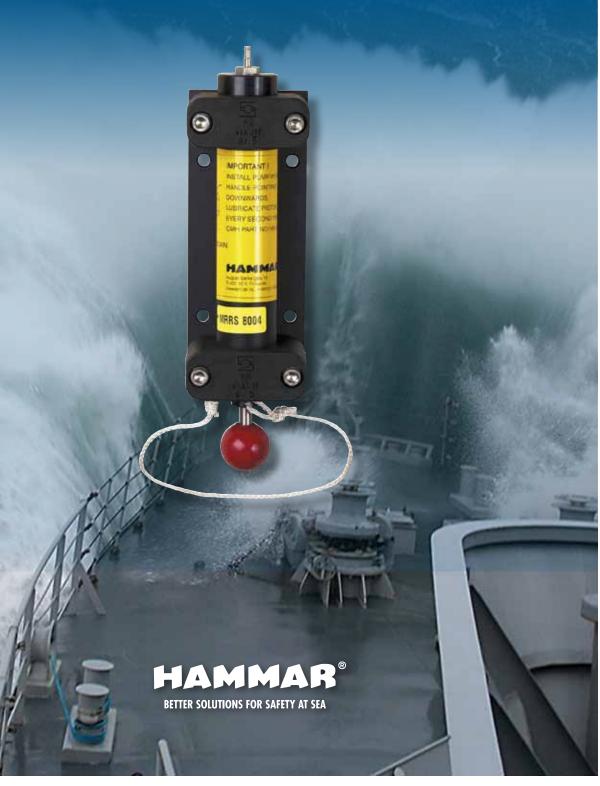
PRODUCT INFORMATION

HAMMAR MRRS - MANUAL REMOTE RELEASE SYSTEM



SOLUTIONS THAT IMPROVE SAFETY, PERFORMANCE AS WELL AS ECONOMY

THE HAMMAR REMOTE RELEASE SYSTEMS

Hammar Remote Release Systems are designed to release liferafts, evacuation systems and other lifesaving equipment on board vessels of all types, with the least possible effort. Whether you are a ship owner, designer, builder or onboard safety officer, Hammar Remote Release Systems offer flexible solutions with many decisive advantages – for both safety and economy.

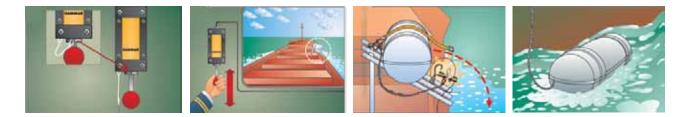
With a remote release system, lifesaving equipment can be released from the bridge or other strategic locations on board. This means that in an emergency situation, you can save precious minutes. Furthermore, the release mechanism can be deployed irrespective of factors such as weather, smoke or fire, without the crew having to take any unnecessary risks.

Remote release systems not only improve safety on board, they also represent a sound economic investment. Liferafts can be positioned in remote locations on board and valuable deck space can be freed for passengers or cargo. You get a head start by planning for a remote release system from the initial design stage, but the systems can also be retrofitted. Since Hammar remote release systems are easy to handle, you can also minimize both crew and training costs.

Hammar Remote Release Systems require a minimum of maintenance and annual service. Check the system's function once a year, install a new release unit every two years and dispose of the old one. The whole installation is weatherproof and designed for a harsh marine environment.

MRRS: Manual Remote Release System

MRRS is suitable for installations of up to 50 metres in length. By means of a vacuum pump, which is operated manually, the vacuum is conveyed via stainless steel tubing to a release unit. When the release unit is activated, a sharp knife blade cuts the rope sling holding the liferaft to be released. Vacuum pumps can be connected in parallel to give multiple control positions.



INDEX			
Features	3		
How does it work	3		
Components	4		
Installation	7		
Maintenence	7		
Technical specification	8		



Do you need help to choose your Remote Release System?

