



Craft your own motion compensation solution.♦

Decreasing downtime is never a one-size-fits-all strategy. Different problems, different sea states, first-time projects, just renting our standard motion compensation system is not always the answer.



We understand that sometimes you need more than our standard systems to improve your offshore workability: you need a tailored solution.

Craft your solution.

For the past 15 years, Barge Master has been dedicated to decreasing offshore downtime and improving workability. Historically, we have achieved this through renting out standalone systems, like our gangways and T700s, to provide workability in areas such as the North Sea, the North Atlantic Ocean, and the Baltic Sea.

But now, we are adapting our approach.

We want to use our components, and our knowledge of motion compensation, alongside our track record of successful systems to produce innovative high-tech motion compensation solutions to downtime problems offshore.

To do this, we would like to make our complete rental fleet available, consisting of 6 MW HPU's, 15 large Active Heave Cylinders and 4 high tech control rooms. When combined with tailored software and mechanical designs, we can solve your offshore problems with our custom solutions.

This shift is already underway. Our motion compensated feeders for Vineyard Wind signalled a change in our approach to decreasing downtime. They were tailored to meet project needs, but we quickly realised that there were other ways of utilising our equipment to provide motion compensation solutions. This insight evolved into the Secondary Steel Installation Vessel (SSIV); designed to solve the problem of costly Secondary Steel Installation. The success of the SSIV signalled a broader need within the industry – a need for custom motion compensation solutions to match specific project needs.

To support our adapted approach, we have compiled this catalogue. Inside, you will find a detailed overview of the main components that we own, intended to be used to design a solution to your workability challenge. If you are interested in exploring further, we would be keen to support you in crafting your motion compensation solutions. From workability studies to complete system designs, feasibility studies and, finally, the actual assembly and rental of custom motion compensation solutions, Barge Master can provide support across the entire process.

So, please explore the systems and components outlined here, and let us help you to engineer the motion compensation solution that fits your project.



Berend Hoogendijk
Managing Director



Our Process .



Contact us



Feasability
Studies



Solution
Design



Assembly



Rental

How to **craft** your own solution.♦

Choose your **components**

1 HPU

2 Control Room

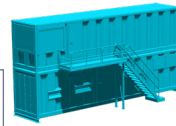
3 Accumulators

4 Cylinders

5 Software

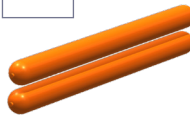
6 Mechanical Frame

1



2

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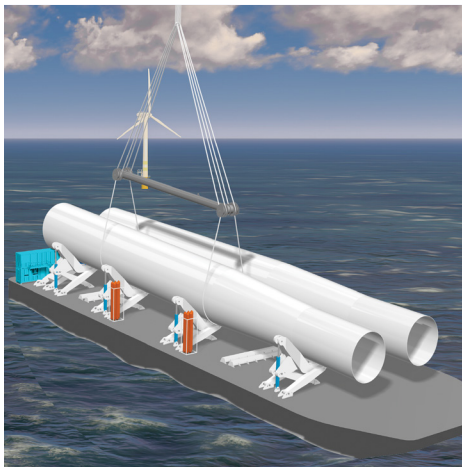
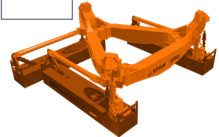
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Designing supported by Barge Master

From workability studies to complete system designs, feasibility studies, and, finally, the assembly and rental of custom motion compensation solutions, Barge Master provides support across the entire crafting process.

Existing Solutions.



The MCCV

Pushing the limits of motion compensated lifting within the offshore sphere, the Motion Compensated Crane Vessel is a modular solution designed to counter jack-up limitations.



Drilling

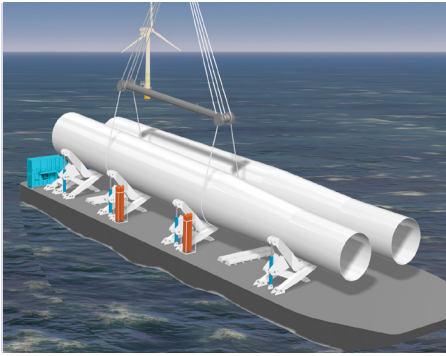
Barge Master components have been utilised to create innovative drilling solutions for geographical areas that cannot be reached by SEPs or Jack-ups.



The T700

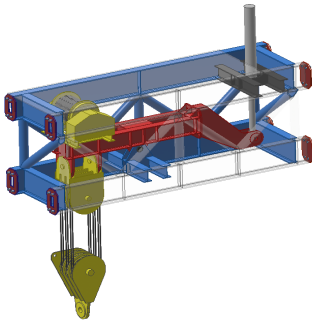
Barge Master's T700, the motion compensated platform has been used as a feeding solution in various parts of the world.

Solution Inspiration.



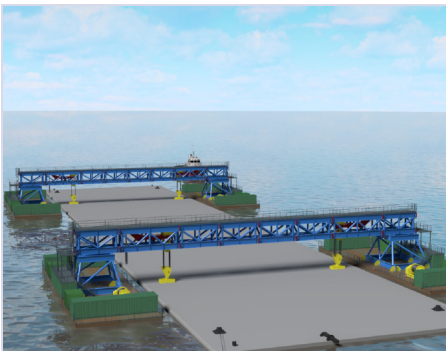
The Monopile Feeder

Designed to counteract the jack-up limitations involved in offshore wind turbine installation, this solution improves workability and time-efficiency offshore.



Modular Heave Compensator

This solution combats the heave motions of an offshore vessel to ensure stable lifting offshore. With a variety of applications, this modular solution is easily created using Barge Master components.



