



# PROFESSIONAL JETTING EQUIPMENT & SOLUTIONS



# PROFESSIONAL JETTING EQUIPMENT & SOLUTIONS

PRO-JETTING offers a complete range of units, robots, parts and accessories for jetting and industrial cleaning up to 2800bar (40,600psi) backed by personal service and a certified in-house engineering department with over 20 years experience.

Our product lines include: (Ultra) High pressure units up to 2800 bar (40,600psi), Steam- and Hot water high pressure units, Tank- and industrial cleaning robotics and all complementary parts and accessories to help our customers making their everyday jobs safer, easier and more efficient.

PRO-JETTING'S product lines are engineered to comply with the SIR high pressure safety guidelines and with low-emissions engines that are compatible with renewable fuels.



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***“PRO-JETTING INNOVATES THE INDUSTRY WITH  
HIGH PRESSURE AND ROBOTIC TECHNOLOGIES”***

## **PRODUCT LINES**

- ELECTRIC, DIESEL AND PETROL HIGH PRESSURE UNITS
- INDUSTRIAL CLEANING ROBOTICS
- SPECIAL PURPOSE VEHICLES
- HOT & STEAM HIGH PRESSURE UNITS
- SEWER CLEANING VANPACKS
- PUMPS, PARTS AND COMPONENTS
- NOZZLES, HOSES AND ACCESSORIES
- CUSTOM ENGINEERING, OEM AND PRIVATE LABELLING





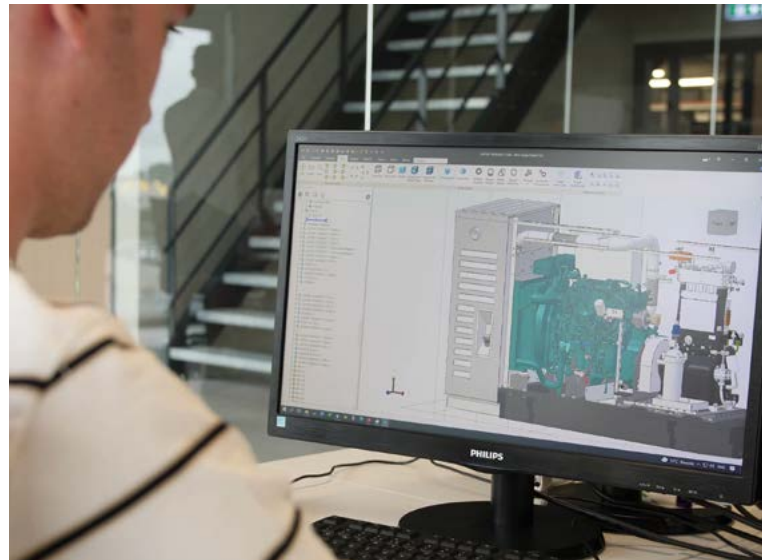


## SIR SAFETY

The safety of our customers is our first priority. Therefore we engineer, manufacture and service in accordance with the SIR (Association for Industrial Cleaning) guidelines with certified personnel and a 4200bar (61,000 psi) testing facility.

## CUSTOM IS OUR SPECIALTY

We understand the importance to stand out from competition and invite you to share your ideas and custom requirements, so that our engineers can realize tailored equipment and vehicle integration to suit your custom requirements.

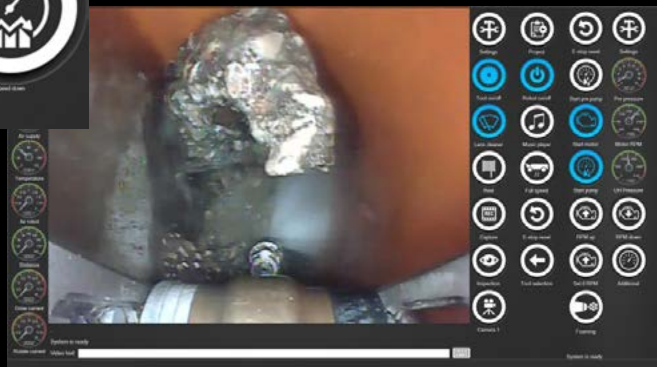


## SERVICE & MAINTENANCE

Our equipment is built as tough as can be, from durable materials and components.

The beauty of our equipment is the simplicity. A clean design with no more than necessary components that are easy accessible for service.

***“INTEGRATE HIGH PRESSURE UNITS’  
CONTROLS WITH **PROGRAM+**”***



Pump and robot controls with PROgram+



# CONTROL SOFTWARE

## PROGRAM+

PROgram+ is a customizable software interface for automatized- and robotic applications.

The PROgram+ software is windows based and integrates the controls and sensor readings from the high pressure unit with your tablet or PC.

The software can run on a tablet or PC in a slim window next to other programs, making it the ideal solution for operating the pump from the same control unit that is used for cleaning robots or other automatization programs.

The software communicates over Profinet what means that the computer can be connected via ethernet, WIFI or over internet.

### CONTROL FUNCTIONS

- Engine START / STOP
- Bypass valve OPEN / CLOSE
- Engine RPM UP / DOWN
- Custom RPM SET / RESET
- Engine REGENERATION
- Compressed Air PRESSURE ADJUSTMENT

### SAFETY

- Emergency stop
- Emergency reset
- Protection and warning messages for overheating, low oil level, low water level, low water supply pressure, and more.

### SENSOR READINGS

- Pump water supply pressure
- Pump high pressure
- Pump oil pressure
- Pump oil temperature
- Engine fuel level
- Engine temperature
- Engine oil pressure
- Engine AdBlue level
- Water tank level

### SERVICE

- Remote dial-in service assistance
- Hourcounters
- System reset
- Software updates and customization

# THE MOST **POWERFUL** HIGH PRESSURE UNIT OF ITS SIZE












## PRO CART

### ELECTRIC - PETROL - DIESEL

 **100 - 4000 BAR** (1,450 - 58,000 PSI)

 **4 - 144 LPM** (1 - 38 GPM)

 **18,5 - 30 KW** (25.2 - 41 HP)

PRO-JETTING PRO CARTS offer an unique and unbeatable combination of PRO features in a compact and mobile high pressure cart.

Available with a 22kW (30HP) or 30kW (41HP) 3-phase electric, 19kW (25HP) Stage V Diesel engine or 30kW (41HP) Petrol engine.

Direct driven pump with a stainless steel pump head for salt water usage, built in a durable, heavy-duty, stainless steel frame with lifting bar.

Water cooled and water tight protected frequency inverter for continuous RPM control and efficient pressure adjustment.\*

Easy-accessible large capacity bag filter in a durable, self-venting, housing.

User friendly, with intuitive controls and accessible components for fast setup and easy service.

\* Electric driven PRO CARTS



## PRO'S

---

- ⚡ **POWER** - UP TO 30KW (41HP)
- 📏 **COMPACT** - ALL STAINLESS STEEL, CART, WITH LIFTING BAR
- 🚚 **MOBILE** - LARGE DIAMETER WHEELS WITH SOLID TIRES
- ⚙️ **ADJUSTABLE RPM** - FOR EFFICIENT PRESSURE SETTING AND A WIDE SCOPE OF APPLICATIONS
- 🕒 **EASY REPLACEABLE FILTER** - BAGS IN DURABLE, FREEZE-PROOF, SELF-VENTING HOUSING
- 😊 **OPERATOR FRIENDLY** - INTUITIVE ELECTRONIC CONTROLS
- 🔧 **MAINTENANCE FRIENDLY** - ACCESSIBLE COMPONENTS AND MAINTENANCE KITS



## FREQUENCY INVERTER

---

PRO-JETTING's unique water cooled frequency inverter allows continuous RPM control for efficient pressure and flow adjustment, and gentle startup and stopping. (So no more blown fuses.)



## STORAGE

Space for documentation, filters, hose whips, tools and accessories, covered by a lid.



## ELECTRONIC CONTROLS

Intuitive, electronic, controls with dry-run- and temperature protection.



## MOBILITY

Compact design with large Alloy wheels with solid rubber tires and brakes.

## ALL STAINLESS STEEL

For usage offshore, at shipyards and other harsh environments with removable front- and side covers to make all components accessible for easy service and maintenance.



Diesel

## SAFETY VALVE

Easy accessible high pressure safety valve with drain valve to winterize the pump.



## FREQUENCY INVERTER

The water cooled and watertight protected frequency inverter is small in size with great performance for continuous pressure adjustment and gentle starting and stopping.



## BAG FILTER

Large capacity and washable bag filter in a durable, freeze-proof stainless steel, self venting, housing. (So no more broken filter housings.)

## LIFTABLE

From the centre lifting bar or its forklift clearance underneath.



Electric



## GAUGES

Convenient side-mounted water supply & high pressure gauges.



## QUICK CONNECT

Standard with M24 quick connect couplings and hose whip mount. (all other fittings are possible).

## STAINLESS PUMP HEAD

Available in a large variety of PRO-JETTING and HPP pumps mostly with stainless steel pump heads for salt water usage.

\* Electric driven PRO CARTS

## SERVICE DETAIL



**EASY ACCESSIBLE, AND NO MORE  
THAN NECESSARY COMPONENTS**

## HIGH PRESSURE PUMPS

The PRO CARTS are available with a large variety of PRO-JETTING and HPP pumps, mostly with stainless steel pump heads for salt water usage.



PRO-S18

### PRO'S

**DIRECT DRIVEN**

**STAINLESS STEEL PUMP HEAD**

**CERAMIC PLUNGERS**

**WATER COOLED PUMP CARTER**



## TECHNICAL DETAILS

### SPECIFICATIONS

Dimensions : 1200x750x900mm  
(47.2x29.5x35.4")  
Certification : CE  
: SIR (optional)

### FEATURES

- Dry run protection
- Engine temperature protection
- Safety valve

## ELECTRIC

|                    |  |                  |
|--------------------|--|------------------|
| Frequency inverter | : Liquid cooled                                    |                  |
| Motor brand        | : Nicolini   |                  |
| Power supply       | : 3-phase 400VAC / 50 Hz (optional 440VAC / 60 Hz) |                  |
| Connection         | : 63A 3-phase + 0                                  |                  |
| Power              | : 22kW (30HP)                                      | : 30kW (41 HP)   |
| Unit weight        | : 260kg (575lbs)                                   | : 325kg (660lbs) |

## PETROL

|   |                                   |
|---|-----------------------------------|
| Brand                                     | : Vanguard                        |
| Power                                     | : 30 kW (41hp)                    |
| Motor                                     | : 61G2 – liquid cooled            |
| Emission                                  | : Stage V                         |
| Unit weight                               | : 250 kg (550lbs)                 |
| Fuel tank capacity                        | : 18L (4.75gal) exchangeable tank |
| CAN-BUS Control for remote RPM adjustment |                                   |



## DIESEL

|               |                                   |
|---------------|-----------------------------------|
| Brand         | : Yanmar                          |
| Power         | : 19 kW (26hp)                    |
| Motor         | : 3TNV82A – liquid cooled         |
| Emission      | : Stage V                         |
| Unit weight   | : 340 kg (750lbs)                 |
| Fuel capacity | : 18L (4.75gal) exchangeable tank |



## ELECTRIC

| ITEM CODE           | PUMP TYPE    | PRESSURE |        | FLOW |     | POWER |    |
|---------------------|--------------|----------|--------|------|-----|-------|----|
|                     |              | BAR      | PSI    | LPM  | GPM | KW    | HP |
| HDE22-280-35-PRO    | PRO-DT20*    | 280      | 4,060  | 35   | 9   | 22    | 30 |
| HDE22-300-31CH-PRO  | CH 31/300*   | 300      | 4,350  | 31   | 8   | 22    | 30 |
| HDE30-107-144ET-PRO | ET 144/110   | 107      | 1,552  | 144  | 38  | 30    | 41 |
| HDE30-120-120ET-PRO | ET 120/120   | 120      | 1,740  | 120  | 32  | 30    | 41 |
| HDE30-150-101ET-PRO | ET 100/150   | 150      | 2,175  | 101  | 27  | 30    | 41 |
| HDE30-175-83ET-PRO  | ET 83/175    | 175      | 2,538  | 83   | 22  | 30    | 41 |
| HDE30-200-72ET-PRO  | ET 72/200    | 200      | 2,900  | 72   | 19  | 30    | 41 |
| HDE30-250-55-PRO    | PRO-HDT4*    | 250      | 3,625  | 55   | 15  | 30    | 41 |
| HDE30-300-43-PRO    | PRO-HDT3*    | 300      | 4,350  | 43   | 11  | 30    | 41 |
| HDE30-400-36-PRO    | PRO-HDT2*    | 400      | 5,800  | 36   | 10  | 30    | 41 |
| HDE30-500-30-PRO    | PRO-HDT1*    | 500      | 7,250  | 30   | 8   | 30    | 41 |
| HDE30-750-22-PRO    | PRO-HDSPEP1* | 700      | 10,179 | 22   | 6   | 30    | 41 |
| HDE30-1000-11-PRO   | PRO-HDSPEP3* | 1000     | 14,500 | 11   | 3   | 30    | 41 |
| HDE30-3863-4-PRO    | PRO-HINT1*   | 3863     | 56,014 | 4    | 1   | 30    | 41 |

