



The DEPAC mechanical seal type 322 is a stationary, tandem-active double-cartridge mechanical seal with integrated barrier fluid pumping assistance. The double pressure relief of the seal faces on the product side also ensures that the seal faces do not open in case of pressure reversal - and that the pressure relief for reducing the friction values is present under all pressure conditions.

The product variants in the form of the types 321 and 323, which are intended for smaller and larger seal chamber cross sections, round off the universal range of application for this mechanical seal.

Advantages

- Integrated barrier fluid pumping assistance
- Cartridge-mounted
- Double balanced
- Tandem active
- Independent of the direction of rotation
- Multiple springs made of Hastelloy C
- Springs outside the medium - no blockage of the springs
- Vibration-dampend stationary face support

Mechanical seal

Type 322

Technical specifications

Area of application*

Pressure:	700 mm Hg to 28 bar
Temperature:	dependent on elastomer
Sliding speed:	up to 35 m/s
Shaft movements:	axial $\leq \varnothing 22 \pm 0.5 \text{ mm} \mid \geq \varnothing 24 \pm 1.0 \text{ mm}$ radial $\leq \varnothing 22 \pm 0.4 \text{ mm} \mid \geq \varnothing 24 \pm 0.5 \text{ mm}$

* The maximum specifications for temperature, pressure and sliding speed apply in each case to independent higher operating conditions. However, this does not mean that the seal will function with all extreme conditions at the same time. If in doubt contact DEPAC.

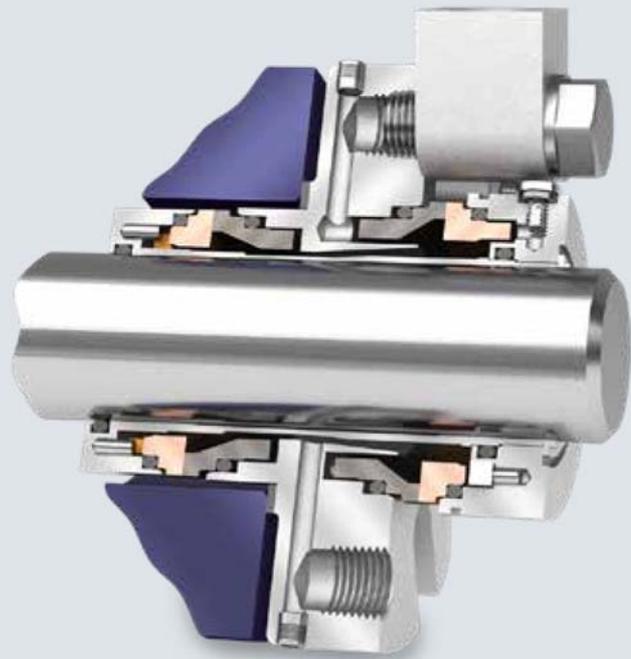
Dimensions

Shaft diameter:	24 – 160 mm 15/16" – 6 1/4" Special sizes on enquiry
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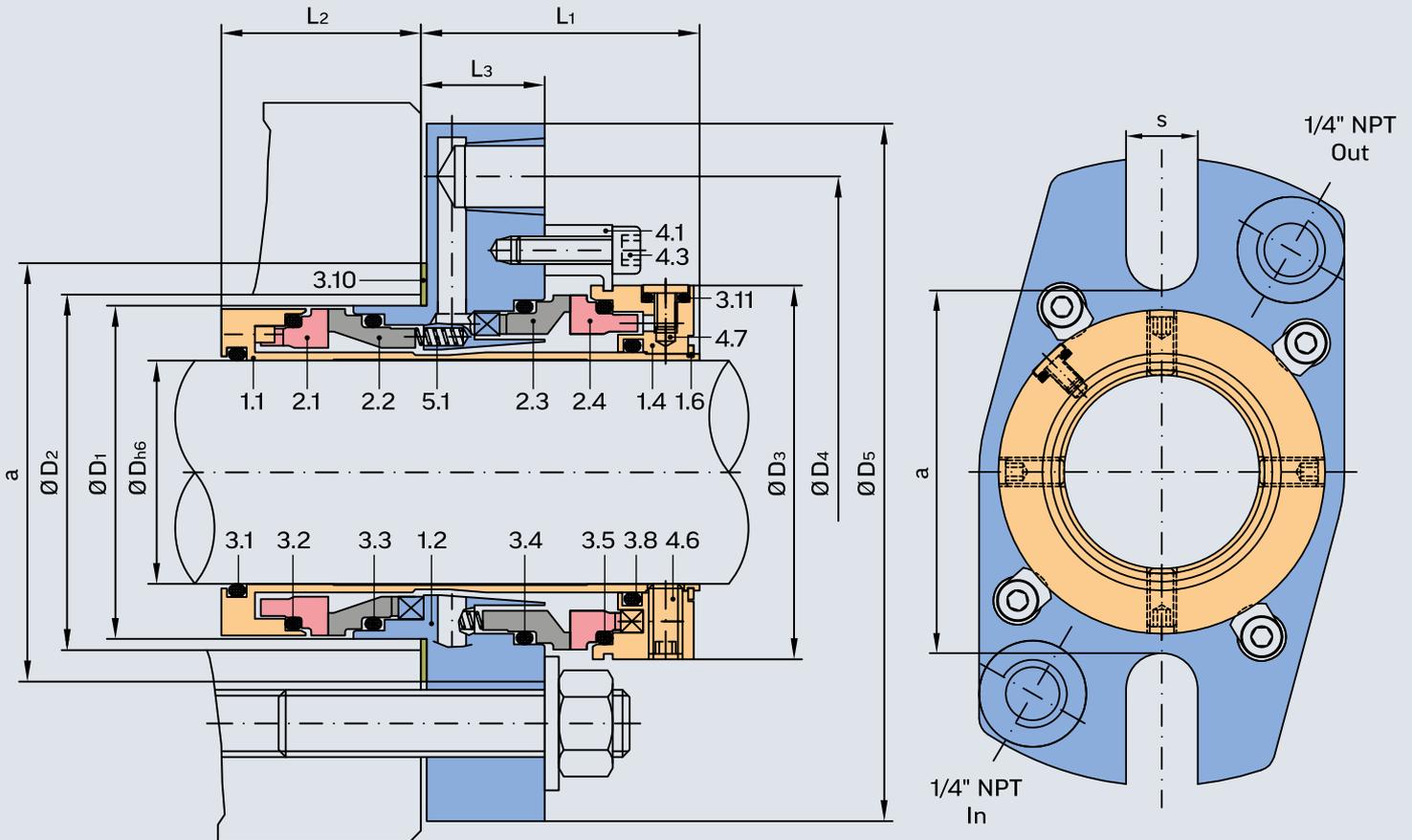
Bill of materials

Item	Description	Material
1.1	Sleeve	1.4571
1.2	Gland	1.4571
1.4	Adjusting ring	1.4571
1.6	Circlip	1.4310
2.1, 2.4	Dynamic seal face	SC/SSIC/TC
2.2, 2.3	Stationary seal face	CA/SC/SSIC/TC
3.1, 3.2, 3.3 3.4, 3.5, 3.8 3.11	O-ring	FKM, EPDM, Kalrez®, PTFE,...
3.10	Flat gasket	Klingersil® C-4300
4.1	Centering piece	Al
4.3	Cheesehead screw	A2
4.6	Threaded pin	A4
4.7	Bleed screw	A2
5.1	Spring	2.4610

Other materials on enquiry!



