

piGRIP® – Thousands of suction cups ready to improve your machine

A unique modular suction cup concept with individually optimized parts for gripping, lifting and height compensation.

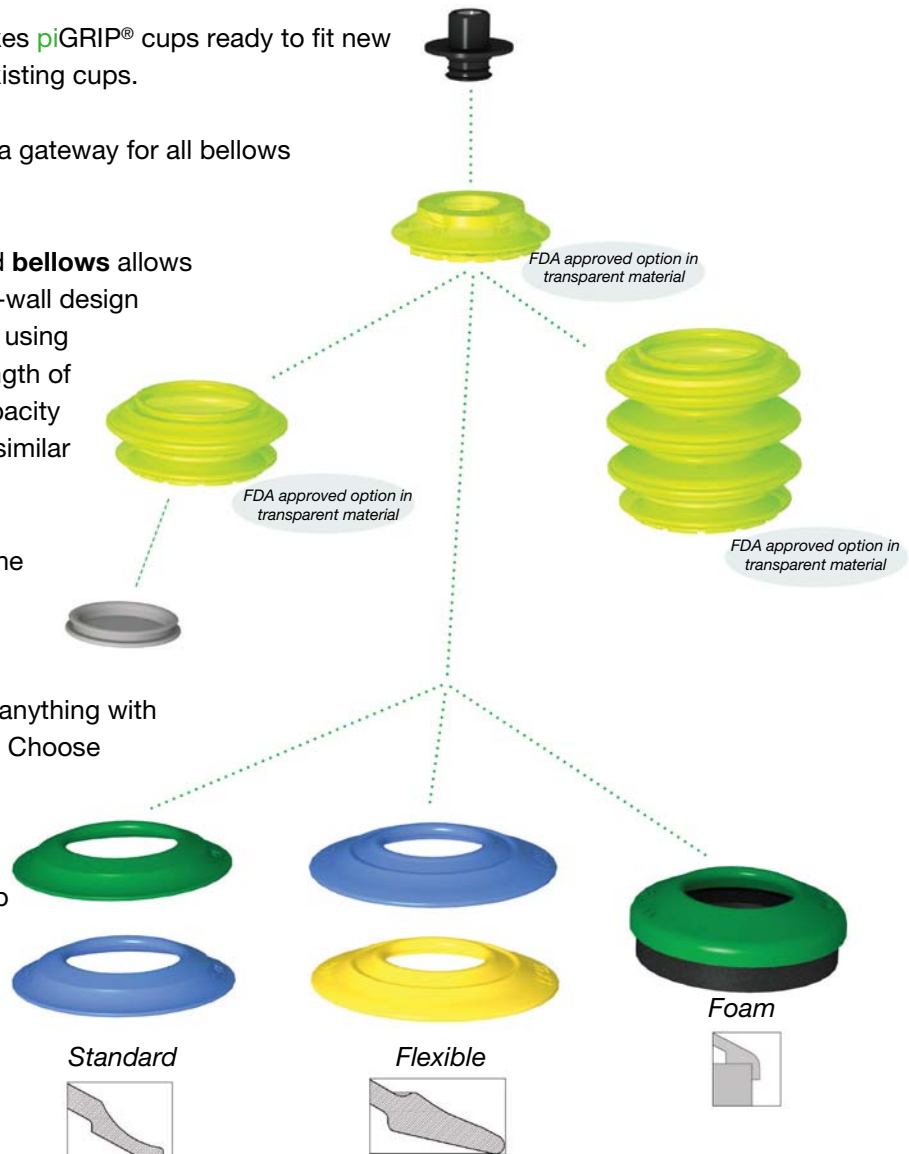
A large selection of **fittings** makes piGRIP® cups ready to fit new machines and easy to retrofit existing cups.

One **support** per size works as a gateway for all bellows and lips (flat cups).

Firm and stable 1- and 3- folded **bellows** allows for faster machine speeds. Thin-wall design makes them faster to compress using less force and energy. The strength of the material increases lifting capacity between 30-50% compared to similar conventional cups.








A low micron **filter disc** inside the bellows traps dust and particles increasing system reliability.

