

# In-Line Flow Through Type Diaph. Seal

*General*

MODEL : CSU-IFW / IFF / IJW / IJF

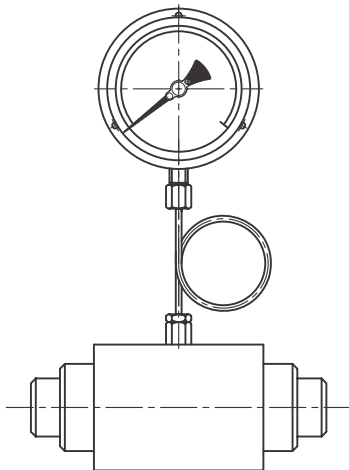
## Features

### In-Line Diaphragm Seal:

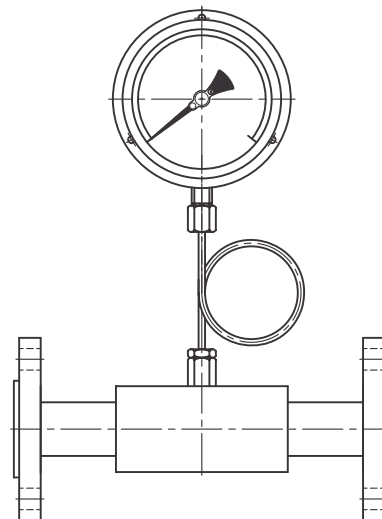
In line Diaphragm Seals are installed directly in the process flow line. These are referred to as "In-line" or "Flow-through" types. This diaphragm seal is so designed that the diaphragm is essentially flush with the flow stream and thus continually washed by the process media. In-line Diaphragm Seals are recommended when the process media is Slurry or a liquid that contains a solid component or viscous.

### Jacketed In-Line Diaphragm Seal:

Jacketed In line Diaphragm Seals are used when the process fluid has a freezing point at normal ambient temperatures. Jacket helps the Diaphragm Seal to externally heat the process fluid by means of Steam or Thermic Fluid. Thus it prevents the process fluid from solidifying and keeps the same at elevated temperature as per the requirement.



Jacketed In-Line Diaphragm Seal (Weld in)



In-Line Diaphragm Seal (Flanged)

## Optional Feature

- **Capillary** for Remote mounting of the Pressure Instrument
- **Stud / Nut & Gasket** for assembling the Diaphragm Seal with Process Flange.

**Note:** This catalogue indicates the general specifications used for most of the process applications. Any other specification not appearing here also can be provided as per customer requirement.

# Ordering Information

## IN LINE DIAPHRAGM SEAL (Flange or Weld in Connection)

MODEL: CSU- [ ] [ ] [ ] [ ] [ ] [ ]

### CONNECTION TYPE

- IFW** In line flow through type, Weld in connection
- IFF** In line flow through type, Flanged connection
- IJW** In line flow through type, Jacketed, Weld in connection
- IJF** In line flow through type, Jacketed Flanged connection

### DIAPHRAGM

- S6S** SS 316
- S6L** SS 316L
- 321** SS 321
- xxx** Other (Please Specify)

### WETTED PARTS

- S6S** SS 316
- S6L** SS 316L
- 321** SS 321
- xxx** Other (Please Specify)

### OPTION

- 4AR(\*)** SS 316 Capillary, SS 304 Armoured
- 4PV(\*)** SS 316 Capillary, SS 304 Armoured+PVC Covered
- 6AR(\*)** SS 316 Capillary, SS 316 Armoured
- 6PV(\*)** SS 316 Capillary, SS 316 Armoured+PVC Covered
- CLT** Cooling Tower
- GSK** Gasket
- STN** Stud & Nuts
- L** Nil
- XXX** Other (Please specify)

\* Specify the length of Capillary in Meters.

### FILLING FLUID

- DC1** DC-710
- DC2** Silicone Oil (DC-200)
- DC4** DC-704
- DC5** DC-705
- FLU** Fluorolube
- GLY** Glycerine
- HLC** Halocarbon
- VGO** Food grade oil
- XXX** Other (Please specify)

### PROCESS CONNECTION

#### WELD IN PIPE SIZE

CONN	CODE	SIZE	CODE	RATING	CODE
Weld in	W	1/2"	15	Sch 40	S40
		3/4"	20	Sch 80	S80
		1"	25	Sch 160	S16
		1-1/2"	40	Sch XXS	XXS
		2"	50	Other (Please Specify)	XXX
		3"	80		

e.g. For 2" (50 NB), Sch 80 Pipe, Model Code: **W50S80**

### PROCESS CONNECTION

#### FLANGED

CONN	CODE	SIZE	CODE	RATING#	CODE	FACING	CODE	
Flange	F	1/2"	15	150	A	RF	RF	
		3/4"	20	300	B	FF	FF	
		1"	25	600	C	RTJ	RJ	
		1-1/2"	40	900	D	ST	ST	
		2"	50	1500	E	SG	SG	
		3"	80	2500	F	LT	LT	
							LG	LG
							SMF	SM
							SFF	SF
							LMF	LM
							LFF	LF

e.g. For 40 NB 300# RF flange, Model Code: **F40BRF**

Sample model Code: CSU-IFW-S6S-S6S-W40S80-DC2-4AR(5)

