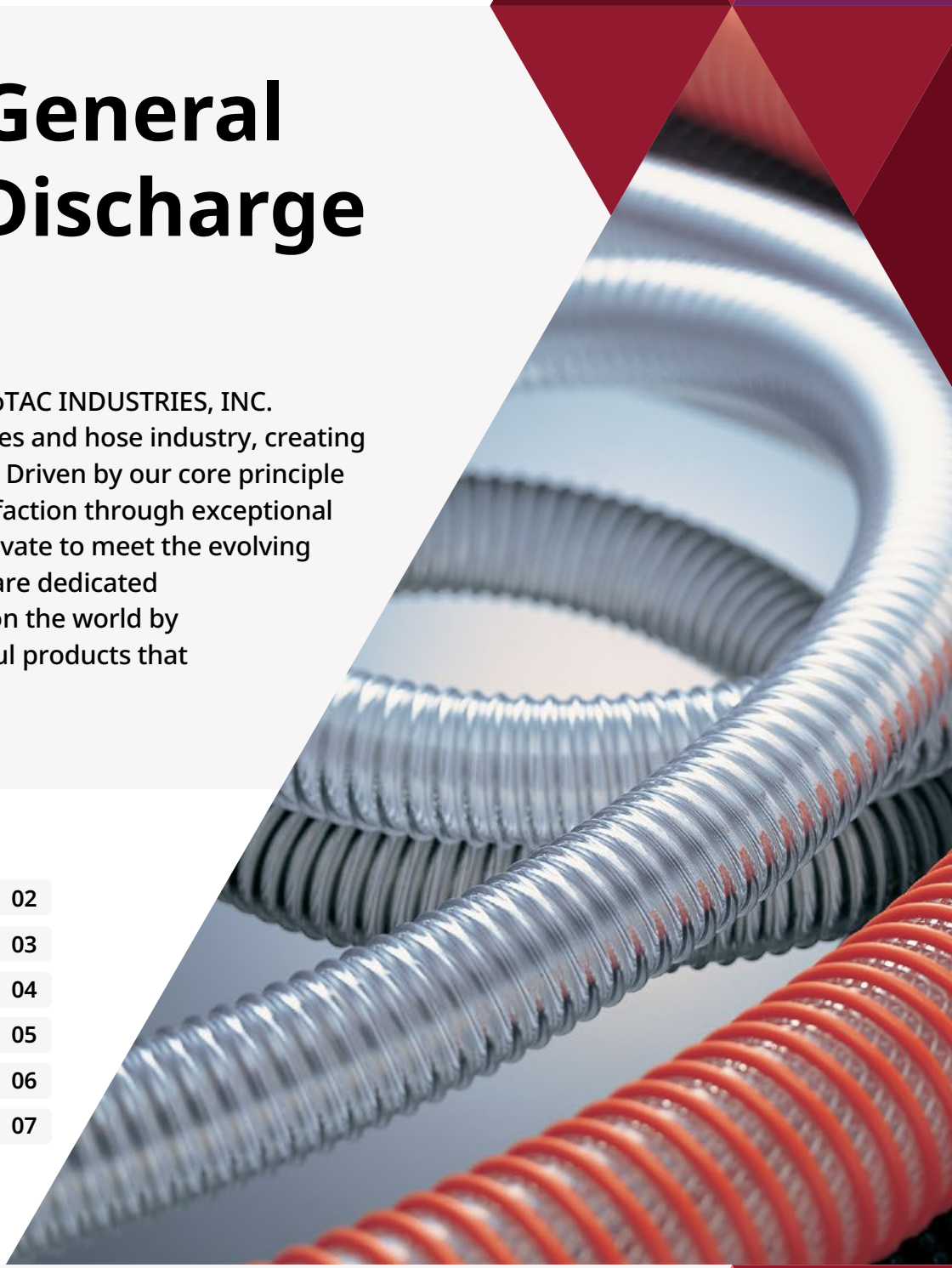
TOTAKU

TOTAKU General Suction/Discharge Hoses

Founded in 1952, Nagase RooTAC INDUSTRIES, INC. has been a pioneer in the pipes and hose industry, creating the world's first flexible hose. Driven by our core principle of prioritizing customer satisfaction through exceptional quality, we continuously innovate to meet the evolving needs of our customers. We are dedicated to making a positive impact on the world by developing unique, thoughtful products that address modern challenges.



