

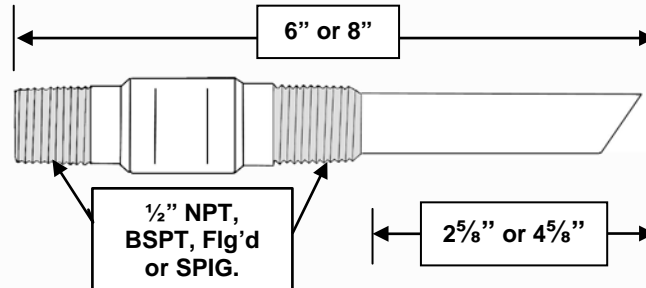


PRIMARY FLUID SYSTEMS INC.

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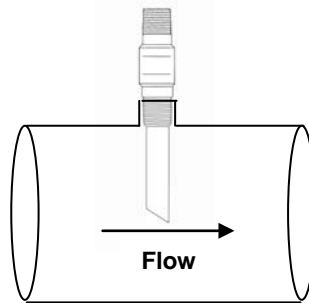
01/2016
 Rev. 0

USA 2016 PFS Injection Quills



Typical Installation

Fig. A



HOW TO ORDER

eg: IQ-56-CPVC-HI-25

IQ - 56 - CPVC - HI -25

PFS INJECTION QUILL

QUILL CONNECTION

- 5 = 1/2" NPT
 - 5B = 1/2" BSPT
 - 5F = 1/2" Flg'd
 - 5S = 1/2" SPIG.
 - 7 = 3/4" NPT
 - 7B = 3/4" BSPT
 - 7F = 3/4" Flg'd
 - 7S = 3/4" SPIG.
- Other connection sizes available upon request.

INSERTION LENGTH

- 6 = 2 5/8"
 - 8 = 4 5/8"
- Longer insertions available upon request

The standard discharge orifice is 1/8"
 -25 = Optional 1/4" discharge orifice for higher capacity flow

OPTIONAL: (Suffix)

SPRING AND BALL MATERIALS

- H = Hastelloy "C" spring material
- I = Hastelloy "C" ball material
- TB = Titanium Grade 2 ball material
- TS = Titanium Beta "C" Spring
- K = PVDF ball material
- T = PTFE ball material

BODY MATERIALS

- PVC = Polyvinylchloride
- CPVC = CPVC Corzan
- PP = Polypropylene
- PVDF = Polyvinylidene Fluoride
- 316S/S = 316 Stainless Steel
- HAST = Hastelloy "C" 276

Call Toll Free 1-800-776-6580

PFS Injection Quills

Standard Features

- Built in, spring loaded check
- 6 materials of construction
- Pressure range to 3000 PSIG
- Available in 2 sizes, 6" (2⁵/₈" insertion length) or 8" (4⁵/₈" insertion length)
- Simple installation, using 1/2" or 3/4" NPT, BSP, Flg'd or Spigoted connections are available
- 3 spring material choices, 316 stainless steel (standard), Hastelloy "C" or Titanium Beta "C"
- 6 check ball material choices (see options below)

<i>Model</i>	<i>OAL Length</i>	<i>Insertion Length</i>	<i>Body Material</i>	<i>Ball Check Material</i>	<i>Check Spring Material</i>	<i>Pressure * Max. PSIG</i>	<i>Temperature Max.</i>
IQ-56-PVC IQ-76-PVC	6"	2 ⁵ / ₈ "	PVC	Ceramic	316S/S	150*	140°F(60°C)
IQ-56-CPVC IQ-76-CPVC	6"	2 ⁵ / ₈ "	CPVC	Ceramic	316S/S	150*	210°F(98°C)
IQ-56-PP IQ-76-PP	6"	2 ⁵ / ₈ "	PP	Ceramic	316S/S	150*	195°F(90°C)
IQ-56-PVDF IQ-76-PVDF	6"	2 ⁵ / ₈ "	PVDF	Ceramic	316S/S	150*	260°F(125°C)
IQ-56-316S/S IQ-76-316S/S	6"	2 ⁵ / ₈ "	316 S/S	316 S/S	316S/S	3000*	500°F(260°C)
IQ-56-HastC IQ-76-HastC	6"	2 ⁵ / ₈ "	Hastelloy	Hastelloy	Hastelloy	3000*	500°F(260°C)
IQ-58-PVC IQ-78-PVC	8"	4 ⁵ / ₈ "	PVC	Ceramic	316S/S	150*	140°F(60°C)
IQ-58-CPVC IQ-78-CPVC	8"	4 ⁵ / ₈ "	CPVC	Ceramic	316S/S	150*	210°F(98°C)
IQ-58-PP IQ-78-PP	8"	4 ⁵ / ₈ "	PP	Ceramic	316S/S	150*	195°F(90°C)
IQ-58-PVDF IQ-78-PVDF	8"	4 ⁵ / ₈ "	PVDF	Ceramic	316S/S	150*	260°F(125°C)
IQ-58-316S/S IQ-78-316S/S	8"	4 ⁵ / ₈ "	316S/S	316S/S	316S/S	3000*	500°F(260°C)
IQ-58-HastC IQ-78-HastC	8"	4 ⁵ / ₈ "	Hastelloy	Hastelloy	Hastelloy	3000*	500°F(260°C)

