## **DURABILITY THANKS TO SIMPLICITY**

The functional, robust appearance of the Trailerpack pressure washing units characterises meclean's approach to technology and the way in which the Trailerpacks are constructed. Meclean's vision, that technology must be practical and that only functionality, reliability and good, fast service are important, results in a Trailerpack which very clearly reflects the professional and pragmatic outlook on technology.

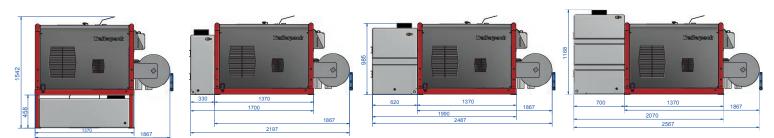
Meclean<sup>®</sup> consistently selects the best components and knows better than any other that unnecessary electronics do not add anything. Meclean® opts for proven, mechanical technology.

## **EXTENSIVE OPTIONS LIST**

A Trailerpack can be fully adapted to the wishes of the user. The various versions, the extensive list of options and the modular contruction together with the expertise of meclean's technical team, make it possible to focus fully on the end-user's wishes.

# A Trailerpack always fits

The modular setup with different water tanks and hose reels at your choice make it possible to fit a TRAILERPACK in/on any commercial vehicle, trailer or pick-up truck.

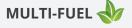




## **DIFFERENT CLEANING TECHNIQUES COMPARED:**

traditional (hot)water high-pressure cleaning, AquaPLUS® and SteamPLUS®

TECHNICAL COMPARISON	WATER (<100 °C)	AquaPLUS®	SteamPLUS®
Water	100% water	90% water	10% water
Steam	-	10% steam	90% steam
Temperature (max)	102 °C	110 °C	150 °C
Working pressure	0 - 500 bar*	0 - 500 bar*	0 - 250 bar
			*depending on model