Featured Products

LINE ACE	02
SHIMETAC for TOTAKU LINE ACE	03
SD-A	04
SD-A2	05
SD-C	06
SD-C3	07

Notice:

- The data in this catalog uses values in a straight hose configuration.
- The permissible pressure is not the maximum operating pressure. Please refer to the "Operating Pressure Design Table" in the hose handling precautions and configure according to the operating pressure (normal working pressure). Also, please note that the combination of fittings and clamps, operating temperature, and bending conditions may affect performance.

TOTAKU LINE ACE

Part Number - 22114

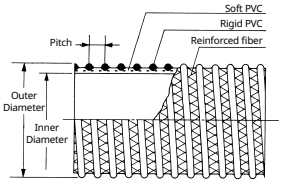


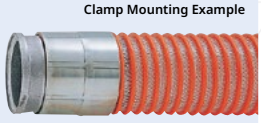
Features

- This is a pressure-resistant type of SD hoses.
- It is equipped with a reinforcement cord, providing an allowable pressure of 72.5 psi (0.50 MPa). For diameters of 10 inches (ϕ250) and 12 inches (ϕ300), the allowable pressure is 36.3 psi (0.25 MPa).

Applications

- Suitable for general discharge and suction use.
- Ideal for submersible pump startups, steep slopes, and hose suspension applications.
- Effective for suction use in tank trucks.





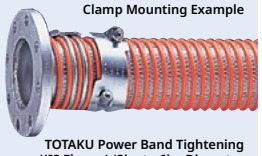
Clamp Mounting Example

Crimping (5in. Diameter and above, ϕ125 and above) (Victaulic S Collar)



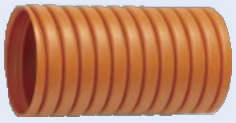
Clamp Mounting Example

Aluminum Crimping (up to 4in. Diameter, ϕ100) (Victaulic S Collar)



Clamp Mounting Example

TOTAKU Power Band Tightening (JIS Flange) (2in. to 6in. Diameter (ϕ50 to ϕ150))



External Clamp Joint for LINE ACE (3in. and 4in. Diameter (ϕ75 and ϕ100))

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Pitch		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
1	25	1.00	25.4	1.37	34.9	0.30	7.5	0.27	400	164	50	72.52	0.50	4.13	105
1.25	32	1.26	32.0	1.67	42.5	0.33	8.5	0.35	520	164	50	72.52	0.50	4.72	120
1.5	38	1.50	38.0	1.94	49.2	0.35	9.0	0.46	680	164	50	72.52	0.50	5.91	150
2	50	2.00	50.8	2.50	63.4	0.39	10.0	0.64	950	164	50	72.52	0.50	8.86	225
2.5	65	2.50	63.5	3.09	78.5	0.56	14.3	0.88	1305	65/164	20/50	72.52	0.50	10.63	270
3*	75	3.00	76.2	3.62	92.0	0.59	15.1	1.10	1635	65/164	20/50	72.52	0.50	14.76	375
4*	100	4.00	101.6	4.72	120.0	0.65	16.4	1.76	2620	65/164	20/50	72.52	0.50	21.26	540
5	125	4.96	125.9	6.00	152.5	0.87	22.0	2.84	4220	65	20	72.52	0.50	24.80	630
6	150	5.96	151.4	7.09	180.0	0.94	24.0	3.94	5860	65	20	72.52	0.50	30.71	780
8	200	8.02	203.7	9.33	237.0	1.10	28.0	5.77	8590	32	10	72.52	0.50	47.24	1200
10	250	10.00	254.0	11.61	295.0	1.26	32.0	9.10	13540	16	5	36.26	0.25	74.41	1890
12	300	12.00	304.8	13.66	347.0	1.34	34.0	10.93	16260	16	5	36.26	0.25	86.22	2190

Sizes marked with an asterisk (*) can be directly connected to steel pipes. For details, please refer to the Compatibility Chart for Steel and PVC Pipes.
For tightening with Totaku Power Bands, we recommend sizes 2 inches (φ50) to 6 inches (φ150). In this case, the allowable pressure is 43.5 psi (0.30 MPa).
For sizes 8 inches (φ200) and above, we recommend crimping for safety.

Operating Temperature Range:

°F: 14 to 122 °C: -10 to 50

Notes:

- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5 inHg (-0.1 MPa) is feasible at room temperature.

