

SUCTION CUPS / Flat & Curve

FCF Series

Features and Strengths

Excellent for flat and curved material in both vertical and horizontal application
No vibration when transferring

Advantages

High speed handling without deformation
Excellent for thin, oily and flat and slightly curved metal sheets and automotive panels
Great designed pattern for anti sliding

Application



Examples of use

Metal sheets, Car panel, Press metal sheets, Panel,
Electronic goods, Flat&curved glass

Available size options

Model	Description	Model	Description
FCF30	Flat-curve suction cup, Ø30	FCF70	Flat-curve suction cup, Ø70
FCF40	Flat-curve suction cup, Ø40	FCF80	Flat-curve suction cup, Ø80
FCF50	Flat-curve suction cup, Ø50	FCF100	Flat-curve suction cup, Ø100
FCF60	Flat-curve suction cup, Ø60	FCF125	Flat-curve suction cup, Ø125



I Recommended Lifting Force (Max.)

Model	Volume (cm ³)	Lifting Force (Kg) - Perpendicular			Lifting Force (Kg) - Parallel			Page
		- 20 kPa	- 60 kPa	- 90 kPa	- 20 kPa	- 60 kPa	- 90 kPa	
FCF30	2.00	2.00	4.60	6.40	0.80	2.00	2.90	378
FCF40	4.40	2.90	6.90	9.90	2.10	5.00	7.20	380
FCF50	8.00	4.20	10.80	15.40	3.70	6.70	8.90	382
FCF60	14.60	5.60	15.20	22.30	5.50	13.30	16.70	384
FCF70	20.70	7.60	19.60	28.20	6.30	15.80	20.10	386
FCF80	36.00	10.30	25.90	34.40	6.70	17.70	23.80	388
FCF100	58.00	14.70	37.10	50.60	13.60	35.40	43.70	390
FCF125	115.00	19.40	44.50	57.90	19.10	42.50	64.90	392

※ The lifting force above does not include safety factor

SUCTION CUPS / Flat & Curve

FCF30



Features and Strengths

Excellent for flat and curved material in both vertical and horizontal application
No vibration when transferring

Examples of use

Metal sheets, Car panel, Press metal sheets, Panel,
Electronic goods, Flat&curved glass



Recommended Lifting Force (Max.)

Model	Volume (cm ³)	Lifting Force (Kg) - Perpendicular			Lifting Force (Kg) - Parallel		
		- 20 kPa	- 60 kPa	- 90 kPa	- 20 kPa	- 60 kPa	- 90 kPa
FCF30	2.00	2.00	4.60	6.40	0.80	2.00	2.90

※ The lifting force above does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Blue	-20~110
Silicone	55	Red	-70~200
Polyurethane	60	Translucent Orange	0~60

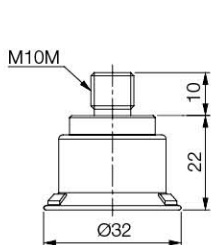
※ For additional material, see page 32~33

Material Resistance

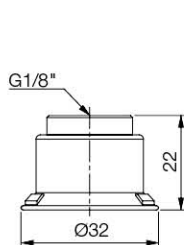
Description	NBR	Silicone	Polyurethane
Wear Resistance	Excellent	Good	Excellent
Oil	Excellent	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent
Alcohol	Good	Good	Fair
Acid	Fair	Poor	Fair

Dimension

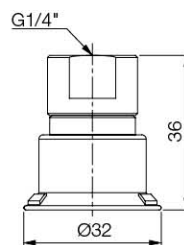
[Unit : mm]



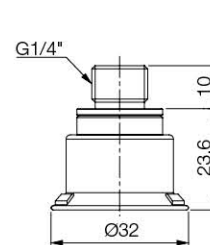
[With M10M fitting]



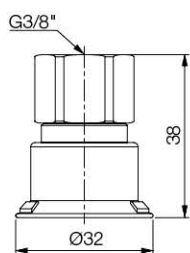
[With 18F fitting]



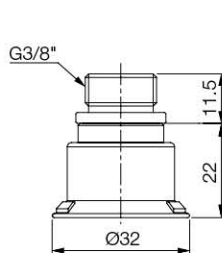
[With 14F fitting]



[With 14M fitting]



[With 38F fitting]



[With 38M fitting]

Build an Ordering No.



