



# ReadyMoor Series II



## ReadyMoor Series II Quick Release Hooks and Capstans

Trelleborg Marine Systems has developed a standardized series of Quick Release Hooks (QRHs) to meet a range of applications requiring streamlined solutions, such as in commercial ports and harbors.

Thanks to this 'ready-made' approach, the ReadyMoor series II range represents a cost effective and fast lead time solution for commercial applications, where bespoke engineering is not required.

The ReadyMoor series II range is available in double and triple hook unit configurations with a safe working load (SWL) of 50 tonnes to 150 tonnes. Models with an SWL of 60 tonnes and higher are also available with integral capstans, if required.

**Efficient cost effective mooring solutions off the shelf. Ready to go.**

## ReadyMoor 50



Trelleborg Marine Systems' commitment to continuous product improvement means that we reserve the right to upgrade and modify equipment and systems without notice as technological and operational parameters demand.

## Key features and benefits of ReadyMoor Quick Release Hooks

Choosing the ReadyMoor series II of Quick Release Hooks (QRH) for commercial port applications offers a number of benefits, including:

- Improved safety & efficiency: designed to release the mooring lines up to full safe working load. QRH units require minimal line handling, thus reducing mooring crews' exposure to risk, while improving operational efficiency.
- Improved price points: the new standardized range provides a solution that offers the safety and operational benefits of QRHs, whilst passing on commercial benefits to the customer.

READYMOOR SERIES II	SWL (Tonnes)	INTEGRAL CAPSTAN
ReadyMoor 50	50	N/A
ReadyMoor 60	60	Available
ReadyMoor 75	75	Available
ReadyMoor 100	100	Available
ReadyMoor 125	125	Available
ReadyMoor 150	150	Available

Field proven since 1972 and installed in over 600 mooring facilities worldwide, Trelleborg's quick release hooks are the foundation for today's modern mooring.

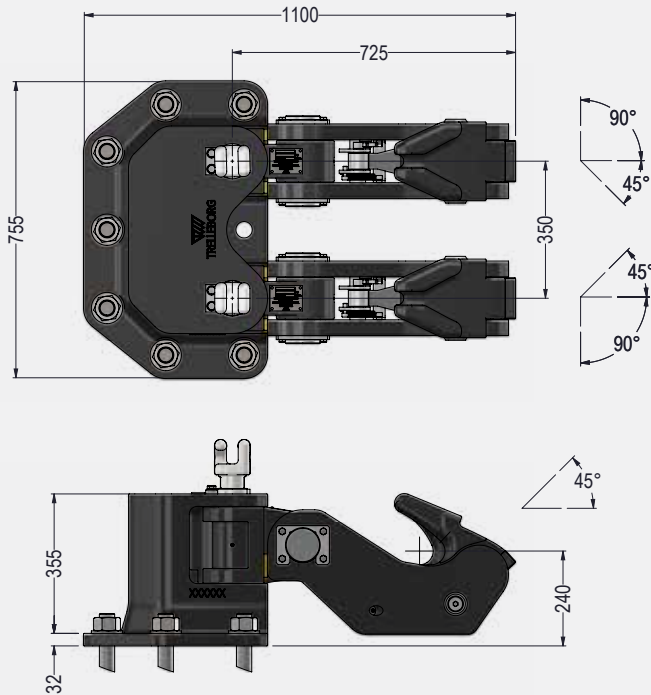
### ReadyMoor 60-150



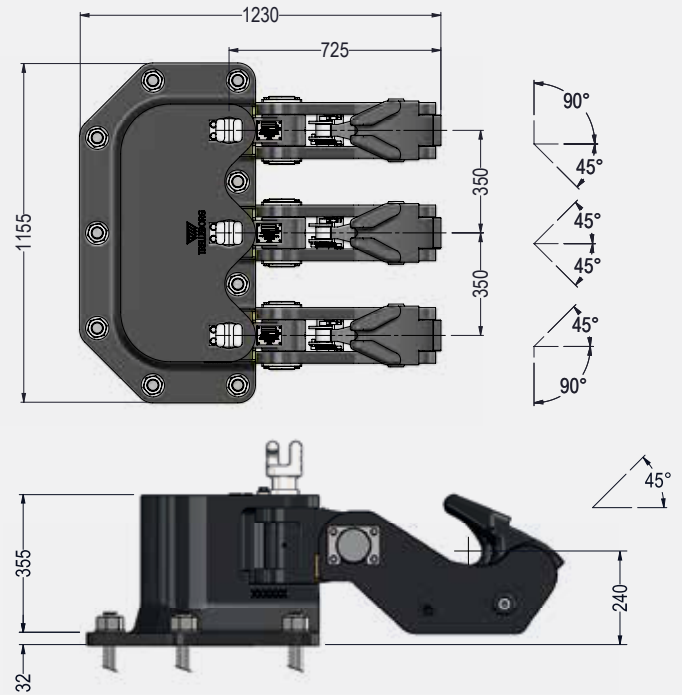
# ReadyMoor 50

## Typical dimensions

### DOUBLE HOOK



### TRIPLE HOOK



## Key features and benefits

The ReadyMoor 50 QRH combines the knowledge of Trelleborg's experienced engineering team with the benefits of FEA analysis software, to develop an optimized solution for compact mooring applications.

