



## Amortization through reduced set-up time

Reference sample based on a vertical machine. Set-up time is taken as machine downtime.  
Applies to 5 tool-up procedures per work shift.

### Manually tooling up a module:

5 times approx. 20 minutes = 100 minutes

### Tooling up with Stark's Zero Point Mounting System:

Mean value by experience = 4 minutes

5 times 4 minutes = 20 minutes

### Time savings with Stark's Zero Point Mounting System:

100 minutes - 20 minutes = 80 minutes

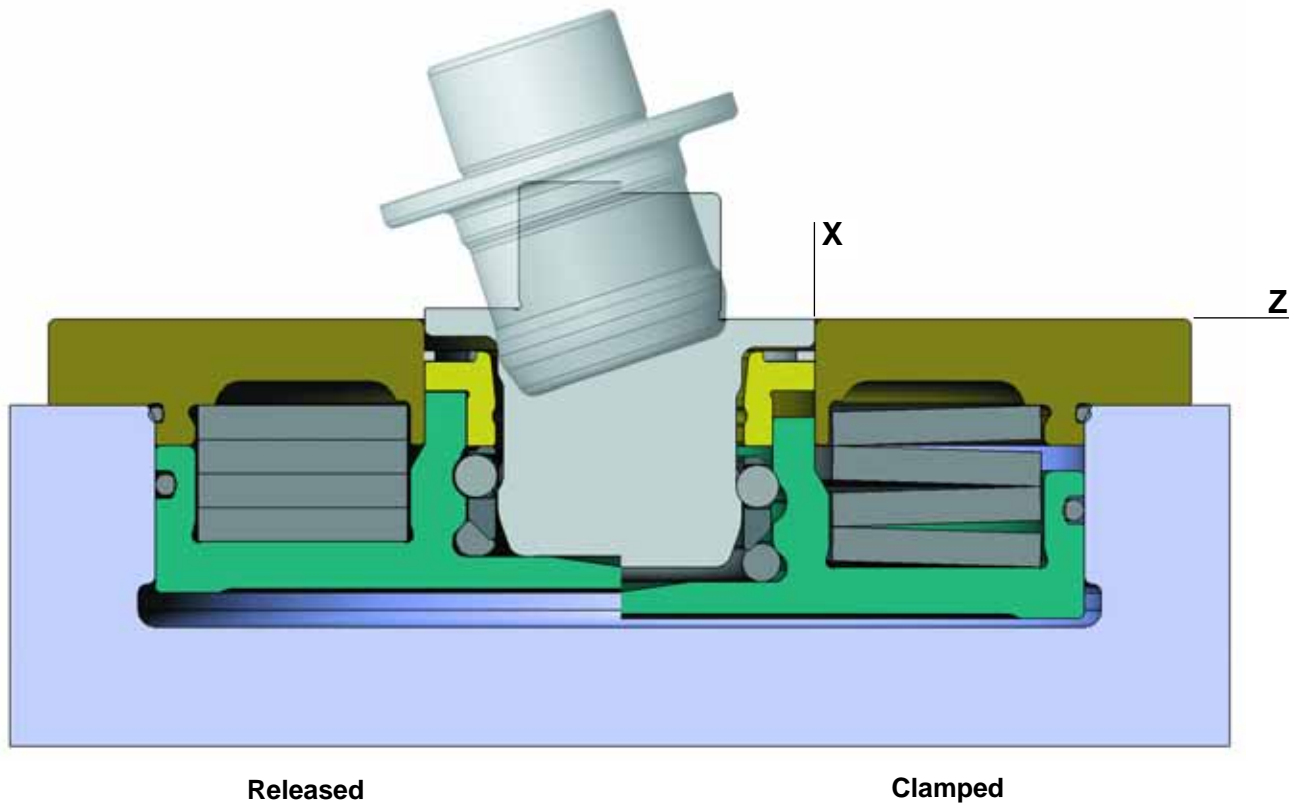
Time savings per shift = 80 minutes

**Time savings** assuming 200 work days per annum = 266 hours

**Convince yourself: make your own calculations or consult our experts.**



Mounting towers with SPEEDY 1000 and SPEEDY 1000 assembly with pipe system.