\*Stainless steel pump head

## PETROL

| ITEM CODE            | PUMP TYPE    | PRESSURE |        | FLOW |     | POWER |    |
|----------------------|--------------|----------|--------|------|-----|-------|----|
|                      |              | BAR      | PSI    | LPM  | GPM | KW    | HP |
| HDMP30-107-144ET-PRO | ET 144/110   | 107      | 1,552  | 144  | 38  | 30    | 41 |
| HDMP30-120-121ET-PRO | ET 120/120   | 120      | 1,740  | 121  | 32  | 30    | 41 |
| HDMP30-150-100ET-PRO | ET 100/150   | 150      | 2,175  | 100  | 26  | 30    | 41 |
| HDMP30-200-60ET-PRO  | ET 72/200    | 200      | 2,900  | 60   | 16  | 30    | 41 |
| HDMP30-250-54ETH-PRO | ETH 54/250   | 250      | 3,625  | 54   | 14  | 30    | 41 |
| HDMP30-300-43-PRO    | PRO-HDT3*    | 300      | 4,350  | 43   | 11  | 30    | 41 |
| HDMP30-450-30-PRO    | PRO-HDT2*    | 450      | 6,525  | 30   | 8   | 30    | 41 |
| HDMP30-500-30-PRO    | PRO-HDT1*    | 500      | 7,250  | 23   | 6   | 30    | 41 |
| HDMP30-750-18-PRO    | PRO-HDSPEP1* | 750      | 10,878 | 18   | 5   | 30    | 41 |
| HDMP30-1000-11-PRO   | PRO-HDSPEP3* | 1000     | 14,500 | 11   | 3   | 30    | 41 |
| HDMP30-3850-4-PRO    | PRO-HINT1*   | 3850     | 55,825 | 4    | 1   | 30    | 41 |

\*Stainless steel pump head



# DIESEL

| ITEM CODE           | PUMP TYPE    | PRESSURE |        | FLOW |     | POWER |    |
|---------------------|--------------|----------|--------|------|-----|-------|----|
|                     |              | BAR      | PSI    | LPM  | GPM | KW    | HP |
| HDMD19-113-84CL-PRO | CL 66/140*   | 113      | 1,639  | 84   | 22  | 19    | 25 |
| HDMD19-130-62CL-PRO | CL 70/130*   | 130      | 1,885  | 62   | 16  | 19    | 25 |
| HDMD19-152-63CL-PRO | CL 49/200*   | 152      | 2,204  | 63   | 17  | 19    | 25 |
| HDMD19-300-26CH-PRO | CH 31/300*   | 300      | 4,350  | 26   | 7   | 19    | 25 |
| HDMD19-432-22CH-PRO | CH 25/500*   | 432      | 6,264  | 22   | 6   | 19    | 25 |
| HDMD19-491-19-PRO   | PRO-HDT1*    | 491      | 7,120  | 19   | 5   | 19    | 25 |
| HDMD19-700-12-PRO   | PRO-HDSPEP1* | 700      | 10,150 | 12   | 3   | 19    | 25 |

\*Stainless steel pump head

Contact PRO-JETTING if you can not find your desired pressure and flow combination. Chances are that we can still build it (up to 37kW and 1500 bar).

## OPTIONAL

- Electronic hour counter with track & trace
- Wired emergency stop
- Wireless remote control
- Additional fuel tank



# SUPERB CLEANING WITHOUT SURFACE DAMAGE

## WHY STEAM?

- THERMO SHOCK EFFECT
- ECO FRIENDLY
- NO SURFACE DAMAGE
- NO CHEMICALS
- NO WAITING TIME
- LOW WATER CONSUMPTION





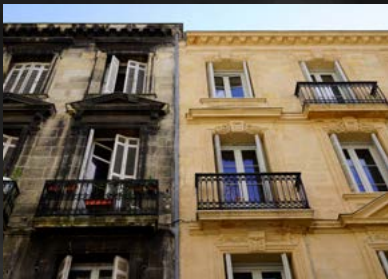


# Pro-Steam



# SUPERB CLEANING, NO DAMAGE!

Pro-steam combines high pressure with a very high temperature (150°C) for rapid and eco friendly cleaning without damaging delicate surfaces.



Safe for (monumental) statues, facades, buildings and rooftops.



Safe for wooden terraces, fencing, furniture and other surfaces. Leaving the wood as new, without damaging its fibres.



Safe for weed removal and cleaning terraces and (ceramic) tiles, leaving sand, grout and mortar inside the joints.



Removes oil, grease and other contaminants by thinning and dissolving them with heat.



Removes Graffiti, paint, road marking, coating, resin and glue without chemical strippers and without waiting times.



Removes chewing gum in a matter of seconds and faster than all other cleaning methods.



Removes atmospheric contaminants and smog.



Removes weed, algae and moss, and kills their spores.



Cleans and disinfects waste bins, containers, bus shelters and other urban structures by killing most germs and bacteria and removing odors.





## HOT AND STEAM UNITS

|   |   |
|---|---|
|   | <b>300 - 800 BAR</b> (4,350 - 11,600 PSI) |
|  | <b>95 - 150 °C</b> (200 - 300 °F)         |
|  | <b>9 - 55KW</b> (12 - 72 HP)              |

### PRO HOT

Hot water increases cleaning speeds as it liquifies greases and dissolves much more material than cold water. PRO-HOT high pressure units deliver high pressure water at 95°C to increase working speeds.

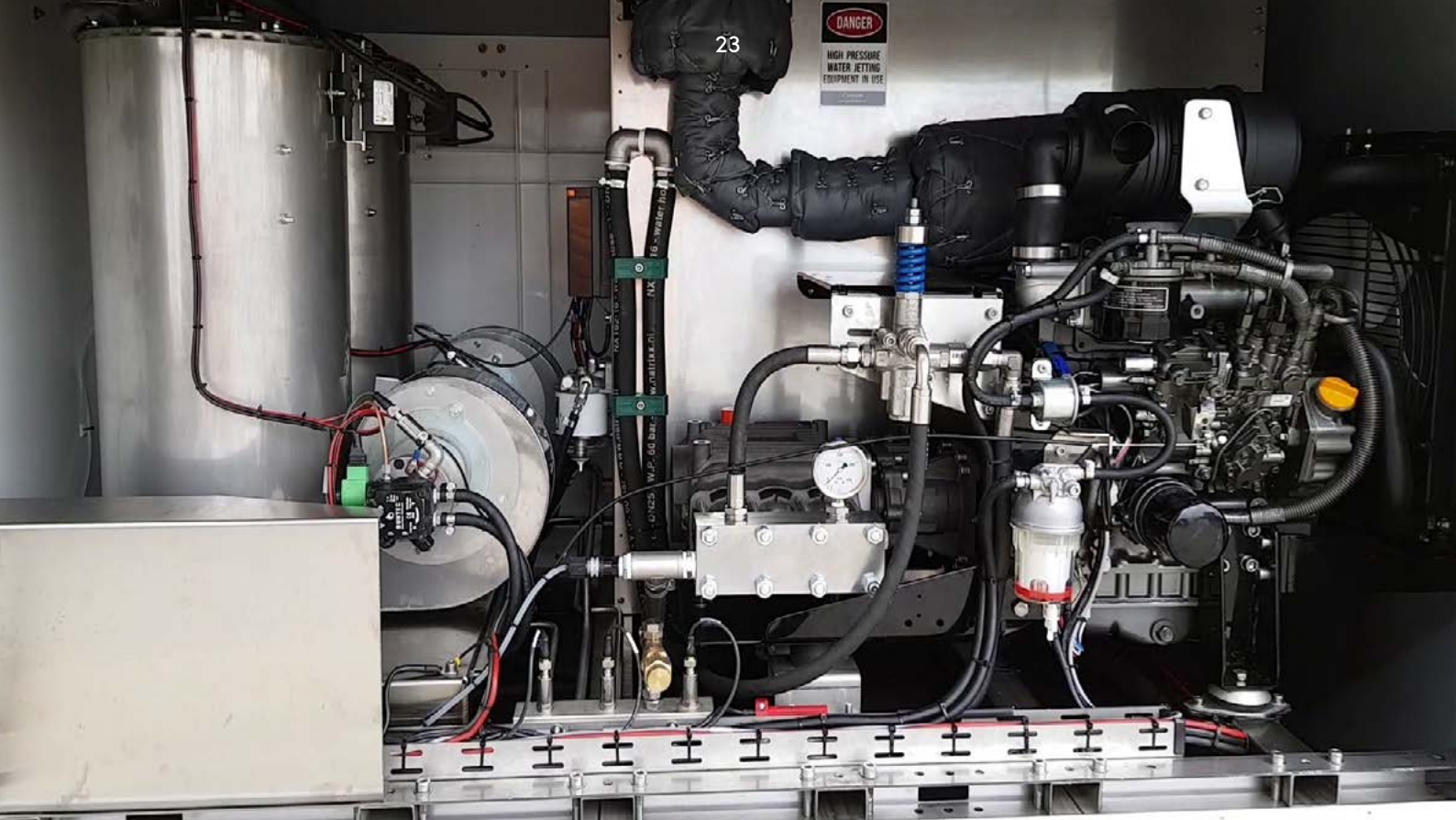
### PRO STEAM

PRO-STEAM regulates the unit to deliver steam at 150°C at an adjustable pressure up to 250 bar for removing graffiti and adhesives, chewing gum, atmospheric pollution, oils, weeds, algae and moss, and many other substances very fast, without chemicals and without damaging surfaces. All PRO-STEAM units can also be used at 95°C at the maximum pressure and flow for increased working speeds when steam is not required.

## ELECTRONIC CONTROLS

Intuitive, electronic control module for temperature settings, dry-run and temperature protection, burner diagnosis and for digital sensor readings such as temperature, pressure and water tank level.





## SERVICE DETAIL

All our hot water and steam high pressure units are designed in accordance to our engineering philosophy with reliable, and no more than necessary components that are easy accessible for service and maintenance.

## HIGH PRESSURE PUMPS

The PRO HOT and -STEAM units are available with a large variety of pressure and flow combinations with PRO-JETTING and HPP pumps.



HPP CH

**PRO'S**

**DIRECT DRIVEN**

**STAINLESS STEEL PUMP HEAD**

**CERAMIC PLUNGERS**

## USER FRIENDLY CONTROLS

Intuitive, electronic, controls with digital display and dry-run- and temperature protection.

## SOUND-PROOF CANOPY

Durable and compact sound insulating canopy with top-hinged access doors on both sides

## DESCALING SYSTEM

Descaling fluid dosing system for extended lifetimes.

## STAINLESS REELS

Stainless steel hose reels with 30 meters  $\frac{3}{4}$ " filling hose and 50m  $\frac{3}{8}$ " 150°C high pressure hose.  
Other lengths and automatic reels are optionally available.

## TRAILER

Compact trailer made of galvanized aluminum with leveler and rear stabilizer support jack.





## BURNER

Electronic controlled hot water burner compliant with PED regulation.

## LOW EMISSIONS

Yanmar Stage V with Diesel Exhaust Fluid after treatment system to reduce harmful emissions.

Compatible with alternative fuels HVO, BTL, GTL, CTL

## FUEL TANK

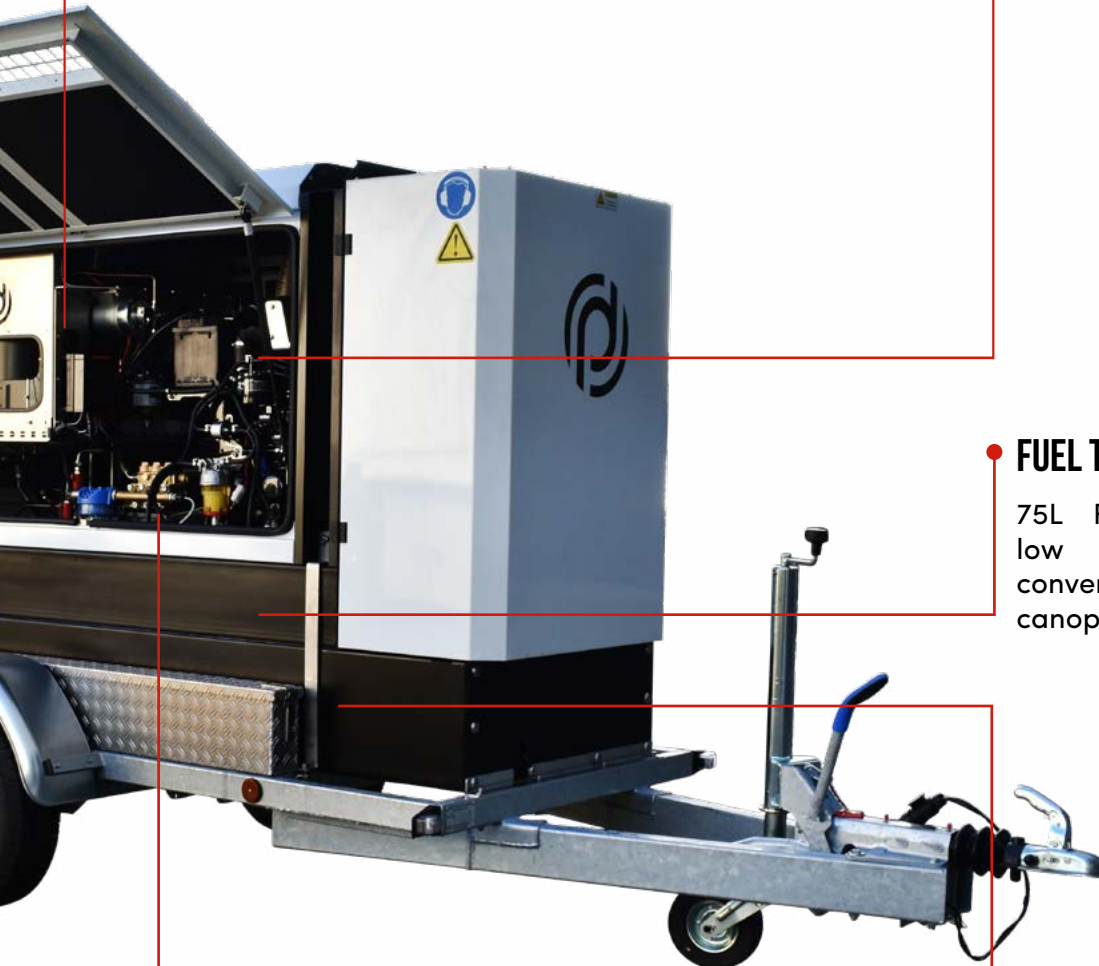
75L Fuel tank with a low center of gravity conveniently built in the canopy frame.

