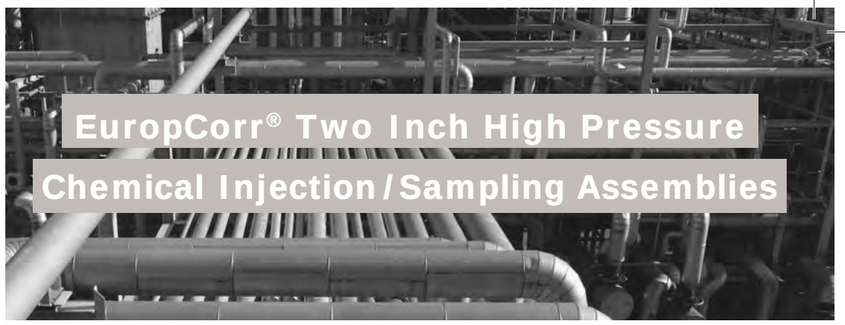
MECHANICAL CHEMICAL
INJECTION ASSEMBLY

MECHANICAL FLANGED CHEMICAL
INJECTION ASSEMBLY

HYDRAULIC FLANGED INJECTION ASSEMBLY



EuropCorr® Two Inch High Pressure Chemical Injection/Sampling Assemblies

Chemical inhibitors is one of the most practical preventive maintenance methods for minimizing or controlling corrosion in product pipelines, vessels, etc.,
It is an effective means of corrosion control by using the EuropCorr® Injection and Sampling System for easy, reliable access, inhibitors can be injected with safety and simplicity, either continuously or intermittently while under full operating pressure. The Injection/Sampling Tube can be removed for cleaning while system is under pressure. In addition, a variety of injection devices and systems can be used to provide the most efficient delivery and dispersion for a given application.

The injection of chemical treatments and sampling of process fluids are two major requirements for any corrosion control system. The EuropCorr® range of injection and sampling equipment provides this capability and allows servicing on-line. Retrieval tools and some spare parts are common with the corrosion monitoring equipment using the same access system. Costs can therefore be reduced. Most of the parts involved in the EuropCorr® Injection are interchangeable with the EuropCorr® Sampling System. The EuropCorr® Sampling System offers a means of extracting samples from pipelines or vessels while under full system operating pressure.
Retrievable injection/sampling system consists of a tee access fitting with a solid plug assembly, to which a tube is fitted by means of an injection/sampling nut. Where applicable, a nozzle may be fitted to the tube for injection purposes. Injection/sampling is done through the tee of the access fitting body, using a nipple and shut-off valve or Nipple flange to connect to the injection liquid source or sampling delivery point. An optional check valve is available to ensure that the fluid in the system does not back flow to the injection equipment if for any reason the pressure in the injection system falls below the line pressure.

Specifications
Maximum Operating Pressure 6,000psi (420 Bar), Maximum Operating Temperature 500 °F (260°C). The access fitting body is manufactured from carbon steel A105N/A350LF2 forged bar. Flanged fittings are manufactured from forged long welding neck; and the solid plug; injection/ sampling nut and tube, valve and nipple are all manufactured from stainless steel. Other materials/designs are available to meet the specifications of virtually any application. EuropCorr® offers a complete range of access fitting bodies, both for the standard 2" mechanical system as well as for the hydraulic access system.

