

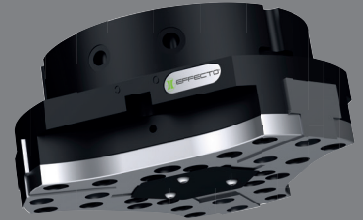
Pneumatic Parallel Grippers

HPG 3-Finger

HPG is a universal three-finger parallel gripper featuring high repeatability and long service life, suitable for a wide range of industrial applications.

Advantages

- Robust and lightweight housing made of hard coated aluminum alloy.
- Sturdy T-slot with hardened steel gibs for effective jaw guidance, precise handling and easy maintenance.
- Wedge-hook design for high-force transmission and jaw synchronization.
- Compact dimensions for minimal impact in space sensitive applications.
- Mounting from two sides in three screw directions for versatile and flexible integration.
- Integrated permanent magnets for direct monitoring of piston movement.
- Slots for mounting and positioning of magnetic-field sensors.
- Air supply via hose-free direct connections or fitting screw connections.



SPECIFICATIONS

Model	Stroke per jaw	Fluid consumption double stroke	Closing force per jaw	Opening force per jaw	Total closing force	Total opening force	Recommended workpiece weight*	Repeat accuracy	Weight
			@ 6 bar	@ 6 bar	@ 6 bar	@ 6 bar			
HPG 306	4 mm	9 cm ³	110 N	120 N	330 N	360 N	1.10 Kg	± 0.01 mm	0.3 Kg
	0.16 in	0.55 in ³	24.7 lb	27.0 lb	49.5 lb	54 lb	2.4 lb	±0.0004 in	0.66 lb
HPG 306 S	2 mm	9 cm ³	220 N	240 N	660 N	720 N	2.20 Kg	± 0.01 mm	0.31 Kg
	0.08 in	0.55 in ³	49.5 lb	54.0 lb	98.9 lb	107.9 lb	4.8 lb	±0.0004 in	0.68 lb
HPG 307	6 mm	25 cm ³	225 N	245 N	675 N	735 N	3.37 Kg	± 0.01 mm	0.5 Kg
	0.24 in	1.53 in ³	50.6 lb	55.1 lb	151.7 lb	165.2 lb	7.42 lb	±0.0004 in	1.10 lb
HPG 307 S	3 mm	25 cm ³	450 N	490 N	1350 N	1470 N	6.75 Kg	± 0.01 mm	0.53 Kg
	0.12 in	1.53 in ³	101.2 lb	110.2 lb	303.5 lb	330.5 lb	14.85 lb	±0.0004 in	1.17 lb
HPG 309	8 mm	55 cm ³	370 N	395 N	1110 N	1185 N	5.55 Kg	± 0.01 mm	0.85 Kg
	0.31 in	3.36 in ³	83.2 lb	88.8 lb	249.5 lb	266.4 lb	12.21 lb	±0.0004 in	1.87 lb