## PUMP

Easy accessible for service and available in a large variety of PRO-JETTING and HPP pumps.

## WATER SUPPLY

Large capacity water tank with a low center of gravity.



## DESCALING SYSTEM

Descaling fluid dosing system for extended lifetimes

## LOW EMISSIONS

Stage V, liquid cooled, Yanmar diesel engine.

Compatible with renewable HVO, BTL, GTL and CTL diesel fuels for reduced emissions.



## STORAGE

Lockable storage cabinet for equipment and accessories.

## WATER SUPPLY

900L flat bottom, baffled, water supply tank with a low center of gravity.

## TANDEM TRAILER

Tandem axle, braked, trailer made of galvanized steel with leveler and rear stabilizer support jack.



## STAINLESS REELS

Stainless steel hose reels with 30 meters  $\frac{3}{4}$ " filling hose and 50m  $\frac{3}{8}$ " 150°C high pressure hose. Other lengths and automatic reels are optionally available.



## USER FRIENDLY CONTROLS

Intuitive, electronic, controls with digital display and dry-run and temperature protection.



## EMERGENCY STOP

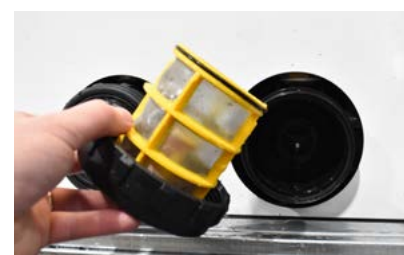
Double-Wired emergency stop in accordance with the SIR regulations.

## FUEL TANK

120L Diesel tank HDPE welded in the center of the water tank with a low center of gravity.

## CARTRIDGE FILTER

Washable cartridge filters in a self-venting housing.





# ***PRO-STEAM 20***

## ***VAN SKID***





## CONFIGURATIONS

The PRO HOT AND -STEAM UNITS are available as a canopy, canopy trailer, skid or trailer depending size.

| CANOPY A     | DIMENSIONS<br>MM   | WEIGHT<br>KG | WATER TANK<br>L | FUEL TANK<br>L |
|--------------|--------------------|--------------|-----------------|----------------|
| Without duct | 1460 x 730 x 1070  | 675          | –               | 60             |
| With tank    | 1910 x 730 x 1371  | 750          | 350             | 60             |
| Trailer      | 3740 x 1480 x 1880 | Max. 1300    | 350             | 60             |



**CANOPY TRAILER A**



**CANOPY B**

| CANOPY B     | DIMENSIONS<br>MM   | WEIGHT<br>KG | WATER TANK<br>L | FUEL TANK<br>L |
|--------------|--------------------|--------------|-----------------|----------------|
| Without duct | 1810 x 860 x 1150  | 975          | –               | 75             |
| With tank    | 2400 x 860 x 1300  | 1125         | 520             | 75             |
| Trailer      | 4000 x 1580 x 1950 | Max. 1500    | 520             | 75             |



**TANDEM TRAILER**



**SKID**

| TYPE           | DIMENSIONS<br>MM   | WEIGHT<br>KG | WATER TANK<br>L | FUEL TANK<br>L |
|----------------|--------------------|--------------|-----------------|----------------|
| Skid           | 2480 x 1220 x 1230 | 850*         | 950             | 126            |
| Tandem trailer | 3530 x 1780 x 2000 | Max 1700     | 950             | 126            |

\* HDMD15-300-26 PRO HOT with empty tank.



## YANMAR STAGE V DIESEL

The PRO HOT AND -STEAM UNITS are driven by reliable and fuel-efficient Yanmar TNV common rail STAGE V Diesel engines.



- Motor : 3TNM68-AS      3TNV82-AS      4TNV98      4TNV98CT
- Power : 14,7kW      23,0\*KW      51,7kW      53.7kW
- Cylinders : 3      3      4      4
- Type :                Turbo
- Cooling : Liquid cooled
- Emission : Stage V, Tier 4 final
- Fuels : Diesel, HVO, BTL, GTL, CTL

\* derated to 18.9 kW to comply with Euro Stage V

## AVAILABLE HOT AND STEAM UNITS

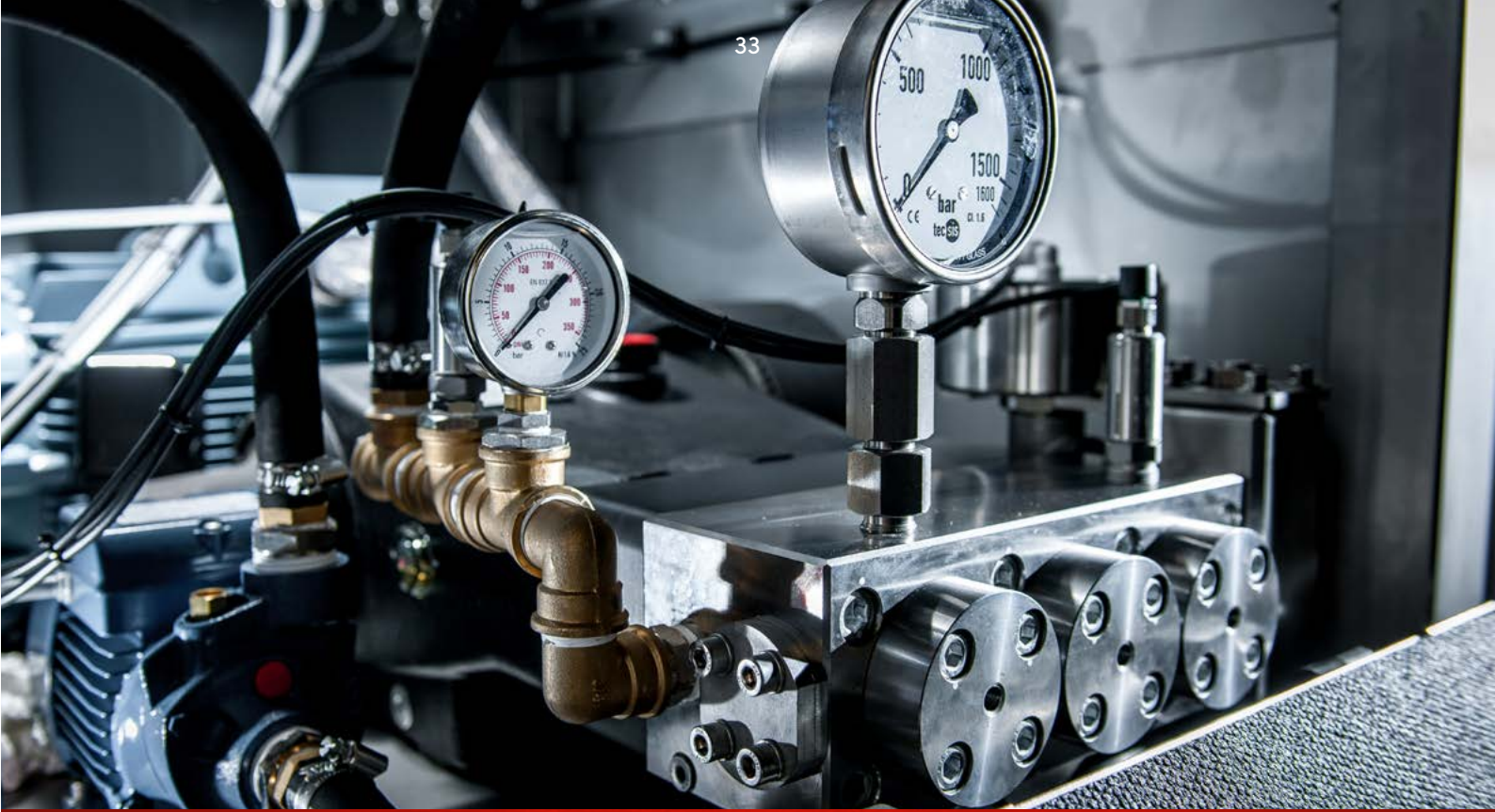
| ITEM CODE   | ENGINE    | PUMP        | BAR | LPM | °C       | CONFIGURATIONS                              |
|-------------|-----------|-------------|-----|-----|----------|---|
| 11-350-16** | 3TNM68-AS | TW7050S     | 350 | 16  | 95 / 150 | Canopy A (Trailer)                          |
| 11-500-15** | 3TNM68-AS | TW4073S     | 500 | 15  | 95 / 150 | Canopy A (Trailer)                          |
| 12-300-20** | 3TNM68-AS | TW7050S     | 300 | 20  | 95 / 150 | Canopy A (Trailer)                          |
| 14-350-20** | 3TNV82-AS | TW7050S     | 350 | 20  | 95 / 150 | Canopy B (Trailer),<br>Skid, Tandem Trailer |
| 15-300-26   | 3TNV82-AS | CH300/31*   | 300 | 26  | 95       | Canopy B (Trailer),<br>Skid, Tandem Trailer |
| 17-500-18   | 3TNV82-AS | TW5573S     | 500 | 18  | 95       | Canopy B (Trailer),<br>Skid, Tandem Trailer |
| 9-250-18D** | 3TNV82-AS | 2 x TW5550S | 250 | 18  | 95 / 150 | Canopy B (Trailer),<br>Skid, Tandem Trailer |
| 35-600-30   | 4TNV98C   | ELH30/600*  | 600 | 30  | 95       | Skid, Tandem Trailer                        |
| 37-500-38   | 4TNV98C   | ELH38/500*  | 500 | 38  | 95       | Skid, Tandem Trailer                        |
| 49-500-50D  | 4TNV98CT  | 2xCH500/25* | 500 | 50  | 95       | Skid, Tandem Trailer                        |
| 53-500-50   | 4TNV98CT  | ESH55/500*  | 500 | 50  | 95       | Skid, Tandem Trailer                        |
| 40-800-26** | 4TNV98CT  | EFV26/800*  | 800 | 26  | 90       | Skid, Tandem Trailer                        |

\* Stainless steel pump head \*\* The flow and pressure are controlled to reach max. temperature.

# HIGH EFFICIENCY

## HDE37





## HIGH PRESSURE UNIT

### ELECTRIC



**130 - 1000 BAR** (1,885 - 14,500 PSI)



**19 - 150 LPM** (5 - 40 GPM)



**37 KW** (50 HP)

The electric HDE37 high pressure unit is built inside an enclosed, durable and compact stainless steel frame with a light-weight and efficient ABB SynRM electric motor that delivers three times the power of a conventional electric motor of the same size.

Perfect for permanent installations inside (food) production plants or special purpose vehicles.

This high pressure unit with its frequency inverter, digital controls and ethernet connection is suitable for a large variety of software-controlled applications and integrates smoothly in automated cleaning- or production lines with pre-installed pressure/ and flow programs.



***“FOR AUTOMIZED PRODUCTION PLANTS OR  
SPECIAL PURPOSE VEHICLES”***





## HDE37 HIGH PRESSURE UNITS

| ITEM CODE      | PUMP TYPE | PRESSURE |        | FLOW |      | POWER |    |
|----------------|-----------|----------|--------|------|------|-------|----|
|                |           | BAR      | PSI    | LPM  | GPM  | KW    | HP |
| HDE37-1000-19S | HPP EV    | 1000     | 14,500 | 19   | 5    | 37    | 50 |
| HDE37-600-30S  | HPP ELH   | 600      | 8,700  | 30   | 8    | 37    | 50 |
| HDE37-500-38S  | HPP ELH   | 500      | 7,250  | 38   | 10   | 37    | 50 |
| HDE37-400-47S  | HPP ELH   | 400      | 5,800  | 47   | 12   | 37    | 50 |
| HDE37-310-59S  | HPP ELH   | 310      | 4,496  | 59   | 15.6 | 37    | 50 |
| HDE37-280-70S  | HPP ELH   | 280      | 4,060  | 70   | 18   | 37    | 50 |
| HDE37-210-85   | HPP ELS   | 210      | 3,050  | 85   | 22   | 37    | 50 |
| HDE37-160-122S | HPP ELS   | 160      | 2,321  | 122  | 32.2 | 37    | 50 |
| HDE37-130-150S | HPP ELS   | 130      | 1,885  | 150  | 40   | 37    | 50 |

### SPECIFICATIONS

|                    |  |
|--------------------|--|
| Frequency inverter | : ABB  |
| Power supply       | : 3-phase 400VAC / 50HZ<br>: (optional 440VAC / 60 Hz) |
| Connection         | : 63A 3-phase + 0                                      |
| Motor              | : ABB 132 SMF 4,HO<br>: SynRM technology               |
| Weight             | : 280 kg (620lbs)                                      |
| Dimensions         | : 760x882x904mm<br>: (30x35x36")                       |
| Protection         | : IP54   |
| Certifications     | : SIR<br>: CE  |

### FEATURES

- Compact and durable stainless steel frame
- Frequency inverter for continuous pressure adjustment
- Digital controls and ethernet connection for automatic and robot integrations via PROgram +
- Easily replaceable filter
- Electronic over and under pressure monitoring
- Electronic water supply pressure monitoring
- Frequency controlled supply pump
- Remote control (optional)



## DNV HIGH PRESSURE UNIT

### ELECTRIC

-  **130 - 1500 BAR** (1,885 - 21,750 PSI)
-  **19 - 220 LPM** (5 - 58 GPM)
-  **55 KW** (76 HP)

This electric driven high pressure unit is conveniently installed in a durable DNV container with stainless steel pump head and frequency inverter for offshore and industrial cleaning applications.

