EN

SETTING MECHANICAL SEALS

mechanical seals

CARRARA®

GLOBAL SEALING SOLUTIONS

Style 890 – Single Stationary Multiple Spring Cartridge

Flush connection

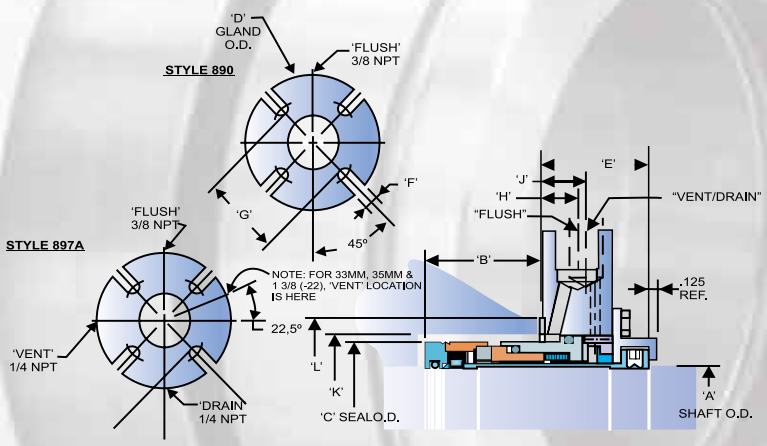
- Drive mechanisms external to the product;
- Seal faces positioned for maximum protection;
- A dynamic elastomer moves on a non-metallic surface, eliminating fretting defects;
- Hydraulically balanced;
- Cartridge easy to install;
- The position of the faces maximises their cooling.

Rotating face	Tungsten Carbide, Silicon Carbide or Carbon
Stationary face	Silicon Carbide, Tungsten Carbide
Springs	Hast**C
Body	C316 SS/17-4 316 SS Hast**C276 For special configurations, refer to the manufacturer.
O-Rings	EPR (Ethylene Propylene), Viton AFLAS* (Perfluoroelastomer)
Max. Temp.	204°C*(400°F)
Max. Pressure	300 PSI (carbon) (20 BAR) For higher pressure refer to the manufacturer.
Max. Rotation	6000 fpm (30m/s)

Style 897 A - (Quench) Single Stationary Multiple Spring Cartridge

Quench

- Style 897A has all the benefits of the 890 plus quench connections.



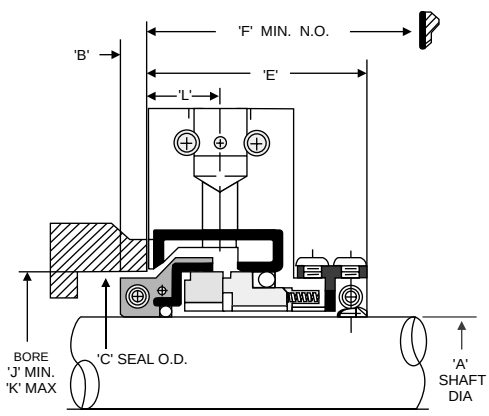
Rotating face	Tungsten Carbide, Silicon Carbide or Carbon
Stationary face	Silicon Carbide, Tungsten Carbide
Springs	Hast C
Body	C316 SS/17-4 316 SS Hast**C276 For special configurations, refer to the manufacturer.
O-Rings	EPR (Ethylene Propylene), Viton AFLAS* (Perfluoroelastomer)
Max. Temp.	200°*(400°F)
Max. Pressure	300 PSI (carbon) (20 BAR) For higher pressure refer to the manufacturer.
Max. Rotation	6000 fpm (30m/s)

