

U700N Single Seals

Standard Mechanical Seals - Pusher Seals

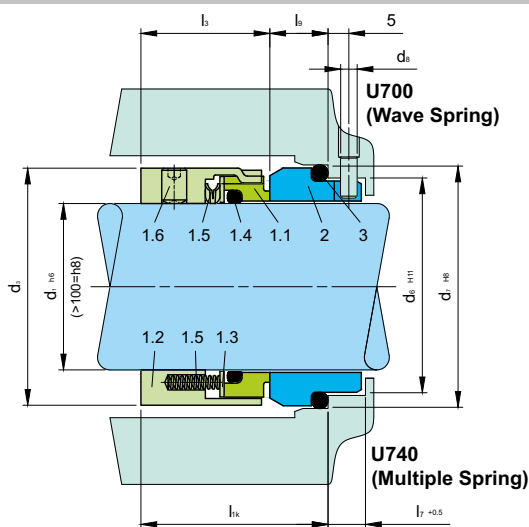


Product Description

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



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

Typical Industrial Applications

Acids	Lubricating liquid
Aqueous solutions	Marine
Caustics	Solvents
Chemicals	Water and waste water
Crystallizing fluids	
Food and beverage	
Hydrocarbons	

Performance Capabilities

Sizes :	d1 = Upto 100 mm (Upto 4.000")
Pressure :	p1 = 25 bar (363 PSI)
Temperature :	t = -50 °C ...+220 °C (-58°F ...+428 °F)

Permissible Axial Movement:

d1, up to 25 mm:	from 65 mm
d1, 28 up to 63 mm:	± 1.5 mm
d1, from 65 mm:	± 2.0 mm

Standards

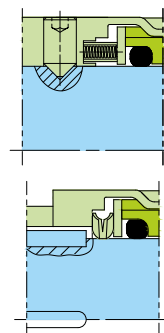
EN12756

Materials

Seal face:	Special cast CrMo steel (S), Silicon carbide (Q1, Q2), Aluminium oxide (V)
Seal G9:	Carbon graphite antimony impregnated(A), Carbon graphite resin impregnated (B), Silicon carbide (Q1*, Q2*)
Seal G9:	Silicon carbide (Q1*, Q2*)
Seat G13:	Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B)
Secondary Seal:	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

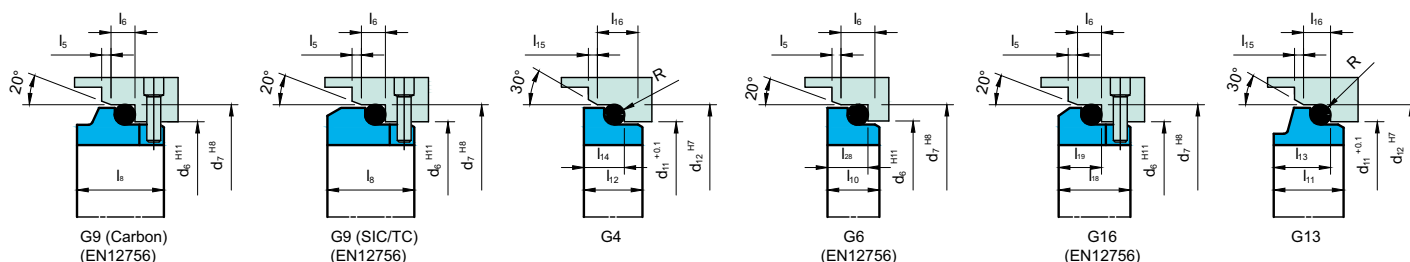
Torque Transmissions



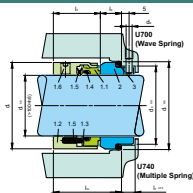
d1 > 100 mm (4.000")
Torque transmission by 4 set screws with cone

Drive key
(U700S2 / U740S2)

Stationary Seats



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")

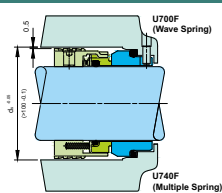
Temperature: t = max. 180°C (356 °F)

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)

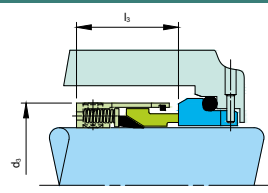


U700F

Shaft diameter d_1 = max. Upto 100 mm (Upto 4.000") Dimensions, items and descriptions as for type U700N, but with pumping screw, dependent on direction of rotation. (Viscosity $\leq$ ISO VG10).

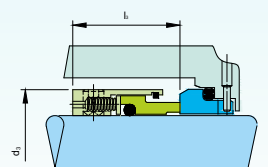
U740F

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 $\leq$ ISO VG10).



U741

Dimensions, Items & descriptions as per U740, but with PTFE wedge & PTFE sealing ring as secondary sealing



U743

Dimensions, Items & descriptions as per U740, but with PTFE wedge & PTFE sealing ring as secondary sealing

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	27.5	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	11.0	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	6																							