**MAXIMUM PSIG RATING BASED ON 73°F (23°C). SEE PAGE 4 FOR TEMPERATURE CORRECTION FACTOR*

Note: Check spring is made of 316 S/S, Hastelloy "C" or Titanium Beta C material. The injection quill may be ordered less spring if not chemically compatible with product being pumped.

Hastelloy "C" springs are available from stock

Other spring materials available on special request, please contact the factory for costs

PVDF, PTFE, Hastelloy "C" and Titanium Grade 2 check balls are available from stock

PFS Injection Quills 2016 USA Price List

CODE A

<i>Model</i>	<i>OAL Length</i>	<i>Insertion Length</i>	<i>Body Material</i>	<i>Ball Check Material</i>	<i>Check Spring Material</i>	<i>Pressure* Max. PSIG</i>	<i>Temperature Max.</i>	<i>List Price</i>
IQ-56-PVC	6"	2 ⁵ / ₈ "	PVC	Ceramic	316S/S	150*	140°F(60°C)	\$ 144.00
IQ-76-PVC	6"	2 ⁵ / ₈ "	PVC	Ceramic	316S/S	150*	140°F(60°C)	\$ 176.00
IQ-56-CPVC	6"	2 ⁵ / ₈ "	CPVC	Ceramic	316S/S	150*	210°F(98°C)	\$ 166.00
IQ-76-CPVC	6"	2 ⁵ / ₈ "	CPVC	Ceramic	316S/S	150*	210°F(98°C)	\$ 214.00
IQ-56-PP	6"	2 ⁵ / ₈ "	PP	Ceramic	316S/S	150*	195°F(90°C)	\$ 155.00
IQ-76-PP	6"	2 ⁵ / ₈ "	PP	Ceramic	316S/S	150*	195°F(90°C)	\$ 202.00
IQ-56-PVDF	6"	2 ⁵ / ₈ "	PVDF	Ceramic	316S/S	150*	260°F(125°C)	\$ 218.00
IQ-76-PVDF	6"	2 ⁵ / ₈ "	PVDF	Ceramic	316S/S	150*	260°F(125°C)	\$ 323.00
IQ-56-316S/S	6"	2 ⁵ / ₈ "	316S/S	316S/S	316S/S	3000*	500°F(260°C)	\$ 224.00
IQ-76-316S/S	6"	2 ⁵ / ₈ "	316S/S	316S/S	316S/S	3000*	500°F(260°C)	\$ 479.00
IQ-56-HASTC	6"	2 ⁵ / ₈ "	Hastelloy	Hastelloy	Hastelloy	3000*	500°F(260°C)	\$ 740.00
IQ-76-HASTC	6"	2 ⁵ / ₈ "	Hastelloy	Hastelloy	Hastelloy	3000*	500°F(260°C)	Call Factory
IQ-58-PVC	8"	4 ⁵ / ₈ "	PVC	Ceramic	316S/S	150*	140°F(60°C)	\$ 155.00
IQ-78-PVC	8"	4 ⁵ / ₈ "	PVC	Ceramic	316S/S	150*	140°F(60°C)	\$ 186.00
IQ-58-CPVC	8"	4 ⁵ / ₈ "	CPVC	Ceramic	316S/S	150*	210°F(98°C)	\$ 186.00
IQ-78-CPVC	8"	4 ⁵ / ₈ "	CPVC	Ceramic	316S/S	150*	210°F(98°C)	\$ 234.00
IQ-58-PP	8"	4 ⁵ / ₈ "	PP	Ceramic	316S/S	150*	195°F(90°C)	\$ 183.00
IQ-78-PP	8"	4 ⁵ / ₈ "	PP	Ceramic	316S/S	150*	195°F(90°C)	\$ 234.00
IQ-58-PVDF	8"	4 ⁵ / ₈ "	PVDF	Ceramic	316S/S	150*	260°F(125°C)	\$ 238.00
IQ-78-PVDF	8"	4 ⁵ / ₈ "	PVDF	Ceramic	316S/S	150*	260°F(125°C)	\$ 343.00
IQ-58-316S/S	8"	4 ⁵ / ₈ "	316S/S	316S/S	316S/S	3000*	500°F(260°C)	\$ 243.00
IQ-78-316S/S	8"	4 ⁵ / ₈ "	316S/S	316S/S	316S/S	3000*	500°F(260°C)	\$ 521.00
IQ-58-HASTC	8"	4 ⁵ / ₈ "	Hastelloy	Hastelloy	Hastelloy	3000*	500°F(260°C)	\$ 820.00
IQ-78-HASTC	8"	4 ⁵ / ₈ "	Hastelloy	Hastelloy	Hastelloy	3000*	500°F(260°C)	Call Factory

