

Nilfisk

Core 150



Repair Manual ver. 1.0

Nilfisk

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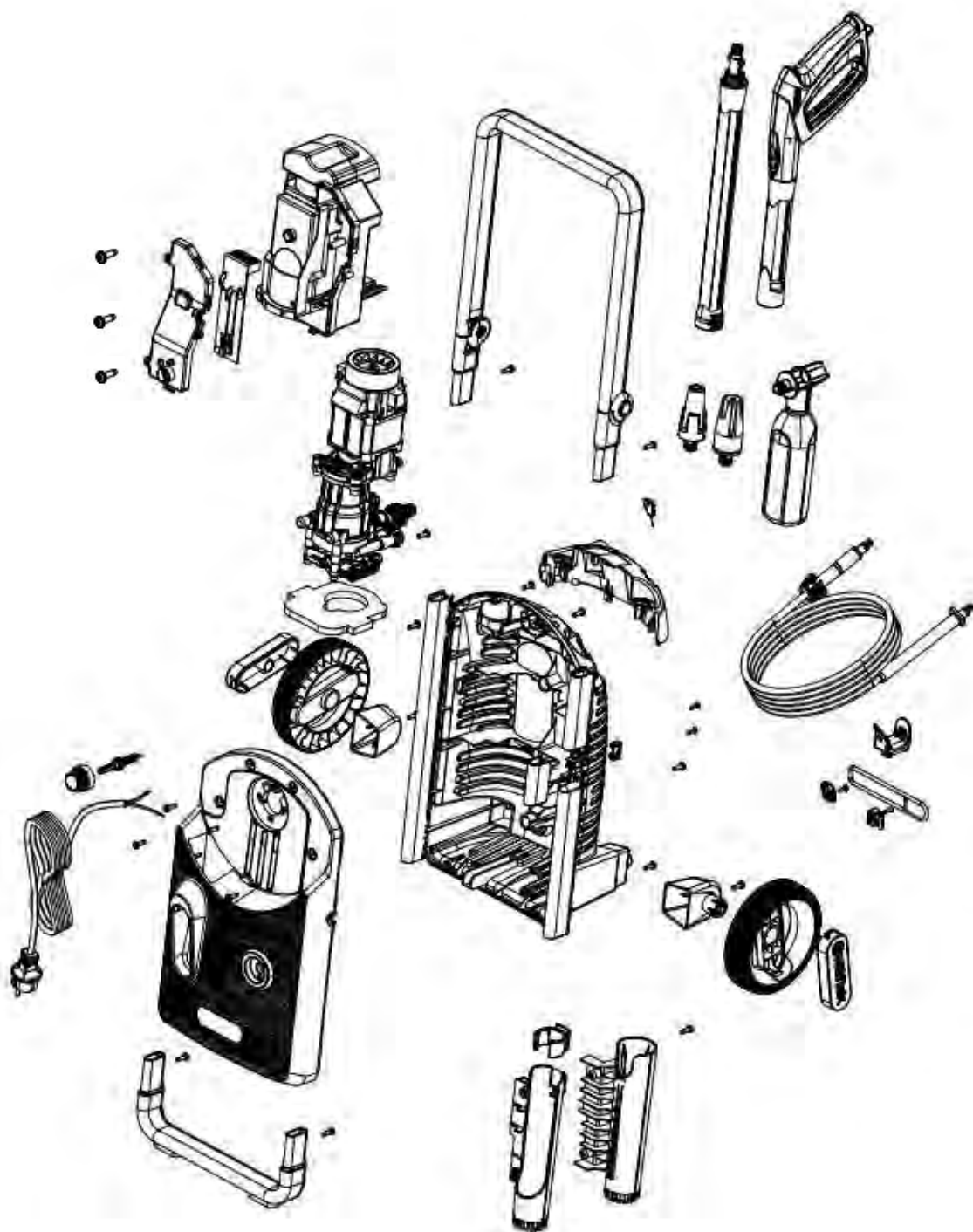
WARNING!

- High pressure jets can be dangerous. Never direct the water jet at persons pets, live electrical equipment or the machine self.
- The operator and anyone in the immediate vicinity of the site of cleaning should take action to protect themselves from being struck by debris dislodged during operation. Wear goggles during operation.
- Never try to clean clothes or footwear on yourself or other persons.
- Do not let children or people who have not read the instruction manual operate the machine.
- Never use the machine in an environment where there could be a danger of explosion. If any doubt arises, please contact the local authorities.
- It is not allowed to clean asbestos- containing surfaces with high pressure.
- This high pressure washer must not be used at temperatures below 0°C.
- Never let any persons stay under the product when stored on the wall.

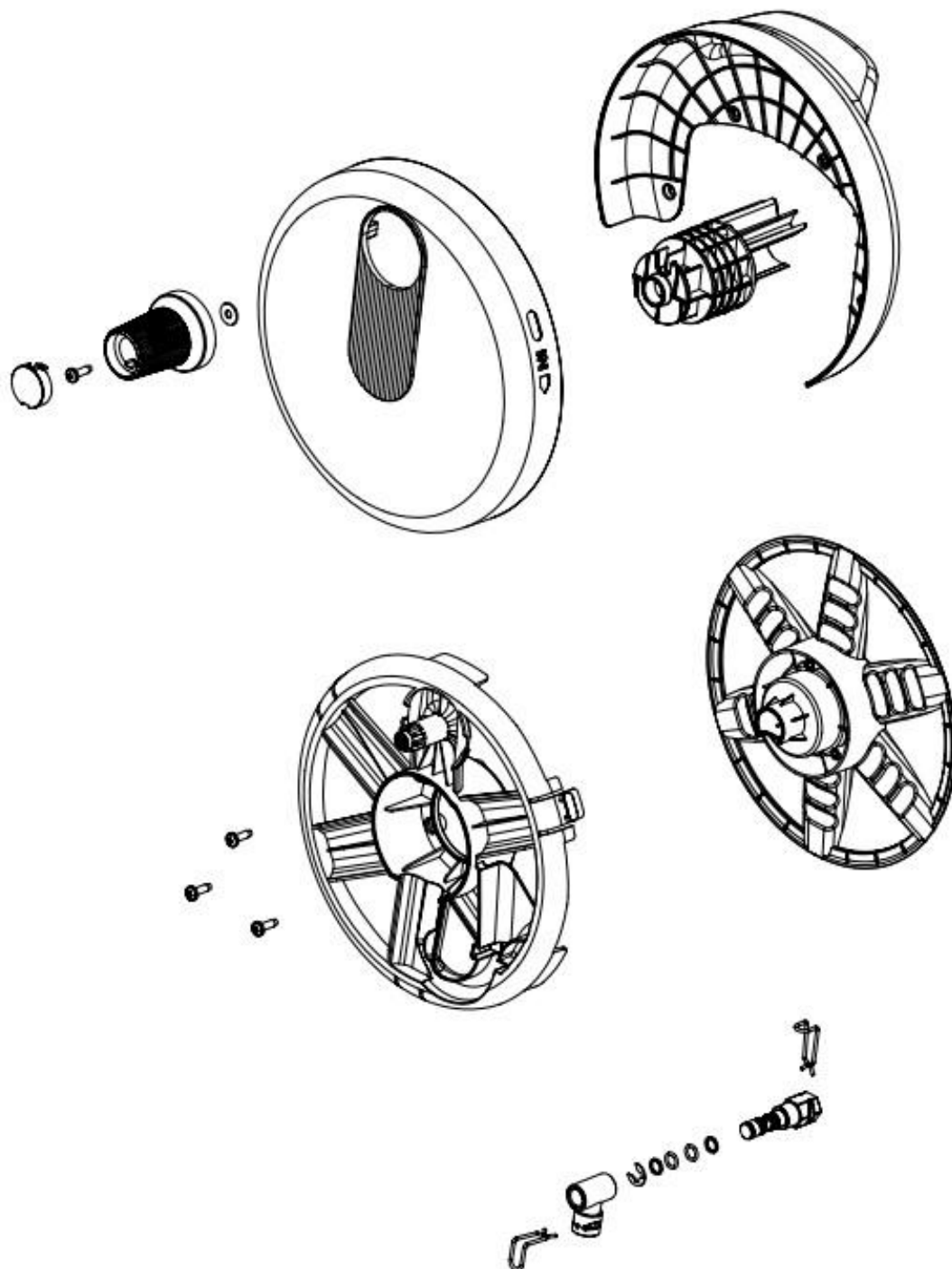


Product segment: Consumer		Core 150 (EU)	Core 150 (UK)
Specification	bar	Max 150	Max 150
Voltage	V	220-240	220-240
Frequency	Hz	50-60	50-60
Power consumption	A	10	10
Power absorbed	KW	2	2
Water volume, HP	l/min	6.3	6.3
Pump pressure	bar	115	115
Opening pressure	bar	117-145	117-145
Retaining time	min.	5	5
Oil contents	ml	55	55
Oil type		GB3141 N32/ISO VG32	GB3141 N32/ ISO VG32
Max water inlet temperature	C	40	40
Max water inlet pressure	bar	10	10
High pressure hose length	m	10 m G1 Soft Hose Ø11mm	10 m G1 Soft Hose Ø11mm
Suction height	m	Max 0.5	Max 0.5
Electric cable	m	5	5
Insulation class		F	F
Tightness		IPX5	IPX5

