SYNCHRO RTS

RTS

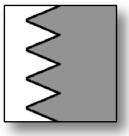
EN-ID-0617

THREADING SOLUTIONS

WHAT MEANS "RIGID TAPPIG"?

All modern CNC-machines are now equipped with the option so-called "Rigid Tapping" (a tapping spindle with axial float is no longer needed).
The main objective is to simplify the programming of the tapping operation. The optimal synchronisation between the rotation and the spindle feed permits the correct pitch to be cut, whilst the tap is held rigidly in a toolholder.

The perfect synchronization of the spindle and the programmed feed

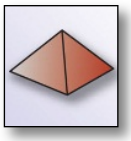


The pitch to be cut is determined by the spindle feed

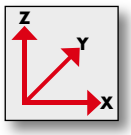
The tool is clamped rigidly

WHICH ARE THE REQUIREMENTS?

CNC machine with "Rigid Tapping" function (Synchro)



Efficient and stable machining centre



Synchronization of the spindle and the Z-axis

WHICH ARE THE ADVANTAGES ?

- **Wide range of application in over 50 materials**
- **High cutting speeds = Reduced cycle times**
- **Traditional tapping spindle unnecessary**
- **Simplified programming**
- **Process security thanks to NC-controlled feed**
- **Shank tolerance h6, therefore shrinking possible**

ONE TAP FOR ALL YOUR APPLICATIONS!

One tap for all materials? Unfortunately we can't keep this promise entirely, yet the application range of the RTS Geometry is impressive: Regardless of whether you work in aluminium, cast iron, stainless steel or highly alloyed materials up to 1'150 N/mm², the RTS gets them all!

11 Free-cutting steels

1.0711 9S20
1.0715 9SMn28
1.0718 9SMnPb28
1.0726 35S20
1.0737 9SMnPb36

12 Structural, cementation steels

1.0037 St37-2 (S235JR)
1.0050 St50-2 (E295)
1.0060 St60-2 (E335)
1.5919 15CrNi6
1.7131 16MnCr5

13 Carbon steels

1.0503 C45
1.0535 C55
1.0601 C60
1.1545 C105W1
1.2067 102Cr6 (100Cr6)

14 Alloy steels < 850 N/mm²

1.2363 X100CrMoV5-1
1.3551 80MoCrV42-16
1.7218 25CrMo4
1.7220 34CrMo4
1.7225 42CrMo4

15 Alloy steels hard./temp. >850 - <1150 N/mm²

1.3553 X82WMoCrV6-5-4
1.6580 30CrNiMo8
1.7220 34CrMo4
1.7225 42CrMo4
1.8507 34CrAlMo5

21 Free machining stainless steels

1.4005 X12CrS13
1.4104 X14CrMoS17
1.4305 X10CrNiS18-9

22 Austenitic stainless steels

1.4301 X5CrNi18-10
1.4406 X2CrNiMoN17-12-2
1.4435 X2CrNiMo18-14-3
1.4541 X6CrNiTi18-10
1.4571 X6CrNiMoTi17-12-2

31 Cast iron

0.6015 GG15
0.6020 GG20
0.6025 GG25
0.6030 GG30

32 Spheroidal graphite + malleable cast iron

0.7040 GGG40
0.7043 GGG40.3
0.7050 GGG50
0.7060 GGG60
0.7080 GGG80

61 Pure copper (electrolitic copper)

2.0060 E-Cu57 (E-Cu)

63 Long chip brass

2.0240 CuZn15 (Ms85)
2.0265 CuZn30 (Ms70)
2.0321 CuZn37 (Ms63)

72 Al alloyed Si < 1.5%

3.1255 AlCuSiMn
3.1355 AlCuMg2
3.2315 AlMgSi1
3.3206 AlMgSi0.5
3.4345 AlZnMgCu0.5

73 Al alloyed Si > 1.5 % - < 10 %

3.2161 G-AlSi8Cu3
3.2162 GD-AlSi8Cu3
3.2341 G-AlSi5Mg
3.2371 G-AlSi7Mg

74 Al alloyed Si > 10 % Mg-alloys

3.2381 G-AlSi10Mg
3.2382 GD-AlSi10Mg
3.2581 G-AlSi12
3.2583 G-ALSi12 (Cu)

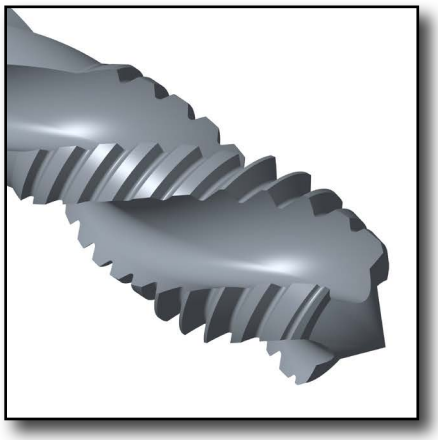
• • •

A COMPLETE PROGRAMME

DC has developed "multirange" taps **type RTS**, for through and blind holes, with and without internal coolant. These taps are designed to take advantage of "Rigid Tapping" and are capable of overcoming the negative effects by incorporating the following features:

