

CHARACTERISTICS

- **Aerosol generators** with innovative micro-particle medium diameter below 0.5uM
- **Air Boost** Adds air-flow for large dimension tools, reducing oil consumption and increases chip removal
- **Double generator** and hybrid pressure system for performance machining with small tool sizes.

ADVANTAGES

- Reduce your cycle times
- Increase tool life
- Better surface finish
- Reduced Oil and Water consumption
- Lower waste product costs
- Prevent part rusting during staging

APPLICATIONS

Near Dry High Performance Machining applications

THE START OF A NEW ERA: EXTREME PERFORMANCE MACHINING

A REVOLUTIONARY TECHNOLOGY

Thanks to a completely new approach to the aerosol generation technology, **MaXtreme** is revolutionising MQL near-dry machining systems on new and existing machines.

MaXtreme is the ready-for-use solution for the most demanding and high performance near-dry processing that requires minimum external or internal lubrication or lubrication via utensil.

OPTION WITH DOUBLE VORTEX

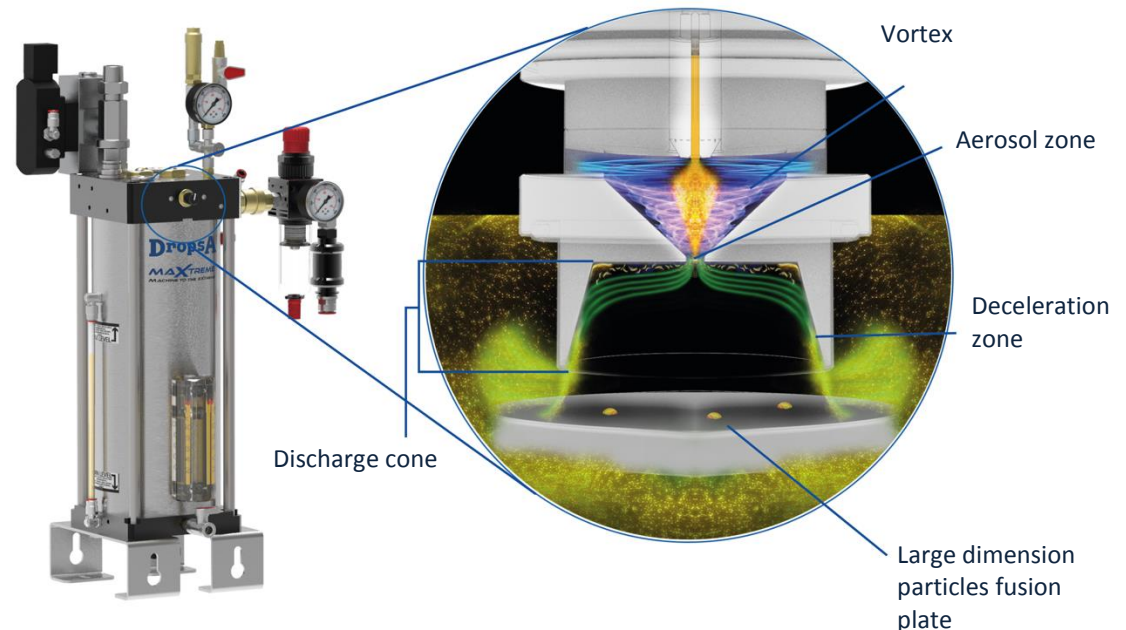
The revolutionary system for internal and external applications of high-level near-dry processing.

In some applications, a second optimised vortex nozzle can be added for higher pressures to allow higher aerosol and flow rates on small utensil applications.

This option works in a hybrid configuration with the primary nozzle that dispenses constant and rich aerosol even at low flow rates, reducing the 'dead zone' found at low flow rates.



SELF-ADAPTING AND HYBRID FEATURE



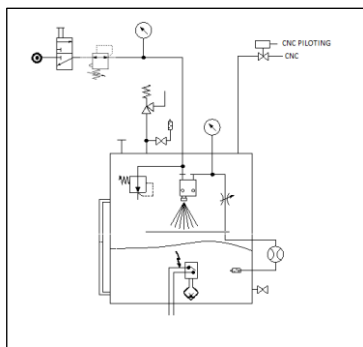
How it works: the aerosol is produced using a novel vortex generator that has an increased operational envelope. A particular design of the conical discharge nozzle, combined with specific surface finish fragments the oil particles, decelerating them at a controlled speed into an aerosol with sub-micron particle diameters. When the flow rates become high (typically for large tools), an air-boost valve opens to integrate additional air flow for the removal of chips and heat reducing the density of the aerosol that is not required for this type of processing operation.

