



KENCO CHEMICAL INJECTORS

INDUSTRIES SERVED: Natural Gas Transmission and Distribution • Oil and Gas Production and Refining
Petrochemical • Water Treatment • Fluid Processing • Pulp & Paper Processing

PATENT NO. 7,137,569



KENCO CHEMICAL INJECTORS

APPLICATION

Kenco chemical injectors are designed to inject and properly atomize corrosive chemicals into the turbulent stream of a process system pipeline. The Kenco chemical injector will minimize the possibility of corrosive chemical build-up on the walls of the pipeline.

FEATURES

- Patented aspirator tip design on injector disperses chemical evenly into process stream and away from pipe walls
- Check valve in injector eliminates backflow
- Injector is ideal for high pressure applications up to 6000 psig
- Injector has been designed so that it can be mounted in any orientation
- Standard insertion lengths available up to 24" long. Custom sizes also available.
- Injector available in 316 Stainless Steel, Hastelloy C-276, and CPVC
- Ball-check material in 316 Stainless Steel injectors is 316 Stainless Steel and ball-check material in CPVC and Hastelloy injectors is ceramic.
- Ball-check spring material in 316 Stainless Steel and CPVC injectors is Inconel. Ball-check spring material in Hastelloy injectors is Hastelloy.
- Standard Injector chemical feed port is 1/2" NPT and process connection is 1/2" or 3/4" NPT.

MINI-INJECTOR

- "Mini" injector assembly atomizes chemical in smaller pipelines and/or lower flowrates
- Available in 316 Stainless Steel only
- Standard Injector chemical feed port and process connection is 1/8" or 1/4" NPT

MODELS KINJ & KINJM TEMPERATURE & PRESSURE RATINGS

| Injector Material | Maximum Working Pressure | Maximum Operating Temperature |
|-------------------|--------------------------------------|-------------------------------|
| 316 SS | 6000 psig | 800°F |
| Hast C-276 | 6000 psig | 800°F |
| CPVC | 340 psig @ 73°F; 150 psig @ 150°F | 200°F |



KENCO RETRACTABLE INJECTORS

APPLICATION

Kenco retractable injectors allow for injector insertion or removal without interrupting the main process in the pipeline.

FEATURES

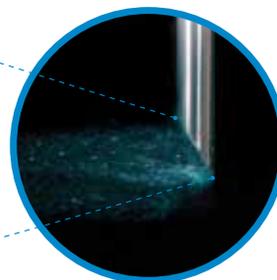
- Patented aspirator tip design on injector disperses chemical evenly into process stream and away from pipe walls
- Ball valve assembly isolates pipeline from injector assembly when injection is not required
- Compression seal holds the assembly from back pressure
- Safety line prevents the injector assembly from being completely withdrawn and protects against blowout
- Standard ball valve assemblies available in 316 Stainless Steel, Alloy 20, CPVC and Brass. Standard Injector Nozzle assemblies available in 316 Stainless Steel, Hastelloy C-276 and CPVC.
- Ball-check material in 316 Stainless Steel injectors is 316 Stainless Steel and ball-check material in CPVC and Hastelloy injectors is ceramic.
- Ball-check spring material in 316 Stainless Steel and CPVC injectors is Inconel. Ball-check spring material in Hastelloy injectors is Hastelloy.
- Optional spring loaded check valve available. Check valve available with body bleed valve.
- Standard Retractable Injector chemical feed port is 1/2" NPT. Process connection is 3/4" NPT.

MODEL KRINJ TEMPERATURE & PRESSURE RATINGS

| Valve Material | Maximum Working Pressure | Maximum Operating Temperature |
|----------------|-------------------------------------|-------------------------------|
| Brass | 150 psig | up to 350°F |
| 316 SS | 150 psig | up to 400°F |
| Alloy 20 | 150 psig | up to 400°F |
| CPVC | 150 psig @ 73°F 100 psig @ 150°F | up to 180°F |

* Note: maximum operating temperature dependent on compression seal material

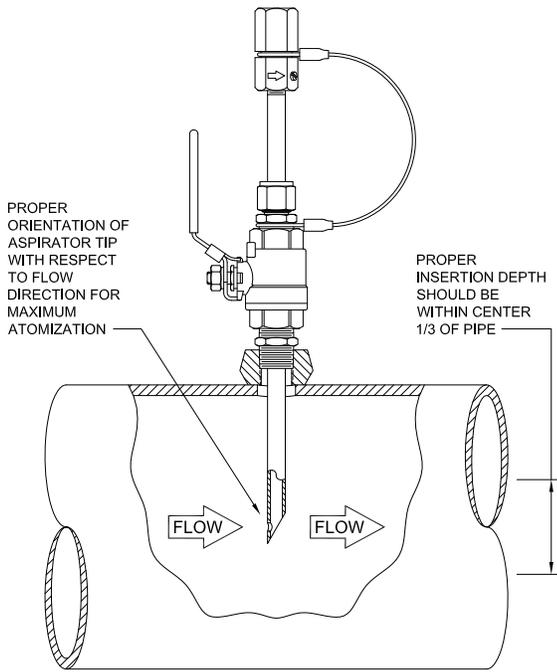
KENCO Chemical Injectors have a unique design engineered to minimize the possibility of corrosive chemical build-up on the walls of the pipeline.



