



EWS.TechLine

THE NEXT GENERATION



EWS
Tool Technologies
www.ews-tools.de



Seal for maximum safety

The triad of front labyrinth, special sealing elastomer and preload ring are the major parts of this revolutionary sealing technology.

The sophisticated labyrinth seal of the EWS.Butterfly-Seal protects safely against entering of cooling emul-

sion and particles. Due to the contraction effect of the sealing elastomer, the sealing lip closes the gap to the mold interior and ensures maximum protection against entering emulsion during the cooling down phase.

Advantages

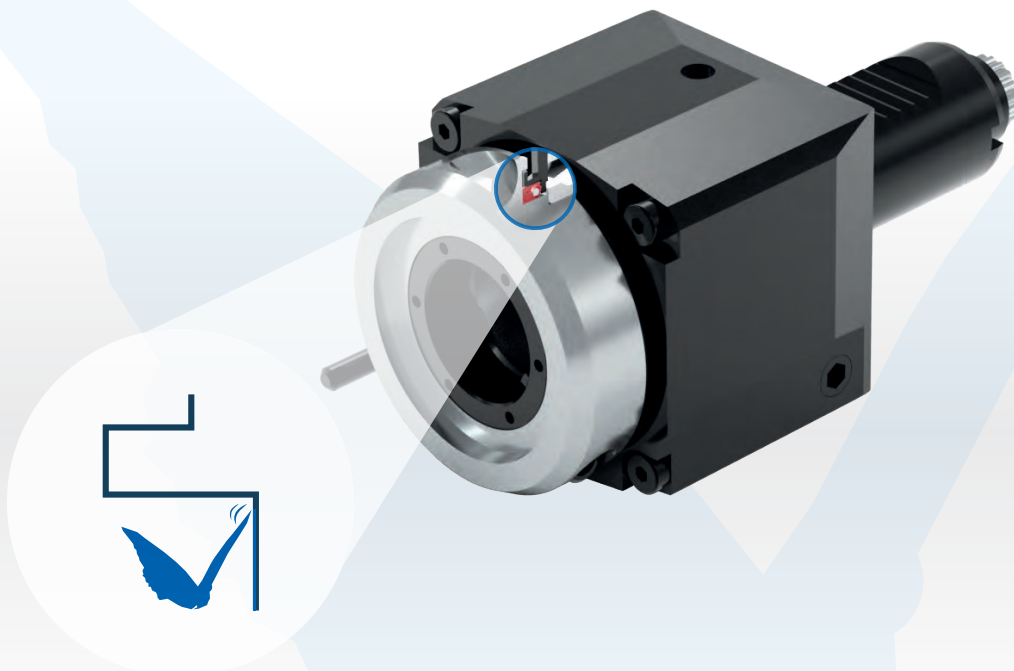
- The labyrinth technology protects against the entry of cooling emulsion and particles
- The speed sensitive seal lift-off during operation and reduces the operating temperature by up to 50%
- The special elastomer seal design allows the closing of the gap to the mold interior, ensuring maximum protection against entering emulsion during the cooling down phase (Δt compensation)
- No spindle damage caused by seal lip friction (50% service cases with common seals)
- If service is necessary, only the seal needs to be changed (lower service cost for user)

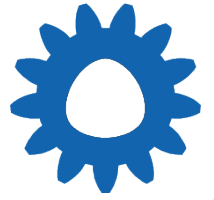


The gasket lip is in contact at low speed or stop – maximum protection



The gasket lip lift-off if speed is rising – gap shows up





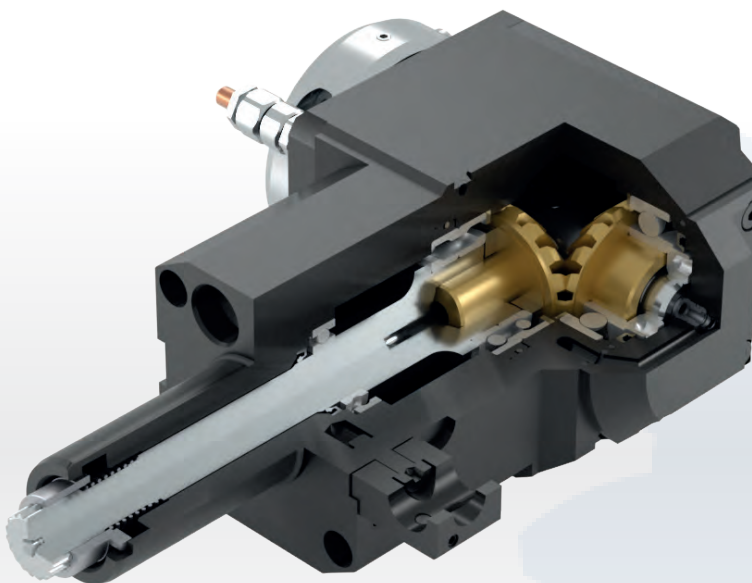
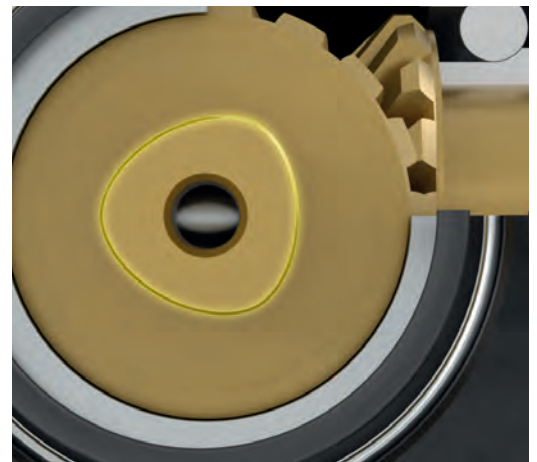
Polygonal shaft-hub connection