TECHNICAL INFORMATION

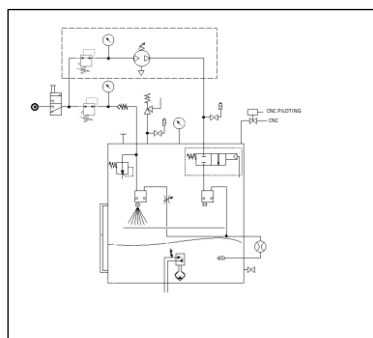
Technical characteristics	
*LP nozzle Air Supply:	6 Bar (87 psi)
*LP nozzle air/outlet flow rate:	35000 NI/h (W/additional air) (1236 cfh) 6 Bar
*Oil Flow rate:	220 ml/h (13.2 cu/h) 20°C
*HP nozzle Air Supply:	20 Bar (290 psi)
*HP nozzle air/outlet flow rate:	6500 NI/h (229.5 cfh)
*Nozzle oil flow HP:	9.5 ml/h (0.6 cu/h) 20°C
Min. working diameter LP nozzle (6 bar)	2 mm (7000 NI/h) (247 cfh)
Minimum working diameter HP nozzle (20 bar)	0.8 mm(3500 NI/h) (123 cfh)
Reservoir capacity:	2 litres (0.50 gallons)
Air supply hose:	Ø12mm. (0.47 in)
Usage tube:	Ø12 ÷ 16 mm (0.47 ÷ 0.6 in.)
Number of aerosol outlets:	1~3
Lubricant	DropsA recommends MaXtreme OIL for the best results
Degree of protection:	IP 65
Electro-pneumatic valve power supply: (Optional)	24VDC 200mA
Operating temperature	0°C ÷ +60°C
Storage temperature	-10°C ÷ +80°C
Noise (distance 1mt)	70 dB "A"
Escape valve:	22 bar
Reservoir pressure gauge:	0~25 Bar
All the values on the technical characteristics refer to Ø12 in/out connections	
<i>* The value is variable depending on the outlet Ø or the tool chosen for HP nozzle version</i>	

Hydraulics diagram

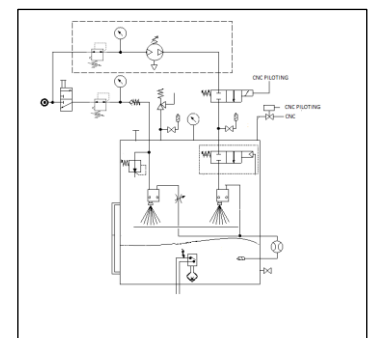
Single vortex version (LP)



Option with double vortex (LP/HP) pneumatic actuation



Option with double vortex (LP/HP) electrical actuation



Advantages:

- Reduction of the cycle time: from 25% to 80%. Reduction of the quantity of lubricant required
- Longer utensil life
- Improved finishing of the pieces

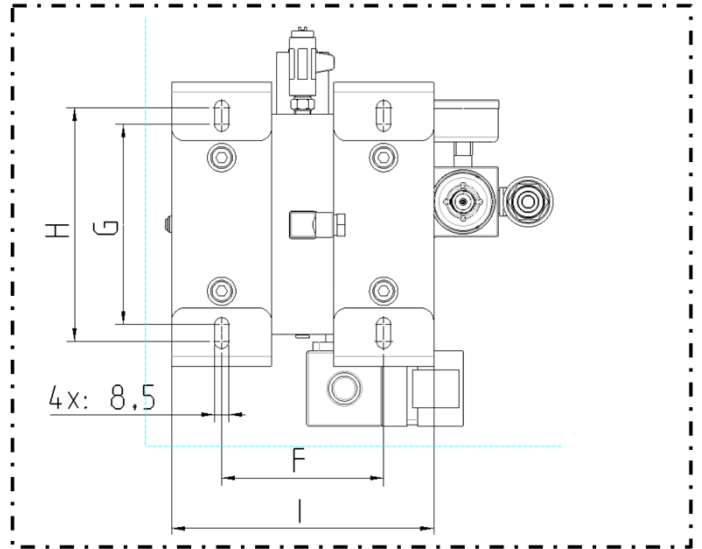
Application:

