V811O Single Seals

Standard Mechanical Seals - Pusher Seals

Product Description

1. Single seal configuration
2. Unbalanced design
3. Independent of direction of rotation
4. For plain shafts
5. Multiple or wave springs rotary construction
6. Pumping device available for increased efficiency in circulation
7. Sealing with FEP & Spring energized PTFE seals also available on request

Technical Features

1. Versatile torque transmission available
2. Pumping screw for media with higher viscosity also available
3. Capable of self-cleaning
4. Short installation length available on request
5. Can be employed for low solids content
6. Multifaceted application usage

Typical Industrial Applications

Chemical industry
Food and beverage industry
Medias with low solid contents
Marine applications
Process industry
Water and waste water technology
Chemical standard pumps
Gear wheel feed pumps
Multistage pumps
Vertical screw pumps

Performance Capabilities

Sizes: d_1 =Upto 100 mm (Upto 4.000'')
Pressure: p_1 = 25 bar (363 PSI)
Temperature: t = –50 °C ... +220 °C
(– 58 °F ... + 428 °F)
Speed = 20 m/s (66 ft/s)
Permissible axial movement:
d_1 = up to 25 mm: ± 1.0 mm
d_1 = 28 up to 63 mm: ± 1.5 mm
d_1 = from 65 mm: ± 2.0 mm

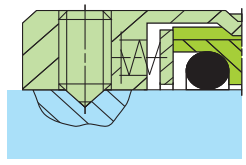
Standards

EN 12756

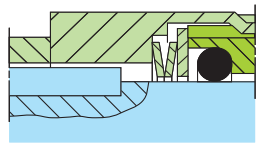
Materials

Seal face: Special cast CrMo steel (S),
Silicon carbide (Q1, Q2), Aluminium oxide (V)
Seat G9: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B), Silicon carbide (Q1*, Q2*)
Seat G6: Silicon carbide (Q1*, Q2*)
Seat G13: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B)
Secondary seals: EPDM (E), NBR (P), FKM (V), FFKM (K)
Springs: CrNiMo steel (G) Metal parts: CrNiMo steel (G), Duplex (G1)
* Cannot be combined with seal face made of S

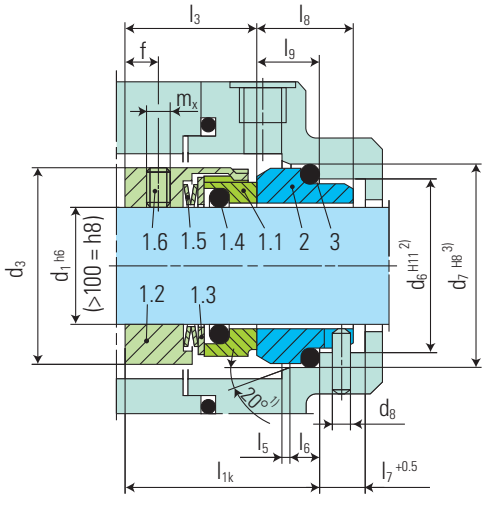
Torque Transmissions



d_1 > 100 mm (4.000")
Torque transmission by 4 set screws with cone points. Offset: 90°



Drive key
(U700S2 / U740S2)

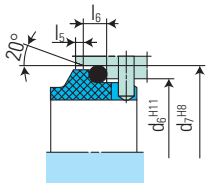


Note: The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

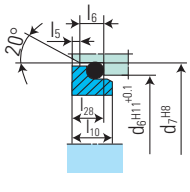
Item	Part no.	Description
1.1	472	Seal face
1.2	485	Drive collar
1.3	474	Thrust ring
1.4	412.1	O-ring
1.5	477	Spring
1.6	904	Set screw
2	475	Seat (G9)
3	412.2	O-ring
DIN 24250		

1) d_1 > 100 mm: 30°
2) d_1 > 100 mm: +0.1
3) d_1 > 100 mm: H7

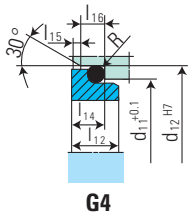
Stationary Seats



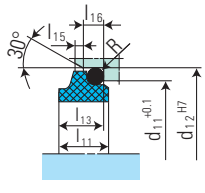
G9
(EN 12756)



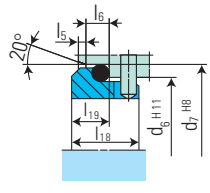
G6
(EN 12756)



G4



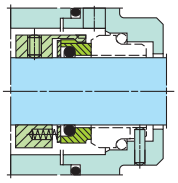
G13



G16
(EN 12756, but l_{1k} is shorter than specified)

ELIN ARIKE

Design Variations

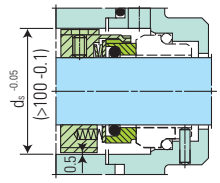


U740

Dimensions, items and descriptions as for U700N, but with multiple springs (Item no. 1.5).
Preferably for d_1>100 mm (4.000").

