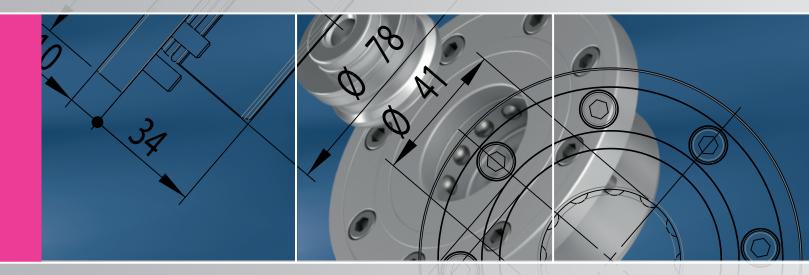


The basis for simple zero point clamping



Zero point clamping system SPEEDY basic

Cost-effectiveness

Flexibility

Process

Process

Simple • Module

Expedient • Very straightforward installation

Suitable • Hydraulic or pneumatic

Versatile • 14 variants

Economical • Reasonable price



Zero point clamping system SPEEDY basic





Contents SPEEDY basic

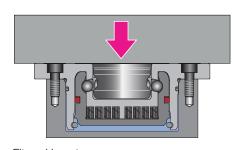
Information	Function descrip	tion SPEEDY basic	4				
		technology with a system –					
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	Tilting torque cal		7				
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SPEEDY basic	Y p	Standard	8000 8028				
0. 222 . 540.0	X D	Standard Standard	8000 60210				
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	SP	Standard	8000 00213				
		With blow-out function	8000 00413				
	Mh	Standard	8000 20116				
	101	With blow-out function	8000 203				
	MP	Standard	8000 20217				
	IVI G	With blow-out function	8000 20417				
	L h	Standard	8000 401 18				
		With blow-out function	8000 403				
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		With equaliser Without centring	8000 30218				
	L	With Jero point	8000 500				
	_	With 2810 point With equaliser	8000 501				
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Accessories	Foot desired des		·				
Accessories	-	np plates, pallets with retractable nipples	805 300 to 805 305				
	Fixing clamp	, proopp	805 201, 804 202 23 – 24				
	Pressure booster		804 41126				
	Hoses	With hydraulic coupling Calf position	704 151, 704 15326				
	Coupler	Self-sealing Self-sealing Self-sealing	952 12626				
	Coupling nipple	 Suitable for 5000 300 and 954 208 	5000 30127				
	Sliding coupling	Switchable Switchable for 5000 001	5000 30027				
	Coupling	Suitable for 5000 301	954 20827				
Alalawayiatiawa	Retractable nipp		8000 89927				
Abbreviations	Y (ø 26 mm	•					
	X (ø54 mm	n)					
	S small (ø7	'8 mm)					
	M middle (a	o 112 mm)					
	L large (ø 1	48 mm)					
	h Clamped	mechanically and released hydraulically					
	Clamped						

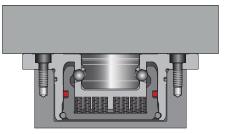


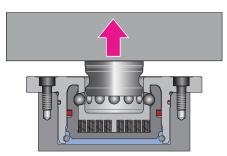


Function description SPEEDY basic -

Positioning and clamping in one function



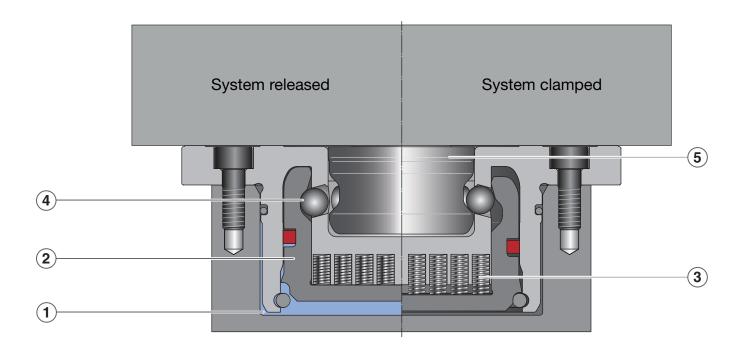




Fit and insert

Clamp and position

Release and remove



Releasing:

- The release pressure (1) is applied to the piston (2) and the piston moves up.
 The springs (3) are compressed.
- The balls (4) move to the parking position.
- The retractable nipple (5) is released.

Mechanically clamping:

- The pressure is relieved and drops to 0 bar.
- The spring pre-load is applied via the piston (2), the piston moves down.
- The balls (4) are pressed in by the piston (2) and enclose the retractable nipple.
- The retractable nipple is securely clamped by the spring pre-load.