- Tool machines
- Machines for cutting and bending sheet metal
- Steel plants

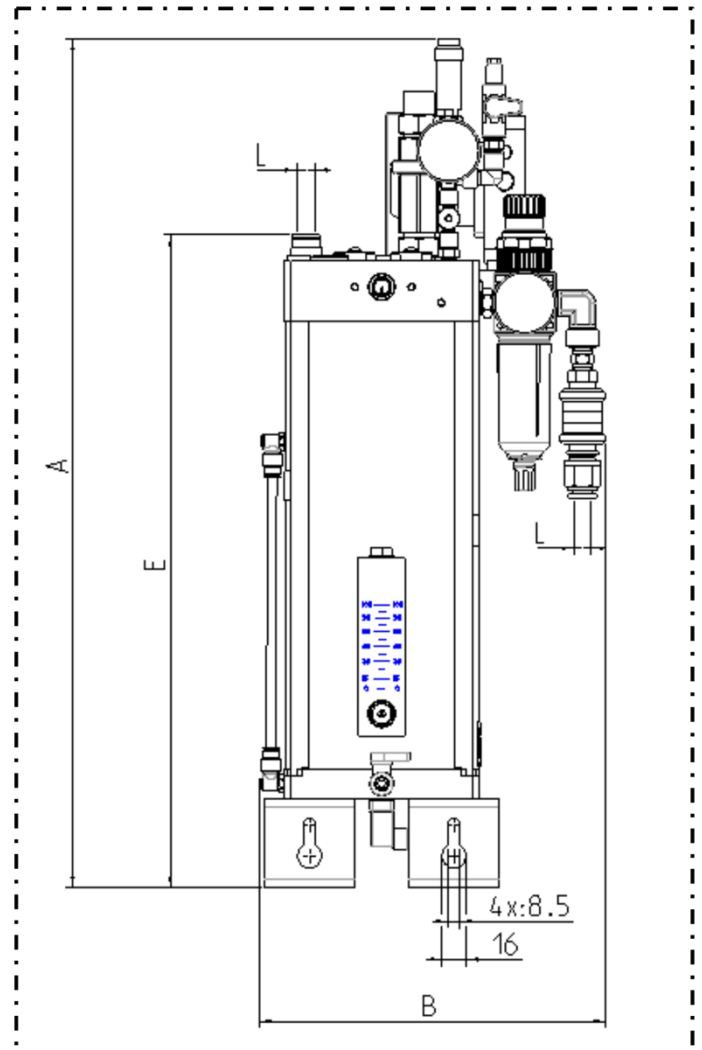
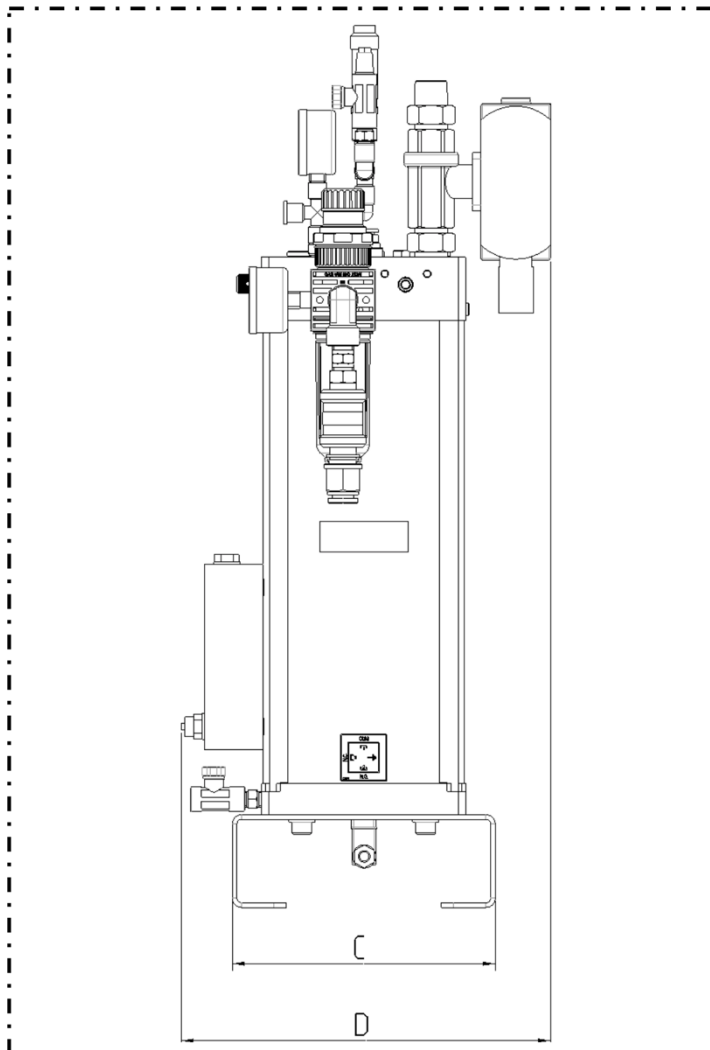
Dimensions