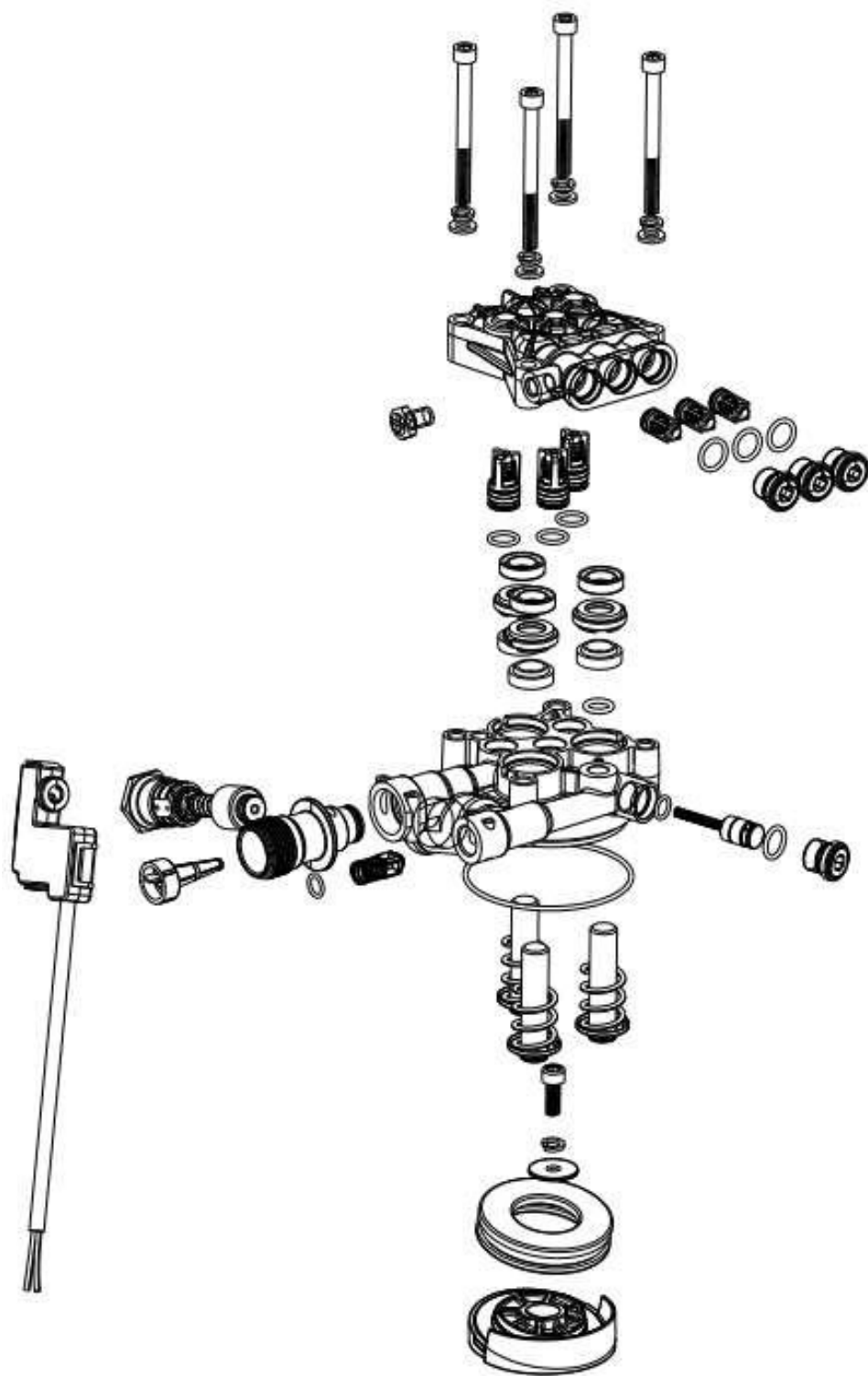
Core 150
Construction of cabinet parts.



Core 150
Construction of cabinet parts.



Core 150
Construction of pump unit.

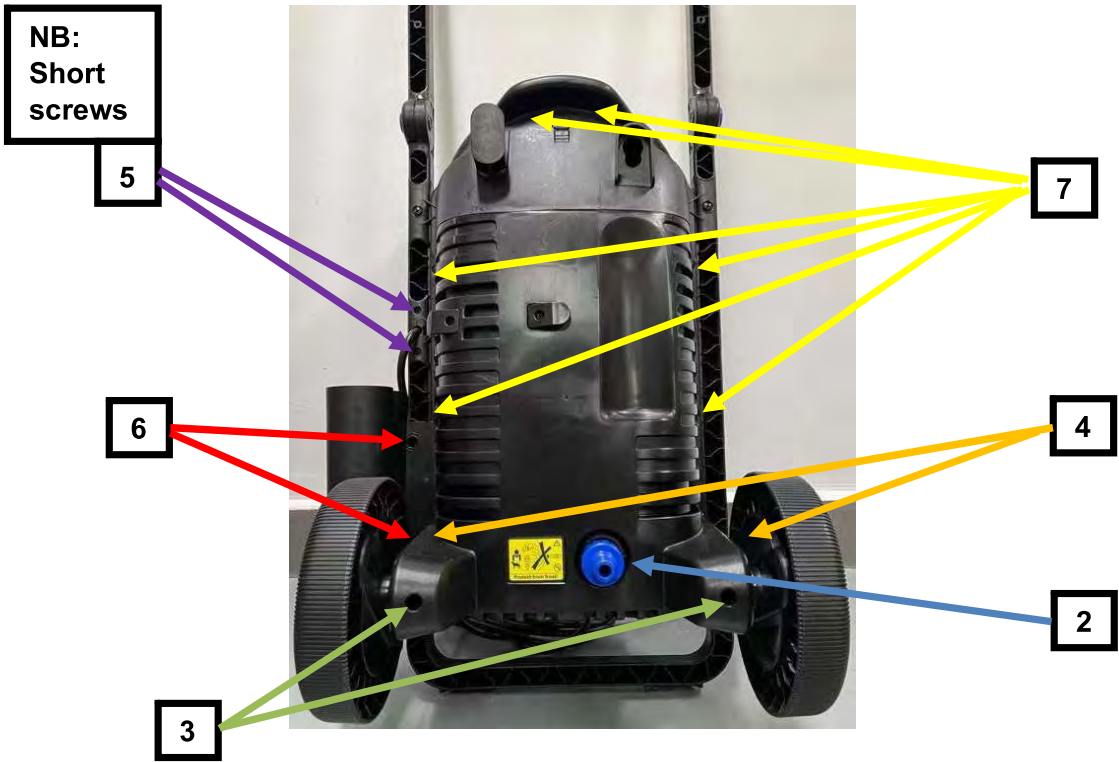


- Dismounting of cabinet rear part on following variants: Core 150**
1. Tools: Screwdriver PH2 (fig. 1)
 2. Remove the water inlet coupling (fig. 2)
 3. Remove the 2 screws to remove the wheels for easy disassembly (fig. 2)
 4. Remove the 2 screws behind the wheels (fig.2)
 5. Remove the 2 short screws at cable relief (fig.2)
 6. Remove the 2 screws on lance holder (fig.2)
 7. Remove the remaining 6 screws fixing the cabinet rear part (fig.2)
 8. The cabinet rear part can be removed and there is now access to the motor pump unit

Fig. 1



Fig. 2



- Dismount / mounting of switch box cover and switch box: Core 150**
1. Remove the 3 screws. (fig 1)
 2. Remove the switch box cover. (fig 1)
 3. *Assembly: Ensure that the single cords are inside the box and are not squeezed during assembly and that cable relief is mounted correctly in the slit in the switchbox.*
 4. *Assembly: Ensure that the switch is correctly mounted the two fixing tap's (fig 2)*
 5. *Assembly: Turn knob axle counter clockwise, and align with knob in its right position when mounting the front part including the knob.*

