



PRIMARY FLUID SYSTEMS INC.

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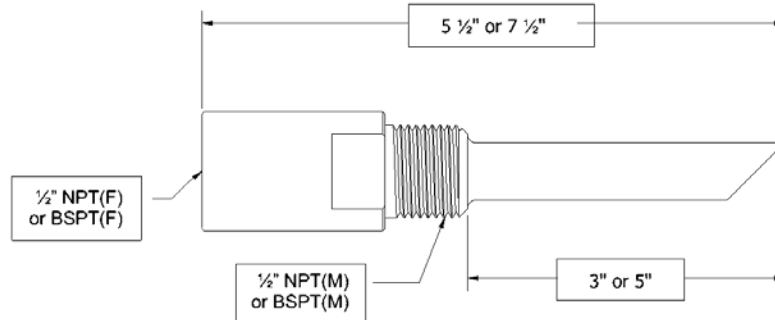
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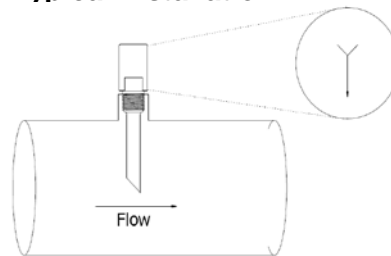
Rev. 1

USA 2013 PFS FxM Injection Quills



Typical Installation

Fig. A



HOW TO ORDER		<u>The standard discharge orifice is 1/4"</u>
eg: IQF-53-CPVC-S-S6	IQF - 53 - CPVC - S - S6	
<u>PFS INJECTION QUILL</u>		<u>OPTIONAL BALL MATERIAL:</u> (Ceramic Ball is Standard) TB = Titanium Grade 2 Ball Material K = PVDF Ball Material T = TFE Ball Material S6 = Stainless Steel 316 Ball Material I = Hastelloy "C" Ball Material
<u>QUILL CONNECTION</u> 5 = 1/2" NPT 5B = 1/2" BSPT 5F = 1/2" Flg'd 5S = 1/2" SPIG. Other connection sizes available upon request.		<u>OPTIONAL SPRING MATERIAL:</u> (Hastelloy "C" is Spring Standard) TS = Titanium Beta "C" Spring S = Stainless Steel 316 Spring
<u>INSERTION LENGTH</u> 3 = 3" 5 = 5" Longer insertions available upon request		<u>BODY MATERIALS</u> 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, 3" or 5" length
- Simple installation, using 1/2" or 3/4" NPT, BSP, Flg'd or Spigoted connections are available
- 3 spring material choices, Hastelloy "C" (standard), 316 stainless steel or Titanium Beta "C"
- 6 check ball material choices (ceramic is standard) (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>
IQF-53-PVC	5 1/2"	3"	PVC	CERAMIC	HASTC	150	140°F (60°C)
IQF-53-CPVC	5 1/2"	3"	CPVC	CERAMIC	HASTC	150	210°F (98°C)
IQF-53-PP	5 1/2"	3"	PP	CERAMIC	HASTC	150	195°F (90°C)
IQF-53-PVDF	5 1/2"	3"	PVDF	CERAMIC	HASTC	150	260°F (125°C)
IQF-53-316S/S	5 1/2"	3"	316S/S	CERAMIC	HASTC	3000	500°F (260°C)
IQF-53-HASTC**	5 1/2"	3"	HASTC	CERAMIC	HASTC	3000	500°F (260°C)
IQF-55-PVC	7 1/2"	5"	PVC	CERAMIC	HASTC	150	140°F (60°C)
IQF-55-CPVC	7 1/2"	5"	CPVC	CERAMIC	HASTC	150	210°F (98°C)
IQF-55-PP	7 1/2"	5"	PP	CERAMIC	HASTC	150	195°F (90°C)
IQF-55-PVDF	7 1/2"	5"	PVDF	CERAMIC	HASTC	150	260°F (125°C)
IQF-55-316S/S	7 1/2"	5"	316S/S	CERAMIC	HASTC	3000	500°F (260°C)
IQF-55-HASTC**	7 1/2"	5"	HASTC	CERAMIC	HASTC	3000	500°F (260°C)

