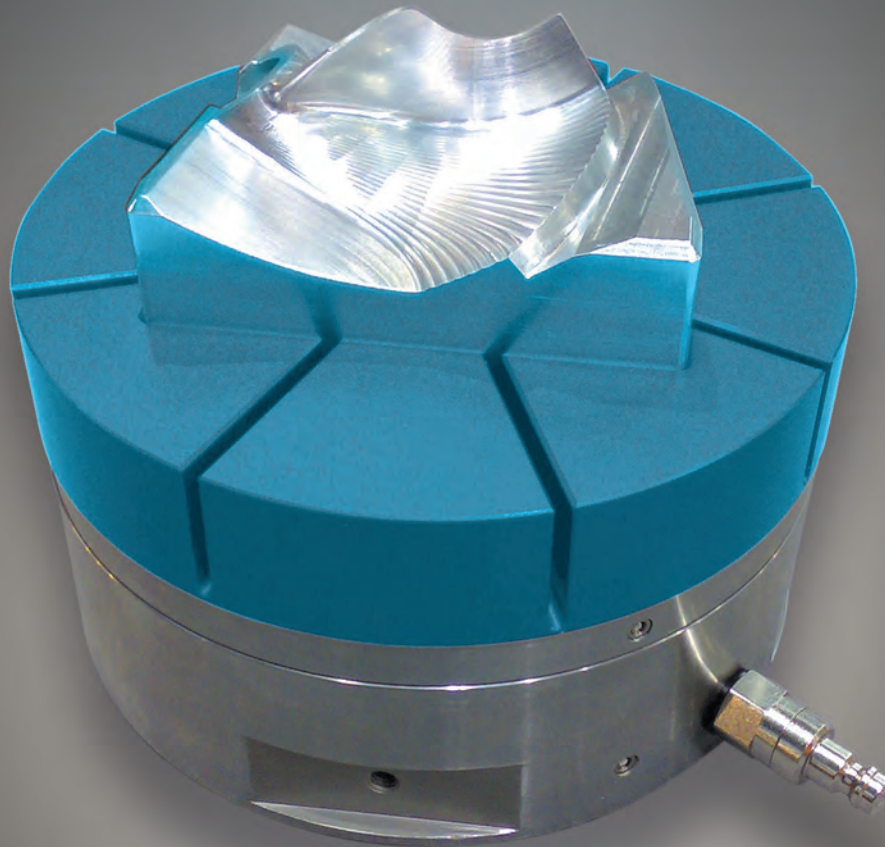


# DEFO GRIP

PRODUCING SYSTEMATICALLY



## The Defo-Grip system

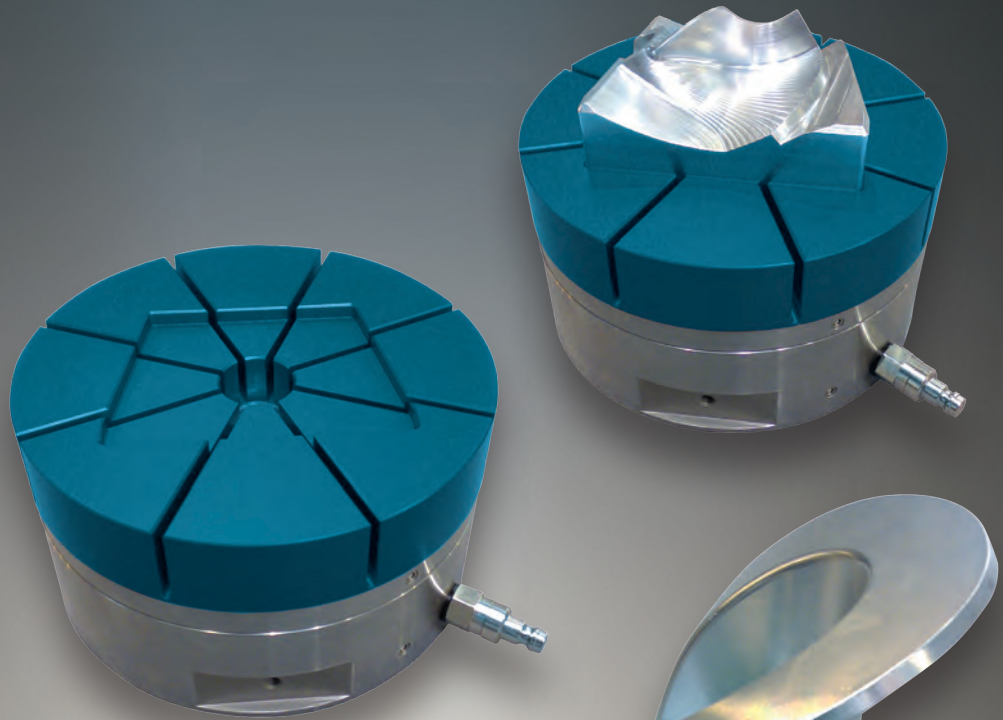
The workpiece clamping system



# The System

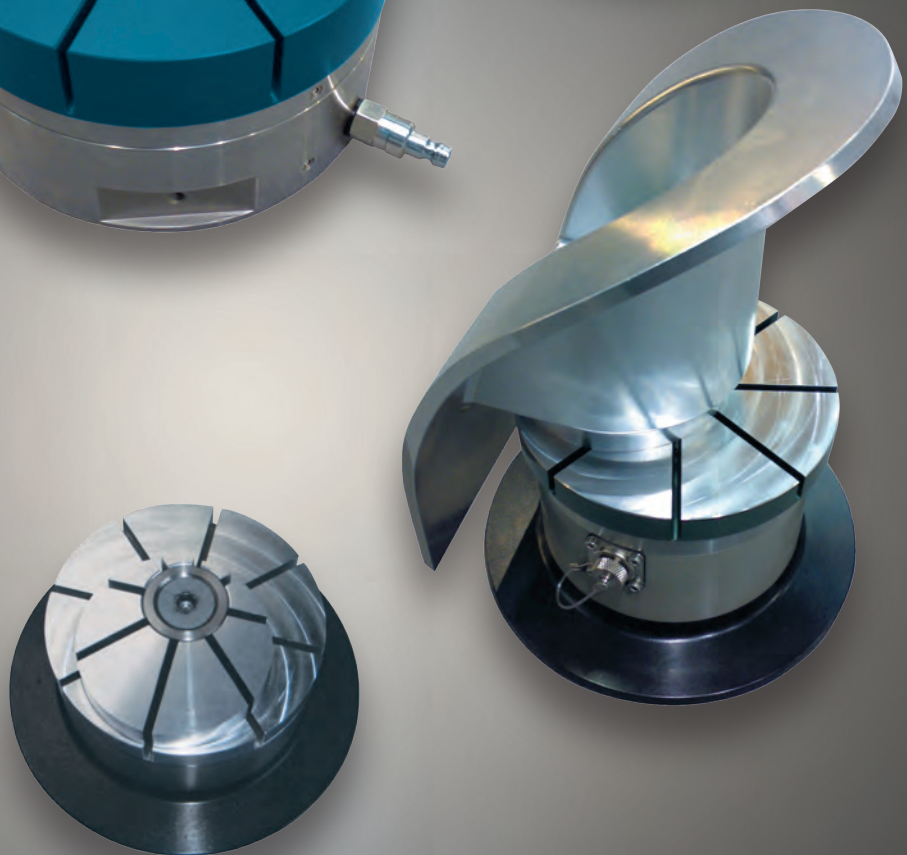
## External clamping

*For clamping the workpieces from the outside they only need to be placed into the prefabricated pit of the chuck.*



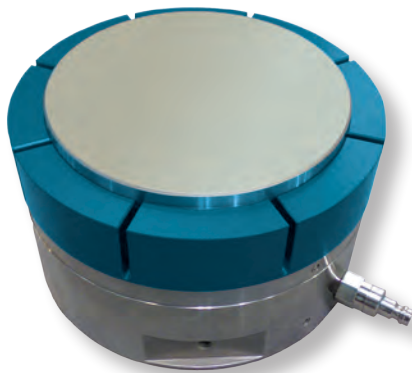
## Internal clamping

*For clamping the workpieces from the inside they only need to be placed on the heightening of the chuck.*



