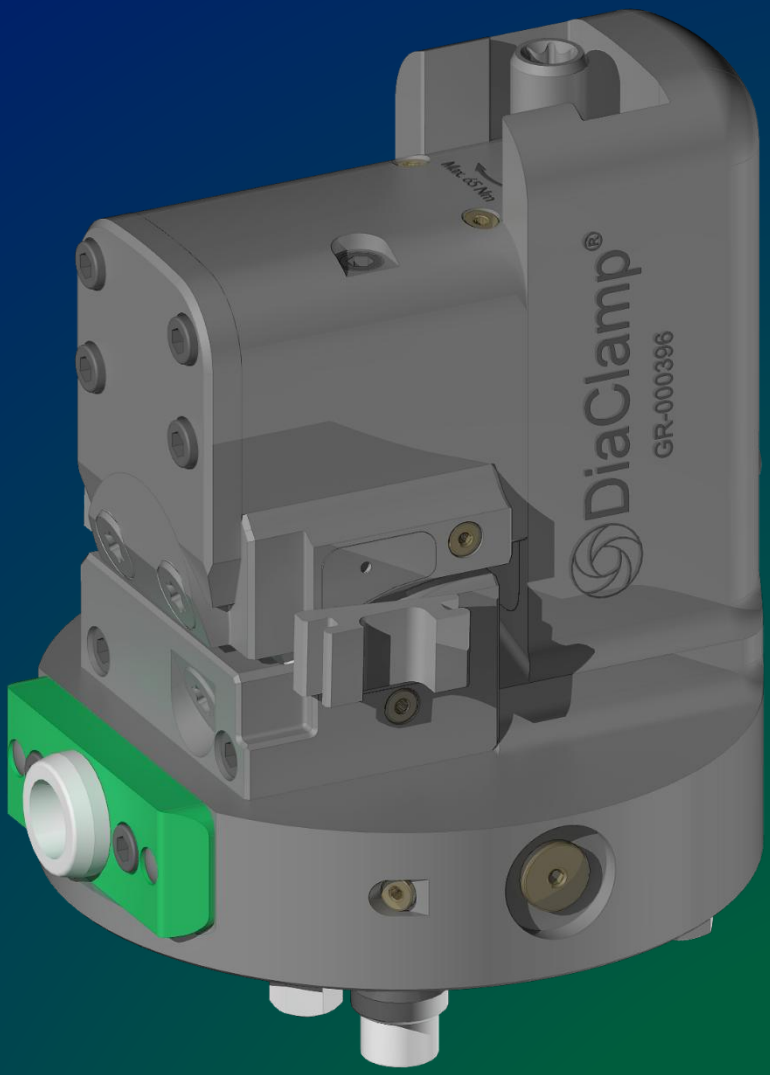
DiaClamp®

IJSPEERT INNOVATIVE TECHNOLOGIES



DiaClamp®

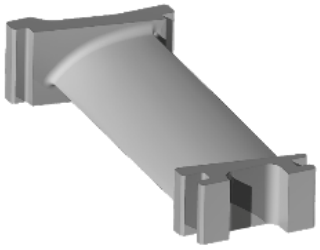
Workpiece clamping technology redefined

Handout 2025

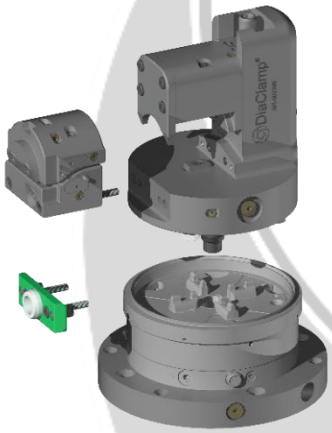
For workpieces that demand mor than the standard

DiaClamp® - Clamping when geometry becomes a challenge

DiaClamp® is the solution for components beyond the standard: free-form surfaces, delicate contours, thin-walled blades and vanes, and sensitive surfaces. Used in aerospace, optics, medical technology, energy technology and robotics, DiaClamp® enables reliable machining on 3- and 5-axis machines when high standards of quality and process reliability are required.



Diaphragm disc stack



Surface contact instead of point loading – precise, gentle, reproducible

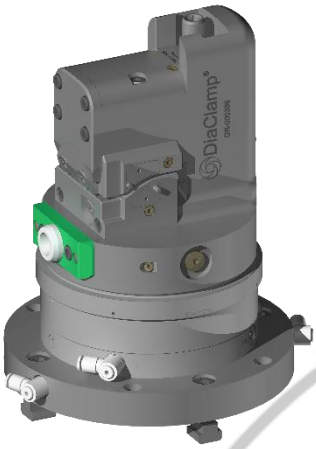
The patented Diaphragma disc pack adapts to the workpiece contour and distributes forces over a large area. The result: secure positioning without marks, reproducible positions even in automated operation, and access for measurement on the component whilst clamped. Ideal for complex free-form shapes and sensitive surfaces.

Interchangeable cassettes and variant management

One system, different workpieces – changeover in minutes

The interchangeable cassettes provide flexibility in series production: quick loading, defined stop points and a perfect fit for the diaphragm disc packs. Extendable roof supports stabilise slender workpiece sections; integrated air channels clean the clamping surfaces, ensuring clean interfaces with every loading.

Base body, construction and drive



Strength, rigidity and protection: the basis for consistently high machining quality

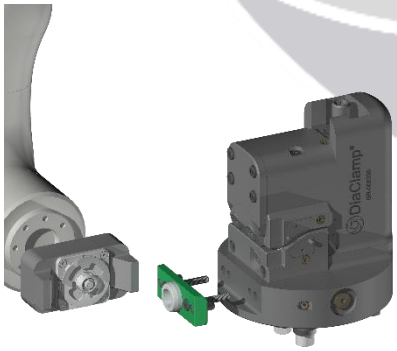
The enclosed design with a robust spindle drive ensures a durable, low maintenance construction Sealed guides reduce the ingress of chips and coolant The rigid structure ensures smooth machining and promotes uniform surfaces and tolerance compliance even under demanding cutting conditions.

Zero-point integration and media feed-through

Seamlessly integrated – precise interface with the machine

DiaClamp® can be mounted using standard industry zero-point clamping systems. This enables quick changes, clear references and scalable, varied clamping configurations. Automatically coupling air lines reliably supply the functions; the defined interface supports clear, safe set-up processes.

Workpiece loading



24/7 loading – compliant, robust, low-collision

Designed for unmanned shifts: robot load workpieces continuously, whilst the system automatically changes the DiaClamp®. Geometries and gripping points are designed for easy automation. The design complies with the requirements of MVO 2023/1230/EU – for legally compliant, reliable series automation in continuous operation.

Economic benefits and impact on key performance indicators

More parts, less downtime – productivity that pays off

DiaClamp® reduces set-up times, increases spindle runtime and sustainably lowers unit costs. The system boosts OEE through predictable processes, minimises scrap and scales efficiently with increasing batch sizes. The result: maximum machine utilisation with minimal staffing requirements, today and in the future.

Thanks DiaClamp® your production will become more efficient and cost effective, both now and in the future.

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Find out more at www.diaclamp.ch

Note on patenting

The technical concepts, products or processes described in this document may be patentable in whole or in part. A review of intellectual property rights is ongoing. The disclosure or use of these ideas without the written consent of the rights holder is not permitted.

Legal notice

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