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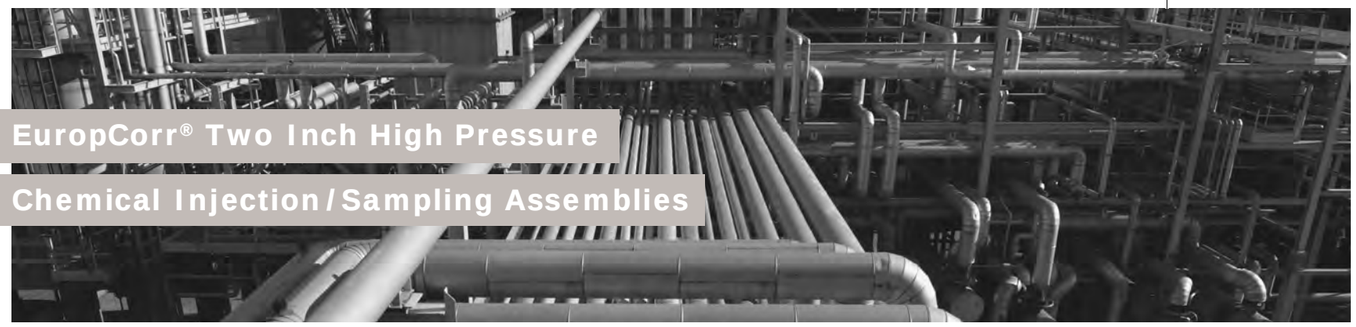

CHEMICAL INJECTION NUT AND TUBE [QUILL, OPEN & SPARY NOZZLE] ASSEMBLY

NUT & TUBE IN ONE PIECE FOR SEVERE APPLICATION

1. Injection/Sampling Access Fitting And Solid Plug Assembly

When injection of treatment chemicals or sampling of the process is required it is preferable to use an access fitting with side tee. Access Fittings with a side tee are the standard for injection/sampling applications, as they allow the insert assembly to be serviced without shut down. Tee fittings are available in all mounting styles: Flareweld, Buttweld and flanged. Tee fittings incorporate a 1/4," 1/2", 3/4", or 1" NPT threaded outlet on the side of the fitting body, with optional Socketweld, Buttweld and Flanged outlet (flangeolet) to suit the service applications. Threaded tees are not recommended in sour service. If needed, the side tee connection can be closed off with a pipe plug, allowing coupons/probes and other devices that would normally be used with a non-tee-type access fitting to be used with a tee-type access fitting.

The standard EuropCorr® retrievable injection/sampling assembly is comprised of the following components:

- Tee Access Fitting Body with Protective Cover without Hole
- Solid Plug Assembly
- Injection/Sampling Nut
- Injection/Sampling Tube
- Spray Nozzle (if applicable)
- NPT Threaded Nipple with Shut Off Valve, Check Valve (optional)

Or

- Socketweld, Buttweld and Flanged (flangeolet) Tee

The solid plug assembly can be retrieved under full line pressure along with the injection/sampling nut and tube by means of EuropCorr® Mechanical or Hydraulic Retrieval Tool Kit, this enables the operator to check or alter the injection/sampling system without shut down.

Access Fitting Body Height		Nut Height	Part No.		
Hydraulic	Mechanical		1/4" NPT	1/2" NPT	3/4" Socket
-	5,25"/133mm	45mm	360001	360005	360017
7,45"/189mm 7,85"/199mm	6,25"/158mm	70mm	360002	360006	360018
8,45"/215mm	7,25"/184mm	95mm	360003	360007	360019
9,45"/240mm	8,25"/209mm	140mm	360004	360008	360020

Note: Select Tee size of equal or larger diameter than the injection/Sampling nut threads.

Spare Parts for Injection/Sampling Nut	Material*	Part No.
O-ring	Viton	360014
Back up Ring	PTFE	360015
Set Screw M6x6	SIS 2343	340011

*Standard material, special material for seals available on request to meet special service condition.

2. Injection/Sampling Nut

The injection/sampling nut replaces the Solid Plug nut in the Access Fitting Assembly, holds the injection/sampling tube in a position, directs the injected product to the Injection Tube or directly to the atomization device, where it can give maximum effective distribution of the injection fluid. The Injection/Sampling Nut has bleed ports in the side wall above an access fitting body, the o-ring on the nut seals the internal bore of the access fitting so that the injection fluid can only pass through the tube and ensures that the injection fluid is only delivered to the required point of application. The nut has 1/4" or 1/2" NPT threads or 3/4"socketweld connection to enable attachment of different size Injection/Sampling Tubes or Spray Nozzle.