- Drastic saving of time during the production
- One single clamping chuck for hundreds of different workpiece contours
- Minimum effort for the production of prototypes, sample parts and small and medium batch sizes
- Process accuracy by Power-Grip interface
- Perfect technology, pinpoint accuracy, most simple handling
- Application-independet clamping
- Maximum flexibility with only one system
- Intermateable with third-party systems
- Tension force controlling by pressure regulator
- Treatment of very thin-walled workpieces
- Chuck blanks out of aluminium
- Higher competitiveness due to low production costs

# Deformation and centric clamping.



*Chuck with clamped workpiece*

*Basic unit with air supply*

## The Defo-Grip system works quite easily.

The deformation clamping unit consists in a chuck and a corresponding basic unit. For the clamping of different workpieces only the chuck must be changed. The basic unit always persists.

Standardized aluminium blanks are used for the chucks in which the contour of your workpiece is inserted. Thus you are able to produce your own devices and chucks at any time.

Defo-Grip is designed for clamping from the outside as well as from the inside. The aluminium blanks are cheaper than the conventional clamping jaws of chucks or of three jaw drill chucks made out of steel.

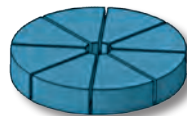
The integrated spring unit generates a tension power of 5.8 kN. By retention via compressed air the tension power can be raised up to 43.5 kN.

*(Also see the chart on page 4)*

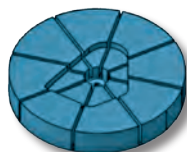
*Basic unit*



*chuck blank*



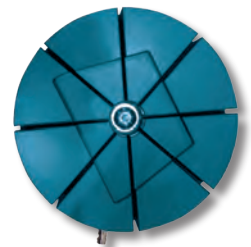
*Chuck with workpiece contour*



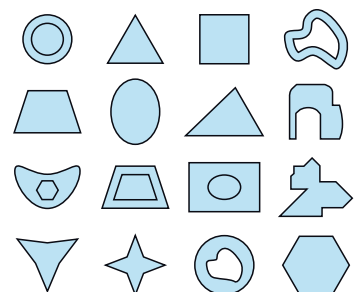
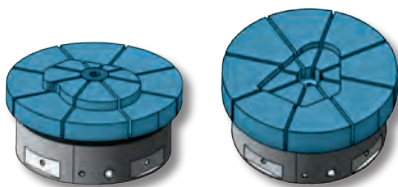
## DEFO GRIP



*Whether geometric or totally free: we master even most difficult workpiece contours. One chuck manifold possibilities.*

