

NEW



# DUPLEX CLAMPING SYSTEM

Combined internal and external clamping  
in one clamping tool

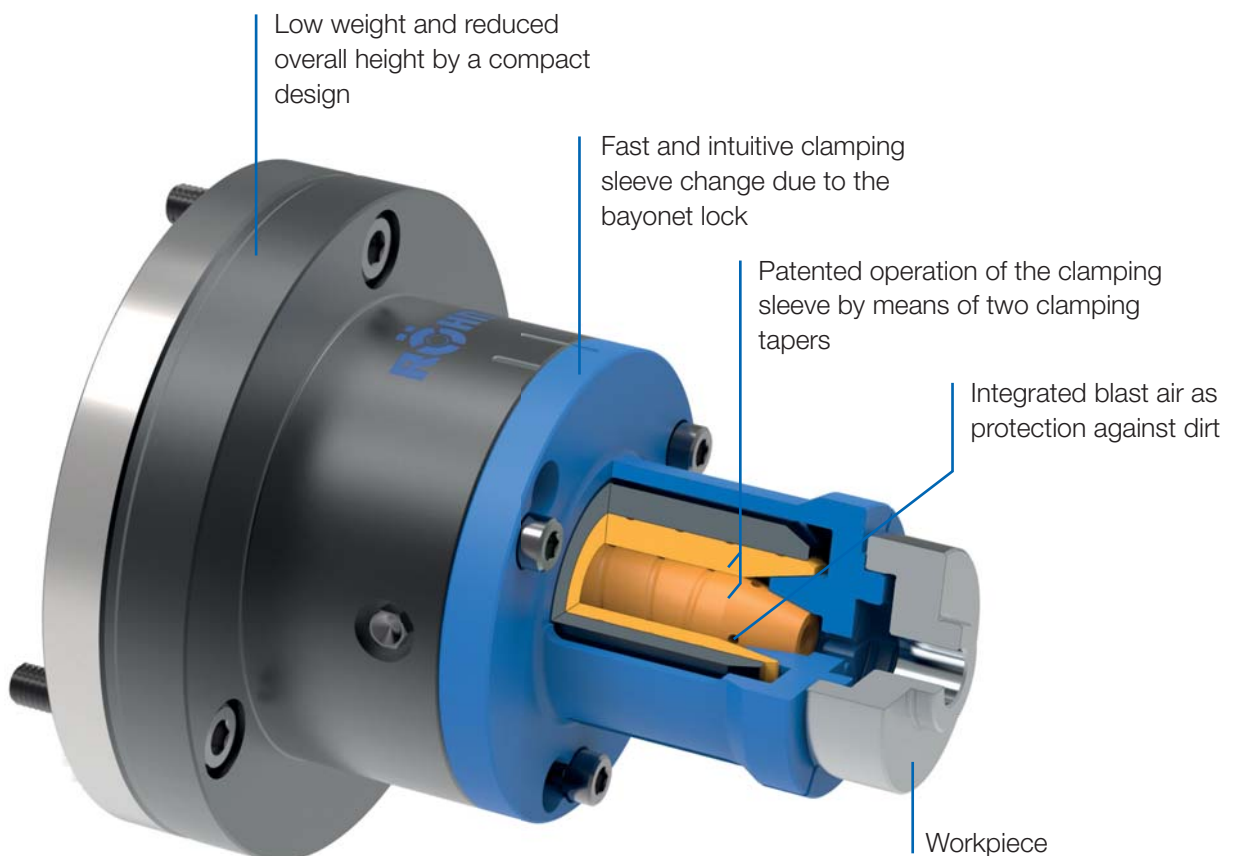
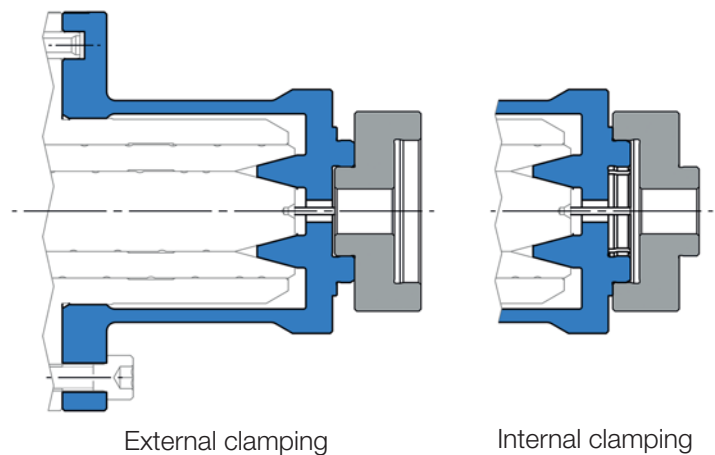
**RÖHM**  
driven by technology