Scan, tap, or touch for product videos

Cutting Method

SHIMETAC for TOTAKU LINE ACE

[Applicable Sizes: 1 inch (ϕ25)*, 1.5 inches to 4 inches (ϕ38 to ϕ100)]

**For 1 inch (φ25), use the "SHIMETAC for TOTAKU ECO LINE"*

SHIMETAC for TOTAKU LINE ACE



Part Number 92311-025 (1 in. Diameter (φ25), Stainless Steel Bolt)
Part Number 92298- (1.5 in. to 4 in. Diameter (φ38–φ100), Steel Structure Bolt)
Part Number 92302- (1.5 in. to 4 in. Diameter (φ38–φ100), Stainless Steel Bolt)
Material: FRPP (Fiber-Reinforced Polypropylene)

Features

- Lightweight due to resin construction
- Rust-free because of resin material
- High durability

Repeated pressure resistance tests were conducted:

SHIMETAC were attached to both ends of a straight LINE ACE hose, and repeated pressures ranging from 0 to 72.5 psi (0.5 MPa) were applied at 20-second intervals.

Result: All sizes showed no abnormalities after 100,000 cycles.

Notes

- Be sure to use the *dedicated fittings* for SHIMETAC.
- The fittings shown below are examples.

Dedicated Fittings for SHIMETAC

Part Number 92307



PT (Pipe Taper) SHIMETAC shank *(Resin)**

** Available sizes: 1.5 inches (φ38) and 2 inches (φ50) only.*

Part Number 92303



Flanged SHIMETAC shank *(Steel Structure)*

Part Number 92416



Flanged SHIMETAC shank with Tapered Socket *(PVC)*

Part Number 92304



M1 SHIMETAC shank *(Steel Structure)*

Part Number 92326



Double-Ended SHIMETAC shank *(Steel Structure)*

Hose Installation Example



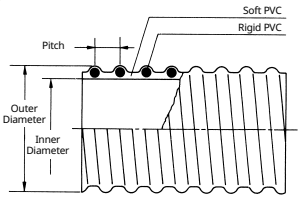
Scan, tap, or touch for product videos

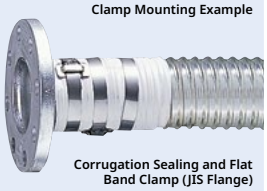
Product Overview | **Compatible Hoses** | **Installation Method**

TOTAKU SD-A

Part Number - 22101







Clamp Mounting Example

Corrugation Sealing and Flat Band Clamp (JIS Flange)

Features

- The corrugated outer surface (with a smooth inner surface) ensures outstanding flexibility.
- The completely transparent material makes it easy to monitor the internal fluids.

Applications

- Suitable for both suction and discharge, but especially ideal for suction use.
- Useful for irrigation.
- Effective for suction and drainage at industrial and civil engineering sites

Compatibility Chart for Steel and PVC Pipes

Hose Nominal Diameter		Applicable Pipe Type							
		ASTM:A53 Type F				JP standard PVC pipe *(ASTM:D1785equivalent)*			
inch	mm	Nominal Diameter		Outer Diameter		Nominal Diameter		Outer Diameter	
		inch	mm	inch	mm	inch	mm	inch	mm
	60	1.97	50	2.38	60.5	2.0	50	2.36	60
3	75	2.56	65	3.00	76.3	2.6	65	2.99	76
3.5	90	3.15	80	3.51	89.1	3.0	75	3.50	89
4	100	3.54	90	4.00	101.6	-	-	-	-
4.5	115	3.94	100	4.50	114.3	3.9	100	4.49	114
6.5	165	5.91	150	6.50	165.2	5.9	150	6.50	165

For installation, insert directly and secure with an SY band.

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Pitch		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
0.5	13	0.51	13.0	0.71	18.0	0.22	5.5	0.07	105	98	30	43.51	0.30	1.77	45
0.75	19	0.75	19.0	0.97	24.7	0.26	6.5	0.11	160	164	50	43.51	0.30	2.13	54
1	25	1.00	25.4	1.25	31.8	0.30	7.5	0.17	250	164	50	43.51	0.30	2.72	69
1.25	32	1.26	32.0	1.54	39.0	0.33	8.5	0.22	330	164	50	36.26	0.25	3.31	84
1.5	38	1.50	38.0	1.80	45.8	0.35	9.0	0.31	465	164	50	36.26	0.25	5.08	129
2	50	2.00	50.8	2.34	59.5	0.39	10.0	0.47	695	164	50	36.26	0.25	6.50	165
*	60	2.38	60.5	2.73	69.3	0.39	10.0	0.54	800	164	50	36.26	0.25	6.50	165
2.5	65	2.50	63.5	2.94	74.6	0.56	14.3	0.67	995	65/164	20/50	36.26	0.25	7.68	195
3*	75	3.00	76.2	3.51	89.1	0.59	15.1	0.94	1405	65/164	20/50	36.26	0.25	8.27	210
3.5*	90	3.51	89.1	4.17	106.0	0.64	16.2	1.48	2200	65/164	20/50	21.76	0.15	11.81	300
4*	100	4.00	101.6	4.63	117.6	0.65	16.4	1.66	2470	65/164	20/50	21.76	0.15	12.99	330
4.5*	115	4.50	114.3	5.19	131.8	0.72	18.4	1.84	2740	65	20	21.76	0.15	15.35	390
5	125	4.96	125.9	5.65	143.6	0.87	22.0	2.24	3330	65	20	21.76	0.15	15.94	405
6	150	6.00	152.4	6.77	172.0	0.87	22.0	3.04	4530	65	20	21.76	0.15	26.57	675
6.5*	165	6.50	165.2	7.26	184.5	0.91	23.0	3.19	4740	65	20	21.76	0.15	38.39	975
8	200	8.02	203.7	9.19	233.5	0.91	23.0	6.15	9150	32	10	21.76	0.15	41.34	1050