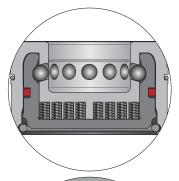




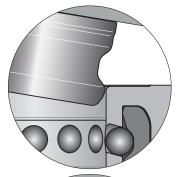
Tried and tested technology with a system -

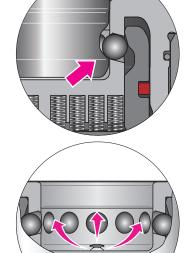
Original down to the smallest detail











Design

- Compact design with high clamping forces
- Low installation depth
- Modular design
- Simple installation contour
- Easy to clean
- Easy to maintain straightforward to replace
- Made of high-quality, stainless tool steel
- Can be actuated hydraulically or pneumatically
- Piston seal on inside

Space-saving, also on pallet side

- The retractable nipple basic can be mounted straightforwardly
- Extremely space-saving installation shape (on the basic S the retractable nipple protrudes only 15.5 mm)
- Easy handling of pallets due to short extraction distances

Lifting out/off at an angle

 Workpiece, jig and pallet change without tilting – particularly important with asymmetrical weight distribution on the pallet

Exact position up to the maximum load

- The spring force constantly fixes the retractable nipple positively and precisely
- No bending or lifting off
- Vibrations are damped, the quality of the surfaces to be machined increases and the lives of the tools increase

Intelligent blow-out technology

- Particularly effective cleaning due to the extending nozzle
- Is suitable for partial automation and reduces the cleaning effort





Specifications -

Transparency from the start

		basic Y p	basic X p	basic S (h)	basic S p	basic M h	basic M p	basic L h	basic L p
Maintenance interval, spring assembly		80'000	80'000	80'000	80'000	80'000	80'000	80'000	80'000
Retention force 1)	[N]	88	400	15'000	5'000	30'000	9'000	55'000	23'000
Oil release pressure	[bar]	_	_	20	_	20	_	25	_
Air release pressure	[bar]	5	5.5	_	5.5	_	5.5	_	5.5
Max. pressure	[bar]	10 *	10	80	10	80 *	10	60 *	10
Oil/air volume	[cm³]	1,6	1,4	4,5	4,5	12	12	25	25
Operating temperature	[°C]	10-80	10-80	10-80	10-80	10-80	10-80	10-80	10-80
Min. permissible clamping time	[s]	1	1	1	1	1	1	1	1
Min. permissible release time	[s]	1	1	1	1	1	1	1	1
Radial pre- positioning ²⁾	[mm]	± 1	± 1	± 1	± 1	± 1	± 1	± 1	± 1
Max. axial pre- positioning	[mm]	- 0.3	- 0.3	- 0.3	- 0.3	- 0.3	- 0.3	- 0.3	-0.3
Repeatability 3)	[mm]	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Weight	[kg]	approx. 0.06	approx. 0.22	approx. 0.5	approx. 0.5	approx. 1.5	approx. 1.5	approx. 3.8	approx.

Note: Spacing tolerance: ±0.01 mm for SPEEDY and retractable nipple

1) Retention force The retention force refers to the max. load at which the nipple will continue to be retained.

2) Radial pre-positioning The loading device must have play in the case of automated handling.

3) Repeatability Repeatability generally refers to the accuracy with which the same pallet is positioned

on changing with the same interface.

^{*} Fit overpressure safety valve





Tilting torque calculation example

Profit from our expertise

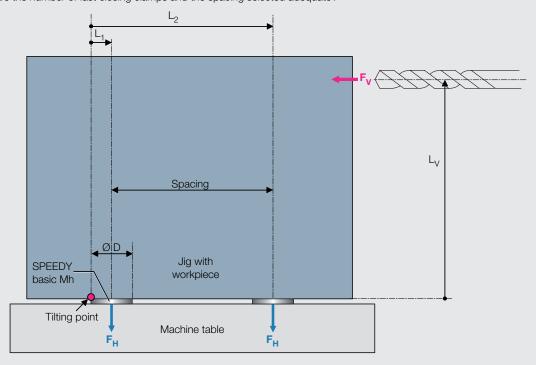


Example

Fast closing clamp plate 4 SPEEDY basic Mh with spacing 200 x 200 and max. feed force of 10 kN with distance of 300 mm.

Question:

Due to the predominance of roughing work, the system is to be checked for a double safety factor. Are the number of fast closing clamps and the spacing selected adequate?