Available with electric drive up to 55 kW, with a maximum pressure of 1500 bar or a maximum flow of 220 LPM.

The stackable, heavy-duty, DNV certified container has lifting eyes and forklift pockets for easy transportation.



## AVAILABLE DNV HIGH PRESSURE UNITS

| ITEM CODE         | PUMP TYPE | PRESSURE |        | FLOW |     | POWER |    |
|-------------------|-----------|----------|--------|------|-----|-------|----|
|                   |           | BAR      | PSI    | LPM  | GPM | KW    | HP |
| HDE55-2200-12-PRO | PRO-HTU1  | 2200     | 31,900 | 12   | 3   | 55    | 76 |
| HDE55-1500-19-PRO | HPP ESV   | 1500     | 21,750 | 19   | 5   | 55    | 76 |
| HDE55-1000-26-PRO | HPP ESV   | 1000     | 14,500 | 26   | 7   | 55    | 75 |
| HDE55-600-38-PRO  | HPP ESH   | 600      | 8,700  | 38   | 10  | 55    | 75 |
| HDE55-500-55-PRO  | HPP ESH   | 500      | 7,250  | 55   | 15  | 55    | 75 |
| HDE55-400-68-PRO  | HPP ESH   | 400      | 5,800  | 68   | 18  | 55    | 75 |
| HDE55-310-82-PRO  | HPP ESH   | 310      | 4,495  | 82   | 22  | 55    | 75 |
| HDE55-250-106-PRO | HPP ES    | 250      | 3,625  | 106  | 28  | 55    | 75 |
| HDE55-210-133-PRO | HPP ES    | 210      | 3,045  | 133  | 35  | 55    | 75 |
| HDE55-185-153-PRO | HPP ES    | 190      | 2,683  | 153  | 40  | 55    | 75 |
| HDE55-153-185-PRO | HPP ES    | 155      | 2,219  | 185  | 49  | 55    | 75 |
| HDE55-130-220-PRO | HPP ES    | 130      | 1,885  | 220  | 58  | 55    | 76 |

***"GREAT FOR OFFSHORE USAGE WITH SALT WATER PUMP AND FREQUENCY INVERTER IN A DURABLE DNV CONTAINER"***

### SPECIFICATIONS

|                    |  |
|--------------------|--|
| Frequency inverter | : PRO-JETTING  |
| Power supply       | : 3-phase 400VAC / 50HZ<br>: (optional 440VAC / 60 Hz)   |
| Connection         | : 63A 3-phase + N  |
| Motor              | : ABB 250 SMA  |
| Weight             | : 1600 kg (3527lbs)  |
| Drive              | : Electric 3 phases  |
| Dimensions         | : 1230x2200x1140mm<br>: (52x87x45")  |
| Certifications     | : Designed, built and<br>: certified to DNV 2.7-1 / BS<br>: EN12079<br>: Atex ZONE 2 (OPTIONAL)<br>: CE<br>: SIR |

### FEATURES

- Heavy-duty DNV container with front access doors and top storage lid
- Stainless steel pump head for salt water applications
- Frequency inverter for continuous pressure adjustment
- Digital controls and ethernet connection for automatic and robot integrations via PROgram +
- Easily cleanable water filter
- Electronic over and under pressure monitoring
- Electronic water supply pressure monitoring
- Frequency controlled water supply pump
- Remote control (optional)













***“COMPACT AND SOUND-PROOF CANOPY  
WITH A **STAGE V** DIESEL UP TO 55KW”***



## HDMD55 HIGH PRESSURE UNIT

### DIESEL

|   |                                     |
|---|-------------------------------------|
|  | 130 - 2200 BAR (1,885 - 31,900 PSI) |
|  | 12 - 220 LPM (3.2 - 58 GPM)         |
|  | 55 KW (75 HP)                       |

This diesel engine driven high pressure unit is available up to 55 kW (75PK) and conveniently built inside a compact and soundproof canopy.

Driven by a fuel efficient Yanmar stage V diesel engine and available with a variety of reliable HPP and PRO-JETTING pumps with pressures ranging up to 2200bar (31,900psi) and flow rates up to 220 LPM (58GPM).

The high pressure unit has intuitive digital controls that can be used with PROgram+ software for a seamless integration of the pump controls with Sewer Robotics'-, or your own robotic systems or automated applications.

The soundproof canopy can be used stationary, configured as a trailer or fitted crosswise inside a container or box truck.



## LOW EMISSIONS, RELIABLE AND FUEL EFFICIENT

The Yanmar TNV common rail STAGE V Diesel engines are extremely reliable and supported with a worldwide service network and 5 years factory warranty.

- Compliant with STAGE V and Tier 4 final
- Low fuel consumption
- Low noise and vibration
- Outstanding cold startability
- Compatibility with HVO, BTL, GTL, CTL fuels

## ELECTRONIC PUMP CONTROLS AND PROGRAM+

With emergency stop, optional (wireless) remote control, or software integrations for automatic applications and controlling the high pressure unit safe and convenient from a (robot) control unit with all important operating data at a glance.



## HIGH PRESSURE PUMPS

The HDMD55 is available in a variety of pressure and flow combinations with PRO-JETTING UT and HPP ES, ESH and ESV pumps with stainless steel pump heads.



HPP EFV

### PRO'S

DIRECT DRIVEN

STAINLESS STEEL PUMP HEAD

CERAMIC PLUNGERS

## WIRELESS REMOTE CONTROL

Optional wireless receiver with remote control to start/ stop, adjust the RPM (pressure) and open/ close the by-pass valve.



## USER FRIENDLY CONTROLS

Intuitive, and electronic controls with dry-run- and temperature protection, compatible with PROgram+.



## CONVENIENT CONNECTIONS

For ease of operation and minimized startup times.

## CARTRIDGE FILTER

Large capacity and washable cartridge or bag filter in a self bleeding, housing.

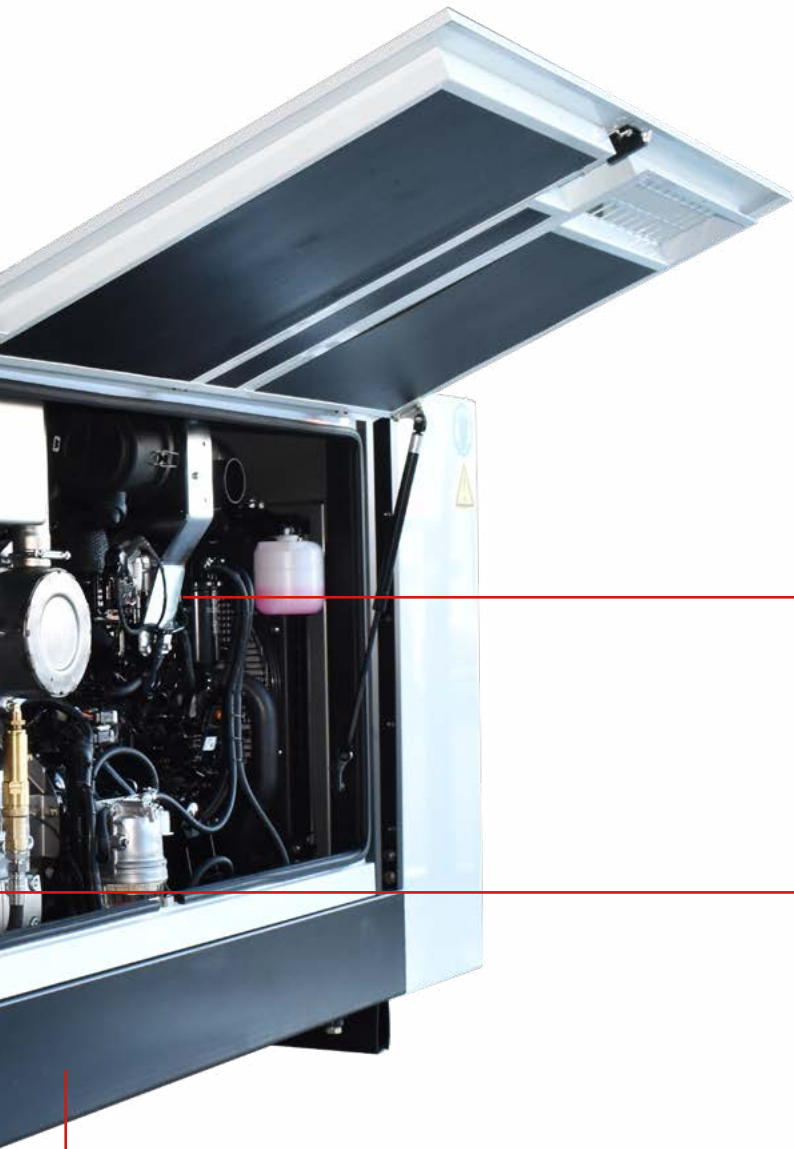
## SOUND-PROOF CANOPY

Durable and compact sound insulating canopy with hinged access doors on 3 sides.

## LOW EMISSIONS

Yanmar Stage V with Diesel Exhaust Fluid after treatment system to reduce harmful emissions.

Compatible with alternative fuels HVO, BTL, GTL, CTL.



## YANMAR TURBO DIESEL

Reliable and fuel-efficient, liquid cooled, Yanmar Stage V turbo diesel engine with digital CAN control.

## FUEL TANK

75L Fuel tank with a low center of gravity conveniently built inside the canopy frame.

## PUMP

Easy accessible for service and available in a large variety of PRO-JETTING and HPP pumps mostly with stainless steel pump heads for saltwater usage.





## CONFIGURATIONS

The HDMD55 Diesel high pressure unit is built inside a sound-proof canopy that can be configured as a trailer with a bottom water tank.

| TYPE                    | DIMENSIONS<br>MM   | WEIGHT<br>KG | WATER TANK<br>L | FUEL TANK<br>L |
|-------------------------|--------------------|--------------|-----------------|----------------|
| Canopy                  | 1810 x 860 x 1150  | 975          | -               | 75             |
| Canopy with vent cover  | 2400 x 860 x 1300  | 1125         | -               | 75             |
| Trailer                 | 4000 x 1580 x 1650 | Max. 1500    | 520             | 75             |
| Trailer with water tank | 4000 x 1580x 1950  | Max. 1500    | 520             | 75             |

## YANMAR STAGE V DIESEL

- Brand : Yanmar
- Power : 55kW (75HP)
- Motor : 4TNV98CT
- Type : Turbo, 4-cyl. liquid cooled
- Emission : Stage V, Tier 4 final
- Fuels : Diesel, HVO, BTL, GTL, CTL



## HDMD55 DIESEL HIGH PRESSURE UNITS

| ITEM CODE          | PUMP TYPE | PRESSURE |        | FLOW |     | POWER |    |
|--------------------|-----------|----------|--------|------|-----|-------|----|
|                    |           | BAR      | PSI    | LPM  | GPM | KW    | HP |
| HDMD55-2200-12-PRO | PRO-HTU1  | 2200     | 31,900 | 12   | 3   | 55    | 75 |
| HDMD55-1500-19-PRO | HPP ESV   | 1500     | 21,750 | 19   | 5   | 55    | 75 |
| HDMD55-1000-26-PRO | HPP ESV   | 1000     | 14,500 | 26   | 7   | 55    | 75 |
| HDMD55-600-38-PRO  | HPP ESH   | 600      | 8,700  | 38   | 10  | 55    | 75 |
| HDMD55-500-55-PRO  | HPP ESH   | 500      | 7,250  | 55   | 15  | 55    | 75 |
| HDMD55-400-68-PRO  | HPP ESH   | 400      | 5,800  | 68   | 18  | 55    | 75 |
| HDMD55-310-82-PRO  | HPP ESH   | 310      | 4,495  | 82   | 22  | 55    | 75 |
| HDMD55-250-106-PRO | HPP ES    | 250      | 3,625  | 106  | 28  | 55    | 75 |
| HDMD55-210-133-PRO | HPP ES    | 210      | 3,045  | 133  | 35  | 55    | 75 |
| HDMD55-185-153-PRO | HPP ES    | 190      | 2,683  | 153  | 40  | 55    | 75 |
| HDMD55-153-185-PRO | HPP ES    | 155      | 2,219  | 185  | 49  | 55    | 75 |
| HDMD55-130-220-PRO | HPP ES    | 130      | 1,885  | 220  | 58  | 55    | 75 |

## FEATURES

- Compact sound-proof canopy with top-hinging access doors at both sides
- Adjustable RPM for continuous pressure adjustment
- Digital controls and ethernet connection for automatic- and robot integrations via PROgram+
- Easily cleanable or replaceable water filter
- Electronic over pressure monitoring
- Electronic water supply pressure monitoring
- Emergency stop
- SIR certified
- Ce certified
- Remote control (optional)

***“MODERN DAY TECHNOLOGY WITH A  
RELIABLE **STAGE V** ENGINE INSIDE  
A SOUNDPROOF HOUSING”***







# ULTRA HIGH PRESSURE UNIT

## DIESEL



 400 - 2800 BAR (5,800 - 40,600 PSI)

 180 - 13,5 LPM (47.6 - 3.6 GPM)

 63 - 168 KW (86 - 229 HP)

## HDMD 100, 150 & 200

The HDMD 100, 150 and 200 high-pressure unit series offer an unbeatable price/quality ratio.

Available with (63 - 168 kW) vertical, HPP high pressure/ultra-high-pressure pump, powered by a fuel-efficient and reliable Volvo\* stage V diesel engine.