Sizes marked with an asterisk (*) can be directly connected to steel pipes. For details, please refer to the Compatibility Chart for Steel and PVC Pipes.

Operating Temperature Range:

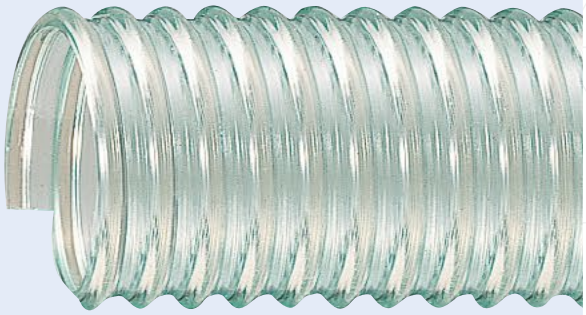
°F: 14 to 122 °C: -10 to 50

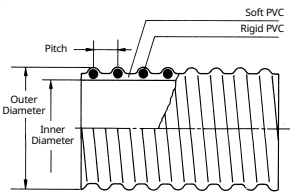
Notes:

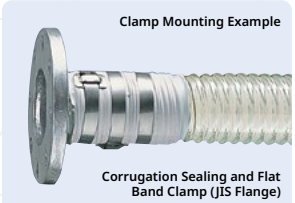
- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5inHg (-0.1 MPa) is feasible at room temperature.

TOTAKU SD-A2

Part Number - 22104







Features

- This is a lightweight version of TOTAKU SD-A.
- It provides enhanced flexibility compared to TOTAKU SD-A.

Applications

- Suitable for both suction and discharge, but especially ideal for suction use.
- Useful for irrigation.
- Effective for suction and drainage at industrial and civil engineering sites

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Pitch		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
1	25	1.00	25.4	1.21	30.8	0.30	7.5	0.13	200	164	50	29.01	0.20	2.76	70
1.25	32	1.26	32.0	1.50	38.2	0.33	8.5	0.17	255	164	50	21.76	0.15	3.15	80
1.5	38	1.50	38.0	1.76	44.6	0.35	9.0	0.26	385	164	50	21.76	0.15	3.54	90
2	50	2.00	50.8	2.28	58.0	0.39	10.0	0.36	540	164	50	14.50	0.10	5.91	150
2.5	65	2.50	63.5	2.87	73.0	0.56	14.3	0.54	810	164	20/50	14.50	0.10	7.09	180
3*	75	3.00	76.2	3.44	87.5	0.59	15.1	0.76	1135	65/164	20/50	14.50	0.10	8.27	210
4*	100	4.00	101.6	4.53	115.0	0.65	16.4	1.32	1965	65/164	20/50	14.50	0.10	11.81	300
5	125	4.96	125.9	5.57	141.6	0.87	22.0	1.69	2520	65	20	14.50	0.10	13.78	350

Sizes marked with an asterisk (*) can be directly connected to steel pipes. For details, please refer to the Compatibility Chart for Steel and PVC Pipes.

Operating Temperature Range:

°F: 14 to 122 °C: -10 to 50

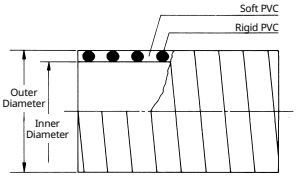
Notes:

- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5 inHg (-0.1 MPa) is feasible at room temperature.

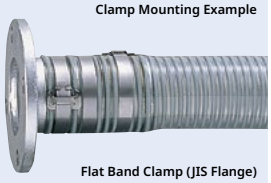
TOTAKU SD-C

Part Number - 22105





Clamp Mounting Example



Flat Band Clamp (JIS Flange)

Features

- Smooth surfaces on both the interior and exterior.
- Offers better pressure resistance than TOTAKU SD-A.
- The transparent soft section enables easy monitoring of transported materials.