# DUPLEX CLAMPING SYSTEM

The new DUPLEX clamping system combines mandrel and collet chuck in a single clamping tool, thereby offering both internal and external clamping. In addition to eliminate time-consuming and expensive changeover of clamping tools, the DUPLEX system offers impressively precise and deformation-free clamping with a radial and axial run-out precision of 0.01 mm.

When workpieces are machined with lathes, they must often be machined both inside and outside. Until now, this involved two operations that either had to be done on two machines or the entire clamping tool had to be changed, which cost time and money.

With the new DUPLEX clamping system, RÖHM engineers succeeded in combining a mandrel and a collet chuck in one clamping tool. With the DUPLEX clamping system, the change from internal to external clamping can ideally be made without conversion or within a few seconds by changing the clamping sleeve using a bayonet lock. The clamping sleeve is indexed on the mandrel to achieve an accurate positioning and repeatability.



# BENEFITS AT A GLANCE

## GREATEST ECONOMY

- ⊕ Elimination of time and cost-intensive changeover of clamping tools means due to internal and external clamping in just one clamping tool
- ⊕ Fast and intuitive clamping sleeve change due to the bayonet lock

## GREATEST PRECISION

- ⊕ Concentricity and axial run-out precision of 0.01 mm for greatest repeatability
- ⊕ No loss of precision since there is no need to change the clamping taper

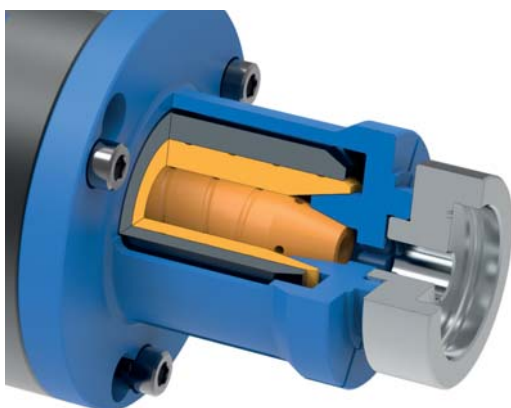
## DEFORMATION-FREE & SENSITIVE CLAMPING

- ⊕ Exact adjustment of clamping range (stroke limitation) for deformation-free clamping
- ⊕ Axially fixed clamping sleeve prevents damage to the workpiece surface
- ⊕ Uniform force distribution by enclosing clamping

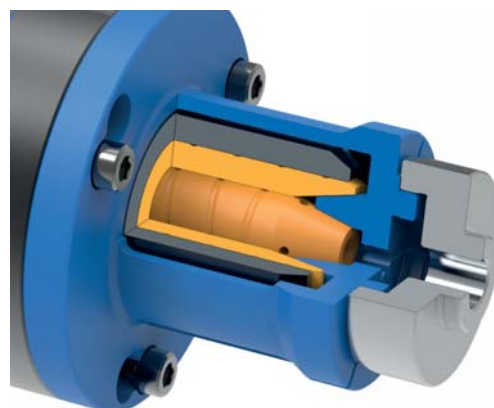
# ONE CLAMPING TOOL – TWO APPLICATIONS

The new DUPLEX clamping system was designed to enable internal and external clamping in a single clamping tool. The change from internal to external clamping can be made without any time and cost-intensive change of the complete clamping tool.