The Hammar Interactive Guide will help you to choose the right Hammar remote release system. The guide will lead you through a few essential questions. In the end it will give you a suggestion of which system to choose and which components to order. You find the guide at www.cmhammar.com



SAFETY

- Saves precious time when evacuating the ship
- Can be deployed irrespective of weather, smoke or fire
- Safer evacuation work for the crew

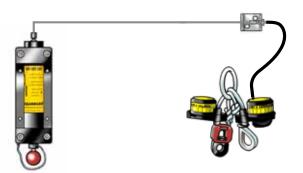
ECONOMY

- Lifesaving equipment can be position in remote locations on board and valuable deck space can be freed for passengers or cargo
- Minimize crew cost
- Reduce crew training cost

PERFORMANCE

- Minimum of maintenance and annual service
- Weatherproof and designed for harsh environment
- Simple and straight forward design
- Installations where the ship semergency power is unavailable

SYSTEM SET-UP

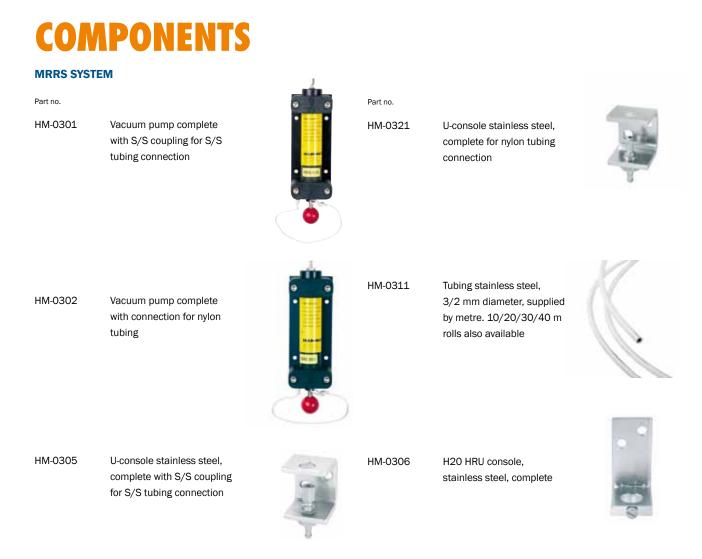


The large range of components provides the possibility to design a perfect system for most applications. A standard system consists of the following parts.

- 1. One vacuum pump with a non-return valve.
- 2. Acid resistant stainless steel tubing of sufficient lenght. For installations up to 50 metres in lenght.
- 3. One U-console to be installed at the liferaft cradle. The U-console acts as a connector to the stainless steel tubing.
- 4. One Hammar H20 Remote Release Unit (MRU) for vacuum or a Dual Assembly Remote/H20 unit.

Please consult us for more detailed information.

Note: In all liferaft systems it is important to ensure float free function in all conditions and as the liferafts must be connected to the ship via its painter line and strong point (such as the deck), it is necessary to have a standard Hammar H20 hydrostatic release arrangement as well. This could be a separate unit or in combination with the remote release unit. Further information can always be obtained from CM Hammar AB.



MRRS SYSTEM OPTIONS

4

Part no. HM-0307	Interconnection tube coupling, stainless steel, complete	30 mm	HM-0312	Ball valve, 2-ways, stainless steel, complete Note: Used in set-up with one pump and two or more liferafts in the same system	
HM-0308	T-piece coupling, stainless steel, complete	Reg ver	HM-0313	Non-return valve, stainless steel, for 3 mm S/S tubing, complete Note: Used in set-up with two or more	D3

pumps connected to one MRU in

the same system

MRRS DUAL	ASSEMBLY		
Part no. HM-0300	MRU – manual remote unit complete with 1 m tubing and two sleeve hoses	Part no. HC-0213	H2O/Remote dual assembly, Hammar type for raft in MES system, CE approved
HC-0200	H20/Remote dual assembly, RFD MES type, CE approved	HC-0214	H20/Remote dual assembly, Hammar type for raft, CE approved
HC-0210	H20 Dual Assembly, Viking Type FDB CE approved Only available through Viking network	HC-0219	HC-0219 H20/Remote Dual Assembly, Hammar Type 4 metres
HC-0207	H20/Remote dual assembly, DSB type CE approved	HR-0130	H20 for raft/MES installations, no weak link, to be used for cutting the MRU plastic tubing, MCA/CE approved
HC-0208	HC-0208 H20/Remote Dual Assembly, Hamma Heavy Load Type		

