

Case Study 300: **29m Patrol Vessel**

SPECIFICATIONS

Waterjet:	DJ260-DT x2
Engine:	MAN D2862 LE463 1400hp @ 2100 rpm
Gearbox:	ZF3050 2.240:1
Vessel:	28.85m L.O.A 23.42m W.L.L 65t (light) - 80t (laden)
Performance:	30+ knots (light)



Indonesian Navy – 28.85m Patrol boat, (Indonesia)

P.T Palindo in Batam, Indonesia has built these 28.85m patrol boats for Coastal Patrol duties by the Indonesian Navy. Powered by twin MAN D2862 LE463 marine diesels coupled to **DOEN DJ260-DT** waterjets these vessels have a maximum speed of more than 30knots and are designed to cruise at around 23knots.

With a focus on maximum service life and ease of maintenance **DJ260-DT**, Direct Thrust, waterjets have been specified. These units have all stainless steel pump assemblies, for maximum corrosion resistance and life in service. Each is fitted with 26" (660mm) high volume single stage axial flow impellers. Furthermore the Direct Thrust (DT) configuration greatly simplifies the shaft line arrangement by making use of the marine gearboxes own thrust bearing eliminates the need for an additional and separate thrust bearing on the waterjet itself. This results in the very minimum of rotating parts and virtually eliminates routine ongoing maintenance of the shaft line compared to conventional waterjets.

Each **DJ260-DT** has its own fully integrated hydraulic system providing steering and reverse control. All of the hydraulic equipment including steering and reverse cylinders and associated hose connections are inboard mounted. The hydraulic pumps are directly driven from the gearbox PTO's.

Vessel propulsion control is managed using Doen's own **ECS200 – Electronic Control** system. Configured for twin engine - single station; the system simply combines primary control of engine throttle and gear command with the waterjet steering and reverse functions. Additionally this system provides the operator with indication, monitoring and alarm information using a full color LCD screen with soft buttons. Back-up steering and reverse control functions are provided at both the main control station, and locally at the waterjets.