



Daghigh Farayand Control

Product Catalog

- **Level Gauge**
- **Orifice Plate**
- **Diaphragm seal**
- **Diaphragm seal
with capillary**
- **Thermowell**
- **Syphone**



INTRODUCTION	Page 1
Level Gauge	Page 2
Magnetic Level Gauge	Page 3
Orifice Plates	Page 4
Diaphragm Seal	Page 5-9
Diaphragm Seal with Capillary	Page 10
Thermowell	Page 11
Air Distribution Manifold	Page 12
Pressure Gauge Syphon	Page 13
Seal Pot	Page 14
دعرفی شرکت	Page 15

DFC Company is the leading supplier of Level gauging products, offering the world's largest selection of Liquid Level Gauge glasses, magnetic gauges and accessories.



We are the only manufacturer of different types of Diaphragm Seal in Iran. We are generally the first choice with end users due to our broad range of application capabilities, quality of design and field support of our products.

DFC Co., also pioneered in producing Thermowell in different tubes such as aluminum, steel and stainless steel.



Orifice Plate manufactured at DFC is quality-controlled from selection of raw material to packaging of the finished product.

Customer Service and Product Availability:

It is our goal to be your preferred source for SightGlass and Reflex level gauge, Diaphragm Seal, Thermowell and Orifice Plate. To achieve this goal, we focus our effort on maintaining excellent product knowledge, product selection and availability (inventory).

Knowledge:

At DFC, in-depth knowledge of our products, and the various applications in which they will work for you, is of prime importance. We can assist you with the sizing and selection process, so that the selected product selected best fits your intended purpose.

Selection:

We are familiar with most client requirements, and can help contractors and end users compile or compose general specifications to meet their application or client requirements. DFC co., has supplied a wide variety of industries virtually all major petrochemical processors, seeking to measure level and pressure accurately and maintains an extensive library of general specifications.

Availability (Inventory):

"How soon can I get it?" We're committed to fast delivery. We are also designer and the ideal partner for all the customers who gives priority to the service and is concerned about customized or special productions according to the customer drawings or through our internal development short term deliveries.

Level Gauge

Sight glass

Length 1, 2 & 4 section available

Pressure Limit: Up to 70 bar (kg/cm²);
depending on request

Temperature limit: Up to 150 °C

Material:

Wetted parts & Body : C.S, SS304, SS316
and others on request

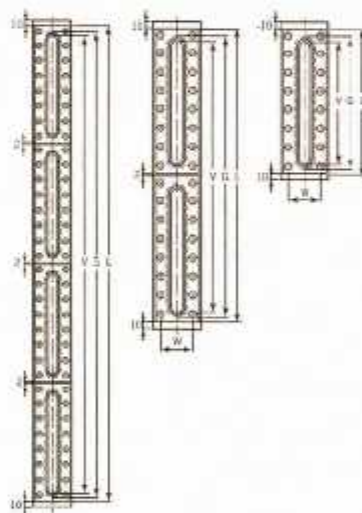
Sight Glass : tempered borosilicate glass
(REFLEX & TRANSPARENT) available

Bolt: SS304 and others on request

Gasket: Non Asbestos (standard), Teflon on
request



Dimensions:



SGL	Code																		
		R	Reflex	T	Transparent														
		Code		Connection to vessel															
		A	1/2"	B	3/4"	C	1"	D	1 1/2"	E	2"	F	3"	G	Option				
		Code		Rating															
		1	NPTM	2	ANSI 150#	3	ANSI 300#	4	PN16	5	PN40	6	Option						
		Code		Cover Material															
		A	Carbon steel	B	SS304	C	SS316	D	SS316L										
		Code		Body Material															
		1	Carbon steel	2	SS304	3	SS316	4	SS316L										
		Code		Center to Center Length (L)															
		...mm																	
		Code		Visible Length															
		V ...mm																	
		Code		Vent /Drain Connection															
	A 1/4" B 1/2" C 3/4" ect																		
SGL		Complete ordering code																	