## EXTERNAL CLAMPING

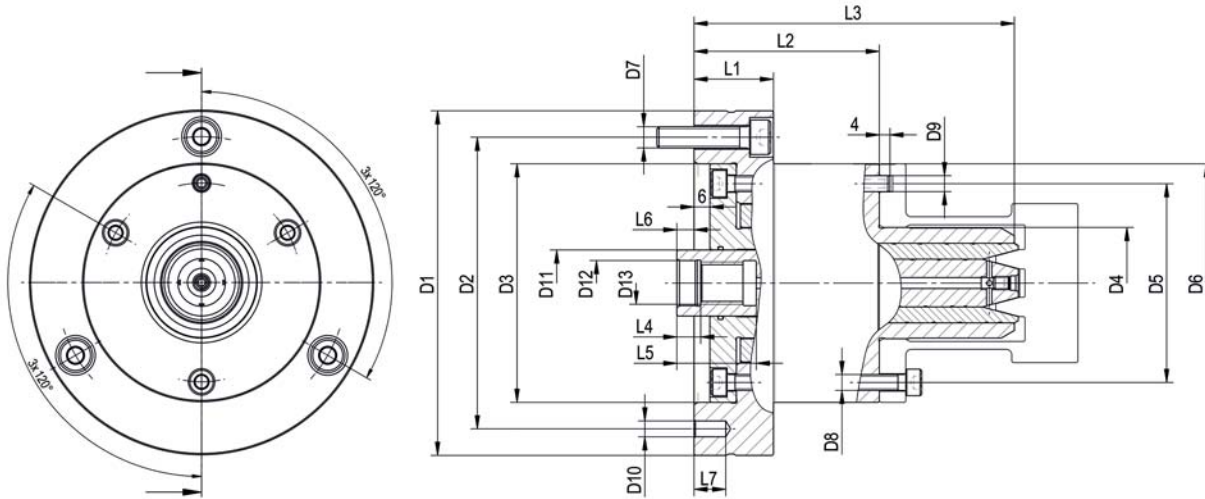


## INTERNAL CLAMPING



# DUPLEX CLAMPING SYSTEM

POWER OPERATED



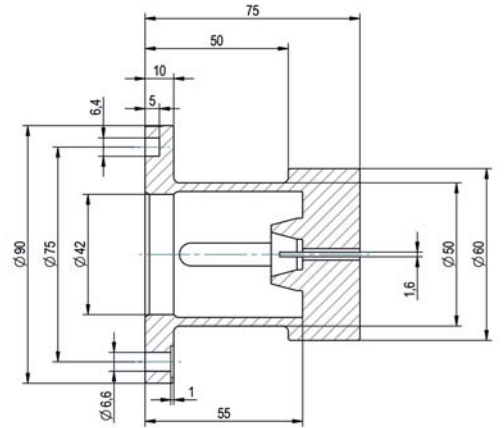
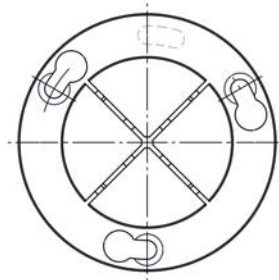
DUPLEX clamping system – without axial tension

Size	60
Clamping system	1345701 ▲
D1 mm	130 g6
D2 mm	110
D3 mm	90 H6
D4 mm	42 g6
D5 mm	75
D6 mm	90
D7	3x M8
D8	3x M6
D9 mm	6 m6
D10 mm	6 H7
D11 mm	25
D12 mm	17 H8
D13 mm	M16
L1 mm	30
L2 mm	70
L3 mm	121
L4 mm	9
L5 mm	30
L6 mm	min. 5.0 / max. 8.0
Total stroke mm	3
Clamping sleeve elongation mm	+0.5 / -0.5
Max. actuation force kN	10
Max. total clamping force about kN	26
Max. speed min <sup>-1</sup>	7000

