

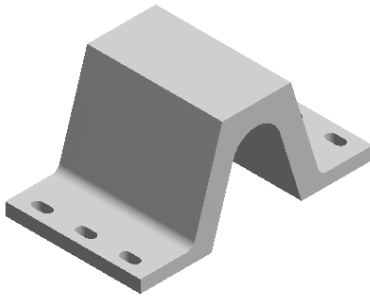


VA FENDER DATA SHEET

1000.0000-Td-0201een_rev2

Rev.	Date	Description	Prepared by	Checked by	Approved by
0	06/03/2014	First Issue	BFA	DBL	GEB
1	09/03/2015	General Revision	BFA	DBL	GEB
2	15/05/2015	General Revision	BFA		GEB

1. VA FENDERS



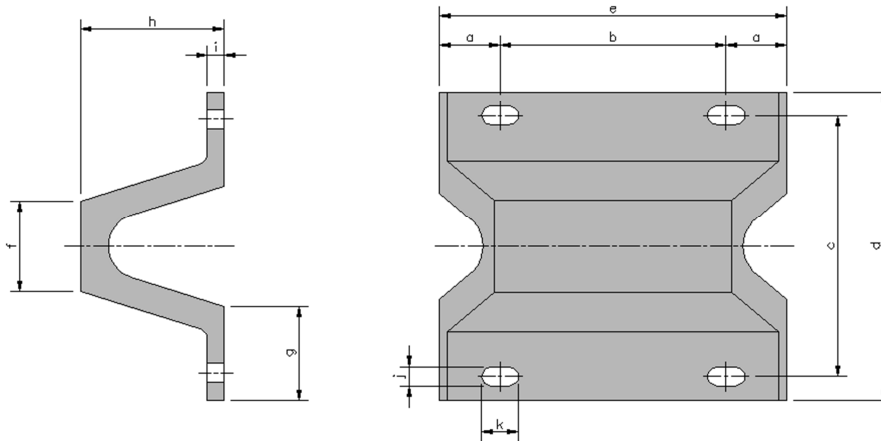
Features

- One piece design
- Strong and durable design
- Wide range of standard sizes

Applications

- All kind of berths (coastal, river, tidal and non-tidal)
- All types of jetties (open pile, dolphins, monopiles, mass structures...)
- All types of ships (general cargo, bulk carrier, oil tanker, gas carrier, passenger...)

2. DIMENSIONS



Fender	a	b	c	d	f	g	h	i	j	k	Weight (kg/m)	Nº Anchors/Metric
VA-150	250	500	265	320	95	110	150	20	25	50	27	4xM.22
VA-200	250	500	350	445	125	140	200	25	30	60	48	4xM.30
VA-250	250	500	400	500	160	170	250	30	35	75	62	4xM.30
VA-300	250	500	530	645	190	200	300	35	40	80	80	4xM.36
VA-400	250	500	710	840	250	225	400	40	50	100	165	4xM.36
VA-500	250	500	860	1000	315	250	500	40	55	110	245	4xM.42
VA-600	250	500	1050	1210	380	280	600	50	60	120	360	4xM.42
VA-800	250	500	1350	1550	500	340	800	60	60	120	557	6xM.52
VA-1000	250	500	1600	1800	625	370	1000	70	66	135	1060	6xM.56
VA-1300	250	500	2030	2250	813	651	1300	98	85	170	1443	6xM.64

All dimension in mm unless otherwise specified.
Lengths "a" and "b" may vary depending on the project.
Number of anchors per meter of fender.

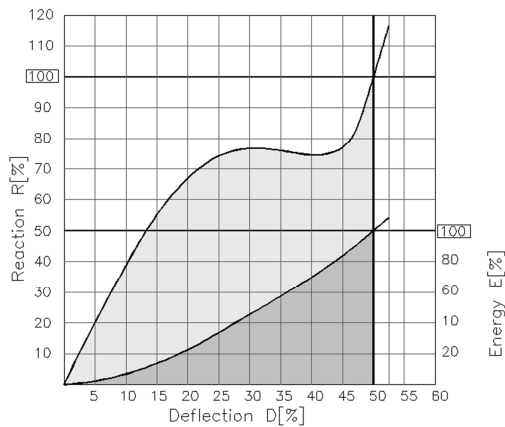
Fender	e				
	1000	1500	2000	2500	3000
VA-150	☒	☒	☒	☒	☒
VA-200	☒	☒	☒	☒	☒
VA-250	☒	☒	☒	☒	☒
VA-300	☒	☒	☒	☒	☒
VA-400	☒	☒	☒	☒	☒
VA-500	☒	☒	☒	☒	☒
VA-600	☒	☒	☒	☒	☒
VA-800	☐	☒	☒	☒	☒
VA-1000	☐	☒	☒	☒	☒
VA-1300	☐	☒	☒	☒	☒

☒ Standard lengths
☐ Non-standard lengths
For others lengths consult with Prosertek

3. NOMINAL FENDER PERFORMANCE*

Fender		Grade		
		A	B	C
VA-150	R	176	154	115
	E	7.8	6.8	5.1
VA-200	R	220	192	144
	E	13.9	12.1	9.1
VA-250	R	283	247	185
	E	21.8	19	14.3
VA-300	R	343	299	225
	E	31.2	27.2	20.4
VA-400	R	468	408	306
	E	55.8	48.7	36.5
VA-500	R	574	501	376
	E	86.8	75.7	56.8
VA-600	R	677	591	443
	E	124	108	81
VA-800	R	936	817	613
	E	221	193	145
VA-1000	R	1147	1001	751
	E	348	304	228
VA-1300	R	1524	1331	1000
	E	585	510	383

Also available other grades.
Reaction and energy values per meter of fender.



• Temperature factor:

Temperature (°C)	TF
+50	0.90
+40	0.94
+30	0.97
+23	1
+10	1.05
0	1.09
-10	1.16
-20	1.25
-30	1.35

• Angle factor:

Angle (°)	AF
0	1
3	0.96
5	0.95
8	0.93
10	0.91
15	0.81
20	0.60

• Velocity factor:

Fender	Impact velocity (mm/s)						
	1	50	100	150	200	250	300
VA-150	0.85	0.90	0.95	1	1.04	1.08	1.11
VA-200	0.85	0.90	0.95	1	1.04	1.08	1.11
VA-250	0.86	0.91	0.96	1	1.03	1.07	1.10
VA-300	0.87	0.92	0.96	1	1.03	1.06	1.09
VA-400	0.87	0.92	0.96	1	1.03	1.06	1.09
VA-500	0.89	0.93	0.96	1	1.03	1.05	1.08
VA-600	0.90	0.93	0.97	1	1.02	1.05	1.07
VA-800	0.91	0.94	0.98	1	1.02	1.04	1.06
VA-1000	0.91	0.94	0.98	1	1.02	1.04	1.06
VA-1300	0.91	0.94	0.98	1	1.02	1.04	1.06

Intermediate grades								
A1	A2	A3	B1	B2	B3	C1	C2	C3
11%	8%	4%	11%	8%	4%	14%	11%	6%

Intermediate deflections											
D (%)	5	10	15	20	25	30	35	40	45	50	52.5
R (%)	20	39	55	67	74	77	76	75	77	100	117
E (%)	2	7	14	22	34	45	57	70	84	100	109

All dimension in mm, kN or kNm unless otherwise specified.
* (E) Energy [kJ] 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.