

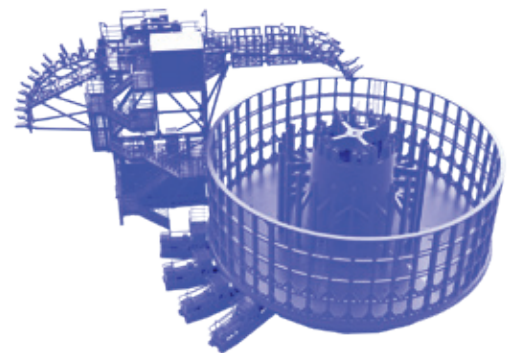
Storage Carousels



Your partner for a Lifetime of Lifting

Whatever your storage requirements, NOV can provide the right solution for you. With many years of experience operating under the AmClyde Norson brand, we have the expertise and skills needed to get you the right equipment on schedule and on budget.

Our storage carousels are designed as the storage unit in the manufacture, transportation and installation of continuous lengths of flexible pipe, tube & hose umbilicals and power cables.



ANE.Sales@nov.com

nov.com

Storage Carousels

NOV can supply a carousel as part of a complete storage, handling or lay system or as a stand-alone modular unit for either offshore or onshore use. We can supply a range of different diameters and capacities to suit your needs. The carousels are available as basket types or top flange types (reels) and are used to store flexible pipe, tube or hose umbilical and power cable.

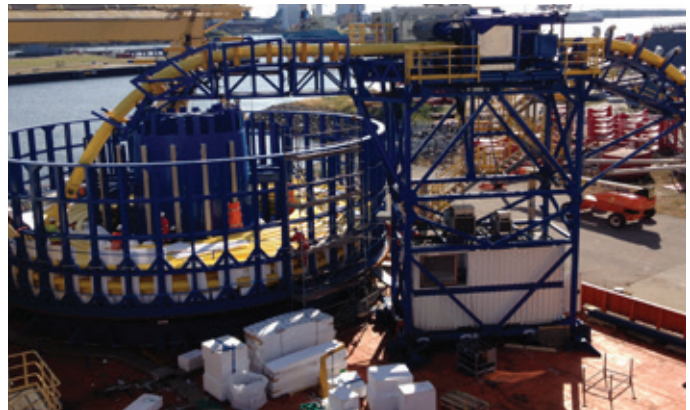
Product is lowered into the basket carousel from a loading arm and forms a natural catenary under its self-weight due to the low product stiffness, making it easy to manipulate within the basket. On the reel, carousel product is spooled on under tension due to the high product stiffness, using a spooling unit that traverses vertically between the carousel flanges.

The carousel is located on a king pin integrated into the base structure which transmits the loads caused by self-weight and the vessel motions into the deck. Carousels are supported by multiple rows of rollers, which, using NOV's resilient mounting technique, distributes the load more evenly than conventional carousel designs. The drive is provided through electrical motors (with variable frequency drives) through gearboxes and a rack-and-pinion mounted on the outer periphery of the bottom flange.

Along with the carousel and operating system, our engineering team also offers a full turnkey package of handling equipment that includes loading arms, spooling towers, tensioners, rollers tables, compensation units, winches, access stairways and platforms, and other equipment to meet your requirements.



Tube umbilical loading into basket carousel using natural catenary from loading arm.



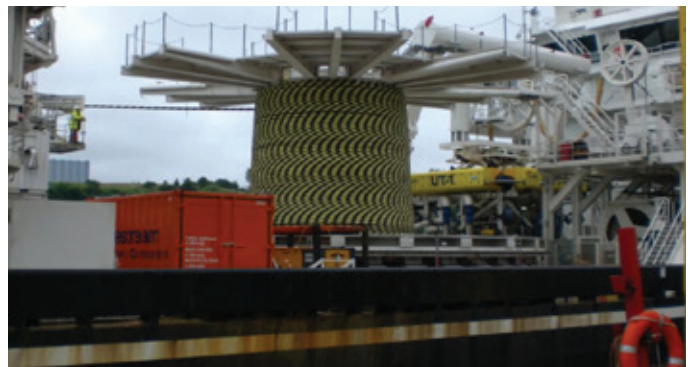
Basket carousel loading with various diameter flexible pipes. Loading tensioner creates catenary at both carousel and shore.

Key Features

- Load and unload with ease
- Modular design for road or offshore container transport
- Can be designed for single-point lift fully assembled (excludes product load)
- Easy access to support rollers
- Self-lubricating support rollers
- Resilient mounting technique supports the even distribution of the load

Technical Specifications

- Designed for both land and marine applications
- PLC control enables the carousel to be synchronized with manufacturing, process or lay equipment
- Available for manual, semiautomatic and automatic control
- Load capacity up to 10,000 Te
- Diameters from 10m to 40m
- Operating speed from 0-30m/min
- Diameters and speed can be designed to customer specifications
- Fully synchronized emergency stop capability



Reel carousel loading power cable using spooling.

Carousel system components

- Base grillage or concrete foundation
- Basket carousel with outer wall or reel carousel with top flange
- Tapered core or parallel core
- Fixed or adjustable core diameter
- Intermediate wall diameters
- Support rollers & king pin
- Loading arm or spooling tower
- Loading tensioner
- Fully integrated control systems