: Pre-mounted fitting

1. Suction cup	Description	Weight (g)	Symbol
	Flat-curve suction cup, 30mm diameter, Nitrile (NBR), M10xP1.5 male fitting	18.9	FCF30-N-M10M
	Flat-curve suction cup, 30mm diameter, Silicone, M10xP1.5 male fitting	15.98	FCF30-S-M10M
	Flat-curve suction cup, 30mm diameter, Polyurethane, M10xP1.5 male fitting	17.16	FCF30-PU-M10M
	Flat-curve suction cup, 30mm diameter, Nitrile (NBR), G1/8 female fitting	15.97	FCF30-N-18F
	Flat-curve suction cup, 30mm diameter, Silicone, G1/8 female fitting	14.12	FCF30-S-18F
	Flat-curve suction cup, 30mm diameter, Polyurethane, G1/8 female fitting	14.43	FCF30-PU-18F
	Flat-curve suction cup, 30mm diameter, Nitrile (NBR), G1/4 female fitting	26.24	FCF30-N-14F
	Flat-curve suction cup, 30mm diameter, Silicone, G1/4 female fitting	25.05	FCF30-S-14F
	Flat-curve suction cup, 30mm diameter, Polyurethane, G1/4 female fitting	23.2	FCF30-PU-14F
	Flat-curve suction cup, 30mm diameter, Nitrile (NBR), G1/4 male fitting	21.1	FCF30-N-14M
	Flat-curve suction cup, 30mm diameter, Silicone, G1/4 male fitting	18.06	FCF30-S-14M
	Flat-curve suction cup, 30mm diameter, Polyurethane, G1/4 male fitting	18.37	FCF30-PU-14M
	Flat-curve suction cup, 30mm diameter, Nitrile (NBR), G3/8 female fitting	24.01	FCF30-N-38F
	Flat-curve suction cup, 30mm diameter, Silicone, G3/8 female fitting	22.16	FCF30-S-38F
	Flat-curve suction cup, 30mm diameter, Polyurethane, G3/8 female fitting	22.47	FCF30-PU-38F
	Flat-curve suction cup, 30mm diameter, Nitrile (NBR), G3/8 male fitting	22.4	FCF30-N-38M
	Flat-curve suction cup, 30mm diameter, Silicone, G3/8 male fitting	20.55	FCF30-S-38M
	Flat-curve suction cup, 30mm diameter, Polyurethane, G3/8 male fitting	20.86	FCF30-PU-38M

SUCTION CUPS / Flat & Curve

FCF40



Features and Strengths

Excellent for flat and curved material in both vertical and horizontal application
No vibration when transferring

Examples of use

Metal sheets, Car panel, Press metal sheets, Panel,
Electronic goods, Flat&curved glass



Recommended Lifting Force (Max.)

Model	Volume (cm ³)	Lifting Force (Kg) - Perpendicular			Lifting Force (Kg) - Parallel		
		- 20 kPa	- 60 kPa	- 90 kPa	- 20 kPa	- 60 kPa	- 90 kPa
FCF40	4.40	2.90	6.90	9.90	2.10	5.00	7.20

※ The lifting force above does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Blue	-20~110
Silicone	55	Red	-70~200
Polyurethane	60	Translucent Orange	0~60

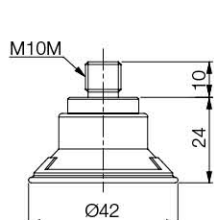
※ For additional material, see page 32~33

Material Resistance

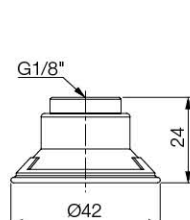
Description	NBR	Silicone	Polyurethane
Wear Resistance	Excellent	Good	Excellent
Oil	Excellent	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent
Alcohol	Good	Good	Fair
Acid	Fair	Poor	Fair

Dimension

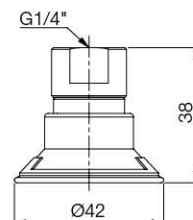
[Unit : mm]



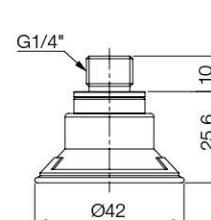
[With M10M fitting]



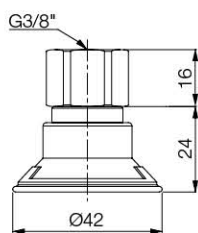
[With 18F fitting]



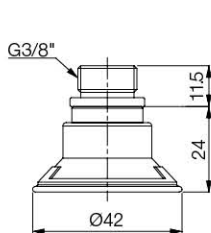
[With 14F fitting]



[With 14M fitting]



[With 38F fitting]



[With 38M fitting]

Build an Ordering No.

FCF40 -  - 
1. Suction Cup

: Pre-mounted fitting

1. Suction cup	Description	Weight (g)	Symbol
	Flat-curve suction cup, 40mm diameter, Nitrile (NBR), M10xP1.5 male fitting	18.33	FCF40-N-M10M
	Flat-curve suction cup, 40mm diameter, Silicone, M10xP1.5 male fitting	17.15	FCF40-S-M10M
	Flat-curve suction cup, 40mm diameter, Polyurethane, M10xP1.5 male fitting	17.93	FCF40-PU-M10M
	Flat-curve suction cup, 40mm diameter, Nitrile (NBR), G1/8 female fitting	17.22	FCF40-N-18F
	Flat-curve suction cup, 40mm diameter, Silicone, G1/8 female fitting	14.72	FCF40-S-18F
	Flat-curve suction cup, 40mm diameter, Polyurethane, G1/8 female fitting	15.56	FCF40-PU-18F
	Flat-curve suction cup, 40mm diameter, Nitrile (NBR), G1/4 female fitting	26.3	FCF40-N-14F
	Flat-curve suction cup, 40mm diameter, Silicone, G1/4 female fitting	23.8	FCF40-S-14F
	Flat-curve suction cup, 40mm diameter, Polyurethane, G1/4 female fitting	24.64	FCF40-PU-14F
	Flat-curve suction cup, 40mm diameter, Nitrile (NBR), G1/4 male fitting	21.16	FCF40-N-14M
	Flat-curve suction cup, 40mm diameter, Silicone, G1/4 male fitting	18.66	FCF40-S-14M
	Flat-curve suction cup, 40mm diameter, Polyurethane, G1/4 male fitting	19.5	FCF40-PU-14M
	Flat-curve suction cup, 40mm diameter, Nitrile (NBR), G3/8 female fitting	25.26	FCF40-N-38F
	Flat-curve suction cup, 40mm diameter, Silicone, G3/8 female fitting	22.76	FCF40-S-38F
	Flat-curve suction cup, 40mm diameter, Polyurethane, G3/8 female fitting	23.6	FCF40-PU-38F
	Flat-curve suction cup, 40mm diameter, Nitrile (NBR), G3/8 male fitting	23.65	FCF40-N-38M
	Flat-curve suction cup, 40mm diameter, Silicone, G3/8 male fitting	21.15	FCF40-S-38M
	Flat-curve suction cup, 40mm diameter, Polyurethane, G3/8 male fitting	21.99	FCF40-PU-38M