- The clamping bolt is retracted from the fitting hole. This prevents damage to the fitting hole diameter "X" and to the bearing face "Z".
- No over determination of the support surface / positioning.
- Permanent hold on the insertion nipples (non-locking). This eliminates vibrations, increases the quality of the processed surface and the idle time of the cutting tool.
- Integrated blow-off and coolant outflow.  
Dedicated support and positioning surface.
- Slanted lift off, system size 20kN  
Tilt-proof workpiece / pallet change
- Various checks made by the Mounting system 1000
  - Support check
  - Clamping check
  - Positioning check

**Additional checks upon request.**



## Media ducts – small sized variable designs



Media ducts NW 4



Media duct, integrated in the SPEEDY assembly variant, 4-fold



Assembly example with media duct NW 4



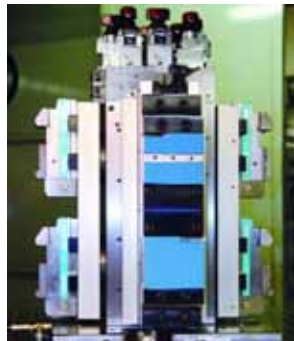
Sweeper 2000 Multi coupling  
Coupling plate can be activated under load

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## "Third Hand" function – easy mounting for vertical clamping positions



Click the palette on



Release the palette



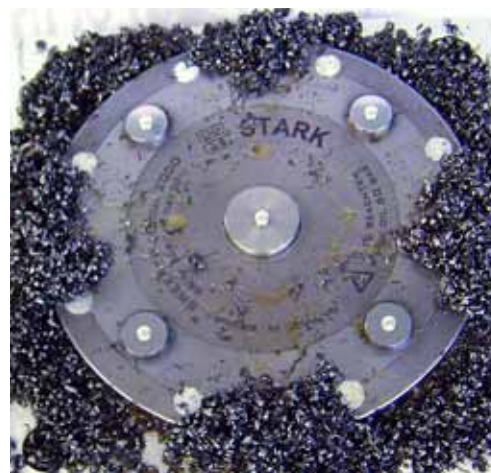
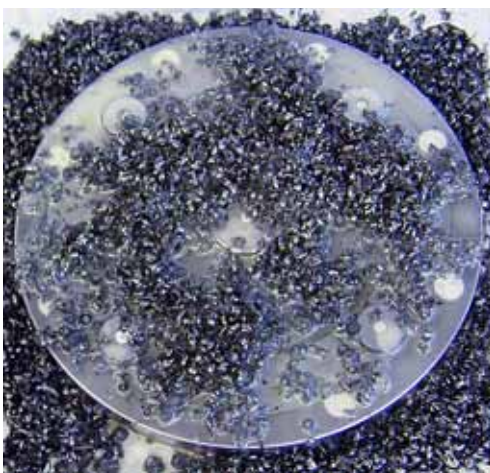
Clamp



Process the workpiece

The "Third hand" function secures the palette against falling off during clamping and also while releasing the fast closing clamp. The palette locks into place effortlessly and is then clamped/released by the pressure booster activated by a foot pedal.

## The Sweeper in automatic processes – solves the problem of swarf



An effective and reliable blow-off system for the supporting and positioning surfaces. Also blows off wet swarf in practical, daily operations.



For mounting data sheets see [www.stark-inc.com](http://www.stark-inc.com)

