



# TITAN<sup>®</sup>

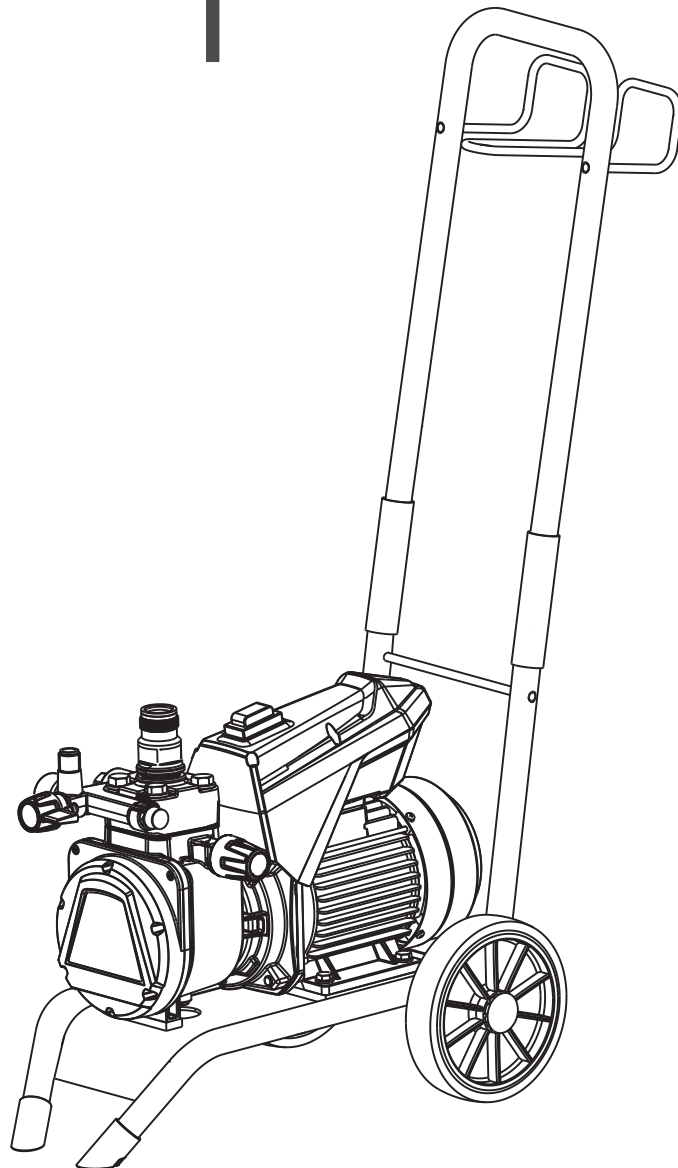
OPERATING MANUAL

## ELITE 3100

- EN - OPERATING MANUAL

27

AIRLESS, HIGH-PRESSURE  
SPRAYING UNIT



## Translation of the original operating instructions

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## 1 GENERAL SAFETY INSTRUCTIONS

**WARNING!** *Read all safety information, instructions, illustrations and technical data provided with this power tool. Failure to observe the following instructions may cause electric shock, fire and/or severe injuries. **Keep all safety information and instructions for future reference.** The term "power tool" used in this safety information refers to mains-operated power tools (with power cable) and to battery-powered power tools (without power cable).*



### 1. Safety at the workplace

- a) **Keep your workplace clean and well lit.** *Disorder or unlit workplaces may result in accidents.*
- b) **Do not work with the power tool in potentially explosive environments where there are flammable fluids, gases or dust.** *Power tools generate sparks that can ignite the dust or vapors.*
- c) **Keep children and other persons away when using the power tool.** *If distracted, you may lose control of the power tool.*

### 2. Electrical Safety

- a) **The connection plug of the power tool must fit in the socket. The plug may not be modified in any form.** *Verwenden Sie keine Adapterstecker gemeinsam mit schutzgeerdeten Elektrowerkzeugen. Unmodified plugs and suitable sockets reduce the risk of an electric shock.*
- b) **Avoid physical contact with earthed surfaces such as pipes, heating elements, stoves and refrigerators.** *The risk through electric shock increases if your body is earthed.*
- c) **Keep power tools away from rain or moisture.** *Water penetrating into a power tool increases the risk of an electric shock.*
- d) **Do not misuse the power cord to carry the power tool, hang up the power tool or pull the plug out of the socket. Keep the power cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled power cords increase the risk of an electric shock.*
- e) **If the power tool must be used in a moist environment, use a ground fault circuit interrupter.** *Using a residual current operated circuit-breaker avoids the risk of electric shock.*

### 3. Safety of Persons

- a) **Be attentive. Pay attention to what you are doing and work sensibly with a power tool. Do not use the power tool if you are tired or under the influence of drugs,**

**alcohol or medication.** *One moment of carelessness when using the power tool may cause serious injuries.*

- b) **Wear personal safety equipment and always wear safety goggles** *Wearing personal protective equipment, such as dust mask, non-slip safety shoes, safety helm or ear protection, depending on the type of power tools, reduces the risk of injury.*
  - c) **Avoid accidental starting-up. Make sure that the power tool is switched off before you connect it to the power tool and/or battery, pick it up or carry it.** *Accidents may happen if you have your finger on the switch while carrying the power tool or if the device is switched on when you connect it to the power supply.*
  - d) **Remove setting tools or wrenches before switching on the power tool.** *A tool or key in a rotating part of the power tool can cause injuries.*
  - e) **Avoid an unnatural posture. Ensure that you are standing securely and have your balance at all times.** *This allows you can better control the power tool in unexpected situations.*
  - f) **Wear suitable clothing. Do not wear wide clothing or jewellery. Keep your hair, clothes and gloves away from moving parts.** *Loose clothing, jewellery or long hair can be caught in moving parts.*
  - g) **Do not lull yourself into a false sense of security and do not think yourself above the safety rules for electric tools, even if you are familiar with the electric tool following extensive practical experience.** *Careless use can lead to serious injuries in fractions of a second.*
- ### 4. Usage and treatment of the electric tool
- a) **Do not overload the power tool. Use the power tool designed for the work that you are doing.** *You work better and safer in the specified performance range if you use the suitable power tool.*
  - b) **Do not use power tools whose switch is defective.** *A power tool that cannot be switched on or off is dangerous and has to be repaired.*
  - c) **Disconnect the plug from the socket and/or take out a removable battery before you make device adjustments, change accessories or put the power tool away.** *This precautionary measure prevents the power tool from starting unintentionally.*
  - d) **Store unused power tools so that they are inaccessible to children. Do not let persons use the tool who are not familiar with it or who have not read these instructions.** *Power tools are dangerous when they are used by inexperienced persons.*