U780N

Shaft diameter: d_1 = Upto 100 mm (Upto 4.000")
Temperature: t = max. 180 oC (356 oF)
Dimensions, items and description as for U700N. Design of the seal face especially for secondary sealing element made of PTFE (T).
Seal face: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B),
Silicon carbide (Q1)*
Seat G9: CrMo cast steel (S)*, Silicon carbide (Q1)
* Cannot be combined with seal face made of silicon carbide (Q1)

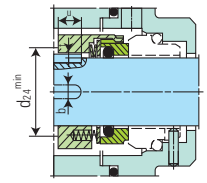


U700F

Shaft diameter d_1=max. Upto100 mm (Upto 4.000")
Dimensions, items and descriptions as for type U700N, but with pumping screw, dependent on direction of rotation. (Viscosity ≤ ISO VG10).

U740F

Shaft diameter d_1= Upto 200 mm (Upto 7.875")
Dimensions, items and descriptions as for type U700N, but with multiple springs and pumping screw, dependent on direction of rotation.
(Viscosity ≤ ISO VG10).



U700S2

Shaft diameter d_1=max. Upto 100 mm (Upto 4.000"). Dimensions, items and descriptions as for type U700N, but with drive key. (without item no. 1.6)

U740S2

Shaft diameter:d_1=Upto 200 mm (Upto 7.875") Dimensions, items and descriptions as for type U700N, but with multiple springs and drive key.
(without item no.1.6)