This photograph of a KENCO injector illustrates the misting created by the unique design.

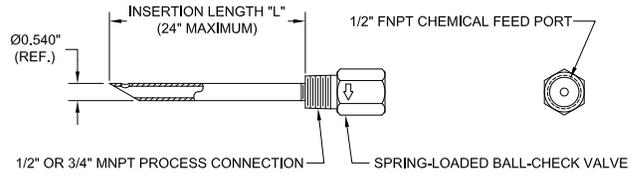
KRINJ RETRACTABLE INJECTOR TYPICAL USE

RETRACTABLE INJECTOR MAY BE INSTALLED IN ANY ORIENTATION AROUND THE CIRCUMFERENCE OF THE PIPE

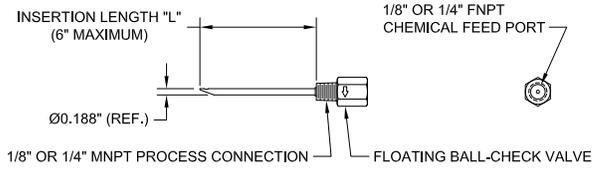


RETRACTABLE INJECTOR SHOWN INSTALLED AT PROPER INSERTION DEPTH WITH OPTIMAL TIP ORIENTATION

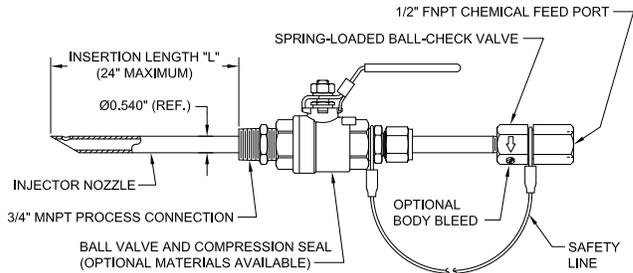
KINJ INJECTOR



KINJM MINIATURE INJECTOR



KRINJ RETRACTABLE INJECTOR W/CHECK VALVE



KENCO CHEMICAL INJECTORS

Ordering System

REQUESTED BY: _____ COMPANY: _____

ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____

PHONE: _____ FAX: _____ EMAIL: _____

KINJ

Injector Style

KINJ = Standard Injector

Process Connections

50 = 1/2" NPT
75 = 3/4" NPT
• Flanged units available, consult factory for options

Material of Construction

S6 = 316 Stainless Steel
HC = Hastelloy C-276 w/ceramic ball
CP = CPVC w/ceramic ball

Insertion Length (inches)

L3.000 = 3" for 4" to 6" O.D. pipelines
L5.000 = 5" for 8", 10" & 12" O.D. pipelines
L() = custom length up to 24"; indicate desired length in box above

KINJM

Injector Style

KINJM = Miniature Injector

Inlet/Process Connections

125 = 1/8" NPT
250 = 1/4" NPT

Material of Construction

S6 = 316 Stainless Steel

Insertion Length (inches)

L1.875 = 1-7/8" for 1" to 3" pipeline
L() = custom length up to 6"; indicate desired length in box above

KRINJ

Injector Style

KRINJ = Retractable Injector

75

Process Connections

75 = 3/4" NPT
• Flanged units available, consult factory for options

Material of Construction (Nozzle)

CP = CPVC
S6 = 316 Stainless Steel
HC = Hastelloy C-276

Insertion Length (inches)

L10.750 = Brass Valve
L9.000 = Stainless Steel and Alloy 20 Valve
L8.500 = CPVC Valve
L() = custom length up to 24"; indicate desired length in box above

Material of Construction (Valve)

S6 = 316 Stainless Steel
A20 = Alloy 20
CP = CPVC
B = Brass

Check Valve

CVB = Check Valve with Body Bleed
CVN = Check Valve without Body Bleed
NVN = No check valve and no Body Bleed
NVB = No check valve with Body Bleed

Compression Seal Material

B = Buna-N
V = Fluorocarbon
A = Aflas
E = Ethylene Propylene
K = Kalrez

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