For centuries the keyway or spline connection were considered transferring torque in mechanical machines like gearboxes and engines. Due to precise manufacturing technologies that's available now new possibilities for the designer are showing up. EWS relies on

the polygonal shaft-hub connection applied to the new tool holder generation using the advantages out of this EWS.Polygon-Joint.

Advantages

- The balanced geometry reduces the imbalance of the driveline towards zero, which has a positive effect on the vibration of the implemented spindle and therefore on the surface of the operated workpiece
- Due to the optimal kinematic condition an increase in service life of the used cutting tools and the entire tool holder will be realized
- Due to the homogeneous force distribution over the entire circumference, up to 30% more torque can be transmitted with the same dimensions and the impact and fracture resistance of the connections can be increased many times over



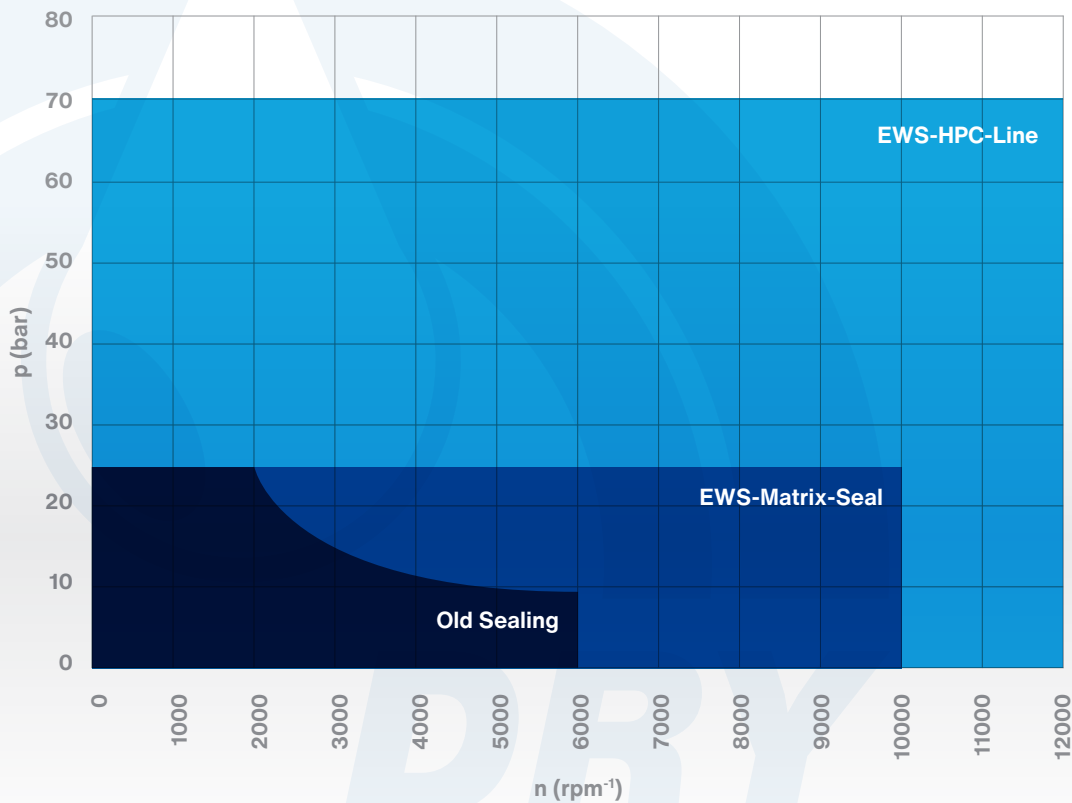
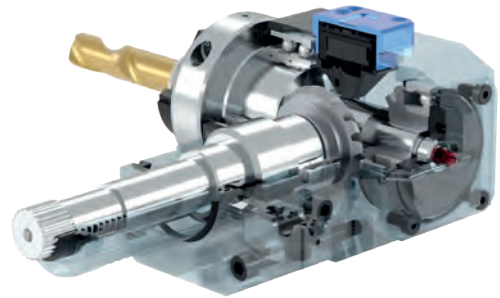
Ceramic seal without limits

Would you rather use high speed in conjunction with low coolant pressure or high coolant pressure with low speed? The time when a decision had to be made is over! A paradigm change was achieved with the newly developed sealing technology – the EWS.HPC-Line.

