



Grippers | Expansion grippers

ID grippers for diameters 8 - 81 mm

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Product notes

- > Single-acting grippers with high holding force
- > Gripper bellow expanded by pneumatically driven piston, clamps workpiece at its inner surface
- > Ventilation of gripper resets piston and bellow and releases workpiece
- > Piston movement adjustable to position of gripped object
- > Holding force controlled by feed pressure
- > Robust body, made of anodized, high-strength aluminum alloy
- > Elastomer bellows available in EPDM or silicone
- > Easy and non-destructive exchange of bellows
- > Piston movement adjustable to position of gripped object, bellow is not inflated, no risk of bursting

Downward piston movement (workpiece pushed):

- > Clamp the black part of gripper body or using optional extension tubes or threaded mounting brackets

Upward piston movement (workpiece drawn):

- > Clamp the red part of gripper body

NOTES: Not for sale for Italy, San Marino and USA

Technical data

Item no.	Elastomer	For parts having an inner \varnothing from/to [mm]	Optimal operating pressure [bar (psi)]	Weight [g]	Accessories
GR04.F208	EPDM	8 - 10	8 (116)	25	Extension tube: GR06.034, EPDM elastomer: GR04.208-1, Mounting bracket: GR02.280, Mounting bracket: GR02.227
GR04.F208-SI	Silicone	8 - 10	8 (116)	25	Extension tube: GR06.034, Silicone elastomer: GR04.208-2, Mounting bracket: GR02.280, Mounting bracket: GR02.227
GR04.F210	EPDM	10.5 - 13	8 (116)	26	Extension tube: GR06.034, EPDM elastomer: GR04.210-1, Mounting bracket: GR02.280, Mounting bracket: GR02.227
GR04.F210-SI	Silicone	10.5 - 13	8 (116)	26	Extension tube: GR06.034, Silicone elastomer: GR04.210-2, Mounting bracket: GR02.280, Mounting bracket: GR02.227
GR04.F212	EPDM	13 - 17	8 (116)	28	Extension tube: GR06.034, EPDM elastomer: GR04.212-1, Mounting bracket: GR02.280, Mounting bracket: GR02.227
GR04.F212-SI	Silicone	13 - 17	8 (116)	28	Extension tube: GR06.034, Silicone elastomer: GR04.212-2, Mounting bracket: GR02.280, Mounting bracket: GR02.227
GR04.F214	EPDM	15 - 19	8 (116)	31	Extension tube: GR06.034, EPDM elastomer: GR04.214-1, Mounting bracket: GR02.280, Mounting bracket: GR02.227
GR04.F214-SI	Silicone	15 - 19	8 (116)	31	Extension tube: GR06.034, Silicone elastomer: GR04.214-2, Mounting bracket: GR02.280, Mounting bracket: GR02.227
GR04.F218	EPDM	19 - 23.5	8 (116)	53	Extension tube: GR06.034, EPDM elastomer: GR04.218-1, Mounting bracket: GR02.281, Mounting bracket: GR02.227
GR04.F218-SI	Silicone	19 - 23.5	8 (116)	53	Extension tube: GR06.034, Silicone elastomer: GR04.218-2, Mounting bracket: GR02.281, Mounting bracket: GR02.227



Technical data

Item no.	Elastomer	For parts having an inner \varnothing from/to [mm]	Optimal operating pressure [bar (psi)]	Weight [g]	Accessories
GR04.F222	EPDM	23.5 - 31	8 (116)	83	Extension tube: GR06.035, EPDM elastomer: GR04.222-1, Mounting bracket: GR02.282, Mounting bracket: GR02.228
GR04.F222-SI	Silicone	23.5 - 31	8 (116)	83	Extension tube: GR06.035, Silicone elastomer: GR04.222-2, Mounting bracket: GR02.282, Mounting bracket: GR02.228
GR04.F227	EPDM	29 - 36.5	8 (116)	117	Extension tube: GR06.035, EPDM elastomer: GR04.227-1, Mounting bracket: GR02.283, Mounting bracket: GR02.228
GR04.F227-SI	Silicone	29 - 36.5	8 (116)	117	Extension tube: GR06.035, Silicone elastomer: GR04.227-2, Mounting bracket: GR02.283, Mounting bracket: GR02.228
GR04.F233	EPDM	34 - 44	8 (116)	182	Extension tube: GR06.036, EPDM elastomer: GR04.233-1, Mounting bracket: GR02.284, Mounting bracket: GR02.229
GR04.F233-SI	Silicone	34 - 44	8 (116)	182	Extension tube: GR06.036, Silicone elastomer: GR04.233-2, Mounting bracket: GR02.284, Mounting bracket: GR02.229
GR04.F241	EPDM	41 - 58	8 (116)	364	Extension tube: GR06.036, EPDM elastomer: GR04.241-1, Mounting bracket: GR02.285, Mounting bracket: GR02.229
GR04.F241-SI	Silicone	41 - 58	8 (116)	364	Extension tube: GR06.036, Silicone elastomer: GR04.241-2, Mounting bracket: GR02.285, Mounting bracket: GR02.229
GR04.F251	EPDM	52 - 64	8 (116)	611	Extension tube: GR06.037, EPDM elastomer: GR04.251-1, Mounting bracket: GR02.286, Mounting bracket: GR02.232
GR04.F251-SI	Silicone	52 - 64	8 (116)	611	Extension tube: GR06.037, Silicone elastomer: GR04.251-2, Mounting bracket: GR02.286, Mounting bracket: GR02.232
GR04.F263	EPDM	63 - 81	8 (116)	1,051	EPDM elastomer: GR04.263-1, Mounting bracket: GR02.287, Mounting bracket: GR02.233
GR04.F263-SI	Silicone	63 - 81	8 (116)	1,051	Silicone elastomer: GR04.263-2, Mounting bracket: GR02.287, Mounting bracket: GR02.233