- Reduces the overturning moment on the hook base and subsequently the stresses on the hook base and the hook base foundations
- Hook profile shaped to guide the messenger line during retrieval so that the eye of the mooring line is positioned over the hook nose. This minimizes line handling requirements, reducing the mooring crew's exposure to risk
- Single stage locking mechanism: fewer moving parts reduce maintenance requirements and improve reliability
- Compact design: small installation footprint, minimizing deck space
- ReadyMoor 50 is designed to be used with a free standing capstan where required

**Note 1:** Dimensions are in mm

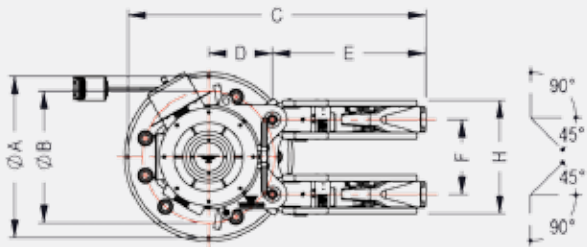
**Note 2:** Dimensions are typical. Always request a certified hook/base drawing before starting construction.

**Note 3:** Any variations to the ReadyMoor series required due to project specification or resulting in involvement of Trelleborg's project management and/or engineering teams will be dealt with as a SmartMoor product.

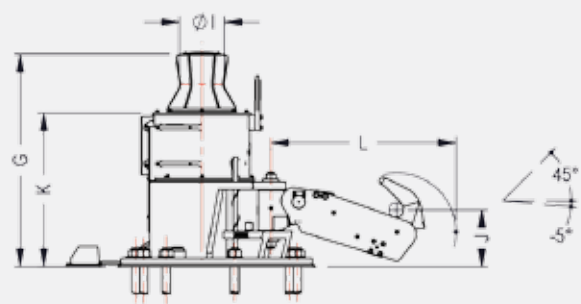
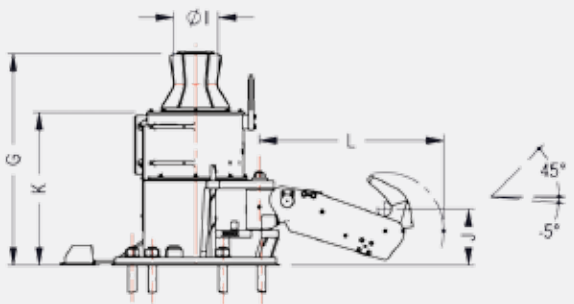
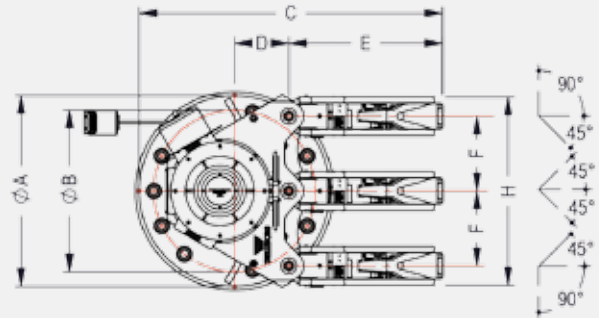
# ReadyMoor 60-150

## Typical dimensions

### DOUBLE HOOK



### TRIPLE HOOK



MODEL NUMBER	QTY QRH	A	B	C	D	E	F	G	H	I	J	K	L	HD BOLT QTY
<b>RM-60 (SAFE WORKING LOAD = 60 tonnes) &amp; RM75 SERIES (SAFE WORKING LOAD = 75 tonnes)</b>														
<b>RM-60-02</b> <b>RM-75-02</b>	Double	1100	900	1921	435	936	510	1445	756	305	380	1045	1140	5
<b>RM-60-03</b> <b>RM-75-03</b>	Triple	1300	1100	1956	370	936	510	1445	1266	305	380	1045	1140	8
<b>RM-100 (SAFE WORKING LOAD = 100 tonnes) &amp; RM125 SERIES (SAFE WORKING LOAD = 125 tonnes)</b>														
<b>RM-100-02</b>	Double	1100	900	2032	435	1047	510	1445	772	305	385	1045	1260	7
<b>RM-100-03</b>	Triple	1300	1100	2067	370	1047	510	1445	1282	305	385	1045	1260	10
<b>RM-150 (SAFE WORKING LOAD = 150 tonnes)</b>														
<b>RM-125-02</b> <b>RM-150-02</b>	Double	1200	1000	2081	435	1046	510	1445	772	305	385	1045	1260	11
<b>RM-125-03</b> <b>RM-150-03</b>	Triple	1300	1100	2066	370	1046	510	1445	1282	305	385	1045	1260	14

**Note 1:** Dimensions are in mm

**Note 2:** Dimensions are typical. Always request a certified hook/base drawing before starting construction.

**Note 3:** Any variations to the ReadyMoor series required due to project specification or resulting in involvement of Trelleborg's project management and/or engineering teams will be dealt with as a SmartMoor product.

