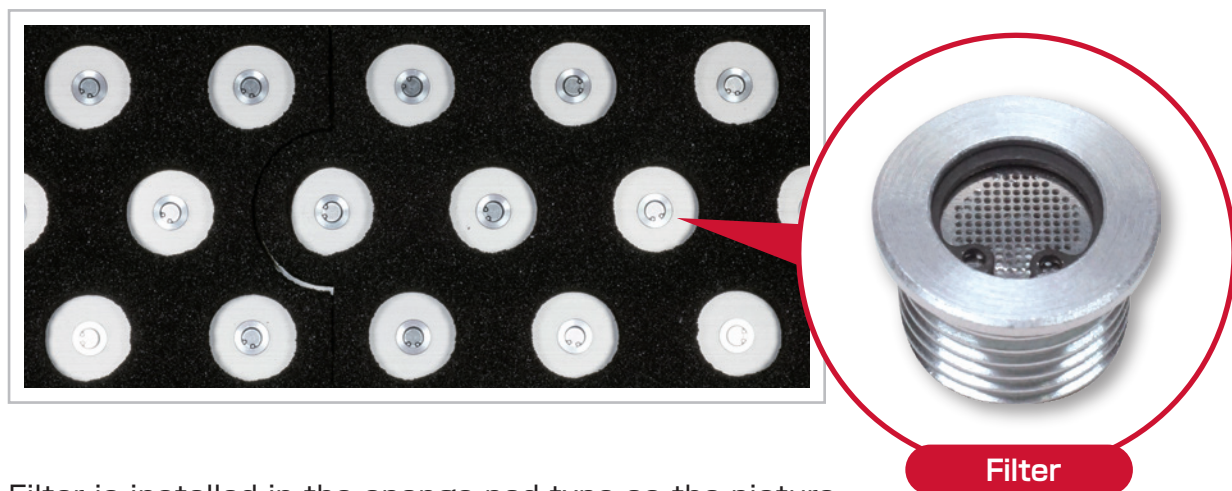


○ Filter cleaning • Maintenance



Filter is installed in the sponge pad type as the picture.
The filter condition can be found easily by checking pad surface.
It can be cleaned by air blow as the filter is made of stainless steel.

*Specifications may change without prior notice.

*Please refer to the catalog and instruction manual about How to use, notes.

CONVUM
Myotoku Ltd.

2-6-18 Shimomaruko, Ohta-ku, Tokyo 146-0092, Japan
TEL 81-3-3759-1491 FAX 81-3-5741-7020
<https://www.convum.co.jp/en>

No. 8Y01

CONVUM

PALLETCHER

SGP series

NEW

CONVUM
built-in

Selectable from
standard cups

Filter
equipped

NEW

PALLETCHER

SGP series



CONVUM
built-in

Built-in CONVUM (Vacuum ejector)

Vacuum suction by compressor air only.

- Covers from low vacuum pressure to high vacuum pressure (Supplied pressure rate: 0.45, 0.55MPa)
- Low noise, less than 70dB(A)

Selectable from
standard cups

Select from a wide variety of standard suction cups

Chloroprene (Hard type) and eptsealer (Soft type) material are selectable for sponge type.



Multiple suction cups mounted type

Multiple bellows suction cup, PL series



Multiple suction cups mounted type

3 bellows suction cup, PC series



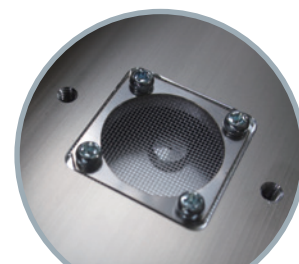
Sponge pad type

Chloroprene (Hard),
eptsealer (Soft) material

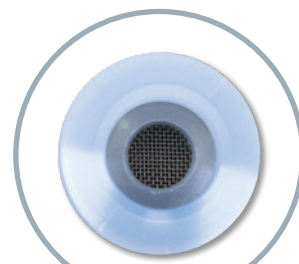
Filter
equipped

Mesh filter is installed

to avoid getting foreign objects into CONVUM and suction cups.