Elastomer

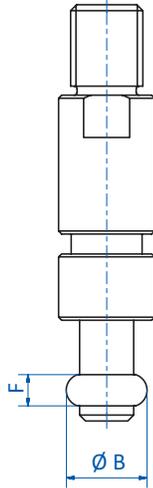
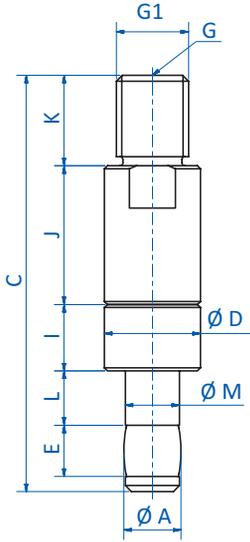
EPDM Color black	Silicone Color red
<ul style="list-style-type: none"> > Non-marking > Heat-resistant to 130 °C (266 °F) 	<ul style="list-style-type: none"> > Very long service life > Heat-resistant to 200 °C (392 °F)



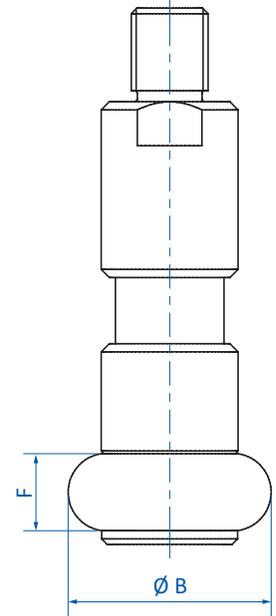
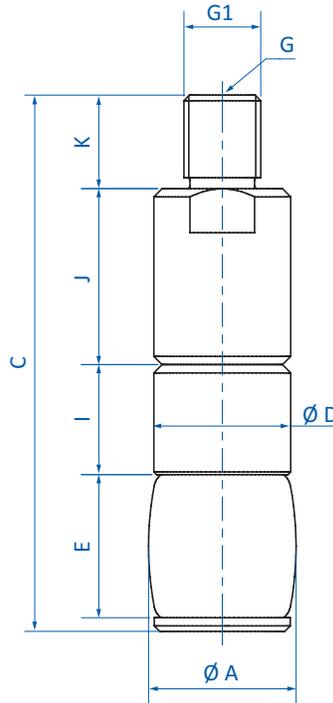
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Dimensions



GR04.F208 | GR04.F208-SI | GR04.F210 | GR04.F210-SI |
GR04.F212 | GR04.F212-SI | GR04.F214 | GR04.F214-SI



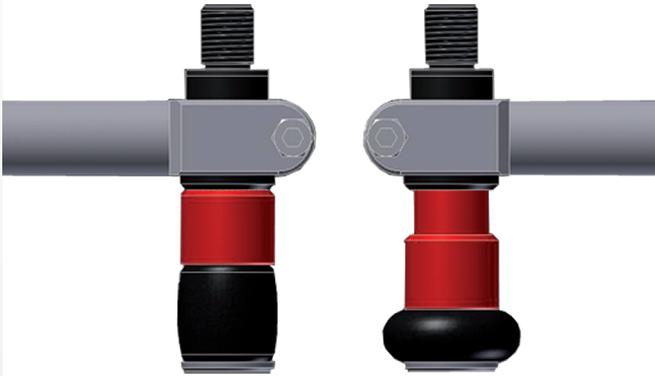
GR04.F218 | GR04.F218-SI | GR04.F222 | GR04.F222-SI |
GR04.F227 | GR04.F227-SI | GR04.F233 | GR04.F233-SI |
GR04.F241 | GR04.F241-SI | GR04.F251 | GR04.F251-SI |
GR04.F263 | GR04.F263-SI

