

## Intro

The Castoldi water jet unit type *Turbodrives 282* is a versatile marine drive propulsion system designed and manufactured on the experience ripened on the successful Jet 06 model, installed on thousand units.

The new 5 blades stator, nozzle and twin-duct reversing deflector grant improved strength and performance for small and medium size applications such as patrol, S.A.R., commercial and pleasure boats.

*Turbodrives 282* casting is made of super tough light weight special aluminium alloy for marine use protected by the most sophisticated anti-corrosion finish possible, being hard anodized up to 60 micron and becoming very durable. The most important parts as impeller, impeller housing liner, shafting ecc are manufactured in high grade stainless steel.

*Turbodrives 282* has several features that make this model stand out from other marine propulsion units:

**Built in gear box** for adapting the power and RPM characteristics of the engine to jet drive

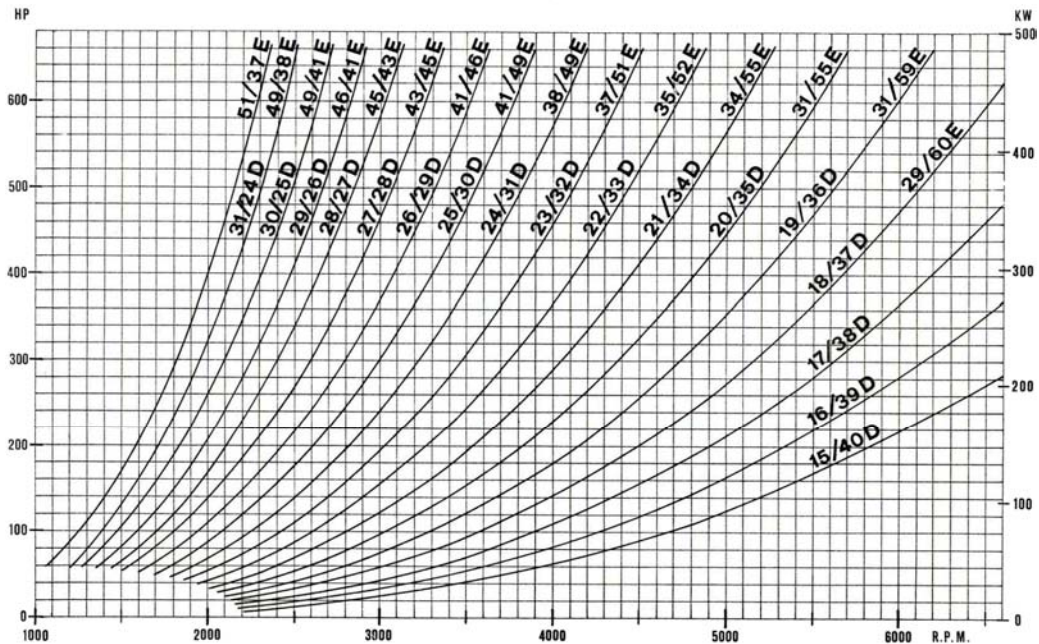
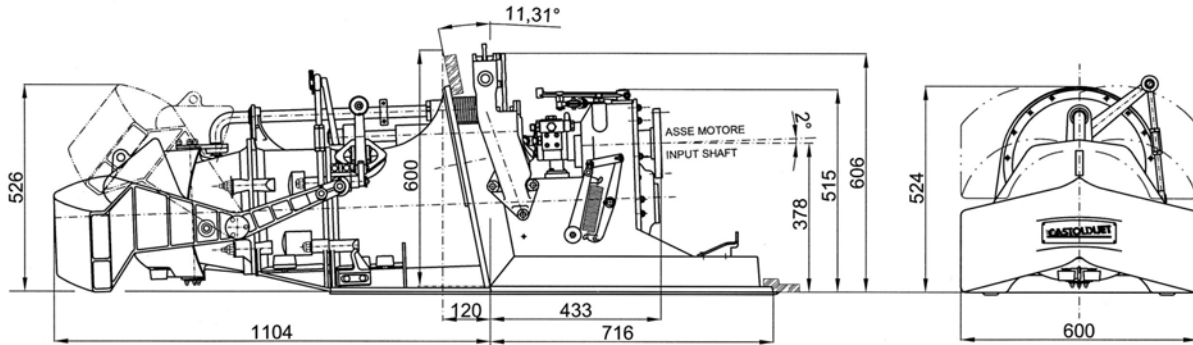
**Positive clutch** for engaging and disengaging the impeller

**Remote operated movable weed rake** for cleaning the jet unit water intake.

**All oil lubricated bearings.**

## Technical data

Max power input	400 Kw (544 HP)
Impeller diameter	283 mm (at inlet)
Dry weight (waterjet unit complete)	182 Kg
Transom angle	11° 30'
Volume of entrained water	52 lts
Oil volume in integrated gear box	11 lts
Maximum recommended displacement tons	1 UNIT : 3,7 2 UNITS : 9,2
Water pump type	Three blades, single stage, axial flow
Built-in gear box	With No. 18 gear wheels ratio available
Water jet's impeller disconnecting/connecting system	Positive clutch mechanically operated
Drive shaft rotation	CW seen from inboard towards outboard
Bearings	All oil lubricated
Inspection hatches	No. 2 outboard
Water intake protection	Debris screen grid with movable double set of mechanically actuated bars
Nozzle	Standard with 5 blades
Hydraulic actuators	All inboard mounted on jet unit
Hydraulic power unit and accessories	Built in hydraulic pump, rams and valves
Hydraulic steering	Hydraulic helm
<b>Main parts' materials</b>	
Impeller	AISI 316 L stainless steel micro-casted
Impeller shaft	Aquamet 17 (17,4 PH) stainless steel
Input shaft	39 Ni.Cr.Mo.3. high grade steel
Steering and reversing shaft	AISI 316 L stainless steel
Impeller	AISI 316 L stainless steel
Impeller housing wear ring	AISI 316 L stainless steel
Stator blades with nozzle steering and reversing deflectors	G.Al.Si.7 marine grade aluminium alloy
Water jet body with gear case and impeller housing	G.Al.Si.9 marine grade aluminium alloy
Finishing and protection against corrosion	Hard anodising treatment (60 Micron) on all the aluminium alloy parts : <ul style="list-style-type: none"> <li>• 3 layers of special paint.</li> <li>• Cathodic protection with sacrificial zinc anodes</li> </ul>



The above curves show the power absorption characteristics for the range of gear wheels ratio available. The engine maximum flywheel power/r.p.m. output should lie within the area between 51/37 and 15/40 ratio.

For matching a given engine, the proper gear ratio is indicated on the diagram by the curve close to the intersection point resulting from the engine net power and its operating r.p.m. When the point lies at the middle between two curves, the left curve's ratio is recommended in order to not exceed the engine maximum r.p.m.

### CONTROLS' TYPES

- Mechanical/Hydraulic
- Electric/Hydraulic
- Electronic/Hydraulic
- Aces (Azimut control electronic system) : operated by joystick featuring manual and docking mode