

Call for Purchase Proposals No. EMSA/SA/1/2026
Sale of Assets: Sale of Assets: Oil pollution
response equipment
Appendix I.C Description of the Assets located in
Ravenna, Italy – Lot 3

Type of equipment	Item	No. of items	First delivery	Description	EMSA ID
1. Sweeping Arms Koseq 15m	Frame	2	17/07/2007	15 meters, rigid, foldable end, with weir skimmer	0837, 0838
	Pump	2	17/07/2007	Centrifugal	0839, 0840
	Oil hose(s)		17/07/2007	Hoses/hyd./couplings/cables (60 mt)	0841
	Hydraulic hose(s)	2	17/07/2007	Pressure and return (20mt)	0848, 0849
	Water hose(s)		17/07/2007	Water hoses (30 m)	0846, 0847
	Crane	2	17/07/2007	Crane two catchers	0850, 0851
	Control desk	2	17/07/2007	Remote control for skimmer	0854, 0855
	Power pack	1+1 spare	17/07/2007	Dhpp120 diesel engine	0857, 0859
	Flow meter	1	12/11/2021	Flexim Fluxus F601 - ultrasonic flow measurements	3005

Type of equipment	Item	No. of items	First delivery	Description	EMSA ID
2. Discharging	Pump MSP 150-63	1	17/07/2007	Centrifugal	0896

Type of equipment	Item	No. of items	First delivery	Description	EMSA ID
3. Sampling / Testing	Minilab (Visc, Dens)	1	19/07/2007	Sampling minilab densi-viscometer	0901, 0902
	Flash point tester	1	19/07/2007	Flash point tester petrotest PMA-4	0903

Equipment description

1 Sweeping Arms

Manufacturer:

Kampers oil spill equipment B.V.

Oosthavenzijde 5

P.O. Box 5606, 3297 ZG Puttershoek, The Netherlands

Tel: +31 78 6763811

Fax: +31 78 6764853

Email: design@koseq.com.

Website: <http://www.koseq.com>.

Year Purchase 2007

The Koseq rigid sweeping arm system consists of two 15 meter sweeping arms with foldable ends, oil transfer pumps, pumps ancillaries, control panel, hydraulic system, oil hoses, crane and hydraulic power pack. The sweeping arms are launched by means of cranes to be installed on board the vessel. The oil/water mixture is guided along the bulkheads of the sweeping arm and the side of the vessel via an adjustable debris screen and skimmer to the oil collecting chamber of the inner pontoon, from which it is removed by a hydraulically driven submersible cargo oil pump and discharged into the collecting tanks via a flexible hose.

The sweeping arm system is supplied with an integrated weir skimmer and centrifugal pump with screw impeller (Marflex MSP150-63), pre-installed with a hot water current radial system to facilitate pumping of high viscosity oil. The system is provided with a remotely controlled self-cleaning grating to prevent debris to obstruct the skimmer and the pump.

1.1 Sweeping arm frame

Each sweeping arm is made up of an outer pontoon, a bridge and an inner pontoon welded together. The inner pontoon contains an adjustable oil collection chamber in which the pump is located.

Conditions for oil recovery operations

The vessel equipped with the sweeping arms is capable to remove oil from the sea under the following conditions:

- Wind up to Beaufort 4;
- Current between vessel and oil slick up to 2 knots;
- Forward speed of the vessel maximum 3-4 knots (actual speed depends on sea state conditions and thickness of the oil layer on water surface);
- Forward speed of the vessel maximum 3-4 knots (actual speed depends on sea state conditions and thickness of the oil layer on water surface).

Foldable ends

To make transport and storage easier, the sweeping arm pontoons are equipped with foldable ends. When the foldable ends are put into their operational position, they must be secured with stainless steel pins.

Technical specifications

Function	Collecting oil
Overall Length	15115 mm (14740 mm with pontoons folded)
Overall width	3330 mm (2770 mm wit pontoons folded)
Overall height	3355 mm
Weight (including pump and hoses)	4800 kg
Type of skimmer	Integrated weir skimmer
Skimmer pumps	Centrifugal pump with screw impeller



Koseq rigid sweeping arm

1.2 MARFLEX centrifugal pump MSP150-63

Manufacturer:

Marflex B.V.