Vacuum port filter for CONVUM



Filter for suction cup

Allows handling a wide range of workpieces by one hand.

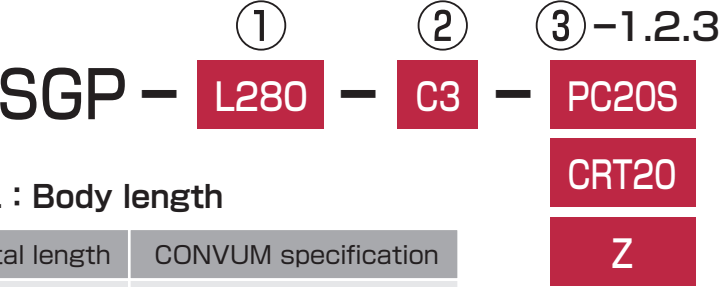


By the built-in fixed orifice, it allows handling workpieces even with some vacuum leakage.

- Uneven workpieces
- Heavy workpieces
- Porous workpieces



How to order



① L : Body length

Total length	CONVUM specification
L280	1 nozzle
L416	2 nozzles
L560	2 nozzles

② C : Suction cup line number

Number of suction cup line	Suction cup details				
	Pitch	Number of hole	Cup diameter	Body total length	Suction cup diameter
C3	54	14	φ40	280	φ40
C5	36	32	φ20	280	φ20
C3	54	21	φ40	416	φ40
C5	36	52	φ20	416	φ20
C3	54	29	φ40	560	φ40
C5	36	72	φ20	560	φ20

③ - 1. Model for suction cups
Multiple suction cups mounted type

Suction cup				Suction cup type
PB20S	PB20N	PB40S	PB40N	2 bellows suction cup
PC20S	PC20N	PC40S	PC40N	3 bellows suction cup
PL20S4	PL20S5	PL40S4	PL40S5	Multiple bellows suction cup

Note) 20, 40 indicates suction cup diameter.
Note) Cup material → S : Silicone rubber, N : Nitrile rubber, S4 : Silicone rubber 40° S5 : Silicone rubber 50°

③ - 2. Model for sponge pad type
Sponge pad type

Sponge pad	Sponge material	Hardness	Thickness
CRT20	Chloroprene	8°	t 20
EPT20	Epothaler	1°	t 20

③ - 3. Without suction cup

Z

Note

- Adsorption test with actual workpieces is recommended for selecting.
- Please use O.D 12mm, I.D 9mm air hose for supplying compressed air.

Specifications

	Unit	SGP-L280	SGP-L416	SGP-L560
Fluid		Oil-free compressed air		
Operating ambient temperature	℃	0~50(Without frozen)		
Operating pressure range	MPa	0.15~0.6		

Built-in CONVUM performance

	Unit	SGP-L280		SGP-L416		SGP-L560	
Nozzle number	Pcs	1		2		2	
Supplied air pressure	MPa	0.45	0.55	0.45	0.55	0.45	0.55
Max. vacuum pressure	(-)kPa	70	90	70	90	70	90
Suction flow rate Note1	L/min(ANR)	323	356	557	604	557	604
Air consumption amount Note1	L/min(ANR)	104	126	201	239	201	239
Exhausted air sound volume	Vacuum port open dB(A)	71	71	65	68	67	68
	Vacuum port close dB(A)	64	55	61	54	62	54