# In-line Flow Through Type Diaph. Seal

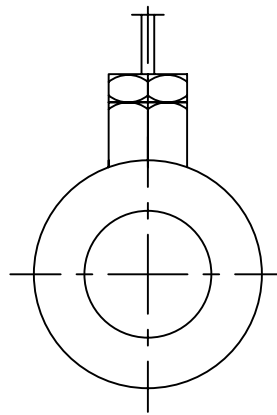
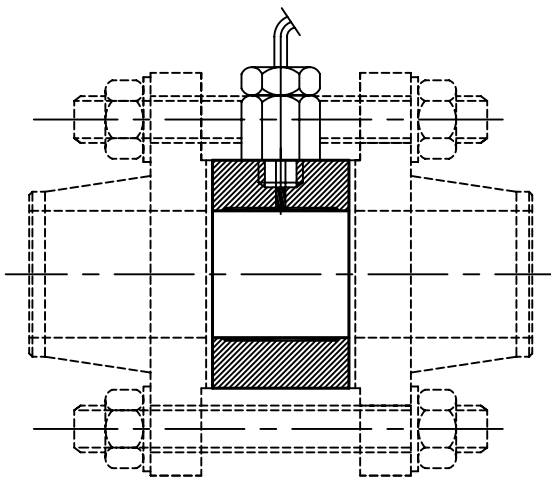


## Cylindrical Diaphragm seal to be mounted between 2 Flanges MODEL: CSU-IFC

### Features

Cylindrical type In-Line Diaphragm Seals are installed directly in the process flow line between two flanges. These are also called as Cell type Diaphragm seal. Cylindrical type in-line Diaphragm seal recommended when the process media is Slurry or a liquid that contains a solid component or viscous.

The area behind the diaphragm is sealed with suitable filling fluid. As the process fluid flows through the pipe, it exerts pressure on the cylindrical diaphragm, which is transmitted to the pressure instrument through the filling fluid. The inner diameter of the seal unit is same as that of the process pipe. Thus it is continuously washed / cleaned by the flowing process media, thereby avoid any clogging, which results in accurate reading of the pressure instrument.



### Optional Features

- Capillary tubing for Remote mounting of the Pressure Instrument
- Cooling Tower



**Note:** This catalogue indicates the general specifications used for most of the process applications.  
Any other specification not appearing here also can be provided as per customer requirement.

# Ordering Information

## In-Line Diaphragm Seal (Cylindrical Diaphragm) to be mounted between 2 Flanges

MODEL: CSU- [ ] [ ] [ ] [ ] [ ] [ ]

### CONNECTION TYPE

**IFC** In line flow through type  
Cylindrical Diaphragm Seal

### BODY MATERIAL

**S6S** SS 316  
**S6L** SS 316L  
**321** SS 321  
**HCC** Hastelloy C  
**MN4** Monel 400  
**xxx** Other (Please Specify)

### CYLINDRICAL DIAPHRAGM

**S6S** SS 316  
**S6L** SS 316L  
**321** SS 321  
**HCC** Hastelloy C  
**MN4** Monel 400  
**xxx** Other (Please Specify)

### OPTION

**4AR(\*)** SS 316 Capillary, SS 304 Armoured  
**4PV(\*)** SS 316 Capillary, SS 304 Armoured+PVC Covered  
**6AR(\*)** SS 316 Capillary, SS 316 Armoured  
**6PV(\*)** SS 316 Capillary, SS 316 Armoured+PVC Covered  
**CLT** Cooling Tower  
**L** Nil  
**XXX** Other (Please specify)

\* Specify the length of Capillary in Meters.

### FILLING FLUID

**DC1** DC-710  
**DC2** Silicone Oil (DC-200)  
**DC4** DC-704  
**DC5** DC-705  
**FLU** Fluorolube  
**GLY** Glycerine  
**HLC** Halocarbon  
**VGO** Food grade oil  
**XXX** Other (Please specify)

### MOUNTING FLANGE DETAILS (Not part of the Diaphragm Seal)

Conn	Code	Size	Code	Rating#	Code	Facing	Code
Flange	F	1"	25	150	A	RF	RF
		1-1/2"	40	300	B	FF	FF
		2"	50	600	C	XXX	Other (Please specify)
		2-1/2"	65	900	D		
		3"	80	1500	E		
		4"	10	2500	F		
		5"	55				
6"	66						

e.g. For 40 NB 300# RF flange, Model Code: F40BRF

Sample model Code: CSU-IFC-S6S-S6S-F40BRF-DC4-4AR(3)

# In-line Flow Through Type Diaph. Seal



## Isolating Ring - Wafer Type to be mounted between 2 Flanges

**MODEL : CSU-IRW**

### Features

Ring type In-Line Diaphragm Seals are installed directly in the process flow line. These are also referred to as Isolating Rings. Isolating Rings are recommended when the process media is Slurry or a liquid that contains a solid component or viscous.

