Sealed Needle Gripper

- Type N06 -

Characteristics:

- ideal for gripping soft or irregularly shaped products such as meat or pastries
- radial needle movement
- spring-loaded needles
- short cycle time
- completely sealed mechanics
- user defined installation position
- maintenance free up to 10 million movements
- compact and modular design
- multiple position checks through proximity switches (optional)
- number of needles and length of needle shaft customizable
- optional stripper plate for products pierced by needles (e.g. bakery products)
- customized needles available on request

Standard version with 4 needle shafts and 2 needles per needle shaft

Technical Data

Type		**N206**
Drive		pneumatic
max. Grip Force (at 6 bar) *		2000 N
max. Torque (at 6 bar) **		180 Nm
Operating Air Pressure		0,5 to 6 bar
Cycle Time	**Open**	0,25 s
	Close	0,25 s
Repeat Accuracy		0,1 mm
Energy Consumption per Cycle		1,2 liter (at 6 bar)
Operating Temperature		-30 to +80°C
Mass		2,3 kg
Loading Capacity* per needle shaft with Gripping Mass and Acceleration	$Mx_{max.}$	40 Nm
	$My_{max.}$ (Gripping)	180 Nm
	$Fz_{max.}$	10.000 N
	$Mz_{max.}$	30 Nm

* Total force at the needle points in completely closed position

** In completely closed position

By using the given torque M [Nm], the necessary air pressure p_{req} can be computed with the following formula in position where needles are closed:

$$0{,}5\,\text{bar} \le p = \frac{\mathbf{M}}{30}\frac{\text{bar}}{\text{Nm}} \le 6\,\text{bar}$$

