



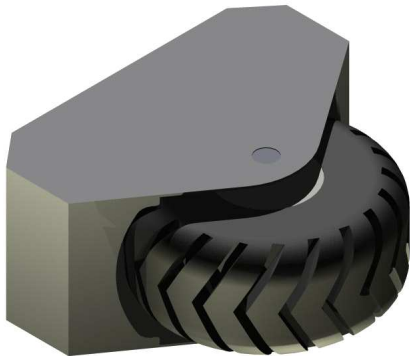
ECN FENFER DATA SHEET

1000.0000-Td-0201jen_rev1

Rev.	Date	Description	Prepared by	Checked by	Approved by
0	06/03/2014	First Issue	BFA	DBL	GEB
1	14/05/2015	General Revision	BFA		GEB



1. ECN FENDERS



Features

High energy absorption capacity

Strong and durable design

Low rolling resistance

Gentle contact face

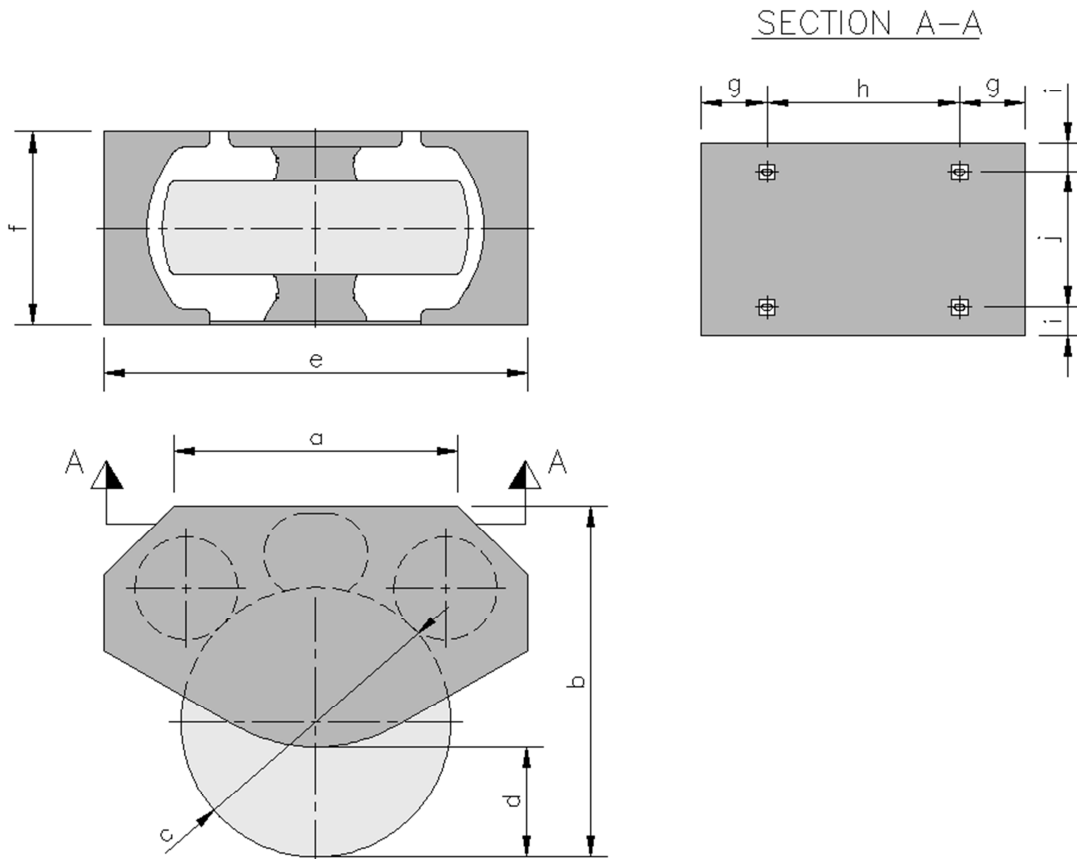
Applications

All kind of berths (coastal, river, tidal and non-tidal)

All types of ships (general cargo, bulk carrier, oil tanker, gas carrier, passenger...)

All exposed corners and entrances

2. DIMENSIONS

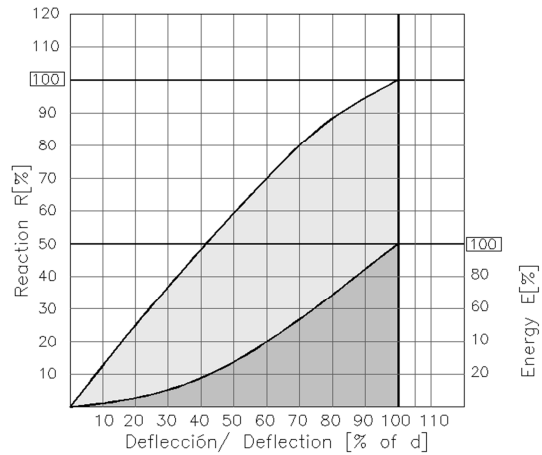


Fender	a	b	c	d	e	f	g	h	i	j	Weight (kg)	N°Anchors/Metric
ECN-50	1455	1790	1375	530	2160	1070	250	955	160	750	1692	4xM.22
ECN-83	2080	2210	1750	530	2670	1145	400	1280	160	825	2132	4xM.30
ECN-226	2100	2425	1980	695	2740	1245	400	1300	185	875	4040	4xM.36
ECN-450	2540	3175	2550	920	3350	1525	500	1540	250	1025	7028	4xM.52
ECN-880	3355	3750	2900	1200	4200	1700	527	2300	275	1175	12765	4xM.56

All dimension in mm unless otherwise specified.

3. NOMINAL FENDER PERFORMANCE*

Fender		Grade
		A
ECN-50	R	50
	E	175
	D	530
ECN-83	R	83
	E	305
	D	530
ECN-226	R	226
	E	600
	D	695
ECN-450	R	450
	E	940
	D	920
ECN-880	R	880
	E	1300
	D	1200



Also available other grades.

Intermediate deflections											
D (%)	0	10	20	30	40	50	60	70	80	90	100
R (%)	0	13	25	37	48	59	70	80	88	95	100
E (%)	0	2	6	10	18	28	40	54	68	84	100

All dimension in mm, kN or kNxm unless otherwise specified.

* (E) Energy [kNxm] and (R) Reaction [kN] values according to PIANC 2002

4. TOLERANCES

Dimension	Tolerances
General dimensions	±3% or 2mm*
Distances between fixing centres	±4mm (Non-cumulative)
Flange thickness	±15mm
Diameters of the fixing points	±5mm
Energy performance	±10%
Reaction performance	±10%

* Whichever is the greater dimension.