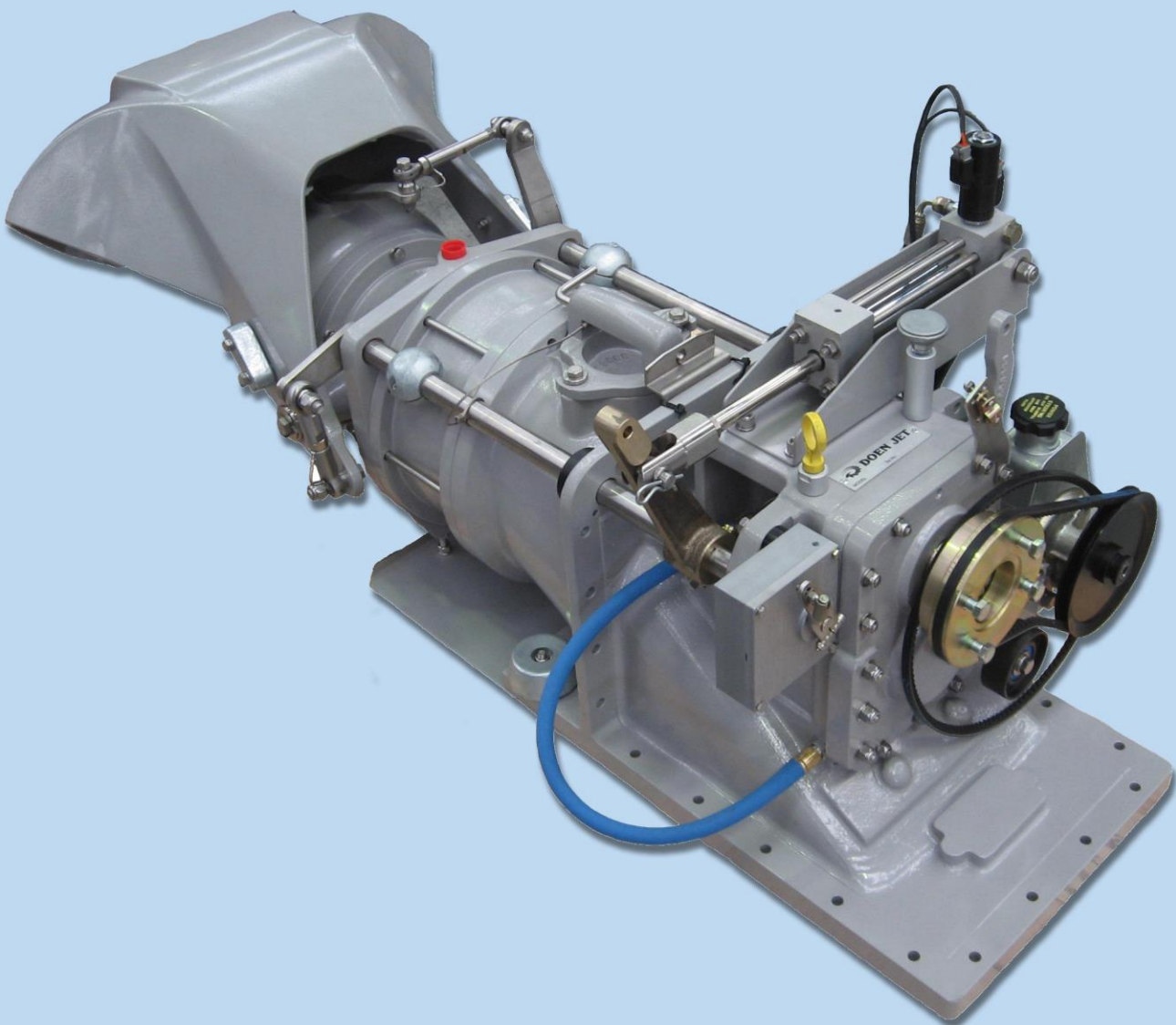


DOEN DJ100G



Performance Reliability Simplicity



Performance Reliability Simplicity



DOEN DJ100G

The DJ100G

The Doen DJ100G waterjet is the only model within Doen WaterJets' entire range with an integrated gearbox. It has been developed and launched into the marketplace to provide boat builders and boat operators alike with a waterjet option that has been specifically designed to optimally match with today's high-speed smaller diesels. A waterjet that can be directly coupled to high output compact engines, while delivers superior all round performance and better load carrying capability. To best achieve this, several key design criteria had to be met.

- Larger capacity axial flow pump
- Dedicated impeller technology
- Correct engine to jet matching

The Doen DJ100G delivers all of these criteria within a compact and cost-effective package.