Note 1) CONVUM performance only

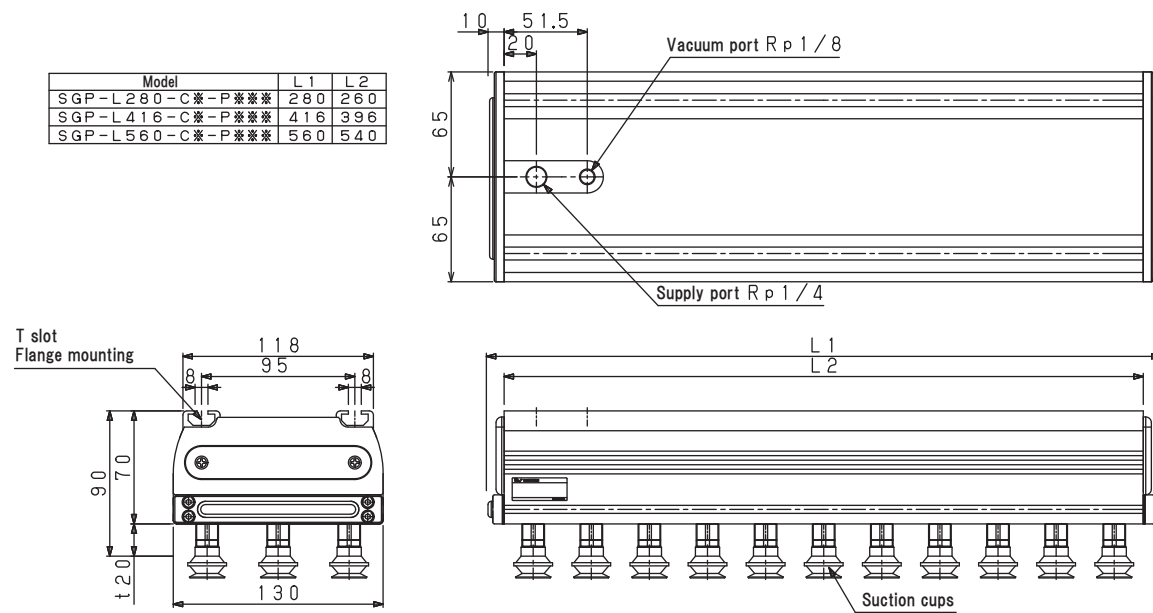
Mass table

Suction cup specification	Model	Mass (kg)	Suction cup specification	Model	Mass (kg)
2 bellows suction cup	SGP-L280-C3-PB40□	2.4	Multiple bellows suction cup	SGP-L280-C3-PL40S□	2.5
	SGP-L280-C5-PB20□			SGP-L280-C5-PL20S□	2.3
	SGP-L416-C3-PB40□	3.3		SGP-L416-C3-PL40S□	3.5
	SGP-L416-C5-PB20□	3.4		SGP-L416-C5-PL20S□	3.1
	SGP-L560-C3-PB40□	4.3		SGP-L560-C3-PL40S□	4.5
	SGP-L560-C5-PB20□	4.4		SGP-L560-C5-PL20S□	4.0
3 bellows suction cup	SGP-L280-C3-PC40□	2.5	Sponge pad	SGP-L280-C3-CRT/EPT20	2.1
	SGP-L280-C5-PC20□	2.4		SGP-L280-C5-CRT/EPT20	
	SGP-L416-C3-PC40□	3.5		SGP-L416-C3-CRT/EPT20	2.8
	SGP-L416-C5-PC20□	3.4		SGP-L416-C5-CRT/EPT20	2.9
	SGP-L560-C3-PC40□	4.5		SGP-L560-C3-CRT/EPT20	3.6
	SGP-L560-C5-PC20□	4.4		SGP-L560-C5-CRT/EPT20	3.7