HPG 309 S	4 mm	55 cm ³	740 N	790 N	2220 N	2370 N	11.10 Kg	± 0.01 mm	0.88 Kg
	0.16 in	3.36 in ³	166.4 lb	177.6 lb	499.1 lb	532.8 lb	24.42 lb	±0.0004 in	1.94 lb
HPG 311	10 mm	115 cm ³	650 N	680 N	1950 N	2040 N	9.75 Kg	± 0.01 mm	1.6 Kg
	0.39 in	7.02 in ³	146.1 lb	152.9 lb	438.4 lb	458.6 lb	21.45 lb	±0.0004 in	3.52 lb
HPG 311 S	5 mm	115 cm ³	1300 N	1360 N	3900 N	4080 N	19.50 Kg	± 0.01 mm	1.66 Kg
	0.20 in	7.02 in ³	292.2 lb	305.7 lb	876.7 lb	917.2 lb	42.90 lb	±0.0004 in	3.65 lb
HPG 313	12 mm	220 cm ³	980 N	1030 N	2940 N	3090 N	14.70 Kg	± 0.01 mm	2.9 Kg
	0.47 in	13.42 in ³	220.3 lb	231.5 lb	660.9 lb	694.6 lb	32.34 lb	±0.0004 in	6.38 lb
HPG 313 S	6 mm	220 cm ³	1960 N	2060 N	5880 N	6180 N	29.40 Kg	± 0.01 mm	3 Kg
	0.24 in	13.42 in ³	440.6 lb	463.1 lb	1321.8 lb	1389.3 lb	64.68 lb	±0.0004 in	6.60 lb
HPG 317	16 mm	500 cm ³	1855 N	1930 N	5565 N	5790 N	27.82 Kg	± 0.015 mm	5.7 Kg
	0.63 in	30.50 in ³	417.0 lb	433.9 lb	1251.0 lb	1301.6 lb	61.21 lb	±0.0006 in	12.54 lb
HPG 317 S	8 mm	500 cm ³	3710 N	3860 N	11130 N	11580 N	55.65 Kg	± 0.015 mm	6 Kg
	0.31 in	30.50 in ³	834.0 lb	867.7 lb	2502.0 lb	2603.2 lb	122.42 lb	±0.0006 in	13.20 lb
HPG 322	25 mm	850 cm ³	2520 N	2610 N	7560 N	7830 N	37.80 Kg	± 0.02 mm	11.5 Kg
	0.98 in	51.85 in ³	566.5 lb	586.7 lb	1699.5 lb	1760.2 lb	83.16 lb	±0.0008 in	25.30 lb
HPG 322 S	14 mm	850 cm ³	4365 N	4525 N	13095 N	13575 N	65.47 Kg	± 0.02 mm	12.5 Kg
	0.55 in	51.85 in ³	981.3 lb	1017.2 lb	2943.8 lb	3051.7 lb	144.04 lb	±0.0008 in	27.50 lb
HPG 330	35 mm	2900 cm ³	5015 N	5200 N	15045 N	15600 N	75.22 Kg	± 0.03 mm	33 Kg
	1.38 in	176.90 in ³	1127.4 lb	1169.0 lb	3382.1 lb	3506.9 lb	165.49 lb	±0.0012 in	72.60 lb
HPG 330 S	20 mm	2900 cm ³	8690 N	9030 N	26070 N	27090 N	130.35 Kg	± 0.03 mm	34.5 Kg
	0.79 in	176.90 in ³	1953.5 lb	2029.9 lb	5860.5 lb	6089.8 lb	286.78 lb	±0.0012 in	75.90 lb

