Product Information
Gripper for small components RH 905
RH gripper for small components


A cost-efficient gripping system, which is particularly suitable for simple cases of application.

Field of application

Use in clean environmental conditions (e.g. assembly or packaging areas) with low process forces.

Advantages – Your benefits

Economical gripper series for simple applications with low loads in clean environments

Maintenance-free with low weight

Excellent price-performance ratio making it an attractive option for low-budget applications

Sizes

Quantity: 8

Weight

0.04 .. 1.1 kg

Gripping force

13 .. 460 N

Stroke per jaw

2.5 .. 40 mm

Workpiece weight

0.065 .. 2.3 kg
Functional description

RH grippers work with pneumatic pistons, which produce a synchronized motion due to kinematics that vary depending on the type.

1. RH 901
   2-finger small components gripper

2. RH 905
   2-finger small components gripper

3. RH 907
   2-finger small components gripper

4. RH 925
   2-finger parallel gripper

5. RH 9010
   2-finger parallel gripper with long stroke
**General notes about the series**

**Operating principle:** Wedge-hook kinematics

**Actuation:** pneumatic, with filtered compressed air as per ISO 8573-1:2010 [7:4:4].

**Warranty:** 24 months

**Scope of delivery:** Centering elements, assembly, and operating instruction with manufacturer’s declaration.

**Gripping force:** is the arithmetic sum of the individual force applied to each jaw at distance P (see illustration).

**Finger length:** is measured from the reference surface as the distance P in direction to the main axis. The maximum permissible finger length applies until the nominal operating pressure is achieved. With higher pressures, the finger length must be reduced proportionally to the nominal operating pressure.

**Repeat accuracy:** is defined as a distribution of the end position for 100 consecutive strokes.

**Workpiece weight:** is calculated for force-fit gripping with a coefficient of static friction of 0.1 and a safety factor of 2 against workpiece slippage at acceleration due to gravity g. For form-fit or capture gripping, there are significantly higher permissible workpiece weights.

**Closing and opening times:** are purely the times that the base jaws or fingers are in motion. Valve switching times, hose fill times, or PLC reaction times are not included, and are to be considered when cycle times are calculated.

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**Application example**

Transfer station with simultaneous 90° reorientation of the workpiece in two axes

1. RH gripper for small components
2. Miniature swivel unit SRU-mini
3. SKE swivel unit
SCHUNK offers more ...

The following components make the product RH even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.

- Fittings
- Sensor system
- Sensor cables
- Pressure maintenance valve
- Gripper pads
- Plastic inserts

For more information on these products can be found on the following product pages or at schunk.com. Please contact us: SCHUNK technical hotline +49-7133-103-2696

Options and special information

In order to keep the manufacturing costs and thus the sales prices low, the RH series is designed for low-cost production. Therefore repair works are generally not economically feasible.
RH 905
Gripper for small components

Max. loads

The specified torques and forces are static values, apply for each base jaw, and may occur simultaneously. $M_y$ may arise in addition to the moment generated by the gripping force itself.

Technical data

<table>
<thead>
<tr>
<th>Description</th>
<th>RH 905</th>
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<tbody>
<tr>
<td>ID</td>
<td>0360110</td>
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<tr>
<td>Stroke per jaw [mm]</td>
<td>4</td>
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<tr>
<td>Closing/opening force [N]</td>
<td>44/44</td>
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<tr>
<td>Integrated monitoring</td>
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<tr>
<td>Weight [kg]</td>
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<td>Recommended workpiece weight [kg]</td>
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<td>Fluid consumption double stroke [cm³]</td>
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<td>Min./Inom./max. operating pressure [bar]</td>
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<td>Closing/opening time [s]</td>
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<td>Max. permissible finger length [mm]</td>
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<td>Max. permissible mass per finger [kg]</td>
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<td>Min./max. ambient temperature [°C]</td>
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<td>Repeat accuracy [mm]</td>
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</tbody>
</table>
Main view

The drawing shows the gripper in the basic version with closed jaws, without dimensional consideration of the options described below.

1. The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see catalog section on accessories).

A, a Main / direct connection, gripper opening
B, b Main / direct connection, gripper closing

1. Gripper connection
2. Finger connection
Jens Lehmann, German goalkeeper legend, SCHUNK brand ambassador since 2012 for safe, precise gripping and holding.
schunk.com/Lehmann