PRIMARY FLUID SYSTEMS INC.

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Rev.3

Metering Pump Corporation Stop Installation Instructions

Primary Fluid Systems Inc. introduces Corporation Stops, the newest addition to their line of Metering Pump Accessories.
The Corporation Stop is ideal for the injection of chemicals into the center stream of a process pipeline. This provides for a more homogeneous mix to take place in the pipeline. Each Corporation Stop has a separate quill, which can be removed from service via an isolation valve assembly. Each quill has a built in spring-loaded check, to help prevent back siphoning.
The injection quill is available in two sizes, 2⅝" insertion length suitable for 4"-6" pipe diameters and 4⅝" insertion length suitable for 8"-10" pipe diameters. The connection for both sizes is ½" NPT, BSPT or Flanged.

Six (6) materials of construction are available that provide compatibility for most chemicals injected. Each quill comes standard with a stainless steel spring, as an option a Hastelloy C spring is available at an extra charge (consult factory). Hastelloy C units come standard with a HastC spring. The quill may also be ordered without a spring.
Pressure and temperature are dependent on the material of construction and vary from 150 PSIG and 60º C (140ºF) to 2000 PSIG and 176º C (350ºF).

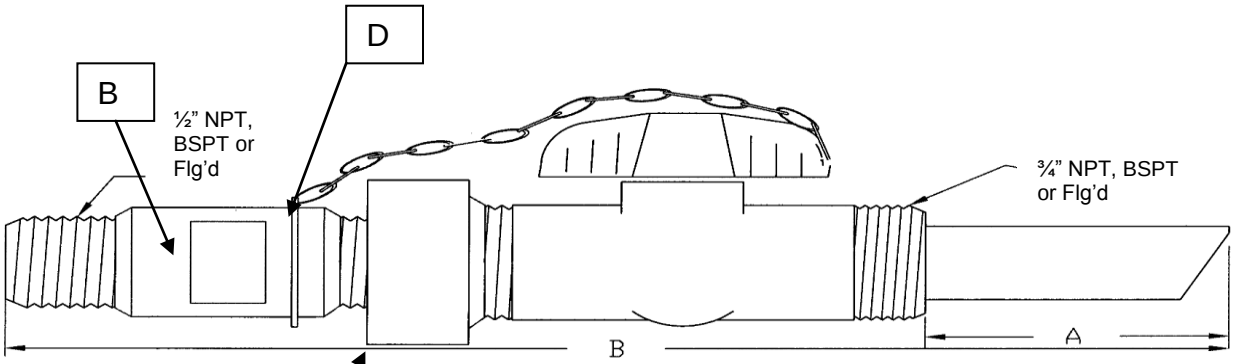
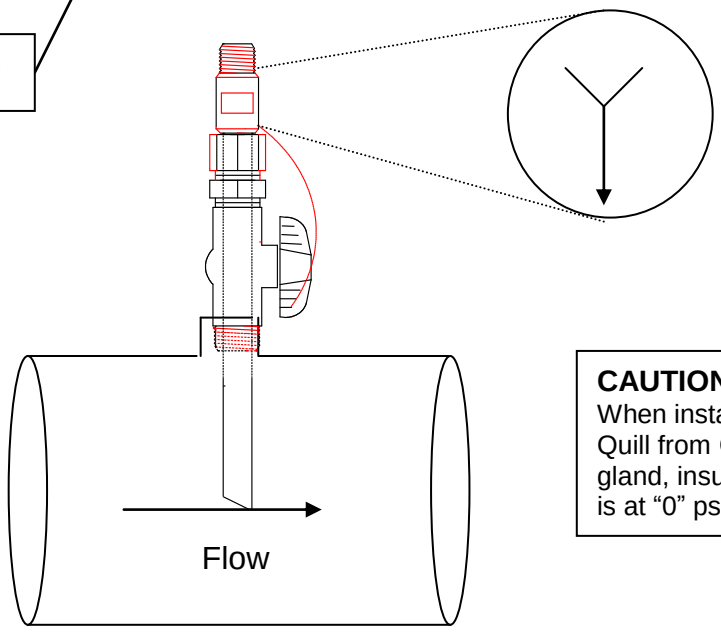


Figure A



CAUTION:
When installing or removing Quill from Corporation Valve gland, insure system pressure is at "0" psig.

PRIOR TO INSTALLATION, MAKE SURE ALL FITTINGS AND VALVE UNION NUTS ARE TIGHT.

