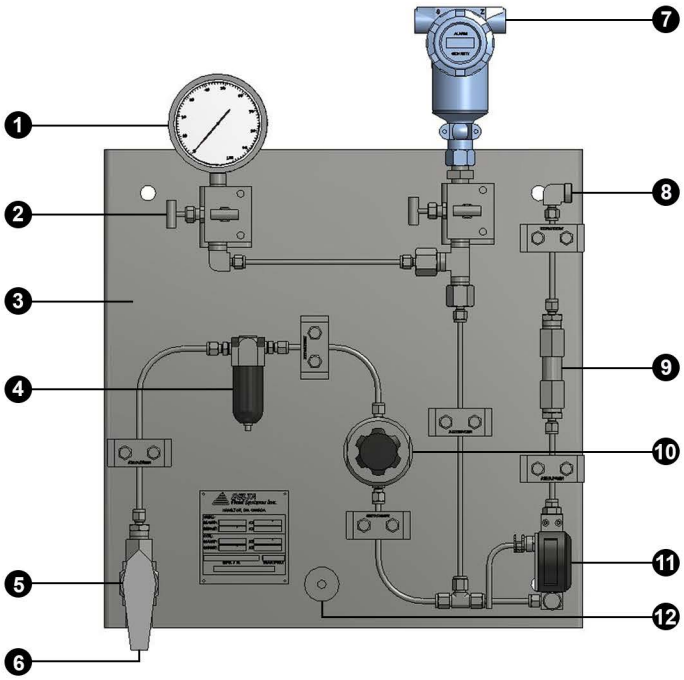
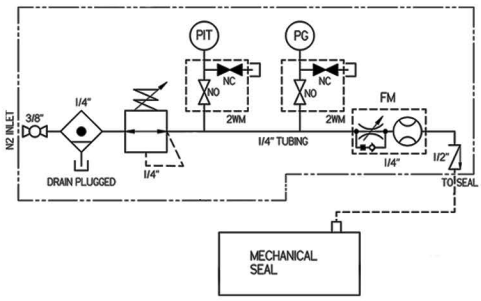
DELTA Fluid Systems Inc.
423 Millen Rd. Hamilton, ON, Canada
905-664-4333 | 1-855-660-4666 | www.deltafluidsystems.com

DFS - 72



Model Key

1 - Pressure Gauge
2 - Block & Bleed Valve
3 - Panel
4 - Coalescing Filter
5 - Ball Valve On / Off
6 - Buffer Gas Out
7 - Pressure Transmitter
8 - Buffer Gas In
9 - Check Valve
10 - Regulator
11 - Flow Meter w/ Switch
12 - Earthing Boss



P&ID Key

PIT - Pressure Transmitter
PG - Pressure Gauge
FM - Flow Meter
NO - Normally Open
NC - Normally Closed
2VM - Two Way Manifold

- Ball Valve
- Check Valve
- Coalescing Filter
- Flow Meter w/ Switch
- Flow Control Valve
- Pressure Regulating Valve

Description

API 682 Plan 72 Panel is used as a buffer gas regulating and monitoring system for a dual unpressurized mechanical seal with a dry running outboard containment seal. The system can be used alone or in conjunction with a Plan 75 and/or Plan 76 system. The sealed fluid can be a mixture of either a condensing or flashing fluid.

Inert buffer gas, typically Nitrogen, is regulated by the Plan 72 Panel. This buffer gas is supplied at low pressure to the outboard containment seal which acts as a vehicle to sweep emissions to a vapour recovery unit or flare. This system will also provide a blanket to the primary inboard seal, thus reducing reactivity risks of leakage to the atmosphere. Upset conditions actuate switches or transmitters in the system alarming high / low flow or pressure situations which acts as an indicator of seal performance.

Standard Design Features

- 1/4" Tubing
- Diaphragm Regulator
- 4.5" Dial Pressure Gauge
- Coalescing Filter
- Armoured Tube Flow Meter w/ Switch
- Check Valve Outlet
- NPT Inlet / Outlet
- Panel Mount

Optional Design Features

- Coriolis Flow Transmitter
- Variable Area Flow Indicators
- Pressure Transmitter
- Pressure Switch
- Welded Rigid Pipe

Materials of Construction

Elements	Standard	Options
Flow meter	316 Stainless Steel (Wetted)	Application Specific
Fittings / Valves / Regulator	316 Stainless Steel (Wetted)	Application Specific
Pressure Gauges / Transmitters	316 Stainless Steel (Wetted)	Application Specific
Tubing	316 / 316L Stainless Steel	Application Specific
Panel	Painted Carbon Steel	304 / 316 Stainless Steel

*All materials used per ASME Section VIII Div. 1

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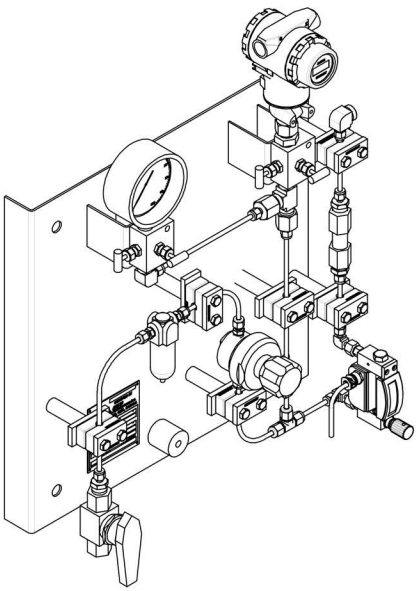

