

2-Finger Parallel Gripper Type HGN, hydraulic

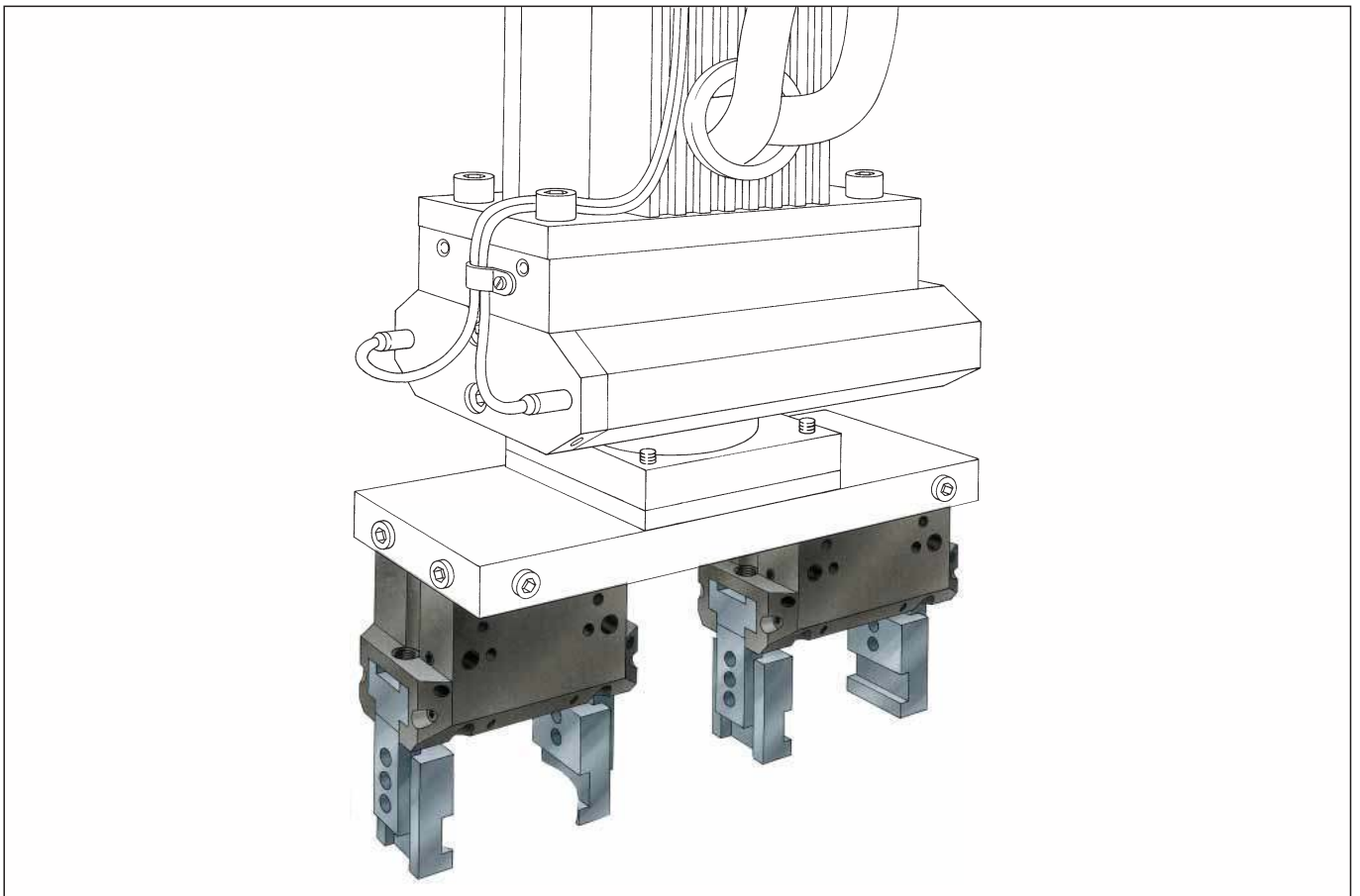




Figure with top jaw blanks

Benefits

- Very compact by virtue of the fact that the drive is integrated into the housing
- Very low weight due to the use of high-strength aluminium
- High gripping force through wedge and hook principle
- 4 sizes
- Good guidance properties thanks to flat guides
- Centric and parallel gripping movement due to positively-guided base jaws
- For I.D. and O.D. gripping
- Stroke monitoring: 2 positions via proximity switches and 5 via Hall sensors

Technical data

Medium:

Hydraulic oil, filtered (10 µm) viscosity 46 mm²/s at 40 °C according to ISO VG, max. temperature 60 °C.

Operating pressure range:

from 30 - 60 bar

Repeat accuracy:

HGN 80 and HGN 100 approx. 0.05 mm, HGN 125 and HGN 160 approx. 0.1 mm

Pressure connections:

either on the sides or the base.

It is essential that use a flow control valve set to 2 l/min.