emission advantages compared to diesel

IVO100
100%
-24%
-90%
-9%
-33%

	TP 200/15	TP 200/21	TP 200/30		
Working pressure	200 bar	200 bar	200 bar		
Flow rate	15 L/min.	21 L/min.	30 L/min.		
Engine power	6,6 kW	10,2 kW	16,4 kW		
Multi-fuel (engine + heat exchanger)	×	<b>~</b>	V		
Engine rating	Stage 5	Stage 5	Stage 5 • Tier 4 final		
Max. water temperature	102 °C	102 °C	102 °C		
Capacity fuel tank	80 L	80 L	80 L		
Dimensions unit without options	(L)1370 x (W)1300 x (H)993 mm				
Weight unit without options	± 300 kg	± 420 kg	± 430 kg		
Water tank 200 / 460 / 500 / 800 L	option	option	option		
SS hose reel 25 m (LP) + 45 m (HP)	option	option	option		
SS (stainless steel) covers	option	option	option		
<u>SteamPLUS</u> °	-	option*	-		
<u>AquaPLUS</u>	-	option	-		
<u>WeedPLU</u> S <sup>°</sup>	option	option	option		
	TP 300/15	TP 350/18	TP 500/15	TPE 250/15	
Working pressure	300 bar	350 bar	500 bar	250 bar	
Working pressure Flow rate	300 bar 15 L/min.	350 bar 18 L/min.	500 bar 15 L/min.	250 bar 15 L/min.	
Flow rate	15 L/min.	18 L/min.	15 L/min.	15 L/min.	
Flow rate Engine power	15 L/min. 10,2 kW	18 L/min. 16,4 kW	15 L/min. 16,4 kW	15 L/min. 8,5 kW	
Flow rate Engine power Multi-fuel (engine + heat exchanger)	15 L/min. 10,2 kW	18 L/min. 16,4 kW	15 L/min. 16,4 kW	15 L/min. 8,5 kW multi-fuel heat exchanger	
Flow rate Engine power Multi-fuel (engine + heat exchanger) Engine / motor rating	15 L/min. 10,2 kW	18 L/min. 16,4 kW	15 L/min. 16,4 kW	15 L/min. 8,5 kW multi-fuel heat exchanger PMS-IPM (97% efficiency)	
Flow rate Engine power Multi-fuel (engine + heat exchanger) Engine / motor rating Battery	15 L/min. 10,2 kW Stage 5	18 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final	15 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final	15 L/min. 8,5 kW multi-fuel heat exchanger PMS-IPM (97% efficiency) Lithium LiFePO4 25,6 kW	
Flow rate Engine power Multi-fuel (engine + heat exchanger) Engine / motor rating Battery Max. water temperature	15 L/min. 10,2 kW ✓ Stage 5 - 102 ℃	18 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C	15 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L	15 L/min. 8,5 kW multi-fuel heat exchanger PMS-IPM (97% efficiency) Lithium LiFePO4 25,6 kW 102 °C 80 L	
Flow rate Engine power Multi-fuel (engine + heat exchanger) Engine / motor rating Battery Max. water temperature Capacity fuel tank	15 L/min. 10,2 kW ✓ Stage 5 - 102 ℃	18 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L	15 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L	15 L/min. 8,5 kW multi-fuel heat exchanger PMS-IPM (97% efficiency) Lithium LiFePO4 25,6 kW 102 °C 80 L	
Flow rate Engine power Multi-fuel (engine + heat exchanger) Engine / motor rating Battery Max. water temperature Capacity fuel tank Dimensions unit without options	15 L/min. 10,2 kW ✓ Stage 5 - 102 °C 80 L	18 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L (L)1370 x (W)	15 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L 1300 x (H)993 mm		
Flow rate Engine power Multi-fuel (engine + heat exchanger) Engine / motor rating Battery Max. water temperature Capacity fuel tank Dimensions unit without options Weight unit without options	15 L/min. 10,2 kW ✓ Stage 5 - 102 °C 80 L ± 430 kg	18 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L (L)1370 x (W) ± 430 kg	15 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L 1300 x (H)993 mm ± 430 kg	15 L/min. 8,5 kW multi-fuel heat exchanger PMS-IPM (97% efficiency) Lithium LiFePO4 25,6 kW 102 °C 80 L  ± 500 kg	
Flow rate Engine power Multi-fuel (engine + heat exchanger) Engine / motor rating Battery Max. water temperature Capacity fuel tank Dimensions unit without options Weight unit without options	15 L/min. 10,2 kW ✓ Stage 5 - 102 °C 80 L ± 430 kg option	18 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L (L) 1370 × (W) ± 430 kg option	15 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L 1300 x (H)993 mm ± 430 kg option	15 L/min. 8,5 kW <b>multi-fuel heat exchanger</b> <b>PMS-IPM (97% efficiency)</b> Lithium LiFePO4 25,6 kW 102 °C 80 L  ± 500 kg	
Flow rate Engine power Multi-fuel (engine + heat exchanger) Engine / motor rating Battery Max. water temperature Capacity fuel tank Dimensions unit without options Weight unit without options Water tank 200 / 460 / 500 / 800 L SS hose reel 25 m (LP) + 45 m (HP) SS (stainless steel) covers	15 L/min. 10,2 kW ✓ Stage 5 - 102 °C 80 L ± 430 kg option option option	18 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L (L) 1370 × (W) ± 430 kg Option option option	15 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L 1300 x (H)993 mm ± 430 kg option option	15 L/min. 8,5 kW <b>multi-fuel heat exchanger</b> <b>PMS-IPM (97% efficiency)</b> <b>Lithium LiFePO4 25,6 kW</b> 102 ℃ 80 L 300 kg 500 kg 0 ption	
Flow rateEngine powerMulti-fuel (engine + heat exchanger)Engine / motor ratingBatteryMax. water temperatureCapacity fuel tankDimensions unit without optionsWeight unit without optionsWater tank 200 / 460 / 500 / 800 LSS hose reel 25 m (LP) + 45 m (HP)	15 L/min. 10,2 kW ✓ Stage 5 - 102 °C 80 L ± 430 kg option option	18 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L (L) 1370 × (W) ± 430 kg option option	15 L/min. 16,4 kW ✓ Stage 5 • Tier 4 final - 102 °C 80 L 1300 x (H)993 mm ± 430 kg option option	15 L/min. 8,5 kW سالاi-fuel heat exchanger PMS-IPM (97% efficiency) Lithium LiFePO4 25,6 kW مراله مراله مراله مراله مراله م مراله مراله مرله مراله مراله مراله مراله مراله مراله مراله	