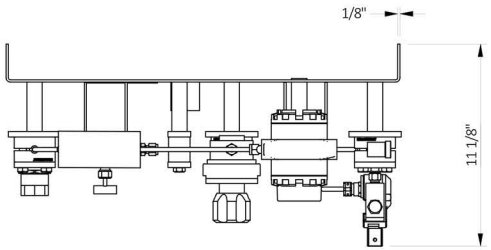

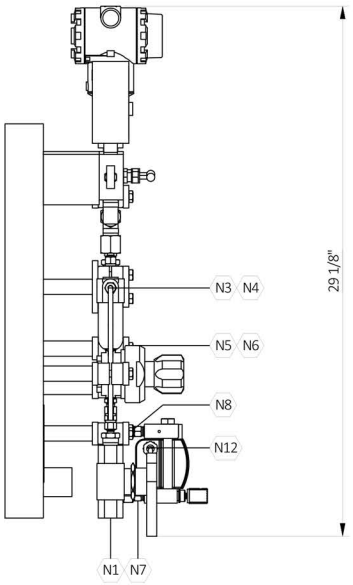

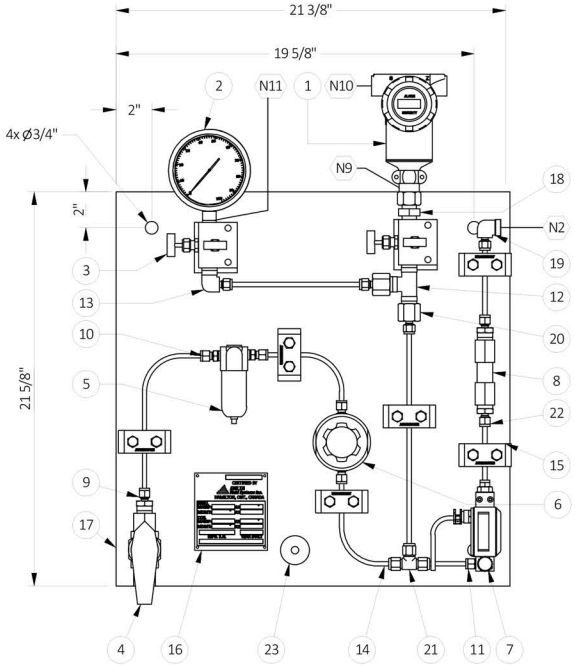

PARTS LIST

#	QTY	DESCRIPTION	MATERIAL
1	1	PRESSURE TRANSMITTER 1/2" NPTF	316 SS
2	1	PRESSURE GAUGE (4 1/2" DIAL) 1/2" NPTM	316 SS
3	2	TWO VALVE MANIFOLD 1/2" NPTF	316/316L SS
4	1	BALL VALVE 3/8" NPTF	316/316L SS
5	1	COALESCING FILTER 1/4" NPTF	316/316L SS
6	1	PRESSURE REGULATING VALVE 1/4" NPTF	316/316L SS
7	1	FLOW METER (WITH SWITCH) 1/4" OD	316/316L SS
8	1	CHECK VALVE 1/2" NPTF	316/316L SS
9	1	MALE CONNECTOR 3/8"NPTMX1/4"OD	316/316L SS
10	4	MALE CONNECTOR 1/4"NPTMX1/4"OD	316/316L SS
11	2	ADAPTOR ELBOW 1/4"ODX1/4"OD	316/316L SS
12	1	TEE 1/2"NPTM	316/316L SS
13	1	MALE ELBOW 1/2"NPTMX1/4"OD	316/316L SS
14		TUBE 1/4"ODX0.028"THK	316/316L SS
15	6	TUBE SUPPORT 1/4"OD	
16	1	NAME PLATE	316 SS
17	1	PANEL-PAINTED	CS
18	1	HEX NIPPLE 1/2" NPTM	316/316L SS
19	1	FEMALE ELBOW 3/8"NPTFX1/4"OD	316/316L SS
20	2	FEMALE CONNECTOR 1/2"NPTFX1/4"OD	316/316L SS
21	1	TEE 1/4"OD	316/316L SS
22	2	MALE CONNECTOR 1/2"NPTMX1/4"OD	316/316L SS
23	1	EARTHING BOSS	CS

NOZZLE CONNECTION TABLE

#	QTY	DESCRIPTION	SIZE
N1	1	N2 INLET	3/8" NPTF
N2	1	TO SEAL	3/8" NPTF
N3	1	FILTER INLET	1/4" NPTF
N4	1	FILTER OUTLET	1/4" NPTF
N5	1	PRESSURE REGULATING VALVE INLET	1/4" NPTF
N6	1	PRESSURE REGULATING VALVE OUTLET	1/4" NPTF
N7	1	FLOW METER INLET	1/4" O.D.
N8	1	FLOW METER OUTLET	1/4" O.D.
N9	1	PRESSURE TRANSMITTER PROCESS	1/2" NPTF
N10	2	PRESSURE TRANSMITTER ELECTRICAL	1/2" NPTF
N11	1	PRESSURE GAUGE PROCESS	1/2" NPTM
N12	1	FLOW METER ELECTRICAL	1/2" NPTF

* REFERENCE DRAWING ONLY
* BASIC MODEL SHOWN - CONFIGURATION TO CUSTOMERS REQUEST

DRAWN:	J. HOWE	20-May-14
CHECKED:		
APPROVED:		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
+/- 1/8"
ANGLE +/- 1°

DELTA FLUID SYSTEMS INC

CLIENT:
PROJECT: ORDER #:
TITLE: API 682 PLAN 72 GAS PANEL
DWG No.: GP72-0000 REV 0