Louis Pasteurstraat 12, 3261 LZ Oud-Beijerland

The Netherlands

Tel: +31 186 89 02 00

Fax: +31 186 89 02 49

Email: info@marflex.com.

Website: www.marflex.com.



MARFLEX pump

The Marflex pump type MSP-150-63 is a hydraulically driven single stage vertical centrifugal pump that has been designed for efficient handling of viscous liquids, bulky solids and shear-sensitive liquids. The MSP 150 pump is based upon a centrifugal screw impeller that combines the properties of a screw pump with those of a centrifugal one. The pump impeller is keyed directly onto the hydraulic motor shaft. The high-pressure oil is led into the hydraulic motor through the pressure hose; the leak oil connection is connected to the return oil outlet port on the hydraulic motor; the return oil flows back to the main hydraulic system. A special shaft seal arrangement has been developed in the hydraulic motor to segregate the hydraulic and the cargo.

Technical specifications

Desing	Single stage centrifugal
Capacity/head	360 m3/h – 40 mlc. max.
Viscosity/specific gravity	1.0 cSt. at 20°C/1.0
Speed	2000 rpm max.
Hydraulic motor type	Axial plunger with mechanical seal
Hydraulic working pressure	200 bars
Hydraulic pressure, max.	320 bars.
Hydraulic flow, max.	130l/min
Maximum outer diameter	490mm
Height	610mm
Weight, excl. hydraulic hoses	g

1.3 Oil hoses

Manufacturer:

Goodyear Engineered Products Europe
Unit 25 Robins Road,
Zone 3, Burntwood Business Park, Burntwood, Staffordshire
UK WS7 3XB
Tel: +44(0)1543 672511
Fax: +44(0)1543 674917



Oil hoses

Oil hoses description

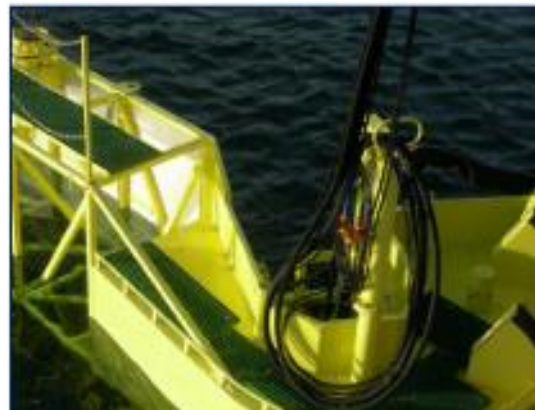
Oil hoses to transfer the recovered oil from the sweeping arms to the storage tanks.

- Type: Rig supply soft wall
- Size: 6" x 60 metres
- Couplings: Camlock 6"
- Working pressure: 20 bar
- Burst pressure: 60 bar
- Temperature: -40°C + 93°C
- Liner: Nitrile
- Cover: Chloroprene

1.4 Hydraulic hoses

Manufacturer:

Manuli Rubber Industries S.p.A.
Piazza della Repubblica, 14/16
20124 Milano. Italy
Tel.: +39 02 627 131
Website: www.manulirubber.com.
Email: info@manulirubber.com.



Hydraulic hoses

Hydraulic hoses description

The hydraulic hoses link the hydraulic pipelines on the crane with the elements of the sweeping arms operated from the crane control panel. Two sets of hydraulic hoses with stainless steel Tema quick couplings are provided.

- Hydraulic connections:
- x 3/8" (pressure and return for sweeping arm debris screen)
- x 3/8" (pressure and return for sweeping arm weir level)

- 1 x 1" (pump pressure line)
- x 1½" (pump return line)

Manufacturer:

Ro-Clean Desmi A/S

Hestehaven 21 B

DK-5260 Odense S

Denmark

Phone: +45 6591 0201 -Fax: +45 6590 8877

Website: www.desmi.com/ro-cleandesmi.

Email: info@ro-cleandesmi.com.

Description

These hydraulic hoses are used for the hot water injection pump set

Length: 20 meters

1.5 Water hoses

Manufacturer:

Ro-Clean Desmi A/S

Hestehaven 21 B

DK-5260 Odense S

Denmark

Phone: +45 6591 0201

Fig. 8 Water hoses 3/4" and 5/4"

Fax: +45 6590 8877

Website: www.desmi.com/ro-cleandesmi.

