

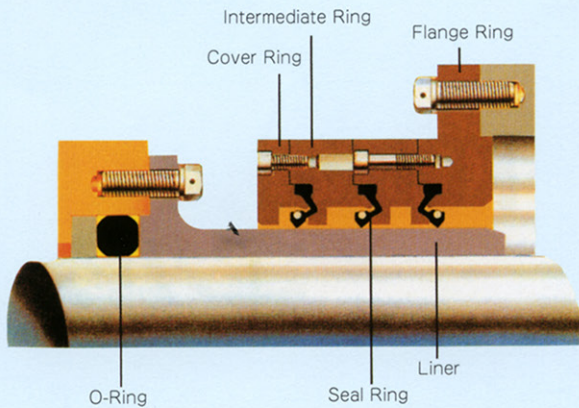
The well known and high reliable COMPACT SEAL (CX Type, DX Type)

Structure

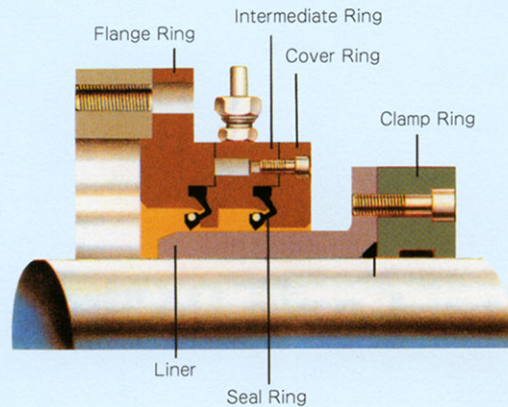
The COMPACT SEAL (CX Type, DX Type) is composed of three types of metal rings (flange ring, intermediate ring and cover ring), assembled by bolts. These metal rings form a casing, and the seal rings are tightly fixed between metal rings. The metal rings are in contact with each other, which assures that the compression of the seal rings is always maintained to the proper degree, preventing the risk of cracks occurring by excessive pressure on seal rings. These seal rings are all identical in design, and normally an aft seal is equipped with three seal rings and a forward seal with two seal rings.

The DX Type is equipped with one more seal ring, which works as a spare oil seal for emergency use.

Aft Seal

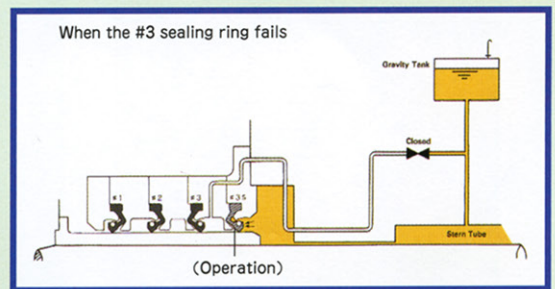
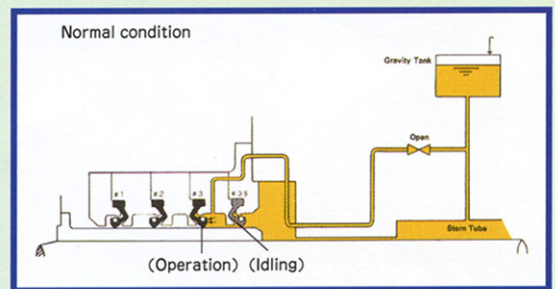