Solution:

$$M_H > 2 \times M_V$$
?

$$M_V = F_V \times L_V = 10'000 \text{ N} \times 0.3 \text{ m}$$

$$M_{V} = 3'000 \text{ Nm}$$

$$M_H = 2 \times (F_H \times L_1) + 2 \times (F_H \times L_2)$$

$$M_H = 2 \times F_H \times (L_1 + L_2)$$

$$L_1 = \emptyset D / 2$$

$$L_2 = ØD / 2 + Spacing = 0,256 m$$

$$L_1 + L_2 = ØD + Spacing = 0,312 m$$

$$L_1 + L_2 = 0.112 \text{ m} + 0.20 \text{ m} = 0.312 \text{ m}$$

$$M_H = 2 \times F_H \times (L_1 + L_2) = 2 \times 10'000 \text{ N} \times 0,312 \text{ m}$$

$$M_{H} = 6'240 \text{ Nm}$$

$$M_H/M_V > 2$$
?

$$M_H / M_V = 6'240 \text{ Nm} / 3'000 \text{ Nm}$$

$$M_H/M_V = 2,08 > 2$$

With this design there is a safety factor of around two.

(Enter all variables in SI units (metres, newtons))

 ${\sf M}_{\sf V}$: Moment from feed force

 M_{H} : Moment from retention force

F_V: Feed force (10'000 N)

F_H: Retention force (30'000 N)

Spacing = 200 mm = 0,20 m

 \emptyset D (bearing ring): 112 mm = 0,112 m

 L_V : 300 mm = 0,30 m





SPEEDY basic Y 0

- Module
- Round
- Pneumatically actuated



Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

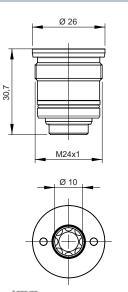
Is clamped mechanically and released pneumatically.

Application:

For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.



Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 002	88 N	10 bar	5 bar	0.053 kg	D162

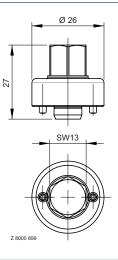
Fastening screws included.

Retractable nipple key SPEEDY basic Y



Characteristics:

Retractable nipple key for the secure installation of SPEEDY basic Y.



Order no.	Across flats	Tightening torque	Weight
8000 899	SW13	15 Nm	0.05 kg





Retractable nipple basic Y



With zero point



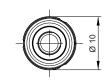
Characteristics:

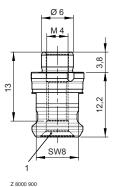
Retractable nipple with zero point.

Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightenir M3	ng torque M4	Weight	Data sheet
8000 900	min. 10.9	1 Nm	2 Nm	0.006 kg	D152





1) Counterbore for screw DIN 7991

Retractable nipple basic Y



With equaliser



Characteristics:

Retractable nipple with zero point.

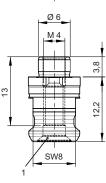
Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightenin M3	g torque M4	Weight	Data sheet
8000 901	min. 10.9	1 Nm	2 Nm	0.006 kg	D152

¹⁾ Counterbore for screw DIN 7991





Z 8000 901

Retractable nipple basic Y



Without centring



Characteristics:

Retractable nipple with zero point.

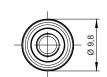
Application:

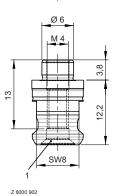
For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightenin M3	g torque M4	Weight	Data sheet
8000 902	min. 10.9	1 Nm	2 Nm	0.006 kg	D152

1) Counterbore for screw DIN 7991

For information on the retractable nipple fastening variants see page 19.









SPEEDY basic X 0

- Module
- Round
- Pneumatically actuated



Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

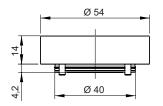
Is clamped mechanically and released pneumatically.

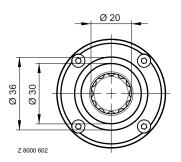
Application:

For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 602	400 N	10 bar	5.5 bar	0.22 kg	D162

Fastening screws included.



SPEEDY basic X and SPEEDY basic Y in size comparison





Retractable nipple basic X



With zero point

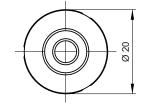


Characteristics:

Retractable nipple with zero point.

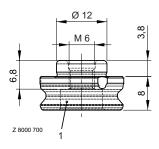
Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.



Order no.	Screw quality	Tightening M5	torque M6	Weight	Data sheet
8000 700	min. 10.9	7 Nm	10 Nm	0.016 kg	D152

¹⁾ Counterbore for screw DIN 912



Retractable nipple basic X



With equaliser

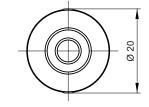


Characteristics:

Retractable nipple with zero point.

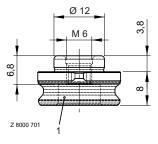
Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.



Order no.	Screw quality	Tightening M5	torque M6	Weight	Data sheet
8000 701	min. 10.9	7 Nm	10 Nm	0.016 kg	D152

¹⁾ Counterbore for screw DIN 912



Retractable nipple basic X



Without centring



Characteristics:

Retractable nipple with zero point.