MRRS SPARE PARTS						
	Part no. HM-0309	Nut, stainless steel, to S/S couplings above, spare part	Part no. HM-0304	End part to vacuum pump for nylon tubing connection, spare part		
	HM-0310	Olive, stainless steel, to S/S couplings above, spare part	HM-0314	Nylon tubing 6/4 mm diameter, black, to MRU, spare part		
	HM-0370	Olive, stainless steel, to non-return valve, spare part	HM-0332	Nylon tubing 8/6 mm diameter, black		
	HM-0375	Nut, stainless steel, to non-return valve, spare part	HM-0331	Sleeve hose, 1 cm of black nylon tubing 8/6 mm diameter		
	HM-0329	Coupling stainless steel, to U-console, spare part	HM-0335	Safety seal for vacuum pump		
	HM-0328	Nipple stainless steel, to U-console, spare part	Safety seal correc mounted and eas break in an emer situation	sy to		
	HM-0303	End part to vacuum pump				

MRRS SPARE PARTS

for S/S tubing connection,

spare part



INSTALLATION

Installation of the MRRS system should always be done by a trained service service or shipyard staff and in accordance with instructions or drawings from life raft manufacturer or CM Hammar AB. For detailed installation instructions please ask for Installation and Maintenance document.

MAINTENANCE

The maintenance and service of the MRRS system is very easy and cost-effective. The MRRS system shall be tested and checked on a regular basis and at least once a year. This service can preferably be done together with the service of the life raft. The Hammar Manual Remote Unit (MRU) or dual assembly must be replaced after two years of service.

COMPARISON MATRIX

Products		Operates without power supply	System check	Multiple control posistions	Number of MRU units	Installation lenght (max)
Part no.	Part					
HM-0301	Pump	Yes	No	Yes	1	50 m
HM-0450	RS	No, needs 24 V	No	No	1	150 m
HM-0462	LRS	No, needs 24 V	Yes	Yes	2	150 m

Following comprehensive product information may be downloaded at www.cmhammar.com

- MRRS Interactive Guide: Help to choose the right system
- MRRS User Guide/Safety Information
- MRRS Product Information

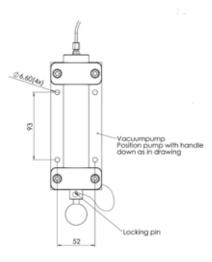
TECHNICAL SPECIFICATIONS

VACUUM PUMP

Material

Size base plate Hole size Size operating requirement Weight Anodised Alloy Glassfibre reinforced nylon Stainless steel coupling/piston

70 x 176 mm 6,6 mm 176 + 300 mm = 476 mm 640 grs



U-CONSOLE

Material Size base plate Hole size Weight

H20 REMOTE RELEASE

Material

Rope sling length Weight

TUBING

Material Dimension

Weight Hardware (couplings etc)

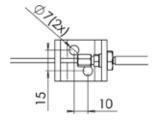
TEMPERATURE RANGE

MRRS system and its components

APPROVALS

DOCUMENTATION

Acid resistant stainless steel 30 x 38 mm 7 mm 85 grs



Glassfibre reinforced nylon Stainless steel knife and nipple Polyester rope, breaking strength 15 kN Nylon tubing, black 155 + 15 mm/- 0 mm 185 grs

Acid resistant stainless steel Outer diameter 3 mm +0,05/-0 mm Inner diameter 2 mm +/- 0,1 mm 30 grs per metre Acid resistant stainless steel

-30°C to +65°C

Approved to SOLAS and EU directive by leading shipping authorities. For further details please consult our web-site: www.cmhammar.com

Product leaflet Product Information



www.cmhammar.com

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