Item no.	G	G1	Ø A [mm]	Ø B [mm]	C [mm]	Ø D [mm]	E [mm]	F [mm]	I [mm]	J [mm]	K [mm]	L [mm]	Ø M [mm]
GR04.F208	M5	M12x1.5	8	10	67	16	7	3.5	11	23	15	9	7
GR04.F208-SI	M5	M12x1.5	8	10	67	16	7	3.5	11	23	15	9	7
GR04.F210	M5	M12x1.5	10.5	13	69	16	8.5	4.5	11	23	15	9	9
GR04.F210-SI	M5	M12x1.5	10.5	13	69	16	8.5	4.5	11	23	15	9	9
GR04.F212	M5	M12x1.5	13	17	71	16	10.5	5	11	23	15	9	11
GR04.F212-SI	M5	M12x1.5	13	17	71	16	10.5	5	11	23	15	9	11
GR04.F214	M5	M12x1.5	15	19	73	16	13	6	11	23	15	9	12
GR04.F214-SI	M5	M12x1.5	15	19	73	16	13	6	11	23	15	9	12
GR04.F218	M5	M12x1.5	19	23.5	78	20	16.5	9	20	23.5	15	--	--
GR04.F218-SI	M5	M12x1.5	19	23.5	78	20	16.5	9	20	23.5	15	--	--
GR04.F222	M5	M14x1,5	23.5	31	93	23	21	9	20	32	17	--	--
GR04.F222-SI	M5	M14x1,5	23.5	31	93	23	21	9	20	32	17	--	--
GR04.F227	M5	M14x1,5	29	36.5	98	25	26	14	20	32	17	--	--
GR04.F227-SI	M5	M14x1,5	29	36.5	98	25	26	14	20	32	17	--	--
GR04.F233	G1/8	M16x1.5	34	44	113	30	33.5	24	20	37.5	19	--	--
GR04.F233-SI	G1/8	M16x1.5	34	44	113	30	33.5	24	20	37.5	19	--	--
GR04.F241	G1/8	M16x1.5	41	58	138	40	41.5	14	20	54.5	19	--	--
GR04.F241-SI	G1/8	M16x1.5	41	58	138	40	41.5	14	20	54.5	19	--	--
GR04.F251	G1/8	M20x1.5	52	64	148	50	53	35	30	42	19	--	--
GR04.F251-SI	G1/8	M20x1.5	52	64	148	50	53	35	30	42	19	--	--
GR04.F263	G1/8	M24x1.5	63	81	176	60	61	36	36	56	19	--	--
GR04.F263-SI	G1/8	M24x1.5	63	81	176	60	61	36	36	56	19	--	--

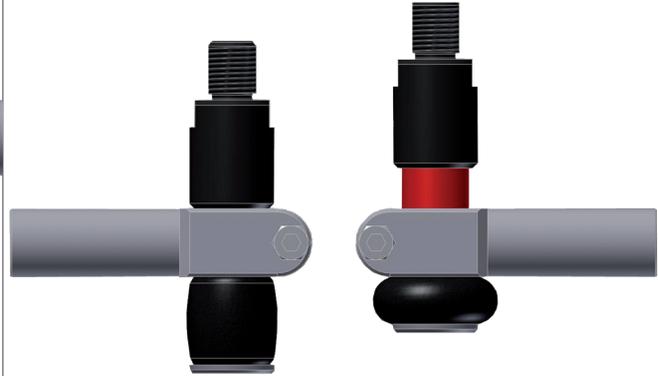


Installation examples

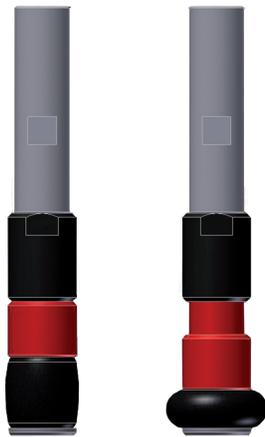
> Clamping the upper part of gripper body enables downward piston movement (workpiece pushed) GR02.280 - GR02.287



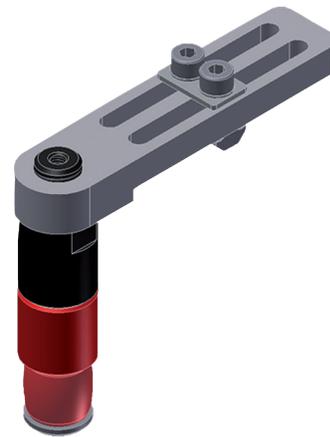
> Clamping the lower gripper body enables upward piston movement (workpiece drawn) GR02.280 - GR02.287



> Clamping to extension tubes enables downward piston movement (workpiece pushed) GR06.034 - GR06.037



> Fitting to threaded mounting brackets enables downward piston movement (workpiece pushed) GR02.227 - 229 and GR02.232 - GR02.233



> Application example

