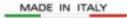




www.sidermarine.com





# SIDERMARINE - Established company in SHOCK ABSORBER production for mooring springs, swivel joints and more.

- ~ The patented MOORING SPRING, produced by SIDERMARINE in a special alloy of stainless steel, is extremely resistant and produces no noise, thanks to the antifriction and antisqueaking inserts.
- ~ The spring presents replaceable components and is highly resistant to marine corrosion and perfectly adaptable to different loads of stress.
- ~ Thanks to the wide range of sizes it achieves high performances for all types of vessels.
- ~ The overall cushioning, at 60-70%, is given by the compression of the spring, made of a special alloy in stainless steel, with extremely high elasticity. Under high-stress conditions, the Mollaflex- elastomer component intervenes as a support.
- ~ If the steel spring breaks within the end of its technical cycle, the Mollaflex Elastomer continues to perform its damping function, preventing accidents and damages that the boat may suffer if not properly moored, in storm conditions.
- ~ It is very important to note, therefore, that this Mollaflex-elastomer component not only increases the load of cushioning, along with the mechanical work of the spring, but may even replace the spring.





## MOORING SPRINGS TECHNICAL DESCRIPTION MPP SERIES





Article	MPP/T-005	MPP/T-007	MPP/T-008	MPP/T-009	MPP/T-010	MPP/T-012	MPP/T-015
Boat Weight	1.200 Kg	1.800 Kg	2.400 Kg	3.600 Kg	6.000 Kg	12.000 Kg	21.000 Kg
Spring Diameter	<b>5</b> mm	7 mm	8 mm	9 mm	10 mm	12 mm	15 mm
Diameter	65	74	74	74	90	100	107
Damping Force Kg	105 Kg	200 Kg	250 Kg	350 Kg	470 Kg	750 Kg	1450 Kg
Elastomer	//	2	4	4	4	4	8
Damping force increased elastomer	105 Kg	260 Kg	325 Kg	455 Kg	611 Kg	975 Kg	2.030 Kg

The loads of cushioning (Damping force) are increased in the models with inserts Mollaflex-Elastomer. It is recommended to use the model of the upper range when it is at the limit of the band. Sidermarine exonerates from any responsibility or replacement under warranty in case of purchase of a spring not suitable for the weight of the boat and therefore undersize.





#### HIBRID MOORING SPRINGS TECHNICAL DESCRIPTION MK SERIES

Our patented **HYBRID** shock absorber has been studied, in every technical detail, to absorb the small and large fluctuations caused by sudden situations of bad weather, storms and strong perturbations.

#### Our hybrid shock absorbers develop their capabilities in three stages.

The central spring, made of very high characteristics stainless steel, has the function of absorbing the small and medium undertow in the harbors, considerably lightening the load generated by it so as not to stress the cleats, causing any breakage, giving the boat a unique and irreplaceable comfort.

Our new Hybrid marine shock absorber don't have any components with welded details.

To ensure the maximum silence of our unique and patented shock absorber, all its internal components slide on anti-friction inserts with a perfectly axial movement, lasting over time.

The central elastomer increases the cushioning capacity, intervening in adverse weather conditions and is subsequently assisted, in the event of strong stresses, by the lateral elastomers which enhance its absorption capacity.



MEGA MPP K 45 Length 440 mm Weight Kg. 3,50 Boat from 8 to 10 Ton



MEGA MPP K 50 Length 440 mm Weight Kg. 3,70 Boat from 12 to 16 Ton



MEGA MPP K 55 \* Length 470 mm Weight Kg. 5,40 For Boat from 20 to 90 Ton MEGA MPP K 65 \* Length 470 mm Weight Kg. 5,60 For Boat from 90 to 150 Ton