With throughhole for blast air  
Pneumatic operation on request

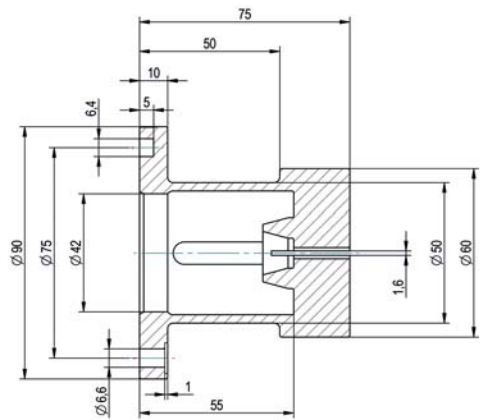
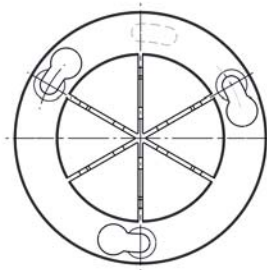
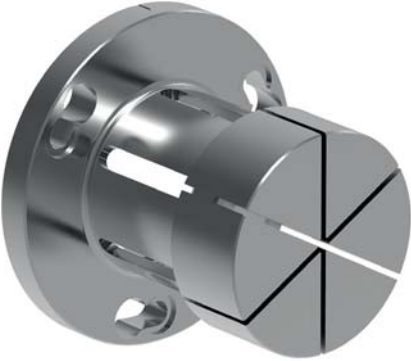
# CLAMPING SLEEVE BLANK

SUITABLE FOR DUPLEX CLAMPING SYSTEM



**Blank: 4-way slit clamping sleeve**

e.g. for multiple, square and special clamping contours



**Blank: 6-way slit clamping sleeve**

e.g. for round and special clamping contours

**DUPLEX clamping sleeve blank**

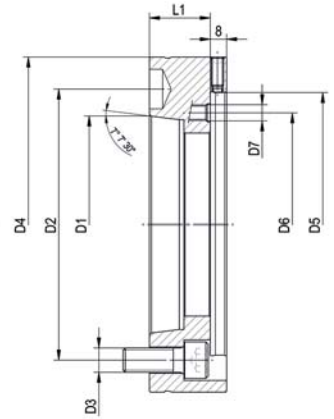
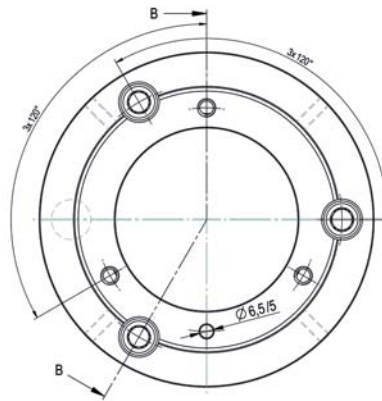
Slit	unslit	4-way	6-way
Blank	1345708 ▲	1345709 ▲	1345710 ▲

Blanks are pre-slit (not severed)

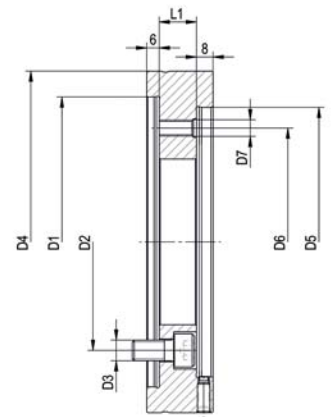
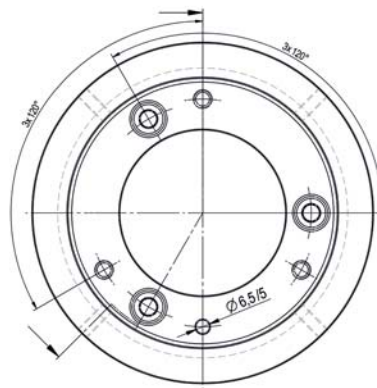
On request, the clamping sleeves blanks can be delivered vulcanized (as protection against dirt) and individually adjusted to the workpiece