Forward Seal

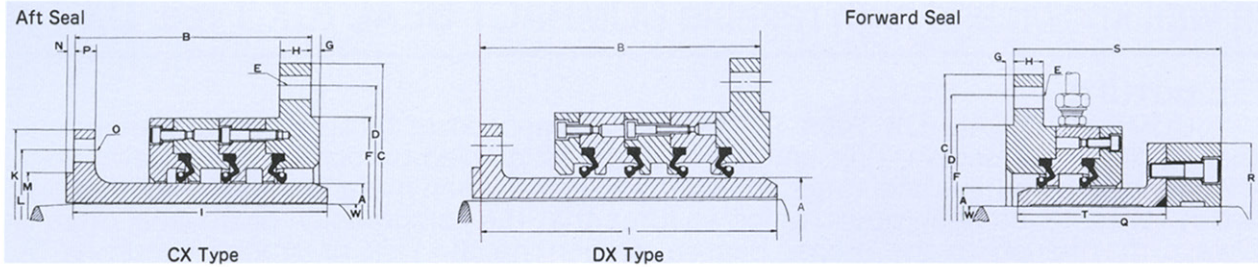


Features

- **Best seal ring design through highly advanced technologies**
The COMPACT SEAL gives excellent sealing performance, easy handling and stable quality over a long period of time, by utilizing the latest design technology and specially developed seal ring shape and material.
- **A seal ring material with superb durability**
The seal rings come in two kinds of materials – VITON (fluoric rubber) and NBR (nitrile-butadiene rubber) – for selection depending on the operating conditions of stern tube seal. The VITON seal ring fitted on the COMPACT SEAL has superb heat resistance, with a special fabric vulcanized on its surface to assure high strength and durability. With its superior structure, the VITON seal ring features the important property of being free from the danger of crack generation under heavily loaded conditions.
- **A chrome steel liner with superior abrasion and corrosion-resistance**
A special grade of high-chromium stainless steel is used for this liner. This new chrome steel liner is far superior to conventional chrome liners in its abrasion and corrosion resistance, and is highly effective when used as the aft liner where pitting corrosion is liable to occur.
- **Repeatedly machinable liner**
Our chrome steel liners are provided with a sufficient machining allowance, so that the worn-out liner can be repeatedly reused after grinding.
- **Double Security SEAL DX Type**
In case of any oil leakage from the #3 seal ring, the #3S seal ring is put into operation by closing two valves on the oil line between the #3 and #3S chamber. The #3S seal ring is safety serviceable for a long period thereafter.



Standard Dimensions



Standard CX Dimensions (If a distance ring is used, length "B" and "I" of the seals smaller in size than A size 380 will be larger than those in the following table.) (mm)

A Size	※125	140	160	180	200	220	240	260	280	300	330	355	380	400	420	450	480
W-min.	80	111	126	146	166	186	206	226	246	266	286	316	340	363	382	401	429
W-max.	110	125	145	165	185	205	225	245	265	285	315	339	362	381	400	428	457
B	160	160	160	160	160	160	175	175	175	175	175	195	195	200	200	225	225
C	275	290	310	330	350	370	425	445	465	485	515	565	590	610	630	675	705
D	245	260	280	300	320	340	390	410	430	450	480	525	550	570	590	630	660
E	8xM12	8xM12	8xM12	8xM12	8xM12	8xM12	12xM16	12xM16	12xM16	12xM16	12xM16	12xM16	12xM20	12xM20	12xM20	12xM20	12xM20
F	210	225	245	265	285	305	345	365	385	405	435	475	500	520	540	575	605
G	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	8	8
H	15	15	15	15	15	15	25	25	25	25	25	25	25	25	25	30	30
I	180	180	180	180	180	180	191	191	191	191	191	212	212	217	217	241	241
K	184	200	230	260	280	300	320	340	360	375	425	450	480	500	520	550	590
L	164	180	210	230	250	270	290	310	330	346	390	416	440	460	486	510	550
M	145	160	190	204	224	240	260	284	300	320	360	384	406	424	450	476	510
N	6	6	6	6	6	6	6	6	6	6	7	7	7	7	8	8	8
O	8xM8	8xM8	8xM8	8xM12	8xM12	8xM12	8xM12	8xM12	12xM12	12xM12	12xM12	12xM16	12xM16	12xM16	12xM16	12xM16	12xM20
P	12	12	12	12	12	12	15	15	15	15	15	15	15	20	20	20	20
Q	149	149	149	149	149	149	159	159	164	164	164	185	185	185	190	205	205
R	190	195	220	240	260	280	300	320	350	370	400	430	460	480	500	530	560
S	140	140	140	140	140	140	153	153	158	158	158	184	184	184	189	205	205
T	109	109	109	109	109	109	119	119	119	119	119	135	135	135	135	150	150
Weight Forward Seal	14	26	27	31	33	37	52	55	62	70	84	109	119	120	131	170	180
kg Aft Seal	26	29	30	34	37	42	59	64	69	76	92	122	130	135	144	203	215

