

All you need „plug and go“ package



500 bar/ 7,500 psi



U.S. NACE surface standard WJ-4

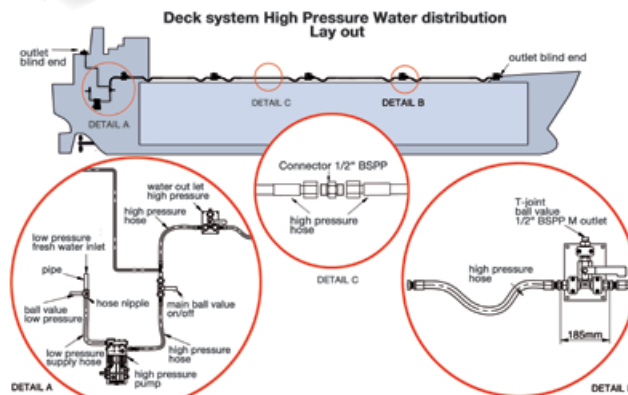
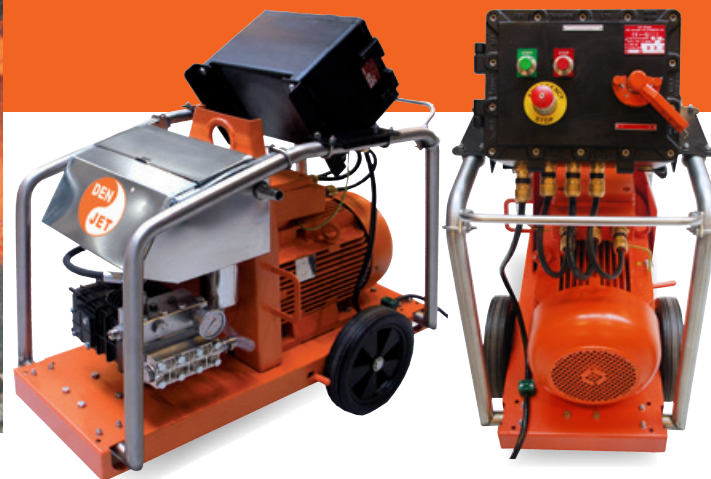


Light flush rust after waterblasting WJ-2 (1800 bar)

MasterMariner CEX20-500®

Technical Specification:

Working pressure: 500 bar/ 1,100 km/h (7,250 psi)
Flowrate: 16 l/min - 4,2 g pm (960 l/h)
Medium: Freshwater, Inlet temp. max 50°C
Water tank: Buffer between water input and output speed
Motor: ATEX 15 Kw, 440 V/ 60 Hz, IP55/ Class F
Control Box: EEXD II B
ATEX: ATmosphère EXplosiv Compliant EEX,
Equipped for Zone II use
Gross Weight: 275 kg
Dimensions: L 1060 x W 500 x H 1000 mm
Optional: 800; 1000; 1800 bar (11,600 - 26,100 psi)



Large vessels; working radius up 400 m, retrofit and new buildings, mobile and stationary installation.

Fit for seagoing duties

- Low water consumption.
- Lifting eye and three wheels chassis allow easy handling.
- The width of only 50 cm passes through all gangboards.
- Low gravity point.
- The water tank prevents of water hammering damages and serves as buffer, no pre-pressure required.
- Vital components and the complete frame are made of stainless steel.
- Pressure built up smoothly and without recoil.
- Automatic pressure relief grants long life span of hoses and safe lance-handling.
- Our "Bosun's Manual" and Service CD simplifies operation.
- Noise level: 78 dB D1 m, Lance 87 dB D 0,6 m.

MasterMariner CEX20-40® series is well received by all crews.

Environment:

DEN-JET Management and staff consciously sets new standards to comply with all environmental and H&S legislations.
DEN-JET is a Danish company. We manufacture HP-pumps in the range of 350 - 2500 bar (5075 - 37500 psi) and supply OEM parts to other known manufactures. On request we offer tailor-made solutions for mobile and stationary pumps and retrofit up to 2500 bar. One Source Supplier.

Customer service and sales office: DEN-JET MARINE PTE LTD.

101 Second Lok Yang Road
Singapore 628172
Tel. +65 6268 12 38
Fax +65 6268 22 70
E-Mail: denjetmarine@denjet.com

Contact us for your free quote!

