

Sub-Slab Depressurization System

Remedial Design Work Plan

April 26, 2026

175-225 3rd Street Site
175-225 3rd Street
Brooklyn, New York
NYSDEC Site No: C224209

Prepared for:

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5-26 46th Ave, Suite 2A
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Submitted to:

New York State Department of Environmental Conservation
Division of Environmental Remediation
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IE Project Number:

17831



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TABLE OF CONTENTS

Section	Topic	Page
	CERTIFICATION.....	iv
1	INTRODUCTION.....	1
1.1	Purpose and Scope	1
1.2	Site Description.....	1
1.3	Site History	2
1.4	Summary of Remedial Investigation.....	2
1.5	Proposed Site Redevelopment Plan	3
2	DESIGN OF THE SUB-SLAB DEPRESSURIZATION SYSTEM.....	5
2.1	Areas Excluded from SSDS Coverage.....	5
2.2	Extraction Piping.....	5
2.3	SSDS Layout Considerations	6
2.4	System Manifolds	6
2.5	Vertical Risers	7
2.6	Roof Mounted Blowers.....	7
2.7	Monitoring and Alarm System.....	8
2.8	Vapor Barrier and Waterproofing Membrane.....	8
2.9	Vacuum Monitoring and Sub-Slab Sampling Points	9
3	POST-INSTALLATION INSPECTION, BALANCING AND COMMISSIONING	10
4	SCHEDULE AND NOTIFICATIONS	11
5	REPORTING	12
5.1	Operations, Monitoring and Maintenance.....	12
5.2	Construction Completion Report.....	12

FIGURES

- Figure 1:** Site Location Map
Figure 2: Sub-Slab Depressurization System Layout
Figure 2A: Sub-Slab Depressurization System Details
Figure 2B: Sub-Slab Depressurization System Details

APPENDICES

- Appendix A:** SSDS Equipment Specifications
Appendix B: Vapor Barrier / Waterproofing product Specifications

CERTIFICATION

I, Brad Summersville, certify that I am currently a NYS registered professional engineer, as defined in 6 NYCRR Part 375 and that this Sub-Slab Depressurization System Remedial Design Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).



NYS Professional Engineer #091879

April 26, 2026
Date



1 INTRODUCTION

Impact Environmental Engineering & Geology, PLLC (IEEG) prepared this Sub-Slab Depressurization System Remedial Design Work Plan (Work Plan) in accordance with the June 2025 Remedial Action Work Plan (RAWP) on behalf of the property owner, Gowanus 3rd Street Owner LLC. This Work Plan is intended to support soil vapor mitigation at 175-225 3rd Street, Brooklyn, New York (Block 972, and Lot 58) (the Site).

The Site is currently in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP), Site No. C224209 pursuant to the July 2, 2015 Brownfield Cleanup Agreement (BCA), as amended on May 22, 2025 (Change in Ownership/Title Transfer Amendment) Brownfield Cleanup Agreement (BCA) (Index No. C224209-03-15).

1.1 Purpose and Scope

This SSDS Work Plan addresses potential soil vapor intrusion associated with volatile organic compounds (VOCs) that may remain at the Site following redevelopment. Vapor mitigation will be achieved through the installation of a Sub-Slab Depressurization System (SSDS) beneath the proposed building. This Work Plan was prepared in accordance with the NYSDEC DER-10 (Technical Guidance for Site Investigation and Remediation, dated May 2010), and the New York State Department of Health (NYSDOH) guidance (Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006).

1.2 Site Description

The Site consists of a single parcel of land located at 175-225 3rd Street in the Gowanus neighborhood of Brooklyn, Kings County, New York (refer to **Figure 1**). The Site is identified as Block 972, Lot 58 (formerly Lots 1, 43, and 58) on the New York City Tax Map. Former Lots 1 and 43 were merged into new Lot 58 on April 13, 2022, to support the proposed redevelopment. The Site is bounded by a closed section of 2nd Street to the north, 3rd Street to the south, 3rd Avenue to the east, and the Gowanus Canal to the west. An easement exists along the northern site boundary for the closed section of 2nd Street, which will be reconstructed as part of redevelopment. The surrounding area is characterized by residential, commercial, and industrial uses.

The Site occupies an area of approximately 140,000 square feet (sf). The rectangular-shaped site is currently vacant and was most recently occupied by a Verizon service center, with asphalt-paved parking areas and two buildings that supported Verizon's operations. The western portion of the site includes an approximately 13,000-square-foot bulkhead cutoff wall work area, completed in December 2020 as part of the Interim Remedial Measures and capped with a gravel cover. The property is situated in an urban area within the Gowanus neighborhood, which has undergone significant rezoning and redevelopment in recent years.

1.3 Site History

The Site has a history of industrial and commercial use since at least 1886, consistent with the broader Gowanus neighborhood. Historical site uses include a coal and stone yard, a blacksmith, a transit facility with coal yard, an automobile wrecking facility, a filling station with gasoline tanks, and automobile repair facilities with hydraulic lifts. Two open spill incidents (Spill Nos. 98-08009 and 02-03307) are associated with the upgradient eastern adjoining Consolidated Edison facility. During the 2014 Phase II Environmental Site Assessment (ESA), petroleum impacts were detected in groundwater and soil vapor within the western half of the site, and Spill No. 1405008 was assigned. Degraded coal tar dense non-aqueous phase liquid (DNAPL) globules were identified in a groundwater sample collected from recovery well MW-16 in the northwest corner of the Site. Coal tar-related impacts are attributed to off-site sources associated with the western-adjointing Gowanus Canal Superfund Site, as documented in the USEPA's Record of Decision (ROD) dated September 2013; no on-site source of coal tar was identified during the investigation.

Previous investigations at the Site have identified the presence of a historic fill layer extending from surface grade to depths of up to 15.25 feet below grade surface (bgs). The fill consists of predominantly brown, medium-grained sand with varying amounts of silt, gravel, brick, concrete, asphalt, and wood. The site-wide presence of historic fill has been established as a source of SVOCs, metals, and PCBs. The Site adjoins the Gowanus Canal to the west, which historically was a tidal creek with wetlands and lowland marsh areas prior to urban development in the mid-1800s.

1.4 Summary of Remedial Investigation

The Remedial Investigation (RI) was conducted by Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) between September 2016 and January 2017, with supplemental sub-slab vapor, indoor air, and ambient air investigations completed in March and May 2018 and emerging contaminant (PFAS and 1,4-dioxane) groundwater sampling completed in December 2018. The RI was conducted in accordance with the NYSDEC-approved May 6, 2015, Remedial Investigation Work Plan (RIWP). The RIR was submitted to NYSDEC on May 8, 2019, and approved on December 2, 2019. Supplemental groundwater resampling at MW-28 was performed by IEEG on November 26, 2024. Key findings are summarized below.

The site stratigraphy consists of a historic fill layer beneath concrete and asphalt-paved surfaces extending from about 8 to 15.25 feet bgs. Fill material is predominantly brown, medium-grained sand with varying amounts of silt, gravel, brick, concrete, asphalt, and wood, underlain by either an organic layer of soft silt and clay or a fine- to coarse-grained sand layer. The site-wide presence of historic fill has been established as a source of SVOCs, metals, and PCBs. Depth to groundwater was measured between approximately 3.5 and 8.75 feet below top of well casing, with groundwater elevations ranging from about elevation 2 to 8.5 feet NAVD88. Groundwater flow is generally westward toward the Gowanus Canal.

Degraded coal tar DNAPL (globules) was identified in recovery well MW-16 in the northwest corner of the Site. Hydrocarbon fingerprint analytical results confirm the DNAPL is degraded coal tar. No on-site source of coal tar

was identified; coal tar-related impacts are attributed to off-site sources associated with the western-adjointing Gowanus Canal Superfund Site, consistent with the USEPA's Record of Decision (ROD) dated September 2013. Petroleum-related VOCs (including 1,2,4-trimethylbenzene, benzene, ethylbenzene, toluene, and total xylenes) were detected in soil, groundwater, and soil vapor, generally concentrated in the northwestern and southeastern portions of the Site. Analytical results from six wells exhibited petroleum-related VOC concentrations exceeding NYSDEC SGVs. SVOCs, including PAHs, were detected above NYSDEC SGVs in nine groundwater monitoring wells.

Tetrachloroethene (PCE) was detected in all soil vapor and sub-slab vapor samples collected, and trichloroethene (TCE) was detected in three of five soil vapor samples. Total VOCs in soil vapor ranged from 89.6 $\mu\text{g}/\text{m}^3$ to 3,943.74 $\mu\text{g}/\text{m}^3$. Sub-slab vapor samples contained maximum TCE and PCE concentrations of 55.7 $\mu\text{g}/\text{m}^3$ and 199 $\mu\text{g}/\text{m}^3$, respectively, during the 2018 sampling events; the earlier 2014 Phase II ESI sub-slab samples contained TCE at up to 300 $\mu\text{g}/\text{m}^3$ and PCE at up to 510 $\mu\text{g}/\text{m}^3$.

An active SSDS was previously installed at the Site as part of a Soil Vapor Intrusion (SVI) Mitigation Interim Remedial Measure (IRM) approved by NYSDEC on January 27, 2020, to address SVI mitigation in the office space of the building located on former Lot 58. The Volunteer implemented the SVI IRMWPs between December 12, 2020 and February 28, 2021. The IRM included implementation of a site-specific CHASP and CAMP, a communication pilot test to inform the design of the SSDS (documented in the September 30, 2020 SSDS Design Technical Memorandum), installation and start-up of an active SSDS, collection of three indoor air samples and one ambient air sample, and preparation of a CCR and an Interim Site Management Plan (ISMP) for short-term management of the SVI mitigation system. This existing IRM SSDS system will be decommissioned and removed as part of the demolition and redevelopment activities and replaced with the new permanent system described herein.

Based on the RI findings, the selected remedy for the Site is Alternative II (Track 4 – Restricted-Residential Use). The remedy includes sitewide excavation down to groundwater, which was substantially completed as of March 2026; off-site disposal of contaminated historic fill and soil; in-situ groundwater treatment; installation of a vapor mitigation system and vapor barrier/waterproofing membrane; construction of a composite cover system; and implementation of engineering and institutional controls, including an environmental easement and Site Management Plan (SMP).

1.5 Proposed Site Redevelopment Plan

The proposed redevelopment project at 175-225 3rd Street, Brooklyn, NY (DOB# B00680917-I1, Project No. 24.003) consists of a multi-story, mixed-use commercial/residential building with an approximately 115,000-sf footprint and an approximately 24,000-sf public esplanade along the Gowanus Canal. The proposed uses include retail and parking spaces on the ground floor, with office space, maker space, residential units, and amenities on upper floors. There is no cellar space proposed in the development plan.

The building will be constructed with a slab-on-grade foundation at ground floor level. As indicated on the Foundation Plan (Drawing A-200.00, dated 2025-11-07) and the Foundation Area Diagram (Drawing A-600.00, dated 2025-11-07), the ground-floor foundation comprises four distinct foundation provision types:

- Foundation Type F-1 — Building Perimeter at Ground Floor Grade Beams & Perimeter Insulation (approximately 1,871 LF perimeter; 13,105 sf foundation area)
- Foundation Type F-2 — Slab on Grade (approximately 39,745 sf)
- Foundation Type F-3 — Interior Grade Beam, Pile Cap & Mat Insulation (approximately 34,735 sf)
- Foundation Type F-4 — Construction Fill Above Mat, No Thermal Value (approximately 12,173 sf)

The ground floor slab thickness varies between 10 and 12 inches of reinforced concrete across the building footprint. The top of slab (TOS) is at approximately Elevation 11'-6", with the sub-slab surface at approximately Elevation 10'-8". The slab is supported by a network of grade beams, pile caps, and driven piles distributed across the building footprint.

Several elevator pits are located within the building footprint, as shown on the Foundation Plan (Drawing A-200.00) and the Foundation Slab Edge Plan (Drawing EOS-200.00, dated 07/21/25). These pits are depressed areas within the slab-on-grade foundation that extend below the surrounding floor slab elevation into the groundwater zone. As discussed in Section 3, these areas are excluded from the active SSDS coverage, as there is no unsaturated zone below the pit slab allowing for potential vapor accumulation. However, the vapor barrier will be terminated and sealed at the perimeter of each pit to maintain envelope integrity.

Additionally, the foundation plan identifies trenches within the slab-on-grade for electrical conduits and underground plumbing that traverse the building footprint. These subsurface features, along with the structural pile caps and grade beams, present constraints for horizontal SSDS piping routing that have been accounted for in the system layout, as discussed in Section 3.

The building rises approximately 28 stories above grade, with the main roof at Level 28 and stairwell and mechanical bulkheads extending above the main roofline at Levels 29 and 30 (Drawing A-628.00). These bulkhead structures provide the locations for routing SSDS vertical risers to the roof and mounting exhaust blower equipment, as detailed in Section 3.

2 DESIGN OF THE SUB-SLAB DEPRESSURIZATION SYSTEM

The SSDS has been designed to mitigate potential vapors emanating from VOC-impacted groundwater into indoor air within the proposed building to be constructed at the Site. The system will establish a sub-slab vacuum field to maintain sub-slab air pressure lower than indoor air pressure. The SSDS was designed in accordance with United States Environmental Protection Agency (USEPA) guidance, NYSDOH Guidance, NYC Mechanical Code MC 512 Sub-Slab Exhaust Systems, and NYC Local Law 2009/071.

In accordance with the RAWP, the SSDS will be installed beneath the building's slab-on-grade foundation as an Engineering Control (EC) across all occupied ground-floor spaces. **Figure 2** through **Figure 2D** presents the layout of the SSDS zones and locations of vacuum monitoring points within each zone.

An IEEG engineer will provide full-time on-site oversight during construction of the SSDS. All requirements of the approved RAWP will be implemented during installation, and all activities will be documented in daily field reports. The SSDS will operate until decommissioning is approved by the NYSDEC

2.1 Areas Excluded from SSDS Coverage

Multiple elevator pits are located within the building footprint as identified on the Foundation (Elev Pit) Plan (Drawing A-200.00). These pits extend below the ground-floor slab into the groundwater zone (groundwater is encountered at approximately 4 to 8 feet below existing grade across the Site). Because the pit base slabs are at or below the water table, there is no unsaturated vadose zone beneath these structures allowing for potential vapor accumulation; therefore, active sub-slab depressurization is neither feasible nor necessary in these areas.

A continuous 20-mil (minimum) vapor barrier membrane installed beneath the building slab will be terminated and sealed at each elevator pit perimeter. Sealing will be accomplished by extending the vapor barrier vertically along the pit wall to the top of the pit wall elevation and lapping it over the pit's waterproofing membrane. All seams will be welded or sealed with manufacturer-approved adhesive and mastic to maintain the integrity of the vapor barrier envelope. The joint between the horizontal sub-slab vapor barrier and the vertical elevator pit wall termination will be detailed to prevent vapor migration through this transition. The contractor shall coordinate elevator pit vapor barrier termination details with the waterproofing subcontractor to ensure a continuous, sealed envelope.

2.2 Extraction Piping

Horizontal extraction piping beneath the building slab will consist of three (3) branches, each composed of two (2) piping runs. Horizontal, sub-slab SSDS extraction piping will be constructed of 4-inch diameter Schedule 40 PVC solid piping and 4-inch diameter Schedule 40 PVC 0.040 slotted screen. Solid piping sections will be used to convey extracted sub-slab vapor toward the riser locations, while slotted screen sections will be installed within the sub-slab gravel layer to facilitate vapor collection across the extraction field. Filter fabric will be installed over the PVC piping to reduce the infiltration of fine materials but allow water to pass through the piping. The piping will be installed within trenches filled with a minimum 12-inch-thick layer of ¾-inch clean

virgin quarry stone. A 6-inch continuous gravel layer will be placed in all other areas below the slab over clean, compacted fill and configured to provide a continuous permeable layer to enhance sub-slab air communication.

The extraction piping will be installed at a minimum slope of 1% to provide drainage of condensation from the blower inlet toward the farthest end of each piping run. The highest point of the sub-slab piping will be located at the vertical transition through the slab, and the lowest point will be located at the farthest end of each piping run.

At each riser location, the horizontal 4-inch Schedule 40 PVC extraction piping will transition through the concrete slab via a 4-inch galvanized elbow to a 4-inch galvanized steel pipe, sealed at the slab penetration with a pipe boot and mastic. Above the slab, each branch will connect to an SSDS header assembly equipped with a 4-inch brass gate valve for balancing of flow and vacuum, and a 0–15-inch water vacuum gauge and sample port for performance monitoring. The header assembly transitions to a 6-inch CPVC vertical riser via flexible couplings and CPVC fittings, with vacuum monitoring points located at a minimum of 48 inches above the slab at each riser. The 6-inch CPVC risers will be supported by pipe clamps at a maximum spacing of 5 feet and will be routed through the building to the roof, where they will connect to the exhaust stacks and roof-mounted vacuum blowers.

As part of the installation oversight, IEEG will screen soil, if present, for visual, olfactory, and instrumental indicators suggestive of a potential VOC. Instrument screening for the presence of VOCs may be performed with a calibrated PID. IEEG may collect soil samples exhibiting visual, olfactory, instrumental indicators of impacts. Soil samples will be submitted to a NYSDOH ELAP-certified laboratory and analyzed in accordance with work plan specifications, and properly drummed and labeled in accordance with the procedures for Investigative Derived Waste (IDW) outlined in the RAWP.

2.3 SSDS Layout Considerations

Given the complexity of the sub-slab environment, including pile caps, interior grade beams, structural mats, underground plumbing, electrical conduit trenches, and elevator pit foundations, minor field deviations from the design drawings are anticipated and should be expected. The piping layout shown on Figure 1 represents the design intent; exact piping locations will be adjusted in the field to navigate around as-encountered obstructions while maintaining the design objectives of continuous vacuum coverage across the occupied building footprint. All field deviations will be documented by IEEG on as-built drawings. Significant deviations that materially alter the piping coverage area, riser locations, or system capacity will require prior Agency approval.

2.4 System Manifolds

Individual horizontal 4-inch Schedule 40 PVC piping runs will transition at the vertical riser location to a 4-inch galvanized elbow within the sub-slab gravel layer, connecting to a 4-inch galvanized steel pipe that extends vertically through the concrete slab. The galvanized steel transition through the slab provides durable, corrosion-resistant penetration sealed with a pipe boot and mastic at the vapor barrier level. At the top of slab, each 4-inch galvanized steel pipe connects to a galvanized steel union pipe, which transitions to a 4-inch by 1-

inch tee. The 1-inch branch of the tee provides a gauge and sample port equipped with a 0–15-inch water vacuum gauge (Dwyer Series LPG5 2.5-inch low-pressure gauge or equivalent) via a 1-inch to ¼-inch reducer bushing (Blue Fin BRB100-25 or equivalent), and a ¼-inch branch tee (Parker 2224P-4 or equivalent) feeding a ¼-inch valve for the electronic vacuum monitoring point sensor and a ¼-inch threaded plug for vapor sampling access. Equipment specifications are included in **Appendix A**.

Above the monitoring tee, each branch connects to a 4-inch brass gate valve for individual branch balancing of airflow and vacuum. The gate valve transitions through CPVC elbows and a 4-inch CPVC male adapter to a 4-inch CPVC nipple, which connects to a CPVC tee at the header assembly. The gate valves and individual gauges allow independent balancing and performance verification of each extraction branch, and the sample ports allow discrete testing and sampling of the vapor collected from each piping run. The 4-inch piping will be manifolded into a single 6-inch CPVC riser to convey combined extraction airflow from the connected branch legs upward through the building to the roof-mounted vacuum blower.

2.5 Vertical Risers

The 6-inch CPVC extraction header from each SSDS zone will be connected to a 6-inch diameter CPVC vertical riser pipe extending from the sub-slab level to the roof. The design includes three (3) vertical risers. The vertical risers will terminate above the roofline at the building's elevator/stairwell bulkheads. The SSDS risers will be routed through these bulkhead structures and transition to the exterior above the roof. The exact bulkhead penetration locations will be coordinated with the architect and mechanical engineer to avoid conflicts with HVAC ductwork, elevator machine rooms, and other rooftop mechanical equipment. All exhaust points shall be:

1. Above the eave of the roof (preferable above the highest eave of the building) and at least 24 inches above the surface of the roof;
2. At least 10 feet above the ground level;
3. At least 10 feet away from any operable air intake that is less than 2 feet below the exhaust; and,
4. At least 10 feet from any adjoining or adjacent buildings, HVAC intakes, or HVAC supply registers.

This separation distance is critical to prevent re-entrainment of extracted soil vapors into the building's ventilation system. The exhaust stacks will be fitted with a pest control screen and rain guard cap.

2.6 Roof Mounted Blowers

Each of the three (3) system risers will be connected to an individual Obar Systems model GBR89 Compact Radial Blower mounted on an Obar GBR Roof Mount. The blower is rated at 14 in. of WC at 100 Cubic Feet per Minute (CFM) with a maximum flow of 500 CFM per the manufacturer's specification sheet. Performance curve testing with 6-inch piping indicates a maximum vacuum of 12.3 inches static pressure and a maximum airflow of 529 CFM. Equipment specifications are included in **Appendix A**.

An AMETEK Nautilair 8.9-inch (226mm) variable speed blower may also be utilized as an alternative or supplemental blower depending on system balancing requirements during startup and commissioning. The

Nautilair operates on 240V AC single-phase input (216–264V AC RMS, 50/60 Hz, 10 amps), with a maximum static pressure of approximately 16 inches H₂O and maximum airflow of approximately 550 CFM per the manufacturer's performance curve.

All exterior PVC piping and fittings will be coated with corrosion resistant paint, or similar.

2.7 Monitoring and Alarm System

Continuous electronic monitoring of system performance will be provided by a Sensaphone SCD-1200 Sentinel monitoring panel, mounted on the wall in the building supervisor's office (see Figure 1C – Monitoring Panel Detail). Signal wires for each monitor will be connected to 3 electronic vacuum sensors, one for each riser. The sensors will monitor the vacuum at each riser. If the vacuum at any of the sensors falls below the sensors setpoint of 0.25 in. of WC, a visible and an audible alarm will occur on the monitor. In addition, the monitor will notify appropriate personnel via email of the failure. Equipment specifications are included in **Appendix A**.

2.8 Vapor Barrier and Waterproofing Membrane

A continuous sub-slab vapor barrier / waterproofing membrane system will be installed below the building foundation as an element of construction. The membrane system will have a minimum thickness of 20 mils, and will be installed as a continuous site-wide sub-slab membrane beneath all areas of the building. Due to the varying foundation conditions across the building footprint, two waterproofing/vapor barrier products will be employed based on foundation type and proximity to the groundwater table.

In areas of mat foundation construction where foundation elements are in proximity to the water table, specifically the F-3 Interior Grade Beam, Pile Cap & Mat areas (approximately 34,735 sf) and the F-4 Construction Fill Above Mat areas (approximately 12,173 sf), the membrane will consist of W.R. Meadows Precon pre-applied waterproofing products (**Appendix B**).

In areas of slab-on-grade construction, specifically the F-2 Slab on Grade areas (approximately 39,745 sf), the vapor barrier will consist of Stego Wrap 20-mil vapor barrier membrane, sealed at all seams and penetrations with Stego Mastic and Stego Tape (**Appendix B**). In these slab-on-grade zones, the Stego Wrap vapor barrier will be installed directly above the ¾-inch clean stone collection layer (Figure 1A) and the horizontal SSDS extraction piping, forming the upper seal of the active sub-slab depressurization system.

All seams in both the Precon waterproofing membrane and the Stego Wrap vapor barrier will be overlapped a minimum of 12-inches and sealed in accordance with the respective manufacturer's specifications. At all slab penetrations, including SSDS risers, vacuum monitoring points, structural columns, and utilities, the membrane will be cut, fitted, and sealed with pipe boots and mastic to maintain continuity. At the building perimeter, the membrane will be terminated and sealed to the interior face of the perimeter grade beam or foundation wall using manufacturer-specified termination methods appropriate to each product. At elevator pit locations, the vapor barrier will be terminated and sealed along the pit walls.

2.9 Vacuum Monitoring and Sub-Slab Sampling Points

Ten (10) permanent vacuum monitoring and sub-slab vapor sampling points will be installed within the slab-on-grade portions of the building foundation to allow for measurement of sub-slab vacuum and, as needed, collection of soil vapor samples. These monitoring points will also be used to support future performance evaluation and any potential SSDS decommissioning requests (refer to Figure 2).

Monitoring point locations have been selected within clear-span areas between pile caps and away from grade beams to facilitate representative measurements of vacuum conditions within the sub-slab aggregate layer. Final monitoring point locations will be field-coordinated with the design team during construction to avoid structural conflicts while maintaining appropriate spatial distribution.

Sub-slab monitoring points will be open-ended stainless steel sub-slab vapor pins (Vapor Pin® or equivalent). The sub-slab vapor pins will be installed per the manufacturer's instructions and set below the concrete slab surface to facilitate a permanent cap designed to protect the vapor point between sampling events. Conditions in the field may require adjustment of sampling locations.

3 POST-INSTALLATION INSPECTION, BALANCING AND COMMISSIONING

SSDS startup and post-installation verification will proceed in a phased sequence of inspections, system performance testing, and indoor air and sub-slab vapor sampling, as described below.

- A baseline inspection of the roof-mounted blowers and other equipment will be conducted within 72 hours after initial startup and again at approximately 30 days post-startup. Qualified personnel will inspect and test the system to verify proper operation of all SSDS components and instrumentation. A checklist will be completed for each inspection. The inspection checklist will include, but not be limited to:
 - A smoke test to check for leaks through slab penetrations and floor joints;
 - System alarm testing;
 - Measurement of airflow (at sample ports) and pressure (at vacuum monitoring points) to document that the systems are operating in accordance with design calculations;
 - Verifying active operation of the roof-mounted blowers; and
 - Verifying the integrity of couplings and seals in the SSD system riser pipes.
- Adjustments may be needed to calibrate the systems to perform as designed. Required adjustments to the SSDS will be conducted as needed and per the manufacturer's recommendations. The need for future repairs and/or adjustments will be based on comparisons between the startup testing and ongoing system performance.
- During startup, the blowers for the building being tested will be started using a midrange power setting. The induced vacuum will be measured at all risers and vapor monitoring points. Adjustments will then be made using both the valves and blower settings to create a steady, even vacuum under the slab. A minimum pressure differential of 0.004 in. of WC is required to maintain negative pressure in the sub-slab through seasonal variations.
- Vapor samples collected from each effluent discharge point will be analyzed to evaluate potential impacts to downwind receptors. Analytical results will be compared to the NYSDEC Division of Air Resources (DAR-1) Guidelines for the Control of Toxic Ambient Air Contaminants, including Short-Term Guideline Concentrations (SGCs) and Annual Guideline Concentrations (AGCs). The results will be used to determine whether vapor concentrations discharged from the Site are acceptable for direct atmospheric discharge without additional vapor treatment during full-scale SSDS operation.
- Post-installation indoor air and sub-slab vapor sampling will be performed to verify that the SSDS is functioning effectively in preventing soil vapor intrusion into the building. To be representative of a residential exposure scenario:
 - Indoor air and sub-slab vapor samples will be collected for a duration of 24 hours and analyzed by USEPA Method TO-15 SIM for VOCs;
 - Sampling will occur no sooner than 30 days after the SSDS has been deemed operating efficiently and has been operating continuously for 30 days; and
 - Indoor air analytical sampling may need to be repeated in the next heating season.

4 SCHEDULE AND NOTIFICATIONS

Construction of the SSDS is scheduled to begin in the second or third quarter of 2026, pending NYCDOB permit acquisition, and is anticipated to take up to 60 days to complete. The NYSDEC will be contacted to arrange a pre-construction meeting at least seven calendar days before beginning SSD system construction.

5 REPORTING

5.1 Operations, Monitoring and Maintenance

A forthcoming Operations, Monitoring, and Maintenance (OM&M) Plan will detail monitoring requirements (including indoor air sampling prior to occupancy), maintenance procedures, and annual reporting for long-term, post-remedy operation. These requirements will be incorporated into the SMP, as applicable.

5.2 Construction Completion Report

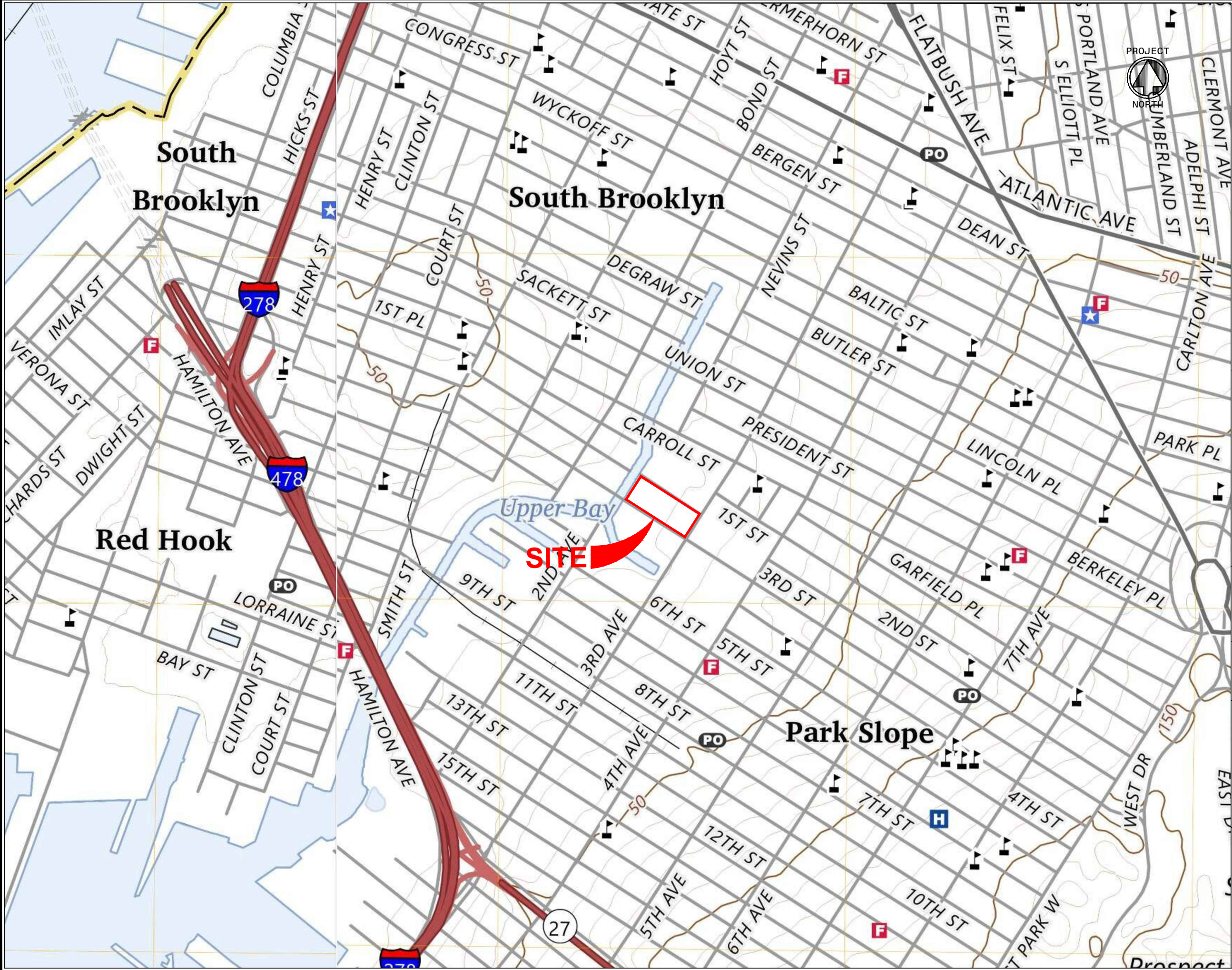
A Construction Completion Report (CCR) will be prepared and submitted following installation of the SSDS in accordance with DER-10 subdivision 5.8(b)-(d). The CCR will complement the final engineering report for the Site and will provide a certification and be stamped by a NYS registered professional engineer.

Figures

175-225 3rd Street, Brooklyn, NY



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NOTES:

FIGURE 1:
SITE LOCATION

175-225 3rd Street
Brooklyn, New York

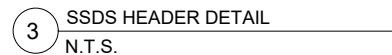
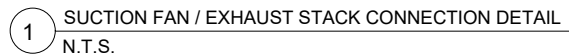
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PROJECT NO.	17831-01
DESIGNED BY:	AB
DRAWN BY:	AB
CHECKED BY:	DF
DATE:	11/21/2024
SCALE:	N.T.S.
REVISIONS	

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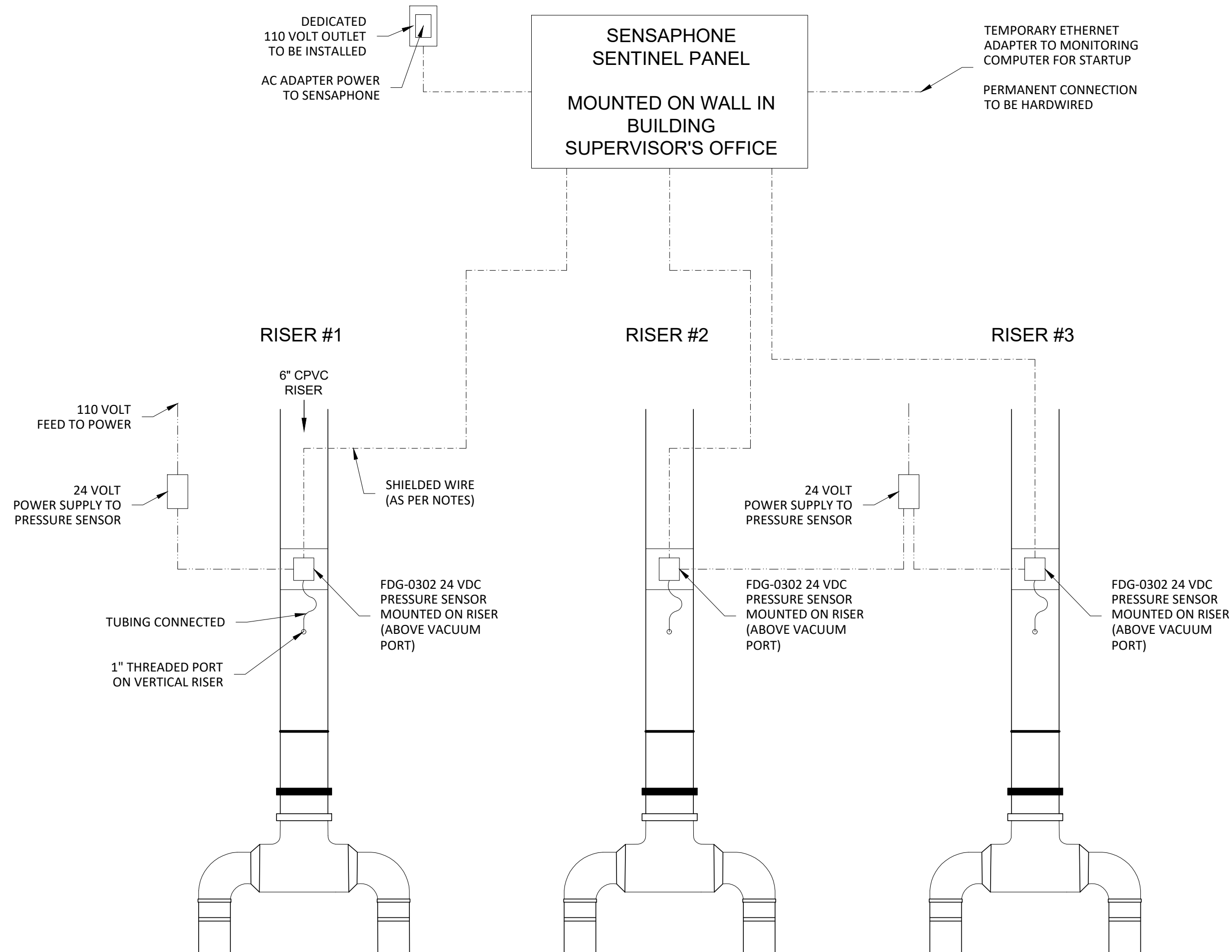


5. GAS PERMEABLE LAYER: A UNIFORM LAYER OF CLEAN AGGREGATE, A MIN. OF 12 INCHES THICK AROUND THE VAPOR COLLECTION PIPING AND 6 INCHES THICK UNDER THE SLAB BETWEEN EACH LATERAL COLLECTION PIPE. THE AGGREGATE WILL CONSIST OF MATERIAL THAT WILL PASS THROUGH A 3/4" SIEVE AND BE RETAINED BY A 1/2 SIEVE.

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- 



- NOTES:
1. One SCD-1200 Sensaphone. To be mounted in building supervisor's office. Requires 110 Volt outlet for AC adapter.
 2. Three FDG-0302 Pressure Sensors to be installed. One sensor on each riser to the individual roof-mounted blowers.
 3. Two FGD 24VDC Power supplies. Each capable of feeding two pressure sensors.
 4. Ethernet to Wi-Fi. Adapter for use during startup and testing of SSDS only. Permanent Sensaphone connection to the monitoring computer should be hardwired using high quality CAT6A cable.
 5. All wiring shall be performed in accordance with the General Wiring Consideration included in the Sentinel Installation and Setup Guide provided with the Sensaphone unit (including wire sizes, use of shielded wire, separation of power, and sensor wires).

**SUB-SLAB
DEPRESSURIZATION
SYSTEM MONITORING
PANEL DETAIL**

175 Third Street
Brooklyn, New York



Figure No: 2C	
PROJECT NO.	15977-01
DESIGNED BY:	AB
DRAWN BY:	AB
CHECKED BY:	GMC/HB/BJS
DATE:	3/01/2025
SCALE:	N.T.S.
REVISIONS	

**IMPACT ENVIRONMENTAL
ENGINEERING AND
GEOLOGY PLLC**

170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800
FAX (631) 269-1599



Appendix A

Equipment Specifications

175-225 3rd Street, Brooklyn, NY



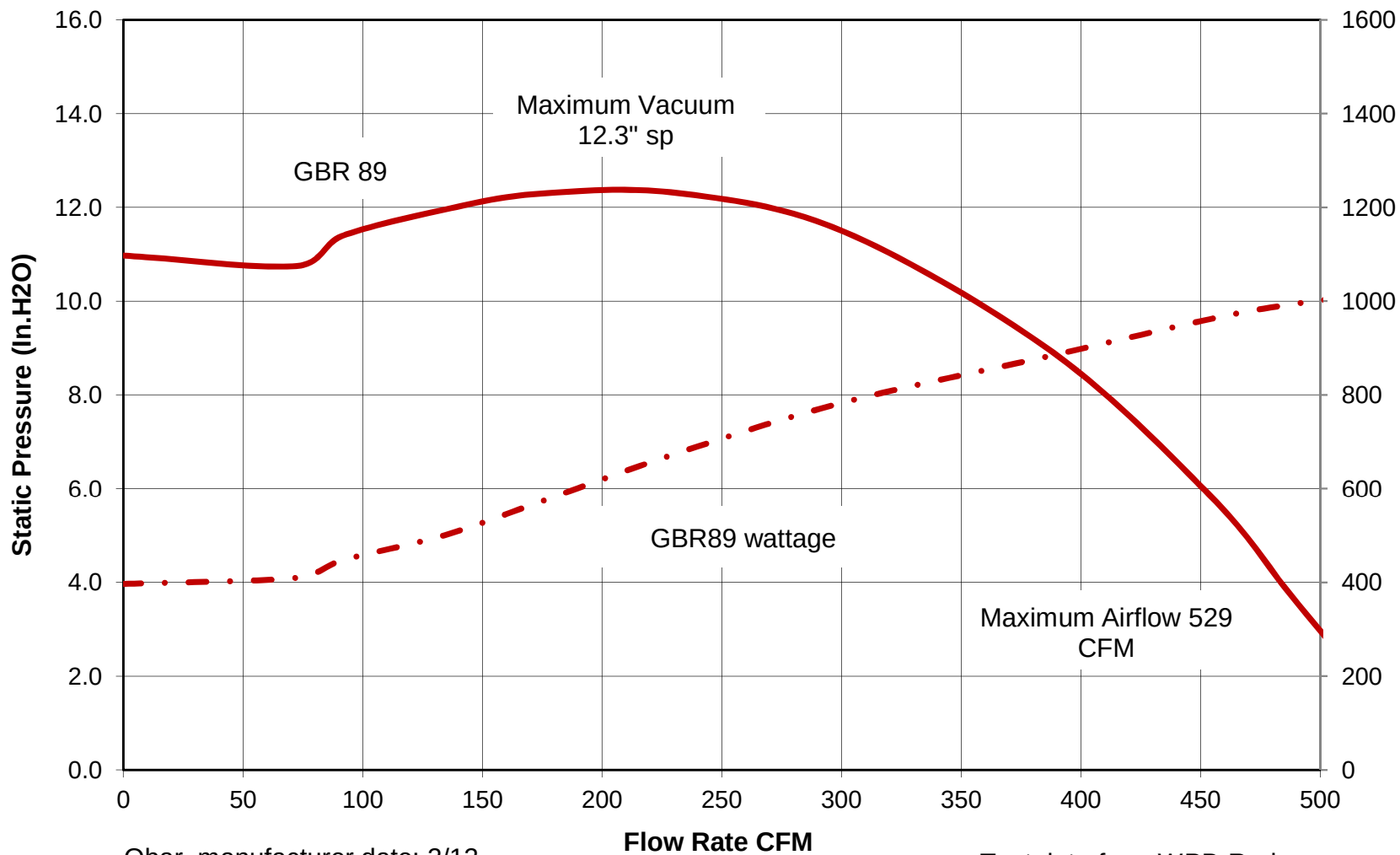
IMPACT ENVIRONMENTAL
ENGINEERING AND
GEOLOGY PLLC
170 Keyland Court
Bohemia, New York 11716
TEL: (631) 268-8800
FAX: (631) 269-1599

GBR89 with 6" piping

Test date
3/2/12

Wattage

— GBR89 - . - GBR89 watts



Obar manufacturer date: 2/12

Test data from WPB-Radon.com

THE OBAR GBR89

COMPACT RADIAL BLOWER



Based on 25 years of experience and 2 years of research and development, the patent pending GBR series of compact radial blowers provide the perfect combination of performance and design.

PERFORMANCE

- GBR89 HA 14" WC at 100CFM max flow 500 CFM.
- Built in speed control to customize performance.
- Condensate bypass built in.
- 12 month warranty 40,000 hr sealed bearings.