Fig. 1

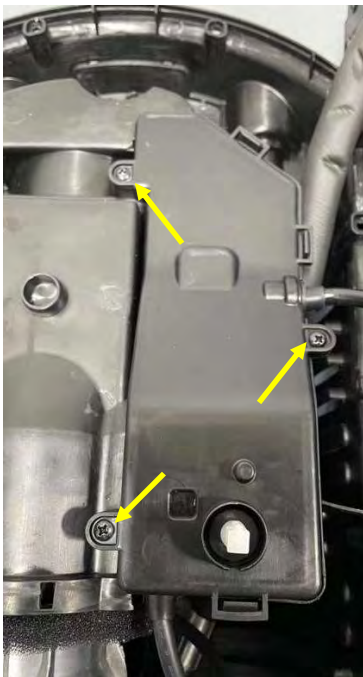


Fig. 2

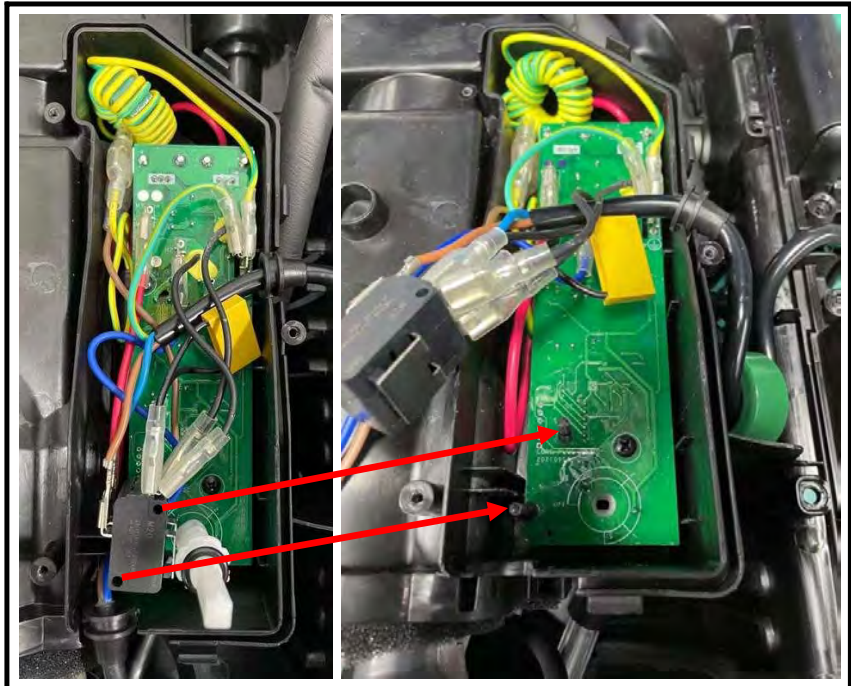
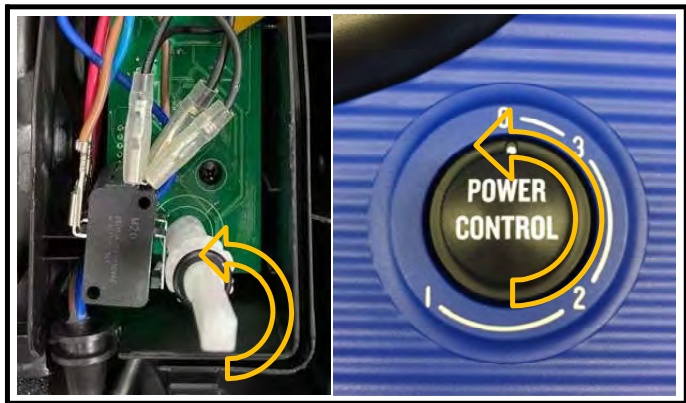


Fig. 3



Dismounting / mounting of the start / stop system: Core 150

1. The micro-switch box can now be removed by hand, so that there is free access to the start/stop valve (Fig 1)
 2. The start/stop valve can be removed with a 25mm spanner.
- Check that all parts are correct placed before mounting (Fig 2)

Fig. 1**Fig. 2**

Dismounting / mounting of water / oil seal and valves: Core 150

To change the oil seals, water seals and pressure valve, use a screw driver to dismount the parts (fig 3 & 4).

Alternatively, there is a puller number 1220103 to pull out the valves seats (pressure and suction valves).

Note: the seat is no longer usable after using the puller

Cleanup and lubricate before mounting!

Fig 1 is showing the pump after opening the cylinder head from the cylinder block.

Fig 2 is showing how all the parts must be assembled into the cylinder head.

Fig. 1



Fig. 2

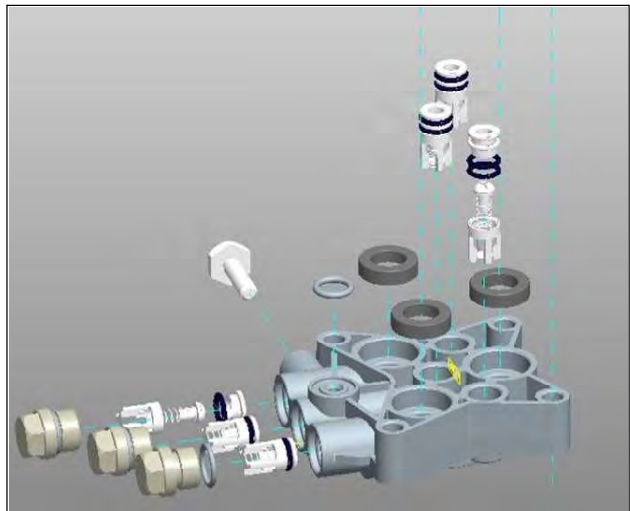


Fig. 3



Fig. 4



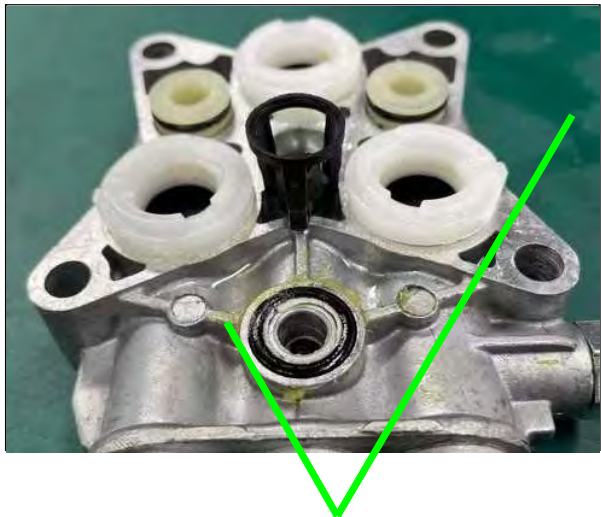
IMPORTANT mounting information:

The valve bodies must be positioned correct. The “leg” of the valve body must not be placed in front of a lug boss inside the cylinder head. Fig 1 is showing the WRONG positioning and fig 2 is showing the CORRECT positioning.

Fig. 1



Fig. 2



Core 150:

Precaution when assembling the switch box.

1. Ensure that the cable and cable relief is mounted correct in the switch box (fig. 1)
2. Ensure the EMC coil is put in switch box. (fig. 2)

Fig. 1

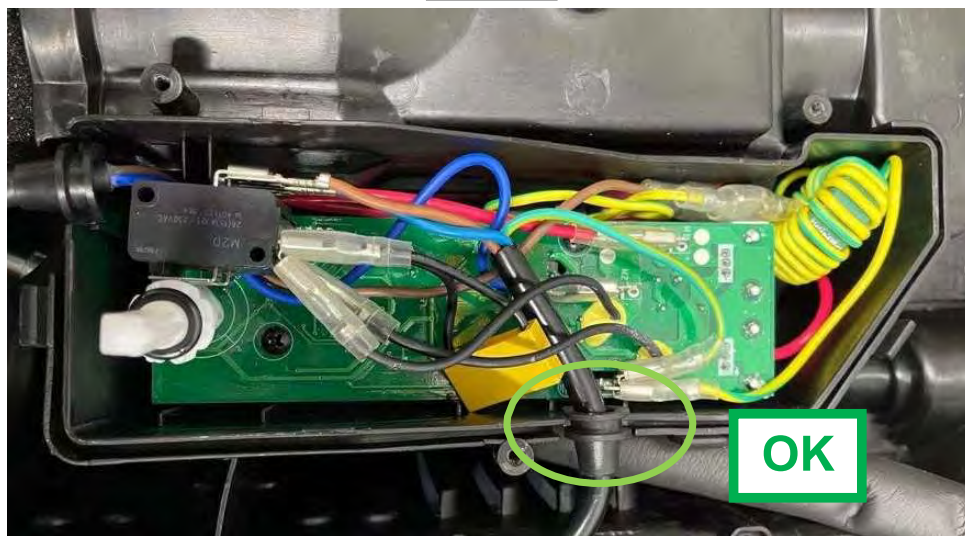
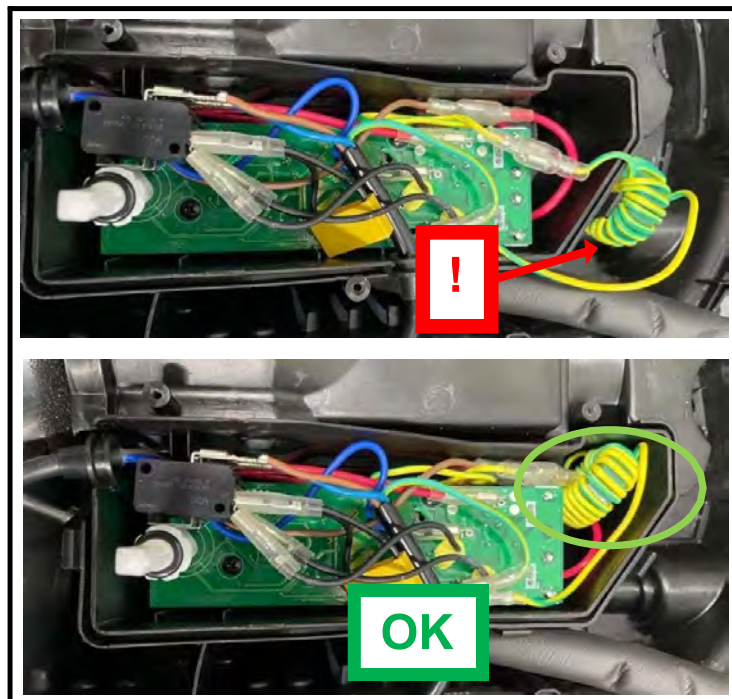