3. Injection/Sampling Tubes

Injection Tube or Sampling Tube is used for different applications. The Injection Tube is the pathway for the injected product flowing from the Injection Nut to the process. Standard EuropCorr® Injection Tubes are offered in 1/4," 1/2" NPT & 3/4" socketweld sizes to mate with like size NPT Injection Nuts. The standard material of Injection/Sampling components is AISI 316L.

Injection Tube X Quill is has a scarf and 45° quill cut instead of a flat open end. It utilizes the turbulence created by its design, in conjunction with the natural turbulence within the pipe or vessel, to accomplish distribution of the injected product into the product media flow.
Sampling Tube is a tube allowing for taking fluid samples.
Injection Tube has a 1/4" or 1/2", male NPT end which attaches a selection of 1/4" or 1/2" female NPT spray nozzles for perpendicular Injection/Atomization.
Our recommended injection location is the centre of pipeline.

4. Threaded Nipples, Shutoff Valves and Pipe Plug

Short nipple and shut off valve are available to interface the EuropCorr® standard high pressure Tee Access Fitting Assembly with the Injection/Sampling System. Standard valves have a straight through flow passage. When required, the access fitting body may be sealed off with a pipe plug. The fitting will then act as a standard non-tee fitting, permitting the use of corrosion coupons and probes. If the tee is sealed with a pipe plug, the tee outlet cannot be used again until the system has been depressurized.

Injection/Sampling Tube	Part No.
1/4" x Quill	360009
1/4" x Spray Nozzle	360010
1/4" x Open for Sampling	360011
1/2" x Quill	360012
1/2" x Open for Sampling	360013
3/4" x Quill	360021
3/4" x Open for Sampling	360022

Tee Size	Part No.		
	Nipple NPT	Shut Off Valve	Pipe Plug
1/4"	360023	360027	300002
1/2"	360024	360028	300003
3/4"	360025	360029	300004
1"	360026	360030	300005

ORDERING INFORMATION:

High Pressure Tee Type Access Fitting						
11	Hydraulic System					
21	Mechanical System					
	Connection Type					
	12	Flareweld				
	22	Buttweld				
	32	Socketweld				
	42	NPT				
	5X	Flanged ANSI				
	6Y	Flanged API				
		Flange Rating				
		X	ANSI	Y	API	
		0	150#RF	0	2000# RJ	
		1	150#RJ	1	3/5000# RJ	
		2	300#RF	2	10000# RJ	
		3	300#RJ			
		4	600#RF			
		5	600#RJ			
		6	900/1500# RF			
		7	900/1500#RJ			
		8	2500#RF			
		9	2500#RJ			
		Tee Size				
		1	1" Tee			
		2	3/4" Tee			
		3	1/2" Tee			
		4	1/4" Tee			
		Tee Connection				
		10	Buttweld			
		20	Socketweld			
		30	NPT			
		4Z	Flanged			
			Z	Flange Rating		
			0	150#RF		
			1	150#RJ		
			2	300#RF		
			3	300#RJ		
			4	400/600#RF		
			5	400/600#RJ		
			6	900/1500RF		
			7	900/1500#RJ		
			8	2500#RF		
			9	2500#RJ		
11	5	2	1	4	2	Hydraulic Access Fitting Flanged 300#RF 1" Flanged Tee 300#RF

Temperature Rating: - 20 °F (- 28.9 ° C) to + 392 °F (200°C)
Access fittings in ASTM A350 LF2 have temperature rating - 45 °F (- 49 ° C) to + 392 °F (200°C)
Pressure rating 6000 PSI (420 BAR), depends on style of access fittings
Material selection meets NACE MR0175/ISO 15156
Various alloys available for Access Fittings body to meet client's design requirements.
For EU based users the equipment conforms to Pressure Equipment Directive (PED).