

HYDROCHUCKS

Operating instructions

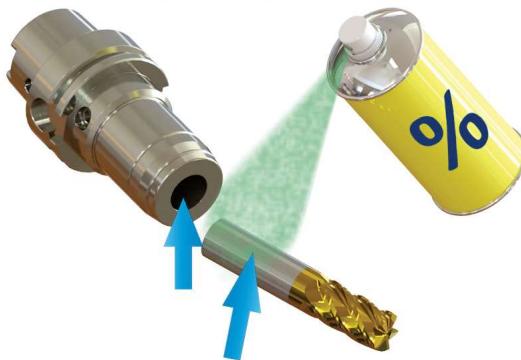
- **1. Working temperature**

Ideal and optimized working temperature is between 20° and 50°C. Do not store hydrochucks where the temperature could exceed 50°C.



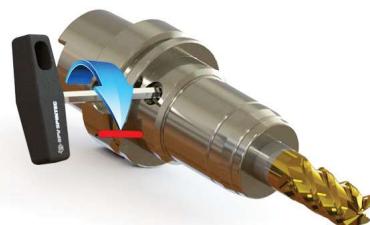
- **2. Cleaning**

It is very important that both the tool shaft and the inside of the hydrochuck are free from grease or other contamination. Use an alcohol based degreaser when cleaning the chuck and tool.



- **3. Tightening the membrane**

The screw must always be tightened to the fixed stop. No torque-key is needed. Never tighten the screw without a tool in the chuck, since there is a risk that the hydraulic chamber could be deformed.



- **4. Tool insertion length**

The tool must be inserted to a fixed stop, to prevent the hydraulic chamber from being deformed by the pressure. When reduction sleeves are used, at least 60% of the tool shaft length must be inserted and clamped.



- **5. Service and repair**

If you experience that your hydrochuck does not clamp properly, this can be due to several issues. A common explanation is that the hydraulic piston seal is worn out. We always recommend sending the chuck to us for service or repair. Contact us for more info.

Important information about tool shafts.

- **Hydrochucks with standard membrane - HCF / HCFL / HCPS**

For standard chucks from Ø6 to Ø20 mm, Weldon-shafts can be used directly in the chuck.
Shaft tolerance = h6

- **Hydrochucks with The Plus-membrane - HCF+ / HCFL+ / HCP+ / HCPK+ / HCK+**

For chucks with The Plus-membrane (+) only cylindrical shafts must be used directly in the chuck.
Shaft tolerance = h6

- **Reduction sleeves - (Not suitable for HCK+)**

Other types of tool shafts such as Weldon, Whistlenotch etc can be used in combination with a reduction sleeve in the hydrochuck.

Torque specifications

Chuck for tool Ø mm	HCF / HCF+	HCK+	HCP+	HCPK+	HCPS
6	15 Nm				
8	20 Nm				
10	40 Nm				
12	80 Nm		80 Nm	80 Nm	80 Nm
14	110 Nm				
16	130 Nm				
18	190 Nm				
20	320 Nm	600 Nm		320 Nm	
25	400 Nm				
32	650 Nm	1200 Nm			
40	1200 Nm				



WARNING!

Disassembling and assembling a hydrochuck requires special tools and equipment.
Always send the chuck to SPV Spintec representative if it needs to be repaired.

Tapping devices



TAPPING DEVICES

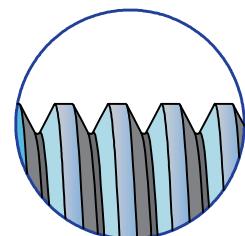
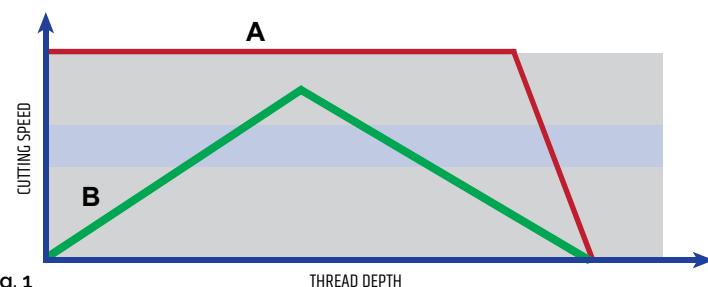
Introduction

Tapping technology

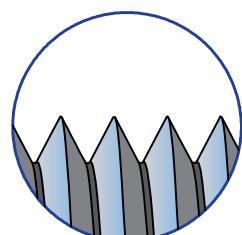
Good thread quality means that the profile must be geometrically correct and that the surface finish is good. To obtain full thread profile it is important that the axial force that affects the tap is very low. If the axial force exceeds a certain value, the profile will be incomplete.

SPV Spintec's tapping devices are thanks to the ball bearing floating designed to provide a correct thread profile since they counteract negative forces.

To obtain a good thread finish it is necessary to use the correct tap as well as the correct cutting speed. In most materials you get a build up edge formation (BUE) when reaching a certain speed area, which results in bad surface finish. The tapping lapse should follow either over or under the sectioned area. See Fig 1. You should always aim for a tapping cycle that follows graph A. If the tapping lapse follows graph B there is a risk that the thread finish will be bad.



Incomplete profile



Full profile

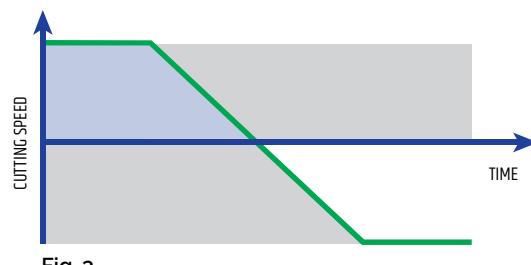
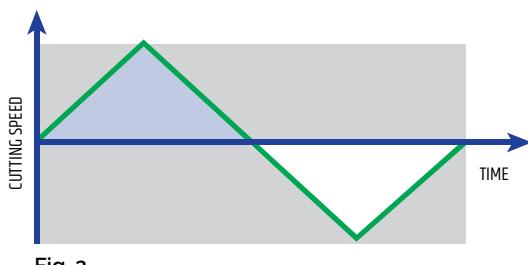
When tapping in NC-controlled drilling and milling machines you can use either synchronized tapping or conventional tapping.

Synchronized tapping cycle

Synchronized tapping means that the spindle rotation speed and pitch are synchronized to the axial movement of the machine. The tapping cycle always starts with an inoperative spindle. The advantage of synchronized tapping is the accurate depth of the thread. The disadvantage is that the tapping cycle is slow. Fig 2 shows that when trying to synchronize the spindle and the machine axial movement, the retardation and acceleration will be limited. The tapping cycle will as a result of this be slow. The process follows graph B in Fig 1 at the risk of incomplete thread profile. In case of modern machines with a very accurate synchronizing, rigid tapping is possible to use (the tap have no axial float). Normally when using synchronized tapping the tap must have an axial float to avoid big axial forces that gives incomplete thread profiles.

Conventional tapping cycle

Conventional tapping cycle means that the spindle rotation and machine axial movement must be programmed separately. The tapping cycle starts with full spindle rotation. The advantage is a faster tapping cycle and that the tapping process can follow graph A in Fig 1, which means that you get a better thread finish. To obtain a full profile when tapping conventional, a tapping device with ball bearing axial floating must be used. Fig 3 shows the tapping process at conventional tapping. As you can see from the picture the tapping process can follow graph A in Fig 1 which means that you get a better thread finish.



Our different models of tapping devices



▲ Typ CGS / CGS-C

Compact tapping device
with built-in floating



▲ Typ ST / STF

Very narrow design, with
or without floating



▲ Typ GS

Slim tapping spindle
with adjustable floating



▲ Typ SA

Powerful tapping device
with floating and adjustable
torque-clutch



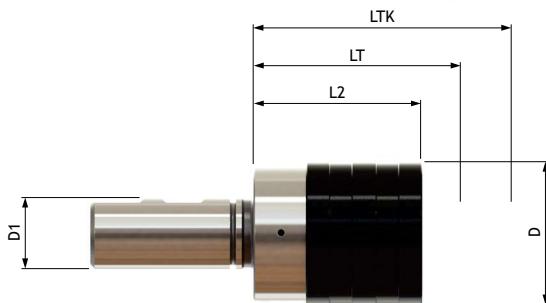
▲ Typ SyncTapper

With mini-floating for
modern, rigid tapping

TAPPING DEVICES

CGS / CGS-C

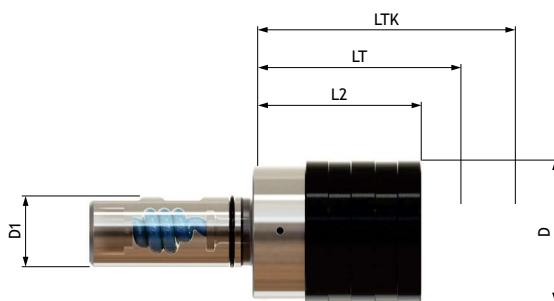
- ▲ Ball bearing axial floating which eliminates the machine axial forces
- ▲ Internal cooling that manages up to 50 bar coolant pressure
- ▲ Adjustable collaring-pressure
- ▲ Hard thrust-pressure makes the tap starting to cut immediately



CGS with Weldon shaft

CGS type	D1 Shaft	D Ømm	B mm	F mm	L2 mm	LT mm	LTK mm	Fits tapholder	Art.no
CGS-12	Weldon 25	50	7	10	53	68	109	T-12 and TK-12	37622
CGS-24	Weldon 25	75	12	18	112	131	131	T-24 and TK-24	37623
CGS-42	Weldon 32	96	15	20	135	153	----	T-42	37624

B = Backward floating , F = Forward floating



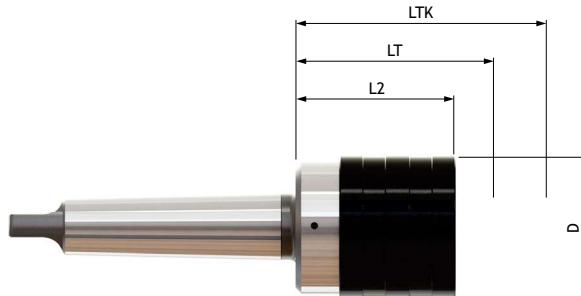
CGS-C with Weldon shaft and internal cooling

CGS type	D1 Shaft	D Ømm	B mm	F mm	L2 mm	LT mm	LTK mm	Fits tapholder	Art.no
CGS-12C	Weldon 25	50	7	10	53	68	109	T-12 and TK-12	37590
CGS-24C	Weldon 25	75	12	18	112	131	131	T-24 and TK-24	37596
CGS-42C	Weldon 32	96	15	20	135	153	----	T-42	37597

