PIPE CONNECTION FITTINGS

Thermoplastic Welded Flanges

Welded flanges provide secure fittings for plastic tanks without the need for gaskets. We use thermoplastic welding to fuse flanged fittings to our tanks in a wide range of sizes.



Specifications

- Available in **polyethylene, polypropylene and PVDF**
- **ANSI 150#** flanges
- **Raised face** flanges with **Vanstone loose backing rings** for easy fit-up to your pipes
- Gasket-free connection, welded directly to the tank

Materials & diameters

POLYETHYLENE	POLYPROPYLENE	PVDF
¾″ – 30″	1″ – 10″	½″ – 11″

Oxidizing chemicals — sidewall limitation: We do **not** install welded flanges in the **sidewalls** of tanks that will hold **nitric acid, sodium hypochlorite, sulfuric acid** or other chemicals that are oxidizers. Contact us about fitting options for these applications.

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CUSTOM-FIT TO YOUR APPLICATION

We fit tanks with the fittings, options and accessories you need.

Contact Dan Miller
dmiller@plasticstoragetanks.com

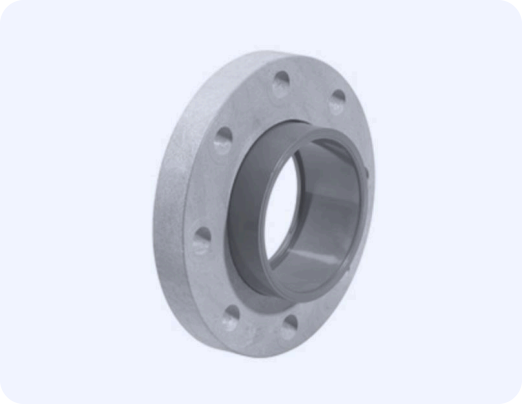
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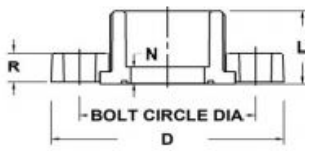
Welded Flange Dimensions

Our welded flanges are **ANSI 150#** flanges. We use **loose rings (Vanstone style)** to make them easy to connect.

The flanges come to us as shown at right. We replace the center part (the **flange adapter or stub end**) with one made from the same material as the tank — **HDPE, PP or PVDF** — so it can be welded to the tank.

> The distance from the tank wall to the back of the flange ring is **4'' by default**. You can specify **up to 6''**.





Flange (Loose Ring) — dimensions in inches

Part No.	Size (in)	D	L	N	R	Bolt Circle Dia.
854-005	½	3 1/2	1	1/8	19/32	2 3/8
854-007	¾	3 7/8	1 5/32	1/8	19/32	2 3/4
854-010	1	4 1/4	1 3/8	1/8	21/32	3 1/8
854-012	1¼	4 5/8	1 1/2	1/8	11/16	3 1/2
854-015	1½	5	1 11/16	1/4	3/4	3 7/8
854-020	2	6	1 3/4	3/16	13/16	4 3/4
854-030FT	3	7 19/32	2 1/8	3/16	1	6
854-040FT	4	9 1/16	2 1/2	1/4	1 7/32	7 7/16
854-050FT	5	10	2 7/8	1/4	1 1/4	8 1/2
854-060FT	6	10 15/16	3 9/32	1/4	1 5/16	9 1/2
854-080FT	8	13 9/16	4 1/2	1/4	1 1/2	11 3/4
854-100FT	10	16	6	7/16	1 9/16	14 3/8
854-120FT	12	19 1/32	7 17/32	9/16	1 11/16	17

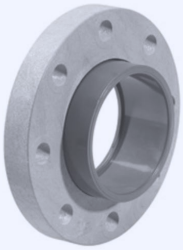
FT = FiberTuff ring. Dimension letters (D, L, N, R) refer to the drawing above.

INSTALLATION

Flange Torque Settings

When possible, we use **loose rings (Vanstone style)** on our flanges — they are easier to line up with the mating flange face.

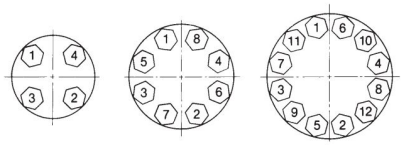
Caution: These rings are made from fiberglass-filled PVC and **can be damaged if the connecting bolts are over-tightened.**



1 · WASHERS
Always use **two (2) wide flat washers** per bolt — one under the head, one under the nut.

2 · THREADS
Threads should be **clean and well lubricated**.

3 · PATTERN & TORQUE
Tighten in the **crisscross pattern** below to the torque in the chart.



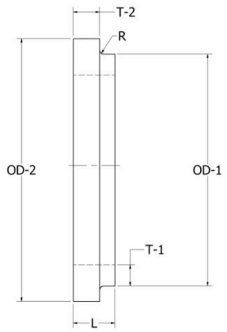
Flange Size (in)	No. of Bolt Holes	Bolt Dia. (in)	Min. Bolt Length (in)	Recommended Torque (ft-lb)
½	4	½	2	**15–20**
¾	4	½	2	**15–20**
1	4	½	2¼	**15–20**
1¼	4	½	2¼	**15–20**
1½	4	½	2½	**15–20**
2	4	5/8	3	**20–30**
2½	4	5/8	3¼	**20–30**
3	4	5/8	3¼	**20–30**
4	8	5/8	3½	**20–30**
5	8	3/4	3¾	**25–35**
6	8	3/4	4	**33–50**
8	8	3/4	4½	**33–50**
10	12	7/8	5	**53–75**
12	12	7/8	5	**53–75**

REFERENCE

Stub End / Flange Adapter Dimensions

Stub ends (or flange adapters) are the part of a welded flange that gets welded to the tank. A loose backing ring is included that accepts the bolts connecting the welded flange to your piping.

> Our flanges are **raised face** unless specifically quoted as flat face.





Dimensions in inches

Size (in)	Type	OD-1	OD-2	L	T-2	R
2	IPS	2.375	3.870	1.750	0.400	0.250
3	IPS	3.500	5.180	1.732	1.000	0.250
4	IPS	4.500	6.600	1.732	1.000	0.250
6	IPS	6.625	8.500	2.008	1.100	0.250
8	IPS	8.625	10.720	2.244	1.300	0.250
10	IPS	10.750	13.110	2.717	1.500	0.500
12	IPS	12.750	15.570	3.150	1.900	0.500
14	IPS	14.000	17.270	3.937	2.400	0.500
16	IPS	16.000	19.320	3.937	2.400	0.500
18	IPS	18.000	21.180	4.528	2.800	0.500
20	IPS	20.000	23.450	4.724	2.800	0.500

IPS = iron pipe size. See the drawing above for dimension locations.