Get an excellent grip on almost anything with the right **lip** for your application. Choose standard lips from 60° shore to extremely flexible, soft lips in 30° shore. Even foam lips for objects which are difficult to grip with traditional cups.






piGRIP® Modular suction cups



	80°-87°	TPE, oil resistant, silicone/PWIS free and mark free
	80°-87°	TPE, FDA, oil resistant, silicone/PWIS free and mark free
	60°	TPE, oil resistant, silicone/PWIS free and mark free
	50°	TPE, FDA
	30°	TPE, FDA
	60°	PU
	S	EPDM, foam

Suction cups/grippers piGRIP® Modular suction cups


piGRIP® Configurable products

Product Group piGRIP® Code G								
	Dimension & Type Code Description		Lip Material & Durometer Code Description		Bellows or Flat Cup Code Description		Support Code Description	
	S25	Ø 25 mm Standard lip			B1	1 Bellows	S1	Support
	S35	Ø 35 mm Standard lip	T60	TPE 60° Shore A	B3	3 Bellows		
	S50	Ø 50 mm Standard lip	T50	TPE 50° Shore A	F	Flat		
	S70	Ø 70 mm Standard lip						
	FX28	Ø 28 mm Flexible lip						
	FX39	Ø 39 mm Flexible lip	T50	TPE 50° Shore A				
	FX55	Ø 55 mm Flexible lip	T30	TPE 30° Shore A				
	FX77	Ø 77 mm Flexible lip						
	FLI25	Ø 25 mm Foam lip						
	FLI35	Ø 35 mm Foam lip	S	Foam EDPM (soft)				
	FLI50	Ø 50 mm Foam lip						
	FLI70	Ø 70 mm Foam lip						

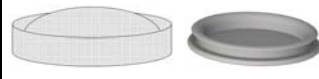
Lips are available as spare parts.

G . S50T60 . B3 . S1 .


Suction cups/grippers piGRIP® Modular suction cups



Code	Type Description	Fitting		Style	
		Code	Size Description	Code	Description
G NT	G-Thread NPT-Thread	18	1/8"	M	Male
		14	1/4"		
		38	3/8"		
		12	1/2"		
GL NTL	G-Thread low NPT-Thread low	18	1/8"	M	Male
		14	1/4"		
		38	3/8"		
NS G*	NPSF-Thread G-Thread	18*	1/8"	F	Female
		14	1/4"		
		38	3/8"		
		12	1/2"		
		518*	5x1/8"		
NT	NPT-Thread	14	1/4"	F	Female
		38	3/8"		
M	M-Thread	M6	M6	M	Male
		MF8	M8x1		
		M10	M10		
		MF14	M14x1		
		MF16	M16x1.5		
M	M-Thread	M5	M5	F	Female
		M6	M6		
		M8	M8		
		M10	M10		
		M12	M12		
		MF16	M16x1.5		
U	UNC-Thread	12	1/2"	F	Female
X	No type	X	No size	X	No style



Option	
Code	Description
00	No filter
01	Filter mesh
02	Filter disc (only bellows cup)



FDA approved option incl. material certificate	
Code	Description
FDA	No* US Food and Drug Administration

*) Leave blank for no certificate. Certificate includes a fee.

*) Fitting code G18F and G518F are automatically changed to NS18F and NS518F due to identical threads.

Fittings are available as spare parts.


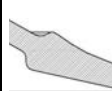

G38M . 01 . ()

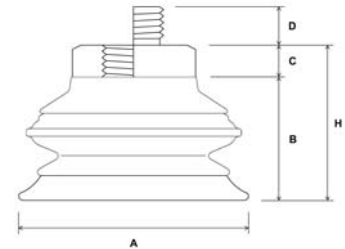


piGRIP® Modular suction cups

Suction cups/grippers piGRIP® Modular suction cups

Suction cup dimensions, mm










Lip type & size	Dim. A	Dim B.			
		F (Flat)	B-1 (1 Bellows)	B-3 (3 Bellows)	
	S25	25	10.9	18.7	29.8
	S35	35	12.4	23.3	38.8
	S50	50	14.7	30.3	52.4
	S70	70	17.8	39.6	70.6
	FX28	28	11.4	19.2	30.3
	FX39	38	13.1	24.0	39.5
	FX55	55	15.7	31.3	53.4
	FX77	77	19.2	41	72
	FLI25	25	17.5	25.3	36.4
	FLI35	35	21.5	32.4	47.9
	FLI50	50	32.1	47.7	69.8
	FLI70	70	34.1	55.9	86.9



