

# ETX Single Seals

# Standard Cartridge Seals

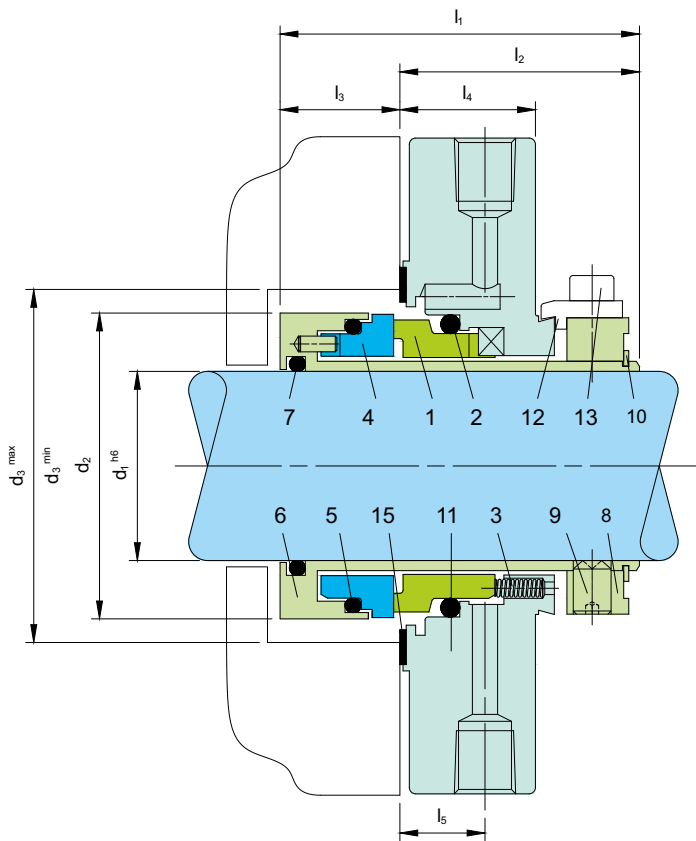


### Product Description

- 1. Single seal configuration
- 2. Balanced design
- 3. Independent of direction of rotation
- 4. Cartridge construction
- 5. Available with flush and quench connections

### Technical Features

- 1. Ideal for use in process pump standardization
- 2. O-ring is dynamically loaded to prevent shaft damage.
- 3. Dimensional modification of the stuffing box chamber is not required due to short radial installation height
- 4. Ideal to convert and retrofit pumps with packings and large volume OEM production
- 5. Cartridge unit factory assembled for easy installation, which reduces down-time
- 6. Rugged design for long operating life



**Note:** The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

Item	Description
1	Seal face
2, 5, 7	O-ring
3	Spring
4	Seat
6	Shaft sleeve
8	Drive collar
9	Set screw

Item	Description
10	Snap ring
11	Cover
12	Assembly fixture (remove after installation)
13	HSH Cap Screw
14	Plug
15	Gasket

### Typical Industrial Applications

ISO process pumps	Hydrocarbons
Acids	Lubricating liquid
Aqueous solutions	Marine
Caustics	Petrochemical
Chemicals	Pharmaceutical
Crystallizing fluids	Solvents
Fertiliser	Water & waste water
Food & beverage	

### Materials

Seal face	Silicon carbide (Q1), Carbon graphite resin impregnated (B), Tungsten carbide (U2)
Seat	Silicon carbide (Q1)
Secondary seals	FKM (V), EPDM (E), FFKM (K), Perfluorocarbon rubber/PTFE (U1)
Springs	Hastelloy® C-4 (M)
Metal parts	CrNiMo steel (G), CrNiMo cast steel (G)

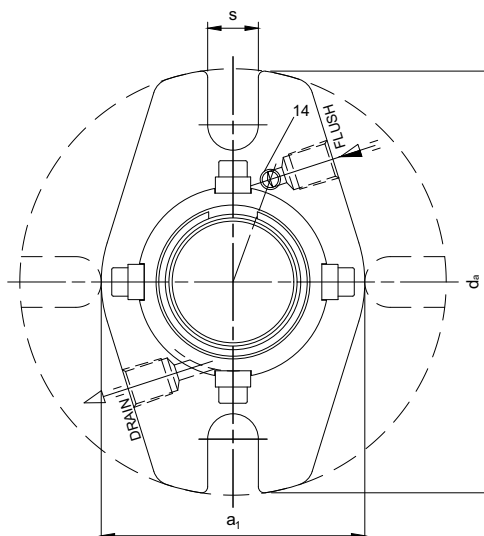
### Performance Capabilities

ETX-SN	
Sizes	Upto 70 mm (Upto 2.75") Other sizes on request
Temperature	t = -40°C...+220°C (-40°F...+428°F) (Check O-ring resistance)
<b>Sliding face material combination BQ1</b>	
Pressure	p <sub>1</sub> = 20 bar (290 PSI)
Speed	11.2 m/s