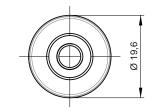
Application:

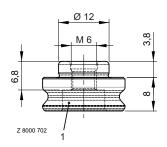
For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightening M5	g torque M6	Weight	Data sheet
8000 702	min. 10.9	7 Nm	10 Nm	0.016 kg	D152

¹⁾ Counterbore for screw DIN 912

For information on the retractable nipple fastening variants see page 19.









SPEEDY basic So

- Module
- Round
- Hydraulically actuated



Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

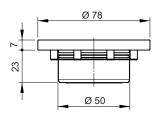
Is clamped mechanically and released hydraulically.

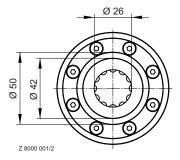
Application:

For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 001	15'000 N	80 bar	20 bar	0.5 kg	D148

Fastening screws included.

SPEEDY basic So with blow-out function

- Module
- Round
- Hydraulically actuated
- Blow-out function





Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

Is clamped mechanically and released hydraulically.

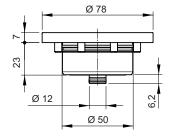
Intelligent blow-out function for cleaning the precision bore. Mount control via differential pressure or blocking air possible.

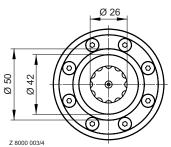
Application:

For partial automation, reduces the cleaning effort. For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet	
8000 003	15'000 N	80 bar	20 bar	0.5 kg	D154	

Fastening screws included.





SPEEDY basic So

- Module
- Round
- Pneumatically actuated



Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

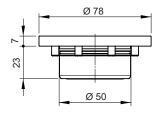
Is clamped mechanically and released pneumatically.

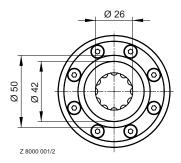
Application:

For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 002	5'000 N	10 bar	5.5 bar	0.5 kg	D148

Fastening screws included.

SPEEDY basic So with blow-out function

- Module
- Round
- Pneumatically actuated
- Blow-out function





Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

Is clamped mechanically and released pneumatically.

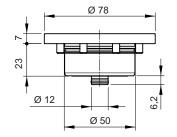
Intelligent blow-out function for cleaning the precision bore. Mount control via differential pressure or blocking air possible.

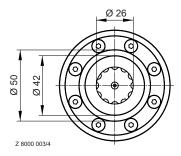
Application:

For partial automation, reduces the cleaning effort. For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 004	5'000 N	10 bar	5.5 bar	0.5 kg	D154

Fastening screws included.





Retractable nipple basic S



With zero point



Characteristics:

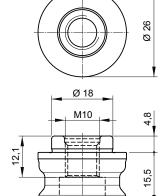
Retractable nipple with zero point.

Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightenino M8	g torque M10	Weight	Data sheet
8000 100	min. 10.9	36 Nm	36 Nm	0.05 kg	D152

¹⁾ Counterbore for screw DIN 912



Retractable nipple basic S





Characteristics:

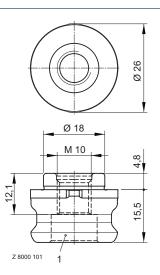
Retractable nipple with equaliser in one axis (sword shape).

Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightening M8	torque M10	Weight	Data sheet
8000 101	min. 10.9	36 Nm	36 Nm	0.05 kg	D152

¹⁾ Counterbore for screw DIN 912



Retractable nipple basic S



Without centring



Characteristics:

Retractable nipple without centring.

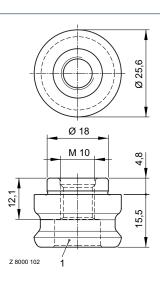
Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightening M8	g torque M10	Weight	Data sheet
8000 102	min. 10.9	36 Nm	36 Nm	0.05 kg	D152

¹⁾ Counterbore for screw DIN 912

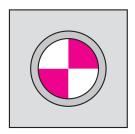
For information on the retractable nipple fastening variants see page 19.



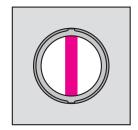




One thing is certain – the fixed zero point with SPEEDY retractable nipples





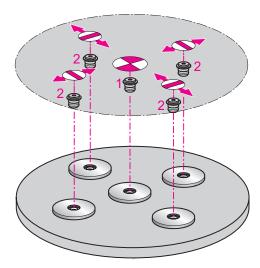


2) Retractable nipple with equaliser



3) Retractable nipple

Retractable nipple with zero point in the middle of the pallet

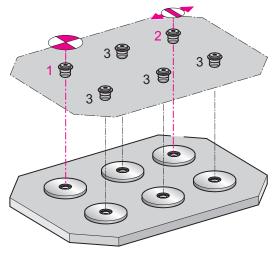


Application:

Equalisation of thermal expansion

Manufacturing tolerances = position tolerances for fast closing clamps and retractable nipples, each 0.01 mm

Retractable nipple with zero point at the top left corner of the pallet



Application:

Equalisation of thermal expansion and manufacturing tolerances







SPEEDY basic M 0

- Module
- Round
- Hydraulically actuated



Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

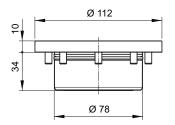
Is clamped mechanically and released hydraulically.