Fig. 2



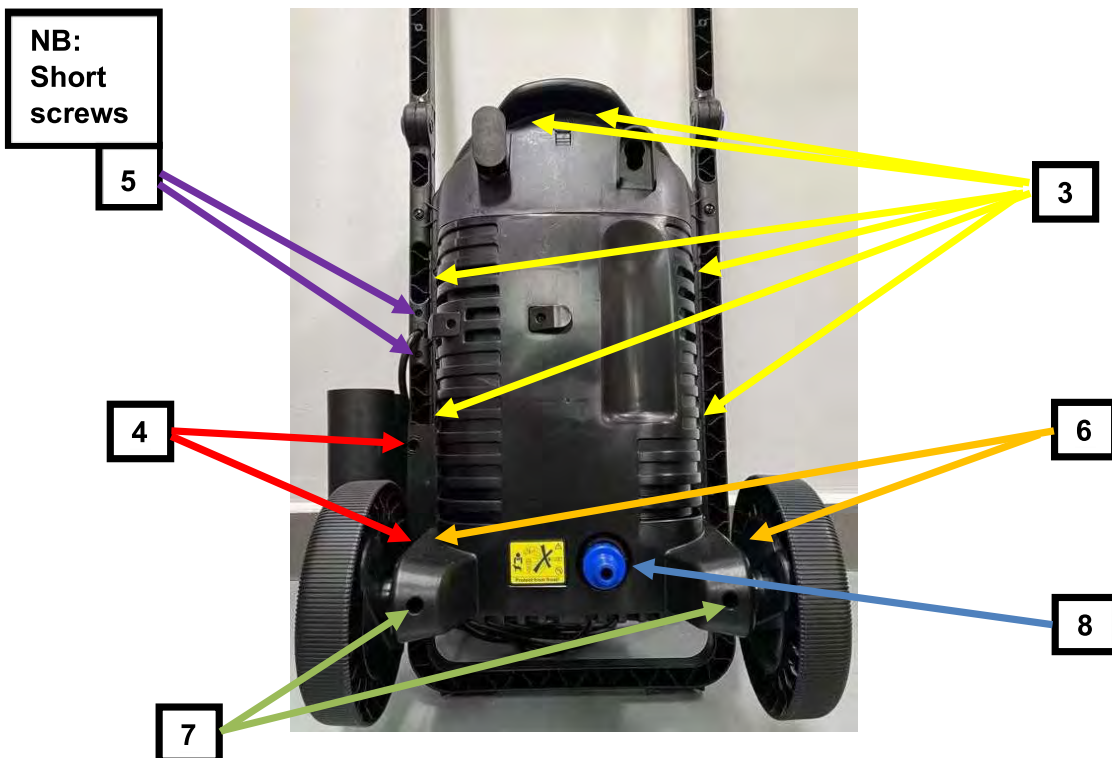
Mounting of cabinet rear part on following variants: Core 150

1. Tools: Screwdriver PH2 (fig. 1)
2. Put the motor pump unit in its right position and mount rear cabinet part
3. Mount the 6 screws fixing the cabinet rear part (fig.2)
4. Mount the lance holder by the 2 screws (fig.2)
5. Mount the 2 short screws at cable relief (fig.2)
6. Mount the 2 screws behind the wheels (fig.2)
7. Mount the wheels by the 2 screws (fig. 2)
8. Mount the water inlet coupling (fig. 2)

Fig. 1



Fig. 2



Exchange of hose in hose reel: Core 150

Pairing of the machine and the Wireless Handle:

1. Release the 3 lock snap's and remove the hose reel cover, (fig. 1)
2. Remove lock spring (fig. 2)
3. Remove the hose by pulling it out trough the hose channel in the machine
4. Push the real end of new hose trough the channel in the machine , and mount it in the brass connector and fix it with the lock spring. (fig. 2)
5. Make sure that hose guide is mounted correct, to ensure clockwise rewind only (fig. 3)