Build height:

$$H = B + C = 18.7 + 5 = 23.7 \text{ mm}$$

Fitting dimensions, mm

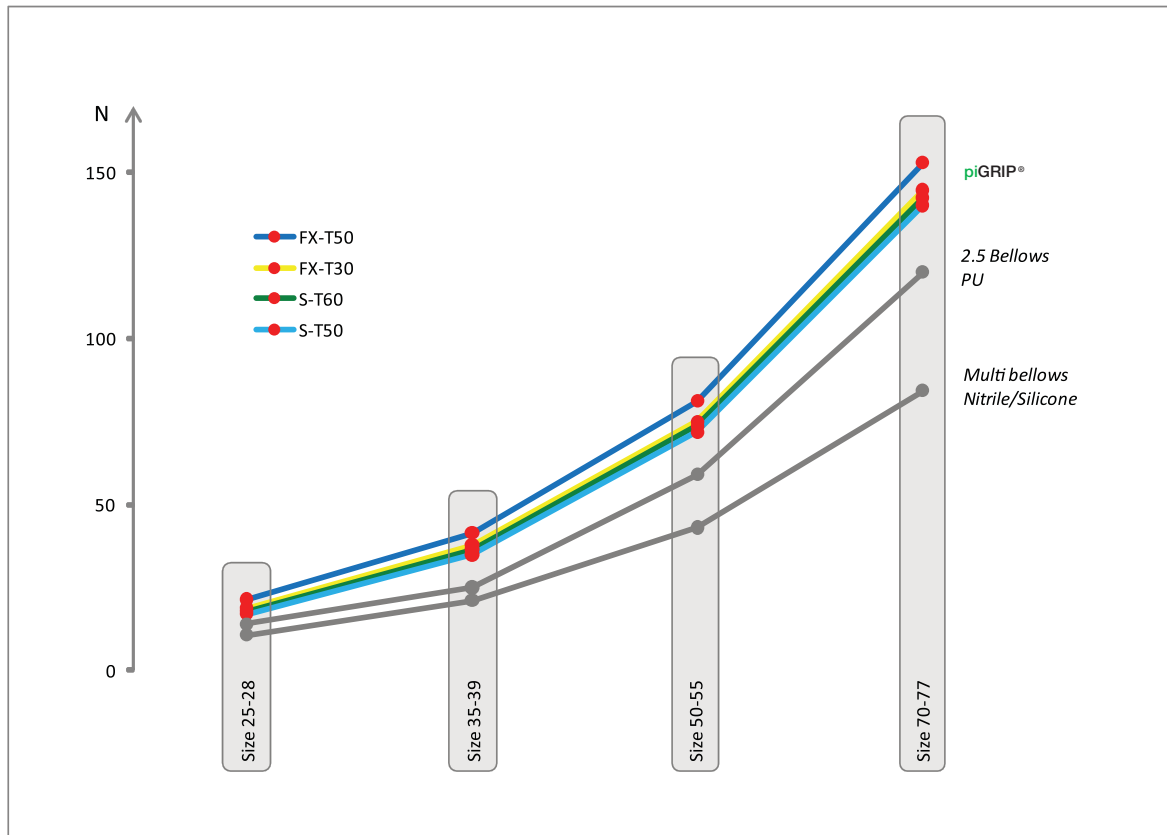
Type	Code	Dim. C	Dim. D	Description	Recommended fitting size for best performance*			
					S25 FX28 FLI25	S35 FX39 FLI35	S50 FX55 FLI50	S70 FX77 FLI70
	G18M	5	6	Fitting G1/8" male	x	x	x	
	G14M	6	9	Fitting G1/4" male	x		x	x
	G38M	6	10	Fitting G3/8" male		x	x	x
	G12M	6	10	Fitting G1/2" male			x	x
	GL18M	1.5	6	Fitting G1/8" low male	x	x	x	
	GL14M	1.5	9	Fitting G1/4" low male	x		x	x
	GL38M	1.5	10	Fitting G3/8" low male		x	x	x
	NT18M	5	7	Fitting 1/8" NPT male	x	x	x	
	NT14M	6	11	Fitting 1/4" NPT male	x		x	x
	NT38M	6	11.5	Fitting 3/8" NPT male		x	x	x
	NT12M	6	15	Fitting 1/2" NPT male			x	x
	NTL18M	1.5	7	Fitting 1/8" NPT low male	x	x	x	
	NTL14M	1.5	11	Fitting 1/4" NPT low male	x		x	x
	NTL38M	1.5	11.5	Fitting 3/8" NPT low male		x	x	x
	MM6M	5	6	Fitting M6 male	x	x		
	MMF8M	5	6	Fitting M8 x 1 male	x	x	x	
	MM10M	6	10	Fitting M10 male	x	x	x	
	MMF14M	6	12	Fitting M14 x 1 male	x	x	x	x
	MMF16M	6	12	Fitting M16 x 1.5 male		x	x	x
	G14F	10	-	Fitting G1/4" fem	x	x	x	
	G38F	13	-	Fitting G3/8" fem		x	x	x
	G12F	14	-	Fitting G1/2" fem			x	x
	NS18F**	7	-	Fitting 1/8" NPSF fem	x	x	x	
	NS14F	10	-	Fitting 1/4" NPSF fem	x	x	x	x
	NS38F	13	-	Fitting 3/8" NPSF fem		x	x	x
	NS12F	14	-	Fitting 1/2" NPSF fem			x	x
	NS518F**	18	-	Fitting 5x1/8" NPSF fem	x	x	x	
	NT14F	12	-	Fitting 1/4" NPT fem	x	x	x	x
	NT38F	13	-	Fitting 3/8" NPT fem		x	x	x
	U12F	12	-	Fitting 1/2" UNC fem			x	x
	MM5F	6	-	Fitting M5 fem	x	x		
	MM6F	6	-	Fitting M6 fem	x	x		
	MM8F	7	-	Fitting M8 fem	x	x	x	
	MM10F	7	-	Fitting M10 fem	x	x	x	
	MM12F	12	-	Fitting M12 fem	x	x	x	
	MMF16F	13	-	Fitting M16 x 1.5 fem		x	x	x