GBR89 WITH ROOF MOUNT

DESIGN

- Our modular design means the blower and manifold assembly can be removed and replaced as a unit. This makes repairs cost effective and easy and allows contractors to upgrade systems simply by swapping assemblies.
- The GBR series is based on a bypass blower designed to handle combustible materials.
- The housing is not required to be air tight so you can add gauges and alarms without compromising the system.
- Built in condensate bypass.
- Built in speed control.
- Quick disconnect electrical harness.
- All UL listed components including UL listed enclosure for outside use.
- Wall fastening lugs included.
- GBR series roof and wall mounts available to quickly configure the blowers for your installation while providing a custom built look.
- Compact design 18"x 16"x 10" weighing only 26 lbs.
- 4" schedule 40 inlet and 6" schedule 40 exhaust.

APPROVED

By Hal Benjamin at 10:02 am, Jul 24, 2025

Enclosure Specifications

Rating:

Ingress Protection (EN 60529): 66/67

Electrical insulation: Totally insulated

Halogen free (DIN/VDE 0472, Part 815): yes

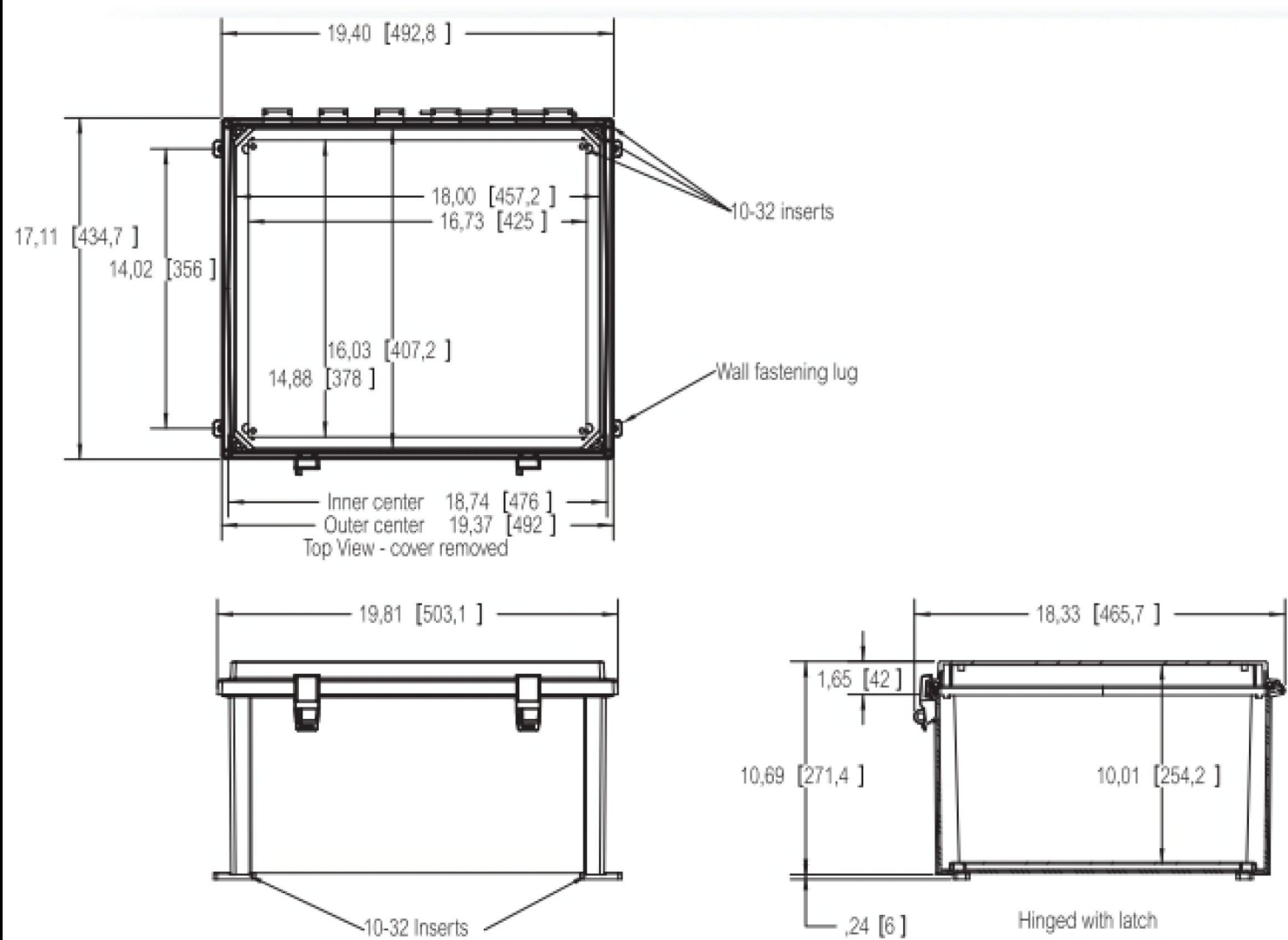
UV resistance: UL 508

Flammability Rating (UL 746 C 5): complies with UL 508

Glow Wire Test (IEC 695-2-1) °C: 960

NEMA Class: UL Type 4, 4X, 6, 6P, 12 and 13

Certificates: Underwriters Laboratories

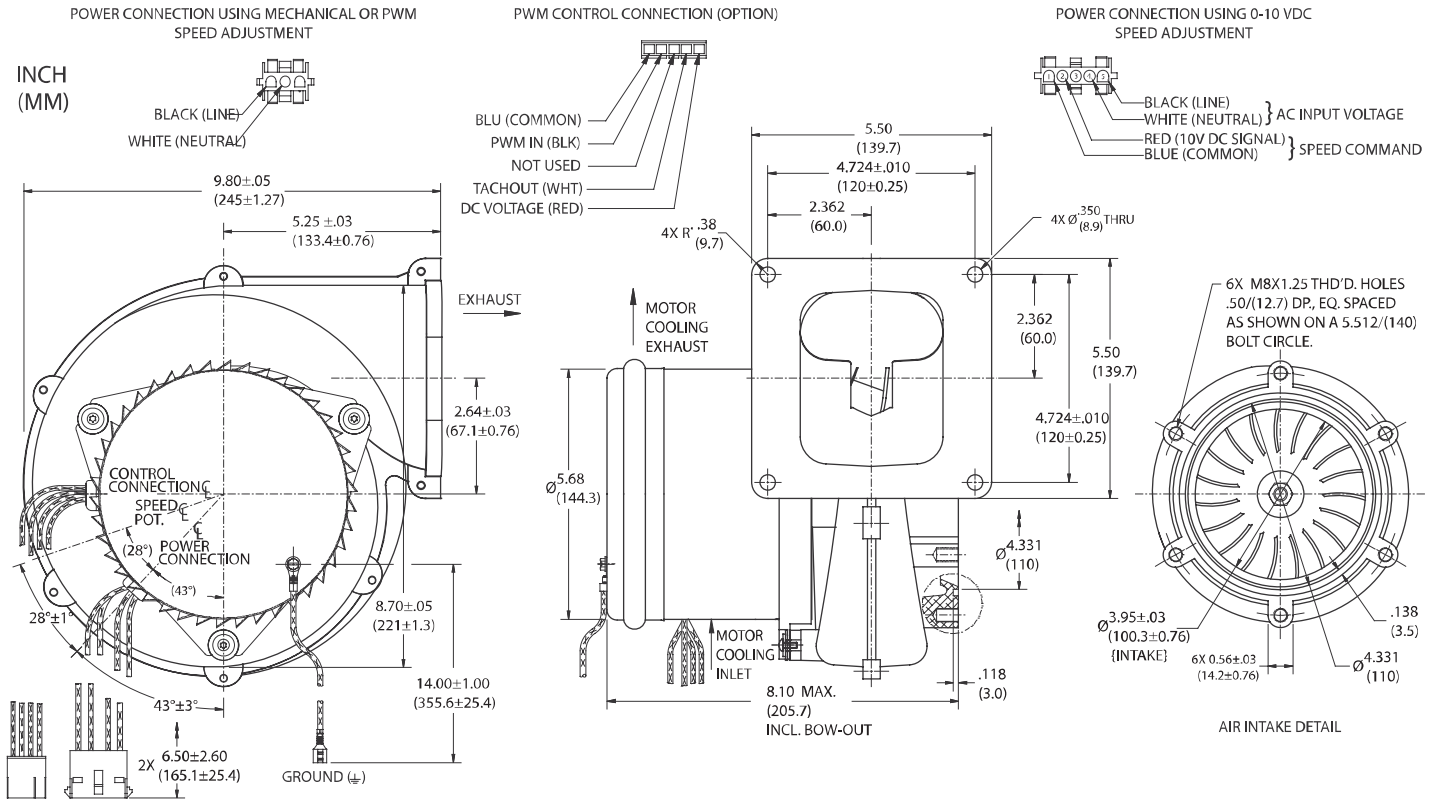


High Voltage Brushless DC Blowers

Nautilair (TM) 8.9" (226mm) Variable Speed Blower

240 Volt AC Input, Single Phase, High Output

Nautilair



		Part/ Model Number		
Specification	Units	150240	150241	150242
Speed Control	-	Mechanical	0-10 VDC	PWM

Notes:

- **Input Voltage Range:** 216 - 264 Volts AC RMS, 50/60 Hz, single phase.
 - **Input Current:** 10 amps AC RMS
 - **Operating Temperature (Ambient Air and Working Air):** 0°C to 50°C
 - **Storage Temperature:** -40°C to 85°C
 - **Dielectric Testing:** 1800 Volts AC RMS 60 Hz applied for one second between input pins and ground, 3mA leakage maximum.
 - **Speed Control Methods:** PWM (Pulse Width Modulation). Speed control input signal of 15 - 45 VDC @ 500 Hz - 10 kHz, and tachometer output (2 Pulses / Revolution).
Optional tachometer output (3 Pulses / Revolution).
 - **0 to 10 VDC with a speed control input current of 5 mA to 20 mA at 10 VDC Input with multi-turn potentiometer set to minimum resistance (fully clockwise).**
 - **Mechanical:** A potentiometer is available for speed control of the blower. The potentiometer can be preset for a specific speed. Access for speed adjustment located in motor housing. 4-20mA speed control available.
 - **Approximate Weight:** 9.3 Lbs. / 4.2 Kg.
 - **Option Card available for Customization**
 - **Regulatory Agency Certification:** Underwriters Laboratories Inc. UL507 Recognized under File E94403 and CSA C22.2#133 under File LR43448
 - **Design Features:** Designed to provide variable airflow for low NOx & CO emission in high efficiency gas fired combustion systems. Built with non-sparking materials. Blower housing assembly constructed of die cast aluminum. Impeller constructed from hardened aluminum. Rubber isolation mounts built into blower construction to dampen vibration within the motor. Two piece blower housing assembly sealed with O-ring gasket for combustion applications. Customer is responsible to check for any leakage once the blower is installed into the final application.
 - **Miscellaneous:** Blower inlet, discharge, and all motor cooling inlet and discharge vents must not be obstructed. Motor ventilation air to be free of oils and other foreign particles, (i.e. breathing quality air). Blower is to be mounted so ventilation air cannot be re-circulated.
- POWER CONNECTION (3 CAVITY):** Blower connector, AMP Universal MATE-N-LOK, part no. 1-480701-0.
- POWER CONNECTION (5 CAVITY):** Blower connector, AMP Universal MATE-N-LOK, part no. 350810-1.
- SPEED CONNECTION (5 CAVITY):** Blower connector, Molex Mini-Fit Jr., part no. 39-01-4057.
- Mating harnesses available upon request.

This document is for informational purposes only and should not be considered as a binding description of the products or their performance in all applications. The performance data on this page depicts typical performance under controlled laboratory conditions. AMETEK is not responsible for blowers driven beyond factory specified speed, temperature, pressure, flow or without proper alignment. Actual performance will vary depending on the operating environment and application. AMETEK products are not designed for and should not be used in medical life support applications. AMETEK reserves the right to revise its products without notification. The above characteristics represent standard products. For product designed to meet specific applications, contact AMETEK Technical & Industrial Products Sales department.

AMETEK TECHNICAL & INDUSTRIAL PRODUCTS

627 Lake Street, Kent OH 44240

USA: +1 215-256-6601 - Europe: +44 (0) 845 366 9664 - Asia: +86 21 5763 1258

www.ametektip.com

B 47

AMETEK
PRECISION MOTION CONTROL

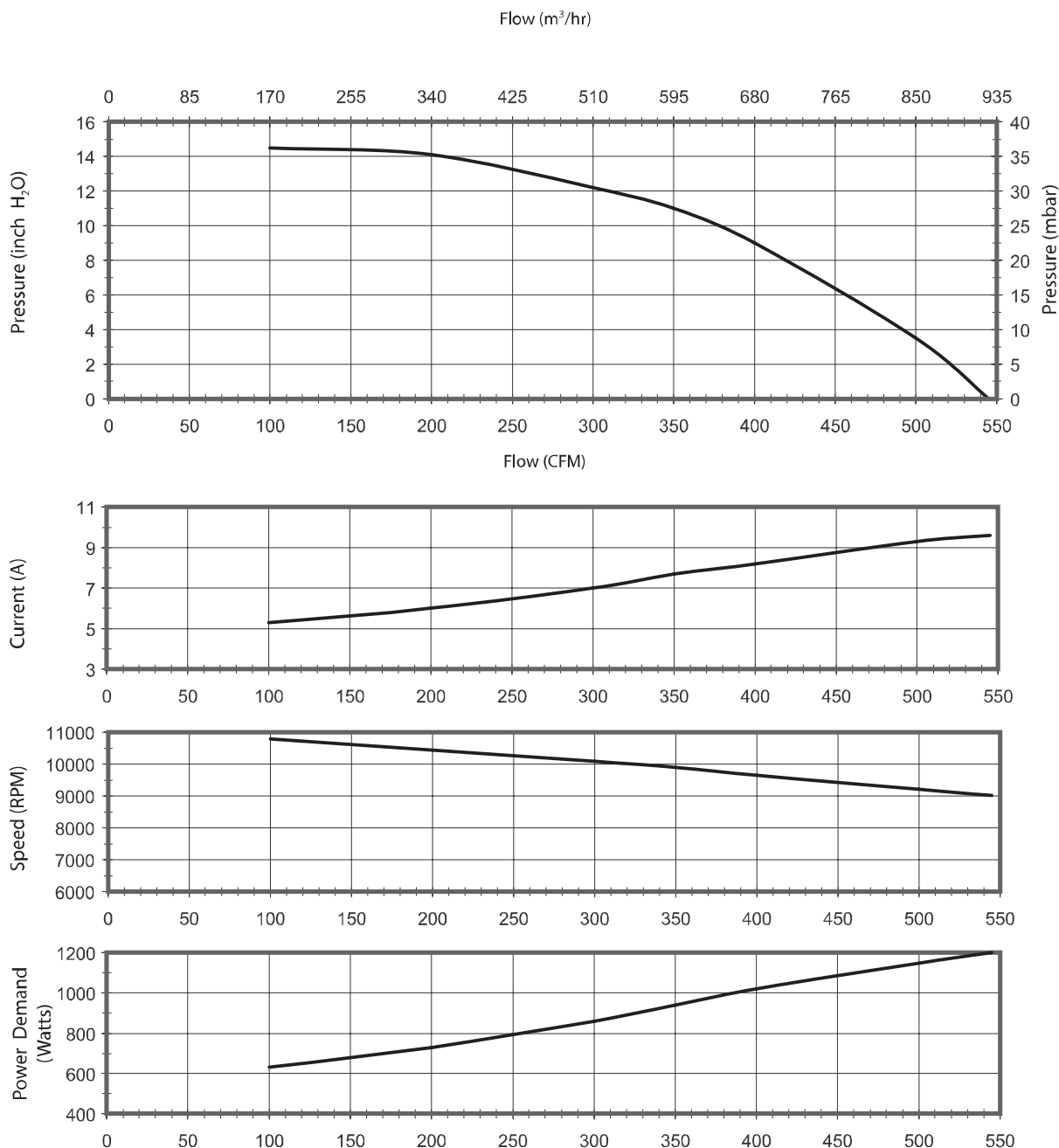
High Voltage Brushless DC Blowers

Nautilair (TM) 8.9" (226mm) Variable Speed Blower

240 Volt AC Input, Single Phase, High Output

Nautilair

Typical Performance



Data presented represents blower performance at STANDARD AIR DENSITY, .075 lb/ft³ (29.92" Hg, Sea Level, 68° F)
Vacuum performance available upon request.

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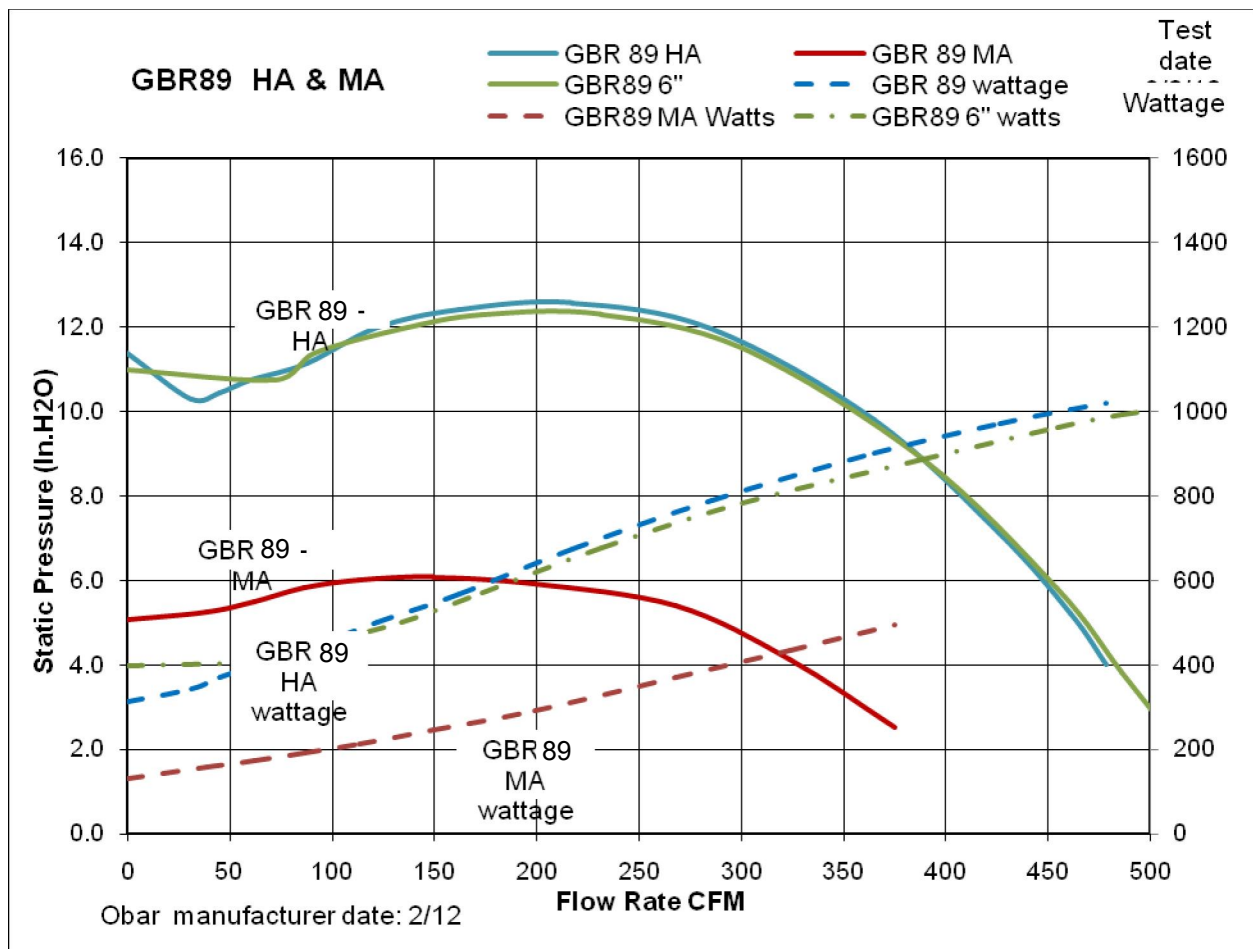
B 48

AMETEK
PRECISION MOTION CONTROL

GBR89 HA tested at full voltage with 8 feet of 4" inlet (Blue Lines) and 6" Inlet (Green lines)

Maximum airflow with no exhaust piping and 8' of 6" piping is 529 CFM

GBR89 MA tested with speed control set to half the wattage consumption (Red Line)

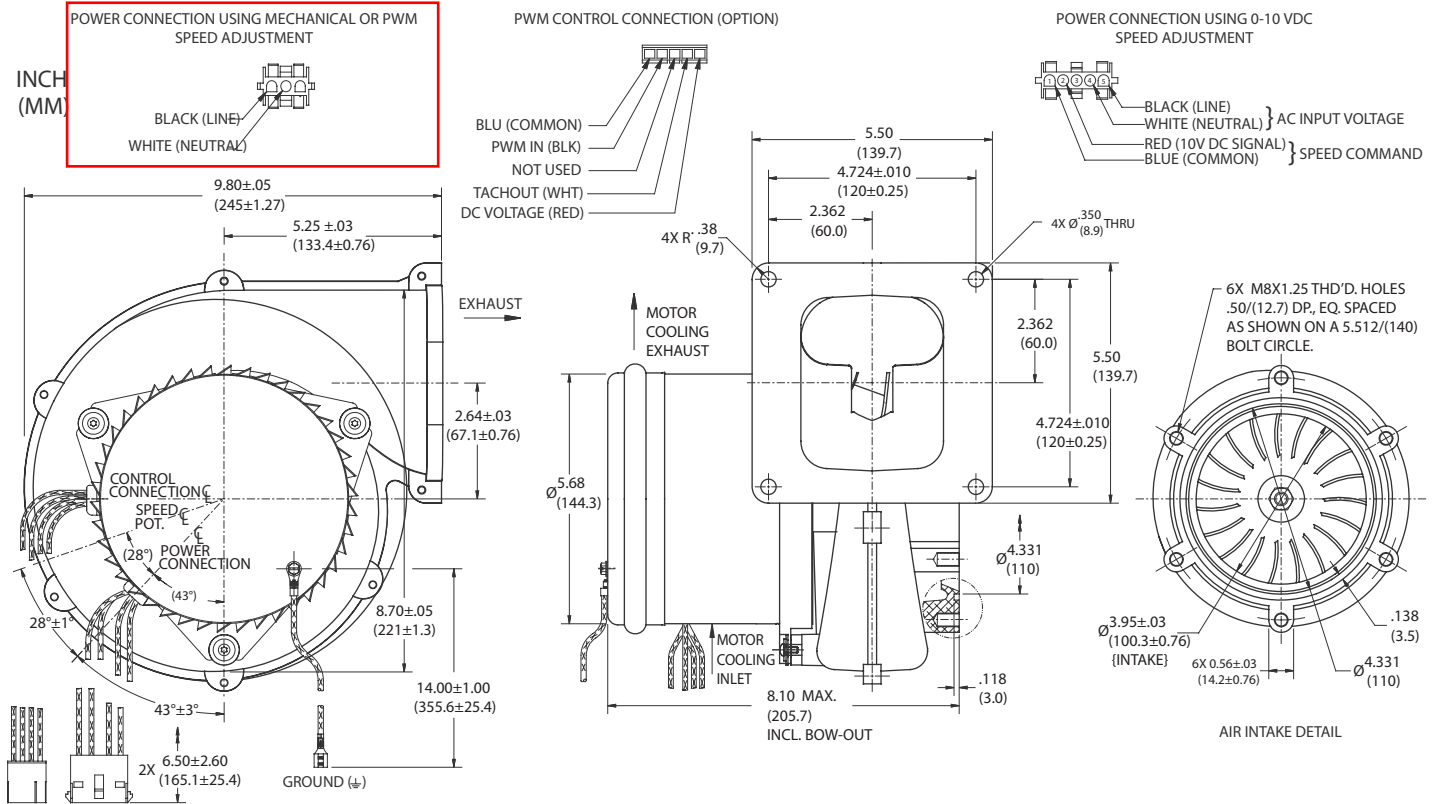


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0 to 10 VDC with a speed control input current of 5 mA to 20 mA at 10 VDC Input with multi-turn potentiometer set to minimum resistance (fully clockwise).
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4-20mA speed control available.
 - Approximate Weight:** 9.3 Lbs. / 4.2 Kg.
 - Option Card available for Customization**
 - Regulatory Agency Certification:** Underwriters Laboratories Inc. UL507 Recognized under File E94403 and CSA C22.2#133 under File LR43448
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AMETEK
PRECISION MOTION CONTROL

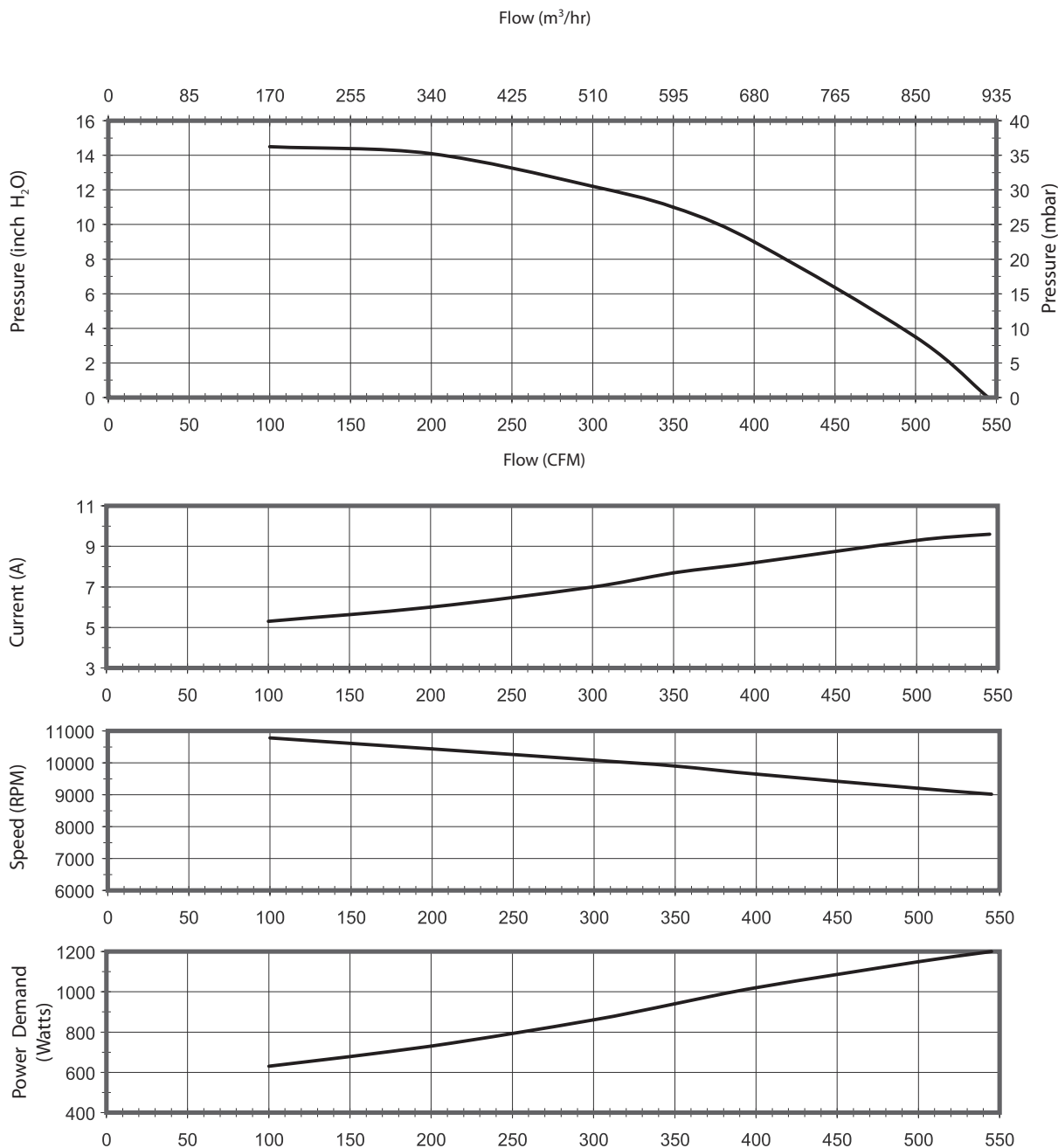
High Voltage Brushless DC Blowers

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Distributed by Obar Systems
Installation & Warranty

Read these instructions completely and retain for future reference.

1. Warning! The use of this fan may affect combustion devices, always check for a backdraft on all combustion devices before and after installation.
2. Warning! This fan is not intended for use in hazardous environments where a motor spark could ignite combustible or flammable materials.
3. All wiring must be performed by a licensed electrical contractor in accordance with the National Electrical Code and all local and state codes governing the municipality in which it is installed.
4. The GBR series blowers are intended for use and installation by professionals familiar with installation and design of systems for the remediation of radon and volatile organic compounds. Unqualified or unlicensed individuals should not undertake the installation or service of this product.

INSTALLATION

The installation instructions provided are for guidance only, any installation should meet all state and local codes and guidelines.

1. Temperature restrictions: The GBR SOE/UD will run and start in a temperature range from -20 to 180 degrees F. The GBR HA will run at a temperature of -20 to 180 degrees F but may not start if the motor temperature is below 0 degrees F at time of startup.
2. Ground water restrictions: The blower should not be installed at a height above water table that is less than the vacuum setting for the blower, if the water table is unknown then the base of the slab should be used as a default. The GBR series is a high vacuum blower and will draw water into the assembly and damage the impeller and motor if not properly installed.
3. Speed control: The GBR series blowers have a built in speed control that can be used to field adjust the vacuum on your system. These should only be adjusted by an experienced installer familiar advanced systems design and installation. For information regarding on site adjustments please contact Obar Systems for further information.
4. Enclosure: It is not recommended that the enclosure be opened except for repairs and adjustments. Contact Obar Systems before removing the cover.
5. Mounting: The fan should be mounted in a vertical orientation with the discharge pointing

upward. The inlet and discharge should be attached with a PipeConx or similar flexible connector of the appropriate size. The connector should provide a gap of 1.5 inches between the inlet pipe and inlet fitting and discharge pipe and discharge fitting. This will allow for motor assembly replacement in future repairs. The GBR comes with wall fastening lugs that provide for a flush installation on a flat even surface. Optional roof and wall mounts are available and are designed to reduce installation times dramatically. Contact Obar Systems for additional information on mounting systems. The fan should be located in an area that provides easy access and does not obstruct the operations of the building to which it is attached.

6. Discharge: Make sure the discharge meets or exceeds National guidelines and local codes for the installation and venting of Radon and or VOCs (Volatile Organic Compounds). In the event that there is the possibility of debris entering the discharge of the fan, it is recommended that a guard be installed to protect the blower from damage.

Warranty

Subject to any applicable consumer protection legislation, Obar Systems warrants the GBR series fans for 12 months from the date of purchase.

Obar systems will repair or replace any fan which fails due to defects in materials and workmanship. A RMA must be obtained and proof of purchase is required to be serviced by this warranty.

This warranty is contingent upon the fan having been installed as per the installation requirements set forth by Obar Systems and in accordance with the requirements of federal and state authorities governing the installation systems designed for radon and volatile organic compounds.

Obar systems is not responsible for the installation, removal or delivery costs associated with this warranty.

Except as stated, the GBR series are provided without warranty of any kind, either expressed or implied, including without limitation, implied warranties of merchantability and fitness for a particular use.

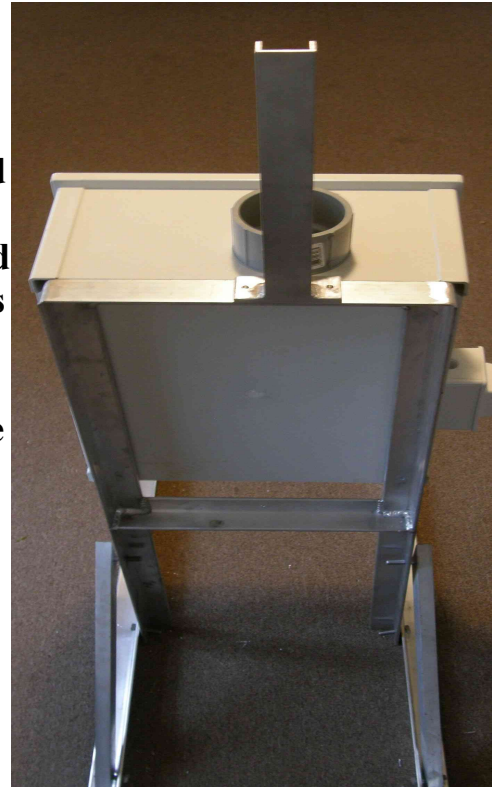
Obar systems is in no way responsible for any direct or indirect damages relating to the performance of the GBR series fan. Any liability shall not exceed the purchase price of the unit. The sole remedy under this warranty shall be the repair or replacement of the unit

Contact Obar Systems to obtain a RMA (Return Material Authorization) number for any and all warranties. If return is required, the customer is responsible for all freight charges.

Obar Systems Inc.
2969 Route 23 South
Newfoundland NJ 07435
800 949 6227

GBR ROOF MOUNT

The GBR Roof Mount is designed for the GBR series fans but can be adapted to accept other fans such as the Fantech HP series. Constructed of 3/16 x 1 ½ welded aluminum with stainless hardware the mount is ready for installation and does not require painting. . The mount measures 36" high, 17" wide and has a base of 40" x 17". There is an optional 12" extension to secure the discharge. The mount can be used with Pipe Pier mounts or fastened directly to curbing or other common supports.



GBR FAN MOUNT WITH GBR76 FAN



GBR FAN MOUNT WITH FANTECH ADAPTER



GBR FAN MOUNT WITH FANTECH FAN

Cutlist:

1 1/2"-3/16" Angle

2 pcs. - 40" long square ends

1 pc. - 17 1/8" 45 deg. P-F both ends

1 pc. - 17 1/8" coped both ends

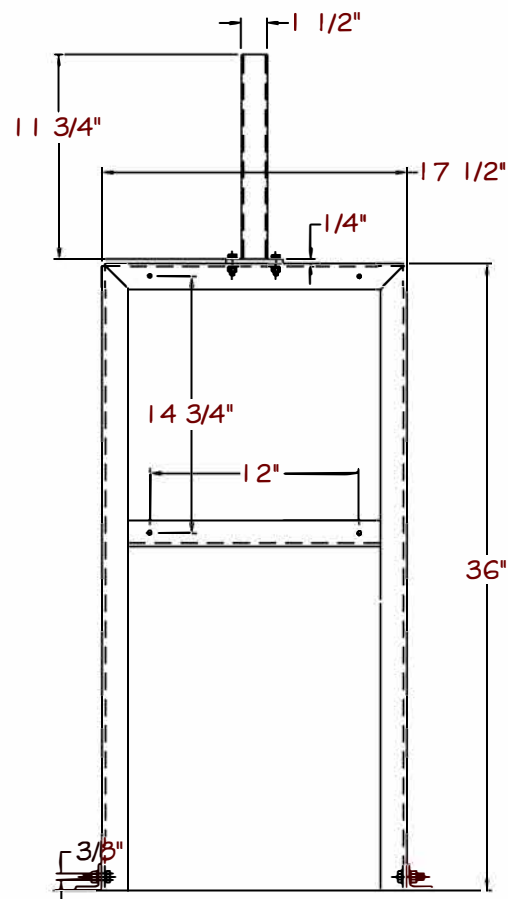
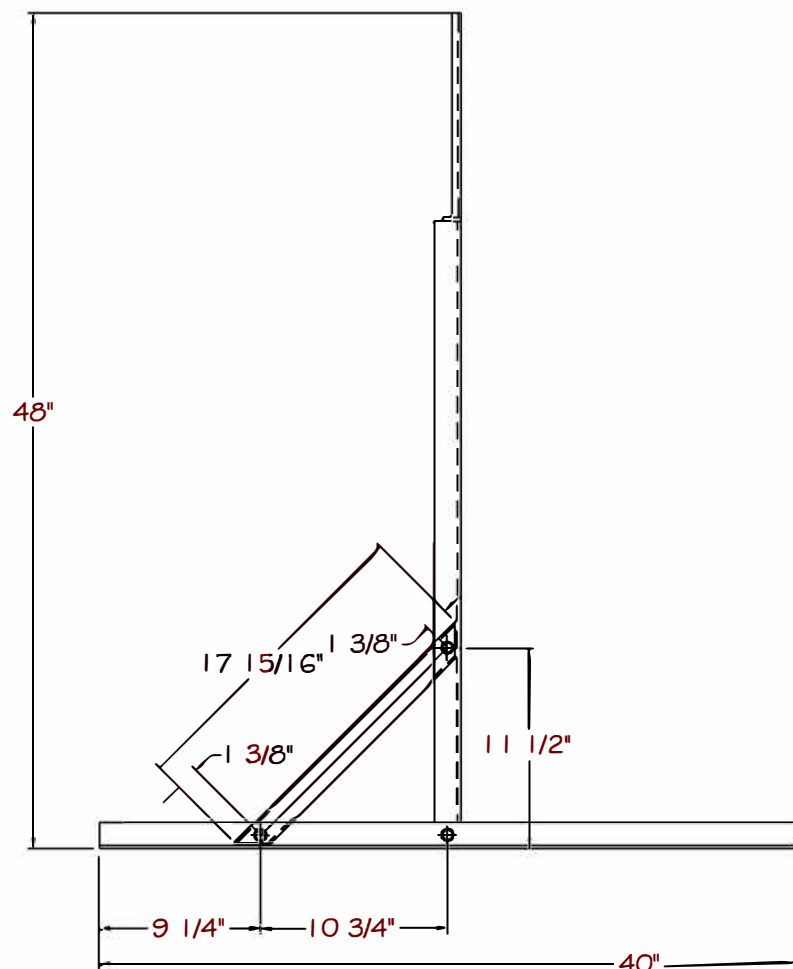
2 pcs - 35 13/16" long 45deg. P-F one end

Note: Left and right on above

1 1/2" x 3/4" - 1/8" channel

2 pcs. - 17 15/16" long 45 deg P-F both ends

1 pc. - 11 3/4" long Square ends



AWS D1.1 Certified

File Name: Obar_Systems_2011.dwg

DRAWN by: Jim Stanick

CHECKED:

UNLESS OTHERWISE SPECIFIED:

LINEAR TOLERANCES +/- 1/16"

ANGULAR TOLERANCES +/- 1°

NOTES:

REV. 1

MATERIALS:
6061 Aluminum

FINISH:
Painted Finish

APPROVAL:

APPROV. FOR	REV.	DATE	REQ'D	BY	DESCRIPTION
PRINTS:					

Detail of:

Alum. Frame - Fan Box
Free Standing Unit

Project Name & Location:

Contractor:
OBAR Systems

Architect:

Architect's Drawing Reference:

PRECISION WELDING

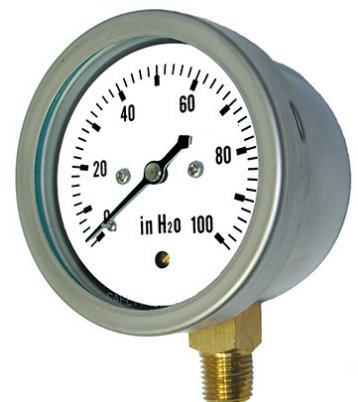
"Quality Metal Fabricators"

845 Berkshire Valley Road
Wharton, NJ 07885
(973) 214-1065
(973) 695-1308 eFax





LP = Low Pressure Gauge
1 = Lower Mount
SB = Stainless Steel Case, Copper Alloy Internals
25 = 2 1/2" Diameter
4 = 1/4" NPT Male
100 = 0/100" wc



Industrial and Special Application | 65

SENSAPHONE®

REMOTE MONITORING SOLUTIONS

Sentinel

Technical Specifications



ALARM NOTIFICATION METHODS:

- E-Mail, Text Messages, Voice Phone Calls
- Programmable alarm escalation levels
- Comprehensive scheduling per input, profile, and alarm destination
- Unlimited number of User Profiles
- Multiple contact types per user

INPUTS:

- 12 Universal Inputs
- Normally Open / Normally Closed Dry Contact
- 2.8K / 10K Thermistor
- 4-20mA Current Loop
- Pulse Count
- 12 Bit Resolution

TEMPERATURE SENSING RANGE:

-109° to 168°F | -85° to 76°C

RELAY OUTPUT:

Programmable. Rated for 1A 30VAC/ 1A 30VDC

DATA LOGGING:

- Unlimited samples securely stored on the Sentinel servers
- Programmable sampling interval - 1 min to 24 hrs
- User programmable channel selection

COMMUNICATION PORTS:

Ethernet 10/100Base-T

STANDARDS:

FCC Part 15 – Class A Compliant

901 Tryens Road • Aston, PA 19014 • PH: 877-373-2700 • F: 610-558-0222 • www.sensaphone.com

BATTERY BACKUP:

- 4.8V 2000mAh NiMH Battery pack (included)
- Provides 8 hours of backup

LOCAL INDICATORS:

- 12 Alarm Status LEDs
- Power LED • Online LED
- Standby LED • Ethernet link and Activity LEDs

POWER REQUIREMENTS:

- Comes with 12VDC plug-in power supply.
- (International power options available).

ENVIRONMENTAL:

- Operating Humidity:**
0-90% RH, non-condensing
- Operating Temperature:**
32° to 122°F | 0° to 50°C

PHYSICAL:

- In metal enclosure:**
5.5 x 6.3 x 1.5" | 140 x 160 x 38mm
1 lb. | .45kg

With Weatherproof Enclosure:

- 12.17 x 10.25 x 3.5" | 309 x 260 x 89mm
3.7 lb. | 1.67 kg

ENCLOSURE:

- Durable powder coated metal housing suitable for wall or panel installation or weatherproof NEMA 4X rated fiberglass enclosure.

ENGINEERING SPECIFICATIONS

SENSAPHONE® SENTINEL SCD-1200

I. GENERAL

The Sensaphone Sentinel shall be a self-contained microprocessor controlled environmental monitoring system capable of monitoring up to 12 alarm channels (zones). The system shall be configured for operation by the user by means of the Sensaphone.net website and/or the Sensaphone mobile App for Android and IOS. Characteristics of the Input and Output Zones include 12 Universal Inputs and 1 Relay Output. Upon detection of any alarm or status change, the system shall commence the alarm notification process which includes dialing telephone numbers from a list associated with the particular alarm condition(s), and delivering a voice message* identifying and describing the alarm condition(s) as well as sending text messages*, and email notifications describing details of the alarm and its location. The system shall contain a rechargeable NiMH battery pack to maintain full operation of the device for up to 8 hours in the event of a power failure. The system shall contain a 10/100BASE-T Ethernet port for connection to an Ethernet network with Internet connectivity. The system shall utilize encrypted data transmission for secure communications to the Sensaphone.net server system. The system shall comply with Part 15 of the FCC rules for radiated and conducted emissions as well as the Canadian Interference Standard (ICES-003) for information technology equipment (ITE). The system shall have a two year warranty from the manufacturer. The system shall be a Sensaphone® Sentinel SCD-1200 by Phonetics, Inc. dba Sensaphone.