BOTTOM VIEW

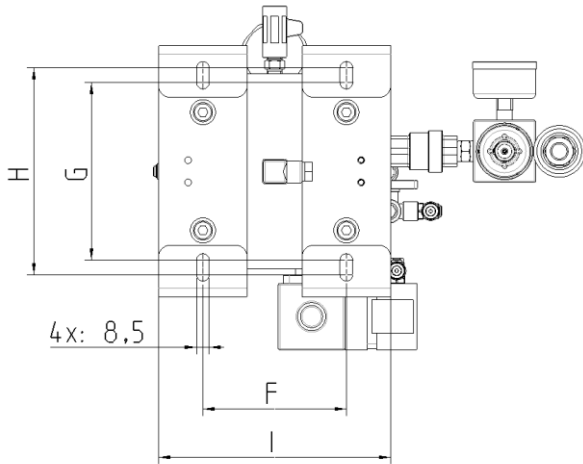
Dimensions in mm (inches)	
A	570 (22.5)
B	232 (9.1)
C	170 (6.69)
D	239 (9.4)
E	439 (17.28)
F	97 (3.81)
G	120 (4.72)
H	140 (5.51)
I	157 (6.18)
L	ø12 HOSE / G1/2" NIPPLE



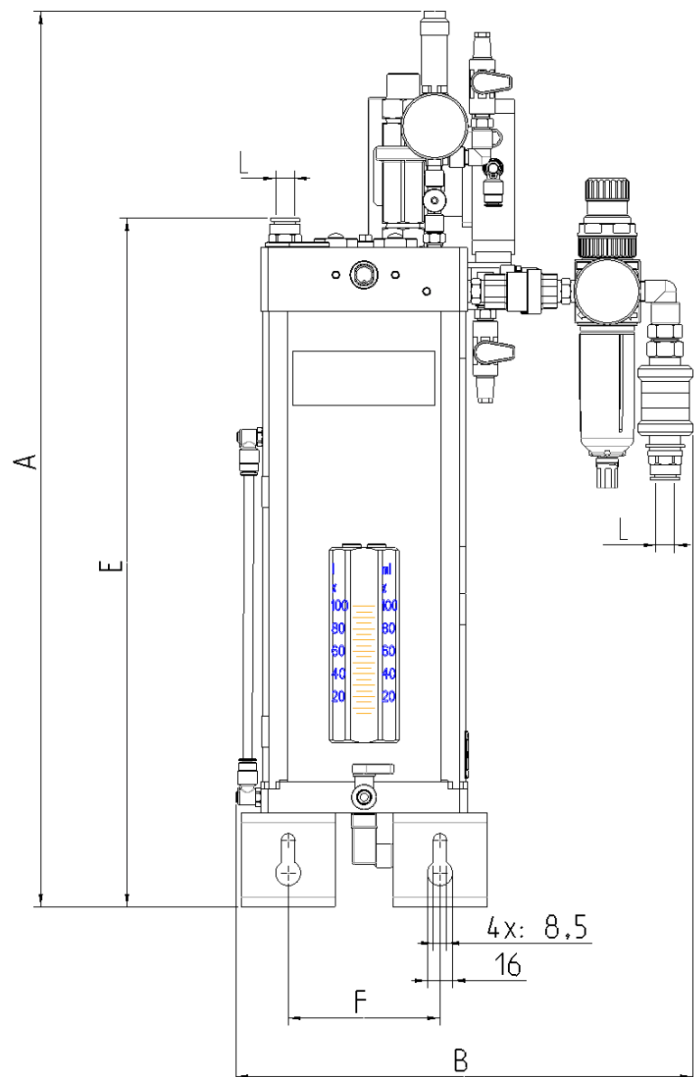
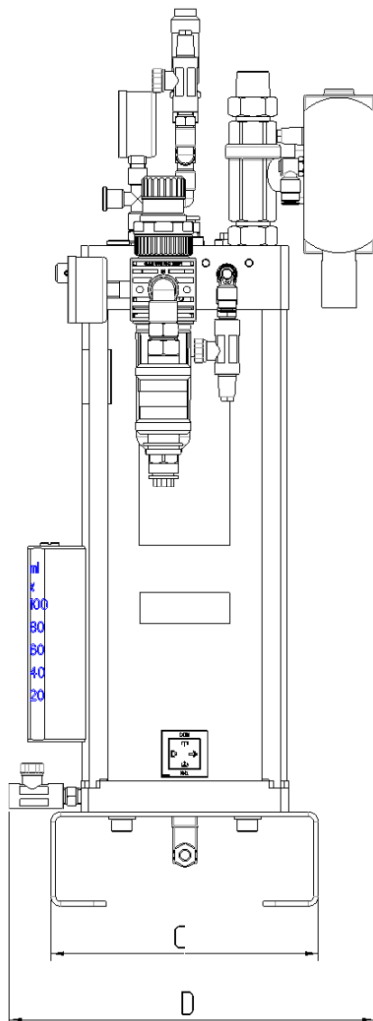
SIDE VIEW