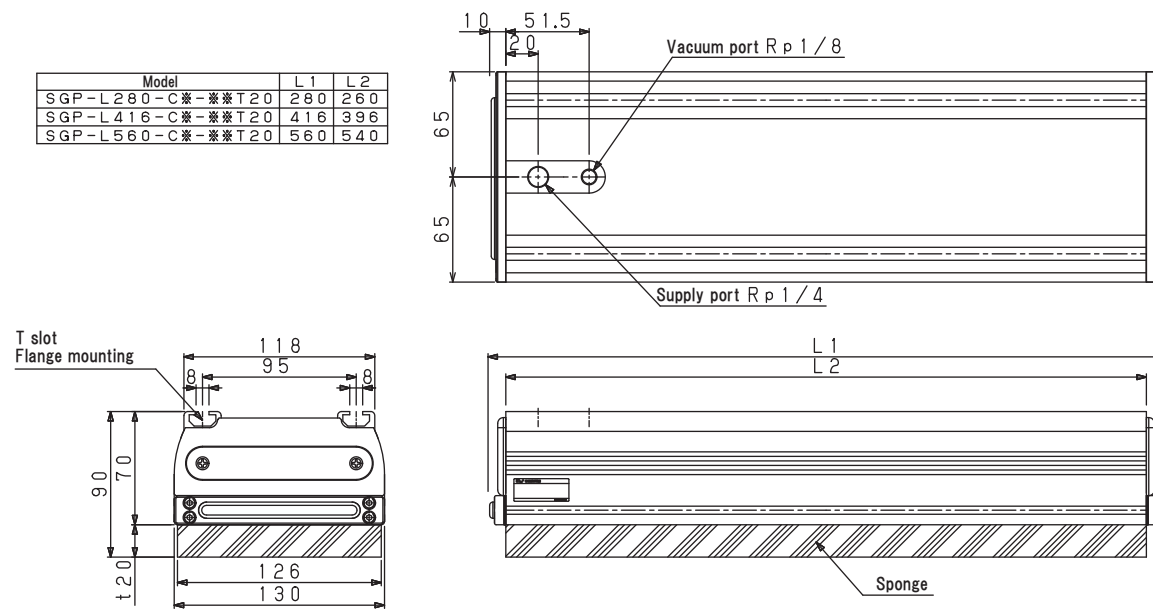
Note) □ indicates suction cup material

Dimensions

Multiple suction cups mounted type

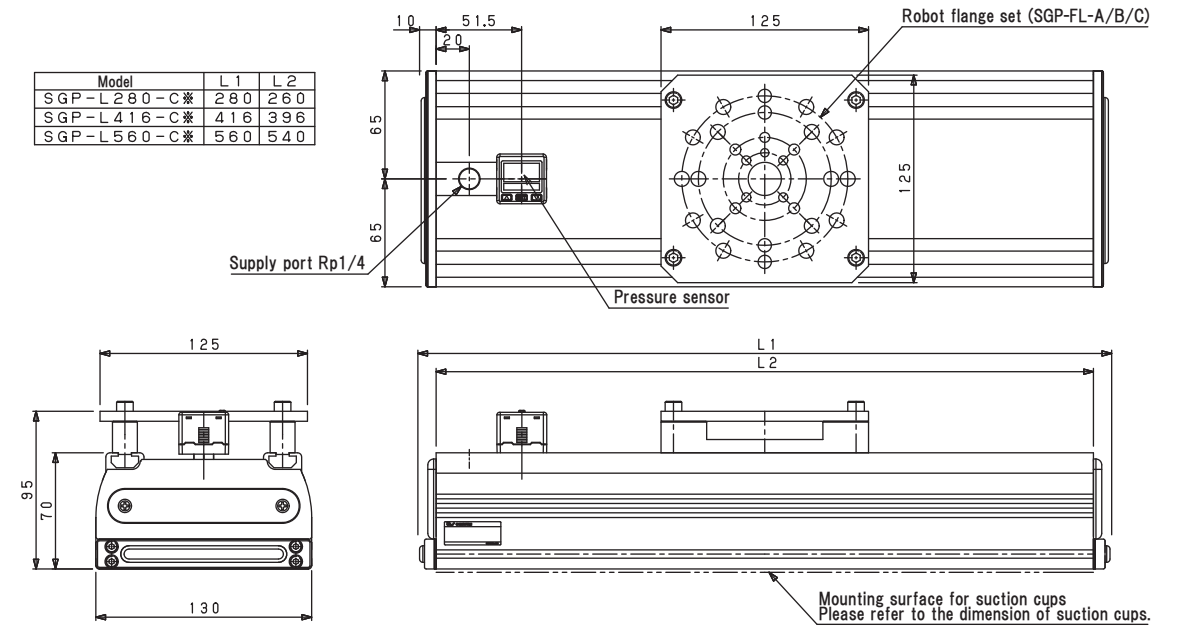


Sponge pad type



Dimensions

Multiple suction cups mounted type (with robot flange and pressure sensor)



