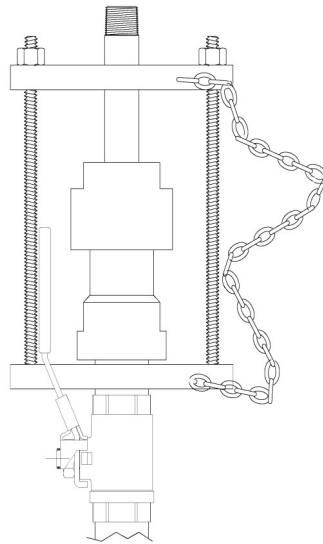
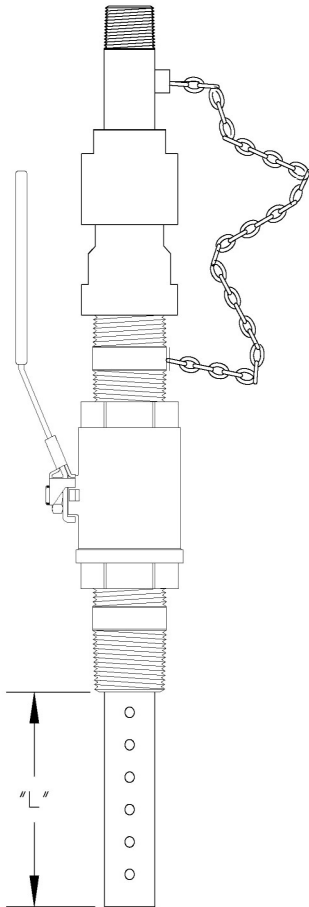


**3/4" - 2" THREADED RETRACTABLE DIFFUSER  
DATA SHEET (CSD SERIES)  
REMOVABLE MULTI-ORIFICE DIFFUSER STYLE**



CSD150 thru CSD200 (1-1/2" to 2") use an additional bolting system to withstand the hydraulic forces of the system.

**SPECIFICATIONS**

Multi-orifice diffuser design improves diffusion of chemicals. This style of injector requires a minimum flow rate typically of 1/4 gpm [1L/min] for the chemicals to properly distribute across all of the diffuser holes. Multi-hole diffusers work best when the chemicals are non-scaling, and will not easily plug the orifice holes when injected into the pipeline,

Solution tubes (quill) available in:

- PVC & CPVC
- Stainless Steel
- Hastelloy C-276
- Titanium

Valve Body available in:

- Brass
- PVC & CPVC
- Stainless Steel

High Strength Stainless Steel Chain. Dual chains secure position of quill and allow for removal of quill. Retractable Diffusers over 1" include bolt assembly to hold solution tube in place.

150 psi (1034 kPa) design pressure standard up to 1" (CS-100) size. Maximum pressure recommended for 2" is 50 psi.<sup>1</sup> (Larger diameter and higher pressure versions are available).

Retractable Diffusers are offered without check valves for maximum versatility. Check valves suitable for your specific chemical applications can be supplied.

Flexible hose assemblies are available.

Flanged Retractable Diffusers are available.

Model Series	Threaded Connection npt	Diffuser Tube Nominal Dia.	Inlet Connection npt	Recommended Max Flow Rate	
				gpm	Liters/min
CSD075	3/4	3/8"	3/8"	5	19
CSD100	1	1/2"	1/2"	8	30
CSD150	1-1/2	1"	1	22	83
CSD200 (see note 1)	2	1-1/2"	1-1/2"	50	185

<sup>1</sup> Be aware of the large hydraulic forces that can exist with a larger diameter injection quill. With a 2" Retractable Diffuser, at 50 psi, there is 150 lbs. of force pushing against this quill. Injury or death could occur from these quills. When installing or retracting the quill, use appropriate equipment based upon your application to remove or install the quill for these loads.

MODEL NUMBER  
EXAMPLE "CSD075BP6-2-025"



**CSD 075 B P 6 - 2 - 025**

PORT SIZE (NPT)	
3/4"	075
1"	100
1-1/2"	150
2"	200

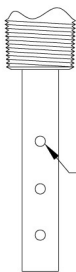
VALVE MAT'L	
BRASS	B
STAINLESS STEEL	S
PVC	P
CPVC	C

SOLUTION TUBE MAT'L	
PVC	P
STAINLESS STEEL	S
KYNAR <small>(Kynar not available on 3/4" size)</small>	K
HASTEL-LOY C-276	H
TITANIUM	T
CPVC	C

ORIFICE HOLE DIAMETER (in)	
012	1/8"
025	1/4"
038	3/8"
050	1/2"
Custom hole patterns are available	

QUANTITY OF ORIFICE HOLES
Example "2" or "15".