* Recommended workpiece weight is calculated for force-fit gripping with a coefficient of static friction of 0.15 and a safety factor of 3 against workpiece

Operating pressure **3 – 8 bar (43.5-116 psi)** Spring Assist Version **4.5 – 6 bar (65 – 87 psi)**

Ambient temperature **5-60°C (41-140 °F)**

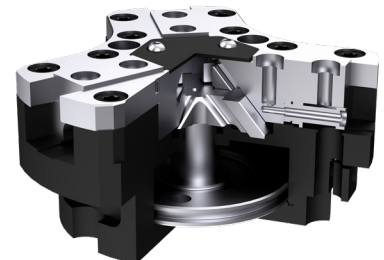
Sound emissions (sound pressure) **≤ 70 db (A) in any direction**

SECTIONAL DIAGRAM



Guidelines for the selection of a gripper model

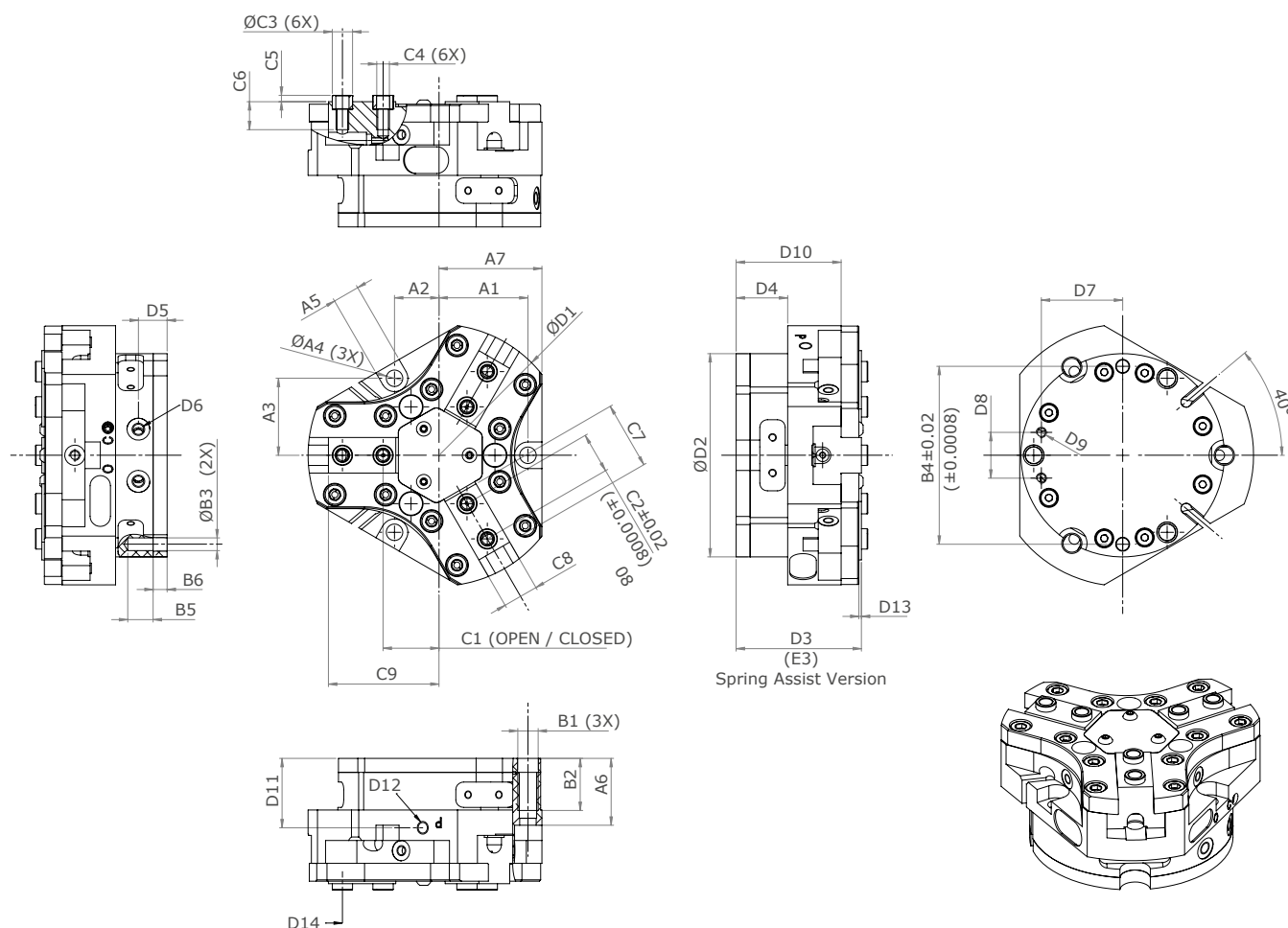
Selection of the correct gripper model depends on the workpiece's weight, the friction coefficient between the fingers and the workpiece and the required motion of the application. Due to inertial forces associated with motion, we recommend that the holding force of the gripper model should be from 10 to 20 times the workpiece's weight. If the application presents high acceleration/deceleration or impacts during the motion, then a further safety margin should be considered.



PRODUCT INFORMATION



03.25_Rev.05



• Dimensional information available at our technical department

Options

- High force version (S version)
- Spring integrated into cylinder as energy storage to maintain a minimum gripping force even in the case of a pressure drop (specify upon order whether spring assist is desired for opening or closing)
- Mounting brackets for inductive proximity switches
- Magnetic switches



Effecto Group S.p.A.

Via Roma, 141/143
28017 San Maurizio d'Opaglio (NO) - IT
Tel. +39 0322 96142
info@effecto.com

Effecto, Inc.

648 Saratoga Road
Glenville, NY 12302 - US
Tel. +1 518 384 1000
info@us.effecto.com

www.effecto.com

Effecto GmbH

Liegnitzer Str. 6
82194 Gröbenzell - DE
Tel. +49 8142 59397 0
info@de.effecto.com