SHARK MIX-ST

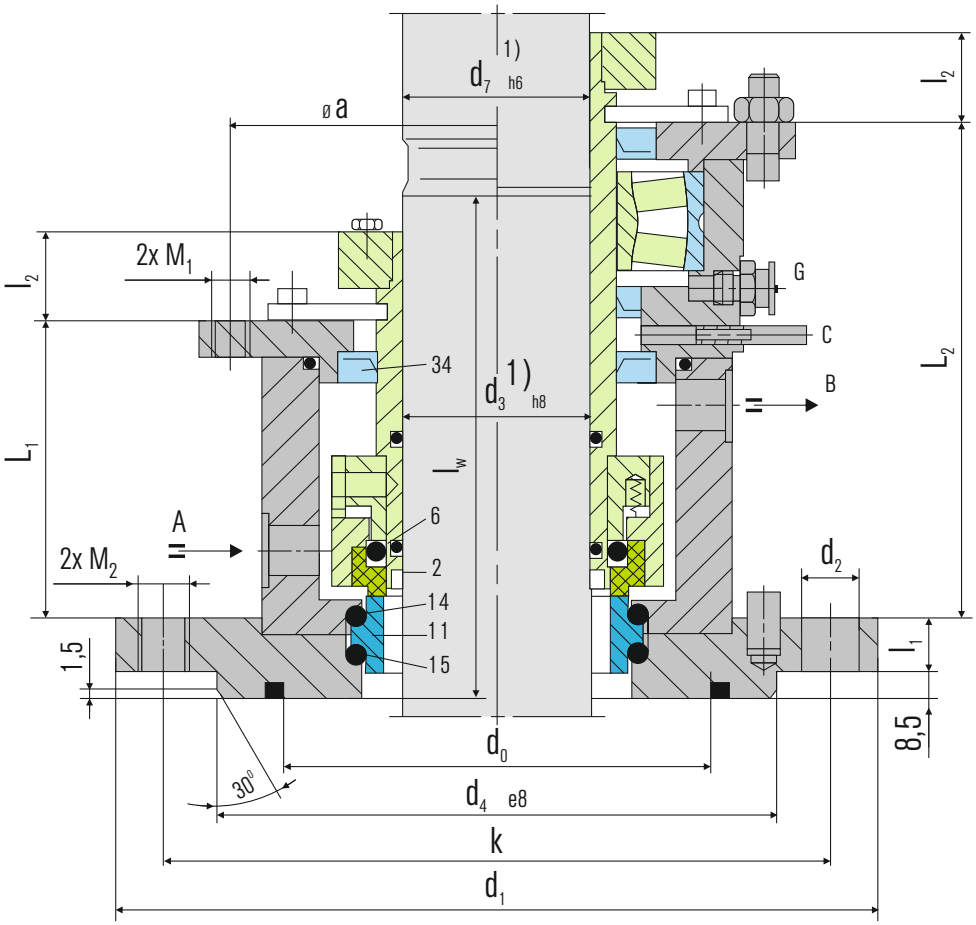
Agitator Seals · Top Entry

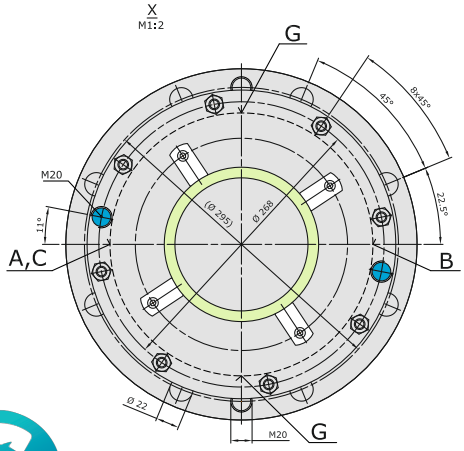
Product Description

1. Cartridge unit
2. For top entry drives, type U1 84 to DIN
3. Independent of direction of rotation
4. Liquid-lubricated
5. Multiple springs rotating
6. Single or double seals
7. Unbalanced

Technical Features

1. Available with or without floating bearing
2. Double seals can be applied at higher pressure
3. Ready-to-fit and factory-tested units
4. Suitable for standardizations





Typical Industrial Applications

Agitators
Chemical industry
Non-toxic media with single seal
Pharmaceutical industry
Reactors
Toxic media with double seal

Performance Capabilities

DIN 281 38 T2
Sizes: d3 = Up to 220 mm (8.625")
Single seals:
Pressure: p1 = vacuum to 87 PSIG
p3 = atmospheric pressure
Temperature: t1* = -40 °F to +302 (482) °F
Double seals:
Pressure: p1 = vacuum to 232 PSIG
p3 = max: 261 PSIG
Temperature: t1* = -40 °F ... +392 (662) °F
Speed = 0 to 1 6 ft/s

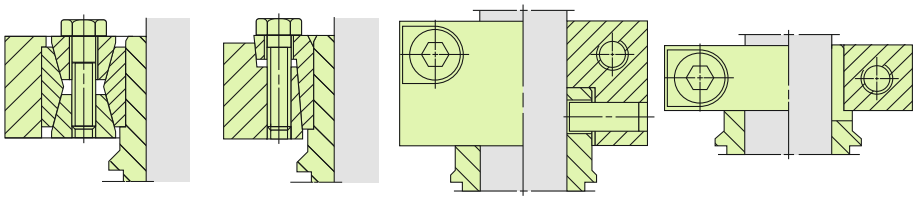
Standards

FDA
DIN 28136 T2 (for steel vessels)
DIN 28141 (flange connection for steel vessels)
DIN 28154 (shaft end for steel vessels)

