

MH 3M & 4M

# High pressure washers with hot benefits





The EcoPower boiler provides high efficiency and lowest equivalent fuel consumption – as certified by EUnited.



All key functions placed for optimal ease-of-use.



Control panel with safety indications.



Unique holder prevents spray gun from falling on the ground when the washer is used or moved.

Although many hot water machines can also be placed in fixed installations, when hot water machines are moved around it can often be across uneven, dirty and sandy surfaces, over steps and stairs. The 4 wheel concept with larger wheel diameter and also our studies of weight balance mean that the MH 3M and 4M models provide optimal maniability over all types of surface – reducing the effort needed by the user to reach his cleaning site.



For optimal and easy handling



# Nilfisk EcoPower clears the way to quicker cleaning

Make your move and take on some of the most demanding cleaning tasks with the MH 3M and 4M series. Higher efficiency and quicker cleaning are the by words thanks to the improved fuel saving EcoPower boiler system.

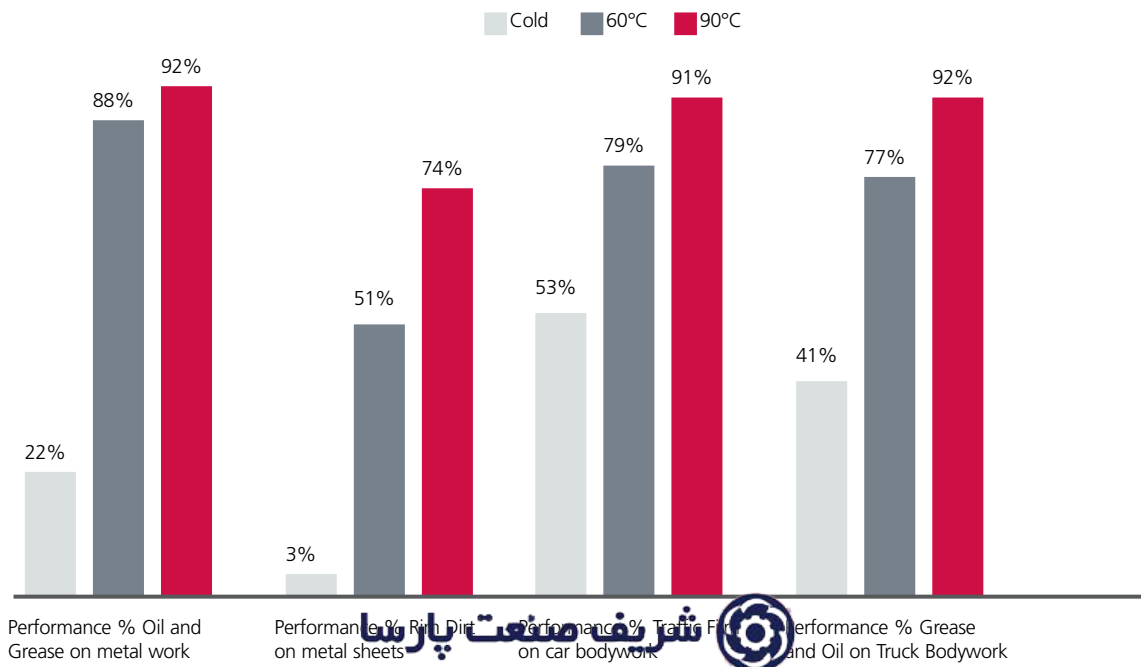
Nilfisk has worked extensively with the WfK Institute in Germany (investigation WL 6203/12 of WfK Testing Institute) in studying the cleaning effect of different parameters on cleaning efficiency for different types of applications and dirt types such as oil, grease, traffic film and rim dirt on surfaces like metal and vehicle bodywork.

The results allow us to identify best practice cleaning methods in order to reduce cleaning time.

Our studies show clearly that the use of hot water implies a major gain in cleaning efficiency for some applications.

Cleaning time can be reduced by 4 for cleaning of oil and grease from metallic surfaces when using 60°C water instead of cold water. This reduces labour, water and electrical costs by 4 reducing the total cost of use of a pressure washer significantly.