Mechanical seal Type 322 Data sheet



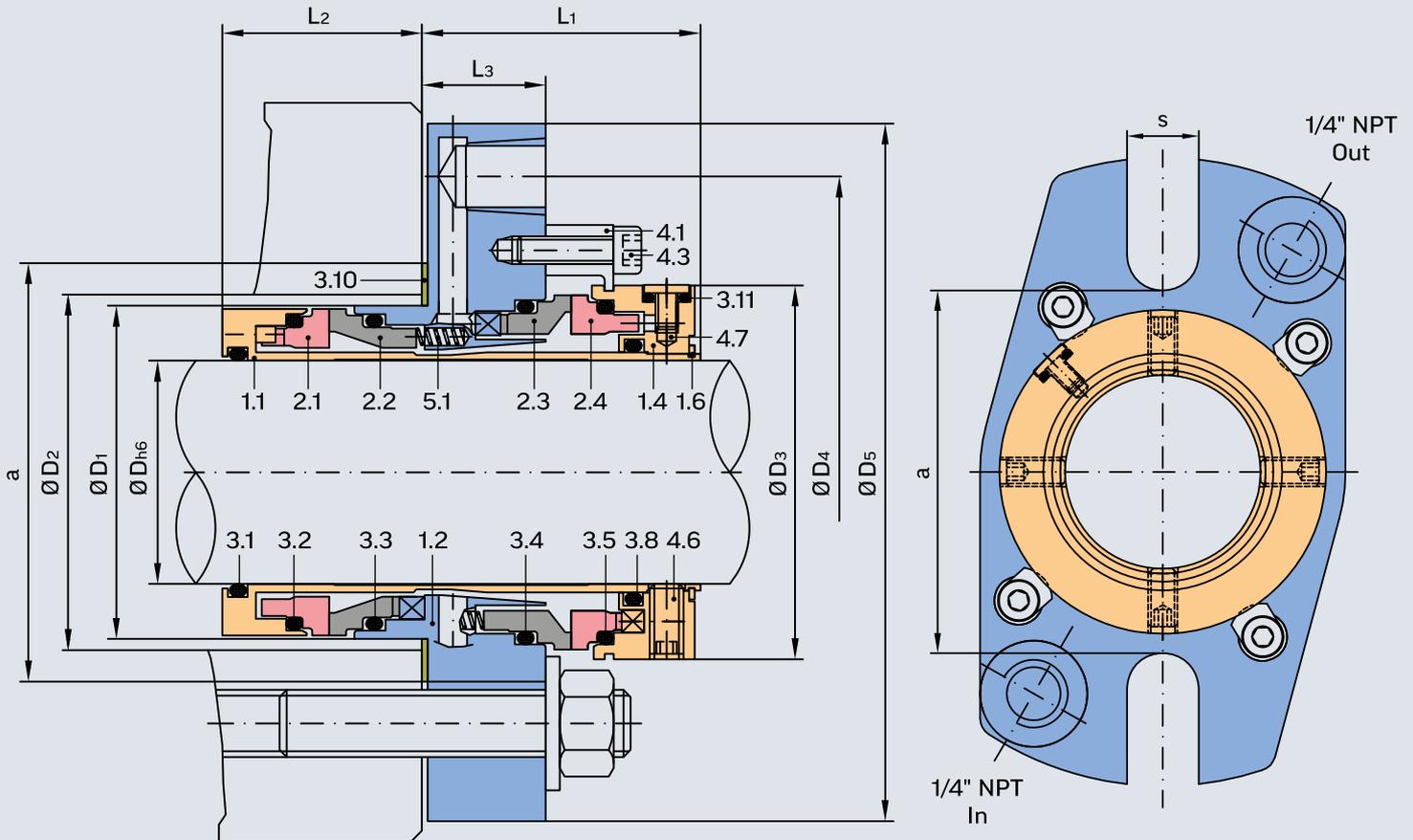
Dimension table Ø 24 - 50 millimetres

D _{h6}	D ₁	D ₂ min.	D ₂ max.	D ₃	D ₄	D ₅	L ₁	L ₂	L ₃	a	s	O-rings DASH no.						
												3.1	3.2	3.3	3.4	3.5	3.8	3.11
24	44.7	45.2	52	52	82	105	50	35	24	60	12.5	119	127	127	130	130	122	007
25	44.7	45.2	52	52	82	105	50	35	24	60	12.5	120	127	127	130	130	122	007
28	47.7	48.2	52	55	82	105	50	35	24	60	12.5	122	129	129	132	132	124	007
30	49.7	50.2	52	57	82	105	50	35	24	60	12.5	123	130	130	133	133	125	007
32	50.9	51.4	52	60	82	105	50	35	24	60	12.5	124	131	131	135	135	127	007
33	50.9	51.4	52	60	82	105	50	35	24	60	12.5	125	131	131	135	135	127	007
35	54.7	55.2	59	62	89	115	50	35	24	67	12.5	126	133	133	137	137	128	007
38	57.7	58.2	67	65	102	130	50	35	24	75	14.7	128	136	136	138	138	130	007
40	59.7	60.2	67	67	102	130	50	35	24	75	14.7	130	137	137	140	140	132	007
42	61.7	62.2	74	69	114	140	50	35	24	82	14.7	131	138	138	141	141	133	007
43	62.7	63.2	74	70	114	140	50	35	24	82	14.7	132	138	138	142	142	133	007
45	64.7	65.2	74	72	114	140	50	35	24	82	14.7	133	140	140	143	143	135	007
48	67.7	68.2	74	75	114	140	50	35	24	82	14.7	135	142	142	145	145	137	007
50	69.7	70.2	74	77	114	140	50	35	24	82	14.7	136	143	143	146	146	138	007