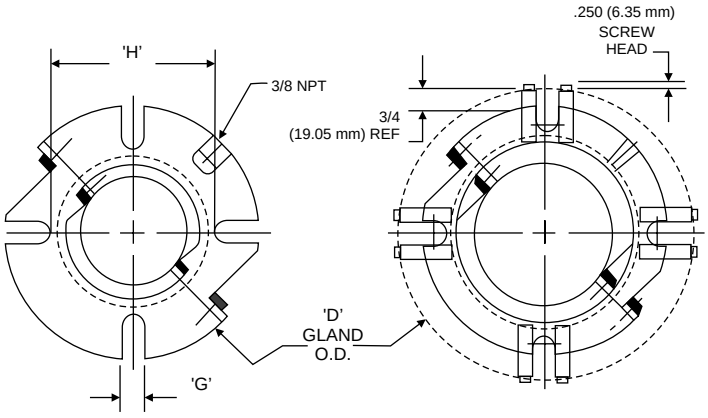
Dimensional Table - Style 890/897A

Size of the seal	A	(Metric size)"	B	C	D	E	F	G	H	J	K (joint)	L (joint)
16	1,000	24	1,633	1,700	4,000	1,531	0,437	2,375	0,531	0,657	1,790	2,230
16	1,000	25	1,633	1,700	4,000	1,531	0,437	2,375	0,531	0,657	1,790	2,230
18	1,125	28	1,633	1,700	4,250	1,531	0,437	2,462	0,531	0,657	1,915	2,355
20	1,250	30	1,633	1,950	4,250	1,531	0,437	2,583	0,531	0,657	2,040	2,480
-	-	32	1,633	1,950	4,250	1,531	0,437	2,583	0,531	0,657	2,040	2,480
22	1,375	33	1,633	1,950	4,250	1,531	0,437	2,712	0,531	0,657	2,165	2,605
-	-	35	1,633	1,950	4,250	1,531	0,437	2,712	0,531	0,657	2,165	2,605
24	1,500	38	1,633	2,200	4,500	1,531	0,562	2,950	0,531	0,657	2,415	2,855
26	1,625	40	1,633	2,325	5,000	1,531	0,562	3,075	0,531	0,657	2,540	2,990
28	1,750	43	1,633	2,450	5,500	1,531	0,562	3,188	0,531	0,657	2,665	3,105
-	-	45	1,633	2,450	5,500	1,531	0,562	3,188	0,531	0,657	2,665	3,105
30	1,875	48	1,633	2,575	5,500	1,531	0,562	3,313	0,531	0,657	2,790	3,230
32	2,000	50	1,582	2,700	5,500	1,594	0,562	3,570	0,562	0,719	3,040	3,490
34	2,125	53	1,582	2,825	6,000	1,594	0,687	3,687	0,500	0,719	3,165	3,605
36	2,250	55	1,539	2,950	6,250	1,656	0,687	3,813	0,593	0,782	3,290	3,730
38	2,375	58	1,714	3,195	6,250	1,656	0,687	3,937	0,531	0,782	3,415	3,855
-	-	60	1,714	3,195	6,250	1,656	0,687	3,937	0,531	0,782	3,415	3,855
40	2,500	63	1,650	3,320	6,500	1,720	0,687	3,937	0,500	0,845	3,500	3,855
42	2,625	65	1,650	3,560	6,500	1,720	0,687	4,188	0,500	0,845	3,625	4,070
44	2,750	68	1,589	3,650	7,500	1,781	0,687	4,438	0,500	0,907	3,820	4,320
-	-	70	1,589	3,650	7,500	1,781	0,687	4,438	0,656	0,907	3,820	4,320
46	2,875	72	1,712	3,785	7,500	1,781	0,687	4,625	0,656	0,907	3,950	4,450
48	3,000	75	1,822	3,900	8,000	1,781	0,687	5,062	0,656	0,907	4,075	4,825

Universal Fitting;
Designed to be tted on pumps and mixers without changing the stuf ng box;
Available in both metric and inch sizes;
Ensures axial and radial alignment;
Does not require measurements, shims or special tools;
Internal assembly that exploits the product pressure to keep the faces in contact;
The centrifugal force keeps solids away from contact faces;
Springs do not come into contact with the product, thereby eliminating any possibility of locking;
Faces are not handled during the installation;
O-ring placed outside the stuf ng box;
Balanced;
Stationary design provides better faces alignment.

Rotating face	Silicon Carbide			
Stationary face	Carbon or Silicon Carbide			
Springs	Hastloy C			
Body	316 SS/17-4 316 SS Hast**C276 For special con gurations, refer to the manufacturer.			
O-Rings	EPR or viton or (AFLAS*Per uoroelastomer)			
Dimension	1 3/4 -3 (45mm-75mm)	3 1/8 -3 3/4 (80mm-95mm)	3 7/8 -4 3/4 (100mm-120mm)	5 (125mm) e acima
Temperature	175°C (350°F)	175°C (350°F)	175°C (350°F)	175°C (350°F)
Rotation	3600 RPM	1800 RPM	1800 RPM	575 RPM
Pressure	17bar (250 PSI)	14bar (200 PSI)	10bar (150 PSI)	7bar (100 PSI)