Suction cup dimensions

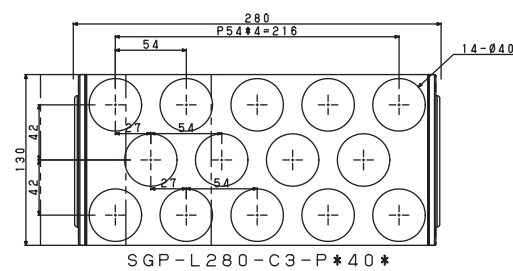
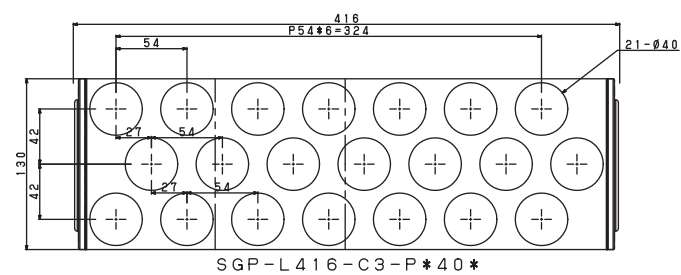
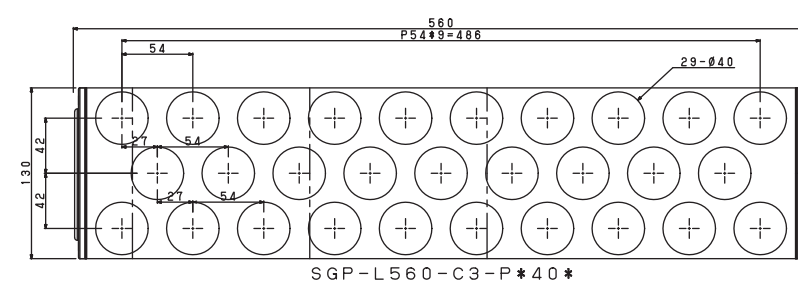
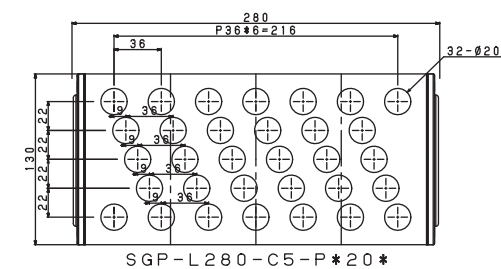
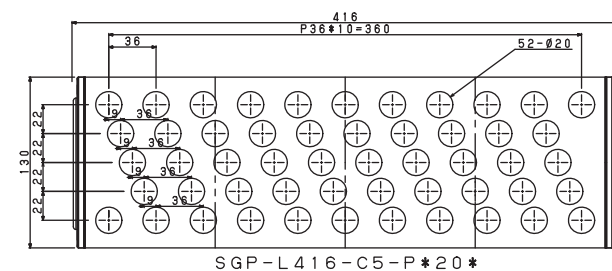
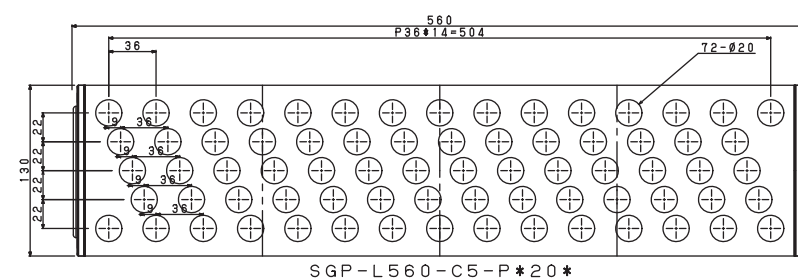
SGP suction cup dimensions

