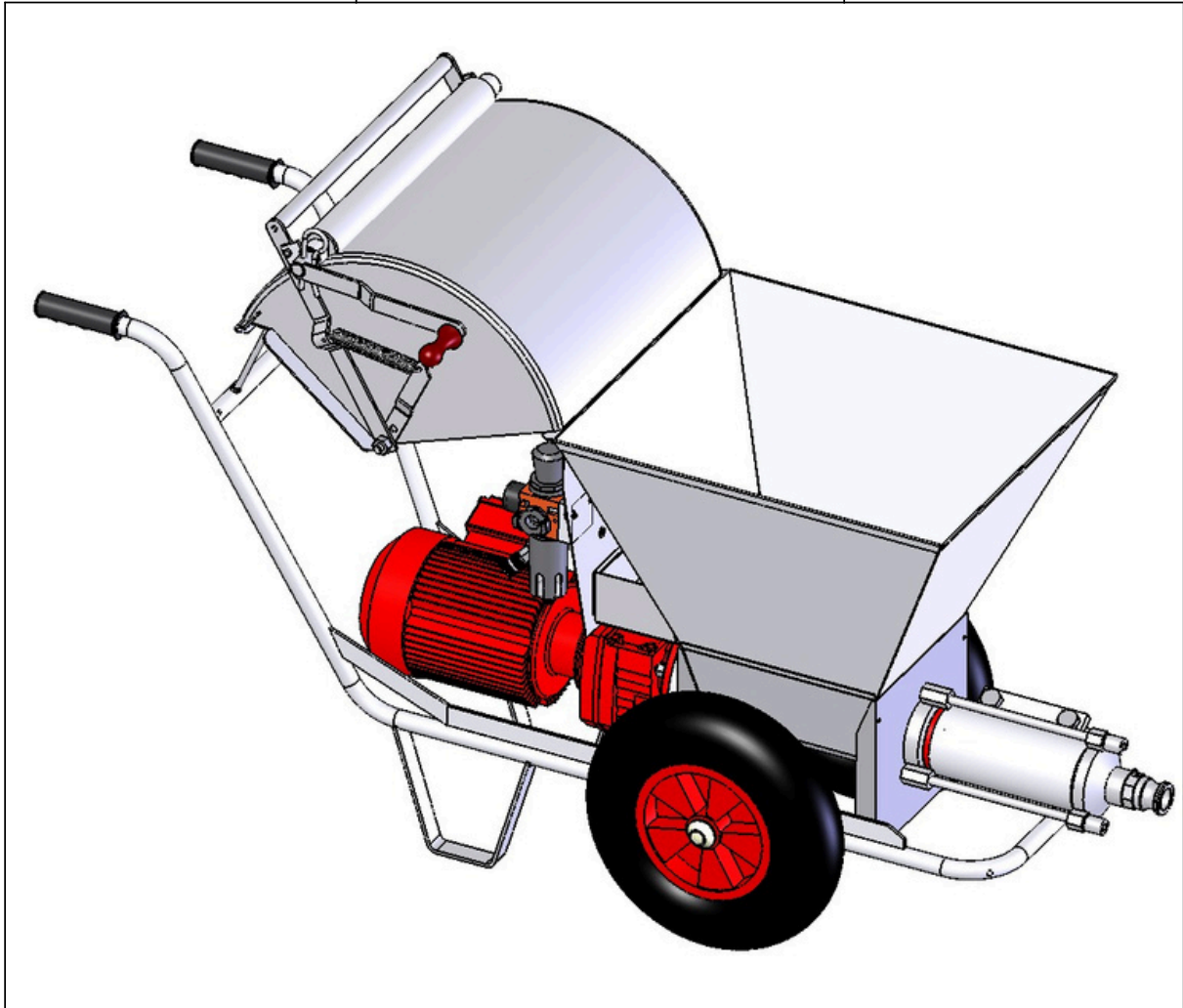


SPRAYTEC



HEMO A22-2S HEMO A22-SM Operation Manual

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The screw pump spray unit HEMO A22 is designed for spraying and pumping of plaster with grain size up to 3 mm. The air requirement for spraying is 400-700 litres/minute at 4-6 bar. The material must be mixed separately before spraying. The chassis of the spray unit is made of hot galvanized steel. Because of having large pneumatic tyres the spray unit is easily movable. The model A22-SM-K is equipped with a frequency inverter, which lets the step less change of capacity.

1. TECHNICAL DATA

	A22-2S-K	A22-SM	A22-SM3
El. requirement	380V, 3 phases	230V, single phase	380 V, 3 phases
Motor	1,5/2,2kW	2,2kW	2,2 kW
Fuse	16A	25A	16A
Capacity	8 or 16 litres/min (14 or 27 kg/min)	3-16 litres/min (5-27 kg/min)	3-16 litres/min (5-27 kg/min)
Speed	2 speeds	by frequency inverter changeable	
Pump	screw pump		
Max pressure	14 bar		
Length	1800 mm		
Height	950 mm (1150 mm with the bag emptier)		
Width	730 mm		
Weight	95 kg		
Volume of container	75 litres		
Material hose	32 mm (1 1/4") or 25 mm (1")		
Hose standard length	10 m		
Max length of hose	up to 20 m		
Air hose	inside diameter 10 mm		
Nozzles	2, 3, 5, 7 mm		
Air requirement	400-700 litres/min at 4-6 bar		
Gun	A22-400		
Nozzles	5, 7, 10, 12 mm		
Bag emptier	detachable reinforced fibre-glass with wringer		
Distance control	24 V		

2. STANDARD DELIVERY

1. spray unit	1
2. material and air hose 10 m	1
3. gun	1
4. nozzles (5, 7 and 10 mm)	3
5. cleaning ball	2
6. distance control unit and cable 12 m	1
7. operation manual	1
8. warranty card	1

Accessories

Bag emptier

3. SETTING UP

- 3.1. the spray unit has to be installed on ground as clean and as flat as possible;
- 3.2. check the accordance to standard delivery of spray unit;
- 3.4. check visually the technical condition of the spray unit;
- 3.5. the fuse must be the same than has done in technical data;
- 3.6. delivery hoses and electrical cables must be laid that they cannot be damaged.

4. SAFETY REGULATION

- 4.1. the machine may be operated and maintained by person, who have been trained to operate and maintain the machine;
- 4.2. do not allow an another person to stay on working area;
- 4.3. use the correct electrical cables, check the situation of electrical set regularly;
- 4.4. check the condition of connections of hoses;
- 4.5. be sure, that the machine has disconnected from electrical set before you begin to clean, repair or maintain the unit;
- 4.6. do not put your hand into the container during the machine is working;
- 4.7. be sure there is not pressure in hoses before you disconnect the hoses (see 8.5.);
- 4.8. in case of clogging the hoses act as described in paragraph 8.5.;
- 4.9. cover the motor and electrical unit correctly, before you begin to clean the machine by high pressure washing machine;

5. STARTING UP

- 5.1. connect the air hose of the compressor to the connection of spray unit (pos. 7 drawing 3 and 4);
- 5.2. connect the electrical cable to the plug of the spray unit A22-2S (pos. 6. drawing 3) and to the plug of the spray unit A22-SM (pos. 6 drawing 4);
- 5.3. check the rotation of the pump, for this put some water into the container:
 - in case you are working with A22-2S:
 - * turn the reversing switch on the electrical unit (pos. 2 drawing 3) clockwise or counter clockwise to position "1";
 - * push on the green knob on the electrical unit (pos.1 drawing 3), the machine will start;
 - * the cardan shaft must be rotate counter clockwise, if you watch from motor side;
 - * if you have to change the direction of the rotation, turn the reversing switch on position "0";
 - in case you are working with A22-SM, if the reversing switch (pos. 3 drawing 4) is in position "1", pump is pumping and in position "2" pump is sucking the material from the hose back to the container;
- 5.4. connect the material hose with the machine (pos. 4 drawing 2);
- 5.5. connect the quick-break coupling of air hose (pos.6 drawing 2);
- 5.6. check that the distance control switch (pos. 13 drawing 3 and 4) must be in position "0";
- 5.7. connect the distance control cable with the plug socket for the distance control cable (pos 5 drawing 2) on the frame of the machine. The plug socket is marked with sign DISTANCE CONTROL;
- 5.8. close the material valve (pos. 1 drawing 5) and air valve (pos. 2 drawing 5) of the gun (in the closed position the handle of the valve must lie across the hose);
- 5.9. replace the nozzle (pos. 3 drawing 5) and fix the nut (pos. 4 drawing 5). See the paragraph 8.1.
- 5.10. start the compressor:
 - open the air valve of the gun (pos. 2 drawing 5);
 - adjust the air pressure by using the air regulator (pos. 9 drawings 3 and 4) on the level 3 bar.To adjust the air pressure, pull the knob up and turn clockwise – the pressure will increase,