SUCTION CUPS / Flat & Curve

FCF50



Features and Strengths

Excellent for flat and curved material in both vertical and horizontal application
No vibration when transferring

Examples of use

Metal sheets, Car panel, Press metal sheets, Panel,
Electronic goods, Flat&curved glass



Recommended Lifting Force (Max.)

Model	Volume (cm ³)	Lifting Force (Kg) - Perpendicular			Lifting Force (Kg) - Parallel		
		- 20 kPa	- 60 kPa	- 90 kPa	- 20 kPa	- 60 kPa	- 90 kPa
FCF50	8.00	4.20	10.80	15.40	3.70	6.70	8.90

※ The lifting force above does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Blue	-20~110
Silicone	55	Red	-70~200
Polyurethane	60	Translucent Orange	0~60

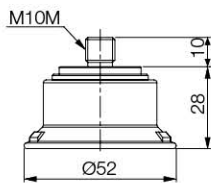
※ For additional material, see page 32~33

Material Resistance

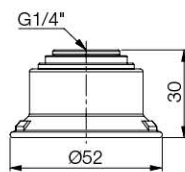
Description	NBR	Silicone	Polyurethane
Wear Resistance	Excellent	Good	Excellent
Oil	Excellent	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent
Alcohol	Good	Good	Fair
Acid	Fair	Poor	Fair

Dimension

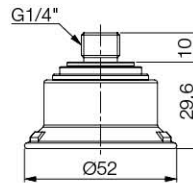
[Unit : mm]



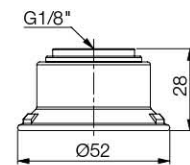
[With M10M fitting]



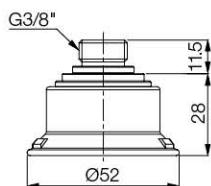
[With 14F fitting]



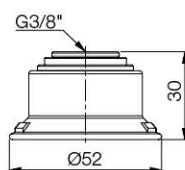
[With 14M fitting]



[With 18F fitting]

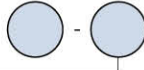


[With 38M fitting]



[With 38F fitting]

I Build an Ordering No.

FCF50 -  : Pre-mounted fitting
 1. Suction Cup

1. Suction cup	Description	Weight (g)	Symbol
	Flat-curve suction cup, 50mm diameter, Nitrile (NBR), M10xP1.5 male fitting	48.22	FCF50-N-M10M
	Flat-curve suction cup, 50mm diameter, Silicone, M10xP1.5 male fitting	45.5	FCF50-S-M10M
	Flat-curve suction cup, 50mm diameter, Polyurethane, M10xP1.5 male fitting	45.8	FCF50-PU-M10M
	Flat-curve suction cup, 50mm diameter, Nitrile (NBR), G1/8 female fitting	46.26	FCF50-N-18F
	Flat-curve suction cup, 50mm diameter, Silicone, G1/8 female fitting	41.6	FCF50-S-18F
	Flat-curve suction cup, 50mm diameter, Polyurethane, G1/8 female fitting	41.8	FCF50-PU-18F
	Flat-curve suction cup, 50mm diameter, Nitrile (NBR), G1/4 female fitting	55.34	FCF50-N-14F
	Flat-curve suction cup, 50mm diameter, Silicone, G1/4 female fitting	50.68	FCF50-S-14F
	Flat-curve suction cup, 50mm diameter, Polyurethane, G1/4 female fitting	50.88	FCF50-PU-14F
	Flat-curve suction cup, 50mm diameter, Nitrile (NBR), G1/4 male fitting	50.2	FCF50-N-14M
	Flat-curve suction cup, 50mm diameter, Silicone, G1/4 male fitting	45.54	FCF50-S-14M
	Flat-curve suction cup, 50mm diameter, Polyurethane, G1/4 male fitting	45.74	FCF50-PU-14M
	Flat-curve suction cup, 50mm diameter, Nitrile (NBR), G3/8 female fitting	54.3	FCF50-N-38F
	Flat-curve suction cup, 50mm diameter, Silicone, G3/8 female fitting	49.64	FCF50-S-38F
	Flat-curve suction cup, 50mm diameter, Polyurethane, G3/8 female fitting	49.84	FCF50-PU-38F
	Flat-curve suction cup, 50mm diameter, Nitrile (NBR), G3/8 male fitting	52.69	FCF50-N-38M
	Flat-curve suction cup, 50mm diameter, Silicone, G3/8 male fitting	48.03	FCF50-S-38M
	Flat-curve suction cup, 50mm diameter, Polyurethane, G3/8 male fitting	48.23	FCF50-PU-38M

SUCTION CUPS / Flat & Curve

FCF60



Features and Strengths

Excellent for flat and curved material in both vertical and horizontal application
No vibration when transferring

Examples of use

Metal sheets, Car panel, Press metal sheets, Panel,
Electronic goods, Flat&curved glass



Recommended Lifting Force (Max.)