- e) **Maintain the power tool and insertion tools with care. Check whether moving device parts are working flawlessly and are not jamming, whether parts are broken or damaged so that as to impair the function of the power tool. Have damaged parts repaired before using the power tool. Many accidents have their origin in power tools that have been maintained badly.**
- f) **Use the power tool, accessories, insert tools, etc. in accordance with these instructions and in a fashion specified for this special tool type. Take the working conditions and the activity to be carried out into consideration. The use of power tools for purposes other than the intended ones can lead to dangerous situations.**
- g) **Keep the handles and grip surfaces dry, clean and free of oil and grease.** Slippery handles and grip surfaces hamper safe operation and control of the electric tool in unforeseen situations.

## 5. Service

- a) **Only have your power tool repaired by a qualified specialist and only use original spare parts. This ensures that the tool safety is maintained.**
- b) **If the supply cord is damaged, it must be replaced by the manufacturer or it's service agent or a similarly qualified person in order to avoid a safety hazard.**


## 2 SAFETY REGULATIONS FOR AIRLESS SPRAYING

All local safety regulations in force must be observed. The following sources are just a sample of those containing safety requirements for Airless spraying.


- a) The European Standard „Spray equipment for coating materials – safety regulations„ (EN 1953).

The following safety regulations are to be observed in order to ensure safe handling of the Airless high-pressure spraying unit.


### 2.1 FLASH POINT

 <b>Danger</b>	<p>Only spray coating materials with a flash point of 21 °C or higher.</p> <p>The flash point is the lowest temperature at which vapors develop from the coating material. These vapors are sufficient to form an inflammable mixture over the air above the coating material.</p>
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### 2.2 EXPLOSION PROTECTION

 <b>Danger</b>	<p>Do not use the unit in work places which are covered by the explosion protection regulations. The unit is not designed to be explosion protected. Do not operate the device in explosive areas (zone 0, 1 and 2). Explosive areas are, for example, places where paints are stored and locations in direct proximity to the object being sprayed. Keep the device at least 3 m from the object you are spraying.</p>
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### 2.3 DANGER OF EXPLOSION AND FIRE FROM SOURCES OF IGNITION DURING SPRAYING WORK

 <b>Danger</b>	<p>There must be no sources of ignition such as, for example, open fires, lit cigarettes, cigars or tobacco pipes, sparks, glowing wires, hot surfaces, etc. in the vicinity.</p>
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## SAFETY REGULATIONS


**2.4 DANGER OF INJURY FROM THE SPRAY JET**

 <b>Danger</b>	<p>Attention, danger of injury by injection! Never point the spray gun at yourself, other persons or animals.</p> <p>Never use the spray gun without spray jet safety guard.</p> <p>The spray jet must not come into contact with any part of the body.</p> <p>In working with Airless spray guns, the high spray pressures arising can cause very dangerous injuries. If contact is made with the spray jet, coating material can be injected into the skin. Do not treat a spray injury as a harmless cut. In case of injury to the skin by coating material or solvents, consult a doctor for quick and correct treatment. Inform the doctor about the coating material or solvent used.</p>
	

**2.5 SECURE SPRAY GUN AGAINST UNINTENDED OPERATION**

Always secure the spray gun when mounting or dismounting the tip and in case of interruption to work.

**2.6 RECOIL OF SPRAY GUN**

 <b>Danger</b>	<p>When using a high operating pressure, pulling the trigger guard can effect a recoil force up to 15 N.</p> <p>If you are not prepared for this, your hand can be thrust backwards or your balance lost. This can lead to injury.</p>
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**2.7 BREATHING EQUIPMENT AS PROTECTION AGAINST SOLVENT VAPORS**

Wear breathing equipment during spraying work. A breathing mask is to be made available to the user.

**2.8 PREVENTION OF OCCUPATIONAL ILLNESSES**


Protective clothing, gloves and possibly skin protection cream are necessary for the protection of the skin.

Observe the regulations of the manufacturer concerning coating materials, solvents and cleaning agents in preparation, processing and cleaning units.


**2.9 MAX. OPERATING PRESSURE**

The permissible operating pressure for the spray gun, spray gun accessories, unit accessories and high-pressure hose must not fall short of the maximum operating pressure of 25 MPa (250 bar or 3625 psi).


**2.10 HIGH-PRESSURE HOSE**

 <b>Danger</b>	<p>Attention, danger of injury by injection! Wear and tear and kinks as well as usage that is not appropriate to the purpose of the device can cause leakages to form in the high-pressure hose. Liquid can be injected into the skin through a leakage.</p>
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- High-pressure hoses must be checked thoroughly before they are used.
- Replace any damaged high-pressure hose immediately.
- Never repair defective high-pressure hoses yourself!
- Avoid sharp bends and folds: the smallest bending radius is about 20 cm.
- Do **not drive over** the high-pressure hose. Protect against sharp objects and edges.
- Never pull on the high-pressure hose to move the device.
- Do not twist the high-pressure hose.
- Do not put the high-pressure hose into solvents. Use only a wet cloth to wipe down the outside of the hose.
- Lay the high-pressure hose in such a way as to ensure that it cannot be tripped over.

	<p>Only use Titan original-high-pressure hoses in order to ensure functionality, safety and durability.</p>
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**2.11 ELECTROSTATIC CHARGING (FORMATION OF SPARKS OR FLAMES)**

 <b>Danger</b>	<p>Electrostatic charging of the unit may occur during spraying due to the flow speed of the coating material. These can cause sparks and flames upon discharge. The unit must therefore always be earthed via the electrical system. The unit must be connected to an appropriately-grounded safety outlet.</p>
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An electrostatic charging of spray guns and the high-pressure hose is discharged through the high-pressure hose. For this reason the electric resistance between the connections of the high-pressure hose must be equal to or lower than 1 MΩ.

## 2.12 USE OF UNITS ON BUILDING SITES AND WORKSHOPS

The unit may only be connected to the mains network via a special feeding point with a residual-current device with INF  $\leq 30$  mA.

## 2.13 VENTILATION WHEN SPRAYING IN ROOMS

Adequate ventilation to ensure removal of the solvent vapors has to be ensured.