- turn the knob counter clockwise – the pressure will decrease. After you have adjusted the pressure, push the knob down;
- close the air valve;
- 5.11. to lubricate the hoses, pump water or glue paste through the hose;
 - put approximately 10 litres water or glue paste into the container;
 - open the material valve of the gun (pos.1 drawing 5) and push on the green knob on the electrical unit (pos.1 drawings 3 and 4). Keep the button down still the material goes out of the gun;
 - 5.12. fill the container with the material. Be sure, that the material is pumpable by spray units (see the instructions of producer);
 - if you mix the material on place, mix it well and watch the instructions of the producer on the material bag;
 - if you use the ready mixed materials in plastic bags, do as follows;
 - * turn the wringer roller (pos. 7 drawing 2) backside position;
 - * put the bag on the bag emptier (bottom to side of wringer roller);
 - * turn the wringer roller on bottom of the bag;
 - * cut the bag completely open near the bag handle;
 - * wring the bag empty;
 - * turn the wringer roller backside position;
 - * remove the bag.
 - 5.13. turn the reversing switch (pos. 2 drawing 3) of the spray unit A22-2S to the position, when the pump turns counter clockwise (see paragraph 5.3.) Turn the reversing switch of model A22-SM to position “1”.
 - 5.14. at first open the air valve of the gun (pos. 2 drawing 5), then open the material valve of the gun (pos. 1 drawing 5) and then start the machine using the distance control switch;
 - 5.15. find the suitable capacity of the machine. The first step gives 8 litres/min and the second step gives 16 litres/min (model HEMO A22-2S). If you are working with model HEMO A22-SM, you can change the capacity of the pump step less turning the knob of the potentiometer (pos. 2 drawing 4);
 - 5.16. adjust the best pattern of material turning the knob of the air regulator (pos. 9 drawings 3 and 4) (see paragraph 5.10);
 - 5.17. to shut down the spray unit, at first turn off the motor by using the distance control switch, then close the material valve of the gun and at last close the air valve of the gun;
 - 5.18. clean the machine following the paragraph 6. CLEANING. If you are working with material which does not petrify very quickly, you can stay the material in the container. Pour some water into the container on the material and put the spray gun into container too. Cover the container with plastic.

6. CLEANING

- 6.1. after you have finished working, clean the machine. Clean very carefully, if you have worked with materials based on cement or gypsum. There is recommended to clean the machine two times in day;
- 6.2. do as follows:
 - pump the container empty;
 - disconnect the machine off from electrical set, pour some water into the container and clean the walls of the container with brush;
 - remove the gun from the hose and clean;
 - pump the container empty, do it once again and once again, until clean water comes from hose. Start the machine pushing on the green knob on the electrical unit (pos. 1 drawings 3 and 4);
 - to clean the hose straighten it and tread on it;
 - remove the hose from the machine and put the cleaning ball into the coupling of the hose (pos. 4 drawing 3), then connect the hose with the machine;
 - add water into the container;
 - start the machine and pump until the ball comes from hose. Do it once again and once again until clean water comes from hose. If the cleaning ball clogs the hose, disconnect the hose, turn it around and connect with machine. Then try to pump the ball out of the hose;

- remove the hose from machine, hang up from middle so water flows out off the hose.
- 6.3. to clean the spray gun remove the cup (pos. 4 drawing 5 and the nozzle (pos 3. drawing 5).
Clean the gun outside, clean fixing thread. Clean the air canals of the nozzle using 2 mm wire. Lubricate the thread with oil.
- 6.4. clean the outside surfaces of the machine, motor and electrical unit;
- 6.5. one time in the week dismantle the stator housing front (pos. 3 II drawing 2) and clean inside surface of
this;
- 6.6. to avoid the freezing the machine, do not stay water in the container.

7. MAINTENANCE

- 7.1. every day must be lubricated the rubber plate (pos. 2 drawing 2). Press the crease through the lubricate nipple on the mounting plate (pos. 3 drawing 2). It is important to continue to press in the crease until it runs out off the rubber plate and the driven shaft;
- 7.2. watch after the condition of the rubber plate;
- 7.3. every day check the fixing of the details of the spray unit;
- 7.4. remove water from the vessel of the air regulator. Wring the rubber tube under the vessel or turn the plastic knob (pos. 8 drawing 3 and 4).
- 7.5. If the pressure in the pump will fall down, you can tighten the pump using the bolts of stator housing (pos. 1 drawing 2). Tighten a half turn once in time. Avoid the overtightening, it causes quick wearing of the pump and overcharge the motor. Before you begin the maintain the machine, be sure, that the machine is disconnected from electrical set and compressed air system;
- 7.6. remove the stator housing front (pos 3 II drawing 2) and clean;
- 7.7. check the level of the oil in the gearbox.
- 7.8. keep clean the frame, motor and electrical unit of the machine. If you clean the machine with the high pressure washer, cover the motor and electrical unit carefully.

8. YOUR MACHINE WILL WORK FOR A LONG TIME IF YOU WILL:

- 8.1. find the optimal capacity of the pump (smaller nozzle – slower rotation of the pump);
- 8.2. clean the machine carefully and on time;
- 8.3. avoid the falling dust or garbage into the container;
- 8.4. if the pump has clogged, start the machine with the slowest speed. Use the lubricates and try to start the machine on one direction and on the other direction. If you can not start the machine, remove the pump and knocking on the rotor try to release the stator;
- 8.5. if the hose has clogged, reverse the rotation of the pump and suck the material from the hose into the container. Turn off the machine, remove the hose from the machine and find clogged place. Clean the hose;
- 8.6. before you begin to spray the material, lubricate the hose;
- 8.7. do not stay the hose lying in the sun;
- 8.8. open the valve of the spray gun completely;
- 8.9. use only being in order compressor, the compressed air does not have a oil or water;
- 8.10. oil the places needing the oiling regularly.

9. TROUBLESHOOTING

Problem	Cause	Solution
The pump of the new machine does not rotate	A new pump is very tight	Pour water into the container Try to start the machine on both directions. Use the lubricates. In need of case remove the pump and try to move the rotor
Starting the machine pump does not rotate, the motor is howling	Check the voltage (one phase is missing) Pump has clogged	Electrical repairing works may do only licensed electrician Remove the pump and clean
It is hard to connect the hose	There is material between the coupling	Clean the couplings Turn off the machine. Check the condition of the rubber plate. If needed, replace
The material is leaking under the machine	Rubber plate is broken or worn	Turn off the machine. Start on the other direction. Remove the nozzle and clean. Remove the hose, find the clogged place in the hose and clean
Pump is working, but material does not exit from the gun	Nozzle has clogged Hose has clogged	Regulate the pressure
Air valve of the gun is open, but there is not compressed air	Pressure regulator is closed. Air canals of the gun have clogged with the material	Clean the air canals
The machine does not start after pushing on the distance control switch	The plug of the distance control cable is not in socket The cable or the switch are broken	Put the plug into the socket Replace
Pump is working, but there is not enough pressure	Pump has worn	Tighten the pump. If the pump has completely worn, replace
Spray unit HEMO A22-SM does not start, error on the frequency inverter	Error in the frequency inverter or in power supply	Turn off the machine from the electrical set, wait 1 minute and switch on once. Try to start