Model	Volume (cm ³)	Lifting Force (Kg) - Perpendicular			Lifting Force (Kg) - Parallel		
		- 20 kPa	- 60 kPa	- 90 kPa	- 20 kPa	- 60 kPa	- 90 kPa
FCF60	14.60	5.60	15.20	22.30	5.50	13.30	16.70

※ The lifting force above does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Blue	-20~110
Silicone	55	Red	-70~200
Polyurethane	60	Translucent Orange	0~60

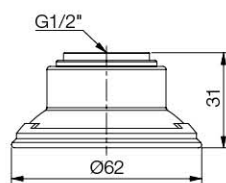
※ For additional material, see page 32~33

Material Resistance

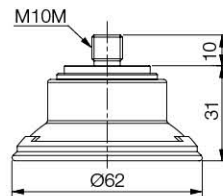
Description	NBR	Silicone	Polyurethane
Wear Resistance	Excellent	Good	Excellent
Oil	Excellent	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent
Alcohol	Good	Good	Fair
Acid	Fair	Poor	Fair

Dimension

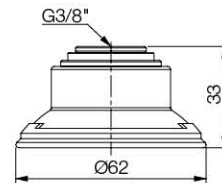
[Unit : mm]



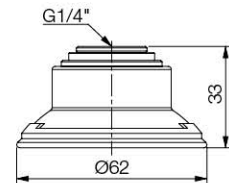
[With 12F fitting]



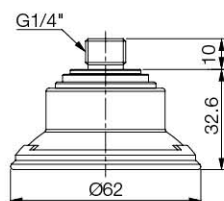
[With M10M fitting]



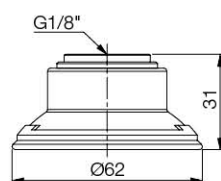
[With 38F fitting]



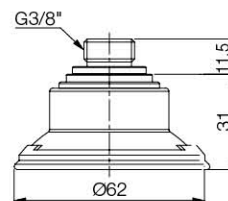
[With 14F fitting]



[With 14M fitting]



[With 18F fitting]



[With 38M fitting]

Build an Ordering No.

FCF60 -  - 
1. Suction Cup

: Pre-mounted fitting

1. Suction cup	Description	Weight (g)	Symbol
	Flat-curve suction cup, 60mm diameter, Nitrile (NBR), M10xP1.5 male fitting	54.29	FCF60-N-M10M
	Flat-curve suction cup, 60mm diameter, Silicone, M10xP1.5 male fitting	49.9	FCF60-S-M10M
	Flat-curve suction cup, 60mm diameter, Polyurethane, M10xP1.5 male fitting	51	FCF60-PU-M10M
	Flat-curve suction cup, 60mm diameter, Nitrile (NBR), G1/8 female fitting	50	FCF60-N-18F
	Flat-curve suction cup, 60mm diameter, Silicone, G1/8 female fitting	45.59	FCF60-S-18F
	Flat-curve suction cup, 60mm diameter, Polyurethane, G1/8 female fitting	46.6	FCF60-PU-18F
	Flat-curve suction cup, 60mm diameter, Nitrile (NBR), G1/4 female fitting	59.8	FCF60-N-14F
	Flat-curve suction cup, 60mm diameter, Silicone, G1/4 female fitting	54.67	FCF60-S-14F
	Flat-curve suction cup, 60mm diameter, Polyurethane, G1/4 female fitting	55.68	FCF60-PU-14F
	Flat-curve suction cup, 60mm diameter, Nitrile (NBR), G1/4 male fitting	53.94	FCF60-N-14M
	Flat-curve suction cup, 60mm diameter, Silicone, G1/4 male fitting	49.53	FCF60-S-14M
	Flat-curve suction cup, 60mm diameter, Polyurethane, G1/4 male fitting	50.54	FCF60-PU-14M
	Flat-curve suction cup, 60mm diameter, Nitrile (NBR), G3/8 female fitting	46.74	FCF60-N-38F
	Flat-curve suction cup, 60mm diameter, Silicone, G3/8 female fitting	43.34	FCF60-S-38F
	Flat-curve suction cup, 60mm diameter, Polyurethane, G3/8 female fitting	43.75	FCF60-PU-38F
	Flat-curve suction cup, 60mm diameter, Nitrile (NBR), G3/8 male fitting	54.42	FCF60-N-38M
	Flat-curve suction cup, 60mm diameter, Silicone, G3/8 male fitting	51.02	FCF60-S-38M
	Flat-curve suction cup, 60mm diameter, Polyurethane, G3/8 male fitting	51.43	FCF60-PU-38M
	Flat-curve suction cup, 60mm diameter, Nitrile (NBR), G1/2 female fitting	43.56	FCF60-N-12F
	Flat-curve suction cup, 60mm diameter, Silicone, G1/2 female fitting	40.16	FCF60-S-12F
	Flat-curve suction cup, 60mm diameter, Polyurethane, G1/2 female fitting	40.57	FCF60-PU-12F

SUCTION CUPS / Flat & Curve

FCF70



Features and Strengths

Excellent for flat and curved material in both vertical and horizontal application
No vibration when transferring

Examples of use

Metal sheets, Car panel, Press metal sheets, Panel,
Electronic goods, Flat&curved glass



Recommended Lifting Force (Max.)