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20	1,250	30	1,633	1,950	4,250	1,531	0,437	2,583	0,531	0,657	2,040	2,480
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24	1,500	38	1,633	2,200	4,500	1,531	0,562	2,950	0,531	0,657	2,415	2,855
26	1,625	40	1,633	2,325	5,000	1,531	0,562	3,075	0,531	0,657	2,540	2,990
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32	2,000	50	1,582	2,700	5,500	1,594	0,562	3,570	0,562	0,719	3,040	3,490
34	2,125	53	1,582	2,825	6,000	1,594	0,687	3,687	0,500	0,719	3,165	3,605
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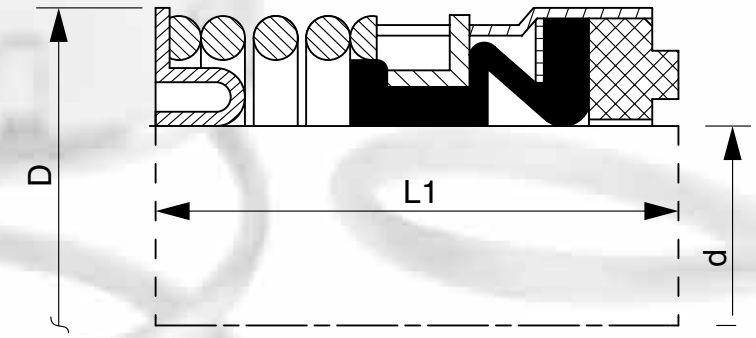
46	2,875	72	1,712	3,785	7,500	1,781	0,687	4,625	0,656	0,907	3,950	4,450
48	3,000	75	1,822	3,900	8,000	1,781	0,687	5,062	0,656	0,907	4,075	4,825

* Patented by FLEX-A-SEAL

Style 51 Single spring

- Unbalanced
- Single spring
- Bi-directional
- Elastomer bellows
- Set screw lock collars available

Rotating face	Carbon Graphite, Silicon Carbide, Tungsten Carbide
Stationary face	STYLE "ORM" O-ring mount Ceramic, Silicon Carbide, Tungsten Carbide, Stainless Steel
Body	304 Standard - 316 SS/17-4 316 SS
O-Rings	Buna, Viton, Epdm, Aflas, Neoprene
Max. Temp.	160°C* (320 F)
Max. Pressure	150 PSI (10 BAR) For higher pressure refer to the manufacturer.
Max. Rotation	4000 fpm (20m/s)



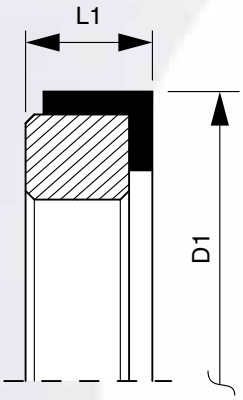
Dimensional Table - Style 51 Single Spring

Inch sizes (")	(Metric size)"	D	L1	D1	L2
1.000	24-25	1.500	1.562	1.625	0.437
1.125	28	1.625	1.625	1.750	0.437
1.250	30-32	1.812	1.625	1.875	0.437
1.375	33-35	1.875	1.687	2.000	0.437
1.500	38	2.000	1.687	2.125	0.437
1.625	40	2.250	2.000	2.375	0.500
1.750	43-45	2.375	2.000	2.500	0.500
1.875	48	2.500	2.125	2.625	0.500
2.000	50	2.625	2.125	2.750	0.500
2.125	53	2.812	2.375	3.000	0.562
2.250	55	2.937	2.375	3.125	0.562
2.375	60	3.062	2.500	3.250	0.562
2.500	63	3.187	2.500	3.375	0.562
2.625	65	3.375	2.750	3.375	0.625
2.750	70	3.500	2.750	3.500	0.625
2.875	73	3.625	2.875	3.750	0.625
3.000	75	3.750	2.875	3.875	0.625

D1 is the diameter of the cavity for the stationary face
L2 is the axial length of the stationary seat

Stationary O-ring mount “ORM”