* Voice telephone calls and text messages shall require a premium Ethernet subscription.

II. I/O CHANNEL ATTRIBUTES AND FEATURES

A. Inputs

The system shall come standard with 12 universal input channels. All input channels shall be user-configurable as:

1. NO or NC digital dry contact, using internal 3.3V source voltage
2. Temperature from thermistor, using 2.8K or 10K devices
3. 4–20mA analog, using custom look-up table
4. NO or NC Pulse Count with configurable multiplier
5. NO or NC Run-Time Accumulator

The system shall have the following additional monitoring features:

1. Built-in AC power failure detection
2. Low battery detection
3. Device offline detection

All monitored channels, including built-in monitoring features, shall allow configurable programming of pertinent operational data including, but not limited to:

1. Zone Name
2. Zone Type (NO/NC, 2.8K/10K thermistor, 4-20mA, pulse count, run-time accumulator)
3. Zone Calibration
4. High and Low Alarm Limits (-2,000,000 to 2,000,000)
5. Alarm Recognition Time (0 seconds to 8 hours)
6. Alarm Hold Time (1 second to 60 minutes)
7. Alarm Reset Time (1 minute to 8 hours)
8. Alarm on Return-to-Normal

9. Alarm Delivery Contact List (Phone numbers, text numbers, email addresses, etc...) for each zone
10. Alarm Delivery Enable/Disable for each channel to send notifications for alarms
11. Zone Enable/Disable

B. Output

The system shall have one built-in SPST 1A 30VDC/VAC relay output. The output may be programmed to switch either manually (via the website or App) or automatically using one of the following modes:

- (a) Activate or Deactivate as soon as one or more selected zones exceeds the alarm limits (regardless of recognition time). Reverts when the alarm condition no longer exists.
- (b) Activate or Deactivate when one or more selected zones becomes an alarm (recognition time enforced). Reverts when the alarm condition no longer exists.
- (c) Activate or Deactivate while one or more selected zones has an unacknowledged alarm. Reverts once the alarm is acknowledged.
- (d) Activate when a selected zone is either greater than, less than, or equal to a user configurable value and Deactivate when a selected zone is either greater than, less than, or equal to a user configurable value.

III. NETWORK COMMUNICATIONS

The System shall contain a 10/100BASE-T Ethernet port for communication to the Sensaphone.net server system. The System shall require a continuous connection to the internet in order to operate. The system shall require DHCP network protocol support for initial configuration. The System shall require outbound access on network ports 123 (NTP Time synchronization) and 443 (secure data communications). LED indicators shall be provided to indicate when the unit is online with the Sensaphone.net server system.

IV. PROGRAMMING

The System shall be fully programmable through the Sensaphone.net website. A mobile App for Android and IOS shall be provided to permit live system status as well as limited programmability.

V. ALARM NOTIFICATION

The system shall send alarm notification messages via email at no charge. Optionally, alarm messages may be sent via text message and/or voice telephone call with a paid premium Ethernet subscription. Alarm messages will be delivered in English. Alarm messages sent via telephone shall be delivered in digitized human voice using text-to-speech technology. The system will continue to call telephone numbers and send text and email messages in succession until a positive acknowledgment of the alarm message is received. Acknowledgment is accomplished by entering a numeric code from the called telephone, or by replying to a text or email message, or by logging-in to the website or App and requesting acknowledgement. The alarm may also be acknowledged by pressing the 'Acknowledge' button on the Sentinel device itself. The system will call each programmed telephone number up to 4 times. Once the alarm is acknowledged the system shall halt the dialing process. The system shall allow for an unlimited number of users with an unlimited number of contact methods per user. The system shall allow for tiered alarm delivery schedules so that a time delay may be inserted between tiers.

VI. DEVICE SUPERVISION

The Sentinel device(s) shall be supervised by the Sensaphone.net server system. If a device stops communicating with the server for a specified period of time the system will notify selected users of the problem. When the device resumes communication with the server an optional 'return-to-normal' message will be sent.

VII. DATA LOGS

The system shall allow monitored zone values to be periodically stored in system memory at a programmable interval from 1 minute to 24 hours. Stored values shall be uploaded to the Sensaphone.net server system on a periodic basis (approximately once per hour) for permanent storage. Users shall have the capability of querying logged data values from the Sensaphone.net website and downloading the displayed data. The device shall be capable of storing up to 130,000 data points (or up to 6.5 days logging all zones at the minimum interval) in internal memory.

Premium Ethernet subscribers shall have unlimited access to logged data on the Sensaphone.net server system. Non-subscribers shall be limited to 30 days of historical data.

VIII. ALARM HISTORY LOGS

The Sensaphone.net server system shall maintain a log of all alarm events. The system shall also maintain a log of all alarm notifications including the users name, type of delivery (email, phone, text), and telephone number/email address.

IX. SYSTEM FEATURES

A. Power

The system shall be provided with a UL/CSA listed 12VDC power transformer with USA style blades that the user may plug into a 100-240VAC outlet, 50/60HZ. An international version shall be available (SCD-1200-INT) that contains an international power adapter with multiple interchangeable AC blades for use worldwide. The system shall monitor for the presence of primary 12VDC power and shall be capable of generating an alarm if main power should fail.

B. Battery Backup

The system shall have a built-in rechargeable nickel-metal-hydride battery pack. The battery pack shall provide up to 8 hours of continuous system operation in the absence of AC power. (Actual battery backup performance is dependent upon the age of the battery, the ambient temperature, and the charge condition). The system shall also contain a long-life lithium battery (type CR2) to maintain the system clock, as well as certain dynamic zone values such as pulse count, runtime, and min/max values. The lithium battery shall last 4 years or more depending on use.

C. Visual Indicators

Each zone input shall have a corresponding LED that will indicate the alarm and acknowledgment status of each zone. The system shall also have a 'Power' led to indicate if the device is powered on. An 'Online' LED shall be included to indicate if the device is online with the Sensaphone.net server system. A 'Standby' LED shall be included to indicate if the device is operating in Standby mode.

D. Standby

The system shall be capable of operating in Standby mode. In Standby mode any detected alarms will be ignored, however, monitored values will continue to be displayed on the website and on the mobile Apps. The data logger will continue to store values while in Standby mode. Standby mode can be configured to run for a preconfigured time period in which case it will return to normal mode automatically, or it may operate in 'untimed' mode in which case it must manually be returned to normal mode. Users can enter or exit Standby mode through the website, the mobile App, or using the Standby button on the front panel of the device.

X. ENCLOSURE AND ENVIRONMENTAL

A. Enclosure

1. The base unit (SCD-1200) shall be housed in a metallic enclosure.

Dimensions: 5.5" x 6.3" x 1.5" (140 x 160 x 38 mm), 1 lb. (0.45kg)

2. The SCD-1200-CD shall be housed in a NEMA 4X/IP66 polycarbonate enclosure with a clear cover.

Dimensions: 12.17" x 10.25" x 3.5" (309 x 260 x 89 mm), 3.7 lb. (1.67 kg)

3. The SCD-1200-SD shall be housed in a NEMA 4X/IP66 polycarbonate enclosure with an opaque cover.

Dimensions: 9.5" x 11.1" x 3.5" (241 x 282 x 89 mm), 6 lb. (2.72 kg)

B. Electrical Protection

The Power input shall be protected against voltage surges with a metal oxide varistor. The Ethernet port shall be protected against voltage transients with low capacitance transient suppressors. The zone inputs shall be protected against voltage surges using metal oxide varistors and low-voltage diode clamping circuits.

C. Environmental

The system shall function over an operating range of 32°F to 122°F (0° to 50°C) at up to 0–90% RH, non-condensing. The system may be stored over the temperature range of 32° to 140°F (0° to 60° C).

D. Maintenance

The system manufacturer shall have in-house service facilities and technical assistance available during normal business hours, Monday–Friday, 8AM–5PM(EDT/EST).

*Specifications subject to change without notice.

ETHERNET TO WiFi ADAPTER



Add WiFi connectivity to any network based Sensaphone

The Ethernet-to-WiFi Adapter (FGD-0250) is a high-speed, long-range outdoor 802.11n Wireless Bridge/Access Point that operates on the 2.4 GHz band and is an ideal solution for adding wireless connectivity to any wired network device.

The unit features an IP65-Rated weatherproof housing that ensures continued operation in harsh outdoor environments or in climates of extreme cold, heat, or continuous moisture.

Also included is a proprietary PoE (Power-over-Ethernet) kit comprised of a PoE injector and Power Adapter as well as a mast mount kit with binding strap.

How it works



The Ethernet to WiFi Adapter connects to the Sensaphone via an Ethernet cable (1) up (to 300' away). The adapter connects to a wireless router via WiFi (2). Users program the adapter to connect with a WiFi network via downloadable software. The distance between the adapter and router is limited by the strength of the WiFi network, however, much farther distances can be achieved by using another adapter to strengthen the WiFi signal. The WAN communicates with the network (3) and the communication proceeds as it normally would.

TECH SPECS

RF	2.4 GHz Frequency Band
Standard	IEEE 802.11b/g/n
Data Rate	Up to 300 Mbps
Memory	64MB
Power Consumption	Up to 7.2W
Antenna Array	Internal 8 dBi directional antenna with Dual Polarization
Physical Interface	2 x RJ-45 Fast Ethernet (10/100 Mbps), 1 x Reset Button
Power Requirements	Active Ethernet (Power-over-Ethernet), Proprietary PoE Design, Power Adapter (United States) 24V/0.6A
Security	WPA/WPA2 Personal (WPA-PSK using TKIP or AES), WPA/WPA2 Enterprise (WPA-PSK using TKIP or AES), Hide SSID in beacons, MAC Address Filtering - up to 50 Fields, Wireless STA (Client) Connection List
Temperature Range	Operating: -4°~158°F/-20°C~70°C
Humidity (non-condensing)	90% or less
Waterproof	IP65-Rated Enclosure
Certifications	FCC, IC
Dimensions	3.9 x 7.3 x 1.14" • .70lbs 99 x 185 x 29mm • .3kg
Package Contents	Ethernet to WiFi Adapter, Quick Start Guide, Pole Mounting Strap x 2, Wall Mount Screw set, Power Supply.

Product Name

Part Number

Ethernet to WiFi Adapter FGD-0250



Family owned and made in the USA since 1985

901 Tryens Road
Aston, PA 19301

Phone: 877-373-2700
Web: sensaphone.com



Accessory
Series

24VDC POWER SUPPLY



Power supply with backup

4-20mA transducers require power to operate. Some Sensaphone products provide 24VDC power specifically for this purpose. When using a 4-20mA transducer with a model that does not, an external power supply is required. This 4-20mA Power Supply provides up to 8 hours of battery backup if main power fails.

TECH SPECS

Name	24VDC Power Supply for 4-20mA Sensors
Battery Backup Duration	Up to 8 hours
Power	24V / 40mA will power two devices
Connection	Hardwired
Housing	Plastic
Dimensions	7.5 x 3.6 x 1.2" 190 x 92 x 31mm
Sensor Series	Accessories Series

All specifications subject to change without notice

Product Name

Part Number

24VDC Power Supply for 4-20mA Sensors FGD-0070
24VDC Power Supply for 4-20mA Sensors with International Power Adapter FGD-0070-INT



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901 Tryens Road

Phone: 877-373-2700

Aston, PA 19301

Web: sensaphone.com



4-20mA
Series

4-20mA Type Differential Pressure Sensor with Wall Mount Kit



Measure static or differential pressure

Monitor differential pressures in commercial buildings with an attractive pair of wall/ceiling mount static pickup tubes. Excellent tolerance to overpressure & vibration reduces field failures. High accuracy digital sensor maintains calibration and reduces callbacks. The sensors monitor positive and negative pressure for application versatility and the LCD is ideal for set-up, troubleshooting and measuring.

TECH SPECS

Name	4-20mA Type Pressure Sensor
Pressure Ranges	Uni Directional: 0.1/0.25/0.5/1.0/2.5/5/10" W.C. 25 Pa/50 Pa/100 Pa/250 Pa/0.5 kPa/1 kPa/2.5 kPa F.S. switch selectable Bi Directional: $\pm 0.1/0.25/0.5/1.0/2.5/5/10$ " W.C. 25 Pa/50 Pa/100 Pa/250 Pa/0.5 kPa/1 kPa/2.5 kPa F.S. switch selectable
Accuracy	± 0.5
Connection	1/4-18 NPT
Operating Voltage	8.5 to 36 DC
Sensor Series	4-20mA Series
Notes	Requires a 24VDC power supply (FGD-0070)

All specifications subject to change without notice

Product Name

Part Number

4-20mA Differential Pressure Sensor with Wall Mount Kit FGD-0302-ROOM
24VDC Power Supply for 4-20mA Sensors FGD-0070



Family owned and made in the USA since 1985

901 Tryens Road

Phone: 877-373-2700

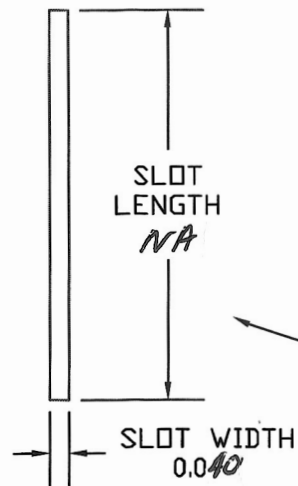
Aston, PA 19301

Web: sensaphone.com

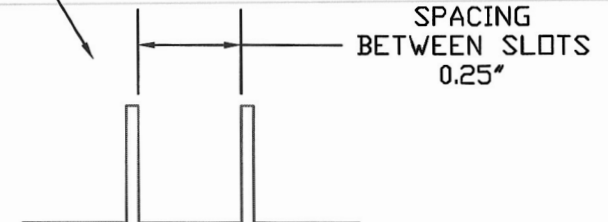
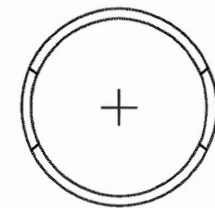
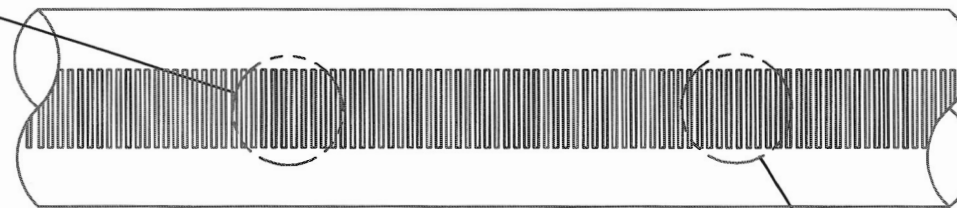


4" S40 PVC .040 SCREEN

**FOR
UNDERGROUND
SSDS USE ONLY**



DETAIL



DETAIL

SPECIFICATIONS

NOMINAL PIPE SIZE: 4"
SCHEDULE: S40 PVC
AVERAGE O.D.: 4.5" I.D.: 3.998"
MINIMUM WALL: 0.237"
SLOT DIMENSIONS: .040
SLOT SPACING: 0.25"
ROWS: 6
ENDS: PLAIN END

NOT TO SCALE



BUFFALO WELL PRODUCTS

Monitoring, Remediation, Landfill, Construction, & Irrigation



Discount Codes

085	CPVC Expansion Joints	
090	CPVC Schedule 80 Molded Fittings Thru 8"	
091	CPVC Schedule 80 Molded Fittings 10" and Larger	
097	CPVC Schedule 80 Fabricated Fittings	
096	CPVC Schedule 80 Molded Reinforced Fittings	
101	CPVC Tank Adapters (Bulkhead Fittings)	
299	Valve Accessories, Repair Kits, Components	
901	Miscellaneous Components	

*Item prices may have changed from those shown in this sheet.
See Spears® On-line Catalog for most current pricing, updated daily.*

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Visit our web site:
www.spearsmfg.com

*See Spears® On-line Catalog for most
current pricing, updated daily.*

PRICE SCHEDULE 80C-1-0910
Effective September 26, 2010
Supersedes: 80C-1-1009A



Quality Systems Certificate No. 293
Corporate Facilities, Sylmar, CA
Assessed to ISO 9001: 2008

2010 EDITION
SCHEDULE 80
CPVC



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

APPROVED

HOW TO USE THIS CATALOG By Hal Benjamin at 10:12 am, Jul 24, 2025

Spears® CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters, Expansion Joints & Saddles catalog has been arranged for easy use in selection of desired products according to part number, size, packaging and pricing information. A complete listing of content is located at the end of this catalog. Additional information on individual product dimensions can be found in Spears® publications 80-4, PVC & CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters, Expansion Joints & Saddles Weights & Dimensions and FL-4, Thermoplastic Flanges Weights & Dimensions and select data sheets for special products.

ORGANIZATION

Products in this catalog are listed in columns by type and configuration. Similar configuration types are grouped together, such as Tees, then Elbows, etc.

COLUMN HEADER INFORMATION

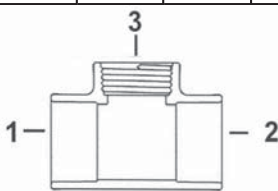
Each product column header label identifies the following product particulars:

Part Number	The number used to order the part.
Size	Nominal diameter of pipe with which the fitting is to be used. NOTE: Fittings may be same size (only one size designation) or reducing (multiple sizes designated).
Standard Pack (Std Pk)	The quantity of parts packaged in an individual box or bag.
Master Carton (Mstr Ctn)	The total quantity of parts contained in individual boxes or bags which are packaged together.
Discount Code (Disc Code)	Identification code for applicable discount to the list price of the product. NOTE: This is a Product Group code and is not a calculation of discount. Discount codes are not the same for all products contained in this price schedule.
Price Each	The designated list price of the product.

PRODUCT CONFIGURATION

Each group of product configuration types is headed by the product's name and an abbreviated configuration description of the fitting outlet connections. Configuration descriptions are defined at the end of this catalog. Line drawing illustrations are general representations of the fittings in the group, but may not be an exact depiction of all configurations listed. Line drawings are correlated to the configuration description. The drawing is read left to right for Elbow and Adapter configurations. Tees have an additional outlet branch and are read left to right (run) then top (branch). Drawings for Wyes and Crosses are read top to bottom then left to right and bushings drawings are read as outside x inside configuration. The configuration description also correlates to the size designation. As with the nominal size designations, only one description is given when all outlets are the same. Reducing sizes list run configuration x branch configuration. Refer to illustration below.

Example

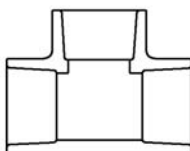
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
					
Product Name	Tee				
Abbreviated Configuration Description	Soc x Fipt				
In this example, outlet description is "Soc x Fipt", which indicates: 1. Socket x 2. Socket x 3. Female Iron Pipe Thread					
802-005C	1/2	20	120	090	34.14
802-007C	3/4	20	160	090	45.53
802-010C	1	15	0	090	56.91

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



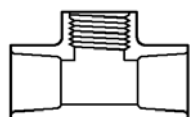
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Tee
Soc



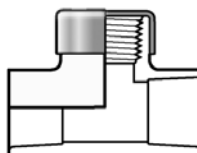
801-002C	1/4	25	150	090	13.45
801-003C	3/8	25	150	090	13.45
801-005C	1/2	25	200	090	13.45
801-007C	3/4	15	120	090	13.69
801-010C	1	15	0	090	16.78
801-012C	1-1/4	10	0	090	35.39
801-015C	1-1/2	10	0	090	40.54
801-020C	2	10	0	090	45.12
801-025C	2-1/2	10	0	090	114.86
801-030C	3	5	0	090	114.86
801-040C	4	5	0	090	152.86
801-050C	5	5	0	090	377.89
801-060C	6	2	0	090	397.80
801-080C	8	2	0	090	1139.51
801-100C	10	1	0	091	2254.29
801-100CF	10	1	1	097	1676.31
801-120C	12	1	0	091	3483.94
801-120CF	12	1	0	097	2287.81
801-140CF	14	1	0	097	5976.93
801-160CF	16	1	0	097	8538.46
801-180CF	18	1	0	097	10008.82
801-200CF	20	1	0	097	15144.59
801-240CF	24	1	0	097	21257.22

Tee
Soc x Fipt



802-002C	1/4	25	150	090	34.14
802-005C	1/2	20	120	090	34.14
802-007C	3/4	20	160	090	45.53
802-010C	1	15	0	090	56.91
802-012C	1-1/4	15	0	090	66.89
802-015C	1-1/2	10	0	090	66.89
802-020C	2	10	0	090	84.01
802-030C	3	5	0	090	100.12
802-040C	4	5	0	090	188.11
802-060CF	6	1	2	097	384.99

Special Reinforced Tee
Soc x SR Fipt - Stainless Steel Collar



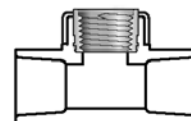
802-005CSR	1/2	50	0	096	18.69
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Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Special Reinforced Tee (continued)
Soc x SR Fipt - Stainless Steel Collar

802-007CSR	3/4	15	120	096	27.31
802-010CSR	1	15	0	096	34.36
802-012CSR	1-1/4	15	0	096	39.86
802-015CSR	1-1/2	10	0	096	39.86
802-030CSR	3	5	0	096	93.84
802-040CSR	4	5	0	096	176.79

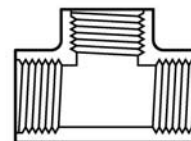
Transition Tee
Soc x Fipt With Brass Thread Insert



802-005CBR	1/2	20	160	096	55.46
802-007CBR	3/4	25	0	096	110.91

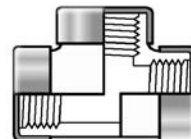
Not intended to convey or dispense water for human consumption through drinking or cooking

Tee
Fipt



805-002C	1/4	25	150	090	29.89
805-003C	3/8	25	150	090	29.89
805-005C	1/2	20	120	090	29.89
805-007C	3/4	15	120	090	43.05
805-010C	1	15	0	090	46.37
805-012C	1-1/4	10	0	090	46.64
805-015C	1-1/2	10	0	090	48.97
805-020C	2	10	0	090	54.40
805-025C	2-1/2	5	0	090	267.44
805-030C	3	5	0	090	310.30
805-040C	4	5	0	090	735.11

Special Reinforced Tee
SR Fipt - Stainless Steel Collar



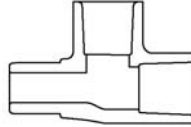
805-002CSR	1/4	20	160	096	16.72
805-003CSR	3/8	25	150	096	16.72
805-005CSR	1/2	25	150	096	22.37
805-007CSR	3/4	25	100	096	25.63
805-010CSR	1	15	0	096	38.28
805-015CSR	1-1/2	10	0	096	40.64
805-020CSR	2	10	0	096	48.39



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

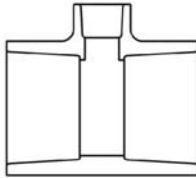
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Street Tee Spig x Soc x Soc



844-005C	1/2	25	200	090	16.83
844-007C	3/4	15	120	090	17.12
844-010C	1	15	0	090	20.98
844-012C	1-1/4	10	0	090	44.22
844-015C	1-1/2	10	0	090	50.69
844-020C	2	10	0	090	56.43

Reducing Tee Soc



801-101C	3/4X1/2	15	120	090	30.01
801-130C	1X1/2	15	0	090	34.59
801-131C	1X3/4	15	0	090	34.59
801-158C	1-1/4X1X1	15	0	090	42.90
801-159C	1-1/4X1X1-1/4	15	0	090	42.90
801-166C ¹	1-1/4X1/2	10	0	090	79.32
801-167C	1-1/4X3/4	12	0	090	67.69
801-168C	1-1/4X1	15	0	090	67.69
801-202C	1-1/2X1-1/4X1	10	0	090	67.69
801-209C	1-1/2X1/2	10	0	090	70.70
801-210C	1-1/2X3/4	15	0	090	70.70
801-211C	1-1/2X1	10	0	090	70.70
801-212C	1-1/2X1-1/4	10	0	090	70.70
801-247C	2X1/2	10	0	090	84.22
801-248C	2X3/4	10	0	090	84.22
801-249C	2X1	10	0	090	84.22
801-250C ¹	2X1-1/4	10	0	090	116.69
801-251C	2X1-1/2	10	0	090	84.22
801-287C	2-1/2X1/2	10	0	090	96.71
801-288C	2-1/2X3/4	10	0	090	96.71
801-289C	2-1/2X1	10	0	090	96.71
801-290C	2-1/2X1-1/4	10	0	090	96.71
801-291C	2-1/2X1-1/2	10	0	090	96.71
801-292C	2-1/2X2	10	0	090	100.10
801-333C ¹	3X1/2	5	0	090	212.88
801-334C ¹	3X3/4	5	0	090	212.88
801-335C	3X3X1	5	0	090	171.84
801-336C ¹	3X1-1/4	5	0	090	206.10
801-337C	3X3X1-1/2	5	0	090	171.84
801-338C	3X2	5	0	090	171.84
801-339C	3X2-1/2	5	0	090	171.84
801-415C ¹	4X1/2	5	0	090	261.33
801-416C ¹	4X3/4	5	0	090	261.33
801-417C ¹	4X1	4	0	090	261.33

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducing Tee (continued)

Soc

801-418C ¹	4X1-1/4	5	0	090	261.33
801-419C	4X1-1/2	5	0	090	261.33
801-420C	4X2	5	0	090	217.19
801-421C ¹	4X2-1/2	5	0	090	292.26
801-422C	4X3	5	0	090	217.19
801-426C ¹	4X6	4	0	090	752.89
801-525C	6X1	4	0	090	747.04
801-525CF	6X1	1	3	097	339.74
801-526C ¹	6X1-1/4	4	1	090	747.04
801-526CF	6X1-1/4	1	1	097	413.83
801-527C ¹	6X1-1/2	4	0	090	747.04
801-527CF	6X1-1/2	1	4	097	387.19
801-528C ¹	6X2	4	0	090	694.09
801-528CF	6X2	1	3	097	405.80
801-529C ¹	6X2-1/2	4	0	090	766.27
801-529CF	6X2-1/2	1	3	097	423.38
801-530C ¹	6X3	4	0	090	694.09
801-530CF	6X3	1	3	097	443.77
801-532C	6X4	5	0	090	613.41
801-575CF	8X1	1	2	097	476.43
801-576CF	8X1-1/4	1	1	097	484.01
801-577CF	8X1-1/2	1	1	097	487.60
801-578C ¹	8X2	2	0	090	1296.79
801-578CF	8X2	1	2	097	542.44
801-579CF	8X2-1/2	1	2	097	589.53
801-580C ¹	8X3	2	0	090	1296.79
801-580CF	8X3	1	2	097	665.24
801-582C ¹	8X4	2	0	090	1296.79
801-582CF	8X4	1	2	097	715.80
801-585C	8X6	2	0	090	1126.03
801-618CF	10X1	1	1	097	742.52
801-619CF	10X1-1/4	1	1	097	753.18
801-620CF	10X1-1/2	1	1	097	787.91
801-621C ¹	10X2	1	0	091	2270.07
801-621CF	10X2	1	1	097	748.73
801-622CF	10X2-1/2	1	1	097	928.62
801-623C ¹	10X3	1	0	091	2154.28
801-623CF	10X3	1	1	097	1008.97
801-624C ¹	10X4	1	0	091	2154.28
801-624CF	10X4	1	1	097	1066.51
801-626C	10X6	1	0	091	1983.79
801-626CF	10X6	1	1	097	1169.04
801-628C ¹	10X8	1	0	091	3245.46
801-628CF	10X8	1	1	097	1355.98
801-661CF	12X2	1	1	097	1270.64
801-662CF	12X2-1/2	0	0	097	1332.50
801-663CF	12X3	1	1	097	1401.45
801-664C ¹	12X4	1	0	091	3907.69
801-664CF	12X4	1	1	097	1459.35
801-666C ¹	12X6	1	0	091	3660.14
801-666CF	12X6	1	0	097	1583.51

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducing Tee (continued)

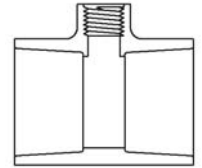
Soc

801-668C	12X8	1	0	091	3099.74
801-668CF	12X8	1	0	097	1772.76
801-670C ¹	12X10	1	0	091	4730.27
801-670CF	12X10	1	0	097	2045.95
801-691CF	14X2	1	0	097	2625.04
801-692CF	14X2-1/2	1	0	097	2632.78
801-693CF	14X3	1	0	097	3782.48
801-694CF	14X4	1	0	097	3920.28
801-696CF	14X6	1	0	097	4269.45
801-698CF	14X8	1	0	097	4606.19
801-700CF	14X10	1	0	097	5038.26
801-702CF	14X12	1	0	097	5538.94
801-751CF	16X2	1	0	097	3721.73
801-752CF	16X2-1/2	1	0	097	3775.01
801-753CF	16X3	1	0	097	3879.35
801-754CF	16X4	1	0	097	4023.46
801-756CF	16X6	1	0	097	5239.79
801-758CF	16X8	1	0	097	5857.30
801-760CF	16X10	1	0	097	6340.07
801-762CF	16X12	1	0	097	7091.32
801-764CF	16X14	1	0	097	7878.52
801-781CF	18X2	1	0	097	5059.38
801-783CF	18X3	1	0	097	5241.01
801-784CF	18X4	1	0	098	5054.01
801-786CF	18X6	1	0	097	6838.78
801-788CF	18X8	1	0	097	7343.15
801-790CF	18X10	1	0	097	7892.13
801-792CF	18X12	1	0	097	8439.35
801-794CF	18X14	1	0	097	8906.39
801-796CF	18X16	1	0	097	9403.53
801-814CF	20X4	1	0	097	10405.38
801-816CF	20X6	1	0	097	12382.15
801-818CF	20X8	1	0	097	12784.34
801-820CF	20X10	1	0	097	13896.47
801-822CF	20X12	1	0	097	14570.99
801-824CF	20X14	1	0	097	16233.45
801-826CF	20X16	1	0	097	17535.96
801-828CF	20X18	1	0	097	18630.00
801-904CF	24X4	1	0	097	12895.23
801-906CF	24X6	1	0	097	13907.61
801-908CF	24X8	1	0	097	14239.22
801-910CF	24X10	1	0	097	15007.67
801-912CF	24X12	1	0	097	15774.37
801-914CF	24X14	1	0	097	17142.00
801-916CF	24X16	1	0	097	20131.71
801-918CF	24X18	1	0	097	22379.95
801-920CF	24X20	1	0	097	24855.73

¹ Sized with Bushing

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducing Tee Soc x Fipt



802-101C	3/4X1/2	15	60	090	21.17
802-130C	1X1/2	50	0	090	42.49
802-131C	1X3/4	15	0	090	42.49
802-166C	1-1/4X1/2	25	0	090	73.23
802-167C ¹	1-1/4X3/4	15	0	090	73.23
802-168C	1-1/4X1	10	0	090	73.23
802-209C ¹	1-1/2X1/2	25	0	090	108.28
802-210C ¹	1-1/2X3/4	20	0	090	108.28
802-211C ¹	1-1/2X1	10	0	090	108.28
802-212C	1-1/2X1-1/4	10	0	090	108.28
802-247C	2X1/2	10	0	090	135.88
802-248C	2X3/4	10	0	090	135.88
802-249C ¹	2X1	10	0	090	135.88
802-250C ¹	2X1-1/4	10	0	090	135.88
802-251C ¹	2X1-1/2	10	0	090	135.88
802-287C	2-1/2X1/2	10	0	090	178.49
802-288C ¹	2-1/2X3/4	10	0	090	178.49
802-289C ¹	2-1/2X1	10	0	090	178.49
802-290C ¹	2-1/2X1-1/4	10	0	090	178.49
802-291C ¹	2-1/2X1-1/2	10	0	090	178.49
802-292C ¹	2-1/2X2	10	0	090	197.02
802-333C ¹	3X1/2	5	0	090	301.95
802-334C ¹	3X3/4	5	0	090	301.95
802-335C ¹	3X1	5	0	090	301.95
802-336C ¹	3X1-1/4	5	0	090	301.95
802-337C ¹	3X1-1/2	5	0	090	301.95
802-338C ¹	3X2	5	0	090	301.95
802-339C ¹	3X2-1/2	5	0	090	301.95
802-415C ¹	4X1/2	5	0	090	505.68
802-416C ¹	4X3/4	5	0	090	505.68
802-417C ¹	4X1	5	0	090	505.68
802-418C ¹	4X1-1/4	5	0	090	505.68
802-419C ¹	4X1-1/2	5	0	090	505.68
802-420C ¹	4X2	5	0	090	505.68
802-421C ¹	4X2-1/2	5	0	090	505.68
802-422C ¹	4X3	5	0	090	505.68
802-525C	6X1	4	0	090	985.97
802-526C	6X1-1/4	4	0	090	985.97
802-527C	6X1-1/2	4	0	090	985.97
802-528C ¹	6X2	4	0	090	985.97
802-529C ¹	6X2-1/2	4	0	090	985.97
802-530C ¹	6X3	4	0	090	985.97
802-532C ¹	6X4	1	0	090	1131.77
802-578C ¹	8X2	2	0	090	1874.87
802-580C ¹	8X3	2	0	090	1874.87
802-582C ¹	8X4	2	0	090	1874.87
802-621C ¹	10X2	1	0	091	2750.15



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

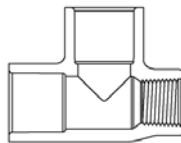
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducing Tee (continued)

Soc x Fipt

802-623C ¹	10X3	1	0	091	2750.15
802-624C ¹	10X4	1	0	091	2750.15
802-661C ¹	12X2	2	0	091	4563.01
802-663C ¹	12X3	2	0	091	4563.01
802-664C ¹	12X4	1	0	091	4563.01

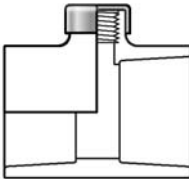
¹ Sized with Bushing



Reducing Tee

Soc x Fipt x Soc

803-095C	3/4X1/2X3/4	50	0	090	18.94
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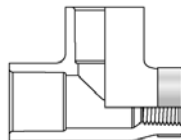


Special Reinforced Reducing Tee

Soc x SR Fipt - Stainless Steel Collar

802-072CSR	1/2X1/4	25	200	096	18.69
802-098CSR	3/4X1/4	25	100	096	24.98
802-101CSR	3/4X1/2	50	0	096	24.98
802-128CSR ¹	1X1/4	15	0	096	38.57
802-130CSR	1X1/2	50	0	096	15.26
802-131CSR	1X3/4	15	0	086	38.57
802-164CSR ¹	1-1/4X1/4	5	0	096	51.29
802-166CSR	1-1/4X1/2	15	0	096	40.63
802-168CSR	1-1/4X1	10	0	096	41.46
802-207CSR ¹	1-1/2X1/4	15	0	096	73.44
802-211CSR	1-1/2X1	10	0	096	48.68
802-212CSR	1-1/2X1-1/4	10	0	096	48.68
802-245CSR ¹	2X1/4	10	0	096	84.36
802-247CSR	2X1/2	10	0	096	75.93
802-248CSR	2X3/4	10	0	096	84.36
802-287CSR	2-1/2X1/2	10	0	096	58.02
802-331CSR ¹	3X1/4	5	0	096	161.14
802-413CSR ¹	4X1/4	5	0	096	174.86

¹ Sized with Bushing



Special Reinforced Reducing Tee

Soc x SR Fipt - Stainless Steel Collar x Soc

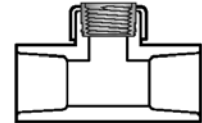
(See also price schedule GI-1, Gauge & Instrument Fittings for additional configurations)

803-095CSR	3/4X1/2X3/4	15	0	096	15.39
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Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Transition Reducing Tee

Soc x Fipt With Brass Thread Insert

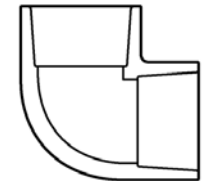


802-101CBR	3/4X1/2	50	0	096	68.74
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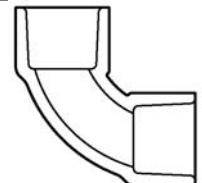
Not intended to convey or dispense water for human consumption through drinking or cooking

90° Ell

Soc



806-002C	1/4	25	300	090	14.64
806-003C	3/8	20	120	090	14.64
806-005C	1/2	20	240	090	5.74
806-007C	3/4	20	160	090	7.32
806-010C	1	25	0	090	11.63
806-012C	1-1/4	10	0	090	25.16
806-015C	1-1/2	10	0	090	28.06
806-020C	2	25	0	090	33.87
806-025C	2-1/2	5	0	090	78.00
806-030C	3	5	0	090	88.32
806-040C	4	5	0	090	159.07
806-050C	5	4	0	090	303.66
806-050CF	5	1	4	097	399.83
806-060C	6	4	0	090	319.64
806-080C	8	2	0	090	782.19
806-080CF	8	1	2	097	567.31
806-100C	10	1	0	091	2090.31
806-100CF	10	1	1	097	1242.85
806-120C	12	1	0	091	2828.19
806-120CF	12	1	1	097	1667.69
806-140CF	14	1	0	097	5691.98
806-160CF	16	1	0	097	7770.51
806-180CF	18	1	0	097	9733.71
806-200CF	20	1	0	097	11189.13
806-240CF	24	1	0	097	20254.79



Sweep 90° Ell

Soc

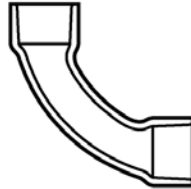
806-005SC	1/2	25	150	090	11.29
806-007SC	3/4	25	100	090	14.55
806-010SC	1	25	0	090	23.38
806-012SC	1-1/4	25	0	090	30.89
806-015SC	1-1/2	25	0	090	33.18
806-020SC	2	25	0	090	40.20

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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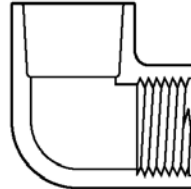
Long Sweep 90° EII Soc



806-005LSCF	1/2	25	0	097	52.03
806-007LSCF	3/4	25	0	097	58.28
806-010LSCF	1	25	0	097	65.90
806-012LSCF	1-1/4	25	0	097	69.05
806-015LSCF	1-1/2	25	0	097	77.09
806-020LSCF	2	10	0	097	108.15
806-030LSCF	3	5	0	097	150.04
806-040LSCF	4	1	4	097	185.61
806-060LSCF	6	1	2	097	273.72

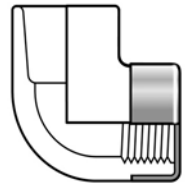
Not Listed for Electrical Conduit Use

90° EII Soc x Fipt



807-002C	1/4	25	450	090	12.97
807-003C	3/8	25	150	090	12.97
807-005C	1/2	20	120	090	15.14
807-007C	3/4	20	160	090	17.78
807-010C	1	20	0	090	23.28
807-012C	1-1/4	10	0	090	34.14
807-015C	1-1/2	10	0	090	51.72
807-020C	2	10	0	090	66.39
807-030C	3	5	0	090	80.02
807-040C	4	5	0	090	151.32
807-060CF	6	1	4	097	514.76

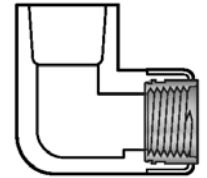
Special Reinforced 90° EII Soc x SR Fipt - Stainless Steel Collar



807-005CSR	1/2	20	240	096	9.07
807-007CSR	3/4	75	0	096	10.66
807-010CSR	1	50	0	096	12.83
807-015CSR	1-1/2	10	0	090	31.85
807-020CSR	2	10	0	096	39.85
807-030CSR	3	5	0	096	58.01
807-040CSR	4	5	0	086	107.10

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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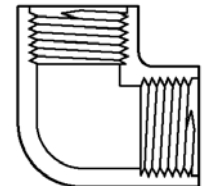
Transition 90° EII Soc x Fipt With Brass Thread Insert



807-005CBR	1/2	20	240	096	48.76
807-007CBR	3/4	20	160	096	85.13

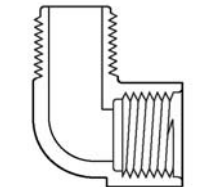
Not intended to convey or dispense water for human consumption through drinking or cooking

90° EII Fipt



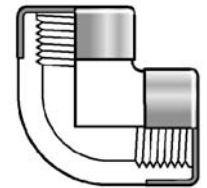
808-002C	1/4	25	450	090	15.38
808-003C	3/8	25	150	090	15.38
808-005C	1/2	20	120	090	8.93
808-007C	3/4	20	120	090	13.35
808-010C	1	15	120	090	18.74
808-012C	1-1/4	10	0	090	36.10
808-015C	1-1/2	10	0	090	38.85
808-020C	2	10	0	090	52.07
808-025C	2-1/2	5	0	090	161.59
808-030C	3	5	0	090	173.27
808-040C	4	5	0	090	271.14

90° Street EII Mipt x Fipt



812-002C	1/4	50	300	090	17.07
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Special Reinforced 90° EII SR Fipt - Stainless Steel Collar



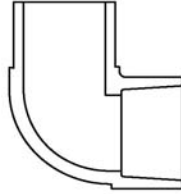
808-003CSR	3/8	25	150	096	5.48
808-005CSR	1/2	20	120	096	5.48
808-007CSR	3/4	20	160	096	8.03
808-010CSR	1	50	0	096	10.29
808-012CSR	1-1/4	25	0	096	19.80
808-015CSR	1-1/2	10	0	096	23.31
808-020CSR	2	10	0	096	31.23



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

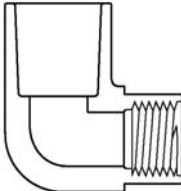
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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90° Street Ell Spig x Soc



809-005C	1/2	50	200	090	7.20
809-007C	3/4	50	0	090	9.16
809-010C	1	50	0	090	14.55
809-012C	1-1/4	25	0	090	31.46
809-015C	1-1/2	10	0	090	35.11
809-020C	2	25	0	090	42.39
809-025C	2-1/2	5	0	090	85.56
809-030C	3	5	0	090	117.78
809-040C	4	4	0	090	212.10
809-060C	6	2	0	090	426.19
809-080C	8	2	0	090	1042.93
809-100C	10	1	1	091	2786.78
809-120C	12	1	0	091	3769.46

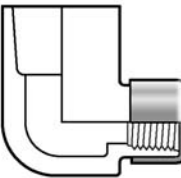
Reducing 90° Ell Soc x Fipt



807-101C ¹	3/4X1/2	10	60	090	14.53
807-130C ¹	1X1/2	10	80	090	20.76
807-131C ¹	1X3/4	10	80	090	20.76

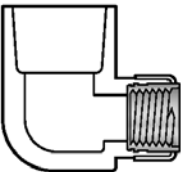
¹ Sized with Bushing

Special Reinforced Reducing 90° Ell Soc x SR Fipt - Stainless Steel Collar



807-101CSR	3/4X1/2	50	0	096	11.56
807-130CSR	1X1/2	50	0	096	12.46

Transition Reducing 90° Ell Soc x Fipt With Brass Thread Insert

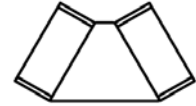


807-101CBR	3/4X1/2	20	120	096	60.98
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Not intended to convey or dispense water for human consumption through drinking or cooking