Mechanical seal

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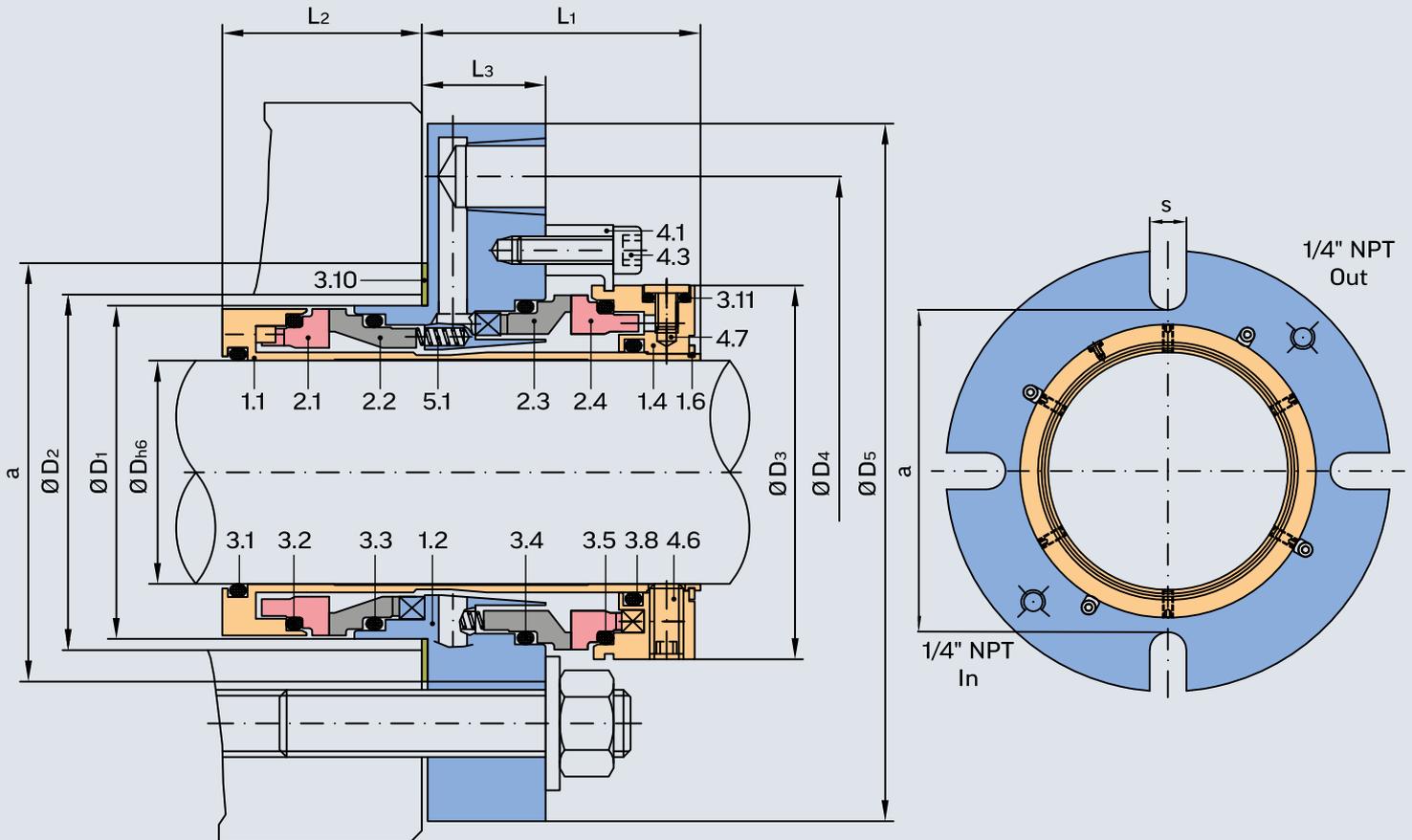
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Dimension table Ø 53 – 70 millimetres

D _{h6}	D ₁	D ₂ min.	D ₂ max.	D ₃	D ₄	D ₅	L ₁	L ₂	L ₃	a	s	O-rings DASH no.						
												3.1	3.2	3.3	3.4	3.5	3.8	3.11
53	72.7	73.2	84	80	122	150	50	35	24	92	17.5	138	145	145	148	148	140	007
55	74.7	75.2	84	82	122	150	50	35	24	92	17.5	139	146	146	149	149	141	007
58	77.7	78.2	84	85	122	150	50	35	24	92	17.5	141	148	148	150	150	143	007
60	79.7	80.2	92	87	129	160	50	35	24	100	17.5	142	149	149	151	151	144	007
63	82.7	83.2	92	90	129	160	50	35	24	100	17.5	144	150	150	151	151	146	007
65	84.7	85.2	92	92	129	160	50	35	24	100	17.5	145	151	151	152	152	147	007
68	87.7	88.2	104	95	140	180	50	35	24	112	17.5	147	151	151	152	152	149	007
70	89.7	90.2	104	97	140	180	50	35	24	112	17.5	149	152	152	153	153	150	007