Delivery ex works Denmark and Singapore
Sea - Air freight shipments
Worldwide service



Leader in on board waterjetting solutions
www.denjet.com

Shipboard Maintenance

Tankers LNG Carriers Offshore



ATEX ATmosphère EXplosiv Compliant EEX

Waterblasting 500 - 1800 bar

- Eco - friendly
- Faster - save working time
- Better - coating repairs hold longer
- Cost effective - up to 70% savings

MasterMariner CEX20-40

... there is no substitute!



The impression of being attractive ...

Coatings and paints play a critical role in maintaining image and protecting assets from degradation. Both are of considerable economic importance and need to be maintained regularly. Tankers are high value assets, serving 15 years and more along with oil rigs and offshore installations.

Only good looking vessels build up confidence between the parties: Charterers, Vetting Inspectors, Crew, Port State Control, Port Authorities, Investors etc.



Limited leeway

Individual Classification societies and countries regulate maintenance and repair for tankers and Offshore Installations. In the EU all equipment and components used in potentially explosive areas have to comply with the ATEX directive (Atmosphère Explosives). DEN-JET EEx proved waterblaster meeting with these legal regulations.

The maintenance trap

According to Class Societies, Surveyors and Shipyards corrosion damages are running into millions of USD every year. Complex deck and tank geometries, where weight and hull designs dictate small, irregular tanks and pipelines with difficult accessibility represent maintenance nightmares. And ballast tanks are high cost drivers!

Not enough time! Short sailing times, small crews, cargoes loaded, weather conditions, working regulations in ports and on board (MLC) allow limited maintenance only. Many vessels have no more than 100 working days/year available for deck and engine repairs. This means about 60 days for derusting and painting! For hand and power tool surface preparation not enough.

And above all mechanical preparation is not suitable for

aggressive environments. Disk grinding does not remove invisible contaminations (chlorides etc.) and much often the surface is polished only! Altogether explains why so many vessels look poorly maintained after a relatively short time.

Shipboard Maintenance

Waterblasting is 10 times faster than mechanical de-rusting. It is cost effective, fast and ecologically sound. Surface preparation -depending on the area- is the step that takes the longest time for the job. Already 500 bar/ 7,500 psi result in clinical clean surfaces (U.S. NACE surface standard WJ-4). 500 bar cannot damage sound coatings as it doesn't deliver enough energy to disrupt the lateral bond between sound coatings and steel. That means the damaged area will not get bigger. Waterblasting maintenance will make your vessel look great and prevent costly steel repairs.

Waterblasting: work rate 7 - 13 m²/ man-hour
Hand and power tool: 0,7 - 1,6 m²/ man-hour

WJ-4 means the surface is free of medium rust, salt, clean out pits, chlorides and invisible contaminations the enemy No. 1 of all coatings. On board we focus on cleanliness rather than profile. Long lasting coating repairs highly depend on the quality of cleanliness, the quality of primers and topcoats.

After being blasted the surface is clinical clean and ready to be painted. Any follow up coating will hold equally long as on Sa-2 blasted surfaces. The only residue is the removed paint and rust; about 0,2 kg/m².

After blasting „flush rust“ light and medium might occur, which is acceptable for wet-surface tolerant primers.

The time savings can be up to 70% if you go for VOC-free, truly wet & surface tolerant primers.

For instance, CHEMCO; RS 500P, RA 500M, RL 500PF

In the last years tremendous success has been achieved in by shifting from solvent-based coating systems to new solvent-free (VOC-free) systems. These new coatings combined with waterblasting provide several important features. First, the Edge Retention Ratio (ERR) is very high due to their high solids content and design; the coatings do not pull back from sharp edges during curing. This is an important feature, since it eliminates many of the areas where coating failures begin, especially in ballast tanks. Secondly they save time.

To get out of the „trap“, go for waterblasting, go for DEN-JET!



Can be maintenance nightmares; Corners, pipe lines, sharp edges, ballast tanks, void spaces etc.



Bright colours reflect sunlight, dark colours absorb and attract heat. Decks in tropics can be breeding hot (up to 80°C !) and speed up corrosion in ballast tanks.