



Standard gland format dimensional information

Seal Size	I	J	E
1.000" - 1.375" (24mm - 35mm)	1.500" (38.1mm)	2.062" (52.3mm)	0.519" (13.2mm)
1.500" - 1.875" (38mm - 50mm)	1.625" (41.3mm)	2.062" (52.3mm)	0.644" (16.4mm)
2.000" - 2.375" (53mm - 60mm)	1.750" (44.5mm)	2.062" (52.3mm)	0.644" (16.4mm)
2.500" - 2.875" (63mm - 68mm)	1.937" (49.2mm)	2.437" (62.0mm)	0.769" (19.6mm)
3.000" - 4.000" (70mm - 100mm)	2.000" (50.8mm)	2.437" (62.0mm)	0.769" (19.6mm)

ANSI+ gland format dimensional information

Seal Size	I	J	E
1.125" - 1.375"	1.500"	2.062"	1.000"
1.750" - 1.875"	1.625"	2.062"	0.644"
2.125"	1.750"	2.062"	0.644"
2.500" - 2.750"	1.937"	2.437"	0.644"



BSFG™

Cartridge Mechanical Seal

INSTALLATION INSTRUCTIONS

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NOTE 1 (GB)

- When Flush is used, position the Flush Port to the top (12 O'Clock)
- When using steam Quench to Drain, the Quench connection should be positioned at the top (12 O'Clock), and the Drain connection at the bottom (6 O'Clock).

HINWEIS 1 (DE)

- Wenn eine Spüleleitung angeschlossen ist, positionieren Sie den Spülanschluss nach oben (12 Uhr)
- Wenn ein Dampfquench benutzt wird sollte der Anschluss/Einlass oben (12Uhr) liegen, und der Drainanschluss / Ablass unten liegen (6Uhr).

OBS 1 (DK)

- Hvis der anvendes skylning skal skylletilslutningen vende opad (kl. 12).
- Hvis der føres damp til køletilslutningen skal den vende opad (kl.12) og dræntilslutningen skal vende nedad (kl.6).

NOTA 1 (E)

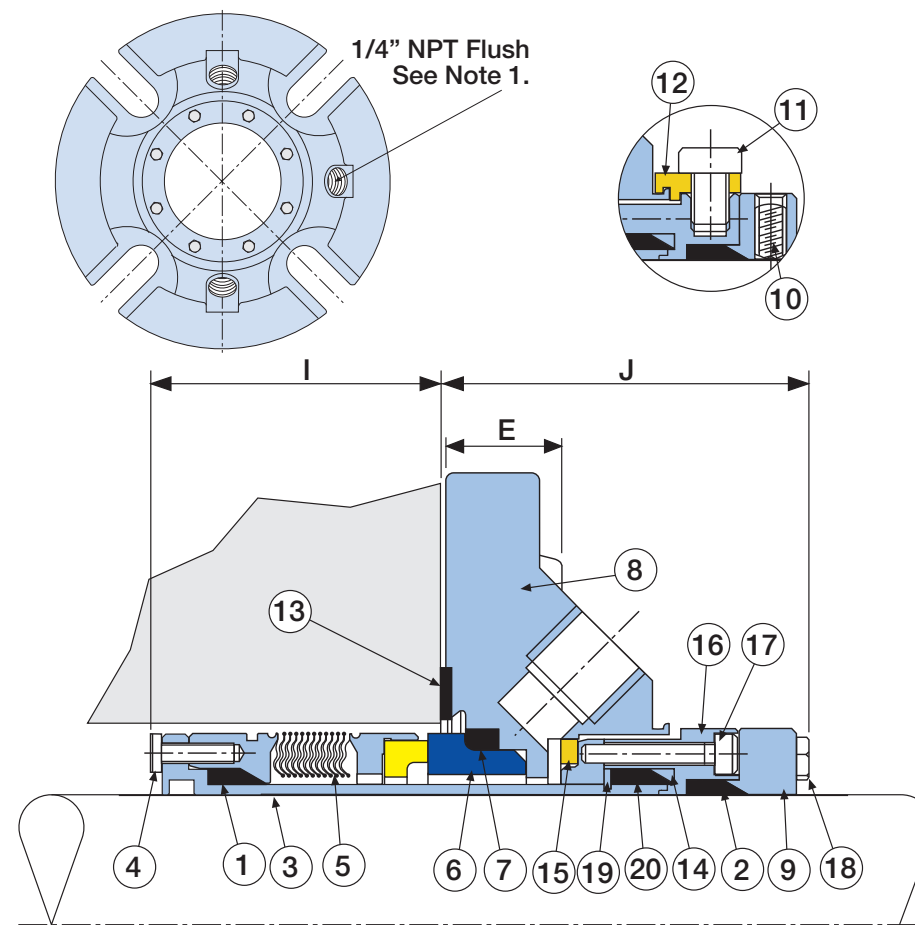
- Cuando sea usado el Flush, posicionar la conexión Flush en la parte superior (Posición de las 12 en punto)
- Cuando sea usado el lavado de vapor para drenaje, la conexión Quench deberá posicionarse en la parte superior (Posición de las 12 en punto), y la conexión Drain en la parte inferior (Posición de las 6 en punto).

