

TECHNICAL BULLETIN

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Chemtrol[®] Flange Offering

NIBCO offers a full line of flanges in various styles. The sizes range from 1/2" through 12" in PVC and CPVC as well as 1/2" through 6" in polypropylene and PVDF.

All Chemtrol one piece flanges in all configurations and materials are designed with a 1° to 2° facing taper from the port to the edge of the flange. This taper includes a 60° sealing serration 1/32" deep which is designed to grip a flange gasket and hold it in place to dramatically facilitate sealing. The sealing force is concentrated at the bore as the bolts are tightened and the flange body flexes toward the sealing surface. The 1-1/2" and smaller flanges have molded face serrations that extend the entire face of the flange, where 2-1/2" and 8" have machined serrations in PVC and CPVC only. The 2", 3", 4" and 6" flanges in both the heavy-duty and the honeycombed style have a machined raised face just inside the bolt hole circle with a 1° taper from the bore outwards. There are serrations incorporated in the 1° taper emanating from just inside the bore outwards to the end of the raised portion of the flange face.

- One-piece - Flange consisting of a single molded component, available in socket, threaded and blind configurations.
- Two-piece - Flange consisting of two separate molded components, the hub and the retaining ring. Methods of connection are socket, threaded and spigot.
- Blind-Single piece - Flat flange used to close off flow at the end of a system.

PVC / CPVC

NIBCO offers a one-piece flange in both the heavy-duty and honeycombed design. The heavy-duty or solid flange is available in sizes from 1/2" through 8" in both the socket and blind flanges and from 1/2" through 4" in the threaded connection. The honeycombed or webbed style flange is only offered in sizes 2", 3", 4" and 6" in the socket and blind configuration and from 2" through 4" with a threaded connection. Two-piece or Van Stone flanges are available from 1/2" through 12" in PVC and through 8" in CPVC. Van Stone flanges are offered in socket end from 1/2" through 12", threaded from 1/2" to 4" and spigot connection from 1/2" through 8". Socket end van stone flanges in sizes 10" and 12" are available in PVC only with a PVC coated aluminum backing ring.

All Chemtrol flanges are designed to meet ANSI B16.5 Class 150, BS 1560 Class 150. The honeycombed flanges have oblong or slotted bolt holes that comply with ISO 2084 PN10 and DIN 2532 PN10 standards, meaning that they will mate with metric sized flanges. The heavy-duty flanges have round bolt holes that comply to the ANSI standards only.

Polypropylene

The flange offering for polypropylene is limited when compared to PVC and CPVC. Heavy-duty socket flanges are available in black from 1/2" through 6" and in natural from 1/2" through 4". Threaded flanges made of polypropylene are sized from 1/2" through 4" in black and natural. Chemtrol does not offer any threaded fittings in natural polypropylene. The 1-1/2" and smaller flanges are molded with round bolt holes complying to ANSI specifications only. Sizes 2" and up are molded with slotted bolt holes on both the heavy-duty and honeycombed style flanges. These flanges are in compliance with both ANSI and DIN standards, making them compatible with both IPS and metric sized flanges. No honeycombed flanges are offered in natural polypropylene, neither are there any van stone flanges available in polypropylene.

PVDF

Polyvinylidene Fluoride flanges in both the red and natural have size offerings from 1/2" through 6" in the socket and blind configurations. Threaded flanges are available from 1/2" through 2" only. There are no van stone flanges offered in PVDF. The smaller sizes 1/2" through 1-1/2" have round bolt holes meeting ANSI standards for class 150 flanges. As in polypropylene, the larger sized flanges (2" through 6") in both the heavy-duty and honeycombed style are molded with oblong bolt holes that comply with both ANSI and DIN specifications, ANSI B16.5 Class 150, ISO 2084 PN10 and DIN 2532 PN10 respectively. All flange offerings in PVDF are available in both the red and natural material.