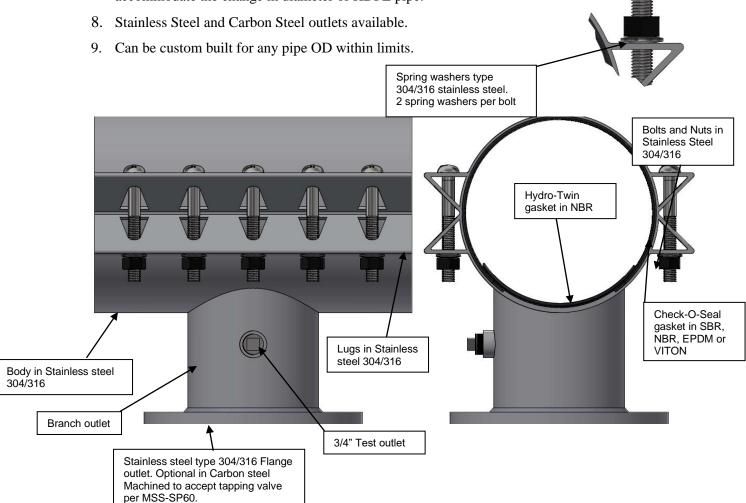


## Features and Benefits

- 1. Allows use of gate valve, reduce valve inventory and therefore, cost savings on valves.
- 2. The complete tapping sleeve is constructed of 304 or 316 stainless steel (unless optional carbon steel flange fitting is ordered) and shall be passivated so as to return the welded stainless steel to its original corrosion state.
- 3. Built in range allows reduction of inventory.
- 4. Drop in track head bolts with stainless steel nuts allow assembly in either direction. Available in NEVERGALL
- 5. 360° complete full circle mat o-ring gasket provides protection against leaks beyond o-ring seal.
- 6. The branch shall be a minimum of 3/8" larger diameter than nominal to allow the use of a full size cutter.
- 7. Stainless steel spring washers allowed the tapping sleeve to compress and expand to accommodate the change in diameter of HDPE pipe.





3490AS-PE / 3490AS-CS-PE Tapping Sleeve with Flange outlet 304/316 Stainless or Carbon Steel Certified to NSF/ANSI-61



## Scope

The intent of this specification is to receive a stainless steel tapping sleeve with a complete circle gasket and an incorporate a drop in bolt design ranging in pipe sizes from 4" and larger and with outlet sizes from 2" to 24". The tapping sleeve furnished shall be equivalent to Model 3490AS-PE tapping sleeve as manufactured by PowerSeal Pipeline Products Corporation.

## Design and Material Specification

The Tapping Sleeve shall be rated for a maximum working pressure of 250 psi and 312 psi testing pressure for outlet sizes 4" to 8". For outlet sizes 10" and 12" a maximum working pressure 200 psi and 300 psi testing pressure. For pipe sizes larger than 30" a maximum working pressure up to 100 psi and 150 psi testing pressure.

- 1. Sleeve body shall be fabricated completely from stainless steel grade 304 or 316 per ASTM A240. All welding shall be passivated so as to return the welded stainless steel to its original corrosion resistant state. All through 24" main size sleeves shall be two-piece and have a 0.40" outside diameter range of fit while 30" and larger main size sleeves shall be three pieces, and have a 0.60" outside diameter range of fit.
- 2. The tapping sleeve shall have a branch sealing gasket with the Hydro TwinSeal® dual o-ring design incorporating both hydrostatic and mechanical forces to affect a dynamic seal. A gridded complete circle gasket attached to the sleeve at the factory manufactured from SBR rated at (-40°F +200°F). An industry standard flange outlet gasket complying with ANSI/AWWA C111/A21.11 must be supplied.
- 3. Branch to flange and branch to shell connections are double welded. Outer structural weld GMAW (FCAW) and inner fusion weld GTAW (TIG).
- 4. Lugs shall be fabricated of 304/316 stainless steel per ASTM A240, and are to be attached by means of a continuous weld (GMAW) to the body of the sleeve on at least one side, and shall be so designed to prevent the rotation of the head of the drop in bolts, and facilitate the installation of the sleeve.
- 5. The Tapping Sleeve shall incorporate drop-in, oval neck, track-head bolts type 304/316 (18-8) stainless steel per ASTM A193. Stainless steel 304 heavy hex nuts per ASTM A194.
- 6. Each tapping sleeve shall be factory hydrostatically tested at on pipe to verify proper fit and weld integrity with zero leakage allowed and will be designed to withstand the require working pressure.





- 7. There shall be no paper or plastic adhesive labels attached to the tapping sleeve, any information appearing on the sleeve shall be etched.
- 8. Consult factory about concerns at proper fit and ranges.
- 9. The spring washers shall be type 304 stainless steel per MIL-A50424.
- 10. The minimum quantity of drop-in bolts per outlet diameter shall be:

| Outlet Diameter | Drop-In Bolt Quantity | Flange Outlet bolt Quantity | Tapping Sleeve Width |
|-----------------|-----------------------|-----------------------------|----------------------|
| 2"              | 8pcs                  | 2pcs                        | 12"                  |
| 3"              | 8pcs                  | 4pcs                        | 12"                  |
| 4"              | 10pcs                 | 8pcs                        | 16"                  |
| 6"              | 10pcs                 | 8pcs                        | 16"                  |
| 8"              | 12pcs                 | 8pcs                        | 20"                  |
| 10"             | 16pcs                 | 12pcs                       | 24"                  |
| 12"             | 20pcs                 | 12pcs                       | 30"                  |
| 16"             | 24pcs                 | 16pcs                       | 36"                  |

| Material Specifications |   |             |  |
|-------------------------|---|-------------|--|
| Part Name               | Material                                | Mat. specs  |  |
| Flange Outlet           | Stainless Steel 304/316 or Carbon Steel | AWWA C115   |  |
| Flange Gasket           | SBR                                     | AWWA C115AP |  |
| Branch                  | Stainless Steel type 304/316            | ASTM A240   |  |
| Test Plug               | Stainless Steel type 304/316            | ANSI B2.1   |  |
| Shell                   | Stainless Steel type 304/316            | ASTM A240   |  |
| Lugs                    | Stainless Steel type 304/316            | ASTM A240   |  |
| Hydro-twin              | NBR                                     | ASTM D2000  |  |
| Gasket                  | SBR                                     | ASTM D2000  |  |
| Bolt                    | Stainless Steel type 304/316            | ASTM A194   |  |
| Nuts                    | Stainless Steel type 304/316            | ASTM A193   |  |
| Spring washers          | Stainless Steel type 304/316            | MIL-A50424  |  |