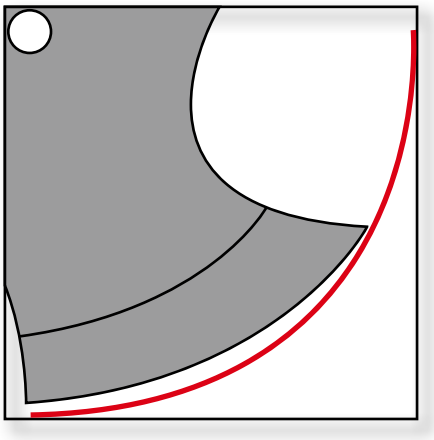
- Cutting geometry suitable for a wide range of current materials up to 1'150 N/mm² tensile strength, contributing to tool rationalisation and consequently to important cost reduction.
- Flute profile and double surface coating, which in spite of variable cutting speed ensure efficient swarf removal.
- Wide standard programme in M, MF, UNC, UNF and G (BSP), from Ø 2 up to 24 mm, as well as in several tolerances.

Truncated thread



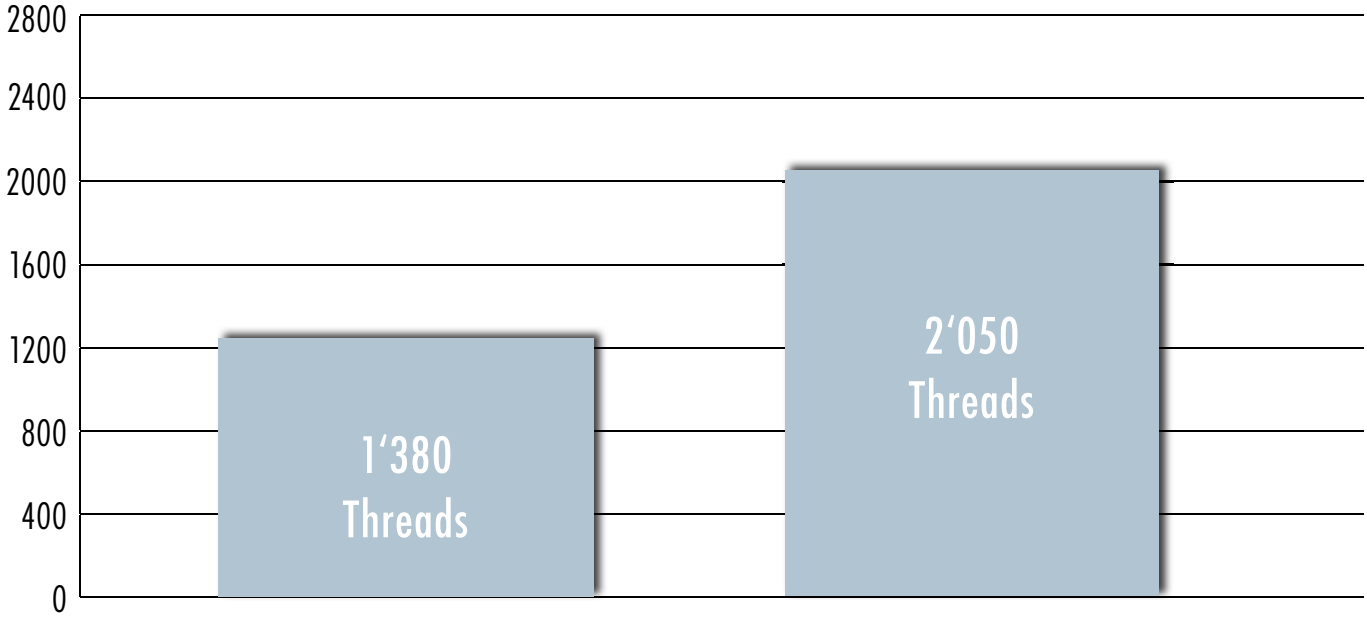
Efficient swarf forming

Strong relief



THE CHAMPION IN DETAIL

Material:	Alloy steel, 1.2363/ AISI A2	**Core hole depth:**	33 mm
		Threading depth:	25 mm
Tensile strength:	850 N/mm²	**Working method:**	Rigid Tapping
Thread size:	M10 6H	**Position:**	Vertical
Kind of hole:	Blind hole	**Lubricant:**	Emulsion 10%



RTS362VS-3

Vc = 20 m/min

without internal coolant

RTS365VS-3

Vc = 24 m/min

with internal coolant

THE PERFECT CHOICE

DC Swiss offers a specific total solution adapted to this modern machining method; a tapping chuck with axial shock absorber, **type SRT**, Soft Rigid Tapping. This tapping chuck, suitable for quick change systems is able to overcome the axial pressure applied to the cutting edges when the spindle reverses, and therefore increasing the tap life.