Effect of Temperature on cleaning performance





# EcoPower Boiler

Irrespective of whether the user is considering a commercial, entry-level cold water unit or an industrial class hot water machine, the technical features of each machine have been designed to give additional benefits in the relevant applications. The different feature levels of our pressure washers clearly place Nilfisk as a leading developer and producer of high pressure equipment.

The Nilfisk EcoPower boiler offers the users the benefit of the highest efficiency levels in the market – between 92 and 93% efficient.

The main advantage for our customers is the reduction in fuel consumption and this fuel costs. Compared to some other products in the market, this saving can easily reach up to 15% of fuel costs for equivalent machine performances.

This efficiency level is recognized and approved by EUnited – a proof of Nilfisk's commitment to sustainability and reduction of total cost of cleaning.

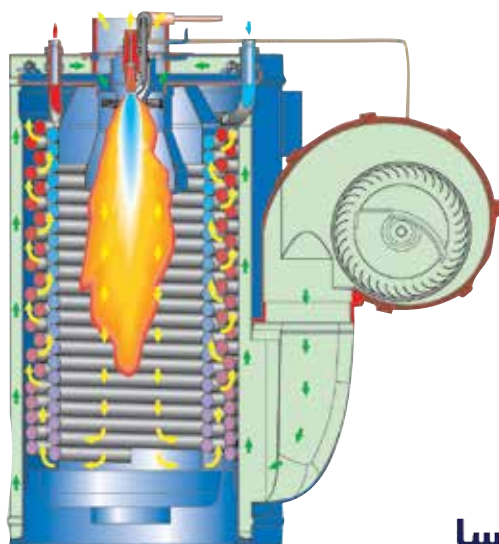
## EcoMode

The MH 3M and 4M boilers also now include the EcoMode.

EcoMode is the adjustment of the boiler on the thermostat to its most efficient setting for a wide range of applications. Increasing temperature higher than 60°C does not often bring a major reduction in cleaning time – but it does increase fuel consumption.

For applications such as car cleaning, cleaning of protein rich materials such as blood or animal waste – the EcoMode setting will provide optimal cleaning performance at lowest cost.

## EcoPower





The EcoPower boiler is the most secure in the market with a wide range of safety devices to reduce risk of error and reduce maintenance costs, flame sensor, exhaust gas temp sensor, water flow sensor, low fuel sensor.

# MH 3M optimal ergonomics, reliable cleaning

**Innovative medium class hot water pressure washer unit with ergonomic and robust design.**

The MH 3M is equipped with our semi industrial NA4 pump with 3 ceramic pistons and 4 pole motor. The MH 3M is ideal for all hot water commercial and light industrial cleaning tasks. It offers ideal performance levels for general hot water cleaning and the efficient EcoPower Boiler.

Service and maintenance can be carried out quickly, as all vital parts are easy to inspect and reach.

The MH 3M concept ensures high mobility and easy transport across a wide variety of surface types thanks to the 4 large wheels and great balance.

The MH 3M concept also offers optimal service functions in order to reduce maintenance time and cost:

- Simple fuel level sight
- Easy access to components
- Easy pump oil service functions
- High efficiency 4 pole motors
- EcoPower boiler with EcoMode function
- Brass pump head
- 3 ceramic coated pistons
- Pressure activated unloader system
- Oil tank and oil sight
- Innovative design with 4 big wheels
- Easy to transport, can even be pushed/pulled across uneven surfaces

## TECHNICAL SPECIFICATIONS

Description	MH 3M-140/580 PA	MH 3M-160/770 PA
Item no.	107146895	107146903
Pump pressure (bar/MPa)	140/14	160/16
Cleaning impact (kg/force)	2.8	3.6
Pump (RPM)	1450	1450
Water flow Qmax/Qiec (l/h)	580/580	770/700
Water temperature (water/steam) (°C)	80/-	80/-
Max inlet temperature (°C)	40	40
Fuel consumption $\Delta T=45^{\circ}\text{C}$ (kg/h)	2.6	3.1
Fuel tank (l)	15	15
Dimensions LxWxH (mm)	1010 x 700 x 1016	1010 x 700 x 1016
Weight (kg)	114	133
Power consumption (kW)	3.6	4.7
Voltage/phase/frequency/current (V~/HZ/A)	230/1/50/16	400/3/50/8
Ceramic coated pistons	3	3
Detergent tank (l)	10	10
El cable (m)	5	5
Nozzle size	.0370	.0400
<b>Features:</b>		
Automatic on/off and delayed action	•	•
Service indicator	•	•
Flame sensor	•	•
<b>Standard equipment:</b>		
HP hose DN6, 10 m	301002275	301002275
Ergo 2000	106403122	106403122
Ergo coupling	101119496	101119496
Water inlet coupling	61369	61369
Universal Plus lance, 940 mm	106403036	106403036
Tornado Plus Nozzle	101119737	101119737