# ReadyMoor 60-150



## Key features and benefits

- Cast bases and hooks: superior corrosion resistance and higher strength
- Cast hooks are designed with optimal throat size to minimize rope wear
- Compact and strong cast hook design: double the yield strength of forged mild steel hooks by others
- Unobtrusive release mechanism: no protruding components outside the hook body which could act as rope catching points
- Enclosed capstan design: increased protection from environmental and mechanical damage during operation, maximizing service life
- Industry best protective coating: offered by high quality three-coat paint specification
- Series II provides a revised base design which optimises the civil engineering interface between the hook base and jetty structure

# ReadyMoor Series II – Specifications

## 1. QRH GENERAL SPECIFICATIONS

<b>1.1</b>	Base Capacity	Hook SWL multiplied by the number of hooks. E.g. double hook of 75 tonnes SWL = 150 tonnes; triple hook = 225 tonnes		
<b>1.2</b>	Standard Hook Base Construction	Spheroidal graphite cast iron, ASTM A536 65-45-12 (standard cast hook base). equivalent to 400-12 to AS1831.		
<b>1.3</b>	Temperature Range	Operating: -15°C to +60° C (5° F to 140° F) Storage: -40° C to +70° C (-40° F to 158° F)		
<b>1.4</b>	Foundation Design Requirements	Designed in accordance with AS 4100-1998 and AS3990. Suitable for concrete or steel foundations.		
<b>1.5</b>	Hold Down Bolts (anchors)	Supplied with base as standard. BS4190 equivalent to ISO 898-1:1999 (E) Property Class 8.8 Finish: Hot-dip galvanizing to ISO 10684: 2004 (E)		
<b>1.6</b>	Anchor Template	One mild steel template supplied per base design.		
<b>1.7</b>	Removable Release Lever	One per QRH unit hook included as standard.		
<b>1.8</b>	Hook Construction	Frame (side plates): Carbon Steel ASTM A572 Grade 50 equivalent to AS 3678 Grade 350.		
		Hook body, main pivot block, primary release block: High strength alloy steel to ASTM A148 equivalent to AS 2074.		
		Main shafts: high tensile alloy steel grade ASTM A29 4140.		
<b>1.9</b>	Spark Prevention	The hook assembly is fitted with three elastomeric impact blocks for energy absorption. Material: polypropylene.		
<b>1.10</b>	QRH Line Sizes (Ø mm)	RM-50	RM-60/ RM-75	RM-100/ RM-125/ RM-150
		Max 70	Max 100	Max 110
		One line per hook as per SIGGTO requirements.		

## 2 QUALITY AND TESTING

<b>2.1</b>	NDT	ASTM E1444-05
<b>2.2</b>	Welding	ASTM D1.1 or AS 1554
<b>2.3</b>	Testing	All hooks individually load tested using equipment calibrated by a third party certified body.
		Each QRH standard Proof Load = 125%
		Each QRH is individually load tested to Proof Load and manually released at the rated Standard Working Load (SWL).

## 3 QRH & HOOK BASE SURFACE TREATMENT

<b>3.1</b>	Surface Treatment	1st Coat: epoxy zinc-rich primer 2nd Coat: two-part epoxy, containing MIO 3rd Coat: re-coatable two-part polyurethane. Colour: gloss black Surface preparation and application in accordance with the paint manufacturers system and application method (International, Jotun or Dulux).
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# Capstan – Specifications

## 1. CAPSTAN GENERAL SPECIFICATIONS

<b>1.1</b>	Capstan Capacity	Line Pull: 1.5 tonnes Starting Pull: 3 tonnes Note1: Starting pull is defined as 2 times the running pull “static overhung load capacity”
<b>1.2</b>	Capstan Type	Reversible Holding capacity when motor off > 150% of motor torque
<b>1.3</b>	Line Speed	Nominal 25 meters/minute
<b>1.4</b>	Ingress Protection	IP65 minimum
<b>1.5</b>	Motor Control	Direct On Line (DOL) motor starter
<b>1.6</b>	Motor Starter Enclosure Material	Stainless steel
<b>1.7</b>	Capstan Electrical Controls	Selector Switch: Counter clockwise / OFF / clockwise Emergency Stop Footswitch: Depress to operate
<b>1.8</b>	Motor Type/ Insulation	Insulation Class F
<b>1.9</b>	Motor Electrical Parameters	3Ø 380 to 415 VAC 50 Hz, 440-480 60 Hz
<b>1.10</b>	Incoming 3Ø Power Connections	32 mm diameter entry Maximum cable termination size=Solid or Stranded 10 mm <sup>2</sup> – 35 mm <sup>2</sup> , AWG:8 – 2

## Free standing



## Electric Capstan

The Trelleborg Marine Systems electric capstan motor is housed within a protective structure (typically the QRH base). The capstan motor is factory run-in and mated with a gearbox, which is oil-filled for life. The Direct On Line (DOL) motor starter allows the operator to control motor operation through a footswitch, Emergency Stop Switch (E-Stop) and direction selector switch. Ribbed capstan head and rope guide are fitted as standard.

## Integrated with ReadyMoor 60-150

