

NEW



EASYLOCK ZERO POINT CLAMPING SYSTEM

Palletising and clamping tools from a single source

RÖHM
driven by technology

EASYLOCK ZERO POINT CLAMPING SYSTEM

Clamping the workpiece can be a time-consuming and cost-intensive factor especially when manufacturing individual parts and small series. This requires effective strategies to increase productivity through reduced set-up times.

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 accuracy 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?

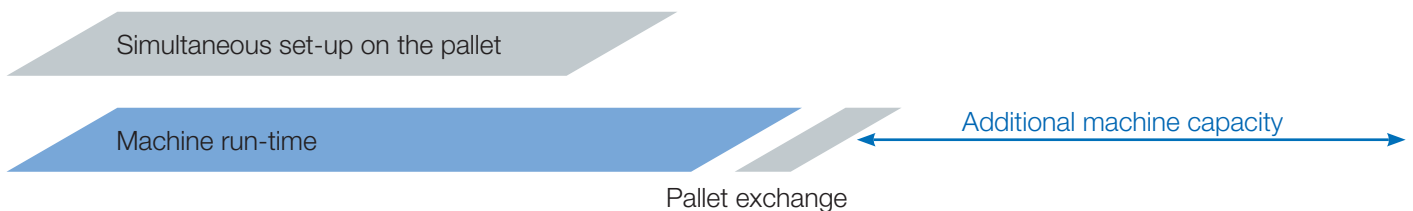
The repeat accuracy gives the tolerance range for the recorded workpiece references when the workpiece is removed and subsequently reclamped. The repeat accuracy of the EASYLOCK system is around < 0.005 mm.

REDUCED SET-UP TIMES BY UP TO 90%

Without palletising system



With EASYLOCK zero point clamping system



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°.

MEDIA FEED-THROUGH:

Media transmission through the pallet, e.g. for activation of the pneumatically/hydraulically operated centric vices.

POSITION SENSING INCLUDING CLEANING FUNCTION:

This option includes a ventilation system for cleaning chips and monitoring the contact face.

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)

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



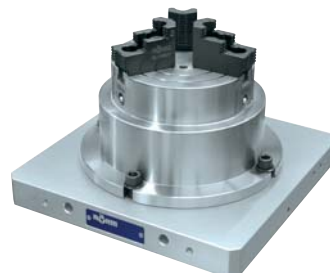
PALLET PNEUMATIC CENTRIC VICE

suitable for centric vice KZS-P / KZS-PG



PALLET PNEUMATIC CHUCK

suitable for chuck SSP



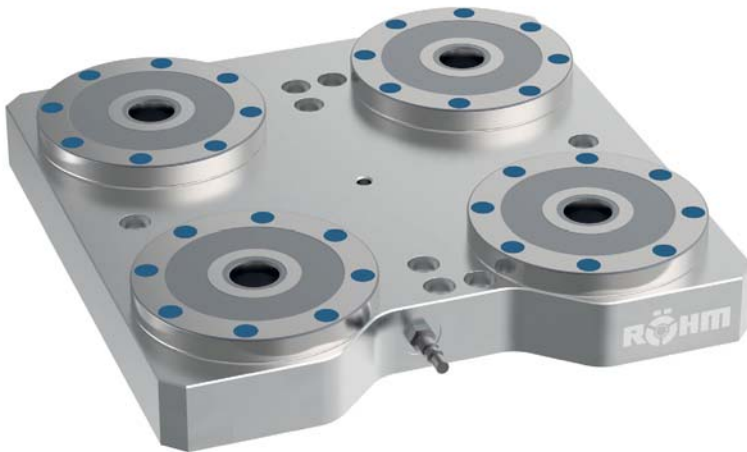
EASYLOCK CARRIERS

EASYLOCK

1, 2, 4 and 6 pallet carriers as standard

Dimensions vary in dependence on clamping unit

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



Diameter	Operation	Max. holding force kN ¹⁾	Opening pressure min. bar	Repeat accuracy	Position sensing incl. cleaning function*	Release control*	Indexing	Media feed-through*
Ø 62	pneumatic	1	6	< 0.005 mm	optional	optional	optional	optional
Ø 85	pneumatic	7	6	< 0.005 mm	optional	optional	optional	optional
Ø 112 (10 kN)	pneumatic	10	6	< 0.005 mm	optional	optional	optional	optional
Ø 112	pneumatic	17	8*	< 0.005 mm	optional	optional	optional	optional
Ø 138	pneumatic	16	6	< 0.005 mm	optional	optional	optional	optional