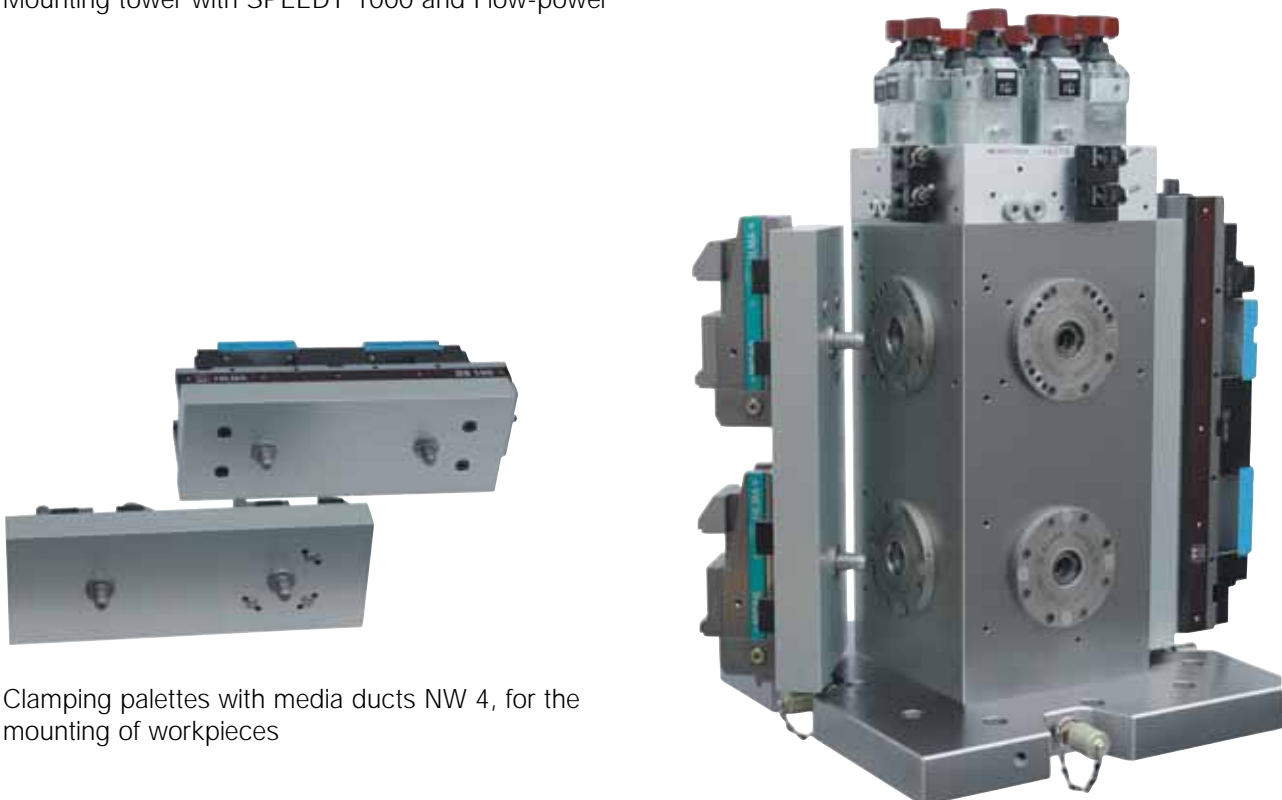
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	SPEEDY 1000 round	SPEEDY 1000 square	SPEEDY 1000 round, with strong insertion springs	SPEEDY 1000 square with strong insertion springs	SPEEDY Twister 1000 round	SPEEDY Compact 1000 (ø68)
INSERTION FORCE	6722 N	6722 N	10000 N	10000 N	6722 N	5300 N
CLAMPING CYCLES * **	100000	100000	20000	20000	> 100000	15000
EXTRACTION FORCE	>10000 N	>10000 N	10000 N	10000 N	10000 N	10000 N
SIDE FORCES max.permitted	7000 N	7000 N	7000 N	7000 N	7000 N	7000 N
PULL OUT TORQUE *	250 Nm	250 Nm	350 Nm	350 Nm	250 Nm	---
TWISTING TORQUE *	---	300 Nm	---	300 Nm	---	---
OPERATING PRESSURE	40 bar	40 bar	80 bar	80 bar	40 bar	180 bar
<b>max. OPERATING PRESSURE</b>	<b>80 bar</b>	<b>80 bar</b>	<b>80 bar</b>	<b>80 bar</b>	<b>80 bar</b>	<b>180 bar</b>
OIL VOLUME	20 cm <sup>3</sup>	20 cm <sup>3</sup>	20 cm <sup>3</sup>	20 cm <sup>3</sup>	21 cm <sup>3</sup>	7 cm <sup>3</sup>
WEIGHT	~ 3 kg	~ 3 kg	~ 3 kg	~ 3 kg	~ 3 kg	1.5 kg
OPERATING TEMPERATURE	10°C to 80° C		10°C to 80° C		10°C to 80° C	
CLAMPING TIME	~ 2 sec.		~ 2 sec.		~ 2 sec.	
RELEASE TIME	~ 2 sec.		~ 2 sec.		~ 2 sec.	
PREPOSITIONING	±3 mm		±3 mm		±3 mm   ±2 mm	
REPEATED ACCURACY	< 0,01		< 0,01		< 0,01	