The seal system, that is based on ceramic is capable of covering coolant pressure of at least 70 bar at up to 12.000 rpm. Added to this revolutionary development is the unrestricted dry-run capability!

Advantages

- For driven tools with axial- and radial- rotary joint!
- High speed up to 12.000 rpm.
- Up to 70 bar coolant pressure
- For minimum quantity lubrication (MQL)
- Full dry-run ability with no limitation
- Long life time





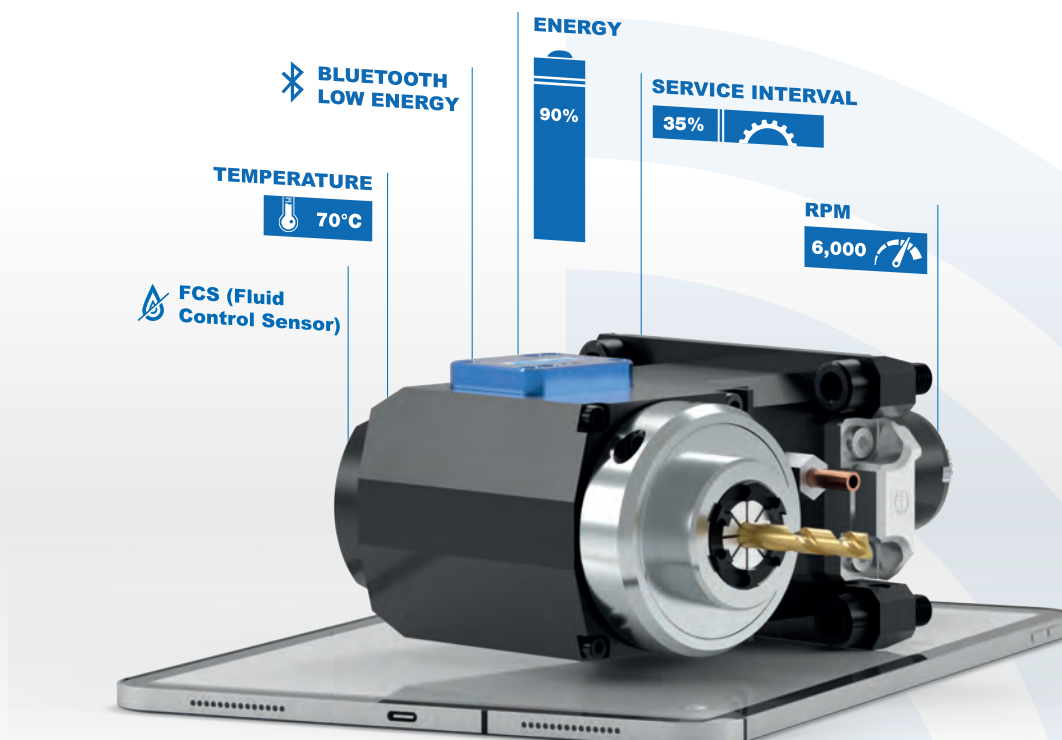
The digital view for capturing kinematic processes

EWS.CyberCon4 enters the age of digital transformation. The digital concept is also open source to competitors and cooperation partner in order to offer users as much standard as possible. The EWS.CyberCon4 supplies data that can be transferred to a mobile device by using an APP-application or to a machine controller for further use.

EWS.CyberCon4 is a major part of the entire IoT concept of the EWS Group within the Industry 4.0 environment.

Advantages

- Avoid costly machine downtime thanks to intelligent tooling system
- Dynamic determination of load-dependent maintenance cycles
- Sensor technology is open for communication with various external interfaces
- Detection of sealing failure through 'FCS' – Fluid-Control-Sensor
- Internal and external data management
- Sensor based on BLE4.1 technology (Bluetooth Low Energy)