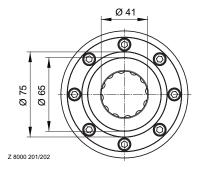
Application:

For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





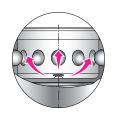
Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 201	30'000 N	80 bar	20 bar	1.5 kg	D148

Fastening screws included.

SPEEDY basic M with blow-out function

- Module
- Round
- Hydraulically actuated
- Blow-out function





Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

Is clamped mechanically and released hydraulically.

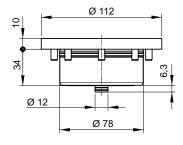
Intelligent blow-out function for cleaning the precision bore. Mount control via differential pressure or blocking air possible.

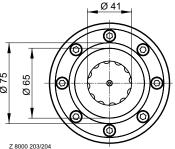
Application:

For partial automation, reduces the cleaning effort. For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 203	30'000 N	80 bar	20 bar	1.5 kg	D154

Fastening screws and screw covers included.





SPEEDY basic Mo

- Module
- Round
- Pneumatically actuated



Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

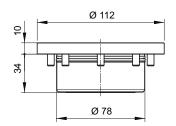
Is clamped mechanically and released pneumatically.

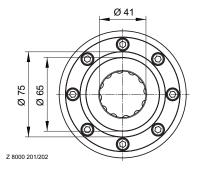
Application:

For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





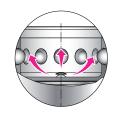
Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 202	9'000 N	10 bar	5.5 bar	1.5 kg	D148

Fastening screws included.

SPEEDY basic Mo with blow-out function

- Module
- Round
- Pneumatically actuated
- Blow-out function





Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required. Is clamped mechanically and released pneumatically.

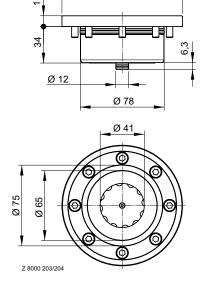
Intelligent blow-out function for cleaning the precision bore. Mount control via differential pressure or blocking air possible.

Application:

For partial automation, reduces the cleaning effort. For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.



Ø 112

Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 204	9'000 N	10 bar	5.5 bar	1.5 kg	D154

Fastening screws included.





Retractable nipple basic M



With zero point



Characteristics:

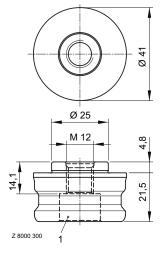
Retractable nipple with zero point.

Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightening torque M10 M12		Weight	Data sheet
8000 300	min. 10.9	45 Nm	45 Nm	0.2 kg	D152

¹⁾ Counterbore for screw DIN 912



Retractable nipple basic M



With equaliser



Characteristics:

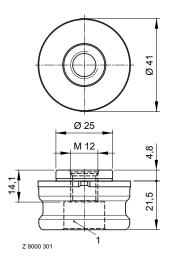
Retractable nipple with equaliser in one axis (sword shape).

Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightening M10	g torque M12	Weight	Data sheet
8000 301	min. 10.9	45 Nm	45 Nm	0.2 kg	D152

¹⁾ Counterbore for screw DIN 912



Retractable nipple basic M



Without centring



Characteristics:

Retractable nipple without centring.

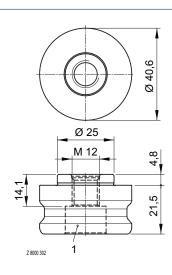
Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightening M10	g torque M12	Weight	Data sheet
8000 302	min. 10.9	45 Nm	45 Nm	0.2 kg	D152

¹⁾ Counterbore for screw DIN 912

For information on the retractable nipple fastening variants see page 19.









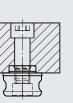
Retractable nipple fastening variants

The fastening variants shown are possible for SPEEDY basic S, M and L.

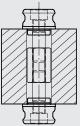




Variant B



Variant C



Variant D



Variant E



Variant A:

For applications in which nipple bores are not allowed on the surface of the pallet, or for direct workpiece clamping.

Variant B:

Simple nipple fastening from above, if particular accuracy between the position of the nipple and the upper side of the pallet is not necessary.