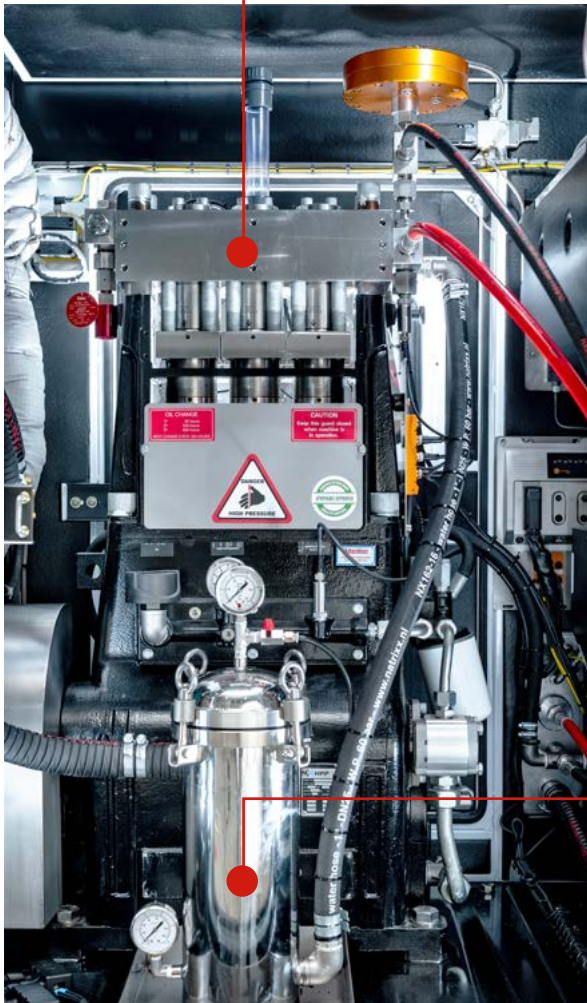
Quick start-up and easy-to-use with convenient connections and modern electronic controls that allow smooth integration with (semi) automatic and robot applications.

Available as compact soundproof canopy, skid or trailer.

\*Other engines available upon request.

# HPP P-SERIES VERTICAL PUMP

High pressure plunger pump with oil pressure lubrication, oil cooler, and Intellivalve pump head technology that saves time and costs during maintenance or fluid ends conversions.



## PRO'S

- DIRECT DRIVE
- INTELLIVALVE
- EASY MAINTENANCE AND CONVERSIONS
- HEAT EXCHANGER
- BYPASS VALVE

## WATER SUPPLY FILTER

With easy exchangeable filter bags in a stainless steel, self venting housing.



## USER FRIENDLY CONTROLS

To start/ stop the engine, open/ close the (U)HP valve, continuously adjust the rpm/ pressure and emergency stop button.

The convenient LCD screen has WIFI to display the engine-, pre-pressure- and high pressure data. And for full compatibility with PROgram+ to integrate the pump controls with robot- and automatic applications.



## CONVENIENT CONNECTIONS

For ease of operation and minimized startup times, and optional remote control and emergency stop.

## POWERFUL, RELIABLE AND FUEL EFFICIENT

Volvo Penta 4-cylinder, common rail, turbo diesel engine with world-class fuel efficiency combined with a reliable Stage V Exhaust After Treatment System (EATS) gives high uptime as well as low cost of ownership.

Compatible with alternative fuels: HVO - BTL - GTL - CTL.

| HDMD    | P100     |        | P150     |        | P200     |        |
|---------|----------|--------|----------|--------|----------|--------|
| Engine* | TAD581VE |        | TAD582VE |        | TAD583VE |        |
| Power   | 129 kW   | 175 hp | 160 kW   | 218 hp | 175 kW   | 238 hp |

\* Other engine makes and models available upon request.



### STAGE V AFTER TREATMENT

The Stage V after-treatment and ad-blue DEF tank are conveniently installed inside a separate compartment.

### PRO'S



USER-FRIENDLY



MINIMIZED STARTUP TIMES



INDUSTRIAL ELECTRONIC CONTROL SYSTEM



AUTO-DIAGNOSE



REMOTE DIAL-IN



RELIABLE



LOW FUEL CONSUMPTION



LOW EMISSIONS



LOW NOISE LEVELS

## CONFIGURATIONS

The HDMD Diesel engine driven high pressure units are available as a soundproof canopy with large fuel tank, forklift pockets and lifting eyes, or as an open skid or a tandem axle 3.5T trailer.

| HDMD    | DIMENSIONS     |                    | WEIGHT |       |
|---------|----------------|--------------------|--------|-------|
|         | MM             | INCHES             | KG     | LBS   |
| Canopy  | 3006x1083x1833 | 118.35x42.64x72.17 | 2100   | 4629  |
| Trailer | 4500x1630x2120 | 177.2x64.2x83.5    | <3500  | <7700 |

Alternatively, PRO-JETTING (Ultra) high pressure units can be driven electric or by the engine of a truck via its Power Take Off (PTO).

## ELECTRONIC PUMP CONTROLS

With emergency stop, optional (wireless) remote control, or software integrations for automatic applications and controlling the high pressure unit safe and convenient from a (robot) control unit with all important operating data at a glance.



## HDMD 100

| ITEM CODE        | PUMP TYPE  | PLUNGER |      | PRESSURE |        | FLOW  |      | POWER |     |
|------------------|------------|---------|------|----------|--------|-------|------|-------|-----|
|                  |            | MM      | INCH | BAR      | PSI    | LPM   | GPM  | KW    | HP  |
| HDMD-100-2800-14 | P-100 UAP* | 12      | 0.47 | 2800     | 40,600 | 13,5  | 3.6  | 95    | 71  |
| HDMD-100-2500-19 | P-100 UAP* | 14      | 0.55 | 2500     | 36,250 | 18,5  | 4.9  | 86    | 115 |
| HDMD-100-2000-25 | P-100 UAP* | 16      | 0.63 | 2000     | 29,000 | 25,0  | 6.6  | 90    | 121 |
| HDMD-100-1400-31 | P-100 UAP* | 18      | 0.71 | 1400     | 20,300 | 31,0  | 8.2  | 79    | 106 |
| HDMD-100-1000-38 | P-100 UAP* | 20      | 0.79 | 1000     | 14,500 | 38,0  | 10.0 | 70    | 94  |
| HDMD-100-900-46  | P-100 SAP* | 22      | 0.87 | 900      | 13,050 | 45,7  | 12.1 | 76    | 104 |
| HDMD-100-750-54  | P-100 SAP* | 24      | 0.94 | 750      | 10,875 | 54,4  | 14.4 | 76    | 103 |
| HDMD-100-650-64  | P-100 SAP* | 26      | 1.02 | 650      | 9,425  | 63,9  | 16.9 | 77    | 105 |
| HDMD-100-600-74  | P-100 SAP* | 28      | 1.10 | 600      | 8,700  | 74,1  | 19.6 | 82    | 112 |
| HDMD-100-500-85  | P-100 SAP* | 30      | 1.18 | 500      | 7,250  | 85,1  | 22.5 | 79    | 107 |
| HDMD-100-420-97  | P-100 SAP* | 32      | 1.26 | 420      | 6,090  | 96,8  | 25.6 | 75    | 102 |
| HDMD-100-330-116 | P-100 SAP* | 35      | 1.38 | 330      | 4,785  | 115,8 | 30.6 | 71    | 96  |
| HDMD-100-270-151 | P-100 SAP* | 40      | 1.57 | 270      | 3,915  | 151,2 | 39.9 | 76    | 103 |

\* Available with horizontal pump only.



## HDMD 150

| ITEM<br>CODE     | PUMP<br>TYPE | PLUNGER |      | PRESSURE |        | FLOW  |      | POWER |     |
|------------------|--------------|---------|------|----------|--------|-------|------|-------|-----|
|                  |              | MM      | INCH | BAR      | PSI    | LPM   | GPM  | KW    | HP  |
| HDMD-150-2800-24 | P-150 UAP    | 16      | 0.63 | 2800     | 40,600 | 24,0  | 6.3  | 126   | 169 |
| HDMD-150-2200-32 | P-150 UAP    | 18      | 0.71 | 2200     | 31,900 | 31,0  | 8.2  | 125   | 168 |
| HDMD-150-1800-38 | P-150 UAP    | 20      | 0.79 | 1800     | 26,100 | 38,0  | 10.0 | 126   | 169 |
| HDMD-150-1400-46 | P-150 SAP    | 22      | 0.87 | 1400     | 20,300 | 45,7  | 12.1 | 119   | 161 |
| HDMD-150-1200-54 | P-150 SAP    | 24      | 0.94 | 1200     | 17,400 | 54,4  | 14.4 | 121   | 165 |
| HDMD-150-1000-64 | P-150 SAP    | 26      | 1.02 | 1000     | 14,500 | 63,9  | 16.9 | 118   | 161 |
| HDMD-150-830-74  | P-150 SAP    | 28      | 1.10 | 830      | 12,035 | 74,1  | 19.6 | 114   | 155 |
| HDMD-150-750-85  | P-150 SAP    | 30      | 1.18 | 750      | 10,875 | 85,1  | 22.5 | 118   | 161 |
| HDMD-150-640-97  | P-150 SAP    | 32      | 1.26 | 640      | 9,280  | 96,8  | 25.6 | 115   | 156 |
| HDMD-150-560-116 | P-150 SAP    | 35      | 1.38 | 560      | 8,120  | 115,8 | 30.6 | 120   | 163 |
| HDMD-150-400-151 | P-150 SAP    | 40      | 1.57 | 400      | 5,800  | 151,2 | 39.9 | 112   | 152 |

## HDMD 200

| ITEM<br>CODE     | PUMP<br>TYPE | PLUNGER |      | PRESSURE |        | FLOW  |      | POWER |       |
|------------------|--------------|---------|------|----------|--------|-------|------|-------|-------|
|                  |              | MM      | INCH | BAR      | PSI    | LPM   | GPM  | KW    | HP    |
| HDMD-200-2800-29 | P-200 UAP    | 16      | 0.63 | 2800     | 40,600 | 28,5  | 7,5  | 150   | 201   |
| HDMD-200-2500-36 | P-200 UAP    | 18      | 0.71 | 2500     | 36,250 | 36,0  | 9.5  | 168   | 225   |
| HDMD-200-2000-45 | P-200 UAP    | 20      | 0.79 | 2000     | 29,000 | 45,0  | 11.9 | 166   | 223   |
| HDMD-200-1470-54 | P-200 SAP    | 22      | 0.87 | 1470     | 21,315 | 54,1  | 14.3 | 147,4 | 200,4 |
| HDMD-200-1300-64 | P-200 SAP    | 24      | 0.94 | 1300     | 18,850 | 64,4  | 17.0 | 155,1 | 210,9 |
| HDMD-200-1200-76 | P-200 SAP    | 26      | 1.02 | 1200     | 17,400 | 75,6  | 20.0 | 168   | 228,5 |
| HDMD-200-1000-88 | P-200 SAP    | 28      | 1.10 | 1000     | 14,500 | 87,7  | 23.2 | 162,4 | 220,8 |
| HDMD-200-800-101 | P-200 SAP    | 30      | 1.18 | 800      | 11,600 | 100,7 | 26.6 | 149,2 | 202,8 |
| HDMD-200-700-115 | P-200 SAP    | 32      | 1.26 | 700      | 10,150 | 114,5 | 30.3 | 148,5 | 201,9 |
| HDMD-200-600-137 | P-200 SAP    | 35      | 1.38 | 600      | 8,700  | 137,0 | 36.2 | 152,3 | 207   |
| HDMD-200-450-179 | P-200 SAP    | 40      | 1.57 | 450      | 6,525  | 179,0 | 47.3 | 149,2 | 202,8 |