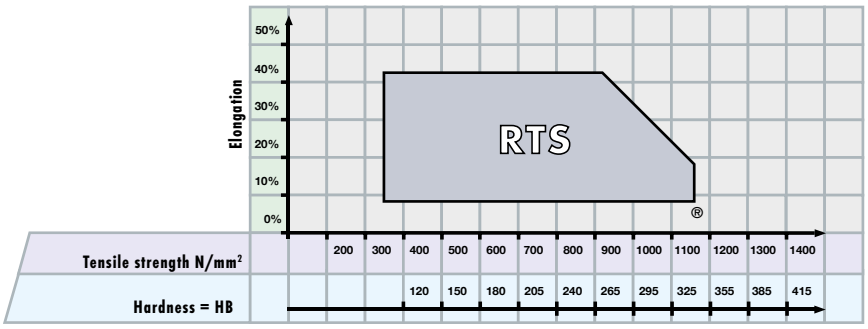
SRT tapping chucks see page 15

SRT

APPLICATION CHART FOR RIGID TAPPING

RTS Rigid Tapping

From page	RTS			
M	6	7	10	10
MF	11	11		
UNC	12	12		
UNF	13	13		
G		14		



Use :

E suitable with emulsion

E optimal with emulsion

Material classification

Material groups			Material designation	Hardness (HB)	Tensile strength Rm (N/mm²)	Elongation A (%)	Vc (m/min) < Ø 20 mm Guide line Coated VS	RTS .20VS RTS .23VS	RTS .62VS RTS .65VS	RTS523VS RTS623VS	RTS565VS RTS665VS	
10 Steels	11		Free-cutting steels	< 200	< 700	< 10	20 – 40	E	E	E	E	11
	12		Structural / cementation steels	< 200	< 700	< 30	20 – 40	E	E	E	E	12
	13		Carbon steels	< 300	<1000	< 20	16 – 24	E	E	E	E	13
	14		Alloy steels <850 N/mm²	< 250	< 850	< 30	16 – 24	E	E	E	E	14
	15		Alloy steels hard. / temp. >850 - <1150 N/mm²	> 250	> 850	< 30	6 – 12	E	E	E	E	15
	16		High tensile alloy steels	> 250	> 850	< 12						16
20 Stainless Steels	21		Free machining stainless steels	< 250	< 850	< 25	20 – 40	E	E	E	E	21
	22		Austenitic stainless steels	< 250	< 850	> 20	6 – 12	E	E	E	E	22
	23		Ferritic and martensitic <850 N/mm²	< 250	< 850	> 20						23
	24		Ferritic and martens. >850 - <1150 N/mm²	> 250	> 850	> 15						24
30 Cast iron	31		Cast iron	< 250	< 850	< 10	20 – 40	E	E	E	E	31
	32		Spheroidal graphite + malleable cast iron	< 250	< 850	> 10	20 – 40	E	E	E	E	32
40 Titanium	41		Pure titanium	< 250	< 850	> 20						41
	42		Titanium alloys	> 250	> 850	< 20						42
50 Nickel	51		Nickel alloys 1 <850 N/mm²	< 250	< 850	> 25						51
	52		Nickel alloys 2 >850 - <1150 N/mm²	> 250	> 850	< 25						52
	53		Nickel alloys 3 >1150 - ≤1600 N/mm²	> 340	> 1150	< 20						53
60 Copper	61		Pure copper (electrolitic copper)	< 120	< 400	> 12	10 – 20	E	E	E	E	61
	62		Short chip brass, phosphor bronze, gun metal	< 200	< 700	< 12						62
	63		Long chip brass	< 200	< 700	> 12	20 – 40	E	E	E	E	63
70 Aluminium Magnesium	71		Al unalloyed	< 100	< 350	> 15						71
	72		Al alloyed Si < 1.5 %	< 150	< 500	> 15	30 – 50	E	E	E	E	72
	73		Al alloyed Si > 1.5 % - < 10 %	< 120	< 400	< 15	20 – 40	E	E	E	E	73
	74		Al alloyed Si > 10 %, Mg-Alloys	< 120	< 400	< 10	20 – 40	E	E	E	E	74
80 Plastic compounds	81		Thermoplastics	-	-	-						81
	82		Duroplastics	-	-	-						82
	83		Glass fibre reinforced plastics	-	-	-						83

EXAMPLES FOR APPLICATION GROUPS

RTS
Rigid Tapping Synchro

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1.0715 9SMn28
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1.6580 30CrNiMo8
1.7220 34CrMo4
1.7225 42CrMo4
1.8507 34CrAlMo5

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1.4104 X14CrMoS17
1.4305 X10CrNiS18-9

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1.4406 X2CrNiMoN17-12-2
1.4435 X2CrNiMo18-14-3
1.4541 X6CrNiTi18-10
1.4571 X6CrNiMoTi17-12-2

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0.6020 GG20
0.6025 GG25
0.6030 GG30

32 Spheroidal graphite + malleable cast iron

0.7040 GGG40
0.7043 GGG40.3
0.7050 GGG50
0.7060 GGG60
0.7080 GGG80

61 Pure copper (electrolitic copper)

2.0060 E-Cu57 (E-Cu)

63 Long chip brass

2.0240 CuZn15 (Ms85)
2.0265 CuZn30 (Ms70)
2.0321 CuZn37 (Ms63)

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3.1355 AlCuMg2
3.2315 AlMgSi1
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3.4345 AlZnMgCu0.5