2 bellows suction cup		3 bellows suction cup		Multiple bellows suction cup	
Cup model	PB20N/S	Cup model	PC20N/S	Cup model	PL20S4/S5
2 bellows suction cup		3 bellows suction cup		Multiple bellows suction cup	
Cup model	PB40N/S	Cup model	PC40N/S	Cup model	PL40S4/S5

Rubber material
 N : Nitrile rubber
 S : Silicone rubber
 S4 : Silicone rubber 40°
 S5 : Silicone rubber 50°

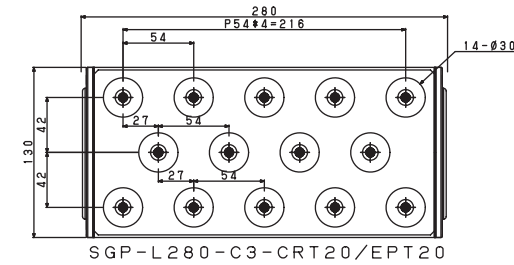
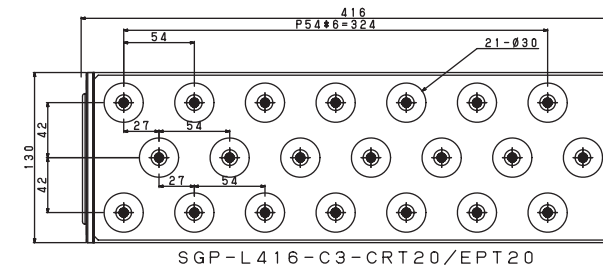
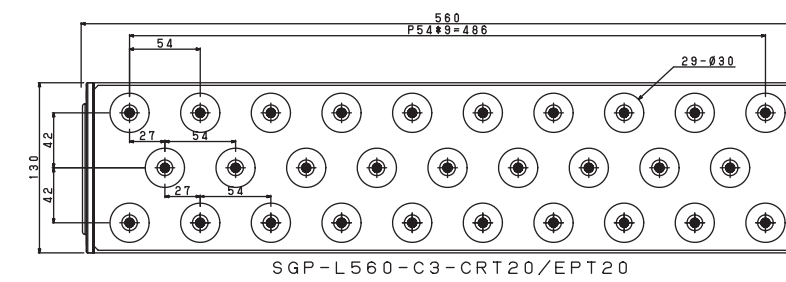
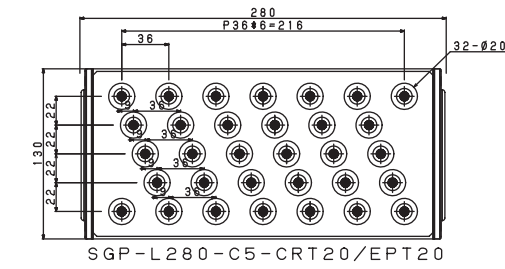
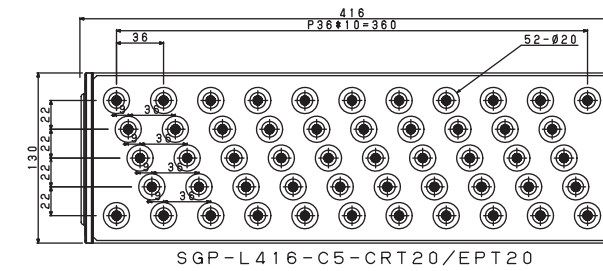
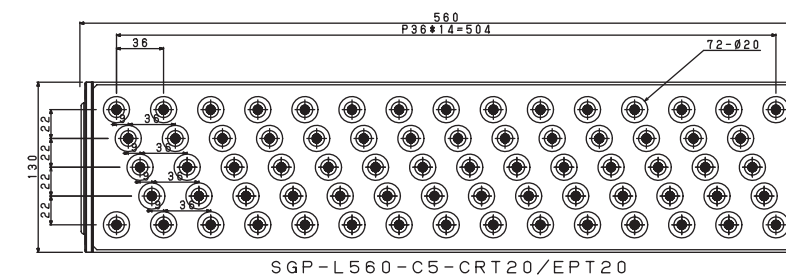
Layout drawing for suction cups

