GLE range of

component

environmental multispring mechanical seals

SMI™ and SME™ series

GLE range of

component

multispring mechanical seals

The SMI™ and SME™ are high quality, multi-spring, balanced mechanical seals.

The SMI™ has a rigid compact construction, with springs outside the pumped media. This enables it to be used in demanding product applications.

The SME™ has a rigid unitised construction and has no metal parts in contact with the pumped media. It is therefore suitable for use in corrosive applications.

A range of stationaries, including self-aligning, DIN and L shaped, can be matched with the SMI™ and SME™ to provide high duty sealing solutions.

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Reference Issue • 2LIT-GLECOMP/02 04/2006

GLE SMI™

internal balanced seals

SMI™ - design features

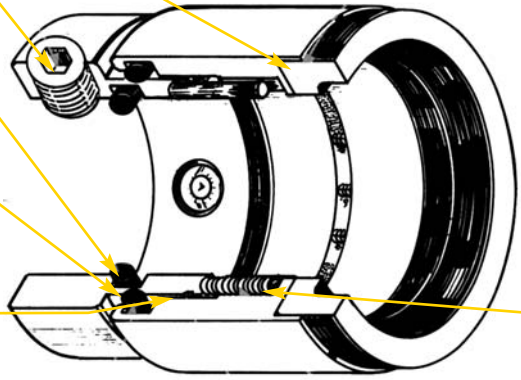
Secured rotary face
Shrink fitting improves durability and face retention under extreme operating conditions.

Positive clamping
Grub-screwed directly to the pump shaft or sleeve to ensure effective drive to the rotary face.

No fretting of pump shaft
The seal internal o-ring is static on the shaft and guaranteed never to fret the pump shaft or sleeve.

Anti clog
The dynamic o-ring moves onto a clean area as seal faces wear. Components remain free for longer seal life.

Balanced
Hydraulic balance is achieved within the seal design and does not require a stepped shaft. Face loading is reduced to give cooler running and longer seal life.



Springs out of fluid
The Alloy 276 springs are not in the pumped fluid where they could corrode or clog and so remain effective for the whole of the seal life.

GLE SME™

external balanced seals

SME™ - design features

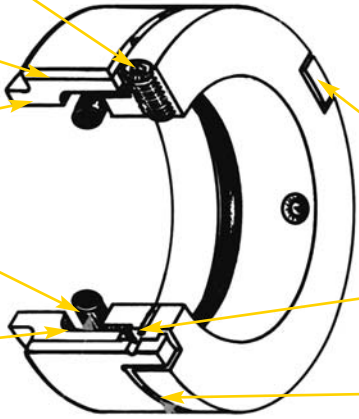
External clamping
Easily set to the correct working length, enabling pump efficiency adjustments to be made without dismantling the pump.

Secured rotary face
Shrink fitting improves durability and face retention under extreme operating conditions.

Non metallic wetted parts
No metal parts in contact with pumped media, therefore able to operate in corrosive applications.

Anti clog
The dynamic o-ring moves onto a clean area as seal faces wear. Components remain free for longer seal life.

Balanced
Hydraulic balance is achieved within the seal design and does not require a stepped shaft. Face loading is reduced to give cooler running and longer seal life.



Positive drive lugs
Drive forces are evenly distributed around the rotary face to reduce stress.

Springs out of fluid
The Alloy 276 springs are not in the pumped fluid where they could corrode or clog, so remain effective for the whole of the seal life.

Visual examination
Visible spring gap allows monitoring of face wear.

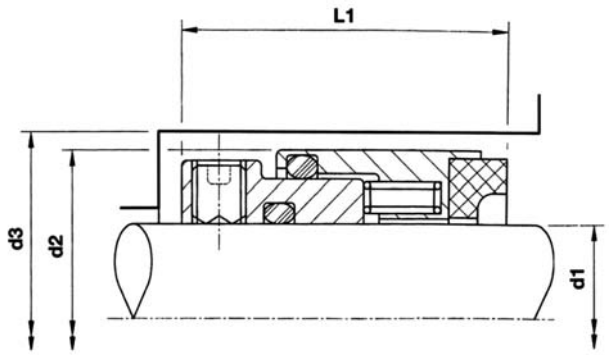
SMI™ & SME™ - technical specification

metal parts	316 Stainless Steel as standard, other materials also available.
o-rings	Viton® (Flurocarbon) as standard. Ethylene Propylene, Kalrez®, Chemraz® and other elastomers available to order.
rotary face	R-Carbon as standard, with A-Carbon, Silicon Carbide and Tungsten Carbide* (*SMI only) available.
springs	Alloy 276
temperature limits	-30ºC to 260ºC (-22ºF to 500ºF) dependent upon specified elastomer and system configuration.
pressure limits	- 711mm HG Vacuum to 30 Bar (-28" HG - 440 PSI).