## 2.14 SUCTION INSTALLATIONS

The are to be provided by the unit user in accordance with the corresponding local regulations.


## 2.15 EARTHING OF THE OBJECT

The object to be coated must be earthed.  
(Building walls are usually earthed naturally)

## 2.16 CLEANING THE UNIT WITH SOLVENTS

 <p><b>Danger</b></p>	<p>When cleaning the unit with solvents, the solvent should never be sprayed or pumped back into a container with a small opening (bunghole). An explosive gas/air mixture can arise. The container must be earthed.</p>
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## 2.17 CLEANING THE UNIT

 <p><b>Danger</b></p>	<p>Danger of short-circuits caused by water ingression! Never spray down the unit with high-pressure or high-pressure steam cleaners.</p>
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## 2.18 WORK OR REPAIRS AT THE ELECTRICAL EQUIPMENT

These may only be carried out by a skilled electrician. No liability is assumed for incorrect installation.

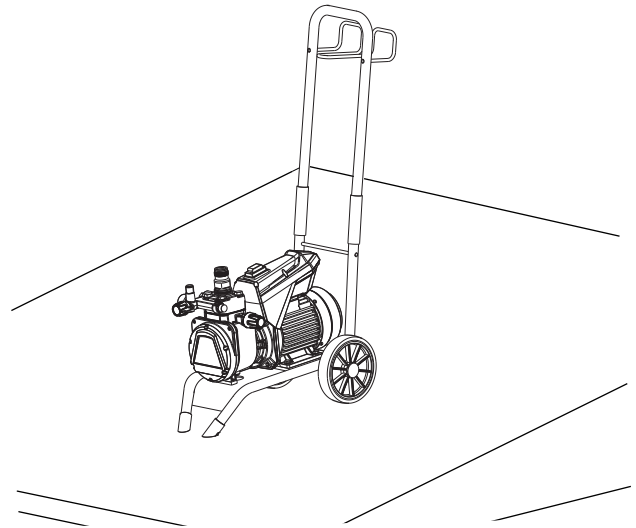
## 2.19 WORK AT ELECTRICAL COMPONENTS

Unplug the power plug from the outlet before carrying out any repair work.

## 2.20 SETUP ON AN UNEVEN SURFACE

The front end must always point downwards in order to avoid sliding away.

If possible do not use the unit on an inclined surface since the unit tends to wander through the resulting vibrations.



## GENERAL VIEW OF APPLICATION / DESCRIPTION OF UNIT

### 3 GENERAL VIEW OF APPLICATION / DESCRIPTION OF UNIT

#### 3.1 APPLICATION

Elite 3100 is an electric driven unit for the airless atomization of different painting materials. Also it is able to feed the internal feeded paint roller, which is available as accessory.

Elite 3100 is made for jobs in the workshop and on the building site.

The Elite 3100's device output is designed so that dispersions can be processed indoors and outdoors for small to medium-sized objects.

When painting, the device is suitable for all kinds of typical painting jobs, e.g.:

doors, door frames, balustrades, furniture, woodencladding, fences, radiators (heating) and steel parts.

We recommend using the top container for paintwork.

#### 3.2 COATING MATERIAL

Diluting lacquers and paints or those containing solvents, two-component coating materials, dispersion and latex paints.

No other materials should be used for spraying without Titan's approval.



Pay attention to the Airless quality of the coating materials to be processed.

The unit is able to process coating materials with up to 20,000 mPas. If highly viscous coating materials cannot be taken in or the performance of the unit is too low, the paint must be diluted in accordance with the manufacturer's instructions.



Attention: Make sure, when stirring up with motor-driven agitators that no air bubbles are stirred in. Air bubbles disturb when spraying and can, in fact, lead to interruption of operation.

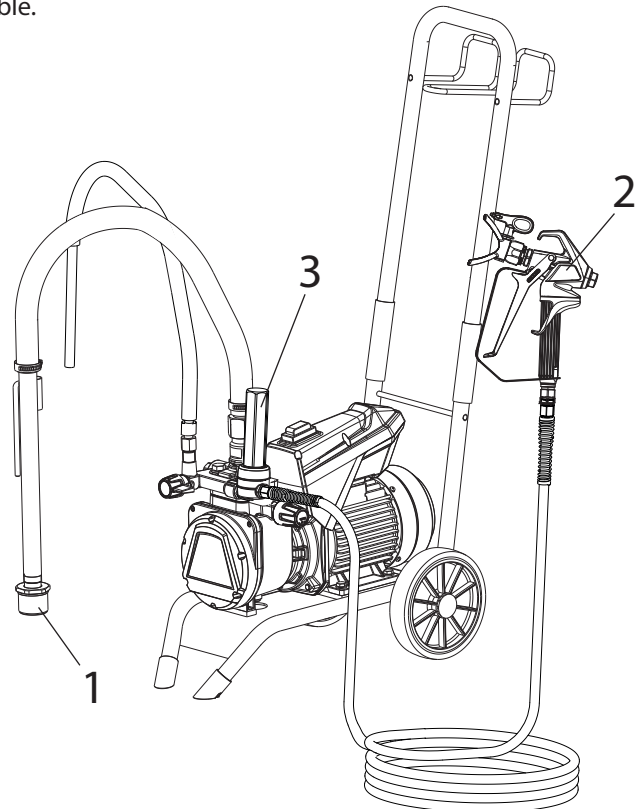
#### 3.2.1 COATING MATERIALS WITH SHARP-EDGED ADDITIONAL MATERIALS

These particles have a strong wear and tear effect on valves and tips, but also on the heating hose and spray gun. This impairs the durability of these wearing parts considerably.

#### 3.2.2 FILTERING

Sufficient filtering is required for fault-free operation. To this purpose the unit is equipped with a suction filter (Item 1) and an insertion filter in the spray gun (Item 2). Regular inspection of these filters for damage or soiling is urgently recommended.

A high-pressure filter (Item 3) -available as accessory- is rising up the filtering surface and will make the work more comfortable.