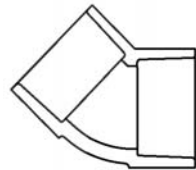
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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60° Ell Soc



824-005CF	1/2	1	25	097	88.46
824-007CF	3/4	1	6	097	105.64
824-010CF	1	1	3	097	100.04
824-012CF	1-1/4	1	16	097	102.45
824-015CF	1-1/2	1	15	097	110.93
824-020CF	2	16	0	097	139.72
824-025CF	2-1/2	1	10	097	159.90
824-030CF	3	1	4	097	274.35
824-040CF	4	1	4	097	329.33
824-060CF	6	1	4	097	457.04
824-080CF	8	1	1	097	692.49
824-100CF	10	1	1	097	1394.07
824-120CF	12	1	1	097	2154.84
824-140CF	14	1	0	097	5194.65
824-160CF	16	1	0	097	7293.13
824-180CF	18	1	0	097	10117.90

45° Ell Soc



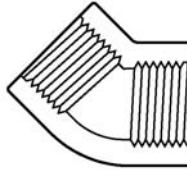
817-002C	1/4	25	450	090	21.77
817-003C	3/8	25	150	090	21.77
817-005C	1/2	20	120	090	7.02
817-007C	3/4	20	120	090	10.14
817-010C	1	15	120	090	16.12
817-012C	1-1/4	10	80	090	31.66
817-015C	1-1/2	10	0	090	32.51
817-020C	2	10	0	090	36.46
817-025C	2-1/2	5	0	090	74.51
817-030C	3	5	0	090	95.74
817-040C	4	5	0	090	131.43
817-050C	5	4	0	090	384.64
817-060C	6	4	0	090	404.89
817-080C	8	2	0	090	842.38
817-100C	10	1	0	091	1598.53
817-100CF	10	1	2	097	965.32
817-120C	12	1	0	091	2812.33
817-120CF	12	1	1	097	1355.41
817-140CF	14	1	0	097	2835.34
817-160CF	16	1	0	097	4138.37
817-180CF	18	1	0	097	6404.22
817-200CF	20	1	0	097	8472.29
817-240CF	24	1	0	097	10218.18

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



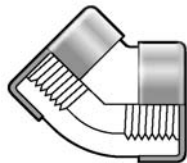
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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45° EII
Fipt



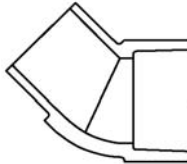
819-002C	1/4	25	450	090	20.46
819-003C	3/8	25	150	090	20.46
819-005C	1/2	20	240	090	19.38
819-007C	3/4	10	120	090	21.29
819-010C	1	10	120	090	23.43
819-012C	1-1/4	10	80	090	40.02
819-015C	1-1/2	10	0	090	40.02
819-020C	2	10	0	090	52.84
819-025C	2-1/2	5	0	090	100.17
819-030C	3	5	0	090	144.28
819-040C	4	5	0	090	226.94

Special Reinforced 45° EII
SR Fipt - Stainless Steel Collar



819-007CSR	3/4	10	120	096	12.53
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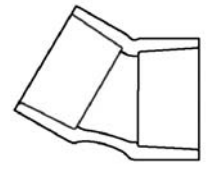
45° Street EII
Spig x Soc



827-005C	1/2	50	400	090	7.02
827-007C	3/4	50	0	090	10.14
827-010C	1	50	0	090	16.12
827-012C	1-1/4	25	0	090	31.66
827-015C	1-1/2	25	0	090	32.46
827-020C	2	10	0	090	36.46
827-025C	2-1/2	12	0	090	80.69
827-030C	3	10	0	090	95.74
827-040C	4	5	0	090	131.43
827-060C	6	3	0	090	476.34
827-080C	8	2	0	090	991.02
827-100C	10	1	0	091	1880.62
827-120C	12	1	0	091	3308.61
827-140CF	14	1	0	097	4053.51
827-160CF	16	1	0	097	5185.03
827-180CF	18	1	0	097	7565.54

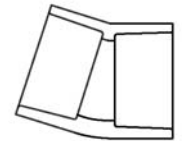
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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30° EII
Soc



815-005CF	1/2	1	25	097	30.85
815-007CF	3/4	1	25	097	31.80
815-010CF	1	1	20	097	43.98
815-012CF	1-1/4	1	15	097	46.90
815-015CF	1-1/2	1	25	097	50.57
815-020CF	2	25	0	097	95.06
815-025CF	2-1/2	18	0	097	106.22
815-030CF	3	1	10	097	118.47
815-040CF	4	1	18	097	154.71
815-060C	6	5	0	090	476.34
815-080CF	8	1	3	097	564.27
815-100CF	10	1	2	097	936.67
815-120CF	12	1	2	097	1233.68
815-140CF	14	1	0	097	2619.50
815-160CF	16	1	0	097	3687.61
815-180CF	18	1	0	097	5346.00

22-1/2° EII
Soc



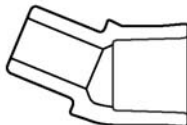
816-005C	1/2	20	240	090	8.27
816-007C	3/4	20	240	090	11.91
816-010C	1	20	160	090	18.97
816-012C	1-1/4	20	0	090	37.23
816-015C	1-1/2	20	0	090	38.26
816-020C	2	20	0	090	42.90
816-025C	2-1/2	5	0	090	107.67
816-025CF	2-1/2	1	18	097	106.22
816-030C	3	5	0	090	112.64
816-040C	4	4	0	090	154.62
816-060C	6	4	0	090	476.34
816-060CF	6	1	8	097	296.94
816-080C	8	4	0	090	991.02
816-080CF	8	1	4	097	564.27
816-100CF	10	1	2	097	936.67
816-120CF	12	1	2	097	1233.68
816-140CF	14	1	0	097	2619.50
816-160CF	16	1	0	097	3687.61
816-180CF	18	1	0	097	5346.00



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

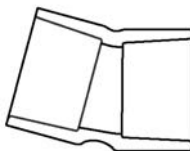
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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22-1/2° Street Ell Spig x Soc



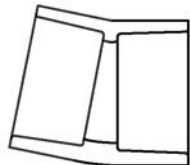
842-005C	1/2	50	400	090	9.41
842-007C	3/4	50	0	090	14.69
842-010C	1	50	0	090	22.98
842-012C	1-1/4	20	0	090	28.78
842-015C	1-1/2	25	0	090	41.37
842-020C	2	20	0	090	52.17
842-025C	2-1/2	5	0	090	95.79
842-030C	3	5	0	090	139.12
842-040C	4	4	0	090	178.40
842-060C	6	1	6	090	588.27
842-080C	8	1	2	090	1233.34
842-100CF	10	1	2	097	951.66
842-120CF	12	1	2	097	1262.22

15° Ell Soc



818-005CF	1/2	1	25	097	30.85
818-007CF	3/4	1	23	097	31.80
818-010CF	1	1	20	097	43.98
818-012CF	1-1/4	1	15	097	46.90
818-015CF	1-1/2	1	25	097	50.57
818-020CF	2	25	0	097	95.06
818-025CF	2-1/2	1	18	097	106.22
818-030CF	3	1	35	097	118.47
818-040CF	4	1	18	097	154.71
818-060CF	6	1	8	097	296.94
818-080CF	8	1	3	097	564.27
818-100CF	10	1	2	097	936.67
818-120CF	12	1	1	097	1233.68
818-140CF	14	1	0	097	2619.50
818-160CF	16	1	0	097	3687.61
818-180CF	18	1	0	097	5346.00

11-1/4° Ell Soc



811-005CF	1/2	1	52	097	30.85
811-007CF	3/4	1	20	097	31.80
811-010CF	1	1	50	097	43.98
811-012CF	1-1/4	1	26	097	46.90
811-015C	1-1/2	25	0	090	35.07

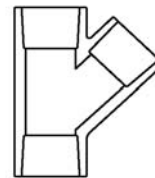
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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11-1/4° Ell (continued)

Soc

811-020C	2	10	0	090	42.90
811-025CF	2-1/2	1	25	097	106.22
811-030C	3	10	0	090	112.64
811-040C	4	4	0	090	154.62
811-060CF	6	1	5	097	296.94
811-080CF	8	1	3	097	564.27
811-100CF	10	1	2	097	936.67
811-120CF	12	1	2	097	1233.68
811-140CF	14	1	0	097	2619.50
811-160CF	16	1	0	097	3687.61
811-180CF	18	1	0	097	5346.00

Wye Soc



1/2" - 2" - 235 psi Maximum Internal Pressure Rating @ 73°F (23°C)
 2-1/2" - 6" - 150 psi Maximum Internal Pressure Rating @ 73°F (23°C)
 8" - Larger & All Fabricated Sizes - 100 psi Maximum Internal Pressure Rating @ 73°F (23°C)

875-005C	1/2	25	100	090	15.59
875-007C	3/4	25	0	090	16.10
875-010C	1	20	0	090	27.13
875-012C	1-1/4	20	0	090	41.09
875-015C	1-1/2	20	0	090	44.17
875-020C	2	10	0	090	108.16
875-025C ¹	2-1/2	4	0	090	762.43
875-030C	3	5	0	090	533.30
875-040C	4	4	0	090	563.83
875-060C	6	3	0	090	771.70
875-080C	8	1	0	090	1317.89
875-080CF*	8	1	0	097	1152.68
875-100CF*	10	1	0	097	1980.16
875-120CF*	12	1	0	097	2758.09
875-140CF*	14	1	0	097	9589.14
875-160CF*	16	1	0	097	12027.90
875-180CF*	18	1	0	097	17453.89

¹ Sized with Bushing

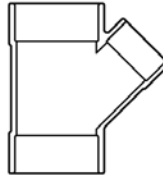
* An asterisk (*) appearing after a fabricated fitting part number indicates the item is fiberglass reinforced.

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducing Wye Soc



1/2" - 2" - 235 psi Maximum Internal Pressure Rating @ 73°F (23°C)
 3" - 6" - 150 psi Maximum Internal Pressure Rating @ 73°F (23°C)
 8" - Larger & All Fabricated Sizes - 100 psi Maximum Internal Pressure Rating @ 73°F (23°C)

875-101C ¹	3/4X1/2	25	0	090	23.02
875-130C ¹	1X1/2	20	0	090	37.93
875-131C ¹	1X3/4	20	0	090	37.93
875-166C ¹	1-1/4X1/2	20	0	090	69.14
875-167C ¹	1-1/4X3/4	20	0	090	69.14
875-168C ¹	1-1/4X1	20	0	090	69.14
875-209C ¹	1-1/2X1/2	20	0	090	75.84
875-210C ¹	1-1/2X3/4	20	0	090	75.84
875-211C ¹	1-1/2X1	20	0	090	75.84
875-212C ¹	1-1/2X1-1/4	20	0	090	75.84
875-247C ¹	2X1/2	10	0	090	150.06
875-248C ¹	2X3/4	10	0	090	150.06
875-249C ¹	2X1	10	0	090	150.06
875-250C ¹	2X1-1/4	10	0	090	150.06
875-251C ¹	2X1-1/2	10	0	090	150.06
875-335C ¹	3X1	5	0	090	617.26
875-336C ¹	3X1-1/4	5	0	090	617.26
875-337C ¹	3X1-1/2	5	0	090	617.26
875-338C ¹	3X2	4	0	090	617.26
875-339C ¹	3X2-1/2	5	0	090	617.26
875-420C	4X2	4	0	090	624.18
875-422C ¹	4X3	4	0	090	624.18
875-528C ¹	6X2	5	0	090	790.59
875-528CF*	6X2	1	3	097	620.28
875-530C ¹	6X3	5	0	090	790.44
875-530CF*	6X3	1	2	097	689.64
875-532C	6X4	5	0	090	603.56
875-578C ¹	8X2	1	0	090	2090.67
875-578CF*	8X2	1	2	097	833.82
875-579CF*	8X2-1/2	1	2	097	873.94
875-580C ¹	8X3	1	0	090	2090.67
875-580CF*	8X3	1	2	097	854.56
875-582C ¹	8X4	1	0	090	2090.67
875-582CF*	8X4	1	2	097	877.67
875-585C ¹	8X6	1	0	090	1915.95
875-585CF*	8X6	1	1	097	988.98
875-621CF*	10X2	1	1	097	928.89
875-623CF*	10X3	1	1	097	988.88
875-624CF*	10X4	1	1	097	1208.48
875-626C	10X6	1	0	091	2159.80
875-626CF*	10X6	1	1	097	1372.14

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducing Wye (continued)

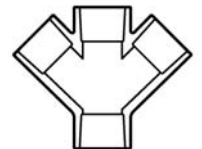
Soc

875-628C	10X8	1	0	091	2274.03
875-628CF*	10X8	1	0	097	1615.82
875-661CF*	12X2	1	1	097	1532.59
875-663CF*	12X3	1	1	097	1610.11
875-664CF*	12X4	1	1	097	1836.67
875-666CF*	12X6	1	0	097	1910.63
875-668CF*	12X8	1	0	097	2016.67
875-670CF*	12X10	1	0	097	2482.91
875-694CF*	14X4	1	0	097	4110.98
875-696CF*	14X6	1	0	097	4515.36
875-698CF*	14X8	1	0	097	4884.46
875-702CF*	14X12	1	0	097	5950.41
875-754CF*	16X4	1	0	097	5172.83
875-756CF*	16X6	1	0	097	5446.73
875-758CF*	16X8	1	0	097	6324.47
875-760CF*	16X10	1	0	097	7107.81
875-762CF*	16X12	1	0	097	7708.76
875-764CF*	16X14	1	0	097	9697.37
875-784CF*	18X4	1	0	097	6915.27
875-786CF*	18X6	1	0	097	7421.73
875-788CF*	18X8	1	0	097	8239.13
875-790CF*	18X10	1	0	097	9083.37
875-792CF*	18X12	1	0	097	9989.47
875-794CF*	18X14	1	0	097	12719.47
875-796CF*	18X16	1	0	097	14164.24

¹ Sized with Bushing

* An asterisk (*) appearing after a fabricated fitting part number indicates the item is fiberglass reinforced.

Double Wye Soc



100 psi Maximum internal Pressure Rating @ 73°F (23°C)

876-020CF*	2	1	4	097	448.88
876-030CF*	3	1	4	097	572.56
876-040CF*	4	1	2	097	981.71
876-060CF*	6	1	1	097	1711.61
876-080CF*	8	1	0	097	3069.69
876-100CF*	10	1	0	097	3331.29
876-120CF*	12	1	0	097	4991.11

* An asterisk (*) appearing after a fabricated fitting part number indicates the item is fiberglass reinforced.

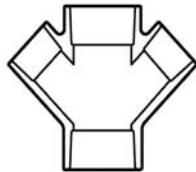
For larger sizes please contact your Regional Spears® Distribution Center.



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducing Double Wye Soc



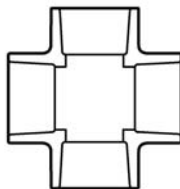
Size 3" is 150 psi, all Fabricated Sizes- 100 psi Maximum Internal Pressure Rating @ 73°F (23°C)

876-338C	3X2	5	0	090	664.94
876-420CF*	4X2	1	2	097	836.50
876-421CF*	4X2-1/2	1	2	097	885.23
876-422CF*	4X3	1	2	097	953.07
876-528CF*	6X2	1	3	097	1422.64
876-529CF*	6X2-1/2	1	2	097	1440.36
876-530CF*	6X3	1	2	097	1463.80
876-532CF*	6X4	1	1	097	1625.59
876-578CF*	8X2	1	2	097	2431.23
876-579CF*	8X2-1/2	1	2	097	2467.16
876-580CF*	8X3	1	2	097	2486.69
876-582CF*	8X4	1	1	097	2677.09
876-585CF*	8X6	1	1	097	2822.24
876-621CF*	10X2	1	1	097	2931.22
876-622CF*	10X2-1/2	1	0	097	2992.34
876-623CF*	10X3	1	1	097	3045.46
876-624CF*	10X4	1	0	097	3115.88
876-626CF*	10X6	1	0	097	3336.21
876-628CF*	10X8	1	0	097	3504.10
876-661CF*	12X2	1	1	097	3155.82
876-662CF*	12X2-1/2	1	1	097	3307.13
876-663CF*	12X3	1	1	097	3365.48
876-666CF*	12X6	1	1	097	3818.57
876-668CF*	12X8	1	0	097	4332.35
876-664CF*	12X4	1	1	097	3488.72
876-670CF*	12X10	1	0	097	4717.27

* An asterisk (*) appearing after a fabricated fitting part number indicates the item is fiberglass reinforced.

For larger sizes please contact your Regional Spears® Distribution Center.

Cross Soc



820-002C	1/4	25	150	090	57.34
820-005C	1/2	50	0	090	57.34
820-007C	3/4	50	0	090	60.35
820-010C	1	50	0	090	66.89
820-012C	1-1/4	25	0	090	71.57
820-015C	1-1/2	25	0	090	77.79
820-020C	2	10	0	090	100.90
820-025C	2-1/2	10	0	090	134.52

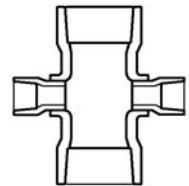
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Cross (continued)

Soc

820-030C	3	5	0	090	171.31
820-040C	4	3	0	090	306.02
820-060CF	6	1	1	097	804.20
820-080CF	8	1	1	097	1529.69
820-100CF	10	1	1	097	2275.51
820-120CF	12	1	0	097	3233.15
820-140CF	14	1	0	097	8736.96
820-160CF	16	1	0	097	10413.95
820-180CF	18	1	0	097	14001.11

Reducing Cross Soc



820-101C ¹	3/4X1/2	50	0	090	74.82
820-130C ¹	1X1/2	25	0	090	88.76
820-131C ¹	1X3/4	50	0	090	88.76
820-166C ¹	1-1/4X1/2	25	0	090	79.40
820-167C	1-1/4X3/4	25	0	090	64.41
820-168C ¹	1-1/4X1	25	0	090	127.47
820-209C ¹	1-1/2X1/2	20	0	090	140.86
820-210C ¹	1-1/2X3/4	50	0	090	140.86
820-211C ¹	1-1/2X1	25	0	090	140.86
820-212C ¹	1-1/2X1-1/4	25	0	090	140.86
820-247C ¹	2X1/2	10	0	090	182.37
820-248C ¹	2X3/4	10	0	090	182.37
820-249C ¹	2X1	10	0	090	182.37
820-250C ¹	2X1-1/4	10	0	090	182.37
820-251C ¹	2X1-1/2	10	0	090	182.37
820-289C	2-1/2X1	15	0	090	124.00
820-290C ¹	2-1/2X1-1/4	10	0	090	233.93
820-291C ¹	2-1/2X1-1/2	8	0	090	233.93
820-292C ¹	2-1/2X2	10	0	090	233.93
820-335C ¹	3X1	4	0	090	322.12
820-336C ¹	3X1-1/4	4	0	090	322.12
820-337C ¹	3X1-1/2	4	0	090	322.12
820-338C ¹	3X2	4	0	090	322.12
820-339C ¹	3X2-1/2	4	0	090	322.12
820-420C ¹	4X2	3	0	090	475.10
820-422C ¹	4X3	3	0	090	475.10
820-420CF	4X2	1	3	097	466.86
820-528CF	6X2	1	2	097	732.38
820-530CF	6X3	1	2	097	827.41
820-532CF	6X4	1	2	097	847.44
820-578CF	8X2	1	1	097	954.39
820-580CF	8X3	1	1	097	1001.69
820-582CF	8X4	1	1	097	938.05
820-585CF	8X6	1	0	097	1232.49
820-621CF	10X2	1	1	097	1144.39
820-623CF	10X3	1	1	097	1230.41

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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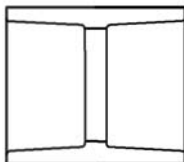
Reducing Cross (continued)

Soc

820-624CF	10X4	1	1	097	1286.30
820-626CF	10X6	1	0	097	1536.66
820-628CF	10X8	1	1	097	1779.05
820-661CF	12X2	1	1	097	1397.31
820-663CF	12X3	1	1	097	1535.54
820-664CF	12X4	1	1	097	1621.26
820-666CF	12X6	1	1	097	1882.90
820-668CF	12X8	1	0	097	2196.37
820-670CF	12X10	0	0	097	2613.88
820-691CF	14X2	1	0	097	2690.85
820-693CF	14X3	1	0	097	2841.97
820-694CF	14X4	1	0	097	2968.20
820-696CF	14X6	1	0	097	4083.07
820-698CF	14X8	1	0	097	4642.71
820-700CF	14X10	1	0	097	5169.66
820-702CF	14X12	1	0	097	5893.52
820-751CF	16X2	1	0	097	3821.73
820-753CF	16X3	1	0	097	3982.35
820-754CF	16X4	1	0	097	4137.99
820-756CF	16X6	1	0	097	5494.33
820-758CF	16X8	1	0	097	6073.02
820-762CF	16X12	1	0	097	7118.62
820-764CF	16X14	1	0	097	9334.24
820-781CF	18X2	1	0	097	5118.98
820-783CF	18X3	1	0	097	5313.95
820-784CF	18X4	1	0	097	6176.93
820-786CF	18X6	1	0	097	7071.68
820-788CF	18X8	1	0	097	7721.70
820-790CF	18X10	1	0	097	8467.87
820-792CF	18X12	1	0	097	9194.59
820-794CF	18X14	1	0	097	11423.52
820-796CF	18X16	1	0	097	12808.17

¹ Sized with Bushing

Coupling Soc



829-002C	1/4	25	450	090	15.59
829-003C	3/8	25	150	090	15.59
829-005C	1/2	25	150	090	6.06
829-007C	3/4	15	90	090	8.47
829-010C	1	15	90	090	11.41
829-012C	1-1/4	10	80	090	17.09
829-015C	1-1/2	10	40	090	21.51
829-020C	2	20	0	090	25.00
829-025C	2-1/2	5	0	090	55.64
829-030C	3	5	0	090	60.46
829-040C	4	5	0	090	79.23

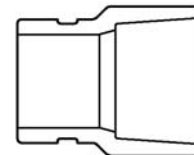
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Coupling (continued)

Soc

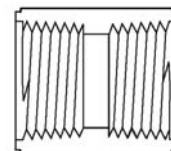
829-050C	5	6	0	090	177.28
829-060C	6	4	0	090	186.61
829-080C	8	4	0	090	504.33
829-100C	10	1	0	091	634.38
829-120C	12	1	0	091	743.02
829-140C	14	1	0	091	945.43
829-140CF	14	1	0	097	2085.69
829-160CF	16	1	0	097	3202.70
829-180CF	18	1	0	097	3961.48
829-200CF	20	1	0	097	5548.95
829-240CF	24	1	0	097	6934.51

Grooved Coupling Adapter Groove x Soc



833-012C	1-1/4	10	60	090	27.27
833-015C	1-1/2	10	80	090	35.96
833-020C	2	5	40	090	46.74
833-025C	2-1/2	5	0	090	76.87
833-030C	3	5	0	090	94.78
833-040C	4	5	0	090	161.29
833-050CF	5	1	7	097	178.48
833-060C	6	5	0	090	230.73
833-080CF	8	1	4	097	291.00
833-100CF	10	1	1	097	456.70
833-120CF	12	1	0	097	644.11

Coupling Fipt



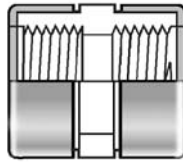
830-002C	1/4	25	450	090	19.59
830-003C	3/8	25	150	090	19.59
830-005C	1/2	25	150	090	16.12
830-007C	3/4	25	150	090	26.04
830-010C	1	15	90	090	29.56
830-012C	1-1/4	10	60	090	31.35
830-015C	1-1/2	10	80	090	33.69
830-020C	2	10	0	090	39.71
830-025C	2-1/2	5	0	090	71.26
830-030C	3	5	0	090	82.95
830-040C	4	5	0	090	169.09
830-060CF	6	1	8	097	230.45



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

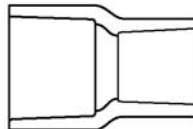
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Special Reinforced Coupling SR Fipt - Stainless Steel Collar



830-005CSR	1/2	25	300	096	8.84
830-007CSR	3/4	25	300	096	14.29
830-010CSR	1	25	200	096	16.23
830-012CSR	1-1/4	10	120	096	17.24
830-015CSR	1-1/2	10	80	096	18.49
830-020CSR	2	10	0	096	21.85

Reducer Coupling Soc



829-101C	3/4X1/2	50	400	090	15.86
829-130C	1X1/2	25	200	090	22.62
829-131C	1X3/4	25	200	090	22.62
829-166C	1-1/4X1/2	25	0	090	51.79
829-167C	1-1/4X3/4	25	0	090	51.79
829-168C	1-1/4X1	25	0	090	51.79
829-209C	1-1/2X1/2	25	0	090	51.38
829-210C	1-1/2X3/4	25	0	090	51.38
829-211C	1-1/2X1	25	0	090	51.38
829-212C	1-1/2X1-1/4	25	0	090	51.38
829-247C	2X1/2	25	0	090	67.94
829-248C	2X3/4	10	80	090	67.94
829-249C	2X1	10	40	090	67.94
829-250C	2X1-1/4	10	0	090	67.94
829-251C	2X1-1/2	10	40	090	67.94
829-291C	2-1/2X1-1/2	10	0	090	77.36
829-292C	2-1/2X2	10	0	090	77.36
829-335C ¹	3X1	8	0	090	191.34
829-336C ¹	3X1-1/4	6	0	090	197.19
829-337C ¹	3X1-1/2	8	0	090	197.19
829-338C	3X2	8	0	090	156.31
829-339C ¹	3X2-1/2	5	0	090	156.97
829-339CF	3X2-1/2	1	9	097	149.13
829-416C ¹	4X3/4	4	0	090	225.41
829-417C ¹	4X1	4	0	090	225.41
829-419C ¹	4X1-1/2	4	0	090	225.41
829-420C	4X2	6	0	090	186.47
829-421C	4X2-1/2	4	0	090	186.47
829-422C	4X3	4	0	090	186.47
829-488CF	5X3	1	6	097	183.99
829-490CF	5X4	1	6	097	116.05
829-528C ¹	6X2	6	0	090	493.30
829-529C ¹	6X2-1/2	4	1	090	581.36
829-530C ¹	6X3	12	0	090	503.39

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducer Coupling (continued)

Soc

829-532C	6X4	4	0	090	423.57
829-580CF	8X3	1	6	097	448.60
829-582C ¹	8X4	2	0	090	768.61
829-582CF	8X4	1	4	097	397.70
829-585C	8X6	2	0	090	733.90
829-621CF	10X2	1	0	097	831.03
829-623CF	10X3	1	2	097	696.96
829-624CF	10X4	1	2	097	669.90
829-625CF	10X5	1	2	097	722.05
829-626C	10X6	1	0	091	1141.32
829-626CF	10X6	1	2	097	515.81
829-628C	10X8	1	0	091	1141.32
829-628CF	10X8	1	4	097	279.38
829-664CF	12X4	1	2	097	1491.05
829-665CF	12X5	1	0	097	1490.02
829-666CF	12X6	1	0	097	1386.74
829-668C	12X8	1	0	091	1243.52
829-668CF	12X8	1	0	097	1061.20
829-670CF	12X10	1	2	097	565.90
829-694CF	14X4	1	0	097	2164.70
829-696CF	14X6	1	0	097	2044.37
829-698CF	14X8	1	0	097	1702.02
829-700CF	14X10	1	0	097	1456.76
829-702CF	14X12	1	0	097	1274.36
829-754CF	16X4	1	0	097	2666.76
829-756CF	16X6	1	0	097	2744.56
829-758CF	16X8	1	0	097	3137.04
829-760CF	16X10	1	0	097	3004.83
829-762CF	16X12	1	0	097	2847.83
829-764CF	16X14	1	0	097	2530.18
829-783CF	18X3	1	0	097	5495.29
829-784CF	18X4	1	0	097	5452.12
829-786CF	18X6	1	0	097	5411.43
829-788CF	18X8	1	0	097	5293.72
829-790CF	18X10	1	0	097	5261.90
829-792CF	18X12	1	0	097	5171.87
829-794CF	18X14	1	0	097	5090.67
829-796CF	18X16	1	0	097	3716.10
829-818CF	20X8	1	0	097	5251.22
829-826CF	20X16	1	0	097	6002.95
829-828CF	20X18	1	0	097	5562.71
829-906CF	24X6	1	0	097	8787.79
829-918CF	24X18	1	0	097	12333.74
829-920CF	24X20	1	0	097	11100.26

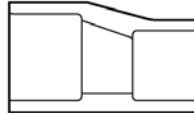
¹ Sized with Bushing

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Eccentric Reducer Coupling Soc



829-131CFE	1X3/4	1	15	097	36.71
829-168CFE	1-1/4X1	1	12	097	39.88
829-212CFE	1-1/2X1-1/4	1	20	097	41.78
829-249CFE	2X1	1	25	097	57.14
829-250CFE	2X1-1/4	1	25	097	52.01
829-251CFE	2X1-1/2	1	10	097	50.79
829-290CFE ²	2-1/2X1-1/4	1	10	097	86.71
829-291CFE ²	2-1/2X1-1/2	1	20	097	86.53
829-292CFE	2-1/2X2	1	10	097	61.45
829-335CFE ²	3X1	1	10	097	135.11
829-336CFE ²	3X1-1/4	1	10	097	129.02
829-337CFE ²	3X1-1/2	1	10	097	126.90
829-338CFE	3X2	1	20	097	82.27
829-339CFE	3X2-1/2	1	10	097	80.84
829-417CFE ³	4X1	1	18	097	208.47
829-418CFE ³	4X1-1/4	1	6	097	212.29
829-419CFE ³	4X1-1/2	1	6	097	200.91
829-420CFE ²	4X2	1	10	097	183.86
829-421CFE ²	4X2-1/2	1	6	097	169.72
829-422CFE	4X3	1	10	097	119.01
829-490CFE	5X4	1	8	097	141.03
829-528CFE ³	6X2	1	6	097	371.57
829-529CFE ³	6X2-1/2	1	4	097	346.13
829-530CFE ²	6X3	1	6	097	296.76
829-532CFE	6X4	1	10	097	252.62
829-578CFE ⁴	8X2	1	0	097	738.34
829-580CFE ³	8X3	1	2	097	666.30
829-582CFE ²	8X4	1	2	097	633.95
829-583CFE ²	8X5	1	2	097	564.99
829-585CFE	8X6	1	4	097	549.78
829-624CFE ³	10X4	1	0	097	1315.94
829-625CFE ³	10X5	1	0	097	1165.23
829-626CFE ²	10X6	1	2	097	1128.24
829-628CFE	10X8	1	2	097	810.57
829-664CFE ⁴	12X4	1	0	097	2370.37
829-666CFE ³	12X6	1	0	097	1548.91
829-668CFE ²	12X8	1	0	097	1477.24
829-670CFE	12X10	1	1	097	1321.99
829-696CFE ³	14X6	1	0	097	2564.21
829-698CFE ²	14X8	1	0	097	2514.14
829-700CFE	14X10	1	0	097	1792.15
829-702CFE	14X12	1	0	097	1636.18
829-756CFE ⁵	16X6	1	0	097	4683.61
829-758CFE ⁴	16X8	1	0	097	4528.44
829-760CFE ³	16X10	1	0	097	4445.33
829-762CFE ²	16X12	1	0	097	4270.57
829-764CFE	16X14	1	0	097	3929.01

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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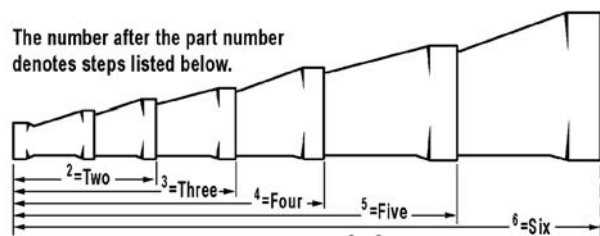
Eccentric Reducer Coupling (continued)

Soc

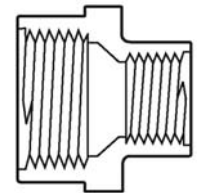
829-786CFE ⁶	18X6	1	0	097	9031.24
829-788CFE ⁵	18X8	1	0	097	8905.90
829-790CFE ⁴	18X10	1	0	097	8560.94
829-792CFE ³	18X12	1	0	097	7915.81
829-794CFE ²	18X14	1	0	097	7352.52
829-796CFE	18X16	1	0	097	5636.04

Eccentric Reducer Coupling Footnotes Multi-Step Configurations

The number after the part number denotes steps listed below.

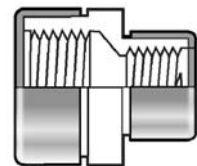


Reducer Coupling Fipt



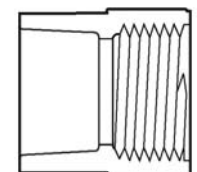
830-101C	3/4X1/2	50	200	090	26.41
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Special Reinforced Reducer Coupling SR Fipt - Stainless Steel Collar



830-101CSR	3/4X1/2	50	200	096	15.85
830-130CSR	1X1/2	50	0	096	19.13
830-131CSR	1X3/4	25	200	096	19.13
830-168CSR	1-1/4X1	25	0	096	26.02
830-210CSR	1-1/2X3/4	25	0	096	37.21
830-211CSR	1-1/2X1	10	80	096	37.21
830-212CSR	1-1/2X1-1/4	10	80	096	37.21
830-249CSR	2X1	25	0	096	91.60
830-251CSR	2X1-1/2	15	0	096	91.60

Female Adapter Soc x Fipt



835-002C	1/4	25	450	090	19.78
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CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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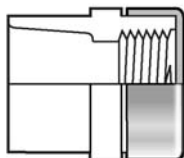
Female Adapter (continued)

Soc x Fipt

835-003C	3/8	25	150	090	19.78
835-005C	1/2	25	150	090	9.80
835-007C	3/4	15	90	090	9.71
835-010C	1	15	90	090	23.91
835-012C	1-1/4	10	60	090	24.48
835-015C	1-1/2	10	80	090	28.52
835-020C	2	10	0	090	49.15
835-025C	2-1/2	5	0	090	94.28
835-030C	3	5	0	090	193.44
835-040C	4	5	0	090	321.97
835-060C	6	6	0	090	457.12
835-060CF	6	1	8	097	289.56
835-080C	8	3	0	090	722.27
835-080CF	8	1	0	097	364.23
835-100CF	10	1	2	097	529.27
835-120CF	12	1	1	097	685.85

Special Reinforced Female Adapter

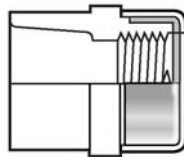
Soc x SR Fipt - Stainless Steel Collar



835-002CSR	1/4	25	450	096	12.41
835-003CSR	3/8	25	300	096	12.41
835-005CSR	1/2	25	300	096	5.33
835-007CSR	3/4	25	150	096	5.76
835-010CSR	1	25	200	096	13.13
835-012CSR	1-1/4	10	60	096	13.47
835-015CSR	1-1/2	10	80	096	15.64
835-020CSR	2	10	0	096	22.22
835-025CSR	2-1/2	5	0	096	51.67
835-030CSR	3	15	0	096	106.16
835-040CSR	4	5	0	096	176.69
835-060CSR	6	6	0	096	276.02

Encapsulated Special Reinforced Female Adapter

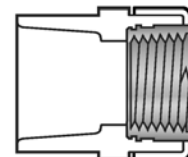
Soc x ESR Fipt



835-002CESR	1/4	25	450	096	15.74
835-003CESR	3/8	25	300	096	15.74
835-005CESR	1/2	25	300	096	8.17
835-007CESR	3/4	25	300	096	8.63
835-010CESR	1	25	200	096	19.01
835-012CESR	1-1/4	10	80	096	19.46
835-015CESR	1-1/2	10	0	096	25.19
835-020CESR	2	10	0	096	39.16

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Transition Female Adapter Soc x Fipt With Brass Thread Insert

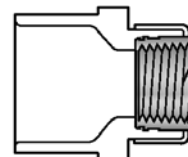


835-005CBR	1/2	25	150	096	30.06
835-007CBR	3/4	15	90	096	62.21
835-010CBR	1	15	90	096	109.17
835-012CBR	1-1/4	15	60	096	178.10
835-015CBR	1-1/2	10	80	096	234.82
835-020CBR	2	8	32	096	293.28

Not intended to convey or dispense water for human consumption through drinking or cooking

Transition Reducing Female Adapter

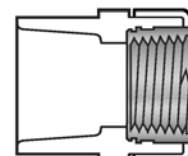
Soc x Fipt With Brass Thread Insert



835-101CBR	3/4X1/2	50	0	096	43.52
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Not intended to convey or dispense water for human consumption through drinking or cooking

Transition Female Adapter Soc x Fipt With Type 316 Stainless Steel Thread Insert



835-005CSS	1/2	25	150	096	59.02
835-007CSS	3/4	15	90	096	82.40
835-010CSS	1	15	90	096	144.22
835-012CSS	1-1/4	15	0	096	234.38
835-015CSS	1-1/2	10	60	096	305.78
835-020CSS	2	8	32	096	357.85

Transition Male Adapter with Brass Thread

Brass Mipt x Soc



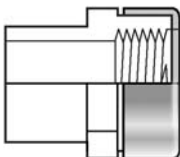
836-005CBR	1/2	40	160	096	66.63
836-007CBR	3/4	40	160	096	93.81
836-010CBR	1	10	60	096	163.39
836-012CBR	1-1/4	10	60	096	265.77
836-015CBR	1-1/2	10	40	096	345.52
836-020CBR	2	8	32	096	404.89

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



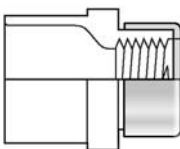
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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**Special Reinforced Spigot
Female Adapter**
Spig x SR Fipt - Stainless Steel Collar



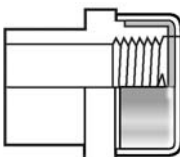
878-005CSR	1/2	50	600	096	5.68
878-007CSR	3/4	25	300	096	5.99
878-010CSR	1	50	0	096	13.48
878-012CSR	1-1/4	25	0	096	13.95
878-015CSR	1-1/2	25	0	096	16.19
878-020CSR	2	15	0	096	29.49
878-030CSR	3	5	0	096	107.49
878-040CSR	4	5	0	096	180.45

**Special Reinforced Reducing
Female Adapter**
Soc x SR Fipt - Stainless Steel Collar



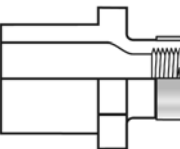
835-074CSR	1/2X3/4	50	400	096	5.76
835-101CSR	3/4X1/2	50	400	096	5.76
835-102CSR	3/4X1	50	0	096	13.13
835-130CSR	1X1/2	50	0	096	13.13
835-131CSR	1X3/4	25	200	096	13.13

**Encapsulated Special
Reinforced Female Adapter**
Spig x ESR Fipt



878-005CESR	1/2	50	600	096	8.41
878-007CESR	3/4	25	300	096	8.95
878-010CESR	1	50	0	096	19.19
878-012CESR	1-1/4	25	0	096	19.71
878-015CESR	1-1/2	25	0	096	25.70
878-020CESR	2	15	0	096	39.72

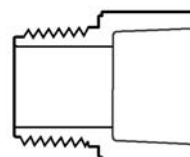
**Special Reinforced Reducing
Spigot Female Adapter**
Spig x SR Fipt - Stainless Steel Collar



878-072CSR	1/2X1/4	25	450	096	16.28
878-098CSR	3/4X1/4	50	400	096	18.95
878-128CSR	1X1/4	50	400	096	21.21

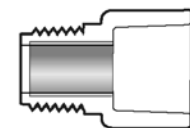
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Male Adapter
Mipt x Soc



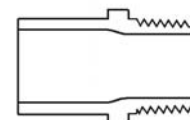
836-005C	1/2	25	150	090	7.83
836-007C	3/4	25	150	090	9.55
836-010C	1	20	240	090	16.09
836-012C	1-1/4	10	60	090	23.72
836-015C	1-1/2	10	120	090	32.05
836-020C	2	10	80	090	43.48
836-025C	2-1/2	5	0	090	118.56
836-030C	3	5	0	090	159.32
836-040C	4	5	0	090	269.34
836-060C	6	5	0	090	386.02
836-060CF	6	1	8	097	273.59
836-080CF	8	1	2	097	349.30
836-100CF	10	1	2	097	647.21
836-120CF	12	1	1	097	753.18

Reinforced Male Adapter
R Mipt x Soc - Stainless Steel Sleeve



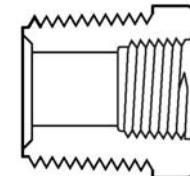
836-005CR	1/2	25	150	096	8.19
836-007CR	3/4	25	300	096	9.38
836-010CR	1	10	120	096	11.12

Male Adapter
Spig x Mipt



861-005C	1/2	50	300	090	9.54
861-007C	3/4	25	150	090	11.85
861-010C	1	50	0	090	20.10
861-131C	1X3/4	50	200	090	23.48
861-012C	1-1/4	25	200	090	22.80
861-015C	1-1/2	25	0	090	25.17
861-020C	2	25	0	090	29.45

**Reducer (T.T.) Bushing Flush
Style**
Mipt x Fipt



839-041C	1/4X1/8	25	500	090	18.29
839-052C	3/8X1/4	50	450	090	18.29
839-072C	1/2X1/4	50	300	090	18.29



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

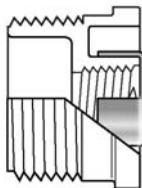
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducer (T.T.) Bushing Flush Style (continued)

Mipt x Fipt

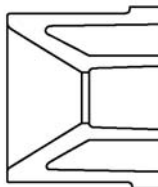
839-073C	1/2X3/8	50	600	090	18.29
839-098C	3/4X1/4	50	300	090	20.16
839-099C	3/4X3/8	50	300	090	20.16
839-101C	3/4X1/2	50	300	090	8.67
839-128C	1X1/4	25	150	090	21.77
839-129C	1X3/8	50	600	090	21.77
839-130C	1X1/2	50	300	090	14.61
839-131C	1X3/4	50	700	090	14.61
839-166C	1-1/4X1/2	25	300	090	29.02
839-167C	1-1/4X3/4	25	300	090	29.02
839-168C	1-1/4X1	25	300	090	28.79
839-209C	1-1/2X1/2	25	200	090	34.95
839-210C	1-1/2X3/4	25	200	090	34.95
839-211C	1-1/2X1	25	200	090	34.95
839-212C	1-1/2X1-1/4	25	200	090	34.68
839-247C	2X1/2	10	60	090	38.66
839-248C	2X3/4	10	60	090	38.66
839-249C	2X1	10	60	090	38.66
839-250C	2X1-1/4	10	120	090	38.66
839-251C	2X1-1/2	10	60	090	34.68
839-292C	2-1/2X2	10	40	090	92.93
839-337C	3X1-1/2	10	0	090	125.02
839-338C	3X2	10	0	090	125.02
839-339C	3X2-1/2	10	0	090	125.02
839-420C	4X2	6	0	090	214.82
839-422C	4X3	6	0	090	214.82
839-530C	6X3	1	5	090	775.51
839-532C	6X4	5	0	090	775.51