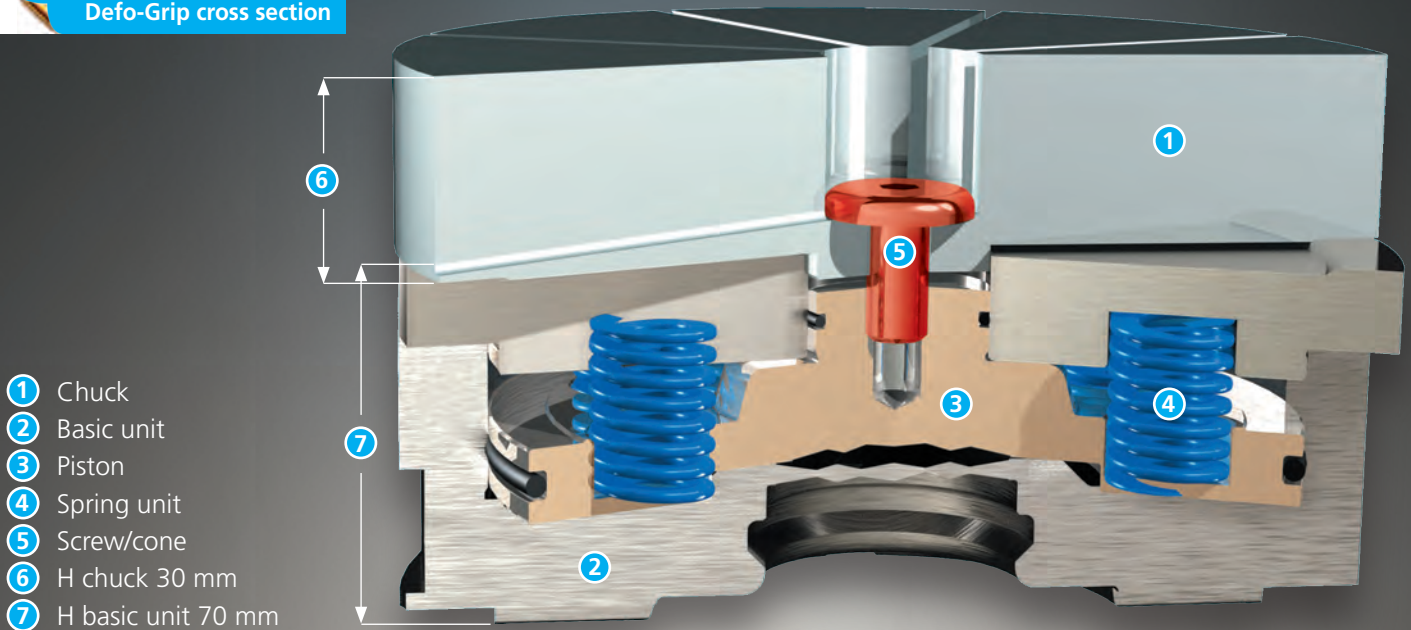


*Installed system for internal clamping      external clamping*



# The Technology

Defo-Grip cross section



- ① Chuck
- ② Basic unit
- ③ Piston
- ④ Spring unit
- ⑤ Screw/cone
- ⑥ H chuck 30 mm
- ⑦ H basic unit 70 mm

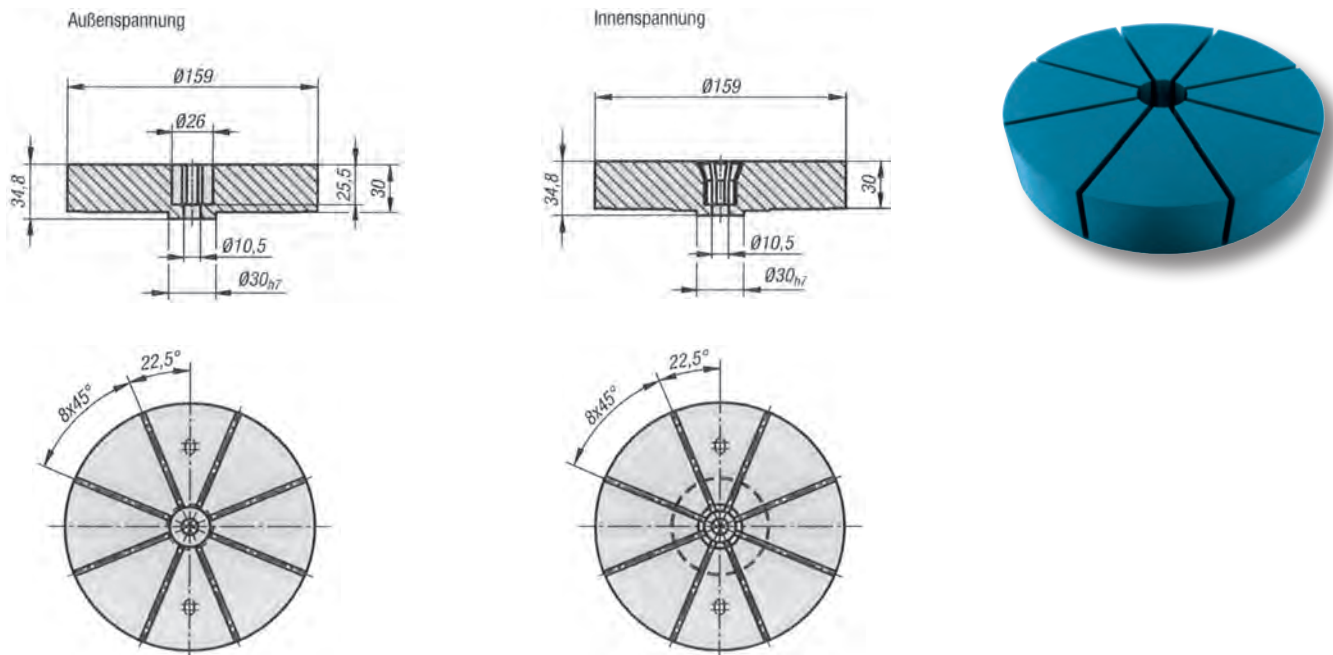
Defo-Grip.  
Clamping and tension force.