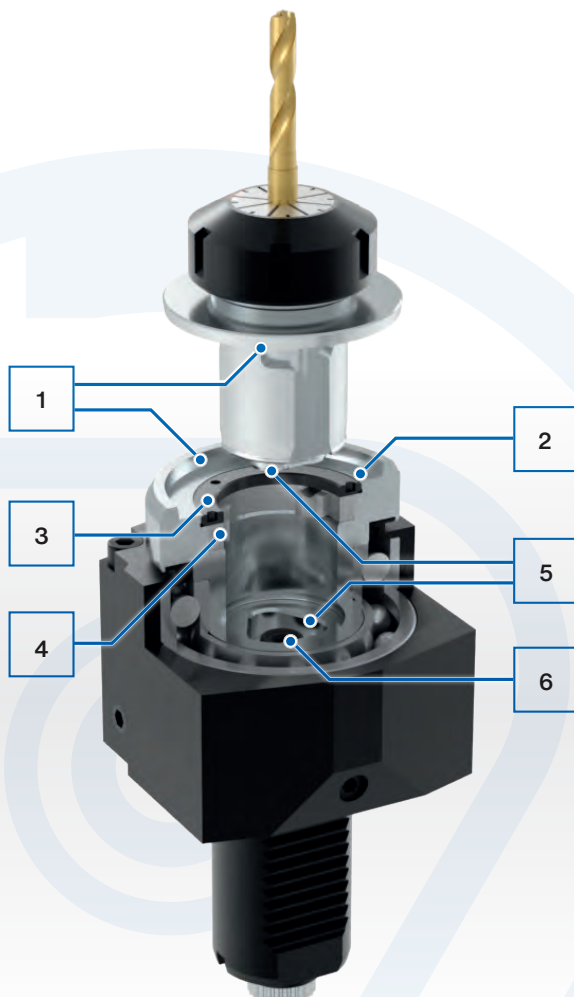
Tool change in just 20 seconds

With EWS.Varia VX you can change tools faster than your competitors and you can benefit from optimum concentricity thanks to axial, transverse force-free three-point clamping. Last but not least, you are also

ahead in terms of work safety thanks to the hazard-free, real one-hand operation outside the cutting areas that helps to health protection of the operators.

Advantages

- Tool change within a few second
- Shorten the setup-time including tool preparation
- no risk of injury due to laterally mounted operating screw
- no dangerous loosening of a nut or bolt in the cutting area
- mechanically loaded tool ejection, no sticking
- save torque transmission through polygon fit
- internal coolant supply with high pressure up to 70 bar
- optimal concentricity due to superimposed cone face contact system



1. Tapered fit for optimum runout
2. Dual contact
3. Threaded ring
4. Clamping ring with integrated „draw in“ and push out“ function
5. Polygon for high torque transmission
6. 6.Diametrical membrane seal for high coolant pressure up to 70 bar



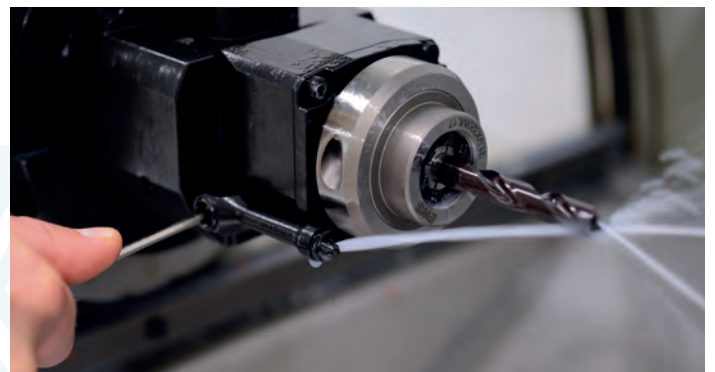
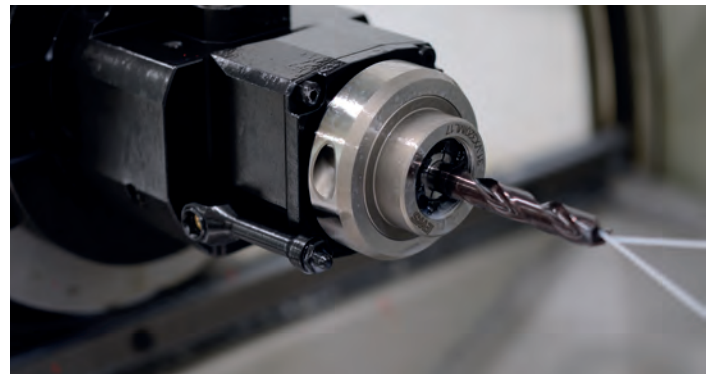
Universal coolant management system

Easier handling means more process time savings. The EWS.coolant management system allows you to open and close the external coolant outlets for individual flow

adjustments with just one turn. Axial and radial versions are available. The EWS.coolant management system is universal, so you can adjust the coolant flow as needed.

Advantages

- Open & close the external coolant outlet only with one turn with hexagon wrench
- Universally applicable on all tool holder systems
- Axial & radial version are available
- The flow of the coolant is individual adjustable
- Saving of coolant
- Time saving due to simple handling



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