Magnetic Level Gauge

Application for Chemical and petrochemical process, Boiler & other industries

Connection

From ½ "to 3" flange type, JIS, ANSI

DIN rating available

20kg /cm² for metal chamber type (stainless steel)

-20-150°C for metal chamber type (stainless steel)

Center to center Length :

Maximum 5500mm

Indicating case Protection

IP65

Indicating Strips Material

(plastic PBT)

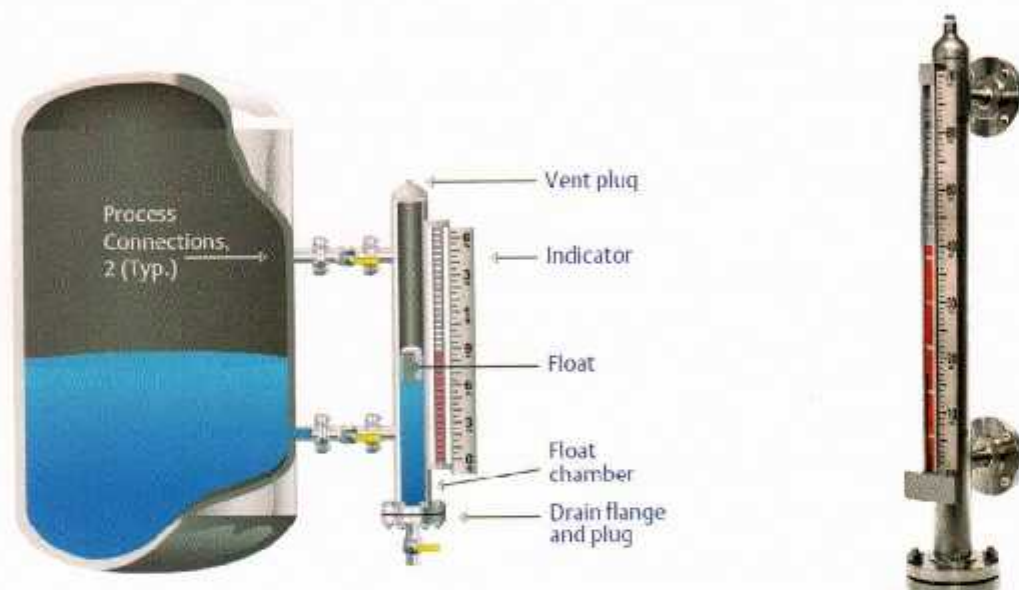
The colors are Red & white (standard), other colors option available

Specific Gravity

The Sp. Gr. must be ≥ 800kg/m³

Chamber Size

Ø50 or Ø60mm



MGL	Code	Connection														
		A	1/2"	B	3/4"	C	1"	D	1 1/2"	E	2"	F	3"	G	Option	
		Code		Connection Rating												
		1	NPTM	2	ANSI 150#	3	ANSI 300#	4	PN16	5	PN40	6	Option			
		Code		Material of Wetted Parts												
		A	SS304	B	SS316	C	SS316L									
		Code		Material of Indicating Case												
		AL	Aluminum													
		Code		Material of Indicating Strips												
		P	Plastic													
		Code		Center to Center Length (L)												
		...mm														
MGL																Complete ordering code

Orifice Plates

Orifice plates are most commonly used to measure flow rates in pipes, when the fluid is single-phase and well-mixed, the flow is continuous rather than pulsating, the fluid occupies the entire pipe, the flow profile is even and well-developed and the fluid and flow rate meet certain other conditions. Under these circumstances and when the orifice plate is constructed and installed according to appropriate standards, the flow rate can easily be determined using published formulae based on substantial research and published in industry, national and international standards.