CORPORATION STOPS VALVE ASSEMBLY INSTALLATION

1) Install the Corporation Stop Valve assembly using the appropriate piping compound and PTFE tape.
2) All Corporation Stops come standard with a spring assisted injection quill. It is recommended, however, if you order a unit without a spring that the unit be installed in the process line at a 6 o'clock position. This will assist in the check valve seating.
3) 2⅝" insertion length quills are suitable for 4"-6" pipe diameters. Pipe sizes smaller than 4", the quill can be trimmed so that the injection quill is in the centerline of the process pipe. 4⅝" insertion length quills are suitable for 8"-10" pipe diameters.
4) See Fig. A (previous page). Install the valve assembly in the process line so that the stamped arrow in the injection quill body is facing downstream. This positions the angle face of the quill into the process stream, increasing the dispersion of the chemical into the process fluid.

SAFETY PRECAUTION:

Always ensure system pressure is at "0" psig before unthreading Quill from Corporation Stop gland.
Always wear protective clothing and face shield working on chemical metering pumps and accessories.

Removal of injection Quill from Corporation Stop for Service.

1. Slowly unthread the injection quill counter clockwise (B) from the gland (C), (see figure A), making sure not to unthread gland or the union fittings on the valve.

CAUTION:

Loosening the gland fitting or the union nuts on the valve may result in a hazardous situation where pressurized fluids or chemical may be released, which could cause serious injury or damage.

2. Once the quill has been unthreaded, slowly withdraw the injection quill out of the gland (C), using a twisting action to ease the quill out of the gland. Withdraw the quill until the chain is almost taught or the Blue and/or Mark indicator on the quill becomes visible at the gland.
3. Turn the handle to close the ball valve, which will isolate the process line.

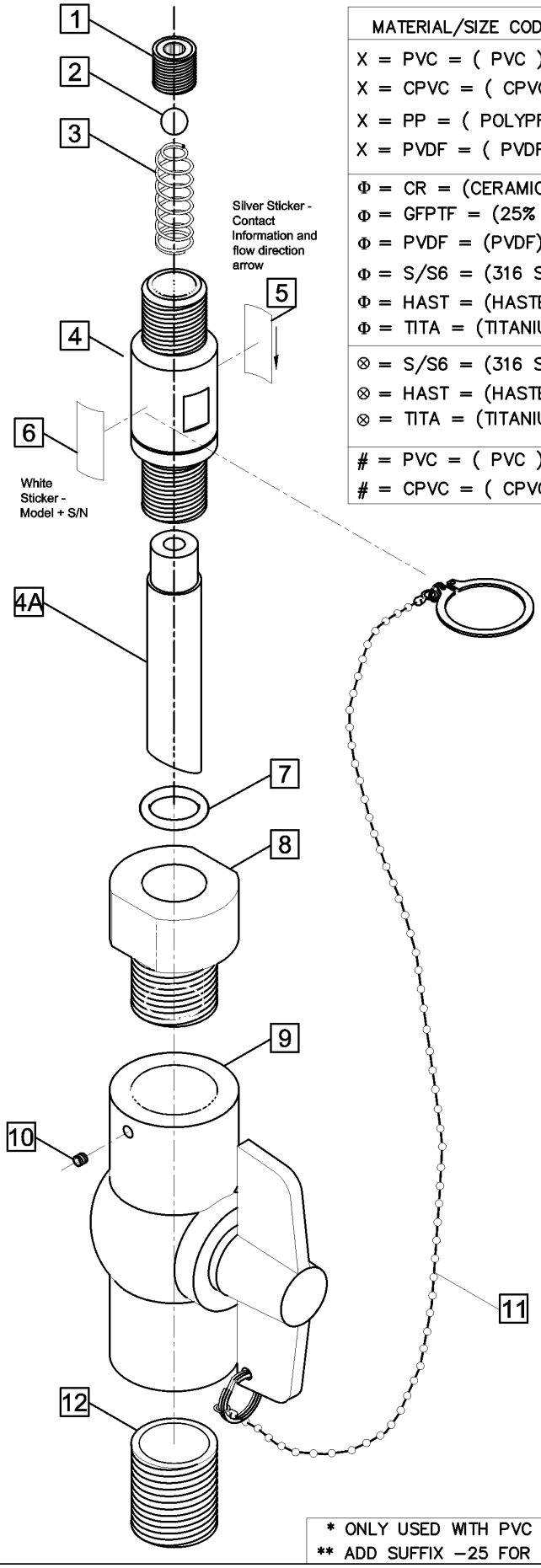
CAUTION:

Completely removing the injection quill without closing the isolation valve will result in a hazardous situation where pressurized fluids or chemical may be released, which could cause serious injury or damage.

4. Continue to remove the injection quill once the valve has been closed.

Re-installation of injection Quill into Corporation Stop for Service.