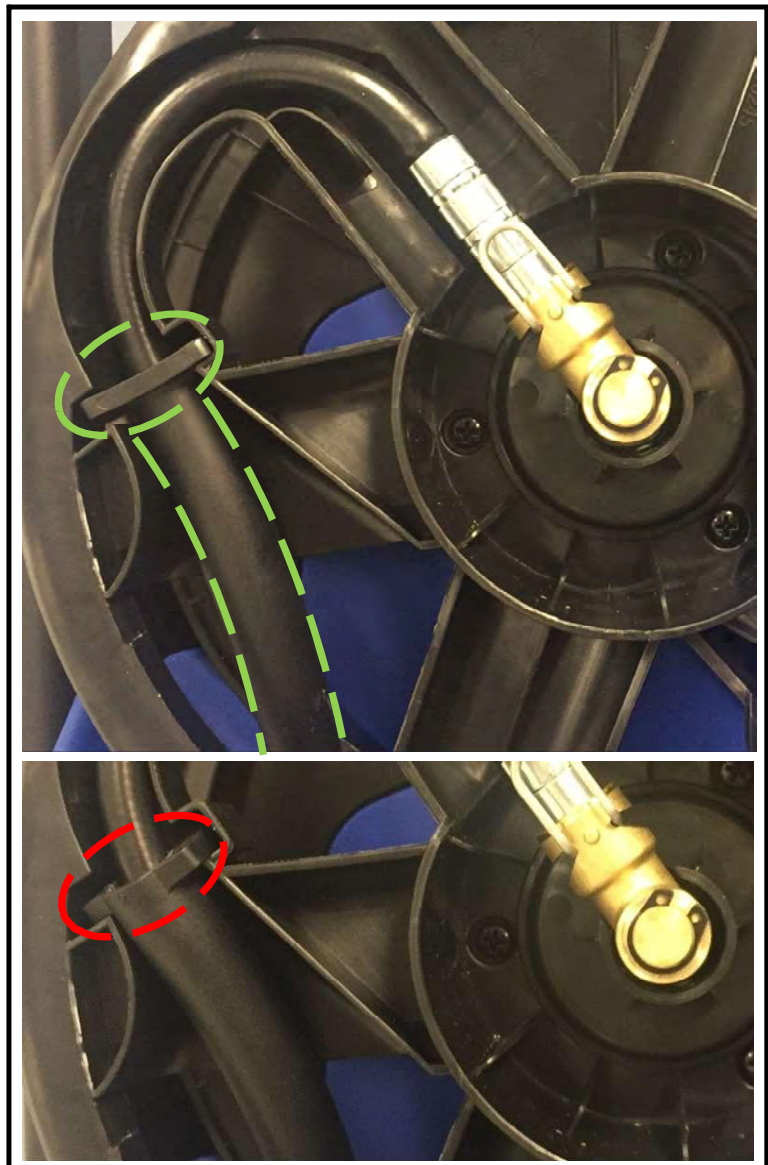
Fig. 1



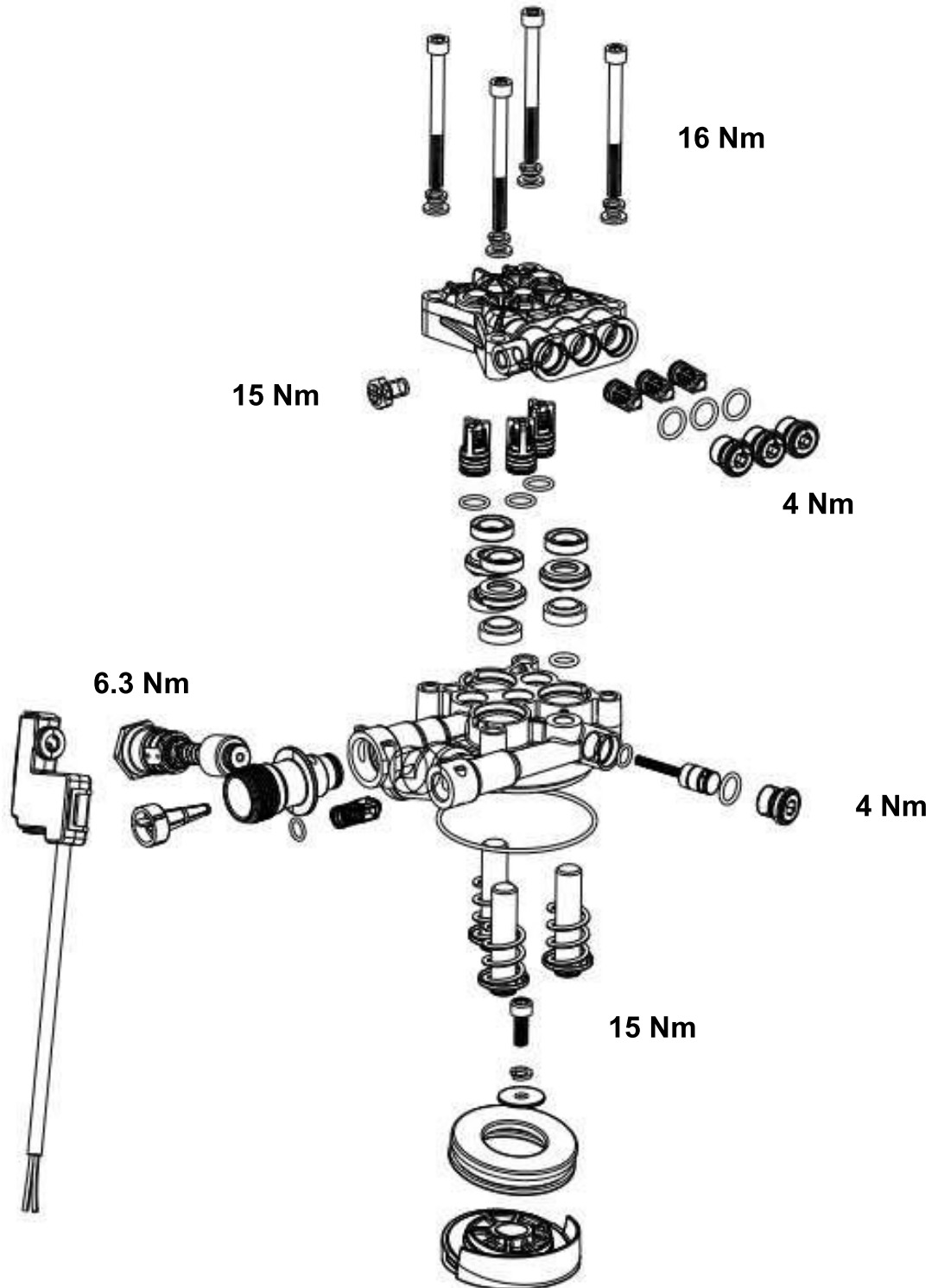
Fig. 2



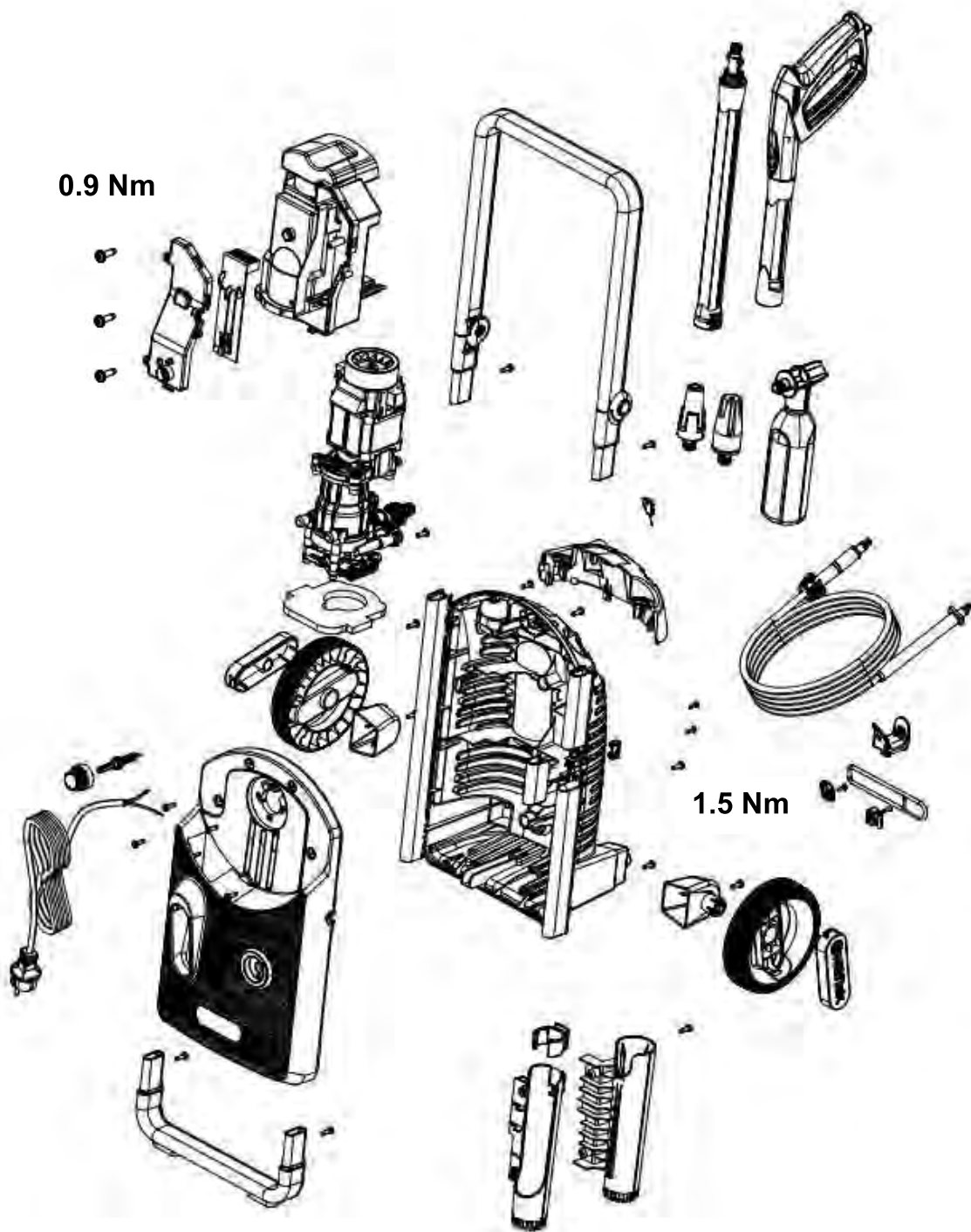
Fig. 3



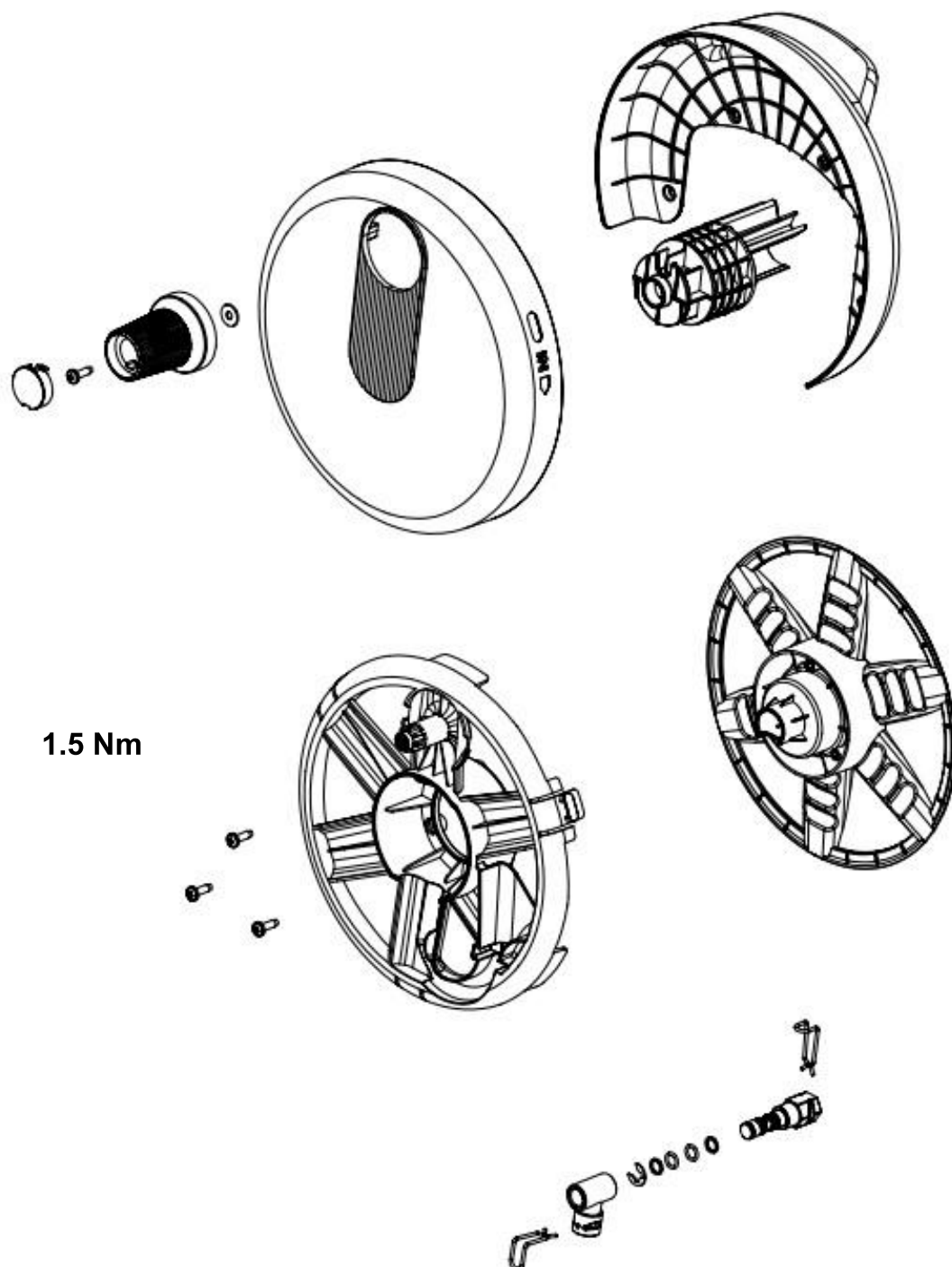
Pump torque. Core 150



Cabinet screw torque. Core 150



Cabinet screw torque. Core 150





Recommended oil types:

The pump is filled with 55 ml GB3141 N32/ISO VG32 from the production.

In case of service where the oil must be changed Nilfisk recommends to use 55 ml Bartran HV 46.

Alternative oil types that are allowed:

BP, Bartran HV 46