※Sectional shape of the seal ring in 125 size is different from illustrations in this brochure.

A Size	500	530	560	600	630	670	710	750	800	850	900	950	1000	1060	1120	1180	
W-min.	458	477	505	533	571	599	636	673	711	757	804	851	897	943	999	1054	
W-max.	476	504	532	570	598	635	672	710	756	803	850	896	942	998	1053	1130	
B	225	225	240	240	245	245	280	280	310	310	330	330	330	350	350	350	
C	725	755	820	860	890	930	990	1030	1090	1140	1200	1250	1300	1400	1460	1520	
D	680	710	765	805	835	875	930	970	1030	1080	1135	1185	1235	1325	1385	1445	
E	12xM20	12xM20	12xM24	12xM24	12xM24	12xM24	16xM24	16xM24	20xM24	20xM24	20xM24	20xM24	20xM24	24xM30	24xM30	24xM30	
F	625	655	700	740	770	810	865	905	960	1010	1065	1115	1165	1245	1305	1365	
G	8	8	9	9	9	9	10	10	10	10	11	11	11	11	11	11	
H	30	30	35	35	35	35	40	40	40	40	45	45	45	50	50	50	
I	241	241	253	253	258	258	301	301	338	338	362	362	362	381	381	386	
K	600	630	675	700	760	820	840	885	945	1000	1070	1130	1170	1230	1300	1360	
L	560	590	630	660	710	750	790	836	890	950	1010	1070	1110	1170	1230	1290	
M	526	550	588	620	670	710	740	780	825	870	920	970	1040	1100	1160	1220	
N	8	8	9	9	9	10	10	10	10	10	11	11	11	11	11	12	
O	12xM20	12xM20	12xM20	12xM20	12xM24	12xM24	12xM24	16xM24	16xM24	16xM24	16xM24	16xM24	20xM24	20xM24	20xM30	24xM30	
P	20	20	20	20	22	22	25	25	30	30	35	35	35	35	40	40	
Q	205	205	221	221	238	238	268	318	337	337	349	349	349	389	399	399	
R	580	620	650	690	720	760	830	870	915	974	1027	1076	1130	1200	1260	1340	
S	205	205	223	223	240	240	268	318	336	336	352	352	352	395	405	405	
T	150	150	166	166	168	168	198	198	217	217	229	229	229	244	249	249	
Weight Forward Seal	189	212	262	290	331	371	477	580	668	736	825	890	998	1222	1380	1495	
kg Aft Seal	220	230	294	325	392	417	504	529	655	735	858	933	1000	1205	1374	1477	

Standard DX Dimensions (The following two dimensions are different from the standard CX dimensions, otherwise the dimensions are the same. B: Aft seal length, I: Aft liner length)

A Size	B	I
140	200	220
160	200	220
180	200	220
200	200	220
220	200	220
240	215	233
260	220	236
280	220	236
300	220	236
330	220	236
355	235	252

A Size	B	I
380	235	252
400	240	257
420	240	257
450	270	286
480	270	286
500	270	286
530	270	286
560	285	298
600	285	298
630	290	303
670	290	303

A Size	B	I
710	330	351
750	330	351
800	365	393
850	365	393
900	385	417
950	385	417
1000	385	417
1060	405	436
1120	410	441
1180	410	441