B = Backward floating , F = Forward floating

TAPPING DEVICES

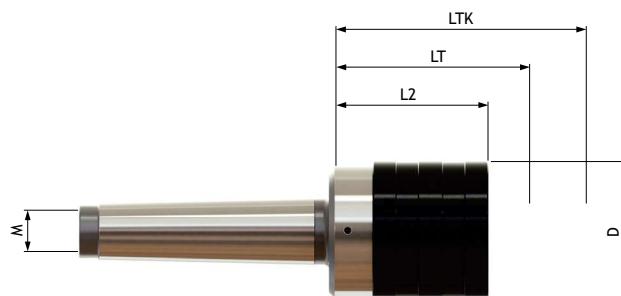
CGS / CGS-C



CGS with Morse Taper shaft

CGS type	Shaft type	D Ømm	B mm	F mm	L2 mm	LT mm	LTK mm	Fits tapholder	Art.no
CGS-8	Morse Taper 1	40	5	10	48	60	95	T-8 and TK-8	26570
	Morse Taper 2	40	5	10	50	62	97	T-8 and TK-8	26550
CGS-12	Morse Taper 2	50	7	10	55	71	111	T-12 and TK-12	26296
	Morse Taper 3	50	7	10	55	71	111	T-12 and TK-12	26298
CGS-24	Morse Taper 3	75	12	18	94	113	164	T-24 and TK-24	26406
	Morse Taper 4	75	12	18	94	113	164	T-24 and TK-24	26408
CGS-42	Morse Taper 4	96	15	20	130	148	-----	T-42	36332

B = Backward floating , F = Forward floating



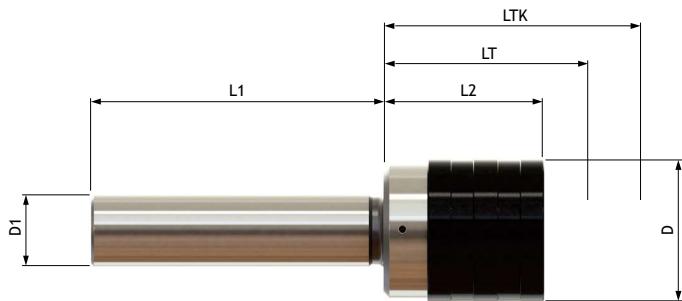
CGS with Morse Taper shaft for tie rod

CGS type	Shaft type	M Thread	D Ømm	B mm	F mm	L2 mm	LT mm	LTK mm	Fits tapholder	Art.no
CGS-8	Morse Taper 2	M10	40	5	10	50	62	97	T-8 and TK-8	26973
	Morse Taper 3	M12	50	7	10	55	71	111	T-12 and TK-12	36135
CGS-24	Morse Taper 3	M12	75	12	18	94	113	164	T-24 and TK-24	26977
	Morse Taper 4	M12	96	15	20	130	148	-----	T-42	36332

B = Backward floating , F = Forward floating

TAPPING DEVICES

CGS / CGS-C



CGS with Weldon shaft

CGS type	D1 Ømm	L1 mm	D Ømm	B mm	F mm	L2 mm	LT mm	LTK mm	Fits tapholder	Art.no
CGS-8	15,88	42	40	5	10	45	57	92	T-8 and TK-8	26981
CGS-12	25,4	100	50	7	10	50	66	106	T-12 and TK-12	26439
CGS-24	25,4	100	75	12	18	89	108	159	T-24 and TK-24	26443

B = Backward floating , F = Forward floating

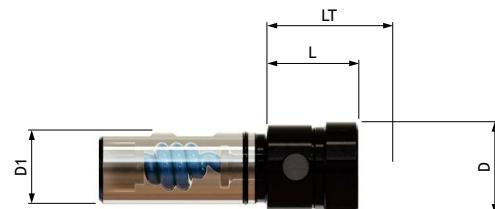
TAPPING DEVICES

ST / STF

▲ Narrow design which combined with SPV Spintec's Weldon-extensions and short ISO- or BT-holders will provide very long and narrow tapping tools with high precision

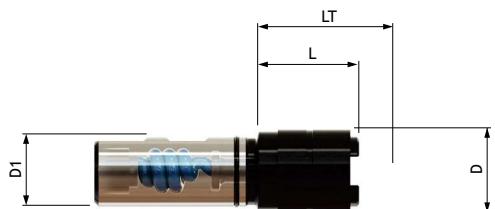
▲ Internal cooling that manages up to 50 bar coolant pressure

▲ Short backward floating (2 mm)



ST-CT without floating, for internal cooling

ST type	D1 Shaft	D Ømm	L mm	LT mm	Fits tapholder	Art.no
ST-16 CT	Weldon 25	32	30	45	T-12 and TK-12	37716
ST-16 CLT	Weldon 25	32	80	90	T-24 and TK-24	37721

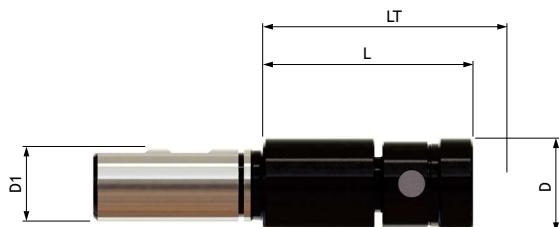


ST-CEU without floating, for internal cooling

ST type	D1 Shaft	D Ømm	L mm	LT mm	Fits tapholder	Art.no
ST-12 CEU	Weldon 25	30	35	42	EU-1	35804
ST-12 CLEU	Weldon 25	30	85	92	EU-1	35805
ST-20 CEU	Weldon 25	50	52	63	EU-2	35806
ST-20 CLEU	Weldon 25	50	102	113	EU-2	35814

TAPPING DEVICES

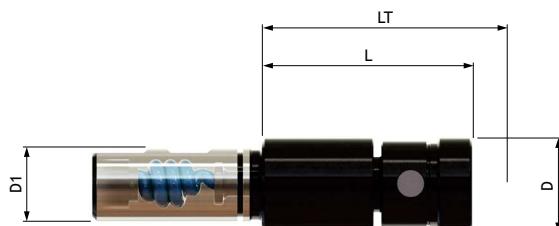
ST / STF



STF-T with floating

STF type	D1 Shaft	D Ømm	B mm	F mm	L mm	LT mm	Fits tapholder	Art.no
STF-16 T	Weldon 25	32	2	10	70	85	T-12 and TK-12	37717
STF-30 T	Weldon 32	50	4	15	130	149	T-24 and TK-24	37740

B = Backward floating , F = Forward floating



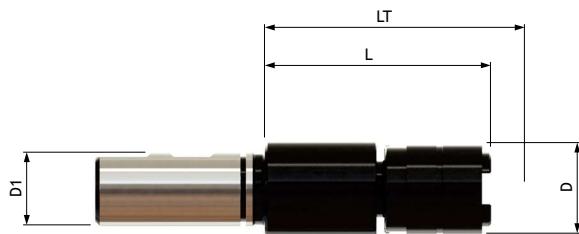
STF-CT with floating, for internal cooling

STF type	D1 Shaft	D Ømm	B mm	F mm	L mm	LT mm	Fits tapholder	Art.no
STF-16 CT	Weldon 25	32	2	10	74	89	T-12 and T-12C	37718
STF-30 CT	Weldon 32	50	4	15	130	149	T-24 and T-24C	37741

B = Backward floating , F = Forward floating

TAPPING DEVICES

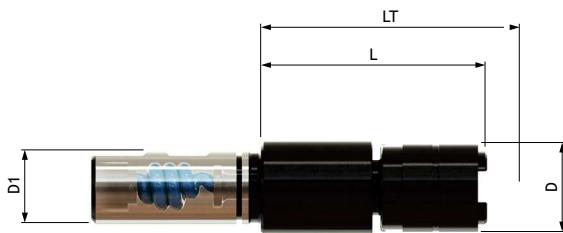
ST / STF



STF-EU with floating

STF type	D1 Shaft	D mm	B mm	F mm	L mm	LT mm	Fits tapholder	Art.no
STF-12 EU	Weldon 25	30	2	10	73	80	EU-1	35807
STF-20 EU	Weldon 25	50	2	10	90	101	EU-2	35808

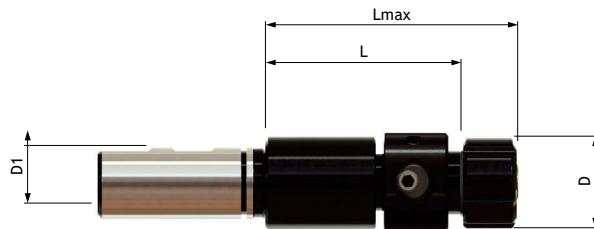
B = Backward floating , F = Forward floating



STF-CEU with floating, for internal cooling

STF type	D1 Shaft	D mm	B mm	F mm	L mm	LT mm	Fits tapholder	Art.no
STF-12 CEU	Weldon 25	32	2	10	73	80	EU-1	35809
STF-20 CEU	Weldon 25	50	2	10	90	101	EU-2	35810

B = Backward floating , F = Forward floating



STF-J with floating, for Ruber-flex collets

STF type	D1 Shaft	D mm	B mm	F mm	L mm	LT mm	Fits collet	Art.no
STF-12 J	Weldon 25	32	2	10	86	51	J-420-23	37709
STF-16 J	Weldon 25	40	2	10	90	51	J-440-43	37710
STF-33 J	Weldon 32	56	4	15	144	89	J-461-62	37711

B = Backward floating , F = Forward floating

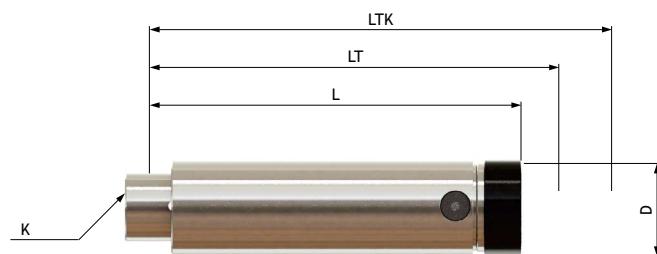
TAPPING DEVICES

GS-E

▲ Adjustable ball bearing axial floating which eliminates the machine axial forces making it suitable for multi-spindle operations

▲ Internal cooling that manages up to 50 bar coolant pressure

▲ Hard collaring-pressure makes the tap starting to cut immediately



GS-E with adjustable floating

GS-E type	K inttaper	D Ømm	Lmin mm	Lmax mm	LTmin mm	LTmax mm	LTKmin mm	LTKmax mm	Fits tapholder	Art.no
GS-8E	B12	23	100	125	112	137	147	172	T-8 and TK-8	36470
GS-12E	B16	30	108	133	123	148	164	189	T-12 and TK-12	36478
GS-24E	B18	50	147	157	166	206	217	257	T-24 and TK-24	36487

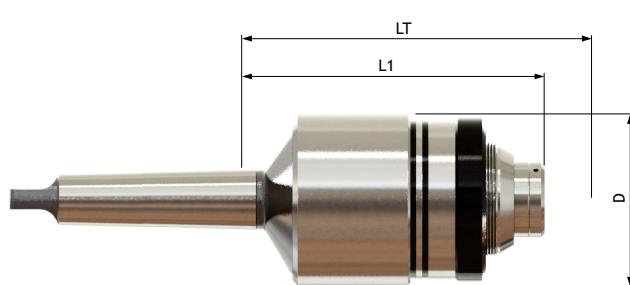
GS-E type	Adjustable floating backwards	Adjustable floating forward
GS-8E	0 - 25 mm	25 - 0 mm
GS-12E	0 - 25 mm	25 - 0 mm
GS-24E	0 - 40 mm	40 - 0 mm



