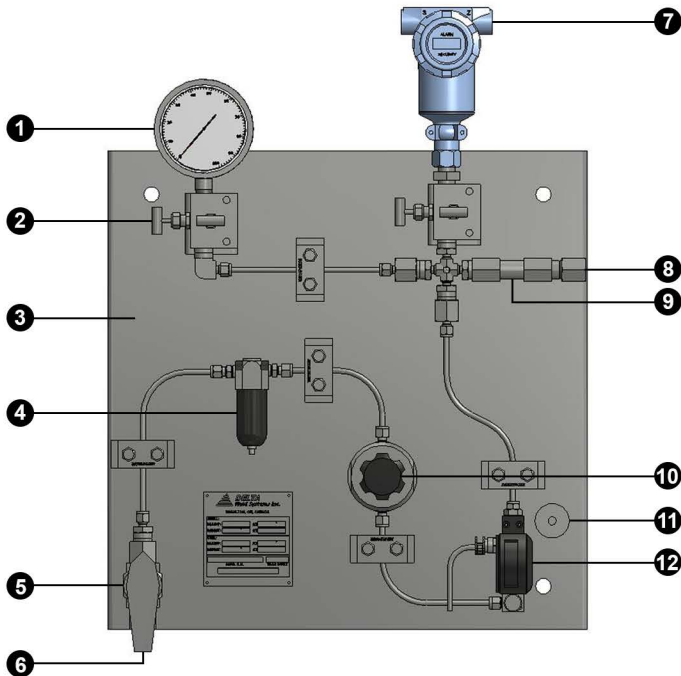
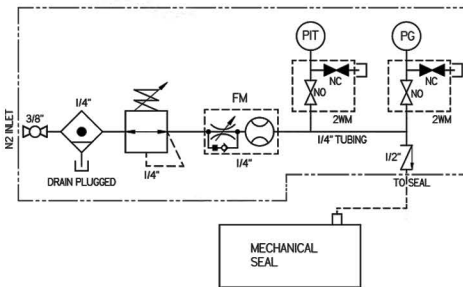


DFS - 74



Model Key

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



P&ID Key

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

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

Description

API 682 Plan 74 is used to regulate and monitor the barrier gas supply to a dual pressurized dry gas mechanical seal.

Inert buffer gas, typically Nitrogen is regulated by the Plan 74 Panel. This barrier gas is injected into the seal gland at a higher pressure than the seal chamber pressure which encourages gas migration into the process fluid. 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 | - Check Valve Outlet |
| - Diaphragm Regulator | - NPT Inlet / Outlet |
| - 4.5" Dial Pressure Gauge | - Panel Mount |
| - Coalescing Filter | |
| - Armoured Tube Flow Meter w/ Switch | |

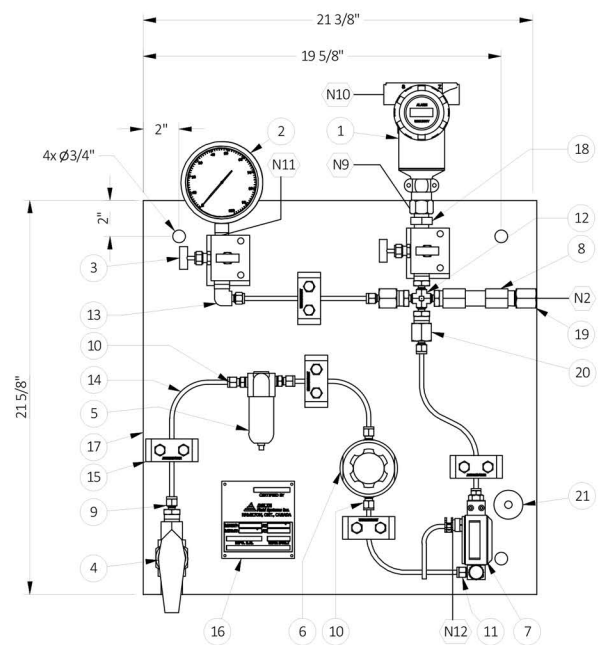
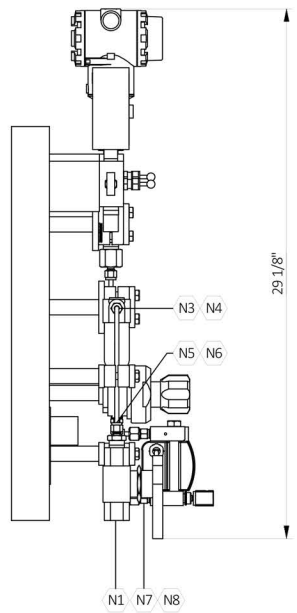
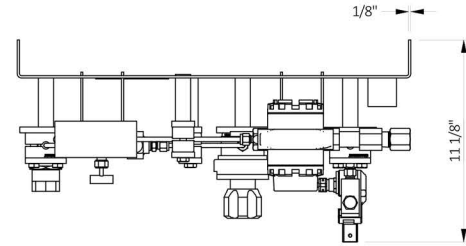
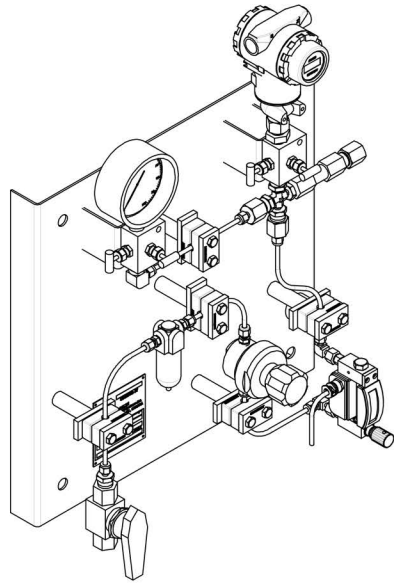
Optional Design Features

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

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



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	CROSS 1/2"NPTM	316/316L SS
13	1	MALE ELBOW 1/2"NPTMX1/4"OD	316/316L SS
14	1	TUBE 1/4"ODX0.028"THK	316/316L SS
15	5	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	ADAPTOR 1/2" NPTMX3/8" NPTF	316/316L SS
20	2	FEMALE CONNECTOR 1/2"NPTFX1/4"OD	316/316L SS
21	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

DRAWN: J. HOWE 29-May-14		
CHECKED:		
APPROVED:		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ±.1/8" ANGLE ±.1°		
CLIENT:	PROJECT:	ORDER #:
TITLE: API 682 PLAN 74 GAS PANEL		
DWG No.: GP74-0000	REV 0	

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