Model	Volume (cm ³)	Lifting Force (Kg) - Perpendicular			Lifting Force (Kg) - Parallel		
		- 20 kPa	- 60 kPa	- 90 kPa	- 20 kPa	- 60 kPa	- 90 kPa
FCF70	20.70	7.60	19.60	28.20	6.30	15.80	20.10

※ The lifting force above does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Blue	-20~110
Silicone	55	Red	-70~200
Polyurethane	60	Translucent Orange	0~60

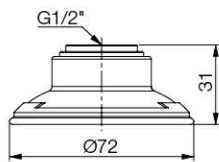
※ For additional material, see page 32~33

Material Resistance

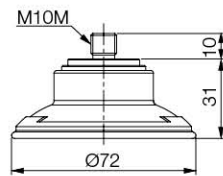
Description	NBR	Silicone	Polyurethane
Wear Resistance	Excellent	Good	Excellent
Oil	Excellent	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent
Alcohol	Good	Good	Fair
Acid	Fair	Poor	Fair

Dimension

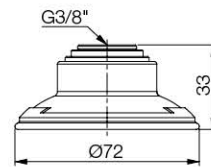
[Unit : mm]



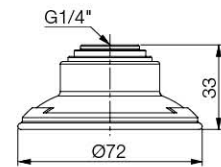
[With 12F fitting]



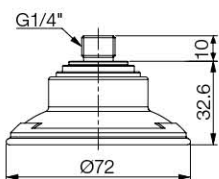
[With M10M fitting]



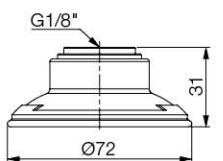
[With 38F fitting]



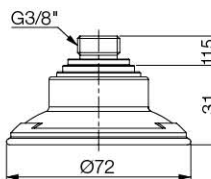
[With 14F fitting]



[With 14M fitting]



[With 18F fitting]



[With 38M fitting]

Build an Ordering No.

FCF70 -  - 

1. Suction Cup

: Pre-mounted fitting

1. Suction cup	Description	Weight (g)	Symbol
	Flat-curve suction cup, 70mm diameter, Nitrile (NBR), M10xP1.5 male fitting	59.36	FCF70-N-M10M
	Flat-curve suction cup, 70mm diameter, Silicone, M10xP1.5 male fitting	50.19	FCF70-S-M10M
	Flat-curve suction cup, 70mm diameter, Polyurethane, M10xP1.5 male fitting	53.9	FCF70-PU-M10M
	Flat-curve suction cup, 70mm diameter, Nitrile (NBR), G1/8 female fitting	57.2	FCF70-N-18F
	Flat-curve suction cup, 70mm diameter, Silicone, G1/8 female fitting	50.58	FCF70-S-18F
	Flat-curve suction cup, 70mm diameter, Polyurethane, G1/8 female fitting	51.7	FCF70-PU-18F
	Flat-curve suction cup, 70mm diameter, Nitrile (NBR), G1/4 female fitting	66.28	FCF70-N-14F
	Flat-curve suction cup, 70mm diameter, Silicone, G1/4 female fitting	59.66	FCF70-S-14F
	Flat-curve suction cup, 70mm diameter, Polyurethane, G1/4 female fitting	60.78	FCF70-PU-14F
	Flat-curve suction cup, 70mm diameter, Nitrile (NBR), G1/4 male fitting	61.14	FCF70-N-14M
	Flat-curve suction cup, 70mm diameter, Silicone, G1/4 male fitting	54.52	FCF70-S-14M
	Flat-curve suction cup, 70mm diameter, Polyurethane, G1/4 male fitting	55.64	FCF70-PU-14M
	Flat-curve suction cup, 70mm diameter, Nitrile (NBR), G3/8 female fitting	52.71	FCF70-N-38F
	Flat-curve suction cup, 70mm diameter, Silicone, G3/8 female fitting	46.7	FCF70-S-38F
	Flat-curve suction cup, 70mm diameter, Polyurethane, G3/8 female fitting	47.36	FCF70-PU-38F
	Flat-curve suction cup, 70mm diameter, Nitrile (NBR), G3/8 male fitting	60.39	FCF70-N-38M
	Flat-curve suction cup, 70mm diameter, Silicone, G3/8 male fitting	54.38	FCF70-S-38M
	Flat-curve suction cup, 70mm diameter, Polyurethane, G3/8 male fitting	55.04	FCF70-PU-38M
	Flat-curve suction cup, 70mm diameter, Nitrile (NBR), G1/2 female fitting	49.53	FCF70-N-12F
	Flat-curve suction cup, 70mm diameter, Silicone, G1/2 female fitting	43.52	FCF70-S-12F
	Flat-curve suction cup, 70mm diameter, Polyurethane, G1/2 female fitting	44.18	FCF70-PU-12F

SUCTION CUPS / Flat & Curve

FCF80



Features and Strengths

Excellent for flat and curved material in both vertical and horizontal application
No vibration when transferring

Examples of use

Metal sheets, Car panel, Press metal sheets, Panel,
Electronic goods, Flat&curved glass



Recommended Lifting Force (Max.)