Special Reinforced Reducing Bushing Flush Style Mipt x SR Fipt - Stainless Steel Collar



839-209CSR	1-1/2X1/2	25	200	096	21.00
839-210CSR	1-1/2X3/4	25	100	096	21.00
839-247CSR	2X1/2	10	120	096	23.21
839-248CSR	2X3/4	10	120	096	23.21
839-249CSR	2X1	10	120	096	23.21
839-420CSR	4X2	6	0	096	128.88

Reducer Bushing Flush Style Spig x Soc



837-052C	3/8X1/4	50	450	090	12.67
837-072C	1/2X1/4	50	600	090	12.67

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Reducer Bushing Flush Style (continued)

Spig x Soc

837-073C	1/2X3/8	50	300	090	12.67
837-101C	3/4X1/2	50	300	090	6.46
837-129C ¹	1X3/8	50	0	090	22.02
837-130C	1X1/2	50	400	090	10.04
837-131C	1X3/4	50	300	090	10.04
837-166C	1-1/4X1/2	25	300	090	26.66
837-167C	1-1/4X3/4	25	150	090	26.66
837-168C	1-1/4X1	25	150	090	26.66
837-209C	1-1/2X1/2	25	200	090	30.14
837-210C	1-1/2X3/4	25	200	090	30.14
837-211C	1-1/2X1	25	200	090	30.14
837-212C	1-1/2X1-1/4	25	200	090	30.14
837-247C	2X1/2	10	120	090	38.90
837-248C	2X3/4	10	60	090	38.90
837-249C	2X1	10	60	090	38.90
837-250C	2X1-1/4	10	60	090	38.90
837-251C	2X1-1/2	10	60	090	38.90
837-289C ¹	2-1/2X1	5	40	090	66.90
837-290C	2-1/2X1-1/4	10	0	090	47.38
837-291C	2-1/2X1-1/2	10	40	090	47.38
837-292C	2-1/2X2	15	0	090	47.38
837-334C ¹	3X3/4	10	0	090	82.52
837-335C	3X1	10	0	090	72.18
837-336C	3X1-1/4	10	0	090	72.18
837-337C	3X1-1/2	10	0	090	72.18
837-338C	3X2	10	0	090	72.18
837-339C	3X2-1/2	15	0	090	72.18
837-420C	4X2	6	0	090	79.81
837-421C ¹	4X2-1/2	6	0	090	79.81
837-422C	4X3	6	0	090	79.81
837-490C	5X4	4	0	090	150.86
837-528C	6X2	5	0	090	171.22
837-529C ¹	6X2-1/2	5	0	090	248.37
837-530C	6X3	5	0	090	171.22
837-532C	6X4	5	0	090	170.02
837-578C ¹	8X2	1	4	090	738.18
837-580C ¹	8X3	4	0	090	738.18
837-582C	8X4	4	0	090	738.18
837-585C	8X6	4	0	090	559.74
837-621C ¹	10X2	2	0	091	1229.73
837-623C ¹	10X3	1	2	091	1229.73
837-624C ¹	10X4	4	0	091	1229.73
837-626C	10X6	4	0	091	990.68
837-628C	10X8	4	0	091	990.68
837-628CF	10X8	1	6	097	857.33
837-663CF	12X3	1	2	097	1388.72
837-664C	12X4	1	2	091	2019.16
837-666CF	12X6	1	2	097	1187.67
837-668C	12X8	2	0	091	1249.00
837-670CF	12X10	1	3	097	894.32

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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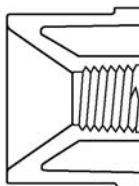
Reducer Bushing Flush Style (continued)

Spig x Soc

837-696CF	14X6	1	3	097	3135.05
837-698CF	14X8	1	3	097	2185.65
837-700CF	14X10	1	3	097	1774.65
837-702CF	14X12	1	3	097	1286.02
837-756CF	16X6	1	2	097	4942.52
837-758CF	16X8	1	0	097	4619.87
837-760CF	16X10	1	0	097	3693.64
837-762CF	16X12	1	2	097	1879.09
837-764CF	16X14	1	2	097	1789.38
837-788CF	18X8	1	0	097	5474.41
837-796CF	18X16	1	0	097	1997.67

¹ Sized with Bushing

Reducer Bushing Flush Style Spig x Fipt



838-052C	3/8X1/4	50	450	090	13.62
838-071C	1/2X1/8	50	600	090	13.62
838-072C	1/2X1/4	50	600	090	13.62
838-073C	1/2X3/8	50	300	090	13.62
838-098C	3/4X1/4	50	600	090	15.19
838-099C	3/4X3/8	50	600	090	15.19
838-101C	3/4X1/2	50	600	090	7.05
838-129C	1X3/8	50	400	090	20.17
838-130C	1X1/2	50	400	090	8.94
838-131C	1X3/4	50	400	090	8.94
838-166C	1-1/4X1/2	25	300	090	28.87
838-167C	1-1/4X3/4	25	300	090	28.87
838-168C	1-1/4X1	25	300	090	28.87
838-207C	1-1/2X1/4	25	200	090	35.56
838-209C	1-1/2X1/2	25	200	090	35.56
838-210C	1-1/2X3/4	25	200	090	35.56
838-211C	1-1/2X1	25	200	090	35.56
838-212C	1-1/2X1-1/4	25	200	090	35.56
838-247C	2X1/2	10	120	090	48.89
838-248C	2X3/4	10	60	090	48.89
838-249C	2X1	10	120	090	48.89
838-250C	2X1-1/4	10	120	090	48.89
838-251C	2X1-1/2	10	120	090	48.89
838-287C	2-1/2X1/2	10	0	090	78.21
838-288C	2-1/2X3/4	10	40	090	78.21
838-289C	2-1/2X1	10	40	090	78.21
838-290C	2-1/2X1-1/4	10	0	090	78.21
838-291C	2-1/2X1-1/2	10	40	090	77.68
838-292C	2-1/2X2	10	0	090	77.68
838-334C	3X3/4	10	0	090	206.95
838-335C	3X1	10	0	090	206.95

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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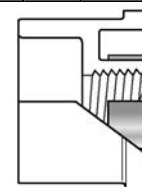
Reducer Bushing Flush Style (continued)

Spig x Fipt

838-336C	3X1-1/4	10	0	090	181.04
838-337C	3X1-1/2	10	0	090	181.04
838-338C	3X2	10	0	090	173.16
838-339C	3X2-1/2	10	0	090	174.56
838-420C	4X2	6	0	090	352.84
838-421C	4X2-1/2	6	0	090	352.84
838-422C	4X3	6	0	090	352.84
838-530C	6X3	5	0	090	711.37
838-532C	6X4	5	0	090	711.37

Special Reinforced Reducer Bushing

Spig x SR Fipt - Stainless Steel Collar



838-128CSR	1X1/4	25	150	096	12.10
838-207CSR	1-1/2X1/4	25	200	096	20.47
838-209CSR	1-1/2X1/2	10	120	096	21.34
838-210CSR	1-1/2X3/4	10	120	096	21.34
838-247CSR	2X1/2	10	80	096	29.32
838-248CSR	2X3/4	10	80	096	29.32
838-249CSR	2X1	10	80	096	29.32
838-334CSR	3X3/4	10	0	096	124.15
838-335CSR	3X1	10	0	096	124.15
838-336CSR	3X1-1/4	10	0	096	124.15
838-337CSR	3X1-1/2	10	0	096	124.15
838-528CSR	6X2	5	0	096	426.81
838-530CSR	6X3	5	0	096	426.81

Cap Soc



847-002C	1/4	25	450	090	10.43
847-003C	3/8	25	450	090	10.43
847-005C	1/2	25	150	090	9.44
847-007C	3/4	25	300	090	13.45
847-010C	1	15	90	090	23.80
847-012C	1-1/4	10	60	090	26.04
847-015C	1-1/2	10	60	090	26.04
847-020C	2	10	80	090	27.46
847-025C	2-1/2	5	40	090	92.45
847-030C	3	5	0	090	101.34
847-040C	4	5	0	090	103.01
847-060C	6	4	0	090	340.86
847-080C	8	3	0	090	1034.39
847-100CF	10	1	5	097	864.18



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

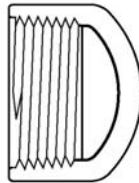
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Cap (continued)

Soc

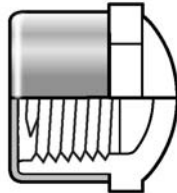
847-120CF	12	1	4	097	947.13
847-140CF	14	1	2	097	2905.17
847-160CF	16	1	2	097	4272.77

Cap Fipt



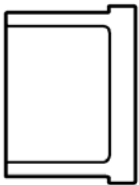
848-002C	1/4	25	450	090	12.21
848-003C	3/8	25	450	090	12.21
848-005C	1/2	25	150	090	10.49
848-007C	3/4	25	300	090	17.36
848-010C	1	15	90	090	24.30
848-012C	1-1/4	10	120	090	43.34
848-015C	1-1/2	10	120	090	44.40
848-020C	2	10	80	090	63.96
848-025C	2-1/2	5	40	090	148.00
848-030C	3	5	0	090	194.16
848-040C	4	5	0	090	282.05

Special Reinforced Cap SR Fipt - Stainless Steel Collar



848-002CSR	1/4	25	500	096	6.71
848-003CSR	3/8	25	450	096	6.71
848-007CSR	3/4	25	300	096	10.45
848-030CSR	3	5	0	096	116.66

Plug Spig



849-005C	1/2	50	300	090	12.02
849-007C	3/4	50	300	090	14.83
849-010C	1	50	200	090	16.73
849-012C	1-1/4	25	100	090	21.34
849-015C	1-1/2	10	120	090	23.41
849-020C	2	10	120	090	31.36
849-025CF	2-1/2	1	4	097	37.20
849-030CF	3	1	4	097	85.54
849-040CF	4	1	4	097	105.55
849-060CF	6	1	6	097	131.05
849-080CF	8	1	6	097	352.00
849-100CF	10	1	2	097	700.36
849-120CF	12	1	0	097	1357.40

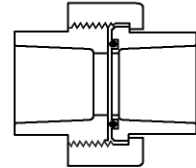
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Plug Mipt



850-002C	1/4	50	900	090	9.82
850-003C	3/8	50	450	090	9.82
850-005C	1/2	25	300	090	8.53
850-007C	3/4	25	300	090	10.80
850-010C	1	15	180	090	17.77
850-012C	1-1/4	10	120	090	26.85
850-015C	1-1/2	10	120	090	22.27
850-020C	2	10	120	090	30.31
850-025C	2-1/2	5	30	090	51.46
850-030C	3	5	40	090	55.11
850-040C	4	5	0	090	97.78
850-060C	6	6	0	090	137.31
850-060CF	6	1	2	097	354.57

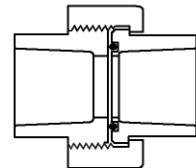
Union 2000 Soc with Viton® O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

857-002C	1/4	25	150	090	39.09
857-003C	3/8	25	100	090	39.09
8057-005C	1/2	20	120	090	26.01
8057-007C	3/4	20	80	090	27.17
8057-010C	1	15	90	090	32.61
8057-012C	1-1/4	10	0	090	65.99
8057-015C	1-1/2	10	0	090	67.19
8057-020C	2	5	0	090	111.38
8057-025C	2-1/2	5	0	090	182.67
8057-030C	3	5	0	090	231.17
8057-040C	4	4	0	090	295.35
8057-060C	6	1	0	090	656.33

Union 2000 Soc with EPDM O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

897-002C	1/4	25	150	090	38.62
897-003C	3/8	25	150	090	38.62
8097-005C	1/2	20	120	090	25.93
8097-007C	3/4	20	80	090	26.85
8097-010C	1	15	90	090	32.17
8097-012C	1-1/4	10	0	090	65.14
8097-015C	1-1/2	10	0	090	66.38

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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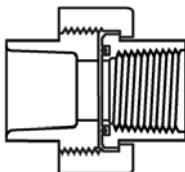
Union 2000 (continued)

Soc with EPDM O-ring Seal

8097-020C	2	5	0	090	110.01
8097-025C	2-1/2	5	0	090	182.19
8097-030C	3	5	0	090	228.32
8097-040C	4	4	0	090	291.99
8097-060C	6	1	0	090	648.87

Union 2000

Soc x Fipt with Viton® O-ring Seal

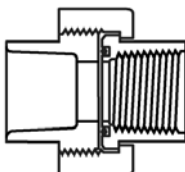


235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8059-005C	1/2	20	120	090	29.61
8059-007C	3/4	20	80	090	51.67
8059-010C	1	15	90	090	71.32
8059-012C	1-1/4	10	0	090	135.84
8059-015C	1-1/2	10	0	090	135.84
8059-020C	2	5	0	090	153.57
8059-025C	2-1/2	5	0	090	249.32
8059-030C	3	5	0	090	294.89
8059-040C	4	4	0	090	341.00
8059-060C	6	1	0	090	757.79

Union 2000

Soc x Fipt with EPDM O-ring Seal

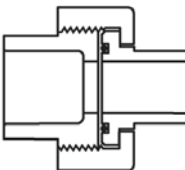


235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8099-005C	1/2	20	160	090	28.88
8099-007C	3/4	20	80	090	51.06
8099-010C	1	15	90	090	70.43
8099-012C	1-1/4	10	0	090	134.16
8099-015C	1-1/2	10	0	090	134.16
8099-020C	2	5	0	090	151.67
8099-025C	2-1/2	5	0	090	217.26
8099-030C	3	5	0	090	291.27
8099-040C	4	4	0	090	336.00
8099-060C	6	1	0	090	746.68

Union 2000

Soc x Spig with Viton® O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8056-005C	1/2	20	160	090	26.01
8056-007C	3/4	20	160	090	27.17
8056-010C	1	15	90	090	32.61

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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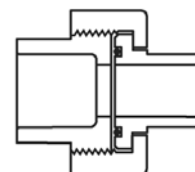
Union 2000 (continued)

Soc x Spig with Viton® O-ring Seal

8056-012C	1-1/4	10	0	090	65.99
8056-015C	1-1/2	10	0	090	67.19
8056-020C	2	5	0	090	111.38
8056-025C	2-1/2	5	0	090	203.51
8056-030C	3	5	0	090	231.17
8056-040C	4	4	0	090	295.35
8056-060C	6	1	0	090	656.33

Union 2000

Soc x Spig with EPDM O-ring Seal

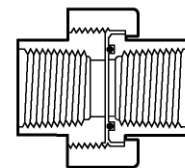


235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8096-005C	1/2	20	160	090	25.93
8096-007C	3/4	20	80	090	26.85
8096-010C	1	15	90	090	32.17
8096-012C	1-1/4	10	0	090	65.14
8096-015C	1-1/2	10	0	090	66.38
8096-020C	2	5	0	090	110.01
8096-025C	2-1/2	5	0	090	182.19
8096-030C	3	5	0	090	228.32
8096-040C	4	4	0	090	291.99
8096-060C	6	1	0	090	648.87

Union 2000

Fipt with Viton® O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

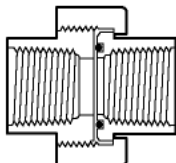
858-002C	1/4	25	150	090	43.96
858-003C	3/8	25	100	090	43.96
8058-005C	1/2	20	120	090	27.86
8058-007C	3/4	20	80	090	49.24
8058-010C	1	15	90	090	67.90
8058-012C	1-1/4	10	0	090	129.37
8058-015C	1-1/2	10	0	090	129.37
8058-020C	2	5	0	090	146.23
8058-025C	2-1/2	5	0	090	235.59
8058-030C	3	5	0	090	447.02
8058-040C	4	4	0	090	480.53
8058-060C	6	1	0	090	1067.87



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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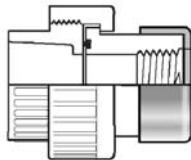
Union 2000 Fipt with EPDM O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

898-002C	1/4	25	150	090	43.43
898-003C	3/8	25	100	090	43.43
8098-005C	1/2	20	120	090	27.51
8098-007C	3/4	20	80	090	48.63
8098-010C	1	15	90	090	67.06
8098-012C	1-1/4	10	0	090	127.87
8098-015C	1-1/2	10	0	090	127.87
8098-020C	2	5	0	090	144.46
8098-025C	2-1/2	5	0	090	203.51
8098-030C	3	5	0	090	404.90
8098-040C	4	4	0	090	471.38
8098-060C	6	1	0	090	1047.50

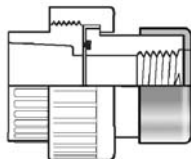
Special Reinforced Union 2000 Soc x SR Fipt with Viton® O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8059-005CSR	1/2	25	200	096	15.32
8059-007CSR	3/4	20	160	096	27.03
8059-010CSR	1	15	90	096	37.24
8059-012CSR	1-1/4	10	0	096	71.00
8059-015CSR	1-1/2	10	0	096	77.18
8059-020CSR	2	5	0	096	80.35
8059-025CSR	2-1/2	5	0	096	139.13
8059-030CSR	3	5	0	096	226.04
8059-040CSR	4	4	0	096	263.72
8059-060CSR	6	1	0	096	586.10

Special Reinforced Union 2000 Soc x SR Fipt with EPDM O-ring Seal - Stainless Steel Collar



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

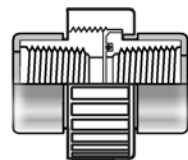
8099-005CSR	1/2	20	160	096	15.02
8099-007CSR	3/4	20	160	096	26.67
8099-010CSR	1	15	90	096	36.93
8099-012CSR	1-1/4	10	0	096	69.96
8099-015CSR	1-1/2	10	0	096	76.09
8099-020CSR	2	5	0	096	80.12
8099-025CSR	2-1/2	5	0	096	137.43
8099-030CSR	3	5	0	096	223.20
8099-040CSR	4	4	0	096	262.13

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Special Reinforced Union 2000 (continued) Soc x SR Fipt with EPDM O-ring Seal - Stainless Steel Collar

8099-060CSR	6	1	0	096	582.54
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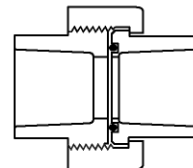
Special Reinforced Union 2000 SR Fipt with EPDM O-ring Seal - Stainless Steel Collar



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8098-005CSR	1/2	20	160	096	15.20
8098-007CSR	3/4	20	80	096	27.16
8098-010CSR	1	15	90	096	37.24
8098-012CSR	1-1/4	10	0	096	70.31
8098-015CSR	1-1/2	10	0	096	76.88
8098-020CSR	2	5	0	096	80.84
8098-025CSR	2-1/2	5	0	096	139.70
8098-030CSR	3	5	0	096	227.14
8098-040CSR	4	4	0	096	262.95
8098-060CSR	6	1	0	096	584.34

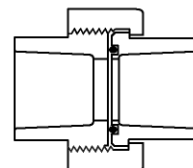
Union (Old Style) Soc with Viton® O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

857-005C	1/2	10	60	090	26.01
857-007C	3/4	10	60	090	27.17
857-010C	1	10	40	090	32.61
857-012C	1-1/4	5	20	090	65.99
857-015C	1-1/2	5	0	090	67.19
857-020C	2	5	0	090	111.38
857-025C	2-1/2	5	0	090	182.67
857-030C	3	5	0	090	231.17
857-040C	4	4	0	090	295.35

Union (Old Style) Soc with EPDM O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

897-005C	1/2	10	60	090	25.93
897-007C	3/4	10	60	090	26.85
897-010C	1	10	40	090	32.17
897-012C	1-1/4	5	20	090	65.14
897-015C	1-1/2	5	0	090	66.38

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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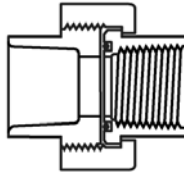
Union (Old Style) (continued)

Soc with EPDM O-ring Seal

897-020C	2	5	0	090	110.01
897-025C	2-1/2	5	0	090	182.19
897-030C	3	5	0	090	228.32
897-040C	4	4	0	090	291.99

Union (Old Style)

Soc x Fipt with Viton® O-ring Seal

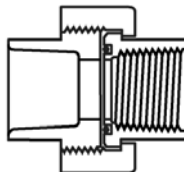


235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

859-005C	1/2	10	60	090	29.61
859-007C	3/4	10	40	090	51.67
859-010C	1	10	40	090	71.32
859-012C	1-1/4	5	20	090	135.84
859-015C	1-1/2	5	0	090	135.84
859-020C	2	5	0	090	153.57
859-025C	2-1/2	5	0	090	249.32
859-030C	3	5	0	090	294.89
859-040C	4	4	0	090	341.00

Union (Old Style)

Soc x Fipt with EPDM O-ring Seal

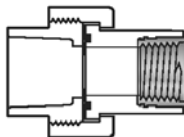


235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

899-005C	1/2	10	60	090	28.88
899-007C	3/4	10	60	090	51.06
899-010C	1	10	40	090	70.43
899-012C	1-1/4	5	20	090	134.16
899-015C	1-1/2	5	0	090	134.16
899-020C	2	5	0	090	151.67
899-025C	2-1/2	5	0	090	217.26
899-030C	3	5	0	090	291.27
899-040C	4	4	0	090	336.00

Union

Soc x Fipt with Brass Thread Insert & Viton® O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

859-007CBR	3/4	10	20	096	138.86
859-010CBR	1	10	0	096	154.66
859-012CBR	1-1/4	5	0	096	259.26
859-015CBR	1-1/2	5	0	096	294.62
859-020CBR	2	5	0	096	332.98

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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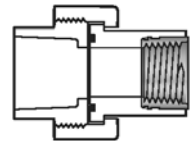
Union (continued)

Soc x Fipt with Brass Thread Insert & Viton® O-ring Seal

Not intended to convey or dispense water for human consumption through drinking or cooking

Union

Soc x Fipt with Brass Thread Insert & EPDM O-ring Seal



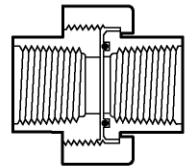
235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

899-007CBR	3/4	10	40	096	136.51
899-010CBR	1	10	0	096	152.76
899-012CBR	1-1/4	5	20	096	255.99
899-015CBR	1-1/2	5	0	096	290.86
899-020CBR	2	5	0	096	328.90

Not intended to convey or dispense water for human consumption through drinking or cooking

Union (Old Style)

Fipt with Viton® O-ring Seal

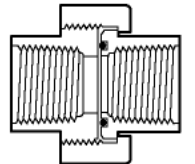


235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

858-005C	1/2	10	60	090	27.86
858-007C	3/4	10	60	090	49.24
858-010C	1	10	40	090	67.90
858-012C	1-1/4	5	20	090	129.37
858-015C	1-1/2	5	0	090	129.37
858-020C	2	5	0	090	146.23
858-025C	2-1/2	5	0	090	235.59
858-030C	3	5	0	090	447.02
858-040C	4	4	0	090	480.53

Union (Old Style)

Fipt with EPDM O-ring Seal



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

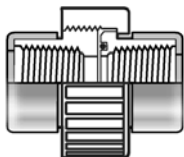
898-005C	1/2	10	60	090	27.51
898-007C	3/4	10	60	090	48.63
898-010C	1	10	40	090	67.06
898-012C	1-1/4	5	20	090	127.87
898-015C	1-1/2	5	0	090	127.87
898-020C	2	5	0	090	144.46
898-025C	2-1/2	5	0	090	203.51
898-030C	3	5	0	090	404.90
898-040C	4	4	0	090	471.38



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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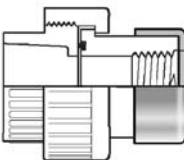
Special Reinforced Union 2000
SR Fipt with Viton® O-ring Seal -
Stainless Steel Collar



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8058-005CSR	1/2	20	160	096	15.72
8058-007CSR	3/4	20	80	096	27.41
8058-010CSR	1	15	90	096	37.67
8058-012CSR	1-1/4	10	0	096	71.00
8058-015CSR	1-1/2	10	0	096	77.48
8058-020CSR	2	5	0	096	81.64
8058-030CSR	3	5	0	096	230.71
8058-040CSR	4	4	0	096	270.28
8058-060CSR	6	1	0	096	608.69

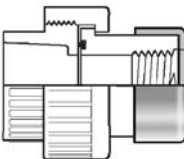
Special Reinforced Union (Old Style)
Soc x SR Fipt with Viton® O-ring Seal -
Stainless Steel Collar



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

859-002CSR	1/4	25	150	096	24.11
859-003CSR	3/8	25	100	096	24.11
859-005CSR	1/2	10	60	096	15.32
859-007CSR	3/4	10	40	096	27.03
859-010CSR	1	10	40	096	37.24
859-012CSR	1-1/4	5	20	096	71.00
859-015CSR	1-1/2	5	0	096	77.18
859-020CSR	2	5	0	096	80.35
859-030CSR	3	5	0	096	226.04
859-040CSR	4	4	0	096	263.72

Special Reinforced Union (Old Style)
Soc x SR Fipt with EPDM O-ring Seal -
Stainless Steel Collar



235 psi Maximum Internal Pressure Rating @ 73°F (23°C)

899-002CSR	1/4	25	150	096	23.95
899-003CSR	3/8	25	100	096	23.95
899-005CSR	1/2	10	60	096	15.02
899-007CSR	3/4	10	40	096	26.67
899-010CSR	1	10	40	096	36.93
899-012CSR	1-1/4	5	20	096	69.96
899-015CSR	1-1/2	5	0	096	76.09
899-020CSR	2	5	0	096	80.12
899-030CSR	3	5	0	096	223.20
899-040CSR	4	4	0	096	262.13

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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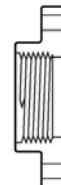
Flange One Piece Soc



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

851-005C	1/2	25	0	090	25.53
851-007C	3/4	25	0	090	26.12
851-010C	1	15	0	090	28.52
851-012C	1-1/4	15	0	090	34.81
851-015C	1-1/2	20	0	090	38.64
851-020C	2	10	0	090	46.77
851-025C	2-1/2	10	0	090	96.91
851-030C	3	10	0	090	101.34
851-040C	4	5	0	090	136.91
851-050C	5	5	0	090	250.91
851-060C	6	5	0	090	233.23
851-080C	8	2	0	090	532.81

Flange One Piece Fipt



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

852-005C	1/2	25	0	090	35.69
852-007C	3/4	25	0	090	43.27
852-010C	1	15	0	090	47.22
852-012C	1-1/4	15	0	090	65.54
852-015C	1-1/2	20	0	090	69.38
852-020C	2	10	0	090	70.65
852-025C	2-1/2	10	0	090	114.68
852-030C	3	10	0	090	113.79
852-040C	4	5	0	090	176.90

Blind Flange



1/2" - 12" Molded - 150 psi Maximum Internal Pressure Rating @ 73°F (23°C)
14" - 24" Fabricated - 50 psi Maximum Internal Pressure Rating @ 73°F (23°C)

853-005C	1/2	25	100	090	38.27
853-007C	3/4	25	0	090	41.49
853-010C	1	20	0	090	51.72
853-012C	1-1/4	20	0	090	58.52
853-015C	1-1/2	15	0	090	81.90
853-020C	2	10	0	090	86.04
853-025C	2-1/2	10	0	090	130.16

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Blind Flange (continued)

853-030C	3	10	0	090	161.81
853-040C	4	8	0	090	219.18
853-060C	6	5	0	090	367.66
853-080C	8	5	0	090	681.96
853-100C	10	3	0	091	1229.64
853-120C	12	2	0	091	2065.79
853-140CF	14	1	0	097	2400.73
853-160CF	16	1	0	097	3722.30
853-180CF	18	1	0	097	4588.64
853-200CF	20	1	0	097	4916.88
853-240CF	24	1	0	097	5982.82

Flange Van Stone Style with Plastic Ring Soc



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

854-005C	1/2	25	0	090	25.70
854-007C	3/4	25	0	090	26.28
854-010C	1	15	0	090	28.70
854-012C	1-1/4	15	0	090	35.04
854-015C	1-1/2	20	0	090	38.90
854-020C	2	10	0	090	47.11
854-025C	2-1/2	10	0	090	97.59
854-030C	3	10	0	090	102.18
854-040C	4	5	0	090	137.99
854-050C	5	5	0	090	235.13
854-060C	6	5	0	090	235.13
854-080C	8	2	0	090	707.48
854-100C	10	2	0	091	1703.17
854-120C	12	2	0	091	2555.67
854-140C	14	1	0	091	2879.81
854-160C	16	1	0	091	3599.78
854-180C	18	1	0	091	5843.81

Flange Van Stone Style with Plastic Ring Spig



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

856-005C	1/2	25	0	090	29.72
856-007C	3/4	25	0	090	31.90
856-010C	1	15	0	090	36.22
856-012C	1-1/4	15	0	090	44.82
856-015C	1-1/2	15	0	090	49.56
856-020C	2	10	0	090	69.37
856-025C	2-1/2	10	0	090	108.65
856-030C	3	10	0	090	118.98

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Flange Van Stone Style with Plastic Ring (continued)

Spig

856-040C	4	5	0	090	122.44
856-060C	6	4	0	090	267.33
856-080C	8	2	0	090	544.91
856-100C	10	2	0	091	1829.76
856-120C	12	2	0	091	2748.57
856-140CF	14	1	0	097	2924.49
856-160CF	16	1	0	097	3622.66

Flange Van Stone Style with Plastic Solid Ring Soc



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

S854-030C	3	10	0	090	145.95
S854-040C	4	5	0	090	197.17
S854-060C	6	4	0	090	335.89
S854-080C	8	2	0	090	1010.67
S854-100C	10	2	0	091	2433.11
S854-120C	12	2	0	091	3650.95

Flange Van Stone Style Class 300 Bolt Pattern Fabricated with Plastic Ring Soc



Molded with fabricated ring - 150 psi = maximum internal pressure rating @ 73°F (23°C)

854-005CL300C	1/2	1	25	097	195.55
854-007CL300C	3/4	1	25	097	261.99
854-010CL300C	1	1	15	097	319.46
854-012CL300C	1-1/4	1	15	097	339.39
854-015CL300C	1-1/2	1	20	097	352.40
854-020CL300C	2	1	10	097	391.46
854-025CL300C	2-1/2	1	10	097	465.81
854-030CL300C	3	1	10	097	506.23
854-040CL300C	4	1	5	097	798.35
854-060CL300C	6	1	4	097	1507.56
854-080CL300C	8	1	3	097	1734.73
854-100CL300C	10	1	2	097	1961.37
854-120CL300C	12	1	0	097	2450.34
854-140CL300C	14	1	0	097	2721.45
854-160CL300C	16	1	0	097	2863.52



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Flange Van Stone Style with Plastic Ring Fipt



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

855-005C	1/2	25	0	090	35.93
855-007C	3/4	25	0	090	43.55
855-010C	1	15	0	090	47.55
855-012C	1-1/4	15	0	090	65.44
855-015C	1-1/2	20	0	090	69.87
855-020C	2	10	0	090	71.18
855-025C	2-1/2	10	0	090	114.60
855-030C	3	10	0	090	114.60
855-040C	4	5	0	090	178.16
855-060C ¹	6	1	4	090	301.61
855-080C ¹	8	1	2	090	463.57
855-080CF	8	1	2	097	412.05

1 - Flange assembled with molded Female Adapter

Flange Van Stone Style with Plastic Ring ASTM Soc x Multi-bolt Pattern Ring



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

M854-020C	2	10	0	090	46.20
M854-060C	6	4	0	090	235.13
M854-080C	8	2	0	090	707.48

Special Reinforced Flange One Piece Threaded SR Fipt - Stainless Steel Collar

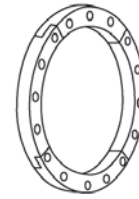


150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

852-005CSR	1/2	25	0	096	19.62
852-007CSR	3/4	25	0	096	23.80
852-010CSR	1	15	0	096	26.04
852-012CSR	1-1/4	15	0	096	36.03
852-015CSR	1-1/2	15	0	096	38.20
852-020CSR	2	10	0	096	39.13
852-025CSR	2-1/2	10	0	090	62.96
852-030CSR	3	10	0	096	62.47
852-040CSR	4	5	0	096	97.06

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Application & Use of Van Stone Style Flange Replacement Split Rings



Designed for easy Van Stone style flange ring replacement in the event of system modification, repair, or improper assembly without having to remove existing flange hub. Split rings are made as a direct replacement of existing one-piece rings used on Spears® brand only of Van Stone style flanges with ANSI Class 150 bolt pattern plastic rings. Remove old ring to be replaced then simply place the split ring sections around hub and install flange bolts (not included) through special designed section overlap to hold in position. Install appropriate user supplied bolts, washers and gasket (see Flange Gasket and Bolt Hardware Kits in this catalog); torque to specifications according to normal flange assembly. Split rings are a set of either 2-pieces or 4-pieces (illustrated) sections depending on size, in regular PVC, Glass Filled PVC, or CPVC for flange type and sizes listed.

CPVC Flange Replacement Split Rings For Spears® Flanges with CPVC Rings



854-005-1SC	1/2	10	0	090	74.62
854-007-1SC	3/4	10	0	090	79.21
854-010-1SC	1	10	0	090	88.59
854-012-1SC	1-1/4	10	0	090	90.31
854-015-1SC	1-1/2	10	0	090	92.53
854-020-1SC	2	40	0	090	122.81
854-025-1SC	2-1/2	10	0	090	142.06
854-030-1SC	3	10	0	090	157.50
854-040-1SC	4	10	0	090	166.80
854-050-1SC	5	5	0	090	228.68
854-060-1SC	6	5	0	090	270.60
854-080-1SC	8	4	0	090	309.16
854-100-1SC	10	4	0	091	390.27
854-120-1SC	12	2	0	091	483.71
854-140-1SC	14	1	0	091	662.55
854-160-1SC	16	1	0	091	823.07
854-180-1SC	18	1	0	091	893.95
854-200-1SC	20	1	0	097	5699.04
854-240-1SC	24	1	0	097	5813.39

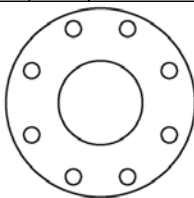
Fits 854-xxxC Socket, 855-xxxC Threaded, and 856-xxxC Spigot hub configurations

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Gasket Selection Guide

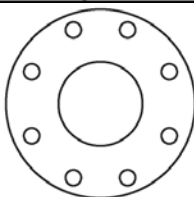


Order Gaskets & Bolt Kits Separately

- 1/8" Full-Face design with ANSI Class 150 Bolt Patterns
- Pressure rated to 150 psi @ 73°F
- Available in Buna-N, EPDM, or Viton® (FKM)

Flange Size	Bolt Holes	Gasket Part Number		
		Buna-N	EPDM	FKM
1/2	4	GK1-005	GK2-005	GK3-005
3/4	4	GK1-007	GK2-007	GK3-007
1	4	GK1-010	GK2-010	GK3-010
1-1/4	4	GK1-012	GK2-012	GK3-012
1-1/2	4	GK1-015	GK2-015	GK3-015
2	4	GK1-020	GK2-020	GK3-020
2-1/2	4	GK1-025	GK2-025	GK3-025
3	4	GK1-030	GK2-030	GK3-030
4	8	GK1-040	GK2-040	GK3-040
5	8	GK1-050	GK2-050	GK3-050
6	8	GK1-060	GK2-060	GK3-060
8	8	GK1-080	GK2-080	GK3-080
10	12	GK1-100	GK2-100	GK3-100
12	12	GK1-120	GK2-120	GK3-120

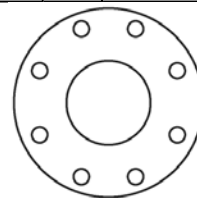
Buna-N Full-Faced Flange Gaskets



GK1-005	1/2	1	25	017	3.06
GK1-007	3/4	1	25	017	3.51
GK1-010	1	1	25	017	3.61
GK1-012	1-1/4	1	25	017	3.70
GK1-015	1-1/2	1	25	017	3.97
GK1-020	2	1	25	017	4.44
GK1-025	2-1/2	1	25	017	4.88
GK1-030	3	1	25	017	7.51
GK1-040	4	1	25	017	8.40
GK1-050	5	1	25	017	9.96
GK1-060	6	1	25	017	10.23
GK1-080	8	1	25	017	13.49
GK1-100	10	1	25	017	17.12
GK1-120	12	1	25	017	23.09

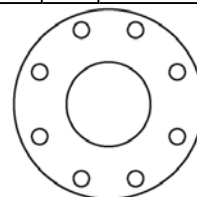
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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EPDM Full-Faced Flange Gaskets



GK2-005	1/2	1	25	017	4.06
GK2-007	3/4	1	25	017	4.32
GK2-010	1	1	25	017	4.51
GK2-012	1-1/4	1	25	017	4.74
GK2-015	1-1/2	1	25	017	5.09
GK2-020	2	1	25	017	6.21
GK2-025	2-1/2	1	25	017	7.46
GK2-030	3	1	25	017	10.96
GK2-040	4	1	25	017	12.48
GK2-050	5	1	25	017	15.61
GK2-060	6	1	25	017	16.38
GK2-080	8	1	25	017	21.82
GK2-100	10	1	25	017	28.43
GK2-120	12	1	25	017	39.12

Viton® (FKM) Full-Faced Flange Gaskets



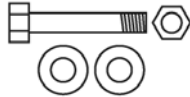
GK3-005	1/2	1	25	017	14.49
GK3-007	3/4	1	25	017	17.20
GK3-010	1	1	25	017	19.01
GK3-012	1-1/4	1	5	017	21.46
GK3-015	1-1/2	1	25	017	27.07
GK3-020	2	1	25	017	37.84
GK3-025	2-1/2	1	25	017	50.61
GK3-030	3	1	25	017	113.09
GK3-040	4	1	25	017	130.55
GK3-050	5	1	25	017	152.19
GK3-060	6	1	25	017	172.66
GK3-080	8	1	25	017	245.99
GK3-100	10	1	25	017	327.20
GK3-120	12	1	25	017	461.02



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Bolt Kit Selection Guide



Order Gaskets & Bolt Kits Separately

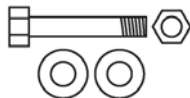
- Kit Contains All Bolts, Nuts, & Flat Washers for Specified Flange Size
- For Connecting Two (2) Mating Spears® Flanges
- Pre-coated, Anti-seize Lubricated Bolts
- Available in Zinc Coated Steel, Type 304 Stainless Steel or Type 316 Stainless Steel

Flange Size	Bolts* Per Kit	Diameter (in.-TPI)	Length (in)	Kit Part Number		
				Zinc	316 SS	304 SS
1/2	4	1/2-13	2	HK-005	HK1-005	HK2-005
3/4 & 1	4	1/2-13	2-1/4	HK-010	HK1-010	HK2-010
1-1/4 & 1-1/2	4	1/2-13	2-1/2	HK-015	HK1-015	HK2-015
2	4	5/8-11	3	HK-020	HK1-020	HK2-020
2-1/2	4	5/8-11	3-1/4	HK-025	HK1-025	HK2-025
3	4	5/8-11	3-1/2	HK-030	HK1-030	HK2-030
4	8	5/8-11	3-1/2	HK-040	HK1-040	HK2-040
5 & 6	8	3/4-10	4	HK-060	HK1-060	HK2-060
8	8	3/4-10	4-1/2	HK-080	HK1-080	HK2-080
10 & 12	12	7/8-9	5	HK-120	HK1-120	HK2-120

*Each Bolt Includes Nut & Two (2) Flat Washers

Zinc Plated Steel Flange Bolt Hardware Kits

For Connection of 2-Spears® Flanges
Includes Bolts, Nuts & Flat Washers

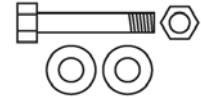


HK-005	1/2	1	10	017	9.53
HK-010	3/4&1	1	10	017	11.91
HK-015	1-1/4&1-1/2	1	10	017	17.91
HK-020	2	1	10	017	23.97
HK-025	2-1/2	1	10	017	28.74
HK-030	3	1	10	017	33.07
HK-040	4	1	5	017	68.51
HK-060	5&6	1	5	017	76.20
HK-080	8	1	1	017	89.30
HK-120	10&12	1	0	017	120.82

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Type 316 Stainless Steel Flange Bolt Hardware Kits

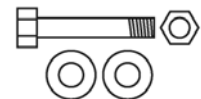
For Connection of 2-Spears®
Flanges Includes Bolts, Nuts & Flat Washers



HK1-005	1/2	1	10	017	28.60
HK1-010	3/4&1	1	10	017	41.20
HK1-015	1-1/4&1-1/2	1	10	017	45.39
HK1-020	2	1	10	017	54.59
HK1-025	2-1/2	1	10	017	58.51
HK1-030	3	1	10	017	77.20
HK1-040	4	1	5	017	154.81
HK1-060	5&6	1	5	017	201.91
HK1-080	8	1	1	017	253.36
HK1-120	10&12	1	0	017	515.45

Type 304 Stainless Steel Flange Bolt Hardware Kits

For Connection of 2-Spears®
Flanges Includes Bolts, Nuts, & Flat Washers



HK2-005	1/2	1	10	017	25.02
HK2-010	3/4&1	1	10	017	35.69
HK2-015	1-1/4&1-1/2	1	10	017	42.05
HK2-020	2	1	10	017	49.46
HK2-025	2-1/2	1	10	017	52.44
HK2-030	3	1	10	017	65.12
HK2-040	4	1	5	017	130.24
HK2-060	5&6	1	5	017	137.28
HK2-080	8	1	1	017	180.52
HK2-120	10&12	1	0	017	319.94

Flange Insulating Joints - Class 150 Bolt Pattern PP Flange Spacer with PVC Bolt Isolators



Size = Nominal Flange Diameter x Thickness (in.)