Applications

- Suitable for both suction and discharge, but especially ideal for discharge use.
- Useful for suction and drainage in agriculture, industry, and civil construction.

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
0.75	19	0.75	19.0	0.95	24.2	0.15	220	164	50	87.02	0.60	4.53	115
1	25	1.00	25.4	1.23	31.2	0.23	340	164	50	72.52	0.50	9.45	240
1.25	32	1.26	32.0	1.54	39.2	0.34	510	164	50	65.27	0.45	13.39	340
1.5	38	1.50	38.0	1.81	46.0	0.44	650	164	50	58.02	0.40	13.78	350
2	50	2.00	50.8	2.40	61.0	0.75	1120	164	50	58.02	0.40	19.69	500
2.5	65	2.50	63.5	2.94	74.8	1.02	1525	65/164	20/50	58.02	0.40	23.62	600
3*	75	3.00	76.2	3.46	88.0	1.27	1885	65/164	20/50	58.02	0.40	30.51	775
3.5*	90	3.50	88.9	3.96	100.5	1.47	2190	65	20	43.51	0.30	41.93	1065
4*	100	4.00	101.6	4.56	115.8	2.07	3080	65	20	43.51	0.30	45.28	1150
5**	125	5.00	127.0	5.55	141.0	2.46	3660	65	20	36.26	0.25	62.99	1600
6**	150	6.00	152.4	6.61	167.8	3.36	5000	65	20	29.01	0.20	73.82	1875
8**	200	8.00	203.2	8.83	224.4	5.84	8690	32	10	29.01	0.20	118.11	3000

Sizes marked with an asterisk (*) can be directly connected to steel pipes. For details, please refer to the Compatibility Chart for Steel and PVC Pipes.

*** These are made-to-order products. Please contact our company regarding order quantities and other inquiries.*

Operating Temperature Range:

°F: 14 to 122 °C: -10 to 50

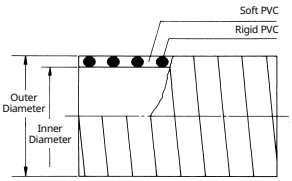
Notes:

- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5 inHg (-0.1 MPa) is feasible at room temperature.

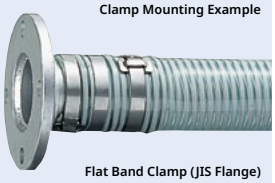
TOTAKU SD-C3

Part Number - 22111





Clamp Mounting Example



Flat Band Clamp (JIS Flange)

Features

- This is a lightweight version of TOTAKU SD-C.

Applications

- Suitable for both suction and discharge, but especially ideal for discharge use.
- Useful for suction and drainage in agriculture, industry, and civil construction.

Standard Dimensions and Properties

Nominal Diameter		Inner Diameter		Outer Diameter		Reference Weight		Length		Allowable Pressure *(at room temperature)*		Allowable Bend Radius *(to the center axis of the hose)*	
inch	mm	inch	mm	inch	mm	lbs/ft	g/m	feet	m	psi	MPa	inch	mm
1	25	1.00	25.4	1.20	30.6	0.19	280	164	50	87.02	0.60	10.83	275
1.25	32	1.26	32.0	1.48	37.6	0.26	390	164	50	72.52	0.50	14.76	375
1.5	38	1.50	38.0	1.73	44.0	0.33	485	164	50	58.02	0.40	18.70	475
2	50	2.00	50.8	2.30	58.5	0.55	825	164	50	50.76	0.35	24.02	610
2.5	65	2.50	63.5	2.86	72.6	0.80	1195	65/164	20/50	50.76	0.35	31.50	800
3*	75	3.00	76.2	3.37	85.5	0.99	1470	65/164	20/50	50.76	0.35	53.54	1360
4*	100	4.00	101.6	4.45	113.0	1.70	2530	65/164	20/50	43.51	0.30	57.09	1450
5	125	5.00	127.0	5.47	139.0	2.22	3300	65	20	43.51	0.30	98.43	2500
6	150	6.00	152.4	6.54	166.0	2.93	4360	65	20	36.26	0.25	114.17	2900
8	200	8.00	203.2	8.71	221.2	5.11	7610	32	10	29.01	0.20	118.11	3000

Sizes marked with an asterisk (*) can be directly connected to steel pipes. For details, please refer to the Compatibility Chart for Steel and PVC Pipes.

Operating Temperature Range:

°F: 14 to 122 °C: -10 to 50

Notes:

- The permissible pressure varies with operating temperature.
- Operating down to a vacuum level of approximately 29.5 inHg (-0.1 MPa) is feasible at room temperature.