Material: SS 304, SS 316, SS 316 L

Size: 1/4" ~ 24"

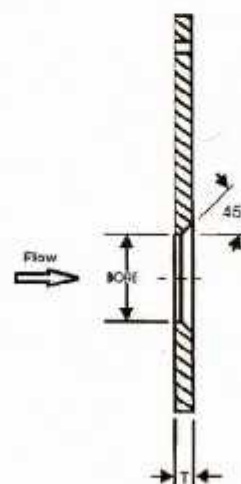
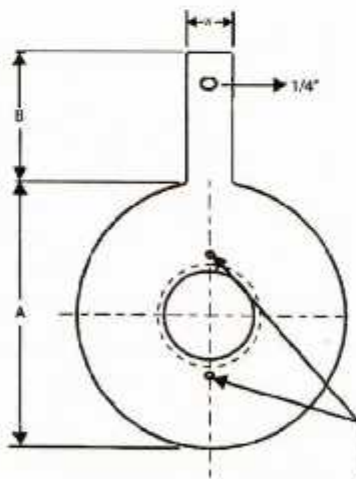
Pressure Rating: 150 ~ 1500 LBS

Suitable for Flange: ANSI / ASME B16.5 and B16.36



To order please specify:

Medium state -liquids / gas
Working pressure
Working Temperature
Density
Pipe Sch
Flow rate
Pipe size
Viscosity



Optional Vent / Drain Hole In Orifice

Threaded Connection

Threaded Process connection

DS-100

Process Connection Size: 1/4", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"

Pressure Rating: max. 0...250 bar

Material:

Diaphragm: Stainless steel 316 / PTFE/304

Upper body /Lower body: Stainless steel 316
316L ,304 ,PTFE



DS100	Code	Instrument Connection Size (Female)													
		A	1/4" BSP	B	1/4" NPT	C	3/8" BSP	D	3/8" NPT	E	1/2" BSP	F	1/2" NPT		
		Code	Membrane Size												
		A	Ø50	B	Ø60	C	Ø80								
		Code	Process Connection												
		1	1/4" BSP	2	1/4" NPT	3	3/8" BSP	4	3/8" NPT	5	1/2" BSP	6	1/2" NPT	Option	
		Code	Thread												
			M	Male	F	Female									
		Code	Upper Flange Material												
			1	SS304	2	SS316	3	SS316L							
		Code	Lower Flange Material												
			A	SS304	B	SS316	C	SS316L							
		Code	Membrane Material												
			1	SS316L	2	PTFE									
		DS100								Complete ordering code					

Flush Flanged Type

Flush Flanged Type

DS-200

Process Connection Size: Flange 2", 2 1/2", 3"

Rating: As per The different flange pressure

rating

Material: Stainless steel 316, PTFE



DS200	Code	(Instrument Connection Size (Female))										
		A	NPTF "1/2	B	NPTF "1/4							
		Code	Membrane Size≤16									
		A	Ø50	B	Ø60	C	Ø80					
		Code	Process Connection									
		1	2"	2	2 1/2"	3	3"	4	4"	Option		
		Code	Upper Flange Material									
		1	SS304	2	SS316	3	SS316L					
		Code	Lower Flange Material									
		A	SS304	B	SS316	C	SS316L					
		Code	Membrane Material									
		1	SS316L	2	PTFE							
DS200							Complete ordering code					

Complete ordering code

Threaded connection PTFE Design

Threaded connection

PTFE Design

DS-300

Process Connection Size: 1/4" 1/2", 3/4", 1"
Pressure Rating: 0 ... 16 bar

Material:

PTFE

EPDM

PVC

Polyamid



DS300	Code	Instrument Connection Size (Female)											
		A	1/2" NPTF	B	1/4" NPTF								
		Code	Membrane Sizes ≤ 16 bar										
		A	Ø60	B	Ø50	Pressure Range ≤ 16 bar							
		Code	Process Connection										
		1	1/4" NPTF	2	3/8" NPTF	3	1/2" NPTF	4	3/4" NPTF	5	1"		
		Code	Upper Flange Material										
		1	PTFE		2	SS304		3	SS316L				
		Code	Lower Flange Material										
		A	PTFE	B	PVC	C	SS304	D	SS316	E	SS316L	F	Polyamid
		Code	Membrane Material										
		1	PTFE		2	SS316L							
	DS300												Complete ordering code