For Dielectric Insulation Between Dissimilar Metal Flanges
300 psi Maximum Internal Pressure Rating @ 73°F (23°C)

IJ-030-010P	3X1	1	0	016	437.66
IJ-040-010P	4X1	1	0	016	489.00
IJ-060-010P	6X1	1	0	016	581.23
IJ-080-010P	8X1	1	0	016	674.56
IJ-100-010P	10X1	1	0	016	1371.04
IJ-120-010P	12X1	1	0	016	1484.97
IJ-140-010P	14X1	1	0	016	1924.19
IJ-160-010P	16X1	1	0	016	2445.09
IJ-180-010P	18X1	1	0	016	3272.97

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Flange Insulating Joints - Class 150 Bolt

Pattern (continued)

PP Flange Spacer with PVC Bolt Isolators

IJ-200-010P	20X1	1	0	016	4225.35
IJ-240-010P	24X1	1	0	016	5868.24

Flange Insulating Joints - Class 300 Bolt Pattern

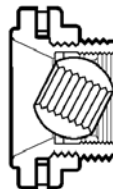
PP Flange Spacer with PVC Bolt Isolators



Size = Nominal Flange Diameter x Thickness (in.)
For Dielectric Insulation Between Dissimilar Metal Flanges
300 psi Maximum Internal Pressure Rating @ 73°F (23°C)

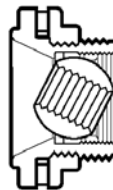
IJ300-030-010P	3X1	1	0	016	644.74
IJ300-040-010P	4X1	1	0	016	717.09
IJ300-060-010P	6X1	1	0	016	1098.37
IJ300-080-010P	8X1	1	0	016	1370.26
IJ300-100-010P	10X1	1	0	016	2273.20
IJ300-120-010P	12X1	1	0	016	2987.23
IJ300-140-010P	14X1	1	0	016	3763.17
IJ300-160-010P	16X1	1	0	016	4012.77
IJ300-180-010P	18X1	1	0	016	5015.00
IJ300-200-010P	20X1	1	0	016	5810.30
IJ300-240-010P	24X1	1	0	016	7134.02

CPVC Self Aligning Tank Adapter with Neoprene Gasket Fipt



8172SA-010C	1	5	0	101	200.74
8172SA-020C	2	4	0	101	302.97
8172SA-030C	3	2	0	101	472.10

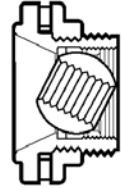
CPVC Self Aligning Tank Adapter with EPDM Gasket Fipt



8172ESA-010C	1	5	0	101	211.04
8172ESA-020C	2	4	0	101	319.61
8172ESA-030C	3	2	0	101	497.11

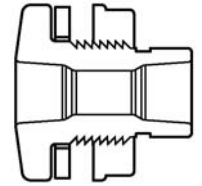
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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CPVC Self Aligning Tank Adapter with Viton® Gasket Fipt



8172VSA-010C	1	5	0	101	417.12
8172VSA-020C	2	4	0	101	631.38
8172VSA-030C	3	2	0	101	980.99

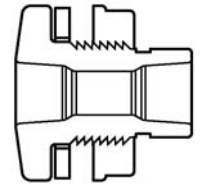
CPVC New Style Standard Tank Adapters with Neoprene Gaskets Soc



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8170-002C	1/4	25	150	101	45.91
8170-003C	3/8	25	150	101	45.91
8170-005C	1/2	25	0	101	45.91
8170-007C	3/4	25	0	101	54.62
8170-010C	1	25	0	101	61.30
8170-012C	1-1/4	20	0	101	78.19
8170-015C	1-1/2	20	0	101	85.14
8170-020C	2	15	0	101	120.19
8170-025C	2-1/2	4	0	101	176.65
8170-030C	3	4	0	101	210.27
8170-040C	4	2	0	101	350.43
8170-060C	6	1	0	101	963.69
8170-080C	8	1	0	101	2141.38

CPVC New Style Standard Tank Adapters with EPDM Gaskets Soc



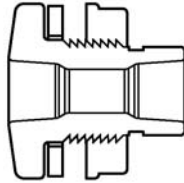
8170E-002C	1/4	25	150	101	52.22
8170E-003C	3/8	25	150	101	52.22
8170E-005C	1/2	25	0	101	52.22
8170E-007C	3/4	25	0	101	58.61
8170E-010C	1	25	0	101	68.06
8170E-012C	1-1/4	20	0	101	86.13
8170E-015C	1-1/2	20	0	101	90.36
8170E-020C	2	15	0	101	130.28
8170E-025C	2-1/2	4	0	101	185.06
8170E-030C	3	4	0	101	220.32
8170E-040C	4	2	0	101	365.73
8170E-060C	6	1	0	101	1003.85
8170E-080C	8	1	0	101	2203.98



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

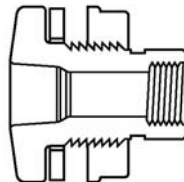
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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CPVC New Style Standard Tank Adapters with Viton® Gaskets Soc



8170V-002C	1/4	25	150	101	68.48
8170V-003C	3/8	25	150	101	68.48
8170V-005C	1/2	25	0	101	68.48
8170V-007C	3/4	25	0	101	78.77
8170V-010C	1	25	0	101	91.18
8170V-012C	1-1/4	20	0	101	112.03
8170V-015C	1-1/2	20	0	101	116.79
8170V-020C	2	15	0	101	176.81
8170V-025C	2-1/2	4	0	101	254.50
8170V-030C	3	4	0	101	302.97
8170V-040C	4	2	0	101	671.07
8170V-060C	6	1	0	101	1686.51
8170V-080C	8	1	0	101	3945.18

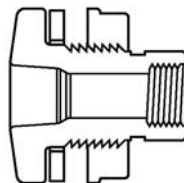
CPVC New Style Standard Tank Adapters with Neoprene Gaskets Soc x Fipt



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8171-002C	1/4	25	150	101	45.91
8171-003C	3/8	25	200	101	45.91
8171-005C	1/2	25	0	101	45.91
8171-007C	3/4	25	0	101	54.62
8171-010C	1	25	0	101	61.30
8171-012C	1-1/4	20	0	101	78.19
8171-015C	1-1/2	20	0	101	85.14
8171-020C	2	15	0	101	120.19
8171-025C	2-1/2	4	0	101	176.65
8171-030C	3	4	0	101	210.27
8171-040C	4	2	0	101	350.43
8171-060C	6	1	0	101	963.69

CPVC New Style Standard Tank Adapters with EPDM Gaskets Soc x Fipt



8171E-002C	1/4	25	150	101	52.22
8171E-003C	3/8	25	200	101	52.22
8171E-005C	1/2	25	0	101	52.22
8171E-007C	3/4	25	0	101	58.61
8171E-010C	1	25	0	101	68.06
8171E-012C	1-1/4	20	0	101	86.13
8171E-015C	1-1/2	20	0	101	90.36
8171E-020C	2	15	0	101	130.28

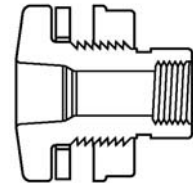
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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CPVC New Style Standard Tank Adapters with EPDM Gaskets (continued)

Soc x Fipt

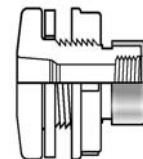
8171E-025C	2-1/2	4	0	101	185.06
8171E-030C	3	4	0	101	220.32
8171E-040C	4	2	0	101	365.73
8171E-060C	6	1	0	101	1003.84

CPVC New Style Standard Tank Adapters with Viton® Gaskets Soc x Fipt



8171V-002C	1/4	25	150	101	68.48
8171V-003C	3/8	25	200	101	68.48
8171V-005C	1/2	25	0	101	68.48
8171V-007C	3/4	25	0	101	78.77
8171V-010C	1	25	0	101	91.18
8171V-012C	1-1/4	20	0	101	112.03
8171V-015C	1-1/2	20	0	101	116.79
8171V-020C	2	15	0	101	176.81
8171V-025C	2-1/2	4	0	101	254.53
8171V-030C	3	4	0	101	302.97
8171V-040C	4	2	0	101	671.07
8171V-060C	6	1	0	101	1686.51

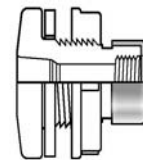
CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with Neoprene Gaskets



Soc x SR Fipt - Stainless Steel Collar

8171-002CSR	1/4	25	150	101	47.31
8171-003CSR	3/8	25	200	101	47.31
8171-005CSR	1/2	25	0	101	47.31
8171-007CSR	3/4	25	0	101	56.62
8171-010CSR	1	25	0	101	64.05
8171-012CSR	1-1/4	20	0	101	82.62
8171-015CSR	1-1/2	20	0	101	92.76
8171-020CSR	2	15	0	101	128.27
8171-025CSR	2-1/2	4	0	101	195.12
8171-030CSR	3	4	0	101	232.24
8171-040CSR	4	2	0	101	373.24
8171-060CSR	6	1	0	101	985.77

CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with EPDM Gaskets Soc x SR Fipt - Stainless Steel Collar



8171E-002CSR	1/4	25	150	101	53.62
8171E-003CSR	3/8	25	200	101	53.62

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



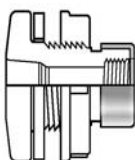
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with EPDM Gaskets (continued)

Soc x SR Fipt - Stainless Steel Collar

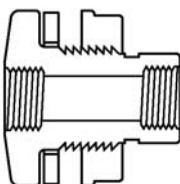
8171E-005CSR	1/2	25	0	101	53.62
8171E-007CSR	3/4	25	0	101	60.60
8171E-010CSR	1	25	0	101	72.46
8171E-012CSR	1-1/4	20	0	101	90.55
8171E-015CSR	1-1/2	20	0	101	97.97
8171E-020CSR	2	15	0	101	138.50
8171E-025CSR	2-1/2	4	0	101	203.53
8171E-030CSR	3	4	0	101	242.30
8171E-040CSR	4	2	0	101	388.48
8171E-060CSR	6	2	0	101	1025.93

CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with Viton® Gaskets Soc x SR Fipt - Stainless Steel Collar



8171V-002CSR	1/4	25	150	101	69.86
8171V-003CSR	3/8	25	200	101	69.86
8171V-005CSR	1/2	25	0	101	69.86
8171V-007CSR	3/4	25	0	101	80.76
8171V-010CSR	1	25	0	101	93.95
8171V-012CSR	1-1/4	20	0	101	116.46
8171V-015CSR	1-1/2	20	0	101	124.36
8171V-020CSR	2	15	0	101	185.18
8171V-025CSR	2-1/2	4	0	101	272.90
8171V-030CSR	3	4	0	101	324.95
8171V-040CSR	4	2	0	101	693.84
8171V-060CSR	6	2	0	101	1713.06

CPVC New Style Standard Tank Adapters with Neoprene Gaskets Fipt

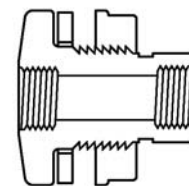


150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

8172-002C	1/4	25	150	101	61.30
8172-003C	3/8	25	200	101	61.30
8172-005C	1/2	25	0	101	61.30
8172-007C	3/4	25	0	101	70.78
8172-010C	1	25	0	101	77.43
8172-012C	1-1/4	20	0	101	109.32
8172-015C	1-1/2	20	0	101	119.49
8172-020C	2	15	0	101	148.93
8172-025C	2-1/2	4	0	101	209.59
8172-030C	3	4	0	101	249.50
8172-040C	4	2	0	101	394.21
8172-060C	6	1	0	101	1095.10

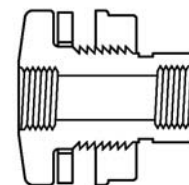
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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CPVC New Style Standard Tank Adapters with EPDM Gaskets Fipt



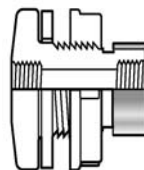
8172E-002C	1/4	25	150	101	63.72
8172E-003C	3/8	25	200	101	63.72
8172E-005C	1/2	25	0	101	63.72
8172E-007C	3/4	25	0	101	75.13
8172E-010C	1	25	0	101	80.95
8172E-012C	1-1/4	20	0	101	113.72
8172E-015C	1-1/2	20	0	101	129.78
8172E-020C	2	15	0	101	160.40
8172E-025C	2-1/2	4	0	101	235.81
8172E-030C	3	4	0	101	280.76
8172E-040C	4	2	0	101	467.43
8172E-060C	6	1	0	101	1111.63

CPVC New Style Standard Tank Adapters with Viton® Gaskets Fipt



8172V-002C	1/4	25	150	101	98.60
8172V-003C	3/8	25	200	101	98.60
8172V-005C	1/2	25	0	101	98.60
8172V-007C	3/4	25	0	101	111.14
8172V-010C	1	25	0	101	127.89
8172V-012C	1-1/4	20	0	101	156.88
8172V-015C	1-1/2	20	0	101	162.33
8172V-020C	2	15	0	101	252.87
8172V-025C	2-1/2	4	0	101	358.84
8172V-030C	3	4	0	101	427.16
8172V-040C	4	2	0	101	1123.33
8172V-060C	6	1	0	101	2058.91

CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with Neoprene Gaskets



Fipt x SR Fipt - Stainless Steel Collar

8172-002CSR	1/4	25	150	101	62.67
8172-003CSR	3/8	25	200	101	62.67
8172-005CSR	1/2	25	0	101	62.67
8172-007CSR	3/4	25	0	101	72.78
8172-010CSR	1	25	0	101	80.19
8172-012CSR	1-1/4	20	0	101	113.76
8172-015CSR	1-1/2	20	0	101	127.09
8172-020CSR	2	15	0	101	157.13
8172-025CSR	2-1/2	4	0	101	228.05
8172-030CSR	3	4	0	101	271.49



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

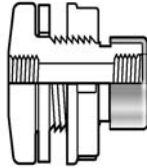
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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CPVC New Style Special Reinforced (SR)
Threaded Tank Adapters with Neoprene
Gaskets (continued)

Fipt x SR FiPt - Stainless Steel Collar

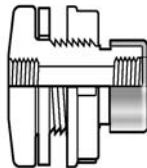
8172-040CSR	4	2	0	101	416.98
8172-060CSR	6	2	0	101	1117.17

CPVC New Style Special
Reinforced (SR) Threaded Tank
Adapters with EPDM Gaskets
FiPt x SR FiPt - Stainless Steel Collar



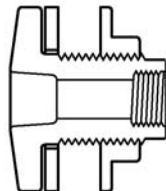
8172E-002CSR	1/4	25	150	101	65.12
8172E-003CSR	3/8	25	200	101	65.12
8172E-005CSR	1/2	25	0	101	65.12
8172E-007CSR	3/4	25	0	101	77.11
8172E-010CSR	1	25	0	101	83.71
8172E-012CSR	1-1/4	20	0	101	118.16
8172E-015CSR	1-1/2	20	0	101	137.37
8172E-020CSR	2	15	0	101	168.61
8172E-025CSR	2-1/2	4	0	101	254.35
8172E-030CSR	3	4	0	101	302.79
8172E-040CSR	4	2	0	101	490.19
8172E-060CSR	6	2	0	101	1133.70

CPVC New Style Special
Reinforced (SR) Threaded Tank
Adapters with Viton® Gaskets
FiPt x SR FiPt - Stainless Steel Collar



8172V-002CSR	1/4	25	150	101	100.00
8172V-003CSR	3/8	25	200	101	100.00
8172V-005CSR	1/2	25	0	101	100.00
8172V-007CSR	3/4	25	0	101	113.13
8172V-010CSR	1	25	0	101	130.65
8172V-012CSR	1-1/4	20	0	101	161.31
8172V-015CSR	1-1/2	20	0	101	169.89
8172V-020CSR	2	15	0	101	261.10
8172V-025CSR	2-1/2	4	0	101	377.28
8172V-030CSR	3	4	0	101	449.15
8172V-040CSR	4	2	0	101	1146.09
8172V-060CSR	6	2	0	101	2081.00

Tank Adapter with Neoprene
Gasket (Old Style)
Soc x FiPt



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

871-005C	1/2	25	0	101	45.91
871-007C	3/4	25	0	101	54.62
871-010C	1	25	0	101	61.30

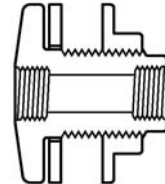
Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Tank Adapter with Neoprene Gasket (Old Style)
(continued)

Soc x FiPt

871-012C	1-1/4	20	0	101	78.19
871-015C	1-1/2	20	0	101	85.14
871-020C	2	15	0	101	120.19
871-030C	3	4	0	101	210.27
871-040C	4	2	0	101	350.43

Tank Adapter with Neoprene
Gasket (Old Style)
FiPt



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

872-005C	1/2	25	0	101	61.30
872-007C	3/4	25	0	101	70.78
872-010C	1	25	0	101	77.43
872-012C	1-1/4	20	0	101	109.32
872-015C	1-1/2	20	0	101	119.49
872-020C	2	15	0	101	148.93
872-030C	3	4	0	101	249.50
872-040C	4	2	0	101	394.21

Neoprene Tank Adapter Gasket
Only (New Style)



3N-002	1/4	100	0	901	2.57
3N-003	3/8	50	0	901	2.57
3N-005	1/2	10	0	901	2.57
3N-007	3/4	10	0	901	2.76
3N-010	1	10	0	901	2.94
3N-012	1-1/4	10	0	901	4.06
3N-015	1-1/2	10	0	901	4.76
3N-020	2	10	0	901	6.23
3N-025	2-1/2	10	0	901	6.50
3N-030	3	10	0	901	6.78
3N-040	4	10	0	901	18.76
2N-060	6	10	0	901	23.44
3N-080	8	10	0	901	107.48

EPDM Tank Adapter Gasket
Only (New Style)



3E-002	1/4	10	0	901	2.99
3E-003	3/8	10	0	901	2.99
3E-005	1/2	10	0	901	2.99

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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EPDM Tank Adapter Gasket Only (New Style) (continued)

3E-007	3/4	10	0	901	3.09
3E-010	1	10	0	901	5.36
3E-012	1-1/4	10	0	901	7.85
3E-015	1-1/2	10	0	901	8.06
3E-020	2	10	0	901	9.22
3E-025	2-1/2	10	0	901	13.07
3E-030	3	10	0	901	14.05
3E-040	4	10	0	901	21.17
2E-060	6	10	0	901	38.21
3E-080	8	10	0	901	138.69

Viton® Tank Adapter Gasket Only (New Style)



3V-002	1/4	10	0	901	10.95
3V-003	3/8	10	0	901	12.91
3V-005	1/2	10	0	901	19.27
3V-007	3/4	10	0	901	23.86
3V-010	1	10	0	901	32.62
3V-012	1-1/4	10	0	901	51.88
3V-015	1-1/2	10	0	901	56.04
3V-020	2	10	0	901	89.76
3V-025	2-1/2	10	0	901	99.16
3V-030	3	10	0	901	103.32
3V-040	4	10	0	901	233.79
2V-060	6	10	0	901	585.23
3V-080	8	10	0	901	981.52

Neoprene Tank Adapter Gasket Only (Old Style)



2N-005	1/2	10	0	901	2.57
2N-007	3/4	10	0	901	2.76
2N-010	1	10	0	901	2.94
2N-015	1-1/4 OR 1-1/2	10	0	901	4.76
2N-020	2	10	0	901	6.23
2N-030	3	10	0	901	6.78
2N-040	4	10	0	901	18.76

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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EPDM Tank Adapter Gasket Only (Old Style)



2E-005	1/2	10	0	901	2.99
2E-007	3/4	10	0	901	3.09
2E-010	1	10	0	901	5.36
2E-015	1-1/4 OR 1-1/2	10	0	901	8.06
2E-020	2	10	0	901	9.22
2E-030	3	10	0	901	14.05
2E-040	4	10	0	901	21.17

Wrench Sets (New Style) Body Wrench & Nut Wrench



TAW-002	1/4	1	25	299	20.80
TAW-003	3/8	1	25	299	20.80
TAW-005	1/2	1	25	299	20.80
TAW-007	3/4	1	25	299	21.20
TAW-010	1	1	25	299	22.05
TAW-012	1-1/4	1	20	299	24.87
TAW-015	1-1/2	1	20	299	26.98
TAW-020	2	1	10	299	30.73
TAW-025	2-1/2	1	10	299	34.00
TAW-030	3	1	10	299	37.47
TAW-040	4	1	10	299	40.15

Individual Body Wrench (New Style)



TAW1-002	1/4	500	0	299	11.67
TAW1-003	3/8	400	0	299	11.67
TAW1-005	1/2	250	0	299	11.67
TAW1-007	3/4	220	0	299	11.89
TAW1-010	1	200	0	299	12.38
TAW1-012	1-1/4	300	0	299	14.02
TAW1-015	1-1/2	150	0	299	15.10
TAW1-020	2	100	0	299	16.39
TAW1-025	2-1/2	80	0	299	17.13
TAW1-030	3	74	0	299	21.48
TAW1-040	4	35	0	299	22.10



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Individual Nut Wrench (New Style)



TAW2-002	1/4	300	0	299	11.67
TAW2-003	3/8	250	0	299	11.67
TAW2-005	1/2	200	0	299	11.67
TAW2-007	3/4	160	0	299	11.89
TAW2-010	1	110	0	299	12.38
TAW2-012	1-1/4	200	0	299	14.02
TAW2-015	1-1/2	120	0	299	15.10
TAW2-020	2	100	0	299	16.39
TAW2-025	2-1/2	50	0	299	17.13
TAW2-030	3	40	0	299	21.48
TAW2-040	4	35	0	299	22.10

Fabricated Expansion Joints 6" Travel with Viton® O-rings



1/2" - 2" 235 psi @ 73°F (23°C)
2-1/2" - 12" 150 psi @ 73°F (23°C)

826-005X6C	1/2	10	0	085	367.70
826-007X6C	3/4	6	0	085	402.36
826-010X6C	1	5	0	085	434.91
826-012X6C	1-1/4	4	0	085	663.45
826-015X6C	1-1/2	4	0	085	497.86
826-020X6C	2	2	0	085	630.85
826-025X6C	2-1/2	1	0	085	1067.32
826-030X6C	3	1	0	085	869.66
826-040X6C	4	1	0	085	1282.63
826-060X6C	6	1	0	085	1378.79
826-080X6C	8	1	0	085	2615.53
826-100X6C	10	1	0	085	3339.03
826-120X6C	12	1	0	085	4429.50

EPDM O-rings available on special order. Add an "E" preceding the dash (-) separator, e.g. 826E-005X6C

Part Number	Size	Std Pk	Mstr Ctn	Disc Code	Price Each
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Fabricated Expansion Joints 12" Travel with Viton® O-rings



1/2" - 2" 235 psi @ 73°F (23°C)
2-1/2" - 12" 150 psi @ 73°F (23°C)

826-005X12C	1/2	10	0	085	374.49
826-007X12C	3/4	6	0	085	429.46
826-010X12C	1	5	0	085	458.13
826-012X12C	1-1/4	4	0	085	726.24
826-015X12C	1-1/2	4	0	085	575.05
826-020X12C	2	2	0	085	734.02
826-025X12C	2-1/2	1	0	085	1111.23
826-030X12C	3	1	0	085	893.04
826-040X12C	4	1	0	085	1479.32
826-060X12C	6	1	0	085	1629.67
826-080X12C	8	1	0	085	3120.15
826-100X12C	10	1	0	085	3655.37

EPDM O-rings available on special order. Add an "E" preceding the dash (-) separator, e.g. 826E-005X12C

Elastomer Expansion Joint CPVC with EPDM Bellows Soc



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

EJ22-007C	3/4	10	0	085	195.59
EJ22-010C	1	10	0	085	223.17
EJ22-012C	1-1/4	15	0	085	243.85
EJ22-015C	1-1/2	10	0	085	298.73
EJ22-020C	2	8	0	085	372.84
EJ22-025C	2-1/2	4	0	085	544.83
EJ22-030C	3	2	0	085	740.05

Elastomer Expansion Joint CPVC with EPDM Bellows SR Fipt - Stainless Steel Collar



150 psi Maximum Internal Pressure Rating @ 73°F (23°C)

EJ21-007CSR	3/4	10	0	085	197.81
EJ21-010CSR	1	10	0	085	227.48
EJ21-012CSR	1-1/4	15	0	085	251.37
EJ21-015CSR	1-1/2	10	0	085	320.41
EJ21-020CSR	2	8	0	085	423.52
EJ21-025CSR	2-1/2	4	0	085	588.17
EJ21-030CSR	3	2	0	085	783.37

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



LIMITED LIFETIME WARRANTY

Except as otherwise mandated by law or herein provided, Spears® Manufacturing Company ("Company") warrants Standard Catalog Products ("Products") which have been directly manufactured by them to be free from defects in material and workmanship for as long as the original intended end user of the Products ("End User") retains ownership and possession of the Products and complies with this Warranty ("Warranty Period"). Each other person or entity acquiring or employing the Products, including buyers, contractors and installers ("Buyer") and End Users ("Buyer/End User") agrees that this Warranty shall be effective only during the Warranty Period so long as the Products are used solely for the normal purposes for which they are intended and in conformance with industry established standards, engineering, installation, operating, and maintenance specifications, recommendations and instructions including explicit instructions by the Company; the Products are properly installed, operated and used, and have not been modified; and all the other terms of this Warranty are complied with. Any violation thereof shall void this Warranty and relieve Company from all obligations arising from this Warranty and the Products.

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CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

SPEARS® QUALITY POLICY

It is the policy and objective of Spears® Manufacturing Company to produce a superior quality product suitable for its intended use, with regard to functionality, structural integrity, and conformance to established industry standards and practices. It is the commitment of this Company to do so in a manner which provides consistency of product quality, optimum availability, and superior customer service, while maintaining efficiency of operations and profitability necessary to perpetuate product improvement and customer satisfaction. Furthermore, it is recognized that the attainment of these objectives is the responsibility of all Company operations and personnel according to their respective functions.

STANDARDS & SPECIFICATIONS

Standards provide greater assurance of product performance and consistency, and are available to assist design engineers in system specification. The most frequently referenced industry standards for plastic piping systems are ASTM Standard Specifications and Practices. Along with ASTM Standards, additional product specifications and certifications form the basis of product conformance to which Spears® products are manufactured.

ASTM F 439
ASTM D 1784



Material
Fabricated Fittings

Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80.
Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
National Sanitation Foundation (NSF) Standard 61 and/or 14 Plastic Fittings for Potable Water.
Spears® Schedule 80 CPVC Fittings are produced from CPVC, Cell Classification 23447.
Spears® Fabricated Fittings conform to Spears® Manufacturing Company Special Engineering Specifications.

Prices subject to change without notice. Possession of this price schedule shall not be construed as an offer to sell the products listed. Product drawings and/or photographs are representative and may not fully reflect product configurations.

RECOMMENDATIONS FOR INSTALLERS & USERS

Plastic piping systems should be ENGINEERED, INSTALLED, and OPERATED in accordance with ESTABLISHED DESIGN AND ENGINEERING STANDARDS AND PROCEDURES for plastic piping systems. Suitability for the intended service application should be determined by the installer and/or user prior to installation of a plastic piping system. PRIOR TO ASSEMBLY, all piping system components should be inspected for damage or irregularities. Mating components should be checked to assure that tolerances and engagements are compatible. Do not use any components that appear irregular or do not fit properly. Contact the appropriate manufacturer of the component product in question to determine usability. Consult all applicable codes and regulations for compliance prior to installation.

SOLVENT WELD CONNECTIONS - Use a quality grade of primer and solvent cement formulated for the type of connection, with the CORRECT SIZE APPLICATOR. Read and follow all of the solvent cement MANUFACTURER'S APPLICATION AND CURE TIME INSTRUCTIONS THOROUGHLY.

BEFORE APPLYING PRIMER AND CEMENT, appropriate safety precautions should be taken. Primer and Cement should be stored in the shade between 40°F and 110°F. Eliminate all ignition sources. Avoid breathing of vapors. Use only with adequate ventilation; explosion-proof general mechanical ventilation or local exhaust is recommended to maintain vapor concentrations below recommended exposure limits. In confined or partially enclosed areas, a NIOSH-approved organic vapor cartridge respirator with full face-piece is recommended. Containers should be kept tightly closed when not in use, and covered as much as possible when in use. Avoid frequent contact with skin; wearing PVA coated protective gloves and impervious apron are recommended. Avoid any contact with eyes; splash-proof chemical goggles are recommended.

THREADED CONNECTIONS - Use a quality grade thread sealant. WARNING: SOME PIPE JOINT COMPOUNDS OR TEFLON® PASTES MAY CONTAIN SUBSTANCES THAT COULD CAUSE STRESS CRACKING TO PLASTIC. Spears® Manufacturing Company recommends the use of Spears® BLUE 75™ Thread Sealant which has been tested for compatibility with Spears® products. Please follow the sealant manufacturers' application/ installation instructions. Choice of an appropriate thread sealant other than those listed above is at the discretion of the installer. 1 to 2 turns beyond FINGER TIGHT is generally all that is required to make a sound plastic threaded connection. Unnecessary OVER TIGHTENING will cause DAMAGE TO BOTH PIPE AND FITTING.

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



IMPORTANT

WATER HAMMER - Spears® Manufacturing Company, Inc., recommends that all PVC and CPVC plastic piping systems be designed and constructed to AVOID EXCESSIVE WATER HAMMER. Water hammer can cause damage, and failure to pipe, valves, and fittings within the piping system.

PLEASE NOTE - When temperatures rise above 73°F, the tensile strength of thermoplastics decreases, thereby derating the pipe or fitting Maximum Internal Pressure. When temperatures fall below 73°F, the tensile strength of thermoplastics increases, however, the impact strength decreases. Maximum operating temperatures for PVC piping systems should not exceed 140°F. Maximum operating temperatures for CPVC piping systems should not exceed 200°F.

CAUTION - Spears® Manufacturing Company DOES NOT RECOMMEND the use of thermoplastic piping products for systems to transport or store compressed air or gases, or the testing of thermoplastic piping systems with compressed air or gases in above and below ground locations. The use of Spears® products in compressed air or gas systems automatically voids Spears® warranty for such products, and their use against our recommendation is entirely the responsibility and liability of the installer. Spears® Manufacturing Company will not accept responsibility for damage or impairment of its products, or other consequential or incidental damages caused by misapplication, incorrect assembly, and/or exposure to harmful substances or conditions.

NOT FOR USE WITH COMPRESSED AIR OR GASES

WARNING: DO NOT USE COMPRESSED AIR OR GAS TO TEST ANY PVC OR CPVC THERMOPLASTIC PIPING PRODUCT OR SYSTEM, AND DO NOT USE DEVICES PROPELLED BY COMPRESSED AIR OR GAS TO CLEAR SYSTEMS. THESE PRACTICES MAY RESULT IN EXPLOSIVE FRAGMENTATION OF SYSTEM PIPING AND COMPONENTS CAUSING SERIOUS OR FATAL BODILY INJURY.

Fabricated fittings are shown in shaded areas in this publication for easy identification.

Not all of the Fabricated or Molded Fittings listed in this price schedule are carried in Spears® Distribution Center inventories. When ordering Fittings, please check with your servicing Distribution Center for availability. ALL ORDERS FOR NON-STOCKED Fittings are NON-CANCELABLE and NON-RETURNABLE. Additional fabricated fittings are available upon request. All fabricated fittings are sold in bulk quantities.

CONFIGURATION DESCRIPTIONS

Definitions of abbreviated configuration descriptions follow.

Fipt	Female Iron Pipe Thread
IPS	Iron Pipe Size
Mipt	Male Iron Pipe Thread
PIP	Plastic Irrigation Pipe
Soc	Solvent Weld Socket (IPS)
Spig	Spigot End (IPS)
SR Fipt	Special Reinforced Plastic Female Iron Pipe Thread
ESR Fipt	Encapsulated Special Reinforced Female Iron Pipe Thread
R Mipt	Reinforced Male Iron Pipe Thread



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

PART NUMBER NOTATIONS

Listed part numbers may be accompanied by superscript, asterisks, or special symbols indicating additional information about the fitting. A list of such notation definitions follow.

- + Spears® Manufacturing Company Specifications
- * An asterisk (*) appearing after a fabricated fitting part number indicates the item is fiberglass reinforced.
- 1 Sized with Bushing

ADDITIONAL PART NUMBER INFORMATION

Letters contained in part numbers denote special information as indicated below.

- C CPVC
- S Solid Style Van Stone Flange Ring or Stainless Steel Hardware
- V Viton® O-ring
- SV Stainless Steel Hardware with Viton® O-ring
- F "F" at the end of the part number indicates the item is a Fabricated Fitting. Fabricated fittings appear in shaded areas for easy identification.
- FP Fabricated Van Stone Style Flange with Plastic Ring
- FS Fabricated Van Stone Style Flange with Steel Ring
- SR Special Reinforced
- ESR Encapsulated Special Reinforced

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



CONTENT

CATALOG INFORMATION

HOW TO USE THIS CATALOG	1
ORGANIZATION	1
COLUMN HEADER INFORMATION	1
PRODUCT CONFIGURATION	1

PRODUCTS

Tee Soc	2
Tee Soc x Fipt	2
Special Reinforced Tee Soc x SR Fipt - Stainless Steel Collar	2
Transition Tee Soc x Fipt With Brass Thread Insert	2
Tee Fipt	2
Special Reinforced Tee SR Fipt - Stainless Steel Collar	2
Street Tee Spig x Soc x Soc	3
Reducing Tee Soc	3
Reducing Tee Soc x Fipt	4
Reducing Tee Soc x Fipt x Soc	5
Special Reinforced Reducing Tee Soc x SR Fipt - Stainless Steel Collar	5
Special Reinforced Reducing Tee Soc x SR Fipt - Stainless Steel Collar x Soc	5
Transition Reducing Tee Soc x Fipt With Brass Thread Insert	5
90° Ell Soc	5
Sweep 90° Ell Soc	5
Long Sweep 90° Ell Soc	6
90° Ell Soc x Fipt	6
Special Reinforced 90° Ell Soc x SR Fipt - Stainless Steel Collar	6
Transition 90° Ell Soc x Fipt With Brass Thread Insert	6
90° Ell Fipt	6
90° Street Ell Mipt x Fipt	6
Special Reinforced 90° Ell SR Fipt - Stainless Steel Collar	6
90° Street Ell Spig x Soc	7
Reducing 90° Ell Soc x Fipt	7
Special Reinforced Reducing 90° Ell Soc x SR Fipt - Stainless Steel Collar	7
Transition Reducing 90° Ell Soc x Fipt With Brass Thread Insert	7
60° Ell Soc	7
45° Ell Soc	7
45° Ell Fipt	8
Special Reinforced 45° Ell SR Fipt - Stainless Steel Collar	8
45° Street Ell Spig x Soc	8
30° Ell Soc	8
22-1/2° Ell Soc	8



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

CONTENT

22-1/2° Street Ell Spig x Soc	9
15° Ell Soc	9
11-1/4° Ell Soc	9
Wye Soc	9
Reducing Wye Soc	10
Double Wye Soc	10
Reducing Double Wye Soc	11
Cross Soc	11
Reducing Cross Soc	11
Coupling Soc	12
Grooved Coupling Adapter Groove x Soc	12
Coupling Fipt	12
Special Reinforced Coupling SR Fipt - Stainless Steel Collar	13
Reducer Coupling Soc	13
Eccentric Reducer Coupling Soc	14
Reducer Coupling Fipt	14
Special Reinforced Reducer Coupling SR Fipt - Stainless Steel Collar	14
Female Adapter Soc x Fipt	14
Special Reinforced Female Adapter Soc x SR Fipt - Stainless Steel Collar	15
Encapsulated Special Reinforced Female Adapter Soc x ESR Fipt	15
Transition Female Adapter Soc x Fipt With Brass Thread Insert	15
Transition Reducing Female Adapter Soc x Fipt With Brass Thread Insert	15
Transition Female Adapter Soc x Fipt With Type 316 Stainless Steel Thread Insert	15
Transition Male Adapter with Brass Thread Brass Mipt x Soc	15
Special Reinforced Spigot Female Adapter Spig x SR Fipt - Stainless Steel Collar	16
Special Reinforced Reducing Female Adapter Soc x SR Fipt - Stainless Steel Collar	16
Encapsulated Special Reinforced Female Adapter Spig x ESR Fipt	16
Special Reinforced Reducing Spigot Female Adapter Spig x SR Fipt - Stainless Steel Collar	16
Male Adapter Mipt x Soc	16
Reinforced Male Adapter R Mipt x Soc - Stainless Steel Sleeve	16
Male Adapter Spig x Mipt	16
Reducer (T.T.) Bushing Flush Style Mipt x Fipt	16
Special Reinforced Reducing Bushing Flush Style Mipt x SR Fipt - Stainless Steel Collar	17
Reducer Bushing Flush Style Spig x Soc	17
Reducer Bushing Flush Style Spig x Fipt	18
Special Reinforced Reducer Bushing Spig x SR Fipt - Stainless Steel Collar	18
Cap Soc	18
Cap Fipt	19
Special Reinforced Cap SR Fipt - Stainless Steel Collar	19
Plug Spig	19

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



CONTENT

Plug Mipt	19
Union 2000 Soc with Viton® O-ring Seal	19
Union 2000 Soc with EPDM O-ring Seal	19
Union 2000 Soc x Fipt with Viton® O-ring Seal	20
Union 2000 Soc x Fipt with EPDM O-ring Seal	20
Union 2000 Soc x Spig with Viton® O-ring Seal	20
Union 2000 Soc x Spig with EPDM O-ring Seal	20
Union 2000 Fipt with Viton® O-ring Seal	20
Union 2000 Fipt with EPDM O-ring Seal	21
Special Reinforced Union 2000 Soc x SR Fipt with Viton® O-ring Seal	21
Special Reinforced Union 2000 Soc x SR Fipt with EPDM O-ring Seal - Stainless Steel Collar	21
Special Reinforced Union 2000 SR Fipt with EPDM O-ring Seal - Stainless Steel Collar	21
Union (Old Style) Soc with Viton® O-ring Seal	21
Union (Old Style) Soc with EPDM O-ring Seal	21
Union (Old Style) Soc x Fipt with Viton® O-ring Seal	22
Union (Old Style) Soc x Fipt with EPDM O-ring Seal	22
Union Soc x Fipt with Brass Thread Insert & Viton® O-ring Seal	22
Union Soc x Fipt with Brass Thread Insert & EPDM O-ring Seal	22
Union (Old Style) Fipt with Viton® O-ring Seal	22
Union (Old Style) Fipt with EPDM O-ring Seal	22
Special Reinforced Union 2000 SR Fipt with Viton® O-ring Seal - Stainless Steel Collar	23
Special Reinforced Union (Old Style) Soc x SR Fipt with Viton® O-ring Seal - Stainless Steel Collar	23
Special Reinforced Union (Old Style) Soc x SR Fipt with EPDM O-ring Seal - Stainless Steel Collar	23
Flange One Piece Soc	23
Flange One Piece Fipt	23
Blind Flange	23
Flange Van Stone Style with Plastic Ring Soc	24
Flange Van Stone Style with Plastic Ring Spig	24
Flange Van Stone Style with Plastic Solid Ring Soc	24
Flange Van Stone Style Class 300 Bolt Pattern Fabricated with Plastic Ring Soc	24
Flange Van Stone Style with Plastic Ring Fipt	25
Flange Van Stone Style with Plastic Ring ASTM Soc x Multi-bolt Pattern Ring	25
Special Reinforced Flange One Piece Threaded SR Fipt - Stainless Steel Collar	25
Application & Use of Van Stone Style Flange Replacement Split Rings	25
CPVC Flange Replacement Split Rings For Spears® Flanges with CPVC Rings	25
Gasket Selection Guide	26
Buna-N Full-Faced Flange Gaskets	26
EPDM Full-Faced Flange Gaskets	26



CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints

CONTENT

Viton® (FKM) Full-Faced Flange Gaskets	26
Bolt Kit Selection Guide	27
Zinc Plated Steel Flange Bolt Hardware Kits For Connection of 2-Spears® Flanges Includes Bolts, Nuts & Flat Washers	27
Type 316 Stainless Steel Flange Bolt Hardware Kits For Connection of 2-Spears® Flanges Includes Bolts, Nuts & Flat Washers	27
Type 304 Stainless Steel Flange Bolt Hardware Kits For Connection of 2-Spears® Flanges Includes Bolts, Nuts, & Flat Washers	27
Flange Insulating Joints - Class 150 Bolt Pattern PP Flange Spacer with PVC Bolt Isolators	27
Flange Insulating Joints - Class 300 Bolt Pattern PP Flange Spacer with PVC Bolt Isolators	28
CPVC Self Aligning Tank Adapter with Neoprene Gasket Fipt	28
CPVC Self Aligning Tank Adapter with EPDM Gasket Fipt	28
CPVC Self Aligning Tank Adapter with Viton® Gasket Fipt	28
CPVC New Style Standard Tank Adapters with Neoprene Gaskets Soc	28
CPVC New Style Standard Tank Adapters with EPDM Gaskets Soc	28
CPVC New Style Standard Tank Adapters with Viton® Gaskets Soc	29
CPVC New Style Standard Tank Adapters with Neoprene Gaskets Soc x Fipt	29
CPVC New Style Standard Tank Adapters with EPDM Gaskets Soc x Fipt	29
CPVC New Style Standard Tank Adapters with Viton® Gaskets Soc x Fipt	29
CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with Neoprene Gaskets Soc x SR Fipt - Stainless Steel Collar	29
CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with EPDM Gaskets Soc x SR Fipt - Stainless Steel Collar	29
CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with Viton® Gaskets Soc x SR Fipt - Stainless Steel Collar	30
CPVC New Style Standard Tank Adapters with Neoprene Gaskets Fipt	30
CPVC New Style Standard Tank Adapters with EPDM Gaskets Fipt	30
CPVC New Style Standard Tank Adapters with Viton® Gaskets Fipt	30
CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with Neoprene Gaskets Fipt x SR Fipt - Stainless Steel Collar	30
CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with EPDM Gaskets Fipt x SR Fipt - Stainless Steel Collar	31
CPVC New Style Special Reinforced (SR) Threaded Tank Adapters with Viton® Gaskets Fipt x SR Fipt - Stainless Steel Collar	31
Tank Adapter with Neoprene Gasket (Old Style) Soc x Fipt	31
Tank Adapter with Neoprene Gasket (Old Style) Fipt	31
Neoprene Tank Adapter Gasket Only (New Style)	31
EPDM Tank Adapter Gasket Only (New Style)	31
Viton® Tank Adapter Gasket Only (New Style)	32
Neoprene Tank Adapter Gasket Only (Old Style)	32

CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters & Expansion Joints



CONTENT

EPDM Tank Adapter Gasket Only (Old Style)	32
Wrench Sets (New Style) Body Wrench & Nut Wrench	32
Individual Body Wrench (New Style)	32
Individual Nut Wrench (New Style)	33
Fabricated Expansion Joints 6" Travel with Viton® O-rings	33
Fabricated Expansion Joints 12" Travel with Viton® O-rings	33
Elastomer Expansion Joint CPVC with EPDM Bellows Soc	33
Elastomer Expansion Joint CPVC with EPDM Bellows SR Fipt - Stainless Steel Collar	33

COMPANY INFORMATION

LIMITED LIFETIME WARRANTY	34
SPEARS® QUALITY POLICY	35
STANDARDS & SPECIFICATIONS	35

INSTALLATION INFORMATION

RECOMMENDATIONS FOR INSTALLERS & USERS	35
CONFIGURATION DESCRIPTIONS	36
PART NUMBER NOTATIONS	37
ADDITIONAL PART NUMBER INFORMATION	37

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AUTHORIZED DISTRIBUTOR

Schedule 80 CPVC Technical
Schedule 80 CPVC Pipe Dimensions & Pressure Ratings



Schedule 80 CPVC Pipe

Nom. Pipe Size (in)	Average O.D.	Average I.D.	Min. Wall	Nominal Wt./Ft.	Maximum W.P. PSI*
1/4	.540	.282	0.119	0.117	1130
3/8	.675	.403	0.126	0.163	920
1/2	.840	.526	0.147	0.225	850
3/4	1.050	.722	0.154	0.304	690
1	1.315	.936	0.179	0.449	630
1-1/4	1.660	1.255	0.191	0.617	520
1-1/2	1.900	1.476	0.200	0.751	470
2	2.375	1.913	0.218	1.040	400
2-1/2	2.875	2.290	0.276	1.582	420
3	3.500	2.864	0.300	2.121	370
3-1/2	4.000	3.326	0.318	2.735	350
4	4.500	3.786	0.337	3.2101	320
5	5.563	4.768	0.375	4.800	290
6	6.625	5.709	0.432	6.200	280
8	8.625	7.565	0.500	9.042	250
10	10.750	9.493	0.593	13.018	230
12	12.750	11.294	0.687	18.350	230
14	14.000	12.410	0.750	23.260	220
16	16.000	14.213	0.843	29.892	220
18	18.000	16.014	0.937	35.421	220
20	20.000	17.814	1.031	45.879	220
24	24.000	21.418	1.218	64.958	210

Maximum CPVC Service Temperature 200°F

Pressure De-rating at Elevated Temperatures

The pressure ratings given above are for water, non-shock, @ 73°F. The specified derating factors for CPVC are suitable for pipe conveying water at elevated temperatures. To determine elevated temperature rating, multiply 73°F [23°C] pressure rating by appropriate factor shown in the table for desired operating temperature. When working near maximum specified temperature, solvent cement joints are recommended in place of threaded connections. Where disassembly is required at elevated temperatures, use Spears® Special reinforced (SR) adapters, flanges, unions or grooved coupling connections. Spears® recommends that only Schedule 80 or heavier wall thickness pipe should be threaded.