1. Always ensure the safety chain is properly attached (D). Failure to do so can allow for the quill to be removed without closing the valve and can result in injury or damage.
2. Insert injection quill (B) into the gland (C), using a twisting action to ease the quill into the gland. Continue to insert the quill until it stops and rests up against the ball of the valve.
3. Securely holding the quill, slowly turn the handle to open the ball valve.
4. Continue to insert quill body into the gland. Once the threaded section of the quill reaches the gland, thread the quill body (B) clockwise into the gland (C) by hand until snug. Using a ⅞" wrench, tighten down the quill body so that no more than 2 (two) threads show on the quill body. This will insure a good seal for the quill.



MATERIAL/SIZE CODING	
X = PVC = (PVC)	^ = P = (PVC)
X = CPVC = (CPVC CORZAN)	^ = C = (CPVC CORZAN)
X = PP = (POLYPROPYLENE)	^ = PP = (POLYPROPYLENE)
X = PVDF = (PVDF)	^ = K = (PVDF)
Φ = CR = (CERAMIC)	⊕ = 8.125 (2–5/8) INSERTION PVC/CPVC
Φ = GFPTF = (25% GF PTFE)	⊕ = 10.125 (4–5/8) INSERTION PVC/CPVC
Φ = PVDF = (PVDF)	⊕ = 8.5 (2–5/8) INSERTION PP/PVDF
Φ = S/S6 = (316 STAINLESS STEEL)	⊕ = 10.5 (4–5/8) INSERTION PP/PVDF
Φ = HAST = (HASTELLOY C276)	⊕ = OTHER THAN STANDARD LENGTH CONTACT FACTORY
Φ = TITA = (TITANIUM)	
⊗ = S/S6 = (316 STAINLESS STEEL)	∅ = 0 (USED WITH PVC & CPVC UNITS)
⊗ = HAST = (HASTELLOY C276)	∅ = 5 (USED WITH PP & PVDF UNITS)
⊗ = TITA = (TITANIUM)	√ = V = VITON (STANDARD SEAL)
# = PVC = (PVC)	√ = E = EPDM (OPTIONAL SEAL)
# = CPVC = (CPVC CORZAN)	∇ = PVC = (PVC)
	∇ = CPVC = (CPVC CORZAN)
	∇ = PVDF = (PVDF)
	Σ = PVC = (PVC)
	Σ = CPVC = (CPVC CORZAN)
	Σ = PP = (POLYPROPYLENE)
	Σ = PVDF = (PVDF)

ITEM #	DESCRIPTION	PART#
1	SEAT, CHECK	IQ–1X–SEAT
2	BALL, CHECK	IQ–1 Φ–BALL
3	SPRING, CHECK	IQ–1 ⊗–SPRING
4	BODY, CHECK*	IQ–BODY–#
4A	QUILL**	IQ–∅–⊕ – ^
5	LABEL, DIRECTION, SILVER	IQ–LABEL–DIR
6	LABEL, MODEL + SERIAL #	MSLABEL
7	SEAL , GLAND	√–208
8	GLAND	CCS–∇–GLD
9	VALVE	CCS–VAL–∇
10	SCREW, SET	10–24X3/8–316SS
11	CHAIN, ASSY	CCS–SSCA
12	NIPPLE	NIP–Σ