Internal Flanged

Internal Flanged

DS-400

Process Connection Size: Flange 1/2", 1", 1 1/4", 1 1/2"

Rating: As per The different flange pressure rating

Material

Diaphragm: Stainless steel 316L /PTFE

Lower/ Upper body: Stainless steel 316 L, 316 , 304



DS400	Code	Instrument Connection Size (Female)												
		A	1/4" BSP	B	1/4" NPT	C	3/8" BSP	D	3/8" NPT	E	1/2" BSP	F	1/2" NPT	
	Code	Membrane Size												
		A	Ø60	B	Ø50 Pressure Range ≥ 25 bar									
	Code	Process Connection												
		1	1/2"	2	3/4"	3	1"	4	1 1/4"	5	1 1/2"	6	Option	
		Code	Flange Rating											
			1	150#	2	300#	3	PN16	4	PN25	5	PN40	6	Option
			Code	Upper Flange Material										
			1	SS304	2	SS316	3	SS316L	4	Option				
			Code	Lower Flange Material										
			A	SS304	B	SS316	C	SS316L	D	Option				
			Code	Membrane Material										
				1	SS316L	2	PTFE							
DS400													Complete ordering code	

Extended Diaphragm Seal

Extended Diaphragm Seal

DS-600

"Process Connection Size: Flanged 3", 4"

Rating: As per the different flange pressure rating

Material: Stainless Steel 316/ Monel /Hastelloy



DS600	Code	Extended Diameter										
		A	60mm	B	70mm	C	80mm	D	100mm	etc		
		Code		Extended Length								
		A	100mm	B	150mm	Other on request!						
		Code		Process Connection								
		1	3"	2	4"	3	Other					
		Code		Process Rating								
		1	150RF	2	300RF	3	600RF	4	1500RF	Other request!		
		Code		Flange & Wetted Material								
		A	Carbon Steel	B	SS304	C	SS316	D	SS316L			
		Code		Material of Diaphragm								
	A	SS316L	3	Hastelloy C	4	Monel						
DS600								Complete ordering code				

Diaphragm Seal with Capillary

Diaphragm seals are used to prevent process medium from entering directly into the pressure – sending assembly of the differential pressure transmitter. They are connected to the transmitter using capillaries filled with fill fluid .

DFC diaphragm sealed pressure devices can be used to measure liquid, gas or steam flow, as well as liquid level density and pressure. Its highly accurate and stable sensor can also measure the static pressure which can be shown on the integral indicator or remotely monitored via brain or hart communications, other key features include quick response, remote set-up using communications and diagnostics and optional status output for pressure high/low alarm .



	Code	Process temperature	Ambint temperature	Working pressure	Specific gravity
Silicone oil (general use)	A	-10 to 250°C (14 to 482°F)	-10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil (general use)	B	-30 to 180°C (-22 to 356°F)	-15 to 60°C (5 to 140°F)		0.94
Silicone oil (high temperature use)	C	10 to 310°C (50 to 590°F)	10 to 60°C (50 to 140°F)		1.09
Fluorinated oil (oil-prohibited)	D	-20 to 120°C (-4 to 248°F)	-10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low tempertue use)	E	-50 to 100°C (-50 to 212°F)	-40 to 60°C (-40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09

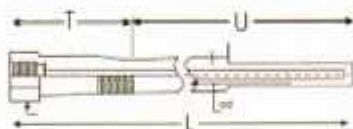
Thermowell

DFC's thermowells are made of AISI316 and carbon steel. The process connection is available in different sizes & ranging from 1/2" to 4" and the bore size varies on which type of thermowell is selected: either .6.6mm/ Ø8.5mm or both. Thermowells are recommended to protect temperature instrument from damage that could result from contact with pressurized, corrosive, flowing, viscous or abrasive process fluids. They also enable removal or thermometers for replacement or service without affecting the process media or system.