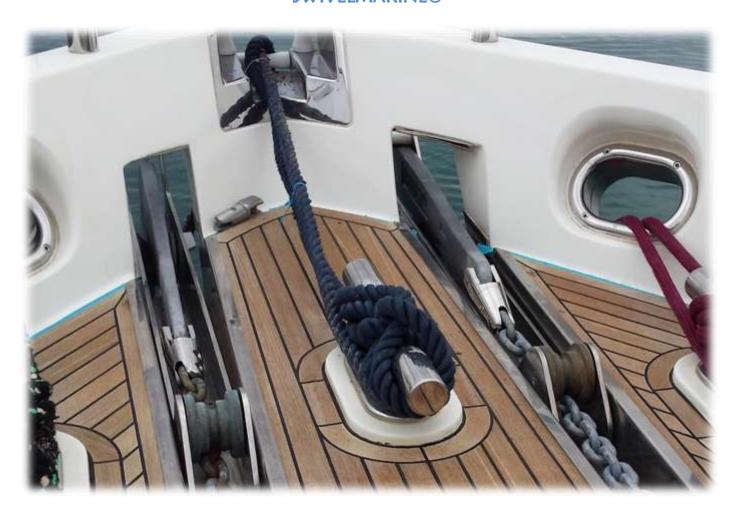
MEGA MPP K 90 \* Length 470 mm Weight Kg. 5,80 For Boat from 150 to 900 Ton





# OUR BRAND-NEW SWIVEL JOINT FOR ANCHORS SWIVELMARINE SAYS STOP TO LOW-QUALITY PRODUCTS!

#### **SWIVELMARINE®**



Nautical accessory of the utmost importance for boat and crew SAFETY.

Swivel joints need to satisfy some fundamental requirements in order to ensure safety.

Sidermarine has succeeded in designing and patenting these features, being therefore able to ensure boat owners' safety and tranquility when the boat is anchored. Joints present now on the market are produced and distributed with a design and material quality which are absolutely inadequate to their purposes.







SWM 8 Max - SWM 10 Model

- Integral anchor and chain body. Aisi 316 stainless steel.
- Rotation on bronze anti-friction organs with very high characteristics.
- -Stainless steel 17 4 PH Central Pivot pin (stainless steel with characteristics of high tensile strength-highly superior to any other existing stainless steel)
- -Chain side pins and anchor side pins with special steel 17 4 PH self-locking shape.
- Very high characteristics bronze anti-friction side bushing.
- -n°2 stainless steel radial screws with copper insert for additional safety locking.

#### SWM 12 L Max- SWM 22 Model

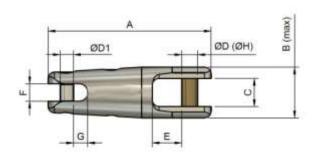
- -Integral anchor and chain body. Aisi 316 stainless steel.
- -Three-point blockage system; patented tie-rods and pivots made in 17-4-PH stainless steel, breaking load twice times superior than the standard stainless steel. Possibility of disassembling for inspections
- -Steel not-standard-threaded self-blocking pivots with high mechanical resistance to corrosion
- -High resistance to tractive and bending loads; high resistance to accidental opening

The whole group can be completely disassembled by the owner for inspection and scheduled maintenance.





# TECHNICAL DESCRIPTION OF SWIVELMARINE®



#### **CHAIN SIDE**

#### **ANCHOR SIDE**

<u>ØH= diameter with anti-friction bushing</u> ØD= diameter without anti-friction bushing

# TECHNICAL DATA AND DIMENSIONS SWIVELMARINE® (Dimentions mm) Grade 70 CHAIN SET UP

Model	Ø Chain	Α	В	С	øD	øD1	E	F	G	øΗ	Working load kN	Breaking load kN	Overall Size	Weight gr
SWM 8 MAX	8-10 5/16" In	127	45	23	10	10	21	13	15	14	34.30	64.00	Ø 45x127	825
SWM 10	10-12 3/8" In	127	45	23	10	10	21	13	15	14	44.10	83.30	Ø 45x127	825
SWM 12 L MAX	12-14 1/2" In	140	52	27	14	12	28	15	16	18	62.70	122.50	Ø 57x140	1350
SWM 22	16-22 9/16" 5/8" In	318	103	48	29.50	25	65	29	37	35	280	400	Ø115x310	13.750

To complete the assembly, Sidermarine provides the locking pivots with related anti-friction bronze bushing for the anchor side, properly identified.