¹⁾ Holding force is the force at which the pallet still rests securely on the clamping system

Diameter	Operation	Max. holding force kN ¹⁾	Opening pressure min. bar	Repeat accuracy	Position sensing incl. cleaning function*	Release control*	Indexing	Media feed-through*
Ø 62	hydraulic	1,6	30	< 0.005 mm	optional	optional	optional	optional
Ø 85	hydraulic	12	30	< 0.005 mm	optional	optional	optional	optional
Ø 112	hydraulic	20	30	< 0.005 mm	optional	optional	optional	optional
Ø 138	hydraulic	25	30	< 0.005 mm	optional	optional	optional	optional

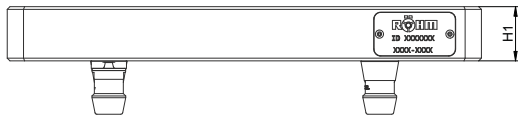
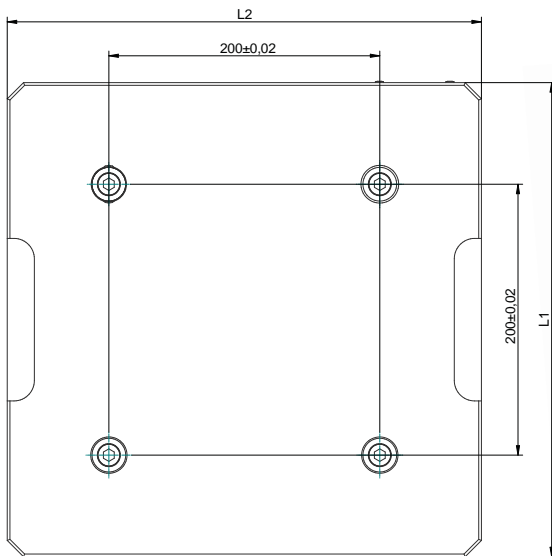
¹⁾ Holding force is the force at which the pallet still rests securely on the clamping system

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

UNIVERSAL PALLET

UNIVERSAL PALLET FOR INDIVIDUAL ADAPTATION

for the direct set-up of a workpiece or for individual modification



Pallets	
Material	High-strength aluminium
Reference elements	4-pin for EASYLOCK
Possible to automate	Yes
Applications	milling, grinding, drilling, measuring
Inside micrometer R mm	200
Length L2 mm	350
Width L1 mm	350
Height H1 mm	40

Further pallet sizes on request

We would be happy to adapt your pallet to other clamping devices or zero point clamping systems of other manufacturers. Please contact us!