Loosening pressure/spring	Clamping power without retension	Retension power without ret. pressure	Retension pressure	Clamping power with ret. pressure	Retension power with ret. pressure
6 bar	5,810 kN	2,80 kN	6 bar	13,390 kN	10,390 kN
6 bar	5,810 kN	2,80 kN	12 bar	20,930 kN	17,930 kN
6 bar	5,810 kN	2,80 kN	30 bar	43,550 kN	40,550 kN

Defo-Grip.  
Workflow with flexibility.

- Defo-Grip manages even most difficult workpiece contours in a safe way
- Defo-Grip clamps machined and casual workpieces
- Defo-Grip can be placed on breadboards, t-slot tables and individual fixture constructions
- Defo-Grip has a clamping range from 25 up to 140 mm
- Defo-Grip is able to clamp workpieces up to 25 kg
- Defo-Grip manages a clamping depth of only 1 mm
- Defo-Grip is designed for external and internal clamping
- Defo-Grip offers a repeat accuracy of < 0,01 mm
- Defo-Grip is applicable for handling systems for workpiece-palletizing without pallet.

# Defo-Grip chucks



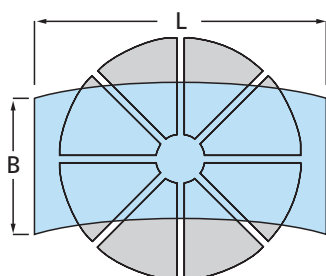
Defo-Grip chucks  
have everything under control.

Art.-Nr.	Model	Clamping range min. - max.	Milling depth min. - max.	Workpiece weight max.
PT6116311600	External clamping	Ø25 - Ø140 mm	1 - 20 mm	25 kg
PT6116211600	Internal clamping	Ø25 - Ø140 mm	1 - 20 mm	25 kg

## Material and model

- **High tensil aluminium**,  
anodized red (external clamping) or  
colourless (internal clamping)

The width B of the workpiece should not be more than maximum 90% of the diameter of the chuck. In special cases the workpiece can protrude the chuck.

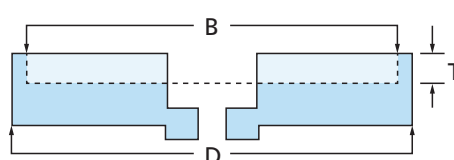


## Technical Information

**Chuck** for internal and external contours.  
The contour of the individual workpiece is inserted into the chuck. Free contours are possible as well as asymmetric ones.