Shell, Tellus T 46

Exxon, Statoil Univis N 46

Mobil Oil Mobil DTE 25

Recommended lubrication:

White grease for o-rings, sealings etc.:

Silicone grease (Unisikon L250)-All moveable parts and O-rings.
DOW CORNING(R) M 55 O-RING LUBRICANT – All stationary O-rings.

Special tools:

Straight (flat) screwdriver (for lock clamps)

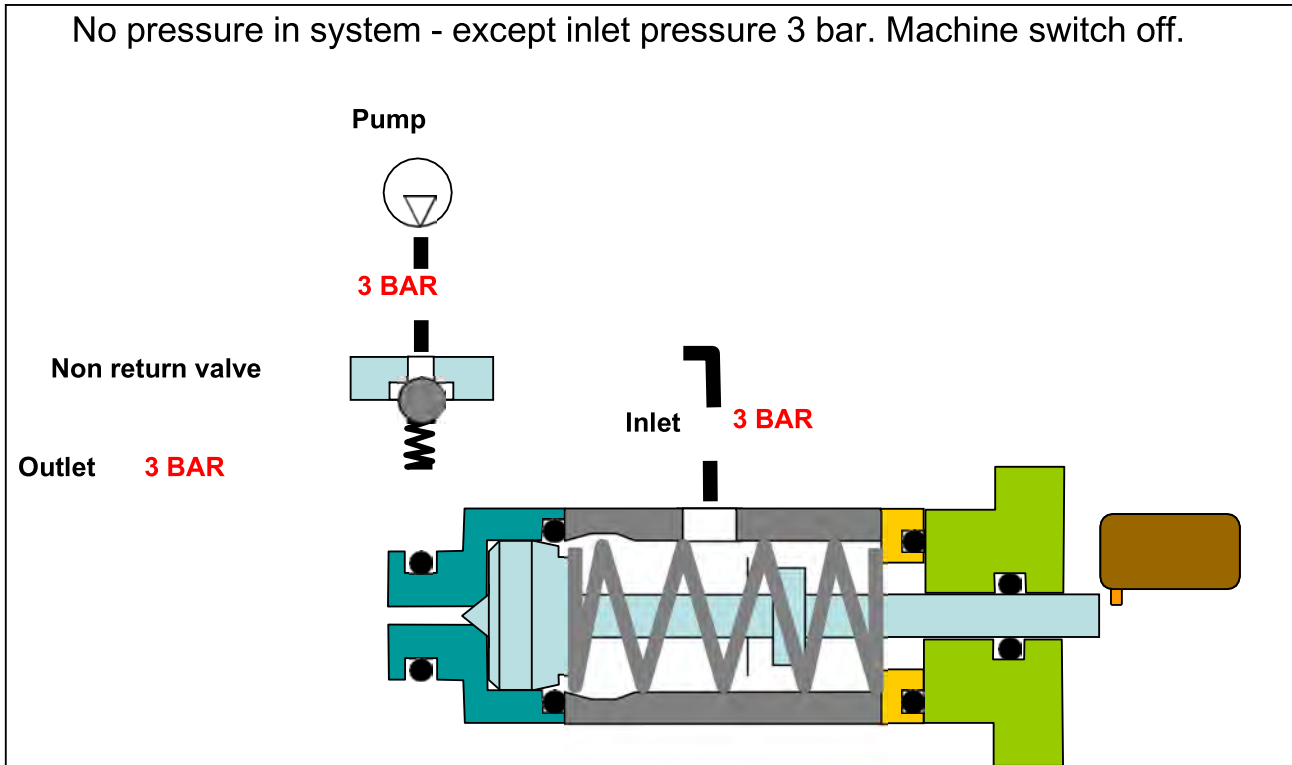
Torx 20 screwdriver (for all screws)

25mm spanner (for the start / stop valve)

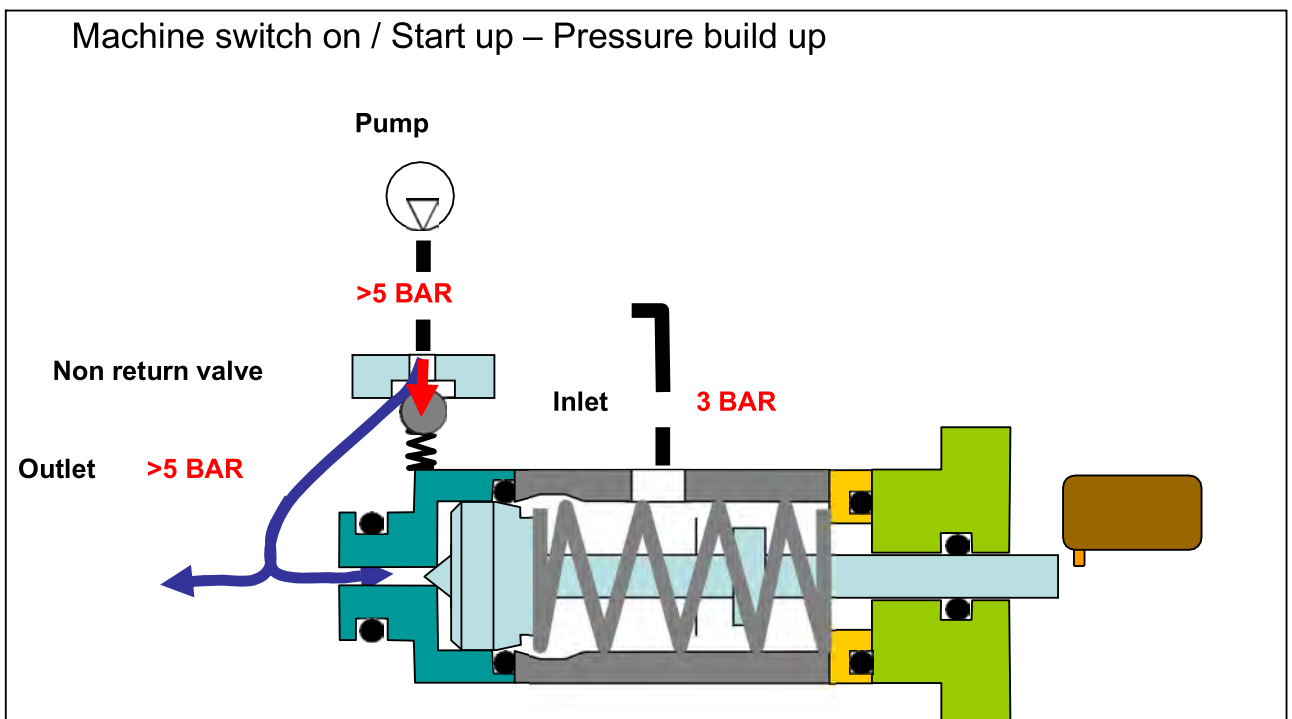
5 & 6 mm hex wrench (for pump bolts and nuts)