PNEUMATIC/ELECTRIC CONTROL DOUBLE NOZZLE



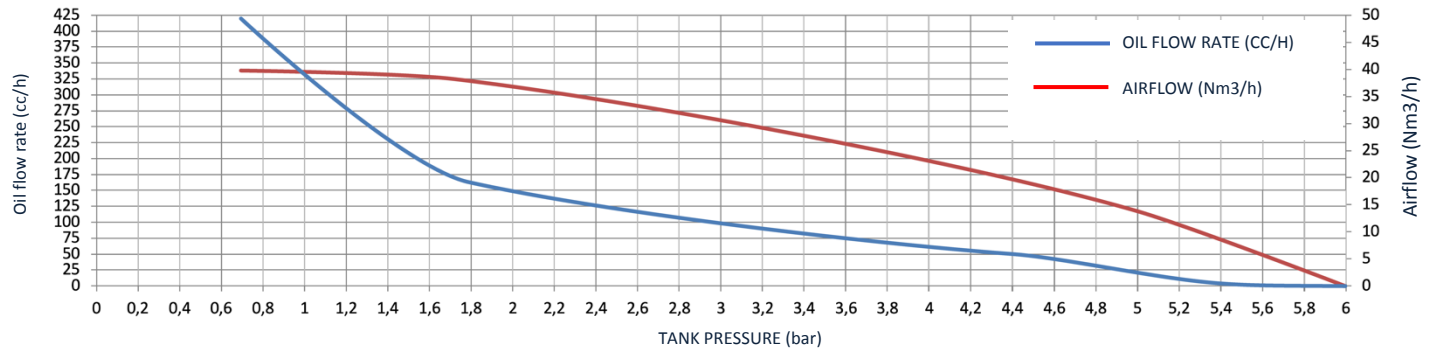
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G	120 (4.72)
H	140 (5.51)
I	157 (6.18)
L	TUBO \varnothing 12 / NIPPLO G1/2"