10. WARRANTY

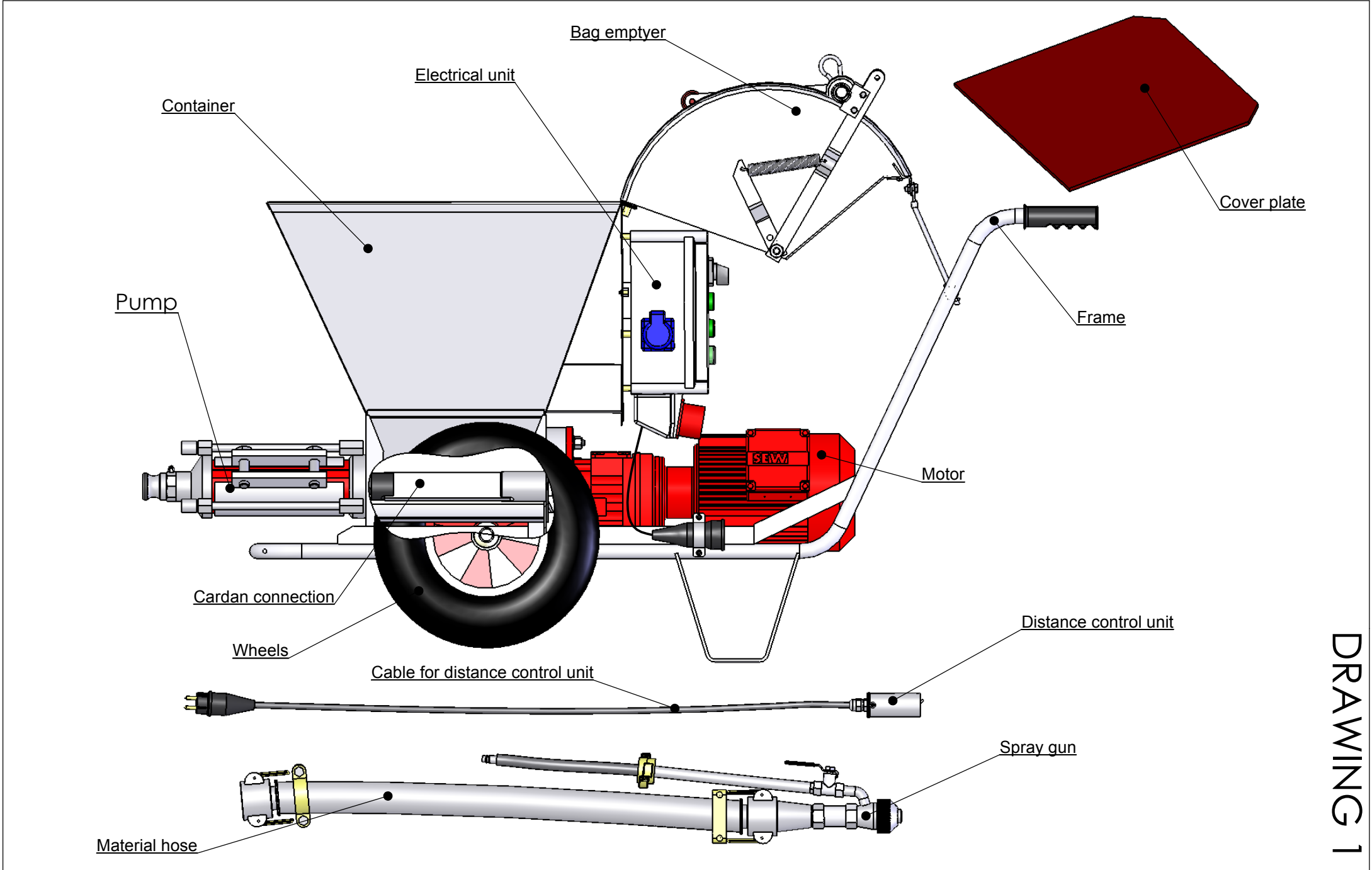
The Producer warrants equipment manufactured by it to be free from defects in material and producing process. Producer will, for period of one year from the date of sale, repair or replace any part of the equipment proved defect. This warranty applies only when the equipment is installed, operated and maintained in accordance with operation instruction.

This warranty does not apply:

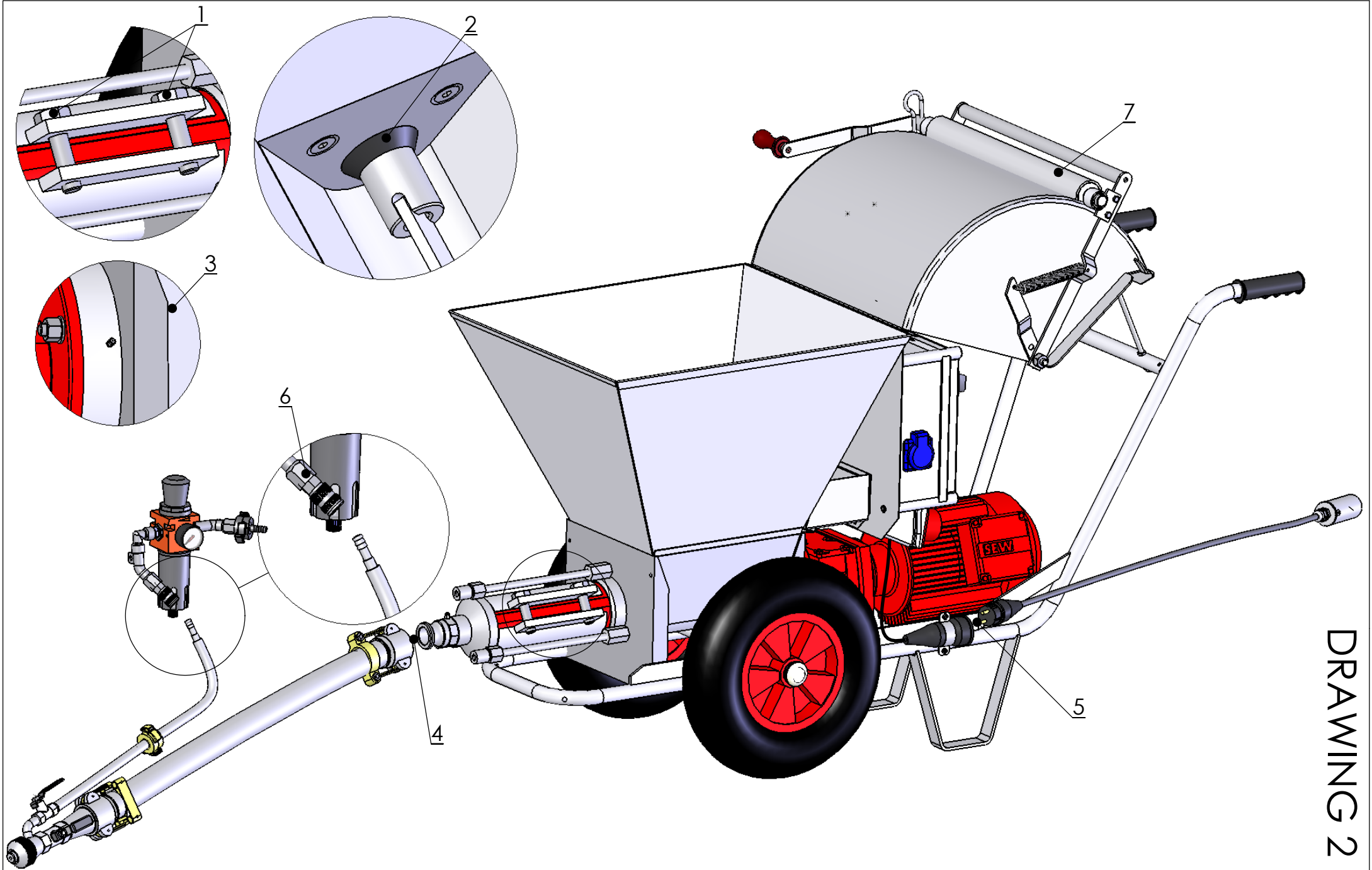
- damages or wear caused by abrasion (nozzles, rotor, stator);
- damages caused by misuse, accident or negligence during the operating the equipment (foreign substance has fallen in container) ;
- damages caused by faulty installation of equipment;
- damages caused by operating the frozen equipment.

Date of sale:

Serial no

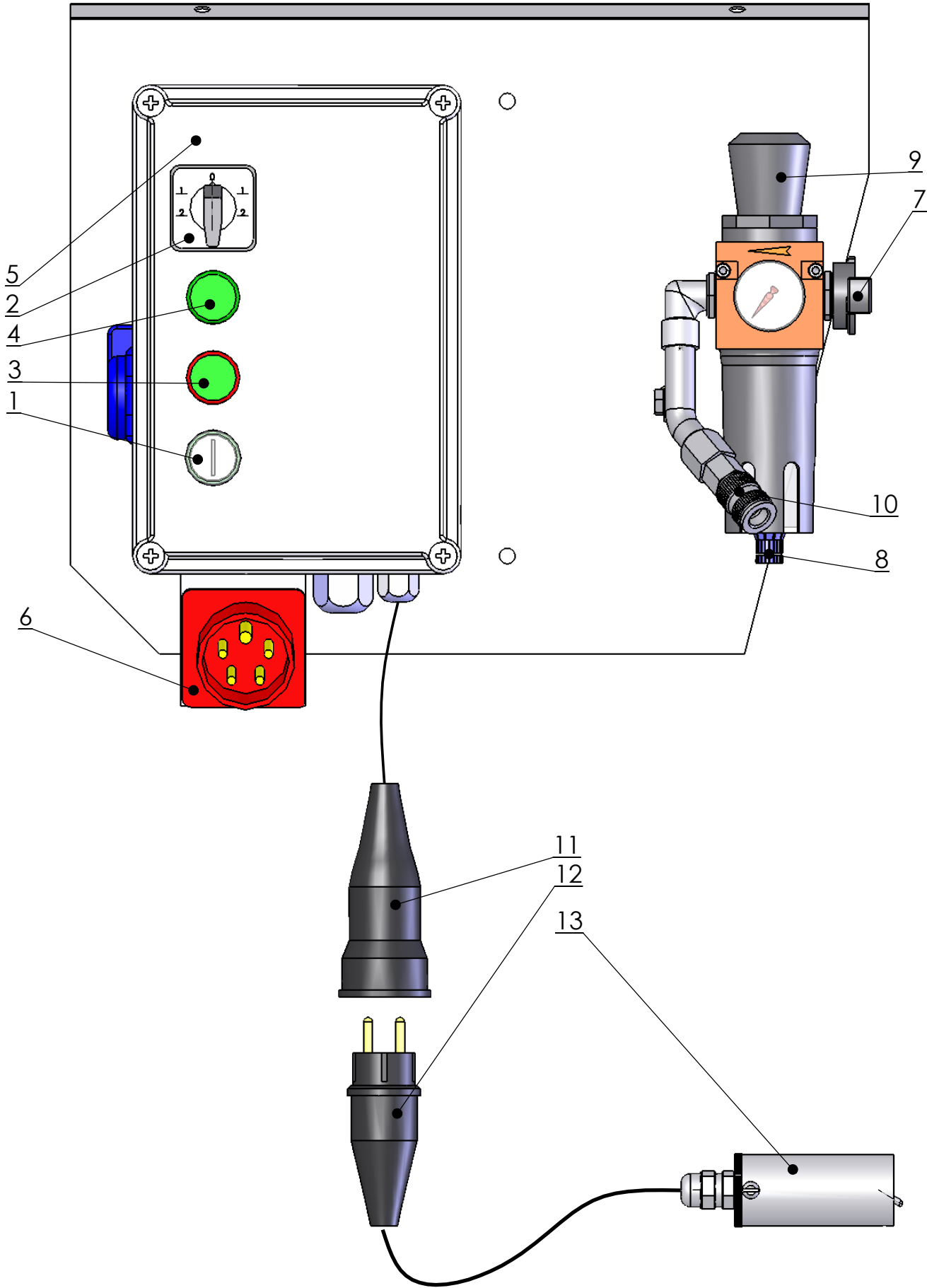


DRAWING 1

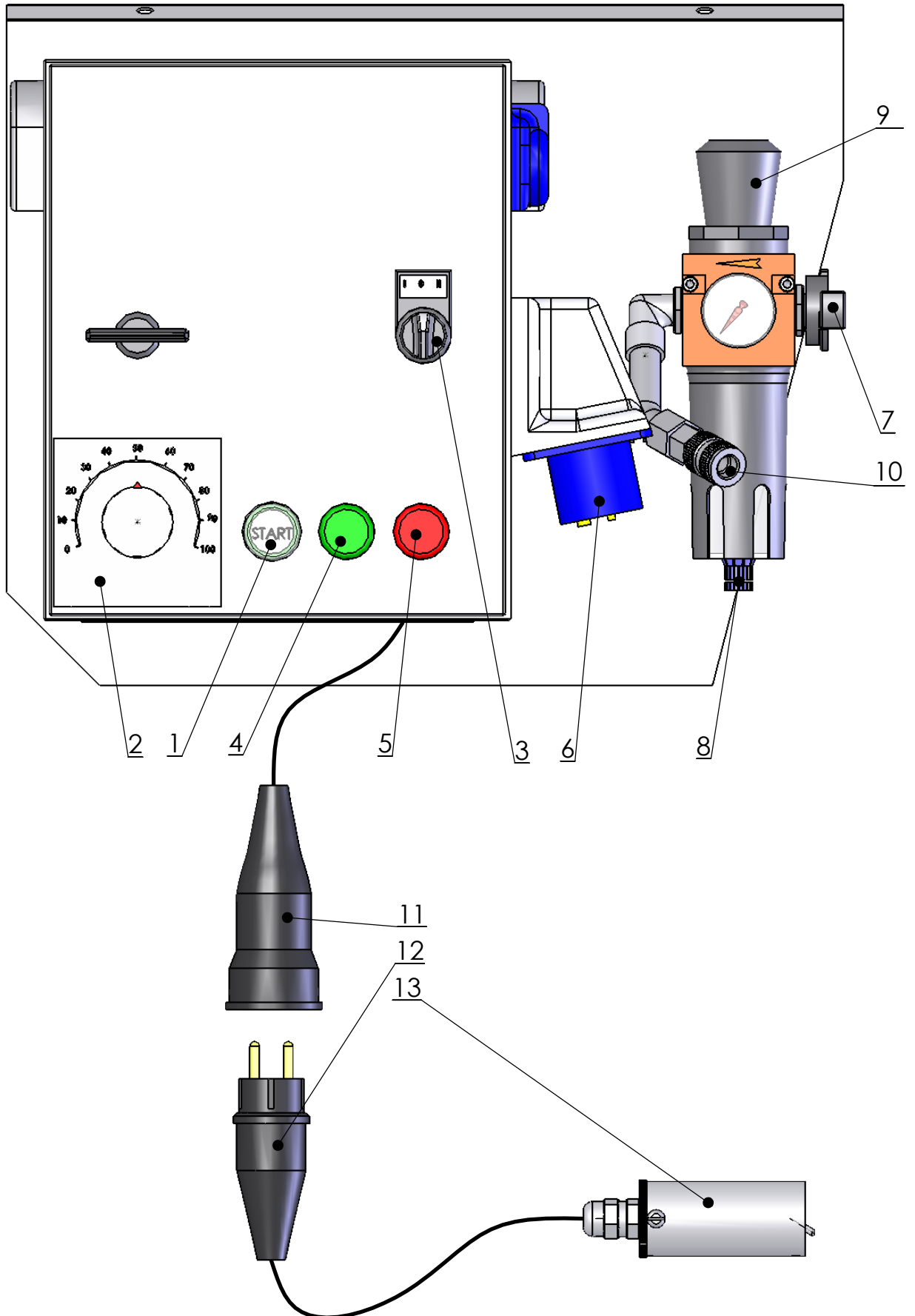


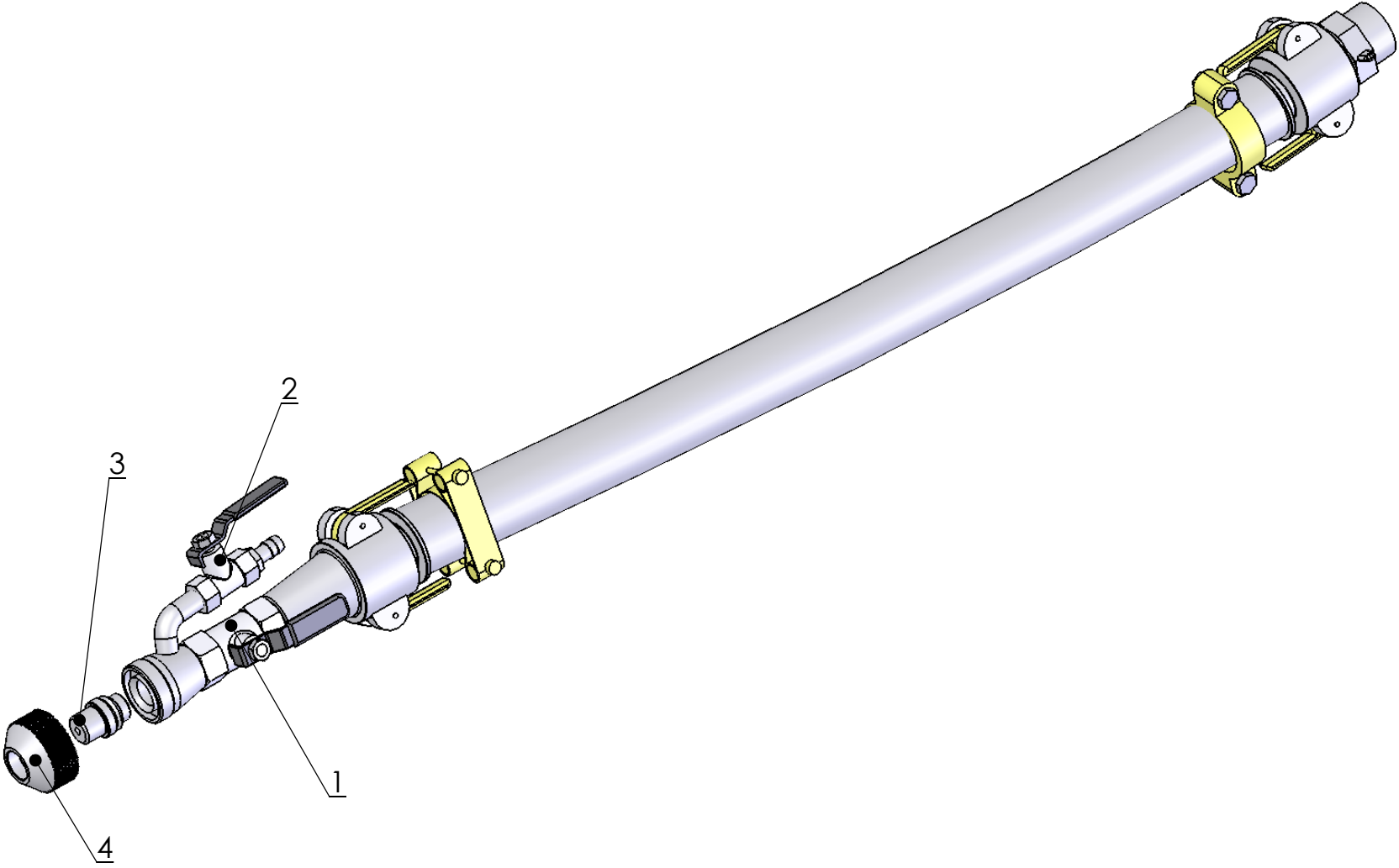
DRAWING 2

HEMO A22-2S



HEMO A22-SM

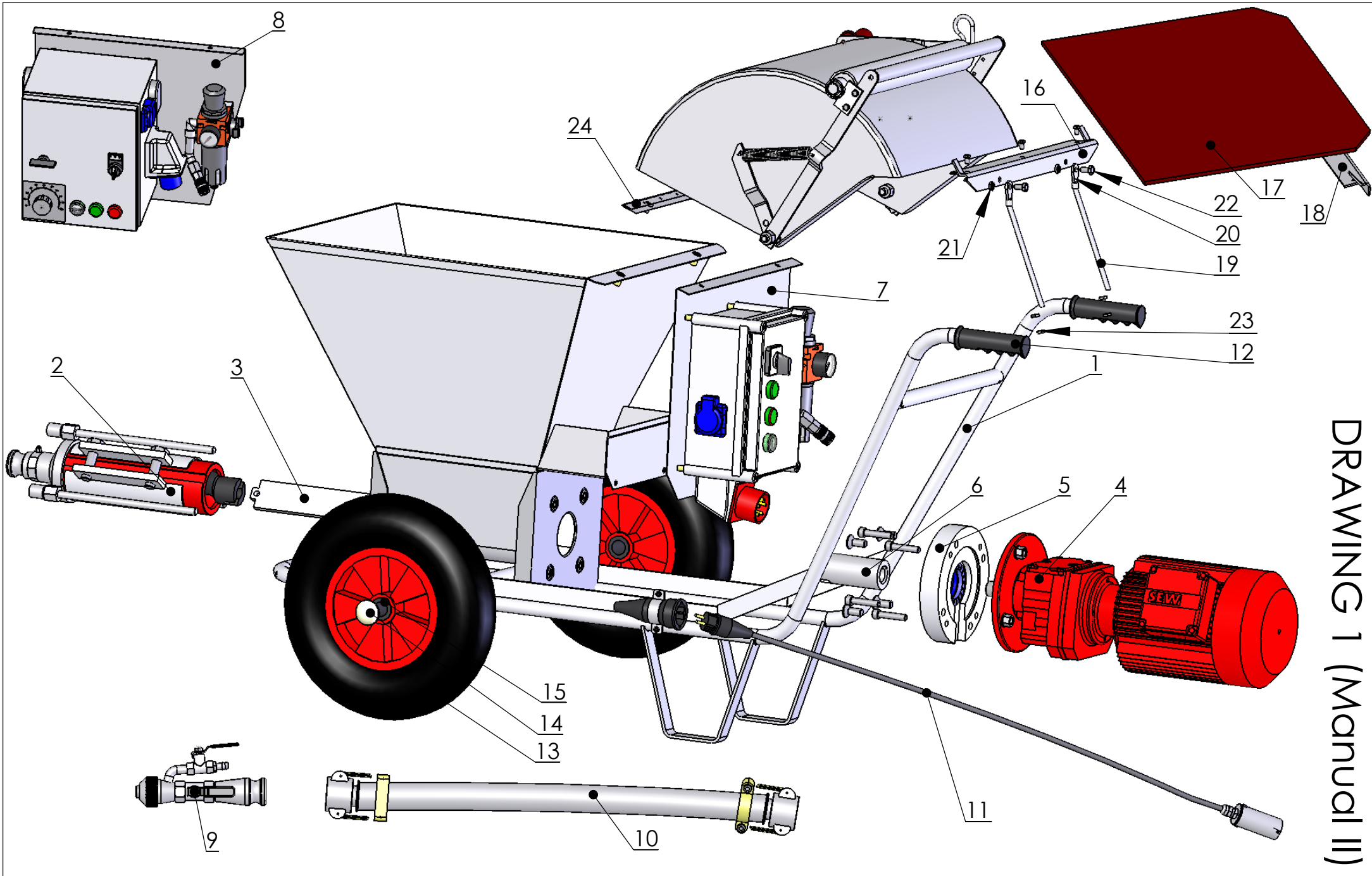




DRAWING 5

Drawing1Manual2

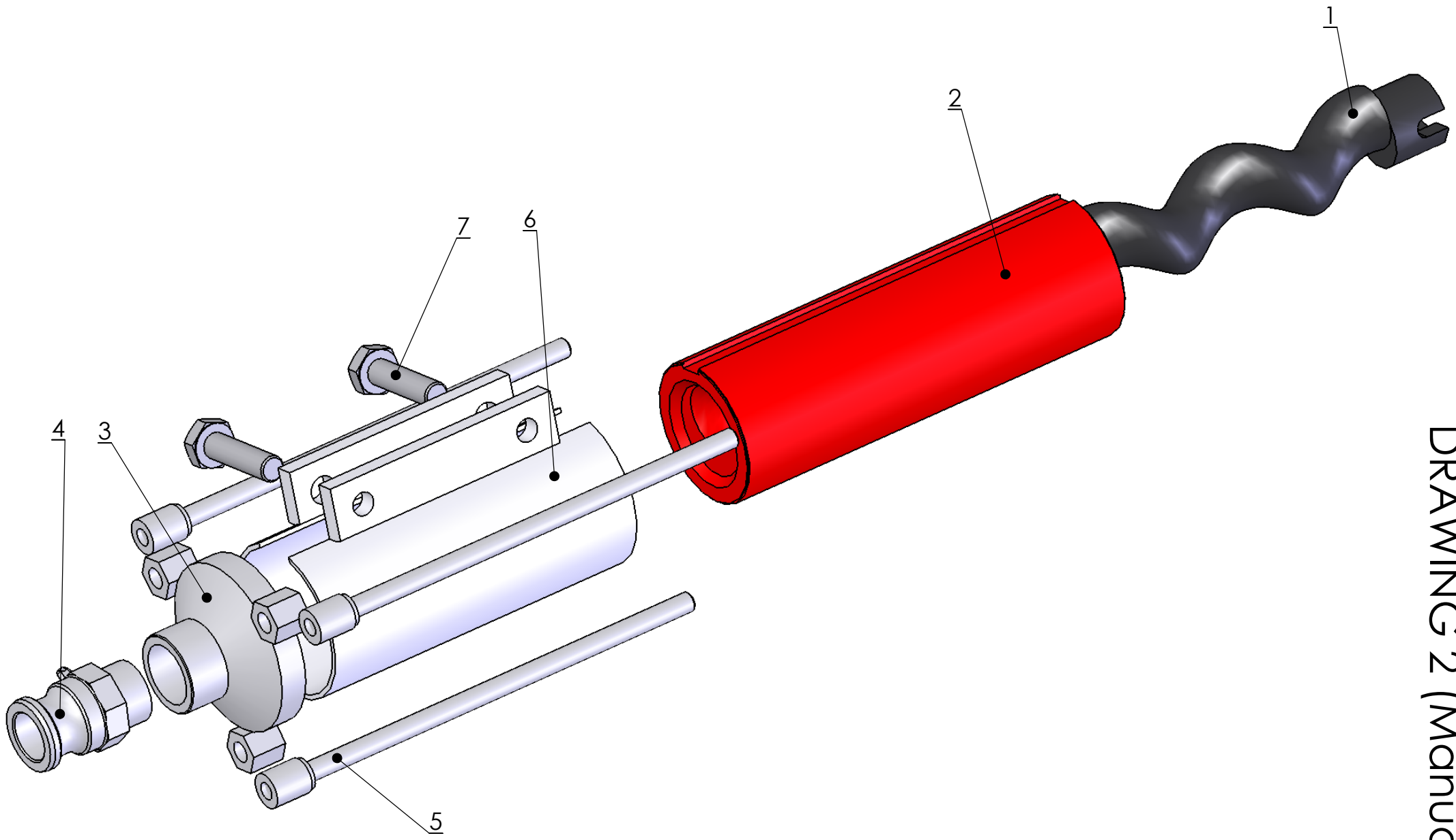
Pos.	Detail number	Name	Per unit
1	A22.010.00	Frame	1
2	A22.020.00	Pump	1
3	A22.030.00	Shaft	1
4	A22.050.2S	Motor	1
	A22.050.SM	Motor	1
5	A22.060.00	Fixing plate	1
6	A22.070.00	Bush	1
7	A22.090.00	Control unit 2S	1
8	A22.095.00	Control unit SM	1
9	A22.400	Gun for manual start	1
10	A22.500	Hose	1
11	A22.600	Distance control unit	1
12	A22.010.001	Rubber Handle	2
13	A22.010.002	Wheel	2
14	A22.010.003	Lock fittings	2
15	A22.010.004	Wheel washer	2
16	A22.010.005	Support for wringer	1
17	A22.010.006	Cover plate	1
18	A22.010.007	Support for cover plate	1
19	A22.010.008	Eye	2
20	A22.010.009	Eye bolt	2
21	A22.010.010	Nut	2
22	A22.010.011	Bolt	2
23	A22.010.012	Nut	2
24	A22.010.013	Wringer hinge	1
25	10611K	Wringer	1