LENGTH* - SOLUTION TUBE "L"	
2	2"
4	4"
6	6"
8	8"
LONGER LENGTHS AVAILABLE	



ORIFICE HOLE  
SPECIFY DIAMETER  
& QTY OF HOLES

For standard "Bayonet" style injectors, see the CS series data sheet

Specify at the time of order if you would like that the holes to have a straight line orientation or if you would prefer a randomized pattern that does not require the diffuser to be oriented inside of the pipeline. Alternatively we will choose the pattern that best matches the quantity and size of the holes.

\*PVC & KYNAR SOLUTION TUBES LONGER THAN 6" ARE NOT RECOMMENDED UNLESS THERE IS ADDITIONAL SUPPORT. CONTACT INYO PROCESS FOR MORE DETAIL.



# CHEMICAL INJECTION ASSEMBLY SPECIFICATION



Typical Specification (go to [www.inyoprocess.com](http://www.inyoprocess.com) for additional specifications)

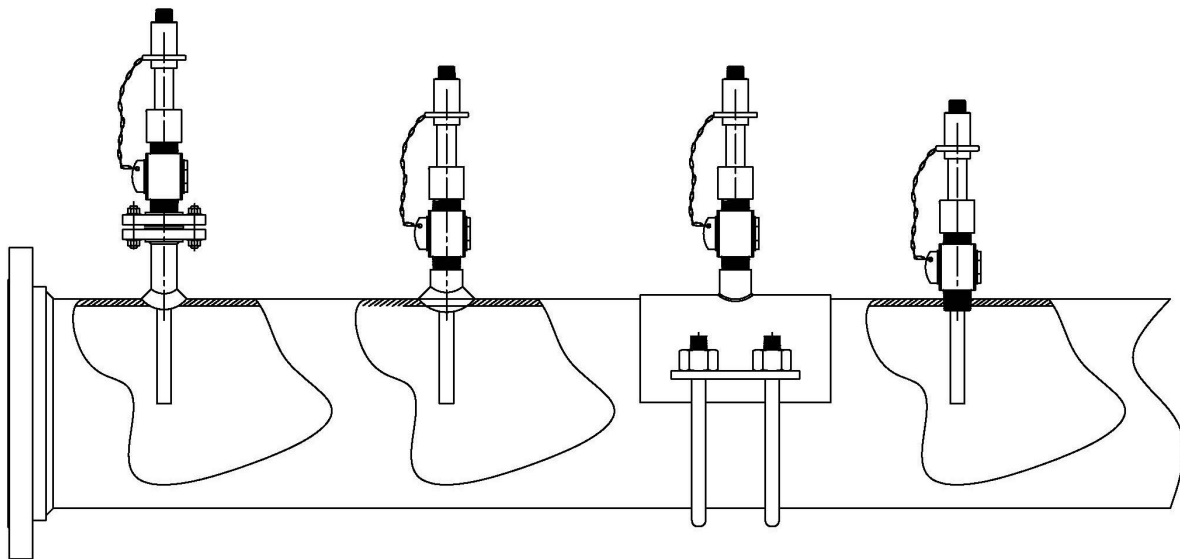
## Chemical Injection Assembly

1. Rating 150 psi.
2. Type: Insertion type injection quill.
3. Connection: Connect to process pipe using service saddle (or coupling) and retractable diffuser.
4. Construction:

Injection assembly shall come complete with Retractable Diffuser, diffuser adapter, packing nut, safety chain and threaded inlet connection. Solution tube shall be for sufficient length to extend into the process pipe to between one third and one half the pipeline diameter. Solution tube should be a diffuser style with multiple holes for distribution of the injected chemical.

Connection must include an acceptable safety device to prevent accidental withdrawal of injection solution tube while under pressure and/or surge conditions. All wetted components shall be compatible with the chemical services. Model "\_\_\_\_\_" manufactured by Inyo Process or equal that has been preapproved by engineer before the bid.

## TYPICAL RETRACTABLE DIFFUSER INSTALLATIONS



Flanged Installation  
Drill & Tap blind  
flange for Retractable  
Diffuser. Maximum  
versatility.

Welded Coupling  
Installation for  
Retractable Diffuser.  
Weld half coupling or  
threadolet to pipe  
wall.

Tapping & Service  
Saddle for  
Retractable Diffuser.

Retractable  
Diffusers up to 2"  
size can be threaded  
directly into the pipe  
depending upon wall  
thickness. Consult  
with your pipe  
supplier for  
recommendations.

Retractable Diffusers over CSD 075 size may require a mechanical lift for insertion of the quill due to the hydraulic pressure in the line. Recommendations for insertion jacks and/or equipment set-up may be obtained from Inyo Process.

