2174

Metric Fine

- High performance forming tap
- Hochleistungsgewindeformer PM-Material
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



NEW	EDP	MF	P	L	l	d	a	Drill Hole Size	ZΔ	Price
	48226162	8	1	90	10	6	4,9	7,51 ~ 7,59	5	
	48226171	10	1	90	12	7	5,5	9,51 ~ 9,59	8	
	48226180	12	1,5	100	15	9	7	11,25 ~ 11,34	8	
	48226192	14	1,5	100	15	11	9	13,25 ~ 13,34	8	
	48226203	16	1,5	100	15	12	9	15,25 ~ 15,34	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

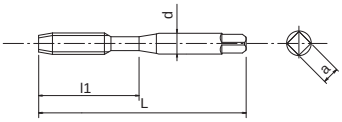
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		◯ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		◯ 10~30 m/min					

S-XPF

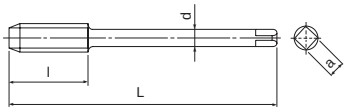
UNC | HSS-Co | V | ANSI 2BX | C/2,5 | DIN 2184-1

UNC

- High performance forming tap
- Hochleistungsgewindeformer PM-Material
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



EDP	UNC	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
48091459	5	40	56	18	3,5	2,7	2,86 ~ 2,93	4	
48091461	6	32	56	20	4	3	3,09 ~ 3,17	4	
48091464	8	32	63	21	4,5	3,4	3,76 ~ 3,84	4	
48091466	10	24	70	25	6	4,9	4,26 ~ 4,35	5	
48091471	1/4	20	80	30	7	5,5	5,66 ~ 5,76	5	
48091474	5/16	18	90	35	8	6,2	7,18 ~ 7,29	5	
48091479	3/8	16	100	35	9	7	8,66 ~ 8,78	8	



UNC | HSS-Co | V | ANSI 2BX | C/2,5 | DIN 2184-1

EDP	UNC	P	L	l	d	a	Drill Hole Size	ZΔ	Price
48091484	7/16	14	100	18,1	8	6,2	10,12 ~ 10,27	8	
48091489	1/2	13	110	19,5	9	7	11,62 ~ 11,78	8	
48091494	9/16	12	110	21,1	11	9	13,14 ~ 13,28	8	
48091501	5/8	11	110	23,1	12	9	14,61 ~ 14,76	8	
48091515	3/4	10	125	20,3	14	11	17,65 ~ 17,80	8	
48091526	7/8	9	140	22,6	18	14,5	20,66 ~ 20,84	8	
48091538	1	8	160	25,4	18	14,5	23,63 ~ 23,84	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

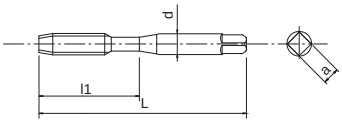
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF

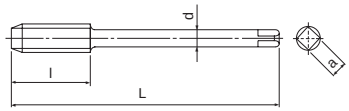
UNF | HSS-Co | V | ANSI 2BX | C/2,5 | DIN 2184-1

UNF

- High performance forming tap
- Hochleistungsgewindeformer
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



EDP	UNF	P	L	l1	d	a	Drill Hole Size	ZΔ	Price
48091462	6	40	56	20	4	3	3,19 ~ 3,26	4	
48091467	10	32	70	25	6	4,9	4,41 ~ 4,47	5	
48091472	1/4	28	80	30	7	5,5	5,87 ~ 5,94	5	
48091476	5/16	24	90	35	8	6,2	7,39 ~ 7,47	5	
48091481	3/8	24	90	35	9	7	8,98 ~ 9,06	8	



UNF | HSS-Co | V | ANSI 2BX | C/2,5 | DIN 2184-1

EDP	UNF	P	L	l	d	a	Drill Hole Size	ZΔ	Price
48091486	7/16	20	100	12,7	8	6,2	10,45 ~ 10,55	8	
48091491	1/2	20	100	12,7	9	7	12,04 ~ 12,14	8	
48091496	9/16	18	100	14,1	11	9	13,56 ~ 13,64	8	
48091504	5/8	18	100	14,1	12	9	15,15 ~ 15,23	8	
48091517	3/4	16	110	12,7	14	12	18,22 ~ 18,30	8	
48091528	7/8	14	125	14,5	18	14,5	21,27 ~ 21,38	8	
48091539	1	12	125	16,9	18	14,5	24,26 ~ 24,37	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

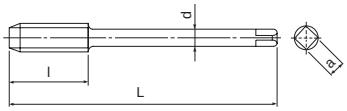
Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
C≤0.2%	0.25<C≤0.4%	C≥0.45%	SCM	25~35 HRC	35~45 HRC	45~52 HRC	52~62 HRC	SUS	SKD	SC	GG	GGG
◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

S-XPF-SPT

G | HSS-Co | V | C/2,5 | DIN 2189

G (BSP)

