

PG 32, 40, AS Pneumatic Grippers

Operating manual



1. Description

The pneumatic gripper is a high-performance tool, which is designed for tasks in metal processing. It consists of a pneumatic cylinder, a metal housing with fastening options on the front, back and below as well as clamping hooks i.e. movable tension hook, on which the devices for clamping or gripping are attached.

The piston rod pin of the pneumatic cylinder acts in the clamping or tension hook during the gripping process and therefore triggers the clamping movement. The position of the gripper lever is controlled via query elements integrated in the housing.

There are 2 gripper versions:

PG ...: a stationary clamping hook, a movable clamping hook

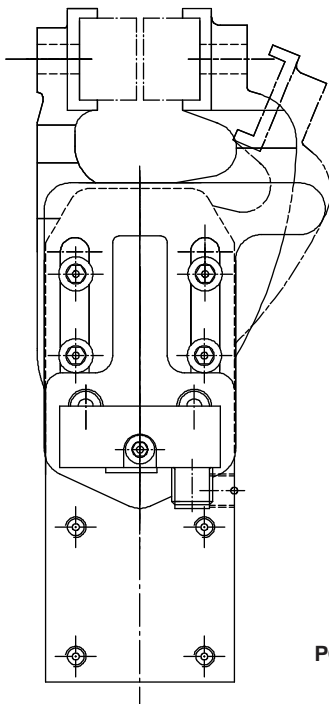
PG ... AS two movable clamping hooks

2. Safety

The pneumatic gripper is not a ready for use complete tool and is therefore not equipped with a separate security device. Only through the proper installation in a manufacturing system and the establishment of a corresponding safety control unit are the technical safety requirements fulfilled.

Shut down the pneumatic gripper immediately in the event of any malfunction that is likely to affect personal safety. Maintenance work may only be performed by properly trained skilled personnel while the equipment is shut down. Ensure that all safety devices are - refitted correctly after maintenance work has been carried out.

Maximum load depends on diameter of dowel pin and geometry of the hook.



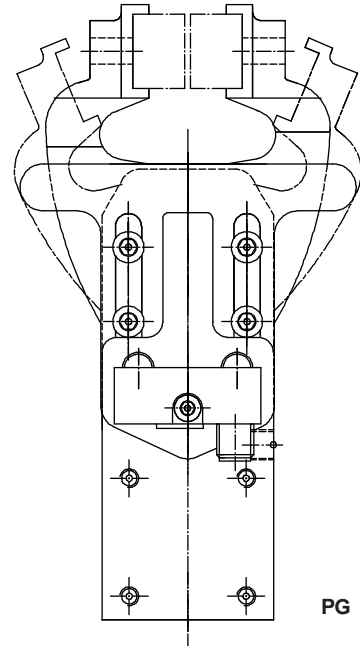
PG ...

3. Assembly of the pneumatic gripper

Installation of the gripper on the front or back panel or below via cheese-head screws. The torque of the M6 screws may not exceed 19 Nm. Create a compressed air supply between the pneumatic control unit and the tensioner.

In order to buffer the return stroke (forward and back), external throttle valves must be used and adjusted to the proper processing speed.

Caution: Excessively fast return stroke movements with heavy clamping arms/contour pieces result in the risk that the mechanical parts of the gripper may be destroyed. The minimum cycle time (1 sec opening/1 sec closing) may not be underrun. inimum



PG ... AS

4. Adjusting the pneumatic gripper

Caution! Risk of crushing injuries!

There is danger of fingers being crushed or amputated during adjustment of the clamping or tension hook! Do not reach into the swivel area of the hooks while the pneumatic gripper is operating. Interrupt the compressed air supply prior to working in the tool area.

- Screw the contour piece on the hook.
- Close the gripper.
- Determine the dimensional difference between the hook/contour piece and the work piece (-) 0.3 mm.
- Open gripper.

5. Replacement of the monitoring cassette

- Disconnect cable connections.
- Remove 2 screws.
- Replace the monitoring cassette.
- Assemble in reverse order of disassembly.
- Test the LED function.

The function check of the integrated LED is as follows:

green Operating voltage
yellow Open tensioner
red Closed tensioner

Warning: An operation with the incorrect or excessive voltage may result in short circuiting and physical injuries.
Connection voltage 10...30 VDC, 150 mA.

6. Maintenance

The pneumatic gripper is equipped with low-maintenance bearings and guides in view of the use in large series production. The technical design of the grippers provides a service life of 2 million power strokes without any significant developments of wear.

Warning: Cleaning with a high-pressure steam cleaner or dry ice will result in damaging the pneumatic gripper.