Mechanical seal Type 322 Data sheet



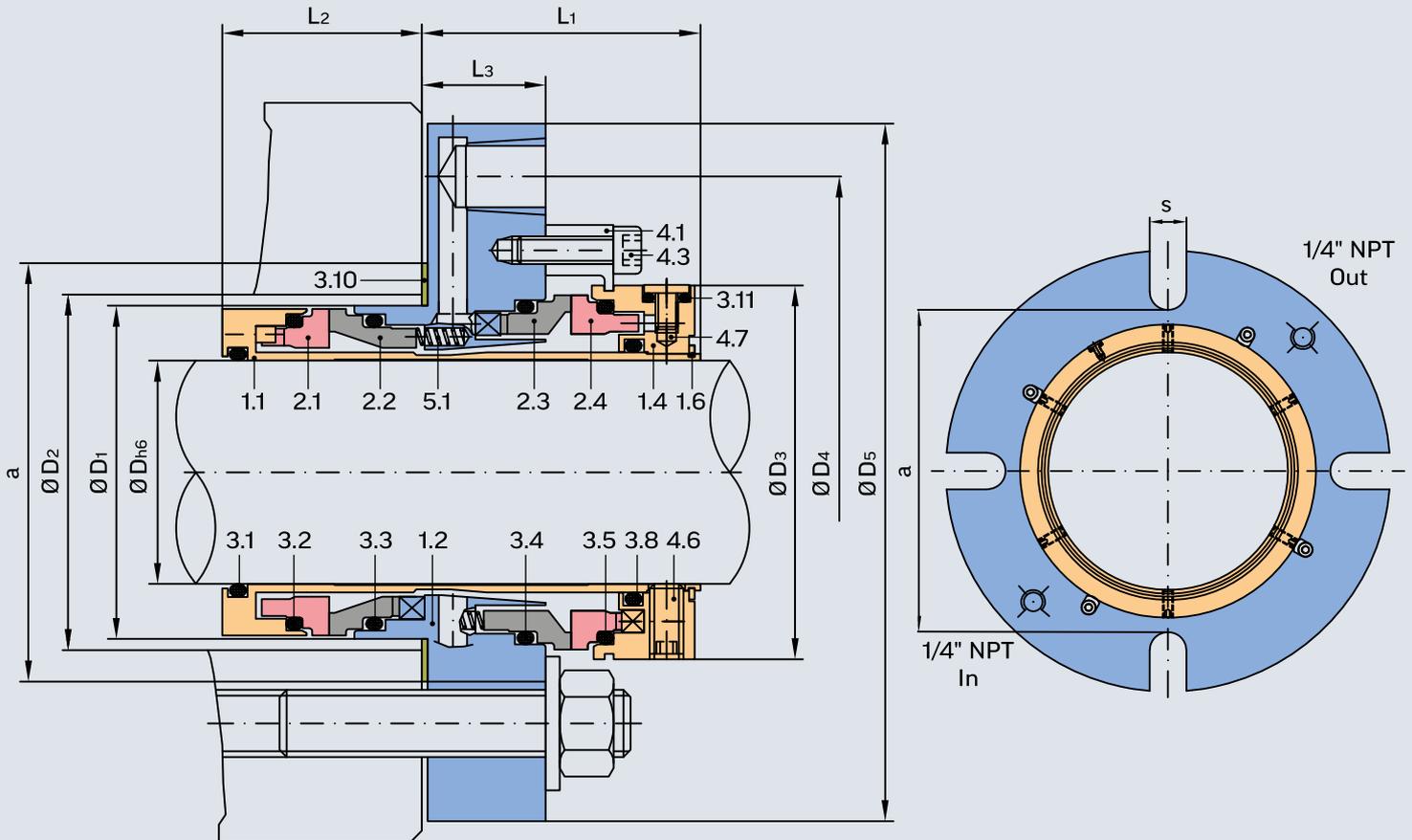
Dimension table Ø 75 - 130 millimetres

D _{h6}	D ₁	D ₂ min.	D ₂ max.	D ₃	D ₄	D ₅	L ₁	L ₂	L ₃	a	s	O-rings DASH no.						
												3.1	3.2	3.3	3.4	3.5	3.8	3.11
75	101.5	102	117	108	158	190	54.5	38.5	25.5	125	17.5	234	238	238	240	240	152	007
80	107.8	108.3	122	113	163	190	54.5	38.5	25.5	130	17.5	236	240	240	242	242	153	007
85	111	111.5	127	118	168	220	54.5	38.5	25.5	135	21.5	237	242	242	243	243	153	007
90	117.8	118.3	132	123	173	220	54.5	38.5	25.5	140	21.5	239	243	243	245	245	154	007
95	120.6	121.1	137	128	178	220	54.5	38.5	25.5	145	21.5	240	245	245	246	246	155	007
100	126.9	127.4	142	133	183	220	54.5	38.5	25.5	150	21.5	242	246	246	248	248	156	007
105	132.8	133.3	147	138	188	240	54.5	38.5	25.5	155	21.5	243	248	248	250	250	157	007
110	137.8	138.3	152	143	193	240	54.5	38.5	25.5	160	21.5	245	250	250	251	251	157	007
115	142.8	143.3	157	148	198	240	54.5	38.5	25.5	165	21.5	247	251	251	253	253	158	007
120	147.8	148.3	162	153	203	240	54.5	38.5	25.5	170	21.5	248	253	253	254	254	159	007
125	152.8	153.3	167	158	208	260	54.5	38.5	25.5	175	21.5	250	254	254	256	256	160	007
130	157.8	158.3	172	163	213	260	54.5	38.5	25.5	180	21.5	251	256	256	257	257	161	007

Mechanical seal

Type 322

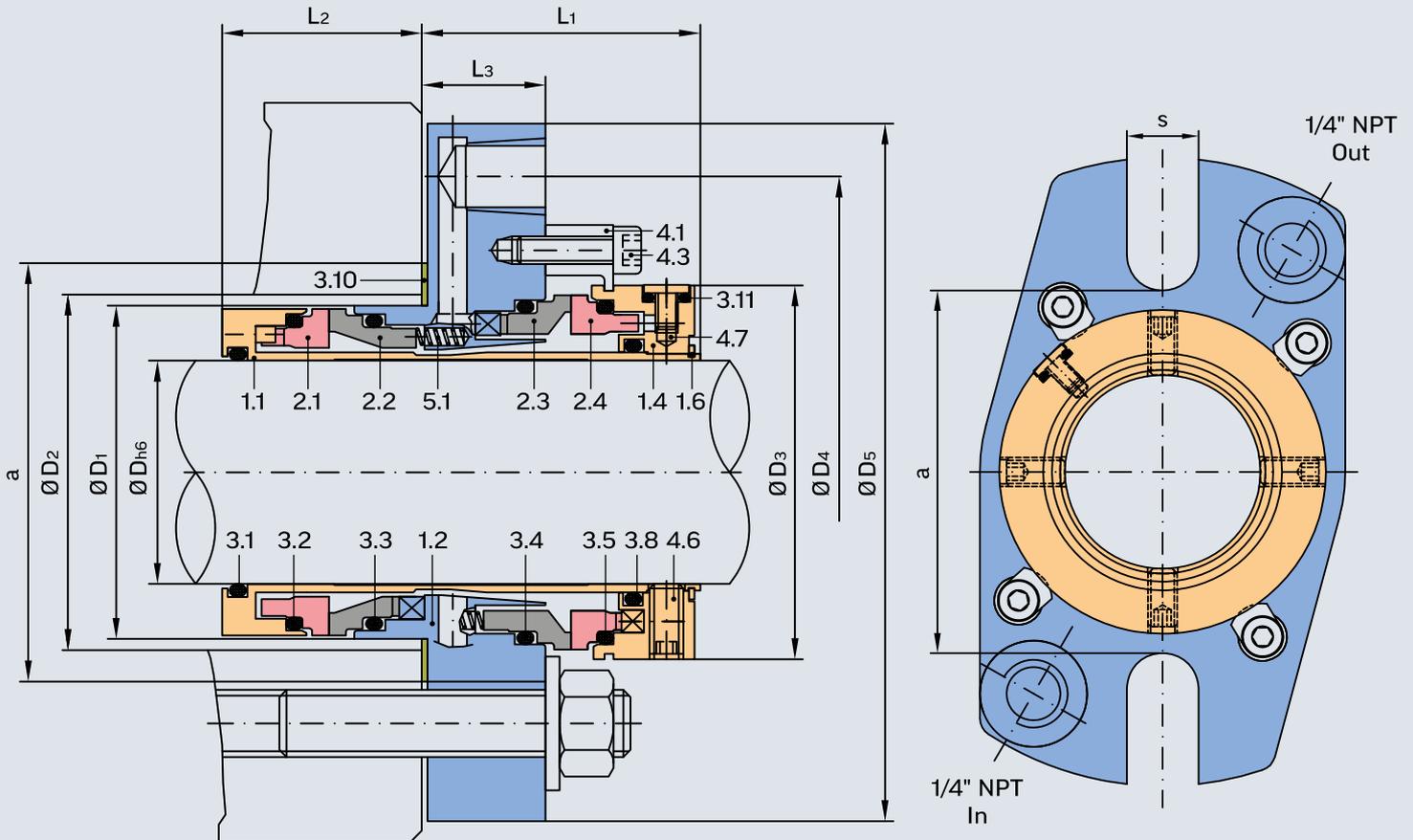
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Dimension table Ø 135 - 160 millimetres