High pressure detergent system for additional effect. One or two detergent tanks (A and B) and suction hoses depending on the model chosen



Storage box and easy access to dosable AntiScale boiler protection system

Optimal accessory storage facilities with double lance holder, turnable hook for easy removal of electrical cable, innovative spray gun holder and easy storage of detergent tanks



Easy access to fuel tank with simple and easy level sight to avoid running short of fuel

High mobility thanks to the 4 large wheel design base, these ranges are child's play to manoeuver and transport across any type ground surface from smooth to rough



**Optimal accessibility :**

Ease of handling is optimized fully – both in use and storage with easy visibility of all control functions also from a distance

Easy access to all control elements even when in a stationary installation

Innovative spray gun holder

Easy storage of detergent tanks

Robust wheel brake to block the machine in position

Foot plate to easily kip and tilt the machine for added maneuverability



# MH 4M gives you performance, life-time and ergonomics

Innovative medium class hot water pressure washer unit with ergonomic and robust design, industrial NA5 pump and optimal service concept.

Nilfisk MH 4M comes with the NA5 pump with three durable ceramic pistons suited for cleaning applications up to 5-6 hours per day. It offers ideal performance levels for general hot water cleaning and the efficient EcoPower Boiler. Furthermore, the flow activated control system improves user comfort and handling as well as overall machine reliability.

Service and maintenance can be carried out quickly, as all vital parts are easy to inspect and reach. Also, the diagnostics function of the 4M will give maintenance warnings to minimize any downtime.

The MH 4M concept ensures the most optimal transport concept across a wide variety of surface types with the 4 large wheels and great balance.

- High efficiency 4 pole motors
- EcoPower boiler with EcoMode function
- Brass pump head
- Large inlet water filter protects pump against impurities
- 3 ceramic pistons
- Flow activated unloader system
- Oil tank and oil sight
- Low pump oil warning system
- Low fuel warning system
- Onboard diagnostics function
- Innovative design with 4 big wheels
- Easy to transport, can even be pushed/pulled across uneven surfaces

## TECHNICAL SPECIFICATIONS

Description	MH 4M-130/720 FA	MH 4M-180/860 FAL	MH 4M-180/860 FA	MH 4M-200/960 FA
Item no.	107146915	107146916	107146917	107146920
Pump pressure (bar/MPa)	130/13	180/18	180/18	200/20
Cleaning impact (kg/force)	3.0	4.3	4.3	5.1
Pump (RPM)	1450	1450	1450	1450
Water flow Qmax/Qiecc (l/h)	720/660	860/790	860/790	960/890
Water temperature (water/steam) (°C)	90/150*	90	90/150*	90/150*
Max inlet temperature (°C)	40	40	40	40
Fuel consumption $\Delta T=45^{\circ}\text{C}$ (kg/h)	2.9	3.5	3.5	3.9
Fuel tank (l)	15	15	15	15
Dimensions LxWxH (mm)	1010 x 700 x 1016	1010 x 700 x 1016	1010 x 700 x 1016	1010 x 700 x 1016
Weight (kg)	141	133	133	142
Power consumption (kW)	3.6	5.9	5.9	7.2
Voltage/phase/frequency/current (V/~/HZ/A)	230/1/50/16	400/3/50/10	400/3/50/10	400/3/50/12
Ceramic pistons	3	3	3	3
Detergent tank A+B (l)	A: 10 + B: External	10	A: 10 + B: External	A: 10 + B: External
El cable (m)	5	5	5	5
Nozzle size	.0435	.0435	.0435	.0475
<b>Features:</b>				
Automatic on/off and delayed action	•	•	•	•
Low pump oil safety	•		•	•
Low fuel safety	•		•	•
Service indicator	•		•	•
Flame sensor	•	•	•	•
<b>Standard equipment:</b>				
HP hose DN8, 10 m	101405770	101405770	101405770	101405770
Ergo 2000	106403122	106403122	106403122	106403122
Ergo coupling	101119496	101119496	101119496	101119496
Water inlet coupling	61369	61369	61369	61369
Tornado Plus lance, 1000 mm				106403011
Universal Plus lance, 940 mm	106403036	106403036	106403036	
Tornado Plus Nozzle	101119739	101119739	101119739	301150005