\* other specifications upon request

\*\* when a certain amount of clamping cycles is reached, the plate spring must be changed

Mounting tower with SPEEDY 1000 and Flow-power



Clamping palettes with media ducts NW 4, for the mounting of workpieces





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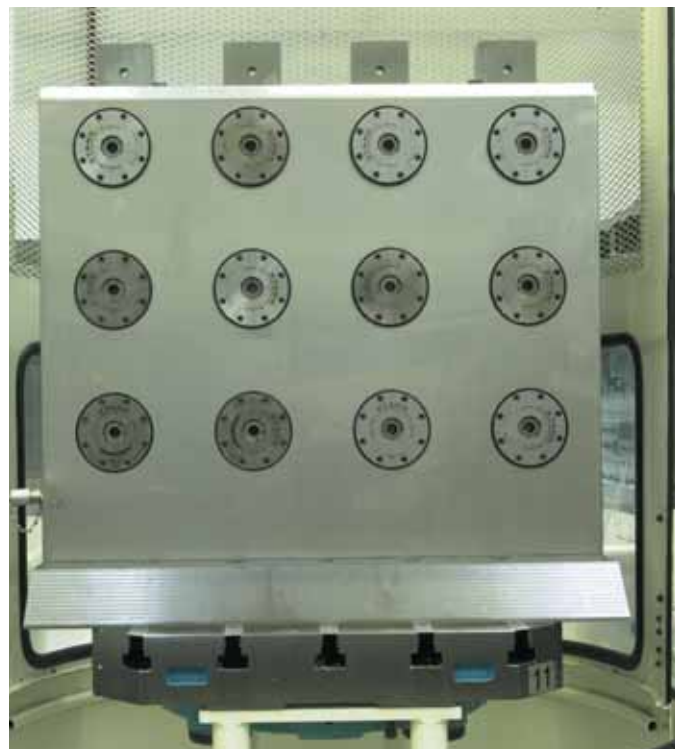
SPEEDY 2000 round	SPEEDY 2000 square	SPEEDY Twister 2000 round	SPEEDY 3000 round	SPEEDY 3000 square
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INSERTION FORCE	20000 N	20000 N	20000 N	30000 N	30000 N
CLAMPING CYCLES* **	40000	40000	40000	40000	40000
EXTRACTION FORCE	10000 N	10000 N	10000 N	15000 N	15000 N
SIDE FORCES max.permitted	9000 N	9000 N	9000 N	10500 N	10500 N
PULL OUT TORQUE *	1000 Nm	1000 Nm	1000 Nm	2000 Nm	2000 Nm
TWISTING TORQUE *	---	800 Nm	---	---	2000 Nm
OPERATING PRESSURE	40 bar	40 bar	40 bar	30 bar	30 bar
<b>max. OPERATING PRESSURE</b>	<b>40 bar</b>	<b>40 bar</b>	<b>40 bar</b>	<b>30 bar</b>	<b>30 bar</b>
OIL VOLUME	38 cm <sup>3</sup>	38 cm <sup>3</sup>	38 cm <sup>3</sup>	124 cm <sup>3</sup>	124 cm <sup>3</sup>
WEIGHT	~ 5 kg	~ 5 kg	~ 5 kg	13 kg	13 kg
OPERATING TEMPERATURE	10°C to 80°C		10°C to 80°C	10°C to 80°C	
CLAMPING TIME	~ 2 sec.		~ 2 sec.	~ 2 sec.	
RELEASE TIME	~ 2 sec.		~ 2 sec.	~ 2 sec.	
PREPOSITIONING	±2.5 mm		±2.5 mm	±4 mm	
REPEATED ACCURACY	< 0,01		< 0,01	< 0,01	

\* other specifications upon request

\*\* when a certain amount of clamping cycles is reached, the plate spring must be changed

Set SPEEDY Record 1000 with cover



01/2007