NOTE: SERIAL NUMBER & MODEL REQUIRED FOR PARTS ORDER

* ONLY USED WITH PVC AND CPVC UNITS
** ADD SUFFIX –25 FOR 1/4" ORIFICE

PRIMARY FLUID SYSTEMS INC.
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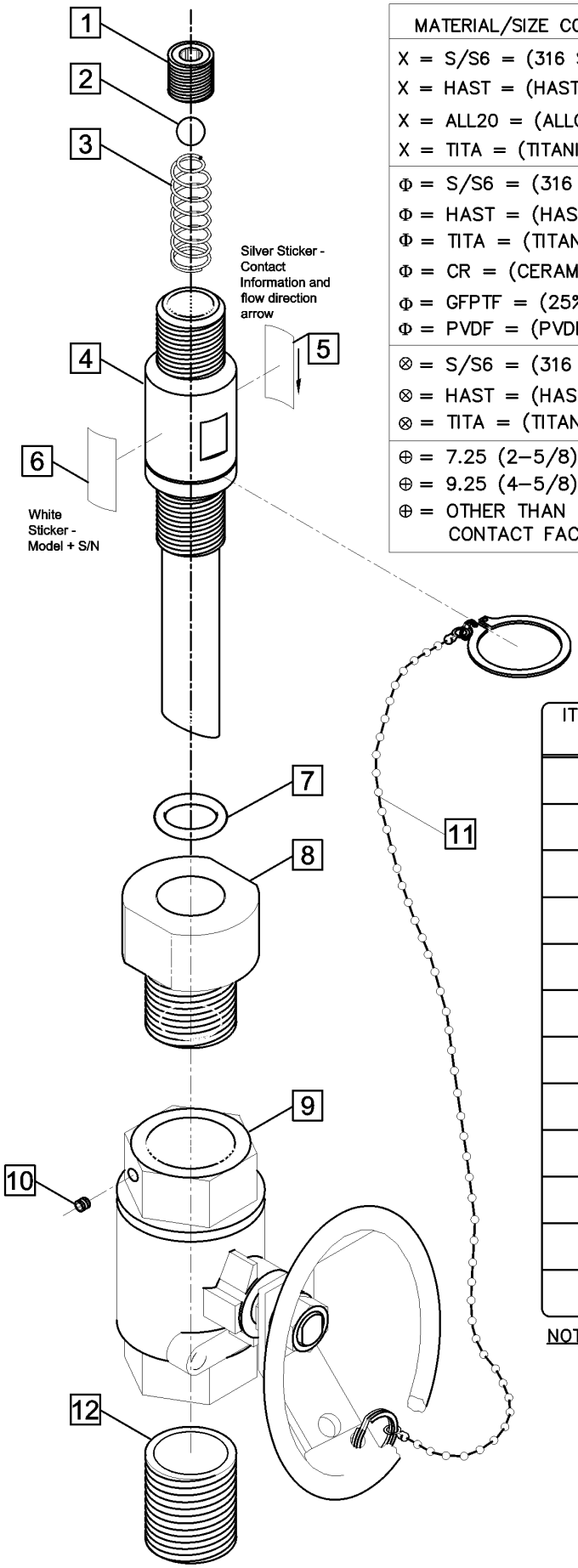
PFS CORPORATION STOP - PLASTIC VALVE EXPLODED PARTS VIEW

DATE ISSUED: 19-OCT-11	SCALE: NTS	SHEET: 1 OF 1
PROJECT: CORP STOP		DRAWN BY: BCB
APPROVED BY:	DWG NO.: CS-PV-5075NPT-7510BV-XPL	REV.#: 5



MATERIAL/SIZE CODING	
X = S/S6 = (316 STAINLESS STEEL) X = HAST = (HASTELLOY C276) X = ALL20 = (ALLOY20) X = TITA = (TITANIUM)	^ = S = (316 STAINLESS STEEL) ^ = H = (HASTELLOY C276) ^ = A = (ALLOY20) ^ = T = (TITANIUM)
Φ = S/S6 = (316 STAINLESS STEEL) Φ = HAST = (HASTELLOY C276) Φ = TITA = (TITANIUM) Φ = CR = (CERAMIC) Φ = GFPTF = (25% GF PTFE) Φ = PVDF = (PVDF)	√ = V = VITON (STANDARD SEAL) √ = E = EPDM (OPTIONAL SEAL)
⊗ = S/S6 = (316 STAINLESS STEEL) ⊗ = HAST = (HASTELLOY C276) ⊗ = TITA = (TITANIUM)	Σ = S/S6 = (316 STAINLESS STEEL) Σ = HAST = (HASTELLOY C276)
⊕ = 7.25 (2–5/8) INSERTION UNITS ⊕ = 9.25 (4–5/8) INSERTION UNITS ⊕ = OTHER THAN STANDARD LENGTH CONTACT FACTORY	

* ADD SUFFIX –25 FOR 1/4" ORIFICE

ITEM #	DESCRIPTION	PART#
1	SEAT, CHECK	IQ–1X–SEAT
2	BALL, CHECK	IQ–1 Φ –BALL
3	SPRING, CHECK	IQ–1 ⊗ –SPRING
4	BODY, QUILL, W/ CHECK	IQ–5– ⊕ – ^
5	LABEL, DIRECTION, SILVER	IQ–LABEL–DIR
6	LABEL, MODEL + SERIAL #	MSLABEL
7	SEAL , GLAND	√ 208
8	GLAND	CCS–Σ –GLD
9	VALVE	CCS–VAL–Σ
10	SCREW, SET	10–24X3/8–316SS
11	CHAIN, ASSY	CCS–SSCA
12	NIPPLE	NIP– Σ

NOTE: SERIAL NUMBER & MODEL REQUIRED FOR PARTS ORDER

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PFS CORPORATION STOP - ALLOY
EXPLODED PARTS VIEW

DATE ISSUED: 19–OCT–11	SCALE: NTS	SHEET: 1 OF 1	
PROJECT: CORP STOP		DRAWN BY: BCB	
APPROVED BY:	DWG NO.: CS-A-5075NPT-7510BV-XPL		REV.#: 3