TECHNICAL DATA - CLAMPING UNIT

ID	Operation	Diameter	Options
1314553	hydraulic	62	-
1314555	hydraulic	62	with position sensing and cleaning function
1353322	hydraulic	62	with indexing
1352611	hydraulic	62	with position sensing, cleaning function and indexing
1353324	hydraulic	62	with release control and indexing
1314557	hydraulic	62	with release control
1314559	hydraulic	62	with position sensing, cleaning function and release control
1352613	hydraulic	62	with position sensing, cleaning function, indexing and release control
1314554	pneumatic	62	-
1314556	pneumatic	62	with position sensing and cleaning function
1353323	pneumatic	62	with indexing
1352612	pneumatic	62	with position sensing, cleaning function and indexing
1353325	pneumatic	62	with release control and indexing
1314558	pneumatic	62	with release control
1314560	pneumatic	62	with position sensing, cleaning function and release control
1352614	pneumatic	62	with position sensing, cleaning function, indexing and release control
1314561	hydraulic	85	-
1314563	hydraulic	85	with position sensing and cleaning function
1353326	hydraulic	85	with indexing
1352692	hydraulic	85	with position sensing, cleaning function and indexing
1353328	hydraulic	85	with release control and indexing
1314565	hydraulic	85	with release control
1314567	hydraulic	85	with position sensing, cleaning function and release control
1352685	hydraulic	85	with position sensing, cleaning function, indexing and release control
1314562	pneumatic	85	-
1314564	pneumatic	85	with position sensing and cleaning function
1353327	pneumatic	85	with indexing
1352693	pneumatic	85	with position sensing, cleaning function and indexing
1353329	pneumatic	85	with release control and indexing
1314566	pneumatic	85	with release control
1314568	pneumatic	85	with position sensing, cleaning function and release control
1352686	pneumatic	85	with position sensing, cleaning function, indexing and release control
1352605	pneumatic	112 (10 kN)	-
1352606	pneumatic	112 (10 kN)	with position sensing and cleaning function
1353316	pneumatic	112 (10 kN)	with indexing
1352607	pneumatic	112 (10 kN)	with position sensing, cleaning function and indexing
1353318	pneumatic	112 (10 kN)	with release control and indexing
1352608	pneumatic	112 (10 kN)	with release control
1352609	pneumatic	112 (10 kN)	with position sensing, cleaning function and release control
1352610	pneumatic	112 (10 kN)	with position sensing, cleaning function, indexing and release control
1352615	hydraulic	112	-
1352617	hydraulic	112	with position sensing and cleaning function
1353330	hydraulic	112	with indexing
1352619	hydraulic	112	with position sensing, cleaning function and indexing
1353332	hydraulic	112	with release control and indexing
1352621	hydraulic	112	with release control
1352623	hydraulic	112	with position sensing, cleaning function and release control
1352625	hydraulic	112	with position sensing, cleaning function, indexing and release control
1352616	pneumatic	112	-
1352618	pneumatic	112	with position sensing and cleaning function
1353331	pneumatic	112	with indexing
1352620	pneumatic	112	with position sensing, cleaning function and indexing
1353333	pneumatic	112	with release control and indexing
1352622	pneumatic	112	with release control
1352624	pneumatic	112	with position sensing, cleaning function and release control
1352626	pneumatic	112	with position sensing, cleaning function, indexing and release control
1313915	hydraulic	138	-
1313917	hydraulic	138	with position sensing and cleaning function
1353334	hydraulic	138	with indexing
1352696	hydraulic	138	with position sensing, cleaning function and indexing
1314573	hydraulic	138	with release control
1313916	pneumatic	138	-
1313918	pneumatic	138	with position sensing and cleaning function
1353335	pneumatic	138	with indexing
1352697	pneumatic	138	with position sensing, cleaning function and indexing
1353336	pneumatic	138	with release control and indexing
1314574	pneumatic	138	with release control
1314576	pneumatic	138	with position sensing, cleaning function and release control
1352688	pneumatic	138	with position sensing, cleaning function, indexing and release control