Variant C:

Ideal fastening variant for clamping arrangements using which the workpiece is machined on both sides. Highest accuracy is ensured because the nipples are fastened in the same mounting bore.

Variant D, E:

These fastening variants are to be preferred. The precision bore for the nipple and all the necessary positioning holes on the pallet can be manufactured in one operation. As a consequence the positions have the highest accuracy in relation to each other.

Nipple fastening D



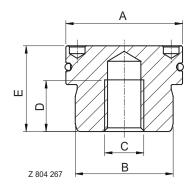
Characteristics:

Makes it possible to manufacture the nipple fastening with one clamping arrangement. In this way the highest accuracy is achieved.

Application:

Machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	For retractable nipples	øΑ	øΒ	С	D	Е	Data sheet
809 127	basic S	24.8	18	M8	12	21.9	D152
804 267	basic M	29.8	25	M10	13	21.9	D152
804 262	basic L	37.8	32	M12	18	27.9	D152



Nipple fastening E



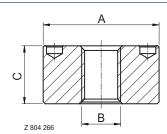
Characteristics:

Makes it possible to manufacture the nipple fastening with one clamping arrangement. In this way the highest accuracy is achieved.

Application:

Machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	For retractable nipples	øΑ	øВ	С	Data sheet
809 128	basic S	24.8	M8	14.9	D152
804 266	basic M	29.8	M10	14.9	D152
804 264	basic L	37.8	M12	17.9	D152







SPEEDY basic L 0

- Module
- Round
- Hydraulically actuated



Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

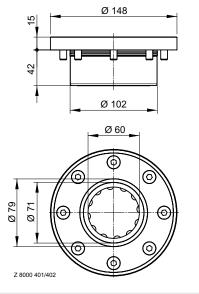
Is clamped mechanically and released hydraulically.

Application:

For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.



Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 401	55'000 N	60 bar	25 bar	3.8 kg	D148

Fastening screws and screw covers included.

SPEEDY basic L with blow-out function

- Module
- Round
- Hydraulically actuated
- Blow-out function





Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

Is clamped mechanically and released hydraulically.

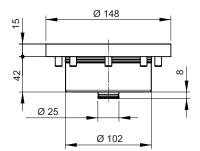
Intelligent blow-out function for cleaning the precision bore. Mount control via differential pressure or blocking air possible.

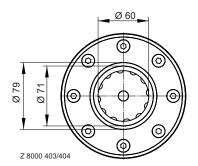
Application:

For partial automation, reduces the cleaning effort. For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet	
8000 403	55'000 N	60 bar	25 bar	3.8 kg	D154	

Fastening screws included.





SPEEDY basic Lo

- Module
- Round
- Pneumatically actuated



Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

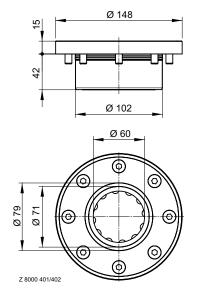
Is clamped mechanically and released pneumatically.

Application:

For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.



Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 402	23'000 N	10 bar	5.5 bar	3.8 kg	D148

Fastening screws and screw covers included.

SPEEDY basic Lo with blow-out function

- Module
- Round
- Pneumatically actuated
- Blow-out function





Characteristics:

Flush Mount fast closing clamp module made of high-quality, stainless tool steel.

Due to the low height, little space is required.

Is clamped mechanically and released pneumatically.

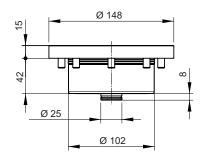
Intelligent blow-out function for cleaning the precision bore. Mount control via differential pressure or blocking air possible.

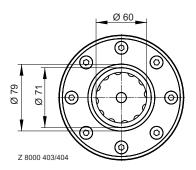
Application:

For partial automation, reduces the cleaning effort. For flush mounting in machines, machine pallets, plates, angles, cubes, mounting towers and trunnion tables.

Machine element:

Can be used for all common machining tasks such as milling, grinding, eroding as well as on test stands and assembly devices.





Order no.	Retention force	Pressure max.	Release pressure	Weight	Data sheet
8000 404	23'000 N	10 bar	5.5 bar	3.8 kg	D154

Fastening screws included.





Retractable nipple basic L



With zero point



Characteristics:

Retractable nipple with zero point.

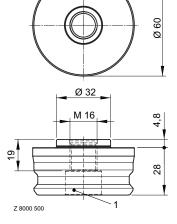
Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

t		
2		

Order no.	Screw quality	Tightening M12	g torque M16	Weight	Data sheet
8000 500	M12:12.9 / M16:8.8	140 Nm	200 Nm	0.6 kg	D152

¹⁾ Counterbore for screw DIN 912



Retractable nipple basic L —



With equaliser

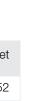


Characteristics:

Retractable nipple with equaliser in one axis (sword shape).