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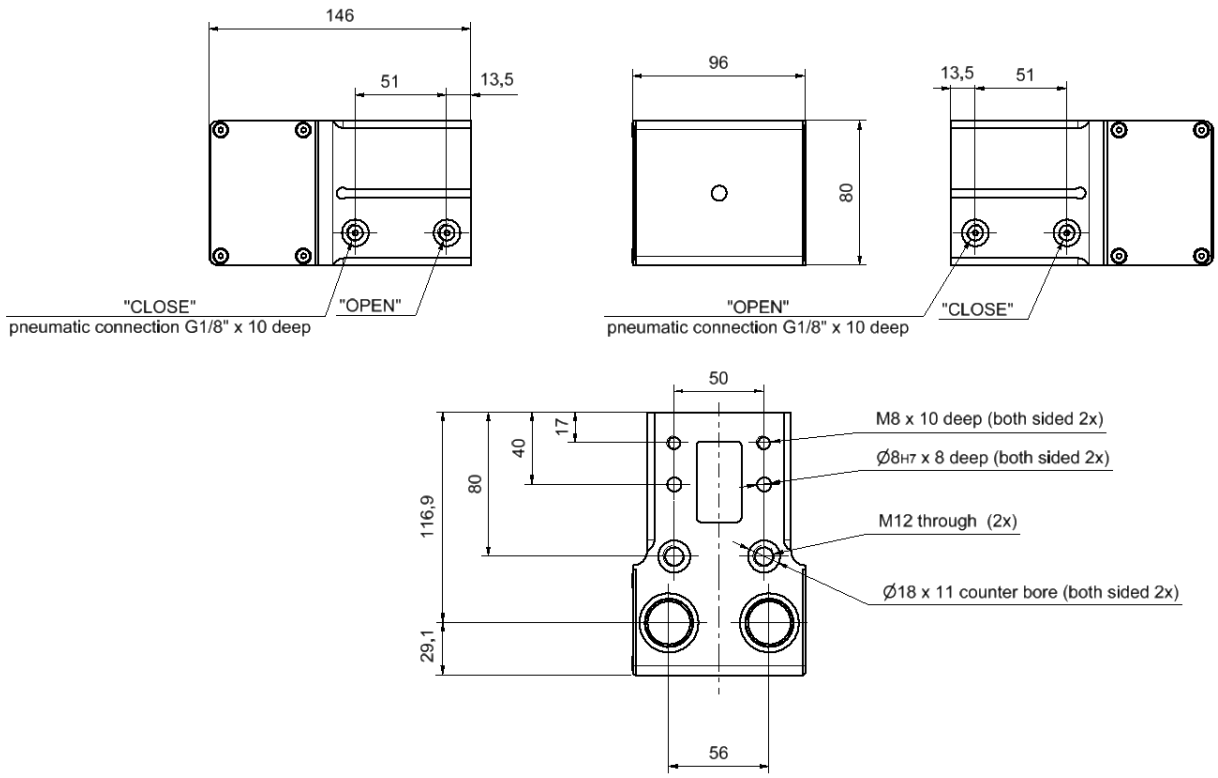
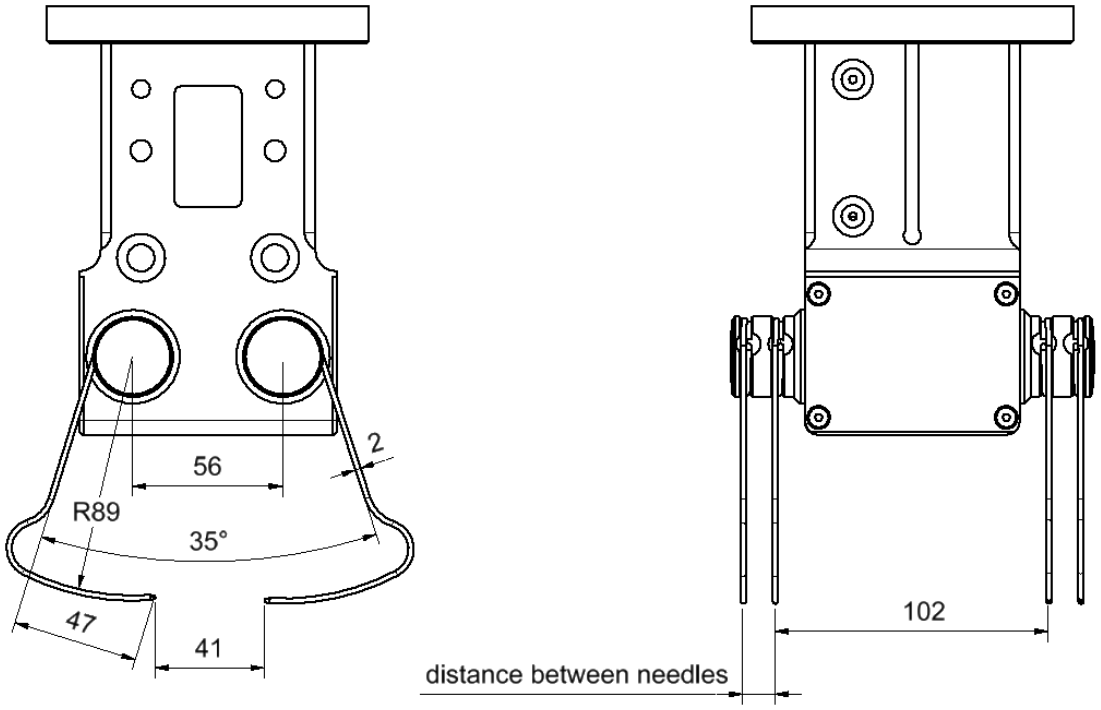
Type W06 (Body)



Type N206 (Standard Needles)