DRAWING 1 (Manual II)

Drawing 2 Manual 2
PUMP A22.020.00

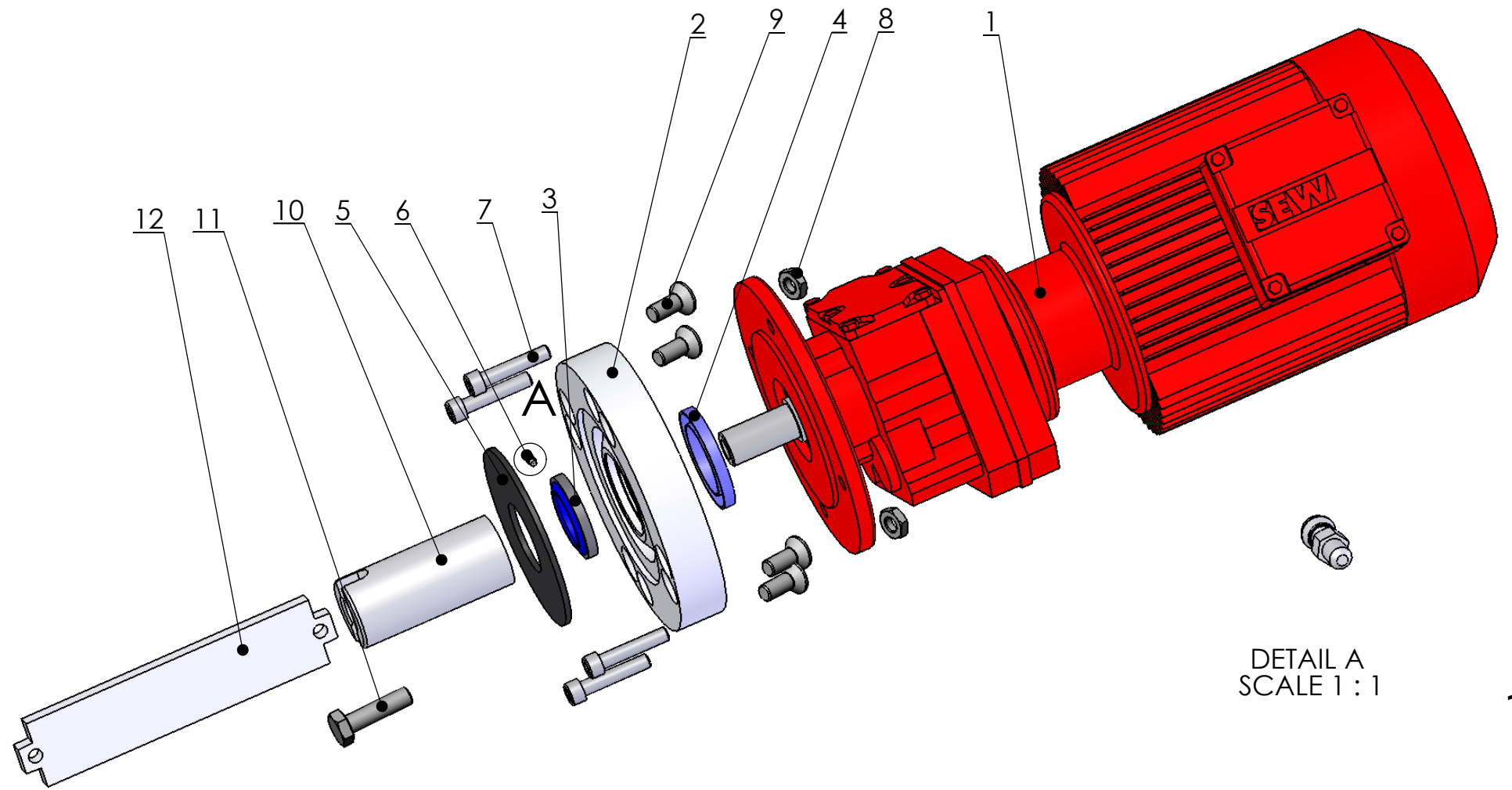
1	A22.020.10	Rotor	1
2	A22.020.20	Stator	1
3	A22.020.30	Stator housing front	1
4	A22.020.30.4	Material hose coupling 05-AL-F-031	1
5	A22.020.40	Bolt for stator housing front	3
6	A22.020.50	Stator housing	1
7	A22.020.60	Bolt for stator housing	2



DRAWING 2 (Manual II)

Drawing 3 Manual 2

1	A22.050 2S	Motor	1
	A22.050 SM	Motor	1
2	A22.060.01	Plate	1
3	A22.060.02	Packing	1
4	A22.060.03	Sealing	1
5	A22.060.04	Rubber plate	1
6	A22.060.05	Niple	1
7	A22.060.06	Bolt	
		DIN912 M12*50	4
8	A22.060.07	Nut	4
9	A22.060.08	Bolt	
		DIN 7991 M12*30	4
10	A22.070.00	Bush	1
11	A22.070.01	Bolt M10*50 DIN 931	1
12	A22.030.00	Shaft	1