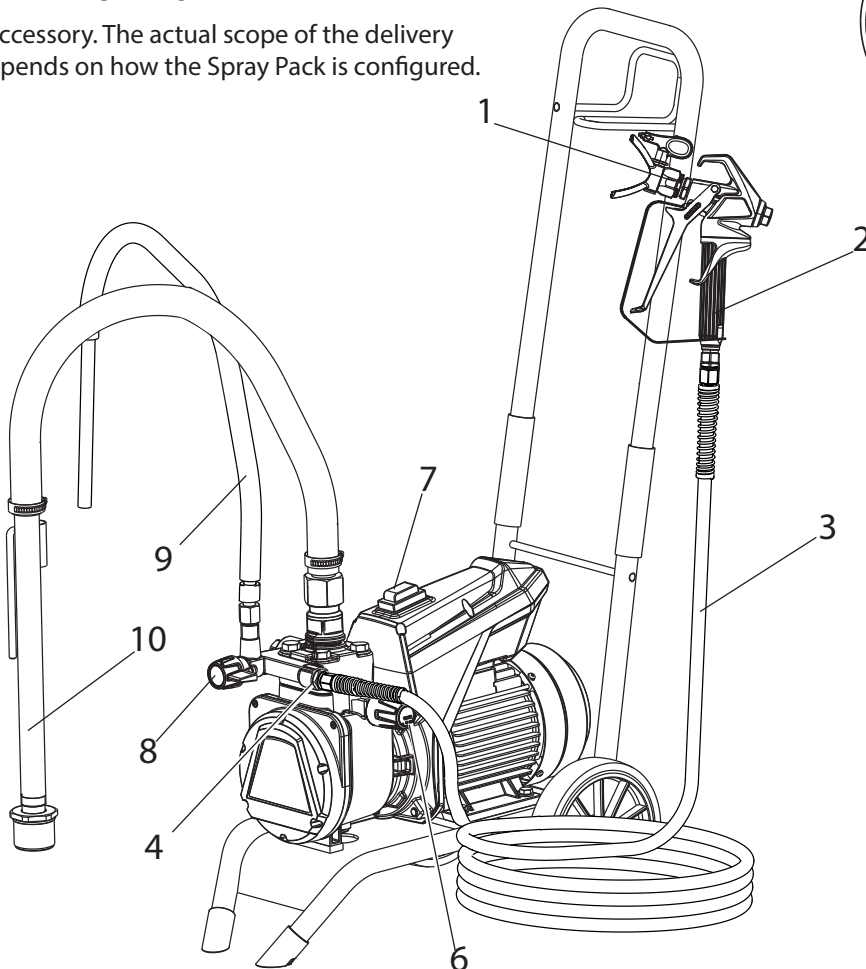
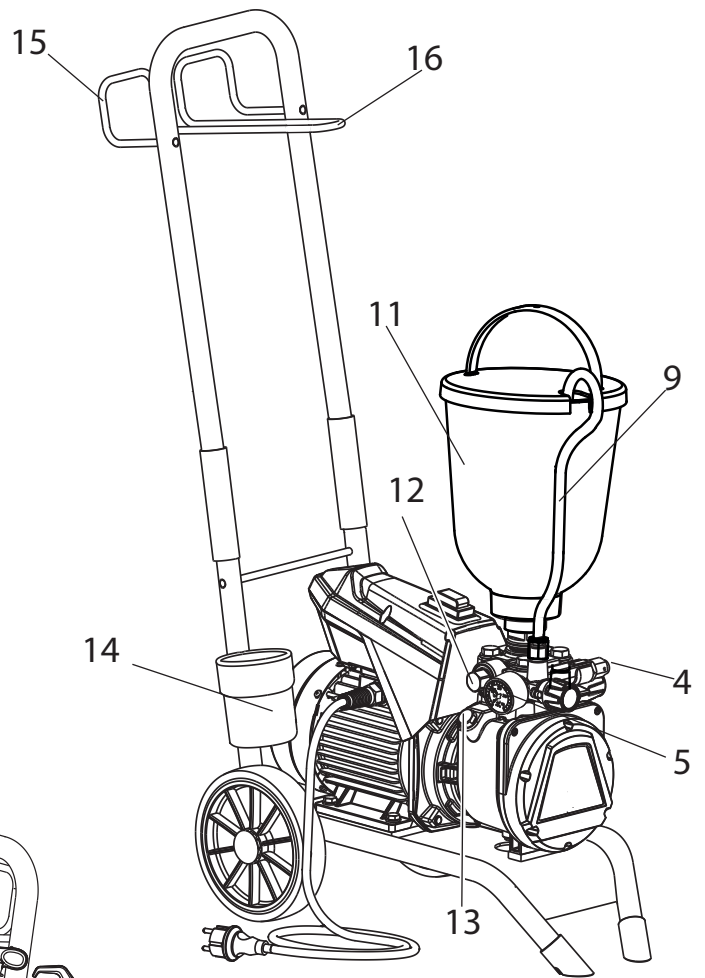
### 3.3 EXPLANATORY DIAGRAM

- 1 Tip guard with airless tip\*
- 2 Spray gun\*
- 3 High-pressure hose\*
- 4 Connection for high-pressure hose
- 5 Pressure gauge\*
- 6 Pressure control valve
- 7 ON / OFF switch
- 8 Pressure relief valve



- 9 Return hose\*
- 10 Suction hose\*
- 11 Hopper\*
- 12 Outlet valve
- 13 Oil dipstick
- 14 Cleaning Container
- 15 Hose bracket
- 16 Gun holder
- 17 Tool bag (no fig.)

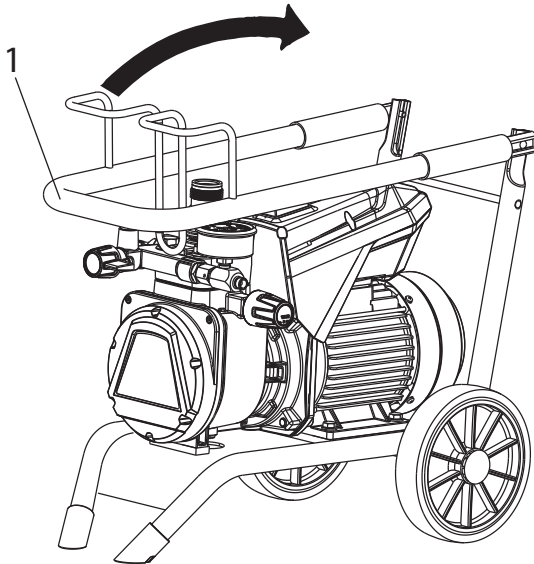
\*Accessory. The actual scope of the delivery depends on how the Spray Pack is configured.