### Permissible Axial Movement:

± 1.0mm

## Installation, Details, Options



## Dimensional Data

### Dimensions in inches

d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub> min.	d <sub>3</sub> max.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	a <sub>1</sub>	d <sub>a</sub>	s	Connection
1.000	1.851	1.929	2.402	2.244	1.496	0.748	0.846	0.531	2.480	4.134	0.511	1/8" NPT
1.125	1.930	2.047	2.480	2.244	1.496	0.748	0.846	0.531	2.480	4.134	0.511	1/8" NPT
1.250	2.048	2.126	2.559	2.244	1.496	0.748	0.846	0.531	2.678	4.134	0.511	1/8" NPT
1.375	2.126	2.244	2.677	2.244	1.496	0.748	0.846	0.531	2.796	4.567	0.511	1/8" NPT
1.500	2.245	2.441	2.874	2.244	1.496	0.748	0.846	0.531	2.993	4.961	0.590	1/8" NPT
1.625	2.402	2.598	3.031	2.244	1.496	0.748	0.846	0.531	3.150	5.276	0.590	1/8" NPT
1.750	2.520	2.677	3.110	2.244	1.496	0.748	0.846	0.531	3.229	5.552	0.590	1/8" NPT
1.875	2.638	2.795	3.228	2.244	1.496	0.748	0.846	0.531	3.347	5.552	0.590	1/8" NPT
2.000	2.835	3.031	3.465	2.244	1.496	0.748	0.846	0.531	3.662	5.945	0.709	1/8" NPT
2.125	2.914	3.110	3.543	2.244	1.496	0.748	0.846	0.531	3.662	5.945	0.709	1/8" NPT
2.250	3.032	3.228	3.661	2.244	1.496	0.748	0.846	0.531	3.780	6.142	0.709	1/8" NPT
2.375	3.111	3.425	3.858	2.244	1.496	0.748	0.846	0.531	3.977	6.339	0.709	1/8" NPT
2.500	3.229	3.543	3.976	2.244	1.496	0.748	0.846	0.531	4.095	6.536	0.709	1/8" NPT
2.625	3.426	3.819	4.252	2.244	1.496	0.748	0.846	0.531	4.370	6.733	0.709	1/8" NPT
2.750	3.504	4.213	4.646	2.244	1.496	0.748	0.846	0.531	4.764	7.126	0.709	1/8" NPT

### Dimensions in millimeter

d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub> min.	d <sub>3</sub> max.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	a <sub>1</sub>	d <sub>a</sub>	s	Connection
25	44	49	60	57	38	19	21.5	13.5	63	105	13	1/8" NPT
28	47	50	60	57	38	19	21.5	13.5	64	105	13	1/8" NPT
30	49	52	63	57	38	19	21.5	13.5	66	105	13	1/8" NPT
33	52	54	65	57	38	19	21.5	13.5	68	105	13	1/8" NPT
35	54	57	68	57	38	19	21.5	13.5	71	116	13	1/8" NPT
38	57	62	73	57	38	19	21.5	13.5	76	126	15	1/8" NPT
40	59	62	73	57	38	19	21.5	13.5	76	126	15	1/8" NPT
42	61	66	77	57	38	19	21.5	13.5	80	134	15	1/8" NPT
43	62	67	78	57	38	19	21.5	13.5	81	134	15	1/8" NPT
45	64	68	79	57	38	19	21.5	13.5	82	141	15	1/8" NPT
48	67	71	82	57	38	19	21.5	13.5	85	141	15	1/8" NPT
50	69	74	85	57	38	19	21.5	13.5	88	141	15	1/8" NPT
52	72	77	88	57	38	19	21.5	13.5	91	151	18	1/8" NPT
53	72	77	88	57	38	19	21.5	13.5	91	151	18	1/8" NPT
55	74	79	90	57	38	19	21.5	13.5	93	151	18	1/8" NPT
58	77	82	93	57	38	19	21.5	13.5	96	156	18	1/8" NPT
60	79	87	98	57	38	19	21.5	13.5	101	161	18	1/8" NPT
63	82	90	101	57	38	19	21.5	13.5	104	166	18	1/8" NPT
65	84	92	103	57	38	19	21.5	13.5	106	166	18	1/8" NPT
68	87	97	108	57	38	19	21.5	13.5	111	171	18	1/8" NPT
70	89	107	118	57	38	19	21.5	13.5	121	181	18	1/8" NPT

**Note:** Additional technical & dimensional information will be provided on request

The specifications, drawings, images etc included in this catalogue are intended to be generic and must be interpreted as equivalent or functionally equivalent, more specifically the performance capabilities mentioned in this catalogue is based on optimum values, however the performance of the product is dependent on size, material of construction, media, pressure, temperature, sliding velocity etc and it shall vary from size to size or application to application. Customers are requested to consult with Sealmatic before employing the product from this catalogue for any application.