TECHNICAL DATA - STANDARD CARRIERS

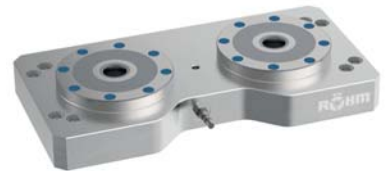
1 PALLET CARRIER

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



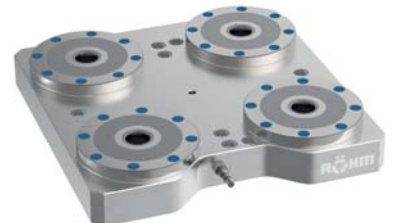
2 PALLET CARRIER

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	-



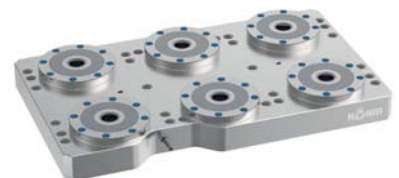
4 PALLET CARRIER

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

TECHNICAL DATA - PINS AND COVER

PINS

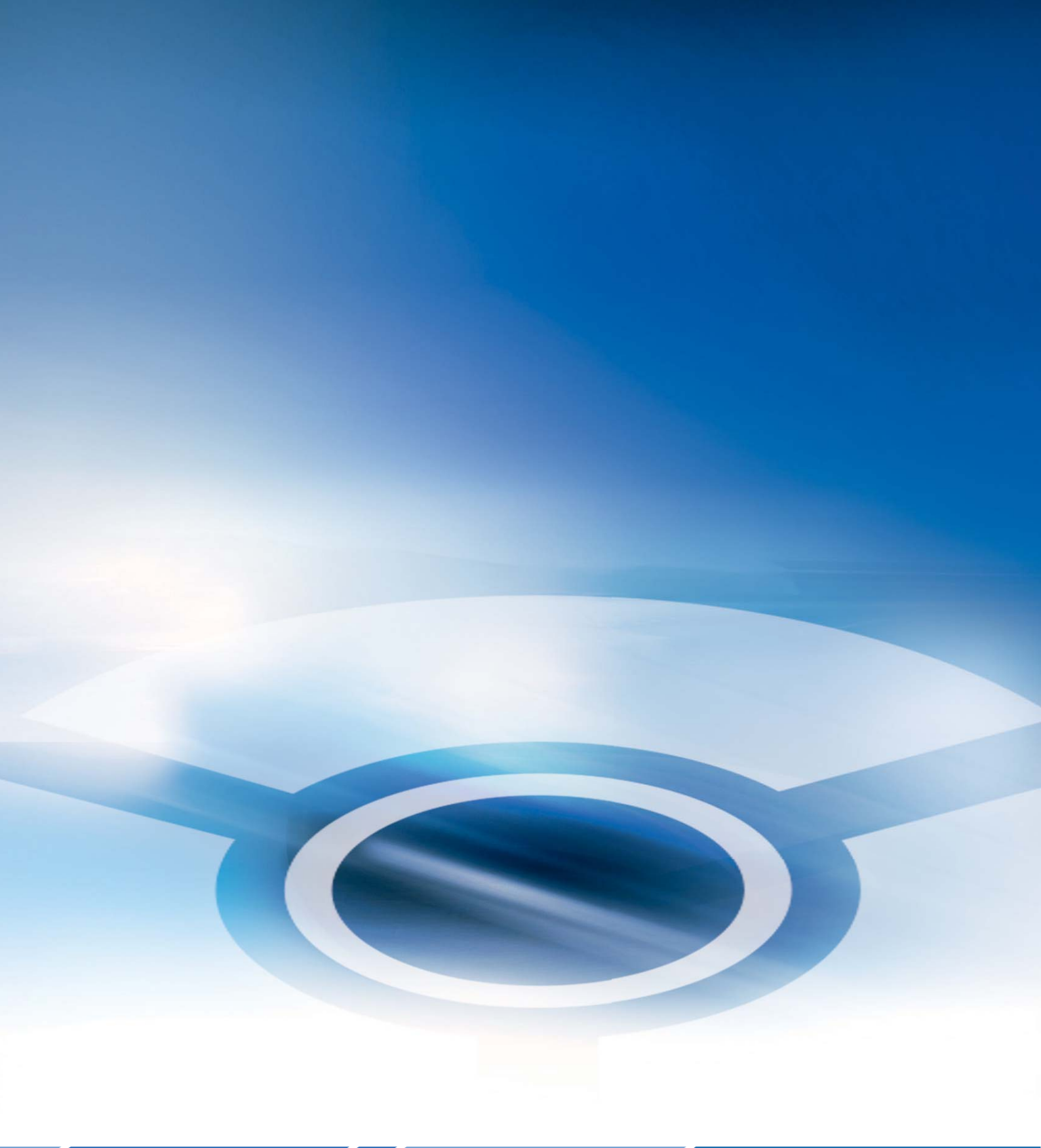
ID	Diameter	
1313919	62	Pull pin
1313920	62	Round pin
1313921	62	Diamond pin
1313925	85	Pull pin
1313926	85	Round pin
1313927	85	Diamond pin
1352627	112 (10 kN)	Pull pin
1352628	112 (10 kN)	Round pin
1352629	112 (10 kN)	Diamond pin
1352632	112	Pull pin
1352633	112	Round pin
1352634	112	Diamond pin
1313925	138	Pull pin
1313926	138	Round pin
1313927	138	Diamond pin



COVER

ID	Diameter
1353339	62
1353340	85
1353342	112 - pn. (10 kN)
1353343	112
1353344	138





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