Multiple suction cups mounted type



Layout drawing for suction cups

Sponge pad type



Maintenance part・Accessories

Pressure sensor

MPS-V35R-NCA			
Pressure range	Display	Switch output	Analog output
-101.3~10kPa	Digital	NPN or PNP open collector 2 outputs	DC12~24V



Model for robot flange

SGP-FL-A
SGP-FL-B
SGP-FL-C

Note) The robot flanges are applicable for robots in the below list.

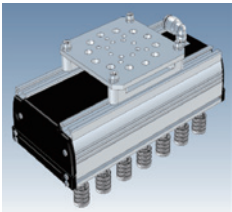


Image of mounted robot flange.

Applicable robot list to the robot flange

Model of robot flange	Brand	Model	Weight capacity	Flange mounting P.C.D	Mounting screw	Positioning pin hole	
SGP-FL-A	Common	-	-	P.C.D.31.5	4-M5	φ5	
	Kawasaki	RS030N	30.0	P.C.D.80	6-M8	2-φ8	
		RS050N	50.0				
		RS080N	80.0				
		RD080N	80.0				
	TOSHIBA	TVM1500	10.0	P.C.D.50	4-M6	φ6	
		TVM1200	15.0				
		TVM900	20.0				
	FANUC	M-710iC/50T	50.0	P.C.D.100	10-M8	φ8	
		M-710iC/50S	50.0				
		M-710iC/50H	50.0				
		M-710iC/50E	50.0				
		M-710iC/70T	70.0				
		R-1000iA/80F	80.0				
		R-1000iA/80H	80.0				
		R-1000iA/100F	100.0				
	MITSUBISHI ELECTRIC	RV-35F	35.0				
		RV-50F	50.0				
		RV-70F	70.0				
	YASKAWA	MOTOMAN-GP35L	35.0	P.C.D.80	6-M8	2-φ8	
		MOTOMAN-GP50	50.0				
		MOTOMAN-GP88	88.0				
		MOTOMAN-MH50II-35	35.0				
		MOTOMAN-MH50II	50.0				
		MOTOMAN-MH80II	80.0				
	UNIVERSAL ROBOTS	UR3	3.0	P.C.D.50	4-M6		
		UR5	5.0				
		UR10	10.0				
SGP-FL-B	Kawasaki	RS010N	10.0	P.C.D.40	4-M6	φ6	
		RS010L	10.0	P.C.D.63			
		RS015X	15.0				
		RS020N	20.0				
	DENSO	VM-60B3	13.0	P.C.D.40			
		VM-60B1	13.0				
	FANUC	M-10iA/10M	10.0				7-M6
		M-10iA/10MS	10.0				
		M-20iA/20M	20.0				
		M-20iA/35M	35.0				
		M-20iA/20MT	20.0				
		M-20iA/35MT	35.0				
		M-20iB/25	25.0				
		M-20iB/25C	25.0				
		M-20iB/35S	35.0				
		M-710iC/45M	45.0				
		M-710iC/50	50.0	P.C.D.90	10-M10		
	M-710iC/70	40.0					
	TOSHIBA	TV1000H	10.0	P.C.D.40	4-M6	φ6	
	MITSUBISHI ELECTRIC	RV-13FR(M)(C)	13.0				
		RV-13FRL(M)(C)	13.0				
		RV-13F(M)(C)	13.0				
		RV-13FL(M)(C)	13.0				
		RV-20FR(M)(C)	20.0				
		RV-20F(M)(C)	20.0				
	YASKAWA	MOTOMAN-HP20F	20.0				
MOTOMAN-MH50II-20		20.0					
SGP-FL-C	FANUC	M-10iA/7L	7.0	P.C.D.56	8-M4	φ4	
		M-10iA/8L	8.0				
		M-10iA/12	12.0				
		M-10iA/12S	12.0				
		M-20iA/12L	12.0				
		M-20iA/20T	20.0				
	YASKAWA	MOTOMAN-GP12	12.0		15-M4		
		MOTOMAN-GP-25-12	12.0				
		MOTOMAN-MH12	12.0				
		MOTOMAN-MH24-10	10.0				
				8-M4			

Plug(Filler plug) · · · To close the disused hole of suction cup.

