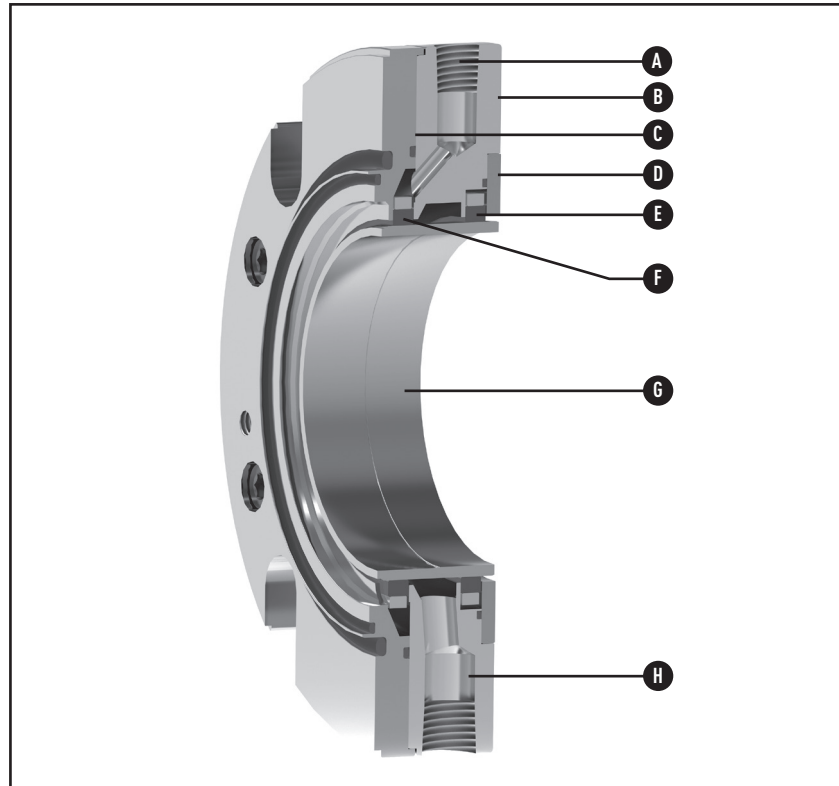


- A – Pressure monitoring port
- B – Gland (bushing housing)
- C – Gland adaptor
- D – Auxiliary gland
- E – Secondary bushing
- F – Primary bushing
- G – Sleeve
- H – Drain port



Product Description

The secondary containment bushing (SCB) is standardized dual bushing arrangement intended for use in conjunction with the 66A piping plan. It is used as the back-up to a primary seal and is usually incorporated into the cartridge. This seal is specifically targeted at crude oil pipeline pumps. The dual bushing arrangement consists of primary and secondary bushings in a cartridge, complete with a port for measuring pressure upstream of the primary bushing, and a port for drainage between the bushings.

Design Features

- Restricts leakage past primary bushing at full pipeline pressure in the event of primary seal failure in both dynamic and static operation to 1500 psig/103 barg
- Enables upset detection, pump switch off and cost down without significant release to environment
- Can be used with 8648VRS 'NPSS' technology to increase seal MTBR reliability even in the most difficult crude oil applications

Performance Capabilities

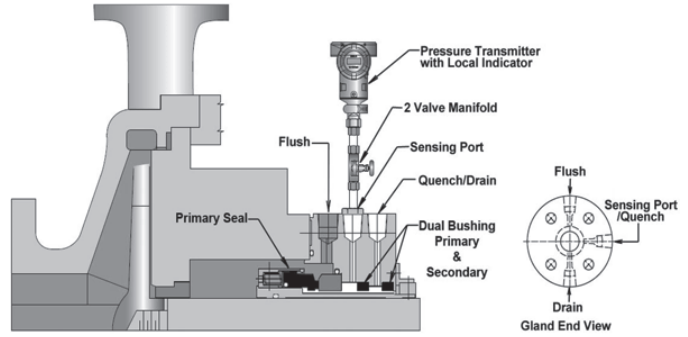
Operation	Condition	Pressure limit	Typical Design Duration
Dynamic	Up to 3500 fpm (17.8 m/s)	0 psig/0 barg	3 years
Dynamic	Up to 3500 fpm (17.8 m/s)	Up to 1500 psig/103 barg	2 minutes
Dynamic	Decreasing from 5000 fpm (25.4 m/s) max.	Up to 1500 psig/103 barg	3 minutes
Static	Max. static pressure following primary seal failure	1500 psig/103 barg	15 minutes
Static	150% max. static pressure	2200 psig/152 barg	15 minutes

Typical Arrangement

Plan 66A is a leakage detection plan for single seals, commonly used on pipeline applications and uses a pressure transmitter to monitor seal leakage, creating an alarm to report extreme leakage or seal failure. A throttle bushing inboard of the drain port restricts the flow of leakage to drain, enabling a pressure increase to be reported.

Dimensional Data

The secondary containment bushing (SCB) is sized on known equipment dimensions used in crude oil pipeline applications. Sizes to fit common pipeline pumps 1.500 to 6.500 inch shafts.



API piping plan 66A

Nominal Shaft Size		Bushing Diameter		8648VRS Seal Size		48VRS Seal Size	
(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)
1.500	38.10	1.812	46.02	2.375	60.33		
2.187	55.55	2.500	63.50	3.125	79.38	3.000	76.20
2.375	60.33	2.687	68.25	3.250	82.55	3.125	79.38
2.625	66.68	2.937	74.60	3.500	88.90	3.375	85.73
3.250	82.55	3.562	90.47	4.125	104.78	4.125	104.78
3.500	88.90	3.875	98.43	4.500	114.30	4.375	111.13
3.750	95.25	4.125	104.78	4.750	120.65	4.625	117.48
4.000	101.60	4.375	111.13	5.000	127.00	4.875	123.83
4.375	111.13	4.812	122.22	5.500	139.70	5.375	136.51
4.500	114.30	4.875	123.83	5.500	139.70	5.375	136.51
4.750	120.65	5.125	130.18	5.750	146.05	5.625	142.88
5.500	139.70	5.875	149.23	6.500	165.10	6.375	161.93
5.750	146.05	6.125	155.58	6.750	171.45	6.625	168.28
6.125	155.58	6.625	168.28	7.250	184.15	7.125	180.98
6.500	165.10	7.000	177.80	7.750	196.85	7.500	190.50

Materials of Construction

Components	Materials
O-ring (adaptive hardware)	Fluoroelastomer: temperature limit: -20°F to 401°F/-29°C to 205°C
Bushing	Carbon
Assembly/Adaptor/Auxiliary gland	316 Stainless steel
Sleeve hard coating	Tungsten carbide



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