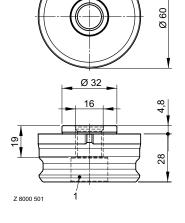
Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.



Order no.	Screw quality	Tightening M12	torque M16	Weight	Data sheet
8000 501	M12:12.9 / M16:8.8	140 Nm	200 Nm	0.6 kg	D152

¹⁾ Counterbore for screw DIN 912



Retractable nipple basic L



Without centring



Characteristics:

Retractable nipple without centring.

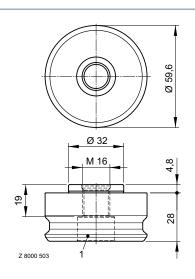
Application:

For positioning and clamping on machine pallets, machine vices, chucks, jigs, direct workpiece clamping.

Order no.	Screw quality	Tightening M12	torque M16	Weight	Data sheet
8000 502	M12:12.9 / M16:8.8	140 Nm	200 Nm	0.6 kg	D152

1) Counterbore for screw DIN 912

For information on the retractable nipple fastening variants see page 19.







Fast closing clamp plate SPEEDY basic S/Mo



Characteristics:

Fast closing clamp plate made of anodised aluminium with 4 SPEEDY basic. The pallet is clamped mechanically and released pneumatically. Fastening holes, clamping edge, positioning holes and an alignment surface make placing in operation straightforward on many common machines.

Fast closing clamp plate SPEEDY basic So

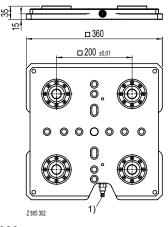
Application:

 On 3/4/5-axis machines for all common machining tasks such as milling, grinding, eroding.

Order no.	Description	Dimensions (mm)	Weight
805 302	Set SVP SPEEDY basic Sp	360 x 360 x 35	9.8 kg
805 305	Pallet with retractable nipples basic S	360 x 360 x 28	9.6 kg
805 202	Fixing clamp for basic S	40X40X23 / M12	0.01 kg



805 202



805 302

1) Coupling 5000 301

Fast closing clamp plate SPEEDY basic Mo

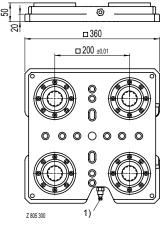
Application:

 On 3/4/5-axis machines for all common machining tasks such as milling, grinding, eroding.

Order no.	Description	Dimensions (mm)	Weight
805 300	Set SVP SPEEDY basic Mp	360 x 360 x 50	13.8 kg
805 304	Pallet with retractable nipples basic M	360 x 360 x 28	10.2 kg
805 201	Fixing clamp for basic M	40X40X28 / M12	0.01 kg



805 201



805 300

1) Coupling 5000 301





Fast closing clamp plate SPEEDY basic S/M 6



Characteristics:

Fast closing clamp plate made of anodised aluminium with 4 SPEEDY basic. The pallet is clamped mechanically and released hydraulically. Fastening holes, clamping edge, positioning holes and an alignment surface make placing in operation straightforward on many common machines.

Fast closing clamp plate SPEEDY basic S 10

Application:

 On 3/4/5-axis machines for all common machining tasks such as milling, grinding, eroding.

Order no.	Description	Dimensions (mm)	Weight
805 303	Set SVP SPEEDY basic Sh	360 x 360 x 35	9.8 kg
805 305	Pallet with retractable nipples basic S	360 x 360 x 28	9.6 kg
805 202	Fixing clamp for basic S	40x40x23 / M12	0.01 kg



805 202

200 ±0,01

805 303

1) Coupling 952 126: use self-sealing coupling 952 177 on hose

Fast closing clamp plate SPEEDY basic M 10

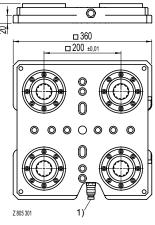
Application:

 On 3/4/5-axis machines for all common machining tasks such as milling, grinding, eroding.

Order no.	Description	Dimensions (mm)	Weight
805 301	Set SVP SPEEDY basic Mh	360 x 360 x 50	13.8 kg
805 304	Pallet with retractable nipples basic M	360 x 360 x 28	10.2 kg
805 201	Fixing clamp for basic M	40x40x28 / M12	0.01 kg



805 201



805 301

1) Coupling 952 126: use self-sealing coupling 952 177 on hose

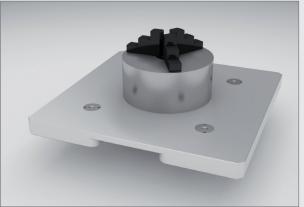






Possible applications











Pallets with retractable nipples are available in different versions complete with means of clamping the workpiece. Please request information from your STARK sales partner.