CRK-PG1

Note) It can be used when reducing suction cup quantity to use.

Replaced suction cup, set screw

2 bellows suction cup model

PBG – 20 – N

① Cup diameter(mm)		② Cup rubber material	
Mark	Cup diameter	Mark	Material
20	φ20	N	NBR(Nitrile rubber)
40	φ40	S	Silicone rubber

Fitting set to mount suction cup
SGP-PB20K, SGP-PB40K
Suction cup
PBG-20-□, PBG-40-□
Set screw
TN-PF-20-M5, TN-PF-25-M6

Set screw model

Set screw model	Applicable suction cup model
TN-PF-20-M5	PBG-20-□
TN-PF-25-M6	PBG-40-□

Note) □ indicates suction cup material.

3 bellows suction cup model

PCG – 20 – N

① Cup diameter(mm)		② Cup rubber material	
Mark	Cup diameter	Mark	Material
20	φ20	N	NBR(Nitrile rubber)
40	φ40	S	Silicone rubber

Fitting set to mount suction cup
SGP-PC20K
Set screw
TN-PC-10-M5
Suction cup
TPCG-20-□

Fitting set to mount suction cup
SGP-PC40K
Suction cup
PCG-40-□
Set screw
TN-PC-30-M6

Set screw model

Set screw model	Applicable suction cup model
TN-PC-10-M5	PCG-20-□
TN-PC-30-M6	PCG-40-□

Note) □ indicates suction cup material.

Multiple bellows suction cup model

PLG – 20 – S4

① Cup diameter(mm)		② Cup rubber material	
Mark	Cup diameter	Mark	Material
20	φ20	S4	Silicone rubber 40°
40	φ40	S5	Silicone rubber 55°

Fitting set to mount suction cup
SGP-PL20K, SGP-PL40K
Suction cup
PLG-20-□, PLG-40-□

Note) Set screw is not needed for multiple bellows suction cup(PL series).
Note) Please contact us for other suction cup series.

Model for fitting set to mount suction cup (Fitting only)

Fitting set	Suction cup
SGP-PB20K	PBG-20-□
SGP-PC20K	PCG-20-□
SGP-PL20K	PLG-20-□
SGP-PB40K	PBG-40-□
SGP-PC40K	PCG-40-□
SGP-PL40K	PLG-40-□

Model for replaced sponge pad

Note1) Please select the sponge pad according to PALLETCHER model.

Sponge pad model	PALLETCHER model Note1	Sponge material
SP-L280C3EP20	SGP-L280-C3-EPT20	Eptsealer
SP-L280C3CR20	SGP-L280-C3-CRT20	Chloroprene
SP-L280C5EP20	SGP-L280-C5-EPT20	Eptsealer
SP-L280C5CR20	SGP-L280-C5-CRT20	Chloroprene
SP-L416C3EP20	SGP-L416-C3-EPT20	Eptsealer
SP-L416C3CR20	SGP-L416-C3-CRT20	Chloroprene
SP-L416C5EP20	SGP-L416-C5-EPT20	Eptsealer
SP-L416C5CR20	SGP-L416-C5-CRT20	Chloroprene
SP-L560C3EP20	SGP-L560-C3-EPT20	Eptsealer
SP-L560C3CR20	SGP-L560-C3-CRT20	Chloroprene
SP-L560C5EP20	SGP-L560-C5-EPT20	Eptsealer
SP-L560C5CR20	SGP-L560-C5-CRT20	Chloroprene