Email: info@ro-cleandesmi.com



Water hoses

Description

Length: 30 m

1.6 Lagendijk crane with two catchers

Manufacturer:

Lagendijk Constructie B.V.

Choorhoekseweg 3

4424 NW Wemeldinge

The Netherlands

Tel: +31 (0) 113 621385

Fax: +31 (0) 113 622591

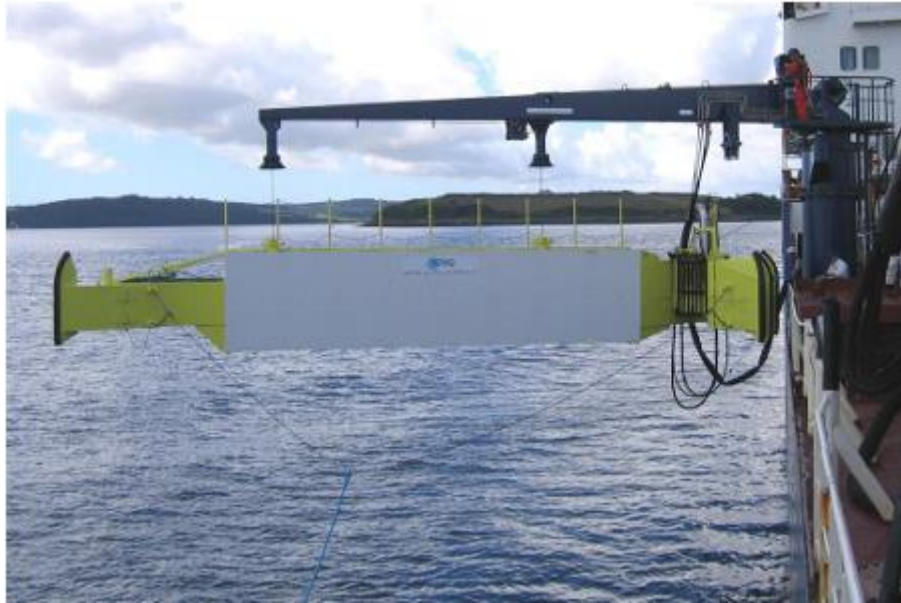
Email: info@lagendijk-constructie.nl.

Website: <http://www.lagendijk-constructie.nl>.

Two Lagendijk store cranes are intended for operating the sweeping arms and are specially designed for this purpose.

Technical specifications (Langendijk 7 5000/12.5-1000)

Marker	Lagendijk Constructive B.V
Year of construction	2007
Type	SK 7-5000/12.5-1000
Main dimensions	Length: 13.4 meters - Height: 5.4 meters
Propulsion	Hydraulic
Lifting capacity	5000 kg – 7 meters / 1000 kg – 12.5 meters
Tilt	3° max.



Lagendijk crane

1.7 Control panel

Manufacturer:

Lagendijk Constructie B.V.

Choorhoekseweg 3

4424 NW Wemeldinge

The Netherlands

Tel: +31 (0) 113 621385 - Fax: +31 (0) 113 622591

Email: info@lagendijk-constructie.nl.

Website: <http://www.lagendijk-constructie.nl>.

The crane and sweeping arms are operated throughout the control panel, which is on top of the crane pillar.

The panel is made up of 6 handles with which the operator can control the following elements:

- Sweeping arm pump.
- Sweeping arm weir skimmer height
- Sweeping arm debris screen
- Crane winch (1 ton)
- Crane winch (5 ton)
- Crane cylinder

1.8 MARFLEX diesel-hydraulic power pack

Manufacturer:

Marflex B.V.

Louis Pasteurstraat 12

3261 LZ Oud-Beijerland

The Netherlands

Tel: +31 186 89 02 00

Fax: +31 186 89 02 49

Email: info@marflex.com.

Website: www.marflex.com.

Description

The Marflex type DHP-120 power pack is a compact diesel engine driven hydraulic unit, suitable for operation in hazardous areas Zone II. Therefore, several protection devices are fitted on the diesel engine and on the hydraulic system to make it possible to run the power pack in the specified hazardous areas.

The power pack incorporates a protection/lifting frame built from high tensile seawater resistant aluminium. The power pack is driven by the water-cooled diesel engine.