Dimensional Data

Dimensions in millimeter

d_1	d_3	d_6	d_7	d_8	d_{11}	d_{12}	d_{24}	d_S	l_{1k}	l_3	l_5	l_6	l_7	l_8	l_9	l_{10}	l_{11}	l_{12}	l_{13}	l_{14}	l_{15}	l_{16}	l_{18}	l_{19}	l_{28}	b	f	m_x	$u_{max.}$	t	R
14	25	21.0	25.0	3	20.5	24.6	16	34	35.0	25.0	1.5	4	8.5	17.5	10.0	7.5	10.0	6.5	7.6	5.6	1.2	3.8	-	-	6.6	4	6	M5	10	1.5	1.2
16	27	23.0	27.0	3	22.0	28.0	18	36	35.0	25.0	1.5	4	8.5	17.5	10.0	7.5	11.5	8.5	9.0	7.5	1.2	3.8	-	-	6.6	4	6	M5	10	1.5	1.5
18	33	27.0	33.0	3	24.0	30.0	20	38	37.5	26.0	2.0	5	9.0	19.5	11.5	8.5	12.5	9.0	10.0	8.0	1.5	5.0	15.0	7.0	7.5	5	7	M5	12	1.1	1.5
20	35	29.0	35.0	3	29.5	35.0	22	40	37.5	26.0	2.0	5	9.0	19.5	11.5	8.5	12.5	8.5	9.5	7.5	1.5	5.0	15.0	7.0	7.5	5	7	M5	12	1.1	1.5
22	37	31.0	37.0	3	29.5	35.0	24	42	37.5	26.0	2.0	5	9.0	19.5	11.5	8.5	12.5	8.5	9.5	7.5	1.5	5.0	15.0	7.0	7.5	6	7	M5	12	1.5	1.5
24	39	33.0	39.0	3	32.0	38.0	26	44	40.0	28.5	2.0	5	9.0	19.5	11.5	8.5	12.5	8.5	9.5	7.5	1.5	5.0	15.0	7.0	7.5	6	8	M5	12	1.5	1.5
25	40	34.0	40.0	3	32.0	38.0	27	45	40.0	28.5	2.0	5	9.0	19.5	11.5	8.5	12.5	8.5	9.5	7.5	1.5	5.0	15.0	7.0	7.5	6	8	M5	12	1.5	1.5
28	43	37.0	43.0	3	36.0	42.0	30	47	42.5	31.0	2.0	5	9.0	19.5	11.5	8.5	14.0	10.0	11.0	9.0	1.5	5.0	15.0	7.0	7.5	6	8	M6	13	1.5	1.5
30	45	39.0	45.0	3	39.2	45.0	32	49	42.5	31.0	2.0	5	9.0	19.5	11.5	8.5	14.0	11.5	11.0	10.5	1.5	5.0	15.0	7.0	7.5	6	8	M6	13	1.5	1.5
32	47	42.0	48.0	3	42.2	48.0	34	51	42.5	31.0	2.0	5	9.0	19.5	11.5	8.5	14.0	11.5	11.0	10.5	1.5	5.0	15.0	7.0	7.5	6	8	M6	13	1.5	1.5
33	48	42.0	48.0	3	44.2	50.0	35	51	42.5	31.0	2.0	5	9.0	19.5	11.5	8.5	14.5	12.0	11.5	10.5	1.5	5.0	15.0	7.0	7.5	6	8	M6	13	1.5	1.5
35	50	44.0	50.0	3	46.2	52.0	37	54	42.5	31.0	2.0	5	9.0	19.5	11.5	8.5	14.5	12.0	11.5	11.0	1.5	5.0	15.0	7.0	7.5	6	8	M6	13	1.5	1.5
38	55	49.0	56.0	4	49.2	55.0	40	59	45.0	31.0	2.0	6	9.0	22.0	14.0	10.0	14.5	11.3	11.5	10.3	1.5	5.0	16.0	8.0	9.0	6	8	M6	13	1.5	1.5
40	57	51.0	58.0	4	52.2	58.0	42	61	45.0	31.0	2.0	6	9.0	22.0	14.0	10.0	14.5	11.8	11.5	10.8	1.5	5.0	16.0	8.0	9.0	6	8	M6	13	1.5	1.5
43	60	54.0	61.0	4	53.3	62.0	45	65	45.0	31.0	2.0	6	9.0	22.0	14.0	10.0	17.0	13.2	14.3	12.0	2.0	6.0	16.0	8.0	9.0	6	8	M6	13	1.5	2.5
45	62	56.0	63.0	4	55.3	64.0	47	66	45.0	31.0	2.0	6	9.0	22.0	14.0	10.0	17.0	12.8	14.3	11.6	2.0	6.0	16.0	8.0	9.0	6	8	M6	13	1.5	2.5
48	65	59.0	66.0	4	59.7	68.4	50	69	45.0	31.0	2.0	6	9.0	22.0	14.0	10.0	17.0	12.8	14.3	11.6	2.0	6.0	16.0	8.0	9.0	6	8	M6	13	1.5	2.5
50	67	62.0	70.0	4	60.8	69.3	52	71	47.5	32.5	2.5	6	9.0	23.0	15.0	10.5	17.0	12.8	14.3	11.6	2.0	6.0	17.0	9.5	9.5	6	8	M6	13	1.5	2.5
53	70	65.0	73.0	4	63.8	72.3	55	75	47.5	32.5	2.5	6	9.0	23.0	15.0	12.0	17.0	13.5	14.3	12.3	2.0	6.0	17.0	9.5	11.0	6	8	M6	13	1.5	2.5
55	72	67.0	75.0	4	66.5	75.4	57	76	47.5	32.5	2.5	6	9.0	23.0	15.0	12.0	18.0	14.5	15.3	13.3	2.0	6.0	17.0	9.5	11.0	6	8	M6	13	1.5	2.5
58	79	70.0	78.0	4	69.5	78.4	60	83	52.5	37.5	2.5	6	9.0	23.0	15.0	12.0	18.0	14.5	15.3	13.3	2.0	6.0	18.0	10.5	11.0	8	9	M8	13	1.9	2.5
60	81	72.0	80.0	4	71.5	80.4	62	85	52.5	37.5	2.5	6	9.0	23.0	15.0	12.0	18.0	14.5	15.3	13.3	2.0	6.0	18.0	10.5	11.0	8	9	M8	13	1.9	2.5
63	84	75.0	83.0	4	74.5	83.4	65	88	52.5	37.5	2.5	6	9.0	23.0	15.0	12.0	18.0	14.2	15.3	13.3	2.0	6.0	18.0	10.5	11.0	8	9	M8	13	1.9	2.5
65	86	77.0	85.0	4	76.5	85.4	67	95	52.5	37.5	2.5	6	9.0	23.0	15.0	12.0	18.0	14.2	15.3	13.0	2.0	6.0	18.0	10.5	11.0	8	9	M8	13	1.9	2.5
68	89	81.0	90.0	4	82.7	91.5	70	93	52.5	34.5	2.5	7	9.0	26.0	18.0	12.5	19.0	14.9	16.0	13.7	2.0	6.0	18.5	11.0	11.3	8	9	M8	13	1.9	2.5