NOTA 1 (F)

- En cas d'utilisation de la connexion Flush, s'assurer que le port Flush soit positionné sur la partie haute.
- Si on utilise une connexion Quench et Drain (vapeur), positionner la connexion quench à 12 heures et la connexion drain à 6 heures.

HUOM 1 (FIN)

- Kun käytetään huuhtelukanavaa, käytettävän kanavan tulee olla tiivisteen yläpuolella (asennossa klo 12.00)
- Kun ajetaan höyryä tiivisteen läpi (quench to drain), tiivisteen sisään tulokanava on ylhäällä (klo 12.00) ulosmenokanava alhaalla (klo 06.00)



ITEM	DESCRIPTION	MATERIAL
1	Rotary Sealing Wedge	Graphite
2	Shaft Sealing Wedge	Graphite
3	Sleeve	316L Stainless Steel
4	Rotary Drive Screws	Stainless Steel / Alloy 276
5	Rotary Bellows Assembly	316L SS / AM 350 / C42 / Ant. Carbon - SiC Alloy 276 / Alloy 276 / Alloy 276 / Ant. Carbon - SiC
6	Stationary Face	SiC / TC
7	Stationary Seal Ring	Graphite / Kalrez®
8	Gland	316 Stainless Steel
9	Clamp Ring	316L Stainless Steel
10	Seal Drive Screws	Stainless Steel
11	Setting Clip Screws	Stainless Steel
12	Setting Clips	Metal
13	Gasket	AF1 / GFT
14	Washer	316L Stainless Steel
15	Draw Ring	316L Stainless Steel / Phosphor Bronze
16	External Drive Ring	316L Stainless Steel
17	Outboard Drive Screws	Stainless Steel
18	External Drive Screws	Stainless Steel
19	Circlip	Stainless Steel
20	Rotary Sealing Wedge	Graphite

N.B. 1 (IT)

- Quando è previsto il flussaggio, posizionare il raccordo di flussaggio verso l'alto (ad ORE 12).
- Quando è previsto il raffreddamento del vapore per il drenaggio, il raccordo di raffreddamento deve essere posizionato verso l'alto (ad ORE 12) e quello di drenaggio verso il basso (ad ORE 6).

N.B. 1 (N)

- Om spyleporten benyttes, monter tetningen slik at innløpet sitter kl 12.
- Benyttes damp som spyling (Qench) skal innløpet sitte på toppen (kl 12) og utløpet i bunn.

LET OP 1 (NL)

- Als spoeling wordt gebruikt, positioneer de "Flush" poort aan de top (12 uur)
- Als stoom quench wordt toegepast, moet de "Quench" aansluitpoort gepositioneerd worden aan de top (12 uur) en de "Drain" aansluitpoort aan de onderzijde (6 uur).