D _{h6}	D ₁	D ₂ min.	D ₂ max.	D ₃	D ₄	D ₅	L ₁	L ₂	L ₃	a	s	O-rings DASH no.						
												3.1	3.2	3.3	3.4	3.5	3.8	3.11
135	162.8	163.3	177	168	218	260	54.5	38.5	25.5	185	21.5	253	257	257	258	258	161	007
140	167.8	168.3	182	173	223	260	54.5	38.5	25.5	190	21.5	255	258	258	259	259	162	007
145	172.8	173.3	187	178	228	280	54.5	38.5	25.5	195	21.5	256	259	259	260	260	163	007
150	177.8	178.3	192	183	233	280	54.5	38.5	25.5	200	21.5	258	260	260	261	261	164	007
155	182.8	183.3	197	188	238	280	54.5	38.5	25.5	205	21.5	259	261	261	261	261	164	007
160	187.8	188.3	202	193	243	280	54.5	38.5	25.5	210	21.5	260	261	261	262	262	165	007

Mechanical seal Type 322 Data sheet



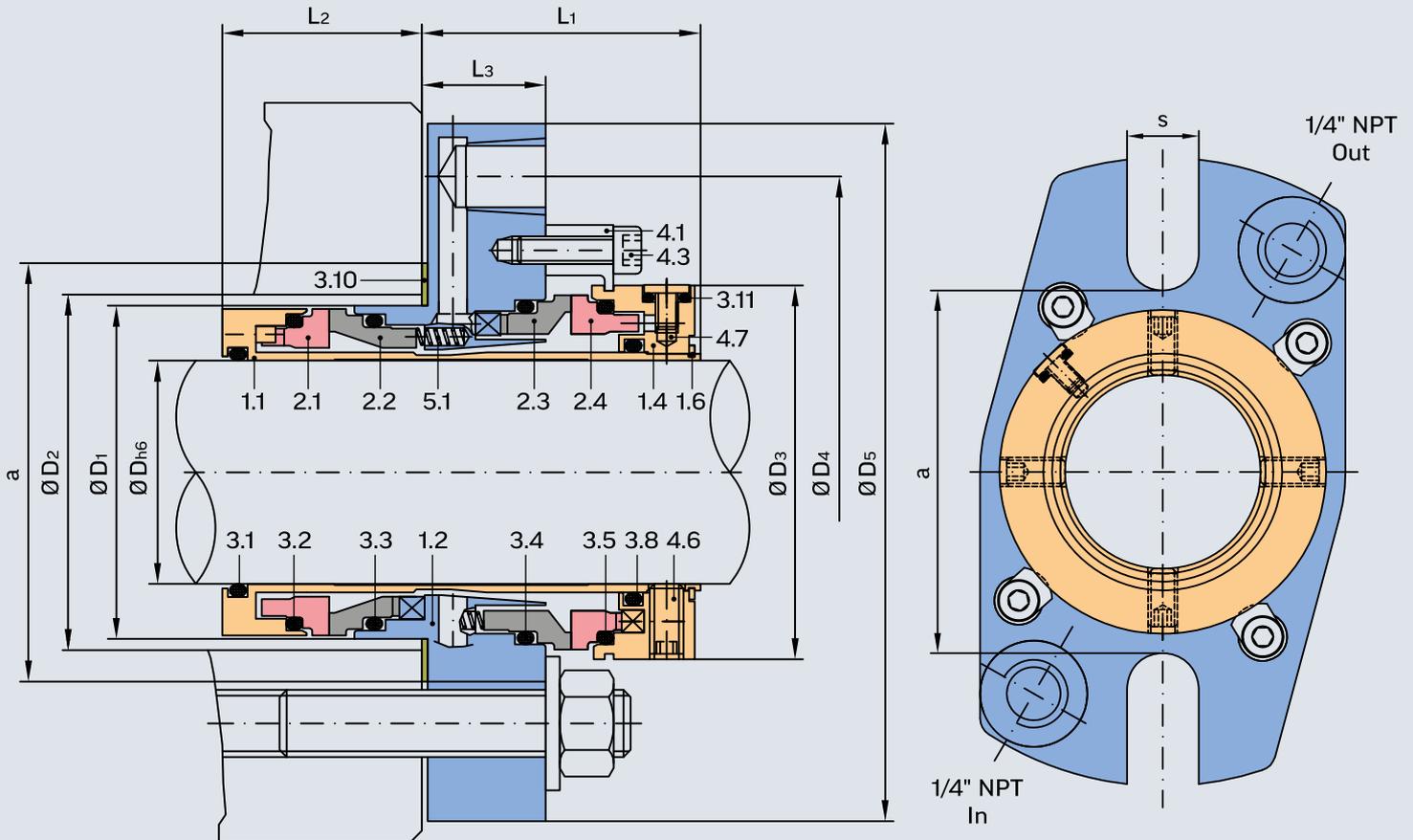
Dimension table $\text{Ø } \frac{15}{16} - 2 \frac{1}{8}$ inches

D _{h6}	D ₁	D ₂ min.	D ₂ max.	D ₃	D ₄	D ₅	L ₁	L ₂	L ₃	a	s	O-rings DASH no.						
												3.1	3.2	3.3	3.4	3.5	3.8	3.11
$\frac{15}{16}$	1.760	1.780	2.047	2.047	3.228	4.134	1.969	1.378	0.945	2.362	0.492	119	127	127	130	130	122	007
1	1.760	1.780	2.047	2.047	3.228	4.134	1.969	1.378	0.945	2.362	0.492	120	127	127	130	130	122	007
1 $\frac{1}{8}$	1.878	1.898	2.047	2.165	3.228	4.134	1.969	1.378	0.945	2.362	0.492	122	129	129	132	132	124	007
1 $\frac{1}{4}$	2.004	2.024	2.047	2.323	3.228	4.134	1.969	1.378	0.945	2.362	0.492	124	131	131	135	135	126	007
1 $\frac{3}{8}$	2.154	2.173	2.323	2.441	3.504	4.528	1.969	1.378	0.945	2.638	0.492	126	133	133	137	137	128	007
1 $\frac{7}{16}$	2.232	2.252	2.638	2.520	4.016	5.118	1.969	1.378	0.945	2.953	0.579	127	135	135	138	138	130	007
1 $\frac{1}{2}$	2.250	2.270	2.638	2.559	4.016	5.118	1.969	1.378	0.945	2.953	0.579	128	136	136	138	138	130	007
1 $\frac{5}{8}$	2.375	2.395	2.913	2.717	4.488	5.512	1.969	1.378	0.945	3.228	0.579	131	137	137	140	140	132	007
1 $\frac{3}{4}$	2.500	2.520	2.913	2.835	4.488	5.512	1.969	1.378	0.945	3.228	0.579	133	139	139	142	142	134	007
1 $\frac{7}{8}$	2.625	2.645	2.913	2.953	4.488	5.512	1.969	1.378	0.945	3.228	0.579	135	141	141	144	144	136	007
2	2.750	2.770	2.913	3.031	4.488	5.512	1.969	1.378	0.945	3.228	0.579	136	143	143	146	146	138	007
2 $\frac{1}{8}$	2.875	2.895	3.307	3.150	4.803	5.906	1.969	1.378	0.945	3.622	0.689	138	145	145	148	148	140	007