Notes

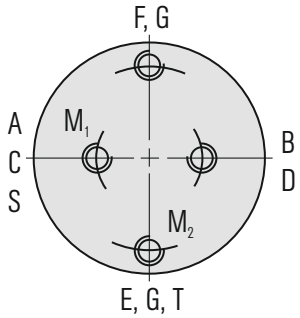
Options:
Cooling or heating flange
Leakage drain, flush or heating flange
Leakage drain or flush
Polymerization barrier, leakage drain or flush

Torque Transmissions



Clamping set | Shrink disk | Clamping ring with pin | Clamping ring

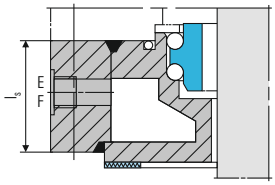
Options



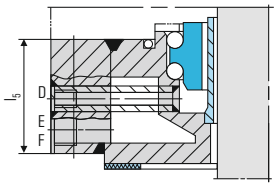
Supply connections
Designation and position acc. to DIN 28138 T3.

A	Barrier fluid resp. quench IN
B	Barrier fluid resp. quench OUT
C	Drainage
D	Leakage drain G1/8"
E	Cooling IN G3/8"
F	Cooling OUT G3/8"
G	Grease
S	Flush
T	Temperature metering

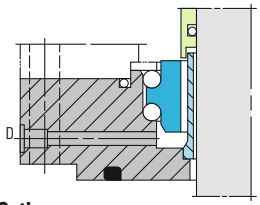
For reasons of standardization, the supply connections of single seals are matched to those of the double seals (in deviation from DIN 28138 T3).



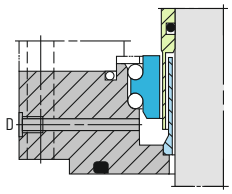
Option
Cooling flange, can be used alternatively as a heating flange (tmax. = 350°C (662°F).



Option
Leakage drain, can be used alternatively as a flush or as a heating flange.

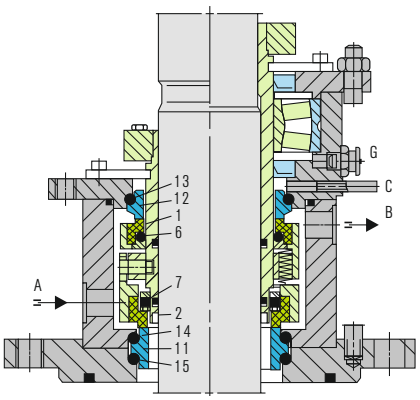


Option
Leakage drain, can be used alternatively as a flush.



Option
Polymerization barrier, can be used alternatively as a leakage drain or a flush.

Design Variations



Single Seals Variants

MIX-ST
Single seal

MIX-ST-B
Single seal with integrated floating bearing.
Operation of single seals only with pressure less quench.

Double Seals Variants

MIX-DT
Double seal

MIX-DT-B
Double seal with integrated floating bearing.
These seals are designed to be self-closing on the product side, i.e. they will remain closed even with pressure variations or a pressure reversal. Operation is optionally the same as for the single version
(pmax = 6 bar (87 PSI) or
Δpmax = 6 bar at p1 > p3).
In view of the mechanical seal on the atmosphere side it can be used as a buffer pressurized double seal
p1 = 16 bar (232 PSI).

MIX-DT/MIX-DT-B
All types of the MIX-DT available for unstepped shafts (all diameters). Customized design or e.g. different drives (torque transmissions) are also available.

Dimensional Data

Dimensions in mm

d_3 1)	d_7 1)	d_1	n x d_2	d_4	d_0	k	L_1	L_2	L_w 2)	l_1	l_2	A	M_1	M_1	A, B
40	38	175	4X18	110	90	145	87	136	143	15	28	122	M12	M16	G3/8
50	48	240	8X18	176	135	210	89	149	148	17	28	157	M12	M16	G3/8
60	58	240	8X18	176	135	210	93.5	156	158	17	28	168	M12	M16	G3/8
80	78	275	8X22	204	155	240	104.5	189	168	20	34	203	M16	M20	G1/2
100	98	305	8X22	234	190	270	109	190	178	20	34	228	M16	M20	G1/2
125	120	330	8X22	260	215	295	110	205	203	20	40	268	M20	M20	G1/2
140	135	395	12X22	313	250	350	124	222	208	20	40	285	M20	M20	G1/2
160	150	395	12X22	313	265	350	127.5	219.5	213	25	40	297	M20	M20	G1/2
180	170	445	12X22	364	310	400	132.5	230	233	25	45	332	M24	M20	G1/2
200	190	445	12X22	364	310	400	137.5	237.5	243	25	45	352	M24	M20	G1/2
220	210	505	16X22	422	340	460	149.5	249.5	263	25	50	381	M24	M20	G1/2

1) Shaft diameters d3 and d7 to DIN 28154
2) Shaft step to DIN 28154
Larger diameters available
Inch size available from size 1.500 to 10.000"
Note: Additional technical & dimensional information will be provided on request.