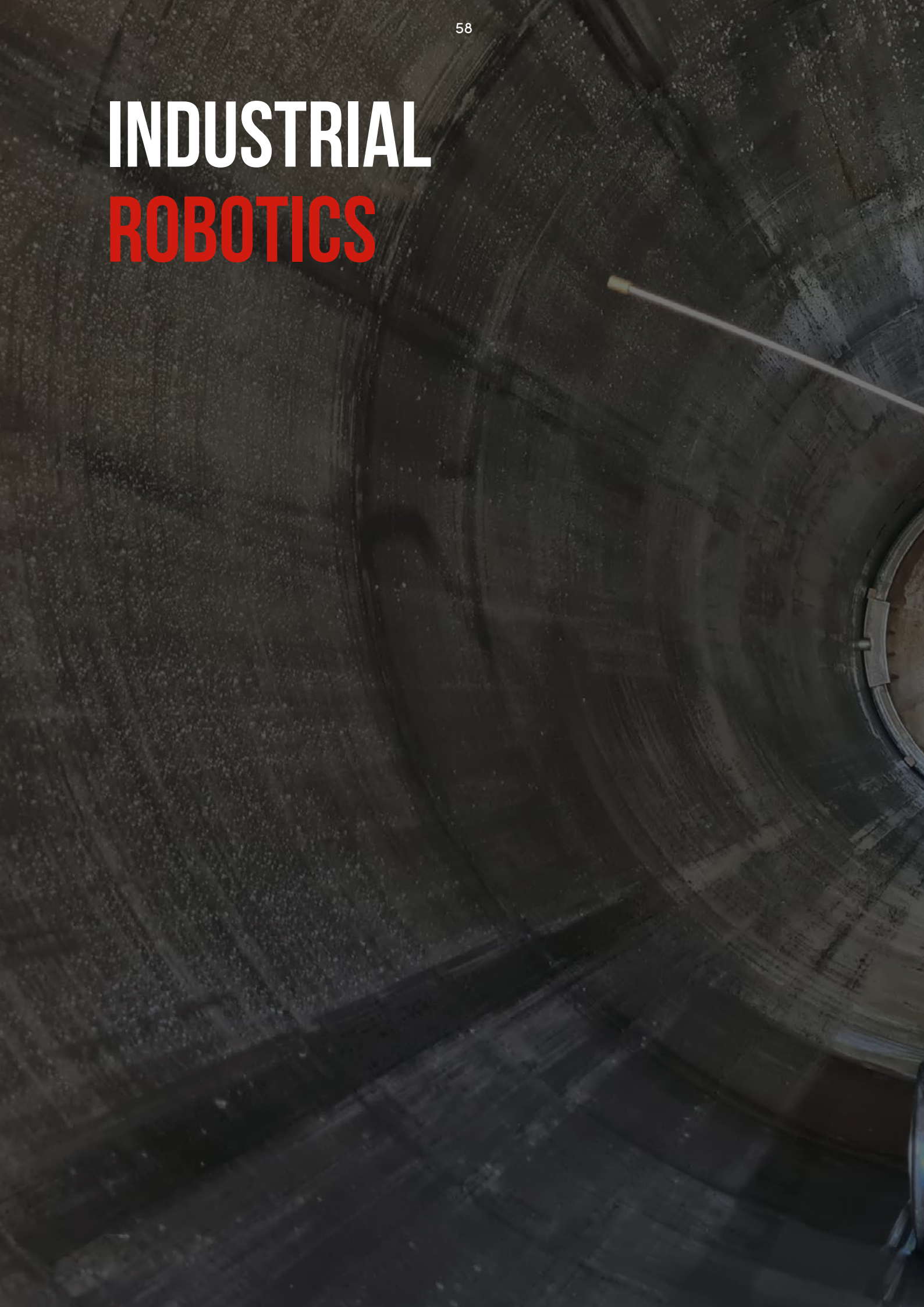




***“PROGRAM+ SOFTWARE FOR  
AUTOMIZED AND ROBOTIC  
APPLICATIONS”***



# INDUSTRIAL ROBOTICS





***“INTENSE **CLEANING** CLOSE TO THE  
SURFACE OF LARGE DIAMETER  
PIPES AND TANKS”***



## ***"CLEANING OF (SEA)WATER INTAKES, HORIZONTAL TANKS, & PIPELINES"***

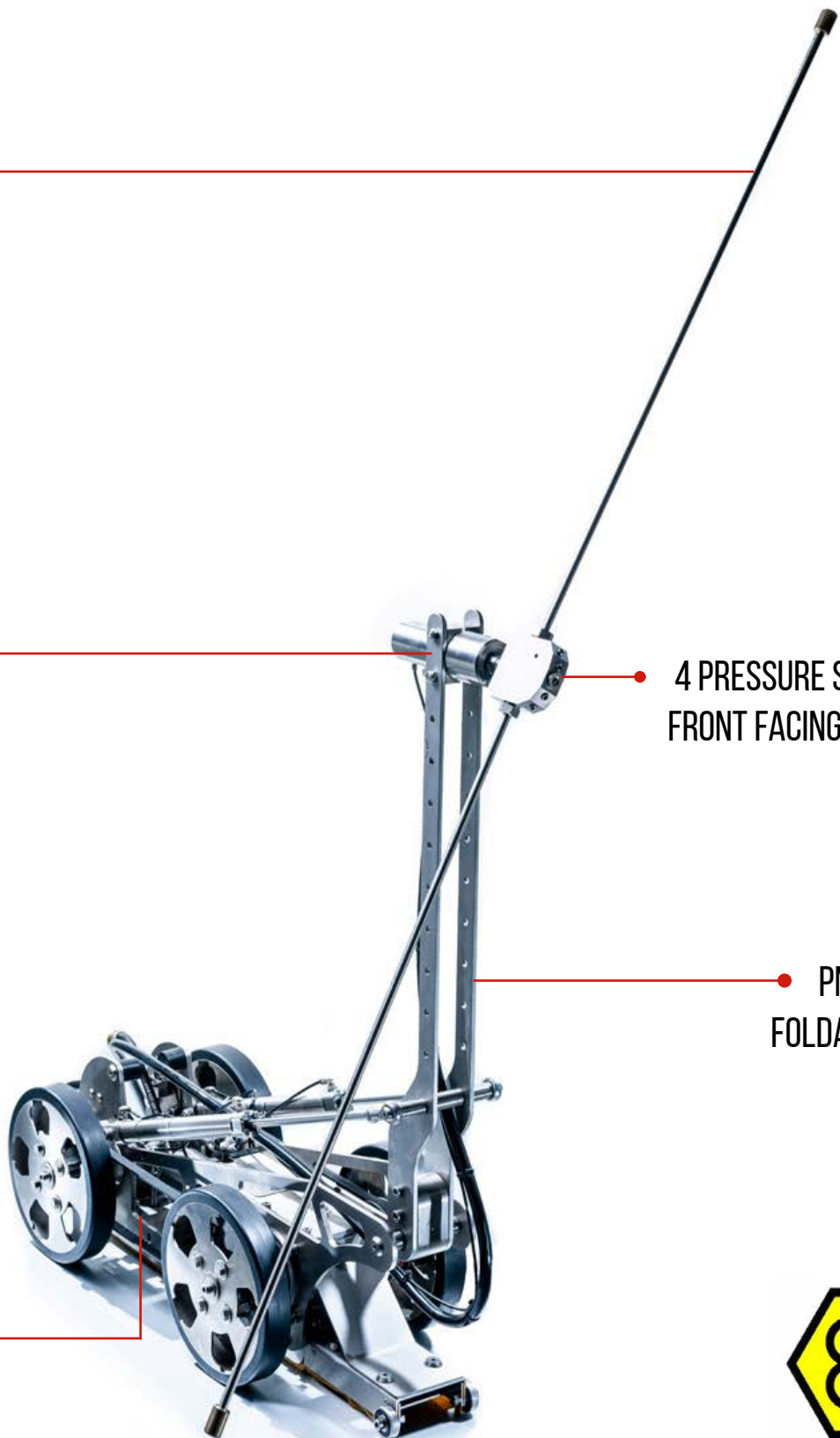
EXCHANGEABLE  
LANCES

HIGH PRESSURE  
SWIVEL

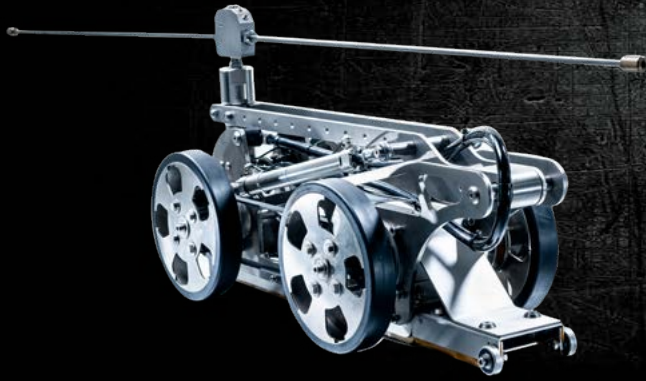
4 PRESSURE SWITCHED  
FRONT FACING NOZZLES

PNEUMATIC  
FOLDABLE ARM

ELECTRIC,  
PNEUMATIC OR  
WATER DRIVEN







# LARGE DIAMETER PIPE & TANK CLEANING

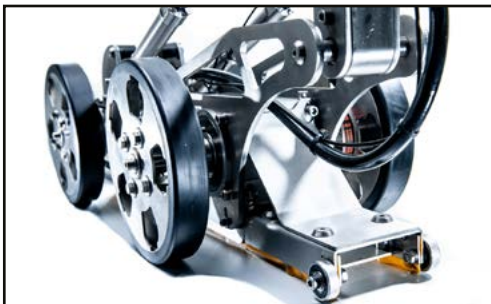


SCAN FOR VIDEO

## TWK300 1000 - 3000MM (40-120")

The TWK300 tank cleaning robot has a pneumatic foldable arm to fit 400mm (16") manholes, and exchangeable lances for intense cleaning, close to the surface of 1000 to 3000 mm (40 – 120") tanks and pipes.

The TWK300 is available with pneumatic or water hydraulic drives to comply with Atex Zone 0 or with electric drives to reach far inside large diameter pipelines or seawater intakes and full compatibility with other SEWER ROBOTICS and PRO-JETTING robot cable reels and control systems.



DEBRIS REMOVAL ADAPTER



FORWARD FACING NOZZLES

## SPECIFICATIONS

- Scope of use : 1000 - 3000mm (40-120")
- Min. access diameter: 400mm (15,7")
- Drive : Electric  
: Pneumatic (ATEX)  
: Water hydraulic (ATEX)
- Max. pressure : 500bar (7,250psi) (ATEX)  
: 3000 bar (40,300psi)
- Max. flow : 21GPM (80LPM)
- Max. rotation : 1000 RPM
- Max. temperature : 90°C (194°F)
- Weight : 45kg (99lbs)
- Dimensions : 850x350x400mm  
(33.5x14x 16")

## FEATURES

- Exchangeable lances for intense cleaning close to the surface
- Pressure switched forward-facing nozzles for cleaning tank heads
- Pneumatic foldable arm to fit 400mm (16") access points
- Electric driven for compatibility with other SEWER ROBOTICS and PRO-JETTING robot systems

## OPTIONS

- Camera module(s)
- Adapter for vacuum debris removal
- Hot water compatibility
- Certified Atex explosion Zone 1 or Zone 0

# INDUSTRIAL ROBOTICS



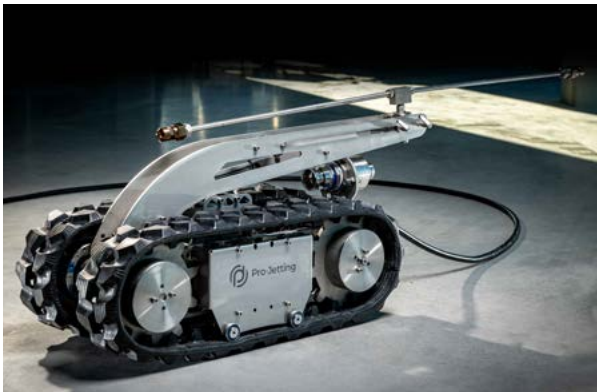


***“MODULAR BUILT, FOR A VARIETY OF  
APPLICATIONS, INCLUDING YOUR  
**CUSTOM** APPLICATIONS”***





***“THE **R600** INDUSTRIAL CLEANING ROBOT  
IS COMPATIBLE WITH THE SAME CONTROL UNIT  
AND CABLE REEL AS THE SEWER ROBOTS”***



## **MULTI-PURPOSE**

Various job-specific modules can be easily exchanged to adapt the robot for different applications via its twist-and-lock mechanism.



## **HYDRO-PNEUMATIC ACTUATOR**

The R600 has a powerful linear actuator to raise the boom, cleaning arm or dome.

This actuator is operated with compressed air and features an enclosed hydraulic circuit to combine strength and precision.

## FULLY CUSTOMIZABLE

The R600's programmable outputs allow easy customization for specialty jobs. Add auxiliary cameras and lighting, additional sensors and electronic- or pneumatic driven movements.

-Or- a completely custom tool can be developed for your specific application.



### REAR VIEW CAMERA

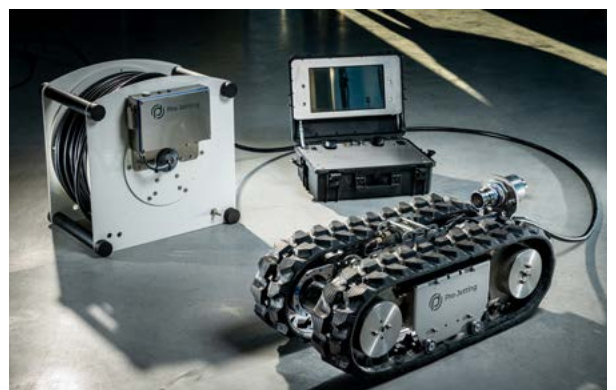
Rear view camera and convenient connections for power- and job-specific supplies to minimize setup times.

### POWERFUL DRIVE

The modular base platform is made off durable stainless steel and adjustable in length and width to adjust to various applications.

### DURABLE & MODULAR BASE

The powerful R600 can be equipped with either 2 or 4 driving motors that provide 150 or 300 KG towing capacity to take a heavy load or reach far inside pipelines or tanks.



# FROM OUR SHOP TO YOUR JOB

Aluminium skid for convenient storage and shipping of the mobile R600 system.

## EFU-T3-00 - EURO PALLET SKID

- Aluminum skid
- Front and side access door to the reel
- Foldable R600 ramp
- Pull out ramp extension
- Pull out tray with rollers for control unit
- Pull out trays for spare parts and hand tools
- Stacked hybrid cable and high pressure hose reels
- AIRPREP300 integrated
- Side cover plates with possibility to lock the case
- Dimensions : 1400X860X1550 mm (55.1x33.9x61")
- Weight : 550kg (1210 lbs) including equipment





***“PROGRAMMABLE OUTPUTS ALLOW  
EASY **CUSTOMIZATION** FOR SPECIALTY JOBS”***

## **APPLICATIONS**

- SURFACE PREPARATION & REMOVAL OF MARKINGS OR STRIPING
- VACUUM EXCAVATION & SLUDGE OR BULK WASTE REMOVAL
- LARGE DIAMETER PIPE & TANK CLEANING
- NON-ENTRY WELDING
- COLD CUTTING & (ULTRA) HIGH PRESSURE JETTING
- YOUR CUSTOM APPLICATION



SC600DVAC

# HIGH PRESSURE JETTING AND VACUUM ROBOT

## LIFTING EYES

Lifting eyes for lifting the R600 industrial robot vertically through manholes with an access diameter of 600mm (24") or larger.

## CAMERA

Up to a maximum of 3 cameras mounted at the front and rear mounted cameras with auxiliary lighting

## STAINLESS STEEL SUCTION PIPE

Hydro-pneumatic liftable 6-inch stainless steel vacuum pipe. Optionally available in different pipe diameters.