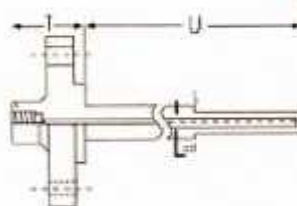
Threaded Thermowell
Model : TTW200

Instrument
connection

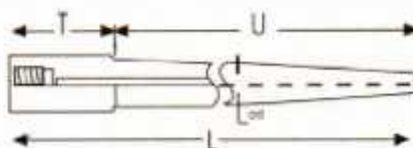


Thermowell with Flange
Model : FTW100

Instrument
connection



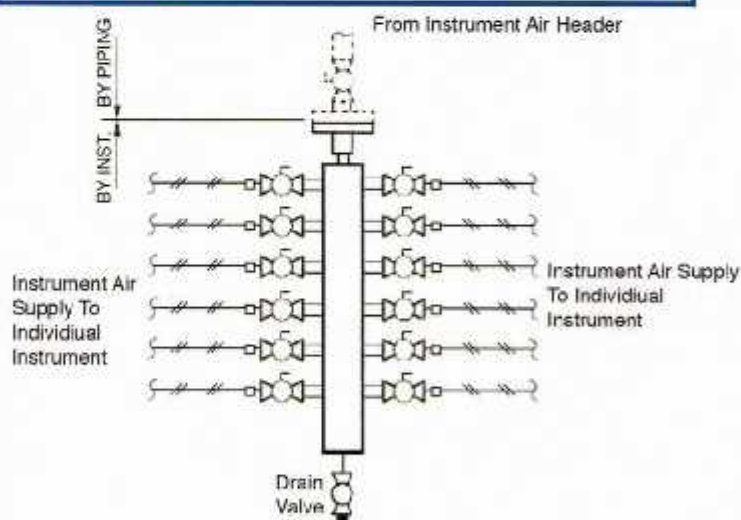
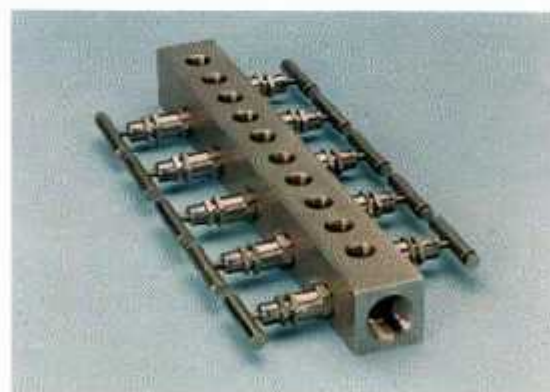
Weld in Thermowell
Model STW300



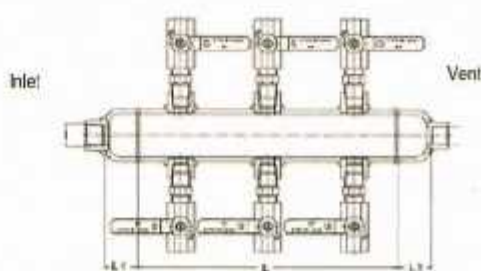
Air Distribution Manifold (Instrument Air)

Instrument air distribution manifold is a pipe shaped chamber (manifold) with several branches of outlets for delivering instrument air to multiple consumers such as control valve, actuated valve or other pneumatic operated instrument .

The number of outlet of an instrument air distribution manifold may vary depend on the number of nearby pneumatic instrument or valve. Each outlet is fitted with block valve which could be of ball valve or needle valve type. Each outlet should have instrument tag number to which the outlet delivered the instrument air . At the bottom of instrument air distribution manifold, a block valve is fitted for drain purpose . This drain valve is required during condensed liquid .

