EASYLOCK zero point clamping system

Palletising systems such as the EASYLOCK zero point clamping system from RÖHM achieve a considerable productivity increase. This modular system meets the requirements of customer-specific solutions with the best-possible utilisation of machine capacity. Although the machine tool had to stop for the set-up time until now, the workpiece can now be clamped and positioned on the pallet outside the machine tool. The set-up time is now only limited to loading and unloading the pallet, which happens in seconds. If multiple manufacturing processes are necessary for machining, then the pallet including the workpiece can be used without zero point loss. Due to the robust and rust-resistant construction, EASYLOCK zero point clamping can be used throughout, starting with machining up to the measuring machines.

THE BENEFITS AT A GLANCE

INCREASED PRODUCTIVITY

- Free machine capacity through reduction of set-up time by up to 90%
- Very rapid change of workpiece and clamping fixtures on tilt-free clamping and positioning with long insert

HIGH PRECISION

- Repeat accurancy of < 0.005 mm thanks to precision balls
- Positive-locking self-inhibition unaffected by tensile and lateral forces

HIGHEST MODULARITY

- Modular base carrier design variants for maximum flexibility
- Flexible extension options

The pin system

HOW IT WORKS

With the RÖHM EASYLOCK zero point clamping system, the clamping pin is the interface between the machine table and the workpiece or fixture. The exact positioning guarantees secure clamping. At the same time the resulting machining forces are transferred via the clamping pin to the pressure cup. The high-precision pressure cups of the EASYLOCK system ensure an absolutely secure hold of the workpiece or fixture. The high locking and holding forces make the system suitable for all kinds of use.

Machining with EASYLOCK?

EASYLOCK is ideally suited to all machining processes like grinding, milling, drilling and measuring.

What is meant by holding force?

Holding force is the force at which the pallet still rests securely on the clamping system. This force must not be exceeded during machining.

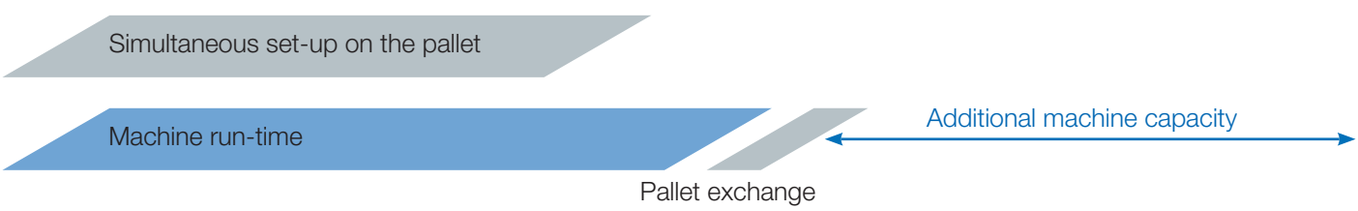
What is meant by repeat accuracy?

The repeat accuracy gives the tolerance range for the recorded workpiece references when the workpiece is removed and subsequently reclamped. The repeat accuracy of the EASYLOCK system is around < 0.005 mm.

REDUCED SET-UP TIMES BY UP TO 90%

Without palletising system

With EASYLOCK zero point clamping system



EASYLOCK zero point clamping system

Palletising and clamping tools from a single source

THE SYSTEM SOLUTION

As a system supplier, RÖHM offers high quality clamping tools as well as the appropriate palleting solutions with zero point clamping. Coordinated with one another, base carriers and universal pallets support a wide range of combination options together with RÖHM vices, lathe chucks and collet chucks as well as with pneumatically or hydraulically operated chucks and centric vices. The EASYLOCK base carriers can be provided with a variety of options on a modular basis.

BASE CARRIER EASYLOCK

+ optional with position sensing and cleaning function*
+ optional with indexing
+ optional with release control*
+ optional with media feed-through*

INDEXING:
Securing of the individual pallet against turning, so ensuring exact positioning every 90°.