On the power pack a dashboard is mounted equipped with indicators and controls such as:

- Hydraulic oil pressure indicator
- Hydraulic oil temperature indicator
- Lubricant pressure indicator
- Coolant (motor) temperature indicator
- Speed/running hour indicator
- Exhaust temperature indicator
- Pilot control valve to set the hydraulic oil pressure
- Vernier control to adjust the speed of the diesel engine
- Emergency stop handle to stop the air intake of engine
- Stop button to stop the power pack by blocking the fuel supply to the injection pump

All items in dashboard are indicated with nameplates.

The above-mentioned parts of the dashboard are necessary to operate and control the most important functions of the power pack.

The base of the power pack is equipped with wooden blocks mounted at the bottom of the fuel tank to prevent sparks between the power pack and deck or floor. In order to check the level of fuel, the fuel tank is equipped with a level indicator.

At the frame of the power pack four hoisting eyes are mounted. Hoisting of the power pack is only allowed by using these hoisting eyes.

Technical specifications	
Manufacturer	Marflex BV, The Netherlands
Intended use	Hydraulic power generation in Zone II areas
Year of construction	2006
Operational area	Zone II
Length	2200 mm
Height	2025 mm
Width	1200 mm
Weight	1600 kg excl. hydraulic oil and diesel fuel
	2200 kg incl. hydraulic oil and diesel fuel
Diesel engine	Perkins/1006-6-1552-2600
Rated power	76.5 kW at 2400 rpm intermittent
Fuel consumption engine	0.26 l/kW/h
Operational temperature	-20°C to +50°C (with temperatures below 0°C winter diesel fuel must be used)
Hydraulic pump	Rexroth A11VO 060 DRG
Hydraulic oil flow	120 l at 2400 rpm
Hydraulic oil pressure:	320 bar max
Connections:	1" quick coupling, female (high-pressure side)
	1 ½" quick coupling, female (return side)
Safety devices	High coolant (motor) temperature High exhaust pressure Low lubricant pressure Overspeed of diesel engine High hydraulic oil temperature Low hydraulic oil level Manual operated stop devices Intake shutdown valve
Volume of fuel tank	400 l

Volume of lubricant for engine	13 l
Volume of hydraulic oil tank	230 l
Volume of hydraulic oil tank	

One power pack cannot currently be started due to a suspected diesel pump issue. The second power pack is operational; however, the broken safety stop lever requires repair. The non-operational power pack is therefore included for use as spare parts at no additional cost.

1.9 FLUXUS F60x Portable Ultrasonic Flowmeter

Manufacturer

FLEXIM GmbH

Boxberger Straße 4

12681 Berlin

Germany

Tel.: +49 (30) 936 67 660

Fax: +49 (30) 936 67 680

E-mail: info@flexim.com.

www.flexim.com.



Flowmeter FLUXUS F60x

Description

The FLUXUS F60x is a portable clamp-on ultrasonic flowmeter designed for non-intrusive measurement of liquid flow in closed pipes. The system consists of a portable transmitter, ultrasonic transducer and installation accessories. The transducers are mounted externally on the pipe surface, eliminating the need for pipe cutting, process interruption or direct contact with the fluid.

The instrument uses Transit-time ultrasonic technology to determinate the flow velocity of the fluid and calculate volumetric flow rate, mass, flow rate, thermal energy, density and concentration depending on the installed configuration and connected sensors. For challenging applications involving aerated fluids or suspended solids, the instrument can operate in Noise Trek and HybridTrek measurement modes to remain reliable performance.

The FLUXUS F60x is suitable for temporary surveys, commissioning activities, troubleshooting, performance verification and routine monitoring of industrial and utility pipelines. The portable battery-powered design enables field operation without the need for a permanent power supply. Measured data can be displayed locally, stored in the internal data logger and transferred to external systems through configurable outputs and serial communications interfaces.

The measurement is performed without influencing the flow profile and without interrupting normal operations. Depending on the transducer selection and process conditions, the instrument can be used on a wide range of pipe materials, diameters and industrial fluids.