TAPPING DEVICES

SA / SA-NC

- ▲ Ball bearing axial floating which eliminates the machine axial forces
- ▲ Infinitely adjustable torque clutch which releases on set torque
- ▲ Extra long backwards floating
- ▲ Adjustable collaring-pressure makes the tap starting to cut immediately in different materials



SA (for conventional machines)

SA type	Shaft type	D Ømm	B mm	F mm	L mm	LT mm	Fits collet	Art.no
SA-1E	Morse Taper 2	70	9	18	119	136	T-12	22209
	Morse Taper 3	70	9	18	118	135	T-12	22210
SA-2E	Morse Taper 3	104	12	20	178	197	T-24	22428
	Morse Taper 4	104	12	20	176,5	195,5	T-24	22263

B = Backward floating , F = Forward floating

SA-NC (for CNC-machines)

SA type	Shaft type	D Ømm	B mm	F mm	L mm	LT mm	Fits collet	Art.no
SA-1E / NC	Morse Taper 2	70	18	9	128	144	T-12	28437
	Morse Taper 3	70	18	9	127	143	T-12	28351
SA-2E / NC	Morse Taper 3	104	20	12	186	205	T-24	28439
	Morse Taper 4	104	20	12	184,5	203,5	T-24	28352

B = Backward floating , F = Forward floating

TAPPING DEVICES

SyncTapper

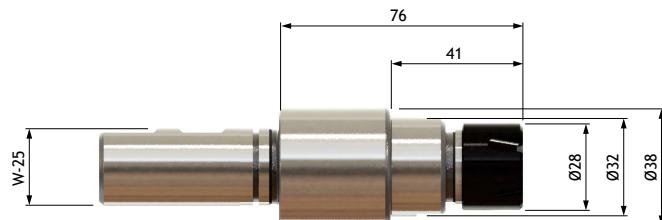
SyncTapper with mini-floating for Rigid Tapping.

Many modern machines have a function that enables Rigid Tapping. This means that the machine spindle is accurately synchronized with the feed of the axial movement. However in many cases it's not 100% accurate which can impair on the thread quality and result in bad surface finish.

To obtain full thread profile it's important that the axial force is very low. If the force exceeds a certain value the profile will be incomplete.

SPV Spintec's SyncTapper has a built-in rigid mini-floating of only 0,5 mm to counteract on any negative forces, allowing the tap to cut the best way and extending the tool lifetime.

The tap is clamped by an ER-collet, making the setup much more stable than a conventional tap holder.



Model type	K inttaper	Art.no
SYNCTAPPER	TAPPING CHUCK SYNCTAPPER, ER-20, WELDON-25, LENGTH 76	38010

SyncTapper comes complete with clamping-nut and wrench
For clamping the tap it use collets type ER-20

Tap holders - For quick and simple tool changes

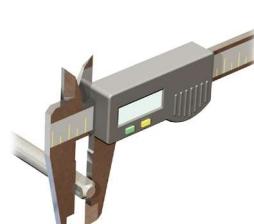
- ▲ Long clamping area improves rigidity and thread quality
- ▲ The tap is controlled with precision which improves the thread quality
- ▲ Internal cooling ducts for cooling along the tap (model TC)
- ▲ Built-in adjustable torque clutch to save the tap (model TK)



Find the correct tap holder with 3 easy steps.



- ▲ Check the dimension of the tap diameter



- ▲ Check the dimension of the tap square

Tap Holders
Type T-8
a) Tapping range M10-M20
1.0 mm

Table: T-8 for taps according to ISO standard

	M	N	O	P	Q	R	S	T
1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00
2	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
3	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00
4	4.00	4.00	4.00	4.00	4.00	4.00	4.00	2.00
5	5.00	5.00	5.00	5.00	5.00	5.00	5.00	2.00
6	6.00	6.00	6.00	6.00	6.00	6.00	6.00	2.00
7	7.00	7.00	7.00	7.00	7.00	7.00	7.00	2.00
8	8.00	8.00	8.00	8.00	8.00	8.00	8.00	2.00
9	9.00	9.00	9.00	9.00	9.00	9.00	9.00	2.00
10	10.00	10.00	10.00	10.00	10.00	10.00	10.00	2.00

- ▲ Search the catalogue table for Ø and #

Tap holder model T and TC



- ▲ **Type T**
For cooling from outside the tapping device



- ▲ **Type T**
For taps with internal cooling ducts



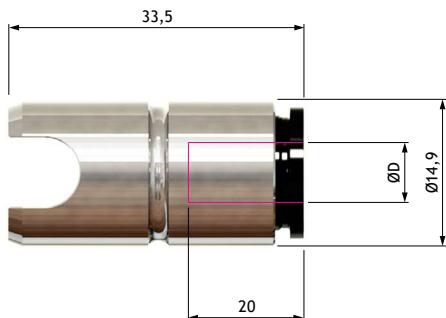
- ▲ **Type TC**
For external cooling along the tap

TAPPING DEVICES

Tap holders

Type T-8

▲ Tapping range: M2 - M8 (#0 - 5/16")



T-8 for taps according to ISO-standard

ISO M	UNC	UNF	ØD mm	# mm	ØD inch	# inch	Art.no
2	1-64	1-72	2,50	2,00	.098	.079	27279
2,2	2-56	2-64	2,80	2,24	.110	.088	27284
2,5	3-48	3-56	2,80	2,24	.110	.088	27284
3	4-40	4-48	3,15	2,50	.124	.098	27288
3,5	6-32	6-40	3,55	2,80	.140	.110	27293
4			4,00	3,15	.157	.124	27299
4,5	8-32	8-36	4,50	3,55	.177	.140	27307
5	10-24	10-32	5,00	4,00	.197	.157	27315
	12-24	12-28	5,60	4,50	.220	.177	27320
6	1/4"-20	1/4"-28	6,30	5,00	.248	.197	27328
7			7,10	5,60	.280	.220	27802
8	5/16"-18	5/16"-24	8,00	6,30	.315	.248	27809
11	7/16"-14	7/16"-20	8,00	6,30	.315	.248	27809

TAPPING DEVICES

Tap holders

Type T-8

T-8 for taps according to DIN-standard

352 M	371 M	376 M	UNC UNF	353, 354 G (R)	Ø mm	# mm	Ø inch	# inch	Art.no
1 - 1,8	1 - 1,8	3,5	1/16"		2,50	2,10	.098	.083	27280
2	2	4	3/32"		2,80	2,10	.110	.083	27283
2,5	2,5		5/32"		2,80	2,10	.110	.083	27283
3		5	1/8"		3,50	2,70	.138	.106	27292
3,5	3,5				4,00	3,00	.157	.118	27298
4	4	6	5/32"		4,50	3,40	.177	.134	27306
			7/32"		4,00	3,00	.157	.118	27298
5	5		7/32"		6,00	4,90	.236	.193	27624
			1/4"		4,50	3,40	.177	.134	27306
6	6		1/4"		6,00	4,90	.236	.193	27324
		7			5,50	4,30	.217	.169	27317
7					6,00	4,90	.236	.193	27324
	7		1/4"		7,00	5,50	.276	.217	27332
8		8	5/16"		6,00	4,90	.236	.193	27324
		8	5/16"		8,00	6,20	.315	.244	27808
9		9	3/8"	1/8"	7,00	5,50	.276	.217	27332
10		10			7,00	5,50	.276	.217	27332
11		11	7/16"		8,00	6,20	.315	.244	27808

T-8 for taps according to ANSI-standard

UNC, UNF NC, NF	Ø mm	# mm	Ø inch	# inch	Art.no
0-6	3,58	2,79	.141	.110	27294
8	4,27	3,33	.168	.131	27305
10	4,93	3,86	.194	.152	27313
12	5,59	4,19	.220	.165	27319
1/4"	6,48	4,85	.255	.191	27330

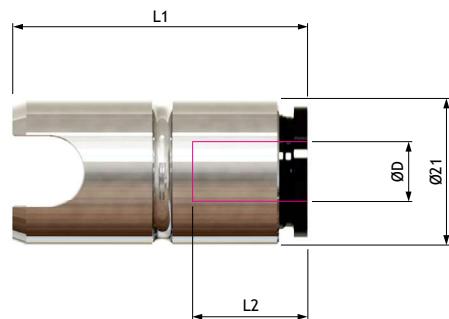
TAPPING DEVICES

Tap holders

Type T-12 / T-12C

▲ Tapping range: M4 - M16 (5/32" - 5/8")

ØD mm	L1 mm	L2 mm
4,0 - 7,0	36	20
7,1 - 10,0	36	17
10,5 - 12,5	37,5	17



T-12 and T-12C for taps according to ISO-standard

ISO M	UNC	UNF	ØD mm	# mm	ØD inch	# inch	T-12 Art.no	T-12C Art.no
3	4-40	4-48	3,15	2,50	.124	.098	27950	---
3,5	6-32	6-40	3,55	2,80	.140	.110	37213	---
4			4,00	3,15	.157	.124	22809	---
4,5	8-32	8-36	4,50	3,55	.177	.140	22810	---
5	10-24	10-32	5,00	4,00	.197	.157	20860	---
	12-24	12-28	5,60	4,50	.220	.177	22811	---
6	1/4"-20	1/4"-28	6,30	5,00	.248	.197	22812	22812C
7			7,10	5,60	.280	.220	22813	22813C
8	5/16"-18	5/16"-24	8,00	6,30	.315	.248	22814	22814C
9			9,00	7,10	.354	.280	22815	22815C
10	3/8"-16	3/8"-24	10,00	8,00	.394	.315	20887	20887C
11	7/16"-14	7/16"-20	8,00	6,30	.315	.248	22814	22814C
12	1/2"-13	1/2"-20	9,00	7,10	.354	.280	22815	22815C
14	9/16"-12	9/16"-18	11,20	9,00	.441	.354	22817	22817C
16	5/8"-11	5/8"-18	12,50	10,00	.492	.394	22259	22259C

TAPPING DEVICES

Tap holders

Type T-12 / T-12C

T-12 and T-12C for taps according to DIN-standard

352 M	371 M	376 M	UNC UNF	353, 354 G (R)	Ø Ø mm mm	# # inch inch	Type T-12 / T-12C	T-12 Art.no	T-12C Art.no
3		5		1/8"	3,50	.270	.138	.106	20847
3,5	3,5				4,00	.300	.157	.118	20849
4	4	6		5/32"	4,50	.340	.177	.134	20854
				7/32"	4,00	.300	.157	.118	20849
5	5			7/32"	6,00	.490	.236	.193	20865
		6		1/4"	4,50	.340	.177	.134	20854
6				1/4"	6,00	.490	.236	.193	20865
		7			5,50	.430	.217	.169	20861
7					6,00	.490	.236	.193	20865
	7			1/4"	7,00	.550	.276	.217	20872
8		8		5/16"	6,00	.490	.236	.193	20865
		8		5/16"	8,00	.620	.315	.244	20875
9		9		3/8"	1/8"	7,00	.550	.276	.217
10		10				7,00	.550	.276	.217
		9		3/8"		9,00	.700	.354	.276
11		11		7/16"		8,00	.620	.315	.244
12		12		1/2"		9,00	.700	.354	.276
		10				10,00	.800	.394	.315
14		14		9/16"	1/4"	11,00	.900	.433	.354
16	12	16		5/8"	3/8"	12,00	.900	.472	.354
								22255	22255C
								22257	22257C