Model	Volume (cm ³)	Lifting Force (Kg) - Perpendicular			Lifting Force (Kg) - Parallel		
		- 20 kPa	- 60 kPa	- 90 kPa	- 20 kPa	- 60 kPa	- 90 kPa
FCF80	36.00	10.30	25.90	34.40	6.70	17.70	23.80

※ The lifting force above does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Blue	-20~110
Silicone	55	Red	-70~200
Polyurethane	60	Translucent Orange	0~60

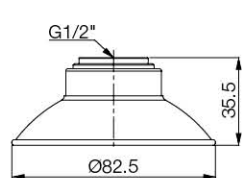
※ For additional material, see page 32~33

Material Resistance

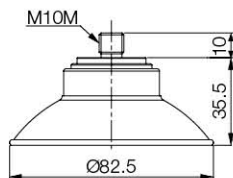
Description	NBR	Silicone	Polyurethane
Wear Resistance	Excellent	Good	Excellent
Oil	Excellent	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent
Alcohol	Good	Good	Fair
Acid	Fair	Poor	Fair

Dimension

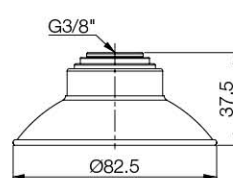
[Unit : mm]



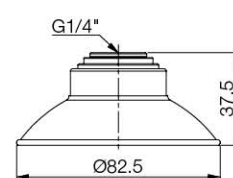
[With 12F fitting]



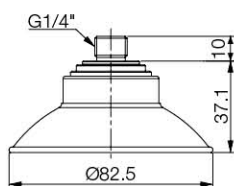
[With M10M fitting]



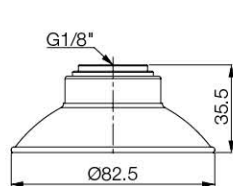
[With 38F fitting]



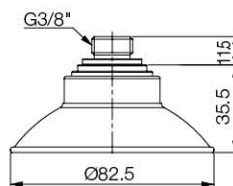
[With 14F fitting]



[With 14M fitting]



[With 18F fitting]



[With 38M fitting]

Build an Ordering No.



: Pre-mounted fitting

1. Suction cup	Description	Weight (g)	Symbol
	Flat-curve suction cup, 80mm diameter, Nitrile (NBR), M10xP1.5 male fitting	72.09	FCF80-N-M10M
	Flat-curve suction cup, 80mm diameter, Silicone, M10xP1.5 male fitting	60.95	FCF80-S-M10M
	Flat-curve suction cup, 80mm diameter, Polyurethane, M10xP1.5 male fitting	65.46	FCF80-PU-M10M
	Flat-curve suction cup, 80mm diameter, Nitrile (NBR), G1/8 female fitting	67.72	FCF80-N-18F
	Flat-curve suction cup, 80mm diameter, Silicone, G1/8 female fitting	65.69	FCF80-S-18F
	Flat-curve suction cup, 80mm diameter, Polyurethane, G1/8 female fitting	60.84	FCF80-PU-18F
	Flat-curve suction cup, 80mm diameter, Nitrile (NBR), G1/4 female fitting	76.8	FCF80-N-14F
	Flat-curve suction cup, 80mm diameter, Silicone, G1/4 female fitting	74.77	FCF80-S-14F
	Flat-curve suction cup, 80mm diameter, Polyurethane, G1/4 female fitting	69.92	FCF80-PU-14F
	Flat-curve suction cup, 80mm diameter, Nitrile (NBR), G1/4 male fitting	71.66	FCF80-N-14M
	Flat-curve suction cup, 80mm diameter, Silicone, G1/4 male fitting	69.63	FCF80-S-14M
	Flat-curve suction cup, 80mm diameter, Polyurethane, G1/4 male fitting	64.78	FCF80-PU-14M
	Flat-curve suction cup, 80mm diameter, Nitrile (NBR), G3/8 female fitting	64.45	FCF80-N-38F
	Flat-curve suction cup, 80mm diameter, Silicone, G3/8 female fitting	58.1	FCF80-S-38F
	Flat-curve suction cup, 80mm diameter, Polyurethane, G3/8 female fitting	58.61	FCF80-PU-38F
	Flat-curve suction cup, 80mm diameter, Nitrile (NBR), G3/8 male fitting	72.13	FCF80-N-38M
	Flat-curve suction cup, 80mm diameter, Silicone, G3/8 male fitting	65.78	FCF80-S-38M
	Flat-curve suction cup, 80mm diameter, Polyurethane, G3/8 male fitting	66.29	FCF80-PU-38M
	Flat-curve suction cup, 80mm diameter, Nitrile (NBR), G1/2 female fitting	61.27	FCF80-N-12F
	Flat-curve suction cup, 80mm diameter, Silicone, G1/2 female fitting	54.92	FCF80-S-12F
	Flat-curve suction cup, 80mm diameter, Polyurethane, G1/2 female fitting	55.43	FCF80-PU-12F

SUCTION CUPS / Flat & Curve

FCF100



Features and Strengths

Excellent for flat and curved material in both vertical and horizontal application
No vibration when transferring

Examples of use

Metal sheets, Car panel, Press metal sheets, Panel,
Electronic goods, Flat&curved glass



Recommended Lifting Force (Max.)

