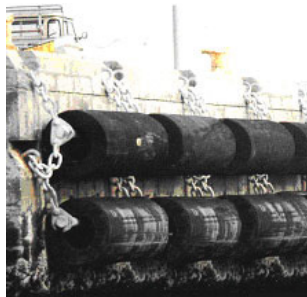


Cylindrical Fenders

The Cylindrical Fenders are recommended for the docking of small and medium ships.

They provide a large range of installation options: horizontal, oblique and vertical and it is also very appropriate for the protection of corners and curved surfaces by its great flexibility.

They can be suspended from chains or cables, allowing a secure fixing, economical and easily adaptable to existing structures, without need to set anchors with precision.

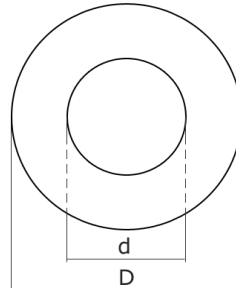
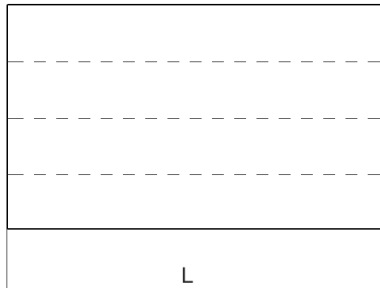


FEATURES

- Cylindrical fender is applicable for longitudinal and crosswise sway of ships when berth at the dock.
- It has low reaction forces, little surface pressure, and reasonable energy absorption.
- It is specially applicable for upper part of integral docks.
- It is applicable for ships with different sizes.
- Various installations styles such as horizontal, vertical and diagonal, etc.
- Tensile Strength ≥ 16 Mpa.
- Elongation at break $\geq 300\%$.
- Compression set $\leq 30\%$.
- Hardness ≤ 80 degrees.
- Tear resistance ≥ 70 N/mm.
- Ozone Resistance (50pphm* at 40°C, at 20° strain at 96 hours): No cracking visible.
- Abrasion resistance $\leq 0,5$ cm³.
- Bond strength of steel to rubber ≥ 7 N/mm.
- Hot air aging $\leq 20\%$.

*Parts per Hundred Million

Cylindrical Fenders



- Several installation systems.
- Other specifications under request.

Specifications	D	d	L	WEIGHT (Kg/m)
Y150	150	75	1,000	16
Y200	200	100	1,000	39
Y250	250	120	1,000	46
Y300	300	150	1,000	66
Y350	350	175	1,000	90
Y400	400	200	1,000	118
Y500	500	250	1,000	184
Y600	600	300	1,000	265
Y700	700	350	1,000	361
Y800	800	400	1,000	471
Y900	900	450	1,000	596
Y1000	1,000	500	1,000	736
Y1100	1,100	550	1,000	890
Y1200	1,200	600	1,000	1,060
Y1300	1,300	650	1,000	1,244
Y1400	1,400	700	1,000	1,442
Y1500	1,500	750	1,000	1,656
Y1600	1,600	800	1,000	1,884
Y1700	1,700	850	1,000	2,127
Y1800	1,800	900	1,000	2,384
Y1900	1,900	950	1,000	2,657
Y2000	2,000	1,000	1,000	2,944

Note: Units in mm

Type	Deflection - 50% Performance			
	Standard (RO)		High (RH)	
	F	E	F	E
Y150x75x1000	44	1,5	73	2,3
Y200x1000x1000	60	2,6	95	4,2
Y250x125x1000	75	4	120	6,5
Y300x150x1000	89	6	143	9
Y350x175x1000	104	8	167	13
Y400x200x1000	119	10	191	17
Y500x250x1000	148	16	239	26
Y600x300x1000	179	24	286	37
Y700x350x1000	108	31	334	50
Y800x400x1000	237	41	383	66
Y900x450x1000	268	52	430	84
Y1000x500x1000	297	64	479	103
Y1100x550x1000	331	77	528	129
Y1200x600x1000	363	95	574	152
Y1300x650x1000	392	108	623	179
Y1400x700x1000	422	128	670	208
Y1500x750x1000	451	147	718	238
Y1600x800x1000	481	176	776	282
Y1700x850x1000	511	206	824	338
Y1800x900x1000	541	247	872	406
Y1900x950x1000	570	288	920	487
Y2000x1000x1000	653	321	1,054	584

Tolerance: ±10%
Reaction Force: F(KN) | Energy Absorption: E(KN-M)