T-12 for taps according to ANSI-standard

UNC, UNF NC, NF	NPTS	Ø Ø mm mm	# # inch inch	Type T-12 / T-12C	T-12 Art.no
0-6		3,58	.279	.141	.110
8		4,27	.333	.168	.131
10		4,93	.386	.194	.152
12		5,59	.419	.220	.165
1/4"		6,48	.485	.255	.191
5/16"		8,08	.600	.318	.236
3/8"		7,47	.559	.294	.220
3/8"		9,68	.726	.381	.286
	1/8"	11,12	.833	.437	.328
7/16"		8,20	.615	.323	.242
1/2"		9,32	.699	.367	.275
9/16"		10,90	.818	.429	.322
5/8"		12,19	.914	.480	.360
				22256	
				20878	
				20883	
				22254	
				22258	

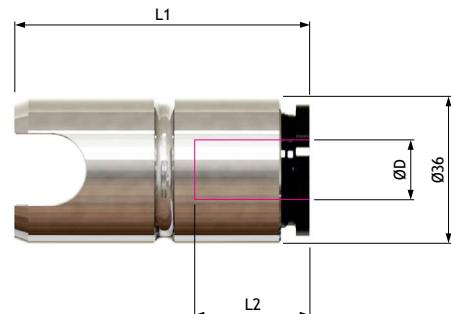
TAPPING DEVICES

Tap holders

Type T-24 / T-24C

▲ Tapping range: M8 - M36 (5/8" - 1 3/8")

ØD mm	L1 mm	L2 mm
8,0 - 20,32	65	30
22,4 - 25,0	75	30



T-24 and T-24C for taps according to ISO-standard

ISO M	UNC	UNF	ØD mm	# mm	ØD inch	# inch	T-24 Art.no	T-24C Art.no
7			7,10	5,60	.280	.220	22839	22839C
8	5/16"-18	5/16"-24	8,00	6,30	.315	.248	22840	22840C
9			9,00	7,10	.354	.280	22841	22841C
10	3/8"-16	3/8"-24	10,00	8,00	.394	.315	22843	22843C
11	7/16"-11	7/16"-20	8,00	6,30	.315	.248	22840	22840C
12	1/2"-13	1/2"-20	9,00	7,10	.354	.280	22841	22841C
14	9/16"-12	9/16"-18	11,20	9,00	.441	.354	22844	22844C
16	5/8"-11	5/8"-18	12,50	10,00	.492	.394	22071	22071C
18			14,00	11,20	.551	.441	22845	22845C
20	3/4"-10	3/4"-16	14,00	11,20	.551	.441	22845	22845C
22	7/8"-9	7/8"-14	16,00	12,50	.630	.492	22846	22846C
24	1"-8	1"-12	18,00	14,00	.709	.551	22089	22089C
27	11/8"-7	11/8"-12	20,00	16,00	.787	.630	22096	22096C
30			20,00	16,00	.787	.630	22096	22096C
33	11 1/4"-7	11 1/4"-12	22,40	18,00	.882	.709	28528	28528C
36	13 1/8"-6	13 1/8"-12	25,00	20,00	.984	.787	36033	36033C

T-24 and T-24C for taps according to DIN-standard

352 M	371 M	376 M	UNC UNF	353, 354 G (R)	ØD mm	# mm	ØD inch	# inch	T-24 Art.no	T-24C Art.no
	7		1/4"		7,00	5,50	.276	.217	22050	22050C
	8		5/16"		8,00	6,20	.315	.244	22055	22055C
	9	9	3/8"	1/8"	7,00	5,50	.276	.217	22050	22050C
	10	10			7,00	5,50	.276	.217	22050	22050C

TAPPING DEVICES

Tap holders

Type T-24 / T-24C

T-24 and T-24C for taps according to DIN-standard

352 M	371 M	376 M	UNC UNF	353, 354 G (R)	Ø Ø mm	# # mm	Ø Ø inch	# # inch	T-24 Art.no	T-24C Art.no
		9		3/8"		9,00	.700	.354	.276	22062
11		11		7/16"		8,00	.620	.315	.244	22055
12		12		1/2"		9,00	.700	.354	.276	22062
		10				10,00	.800	.394	.315	22843
14		14		9/16"	1/4"	11,00	.900	.433	.354	22067
16		16		5/8"	3/8"	12,00	.900	.472	.354	22069
18		18		11/16"		14,00	11,00	.551	.433	22075
		12		3/4"		14,00	11,00	.551	.433	22075
20		20		13/16"	1/2"	16,00	12,00	.630	.472	22081
22		22		7/8"	5/8"	18,00	14,50	.709	.571	22090
24		24		15/16"		18,00	14,50	.709	.571	22090
27		27		1"	3/4"	20,00	16,00	.787	.630	22096
30		30		11/8"	7/8"	22,00	18,00	.866	.709	28527
33		33		11/4"	1"	25,00	20,00	.964	.787	36033

T-24 for taps according to ANSI-standard

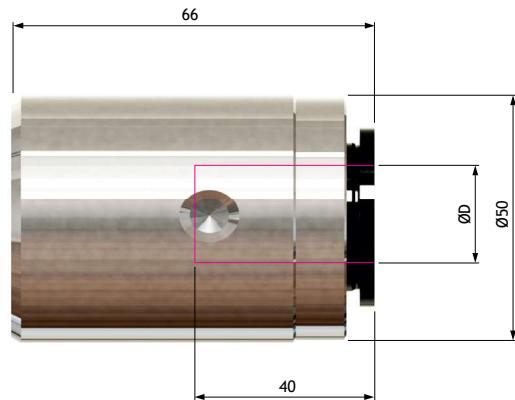
UNC, UNF NC, NF	NPTS	Ø Ø mm	# # mm	Ø Ø inch	# # inch	T-24 Art.no
5/16"		8,08	6,00	.318	.236	22056
3/8"		7,47	5,59	.294	.220	22052
3/8"		9,68	7,26	.381	.286	27855
	1/8"	11,12	8,33	.437	.328	36205
7/16"		8,20	6,15	.323	.242	22057
1/2"		9,32	6,99	.367	.275	22063
9/16"		10,90	8,18	.429	.322	22066
5/8"		12,19	9,14	.480	.360	22070
9/16"	1/4"	14,27	10,69	.562	.421	36205
3/4"		14,99	11,23	.590	.442	22077
	1/2"	17,45	13,08	.687	.515	36206
13/16"		16,56	12,42	.652	.489	22083
7/8"		17,70	13,28	.697	.523	22087
	3/8"	17,78	13,49	.700	.531	36207
15/16"		19,30	14,48	.760	.570	22094
1"		20,32	15,24	.800	.600	22097
	3/4"	23,01	17,25	.906	.679	36208
11/8"		22,76	17,07	.896	.672	28529

TAPPING DEVICES

Tap holders

Type T-42 / T-42C

▲ Tapping range: M18 - M42 (1/2" - 1 5/8")



T-42 and T-42C for taps according to ISO-standard

ISO M	UNC	UNF	ØD mm	# mm	ØD inch	# inch	T-42 Art.no	T-42C Art.no
18			14,00	11,20	.551	.441	36252	36252C
20	3/4"-10	3/4"-16	14,00	11,20	.551	.441	36252	36252C
22	7/8"-9	7/8"-14	16,00	12,50	.630	.492	36255	36255C
24	1"-8	1"-12	18,00	14,00	.709	.551	36258	36258C
27	11/8"-7	11/8"-12	20,00	16,00	.787	.630	36261	36261C
30			20,00	16,00	.787	.630	36261	36261C
33	11/4"-7	11/4"-12	22,40	18,00	.882	.709	36264	36264C
36	13/8"-6	13/8"-12	25,00	20,00	.984	.787	36267	36267C
39	11/2"-6	11/2"-12	28,00	22,40	1.102	.882	36270	36270C
42			28,00	22,40	1.102	.882	36270	36270C

TAPPING DEVICES

Tap holders

Type T-42 / T-42C

T-42 and T-42C for taps according to DIN-standard

352 M	371 M	376 M	UNC UNF	353, 354 G (R)	Ø mm	# mm	Ø inch	# inch	T-42 Art.no	T-42C Art.no
20		20	13/16"	1/2"	16,00	12,00	.630	.472	36254	36254C
22		22	7/8"	5/8"	18,00	14,50	.709	.571	36259	36259C
24		24	15/16"		18,00	14,50	.709	.571	36259	36259C
27		27	1"	3/4"	20,00	16,00	.787	.630	36261	36261C
30		30	11/8"	7/8"	22,00	18,00	.866	.709	36263	36263C
33		33	11/4"	1"	25,00	20,00	.984	.787	36267	36267C
36		36	13/8"	11/8"	28,00	22,00	1.102	.866	36269	36269C
39		39	11/2"		32,00	24,00	1.260	.945	36274	36274C
42		42	15/8"	11/4"	32,00	24,00	1.260	.945	36274	36274C

T-42 for taps according to ANSI-standard

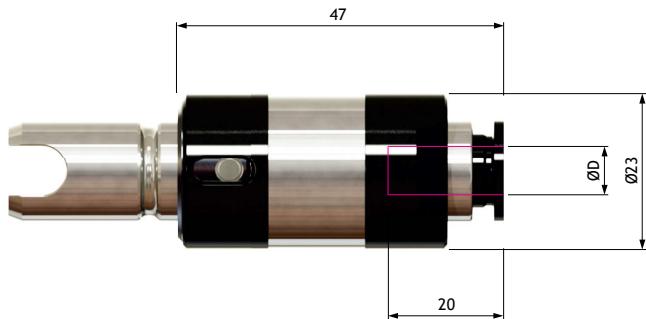
UNC, UNF NC, NF	NPTS	Ø mm	# mm	Ø inch	# inch	T-42 Art.no
	1/2"	17,45	13,08	.687	.545	36256
7/8"		17,70	13,28	.697	.523	36257
15/16"		19,30	14,48	.760	.570	36260
1"		20,32	15,24	.800	.600	36262
	3/4"	23,01	17,25	.906	.679	36266
11/8"		22,76	17,07	.896	.672	36265
11/8"	1"	28,57	21,41	1.125	.843	36272
11/4"		25,93	19,45	1.021	.766	36268
13/8"		28,14	21,10	1.108	.831	36271
11/2"		31,32	23,49	1.233	.925	36273
15/8"		33,15	24,86	1.305	.979	36275
	11/4"	33,33	24,99	1.312	.954	36318

TAPPING DEVICES

Tap holders

Type TK-8

- ▲ Built-in torque clutch
- ▲ Tapping range: M2 - M11 (1/16" - 7/16")