73 Al alloyed Si > 1.5 % - < 10 %

3.2161 G-AlSi8Cu3
3.2162 GD-AlSi8Cu3
3.2341 G-AlSi5Mg
3.2371 G-AlSi7Mg

74 Al alloyed Si > 10 % Mg-Alloys

3.2381 G-AlSi10Mg
3.2382 GD-AlSi10Mg
3.2581 G-AlSi12
3.2583 G-ALSi12 (Cu)

Reference: DIN

---

11 Free-cutting steels

1.0711 1212
1.0715 1213
1.0718 12L13
1.0726 1140
1.0737 12L14

12 Structural, cementation steels

1.0037 1015
1.0050 A570 Gr.50
1.0060 A572 Gr.65
1.5919 3115
1.7131 5115

13 Carbon steels

1.0503 1045
1.0535 1055
1.0601 1060
1.1545 W110
1.2067 L 3

14 Alloy steels < 850 N/mm²

1.2363 A2
1.3551 M50
1.7218 4130
1.7220 4135
1.7225 4140

15 Alloy steels hard./temp. >850 - <1150 N/mm²

1.3553 -
1.6580 4340
1.7220 4135
1.7225 4140
1.8507 A355CLD (K23510)

21 Free machining stainless steels

1.4005 416
1.4104 430F
1.4305 303

22 Austenitic stainless steels

1.4301 304
1.4406 316LN
1.4435 316L
1.4541 321
1.4571 316Ti

31 Cast iron

0.6015 A48-25B
0.6020 A48-30B
0.6025 A48-40B
0.6030 A48-45B

32 Spheroidal graphite + malleable cast iron

0.7040 60-40-18
0.7043 -
0.7050 65-45-12
0.7060 80-55-06
0.7080 120-90-02

61 Pure copper (electrolitic copper)

2.0060 C11000

63 Long chip brass

2.0240 C23000
2.0265 C26000
2.0321 C27200

72 Al alloyed Si < 1.5 %

3.1255 2014
3.1355 2024
3.2315 6082
3.3206 6060
3.4345 7020

73 Al alloyed Si > 1.5 % - < 10 %

3.2161 380.1
3.2162 -
3.2341 -
3.2371 A 356.2

74 Al alloyed Si > 10 % Mg-Alloys

3.2381 A360
3.2382 -
3.2581 A413
3.2583 413.1

Reference: AISI

SYNCHRO
Uniquement pour taraudage synchrone
Nur für Synchronbearbeitung
Only for rigid tapping
Solo per maschiatura sincrona
Solo para roscado sincronizado

PM
~DIN 371 (d_2 h6)
~DIN 376 (d_2 h6)

RTS
Rigid Tapping Synchro

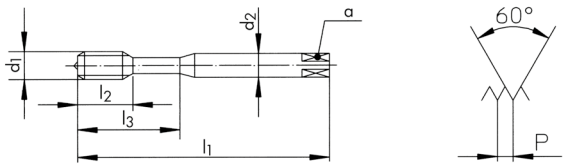
RTS320VS-4 — VS — 11 12 13 14 15 21 22 31 32 61 63 72 73 74

RTS420VS-4 — VS

RTS323VS-4 — VS — 11 12 13 14 15 21 22 31 32 61 63 72 73 74

RTS423VS-4 — VS

RTS320VS-4	RTS420VS-4	RTS323VS-4	RTS423VS-4



B 4 x P — B 4 x P — B 4 x P — B 4 x P

6HX — 6HX — 6HX — 6HX

Ø d_1 M	P mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm			RTS320VS-4 ID	RTS420VS-4 ID	RTS323VS-4 ID	RTS423VS-4 ID
*2	0.40	45	8.0		2.8(h9)	2.1	2	1.60	143532			
2.5	0.45	50	10.0		2.8(h9)	2.1	3	2.05	143534			
3	0.50	56	5.5	18	3.5(h9)	2.7	3	2.50	150601			
4	0.70	63	7.5	21	4.5(h9)	3.4	3	3.30	150603			
5	0.80	70	9.0	25	6.0	4.9	3	4.20	150605		150606	
6	1.00	80	11.0	30	6.0	4.9	3	5.00	150610		150611	
8	1.25	90	12.5	35	8.0	6.2	3	6.80	150620		150621	
10	1.50	100	14.0	39	10.0	8.0	3	8.50	150635		150636	
12	1.75	110	14.0		*10.0	*8.0	3	10.20		151863		151864
14	2.00	110	14.0		*12.0	*9.0	3	12.00		162535		
16	2.00	110	18.0		12.0	9.0	3	14.00		150670		150671
20	2.50	140	24.0		16.0	12.0	4	17.50		150679		
24	3.00	160	27.0		16.0	12.0	4	21.00		162787		

* DC Norm

* RTS320VS-3 — 2.5 x P

≥ Ø 6 mm — sur demande / auf Anfrage / on request / su richiesta / sobre pedido

M ISO DIN 13

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Uniquement pour taraudage synchrone
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Only for rigid tapping
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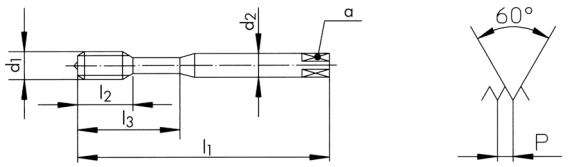
Solo para roscado sincronizado

PM
~DIN 371 (d_2 h6)
~DIN 376 (d_2 h6)