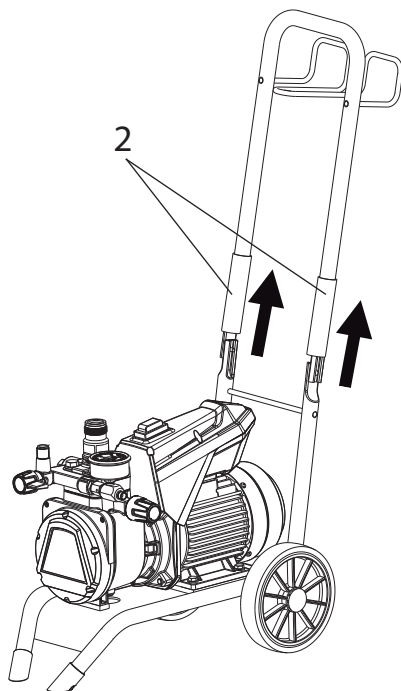
## GENERAL VIEW OF APPLICATION / DESCRIPTION OF UNIT

**3.4 ADJUSTING THE HANDLE**

Swing the handle (1) upwards (the sleeves fall downwards and secure the handle in the terminal position).



Push the sleeves (2) upwards in order to swing the handle down again if necessary.

**Transportation in vehicle**

Secure the unit in the vehicle by means of suitable fasteners. The device can be placed on its side if necessary. In this case, please ensure that no attachments can be damaged. Attention: Paint or solvent residues can escape from the connections!

**3.5 TECHNICAL DATA**

Voltage :	230 -240 V AC, 50 Hz
Fuses :	16 A time-lag
Unit connecting line :	6 m long, 3 x 1.5 mm <sup>2</sup>
Max. current consumption:	7.0 A
Degree of protection :	IP 54
Rated input of device:	1.3 kW
Max. operating pressure :	25 MPa (250 bar)
Max. volume flow :	2.6 l/min
Volume flow at 12 MPa (120 bar) with water :	2.3 l/min
Max. temperature of the coating material :	43 °C
Max. viscosity :	20,000 mPas
Empty weight :	27 kg
Hydraulic oil filling quantity :	
Hydraulics housing	1.3 liter
Gears (grease)	45 g
Max. vibration at the spraygun :	lower than 2.5 m/s <sup>2</sup>
Max. sound pressure level:	75 dB (A)*

\*Place of measurement: 1 m distance from unit and 1.60 m above floor, 12 MPa (120 bar) operating pressure, reverberant floor

### 4 STARTUP



Press the inlet valve inside the coating material inlet (4) downwards before starting the operation. This ensures that the valve is not blocked or clogged.

#### 4.1 UNIT WITH SUCTION SYSTEM

1. Ensure that the sealing surfaces of the connections are clean. Ensure that the red inlet (1) is inserted in the coating material inlet (4).
2. Use the enclosed 41 mm wrench to screw the union nut (2) at the suction hose (3) onto the coating material inlet (4) and tighten it.
3. Screw the union nut (5) at the return hose (6) to the connection (7) (22mm).

#### 4.2 UNIT WITH UPPER HOPPER

1. Ensure that the sealing surfaces of the connections are clean. Ensure that the red inlet (1) is inserted in the coating material inlet (4).
2. Screw the union nut (5) on the return pipe (6) onto the connection (7).
3. Screw the upper hopper (8) onto the coating material inlet (4).

#### 4.3 HIGH PRESSURE HOSE AND SPRAY GUN

1. Screw the high pressure hose (9) onto the hose connection
2. Screw the spray gun (10) onto the high pressure hose
3. Tighten all union nuts on high pressure hose so that no coating material can escape.
4. Screw the tip holder with the selected tip onto the spray gun, align tip and tighten union nut.



**Attention**

When unscrewing the high pressure hose, hold firmly on the hose connection with a 22mm wrench.

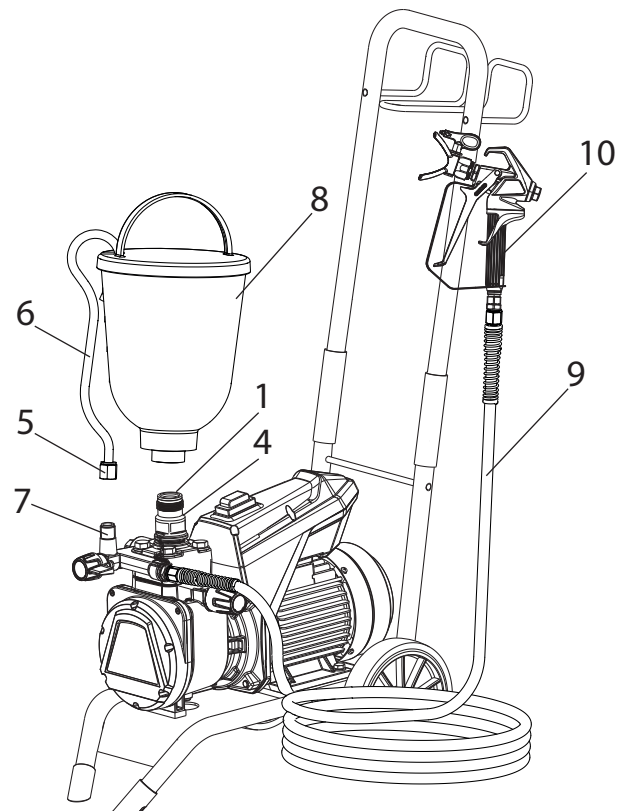
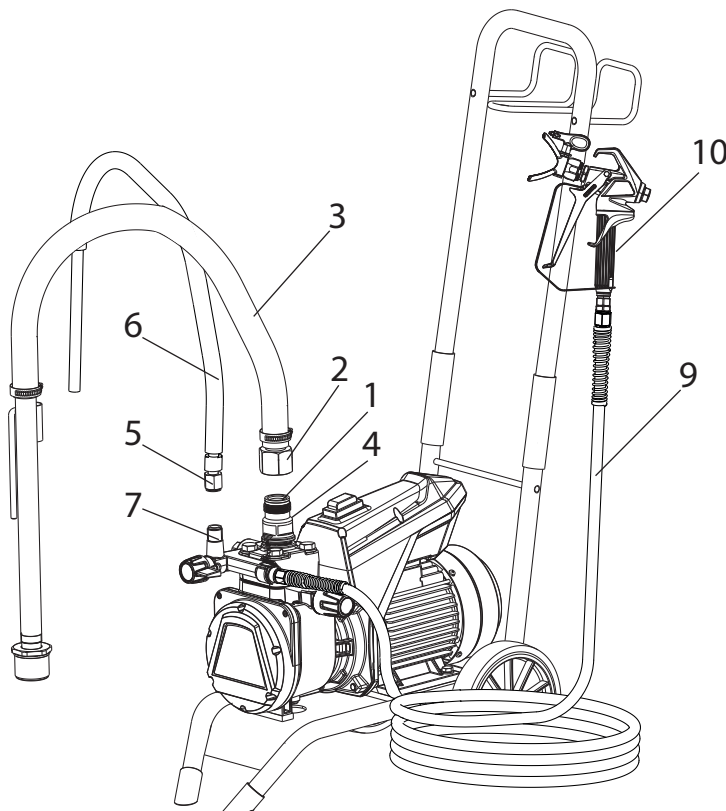
#### 4.4 CONNECTION TO THE MAINS NETWORK