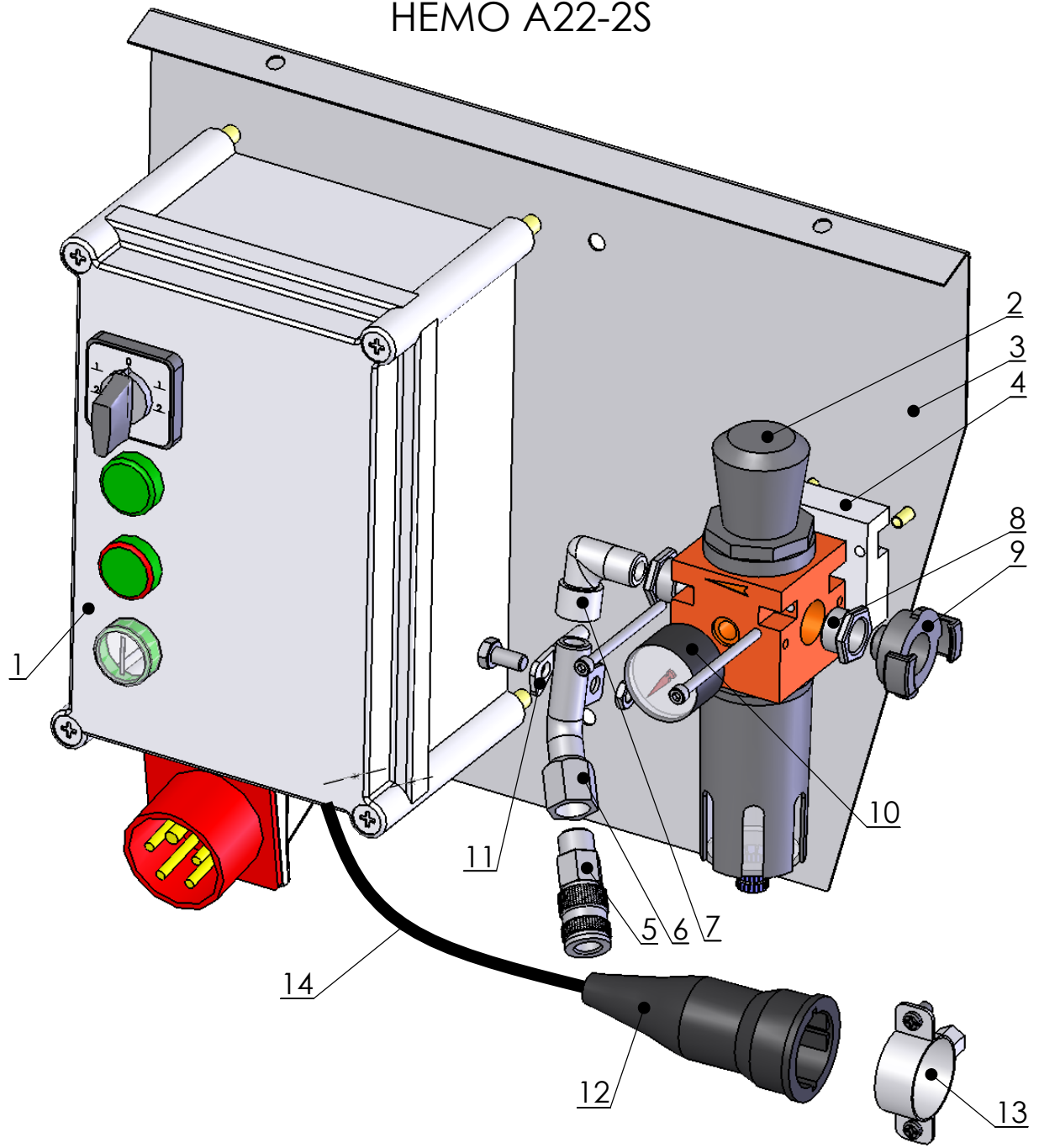


DETAIL A
SCALE 1 : 1

Drawing 4 Manual 2
A22.090 Control unit 2S

1	A22.090.10	Electrical unit	1
2	A22.090.30	Air control regulator	1
3	A22.090.001	Plate	1
4	A22.090.002	Plate for regulator	1
5	A22.090.003	Quick break coupling female	1
6	A22.090.004	Connection 3/8"	1
7	A22.090.005	Connection 90° 3/8"ID-3/8"OD	1
8	A22.090.007	Connection 1/2"OD-3/8"ID	1
9	A22.090.009	Connection 3/8"OD	2
10	A22.090.010	Manometer	1
11	A22.090.011	Pin	1
12	A22.090.012	Plug socket for distance control unit	1
13	A22.090.013	Clamp	1
14	A22.090.014	Cable	1
15	A22.090.015	Connection 10 mm	1

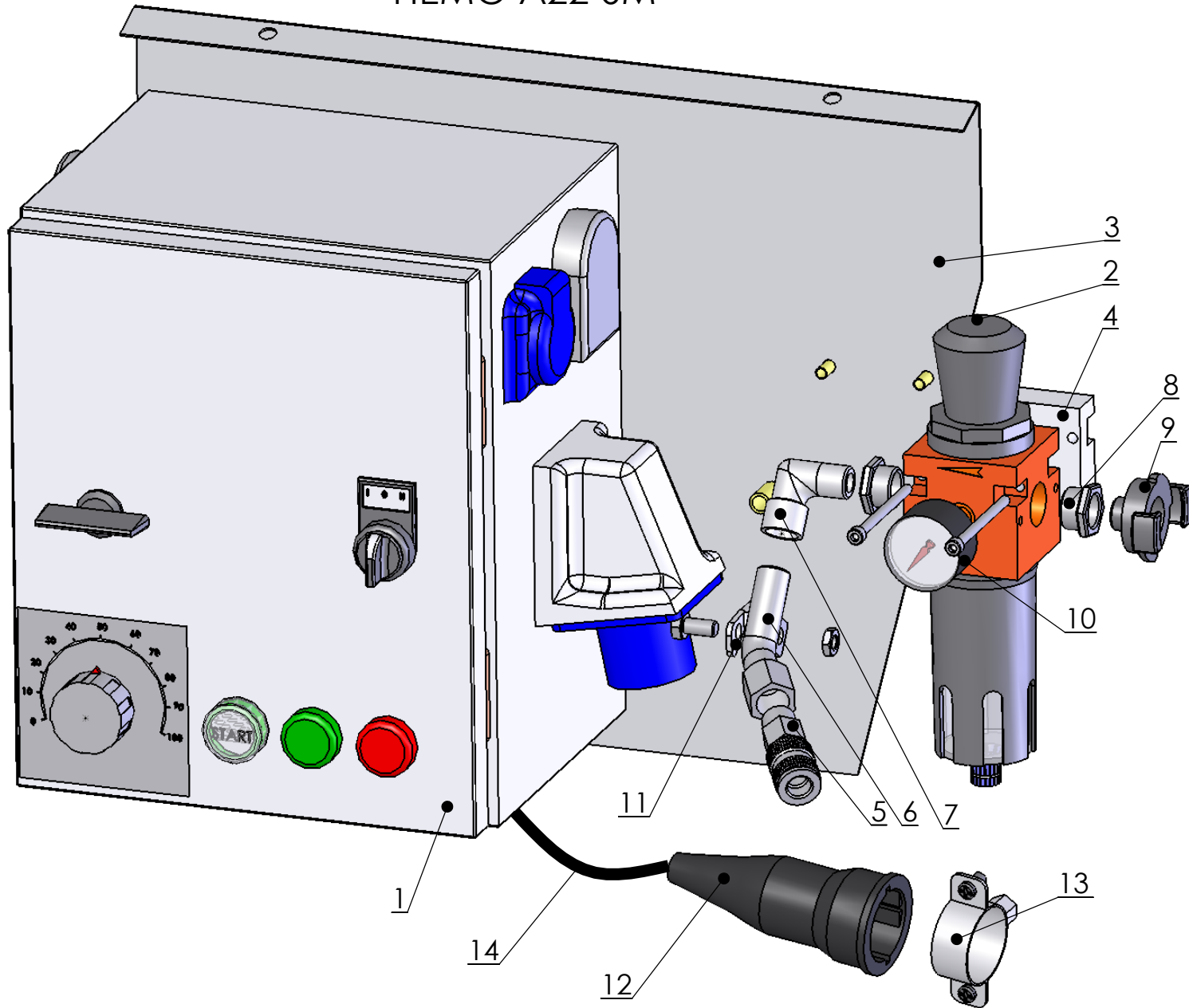
HEMO A22-2S



Drawing 5 Manual 2
A22.095 Control unit SM

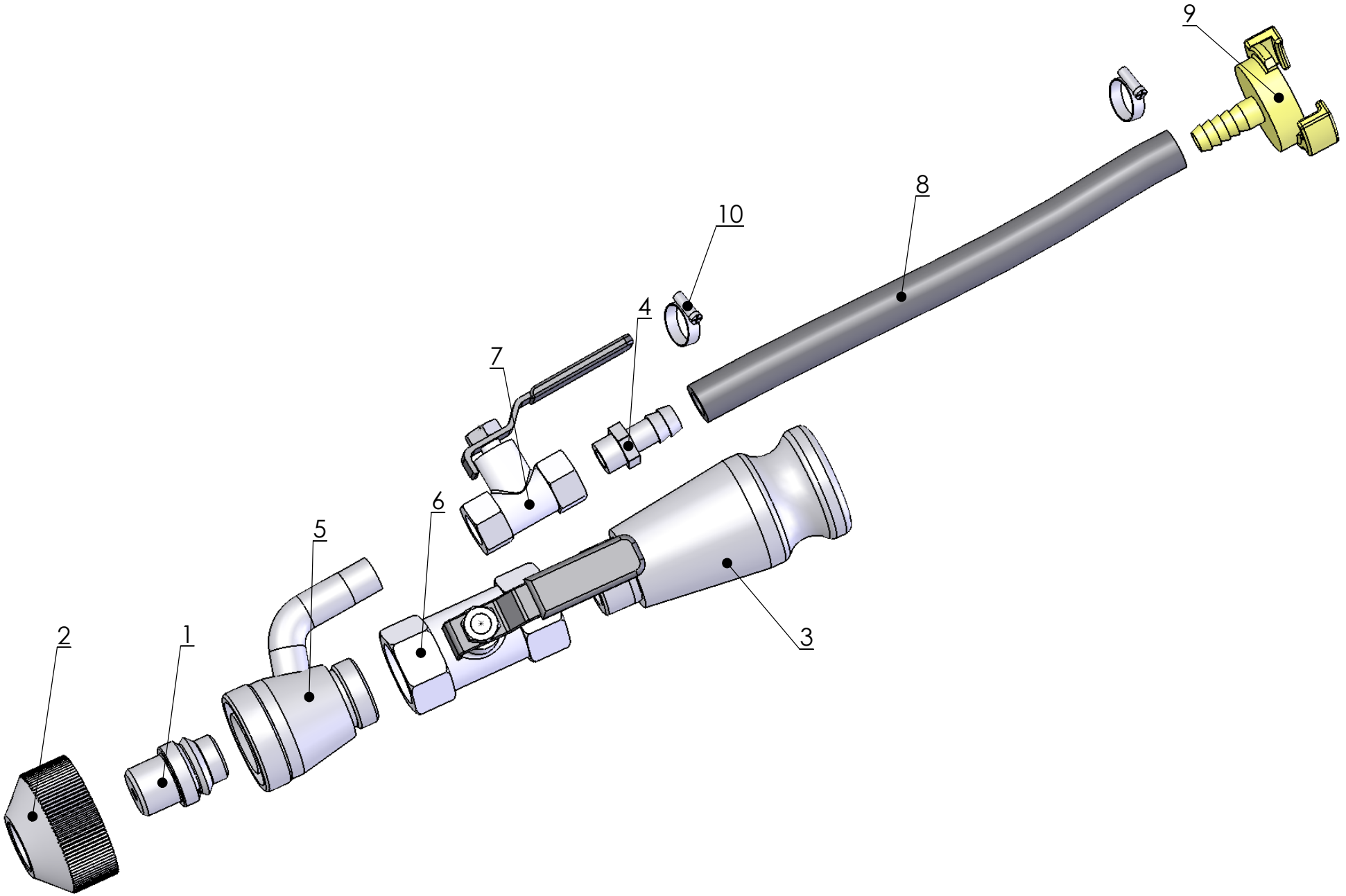
1	A22.095.10	Electrical unit	1
2	A22.090.30	Regulator	1
3	A22.090.001	Plate	1
4	A22.090.002	Plate for regulator	1
5	A22.090.003	Quick break coupling female	1
6	A22.090.004	Connection 3/8"	1
7	A22.090.005	Connection 90° 3/8"ID-3/8"OD	1
8	A22.090.007	Connection 1/2"OD-3/8"ID	2
9	A22.090.009	Connection 3/8"v	1
10	A22.090.010	Manometer	1
11	A22.090.011	Pin	1
12	A22.090.012	Plug socket for distance control unit	1
13	A22.090.013	Clamp	1
14	A22.090.014	Cable	1
15	A22.090.015	Connection 10 mm	1