RTS
Rigid Tapping Synchro

RTS362VS-3	R40	VS	11	12	13	14	15	21	22	31	32	61	63	72	73	74	RTS362VS-3	RTS462VS-3	RTS365VS-3	RTS465VS-3	< 2.5 x D	< 2.5 x D	≤ 2.5 x D	≤ 2.5 x D	C 2.5 x P	C 2.5 x P	C 2.5 x P	C 2.5 x P	6HX	6HX	6HX	6HX
RTS462VS-3	R40	VS																													
RTS365VS-3	R40	VS																													
RTS465VS-3	R40	VS																													



Ø d_1 M	P mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm			RTS362VS-3 ID	RTS462VS-3 ID	RTS365VS-3 ID	RTS465VS-3 ID
*2	0.40	45	7.0		2.8 (h9)	2.1	3	1.60	143536			
*2.5	0.45	50	9.0		2.8 (h9)	2.1	3	2.05	143538			
3	0.50	56	5.5	18	3.5 (h9)	2.7	3	2.50	150602		160477	
4	0.70	63	7.5	21	4.5 (h9)	3.4	3	3.30	150604		160478	
5	0.80	70	9.0	25	6.0	4.9	3	4.20	150607		150608	
6	1.00	80	11.0	30	6.0	4.9	3	5.00	150612		150613	
8	1.25	90	12.5	35	8.0	6.2	3	6.80	150622		150623	
10	1.50	100	14.0	39	10.0	8.0	3	8.50	150637		150638	
12	1.75	110	14.0		*10.0	*8.0	3	10.20		151865		151866
14	2.00	110	14.0		*12.0	*9.0	3	12.00		151870		150663
16	2.00	110	18.0		12.0	9.0	3	14.00		150672		150673
20	2.50	140	24.0		16.0	12.0	4	17.50		150681		150682
24	3.00	160	27.0		16.0	12.0	4	21.00		151873		150690

* DC Norm

* RTS360VS-3

≥ Ø 6 mm
sur demande
auf Anfrage
on request
su richiesta
sobre pedido

SYNCHRO
Uniquement pour taraudage synchrone
Nur für Synchronbearbeitung
Only for rigid tapping
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PM ~DIN 371 (d_2 h6)

RTS
Rigid Tapping Synchro

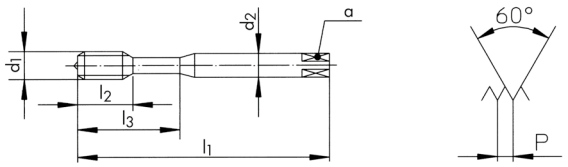
	RTS362VS-5	RTS365VS-5

RTS362VS-5 — R40 — VS

RTS365VS-5 — R40 — VS

11 12 13 14 15 21 22 31 32 61 63 72 73 74

< 2.5 x D | ≤ 2.5 x D



E 1.5 x P | E 1.5 x P

6HX | 6HX

Ø d_1 M	P mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm			ID	ID
3	0.50	56	5.5	18	3.5(h9)	2.7	3	2.50	157648	
4	0.70	63	7.5	21	4.5(h9)	3.4	3	3.30	157650	
5	0.80	70	9.0	25	6.0	4.9	3	4.20	157652	162791
6	1.00	80	11.0	30	6.0	4.9	3	5.00	158074	151803
8	1.25	90	12.5	35	8.0	6.2	3	6.80	158076	157821
10	1.50	100	14.0	39	10.0	8.0	3	8.50	153286	157823

≥ Ø 6 mm
sur demande
auf Anfrage
on request
su richiesta
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~DIN 376 (d_2 h6)

RTS
Rigid Tapping Synchro

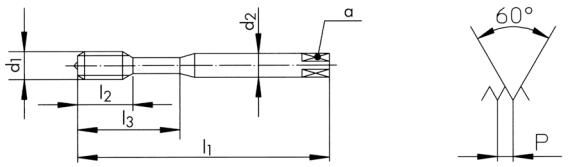
RTS362VS-3	RTS462VS-3	RTS362VS-3	RTS462VS-3

RTS362VS-3 — R40 — VS

RTS462VS-3 — R40 — VS

11 12 13 14 15 21 22 31 32 61 63 72 73 74

< 2.5 x D | < 2.5 x D | < 2.5 x D | < 2.5 x D



C 2.5 x P | C 2.5 x P | C 2.5 x P | C 2.5 x P

6GX | 6GX | 7GX | 7GX

Ø d_1 M	P mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm		6H	RTS362VS-3 ID	6H + mm	RTS462VS-3 ID	6H + mm	RTS362VS-3 ID	6H + mm	RTS462VS-3 ID	6H + mm
3	0.50	56	5.5	18	3.5 (h9)	2.7	3	2.50	162797	0.020			184689	0.036		
4	0.70	63	7.5	21	4.5 (h9)	3.4	3	3.30	162798	0.022			184691	0.041		
5	0.80	70	9.0	25	6.0	4.9	3	4.20	162799	0.024			184693	0.044		
6	1.00	80	11.0	30	6.0	4.9	3	5.00	162800	0.026			184695	0.050		
8	1.25	90	12.5	35	8.0	6.2	3	6.80	162801	0.028			184697	0.052		
10	1.50	100	14.0	39	10.0	8.0	3	8.50	162802	0.032			184699	0.060		
12	1.75	110	14.0		*10.0	*8.0	3	10.20			163253	0.034			184701	0.066
16	2.00	110	18.0		12.0	9.0	3	14.00			172037	0.038			184703	0.072