GLE SMI™
internal balanced seals

GLE SME™
external balanced seals

GLE SMI™
dimensional information

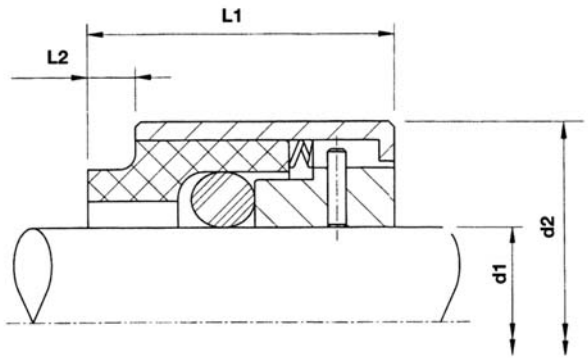


SMI™ - size chart

d1		d2	d3	L1
Imp.#	Met.	Seal O.D.	S/B I.D.	Working length
3/4	19	33.0	34.9	32.5
-	20	34.0	36.0	32.5
7/8	22	36.2	38.1	32.5
-	24	38.0	40.0	32.5
-	25	39.0	41.0	32.5
1	-	39.4	41.3	32.5
-	28	42.0	44.0	32.5
1 1/8	-	42.6	44.5	32.5
-	30	44.0	46.0	32.5
1 1/4	32	45.6	48.0	32.5
-	33	47.0	49.0	32.5
1 3/8	35	49.0	51.0	32.5
1 1/2	38	52.8	54.0	33.5
-	40	54.8	56.0	33.5
1 5/8	-	56.0	57.2	33.5
-	43	57.8	59.0	33.5
1 3/4	-	59.2	60.3	33.5
-	45	59.8	61.0	33.5
1 7/8	-	62.4	63.5	33.5
-	48	62.8	64.0	33.5
-	50	64.8	66.0	33.5
2	-	65.5	66.7	33.5
-	53	67.8	69.0	33.5
2 1/8	-	68.7	69.9	33.5
-	55	69.8	71.0	33.5
2 1/4	-	71.9	73.0	33.5
-	58	72.8	74.0	33.5
-	60	74.8	76.0	33.5
2 3/8	-	75.1	76.2	33.5
-	63	78.2	79.0	33.5
2 1/2	-	78.2	79.4	33.5
-	65	82.5	84.0	36.5
2 5/8	-	84.2	85.7	36.5
-	68	85.5	87.0	36.5
2 3/4	-	87.4	88.9	36.5
-	70	87.5	89.0	36.5
2 7/8	-	90.5	92.1	36.5
-	75	92.5	94.0	36.5
3	-	93.7	95.3	36.5
3 1/8	-	96.9	98.4	36.5
-	80	97.5	99.0	36.5
3 1/4	-	100.1	101.6	36.5
-	85	102.5	104.0	36.5
3 3/8	-	103.2	104.8	36.5
3 1/2	-	106.4	108.0	36.5
-	90	107.5	109.0	36.5
3 5/8	-	109.6	111.1	36.5
3 3/4	95	112.8	114.0	36.5
3 7/8	-	115.9	117.5	36.5
-	100	117.5	119.0	36.5
4	-	119.1	120.7	36.5

All dimensions in (mm) except #

GLE SME™
dimensional information



SME™ - size chart

d1		d2	L1	L2
Imp.#	Met.	Rotary O.D.	Working Lgth.	Nose Extn.
-	25	45.0	28.5	4.5
1	-	45.4	28.5	4.5
-	28	48.0	28.5	4.5
1 1/8	-	46.8	28.5	4.5
-	30	50.0	28.5	4.5
1 1/4	32	52.0	28.5	4.5
1 3/8	35	55.0	28.5	4.5
1 1/2	38	58.1	28.5	4.5
-	40	60.0	28.5	4.5
1 5/8	-	61.3	28.5	4.5
-	43	63.0	28.5	4.5
1 3/4	-	64.5	28.5	4.5
-	45	65.0	28.5	4.5
1 7/8	-	67.6	28.5	4.5
-	48	68.0	28.5	4.5
-	50	70.0	28.5	4.5
2	-	70.8	28.5	4.5
-	53	73.0	28.5	4.5
2 1/8	-	74.0	28.5	4.5
-	55	75.0	28.5	4.5
2 1/4	-	77.2	28.5	4.5
-	58	78.0	28.5	4.5
2 3/8	60	80.3	28.5	4.5
2 1/2	63	83.5	28.5	4.5
-	65	90.4	35.0	6.5
2 5/8	-	92.1	35.0	6.5
-	68	93.4	35.0	6.5
2 3/4	70	95.3	35.0	6.5
-	-	98.5	35.0	6.5
2 7/8	-	98.5	35.0	6.5
-	75	100.4	35.0	6.5
3	-	101.6	35.0	6.5
3 1/8	-	104.8	35.0	6.5
-	80	105.4	35.0	6.5
3 1/4	-	108.0	35.0	6.5
-	85	110.4	35.0	6.5
3 3/8	-	111.2	35.0	6.5
3 1/2	-	114.3	35.0	6.5
-	90	115.4	35.0	6.5
3 5/8	-	117.5	35.0	6.5
3 3/4	95	120.7	35.0	6.5
3 7/8	-	123.8	35.0	6.5
-	100	125.4	35.0	6.5
4	-	127.0	35.0	6.5

All dimensions in (mm) except #