**Attention**

Connection must always be carried out via an appropriately grounded safety outlet with residual-current-operated circuit-breaker.

Before connecting the unit to the mains supply, ensure that the line voltage matches that specified on the unit's rating plate.







## STARTUP

#### 4.5 CLEANING PRESERVING AGENT WHEN STARTING-UP OF OPERATION INITIALLY


##### Unit with suction tube

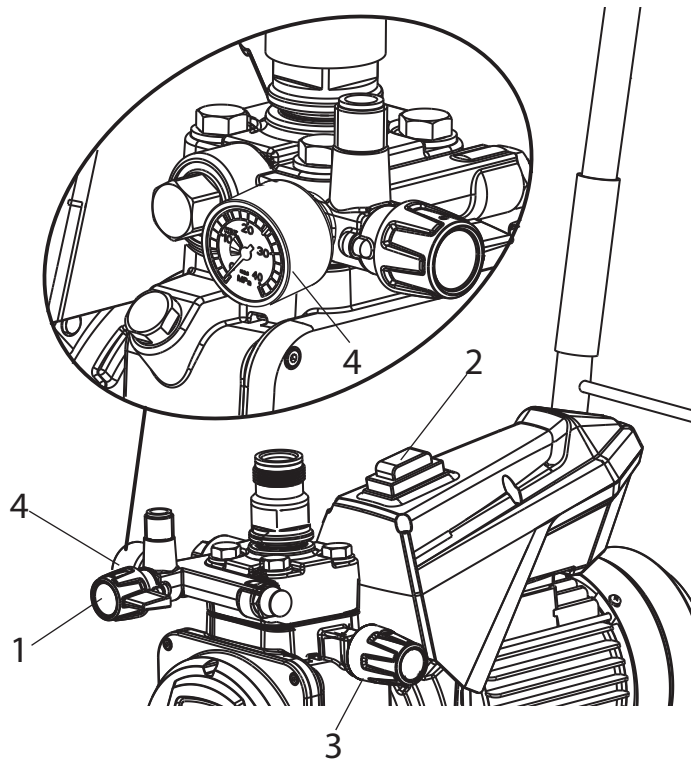
1. Immerse the suction system into a container filled with a suitable cleaning agent (recommendation: water).

##### Unit with hopper

2. Fill up hopper with a suitable cleaning agent (recommendation: water).
3. Set pressure relief valve (1) to  (circulation).
4. Switch the device on (Pos. I) using the ON/OFF switch (2).
5. Slowly turn the pressure regulating knob (3) to the **right**.
6. Wait until you can hear the sound of the inlet valve and cleaning agent flows from the return hose.
7. Turn the pressure regulating knob (3) back approx. one rotation.
8. Set pressure relief valve (1) to  (spray). Pressure is rising up inside the high pressure hose (visible at pressure gauge (4)).
9. Point the tip of the spray gun to inner wall of an open and empty metal container and pull the trigger at the spray gun.
10. The pressure is increased by turning the pressure regulating knob (3) to the right. Set approx. 10 MPa (100 bar) at the pressure gauge.
11. Spray the cleaning agent out of the unit for approx. 1 - 2 min. (~5 litres) into the open collecting container.

#### 4.6 VENTILATE UNIT (HYDRAULIC SYSTEM) IF THE SOUND OF INLET VALVE IS NOT AUDIBLE

1. Switch the device on (Pos. I) using the ON/OFF switch (2).
2. Turn pressure regulating knob (3) **approx. three revolutions** to the **left**.
3. Set pressure relief valve (1) to  (circulation). The hydraulic system is ventilated. Leave the unit on for two to three minutes.
4. Then slowly turn pressure regulating knob (3) to the **right** until you can hear the sound of the inlet valve.
5. If not, repeat points 2 and 4