POSITION SENSING INCLUDING CLEANING FUNCTION:
This option includes a ventilation system for cleaning chips and monitoring the contact face.

MEDIA FEED-THROUGH:
Media transmission through the pallet, e.g. for activation of the pneumatically/hydraulically operated centric vices.

RELEASE CONTROL:
Based on automated processes, this communicates to the robot that the insertion pins of the pallet have come loose.

* Further accessories are required (not included in the scope of delivery)

EASYLOCK zero point clamping system

The right pallet makes the difference

PALLET VICES

suitable for NC-Compact vices RKE, RKE-LV, RZM, RKD-M, RKZ-M

PALLET MANUAL CHUCKS

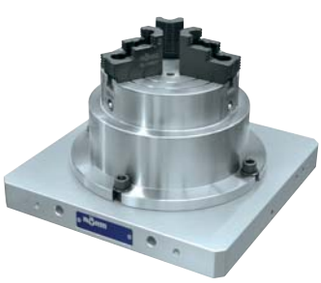
suitable for DURO-T / DURO-TA chucks, CAPTIS-M collet chucks

PALLET PNEUMATIC CENTRIC VICE

suitable for centric vice KZS-P / KZS-PG

PALLET PNEUMATIC CHUCK

suitable for chuck SSP



EASYLOCK zero point clamping system

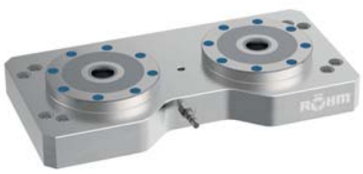
Technical data - standard carriers

1 PALLET CARRIER

ID	Operation	Diameter	Dimensions	Inside micrometer	Options
1314883	hydraulic	112	200x200x58	-	with indexing
1314882	pneumatic	112	200x200x58	-	with indexing
1313929	hydraulic	138	200x200x58	-	with indexing
1313928	pneumatic	138	200x200x58	-	with indexing

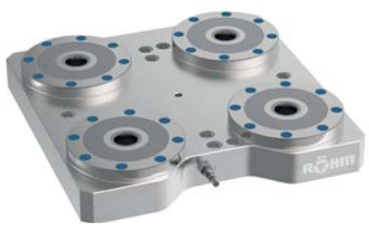
2 PALLET CARRIER

ID	Operation	Diameter	Dimensions	Inside micrometer	Options
1314885	hydraulic	112	200x400x58	200	-
1314884	pneumatic	112	200x400x58	200	-
1313931	hydraulic	138	200x400x58	200	-
1313930	pneumatic	138	200x400x58	200	-



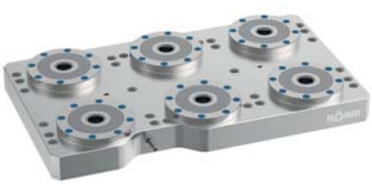
4 PALLET CARRIER

ID	Operation	Diameter	Dimensions	Inside micrometer	Options
1314887	hydraulic	112	350x350x58	200	-
1314886	pneumatic	112	350x350x58	200	-
1313933	hydraulic	138	350x350x58	200	-
1313932	pneumatic	138	350x350x58	200	-



6 PALLET CARRIER

ID	Operation	Diameter	Dimensions	Inside micrometer	Options
1313940	hydraulic	112	350x600x58	200	-
1352604	pneumatic	112	350x600x58	200	-
1313935	hydraulic	138	350x600x64	200	-
1313934	pneumatic	138	350x600x64	200	-



Further sizes on request

Technical data - Pallet

1 PALETT

ID	Diameter	Dimensions
1313941	112	200x200x40
1313936	138	200x200x40

2 PALETT

ID	Diameter	Dimensions
1313942	112	200x400x40
1313937	138	200x400x40

4 PALETT

ID	Diameter	Dimensions
1313943	112	350x350x40
1313938	138	350x350x40

6 PALETT

ID	Diameter	Dimensions
1313944	112	350x600x40
1313939	138	350x600x40

Further sizes on request