Loctite 243-245 must be applied on the threading, and then the pivots must be strongly blocked.

**VERY IMPORTANT:** All the process must be carried out without lubrication.

To complete the installation of the chain and anchor, apply a small amount of spray grease on components.

Please note that, in spite of its exceptional technical features, in extreme conditions, the joint must be used according to the common marine practices and regulations, in force in Italy and abroad. Pleasure use only.

Sidermarine disclaims any responsibility for incorrect use.

Sidermarine reserves the right to make changes to the product, for quality improvements, at any time, without notice.





#### Swivel Joint for anchor SWIVELMARINE®

Sidermarine supplies the group already assembled:

- Blocked with Loctite 270
- Lubricated with solid white Tuflub fat.

When assembling the Chain-Anchor at the yard, proceed as follows:

#### SwivelMarine Model 8 Max

#### ° Chain side pin- Anchor side pin:

Apply a small amount of Loctite 270 or equivalent on the threaded part; tighten with a torque of 40 Nm.

#### SwivelMarine Model 10

### ° Chain side pin- Anchor side pin:

Apply a small amount of Loctite 270 or equivalent on the threaded part; tighten with a torque of 40 Nm.

These operations must be carried out without using any lubricant.

Sidermarine is exempt from any responsabily or replacement under warranty in case of purchase of an undersized swivel joint, which is misused, which is not designed for recreational use and for an incorrect assembly of the same swivel joint according to current regulations.





### Swivel Joint for anchor SWIVELMARINE®

#### Model 12 L Gr 70

Sidermarine supplies the group already assembled:

- Blocked with Loctite 270
- Lubricated with solid white Tuflub fat.

When assembling the Chain-Anchor at the yard, proceed as follows:

#### ° Chain side pin:

Apply a small amount of Loctite 270 or equivalent on the threaded part; tighten with a torque of 60 Nm.

#### ° Anchor side pin:

Apply a small amount of Loctite 270 or equivalent on the threaded part; tighten with a torque of 90 Nm.

These operations must be carried out without using any lubricant.

Sidermarine is exempt from any responsabily or replacement under warranty in case of purchase of an undersized swivel joint, which is misused, which is not designed for recreational use and for an incorrect assembly of the same swivel joint according to current regulations.





#### Swivel Joint for anchor SWIVELMARINE®

#### Model 16-22

During the chain-anchor assembly phase at the construction site, perform the following procedure.

#### **CHAIN SIDE:**

1 Insert ØD1 pin

2 Insert conical pin locking it in its place.

3 Conduct lead into the taper pin hole.

#### **ANCHOR SIDE:**

1 Insert ØD pin with the bushing H

2 Insert conical pin and lock it in its place

3 Conduct lead into the taper pin hole.

Sidermarine is exempt from any responsabily or replacement under warranty in case of purchase of an undersized swivel joint, which is misused, which is not designed for recreational use and for an incorrect assembly of the same swivel joint according to current regulations.





#### **SIDERANCHOR** ®

Sidermarine, which produces high-quality swivel joints, launches on the market its brand new anchor SIDERANCHOR, which, at first glance, has a traditional shape but is indeed designed to enclose the best features of a convex anchor (Called plough) with a concave sides. Its design increases the ability to compress, collect and penetrate the substrate by about 40%.



- ~ 100% 316 Stainless steel
- Concentrated weight at the anchor tip accounting for nearly 40% of the total weight.
- The concave fins integrated with anchor's convex shape increase the anchor grip by 40% in comparison with the classic plough anchor or similar.
- Quality guaranteed by Sidermarine, a manufacturer of patented mooring springs and swivel joints.