3.0 Start stop System guide

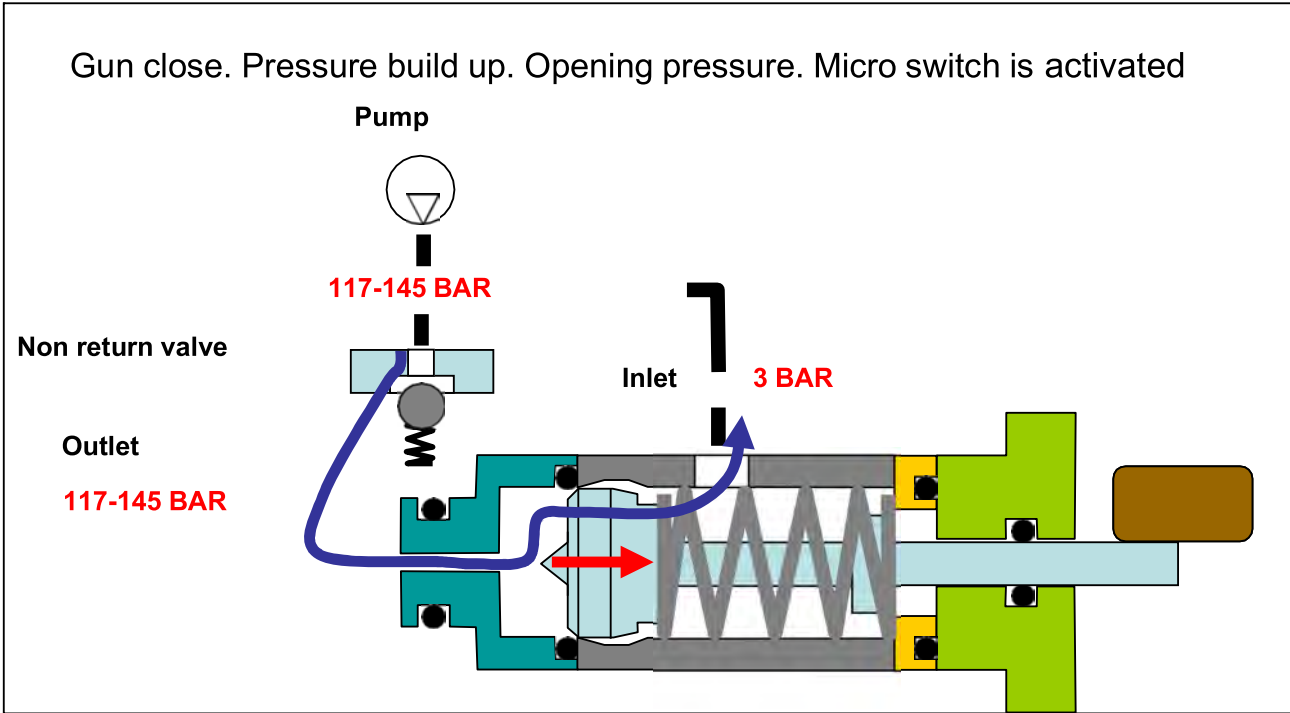
3.1 No pressure in system (Core 150)



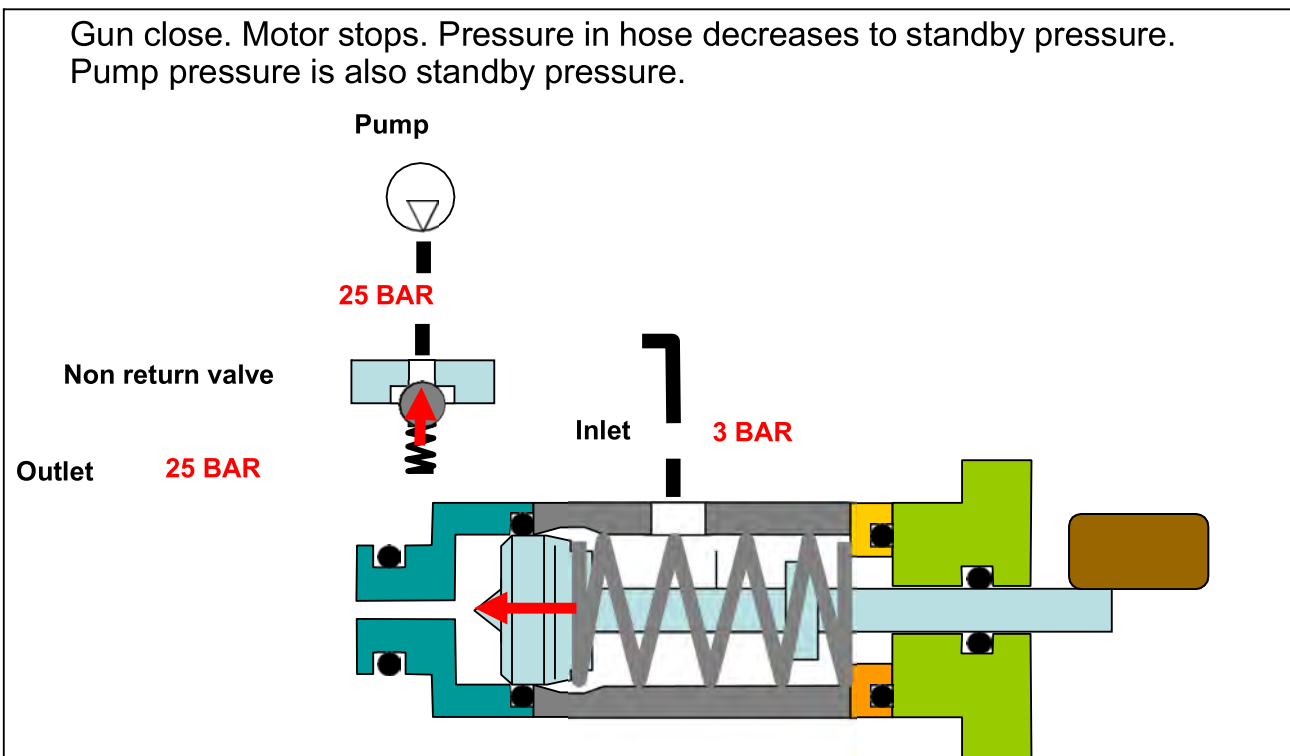
3.2 Start up-pressure build up (Core 150)



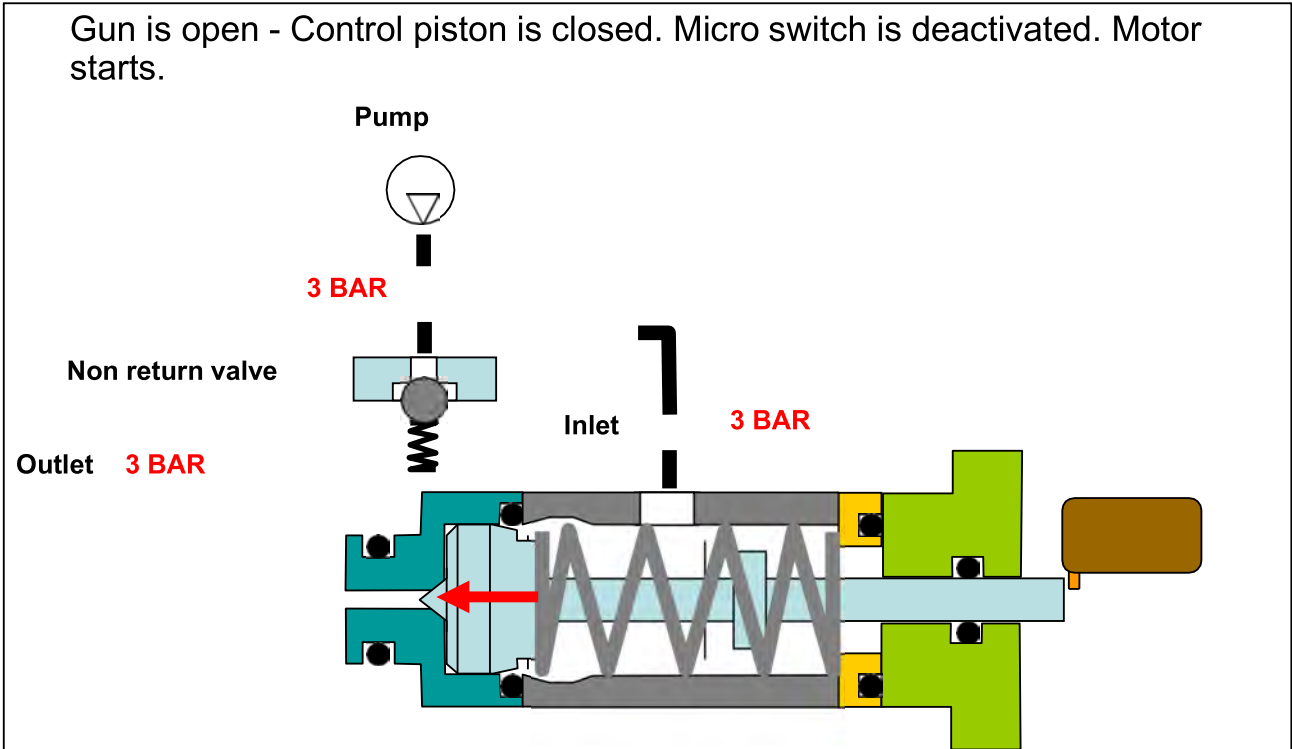
3.3 Pressure build up-opening pressure / close gun (Core 150)