Technical Specifications	
Parameter	Specification
Equipment Type	Portable clamp-on ultrasonic flowmeter
Measurement Principle	Transit-Time ultrasonic method with optional NoiseTrek and HybridTrek modes
Installation Method	Non-intrusive, external clamp-on transducers
Measured Quantities	Flow velocity, volumetric flow rate, mass flow rate, thermal energy, sound speed
Pipe Requirement	Closed and completely filled pipes
Flow Direction Detection	Automatic bidirectional measurement
Measuring Channels	Up to 2 measurement channels (depending on configuration)
Display	Backlit 2 × 16-character display
User Interface	15-key keypad
Data Logging	Integrated data logger
Communication	RS232 serial interface
Analog Outputs	Current outputs (configuration dependent)
Digital Outputs	Frequency and binary outputs (configuration dependent)
Temperature Inputs	Pt100 / Pt1000 (optional)
Power Supply	Integrated rechargeable Li-ion battery
Maximum Battery Charging Time	Approximately 8 hours
Operating Modes	Transit-Time, NoiseTrek, NoiseTrek Parallel Beam, HybridTrek
Supported Pipe Arrangements	Reflection, Diagonal, X-arrangement and multi-beam configurations
Temperature Measurement	Optional external temperature probes
Data Export	ASCII data transmission, FluxDiag and FluxDiagReader compatible

2 Discharging

MARFLEX centrifugal pump MSP150-63

SEE 1.2 MARFLEX centrifugal pump MSP150-63 for description

3 Sampling/Testing

3.1 Minilab with densi- and viscosimeter

Manufacturer:

Zematra BV,

Steenspil 28,

4661 TZ, Halsteren,

The Netherlands

Phone: +31 (0)164 687770

Fax: +31 (0)164 680512

Website: www.zematra-marine.com.



Zematra minilab

Description

With the Mini-lab it is possible to measure the following parameters from an oil sample:

Density

Zematra manufactures a density unit which is fully in accordance with the specifications as mentioned in ASTM D1298 and IP 160. The sample is poured into a density tube, and this tube is then placed in a thermostatic controlled heater column to heat up the sample to 50°C.

After checking the temperature, a hydrometer is placed in the sample. Together with the hydrometer reading and a graph, the density of the sample (fuel oil or lube oil) at 15°C can be determined. Pour point

The portable Pour Point Test Kit allows determining the pour point (no-flow point) of oils and oil products by means of a simple but reliable kit of tubes, thermometer and coolant.

Water in Oil Test

This test kit enables you to determine the percentage of water in the lube oil/fuel oil. The test is performed by means of the "Calcium Hydride Pressure Test vessel Method". The value obtained can be used as a check on the lube oil separator, any water leakages and operation contamination. With the basic kit approx. 50 tests can be done.

Salt in Water Test

Following the water test kit, Zematra has also developed a so-called "Nature of Water" test. This is a method to determine fresh, brackish or salt nature of water.

Compatibility/Stability test

This compatibility/stability test is a modified version of the ASTM D4740-94 method. The test methods list two separate procedures for predicting stability of residual fuel oil and the compatibility of residual fuel oil with a blend stock.

Zematra TBN (Alkalinity) Test

This test kit is specially developed to check the TBN value (alkalinity) of the engine's lubricating oil. The test is performed by means of a pressure test vessel. With the basic kit approximately 50 tests can be done.

Viscosity meter by falling sphere method

The Zematra Mini-lab provides a simple way to determine the dynamic viscosity of the fuel. The operator only has to fill the tube for 3/4, add the calibrated (seize) stainless steel ball and top up with the fuel, allow the ball to reach the lower end, turn the meter upside down and measure the time that the ball (sphere) will take to reach the lower end of the calibrated distance and finally multiply the measured time with the given calibration factor and the viscosity in centiPoise is thus found.



Marine fuel viscosimeter

Content of the test kit		
Test	Description	Qty
Density	Thermally controlled density heater	1
	Thermometer, ASTM 12C	1
	ASTM Hydrometers in steps of 50	4
	Glass insert	1
	Density heater	1
Pour Point	Conical tube	1
	Test tube with cork	1
	Thermometer 5C	1
	Coolant aerosol	1

