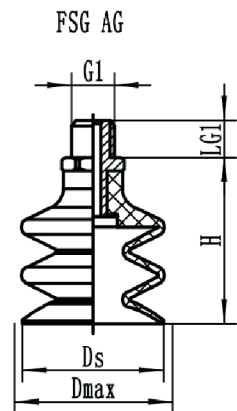
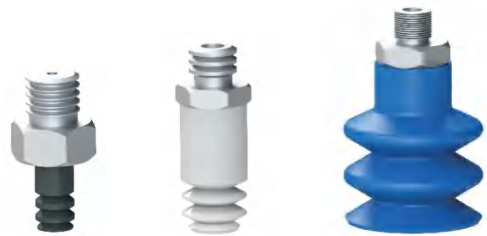


Vacuum Cups FSG Series(Bellows type/2 layers)

NEW



Model	Suction force (N) ⁽¹⁾	Pull-off force (N) ⁽¹⁾⁽²⁾	Recommended Vacuum Tubes Inner Diameter(mm)	G1 (mm)	Dmax(S) (mm)	Ds (mm)	H (mm)	LG1 (mm)	NBR-55 (Black)	SI-55 (Translucent)	HT1-60 (Blue)	Weight
FSG-3-...	0.2	0.4	2	M5-M	4.0	3.0	8.7	3.0	7.Y02215	7.Y02230	7.Y02245	1g
FSG-4-...	0.3	0.6	2	M5-M	7.0	3.8	19.0	5.0	7.Y02216	7.Y02231	7.Y02246	2g
FSG-5-...	0.2	0.8	2	M5-M	7.0	5.0	19.0	5.0	7.Y02217	7.Y02232	7.Y02247	2g
FSG-7-...	0.1	0.9	4	M5-M	9.0	5.9	19.0	5.0	7.Y02218	7.Y02233	7.Y02248	2g
FSG-9-...	0.7	2.3	4	M5-M	9.5	9.0	20.0	5.0	7.Y02219	7.Y02234	7.Y02249	2g
FSG-12-...	0.9	3.5	4	M5-M	13.0	12.0	26.0	5.0	7.Y02220	7.Y02235	7.Y02250	2g
FSG-14-...	1.2	5.7	4	M5-M	15.5	14.5	27.8	5.0	7.Y02221	7.Y02236	7.Y02251	3g
FSG-18-...	2.3	8.5	4	G1/8-M	19.0	17.2	28.6	7.5	7.Y02222	7.Y02237	7.Y02252	6g
FSG-20-...	3.8	12.1	4	G1/8-M	21.0	20.0	28.1	7.5	7.Y02223	7.Y02238	7.Y02253	6g
FSG-25-...	4.5	19.0	4	G1/8-M	26.0	23.0	40.0	7.5	7.Y02224	7.Y02239	7.Y02254	8g
FSG-32-...	12.0	36.9	6	G1/8-M	33.5	32.0	41.5	11.0	7.Y02225	7.Y02240	7.Y02255	17g
FSG-42-...	13.6	44.0	6	G1/8-M	45.0	42.6	50.0	11.0	7.Y02226	7.Y02241	7.Y02256	27g
FSG-52-...	27.0	96.0	6	G1/8-M	55.0	52.5	52.7	11.0	7.Y02227	7.Y02242	7.Y02257	32g
FSG-62-...	39.6	137.0	6	G1/8-M	65.0	62.2	58.0	11.0	7.Y02228	7.Y02243	7.Y02258	60g
FSG-88-...	45.2	286.0	9	G1/4-M	95.5	89.0	92.5	11.0	7.Y02229	7.Y02244	-	173g

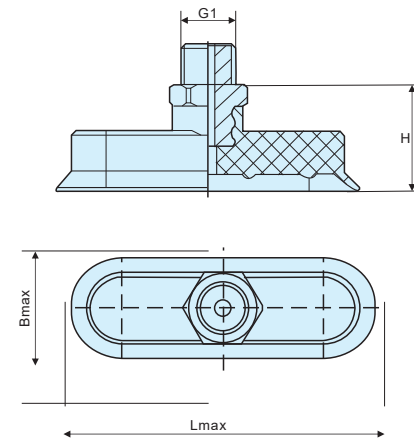
(1) The suction specified above is the theoretical value when the vacuum degree is -0.6bar. For smooth and dry workpieces, the safety factor is not included.

(2) The pull-off force of the vacuum cup made of natural rubber is reduced by about 40%.

Technical Parameters

Materials	Shore Hardness	A Flexibility	Abrasion resistance	UV & weather resistance	Oil resistance	Heat resistance (in °C)	
SI-55: Translucent Silicone	50	+++	-	-	-	-40 to 220	Translucent
HT1-60: Siton [®] Specialized composites (non-marking)	60	+	++	-	++	-25 to 170	Blue
NBR-55: Nitrile Nitrile rubber	60	+	+	-	++	-30 to 120	Black

Vacuum Cups SGON Series(Flat Rectangular)



Model	Suction force (N) ⁽¹⁾	Recommended Vacuum Tubes Inner Diameter(mm)	G1 (mm)	Bmax (mm)	Lmax (mm)	H (mm)	NBR-55 (Black)	SI-55 (Translucent)	HT1-60 (Blue)	Weight
SGON-4x2-...	0.42	2	M3-M	2.5	4.5	8	1.Y13068	1.Y13079	1.Y13090	2g
SGON-7x3.5-...	1.0	2	M3-M	4.5	7.5	8	1.Y13069	1.Y13080	1.Y13091	2g
SGON-12x4-...	1.8	2	M5-M	5.0	13.0	18	1.Y13070	1.Y13081	1.Y13092	3g
SGON-15x5-...	3.1	2	M5-M	5.5	15.5	17	1.Y13071	1.Y13082	1.Y13093	3g
SGON-18x6-...	4.5	2	M5-M	7.0	18.5	17	1.Y13072	1.Y13083	1.Y13094	3g
SGON-24x8-...	8.0	4	G1/8-M	9.0	24.5	17	1.Y13073	1.Y13084	1.Y13095	7g
SGON-30x10-...	12.2	4	G1/8-M	11.5	30.5	17	1.Y13074	1.Y13085	1.Y13096	7g
SGON-45x15-...	28.2	6	G1/4-M	16.5	46.0	26	1.Y13075	1.Y13086	1.Y13097	15g
SGON-60x20-...	50.1	6	G1/4-M	22.0	61.0	26	1.Y13076	1.Y13087	1.Y13098	19g
SGON-75x25-...	78.3	6	G1/4-M	27.5	77.0	26	1.Y13077	1.Y13088	1.Y13099	27g
SGON-90x30-...	112.6	6	G1/4-M	33.0	92.5	26	1.Y13078	1.Y13089	1.Y13100	35g

(1) The suction specified above is the theoretical value when the vacuum degree is -0.6bar. For smooth and dry workpieces, the safety factor is not included.

* SGON-24x8 and larger replacement vacuum cup pads are equipped with special fixing clips.

Technical Parameters

Materials	Shore Hardness	A Flexibility	Abrasion resistance	UV & weather resistance	Oil resistance	Heat resistance (in °C)	
SI-55: Translucent Silicone	50	+++	-	-	-	-40 to 220	Translucent
HT1-60: Siton [®] Specialized composites (non-marking)	60	+	++	-	++	-25 to 170	Blue
NBR-55: Nitrile Nitrile rubber	60	+	+	-	++	-30 to 120	Black