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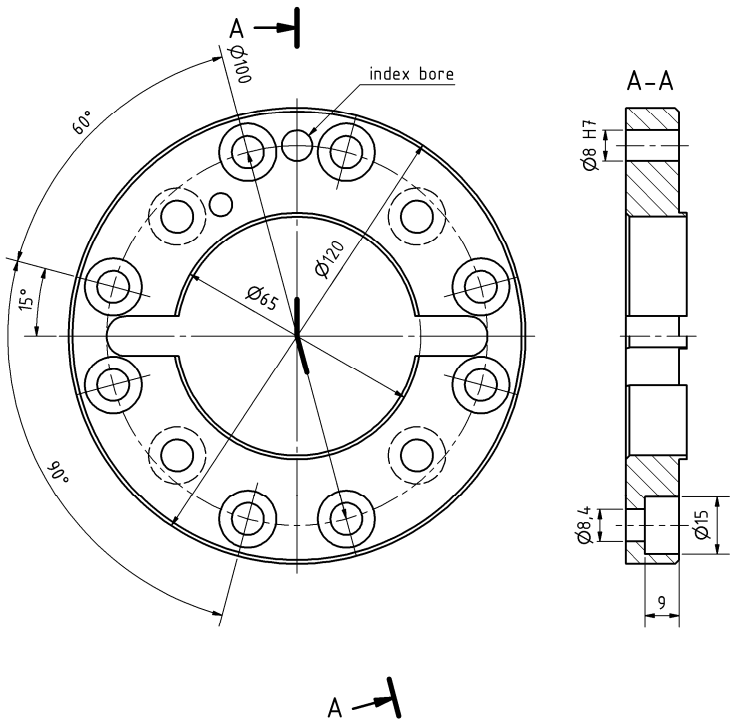
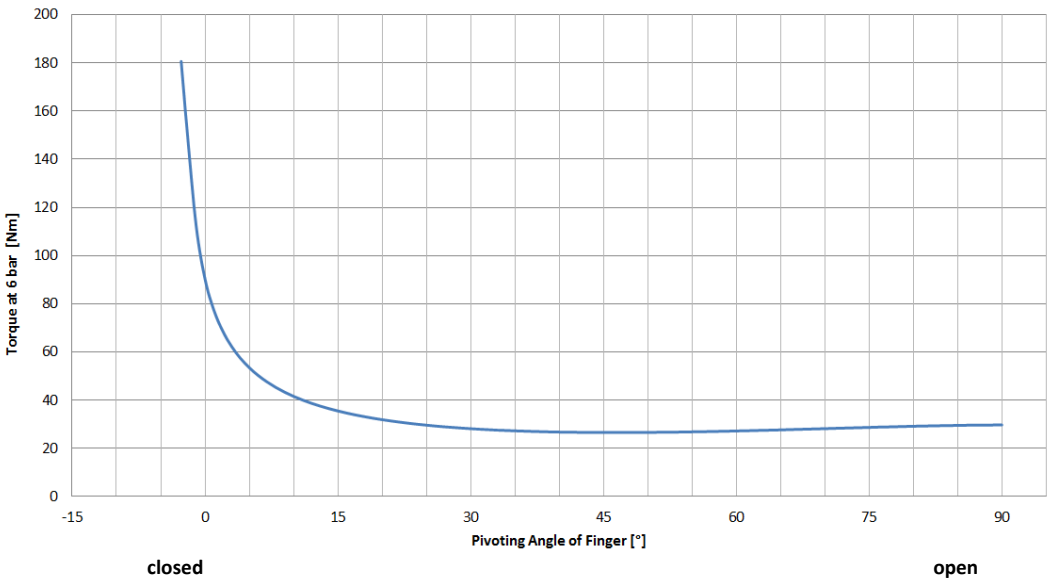
Flange



Used to mount the gripper to a robot

Diagram



Torque curve also available in mirrored version on request.

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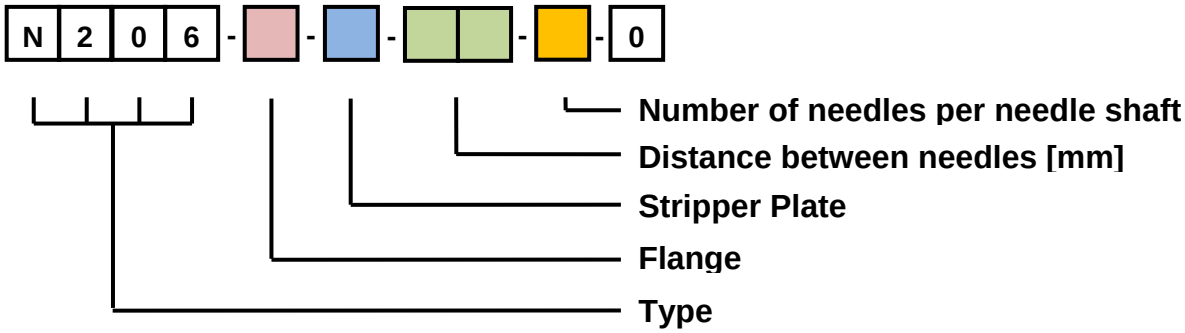

Distance between needles	
distance	*ident [mm]*
min. lenght	**0 5**
max. lenght (4 needles/shaft)	**9 5**

Number of needles / shaft	
number	*ident*
min. number	**1**
max. number	**10**

Flange	
style	*ident*
with flange	**N**
without flange	**O**

Stripper Plate	
style	*ident*
with stripping plate	**A**
without stripping plate	**O**

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