## 180° SWIVELING NOZZLE BAR

Pneumatic driven nozzle bar. As standard for 6 forward fan jets or oscillating nozzles and 2 side nozzles.

- Max. 150LPM at 1000BAR - 1/2" (39.6GPM @ 14500PSI-1/2")

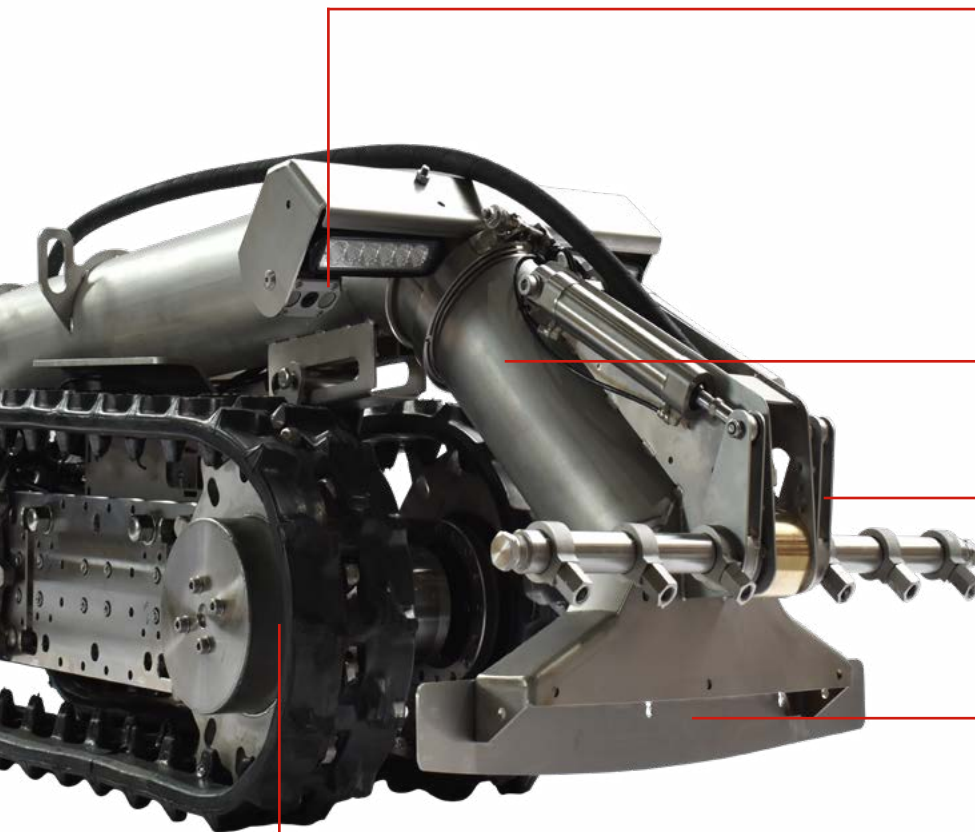
- Max. 350LPM at 250BAR - 1" (3645PSI @ 92.5GPM-1")

## DRIVETRAIN

Steerable electric drivetrain with standard 2 motors. Optionally 4 motors can be used.

## SUCTION NOZZLE

Suction nozzle with exchangeable back plates to adjust to different pipe diameters or applications.







# TRACKED INDUSTRIAL CLEANING ROBOT



SCAN FOR VIDEO

## R600 >500MM (>20")

The R600 is a powerful and multi-functional modular robot crawler that can be used with various job-specific modules for heavy-duty industrial applications.

The R600 is compatible and easy exchangeable with the SEWER ROBOTICS mobile cable reel and control unit for a very small footprint or can be used in combination with a special purpose vehicle installed system.



R600VAC WITH SPRAY BAR

## SPECIFICATIONS

|                |  |
|----------------|--|
| Scope of use   | : >500MM (>20")  |
| Cameras        | : Forward facing<br>: Rear view                        |
| Lighting       | : Intensity adjustable LEDs                            |
| Speed          | : 3 - 10kmh (1.9-6.2mph)                               |
| Traction Force | : 250kg (330lbs) 2 motors<br>: 500kg (660lbs) 4 motors |
| Weight         | : 110kg (243lbs)                                       |
| Dimensions     | : 900x420x300mm<br>(35.4x16.5x11.8")                   |

## COMPATIBLE MODULES

- VAC600 – Vacuum Excavation & Sludge removal
- SC600DVAC – Dual Surface Cleaner with Vacuum
- TWK600 – Large diameter pipe and tank cleaning
- WJ600 – Precision Water Jet Cutting
- Your custom module

## FEATURES

- Easy exchangeable job-specific modules
- Heavy-duty stainless steel
- Wide angle color camera with Sapphire protection lens
- Adjustable length and width
- Single, lightweight, hybrid cable
- Programmable outputs for customization

## OPTIONS

- Additional sensors
- Auxiliary cameras and lighting
- Electronic- or pneumatic driven features
- Customization and development of job-specific modules





# ***SPECIAL PURPOSE INTEGRATION***

PRO-JETTING special purpose system integrations have everything exactly at the right place.

Software controlled (PTO) high pressure unit, water supply, power supply, reels, equipment storage, workbench, control studio and cabinetry with sufficient storage.

All in accordance with your specific job requirements.



# ***“PLUG-AND-PLAY, BOX INTEGRATED SYSTEMS”***

## **SPECIAL PURPOSE**

## **BOX INSTALLATION**

PRO-JETTING box installations are built in our factory, with all bells and whistles, to meet our quality standards and your (custom) requirements. Taylored for your application to make your everyday work easier, safer and more efficient.

Such box integrated system is easily shipped inside a container and installed on a suitable chassis anywhere in the world.



BOX INSTALLED ROBOT SYSTEM FOR 1500BAR ROBOT WATER JET CUTTING.



# INTEGRATION ACCESSORIES





# CUSTOM SOLUTIONS

Your ideal equipment might not be available off the shelf. Custom is our specialty at PRO-JETTING and because of our modular designs and in-house engineering we can realize your desired equipment.

Just like this remotely-operated, diesel engine driven, cleaning vehicle with high pressure unit and height adjustable hydraulic reel was realised on tracks.







# SEWER CLEANING



# PRO VANPACK

## DIESEL - PETROL - PTO



The PRO sewer cleaning vanpacks combine power and functionality for professionals who rely on great equipment to make their work easier.

These vanpacks have 2 hydraulic driven reels with free-wheeling ability. The main cleaning reel holds up to 120m ½" hose and can be both 90° pivoted and 180° rotated for positioning above the manhole and clear from the vehicle.

The secondary reel is connected via a threeway valve and can be used for both high- and low pressure applications. Such as cleaning with a gun, filling the tank or for working with a different size jetting hose than what is on the primary reel.

The high-pressure pump can be driven electric with a battery back, by a Petrol or Stage V Diesel engine, or by the engine of the vehicle via an hydraulic pump on the Power Take Off (PTO) gear of the vehicle's gearbox.

The pressure is continuously adjusted via electronic RPM control for an optimized jetting flow in combination with reduced fuel consumption and CO emissions.

- 2 hydraulic driven reels with freewheel
- Direct hydraulic driven pump
- Convenient digital controls
- Low CO emissions and fuel consumption
- Light weight stainless steel frame
- Large capacity water filters
- HDPE water tank
- Aluminum hydraulic oil tank



## USER FRIENDLY CONTROLS

Intuitive, electronic, controls with digital display for safety warnings and diagnose.

## PRIMARY HOSE REEL

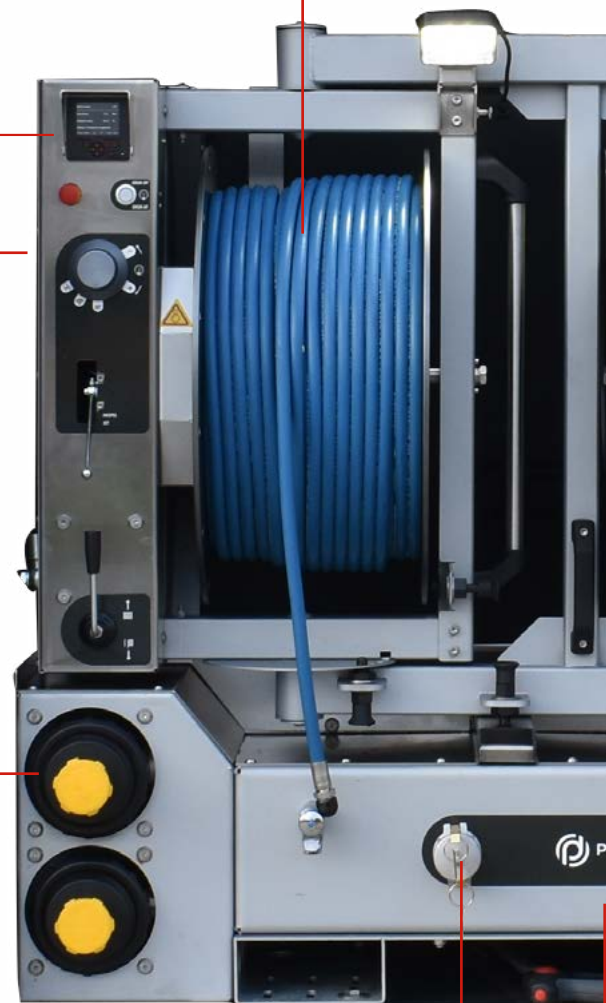
90 degrees pivoting and 180 degrees rotating hydraulic driven cleaning hose reel with continuous speed adjustment and freewheeling function for 120m ½" hose.

## FUEL TANK

120 L HDPE welded Diesel tank with level sensor.

## CARTRIDGE FILTER

Washable cartridge filters in a self bleeding housing for the pump and filling the tank.



## INJECTOR

Integrated injector for filling the tank quickly with surface water.



## WATER TANK

800L HDPE custom welded water tank with baffles, float valve, level sensor and manhole.



## WIRELESS REMOTE

Wireless remote control to open/ close the high pressure valve, adjust the pressure and operate the reels.

## SECONDARY HOSE REEL

Hydraulic driven high pressure hose reel with continuous speed adjustment and freewheeling function for 100m ½" hose or 50m ¾" hose.

This secondary reel has a three-way valve for filling the tank or high pressure usage.

## LOW EMISSIONS

Stage V, liquid cooled, Yanmar diesel engine.

Compatible with renewable HVO, BTL, GTL and CTL diesel fuels for reduced emissions.

## ACCESSIBLE COUPLINGS

Quick connect couplings for filling and draining the water tank.



## DIGITAL CONTROLS

The user-friendly controls are conveniently placed next to the primary reel with a rotary controller button to adjust the flow and a digital display for the following functions and sensor readings:

- SIL 3 emergency stop
- Start engine
- Water level
- Fuel level
- Temperature
- RPM
- Hour counter
- Working pressure
- Oil pressure
- Engine data and diagnose



## DIESEL AND PETROL ENGINES

The PRO Vanpacks can be driven by reliable and fuel-efficient Yanmar TNV common rail STAGE V Diesel or Vanguard petrol engines.

| MAKE     | MODEL    | TYPE                       | EMISSIONS | FUELS                      | POWER |
|----------|----------|----------------------------|-----------|----------------------------|-------|
| Yanmar   | 3TNV82   | 3 Cyl. Liquid cooled       | Stage V   | Diesel, HVO, BTL, CTL, GTL | 23*   |
| Yanmar   | 4TNV88C  | 4 Cyl. Liquid cooled       | Stage V   | Diesel, HVO, BTL, CTL, GTL | 36    |
| Yanmar   | 4TNV98C  | 4 Cyl. Liquid cooled       | Stage V   | Diesel, HVO, BTL, CTL, GTL | 42    |
| Yanmar   | 4TNV98CT | 4 Cyl. Turbo Liquid cooled | Stage V   | Diesel, HVO, BTL, CTL, GTL | 54    |
| Vanguard | 61G2     | 2 Cyl. V-twin air cooled   |           | Petrol                     | 30    |

\* derated to 18.9 kW to comply with Euro Stage V

## HIGH PRESSURE PUMP

The HPP CL, ET, EFR and ESR high flow pumps combines high quality with a lightweight design to be used at a wide RPM range for maximized flow and pressure output.



HPP ET

## AVAILABLE PRO VANPACKS

| ITEM CODE        | PUMP TYPE | PRESSURE |      | FLOW |      | POWER |    |
|------------------|-----------|----------|------|------|------|-------|----|
|                  |           | BAR      | PSI  | LPM  | GPM  | KW    | HP |
| R18-165-56-PRO   | HPP CL*   | 165      | 2392 | 56   | 14,8 | 18    | 24 |
| R18-203-46-PRO   | HPP ET    | 203      | 2943 | 46   | 12,1 | 18    | 24 |
| R18-162-57-PRO   | HPP ET    | 162      | 2349 | 57   | 15,1 | 18    | 24 |
| R35-200-70-PRO   | HPP ET    | 259      | 2900 | 70   | 18,4 | 35    | 47 |
| R35-203-89-PRO   | HPP EFR   | 203      | 2943 | 89   | 23,5 | 35    | 47 |
| R40-200-70-PRO   | HPP ET    | 296      | 2900 | 70   | 18,4 | 40    | 54 |
| R40-175-87-PRO   | HPP ET    | 236      | 2537 | 87   | 23,1 | 40    | 54 |
| R55-180-150-PRO  | HPP ESR*  | 200      | 2900 | 150  | 39,6 | 54    | 72 |
| R55-200-70-PRO   | HPP ESR*  | 406      | 2900 | 70   | 18,4 | 54    | 72 |
| R30-175-60-PRO** | HPP ET    | 259      | 2537 | 60   | 15,7 | 30    | 40 |

\*Stainless steel pump head \*\*Petrol engine driven

## SPECIFICATIONS

Primary high pressure hose reel

Drive : Hydraulic driven with continuous speed adjustment  
 Movement : 90 degrees pivoting + 180 degrees rotating  
 Capacity : 120m ½" hose

Secondary high pressure hose reel

Drive : Hydraulic driven with continuous speed adjustment  
 Capacity : 100m ½" hose or 50m ¾" hose

Water tank capacity : 400, 800, 1000L

Fuel tank capacity : 120L

Weight : 700 kg (R18)  
 : 1300 kg (R35)



# C70

## CAMERA NOZZLE



AI AUTOMATIC DETECTED DEFECTS



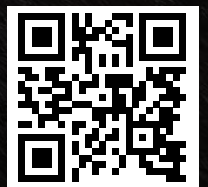
***“COLLECT VALUABLE INTELLIGENCE  
AT LOW COSTS & MINIMUM EFFORT  
WHILE CLEANING”***



With reliable artificial intelligence software that automatically analyses your cleaning videos by coding and classifying defects according international CCTV inspection standards.