# INTERMEDIATE FLANGES

SUITABLE FOR DUPLEX CLAMPING SYSTEM



ISO 702-1



ISO 702-4

**DUPLEX Intermediate flanges**

to DIN ISO 702-1 alignable

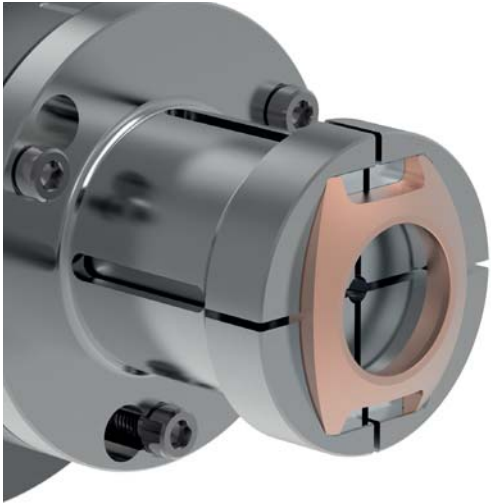
to DIN ISO 702-4 alignable

Size	No. 4	No. 5	No. 6	No. 8	No. 5 (Z140)	No. 6 (Z170)
Intermediate flange	1345712 ▲	1345714 ▲	1345716 ▲	1345718 ▲	1345720 ▲	1345722 ▲
D1 mm	63.513	85.563	106.375	139.719	140	170
D2 mm	82.6	104.8	133.4	171.4	104.8	133.4
D3	3x M10	3x M10	3x M12	3x M16	3x M10	3x M12
D4 mm	145	145	165	210	165	200
D5 mm	130	130	130	130	130	130
D6 mm	110	110	110	110	110	110
D7	3x M8	3x M8	3x M8	3x M8	3x M8	3x M8
L1 mm	17	17	30	33	18	20

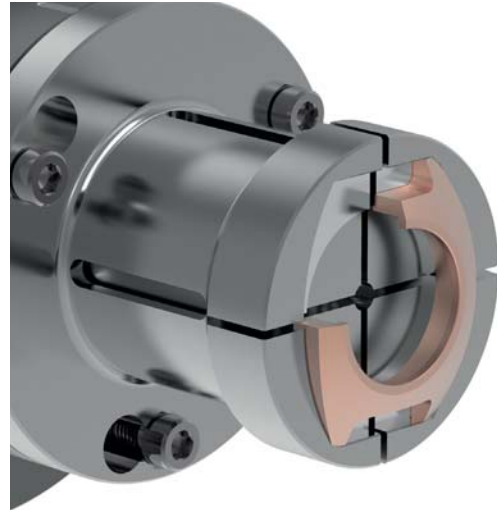
Other sizes and special flanges on request