TK-8 for taps according to ISO-standard

ISO M	UNC	UNF	ØD mm	# mm	ØD inch	# inch	Art.no
2	1-64	1-72	2,50	2,00	.098	.079	29822
2,2	2-56	2-64	2,80	2,24	.110	.088	29823
2,5	3-48	3-56	2,80	2,24	.110	.088	29823
3	4-40	4-48	3,15	2,50	.124	.098	29824
3,5	6-32	6-40	3,55	2,80	.140	.110	29825
4			4,00	3,15	.157	.124	29826
4,5	8-32	8-36	4,50	3,55	.177	.140	29827
5	10-24	10-32	5,00	4,00	.197	.157	29828
	12-24	12-28	5,60	4,50	.220	.177	29829
6	1/4"-20	1/4"-28	6,30	5,00	.248	.197	29830
7			7,10	5,60	.280	.220	29831
8	5/16"-18	5/16"-24	8,00	6,30	.315	.248	29832
11	7/16"-14	7/16"-20	8,00	6,30	.315	.248	29832

TAPPING DEVICES

Tap holders

Type TK-8

TK-8 for taps according to DIN-standard

352 M	371 M	376 M	UNC UNF	353, 354 G (R)	Ø mm	# mm	Ø inch	# inch	Art.no
1 - 1,8	1 - 1,8	3,5	1/16"		2,50	2,10	.098	.083	29837
2	2	4	3/32"		2,80	2,10	.110	.083	29840
2,2	2,2		5/32"		2,80	2,10	.110	.083	29840
2,5	2,5				2,80	2,10	.110	.083	29840
3		5	1/8"		3,50	2,70	.138	.106	29847
3,5	3,5				4,00	3,00	.157	.118	29852
4	4	6	5/32"		4,50	3,40	.177	.134	29859
			7/32"		4,00	3,00	.157	.118	29852
5	5		7/32"		6,00	4,90	.236	.193	29874
			1/4"		4,50	3,40	.177	.134	29859
6	6		1/4"		6,00	4,90	.236	.193	29874
		7			5,50	4,30	.217	.169	29868
7					6,00	4,90	.236	.193	29874
	7		1/4"		7,00	5,50	.176	.137	29881
8		8	5/16"		6,00	4,90	.236	.193	29874
		8	5/16"		8,00	6,20	.315	.244	29887
9		9	3/8"	1/8"	7,00	5,50	.276	.217	29881
10		10			7,00	5,50	.276	.217	29881
11		11	7/16"		8,00	6,20	.315	.244	29887

TK-8 for taps according to ANSI-standard

UNC, UNF NC, NF	Ø mm	# mm	Ø inch	# inch	Art.no
0-6		2,79	.141	.110	29848
8	4,27	3,33	.168	.131	29858
10	4,93	3,86	.194	.152	29865
12	5,59	4,19	.220	.165	29870
1/4"	6,48	4,85	.255	.191	29879
5/16"	8,08	6,00	.318	.236	36731

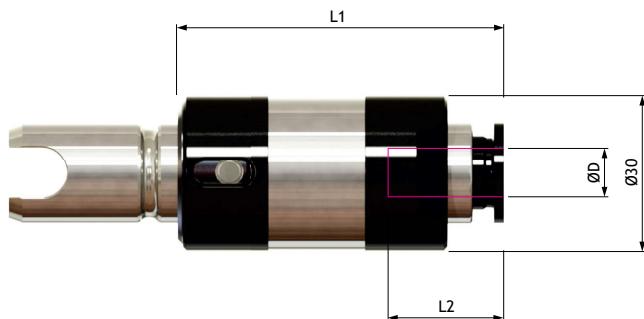
TAPPING DEVICES

Tap holders

Type TK-12

- ▲ Built-in torque clutch
- ▲ Tapping range: M3 - M16 (1/8" - 5/8")

ØD mm	L1 mm	L2 mm
4,0 - 7,0	56	20
7,1 - 10,0	56	17
10,5 - 12,5	63	17



TK-12 for taps according to ISO-standard

ISO M	UNC	UNF	ØD mm	# mm	ØD inch	# inch	Art.no
3	4-40	4-48	3,15	2,50	.124	.098	26590
4			4,00	3,15	.157	.124	29724
4,5	8-32	8-36	4,50	3,55	.177	.140	29725
5	10-24	10-32	5,00	4,00	.197	.157	29726
	12-24	12-28	5,60	4,50	.220	.177	29727
6	1/4"-20	1/4"-28	6,30	5,00	.248	.197	29728
7			7,10	5,60	.280	.220	29729
8	5/16"-18	5/16"-24	8,00	6,30	.315	.248	29730
9			9,00	7,10	.354	.280	29731
10	3/8"-16	3/8"-24	10,00	8,00	.394	.315	29733
11	7/16"-14	7/16"-20	8,00	6,30	.315	.248	29730
12	1/2"-13	1/2"-20	9,00	7,10	.354	.280	29731
14	9/16"-12	9/16"-18	11,20	9,00	.441	.354	36825
16	5/8"-11	5/8"-18	12,50	10,00	.492	.394	36828

TAPPING DEVICES

Tap holders

Type TK-12

TK-12 for taps according to DIN-standard

352 M	371 M	376 M	UNC UNF	353, 354 G (R)	Ø mm	# mm	Ø inch	# inch	Art.no
3		5	1/8"		3,50	2,70	.138	.106	29735
3,5	3,5				4,00	3,00	.157	.118	29737
4	4	6	5/32"		4,50	3,40	.177	.134	29742
			7/32"		4,00	3,00	.157	.118	29737
5	5		7/32"		6,00	4,90	.236	.193	29752
			1/4"		4,50	3,40	.177	.134	29742
6	6		1/4"		6,00	4,90	.236	.193	29752
		7			5,50	4,30	.217	.169	29748
7					6,00	4,90	.236	.193	29752
		7	1/4"		7,00	5,50	.276	.217	29759
8		8	5/16"		6,00	4,90	.236	.193	29752
		8	5/16"		8,00	6,20	.315	.244	29762
9		9	3/8"	1/8"	7,00	5,50	.276	.217	29759
10		10			7,00	5,50	.276	.217	29759
		9	3/8"		9,00	7,00	.354	.276	29769
11		11	7/16"		8,00	6,20	.315	.244	29762
12		12	1/2"		9,00	7,00	.354	.276	29769
		10			10,00	8,00	.394	.315	29733
14		14	9/16"	1/4"	11,00	9,00	.433	.354	36823
16	12	16	5/8"	3/8"	12,00	9,00	.472	.354	36826

TK-12 for taps according to ANSI-standard

UNC, UNF NC, NF	NPTS	Ø mm	# mm	Ø inch	# inch	Art.no
8		4,27	3,33	.168	.131	29741
10		4,93	3,86	.194	.152	29746
12		5,59	4,19	.220	.165	29749
1/4"		6,48	4,85	.255	.191	29757
5/16"		8,08	6,00	.318	.236	29763
3/8"		9,68	7,26	.381	.286	29774
	1/8"	11,12	8,33	.437	.328	36824
7/16"		8,20	6,15	.323	.242	29765
1/2"		9,32	6,99	.367	.275	29771
9/16"		10,90	8,18	.429	.322	36822
5/8"		12,19	9,14	.480	.360	36827

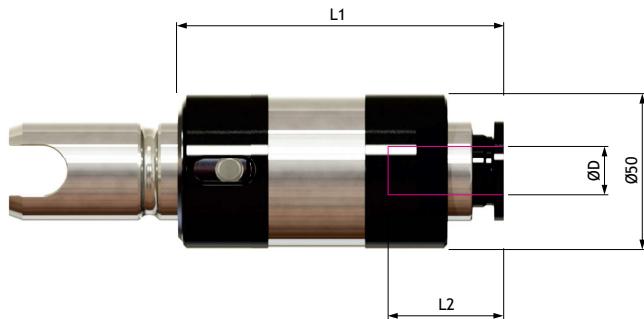
TAPPING DEVICES

Tap holders

Type TK-24

- ▲ Built-in torque clutch
- ▲ Tapping range: M6 - M30 (1/4" - 1")

$\varnothing D$ mm	L1 mm	L2 mm
4,0 - 7,0	70	30
7,1 - 10,0	85	30



TK-24 for taps according to ISO-standard

ISO M	UNC	UNF	$\varnothing D$ mm	# mm	$\varnothing D$ inch	# inch	Art.no
8	5/16"-18	5/16"-24	8,00	6,30	.315	.248	26095
9			9,00	7,10	.354	.280	26096
10	3/8"-16	3/8"-24	10,00	8,00	.394	.315	26098
11	7/16"-14	7/16"-20	8,00	6,30	.315	.248	26095
12	1/2"-13	1/2"-20	9,00	7,10	.354	.280	26096
14	9/16"-12	9/16"-18	11,20	9,00	.441	.354	26099
16	5/8"-11	5/8"-18	12,50	10,00	.492	.394	26100
18			14,00	11,20	.551	.441	26101
20	3/4"-10	3/4"-16	14,00	11,20	.551	.441	26101
22	7/8"-9	7/8"-14	16,00	12,50	.630	.492	26102
24	1"-8	1"-12	18,00	14,00	.709	.551	26103
27	11/8"-7	11/8"-12	20,00	16,00	.787	.630	26104
30			20,00	16,00	.787	.630	26104

TK-24 for taps according to DIN-standard

352 M	371 M	376 M	UNC UNF	353, 354 G (R)	$\varnothing D$ mm	# mm	$\varnothing D$ inch	# inch	Art.no
6	6			1/4"	6,00	4,90	.236	.193	26983
7					6,00	4,90	.236	.193	26983
	7			1/4"	7,00	5,50	.276	.217	26105
8		8		5/16"	6,00	4,90	.236	.193	26983
		8		5/16"	8,00	6,20	.315	.244	26110

TAPPING DEVICES

Tap holders

Type TK-24

TK-24 for taps according to DIN-standard

352 M	371 M	376 M	UNC UNF	353, 354 G (R)	Ø mm	# mm	Ø inch	# inch	Art.no
9		9	3/8"	1/8"	7,00	5,50	.276	.217	26105
10		10			7,00	5,50	.276	.217	26105
		9	3/8"		9,00	7,00	.354	.276	26117
11		11	7/16"		8,00	6,20	.315	.244	26110
12		12	1/2"		9,00	7,00	.354	.276	26117
		10			10,00	8,00	.394	.315	26098
14		14	9/16"	1/4"	11,00	9,00	.433	.354	26124
16	12	16	5/8"	3/8"	12,00	9,00	.472	.354	26126
18		18	11/16"		14,00	11,00	.551	.433	26131
			3/4"		14,00	11,00	.551	.433	26131
20		20	13/16"	1/2"	16,00	12,00	.630	.472	26137
22		22	7/8"	5/8"	18,00	14,50	.709	.571	26145
24		24	15/16"		18,00	14,50	.709	.571	26145
27		27	1"	3/4"	20,00	16,00	.787	.630	26104

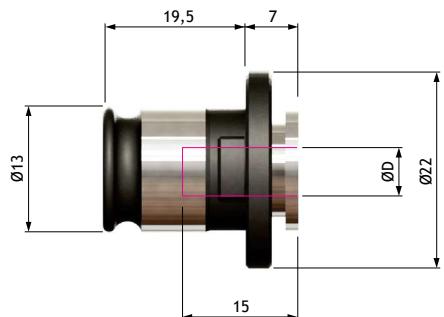
TK-24 for taps according to ANSI-standard