The use of modular construction has allowed the DJ100G to be lightweight, compact and simple to maintain and repair while being a robust commercially rated waterjet. The heavy-duty propulsion shaft and bearings, and a robust reverse mechanism with inboard cylinder assist in providing long life and trouble-free operation.

■ The **Doen DJ100G** waterjet utilizes a large diameter ten-inch (254mm) pump incorporating our latest impeller technology to provide higher thrust with superior cavitation resistance. This results in improved speed, better load carrying, enhanced range and fuel efficiency and unsurpassed cavitation resistant performance.

■ The integration of a gearbox eliminates the need for a marine transmission and allows the **Doen DJ100G** to be precisely and simply matched with engines to simultaneously ensure proper engine loading and optimal impeller speeds, for best efficiencies and highest cavitation resistance. Stock ratios are available to suit today's high-speed diesels with power outputs up to 300hp continuous and 400hp sprint (by application).

■ This waterjet pump is built using a tough, heavy-duty construction comprising only stainless steel and aluminum with an anode anti-corrosion system. The simplicity of the design makes the **Doen DJ100G** very easy to service and maintain.

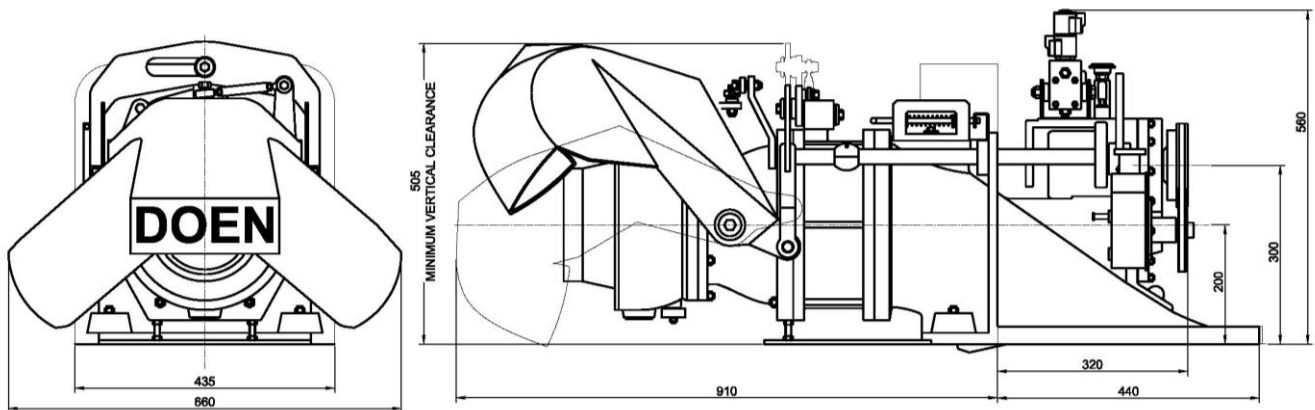


DOEN DJ100G

Jet-mounted hydraulic pump and Doen's Rotary Switch Box (RSB) provides proportional, position sensing, and control of the reversing bucket by way of a 3" (75mm) stroke Morse 33C cable. The balanced nozzle steering design minimises required input force and provides precise control, using a push-pull cable or a small manual hydraulic system.

For twin installations, DJ100G can also be supplied with Doen's fully integrated electronic control system, ECS200, if required.

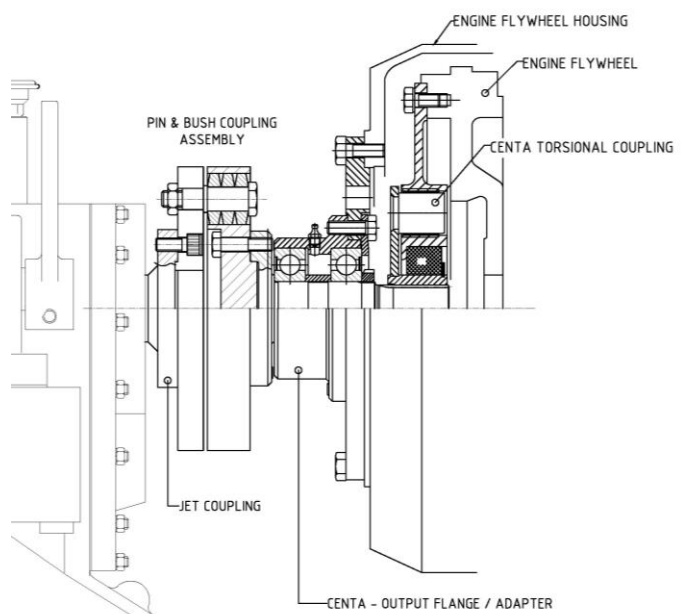
The hydraulic steering and reverse cylinders and all their connections are inboard mounted protected from corrosion. All components are available in left and right configurations to suit mirrored installations.