# APPLICATION EXAMPLES IN THE WATCHMAKING INDUSTRY

## EXTERNAL CLAMPING WATCH CASE



Watch case

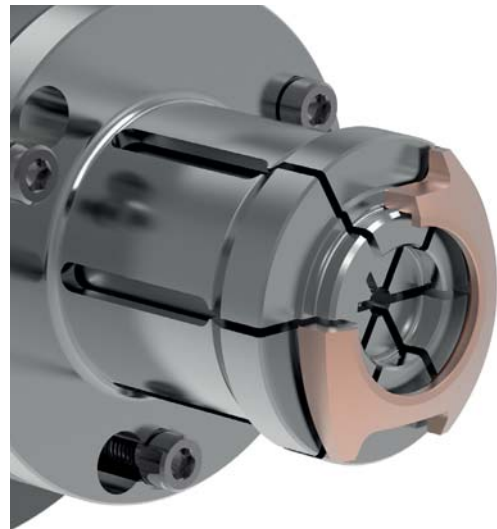


Watch case in sectional representation

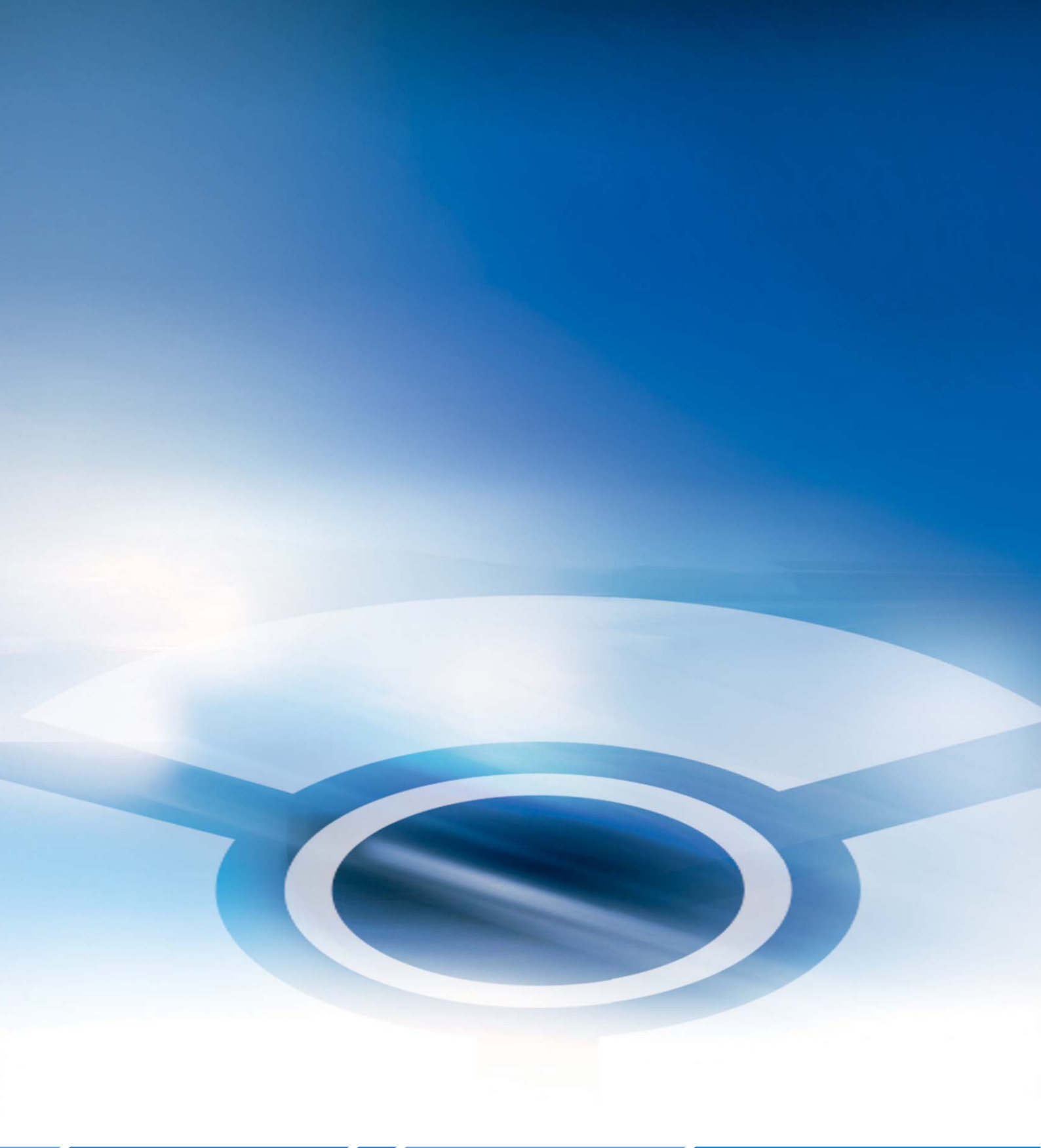
## INTERNAL CLAMPING WATCH CASE



Watch case



Watch case in sectional representation



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