

System Fender

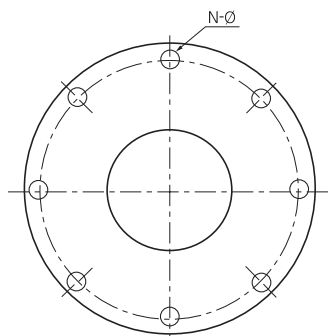
Cell Fender(YCL)



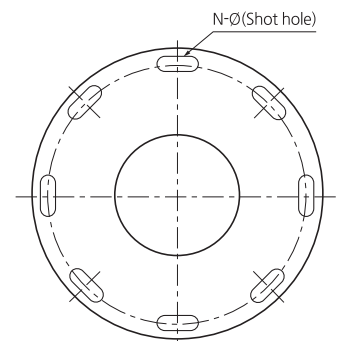
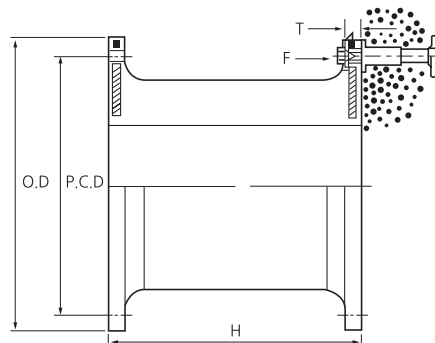
Feature

1. Increased energy absorption and lower load transmitted.
2. Self supporting : Cell-type fender can support its own weight plus that of the frontal system.
(Supporting limits are described later)
3. By adjusting frontal system space, required hull pressure (face pressure) can be easily controlled and changed
4. A wide selection of fender types is available.

| Drawing |



Panel Side



Wharf Side(slot)

| Dimension |

Unit : mm

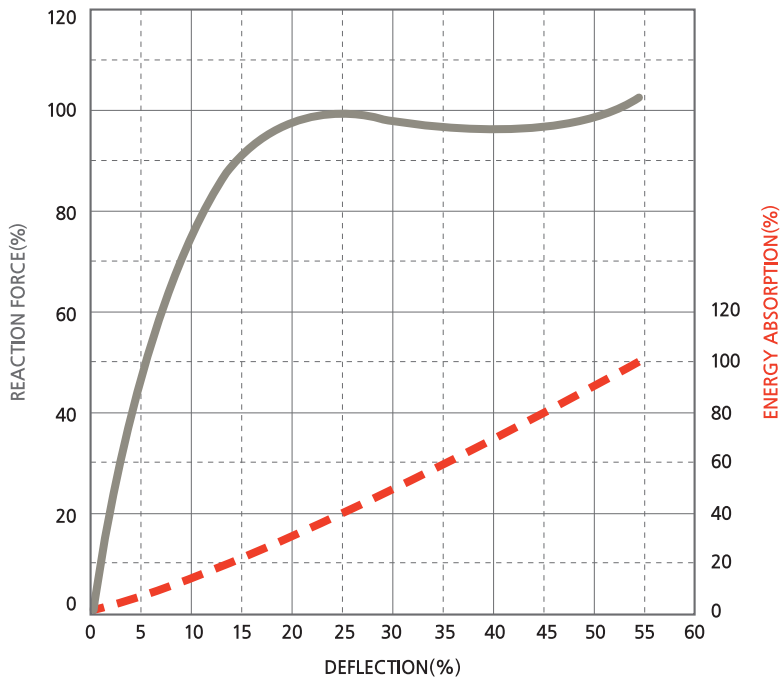
Dimension Height	F	O.D	P.C.D	N-Ø	N-Ø (Slot Hole)	T
YCL 300H	M20(3/4")	400	340	4-25	4-25×35	15
YCL 500H	M24 (1")	650	550	4-32	4-32×40	25
YCL 630H	M27 (1 1/8")	840	700	4-39	4-39×49	25
YCL 650H	M27 (1 1/8")	870	730	4-39	4-39×49	25
YCL 800H	M30 (1 1/4")	1050	900	6-40	6-40×50	30
YCL 1000H	M36 (1 1/2")	1300	1100	6-47	6-47×58	35
YCL 1150H	M42 (1 3/4")	1500	1300	6-50	6-50×65	37
YCL 1200H	M42 (1 3/4")	1550	1350	6-53	6-53×65	40
YCL 1250H	M42 (1 3/4")	1650	1450	6-53	6-53×65	40
YCL 1400H	M48 (2")	1800	1600	6-60	6-60×75	42
YCL 1450H	M48 (2")	1850	1650	6-60	6-60×75	42
YCL 1600H	M48 (2")	2000	1800	8-60	8-60×75	45
YCL 1700H	M56 (2 1/4")	2100	1900	8-66	8-66×80	50
YCL 2000H	M64 (2 1/2")	2200	2000	8-74	8-74×95	50
YCL 2250H	M64 (2 1/2")	2550	2300	10-74	10-74×95	57
YCL2500H	M64 (2 1/2")	2950	2700	10-74	10-74×95	70