<sup>\*</sup> Model TP 200/21 gives up to 200 bar working pressure in SteamPLUS<sup>®</sup> mode

## Warranty

• 2 years (in combination with service agreement)

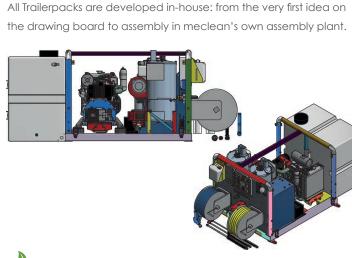
• 10 years on high-pressure pump head

## Quick and professional service...

With different service locations throughout Europe and availability of technicians worldwide we are able to guarantee a response time of max. 24 hours everywhere in the world. In most cases the service needs can be resolved within a couple of hours and often on location.

## **Demonstration?**

Do you want to see a Trailerpack in full action? Contact your dealer or meclean<sup>®</sup> to schedule a demonstration on location.



**IN-HOUSE ENGINEERING** 

# **100% FOSSIL-FREE / MULTI-FUEL USE!**

The engine and heat exchanger(s) are ready for new environmental-friendly fuel types like the fossil-free HVO100/XTL, NESTE, biodiesel (B100), Aspen diesel, GTL, HVO20, HVO50 etc, but a Trailerpack also runs perfectly on normal diesel fuel.



Contact us for full list of options.







# Trailerpack



URBAN CLEANING LINE

Electric drive

Multi-fuel drive









**FIXING POINTS (4)** 

multi-angle / rotatable / extendable in

height to perfectly match mounting surface

**OPTION: STAINLESS STEEL COVERS** with service hatch

# **TRAILERPACK 250/15 ELECTRIC DRIVE**, SAME PERFORMANCE AS ENERGY-EFFICIENT DRIVE AND LITHIUM LIFePO4 BATTERY THE TRADITIONAL (COMBUSTION ENGINE) TRAILERPACKS!

high-efficiency / 110 kW,

suitable for fossil-free fuels

philosophy. Meclean<sup>®</sup> consistently opts for solid functional technology and the best components. electric motors. The high-quality Lithium LiFePO4 batteries are explosion-proof, have a This results in a reliable machine that can be used for an entire working day without having to recharge inbetween work.

The high-pressure pump in the Trailerpack 250/15 is driven by a new type of electric motor The electric powered Trailerpack 250/15 is also developed according to the well-known meclean<sup>®</sup> (PMS-IPM) with an efficiency of 97%, which is at least 10% more efficient than ordinary longer lifespan (up to 4,000 charging cycles), do not need to be fully charged before use and are further characterized by their high energy density and relatively low weight.



neclean® is a SIR (Stichting Industriële Reiniging) member. desired a Trailerpack can be delivered with SIR certification.

STAINLESS STEEL HEAT EXCHANGER(S)



SteamPLUS® is a patented cleaning function that consists of a **balanced mix of 90% steam and 10% water** and a stabilized temperature of 150 °C in combination with an adjustable working pressure up to 250 bar.

SteamPLUS® can easily be switched on and of with a button on the control panel.