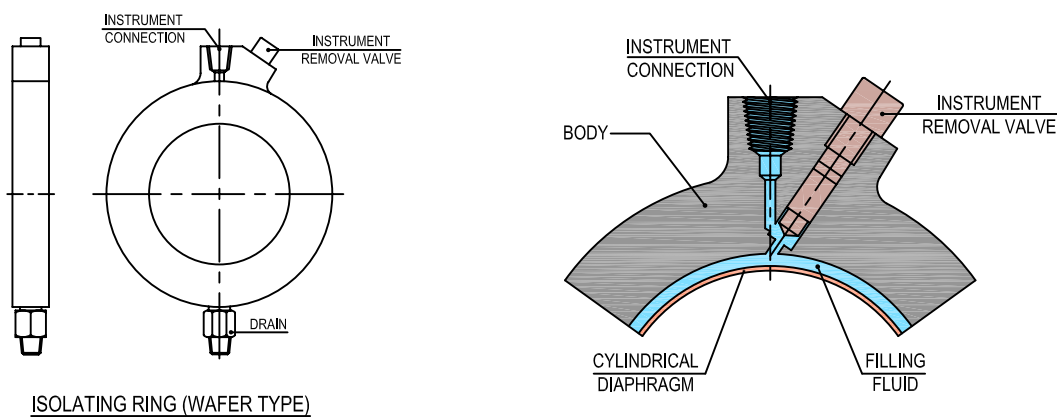
The area behind the flexible cylinder is sealed with suitable filling fluid. As the process fluid flows through the pipe, it exerts pressure on the flexible cylinder (Cylindrical Diaphragm), which is transmitted to the pressure instrument through the filling fluid. The diameter of the inner flexible cylinder is same as the inner diameter of the process pipe. Thus it is continuously washed / cleaned by the flowing process media, thereby avoid any clogging, which results in accurate reading of the pressure instrument.

#### Instrument Removal Valve:

One additional feature offered by us is the Instrument Removal Valve, which facilitates the removal of the Pressure instrument for Calibration or repair without interrupting the flow in processes line.

#### Optional Feature:

Cooling Tower  
Capillary tubing for Remote mounting of the Pressure Instrument



**Note:** This catalogue indicates the general specifications used for most of the process applications.  
Any other specification not appearing here also can be provided as per customer requirement.

# Ordering Information

## Ring type In-Line Diaphragm Seal (Isolating Ring - Wafer type) to be mounted between 2 Flanges

MODEL: CSU- [ ] [ ] [ ] [ ] [ ] [ ] [ ]

### TYPE

**IRW** Isolating Ring Diaphragm Seal, Wafer Type

### SIZE

Code	Size	Code	Size
R050	2"	R250	10"
R080	3"	R300	12"
R100	4"	R350	14"
R125	5"	R400	16"
R150	6"	R450	18"
R200	8"	R500	20"

### BODY MATERIAL

<b>CST</b>	CS
<b>S4S</b>	SS 304
<b>S4L</b>	SS 304L
<b>S6S</b>	SS 316
<b>S6L</b>	SS 316L
<b>321</b>	SS 321
<b>xxx</b>	Other (Please Specify)

### CYLINDRICAL DIAPHRAGM

<b>BUN</b>	Buna-N
<b>EPD</b>	EPDM
<b>FCN</b>	Fluorocarbon
<b>NTR</b>	Natural Rubber
<b>PTF</b>	PTFE
<b>NPR</b>	Neoprene
<b>VTN</b>	Viton
<b>xxx</b>	Other (Please Specify)

### OPTION

<b>CLT</b>	Cooling Tower
<b>4AR(*)</b>	SS 316 Capillary, SS 304 Armoured
<b>4PV(*)</b>	SS 316 Capillary, SS 304 Armoured +PVC Covered
<b>6AR(*)</b>	SS 316 Capillary, SS 316 Armoured
<b>6PV(*)</b>	SS 316 Capillary, SS 316 Armoured +PVC Covered
<b>L</b>	Nil
<b>XXX</b>	Other (Please specify)

### FILLING FLUID

<b>DC1</b>	DC-710
<b>DC2</b>	Silicone Oil (DC-200)
<b>DC4</b>	DC-704
<b>DC5</b>	DC-705
<b>FLU</b>	Fluorolube
<b>GLY</b>	Glycerine
<b>HLC</b>	Halocarbon
<b>VGO</b>	Food grade oil
<b>XXX</b>	Other (Please specify)

### SEALING FLANGES

<b>CST</b>	CS
<b>S4S</b>	SS 304
<b>S4L</b>	SS 304L
<b>S6S</b>	SS 316
<b>S6L</b>	SS 316L
<b>321</b>	SS 321
<b>xxx</b>	Other (Please Specify)

Sample model Code: CSU-IRW-R080-S6S-BUN-S6S-DC2-CLT