Model	Volume (cm ³)	Lifting Force (Kg) - Perpendicular			Lifting Force (Kg) - Parallel		
		- 20 kPa	- 60 kPa	- 90 kPa	- 20 kPa	- 60 kPa	- 90 kPa
FCF100	58.00	14.70	37.10	50.60	13.60	35.40	43.70

※ The lifting force above does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Blue	-20~110
Silicone	55	Red	-70~200
Polyurethane	60	Translucent Orange	0~60

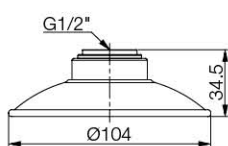
※ For additional material, see page 32~33

Material Resistance

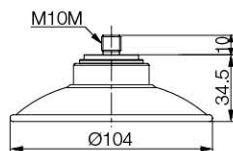
Description	NBR	Silicone	Polyurethane
Wear Resistance	Excellent	Good	Excellent
Oil	Excellent	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent
Alcohol	Good	Good	Fair
Acid	Fair	Poor	Fair

Dimension

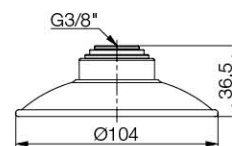
[Unit : mm]



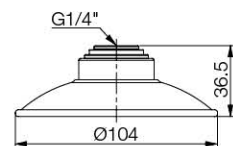
[With 12F fitting]



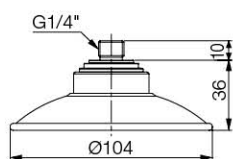
[With M10M fitting]



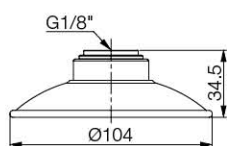
[With 38F fitting]



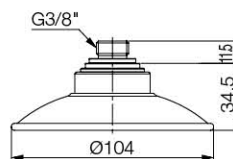
[With 14F fitting]



[With 14M fitting]



[With 18F fitting]



[With 38M fitting]

Build an Ordering No.



: Pre-mounted fitting

1. Suction cup	Description	Weight (g)	Symbol
	Flat-curve suction cup, 100mm diameter, Nitrile (NBR), M10xP1.5 male fitting	80.86	FCF100-N-M10M
	Flat-curve suction cup, 100mm diameter, Silicone, M10xP1.5 male fitting	69.8	FCF100-S-M10M
	Flat-curve suction cup, 100mm diameter, Polyurethane, M10xP1.5 male fitting	75.03	FCF100-PU-M10M
	Flat-curve suction cup, 100mm diameter, Nitrile (NBR), G1/8 female fitting	75.83	FCF100-N-18F
	Flat-curve suction cup, 100mm diameter, Silicone, G1/8 female fitting	69.69	FCF100-S-18F
	Flat-curve suction cup, 100mm diameter, Polyurethane, G1/8 female fitting	71.23	FCF100-PU-18F
	Flat-curve suction cup, 100mm diameter, Nitrile (NBR), G1/4 female fitting	84.91	FCF100-N-14F
	Flat-curve suction cup, 100mm diameter, Silicone, G1/4 female fitting	78.77	FCF100-S-14F
	Flat-curve suction cup, 100mm diameter, Polyurethane, G1/4 female fitting	80.31	FCF100-PU-14F
	Flat-curve suction cup, 100mm diameter, Nitrile (NBR), G1/4 male fitting	79.77	FCF100-N-14M
	Flat-curve suction cup, 100mm diameter, Silicone, G1/4 male fitting	73.63	FCF100-S-14M
	Flat-curve suction cup, 100mm diameter, Polyurethane, G1/4 male fitting	75.17	FCF100-PU-14M
	Flat-curve suction cup, 100mm diameter, Nitrile (NBR), G3/8 female fitting	76.75	FCF100-N-38F
	Flat-curve suction cup, 100mm diameter, Silicone, G3/8 female fitting	68.59	FCF100-S-38F
	Flat-curve suction cup, 100mm diameter, Polyurethane, G3/8 female fitting	68.18	FCF100-PU-38F
	Flat-curve suction cup, 100mm diameter, Nitrile (NBR), G3/8 male fitting	84.43	FCF100-N-38M
	Flat-curve suction cup, 100mm diameter, Silicone, G3/8 male fitting	76.27	FCF100-S-38M
	Flat-curve suction cup, 100mm diameter, Polyurethane, G3/8 male fitting	75.86	FCF100-PU-38M
	Flat-curve suction cup, 100mm diameter, Nitrile (NBR), G1/2 female fitting	73.57	FCF100-N-12F
	Flat-curve suction cup, 100mm diameter, Silicone, G1/2 female fitting	65.41	FCF100-S-12F
	Flat-curve suction cup, 100mm diameter, Polyurethane, G1/2 female fitting	65	FCF100-PU-12F

SUCTION CUPS / Flat & Curve

FCF125



Features and Strengths

Excellent for flat and curved material in both vertical and horizontal application
No vibration when transferring

Examples of use

Metal sheets, Car panel, Press metal sheets, Panel,
Electronic goods, Flat&curved glass



Recommended Lifting Force (Max.)