The Immersion Pontoon

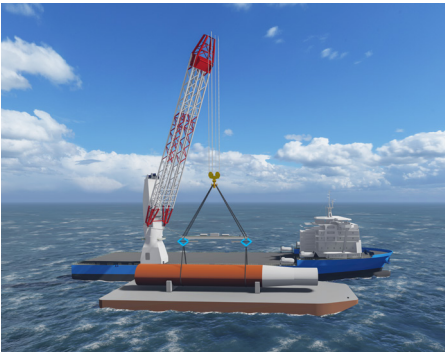
Using four of the modular heave compensators, this solution allows for the safe and accurate immersion of underwater tunnel elements.

Custom Solutions ♦



The Vineyard Project

Our motion compensated feeders, currently in use on Vineyard 1, were custom-designed to meet DEME's needs.



Motion Compensated Spreader Beam

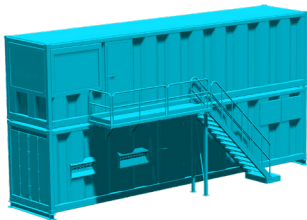
Using motion compensated tugger lines, this solution provides heavy load pitch compensation when lifting future generation monopiles from a feeder barge.



The Compact Feeder

Need to feeder something, but have limited deck space? The compact feeder is a fun-sized version of our T700, designed to ensure safe lifting offshore.

HPUs.



1500 kW HPU

Description	Containerized constant pressure system HPU with 6 pumps and integrated seawater-based cooling & filter circuit
No. of items in inventory	2
Max Flow	2675 lpm
Pressure	315 bar
Electrical Power Requirement	1500 kW
Housing	2 × 40ft stacked

HPUs continued.

400 kW HPU

<i>Description</i>	Containerized constant pressure system HPU with 2 independently powered motor pump groups and integrated seawater-based cooling & filter circuit
<i>No. of items in inventory</i>	2
<i>Max Flow</i>	2 × 392 lpm
<i>Pressure</i>	260 bar
<i>Electrical Power Requirement</i>	2 × 200 kW
<i>Housing</i>	20 ft container

1500 kW HPU

<i>Description</i>	Containerized constant pressure system HPU with 6 pumps and integrated seawater-based cooling & filter circuit
<i>No. of items in inventory</i>	2
<i>Max Flow</i>	2675 lpm
<i>Pressure</i>	315 bar
<i>Electrical Power Requirement</i>	1500 kW
<i>Housing</i>	45 ft container

Cylinders.



Double acting cylinder with spherical ends

No. of items in inventory	2
Max. active pull	170 kN
Max. active push	1582 kN
Max. passive push	n.a.
Max. velocity	156 mm/s
Min. length (eye-to-eye)	3141 mm
Max. length (eye-to-eye)	4650 mm
Stroke	1509 mm
Bore	300 mm
Rod	210 mm

Cylinders continued.



Double acting cylinder with spherical ends

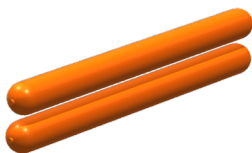
No. of items in inventory	6
Max. active pull	1855 kN
Max. active push	1858 kN
Max. passive push	2500 kN
Max. velocity	820 mm/s
Min. length (eye-to-eye)	4665 mm
Max. length (eye-to-eye)	7245 mm
Stroke	2580 mm
Bore	420 mm
Rod	330 mm



Double acting cylinder with spherical ends

<i>No. of items in inventory</i>	5
<i>Max. active pull</i>	5516 kN
<i>Max. active push</i>	5913 kN
<i>Max. passive push</i>	n.a.
<i>Max. velocity</i>	455 mm/s
<i>Min. length (eye-to-eye)</i>	3854 mm
<i>Max. length (eye-to-eye)</i>	5324 mm
<i>Stroke</i>	1470 mm
<i>Bore</i>	470 mm
<i>Rod</i>	230 mm

Accumulators.



Passive Accumulator

Description	Piston type accumulator with external nitrogen volume
No. of items in inventory	6
External Nitrogen Volume	2 × 2000 L
Piston type accumulator volume	250 L

Active Accumulator

Description	Piston type accumulator with external nitrogen volume
No. of items in inventory	6
External Nitrogen Volume	400 L
Piston type accumulator volume	100 L



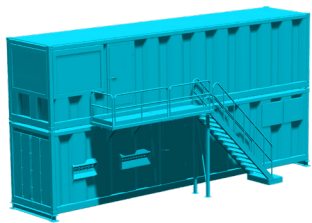
Active accumulator

<i>Description</i>	Piston type accumulator with external nitrogen volume
<i>No. of items in inventory</i>	4
<i>External Nitrogen Volume</i>	675 L
<i>Piston type accumulator volume</i>	102 L

Active accumulator

<i>Description</i>	Standard piston type hydraulic accumulator
<i>No. of items in inventory</i>	2
<i>External Nitrogen Volume</i>	n.a
<i>Piston type accumulator volume</i>	250 L

Control Rooms.



40 ft Control Room

Description	40 ft container with 40% of space dedicated to Control Console and Electrical Cabinets for CPU and control hardware
No. of items in inventory	2
CPU	Redundant 400 series Siemens CPU with dedicated Hydraulic axis controllers
HMI	Redundant (2) touch screen HMI panels and desk with buttons
Outfitting	Airconditioned Insulated Windscreen wipers Heated windows CCTV System Remote Access system DNV 2.7-1 certified Data Logging

20 ft Control Room

<i>Description</i>	20 ft container with Control Console and Electrical Cabinets for CPU and control hardware
<i>No. of items in inventory</i>	2
<i>CPU</i>	Redundant 1500 series CPU
<i>HMI</i>	Redundant (2) touch screen HMI Panels and desk with buttons
<i>Outfitting</i>	Airconditioned Insulated CCTV System Remote Access system Data Logging



Ready to craft **your** solution?



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