UNC, UNF NC, NF	NPTS	Ø mm	# mm	Ø inch	# inch	Art.no
5/16"		8,08	6,00	.318	.236	26111
3/8"		7,47	5,59	.294	.220	26107
3/8"		9,68	7,26	.381	.286	26121
	1/8"	11,12	8,33	.437	.328	26125
7/16"		8,20	6,15	.323	.242	26112
1/2"		9,32	6,99	.367	.275	26118
9/16"		10,90	8,18	.429	.322	26123
5/8"		12,19	9,14	.480	.360	26127
9/16"	1/4"	14,27	10,69	.562	.421	26132
3/4"		14,99	11,23	.590	.442	26133
	1/2"	17,45	13,08	.687	.515	26141
13/16"		16,56	12,42	.652	.489	26139
7/8"		17,70	13,28	.697	.523	26143
	3/8"	17,78	13,49	.700	.531	26144
15/16"		19,20	14,48	.760	.570	26149
1"		20,32	15,25	.800	.600	26151

TAPPING DEVICES

Tap holders

Type EU-o



EU-o for taps according to ISO-standard

ISO M	ØD mm	# mm	ØD inch	# inch	Art.no
2	2,50	2,00	.098	.079	72850
3	3,15	2,50	.124	.098	72852
3,5	3,55	2,80	.140	.110	72854
4	4,00	3,15	.157	.124	72856
5	5,00	4,00	.197	.157	72858
6	6,30	5,00	.248	.197	72860

EU-o for taps according to DIN-standard

352 M	ØD mm	# mm	ØD inch	# inch	Art.no
1 - 1,8	2,50	2,10	.098	.083	72850
2 - 2,5	2,80	2,10	.110	.083	72851
3	3,50	2,70	.138	.106	72853
3,5	4,00	3,00	.157	.118	72855
4	4,50	3,40	.177	.134	72857
5 - 8	6,00	4,90	.236	.193	72859
9 - 10	7,00	5,50	.276	.217	72861
11	8,00	6,20	.315	.244	72862

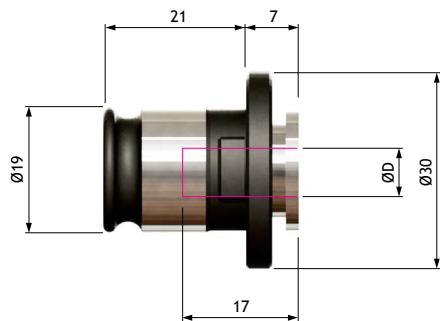
EU-o for taps according to ANSI-standard

UNC, UNF NC, NF	ØD mm	# mm	ØD inch	# inch	Art.no
0-6	3,58	2,79	.141	.110	72863
8	4,27	3,33	.168	.131	72864
10	4,93	3,86	.194	.152	72865
12	5,59	4,19	.220	.165	72866

TAPPING DEVICES

Tap holders

Type EU-1



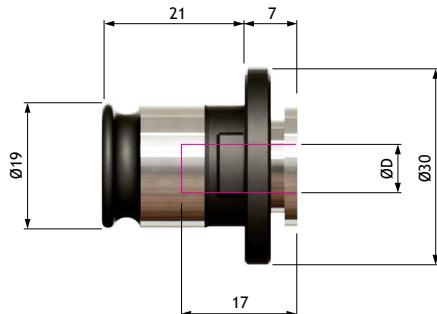
EU-1 for taps according to ISO-standard

ISO M	ØD mm	# mm	ØD inch	# inch	Art.no
3	3,15	2,50	.124	.098	73002
3,5	3,55	2,80	.140	.110	73004
4	4,00	3,15	.157	.124	73006
4,5	4,50	3,55	.177	.140	73009
5	5,00	4,00	.197	.157	73011
6	6,30	5,00	.248	.197	73015
7	7,10	5,60	.280	.220	73018
8	8,00	6,30	.315	.248	73029
9	9,00	7,10	.354	.280	73022
10	10,00	8,00	.394	.315	73025
11	8,00	6,30	.315	.248	73029
12	9,00	7,10	.354	.280	73022

TAPPING DEVICES

Tap holders

Type EU-1



EU-1 for taps according to DIN-standard

M	ØD mm	# mm	ØD inch	# inch	Art.no
3	3,50	2,70	.138	.106	73003
3,5	4,00	3,00	.157	.118	73005
4	4,50	3,40	.177	.134	73008
5 - 8	6,00	4,90	.236	.193	73014
9 - 10	7,00	5,50	.276	.217	73017
11	8,00	6,20	.315	.244	73019
12	9,00	7,00	.354	.276	73022
14	11,00	9,00	.433	.354	73027

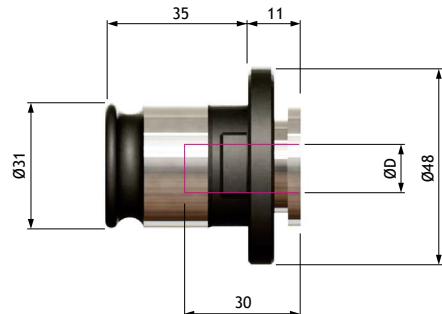
EU-1 for taps according to ANSI-standard

UNC, UNF NC, NF	ØD mm	# mm	ØD inch	# inch	Art.no
0-6	3,57	2,79	.141	.110	73091
8	4,27	3,33	.168	.131	73007
10	4,93	3,86	.194	.152	73010
12	5,59	4,19	.220	.165	73012
1/4"	6,48	4,85	.225	.191	73016
5/16"	8,08	6,00	.318	.236	73020
3/8"	9,68	7,26	.381	.286	73024
7/16"	8,20	6,15	.323	.242	73021
1/2"	9,32	6,99	.367	.275	73023
9/16"	10,90	8,18	.429	.322	73026

TAPPING DEVICES

Tap holders

Type EU-2



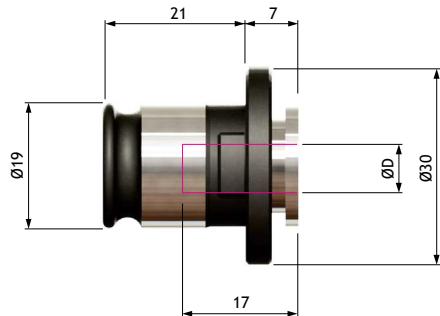
EU-2 for taps according to ISO-standard

ISO M	Ø mm	# mm	Ø inch	# inch	Art.no
6	6,30	5,00	.248	.197	73033
7	7,10	5,60	.280	.220	73035
8	8,00	6,30	.315	.248	73036
9	9,00	7,10	.354	.280	73039
10	10,00	8,00	.394	.315	73042
11	8,00	6,30	.315	.248	73036
12	9,00	7,10	.354	.280	73039
14	11,20	9,00	.441	.354	73045
16	12,50	10,00	.492	.394	73048
18	14,00	11,20	.551	.441	73051
20	14,00	11,20	.551	.441	73051
22	16,00	12,50	.630	.492	73055

TAPPING DEVICES

Tap holders

Type EU-2



EU-2 for taps according to DIN-standard

M	ØD mm	# mm	ØD inch	# inch	Art.no
5 - 8	6,00	4,90	.236	.193	73032
9 - 10	7,00	5,50	.276	.217	73034
11	8,00	6,20	.315	.244	73036
12	9,00	7,00	.354	.276	73039
14	11,00	9,00	.433	.354	73044
16	12,00	9,00	.472	.354	73046
18	14,00	11,00	.551	.433	73050
20	16,00	12,00	.630	.472	73054
22	18,00	14,50	.709	.571	73061

EU-2 for taps according to ANSI-standard

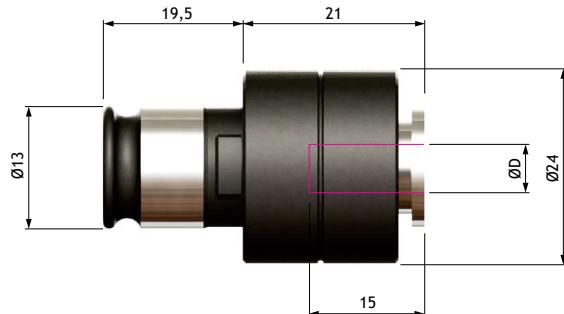
UNC, UNF NC, NF	NPTs	ØD mm	# mm	ØD inch	# inch	Art.no
5/16"		8,08	6,00	.318	.236	73037
3/8"		9,68	7,26	.381	.286	73041
7/16"		8,20	6,15	.323	.242	73038
1/2"		9,32	6,99	.367	.275	73040
9/16"		10,90	8,18	.429	.322	73043
5/8"		12,19	9,14	.480	.360	73047
11/16"		17,45	13,08	.687	.515	73057
13/16"		15,56	12,42	.652	.489	73056
7/8"		17,07	13,28	.697	.523	73058
	3/8"	17,78	13,49	.700	.531	73059

TAPPING DEVICES

Tap holders

Type EUK-o

 Built-in torque clutch



EUK-o for taps according to ISO-standard

ISO M	Ø mm	# mm	Ø inch	# inch	Art.no
2	2,50	2,00	.098	.079	72950
3	3,15	2,50	.124	.098	72952
3,5	3,55	2,80	.140	.110	72954
4	4,00	3,15	.157	.124	72956
5	5,00	4,00	.197	.157	72958
6	6,30	5,00	.248	.197	72960

EUK-o for taps according to DIN-standard

DIN M	Ø mm	# mm	Ø inch	# inch	Art.no
1 - 1,8	2,50	2,10	.098	.083	72950
2 - 2,5	2,80	2,10	.110	.083	72951
3	3,50	2,70	.138	.106	72953
3,5	4,00	3,00	.157	.118	72955
4	4,50	3,40	.177	.134	72957
5 - 8	6,00	4,90	.236	.193	72959
9 - 10	7,00	5,50	.276	.217	72961
11	8,00	6,20	.315	.244	72962

EUK-o for taps according to ANSI-standard

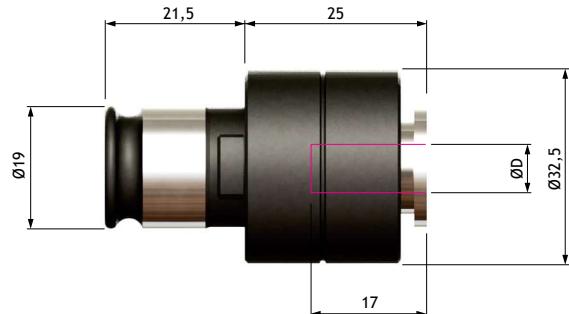
ANSI NC, NF	Ø mm	# mm	Ø inch	# inch	Art.no
0 - 6	3,58	2,79	.141	.110	72963
8	4,27	3,33	.168	.131	72964
10	4,93	3,86	.194	.152	72965
1/4"	6,48	4,85	.225	.191	72967