### With an additional steam / heat exchanger 17,000 liters(!) of steam - per minute - is produced. This enormous amount of steam creates a "thermoshock" which causes the pollution to come off without damaging the surface. The steam pressure (adjustable up to 250 bar) gives working speed that is necessary for large objects/ buildings.

SteamPLUS® is used and recommended by companies that are specialized in facade cleaning of monumental buildings.

# Where and when SteamPLUS<sup>®</sup>?

- When chemicals can not be used and the surface is susceptible to damage
- 💋 SteamPLUS® is suitable unlike AquaPLUS® for damage sensitive surfaces such as facades with less strong joints monumental buildings, sandstone objects, wooden objects, etc.
- 🗸 SteamPLUS® removes graffiti, paint layers, chewing gum, atmospheric pollution, algae and moss, fungi, oil and resin, adhesive layers, road markings, etc. without chemicals
- Disinfection and odor control thanks to the high steam percentage



AquaPLUS® is a mix of 90% water and 10% steam that comes out of the spray lance at a stabilized temperature of 110 °C and an adjustable pressure up to 500 bar (depending on model)

AquaPLUS<sup>®</sup> can easily be switched on and of with a button on the control panel\*

\*AquaPLUS® is only possible in combination with SteamPLUS®

AquaPLUS<sup>®</sup> is a cleaning function inbetween traditional (hot) water high pressure and SteamPLUS<sup>®</sup>. The balanced mix of superheated water and steam take advantage of both mentioned functions. Water provides impact and flushing power and the fairly low steam amount still creates a limited thermoshock effect so no chemicals are needed for perfect cleaning results.

# Where and when AquaPLUS<sup>®</sup>?

- Vhen no chemicals can be used and the surface is not susceptible to damage
- AquaPLUS® in some cases cleans at a higher speed than SteamPLUS®, because the percentage of water is higher. However, the high water percentage also causes more damage to the surface compared to SteamPLUS®
- AquaPLUS<sup>®</sup> is suitable for industrial cleaning and removes graffiti, paint layers, atmospheric pollution, resin, glue layers, road markings, etc. without chemicals



WeedPLUS® is a hot water weed control function. WeedPLUS® works with pure, clean (drinking) water, no pesticides needed. By overheating the weed plant proteins coagulate and are clogging the cells, which leads to effective and environmental-friendly weed control.

WeedPLUS® can easily be switched on and of with a button on the control panel.

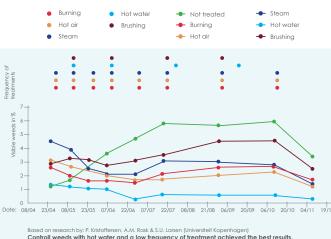
Fighting weeds with WeedPLUS® is possible everywhere. With the shower nozzle and spray bar on wheels it is possible to work extremely selectively without collateral damage.

Because the working speed is up to 30% higher than other alternative weed control methods and up to 60% fewer treatments are required, WeedPLUS® is also economically the best alternative. With WeedPLUS® a maximum of 2,000 m<sup>2</sup> per hour can be controlled.

# Proven to be most effective

- Only 4 treatments per year (compared to 8 treatments with hot air / burning)
- 🗸 Substantially lower weed percentage throughout the year (compared to all other methods)

Fighting weeds with hot water has been carried out by the University of Copenhagen (research by Prof. P. Kristoffersen) researched and is clearly the most effective alternative weed control method (see diagram below)





Weeds on pavement



Weeds on pavement 2 - 5 days after treatment







Facade cleaning: without chemicals and damage

Chewing gum removal: in less than 2 seconds (2.000 - 3.000 pieces per hour)

Facade cleaning

Graffiti removal: without chemicals

SteamPLUS<sup>®</sup> and AquaPLUS<sup>®</sup> comply with all applicable laws and regulations such as CE and PED (Pressure Equipment Directive) and are safe for users according to the rules included in the Working Conditions Act

90% water

Impact and

flushing power



10% steam

hermoshock makes

the use of chemicals

unnecessary