* DC Norm

≥ Ø 6 mm
sur demande
auf Anfrage
on request
su richiesta
sobre pedido

M ISO DIN 13

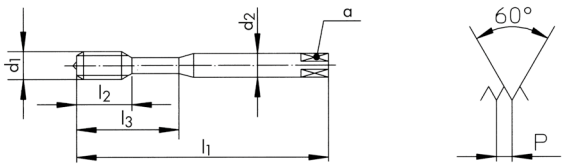
SYNCHRO
Uniquement pour taraudage synchrone
Nur für Synchronbearbeitung
Only for rigid tapping
Solo per maschiatura sincrona
Solo para roscado sincronizado

PM
DC ~DIN 371 (d_2 h6)
DC ~DIN 376 (d_2 h6)

RTS
Rigid Tapping Synchro

	RTS523VS-4	RTS623VS-4	RTS565VS-3	RTS665VS-3
	VS	VS	VS	VS
			R40	R40
	11 12 13 14 15 21 22 31 32 61 63 72 73 74	11 12 13 14 15 21 22 31 32 61 63 72 73 74		

	RTS523VS-4	RTS623VS-4	RTS565VS-3	RTS665VS-3
			≤ 2.5 x D	≤ 2.5 x D
	B 4 x P	B 4 x P	C 2.5 x P	C 2.5 x P
	6HX	6HX	6HX	6HX



Ø d_1 M	P mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm			ID	ID
5	0.80	125	9.0	25	6.0	4.9	3	4.20	161038	
6	1.00	125	11.0	30	6.0	4.9	3	5.00	161041	
8	1.25	140	12.5	35	8.0	6.2	3	6.80	161044	
10	1.50	160	14.0	39	10.0	8.0	3	8.50	161047	
12	1.75	180	14.0		*10.0	*8.0	3	10.20		161050
16	2.00	200	18.0		12.0	9.0	3	14.00		161053

* DC Norm

Ø d_1 M	P mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm			ID	ID
6	1.00	125	11.0	30	6.0	4.9	3	5.00	150614	
8	1.25	140	12.5	35	8.0	6.2	3	6.80	150624	
10	1.50	160	14.0	39	10.0	8.0	3	8.50	150639	
12	1.75	180	14.0		*10.0	*8.0	3	10.20		151867
16	2.00	200	18.0		12.0	9.0	3	14.00		150674

* DC Norm

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sobre pedido

MF ISO DIN 13

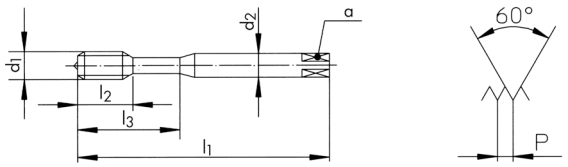
SYNCHRO
Uniquement pour taraudage synchrone
Nur für Synchronbearbeitung
Only for rigid tapping
Solo per maschiatura sincrona
Solo para roscado sincronizado

PM
~DIN 371 (d_2 h6)
~DIN 376 (d_2 h6)

RTS
Rigid Tapping Synchro

RTS320VS-4	VS	11, 12, 13, 14, 15, 21, 22, 31, 32, 61, 63, 72, 73, 74
RTS420VS-4	VS	
RTS362VS-3	R40, VS	11, 12, 13, 14, 15, 21, 22, 31, 32, 61, 63, 72, 73, 74
RTS462VS-3	R40, VS	

RTS320VS-4	RTS420VS-4	RTS362VS-3	RTS462VS-3
		< 2.5 x D	< 2.5 x D
B 4 x P	B 4 x P	C 2.5 x P	C 2.5 x P
6HX	6HX	6HX	6HX



Ø d_1 MF	P mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm			ID	ID
8	1.00	90	12.5	35	8.0	6.2	3	7.00	150615	
10	1.00	100	14.0	39	10.0	8.0	3	9.00	150630	
12	1.50	110	14.0		*10.0	*8.0	3	10.50		150640
14	1.50	110	14.0		*12.0	*9.0	3	12.50		150655
16	1.50	110	18.0		12.0	9.0	3	14.50		150665

* DC Norm

Ø d_1 MF	P mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm			ID	ID
8	1.00	90	12.5	35	8.0	6.2	3	7.00	150617	
10	1.00	100	14.0	39	10.0	8.0	3	9.00	150632	
12	1.50	110	14.0		*10.0	*8.0	3	10.50		151862
14	1.50	110	14.0		*12.0	*9.0	3	12.50		151869
16	1.50	110	18.0		12.0	9.0	3	14.50		151871

* DC Norm

≥ Ø 6 mm
sur demande
auf Anfrage
on request
su richiesta
sobre pedido

UNC ANSI B1.1

SYNCHRO

Uniquement pour taraudage synchrone
Nur für Synchronbearbeitung
Only for rigid tapping
Solo per maschiatura sincrona
Solo para roscado sincronizado

