

## Hytech Auxiliary Power Unit (HAPU)



**HAPU – Hytech Auxiliary Power Unit is design to supply hydraulic for ring line. Built in solid frame for protection during transport and operation process.**

Solid a robust design contains double 170 kW power trains with total capacity of 650 l/min at 207 Bar. 7,5 kW cooling pump and plate sea water cooler provides continues operation even in middle east environment.

To ensure hydraulic oil volume, unit has 3000 liter tank equipped with visual level indicator, level and temperature sensor and tank breather.

### HAPU – Features & Benefits:

- Atex Zone 2
- Built in solid steel frame
- High quality offshore surface protection – NORSOK
- Internal filtration and cooling system
- Built-in soft start system to protect critical components



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## Specifications:

| Description                                        | Data                      |
|----------------------------------------------------|---------------------------|
| Power Supply                                       | 690 VAC 50 Hz             |
| Termination Points                                 |                           |
| Main Pressure Ports                                | 2x 1 ½" ISO 6162-2        |
| Secondary Pressure Ports                           | 3x ¾" NPT F               |
| Main Return Port                                   | 2 ½" ISO 6462-1           |
| Secondary Return Port                              | 1" ISO 6162-1             |
| Drain Port                                         | 2x 1" NPT F               |
| Water Port                                         | 2x 2" ASME RF             |
| ATEX / Ex Zone Classification                      | Zone 2                    |
| Machine dimensions (L/W/H), transport              | 5000 x 2300 x 2210 mm     |
| Dry weight                                         | 10 000 kg                 |
| Ambient temperature operation                      | - 10° to + 45° C          |
| Ambient temperature with Desert package (Optional) | - 10° to + 50° C          |
| Design temperature                                 | - 20° to + 45° C          |
| Maximum humidity                                   | 95 %                      |
| DC IS Power                                        | 3 x 20 mA = approx. 0,5 W |
| Non IS Power                                       | 4 x 20 W = 80 W           |

## Capacities:

| Description                | Data                                     |
|----------------------------|------------------------------------------|
| Hydraulic capacity         | 650 l/min @ 207 Bar (170 GPM @ 3000 PSI) |
| Main electric motors       | 2 x 170 kW                               |
| Main pump size             | 250 ccm                                  |
| Hydraulic Tank             | 3000 liter                               |
| Sea water cooler           | 89 kW                                    |
| Cooling water requirements | 700 l/min , max. 39°C                    |



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## Specifications: Applicable standards

| Standard     | Standard Nr   | Standard Title                                                                                                                       |
|--------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------|
| EU Directive | 2006/42/EC    | Machinery Directive                                                                                                                  |
| EU Directive | 2014/34/EU    | ATEX Directive                                                                                                                       |
| EU Directive | 2009/104/EC   | Use of Work Equipment Directive                                                                                                      |
| EU Directive | 2014/35/EC    | Low Voltage Directive                                                                                                                |
| EU Directive | 2014/68/EU    | Pressure equipment PED Directive                                                                                                     |
| EN           | 1993-1-1:2005 | Eurocode 3 – Design of steel structures, part 1                                                                                      |
| EN-ISO       | 80079-36:2016 | Explosive atmospheres – Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements                  |
| EN           | 1127-1:2019   | Explosive atmospheres – Explosion prevention and protection – Part 1: Basic concepts and methodology                                 |
| EN           | 15198:2007    | Methodology for the risk assessment of non-electrical equipment and components for intended use in potentially explosive atmospheres |
| EN-ISO       | 12100:2010    | Safety of machinery – General principles for design – Risk assessment and risk reduction                                             |
| ISO/TR       | 14121-2       | Safety of machinery — Risk assessment — Part 2: Practical guidance and examples of methods                                           |
| EN-ISO       | 4413:2010     | Hydraulic fluid power — General rules and safety requirements for systems and their components                                       |
| EN-ISO       | 4414:2010     | Pneumatic fluid power – General rules and safety requirements for systems and their components                                       |
| EN-ISO       | 14122:2016    | Safety of machinery – Permanent means of access to machinery                                                                         |