*MAXIMUM PSIG RATING BASED ON 73°F (23°C). SEE PAGE 4 FOR TEMPERATURE CORRECTION FACTOR

(Options)

- For **Hastelloy** "C" spring material add suffix – H to part number and add \$38.00 to the list
- For **Titanium Beta** "C" spring material add suffix – TS to part number and add \$94.00 to the list
- For **Hastelloy** "C" ball material add suffix – I to part number and add \$47.00 to the list price
- For **Titanium Grade 2** ball material add suffix – TB to part number and add \$127.00 to the list
- For **PVDF** ball material add suffix – K to part number and add \$47.00 to the price
- For **PTFE** ball material add suffix – T to part number and add \$47.00 to the price
- For **Flanged and Spigot** see **How to Order** – **consult factory** for pricing

The standard discharge orifice is 1/8", which helps increase chemical discharge velocity

Optional 1/4" discharge orifice available for higher capacity flow add suffix -25 & add \$13.00 to the list price

(i.e. IQ-56-PVC quill with Hastelloy spring and ball would be part # IQ-56-PVC-HI with a list price of \$144.00 plus \$85.00 = \$229.00 list)

NOTE: CRN is available on certain Quills at an extra charge. Please contact factory for price and availability.

All taxes are extra **if applicable**

F.O.B. Burlington, Ont.

Ship prepaid and charge

Primary Fluid Systems Inc. covers all brokerage charges on standard **non-rush shipments**

Terms: (OAC) 5% 20 day discount, **firm**, Net 30 days, **firm**

Prices are subject to change without notice

PFS Injection Quills

Primary Fluid Systems Inc. introduces the PFS Injection Quill, the newest addition to their line of Metering Pump Accessories.

The injection quill 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 quill has a built in spring-loaded check, to help prevent back siphoning.

The injection quill is available in two sizes, 6" length suitable for 4"-6" pipe diameters and 8" length suitable for 8"-10" pipe diameters. The connection for both sizes is 1/2" 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, optional materials are available at an extra charge (consult factory) or the quill may be ordered without a spring.

Pressure and temperature are dependent on the material of construction and vary from 150 and 3000 PSIG and 60°C (140°F) and 260°C (500°F).

TEMPERATURE EFFECTS: Thermoplastics and thermosets will decrease in tensile strength as the temperature increases; therefore, the working pressure must be reduced accordingly. The following factors will apply:

NOTE:
If the material of the injection quill you have chosen is rated below the working pressure of your system than you must reconsider your choice.

NOTE:
When considering working temperature include ambient and potential collective surface temperature (Radiant Heat)

Temperature Correction Factors Thermoplastics

<u>Operating Temperatures</u>		<u>(Factors)</u>			
F	C	PVC	CPVC	PP	PVDF
70	21	1.00	1.00	1.00	1.00
80	27	1.00	1.00	1.00	1.00
90	32	1.00	1.00	1.00	1.00
100	38	.90	1.00	1.00	1.00
110	43	.83	1.00	.91	1.00
115	46	.75	1.00	.87	1.00
120	49	.66	1.00	.83	1.00
125	52	.58	.97	.79	1.00
130	54	.50	.95	.75	1.00
140	60	.33	.90	.66	1.00
150	66	NR	.80	.60	.97
160	71	NR	.70	.53	.93
170	77	NR	.60	.43	.86
180	82	NR	.50	.33	.80
200	93	NR	.33	NR	.66
210	99	NR	NR	NR	.60
240	116	NR	NR	NR	.40

Example:
Working ambient, collective surface temperature and fluid conditions 100°F (43°C)
Quill chosen: IQ-56-PVC
Injection Quill pressure rating 150 PSIG PVC
Factor at 100°F = 0.62
150 X .62 = 93
Injection Quill is de-rated to **93 PSIG**
Suitable for application

NR = **Not Recommended**

* = **Recommended for continuous drainage pressure only**