**MAXIMUM PSIG RATING BASED ON 73°F (23°C). SEE PAGE 4 OF INJECTION QUILL PRICE LIST FOR TEMP CORRECTION FACTOR*

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

316 S/S or Titanium Beta C springs are available from stock

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

PVDF, PTFE, 316 S/S, Hastelloy "C" and Titanium Grade 2 check balls are available from stock

PFS FxM Injection Quills 2013 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>
IQF-53-PVC	5 ½"	3"	PVC	Ceramic	Hastelloy	150*	140°F(60°C)	\$ 104.00
IQF-53-CPVC	5 ½"	3"	CPVC	Ceramic	Hastelloy	150*	210°F(98°C)	\$ 126.00
IQF-53-PP	5 ½"	3"	PP	Ceramic	Hastelloy	150*	195°F(90°C)	\$ 126.00
IQF-53-PVDF	5 ½"	3"	PVDF	Ceramic	Hastelloy	150*	260°F(125°C)	\$ 186.00
IQF-53-316S/S	5 ½"	3"	316S/S	Ceramic	Hastelloy	3000*	500°F(260°C)	\$ 182.00
IQF-53-HASTC**	5 ½"	3"	Hastelloy	Ceramic	Hastelloy	3000*	500°F(260°C)	\$ 607.00
IQF-55-PVC	7 ½"	5"	PVC	Ceramic	Hastelloy	150*	140°F(60°C)	\$ 121.00
IQF-55-CPVC	7 ½"	5"	CPVC	Ceramic	Hastelloy	150*	210°F(98°C)	\$ 147.00
IQF-55-PP	7 ½"	5"	PP	Ceramic	Hastelloy	150*	195°F(90°C)	\$ 147.00
IQF-55-PVDF	7 ½"	5"	PVDF	Ceramic	Hastelloy	150*	260°F(125°C)	\$ 217.00
IQF-55-316S/S	7 ½"	5"	316S/S	Ceramic	Hastelloy	3000*	500°F(260°C)	\$ 211.00
IQF-55-HASTC**	7 ½"	5"	Hastelloy	Ceramic	Hastelloy	3000*	500°F(260°C)	\$ 640.00

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

(Options)

- For **Hastelloy "C" Ball** material add **suffix – I** to part number and **add \$47.00** to the list price
- For **Titanium Beta Spring** add **suffix – TS** to the part number and **add \$105.00** to the list price.
- For **Titanium Grade 2 Ball** material add **suffix – TB** to part number and **add \$127.00** to the list
- For **316 S/S Spring** material add **suffix – S** to the part number – this item is **no charge**
- For **316 S/S Ball** material add **suffix –S6** to the part number and **add \$21.00** to the list price
- 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
- Please note: The standard discharge orifice is ¼".

(i.e. IQF-53-PVC quill with 316 S/S ball and spring would be part # IQF-53-PVC-S-S6 with a list price of \$104.00 plus \$21.00 = \$125.00 list)

All taxes are extra **if applicable**

F.O.B. Burlington, Ont.

Ship prepaid and charge

Primary Fluid Systems Inc. covers all brokerage charges to the US 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, 3" injection length suitable for 4"-6" pipe diameters and 5" injection length suitable for 8"-10" pipe diameters. The connection for both sizes is ½" NPT or BSPT Male X Female. Optional flanged connection is also available (consult factory).

Six (6) materials of construction are available that provide compatibility for most chemicals injected. Each quill comes standard with a Hastelloy C spring. Optional spring and ball materials are available at an extra charge (consult factory) or the quill may be ordered without a spring or ball.

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

Operating
Temperatures

(Factors)

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: IQF-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**