NOTA 1 (P)

- Quando o Flush for utilizado, posicione a porta de Flush no alto seguindo orientação 12 horas (ref. relógio)
- Quando utilizar sistema de Quench e Dreno de vapor, a porta de Quench (entrada) deve estar posicionada no alto, orientação 12 horas(ref. relógio) e a de Dreno(saída) na parte de baixo, orientação 6 horas.

UWAGA 1 (PL)

- Gdy przyłącze „Flush” jest wykorzystywane, ustaw go na górze (godz. 12.00).
- Gdy do przepłukiwania od przyłącza „Quench” do „Drain” wykorzystuje się parę wodną, ustaw przyłącze „Quench” na górze (godz. 12), a „Drain” na dole (godz. 6).

OBS! 1 (S)

- Om framförspolning används, montera tätningen så att inloppet sitter kl 12.
- Används ånga som spoling (Qench) skall inloppet sitta på toppen (kl 12) och utloppet i botten.

Pre-Installation Checks.

- Shaft Outside Diameter is within tolerance $\pm 0.002"$ ($\pm 0.05\text{mm}$)
- Shaft run out $< 0.004"$ (0.1mm) T.I.R.
- Shaft end float $< 0.005"$ (0.13mm).
- Fluid seal can be obtained on the Stuffing Box face.
- There are no sharp edges over which the Sleeve Wedge (2) must pass.
- Ensure shaft surface finish is better than $32\mu"$ CLA ($0.8\mu\text{m Ra}$) at elastomer position 2.

Additional elastomer information

An additional inboard Viton sleeve o-ring is supplied in the seal box which can be fitted to the (unused) inboard sleeve o-ring groove to provide additional isolation of the area under the sleeve from product contamination.

The Viton o-ring should only be fitted where the application parameters do not exceed the temperature limits of the Viton o-ring ($200^{\circ}\text{C} / 392^{\circ}\text{F}$).

Alternative o-ring materials can be supplied where different temperature / chemical resistance is required.

WARNING

Use of o-rings at temperatures in excess of the manufacturers recommended operating temperature can lead to thermal degradation of the o-ring material and the evolution of hazardous compounds.

Consult AESSEAL plc if in doubt.

Installation instructions.

- Lubricate the shaft with the grease provided.
- Slide the seal onto the shaft - SEE NOTE 1.
- IN CASE OF DAMAGE TO THE GRAPHITE SLEEVE WEDGE DURING INSTALLATION:
If the graphite Sleeve wedge (2) is damaged on installation there is a spare one in the seal box. Remove the clamp ring (9) and the damaged wedge (2). Slide the clamp ring (9) onto the pump shaft and then carefully slide the new wedge (2) onto the pump shaft in the correct orientation. Slide the remainder of the seal onto the shaft and loosely reattach the clamp ring (9) to the external drive ring (16) using screws (18). IMPORTANT - DO NOT FULLY TIGHTEN SCREWS (18).
- Assemble rest of equipment in final running position.
- Slide seal into position on the pump. Fit washers in all cases and tighten Gland Nuts down firmly.
- Secure Clamp Ring (9), and Sleeve wedge (2) using External Drive Screws (18) to the rest of the seal assembly. Fully compress the Sleeve Wedge (2), ensuring metal to metal contact is achieved between the External Drive Ring (16) and the Clamp Ring (9).
- Equally tighten the Seal Drive Screws (10) down onto the shaft.
- Remove setting clip screws and setting clips (11 and 12).
- Spin the shaft by hand. Listen and feel for any shaft binding, etc.
- Connect the flush, quench and drain connections. If flush connection is not required, please ensure that it is properly sealed with a 1/4"NPT plug.
- Ensure the pump is primed and fully vented prior to start up, the Flush connection can be used for venting if required.
- Retain clips and clip screws for future use.