PM

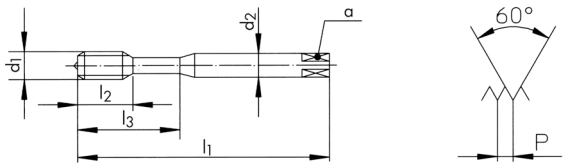
~DIN 371 (d_2 h6)

~DIN 376 (d_2 h6)

RTS
Rigid Tapping Synchro

RTS320VS-4	VS	11 12 13 14 15 21 22 31 32 61 63 72 73 74	RTS320VS-4	RTS420VS-4
RTS420VS-4	VS		RTS362VS-3	RTS462VS-3
RTS362VS-3	R40 VS	11 12 13 14 15 21 22 31 32 61 63 72 73 74		
RTS462VS-3	R40 VS			

	RTS320VS-4	RTS420VS-4	RTS362VS-3	RTS462VS-3
			< 2.5 x D	< 2.5 x D
	B 4 x P	B 4 x P	C 2.5 x P	C 2.5 x P
	2BX	2BX	2BX	2BX



Ø" d_1 UNC	P TPI	d_1 mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm			ID RTS320VS-4	ID RTS420VS-4	ID RTS362VS-3	ID RTS462VS-3
6	32	3.50	56	6.5	20	4.0(h9)	3.0	3	2.75	157395		157402	
8	32	4.16	63	7.5	21	4.5(h9)	3.4	3	3.40	157396		157403	
10	24	4.82	70	9.0	25	6.0	4.9	3	3.80	157397		157404	
1/4	20	6.35	80	11.0	30	*6.0	*4.9	3	5.10	157398		157405	
5/16	18	7.93	90	12.5	35	8.0	6.2	3	6.50	157399		157406	
3/8	16	9.52	100	14.0	39	10.0	8.0	3	8.00	157400		157407	
1/2	13	12.70	110	14.0		*10.0	*8.0	3	10.80		157401		157408

* DC Norm

≥ Ø 6 mm

sur demande
auf Anfrage
on request
su richiesta
sobre pedido

UNF ANSI B1.1

SYNCHRO

Uniquement pour taraudage synchrone
Nur für Synchronbearbeitung
Only for rigid tapping
Solo per maschiatura sincrona
Solo para roscado sincronizado

PM

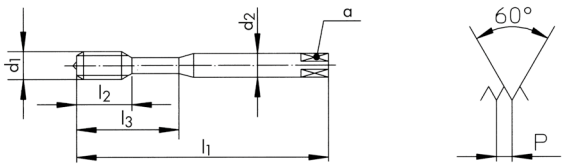
~DIN 371 (d_2 h6)

~DIN 374 (d_2 h6)

RTS
Rigid Tapping Synchro

RTS320VS-4	VS	11 12 13 14 15 21 22 31 32 61 63 72 73 74	
RTS420VS-4	VS		
RTS362VS-3	R40 VS	11 12 13 14 15 21 22 31 32 61 63 72 73 74	
RTS462VS-3	R40 VS		

	RTS320VS-4	RTS420VS-4	RTS362VS-3	RTS462VS-3
			< 2.5 x D	< 2.5 x D
	B 4 x P	B 4 x P	C 2.5 x P	C 2.5 x P
	2BX	2BX	2BX	2BX



Ø" d_1 UNF	P TPI	d_1 mm	l_1 mm	l_2 mm	l_3 mm	d_2 h6 mm	a mm			ID	ID	ID	ID
10	32	4.82	70	9.0	25	6.0	4.9	3	4.05	157409		157413	
1/4	28	6.35	80	11.0	30	*6.0	*4.9	3	5.50	157410		157414	
5/16	24	7.93	90	12.5	35	8.0	6.2	3	6.90	157411		157415	
3/8	24	9.52	100	14.0	39	10.0	8.0	3	8.50	157412		157416	
1/2	20	12.70	110	14.0		*10.0	*8.0	3	11.40		157417		157418

* DC Norm

≥ Ø 6 mm

sur demande
auf Anfrage
on request
su richiesta
sobre pedido

G DIN ISO 228 (BSP)

SYNCHRO
Uniquement pour taraudage synchrone
Nur für Synchronbearbeitung
Only for rigid tapping
Solo per maschiatura sincrona
Solo para roscado sincronizado

PM

~DIN 376 (d_2 h6)

RTS
Rigid Tapping Synchro

	RTS462VS-3	RTS462VS-5

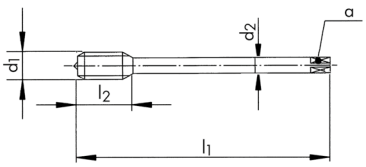
RTS462VS-3 — R40 — VS

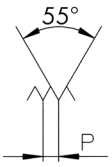
RTS462VS-5 — R40 — VS

11 12 13 14 15 21 22 31 32 61 63 72 73 74

< 2.5 x D

< 2.5 x D





C 2.5 x P

E 1.5 x P

Ø" d_1 G	P TPI	d_1 mm	l_1 mm	l_2 mm	d_2 h6 mm	a mm			ID	ID
1/8	28	9.72	100	14.0	*8.0	*6.2	3	8.75	151861	170629
1/4	19	13.15	110	14.0	*12.0	*9.0	3	11.60	151868	170631
3/8	19	16.66	110	18.0	12.0	9.0	4	15.20	151872	170633
1/2	14	20.95	125	20.0	16.0	12.0	4	18.90	150685	170635