Mechanical seal

Type 322

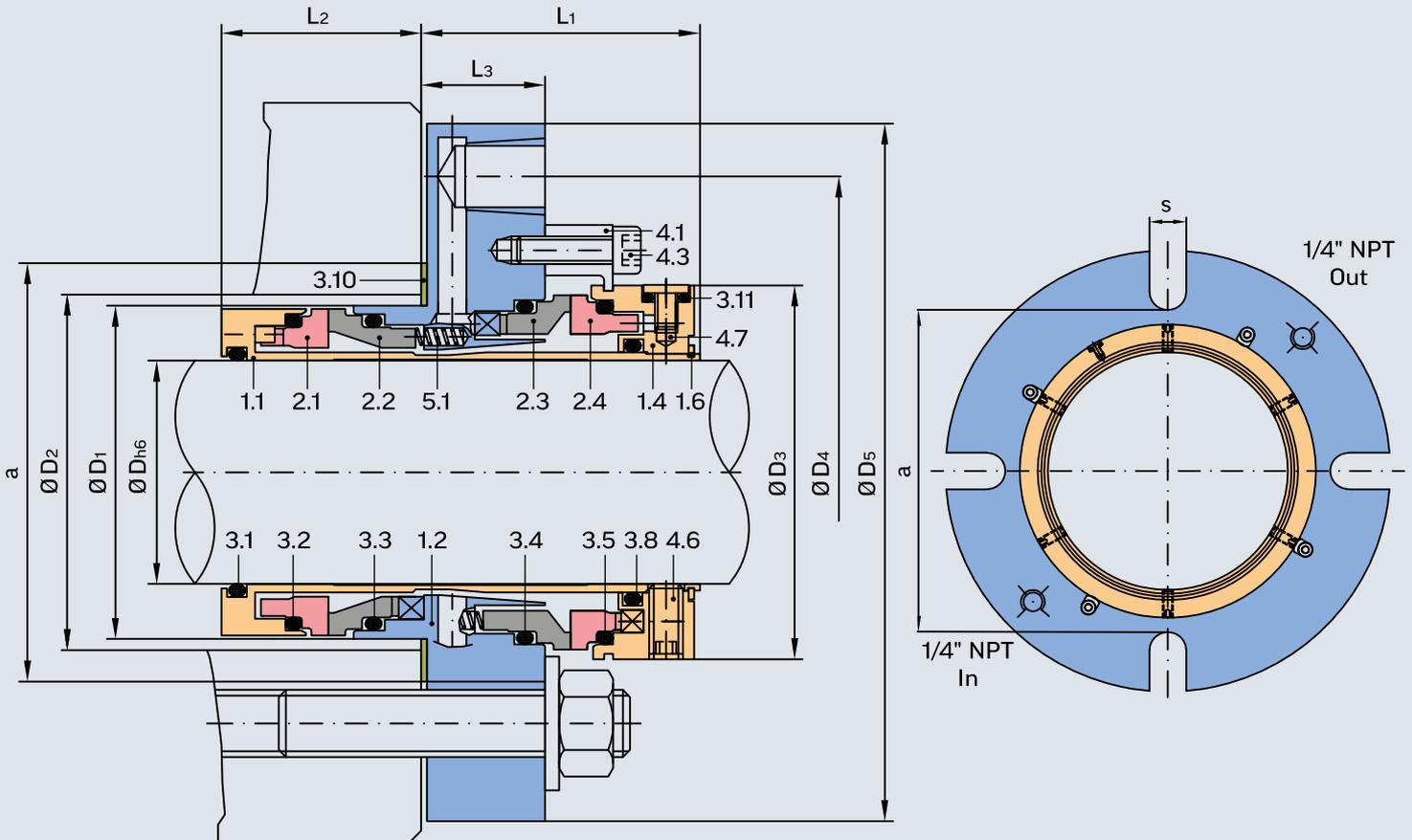
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Dimension table Ø 2 ¼ - 2 ¾ inches

D _{h6}	D ₁	D ₂ min.	D ₂ max.	D ₃	D ₄	D ₅	L ₁	L ₂	L ₃	a	s	O-rings DASH no.						
												3.1	3.2	3.3	3.4	3.5	3.8	3.11
2 ¼	3.000	3.020	3.307	3.307	4.803	5.906	1.969	1.378	0.945	3.622	0.689	140	147	147	150	150	142	007
2 ⅝	3.125	3.145	3.622	3.425	5.079	6.299	1.969	1.378	0.945	3.937	0.689	142	149	149	151	151	144	007
2 ½	3.250	3.270	3.622	3.543	5.079	6.299	1.969	1.378	0.945	3.937	0.689	144	150	150	151	151	146	007
2 ⅞	3.625	3.645	4.094	3.701	5.512	7.087	1.969	1.378	0.945	4.409	0.689	146	151	151	152	152	148	007
2 ¾	3.750	3.770	4.094	3.819	5.512	7.087	1.969	1.378	0.945	4.409	0.689	149	152	152	153	153	150	007