Notes

- Above detail dimension of components can be changed depending on owner specification and local environment condition.
- Detail dimension will be guided by our drawing and specification.

System Fender

| Performance Curve |



| Performance of Intermediate Deflection |

Deflection(%)	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	52.5%	55%
Reaction(%)	45%	75%	90%	98%	100%	99%	98%	96%	97%	99%	100%	105%
Energy(%)	3%	8%	17%	30%	41%	50%	61%	72%	84%	95%	100%	106%

| PIANC Factors |

Angle Factor	
Angle	AF
0°	1.000
3°	0.976
5°	0.951
8°	0.911
10°	0.885
15°	0.807
20°	0.655

Velocity Factor	
TIME(sec)	VF
1	1.007
2	1.004
3	1.002
4	1.001
5	1.000
6	1.000
8	1.000
10	1.000

Temperature Factor	
TEMP	TF
-30°	1.205
-20°	1.165
-10°	1.128
0°	1.092
10°	1.054
23°	1.000
30°	0.975
40°	0.945
50°	0.935

Performance Table

Unit : mm

Size		300H	500H	630H	650H	800H	1000H	1150H	1200H	1250H	1400H	1450H	1600H	1700H	2000H	2250H	2500H
Performance																	
G280	R · F[kN]	65.8	183	290	309	468	731	966	1052	1141	1432	1536	1870	2111	2922	3698	4565
	E · A[kN-m]	8.8	41.3	82.6	90.7	169	330	502	571	645	906	1007	1353	1622	2642	3761	5159
G270	R · F[kN]	63.9	177	281	300	458	709	938	1021	1108	1390	1491	1815	2049	2836	3589	4431
	E · A[kN-m]	8.6	40.1	80.1	88.0	164	321	487	554	626	879	977	1313	1575	2564	3651	5008
G260	R · F[kN]	61.9	172	273	291	440	688	909	990	1074	1348	1445	1760	1987	2750	3480	4297
	E · A[kN-m]	8.3	38.8	77.7	85.3	159	311	473	537	607	853	948	1273	1527	2486	3540	4856
G250	R · F[kN]	60.0	167	264	281	426	666	881	959	1041	1305	1400	1705	1925	2664	3372	4163
	E · A[kN-m]	8.1	37.6	75.3	82.7	154	301	458	520	588	826	918	1233	1479	2409	3429	4704
G240	R · F[kN]	58.1	161	256	272	413	645	852	928	1007	1263	1355	1650	1863	2578	3263	4028
	E · A[kN-m]	7.8	36.4	72.9	80.0	149	291	443	504	569	800	888	1193	1431	2331	3319	4553
G230	R · F[kN]	56.1	156	247	263	399	623	824	897	974	1221	1310	1595	1801	2492	3154	3894
	E · A[kN-m]	7.5	35.2	70.4	77.3	144	282	428	487	550	773	859	1154	1384	2253	3208	4401
G220	R · F[kN]	54.2	150	239	254	385	602	796	866	940	1179	1265	1540	1739	2406	3045	3760
	E · A[kN-m]	7.3	34.0	68.0	74.7	139	272	414	470	531	746	829	1114	1336	2176	3098	4249
G210	R · F[kN]	52.2	145	230	245	371	580	767	835	906	1137	1220	1485	1676	2320	2937	3625