#### 4.7 TAKING THE UNIT INTO OPERATION WITH COATING MATERIAL

##### Unit with suction tube

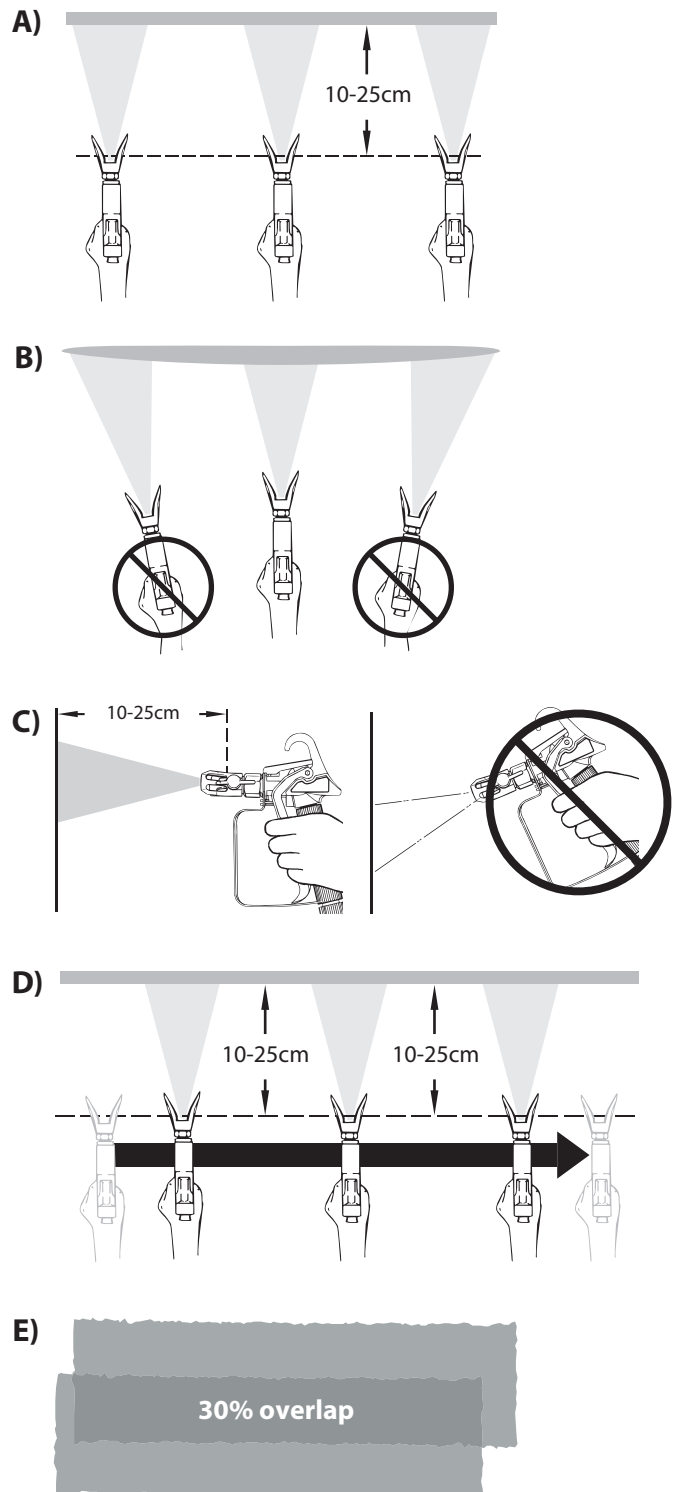
1. Immerse the suction system into a container filled with coating material.

##### Unit with hopper

2. Fill coating material into the hopper.
3. Set pressure relief valve (1) to  (circulation).
4. Switch the device on (Pos. I) using the ON/OFF switch (2).
5. Slowly turn the pressure regulating knob (3) to the **right**. When the noise of the valves changes, the unit is bled and takes in coating material.
6. If coating material exits from the return hose, turn the pressure regulating knob (3) back approx. 1 rotation.
7. Set pressure relief valve (1) to  (spray). Pressure is rising up inside the high pressure hose (visible at pressure gauge (4)).
8. Pull the trigger of the spray gun and spray into an open and empty container in order to remove the remaining cleaning agent from the unit. When coating materials exits from the tip, close the spray gun.
9. Adjust the spraying pressure by turning the pressure regulating knob (3).
10. The unit is ready to spray.

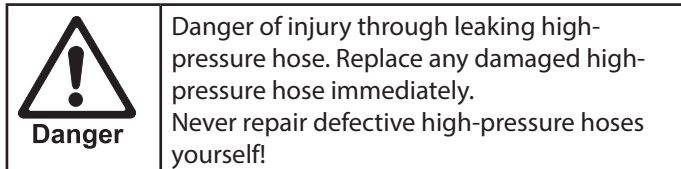
## 5 SPRAYING TECHNIQUE

- The key to a high-quality result is the even coating of the entire surface. Move your arm at a uniform speed and hold the spray gun at a constant distance from the surface. The ideal distance is around 10-25 cm between the spray nozzle and the surface. (Fig. A)
- Hold the spray gun parallel to the surface. Move the gun using your entire arm, not just the wrist. (Fig. B)
- Hold the spray gun at right angles to the surface. Otherwise the coating will be thicker at one end than the other. (Fig. C)
- Pull the trigger guard once you have started the movement. Release the trigger again before you finish the movement. (Fig. D) Avoid interruptions within the spray surface.
- Allow each stripe to overlap by around 30%. This will ensure even coating. (Fig. E)
- Use the lowest possible pressure setting to create the desired spray pattern in order to minimise spray mist.
- To achieve perfect surfaces at varnishing works, special accessories are available at Titan, e.g. FineFinish tips. Your Titan dealer will advise you.



## 6 HANDLING THE HIGH-PRESSURE HOSE

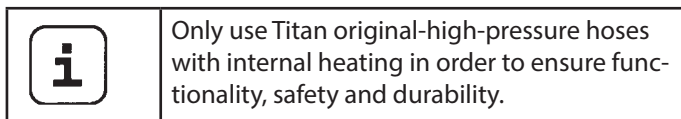
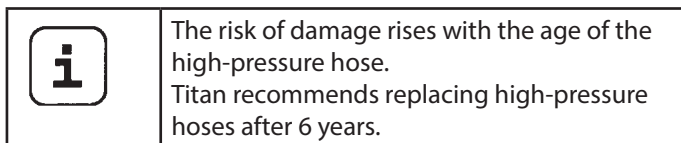
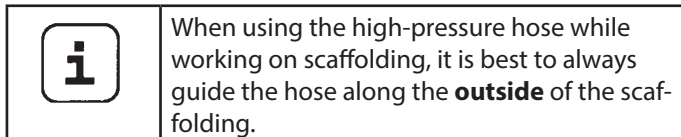
The unit is equipped with a high-pressure hose specially suited for diaphragm pumps.




The high-pressure hose is to be handled with care. Avoid sharp bends and folds: the smallest bending radius is about 20 cm. Do **not drive over** the high-pressure hose. Protect against sharp objects and edges.

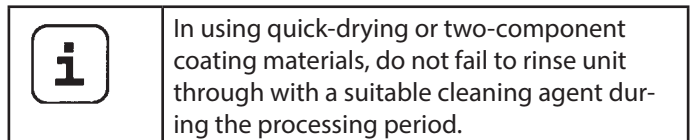
Never pull on the high-pressure hose to move the device.

Make sure that the high-pressure hose cannot twist. This can be avoided by using a Titan spray gun with a swivel joint and a hose system.




## 7 INTERRUPTION OF WORK

1. Set pressure relief valve to  (pressure relief, circulation).
2. Switch the unit off using the ON/OFF switch (Pos. 0).
3. Pull trigger of the spray gun to decrease the pressure of the high pressure hose and the spray gun.
3. Secure the spray gun, refer to the operating manual of the spray gun.
4. Remove tip from tip holder and store the tip in a small vessel with suitable cleaning agent.
5. Leave the suction system immersed in the coating material or immerse it in the corresponding cleaning agent. The suction filter and unit should not dry out.
6. Cover the material container in order to prevent the paint from drying.