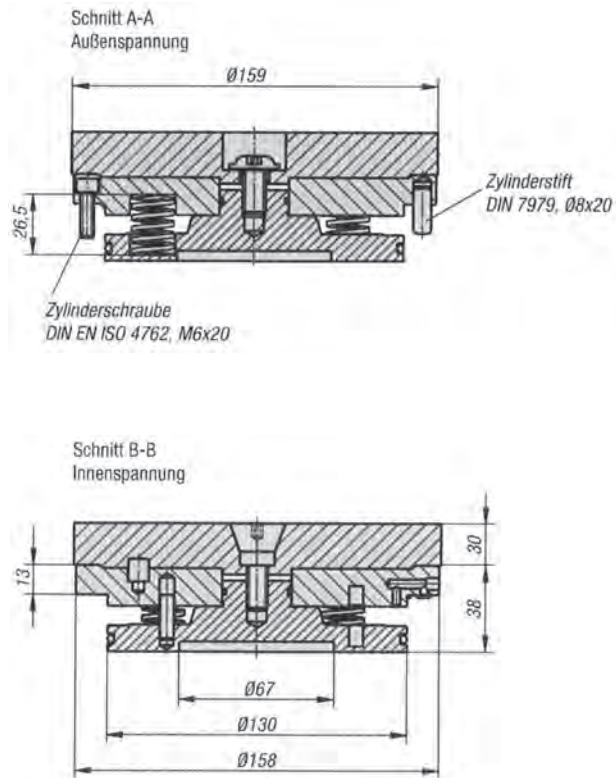
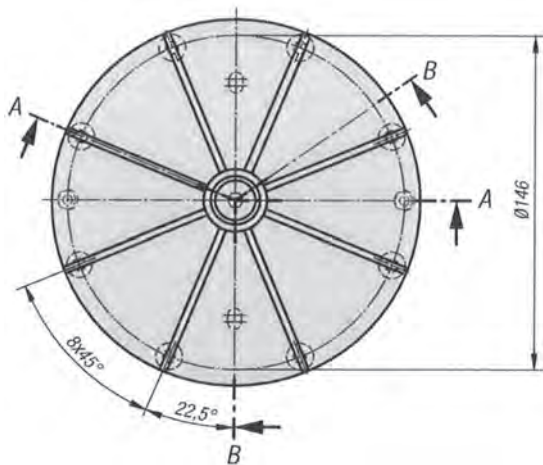
### Clamping range: 0.2 mm

**Attention:** For the model „chuck for internal clamping“ the pulling cone (**Art.-Nr.: PT6116600000**) is needed.



L = Length of workpiece  
B = Width of workpiece  
T = min. Milling depth 1 mm  
D = Ø chuck

# Defo-Grip for self intallation



Art-Nr.	Model	Clamping range min. - max.	Milling depth min. - max.	Workpiece weight max.
PT0611620000	for internal and external clamping	Ø25 - Ø140 mm	1 - 20 mm	25 kg

Chucks must be ordered separately.

## Material and Model

- Centering unit and piston, steel, stainless, blank
- Seals for pneumatics and hydraulics
- Screws DIN EN ISO 4762 consistency class 8.8, galvanized