Mechanical seal Type 322 Data sheet



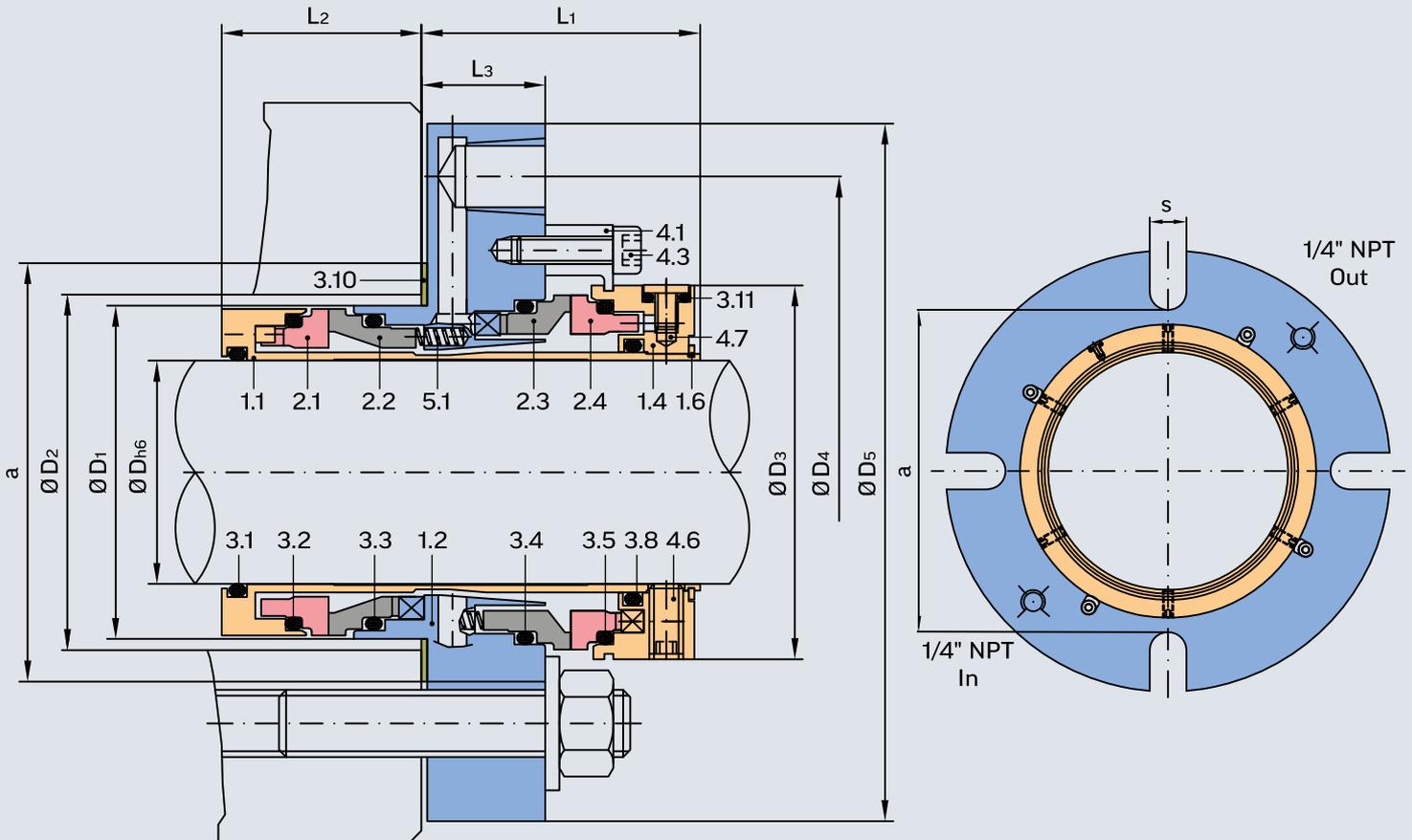
Dimension table $\varnothing 2 \frac{7}{8} - 4 \frac{3}{4}$ inches

Dh6	D1	D2 min.	D2 max.	D3	D4	D5	L1	L2	L3	a	s	O-rings DASH no.						
												3.1	3.2	3.3	3.4	3.5	3.8	3.11
2 $\frac{7}{8}$	3.875	3.895	4.528	4.173	6.142	7.480	2.146	1.516	1.004	4.843	0.689	233	238	238	239	239	152	007
3	4.000	4.020	4.606	4.252	6.220	7.480	2.146	1.516	1.004	4.921	0.689	234	238	238	240	240	152	007
3 $\frac{1}{8}$	4.125	4.145	4.803	4.449	6.378	7.480	2.146	1.516	1.004	5.118	0.689	236	240	240	241	241	153	007
3 $\frac{1}{4}$	4.250	4.270	4.921	4.567	6.496	8.661	2.146	1.516	1.004	5.236	0.689	236	241	241	242	242	153	007
3 $\frac{3}{8}$	4.375	4.395	5.000	4.646	6.614	8.661	2.146	1.516	1.004	5.315	0.846	237	242	242	243	243	153	007
3 $\frac{1}{2}$	4.500	4.520	5.197	4.843	6.772	8.661	2.146	1.516	1.004	5.512	0.846	239	243	243	245	245	154	007
3 $\frac{5}{8}$	4.625	4.645	5.276	4.921	6.890	8.661	2.146	1.516	1.004	5.591	0.846	239	244	244	245	245	155	007
3 $\frac{3}{4}$	4.750	4.770	5.394	5.039	7.008	8.661	2.146	1.516	1.004	5.709	0.846	240	245	245	246	246	155	007
4	5.000	5.020	5.591	5.236	7.205	8.661	2.146	1.516	1.004	5.906	0.846	242	246	246	248	248	156	007
4 $\frac{1}{8}$	5.228	5.248	5.787	5.433	7.402	9.449	2.146	1.516	1.004	6.102	0.846	243	248	248	250	250	157	007
4 $\frac{1}{4}$	5.425	5.445	5.984	5.630	7.598	9.449	2.146	1.516	1.004	6.299	0.846	244	250	250	251	251	157	007
4 $\frac{5}{16}$	5.425	5.445	5.984	5.630	7.598	9.449	2.146	1.516	1.004	6.299	0.846	245	250	250	251	251	157	007
4 $\frac{3}{8}$	5.622	5.642	6.181	5.827	7.795	9.449	2.146	1.516	1.004	6.496	0.846	246	251	251	253	253	158	007
4 $\frac{1}{2}$	5.819	5.839	6.378	6.024	7.992	9.449	2.146	1.516	1.004	6.693	0.846	248	253	253	254	254	159	007