*) No flow restriction or excessive volume to evacuate, which will deteriorate the performance of the vacuum system.

**) Fitting code G18F and G518F are automatically changed to NS18F and NS518F due to identical threads.

piGRIP® Material Data

Up to 50% improved lifting force with piGRIP®. Use fewer cups or smaller sizes.



Proven function and lifting capacity within specified area of operation.
See suction cup selection guide on www.piab.com for specified performance data.

Material Specifications

Material	Hardness Shore A °	Item(s)	Colour	Temp. range ° C	Special qualities
TPE	80-87	Support S1	Lime/Transparent	-20 – 80 / 120*	FDA**, silicone/PWIS free, mark free, oil resistant
TPE	87	Bellows	Lime/Transparent	-20 – 80 / 120*	FDA**, silicone/PWIS free, mark free, oil resistant
TPE	60	Standard Lip (S) T60	Green	-20 – 80 / 120*	Silicone/PWIS free, mark free, oil resistant
TPE	50	Standard Lip (S) T50	Blue	-40 – 80 / 120*	FDA
TPE	50	Flexible Lip (FX) T50	Blue	-40 – 80 / 120*	FDA
TPE	30	Flexible Lip (FX) T30	Yellow	-40 – 80 / 100*	FDA
EPDM	-	Foam Lip (FLI)	Black	-40 – 120	Ultra soft cellular rubber
PU	60	Foam Lip holder	Green	10 – 50	

*) Max Temperature short term contact, <10 sec and 50% intermittence, ambient temperature 15-30 °C, mechanical properties will start to degrade.

**) FDA approved option in transparent material.

Go to suction cup selection guide on www.piab.com to configure your suction cup.