CPVC Pipe

Operating Temp (°F)	De-Rating Factor
73	1.00
90	0.91
100	0.82
110	0.72
120	0.65
130	0.57
140	0.50
150	0.42
160	0.40
170	0.29
180	0.25
200	0.20

EX: 2" CPVC SCHEDULE 80 @
120°F = 400 psi x 0.65 = 260 psi max. @ 120°F

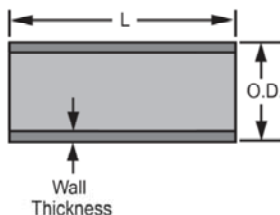
See Plastic Pipe Engineering Guide for additional information

Schedule 80 CPVC Technical
Schedule 80 CPVC Pipe Dimensions & Pressure Ratings



Pipe - CPVC Schedule 40 Plain End

20' Lengths

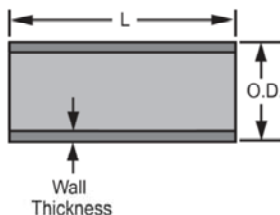


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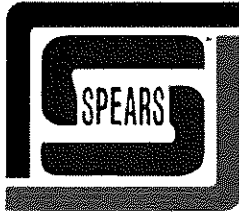
Part Number	Size	L	AVG.O.D.	Minimum Wall	Approx. Wt. (Lbs./Ft)
PD-400-025C	2-1/2	20	2.875	.203	1.20
PD-400-030C	3	20	3.500	.216	1.57
PD-400-040C	4	20	4.500	.237	2.23
PD-400-050C	5	20	5.563	.258	2.87
PD-400-060C	6	20	6.625	.280	3.94
PD-400-080C	8	20	8.625	.322	5.95
PD-400-100C	10	20	10.750	.365	8.53
PD-400-120C	12	20	12.750	.406	10.83
PD-400-140C	14	20	14	.437	13.26
PD-400-160C	16	20	16	.500	18.16
PD-400-180C	18	20	18	.562	22.27
PD-400-200C	20	20	20	.593	26.46
PD-400-240C	24	20	24	.687	37.53

Pipe - CPVC Schedule 80 Plain End

10' Lengths



Part Number	Size	L	AVG.O.D.	Minimum Wall	Approx. Wt. (Lbs./Ft)
PD-800-001C-10	1/8	10	.405	.095	.10
PD-800-002C-10	1/4	10	.540	.119	.11
PD-800-003C-10	3/8	10	.675	.126	.16
PD-800-005C-10	1/2	10	.840	.147	.22
PD-800-007C-10	3/4	10	1.050	.154	.30
PD-800-010C-10	1	10	1.315	.179	.44
PD-800-012C-10	1-1/4	10	1.660	.191	.61
PD-800-015C-10	1-1/2	10	1.900	.200	.75
PD-800-020C-10	2	10	2.375	.218	1.03
PD-800-025C-10	2-1/2	10	2.875	.276	1.58
PD-800-030C-10	3	10	3.500	.300	2.12
PD-800-040C-10	4	10	4.500	.337	3.10
PD-800-060C-10	6	10	6.625	.432	5.92
PD-800-080C-10	8	10	8.625	.500	9.04
PD-800-100C-10	10	10	10.750	.593	13.01
PD-800-120C-10	12	10	12.750	.687	18.35
PD-800-140C-10	14	10	14	.750	23.25
PD-800-160C-10	16	10	16	.843	29.89



SPEARS® MANUFACTURING COMPANY
15853 OLDEN STREET • SYLMAR, CALIFORNIA 91342
MAILING ADDRESS: P.O. BOX 9203 • SYLMAR, CALIFORNIA 91392
Telephone (818) 364-1611 • Fax (818) 364-6945
www.spearsmfg.com

CERTIFICATE OF COMPLIANCE

EverTUFF® CPVC Schedule 40 & Schedule 80 Industrial Pipe Specification

Spears® Manufacturing Company certifies that it's EverTUFF® CPVC Schedule 40 and schedule 80 pipe is manufactured in the U.S.A. from a Type IV, Grade I Chlorinated Polyvinyl Chloride (CPVC) compound having a minimum cell classification of 23447 conforming to ASTM Standard D1784, and manufactured in strict compliance to ASTM Standard F441, consistently meeting and/or exceeding the quality assurance test requirements of these standards as certified by NSF® International.

The product is certified for potable water service, to the Uniform Plumbing Code, to NSF/ANSI 372 and conforms with the lead content requirements for "lead-free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act, by NSF® International.

EverTUFF® CPVC pipe meet the applicable requirements for non-metallic piping as outlined in ASME Standard B31.3-2014 – Process Piping.

Spears® EverTUFF® CPVC pipe is listed under the ICC-ES PMG Listing Program (see listing number PMG-1278 at www.icc-es-pmg.org), for compliance with ASTM Standard E84/UL 73 Surface Burning Characteristics having a flame spread/smoke development index of less than 25/50 for use in return air plenums.

Spears® EverTUFF® PVC Schedule 80 pipe has been certified (Certificate 176387-420) by Underwriters Laboratories for compliance to UL 2818-2022 – GREENGUARD Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings. This GREENGUARD Gold Standard Certification signifies eligibility for LEED® points in Green Construction and Projects.

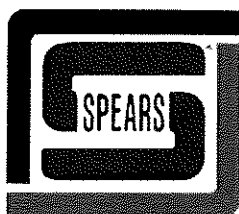
Spears® EverTUFF® CPVC pipe has been successfully tested in a vacuum of twenty-six inches of mercury (Hg) at 73°F. This test was conducted for one hour with a leak factor of not more than one inch of mercury.

All pipes are supplied with plain ends in 20-foot standard lengths.

Doug Swingley
Chief Engineer/General Manager
dswingley@spearsmfg.net

January 2025

COC 079 EverTUFF® CPVC SCHEDULE 40 & 80 PIPE



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CERTIFICATE OF COMPLIANCE

CPVC EverTUFF® SCHEDULE 80 MOLDED FITTINGS

Spears® Manufacturing Company certifies that its Chlorinated Polyvinyl Chloride (CPVC) EverTUFF® Schedule 80 molded fittings are manufactured in the U.S.A. in strict compliance to ASTM Standard F439 for threaded and socket-type fittings from a CPVC compound having a minimum cell classification of 23447 conforming to ASTM Standard D1784 and CSA Standard B137.6 for use in Canada, consistently meeting or exceeding the quality assurance test requirements of these standards as certified by NSF International®.

The product is certified for potable water service, to the Uniform Plumbing Code, to NSF/ANSI 372 and conforms with the lead content requirements for "lead-free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act, by NSF International®.

Spears® EverTUFF® CPVC fittings are listed under the ICC-ES PMG Listing Program (see listing number PMG-1278 at www.icc-es-pmg.org), for compliance with ASTM Standard E84/UL 73 Surface Burning Characteristics having a flame spread/smoke development index of less than 25/50 for use in return air plenums.

Spears® CPVC Schedule 80 fittings have been successfully tested in a vacuum of twenty-six inches of mercury (Hg) at 73°F. This test was conducted for one hour with a leak factor of not more than one inch of mercury.

Molded CPVC EverTUFF® flanges have socket dimensions that conform to ASTM Standard F439 and flange bolt-hole patterns that conform to ANSI/ASME Standard B16.5, CL150. Molded CPVC flanges have a non-shock maximum internal pressure rating of 150 psi at 73°F.

Molded CPVC EverTUFF® wyes have socket dimensions that conform to ASTM Standard F439 and have a non-shock maximum internal pressure rating of 235 psi at 73°F for ½" – 2" sizes, 150 psi at 73°F for 2½" – 6" sizes, 100 psi at 73°F for 8" and 10" sizes, and 80 psi at 73°F for 12" size.

Doug Swingley
Chief Engineer/General Manager
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January 2025



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CERTIFICATE OF COMPLIANCE

EverTUFF® CPVC Schedule 40 & Schedule 80 Industrial Pipe Specification

Spears® Manufacturing Company certifies that it's EverTUFF® CPVC Schedule 40 and schedule 80 pipe is manufactured in the U.S.A. from a Type IV, Grade I Chlorinated Polyvinyl Chloride (CPVC) compound having a minimum cell classification of 23447 conforming to ASTM Standard D1784, and manufactured in strict compliance to ASTM Standard F441, consistently meeting and/or exceeding the quality assurance test requirements of these standards as certified by NSF® International.

The product is certified for potable water service, to the Uniform Plumbing Code, to NSF/ANSI 372 and conforms with the lead content requirements for "lead-free" plumbing as defined by California, Vermont, Maryland, and Louisiana state laws and the U.S. Safe Drinking Water Act, by NSF® International.

EverTUFF® CPVC pipe meet the applicable requirements for non-metallic piping as outlined in ASME Standard B31.3-2014 – Process Piping.

Spears® EverTUFF® CPVC pipe is listed under the ICC-ES PMG Listing Program (see listing number PMG-1278 at www.icc-es-pmg.org), for compliance with ASTM Standard E84/UL 73 Surface Burning Characteristics having a flame spread/smoke development index of less than 25/50 for use in return air plenums.

Spears® EverTUFF® PVC Schedule 80 pipe has been certified (Certificate 176387-420) by Underwriters Laboratories for compliance to UL 2818-2022 – GREENGUARD Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings. This GREENGUARD Gold Standard Certification signifies eligibility for LEED® points in Green Construction and Projects.

Spears® EverTUFF® CPVC pipe has been successfully tested in a vacuum of twenty-six inches of mercury (Hg) at 73°F. This test was conducted for one hour with a leak factor of not more than one inch of mercury.

All pipes are supplied with plain ends in 20-foot standard lengths.

Doug Swingley
Chief Engineer/General Manager
dswingley@spearsmfg.net

January 2025

COC 079 EverTUFF® CPVC SCHEDULE 40 & 80 PIPE



CPVC HEAVY DUTY GRAY CEMENT TECHNICAL SPECIFICATION

Job Name _____	Item # _____
Location _____	
Engineer _____	Contractor _____
PO # _____	Tag _____
Representative _____	

SPECIFICATIONS

- Heavy-bodied gray cement for use on all schedules and classes of CPVC pipe and fittings up to 12" diameter with interference fit.
- Lo-V.O.C. Solvent Cement meets California South Coast Air Quality Management District (SCAQMD) 1168/316A or BAAQMD Method 40 and various environmental requirements.

APPLICATION / USES

- Approved for Corzan®* CPVC Piping Systems.
- For Commercial hot and cold water systems up to 200°F / 93°C.
- Recommended application temperature 40°F to 110°F / 4°C to 43°C

PROPERTIES

VOC

Maximum VOC per SCAQMD 1168/316A or BAAQMD Method 40: <400 g/L

CHEMICAL PROPERTIES

Appearance	Gray Liquid
Viscosity	Min. 1600° cps @ 73° F ± 2° F
Density	8.05 ± 0.2 lbs/gallon
Shelf Life	2 Years from Mfg. Date

SET TIME

30° F to 50° F	4 – 5 minutes
50° F to 70° F	2 – 3 minutes
70° F to 90° F	1 – 2 minutes



ASTM F493, NSF Standard 61 for PW, DWV and Sewer Waste, IAPMO Listed

PRODUCT NUMBER	SIZE	DESCRIPTION	CTN. QTY
31036	16 oz.	CPVC Heavy Duty Gray Cement	24
31037	32 oz.	CPVC Heavy Duty Gray Cement	12

§ Compliant with LEED Requirements. Solvent cements may be specified under the LEED v4 EQ for Low-Emitting Materials to obtain points

*Corzan® is a registered trademark of The Lubrizol Corporation.



CPVC HEAVY DUTY GRAY CEMENT TECHNICAL SPECIFICATION

DIRECTIONS

Store and use at temperatures between 40°F and 110°F.

- At temperatures outside of this range, special care must be taken to make good joints.

Stir or shake before using; if jelly-like, don't use. Do not thin

1. Pipe ends must be cut square, deburred and chamfered.
2. Check interference fit of pipe and fitting. Pipe should easily go 1/3 to 2/3 of the way into the fitting. If pipe bottoms inside the fitting hub without interference, proper fusion may not be achieved.
3. Use a suitable applicator that is at least 1/2 the size of the pipe diameter. For larger size pipe systems use a natural bristle brush or roller.
4. Clean pipe and fitting with a pipe cleaner or rag.
5. Prime pipe with a listed primer. Apply primer inside the fitting hub and then to the pipe end. Re-dip the dauber and prime the fitting a second time.
6. While primer is still wet, apply liberal coat of cement on pipe to the depth of the fitting hub, leave no uncoated surface. Apply a thin coat of cement to inside of fitting, avoid puddling of cement. Puddling can cause weakening and premature failure of pipe or fitting. Apply a second coat of cement to the pipe.
7. Assemble parts QUICKLY. Cement must be fluid.
8. Push pipe FULLY into fitting using a 1/4 turning motion until pipe bottoms.
9. Hold pipe and fitting together for 30 seconds to prevent pipe push-out - longer at low temperatures. Wipe off excess.
10. Allow 15 minutes for good handling strength.
11. Allow correct cure times to pass before the plumbing system is tested.
 - Cure times are calculated based on pipe materials, pipe size, pressure and temperature of fluids passing through the pipes, humidity, ambient temperatures and the cement used for the application.
 - If you are unsure of the correct cure times for your application, please reach out to our customer service department for assistance (800) 321-9532

DO NOT TEST WITH AIR OR COMPRESSED GAS.

PRECAUTIONS

Read all information carefully before using this product.

DANGER!: HIGHLY FLAMMABLE LIQUID AND VAPOR • CAUSES SKIN IRRITATION • CAUSES SERIOUS EYE IRRITATION • HARMFUL IF SWALLOWED. MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS • MAY CAUSE DROWSINESS OR DIZZINESS • MAY CAUSE RESPIRATORY IRRITATION • CONTAINS A CHEMICAL CLASSIFIED BY THE US EPA AS A SUSPECTED POSSIBLE CARCINOGEN • SUSPECTED OF CAUSING CANCER • READ ENTIRE LABEL CAREFULLY. KEEP OUT OF REACH OF CHILDREN.

Prevention: Keep away from heat, sparks, open flames or hot surfaces. No smoking. Use only outdoors or in a well-ventilated area. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof electrical, ventilating, lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, protective clothing, eye-protection, and face protection. Wear a NIOSH approved respirator for organic solvents. Vapors may accumulate in low places and may ignite explosively. Long term over exposure to solvents may cause damage to the brain, nervous system, reproductive system, respiratory system, mucous membranes, liver and kidneys. Repeated exposure to solvents may cause skin dryness or cracking.

Response: Specific treatment (see below).

EMERGENCY/FIRST AID: CALL 1-877-740-5015 FOR INSTRUCTIONS.

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Rinse mouth. This product may be aspirated into the lungs and cause chemical pneumonitis, a potentially fatal condition. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention. **IF ON SKIN:** Rinse skin with water/shower. Take off immediately all contaminated clothing. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call POISON CENTER/doctor if you feel unwell. If medical advice is needed, have product container or label at hand.

FIRE: Use dry chemical, foam, or carbon dioxide extinguisher. Water spray may be applied to reduce potential vapors or for cooling. Burning liquid extinguished with water will float and may re-ignite on surface of water.

SPILLS: Remove all sources of ignition and ventilate area. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with absorbent material. Put absorbent material in covered, labeled metal containers. Dispose of contents/container in accordance with local regulations. Store in a well-ventilated space. Store locked up.

§ Compliant with LEED Requirements. Solvent cements may be specified under the LEED v4 EQ for Low-Emitting Materials to obtain points



Technical Specification

Purple Primer – NSF Listed

Description

- Purple-tinted aggressive primer for use on PVC and CPVC pipe and fittings.
- Lo-V.O.C. Solvent Cement meets California South Coast Air Quality Management District (SCAQMD) 1168/316A or BAAQMD Method 40 and various environmental requirements.
- Removes surface dirt, grease and grime as well as softens the pipe surface to allow a fast, secure solvent weld.
- For use in areas where plumbing code calls for verification that a primer has been used.
- N SF and IAPMO Listed.
- Meets ASTM F656.



Listings



NSF Standard 61 for PW,
DWV and Sewer Waste



IAPMO Listed

Maximum VOC per SCAQMD 1168/316A or BAAQMD Method 40: 550 g/L

INGREDIENTS (CAS Number)

Acetone (67-64-1), Cyclohexanone (108-94-4), Methyl Ethyl Ketone (78-93-3), Red Dye (4477-76-6) Violet Dye (81-48-1), Tetrahydrofuran (109-99-9)

MSDS Number: 1402E

<u>Product Number</u>	<u>Size</u>	<u>Qty</u>	<u>Wgt</u>	<u>Product Number</u>	<u>Size</u>	<u>Qty</u>	<u>Wgt</u>
30755	4 oz.	24	8 lbs.	307553	4 oz.	48	8 lbs.
30756	8 oz.	24	14 lbs.	307563	8 oz.	36	14 lbs.
30757	16 oz.	24	25 lbs.	307573	16 oz.	10	25 lbs.
30758	32 oz.	12	24 lbs.	307583	32 oz.	6	24 lbs.
30759	Gallon	6	46 lbs.				

Oatey Co.
4700 West 160 th St.
Cleveland, OH 44135

Phone: 1-800-321-9532
Phone: 1-800-321-9535
Visit www.oatey.com for Update





Technical Specification

Purple Primer – NSF Listed

CHEMICAL PROPERTIES

Appearance	Purple Liquid
Density	6.97 ± 0.2 lbs/gallon
Shelf Life	3 Years from Mfg. Date

Precautions

Read all information carefully before using this product.

DANGER!: CAUSES SERIOUS EYE IRRITATION. HARMFUL IF INHALED. MAY CAUSE DROWSINESS OR DIZZINESS. MAY CAUSE RESPIRATORY IRRITATION. REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING. Long term overexposure to solvents may cause damage to the brain, nervous system, reproductive system, respiratory system, mucous membranes, liver and kidneys. Contains a chemical classified by the US EPA as a suspected possible carcinogen. KEEP OUT OF REACH OF CHILDREN.

PRECAUTIONS: Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Use explosion-proof electrical/ventilating equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear a NIOSH-approved respirator for organic solvents. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Vapors may accumulate in low places and may ignite explosively. Keep container tightly closed and cool. Wear protective gloves and eye protection. Wash thoroughly after handling. Do not eat or drink while using this product.

EMERGENCY/FIRST AID: CALL 1-877-740-5015 FOR INSTRUCTIONS.

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Rinse mouth. This product may be aspirated into the lungs and cause chemical pneumonitis, a potentially fatal condition. If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention. If ON SKIN: Rinse skin with water/shower. Take off immediately all contaminated clothing. If INHALED: Remove person to fresh air and keep comfortable for breathing. Call POISON CENTER/doctor if you feel unwell. If medical advice is needed, have product container or label at hand. FIRE: Use dry chemical, foam, or carbon dioxide extinguisher. Water spray may be applied to reduce potential vapors or for cooling. Burning liquid extinguished with water will float and may re-ignite on surface of water. SPILLS: Remove all sources of ignition and ventilate area. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with absorbent material. Put absorbent material in covered, labeled metal containers. Dispose of contents/ container in accordance with local regulations. Store in a well-ventilated space. Store locked up.



Directions for Use

Store and use at temperatures between -15°F and 110°F. At temperatures outside of this range, special care must be taken to prepare good joints and prevent exposure to solvents. Stir or shake before using; if jelly-like, don't use. Do not thin.

Handle with care! Will stain most materials and surfaces.

1. Cut pipe ends square, chamfer and clean pipe ends.
2. Check dry fit of pipe and fitting. Pipe should easily go 1/3 of the way into the fitting. If pipe bottoms, it should be snug.
3. Use a suitable applicator at least 1/2 the size of the pipe diameter. For larger size pipe systems use a natural bristle brush or roller.
4. Apply thoroughly to inside of the fitting socket and to the outside surface of the pipe to the depth of the fitting. Apply a second coat of primer to fitting socket.
5. While primer is still wet use an appropriate solvent cement for the pipe being joined. Follow application instructions from cement can.

DO NOT TEST WITH AIR.

Revision Date: 3/15/2013

Appendix B

Vapor Barrier / Waterproofing Specifications

175-225 3rd Street, Brooklyn, NY



IMPACT ENVIRONMENTAL
ENGINEERING AND
GEOLOGY PLLC
170 Keyland Court
Bohemia, New York 11716
TEL: (631) 268-8800
FAX: (631) 269-1599



PRECON[®]

PRE-APPLIED / UNDERSLAB WATERPROOFING MEMBRANE

WATERLESS.
VAPORLESS.
CONFIDENCE.



Keep confidence in and water out.

Water is adept at tunneling and forging new paths. The last place it should be, however, is in the buildings where we live, work and play. Long-lasting PRECON membrane ensures the strongest bonds with your foundations, so the water outside stays outside.

PRECON waterproofing, vaporproofing blindside and underslab membrane fortifies structural foundations, even in demanding environments. Its composite sheet membrane is comprised of a non-woven fabric, elastomeric membrane and W. R. MEADOWS' exclusive, patented PLASMATIC CORE.

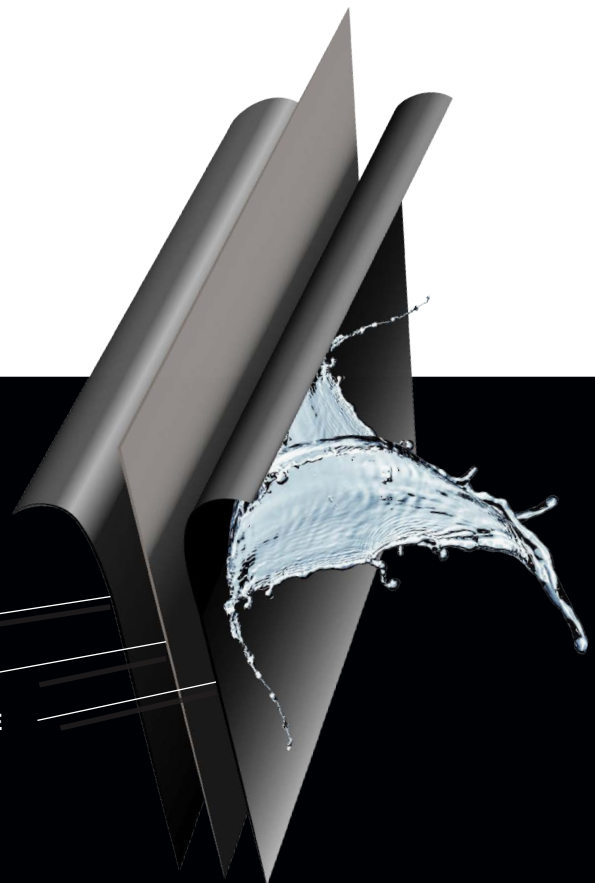
PRECON

Composite Sheet Membrane

Non-woven fabric

Elastomeric membrane

Patented PLASMATIC CORE



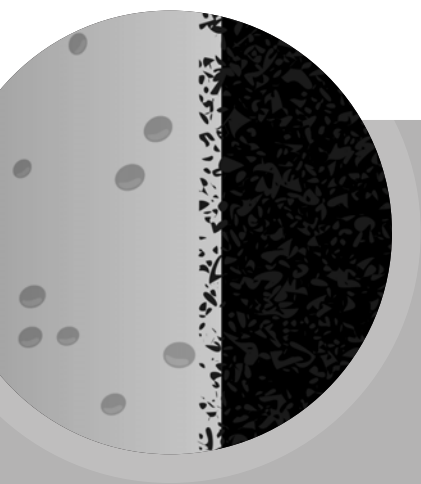
Protecting the indoors from the outdoors.

Withstanding intense pressure and unfavorable conditions, PRECON waterproof membrane keeps foundations strong and structures dry.

PRECON is proven to not only block the ingress of water, but also inhibit vapor intrusion for an environmentally friendly indoor environment. Designed for long-term toughness, the seven-layer matrix PLASMATIC CORE provides the industry's lowest water vapor transmission (WVT) rating.

Superior bonds for a powerful seal.

Secure mechanical bonds form between PRECON fabric and curing concrete. These tenacious bonds create a solid waterproofing system that effectively protects foundations from water damage in both underslab horizontal and blindside vertical applications.



PRECON bonds at the molecular level.

As soon as the foundation concrete is poured and begins to cure, PRECON fabric forms interlocking bonds that create an unmatched waterproofing barrier.

PRECON is more than a waterproof seal.

Its waterproofing system is designed to protect foundations against a spectrum of problems.

- Waterproof/vaporproof seal
- Reduces methane and radon gas intrusion
- Resilient mechanical bond
- Vertical blindside application
- Horizontal underslab application



TECHNICAL DATA*

PROPERTY	TEST METHOD	PRECON RESULTS
Color		Black
Thickness	ASTM D 1000	73 mil (1.85 mm)
Low Temp Flexibility	ASTM D 1970, 180° @ -25° F (-32° C)	Pass
Resistance to Hydrostatic Head	ASTM D 5385-93	230' (70 m)
Elongation	ASTM D 412-06	> 400%
Tensile Strength, Film	ASTM D 882	9200 psi (63.4 MPa)
Crack Cycling	ASTM C 836 @ -15° F (-26° C)	Pass
Puncture Resistance	ASTM E 154	> 210 lb. (> 934 N)
Peel Adhesion to Concrete	ASTM D 903	10 lb./in (1754 N/m)
Moisture Vapor Transmission	ASTM E 96B	0.0011 perms (0.0004 grains/ft. ² /hr) (0.007 grams/m ² /24 hr)
Radon Transmittance (m/s)	k124/02/95	<3.0 x 10 ⁻⁹
Radon Coefficient (m2/s)	k124/02/95	<5.6 x 10 ⁻¹²

* For low temperature installations, PRECON LOW TEMP is available and can be installed in temperatures as low as 25° F (-4° C).



Arizona State University Center for Law and Society

Waterproof barrier of choice for notable projects.

PRECON is the preferred and trusted waterproofing solution for a wide-range of projects across a spectrum of environments.

Arizona State University Center for Law and Society

50,000 square feet, LEED-Certified Gold
Phoenix, Arizona, USA

Dallas/Fort Worth International Airport

240,000 square feet
DFW Airport, Texas, USA

Cancer Center at Munson Medical Center

52,000 square feet, LEED-Certified
Traverse City, Michigan, USA

Toronto Transit Commission Subway System

300,000 square feet
Toronto, Ontario, Canada

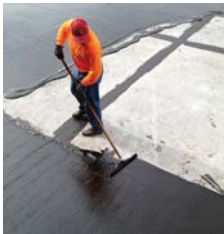
Marina Heights

940,000 square feet – LEED-Certified Silver
Tempe, Arizona, USA

Verizon Data Center

40,000 square feet
Southlake, Texas, USA

W. R. MEADOWS' products are designed together to work as one.



HYDRALASTIC 836 is a cold-applied, solvent-free, single-component waterproofing compound. It has low volatile organic compound (VOC) content and very low odor. It will not shrink or crack in extreme cold or slump at high temperatures.



HRM 714 is a hot-applied rubberized asphalt waterproofing membrane. It's a 100% solids blend of asphalts, synthetic rubber polymers and filler formulated for toughness, flexibility and low moisture vapor permeance.



MEL-ROL is a flexible, versatile, dependable, roll-type waterproofing membrane. It is composed of a nominally 56 mil thick layer of polymeric waterproofing membrane on a heavy duty, four-mil thick, cross-laminated polyethylene carrier film. The two components are laminated together under strict quality-controlled production procedures.



MEL-ROL LM is a single-component, polymer-modified, cold-applied, water-based, liquid membrane ideal for below-grade vertical seamless waterproofing applications. We have taken the same high quality rubber polymers found in our successful MEL-ROL "peel and stick" membrane and converted them into a heavy-bodied, high solids, quick drying liquid membrane.

Call 800.342.5976 to request a FREE waterproofing contractor's handbook.

Visit wrmeadows.com/precon to view or request guide specifications,

CAD details, independent test results and more.



Trusted performance. Lower cost. Easy installation for all applications.

Beginning with design, a building requires trusted waterproofing that performs to the highest standards and fits within budgets.

Final installation on the jobsite demands a durable product that goes up with efficiency and ease.

PRECON's proven seal delivers protection against water and other common intrusions. It keeps budgets in check with lower costs. It installs with ease in any construction environment, including difficult blindside applications.

APPLICATIONS:

- Offices
- Retail Complexes
- Hospitals
- Airports
- Utilities
- Universities
- Industrial Applications
- Laboratories
- Subways

Improving ways to keep water out.

W. R. MEADOWS has been supplying the building industry with quality materials since 1926. Our team of industry experts has the knowledge to ensure your project gets done right with the right products.

PRECON is available from all authorized W. R. MEADOWS distributors. Contact us to find your closest authorized distributor. Our distributors can also supply educational materials and product samples.

For more information on our complete line of building envelope products, visit **wrmeadows.com**.



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Hampshire, IL 60140

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P: 800.342.5976
F: 847.683.4544





MasterFormat: 07 13 00

JANUARY 2026
(Supersedes September 2025)**PRECON®****Pre-Applied/Underslab Waterproofing Membrane****DESCRIPTION**

PRECON is a composite sheet membrane comprised of a non-woven fabric, elastomeric membrane, and W. R. MEADOWS' exclusive, patented PLASMATIC CORE (U.S. Patent No. 7,179,761). The PLASMATIC CORE is a seven-layer matrix designed for toughness and provides the lowest water vapor transmission (WVT) rating on the market. Once concrete is poured against PRECON and the concrete cures, a mechanical bond forms that secures the concrete to the membrane.

USES

PRECON is used as a blindside membrane in vertical applications where access to the positive side is limited. The membrane can also be used for horizontal applications for underslab waterproofing and vaporproofing.

FEATURES/BENEFITS

- Provides a waterproof seal between the membrane and poured concrete wall.
- Helps prevent moisture migration into the structure.
- Reduces methane and radon gas intrusion.

PACKAGING

4' (1.2 m) wide x 50' (15.2 m) long rolls, one roll per carton.

COVERAGE

Provides 200 ft.² (18.6 m²) per roll. Gross coverage is 200 ft.² (18.6 m²). [Net coverage is 175 ft.² (16.26 m²) with overlap of 6" (152.4 mm).]

STORAGE AND HANDLING

Store membrane cartons on pallets and cover if left outside. Keep materials away from sparks and flames.

SPECIFICATIONS/STANDARDS

- LARR Report 26023

APPLICATION

Surface Preparation ... Inspect all surfaces for any conditions detrimental to the proper completion of the work. Surfaces should be structurally sound. Remove debris or any other foreign material that could damage the membrane.

PRECON can be used with a caisson wall shoring system without the use of a drainage board, such as MEL-DRAIN™ from W. R. MEADOWS. W. R. MEADOWS recommends proper site drainage. The decision to remove the drainage board should be at the discretion of the engineer. In situations where a drainage board is not applied, surface preparation is important. The substrate needs to be sound, solid, and smooth. Any gaps or voids >1" (25 mm) need to be grouted. When PRECON is used with MEL-DRAIN from W. R. MEADOWS, the system can bridge gaps <2" (50.8 mm). However, gaps >2" (50.8 mm) will need to be grouted.

Application Method ... PRECON may be applied at temperatures down to 40° F (5° C); however, in less-than-ideal environments or marginal conditions, consider the use of PRECON WINTER-GRADE below 60° F (16° C). PRECON WINTER-GRADE is available for installation temperatures at 20° F (-7° C) and rising. Please reference PRECON COLD WEATHER APPLICATION TECHNICAL BULLETIN for full installation instructions. MEL-PRIME™ from W. R. MEADOWS should be used to enhance the bond at the selvage edge when conditions warrant with both PRECON and PRECON WINTER-GRADE. (MEL-PRIME W/B is not recommended for this cold-temperature installation.) Before application of the blindside membrane, attach MEL-DRAIN to the lagging or soil retention system.

In vertical applications of PRECON, mechanically attach with fasteners every 12" (304.8 mm) across the top, within ½" (13 mm) of the top edge of the membrane. Install the membrane with the fabric side facing toward the concrete pour.

Remove release paper on 6" (152.4 mm) overlap. Apply membrane and roll press into place with a tile type roller.

If shotcrete is to be applied to the membrane, please reference PRECON SHOTCRETE TECHNICAL BULLETIN available at www.wrmeadows.com.

CONTINUED ON REVERSE SIDE ...**W. R. MEADOWS, INC.**

P.O. Box 338 • Hampshire, IL 60140-0338
Phone: 847/214-2100 • Fax: 847/683-4544
1-800-342-5976
www.wrmeadows.com • info@wrmeadows.com

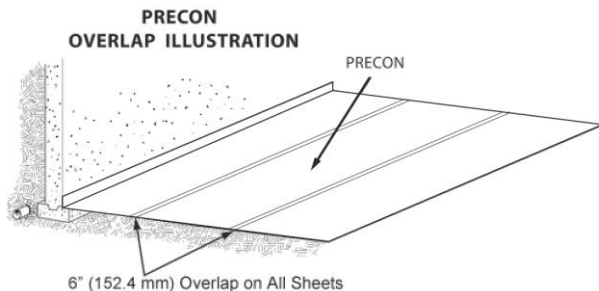
HAMPSHIRE, IL / CARTERSVILLE, GA / YORK, PA
FORT WORTH, TX / BENICIA, CA / POMONA, CA
GOODYEAR, AZ / MILTON, ON / SHERWOOD PARK, AB

End Laps ... Overlap membrane 6" (152.4 mm). Prior to overlap, apply BEM, HYDRALASTIC 836, or MEL-ROL® LIQUID MEMBRANE (two-component) from W. R. MEADOWS in area to be lapped. Roll press membrane into BEM, HYDRALASTIC 836, or MEL-ROL LIQUID MEMBRANE. At terminations of membrane, apply BEM, HYDRALASTIC 836, or MEL-ROL LIQUID MEMBRANE 12" (304.8 mm) wide centered over the termination and while still wet, embed 12" (31 cm) wide DETAIL FABRIC into the HYDRALASTIC 836 or MEL-ROL LIQUID MEMBRANE and roll press into place. Ensure that DETAIL FABRIC is centered over the termination with 6" (152.4 mm) on each side of lap edge. Apply additional HYDRALASTIC 836 on all terminations of DETAIL FABRIC.

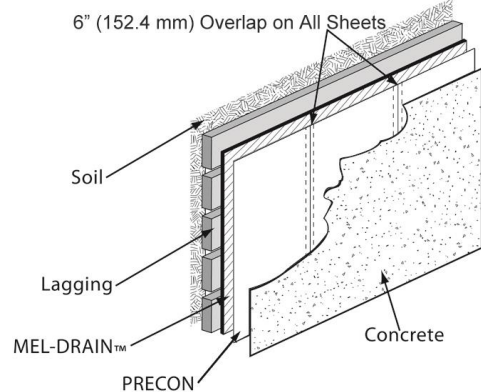
Additionally, the use of DETAIL TAPE H and DETAIL TAPE V from W. R. MEADOWS can be used in both horizontal and vertical end laps. View PRECON END LAP TAPING METHOD TECHNICAL BULLETIN available at www.wrmeadows.com for full information.

Penetrations and Protrusions ... Detail around all horizontal and vertical penetrations using BEM, HYDRALASTIC 836, or MEL-ROL LIQUID MEMBRANE (two-component) from W. R. MEADOWS. Apply BEM, HYDRALASTIC 836, or MEL-ROL LIQUID MEMBRANE by forming a fillet around the pipe or protrusion, overlapping the fabric side of PRECON and the protrusion a minimum of 2.5" (64 mm). If the gap between the protrusion and the membrane is greater than ½" (13 mm), apply DETAIL FABRIC over uncured BEM, HYDRALASTIC 836, or MEL-ROL LIQUID MEMBRANE. All penetration and protrusion surfaces must be clean, rust-free, and sound prior to application of BEM, HYDRALASTIC 836, or MEL-ROL LIQUID MEMBRANE.

*MEL-ROL LIQUID MEMBRANE is a two-component material, not to be confused with MEL-ROL LM.



**PRECON
BLINDSIDE/UNDERSLAB MEMBRANE**



For horizontal applications involving a cluster of penetrations, consider the use of HYDRALASTIC 836. Prior to application of HYDRALASTIC 836, prepare the surfaces of the penetrations as above and provide a block out using 2" x 4" (50.8 mm x 101.6 mm) lumber or other in order to create a "pitch pan" area to receive HYDRALASTIC 836.

Patching ... Prior to pouring, inspect membrane for punctures or damage and repair as necessary with HYDRALASTIC 836 and/or DETAIL FABRIC. (BEM or MEL-ROL LIQUID MEMBRANE may be used in place of HYDRALASTIC 836.) In addition, ensure the membrane is free of standing water and has been cleaned of any deleterious materials that will affect the bond of the concrete to the membrane.

Underslab Application ... Refer to ACI 302.1R-04: Chapter 4 – Site Preparation and Placing Environment for sub-grade preparation prior to PRECON placement.

LIMITATIONS/PRECAUTIONS

Concrete should be poured within 60 days of membrane installation. For installations below 40° F (4° C), contact W. R. MEADOWS technical services. When using bar supports, use those with a flat bottom. It is the responsibility of the licensed design professional of record to determine suitability of PRECON as the vapor mitigation barrier based on the published VOC permeance data per project and governmental regulations. It is suggested to follow good industry practices to install a passive (convertible to active) venting system or provide active venting above the mitigation barrier. Install PRECON in clean soil to avoid direct contact with liquid contaminants.

For CAD details, most recent data sheet, sustainability information, and SDS, visit www.wrmeadows.com.

TECHNICAL DATA

Property	Test Method	PRECON Results
Thickness	ASTM D1000	73 mil (1.85 mm)
Low Temp Flexibility	ASTM D1970, 180° @ -20° F (-28.9° C)	Pass
Resistance to Hydrostatic Head	ASTM D5385-93	230' (70 m)
Elongation, Polymeric Membrane	ASTM D412-06	> 400%
Tensile Strength, Film	ASTM D882	9200 psi (63.4 MPa)
Crack Cycling	ASTM C836 @ -15° F (-26° C)	Pass
Puncture Resistance	ASTM E154	> 210 lb. (> 934 N)
Peel Adhesion to Concrete	ASTM D903	10 lb./in (1754 N/m)
Lap Peel Adhesion	ASTM D1876	5.60 PLI
Water Vapor Transmission	ASTM E96B	0.006 perms (0.0024 grains/ft. ² /hr) (0.041 gram/m ² /24 hr)
Resistance to Fungi in Soil	GSA-PBS 07115 – 16 Weeks	No Effect
Radon Transmittance (m/s)	k124/02/95	<3.0 x 10 ⁻⁹
Radon Coefficient (m2/s)	k124/02/95	<5.6 x 10 ⁻¹²
Gas Diffusion Coefficient (m2/s)	ASTM E96, Procedure B Modified (Solvent only – No Water)	>99% Purity Benzene 1.24 x 10 ⁻¹⁴
		>99% Purity Toluene 8.24 x 10 ⁻¹⁵
		>99% Purity Ethylbenzene 1.24 x 10 ⁻¹⁵
		>99% Purity Trichloroethylene 1.90 x 10 ⁻¹⁴
		>99% Purity Tetrachloroethylene (PCE/Perc) 3.21 x 10 ⁻¹⁵
		>99% Purity Xylene 1.53 x 10 ⁻¹⁵
Methane Gas Transmission Rate, (mL/day·m2·atm) Cond. 24h @ 74±4°F and 50±10%RH; Gas = Methane (99.99% purity); Test @ 74±4°F:	ASTM D1434	43

**LIMITED WARRANTY**

W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

Disclaimer

The information contained herein is included for illustrative purposes only, and to the best of our knowledge, is accurate and reliable. W. R. MEADOWS, INC. cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As W. R. MEADOWS, INC. has no control over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.

GUIDE SPECIFICATION FOR PRECON: BLINDSIDE/UNDERSLAB MEMBRANE

SECTION 07 13 00

SHEET WATERPROOFING

Specifier Notes: This guide specification is written according to Construction Specifications Institute (CSI) MasterFormat. The section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project. Coordinate this section with other specification sections and the drawings.

Specifier Notes: PRECON is a composite sheet membrane comprised of elastomeric membrane bonded to W. R. MEADOWS' exclusive plasmatic matrix and a non-woven geotextile fabric. Once concrete is poured against PRECON and the concrete cures, a mechanical bond forms that tightly and permanently secures the concrete to the membrane.