Model	Volume (cm ³)	Lifting Force (Kg) - Perpendicular			Lifting Force (Kg) - Parallel		
		- 20 kPa	- 60 kPa	- 90 kPa	- 20 kPa	- 60 kPa	- 90 kPa
FCF125	115.00	19.40	44.50	57.90	19.10	42.50	64.90

※ The lifting force above does not include safety factor

Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Blue	-20~110
Silicone	55	Red	-70~200
Polyurethane	60	Translucent Orange	0~60

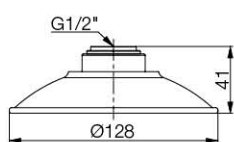
※ For additional material, see page 32~33

Material Resistance

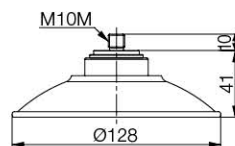
Description	NBR	Silicone	Polyurethane
Wear Resistance	Excellent	Good	Excellent
Oil	Excellent	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent
Alcohol	Good	Good	Fair
Acid	Fair	Poor	Fair

Dimension

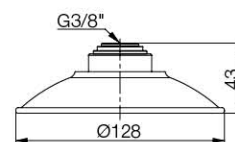
[Unit : mm]



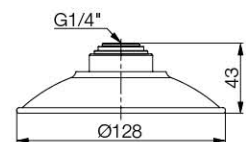
[With 12F fitting]



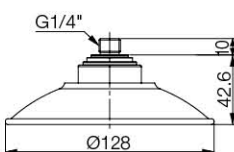
[With M10M fitting]



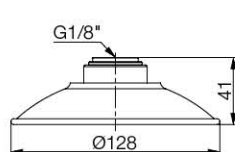
[With 38F fitting]



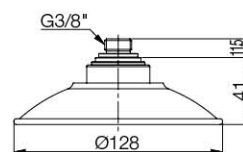
[With 14F fitting]



[With 14M fitting]



[With 18F fitting]



[With 38M fitting]

Build an Ordering No.

FCF125 -  - 

1. Suction Cup

: Pre-mounted fitting

1. Suction cup	Description	Weight (g)	Symbol
	Flat-curve suction cup, 125mm diameter, Nitrile (NBR), M10xP1.5 male fitting	112.27	FCF125-N-M10M
	Flat-curve suction cup, 125mm diameter, Silicone, M10xP1.5 male fitting	99.15	FCF125-S-M10M
	Flat-curve suction cup, 125mm diameter, Polyurethane, M10xP1.5 male fitting	106.48	FCF125-PU-M10M
	Flat-curve suction cup, 125mm diameter, Nitrile (NBR), G1/8 female fitting	114.23	FCF125-N-18F
	Flat-curve suction cup, 125mm diameter, Silicone, G1/8 female fitting	103.65	FCF125-S-18F
	Flat-curve suction cup, 125mm diameter, Polyurethane, G1/8 female fitting	105.93	FCF125-PU-18F
	Flat-curve suction cup, 125mm diameter, Nitrile (NBR), G1/4 female fitting	123.31	FCF125-N-14F
	Flat-curve suction cup, 125mm diameter, Silicone, G1/4 female fitting	112.73	FCF125-S-14F
	Flat-curve suction cup, 125mm diameter, Polyurethane, G1/4 female fitting	115.01	FCF125-PU-14F
	Flat-curve suction cup, 125mm diameter, Nitrile (NBR), G1/4 male fitting	118.17	FCF125-N-14M
	Flat-curve suction cup, 125mm diameter, Silicone, G1/4 male fitting	107.59	FCF125-S-14M
	Flat-curve suction cup, 125mm diameter, Polyurethane, G1/4 male fitting	109.87	FCF125-PU-14M
	Flat-curve suction cup, 125mm diameter, Nitrile (NBR), G3/8 female fitting	123.74	FCF125-N-38F
	Flat-curve suction cup, 125mm diameter, Silicone, G3/8 female fitting	108.18	FCF125-S-38F
	Flat-curve suction cup, 125mm diameter, Polyurethane, G3/8 female fitting	101.01	FCF125-PU-38F
	Flat-curve suction cup, 125mm diameter, Nitrile (NBR), G3/8 male fitting	131.42	FCF125-N-38M
	Flat-curve suction cup, 125mm diameter, Silicone, G3/8 male fitting	115.86	FCF125-S-38M
	Flat-curve suction cup, 125mm diameter, Polyurethane, G3/8 male fitting	108.69	FCF125-PU-38M
	Flat-curve suction cup, 125mm diameter, Nitrile (NBR), G1/2 female fitting	120.56	FCF125-N-12F
	Flat-curve suction cup, 125mm diameter, Silicone, G1/2 female fitting	105	FCF125-S-12F
	Flat-curve suction cup, 125mm diameter, Polyurethane, G1/2 female fitting	97.83	FCF125-PU-12F