TAPPING DEVICES

Tap holders

Type EUK-1

▲ Built-in torque clutch



EUK-1 for taps according to ISO-standard

ISO M	ØD mm	# mm	ØD inch	# inch	Art.no
3 - 4,5	6,00	4,90	.236	.193	73032
5 - 6	7,00	5,50	.276	.217	73034
7	8,00	6,20	.315	.244	73036
8	9,00	7,00	.354	.276	73039
9	11,00	9,00	.433	.354	73044
10	12,00	9,00	.472	.354	73046
11	14,00	11,00	.551	.433	73050
12	16,00	12,00	.630	.472	73054

TAPPING DEVICES

Tap holders

Type EUK-1

 Built-in torque clutch

EUK-1 for taps according to DIN-standard

352 M	371 M	Ø mm	# mm	Ø inch	# inch	Art.no
3		3,50	2,70	.138	.106	73103
3,5		4,00	3,00	.157	.118	73105
4		4,50	3,40	.177	.134	73108
5 - 8		6,00	4,90	.236	.193	73114
9 - 10		7,00	5,50	.276	.217	73117
11		8,00	6,20	.315	.244	73119
12		9,00	7,00	.354	.276	73122
10		10,00	8,00	.394	.315	73125
14		11,00	9,00	.433	.354	73127

EUK-1 for taps according to ANSI-standard

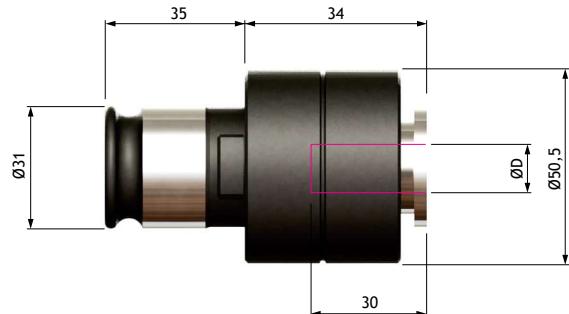
UNC, UNF NC, NF	Ø mm	# mm	Ø inch	# inch	Art.no
8	4,27	3,33	.168	.131	73107
10	4,93	3,86	.194	.152	73110
12	5,59	4,19	.220	.165	73112
1/4"	6,48	4,85	.225	.191	73116
5/16"	8,08	6,00	.318	.236	73120
3/8"	9,68	7,26	.381	.286	73124
7/16"	8,20	6,15	.323	.242	73121
1/2"	9,32	6,99	.367	.275	73123
9/16"	10,50	8,18	.429	.322	73126

TAPPING DEVICES

Tap holders

Type EUK-2

 Built-in torque clutch



EUK-2 for taps according to ISO-standard

ISO M	ØD mm	# mm	ØD inch	# inch	Art.no
6	6,30	5,00	.248	.197	73133
7	7,10	5,60	.280	.220	73135
8	8,00	6,30	.315	.248	73136
9	9,00	7,10	.354	.280	73139
10	10,00	8,00	.394	.315	73142
11	8,00	6,30	.315	.248	73136
12	9,00	7,10	.354	.280	73139
14	11,20	9,00	.441	.354	73145
16	12,50	10,00	.492	.394	73148
18	14,00	11,20	.551	.441	73151
20	14,00	11,20	.551	.441	73151
22	16,00	12,50	.630	.492	73155

TAPPING DEVICES

Tap holders

Type EUK-2

 Built-in torque clutch

EUK-2 for taps according to DIN-standard

352 M	371 M	Ø mm	# mm	Ø inch	# inch	Art.no
5 - 8		6,00	4,90	.236	.193	73132
9 - 10		7,00	5,50	.276	.217	73134
11		8,00	6,20	.315	.244	73136
12		9,00	7,00	.354	.276	73139
	10	10,00	8,00	.394	.315	73142
14		11,00	9,00	.433	.354	73144
16		12,00	9,00	.472	.354	73146
18		14,00	11,00	.551	.433	73150
20		16,00	12,00	.630	.482	73154
22		18,00	14,50	.709	.571	73161

EUK-2 for taps according to ANSI-standard

UNC, UNF NC, NF	Ø mm	# mm	Ø inch	# inch	Art.no
5/16"	8,08	6,00	.318	.236	73137
7/16"	8,20	6,15	.323	.242	73138
9/16"	10,90	8,18	.429	.322	73143
3/4"	14,99	11,23	.590	.442	73153

TAPPING DEVICES

Tap holders

Type T-ER



As the industry gets modernized and more machines can handle so called Rigid Tapping, the demand for more stable tap holders has increased.

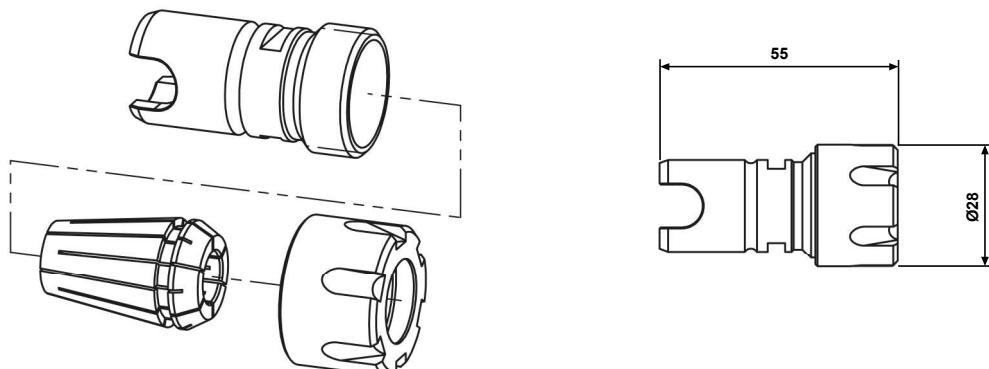
SPV Spintec has always been very responsive for our customer's comments and opinions. Therefore we have developed a completely new type of tap holder to meet today's modern machinery.

Our new tap holder type T-ER has been provided with a collet chuck type ER-20 in the front end which allows a very stable and accurate clamping of the tool.

At the same time it follows our previous standard of tapping devices and can easily be combined with our different types of tapping chucks. It still has the advantage of quick and simple tool changes.

Ordering information

Tap holder T-12 ER-20 Art.no	Clamping nut ER-20 mini Art.no	Wrench for ER-20 mini nut Art.no	Wrench for T-12 body Art.no
36946	245.24.ER20M	CH.28.ER20M	17710



TAPPING DEVICES

Tap holders

Die holders

SPV Spintec has developed a new type of tap holder adapted for threading dies.

The new threading die holders are available for our standard size T-24 and fits dies from Ø20 to Ø55, M3 to M24.

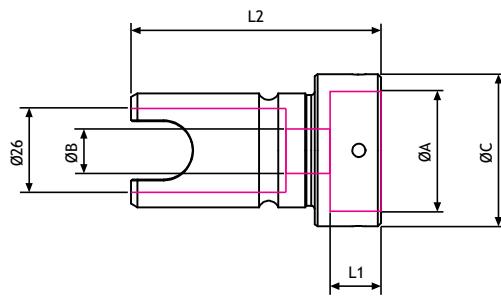
Being tailored to our ordinary tapping chuck program it can easily be combined with our different types of chucks, both with the floating movement and fixed models.

There is also a possibility to get the torque clutch function when combined with our SA tapping chuck.



Ordering information

ØA mm	ØB mm	ØC mm	L1 mm	L2 mm	Capacity	Art.no
20	14	35	5	76	M3 - M4	22903
20	14	35	7	76	M5 - M6	22905
25	14	35	9	76	M8	22908
30	26	40	11	76	M10	22910
38	26	48	14	79	M12 - M14	22912
45	26	55	18	83	M16 - M20	22916
55	26	65	22	87	M24	22924



TAPPING DEVICES

Accessories

C-chucks



Model	Internal taper	ØD mm	L mm	ØD inch	L inch	For tap holder	Art.no
C-8	J1	23	47	.905	1.850	T-8 / TK-8	28194
	B12	23	47	.905	1.850		37624
C-12	J2	30	49	1.181	1.930	T-12 / TK-12	20777
	B12	30	48	1.181	1.850		36583
	B16	30	53	1.181	2.085		36817
C-24	B18	50	87	1.968	3.425	T-24 / TK-24	27866

Arbors



Type	Mount, taper etc	L mm	Art.no
B12	Morse Taper 2		27419
	Cylindrical Ø10 x 46		27421
	TR 16 x 1,5	26	See note.
B16	Morse Taper 1		21104
	Morse Taper 2		20823
	Morse Taper 3		20824
	Cylindrical Ø25 x 127		23092
B18	TR 16 x 1,5	28	See note.
	TR 20 x 2	28	See note.
	TR 28 x 2	30	See note.
B20	Morse Taper 2		22265
	Morse Taper 3		22266
	Morse Taper 4		22267
	TR28 x 2	30	See note.
B25	TR36 x 2	36	See note.
			22070

Adjustment ring is included on all arbors with TR-shaft

TAPPING DEVICES

Accessories

Weldon extensions



Shank Weldon Ø	Internal Weldon Ø	Ø mm	L mm	Ø inch	# inch	Art.no
25	25	36	100	1.417	3.937	37800
25	25	36	150	1.417	5.905	37799

RubberFlex collets for Jacobs-chucks



For tapping device	Collets	Ø mm	# mm	Ø inch	# inch	Art.no
ST-12 J / STF-12 J	J420	4,5 - 8,0	2,3 - 8,0	.180 - .310	.090 - .310	17953
	J421	3,5 - 6,5	2,3 - 8,0	.140 - .260	.090 - .310	18058
	J422	6,5 - 10,0	2,3 - 8,0	.260 - .390	.090 - .310	17936
ST-16 J / STF-16 J	J443	2,8 - 7,1	3,0 - 10,0	.110 - .280	.120 - .360	22195
	J441	4,5 - 9,7	3,0 - 10,0	.180 - .380	.120 - .360	22197
	J440	7,1 - 12,7	3,0 - 10,0	.280 - .500	.120 - .360	22196
ST-33 J / STF-33 J	J461	10,0 - 16,0	8,0 - 18,0	.390 - .630	.315 - .710	37443
	J462	16,0 - 23,0	8,0 - 18,0	.630 - .905	.315 - .710	37444

Nut and wrench for Jacobs-chucks



Nut type	ØD mm	Art.no	Wrench for nut type	Art.no
ST-12 J / STF-12 J	32	41826	ST-12 J / STF-12 J	41827
ST-16 J / STF-16 J	40	95207	ST-16 J / STF-16 J	95208
ST-33 J / STF-33 J	56	37441	ST-33 J / STF-33 J	37442

TAPPING DEVICES

Operating instructions

CGS / CGS-C

Collaring pressure

An important function with the CGS-chuck is the opportunity to set the collaring pressure. To achieve good thread quality it is important that the collaring pressure is adapted to the size of the tap you are using, and also relative to the type of material you are processing.

A hard collaring pressure makes the tap start to cut directly when feeding into the material.

Keep in mind that the tapping device is always set to maximum value when delivered.

- **1. Release the collaring pressure**

Loosen both of the screws counter clockwise just as much on both sides.

