

## Polar Jet tank cleaning machines



### General Information

Kockumation offer a complete range of Polar Jet tank cleaning machines. The product line cover fixed machines with single as well as twin nozzles. Small and efficient portable machines are available as a complement to the fixed installed tank cleaning equipment.

Polar Jet machines have been developed for long service life with a minimum of maintenance. We use the latest technologies in order to develop products that are robust, few moving parts and with low life-cycle costs. You can rely on the tank cleaning machines performance for years and years, with a minimum of maintenance requirements.

The Kockumation Polar Jet tank cleaning machines are in house developed and produced. Our fully owned develop and manufacturing plant gives Kockumation an extraordinary control of the

quality. The production facilities accommodate machining, assembly and testing. All critical parts can be produced from scratch in the workshop. The capability ensure that we will not suffer for shortages in the material du to sub-suppliers lack of delivery.

Kockumation provide in-house Shadow Diagrams using 3-Dimensional CAD for model Selection, Quantity, Positioning and Main Pipe Lengths to optimise cleaning coverage per unit.

We produce class approved COW manuals in accordance with the requirements of MARPOL Convention.

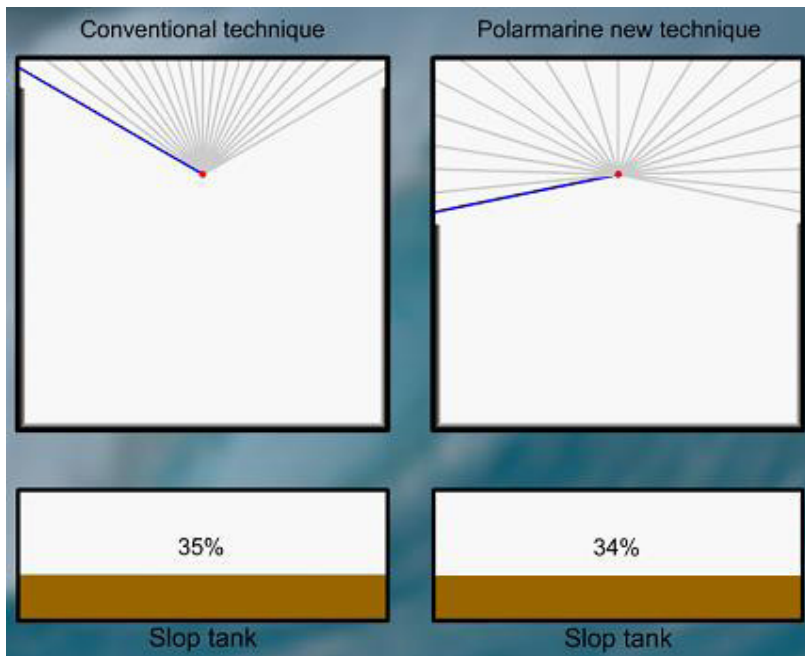
As a support to any owner we are offering tank cleaning analysis for any tank prior to order. At the specification stages we offer a detailed tank cleaning analyse where the owner can ensure that specified machines will give the expected results.

**Polar Jet PJ 15 Eco and PJ 30 Eco**

Polarmarine has in close cooperation with users developed a new generation of tank cleaning machines with the tank geometry in focus, Polar Jet Eco.

The basic principle of the new and improved tank cleaning machine is that the cleaning media is spread as equal as possible inside the tank. All tank cleaning machines in the market until now are designed for a fixed cleaning pattern without consideration to the design of the tank.

Considering a "normal" installation in a product tanker there is an enormous waste of washing in the first 45 degrees of cleaning. The short main pipe generate a very small coverage. With the Polar Jet Eco we have designed a cleaning pattern that compensate for the short radius in upper portion of the cleaning sequence. Once the water reach corners and vertical bulkheads the pitch return to normal and ensure cleaning as normal.



**Major savings in terms of costs**

The images show upper portion of conventional tank cleaning compared with Polar Jet Eco:

25% Time saved

When tank cleaning with Polar Jet Eco is done (100%), the conventional tank cleaning is only 75% finished.

25% less slop

When tank cleaning is finished for both Polar Jet Eco and conventional technique, it is 25% less slop with Polar Jet Eco.

25% less heating

Heating and consumption of tank cleaning water (FW/TFW) is reduced. Since the time used is saved by 25%, also the amount of heating and Fresh Water is 25% less.



Please visit our website for more information about product line.