70	91	83.0	92.0	4	83.0	92.0	72	95	60.0	42.0	2.5	7	9.0	26.0	18.0	12.5	18.0	14.2	15.3	13.0	2.0	6.0	19.0	11.5	11.3	8	9	M8	16	1.9	2.5
75	99	88.0	97.0	4	90.2	99.0	77	105	60.0	42.0	2.5	7	9.0	26.0	18.0	12.5	18.0	15.2	15.3	14.0	2.0	6.0	19.0	11.5	11.3	8	10	M8	16	1.9	2.5
80	104	95.0	105.0	4	95.2	104.0	82	109	60.0	41.8	3.0	7	9.0	26.2	18.2	13.0	19.0	16.2	16.3	15.0	2.0	6.0	19.0	11.5	12.0	8	10	M8	16	1.9	2.5
85	109	100.0	110.0	4	100.2	109.0	87	114	60.0	41.8	3.0	7	9.0	26.2	18.2	15.0	19.0	16.0	16.3	14.8	2.0	6.0	19.0	11.5	14.0	8	10	M8	16	1.9	2.5
90	114	105.0	115.0	4	105.2	114.0	92	119	65.0	46.8	3.0	7	9.0	26.2	18.2	15.0	19.0	16.0	16.3	14.8	2.0	6.0	20.5	13.0	14.0	10	10	M8	20	2.3	2.5
95	119	110.0	120.0	4	111.6	120.3	97	124	65.0	47.8	3.0	7	9.0	25.2	17.2	15.0	20.0	17.0	17.3	15.8	2.0	6.0	20.5	13.0	14.0	10	10	M8	20	2.3	2.5
100	124	115.0	125.0	4	114.5	123.3	102	129	65.0	47.8	3.0	7	9.0	25.2	17.2	15.0	20.0	17.0	17.3	15.8	2.0	6.0	20.5	13.0	14.0	10	10	M8	20	2.3	2.5
105	138	122.2	134.3	5	-	-	108	143	67.0	47.0	2.0	10	-	30.0	20.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
110	143	128.2	140.3	5	-	-	113	148	67.0	47.0	2.0	10	-	30.0	20.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
115	148	136.2	148.3	5	-	-	118	153	67.0	47.0	2.0	10	-	30.0	20.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
120	153	138.2	150.3	5	-	-	123	158	67.0	47.0	2.0	10	-	30.0	20.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
125	158	142.2	154.3	5	-	-	128	163	67.0	47.0	2.0	10	-	30.0	20.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
130	163	146.2	158.3	5	-	-	133	168	67.0	47.0	2.0	10	-	30.0	20.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
135	168	152.2	164.3	5	-	-	138	173	67.0	47.0	2.0	10	-	30.0	20.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
140	173	156.2	168.3	5	-	-	143	178	67.0	47.0	2.0	10	-	30.0	20.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
145	178	161.2	173.3	5	-	-	148	183	67.0	47.0	2.0	10	-	30.0	20.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
150	183	168.2	180.3	5	-	-	153	188	69.0	47.0	2.0	10	-	32.0	22.0	-	-	-	-	-	-	-	-	-	-	10	10	M8	20	2.3	-
155	191	173.2	185.3	5	-	-	158	196	80.0	56.0	2.0	12	-	34.0	24.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-
160	196	178.2	190.3	5	-	-	163	201	80.0	56.0	2.0	12	-	34.0	24.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-
165	201	183.2	195.3	5	-	-	168	206	80.0	56.0	2.0	12	-	34.0	24.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-
170	206	188.2	200.3	5	-	-	173	211	80.0	56.0	2.0	12	-	34.0	24.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-
175	211	193.2	205.3	5	-	-	178	216	80.0	56.0	2.0	12	-	34.0	24.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-
180	216	207.5	219.3	5	-	-	183	221	84.0	56.0	2.0	12	-	38.0	28.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-
185	221	212.5	224.3	5	-	-	188	226	84.0	56.0	2.0	12	-	38.0	28.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-
190	226	217.5	229.3	5	-	-	193	231	84.0	56.0	2.0	12	-	38.0	28.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-
195	231	222.5	234.3	5	-	-	198	236	84.0	56.0	2.0	12	-	38.0	28.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-
200	236	227.5	239.3	5	-	-	203	241	84.0	56.0	2.0	12	-	38.0	28.0	-	-	-	-	-	-	-	-	-	-	12	12	M8	24	2.1	-

d1 >200 on request
EN 12756

inch size also available from size 0.625 to 7.875
Note: Additional technical & dimensional information will be provided on request.