PRECON is used as a waterproofing membrane where vertical positive-side waterproofing is required but access to the positive side is impossible due to the soil retention system. The membrane can also be used for horizontal applications for underslab waterproofing and vaporproofing.

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Installation of a blindside sheet membrane.

1.02 RELATED SECTIONS

Specifier Notes: Edit the list of related sections as required for the project. List other sections dealing with work directly related to this section.

- A. Section 03 30 00 – Cast-in-Place Concrete.
- B. Section 07 13 26 – Self-Adhering Sheet Waterproofing.
- C. Section 07 21 00 – Thermal Insulation.
- D. Section 07 60 00 – Flashing and Sheet Metal.
- E. Section 07 92 00 – Joint Sealants.
- F. Section 31 50 00 – Excavation Support and Protection.
- G. Section 33 46 00 – Subdrainage.

1.03 REFERENCES

- A. ACI 302.1R.17 – Guide for Concrete Floor and Slab Construction.
- B. ASTM C836 - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course.
- C. ASTM D412-06: Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension.

- D. ASTM D882: Standard Test Method for Tensile Properties of Thin Plastic Sheeting.
- E. ASTM D903: Standard Test Method for Peel or Stripping Strength of Adhesive Bonds.
- F. ASTM D1970-01 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
- G. ASTM D5385-93: Standard Test Method for Hydrostatic Pressure Resistance of Waterproofing Membranes.
- H. ASTM E96 (Method B): Standard Test Methods for Water Vapor Transmission of Materials.
- I. ASTM E154: Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
- J. ASTM F2130: Standard Test Method for Measuring Repellency, Retention, and Penetration of Liquid Pesticide Formulation Through Protective Clothing Materials.
- K. GSA-PBS 07115: General Services Administration, Public Building Service - Guide Specification for Elastomeric Waterproofing.
- L. Texas A&M Method Resistance to Penetration by Termites.

1.04 QUALITY ASSURANCE

- A. Contractor will provide the proper equipment, manpower, and supervision at the jobsite to install the membrane in compliance with the project plans and specifications.
- B. Installation must be carried out by an experienced contractor with an adequate number of skilled personnel, experienced in the application of the blindside membrane applications.
- C. Maintain a record of the batch numbers of all materials supplied for this project.

1.05 PRE-CONSTRUCTION MEETING

- A. Convene [one] [____], week [____] prior to commencing work of this section, in accordance with Section 1.04 - Quality Assurance, meeting with manufacturer's technical representative, General Contractor and Site Engineer to review the installation procedures.

1.06 SUBMITTALS

- A. Comply with Section 01 33 00 - Submittal Procedures.
- B. Submit manufacturer's product data and application instructions.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Store materials in a clean, dry area in accordance with manufacturer's instructions.
- C. Store adhesive at temperatures of 40° F (4.4° C) and above to facilitate handling.
- D. Do not store at temperatures above 90° F (32° C) for extended periods.
- E. Protect materials during handling and application to prevent damage or contamination.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Product not intended for uses subject to abuse or permanent exposure to the elements.
- B. Apply membrane when conditions are dry and rain is not imminent.
- C. Ensure concrete is poured within 60 days of membrane application.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. W. R. MEADOWS, INC., PO Box 338, Hampshire, Illinois 60140-0338. (800) 342-5976. (847) 683-4500. Fax (847) 683-4544. Website www.wrmeadows.com.

2.02 MATERIALS

- A. Blindside Waterproofing Membrane: 73 mil (1.85mm) thick, composite sheet membrane comprised of an elastomeric membrane bonded to a seven-ply plasmatic matrix and a non-woven geotextile fabric.
 - 1. Performance Based Spec: Blindside waterproofing membrane shall have the following properties as determined by laboratory testing:
 - a. Membrane Thickness: 73 mil (1.85 mm)
 - b. Low Temperature Flexibility, ASTM D1970: Pass
 - c. Resistance to Hydrostatic Head, ASTM D5385-93: 230' (70 m)
 - d. Elongation, ASTM D412-06: >400%
 - e. Tensile Strength (film), ASTM D882: 9,200 psi (63.4 MPa)
 - f. Crack Cycling, ASTM C836: Pass
 - g. Puncture Resistance, ASTM E154: >210 lb. (>934 N)
 - h. Peel Adhesion to Concrete, ASTM D903: 10 lb/in (1,754 N/m)
 - i. Moisture Vapor Transmission, ASTM E96 (Method B): 0.0011 perms
 - j. Resistance to Penetration by Termites, Texas A&M Method, Percentage of Penetration: 0.0%
 - k. Resistance to Penetration by Pesticides, ASTM F2130, Percentage of Penetration: 0.0%
 - l. Resistance to Fungi in Soil, GSA-PBS 07115 – 16 weeks: No Effect
 - 2. Proprietary Based Spec:
 - a. PRECON Blindside/Underslab Waterproofing Membrane by W. R. MEADOWS.

Specifier Notes: For temperatures that are below 40°F (5°C), PRECON LOW TEMP must be used. This product can be applied at temperatures down to 25°F (-4°C) and this temperature must be maintained for a period of 24hrs prior and post application. If site conditions are marginal and conditions less than optimal, PRECON LOW TEMP can be considered below 60°F (16°C). W.R. MEADOWS has a low temperature application bulletin with specific installation instructions that needs to be followed.

2.03 ACCESSORIES

- A. Rolled Matrix Drainage System: MEL-DRAIN by W. R. MEADOWS.
- B. Liquid Membrane for Fastener Details: MEL-ROL 2 COMPONENT LIQUID MEMBRANE by W. R. MEADOWS.
- C. Liquid Membrane for Overlap Detail: HYDRALASTIC 836 by W. R. MEADOWS.

Specifier Notes: HYDRALASTIC 836, MEL-ROL 2 COMPONENT LIQUID MEMBRANE and BEM (BUILDING ENVELOPE MEMBRANE) can be interchanged. It must be noted that HYDRALASTIC 836 and

- D. Detail Fabric for Terminations: DETAIL FABRIC by W. R. MEADOWS.
- E. Detail Tape Adhesive: MEL-PRIME by W. R. MEADOWS.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to receive membrane. Notify architect if surfaces are not acceptable. Do not begin surface preparation or installation until unacceptable conditions have been corrected.

3.02 SURFACE PREPARATION

- A. Inspect all surfaces for any conditions detrimental to the proper completion of the work.
- B. Ensures surfaces are structurally sound.
- C. Remove debris or any other foreign material that could damage the membrane.

3.03 INSTALLATION

- A. Vertical Application
 1. Mechanically fasten membrane across the top lagging at 12" (300 mm) on centre, ½" (12 mm) from the top, with fasteners approved by the manufacturer.
 2. Ensure the fabric side of the membrane is facing the interior side of the form to receive the concrete.
 3. Apply two-component liquid membrane over the areas where the fasteners have been attached and carry over the top edge.
 4. Remove release paper on 6" (150 mm) selvedge edge and overlap edges of additional sheet. Roll press into place.
 5. For end-to-end overlap, overlap membrane 6" (152.4 mm).
 6. Apply liquid detail membrane in this area to be lapped and roll press membrane into this liquid detail membrane.
 7. Apply liquid detail membrane at terminations of membrane, 12" (310 mm) wide centered over the termination.
 8. Embed detail fabric into this wet liquid detail membrane centered over the termination, 6" (152.4 mm) on each side of lap edge, and roll press into place.
 9. Apply additional liquid detail membrane on all terminations of detail fabric.
 10. Inspect membrane prior to pouring of concrete for any punctures or damage.
 11. Repair damaged areas as directed by the manufacturer.
- B. Horizontal Application
 1. Prepare subgrade prior to membrane application according to ACI 302.1R.17.
 2. Ensure the fabric side of the membrane is facing up.
 3. Remove release paper on 6" (150 mm) selvedge edge and overlap edges of additional sheet. Roll press into place.
 4. For end-to-end overlap, overlap membrane 6" (152.4 mm).
 5. Apply liquid detail membrane in this area to be lapped and roll press membrane into this liquid detail membrane.
 6. Apply liquid detail membrane at terminations of membrane, 12" (310 mm) wide centered over the termination.

7. Embed detail fabric into this wet liquid detail membrane centered over the termination, 6" (152.4 mm) on each side of lap edge, and roll press into place.
8. Apply additional liquid detail membrane on all terminations of detail fabric.
9. Inspect membrane prior to pouring of concrete for any punctures or damage.
10. Repair damaged areas as directed by the manufacturer.

3.04 PROTECTION

- A. Ensure membrane is not damaged prior to concrete pour.
- B. Ensure concrete is poured within 60 days of membrane application.

END OF SECTION



STEGO® WRAP 20-MIL VAPOR BARRIER

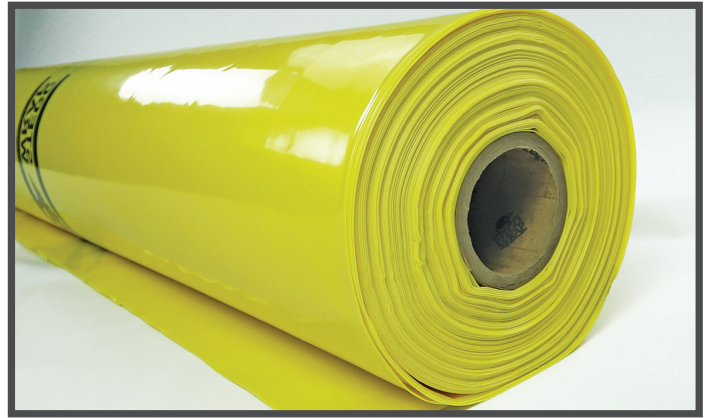
A STEGO INDUSTRIES, LLC INNOVATION | VAPOR RETARDERS 07 26 00, 03 30 00 | VERSION: JAN 28, 2025

1. PRODUCT NAME

STEGO WRAP 20-MIL VAPOR BARRIER

2. MANUFACTURER

Stego Industries, LLC
216 Avenida Fabricante, Suite 101
San Clemente, CA 92672 USA
Sales, Technical Assistance
Ph: (877) 464-7834
contact@stegoindustries.com
stegoindustries.com



3. PRODUCT DESCRIPTION

USES: Stego Wrap 20-Mil Vapor Barrier is used as a below-slab vapor barrier.

COMPOSITION: Stego Wrap 20-Mil Vapor Barrier is a multi-layer plastic extrusion manufactured with only the highest grade of prime, virgin, polyolefin resins.

ENVIRONMENTAL FACTORS: Stego Wrap 20-Mil Vapor Barrier can be used in systems for the control of soil gases (radon), and sulfates.

4. TECHNICAL DATA

TABLE 4.1: PHYSICAL PROPERTIES OF STEGO WRAP 20-MIL VAPOR BARRIER

PROPERTY	TEST	RESULTS
Under Slab Vapor Retarders	ASTM E1745 Class A, B & C – Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs	Exceeds Class A, B & C
Water Vapor Permeance	ASTM F1249 – Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor	0.0071 perms
Permeance After Conditioning (ASTM E1745 Sections 7.1.2 - 7.1.5)	ASTM E154 Section 8, F1249 – Permeance after wetting, drying, and soaking ASTM E154 Section 11, F1249 – Permeance after heat conditioning ASTM E154 Section 12, F1249 – Permeance after low temperature conditioning ASTM E154 Section 13, F1249 – Permeance after soil organism exposure	0.0088 perms 0.0081 perms 0.0084 perms 0.0077 perms
Methane Transmission Rate	ASTM D1434 - Standard Test Method for Determining Gas Permeability Characteristics of Plastic Film and Sheeting	152.2 GTR* (mL(STPI)/m ² *day)
Radon Diffusion Coefficient	K124/02/95	9.9 x 10 ⁻¹² m ² /second
Puncture Resistance	ASTM D1709 – Test Method for Impact Resistance of Plastic Film by Free-Falling Dart Method	3500+ grams**
Tensile Strength	ASTM D882 – Test Method for Tensile Properties of Thin Plastic Sheeting	97.7 lbf/in
Thickness		20 mil
Roll Dimensions		width x length: area: 14' x 105' 1470 ft ²
Roll Weight		152 lb

Note: perm unit = grains/(ft²*hr*in-Hg)

*GTR = Gas Transmission Rate

**The material maxed out the testing equipment and did not fail at 3746 grams.

Continued...

Note – legal notice on page 2.

STEGO® WRAP 20-MIL VAPOR WRAP BARRIER

A STEGO INDUSTRIES, LLC INNOVATION | VAPOR RETARDERS 07 26 00, 03 30 00 | VERSION: JAN 28, 2025

5. INSTALLATION

UNDER SLAB: Unroll Stego Wrap 20-Mil Vapor Barrier over an aggregate, sand, or tamped earth base. Overlap all seams a minimum of 6 inches and tape using Stego® Tape or Stego® Crete Claw® Tape. All penetrations must be sealed using a combination of Stego Wrap and Stego accessories.

Stego Wrap should be installed below 110°F. Do not exceed 7 days between Stego Wrap installation and concrete placement or full protection from UV and weather exposure. Please review technical data sheets for Stego accessory products for installation/application temperature ranges.

For additional information, please refer to Stego's complete installation instructions.

6. AVAILABILITY & COST

Stego Wrap 20-Mil Vapor Barrier is available through our network of building supply distributors. For current cost information, contact your local Stego® distributor or Stego Sales Representative.

7. WARRANTY

Stego believes to the best of its knowledge, that specifications and recommendations herein are accurate and reliable. However, since site conditions are not within its control, Stego does not guarantee results from the use of the information provided herein. Stego does offer a limited warranty on Stego Wrap 20-Mil Vapor Barrier. Please see stegoindustries.com/legal

8. MAINTENANCE AND STORAGE

Maintenance: Inspect after installation. Repair visible damage with Stego Tape or recommended accessories.

Storage and Handling: Store in original packaging in a cool, dry place. Handle with care to avoid damage.

Please refer to the Safety Data Sheet (SDS) for detailed safety, storage, and handling procedures.

9. TECHNICAL SERVICES

Technical advice, custom CAD drawings, and additional information can be obtained by contacting Stego or by visiting the website.

Email: contact@stegoindustries.com

Contact Number: (877) 464-7834

Website: stegoindustries.com

10. FILING SYSTEMS: stegoindustries.com





STEGO® WRAP

VAPOR BARRIER AND RETARDER INSTALLATION INSTRUCTIONS



ENGINEERED PERFORMANCE
LIFE OF THE BUILDING™ PROTECTION



Additional Stego Wrap installation resources and videos are available on our website at:

stegoindustries.com/resources

CONTENTS

The installation recommendations set forth in these instructions are based on ASTM E1643 and specific applications of Stego products. Each section provides explanations and options for the varying conditions.

SECTION 1	Stego Wrap and Stego Accessories	3
SECTION 2	Creating a Monolithic Membrane	4
SECTION 3	Where to Terminate the Stego Wrap	5
SECTION 4	Sealing Stego Wrap at Terminating Edges	6
	On Vertical Planes	
	Using Stego Crete Claw Tape.....	7
	Up Foundation Walls and Vertical Surfaces	
	Using StegoTack Tape or Stego Mastic.....	8
	On a Horizontal Plane	
	Using Stego Crete Claw Tape or Stego Mastic	9
SECTION 5	Sealing Damaged Areas	10
SECTION 6	Sealing Single Pipe Penetrations	11
SECTION 7	Sealing Multiple Pipe Penetrations	12
SECTION 8	Avoid Punctures with Beast Concrete Accessories	13



Stego Installation Support - A Free Service

When you choose **Stego® Barrier Solutions** and products, you gain access to a large nationwide network of full-time technical sales representatives providing unmatched local support and service. If you ever have a question or concern regarding the following installation scenarios please contact us and take advantage of our free Stego Installation Support.



Stego Wrap

Stego Wrap is made from a proprietary blend of prime virgin resins and additives, a combination lending to great value and effectiveness in protecting the concrete slab from moisture intrusion. All rolls of Stego Wrap are continuously printed with the Stego logo. This ensures no copycat or counterfeit products show up on a job site that could expose you to liability if an incorrectly identified product fails.

- **Stego® Wrap 20-Mil Vapor Barrier (Class A)**
- **Stego® Wrap 15-Mil Vapor Barrier (Class A)**
- **Stego® Wrap 10-Mil Vapor Retarder (Class A)**

Stego Accessories

At Stego, we know every project has its own unique challenges. To make a Stego Wrap installation easy and flexible, we offer an extensive line of accessory items that give you options to accomplish an effective perimeter seal that meets ASTM E1643. **Consult the project architect, owner's representative, and structural engineer of record before proceeding with any of these options.**



Stego® Tape

This low permeance and pressure-sensitive tape is engineered to bond specifically to Stego Wrap, making it ideal for sealing Stego Wrap seams and penetrations.



Stego® Mastic

A liquid vapor retardant membrane, designed to be used with Stego Wrap, for sealing utility and pipe penetrations.



Stego® Crete Claw® Tape 3"

This multi-layered tape utilizes a textured film that mechanically bonds to concrete cast against it. It is used to create a seal at Stego Wrap's terminating edges to subsequently placed slabs.



Stego® Term Bar

A semi-flexible plastic termination bar, optimal for mechanically securing Stego Wrap to concrete, wood, or masonry.



StegoTack® Tape

A double-sided adhesive strip used to bond and seal Stego Wrap to concrete, masonry, metal, and other surfaces.

Creating a Monolithic Membrane

The key to an effective Stego Wrap installation is to create a monolithic layer of protection between the concrete slab and moisture sources below. This can be accomplished by following the installation instructions outlined in ASTM E1643 - *Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs*.

ASTM E1643 discusses the selection of the vapor retarder and preparation of the subbase to minimize potential damage during installation and concrete placement.

ASTM E1643, Section 5.3.4.1 - *Select a vapor retarder material capable of withstanding potential construction site damage.*

ASTM E1643, Section 5.3.5.1 - *Select vapor retarder material capable of withstanding tear or puncture damage due to the type, gradation, and texture of the base material to be installed below the material. Prepare base material to minimize risk of puncture, for example, by rolling or compacting.*

ASTM E1643, Section 6.1 - *Level and compact base material.*

ASTM E1643 then states to create a monolithic membrane to protect the slab from adjacent moisture sources.

ASTM E1643, Section 6.4 - *... create a monolithic membrane between the surface of the slab and moisture sources below the slab as well as at the slab perimeter.*

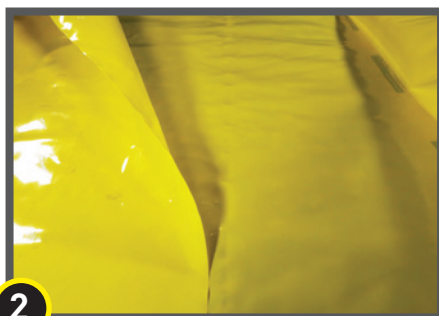
ASTM E1643, Section 6.5 - *Lap joints minimum 6 in. (150 mm), or as instructed by the manufacturer, and seal laps in accordance with the manufacturer's recommendations.*

Stego Wrap can be installed over an aggregate, sand, or tamped earth base. It is not necessary to have a cushion layer or sand base, as Stego Wrap is tough enough to withstand rugged construction environments.



1

Unroll Stego Wrap over the area where the slab is to be placed.



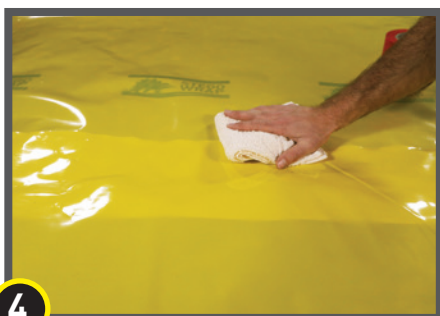
2

Unless otherwise indicated by the design professional(s) of record, unfold Stego Wrap to completely cover the placement area.



3

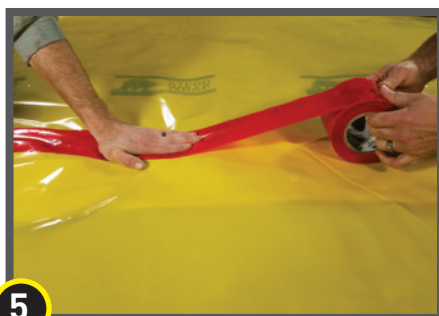
All joints/seams should be overlapped a minimum of 6 inches.



4

Ensure Stego Wrap is clean and dry when applying Stego Tape.

Tip: Use a cloth or other means to remove dust, debris, and excess moisture from Stego Wrap prior to applying Stego Tape.



5

Seal the seams with Stego Tape.

Where to Terminate the Stego Wrap

Always consult the project design team for where to terminate the vapor barrier to strike the balance between the location of the vapor barrier on or around foundation constructions and any structural concerns before proceeding.

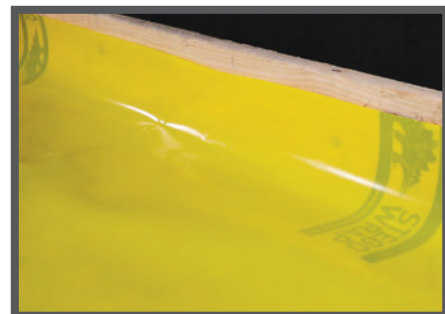
ASTM E1643 provides direction on where to terminate the vapor barrier as follows:

ASTM E1643, Section 6.4 - *Extend vapor retarder over footings and seal to foundation wall, grade beam, or slab at an elevation consistent with the top of the slab or terminate at impediments such as waterstops or dowels...*

ASTM E1643, Section 6.6 - *Extend vapor retarder over the tops of pile caps and grade beams to a distance acceptable to the structural engineer.*

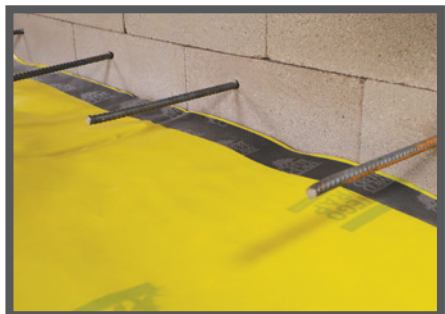
In accordance with ASTM E1643, terminate the Stego Wrap as follows:

At an elevation (height) consistent with the top of the slab;



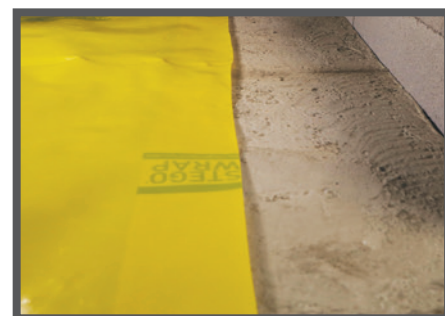
Note: Turn Stego Wrap up foundation walls or forms.

At Impediments; OR



Note: Impediments may include rebar, dowels, water stops, etc.

At a location of termination designated by the project design team.



Note: The distance to which the vapor barrier is extended adjacent to, onto, or completely over a footing or grade beam should be determined by the project design team.

If the location of vapor barrier termination has not been clearly addressed in the construction documents, then clarification should be requested from the project design team. Should no direction be given, Stego recommends the project team follow the guidelines of ASTM E1643.

Regardless of where the vapor barrier is determined to be terminated, ASTM E1643 requires the terminating edges to be sealed. See Sealing Stego Wrap at Terminating Edges, next page.

Sealing Stego Wrap at Terminating Edges

Always consult the project design team for where to terminate the vapor barrier to strike the balance between the location of the vapor barrier on or around foundation constructions and any structural concerns before proceeding.

Seal Stego Wrap along all terminating edges as indicated by the project team. Stego provides several innovative options for creating a seal as required by ASTM E1643.

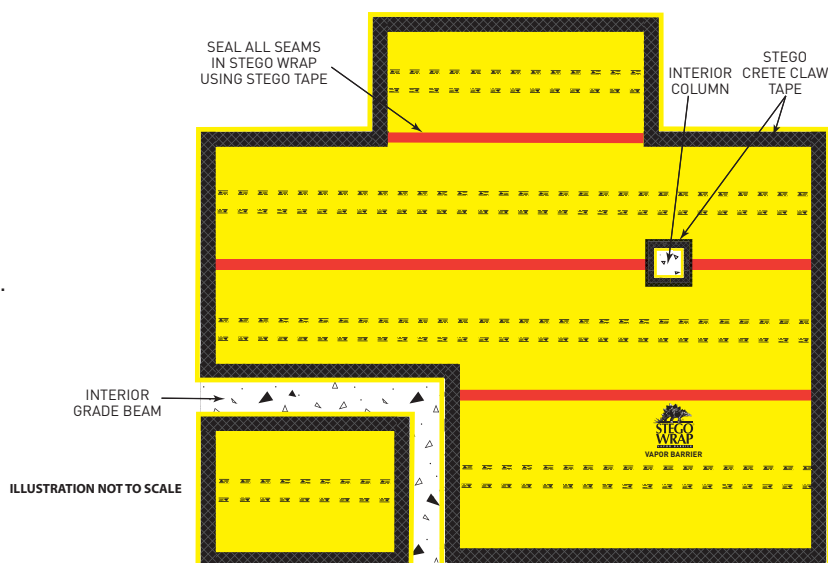
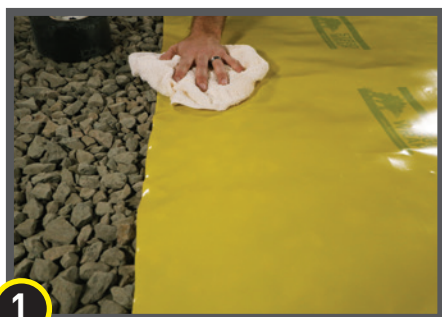


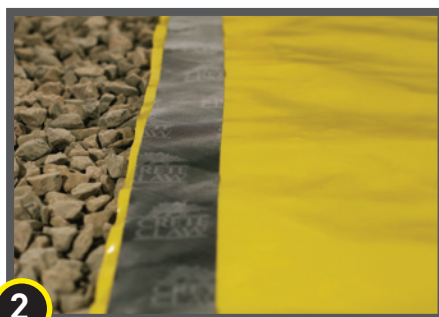
ILLUSTRATION NOT TO SCALE



1

Ensure Stego Wrap is clean and dry when applying Stego Crete Claw Tape.

Tip: Use a cloth or other means to remove dust, debris, and excess moisture from the vapor barrier prior to applying Stego Crete Claw Tape.



2

Apply Stego Crete Claw Tape as close as possible to the terminating edge of Stego Wrap.

Tip: Applying Stego Crete Claw Tape within 2" of the terminating edge is almost always possible, even when the terminating edges are not cut perfectly straight.



3

Install Stego Crete Claw Tape last for a successful installation.

Tip: Install Stego Crete Claw Tape before rebar but after Stego Wrap has been overlapped and sealed at the seams with Stego Tape, sealed at penetrations, and terminated at the project's perimeter and/or other specified terminating location.

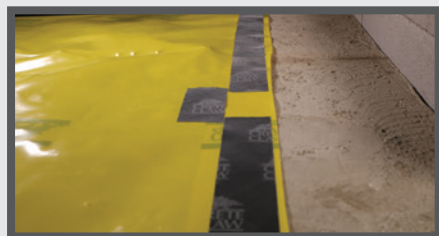
Stego Crete Claw Tape - Installation Tips



IMPORTANT:

Do not overlap Stego Crete Claw Tape over itself.

Tip: If placing multiple sections of Stego Crete Claw Tape, minimize gaps by abutting each adjacent section against one another.



Do not leave any open gaps between Stego Crete Claw Tape.

Tip: If a small gap exists between two pieces of Stego Crete Claw Tape, a supplementary piece of Stego Crete Claw Tape should be applied to run along the inside edges of the two original pieces and span the gap between them. The supplementary piece should run parallel and flush to the original pieces without overlap.



If protrusions or penetrations are determined to be impediments to applying Stego Crete Claw Tape along the perimeter terminating edges of Stego Wrap, route Stego Crete Claw Tape around the impediment, as close to the impediment as possible, and continue along the terminating edge of Stego Wrap on the opposite side of the impediment.

Stego Crete Claw Tape is often the preferred product because of its ease of application and versatility to accommodate most conditions. It has been engineered to create a seal between Stego Wrap and the concrete subsequently cast against it. See also StegoTack Tape and Stego Mastic options, detailed on the next few pages.

Sealing the Terminating Edges of Stego Wrap on Vertical Planes Using Stego Crete Claw Tape

IMPORTANT: Make sure the area of adhesion is free of dust, dirt, debris, moisture, and frost to allow maximum adhesion.

Vertical Plane: Foundation Wall



1 Extend Stego Wrap up the vertical surface, likely to the height of the slab.
Note: See Where to Terminate the Stego Wrap, page 4.

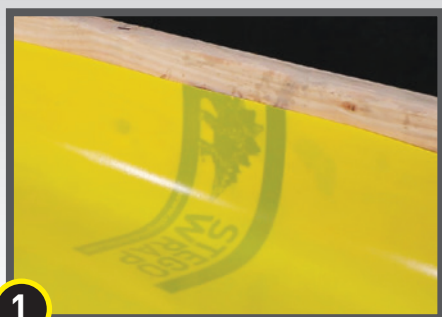


Optional: Temporarily secure Stego Wrap to the foundation wall with a small piece of Stego Tape.
Note: Trim excess Stego Tape after concrete has been placed and before removal of any adjacent forms.



3 Apply the entire 3" width of Stego Crete Claw Tape on the perimeter edge of Stego Wrap.
Note: Clean surface of Stego Wrap to ensure that it is free of moisture and debris prior to the installation of Stego Crete Claw Tape.

Vertical Plane: Concrete Form



1 Extend Stego Wrap up the vertical surface, likely to the height of the forms.
Note: See Where to Terminate the Stego Wrap page 4.



Optional: Temporarily secure Stego Wrap to the concrete form with a small piece of Stego Tape.
Note: Trim excess Stego Tape after concrete has been placed and before removal of any adjacent forms.



3 Apply the entire 3" width of Stego Crete Claw Tape on the perimeter edge of Stego Wrap.
Note: Clean surface of Stego Wrap to ensure that it is free of moisture and debris prior to the installation of Stego Crete Claw Tape.

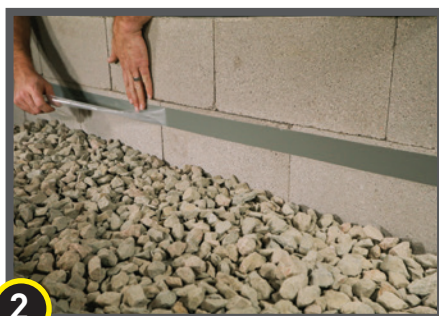
Sealing Stego Wrap Up Foundation Walls and Vertical Surfaces Using StegoTack Tape

StegoTack Tape can also be used to seal Stego Wrap to foundation walls, grade beams or other adjacent concrete constructions.

IMPORTANT: Make sure area of adhesion is free of dust, dirt, debris, moisture, and frost to allow maximum adhesion.



1 Remove the release liner on one side of StegoTack Tape and stick to foundation wall at the height of the slab or at impediments.



2 When ready to apply Stego Wrap, remove the exposed release liner from StegoTack Tape.



3 Press Stego Wrap firmly against StegoTack Tape to secure.

NOTE: If consistent, continuous pressure will not be applied (e.g. by a concrete slab), Stego Term Bar may be necessary.

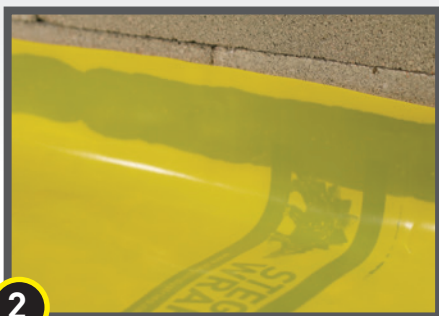
Sealing Stego Wrap Up Foundation Walls and Vertical Surfaces Using Stego Mastic

Stego Mastic can also be used to seal Stego Wrap to foundation walls, grade beams or other adjacent concrete constructions.

IMPORTANT: Make sure area of adhesion is free of dust, dirt, debris, moisture, and frost to allow maximum adhesion.



1 Apply Stego Mastic to the foundation wall at the anticipated edge of the subsequently applied Stego Wrap at the height of the slab or impediments.



2 Press Stego Wrap firmly against the applied Stego Mastic on the foundation wall.



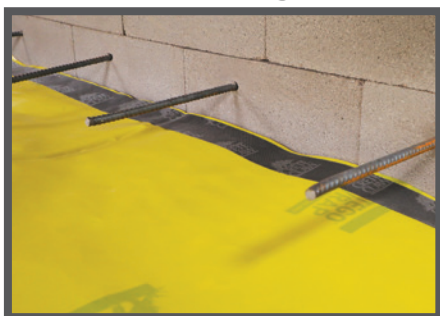
3 If consistent, continuous pressure will not be applied (e.g. by a concrete slab), Stego Term Bar may be necessary.

Sealing the Terminating Edges of Stego Wrap on a Horizontal Plane

Always consult the project design team for where to terminate the vapor barrier to strike the balance between the location of the vapor barrier on or around foundation constructions and any structural concerns before proceeding.

After the location of where to terminate the vapor barrier has been determined, seal Stego Wrap along all terminating edges as indicated by the project team.

With Stego Crete Claw Tape

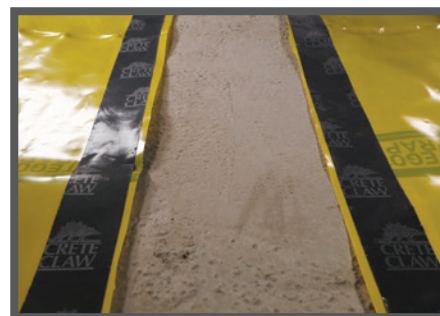


At a Foundation Wall: Install Stego Crete Claw onto the terminating edge of Stego Wrap.

Tip: Install Stego Crete Claw onto Stego Wrap before sliding Stego Wrap into final termination location.



At Interior Grade Beam Impediments: Install Stego Crete Claw onto the terminating edge of Stego Wrap.



At a Location Designated by the Design Team: Install Stego Crete Claw onto the terminating edge of Stego Wrap.

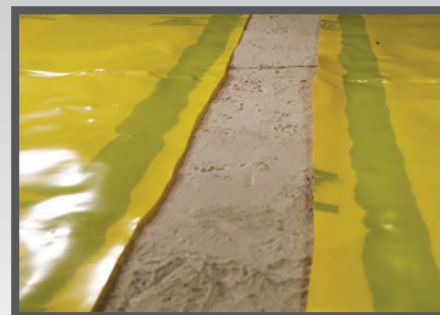
With Stego Mastic



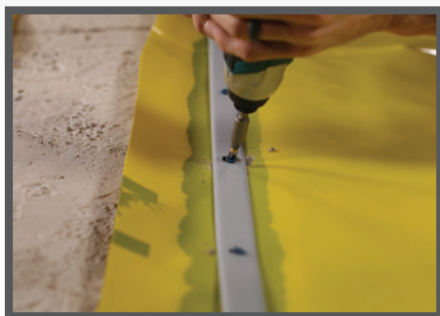
Onto a Perimeter Footing at Impediments: Seal Stego Wrap to concrete with Stego Mastic.



Onto Interior Grade Beams at Impediments: Seal Stego Wrap to concrete with Stego Mastic.



At a Location Designated by the Design Team: Seal Stego Wrap to concrete with Stego Mastic.



If consistent, continuous pressure will not be applied (e.g. by a concrete slab), Stego Term Bar may be necessary.

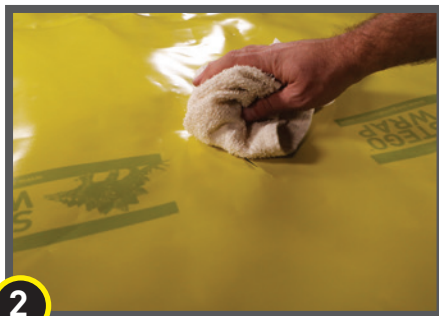
See “Where to Terminate the Vapor Barrier” on page 4 prior to choosing your terminating edge sealing accessory.

Sealing Damaged Areas: Small Hole or Slice

In the event that Stego Wrap is damaged during or after installation, repairs must be made. For smaller holes or slices in Stego Wrap, Stego Tape can be used as noted below.



1 Small hole or slice in Stego Wrap.



2 Clean area of adhesion.



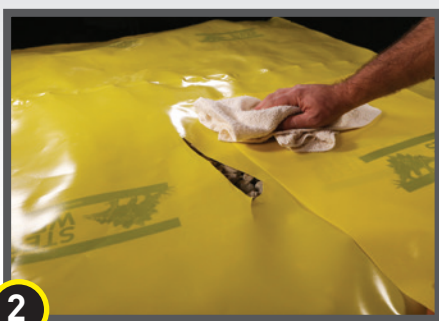
3 Center Stego Tape over small hole or slice in Stego Wrap.

Sealing Damaged Areas: Larger Hole

In the event that Stego Wrap is damaged during or after installation, repairs must be made. For larger holes, cut a piece of Stego Wrap to a size and shape that covers any damage by a minimum overlap of 6" in all directions. Clean all adhesion areas of dust, dirt, moisture, and frost. Tape down all edges using Stego Tape.



1 Occasionally there are larger holes in the vapor barrier that require a patch.



2 Clean area of adhesion.



3 Measure and cut a piece of Stego Wrap to cover damaged area 6" in all directions. Seal patch with Stego Tape.

Sealing Single Pipe Penetration: Minimal Void Space

All penetrations must be sealed. All pipe, ducting, rebar, wire penetrations and block outs should be sealed using Stego Wrap, Stego Tape and/or Stego Mastic. If penetrations are encased in other materials, such as expansive materials like foam, unless otherwise specified, Stego Wrap should be sealed to the underlying penetration directly.



1 Install Stego Wrap around pipe penetrations by slitting/cutting material as needed. Try to minimize the void space created.



2 Pull material over and flatten. Clean area of adhesion where Stego Tape will be applied.



3 If Stego Wrap is close to pipe and void space is minimized then seal around pipe penetration with Stego Tape and/or Stego Mastic.

Sealing Single Pipe Penetration: Larger Void Space Requires Detail Patch

To minimize void space around a larger penetration, a detail patch may be required. Stego Pre-Cut Pipe Boots are also available to speed up the installation.



1 Cut a detail patch to a size and shape that creates a 6" overlap on all edges around the void space at the base of the pipe.



2 Cut an "X" the size of the pipe diameter in the center of the pipe boot and slide tightly over pipe.



3 Seal all sides of the pipe boot with Stego Tape.



4a Seal around the base of the pipe using Stego Tape. OR...



4b Seal around the base of the pipe with Stego Mastic. Note: apply using disposable glove, paint brush, or similar.

Sealing Multiple Pipe Penetrations: Using Stego Tape

Multiple pipe penetrations in close proximity and very small pipes may be sealed using Stego Tape and/or Stego Mastic for ease of installation.



1 Cut a slit the size to accommodate the width of the multiple pipes. Try to minimize the void space created.



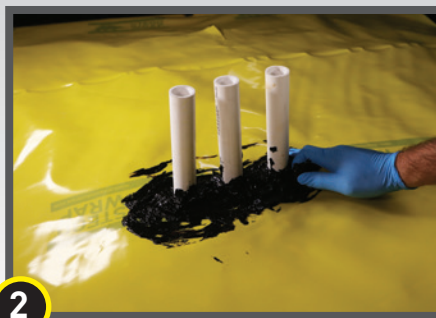
2 Seal any void space around each pipe using Stego Tape.

Note: Subbase should not be visible from above.

Sealing Multiple Pipe Penetrations: Using Stego Mastic



1 Seal any void space around each pipe penetration with Stego Mastic.



2 Dab Stego Mastic with disposable glove, paint brush, or similar, making sure entire void space is sealed.

Note: If pipe penetrations are abutted against one another, minimize any void space first with Stego Wrap, then seal any remaining void space with Stego Tape and/or Mastic in the same manner represented above.



Avoid Punctures with Beast® Concrete Accessories

To help eliminate the use of non-permanent penetrations in Stego Wrap installation, Stego recommends the use of Beast vapor barrier-safe concrete accessories.

IMPORTANT: Avoid puncturing Stego Wrap with stakes while forming, bracing, and screeding.

Preventing punctures in the vapor barrier.



BEAST® FORM STAKE can be used with **BEAST® FOOT** as part of the Stego vapor barrier-safe forming system which meets ASTM E1643 requirements.



This concrete form stake takes the place of traditional nail stakes for interior forming applications, utilizing SpeedTrack™ Fastening Grooves for unlimited fastener placement.

Note: Refer to Beast Form Stake Installation Guide for detailed usage instructions.



Beast Form Stake is strong enough to withstand a beating during concrete placement while holding its shape. It is easy to remove and reusable for the next job.

Note: Beast Form Stake can be removed once concrete has set sufficiently to hold its shape. Fill and repair any voids in the concrete as necessary once the Beast Form Stake has been removed and strike Beast Form Stake against a hard surface to loosen the concrete buildup.



Locate it and lock it down!

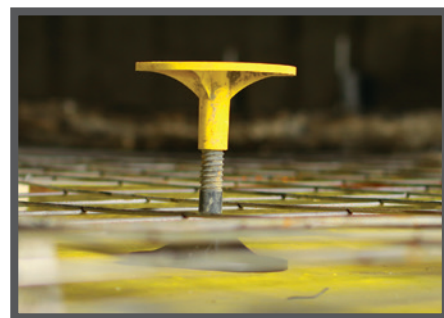
BEAST® HOOK is a **faster, easier** way to set 2x4 overhead screeds. Use Beast Foot and Beast Form Stake and make it a vapor barrier-safe screed system.

No tools are required, just grip the knob to loosen or tighten. Fast, easy, efficient.



BEAST® SCREED is a fixed-elevation, point-to-point guide screed system designed to replace common wet-screed methods.

Improve efficiency and maintain concrete floor levelness with the BEAST SCREED SYSTEM!



Set it and forget it. Beast Screed eliminates the need to frequently re-establish grade to ensure floor elevation has not changed during the screeding operation as is typical with traditional wet-screed methods.

Note: Refer to Beast Screed System Installation Instructions for detailed usage instructions.

NOTE: Stego Industries, LLC's ("Stego") installation instructions are based on ASTM E1643 - *Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs*. These instructions are meant to be used as a guide, and do not take into account specific job site situations. Consult local building codes and regulations along with the building owner or owner's representative before proceeding. If you have any questions regarding the above mentioned installation instructions or Stego products, please call us at 877-464-7834 for technical assistance. While Stego employees and representatives may provide technical assistance regarding the utility of a specific installation practice or Stego product, they are not authorized to make final design decisions.

HAVE QUESTIONS? Give us a call to get in touch with your nearest Stego® Representative.
877-464-7834 | stegoindustries.com

INDUSTRY-LEADING BARRIERS AND UNRIVALED SUPPORT™

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