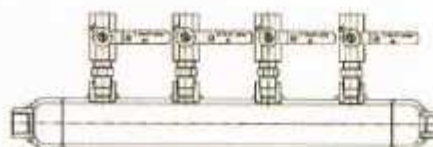


Double sided



Ball or Needle Valve

Single sided

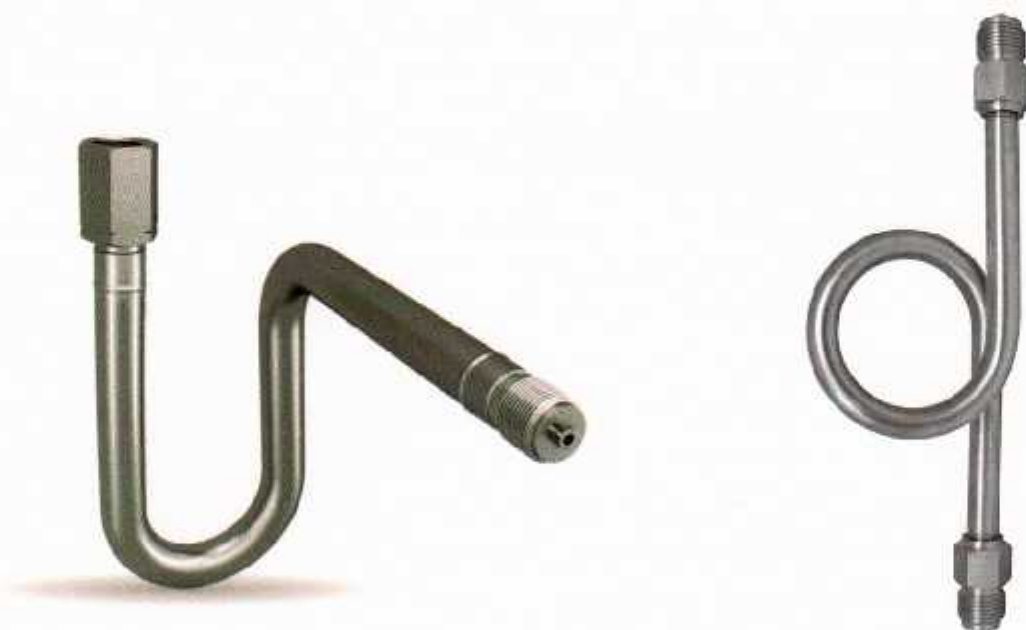


Pressure Gauge Syphon

The syphons are used to protect the pressure gauges from the steam or high temperature fluid syphons. Reduces the temperature of the process fluid by dissipating the heat. It also helps to reduce the line surges fluctuations .

Material: SS316, SS304 available

Pipe Rating: Sch 40, Sch80 available



SY	Code	Type / Connection Figure									
		A	Pig tail	B	Coil syphon						
		Code	Tube Size								
		1	Sch40	2	Sch80	3	Other				
		Code	Tube Material								
		1	SS304	2	SS316	3	SS316L				
SY				Complete ordering code							

Seal Pot

Seal pots are used to provide a liquid seal between the process instrument and gases such as steam. Its function is to keep the liquid level constant in the impulse tubes (sensing lines), while preventing steam or corrosive liquids from reaching the instrument.