## TECHNICAL SPECIFICATIONS

Description	MH 4M-200/960 FAX	MH 4M-220/1000 FA	MH 4M-220/1000 FAX	MH 4M-210/1000 PAX
Item no.	107146922	107146938	107146940	107146912
Pump pressure (bar/MPa)	200/20	220/22	220/22	210/21
Cleaning impact (kg/force)	5.1	5.6	5.6	5.5
Pump (RPM)	1450	1450	1450	1450
Water flow Qmax/Qiec (l/h)	960/890	1000/940	1000/940	1000/940
Water temperature (water/steam) (°C)	90/150*	90/150*	90/150*	90/150*
Max inlet temperature (°C)	40	40	40	40
Fuel consumption $\Delta T=45^{\circ}\text{C}$ (kg/h)	3.9	4.1	4.1	4.1
Fuel tank (l)	15	15	15	15
Dimensions LxWxH (mm)	1010 x 700 x 1016	1010 x 700 x 1016	1010 x 700 x 1016	1010 x 700 x 1016
Weight (kg)	142	142	149	149
Power consumption (kW)	7.2	7.2	7.2	8.0
Voltage/phase/frequency/current (V/-/HZ/A)	400/3/50/12	400/3/50/14	400/3/50/14	400/3/50/13.5
Ceramic pistons	3	3	3	3
Detergent tank (l)	A: 10 + B: External	A: 10 + B: External	A: 10 + B: External	A: 10 + B: External
El cable (m)	5	5	5	5
Nozzle size	.0475	.0475	.0475	.0475
<b>Features:</b>				
Automatic on/off and delayed action	●	●	●	●
Low pump oil safety	●	●	●	●
Low fuel safety	●	●	●	●
Service indicator	●	●	●	●
Hose reel	●		●	●
Flame sensor	●	●	●	●
<b>Standard equipment:</b>				
HP hose DN8, 10 m		101405770		
HP hose DN8, 15 m	301001100		301001100	301001100
Hose reel	106403184		106403184	106403184
Ergo 2000	106403122	106403122	106403122	106403122
Ergo coupling	101119496	101119496	101119496	101119496
Water inlet coupling	61369	61369	61369	61369
Tornado Plus lance, 1000 mm	106403011	106403011	106403011	106403011
Tornado Plus Nozzle	301150005	301150005	150005	301150005

\* at reduce water flow

# The Guide



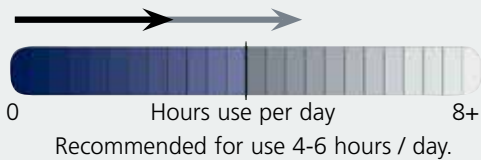
MH 3M is medium duty hot water high pressure washers suited for general everyday light cleaning for 2 to 4 hours per day.



- High efficiency closed motor running 1450 rpm (50 Hz) or 1750 rpm (60 Hz)
- Pressure activated unloader system
- Oil tank and oil sight



MH 4M is medium duty hot water high pressure washers suited for slightly heavier cleaning applications and a use of 4 to 6 hours per day.



- High efficiency closed motor running 1450rpm (50 Hz) or 1750 rpm (60 Hz)
- Large inlet water filter protects pump against impurities
- Flow activated unloader system
- Oil tank and oil sight
- Low pump oil warning system
- Low fuel warning system
- Onboard diagnostics function