Stability	Chromatographic paper, box of 100	1
	Holder for filter paper	1
	Magnetic heater/stirrer	1
	Conical bottle	1
	PTFE/Aluminium oven	1
	Pair of tweezers	1
	Magnets 30x6 mm	2
	Reference spot sheet ASTM D4740	1
	Electrical digital thermometer	1
Water	Reaction vessel complete	1
	Water free diluent	1
	Water test solution, 50 ml	1
Salt	Box of Quantab strips	12
	Separation funnel	1
	Distilled water, 50 ml	1
	Reagent DG, 10 ml	1
	Glass vials	2
Alkalinity (TBN)	Reaction vessel complete	1
	TBN test solution, 500 ml	1
	Magnetic stirrer	1
	Magnets	2
Insoluble Test	Filter paper A4	20
	Perforated template	1
Viscosity	Marine fuel viscometer	1

3.2 Flash point tester Petrotest PMA-4

Manufacturer:

Petrotest Instruments GmbH & Co. KG

Ludwig-Erhard-Ring 13 ·

15827 Dahlewitz Germany·

Tel.: +49 (0) 33708 56 300

Fax: +49 (0) 33708 56 556

Website: www.petrotest.com.

Email: info@petrotest.com.



Petrotest PM4

Description

The Petrotest PMA4 flash-point tester is intended to determinate the flashpoint of petroleum products using the Pensky-Martens closed cup flash point test. In this test a brass test cup is filled with a sample of oil that is heated and stirred at specified rates. An ignition source is directed into the cup at regular intervals with simultaneous interruption of stirring until a flash that spreads throughout the inside of the cup is seen. The corresponding temperature is its flash point. The Petrotest device defines the flash point automatically, all the operator has to do is insert the filled test cup complete with the lid and multi detector, swing the multifunction head into test position, select one of the test methods and set the expected flashpoint. All the connections are carried out automatically including the coupling of the stirring motor. The operator of the PMA 4 has the choice to either apply a gas flame or an electrical ignite for each flash test, as the PMA 4 is equipped with both as a standard feature. The Petrotest PMA4 is manufactured in a high-grade stainless steel housing with two-colour powder coating, touch-key panel and large LC-display, swivel-mounted multi-function-head (One-Twist), two RS232-interfaces for data printer and computer connection, different test-programs, data-transfer and software upgrading through bi-directional interface, automatic barometric pressure correction, automatic overheat protection, power controlled/monitored electric igniter, gas igniter with auto relighting and safety shut-off and re-cooling fan. The device is provided with the PC software "PMANet", compatible with OS Windows, for easy handling and storing of data, as well as for program transfer from the PC memory into the PMA4.

The equipment is supplied with 1 cup "PM"

- 1 cover "PM"
- 1 multi-detector "PM"
- 1 gas igniter
- 1 electric igniter
- 1 tong for cup
- 1 tray for cup and multi-detector
- 1 stirrer coupling

- 1 PC software "PMANet"



Cup and cover



Gas and electric igniteers

Technical Specifications Petrotest PMA-4

Scope	Flash-point determination of petroleum products using the Pensky-Martens Method
	Method A: for distillate fuels (diesel, kerosene, heating oil, turbine fuels), new lubricating oils, paints vanishes and other homogeneous liquids.
	Method B: for residual fuel oils, cutback residual, used lubricating oils, non-homogeneous materials like mixtures of petroleum liquids & solids, surface-film building petroleum liquids or liquids with a viscosity above 5.5 cSt at +40°C. Used in shipping & safety regulations to define flammable and combustible materials
Temperature range	
PMA & Sampler:	Approximately +40 to +360 °C
PMA & Chilled	Below +40 to +360 °C
Programs	(acc. to international standards)
	4x ASTM-Standards
	4x ISO-Standards
	2x Rapid-Heating
	2x Search Run
	2x User Defined
Ignition type:	Gas and electric
Stirring speeds:	60 to 250 rpm (adjustable)

Sensing system:	Differential - thermocouple method
Barometric pressure:	Automatic correction of the measured values
Safety:	Overheat protection, automatic shut-off
Hardware Clock:	Included
Gas Connection:	For propane/butane or natural gas (max. 0.05 bar)
Interface:	RS-232 for printer, RS-232 for computer download
Display:	°C or °F (selectable), large LCD
Dimensions (WxDxH):	
PMA & Sampler:	PMA & Sampler:
PMA & Chilled	1000 x 470 x 650 mm, weight: 66 kg
Power Consumption	Approx. 900 Watts
Power Supply:	230/115 V, 50/60 Hz (selectable)