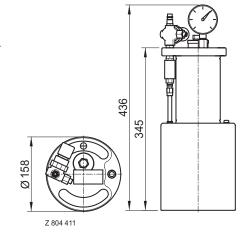
Characteristics:

The pressure booster RECORD converts air pressure to the hydraulic system pressure required to operate the SPEEDYs.

Application:

Operation of:

50 SPEEDY basic S 20 SPEEDY basic M 10 SPEEDY basic L



Order no.	System pressure	Air pressure	Oil capacity	Weight
804 411	40 bar	6 bar	0.31 I	8.80 kg

Hydraulic connection via hydraulic coupler 804 371 (use coupling 952 044 on hose), hydraulic hose not included.

Hydraulic hose with couplings (1)

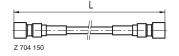


Characteristics:

Hydraulic hose with hydraulic couplers at both ends (952 044 and 952 177 self-sealing).



Is used to connect between pressure booster and fast closing clamp plate or SPEEDY basic.



Order no.	L	Max. pressure	Weight
704 151	1.5 m	300 bar	0.60 kg
704 153	3.0 m	300 bar	1.20 kg

Self-sealing coupler 6

- SPEEDY side
- Self-sealing



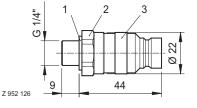
Characteristics:

Coupling for fast closing clamp plates or connection block to the pipework for the SPEEDY basic fast closing clamps.

Application:

Particularly recommendable for use in conjunction with pressure boosters (it is not necessary to top-up the pressure booster).

Can be used wherever oil is not allowed to leak into the drilling emulsion and for frequent coupling processes.



- 1) Sealing ring
- 2) AF 22
- 3) Coupling

Order no.	Connection	Pressure	Weight
952 126	Hydraulic coupler	300 bar	0.05 kg





Coupling nipple •

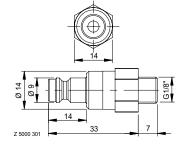


Characteristics:

Coupling nipple for SPEEDY basic in conjunction with the coupling 5000 300 or 954 208.

Application:

For the connection and actuation of the fast closing clamps.



Order no.	Connection	Weight
5000 301	G1/8"	0.05 kg

Slide coupling 0

Switchable

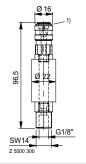


Characteristics:

Pneumatic coupling unit with slide valve for SPEEDY basic.

Application:

Actuation of the fast closing clamps SPEEDY basic.



Order no.	Connection	Weight
5000 300	G1/8"	0.20 kg

¹⁾ Coupling 954 208 suitable for coupling nipple 5000 301.

Coupling •

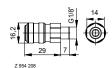


Characteristics:

Pneumatic coupling, suitable for 5000 301.

Application:

Actuation of the fast closing clamps SPEEDY basic.



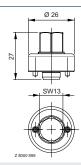
Order no.	Connection	Weight
954 208	G1/8"	0.05 kg

Retractable nipple key SPEEDY basic Y



Characteristics:

Retractable nipple key for the secure installation of SPEEDY basic Y.



Order no.	Across flats	Tightening torque	Weight
8000 899	SW13	15 Nm	0,05 kg



Everything from a single source

Development

Machine technology has continued to develop strongly. STARK offers systems for modern manufacturing, from simple versions to complex, clamping solutions suitable for automation. In this way STARK facilitates sustainable growth and potential for your business.

At STARK it is tradition to take new paths, e.g. the expansion of the SPEEDY hydratec programme with a new type of electrical drive as an alternative to hydraulic and pneumatic operation.



Production

STARK stands for meticulous manufacture inhouse with high requirements on quality and precision. The specialist knowledge of our employees and the high level of vertical integration are prerequisites for the ability to react flexibly to customer wishes.

STARK continuously invests in the latest technologies to pass this lead onto our customers. Here the focus is on the highest possible quality and the best possible adherence to schedule



Design

The modern design department, equipped with CAD since 1988, prepares individual, optimised solutions for customers. Continuous innovation and improvement of existing products and solutions for positioning and clamping safeguard the market position over the long term.

STARK also has its own test facility for the practical verification of the parameters determined theoretically. During this process, e.g., endurance tests are undertaken under production conditions (coolant, swarf).



Placing in operation and service

With the delivery of STARK products we offer other services along with placing in operation on your premises. This could be a predefined acceptance that could take place, e.g., at the machine manufacturer, or a staff training course for the safe and efficient usage of your STARK zero point clamping system.

STARK service is also available after placing in operation.



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