* DC Norm

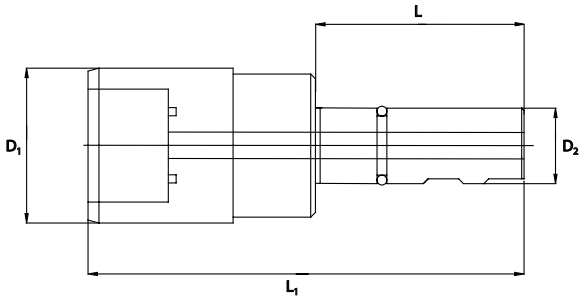
≥ Ø 6 mm

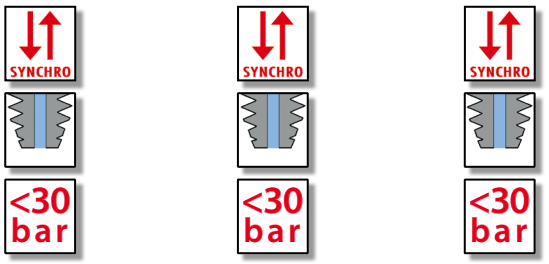
sur demande
auf Anfrage
on request
su richiesta
sobre pedido

SRT Tapping chucks with axial shock absorber

SYNCHRO
Uniquement pour taraudage synchrone
Nur für Synchronbearbeitung
Only for rigid tapping
Solo per maschiatura sincrona
Solo para roscado sincronizado

SRT DIN 1835 B short



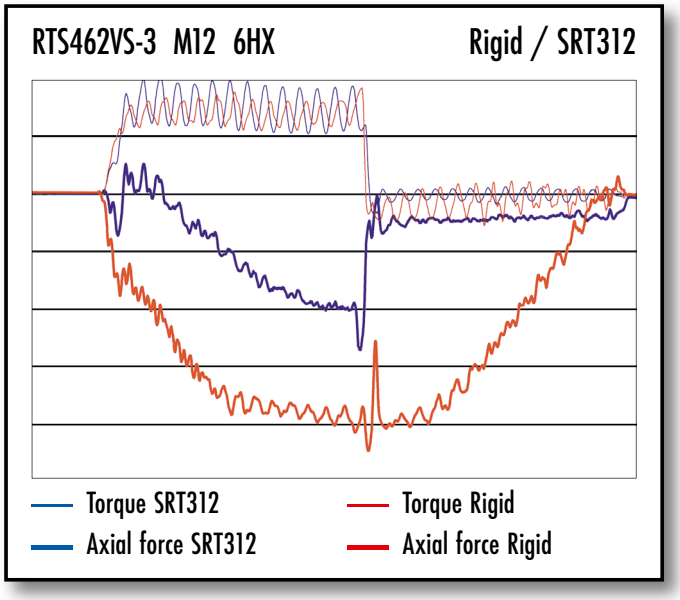


	D_1 mm	D_2 mm	L mm	L_1 mm		SRT312-D20 ID	SRT312-D25 ID	SRT520-D25 ID
M3 - M12	39	20	47	86.0	S1	162832		
M3 - M12	39	25	53	90.0	S1		162831	
M5 - M20	56	25	53	110.0	S2			162833

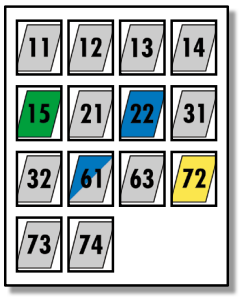
TOP PERFORMANCE DUE TO SRT-TAPPING CHUCKS

The graphic shows very clearly the reduction of the force in Z-axis, especially while reversing the spindle rotation, by using the DC tapping chuck with axial shock absorber type SRT.

- **Integrated quick-change adapter**
- **Strongly increased tool life**
- **Improved process safety**



PICTOGRAPHS



For material groups as per DC application chart

Reinforced shank, ~DIN 371 (d_2 h6)

Reduced shank, ~DIN 376 (d_2 h6)

Straight flutes with spiral point

40° right hand spiral flutes

HSSE-PM

Through holes
for long chipping materials

Blind holes
for long chipping materials < 2.5 x D

3.5 - 5 chamfered threads, form B

2 - 3 chamfered threads, form C

1.5 - 2 chamfered threads, form E

Tolerance class 6HX

Internal coolant with radial outflow

Internal coolant with frontal outflow

Truncated thread

DC wear-protective coating

Only for rigid tapping

THIS IS DC SWISS

SWISS MADE

Thread cutting

Thread forming

Crown tap

Thread gauges

Thread milling

Thread dies

Tapping chucks

« AS A MECHANICAL SUBCONTRACTOR WE ARE CONFRONTED TO A HUGE VARIETY OF DIFFERENT MATERIALS. THIS IS WHY WE NEED A RELIABLE AND ON THE SAME TIME UNIVERSAL TAPPING SOLUTION.
WITH THE RTS WE FINALLY FOUND THE RIGHT ANSWER. »

DC®
THREADING SOLUTIONS

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