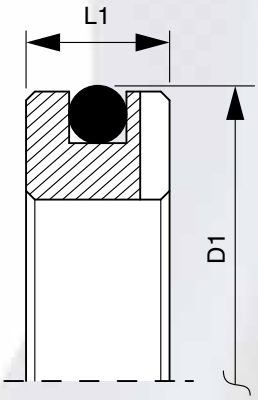
Rotating face	Carbon or Ceramic
Stationary face	STYLE “ORM” O-ring mount
O-Rings	EPR or Viton
Max. Temp.	200°C*
Max. Pressure	170 PSI For higher pressure refer to the manufacturer.
Max. Rotation	15 m/s



O-ring Mount stationary housing Style “ORM”

L-type stationary face

Rotating face	Carbon or Ceramic
Stationary face	STYLE “ORM” O-ring mount
O-Rings	EPR or Viton
Max. Temp.	200°C*
Max. Pressure	170 PSI For higher pressure refer to the manufacturer.
Max. Rotation	15 m/s



Style “L” stationary housing

N°	d Ø	D1	L1
12	0,750	1,375	0,406
14	0,875	1,500	0,406
16	1,000	1,625	0,437
18	1,125	1,750	0,437
20	1,250	1,875	0,437
22	1,375	2,000	0,437
24	1,500	2,125	0,437
26	1,625	2,375	0,500
28	1,750	2,500	0,500
30	1,875	2,625	0,500
32	2,000	2,750	0,500
34	2,125	3,000	0,562
36	2,250	3,125	0,562
38	2,375	3,250	0,562
40	2,500	3,375	0,562
42	2,625	3,375	0,625
44	2,750	3,500	0,625
46	2,875	3,750	0,625
48	3,000	3,875	0,625

CARRARA
GLOBAL SEALING SOLUTIONS

RECOMMENDATION SHEET FOR MECHANICAL SEALS

COMPANY

DETAILS:

ASSIGNMENT: DATE

DEPARTMENT: SECTOR: TELEPHONE:

INFORMATION ON THE PUMP

BRAND: _____

EQUIPMENT: _____

SIZE: _____

TYPE: _____ MODEL: _____

RPM: _____ SERIES N.: _____

AXIS DIMENSIONS: _____ LINER DIMENSIONS: _____

BOX DIAM.: _____ BOX DEPTH: _____

PIN DIMENSIONS: _____ PINS N.: _____

PINS CENTRE DIAM.: _____

OBSTRUCTION 1RA. DISTANCE: _____

GLAND MAX. EXT. DIAM.: _____

REQUESTED ELLIPTICAL GLAND?: _____ DIMENSIONS: _____ x _____

SPLIT CASE: HORIZONTAL _____ SOLID _____ VERTICAL _____

THE LINER CAN: BE CUT _____ BE ELIMINATED _____

THE HUMID PARTS ARE MADE OF: _____

OPERATION: INTERMITTENT _____ CONTINUOUS _____

PUMP FEATURES

COOLING LINER IN THE PUMP? _____ YES _____ NO _____

HAS THE PUMP BEEN ALTERED? _____ YES _____ NO _____

WHICH TYPE OF MECHANICAL SEAL IS USED? _____

CODE: _____

AVERAGE DURATION: _____ YES _____ NO _____

WITH WHAT? _____

PRODUCT INFORMATION

PRODUCT TO BE SEALED: _____

CONCENTRATION: _____

TEMPERATURE: _____ NORMAL: _____ MAXIMUM: _____

SPECIFIC GRAVITY: _____ PH _____

PRESSURES: _____ EXTRACTION _____ DRAIN _____

GLAND BOX: _____ VAPOUR PRESSURE _____

FLUID FEATURES:

DOES IT HAVE SOLIDS? _____ YES _____ NO _____

DOES IT CRYSTALLISE IN SOLIDS? _____ YES _____ NO _____

DOES IT HARDEN? _____ YES _____ NO _____

IS IT DANGEROUS OR TOXIC? _____ YES _____ NO _____

IS IT CORROSIVE? _____ YES _____ NO _____

IS IT LUBRICATING? _____ YES _____ NO _____

ENVIRONMENTAL CHECKS

AVAILABLE CHECKS:

WASH/FLUID: _____ YES _____ NO _____

COLD WATER: _____ YES _____ NO _____

WASH FLUID PRESSURE: _____

IF THE ANSWER IS YES, SPECIFY: _____

DATA OF THE INSTALLED MECHANICAL SEAL

TYPE OF MECHANICAL SEAL: _____

STATIONARY COMPOSITION: _____

MATERIALS: _____

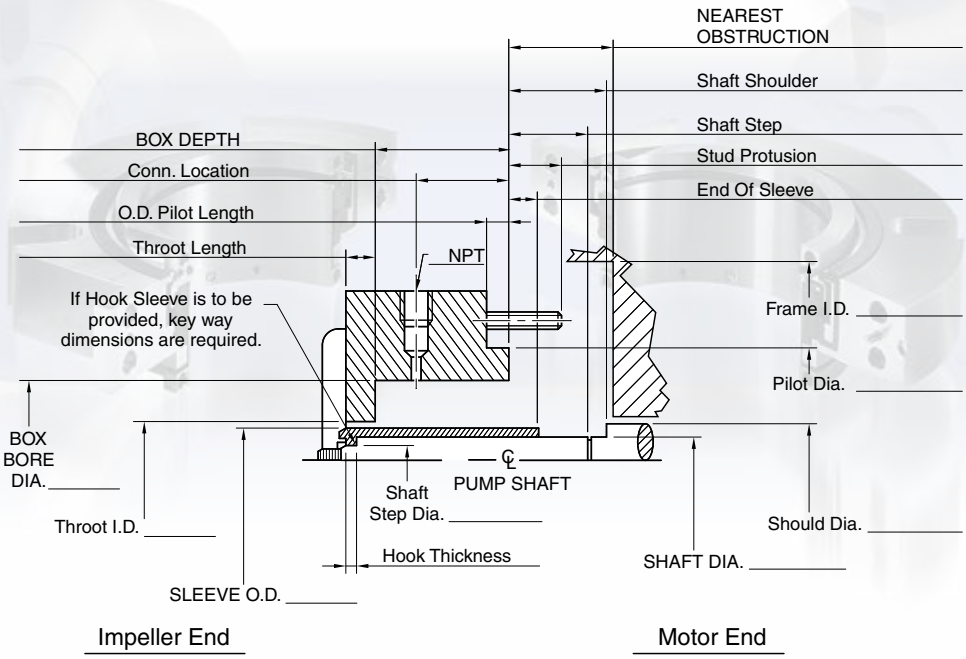
SIDES OF THE MECHANICAL SEAL: _____ x _____

METAL PARTS: _____

"O" RINGS: _____

TYPE OF GLAND: _____

ENVIRONMENTAL CHECKS: _____



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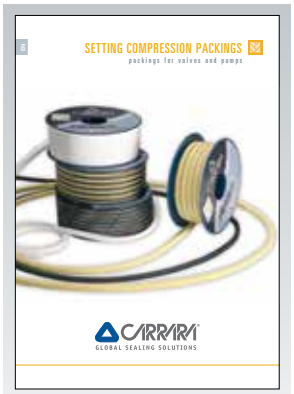


Braided Packings

Huge and qualified range of braided packings covered by API 622, ISO 15848, BAM and FDA for any industrial applications.

Valve Graphite Sealing

FE approved graphite stem sealing, special graphite seat sealing and huge range of engineered graphite seals for valves.

Metallic Flange Gaskets

Planisteel Spiral Wound Gaskets, Kamprofile and Ring Joints according to all International standard or customized on demand.

Flat Gaskets for Flange

Planigraph, Planiflon and Planiflex gasketing sheets and flat gaskets for all applications.

Mechanical seals

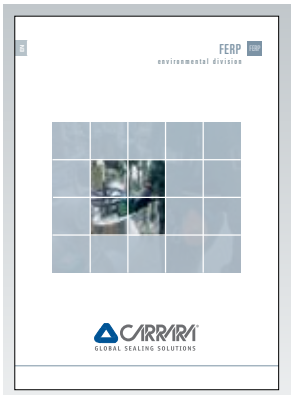
Single Stationary Multiple Spring Cartridge and High Temperature Metal Bellows Single Cartridge are the main product of our range.

Insulating Kit

Flange insulation kits for cathodic protection are one of our specialties.

Valve Components

Metallic Seat soft inserted and metal to metal for Ball and Gate Valves , Kit «ball and seat» equipped with all soft parts.



FERP Envir. Division

LDAR and Smart LDAR, Tanks Survey, Steam System Assessment and 3D Environmental Consulting.

gfstudio

CARRARA®
GLOBAL SEALING SOLUTIONS

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