- High performance forming tap
- Hochleistungsgewindeformer PM-Material
- Maschio a rullare ad alta performance
- Taraud à refouler à haute performance
- Yüksek performans ovalama kılavuzu
- High Performance rulletap
- High performance pressgängtapp
- Alta prestaciones, macho de laminación
- Высокопроизводительные накатные метчики
- Wysoka wydajność wygniatania gwintów



EDP	G	P	L	l	d	a	Drill Hole Size	ZΔ	Price
48064838	1/8	28	90	9	7	5,5	9,24 ~ 9,35	8	
48064839	1/4	19	100	13	11	9	12,41 ~ 12,62	8	
48064840	3/8	19	100	13	12	9	15,92 ~ 16,12	8	
48064841	1/2	14	125	18	16	12	19,93 ~ 20,15	8	

ZΔ= Number of flutes - Anzahl Schneiden - Numero di denti - Nombre de lèvres - Liczba ostrzy - Antal skær - Antal skär - Numero de ranuras - Число режущих кромок - Kanal sayısı

Applications - Anwendungen - Applicazioni - Applications - Applikation - Applikation - Aplicaciones - Применение - Uygulama - Zastosowania												
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◎ 15~40 m/min	◎ 15~40 m/min	◎ 15~30 m/min	◎ 15~30 m/min	◎ 5~20 m/min				◎ 8~20 m/min		○ 15~40 m/min		
Cu	BS	BsC	PB	Al	AC,ADC	MC	ZDC	Ti	Ni	Plast.	Vinyl	
◎ 10~30 m/min	◎ 10~30 m/min	◎ 10~30 m/min		◎ 20~50 m/min	◎ 20~40 m/min		○ 10~30 m/min					

shaping your dreams

OSG EUROPE LOGISTICS
Avenue Lavoisier 1
B-1300 Z.I. Wavre - Nord
Belgium
Tel.: +32 10 23 05 07
Fax: +32 10 23 05 51
info@osgeurope.com

OSG BELUX
Avenue Lavoisier 1
B-1300 Z.I. Wavre - Nord
Belgium
Tel.: +32 10 23 05 11
Fax: +32 10 23 05 31
info@osg-belgium.com

OSG FRANCE
Parc Icade, Paris Nord 2
Immeuble "Le Rimbaud"
22 Avenue des Nations
CS66191 - 93420 Villepinte
France
Tel.: +33 1 49 90 10 10
Fax: +33 1 49 90 10 15
sales@osg-france.com

OSG NETHERLANDS
Bedrijfsweg 5 - 3481 MG Harmelen
Postbus 50 - 3480 DB Harmelen
The Netherlands
Tel.: +31 348 44 2764
Fax: +31 348 44 2144
info@osg-nl.com

OSG UK
Shelton house, 5 Bentalls
Pipps Hill Ind Est, Basildon Essex SS14 3BY
United Kingdom
Tel.: +44 845 305 1066
Fax: +44 845 305 1067
sales@osg-uk.com

SLOVAKIA
Branch office of OSG Europe Logistics s.a.
Tel (SK) +421 2 4329 1295
Tel (BE) +32 10 23 05 07
Fax (BE) +32 10 23 05 51
sales-osgsvk@osgeurope.com

OSG POLAND Sp. z.o.o.
ul. Spółdzielcza 57
05-074 Halinów
Poland
Tel: +22 760 82 71
Fax: +22 760 82 71
osg@osg-poland.com

OSG GERMANY
Karl-Ehmann-Str. 25
D - 73037 Göppingen
Germany
Tel.: +49 7161 6064 - 0
Fax: +49 7161 6064 - 444
info@osg-germany.de

OSG SCANDINAVIA
(For Scandinavian countries)
Langebjergvaenget 16
4000 Roskilde
Denmark
Tel.: +45 46 75 65 55
Fax: +45 46 75 67 00
osg@osg-scandinavia.com

SWEDEN
Branch office of OSG SCANDINAVIA
Abrahams Gränd 8
295 35 Bromölla
Sweden
Tel: +46 40 41 22 55
Fax: +46 40 41 32 55
osg@osg-scandinavia.com

OSG COMAHER
Bekolarra 4
E - 01010 Vitoria-Gasteiz
Spain
Tel.: +34 945 242 400
Fax: +34 945 228 883
osg-comaher@osg-comaher.com

OSG ITALIA
Via Cirenaica n. 52 int. 61/63
I - 10142 Torino
Italy
Tel.: +39 0117705211
Fax: +39 0117071402
info@osg-italia.it

OSG TURKEY
Rami Kişla Cad.No:56 Eyüp
Istanbul 34056
Turkey
Tel.+90 212 565 24 00
Fax: +90 212 565 44 00
info@osg-turkey.com

ROMSAN INTERNATIONAL CO. SRL
Reprezentant Exclusiv OSG
23-25, Nerva Traian Street
031044 Bucuresti
România
Tel.: +40 021 322 07 47
Fax: +40 021 321 56 00
romsan.int@romsan.ro

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