Material Data

Carbon Steel, SS304, SS316, Option available

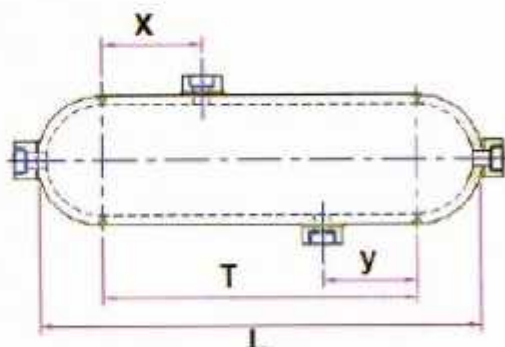
Pipe Rating

Sch10~160

Max. Pressure

3000psi, Option available

Dimensions



POT	Code	Material									
		A	Carbon Steel	B	SS304	C	SS316	D	SS316L	E	Option
		Code	Pipe Rating								
			1	Sch10	2	Sch40	3	Sch80	4	Sch160	
		Code	Tube Type								
			1	Seam	2	Seamless					
			Code Connection								
POT			1	1/2" NPT	2	1/4" NPT	3	Other		Complete ordering code	

شرکت فنی مهندسی D.F.C. در سال ۱۳۷۳ فعالیت های خود را در زمینه اتوماسیون صنعتی و ابزار دقیق با استفاده از تجارب مهندسين با سابقه و دانش کافی در عرصه صنعت و ابزار دقیق آغاز نمود و هم اکنون از شرکت های پیشرو در زمینه اتوماسیون صنعتی و ابزار دقیق محسوب میگردد.

این شرکت با عضویت فعال در مجامع مختلف فنی مهندسی از جمله انجمن صنعتی های اتوماسیون صنعتی و حضور در وندور لیست های کلیه صنایع مربوطه در زمینه اتوماسیون صنعتی و ابزار دقیق فعالیت دارد.

طراحی و تولید تجهیزات ابزار دقیق

این شرکت با داشتن کادر مهندسی مجرب و کارآزموده دفتر طراحی مجهز و تجهیزات مدرن در جهت اجرای پروژه های اتوماسیون صنعتی و ابزار دقیق در خصوص طراحی و تولید برخی از اقلام سیستم های ابزار دقیق توانسته گامی مثبت در جهت بهره وری از نیروهای متخصص ایرانی برداشته و با استفاده از تجربیات شرکتهای اروپایی موفق به تولید بخشی از این ادوات بیشمار در داخل ایران گردیده است.

بخشی از این ادوات عبارت است از:

۱. Level Gauge, Sight Glass جهت پروسس های مختلف با شرایط مختلف کاری
۲. Diaphragm seal, در انواع مختلف با متریال خاص و جهت رنج فشار های کاری جهت صنایع مختلف این ایتیم تمام شرایط و کارایی همئوع خارجی خود را دارد.
۳. Thermo well با طول، متریال و Process Connection های مختلف.
۴. Orifice Plate.
۵. Cooling Tower, Seal Pot و کلیه Accessories جهت اندازه گیری و ارسال اطلاعات گیج و ترانسسمیتر های فشار.

مشاوره و اجرای پروژه های اتوماسیون صنعتی

این شرکت با تکیه بر فعالیت های فوق الذکر و با داشتن نمایندگی شرکت های معتبر توانایی انجام پروژه های کلید در دست و ارائه خدمات به کلیه شاخه های صنعت مشتمل بر موارد زیر را دارا میباشد.

- | | |
|-----------------------------------|--------------------------------------|
| صنایع فلزی غیر آهنی | صنایع نفت، گاز، پالایش و پتروشیمی |
| صنایع شیمیایی، غذایی، دارویی | صنایع ذوب آهن، فولاد، مس و آلومینیوم |
| صنایع آب و فاضلاب | صنایع خودرو سازی |
| صنایع کاشی و سرامیک | صنایع سیمان |
| کلیه شرکت های مهندسين مشاور صنعتی | صنایع نیروگاهی |





WWW.DFC-CO.COM
INFO@DFC-CO.COM

تهران، خالد اسلامبولی، خیابان سوم، پلاک ۲۸، طبقه سوم، واحد ۹
تلفن: ۴۰-۸۸۷۱۸۸۳۹ فکس: ۸۸۷۱۵۲۹۰