Your analysed cleanings are conveniently organized and prioritized in Sewer Analytics.

Ready for decisions making.



SCAN FOR VIDEO

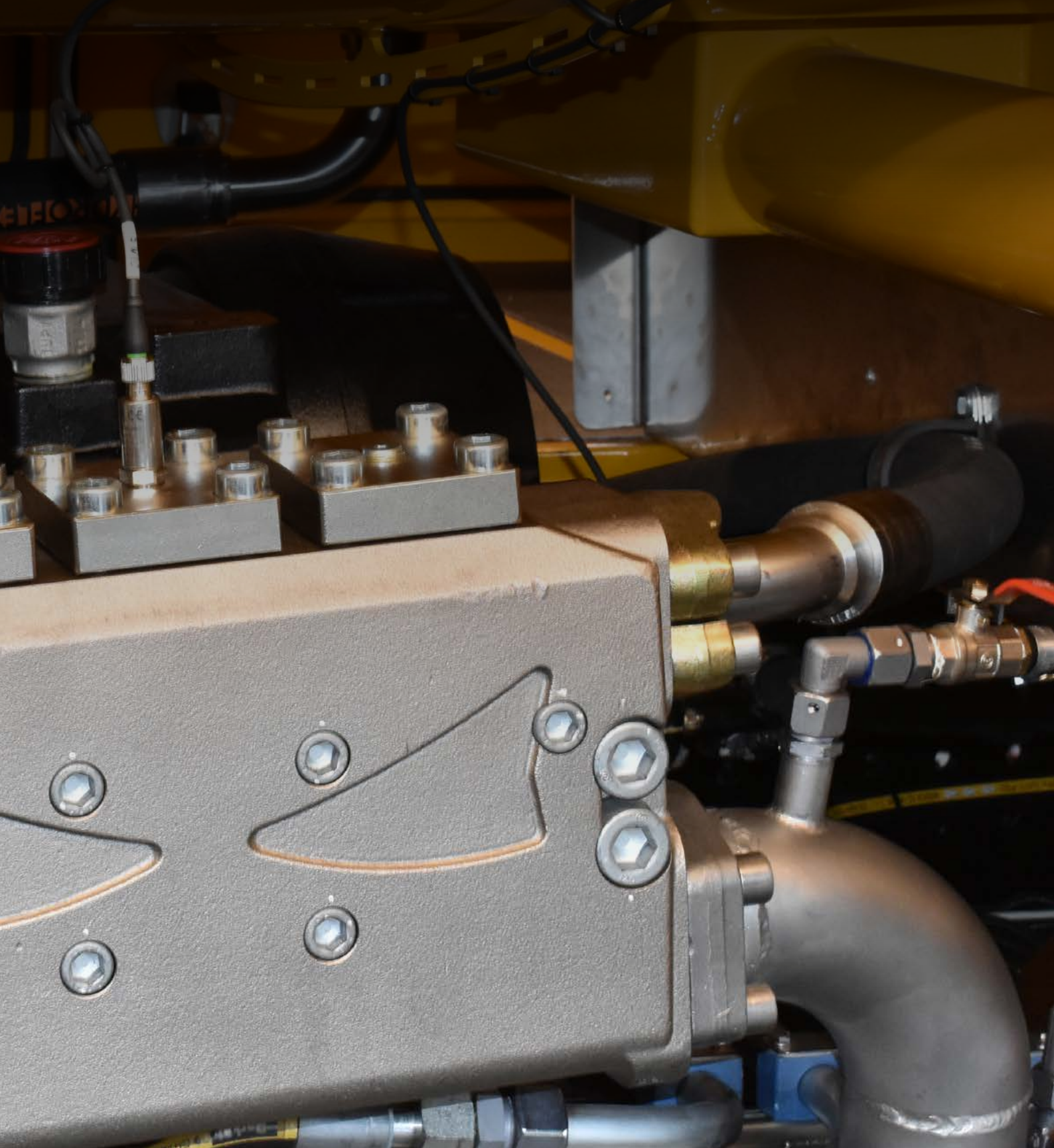


# PUMP KITS



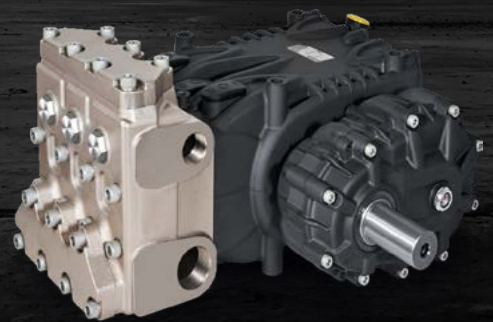


PRO-JETTING pump kits are engineered for easy installation or replacement of the jetting pump. Mounting the pump in the same angle as the engine will minimize noise, vibrations and wear while keeping the pump accessible for maintenance.





# HIGH PRESSURE PUMPS



55 kW  
110 - 226 LPM  
130 - 250 BAR



22 - 35 kW  
19 - 22 LPM  
700 - 1000 BAR

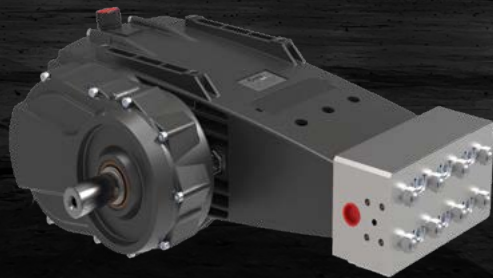


25 - 34 kW  
29 - 55 LPM  
250 - 600 BAR



133 - 198 kW  
183 - 561 LPM  
180 - 400 BAR

PRO-JETTING offers a complete range of (Ultra) high pressure pumps up to 410 kW and 2800 bar.



56 - 60 kW  
21 - 29 LPM  
1000 - 1500 BAR



144 kW  
300 - 480 LPM  
145 - 250 BAR



112 - 410 kW  
26 - 547 LPM  
400 - 2800 BAR



# OEM COMPONENTS

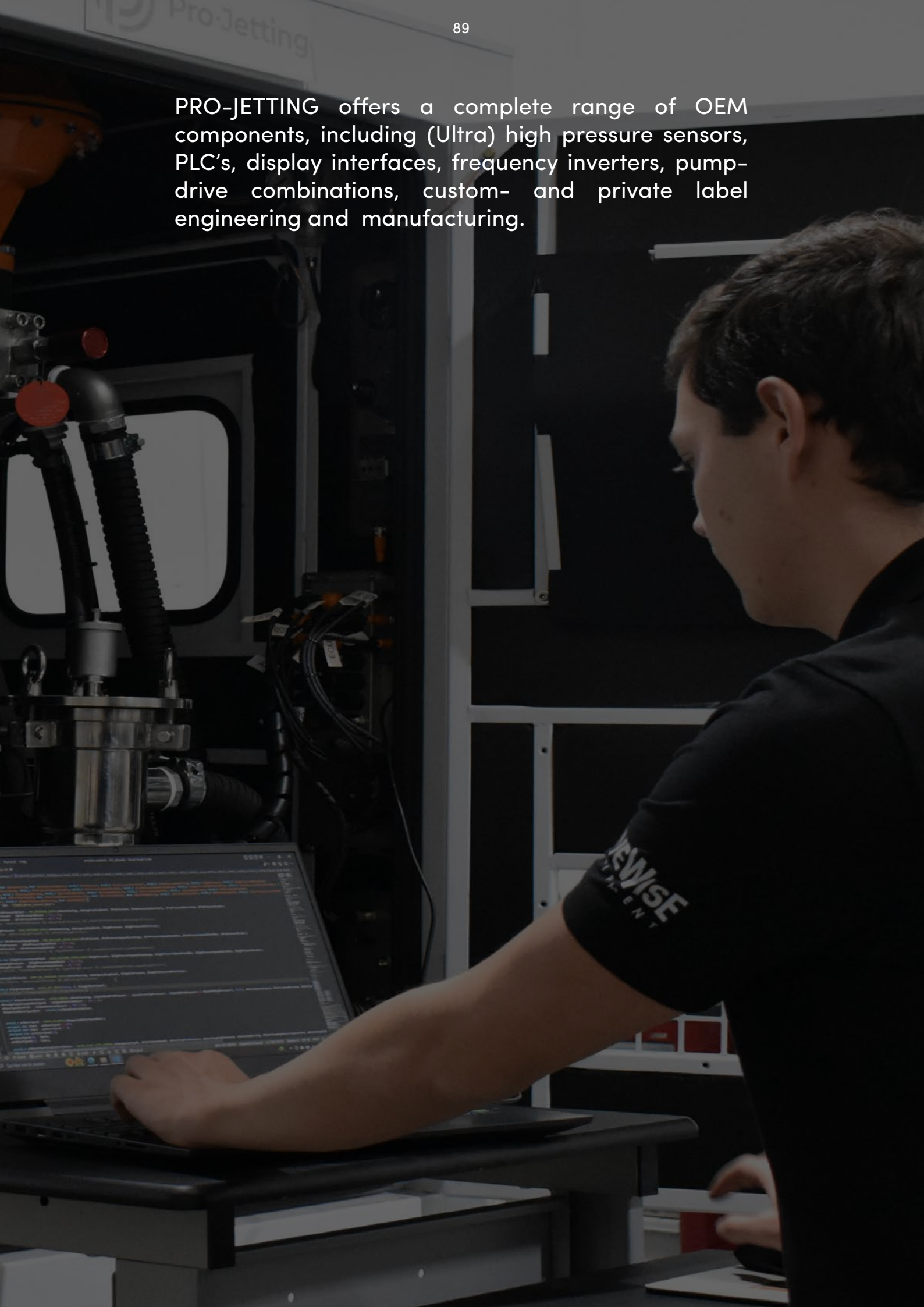
## High pressure program 1/4

|                     |     |     |                                  |
|---------------------|-----|-----|----------------------------------|
| Water temperature 1 | 55  | °C  | <input type="checkbox"/> Burners |
| Water temperature 2 | 53  | °C  |                                  |
| High pressure       | 264 | Bar |                                  |
| Pre pressure        | 1.3 | Bar |                                  |
| Set temperature     | 60  | °C  |                                  |

Status:



PRO-JETTING offers a complete range of OEM components, including (Ultra) high pressure sensors, PLC's, display interfaces, frequency inverters, pump-drive combinations, custom- and private label engineering and manufacturing.



# PARTS AND ACCESSORIES

## SEWER CLEANING



- Pumps
- Nozzles
- Hoses (1/2", 3/4", 1", 1 1/4")

## GUNS, LANCES AND NOZZLES



- Guns and lances
- Surface cleaners
- Nozzles, fanjets and rotating nozzles

## HOSES



- (150 °C) High pressure hoses
- 3/8", 1/2", 3/4" Rubber and thermoplastic
- Couplings, swivels and fittings
- Standard and custom length
- SIR pressure certified

## ACCESSORIES



- Safety valves
- Pressure regulators
- Couplings, swivels and fittings
- OEM components





# PARTS AND ACCESSORIES

up to 2800 bar (40,600 psi)

## ROTATING NOZZLES



- Pipe & Tube Cleaning
- Diameter: 12 – 800 mm (0.5-32")
- Pressure: <2800 bar (40.000 psi)
- Rotating nozzles, unpluggers, polishers

## PROTECTIVE CLOTHING



- Jackets and apron extensions
- Trousers and overalls
- Gloves and gaiters
- Vests, necks and hoods
- Protective cover sleeves

## HOSES



- UHP Highest pressure
- High tensile steel wire reinforced termoplastic
- Varying diameters custom lengths & couplings
- SIR pressure certified

## UHP ACCESSORIES



- Couplings, Adapters, T- & Y-Pieces, Swivels
- Dump-, electric-remote and pneumatic- guns
- Valves, valve seats and seals for any brand
- Rotary nozzles, inserts, footvalves, cartridges



## NOTES



## NOTES





## NOTES





## PROFESSIONAL JETTING EQUIPMENT & SOLUTIONS

PRO-JETTING offers a complete range of units, parts, robots and accessories for jetting and industrial cleaning up to 2800 bar (40,600psi) backed by personal service, SIR certified mechanics, and an in-house engineering department.

- Personal service with large stock and fast shipping
- State-of-the-art workshop
- In-house engineering for custom solutions
- 4200 bar (61,000 psi) test facility and SIR certification

**SIR**®

ID-TEC, the company behind PRO-JETTING, SEWER ROBOTICS and DIVEWISE-EQUIPMENT is specialized in high pressure and robotic applications for cleaning, inspection and maintenance of confined spaces.

**DIVEWISE**  
EQUIPMENT

**ID TEC** INNOVATION  
DEVELOPMENT  
TECHNOLOGY

**SEWER**  
ROBOTICS

# 401 MASTER BLASTER 40UK



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