HEMO A22-SM



Drawing 6 Manual 2
A22.400 Gun for manual start

1	A22.401	Nozzle	3
2	A22.402	Nozzle cap	1
3	A22.403	Connection 1/2"OD-3/8"ID	1
4	A22.404	Connection 1/4"-10mm	1
5	A22.410	Gun's body	1
6	A22.420	Valve 3/4"	1
7	A22.430	Valve 1/4"	1
8	A22.440	Air hose	1
9	A22.090.015	Connection 10mm	1
10	A22.507	Clamp	2



DRAWING 6 (Manual II)

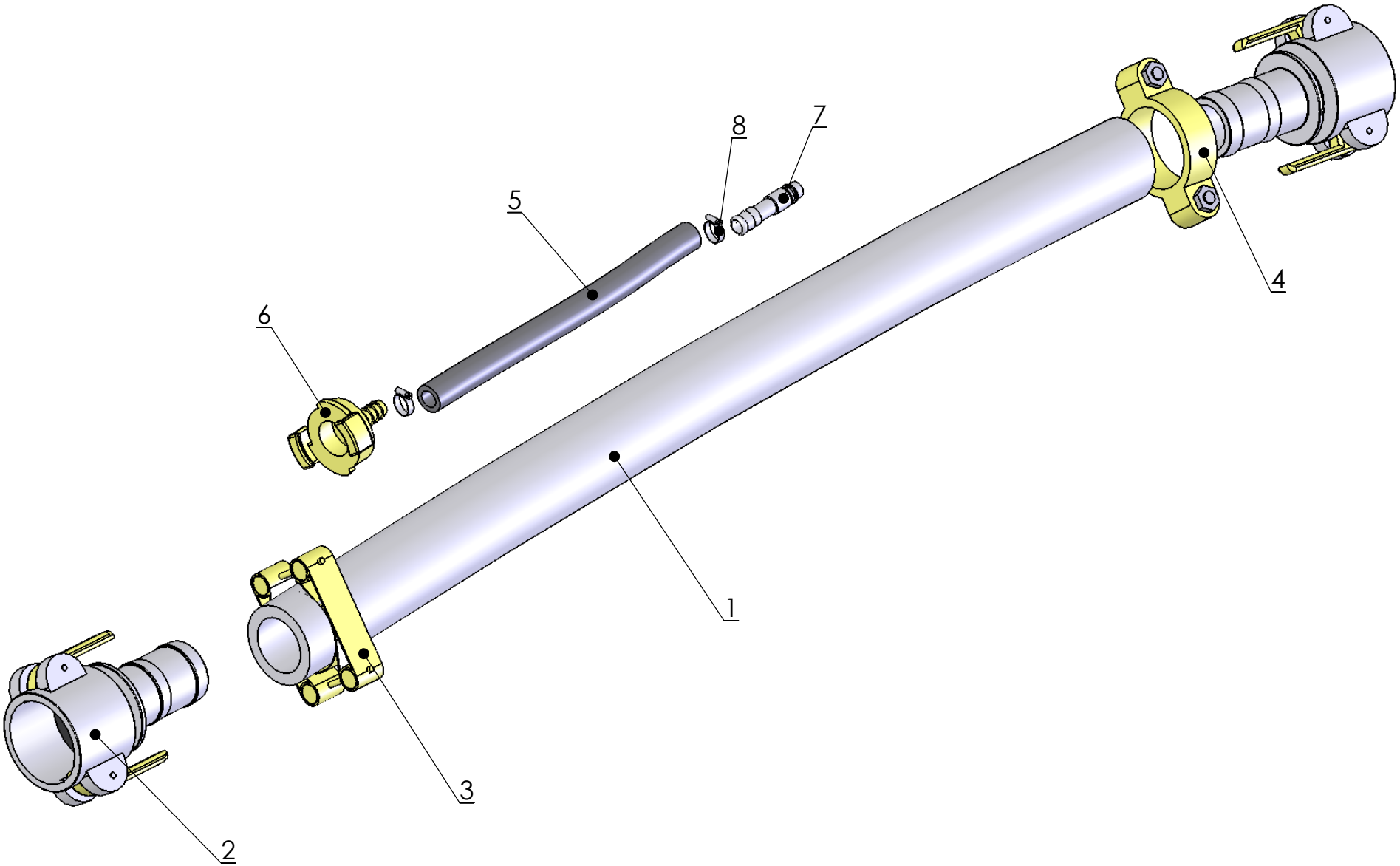
Drawng 7Manual 2
A22.500 Hose 11/4" or 1"

Hose 11/4"

1	A22.501	Material hose 11/4"	1
2	A22.502	Connection 1/2"OD-3/8"ID	2
3	A22.503	Clamp	1
4	A22.504	Clamp	1
5	A22.505	Air hose	1
6	A22.090.015	Connection 10mm	2
7	A22.506	Quick break coupling male	1
8	A22.507	Hose clamp	2

Hose 1"

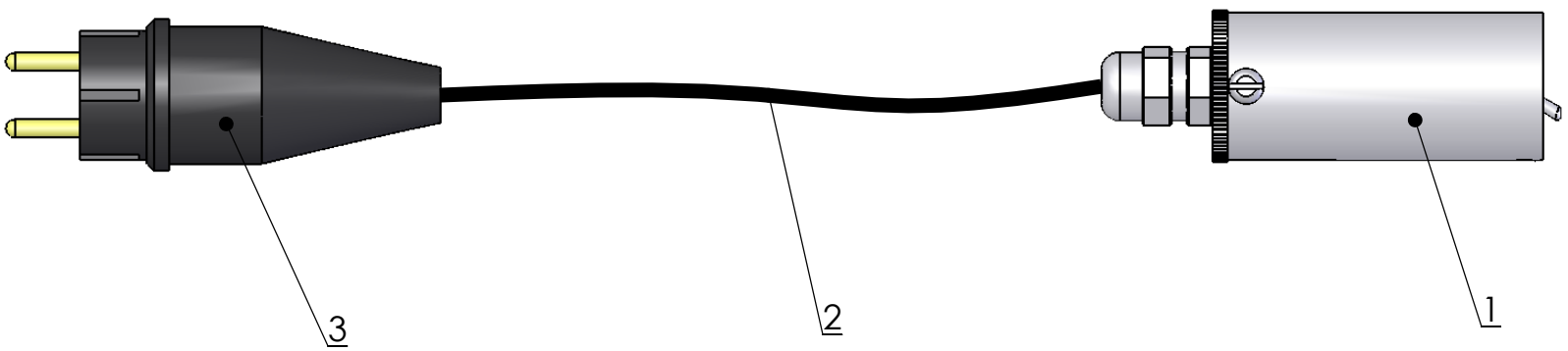
1	A22.501.01	Material hose 1"	1
2	A22.502.01	Connection 1/2"OD-3/8"ID	2
3	A22.503.01	Clamp	1
4	A22.504.01	Clamp	1



DRAWING 7 (Manual II)

Drawing 8 Manual 2
A22.600 Distance control unit

1	A22.610	Distance switch	1
2	A22.620	Cable	1
3	A22.630	Plug	1



DRAWING 8 (Manual II)

Drawing 9 Manual 2
10611K Bag emptier

1	10611	Wringer hinge	1
2	10612A	Wringer cranc	1
3	10612B	Handle	1
4	10616	Spring for wringer	2
5	10622	Fixer	1
6	10625A	Frame for wringer	1
7	10625B	Metal peace for frame left	1
8	10625C	Metal peace for frame right	1
9	10627B	Bushing holder	2
10	10628	Wringer roller	1
11	10611.01	Nut	
12	10611.02.	Washer M12	
13	10611.03	Bolt M6	

DRAWING 9 (Manual II)