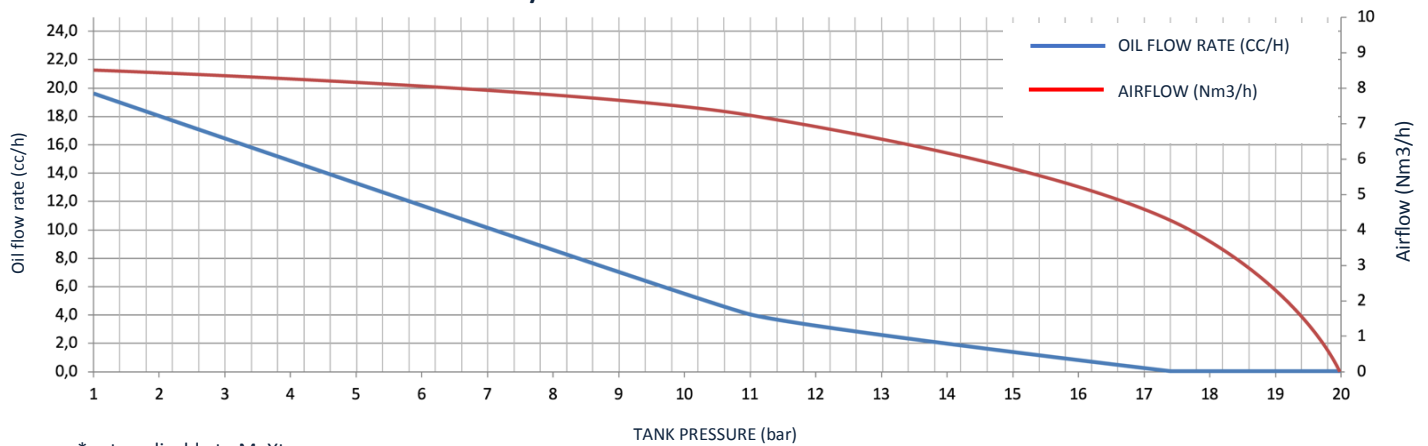
APPROXIMATE CONSUMPTION

The data indicated on the graphics refer to work test conditions with inlet pressure of 1~6 bar

FLOW RATE AIR/OIL NORMAL PRESSURE 6 BAR VORTEX 1

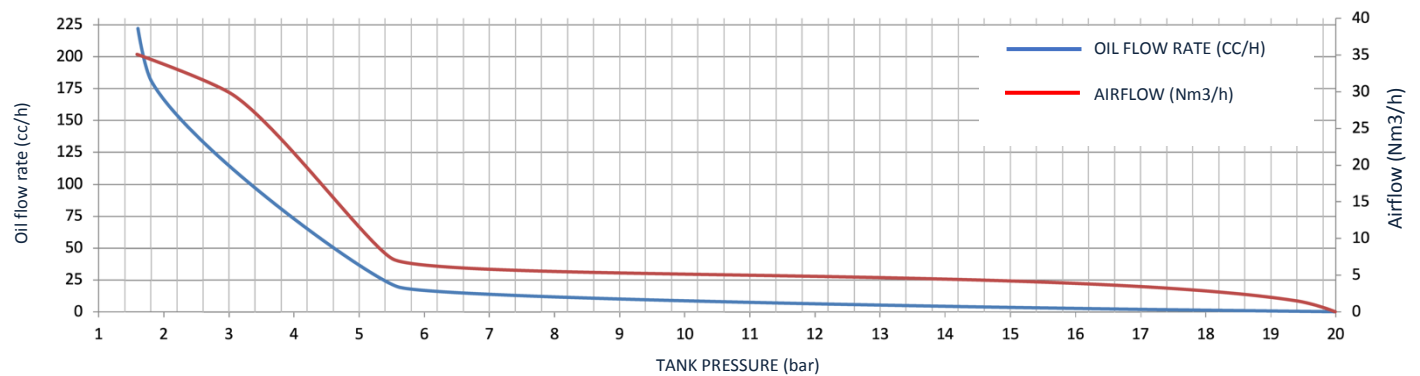


HIGH AIR/OIL FLOW RATE PRESS 20 BAR VORTEX 2



*not applicable to MaXtreme one

COMBINED AIR/VORTEX OIL FLOW RATE



*not applicable to MaXtreme one

Maxtreme oil viscosity <50cSt 40°
Test temperature 20°C

ORDERING INFORMATION

Part number	Description
3135263	MaXtreme one with minimum level, single nozzle (HP circuit deactivate)
3135264	MaXtreme - with minimum level, double nozzle

ACCESSORIES	
Part number	Description
3155187	Solenoid valve for aerosol control
0295188	Air multiplier kit
0295189	On/Off solenoid valve kit for high-pressure circuit
0295272	On/Off solenoid valve kit for low-pressure circuit

REPLACEMENT PARTS	
Part number	Description
0020685	Pressure adjustment valve 0~10 Bar
3292142	0-25 Bar pressure gauge
3155312	Safety valve
3089043	Air check valve

CONSUMABLE PRODUCTS	
Part number	Description
3226692	MaXtreme - Oil 22 Litres
3226693	MaXtreme - Oil 206 Litres
3226694	MaXtreme - Oil 980 Litres