Mechanical seal

Type 322

Data sheet

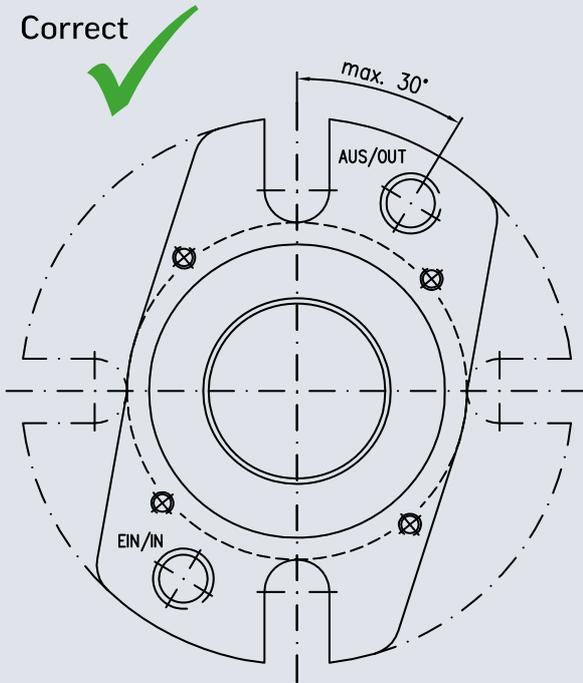


Dimension table Ø 5 - 6 ¼ inches

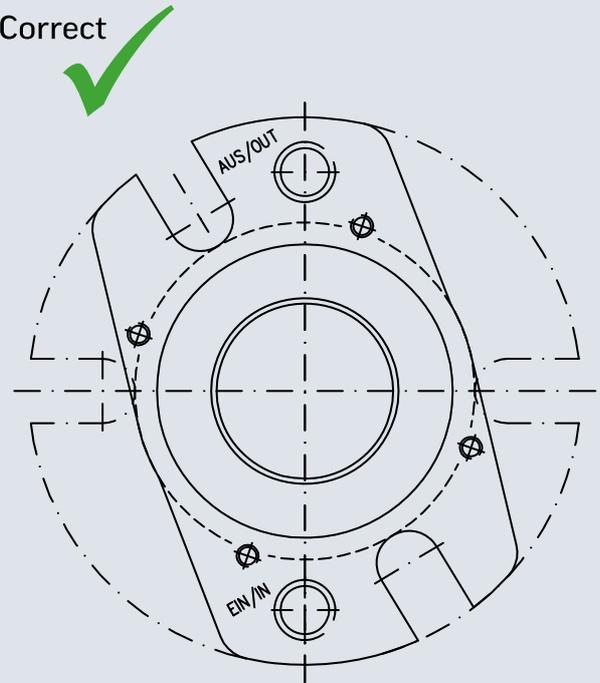
D _{h6}	D ₁	D ₂ min.	D ₂ max.	D ₃	D ₄	D ₅	L ₁	L ₂	L ₃	a	s	O-rings DASH no.						
												3.1	3.2	3.3	3.4	3.5	3.8	3.11
5	6.213	6.232	6.772	6.417	8.386	10.236	2.146	1.516	1.004	7.087	0.846	250	256	256	257	257	161	007
5 ¼	6.213	6.232	6.772	6.417	8.386	10.236	2.146	1.516	1.004	7.087	0.846	251	256	256	257	257	161	007
5 ½	6.409	6.429	6.969	6.614	8.583	10.236	2.146	1.516	1.004	7.283	0.846	252	257	257	258	258	161	007
5 ¾	6.606	6.626	7.165	6.811	8.780	10.236	2.146	1.516	1.004	7.480	0.846	254	258	258	259	259	162	007
6	6.803	6.823	7.362	7.008	8.976	11.024	2.146	1.516	1.004	7.677	0.846	256	259	259	260	260	163	007
6 ¼	7.197	7.217	7.756	7.402	9.370	11.024	2.146	1.516	1.004	8.071	0.846	258	261	261	261	261	164	007
6 ½	7.394	7.413	7.953	7.598	9.567	11.024	2.146	1.516	1.004	8.268	0.846	259	261	261	262	262	165	007

Mechanical seal Type 322 Installation position

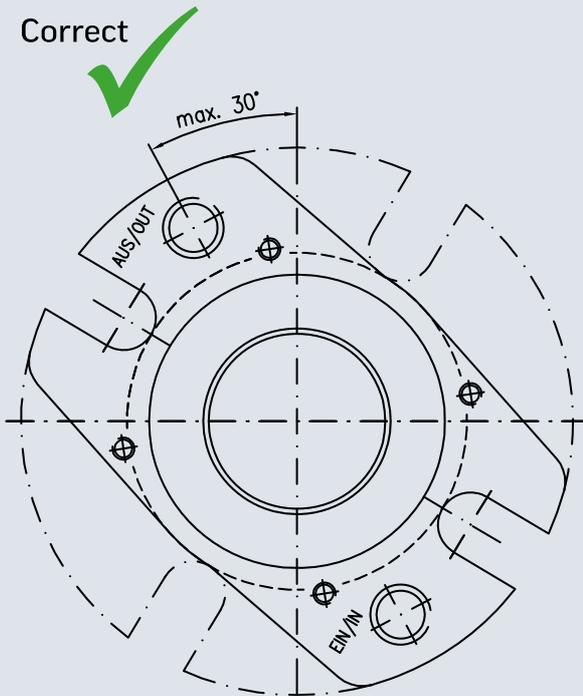
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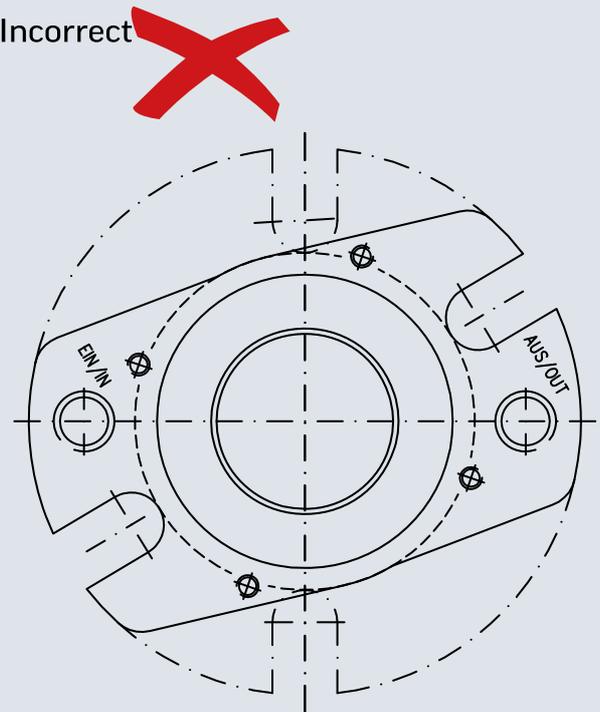
Correct



Correct

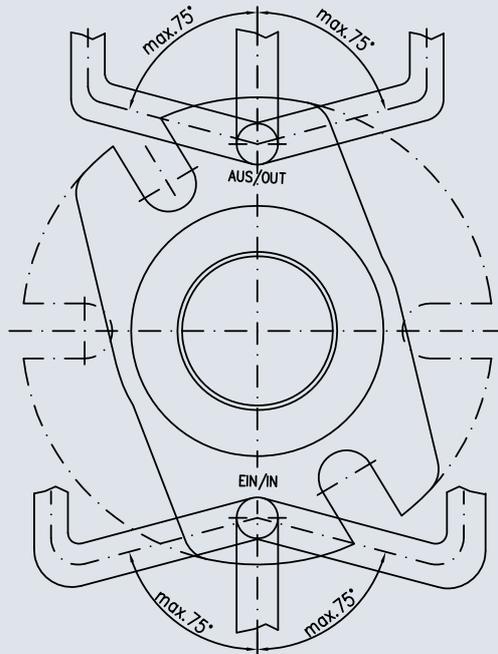


Incorrect



Mechanical seal Type 322 Pipe installation

Correct



Incorrect

