

Mooring spring

This mooring springs ensure a **non-yielding and long-lasting** compensation effect.

- Version made of **high-strength galvanized steel**.

- Version made of **high-strength polished stainless steel**.

To be installed with a safety chain.

Code	Version	Ø mm	Max length mm	Wire Ø mm	Max compression load	kg	For hulls up to m. (approx.)	Hull max weight kg (approx.)
01.189.06	Galvanized steel	53	276	5.5	140	0.6	5	1000
01.189.09	Galvanized steel	66	330	6.5	200	0.9	7	2000
01.189.12	Galvanized steel	74	397	7.5	250	1.6	9	3500
01.189.17	Galvanized steel	90	455	9	350	2.7	11	7000
01.189.19	Galvanized steel	93	406	11	630	2.9	13	10000
01.199.06	Polished S.S.	50	270	5	95	0.4	5	1000
01.199.08	Polished S.S.	62	320	6	140	0.6	7	2000
01.199.11	Polished S.S.	69	335	7	200	0.9	9	3500
01.199.14	Polished S.S.	81	380	9	250	1.7	11	7000
01.199.16	Polished S.S.	89	370	10	450	2.3	13	10000

Polished stainless steel mooring spring

High-resistant low-noise model fitted with friction inserts and **stainless steel** tension rods and bolts.

To be installed with a safety chain.



Code	External Ø mm	Length mm	Wire Ø mm	kg	For hulls up to m. (approx.)
01.202.06	57	300	5	0.6	7
01.202.08	59	300	6	0.8	7
01.202.11	73	400	7	1.4	9
01.202.14	87	470	9	2.4	11
01.202.16	91	470	11	3.3	13/14



Polished stainless steel mooring spring with variable pitch

This technology means that the load is increased **progressively** as the spring is pulled. The coils that are close together start working first, then the coils that are further apart begin to work as the load increases. This helps to prevent the spring violently 'bottoming out' and becoming damaged under the sudden shock loading when this occurs.

Safety chain to be installed.

Code	Ø mm	Length mm	Lock load	kg	For hulls up to m. (approx.)	Hull max weight kg (approx.)
01.201.02	60	250	180	0.8	10-12	7000-10000
01.201.03	70	300	350	1.6	13-14	12000-15000

DOUGLAS MARINE Master Moorings devices

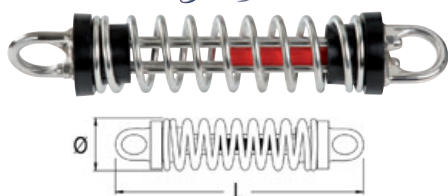
U Douglas Marine

Thanks to the use of components (High resistance stainless and special elastomers), this product resists temperatures ranging from -40°C to +120°C and can endure more than 400,000 compressions (max compress). Weight and overall dimensions are reduced by up to 25% compared to equivalent products on the market. The Master Mooring devices deliver a gradual shock absorbing action due to the differentiated hardness of the elastomer materials. Wear-and-tear resistant compression stoppers included.

They ensure a progressive cushioning action thanks to elastomers with differentiated hardness.

Structure already including end stop for anti-deterioration.

U Douglas Marine



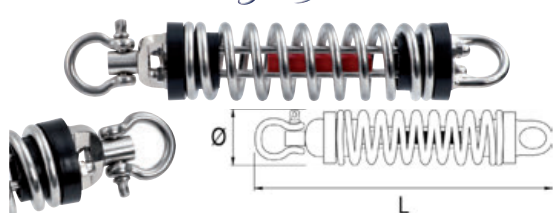
DOUGLAS MARINE Silenced Springs mooring device

PATENT

Made of specific HR stainless steel, they are equipped with anti-tension end-of-stroke and the particular heads allow a perfect axuality during traction.

Code	For boats up to m	Ø mm	Length mm	Wire Ø mm	kg	Elastic capability kg	Breaking load kg
01.198.06	6	70	310	5	1.4	60	1370
01.198.08	8	70	350	6	1.2	100	1830
01.198.11	11	75	380	8	1.9	120	2500
01.198.14	14	90	480	9	3.2	190	3800
01.198.16	16	90	480	12	3.9	400	6200

U Douglas Marine



DOUGLAS MARINE Cardan mooring device

Mooring spring equipped with a **cardanic rotation device on stainless steel balls with an articulated head**, which **prevents the twisting of ropes or chains** by making the spring work with perfect axuality and parallelism.

Code	For boats up to m	Ø mm	Length mm	Wire Ø mm	Elastic capability kg	Breaking load kg
01.203.11	11	75	380	8	120	2500
01.203.14	14	90	480	9	190	3800
01.203.16	16	90	480	12	400	6200