	E · A[kN-m]	7.0	32.8	65.6	72.0	134	262	399	453	512	720	799	1074	1288	2098	2987	4097
G200	R · F[kN]	50.3	140	222	236	358	559	739	804	873	1095	1174	1430	1614	2234	2828	3491
	E · A[kN-m]	6.8	31.6	63.1	69.3	129	253	384	436	493	693	770	1034	1241	2020	2876	3746
G190	R · F[kN]	48.4	134	213	227	344	537	710	773	839	1053	1129	1375	1552	2148	2719	3357
	E · A[kN-m]	6.5	30.3	60.7	66.7	124	243	369	420	474	666	740	995	1193	1942	2766	3794
G180	R · F[kN]	46.4	129	205	218	330	516	682	743	806	1011	1084	1320	1490	2063	2610	3223
	E · A[kN-m]	6.2	29.1	58.3	64.0	119	233	355	403	455	640	711	955	1145	1865	2655	3642
G170	R · F[kN]	44.5	124	196	209	316	494	654	712	772	969	1039	1265	1428	1977	2502	3088
	E · A[kN-m]	6.0	27.9	55.9	61.3	114	223	340	386	436	613	681	915	1097	1787	2544	3490
G160	R · F[kN]	42.6	118	188	200	303	473	625	681	739	926	994	1210	1366	1891	2393	2954
	E · A[kN-m]	5.7	26.7	53.4	58.7	109	214	325	369	417	586	651	875	1050	1709	2434	3339
G150	R · F[kN]	40.6	113	179	191	289	451	597	650	705	884	949	1155	1304	1805	2284	2820
	E · A[kN-m]	5.5	25.5	51.0	56.0	104	204	310	352	398	560	622	835	1002	1632	2323	3187
G140	R · F[kN]	38.7	107	171	182	275	430	568	619	671	842	903	1100	1242	1719	2175	2686
	E · A[kN-m]	5.2	24.3	48.6	53.3	99.4	194	295	336	379	533	592	796	954	1554	2213	3035
G130	R · F[kN]	36.8	102	162	173	261	408	540	588	638	800	858	1045	1180	1633	2067	2551
	E · A[kN-m]	4.9	23.1	46.1	50.7	94.5	185	281	319	360	506	563	756	907	1476	2102	2883
G120	R · F[kN]	34.8	96.7	154	163	248	387	511	557	604	758	813	990	1118	1547	1958	2417
	E · A[kN-m]	4.7	21.9	43.7	48.0	89.5	175	266	302	341	480	533	716	859	1399	1991	2732
G110	R · F[kN]	32.9	91.3	145	154	234	365	483	526	571	716	768	935	1056	1461	1849	2283
	E · A[kN-m]	4.4	20.6	41.3	45.3	84.5	165	251	285	323	453	503	676	811	1321	1881	2580
G100	R · F[kN]	31.0	85.9	136	145	220	344	455	495	537	674	723	880	993	1375	1740	2148
	E · A[kN-m]	4.2	19.4	38.9	42.7	79.6	155	236	269	304	426	474	637	763	1243	1770	2428

- R · F : Reaction Force[kN] - E · A : Energy Absorption[kN-m] - Tolerance : ±5% or ±10% - Rated Deflection : 52.5% - Maximum Deflection : 55%

Compression Test



Notes • Above detail performance of components can be changed depending on owner specification and local environment condition.
• Detail performance will be guided by our drawing and specification.