GRUNDFOS Product Information

Withdrawable Injection Quills

Series 522

Principal of Operation

Designed for installation at the point of chemical injection into a large diameter flow pipe, the 'quill' allows the chemical to be dosed into the centre of the main flow, to ensure good mixing and prevent corrosion damage or encrustation around the pipeline boss.

By means of the ball-type isolating valve and the gland block and union nut, the 'quill' can be withdrawn from the pipeline for cleaning/maintenance without the necessity of isolating the flow in the main pipeline. The 'quill' passes through the ball in the valve, which must be closed when the 'quill' has been withdrawn beyond it and before it is totally removed.

Safety Notes

To prevent accidental total withdrawal of the 'quill' before the valve has been closed, a safety chain is fitted to the assembly. Its length should be adjusted on installation so that it is at its maximum length when the 'quill' has been withdrawn just beyond the valve ball. When the valve has been closed, the chain may then be un-clipped to allow the 'quill' to be totally withdrawn. **Always hold the quill before undoing the union nut to prevent the quill shooting out under pressure.**

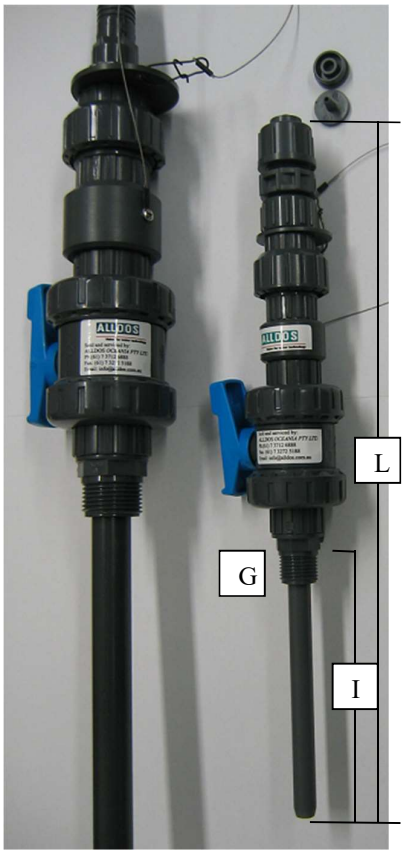
Summary Specification

Withdrawable quills are manufactured from grey uPVC components and Viton/EPDM seals.

Please check chemical compatibility before use.

In the DN8/4 & 20 quills, Hastelloy C springs are used in the non-return valves.
Maximum Operating Pressure: 10 Bar

Please Note: The injection valves incorporate a non-return-check valve which, in itself, provides a back pressure (load) of approximately 0.8 Bar. This load must be taken into account when calculating the overall discharge head.



Part No.	Description
95709571 **L= 350mm** **I= 120mm**	*DN8/4 Withdrawable Injection Quill* Pipe fitting **G ½" BSPM**. Quill 12mm uPVC pipe. Ball valve uPVC/EPDM Check valve uPVC /Teflon /Ceramic. Spring Hast. C. Chemical connection DN8 cap with 4/6 6/9 6/12 9/12 tube connections. Max P. 16 bar Max T. 45°C
91339432	**Carbon Dioxide W/D Injection Quill** As for DN8 injection quill but has gas diffuser at end of probe.
95711741 **L= 520mm** **I= 220mm** **95714449 (No check valve)** **L= 520mm** **I= 220mm**	DN20 Withdrawable Injection Quill Pipe fitting **G 1" BSPM**. Quill ½" uPVC pipe. Ball valve uPVC/EPDM Check valve uPVC /Viton /Glass Spring Hastelloy C Chemical connection DN20 cap with 19/27 hose. (For no check type - ¾ hose barb.) Max P. 10 bar Max T. 45°C
95714452 **L= 800mm** **I= 320mm** **95714451 (No check valve)** **L= 770mm** **I= 320mm**	DN32 Withdrawable Injection Quill Pipe fitting **G 2" BSPM**. Quill 1¼" uPVC pipe. Ball valve uPVC/EPDM Check valve uPVC/Viton Spring PTFE coated SS Chemical Entry – 1¼" BSP F union socket (For no check type – 1¼ hose barb.) Max P. 10 bar Max T. 45°C

Withdrawable Injection Quills

DN8/4 WITHDRAWABLE INJECTION QUILL		
No.	**Code**	**Description**
1	95709612	BARREL UNION ½"BSP F
2	95709619	CHAIN RETAINER
3	95709618	GLAND ADAPTOR
4		12mm PVC pipe (Part of 10)
5	97628985 + 2x 97706320	BALL VALVE ½" VALVE END 1/2" BSPF
6		Nylon coated SS trace 275MM
7		SS clip
8		SCREW SS
9	95709567	NIPPLE ½" BSP
10	95730948	INJECTION VALVE DN8
11	97691903	CAP ASSY DN8/4
12	96690351	O RING VITON (Inside 3)
DN20 WITHDRAWABLE INJECTION QUILL		
1	95709614	BARREL UNION 1"BSP F
2	97629349	CHAIN RETAINER
3	97628943	GLAND ADAPTOR
4		½" PVC pipe (part of item 10)
5	97628971	BALL VALVE 1"
6		SS chain
7		SS clip
8		SS screw
9	95709606	NIPPLE 1" BSP
10	96688308	Injection valve DN20 PVC
11	99082038	Cap Assy DN20 19/27 hose
11a	97629817	HOSE TAIL 20MM
12	97629884	O RING VITON (Seal)
DN32 WITHDRAWABLE INJECTION QUILL		
1	95709617	INLET ADAPTOR
2	97629352	CHAIN RETAINER
3	97628946	GLAND ADAPTOR
4		1¼" PVC pipe (Part of item 10)
5	97628987	BALL VALVE 2"
6		SS CHAIN 580MM
7		SS clip
8		SCREW SS
9	95709609	NIPPLE 2" BSP
10	97629153	1¼" BSP Check Valve PVC/V
10a	97654595	PTFE spring for check
11		HOSE TAIL 32MM
12	97629897	O RING VITON (SEAL)

Installation Notes

1. It is important that the assembly is properly supported on installation to avoid accidental breakage, which may occur if left protruding from the main pressure pipeline unsupported.
2. For larger diameter pipes, a 'saddle' tee arrangement is recommended.
3. The connection provided on the outlet from the ball valve may be bushed to other sizes as applicable. (½" BSP for DN8/4, 1" BSP for DN20 & 2" for DN32)
4. The standard 'quill' length protruding from the valve outlet connection can be cut to length to suit pipe diameter and chamfered to 60° before installation.

Note: Do not shorten DN8 CO_2 Quill