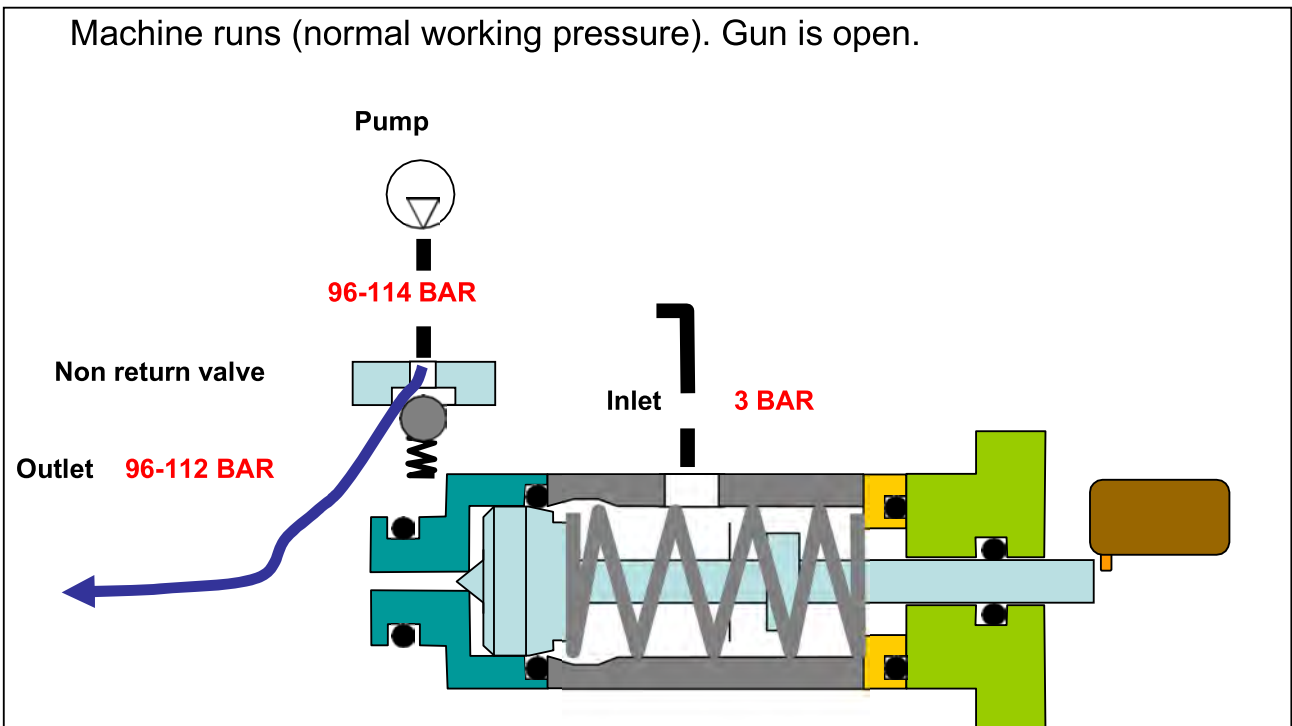
3.4 Motor stop – Standby pressure (Core 150)



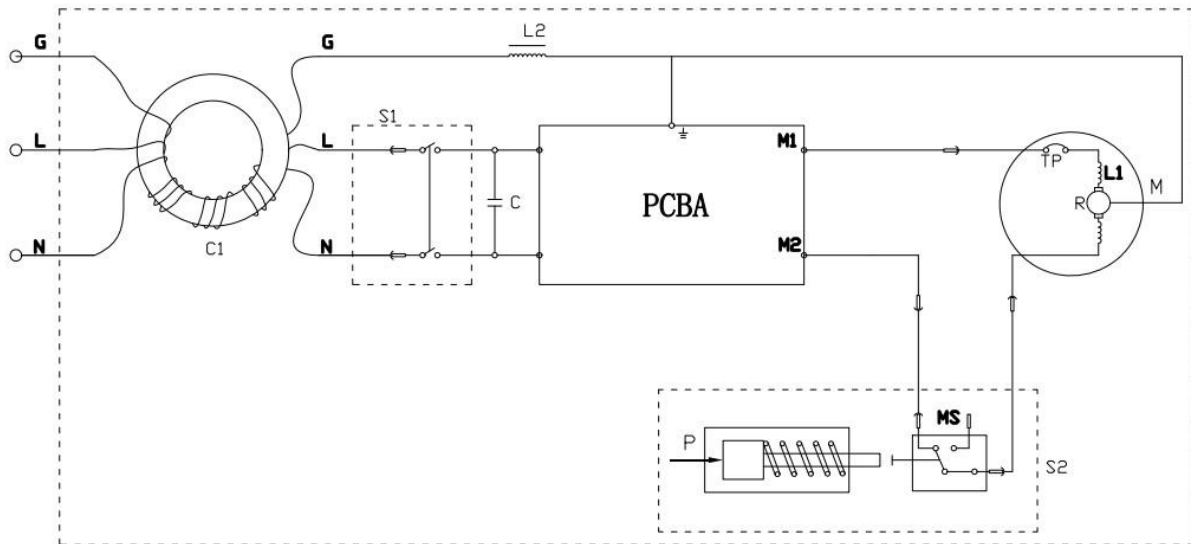
3.5 Gun is activated (Core 150)



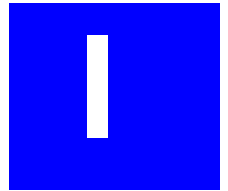
3.6 Machine run



Wiring and Circuit Diagram Core 150



- S1: Main switch;
- S2: Pressure switch;
- MS: Micro-switch
- M: Universal Motor;
- TP: Thermal protector;
- R: Rotor;
- L1: Winding;
- C: Safety Capacitor;
- P: Pressure;
- L2: Inductor
- C1: Coil



Symptom	Cause	Recommended action
Machine refuses to start	Machine not plugged in Defective socket Fuse has blown Defective extension cable	Plug in machine. Try another socket. Replace fuse. Switch off other machines. Try without the extension cable.
Fluctuating pressure	Pump sucking air Valves dirty, worn out or stuck Pump seals worn out	Check that hoses and connections are airtight. Clean and replace or refer to local Nilfisk-distributor Clean and replace or refer to local Nilfisk-distributor.
Motor busses	Low voltage or low temperature	Activate the trigger of the spray handle.
Machine stops	Fuse has blown Incorrect mains voltage Thermal sensor activated Nozzle partially blocked	Replace fuse. Switch off other machines. Check that the mains voltage corresponds to specification on the model tag. Leave the washer for 5 minutes to cool down. Clean the nozzle
Fuse blows	Fuse too small	Change to an installation higher than the amp. consumption of the machine. You may try without the extension cable.
Machine pulsating	Air in inlet hose/pump Inadequate supply of mains water Nozzle partially blocked Water filter blocked Hose kinked	Allow machine to run with open trigger until regular working pressure resumes. Check that the water supply corresponds to specifications required (see model tag) NB! Avoid using long, thin hoses (min. 1/2") Clean the nozzle Clean the filter Straighten out hose.
Machine often starts and stops by itself	Spray handle is leaking	Contact your nearest Nilfisk Service Centre. Replace seat/ball/O-ring in the valve of the spray handle.
Machine starts, but no water comes out	Pump/hoses or accessory frozen No water supply Water filter blocked Nozzle blocked	Wait for pump/hoses or accessory to thaw. Connect inlet water. Clean the filter Clean the nozzle