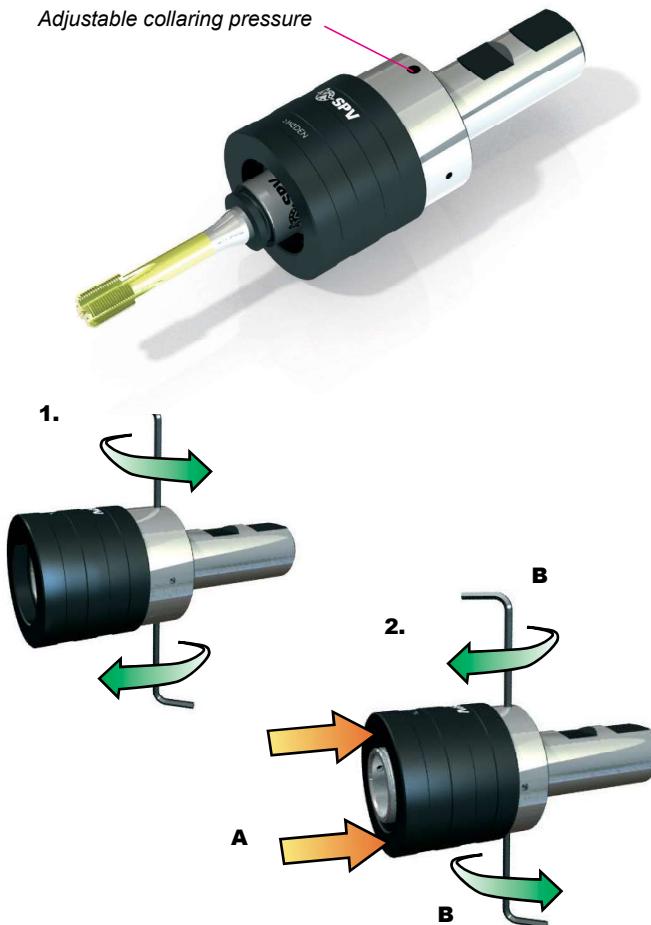
- **2. Set the maximum collaring pressure**

Push the outer sleeve so that the sliding-body reaches the bottom (A) and screw down both of the screws clockwise to stop (B). Finally unscrew both of the screws no more than one round, counter clockwise.

- **Guideline values for standard steel tapping**

M3 - M8	40 - 80 N
M9 - M16	80 - 170 N
M18 - M30	170 - 200 N

Adjustable collaring pressure



- **Model type CGS-C - For internal cooling**

The type CGS-C is designed to be used with internal cooling and manages a coolant pressure at **max 50 Bar**. CGS-C can be used with our tap holders model type T and TC depending on which type of cooling you want.



▲ CGS-C equipped with a tap holder type TC provides cooling along the shaft of the tap.



▲ CGS-C equipped with a tap holder type T provides cooling through for taps with internal coolant ducts.

Specifications

The tapping spindle type GS has an adjustable ball-bearing, axial movement (floating) which eliminates the machine spindle axial force. This enables the use of taps with different pitch in multi-spindle machines. A hard collaring pressure makes the tap starting to cut directly when feeding into the material.

A major advantage of the GS is that the floating can be adjusted forward or backward to achieve the best result.

• Putting into operation

The tapping chuck has an internal taper for assembling on to an arbor shaft, or directly on to the machine spindle. The internal taper is prepared with two holes for fixing it against the arbor. We always recommend fixation to the arbor taper by dowelling.

When mounting into a machine, please follow the 4 steps of the instruction.

• Adjusting the floating

The tapping spindle can be adjusted to allow full floating backward, forward or in both directions. Use and Allen key for adjustment. Clockwise turning extends the forward floating and counter clockwise turns extends the backward floating.

The spindles total floating is:

GS-8	25 mm
GS-12	25 mm
GS-24	40 mm

• Accessories

The tapping spindle type GS can be used along with SPV Spintec tap holders type T or type TK (with torque clutch).



1. Before assembling on a taper, the floating movement shall be compressed to prevent the internal components from damages. Screw clockwise to the bottom.

2. Clean the internal taper and the machine taper properly before assembling of the tapping spindle.

3. Assemble with a hard push. Do NOT use a hammer or other violent treatment.

4. Re-tighten the floating screw counter clockwise and fix the taper by dowelling. Now the floating can be adjusted for the best performance.



WARNING!

Disassembling and assembling of the unit requires special tools and equipment. Always send the chuck to SPV Spintec representative if it needs to be repaired.

TAPPING DEVICES

Operating instructions

SA / SA-NC

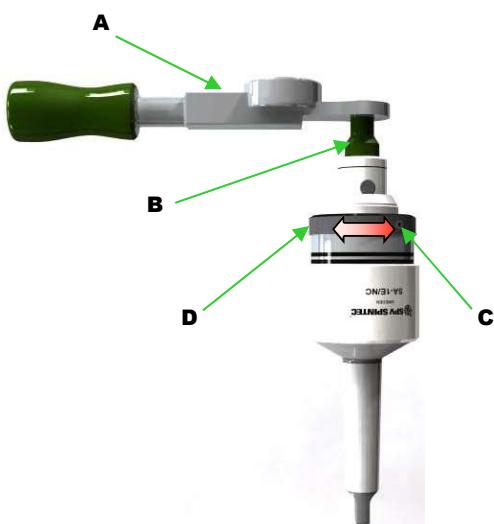
Specifications

Our tapping device type SA is available in two different models. A standard version (SA) and for CNC-machines (SA-NC). Both models have an adjustable torque clutch. The SA-NC also have an extended backward floating, and adjustable collaring pressure.

To achieve good thread quality it is important that the collaring pressure is adapted to the size of the tap you are using and also relative to the type of material you are processing.

- **Adjusting the torque clutch**

1. Clamp the tapping unit in a vice. We recommend that you clamp over the Morse Taper tongue to prevent damages on the device.
2. Release the locking screw (C).
3. Attach a torque key (A) with an adjustment adaptor (B) in the front of the tapping device.
4. Desired torque is achieved by turning the clutch sleeve (D) clockwise for increasing and counter clockwise for decreasing the torque.



- **Adjusting the collaring pressure (SA-NC)**

The collaring pressure is adjustable with an Allen key. Clockwise turning will increase and counter clockwise turning will decrease the pressure.

A hard collaring pressure makes the tap to start cut directly when feeding into the material.

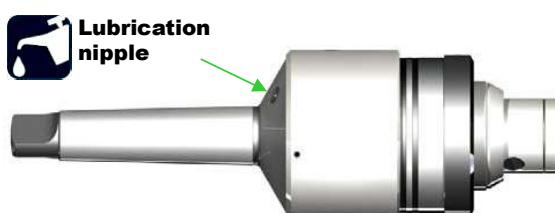
Keep in mind that the tapping device is always set to maximum value when delivered.



- **Service and maintenance**

Lubricate the tapping device by the oil nipple. Use only the prescribed lubrication.

Lubrication interval: Once a week is recommended for continuous and intensive usage.



We recommend: Castrol Magna BD68

TAPPING DEVICES

Torque table for tapping

Thread M	UNC	W	Recommended torque Nm	inch-lbs	For intractable material
M2			0,3	2,4	+20%
M3	#4		0,5	5,2	+20%
	#5	1/8"	0,9	7,8	+20%
	#6		1,6	14	+20%
M4		5/32"	1,8	16	+30%
	#8		2,0	18	+30%
M5			2,5	22	+30%
	#10		3,0	28	+30%
M6	#12		4,4	38	+30%
	1/4"	1/4"	6,5	56	+30%
M8			9,0	78	+30%
	5/16"	5/16"	11,5	100	+30%
M10	3/8"	3/8"	14,0	122	+30%
	7/16"	7/16"	22,0	190	+30%
M12			23,0	200	+50%
M14			30,0	260	+50%
	1/2"	1/2"	33,0	285	+50%
M16	9/16"	9/16"	35,0	305	+50%
	5/8"	5/8"	45,0	390	+50%
M18			55,0	475	+50%
M20	3/4"	3/4"	65,0	565	+50%
M22			75,0	650	+50%
	7/8"	7/8"	85,0	740	+50%
M24			105,0	910	+50%
M27	1"	1"	120,0	1040	+50%
M30	1 1/8"	1 1/8"	150,0	1300	+50%
	1 1/4"	1 1/4"	196,0	1700	+50%
	1 3/8"	1 3/8"	261,0	2260	+50%
R 1/8"			5,5	48	+50%
R 1/4"			15,0	130	+50%
R 3/8"			20,0	170	+50%
R 1/2"			45,0	390	+50%
R 5/8"			50,0	435	+50%
R 3/4"			58,0	505	+50%
R 7/8"			65,0	565	+50%
R 1"			112,0	970	+50%
R 1 1/8"			128,0	1110	+50%
R 1 1/4"			142,0	1230	+50%

High speed spindles



HIGH SPEED SPINDLES

Introduction

High speed spindles for many different applications

SPV Spintec's spindles are designed for clients with high demands on accuracy and reliability of service. The spindles are manufactured with the highest accuracy. All rotating parts are dynamically balanced and exchangeable without impairing the tolerance of the spindle. We also carry out the service and repair of our spindles.

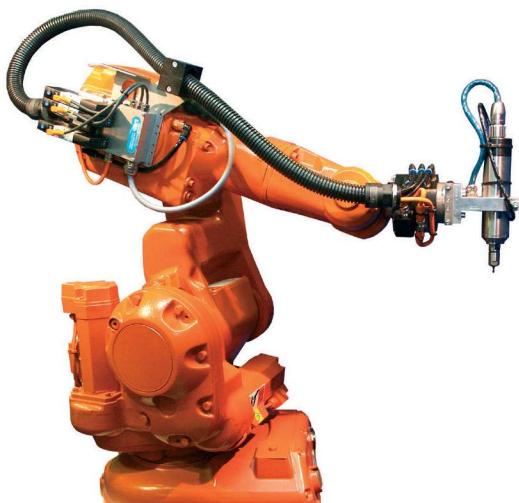
Our wide range of high frequency spindles helps you to renew and adapt your machinery to modern tools that require higher working speeds. The spindles can easily be clamped into existing machines.

SPV Spintec has a range of compact electronic converters to power the spindles. These have adjustable controls which enables the setting of optimum cutting speeds. Thermal and overload cut-outs are incorporated as well as RS-232 interface for connecting a computer.



Quick facts about our high speed spindles

- High speed allows machining with small tools.
- Runout accuracy better than 0,005 mm results in longer tool lifetime as well as improved surface finish.
- RPM ratio between 5.000 and 90.000 RPM, effects from 100 W to 5 kW.
- Short time of delivery and quick service.



Robot processing

The use of lightweight materials is increasing all the time and both materials and processing methods are developed continuously. Components become more complex and much of the processes of machining is currently governed over to robots and automation.

SPV Spintec presents in cooperation with RSP (Robot System Products AB) a unique system that allows very accurate and stable processing in a robotic cell with simple and rapid shift of the spindle.

With a robotic tool-changer you can fast and easy shift between different spindles or other robot-tools such as grippers etc. This makes it possible to use the robot to the maximum and get a much better overall economy.