* Dimensions are in mm. All data are subject to change without prior notice.

COMPACT COUPLING OPTION

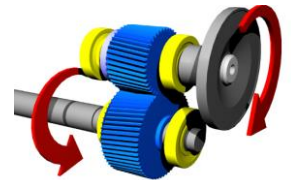
DOEN's Pin & Bush coupling assembly provides Close-Compact Coupling between marine diesel and Doen DJ100G waterjet. The product is required to be used in conjunction with *Centa* or *Vulkan* torsional coupling and shaft support bearing assembly.



Key Product Features:

INTEGRAL REDUCTION BOX

Providing perfect impeller matching without the need for a marine gear. The fully integrated step down box uses wide faced, ground helical gears supported with high capacity taper roller bearings. This robust arrangement has been designed and tested to commercial ratings.



IMPELLER TECHNOLOGY

Based upon Doen's proven axial flow impeller designs, the **DJ100G** impeller employs a six blade configuration with our longer progressive pitch profile that results in higher thrust throughout the speed range and unrivalled cavitation resistance.



HIGH THRUST TEN INCH PUMP

Optimally sized to best suit target engine/s power range and target vessel size and weight envelope. The ten-inch axial flow pump efficiently converts horsepower into a high volume jet flow delivering high thrust, more range and more payload with reduced fuel burn.



SPLIT DUCT POWER REVERSE

The split duct-reversing bucket provides excellent high thrust reverse maneuverability. This is power operated by a high force, 12VDC actuator, or optional hydraulic cylinder. Feather light follow up control is achieved through the position sensing control box operated by 33C type cable.



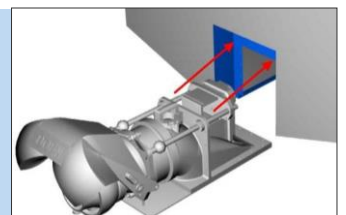
QUICK RELEASE INSPECTION COVER

The Inspection Cover is outboard mounted and simply retained using a spring loaded slide bolt. This means quick release operation requiring no tools, without the risk of flooding. The cover itself is tethered to the waterjet with stainless wire so that it cannot be lost.



TRANSOM MOUNTING

The unit is installed using Doen's proven quick and simple transom mounting method. This results in less intrusion into valuable inboard space, allowing more compact machinery arrangements further aft in the boat. Doen can also offer compact coupling systems with the **DJ100G**.



Performance Reliability Simplicity

UNIT DETAILS

Maximum Rec. Power Continuous:	up to 225skW (300shp)
Maximum Rec. Power Sprint:	up to 300skW (400shp) ^(A)
Maximum Rec. Impeller speed:	4400rpm
Dry Weight:	125 kg (complete waterjet including jet mounted hydraulic items)
Entrained Water:	22 kg
Loss of buoyancy:	0.011 m ³ (duct volume within hull bound)
Corrosion Protection:	Cathodic with Anodes
Design Standard:	To international authority standards

(A) Requires application approval by Doen WaterJets

CONSTRUCTION DETAILS

Impeller

Diameter:	10 inch (254mm)
No of Stages/Configuration:	Single Stage – Axial flow pump construction
Standard Rotation:	Anti-clockwise (Looking forward from stern)
Impeller Material:	Cast CF8M Stainless Steel

Pump Assembly

Impeller Casing Material:	Cast ASTM A356 Alum. Alloy with stainless steel liner
Discharge Nozzle Material:	Cast ASTM A356 Alum. Alloy

Steering System

Description:	Balanced nozzle
Operation:	Inboard tiller actuation
Steering Bowl/Nozzle Material:	Cast ASTM A356 Aluminium Alloy

Reverse System

Description:	Split Duct Type – “High Thrust”
Operation:	Inboard Hydraulic cylinder actuation
Reverse duct material:	Cast ASTM A356 Aluminium Alloy


Shaft Assembly

Main Shaft Material:	Stainless Steel Grade SAF 2205
Rear Bearing:	Water Lubricated Cutlass Bearing
Main Bearing:	Taper Roller
Gear Set:	Precision ground helical gear set (reduction ratios)
Lubrication:	Oil Lubricated
Shaft Seal:	Face type Mechanical Seal
Coupling Flange:	Spicer “1410” Series
Shaft Angle:	0°

Intake Body

Material:	Cast ASTM A356 Aluminium Alloy
Inspection Opening:	Outboard – Quick Release
Intake Grate:	Removable Aluminium Bars

Performance Reliability Simplicity



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Deon WaterJets policy is one of R&D and continual product improvement, therefore information and specifications can change without notice. For the latest information please go to our website, www.doen.com

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