Maintenance:

permanently lubricated, re-lubrication recommended after 1.5 million strokes

Method of functioning:

positively guided wedge hook system

Material:

housing is made from high-strength, hard-coated aluminium alloy and the functional components are from hardened steel

Type of gripping:

parallel

Installation position:

application-dependent

Operating temperature:

from 5 °C - 60 °C

Stroke control:

end position monitoring with proximity switches or flexible position sensors possible



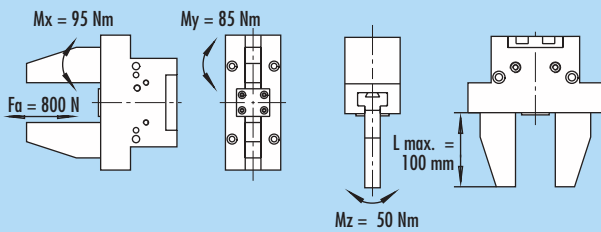
HGN 80

HGN 100

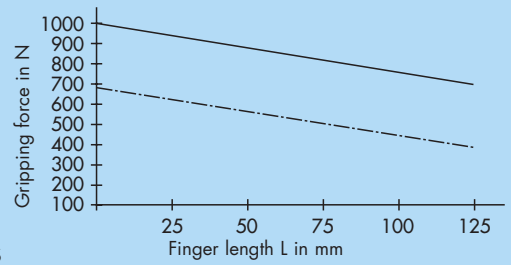
HGN 125

HGN 160

Maximum permissible forces and torques at the gripper jaws



Gripping force in relation to the finger length



Dimensions for HGN 100

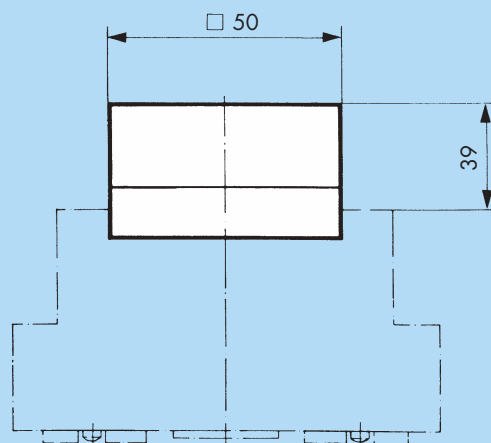
● = Oil connection



Gripping force safety device with spring only for O.D. gripping.

Can only be supplied on order with gripper.

Operating pressure range: min. 35 bar, max. 60 bar.



2-Finger Parallel Gripper HGN 100 and HGN 100 AS with integrated maintenance of gripping force

Type	HGN 100	HGN 100 AS
ID. no.	370 222	370 226*****
Stroke per jaw	10 mm	10 mm
Operating pressure max.	60 bar	60 bar
Gripping force at 60 bar*: External clamping / Internal clamping	620 N / 1200 N	–
Max. workpiece weight** (recommended)	3 kg	3 kg
Oil volume per double stroke	6 cm ³	6 cm ³
Safety device force spring min.-max	–	220-340 N
Gripping force pressure+spring min.-max.	–	840-960 N
Closing time only with spring	–	0.15 s
Opening time ****	0.2 s	0.3 s
Closing time ****	0.2 s	0.2 s
Mass	1.2 kg	1.6 kg
Mass moment of inertia	15 kg cm ²	16.5 kg cm ²
Repeat accuracy ***	0.05 mm	0.05 mm
Max. finger length	100 mm	100 mm

- * Gripping force is the arithmetic sum of the individual forces occurring at the gripper jaws at P
- ** Values at $\mu = 0.1$ and safety factor $v = 2$. The values may be higher in the case of form-fit clamping.
- *** Variation of end positions after 100 consecutive strokes.
- **** Measured at 60 bar and R¹/₈" connection.
- ***** Id. no. includes gripper and gripping force



HGN 80

HGN 100

HGN 125

HGN 160

Accessories for HGN 100



Inductive proximity switch

In easy-to-assemble version with LED display. For technical details see the »Accessories« catalogue.

Type	ID. no.
INW 80/S*	301 508 altern. 301 408

* S = Closer



Flexible position sensor, FPS

In the HGN 100, it is possible to monitor up to 5 positions via the flexible position sensors, FPS. For a technical description see the »Accessories« catalogue.

Type	ID. no.
FPS-S 13	301 705
FPS-A 5	301 800
AS-HGN 80/100*	301 710

* includes bracket, magnet and mounting screws.

For technical data see the »Accessories« catalogue.



Finger blanks

For technical details see the »Accessories« catalogue.

Type	Material	ID. no.
ABR 100	Aluminium	300 727
SBR 100	Steel	300 736

System modules and further accessories for HGN



Swivel units

Combineable swivel units and heads are featured on Pages 40-47.



Special solutions

We can quickly supply cost-effective custom solutions, customised fingers, attachment plates and complete units to suit your specialised requirements.



Further accessories

For gripper pads to increase friction factors, pressure maintenance valves or distributors for proximity switches, see the »Accessories« catalogue.

Note

Please note that the lifespan of these units can be reduced considerably if they are used in extreme conditions (e.g. where coolant is used or dust from casting or grinding processes is present). We cannot be held responsible in such cases. Solutions do exist for many problems – please contact us to find out more.