

Umbilical Reel



Hytech Umbilical Reel.

The Hytech Umbilical Reel is design to handle up to 1300 m of 56 mm subsea umbilical.

The reel is driven by an air powered HPU with two separate motor/pumps. Both pumps can be used separately and in parallel. Two- step hydraulic motor can drive the drum with speed up to 24 m/min at 1,25 Ton tension or 12 m/min with 2,5 Ton (at first layer). To achieve max. speed both pumps must be running. With operation with only one pump the speed is halved, but the pull force is the same.

In case of limited air supply, it can be beneficial to only use one pump.

The installation of the two pump HPU is a benefit for the safety of the system as the reel can be used with only one pump operational.

The reel is equipped with a 2-speed motor and a selector valve. When the reel is set-in high-speed mode the hydraulic motor displacement is reduced from 468ccm to 234ccm.

The speed will then double, and the pulling force will be halved.

The spooling device is normally activated from the directional valve fitted to the spooling arm. The spooling arm is controlled by the umbilical. When the umbilical misalign compared to the spooling device the directional valve is activated and the spooling device will compensate for the misalignment. The automatic mechanism can only be activated when the drum is rotating. This automatic function can be override with the override proportional valve. The drum does not have to rotate to use the override function.

The reel can be operated from both the local panel and the remote panel. For safety and overview the remote panel is to be used during operation.

Features & Benefits:

- Only air pressure required to operate the unit
- Up to 2,5-ton spooling capacity
- High-speed spooling up to 24 m/min
- Remote operation panel for operation from safe zone
- Brake function for parking
- Heavy duty carbon steel frame
- Surface treatment in according to NORSOK M-501s.1 or similar.
- Internal sea water hydraulic cooler



Mechanical specifications:

Description	Data
Utility	Air pressure
Power Type	Hydraulic (Internal HPU)
Consumption	2x 7 bar at 250 m ³ /h
Lifting speed/capacity (at first layer)	2,5 Ton / 24 m/min 1,25 Ton / 12 m/min
Dimensions	4140x2500x2648 mm (l x w x h)
Ambient temperature operation	- 10° to + 45° C
Design temperature	- 20° to + 45° C
Maximum humidity	95 %



Specifications: Applicable standards

Standard	Standard Nr	Standard Title
EU Directive	2006/42/EC	Machinery Directive
EU Directive	2014/68/EU	Pressure Equipment Directive
EN-ISO	12100:2010	Safety of machinery – General principles for design – Risk assessment and risk reduction

