RSC MODULAR SYSTEM

The system

Whether rigid or with deflection, whether rotating or oscillating, whether on a robot or machining centre, all applications using one single system. This is unique. As the name suggests, our new spindle system is completely modular and can be configured in simple steps for the appropriate application. All components are interchangeable, giving you maximum flexibility. Contact us, we will help you to compile the right package. Further information on use with robots or in a machining centre is given on pages 16-17.

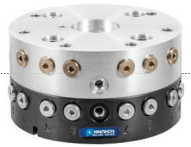
The extension (Order no. 007 013 402)

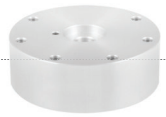
An extension of 150 mm can be used between the coupling and spindle package. This enables the most difficult places to be reached.

Wrench ER40 (Order no. 001 624 812)

The spindle packages

Properties	RSC-S 16000	RSC-S 20000	RSC-S 30000	RSC-S 40000	RSC-S 85000	RSC-S 100000	RSC-S 20000 W90-1	RSC-PLV File
Motor type	Vane motor	Vane motor	Vane motor	Vane motor	Vane motor	Turbine (oil-free)	Vane motor	Piston motor
Order no.	008 010 271	008 012 883	008 006 506	008 012 874	008 013 512	008 013 508	008 012 890	008 013 153
Speed/stroke	16.000 (rpm)	20.000 (rpm)	30.000 (rpm)	40.000 (rpm)	85.000 (rpm)	100.000 (rpm)	20.000 (rpm)	12.000 (rpm)
Collet type	ZG8	ZG7	ZG7	ZG7	ZG5	ZG5	ZG4	4 mm
Air consumption (l/min)	800	600	450	450	200	200	600	300
Power [Watt]	550	350	255	300	58	25	350	-





The attachments

Properties	RSC-A U	RSC-A W	RSC-A HSK-A-100	RSC-A HSK-A-63	RSC-A SK50	RSC-A SK40	RSC-A Sch
Description	Universal adapter	Weldon adapter	HSK-A-100 Adapter	HSK-A-63 Adapter	SK50 Adapter	SK40 Adapter	Schunk quick-change system
Order no.	003 012 895	003 013 505	001 626 014	001 626 015	001 626 017	001 626 016	008 012 881

The spindle packages

Available for selection are straight spindles in different speeds as well as angled versions. An oscillating operation is also available. The spindle packages can be changed in a few simple steps. This enables maintenance intervals or modifications to be carried out inexpensively and simply. A selection of our spindles can be found above. On request spindles can also be supplied in counterclockwise and with an ER collet.

The coupling (Order no. 007 012 878)

The coupling is the heart of the system and is always part of the equipment. It receives the spindle packages and combines them with a connection or deflection. The coupling also enables the system to be supplied with compressed air from the side.

The deflection (Order no. 007 014 003)

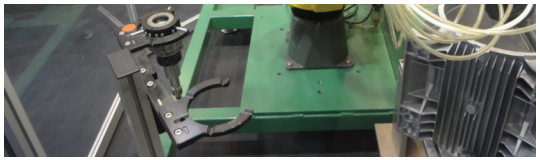
Depending on the application, the system can be made rigid or radially deflected. The deflection unit is mounted in only a few steps between the coupling and connection and immediately converts the rigid system to a flexible system. The deflection force can be adjusted using the adjusting ring between approximately 15 and 120 Newton. The deflection is achieved by internal spring sets. The maximal deflection is approximately 12 mm, depending on the length of the tool.

The attachments

We have the perfect attachments in our programme for many applications. For the machining centres we offer the standard machine tools attachments such as HSK and SK and a Weldon adapter. These mountings also enable compressed air supply through the coolant channel. Universal adapters are available for stationary mounting or mounting to a robot. Also available is the Schunk change system, which allows the spindle to be changed in process.

for robot machining

The main application of the RSC system is the deburring and finishing of components. This is often performed together with an industrial robot. The RSC system is the perfect spindle system for this application. The correct configuration is available for almost all types of finishing. We would be happy to advise you.



Example: Spindle storage and changing system

Example of use: Deburring castings.

Due to the high component tolerances and positional inaccuracy often encountered with cast parts, in many cases it is necessary for the system to have deflection capability. Only then is it still possible to ensure uniform removal. The fixed version can be used where parts are precisely machined and positioning is very accurate. The RSC system can do both. We can assist you in selecting the right configuration.

Example of use: Deburring of fibre composites.

The oscillating spindle insert RSC-PLV with deflection is particularly suited for deburring fibre composites. It is also very capable of performing very fine deburring work on all types of parts. Deburring angled transitions is also part of its capabilities.

Example: Robot mounted system

Mounting options

The RSC system can be used as both a stationary system (the part is guided to the spindle), and also mounted directly on the robot (the easiest method is using our universal adapter RSC-A U). Their small size enables several spindles to be easily mounted directly on the robot, as you can see in our example. The programme also includes a spindle changing system, (RSC-A Sch), which allows you to change the spindles in process.

RSC MODULAR SYSTEM

for CNC machining

Our RSC system can be used in machining centres.

In this application the RSC system provides three distinct advantages:
- The system is capable of speeds (up to 100,000 rpm), which are in excess of the majority of machining centres.
- The deflection capability enables the clean machining of undefined contours.
- They protect your machining centre as it does not need to operate at its speed limit.

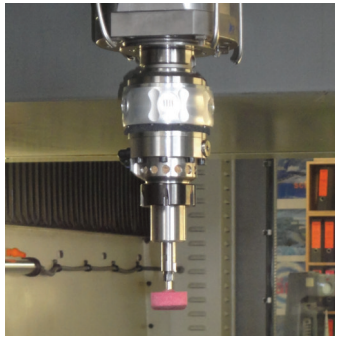
Whether you use a HSK or SK mount, we have the most common types of mounting in our programme. If you need a mounting that we do not currently offer please contact us. The RSC system can be driven with compressed air through the internal coolant system of the CNC machine. There is no requirement for manually installing any hoses or cables.

Applications: Deburring, engraving, polishing, detailed fine milling

The high speed of the spindles enable deburring to be performed quickly and economically. The deflection capability also enables undefined contours to be machined cleanly. In the rigid version the system can be used for engraving and fine detailed milling. Again, the high speeds play an important role. Polishing directly after milling saves significant manual work. Deflection allows the polishing tool to always maintain constant force on the surface. The result is a consistently high surface quality.

Example: RSC system in the magazine of a CNC machine

The system can be placed in the machine magazine of a CNC machine and changes made fully automatically. No manual steps necessary when setting the system to work.



Example: RSC system in a machining centre