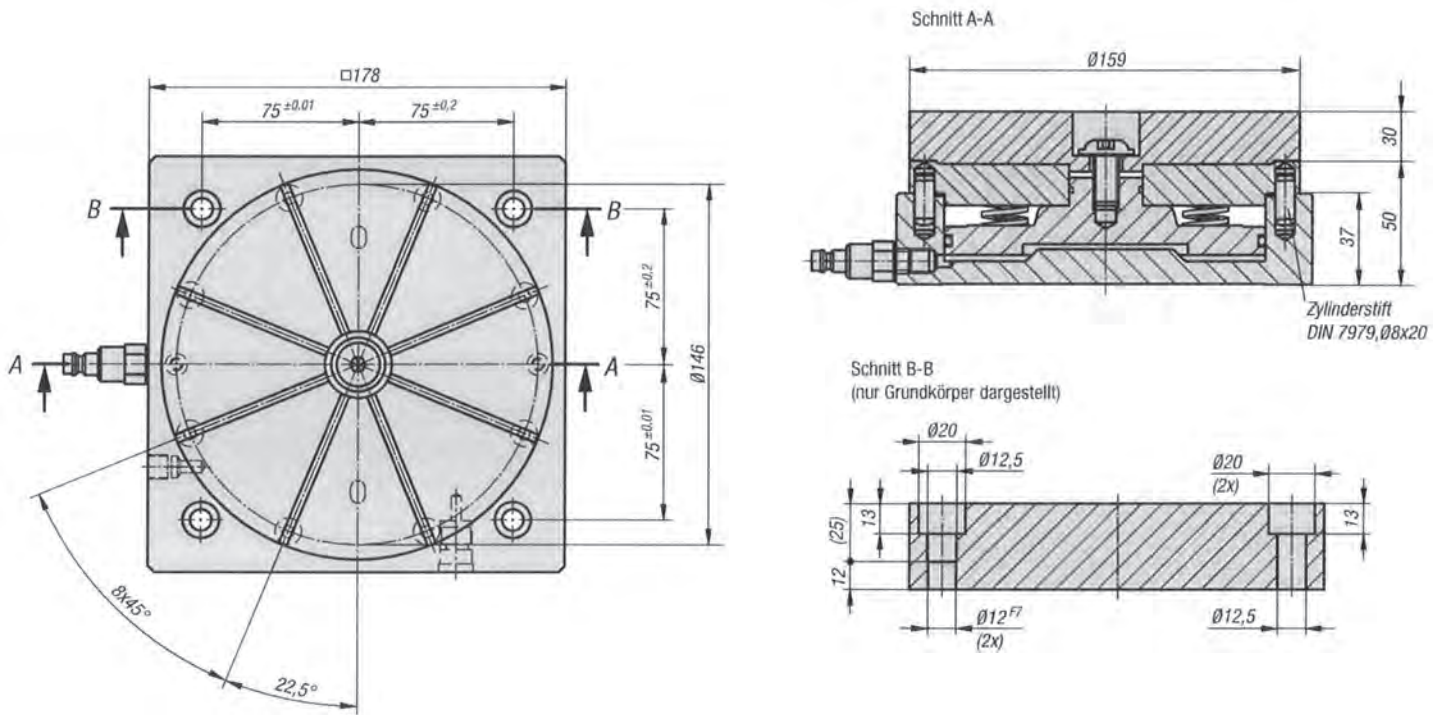
## Technical Information

The basic unit is suitable for the installation of own jig manufacturing and clamping systems. Defo-Grip is able to clamp form the outside as well as from the inside. The contour of the workpiece is inserted into the chuck. Free an asymmetric contours are possible.

The integrated spring unit creates a **clamping power of 5.8 kN**. By retention with compressed air the **clamping power** can be raised up to **43.5 kN**. The release is carried out by compressed air.

**Clamping range: 0.2 mm**  
**Repeat accuracy: 0.01 mm**

# Defo-Grip on breadboard pallets



Art-Nr.	Model	Clamping range min. - max.	Milling depth min. - max.	Workpiece weight max.
PT6116116000	for internal and external clamping	Ø25 - Ø140 mm	1 - 20 mm	25 kg

Chucks must be ordered separately.

## Material and Model

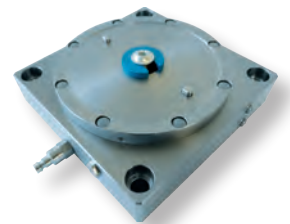
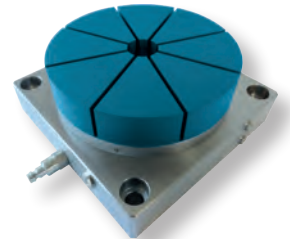
- Basic unit, centering unit and piston, steel, stainless, blank
- Seals for pneumatics and hydraulics
- Screws DIN EN ISO 4762 consistency class 8.8, galvanized

## Technical Information

The basic unit is suitable for the installation locking ratchet plates with a spacing of 50 mm. Defo-Grip is able to clamp from the outside as well as from the inside. The contour of the workpiece is inserted into the chuck. Free asymmetric contours are possible.

The integrated spring unit creates a **clamping power of 5.8 kN**. By retention with compressed air the **clamping power** can be raised up to **43.5 kN**. The release is carried out by compressed air.

**Clamping range: 0.2 mm**  
**Repeat accuracy: 0.01 mm**



# DEFO GRIP

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The zero-point clamping system for large-scale machining centres for milling and turning section

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The consistent zero-point palletizing system for all processing operations

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