## 8 CLEANING THE UNIT



A clean state is the best method of ensuring operation without problems. After you have finished spraying, clean the unit. Under no circumstances may coating material rests dry and harden in the unit. The cleaning agent used for cleaning (only with a flash point above 21 °C) must be suitable for the coating material used.


	Warm water improves the cleaning effect in the case of water-dilutable coating materials.
---	---


- **Secure the spray gun**, refer to the operating manual of the spray gun.


Remove and clean the tip and tip holder.


- **Unit with suction system**



1. Set pressure relief valve to  (circulation).
2. Switch the device on (Pos. I) using the ON/OFF switch.
3. Remove the suction system from the material container. The return pipe hose remains over the material container until barely any coating material comes out.
4. Immerse the suction system into a container filled with a suitable cleaning agent
5. Turn the pressure control valve back in order to set a minimal spraying pressure.
6. Set pressure relief valve to  (spray).
7. Pull the trigger of the spray gun in order to pump the remaining coating material from the suction hose, high-pressure hose and the spray gun into an open container (if appropriate, increase the pressure at the pressure control valve slowly in order to obtain a higher material flow).

 <b>Attention</b>	The container must be earthed in case of coating materials which contain solvents (e.g. by using a metal container).
---	--



 <b>Attention</b>	Caution! Do not pump or spray in container with small opening (bunghole)! See safety regulations.
---	---


8. Set pressure relief valve to  (circulation).
9. Pump suitable cleaning agent in the circuit for several minutes.


	The cleaning effect is increased by alternatively opening and closing the spray gun.
---	--




10. Set pressure relief valve to  (spray).
11. Pump the remaining cleaning agent into an open container until the pump is empty.
12. Set pressure relief valve to  (circulation).
13. Switch the unit off using the ON/OFF switch (Pos. 0).

- **Unit with upper hopper**

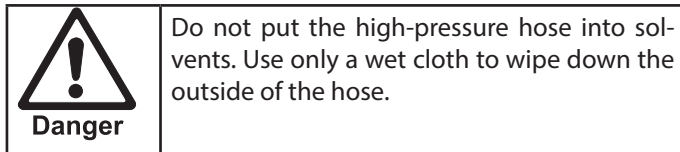
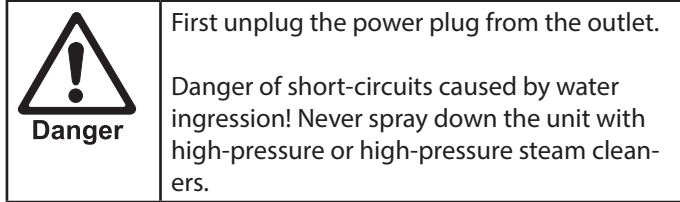
1. Set pressure relief valve to  (circulation).
2. Switch the device on (Pos. I) using the ON/OFF switch.
3. Turn the pressure control valve back in order to set a minimal spraying pressure.
4. Set pressure relief valve to  (spray).
5. Pull the trigger of the spray gun in order to pump the remaining coating material from the hopper, high-pressure hose and the spray gun into an open container (if appropriate, increase the pressure at the pressure control valve slowly in order to obtain a higher material flow).

 <b>Attention</b>	The container must be earthed in case of coating materials which contain solvents (e.g. by using a metal container).
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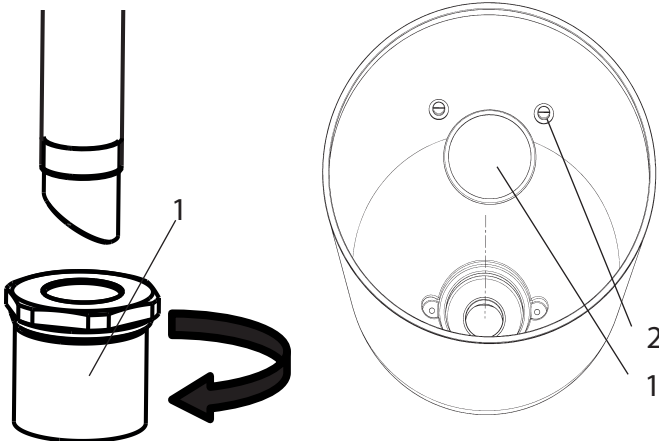
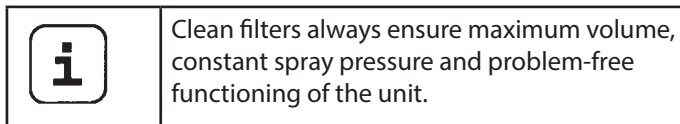
 <b>Attention</b>	Caution! Do not pump or spray in container with small opening (bunghole)! See safety regulations.
--	---

6. Fill up hopper with suitable cleaning agent.
7. Set pressure relief valve to  (circulation).
8. Pump suitable cleaning agent in the circuit for several minutes.
9. Set pressure relief valve to  (spray).
10. Pump the remaining cleaning agent from the hopper, high-pressure hose and the spray gun into an open container
11. Set pressure relief valve to  (circulation).
12. Switch the unit off using the ON/OFF switch (Pos. 0).

## CLEANING THE UNIT

**8.1 CLEANING THE UNIT FROM THE OUTSIDE**

Wipe down unit externally with a cloth which has been immersed in a suitable cleaning agent.

**8.2 SUCTION FILTER****suction system****hopper**


Unit with suction system

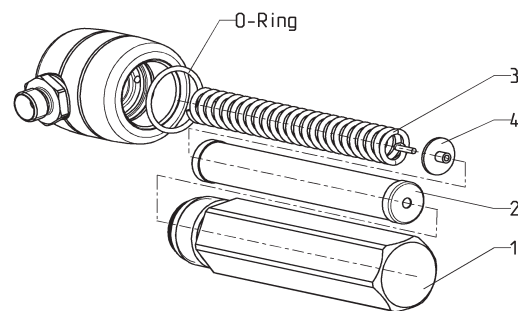
1. Unscrew the filter (Item 1) from the suction tube.
2. Clean or replace the filter.  
Carry out cleaning with a hard brush and a corresponding cleaning agent.

Unit with hopper

1. Release screws with a screwdriver (Item 2).
2. Lift and remove filter disk with a screwdriver
3. Clean or replace the filter disk.  
Carry out cleaning with a hard brush and a corresponding cleaning agent.

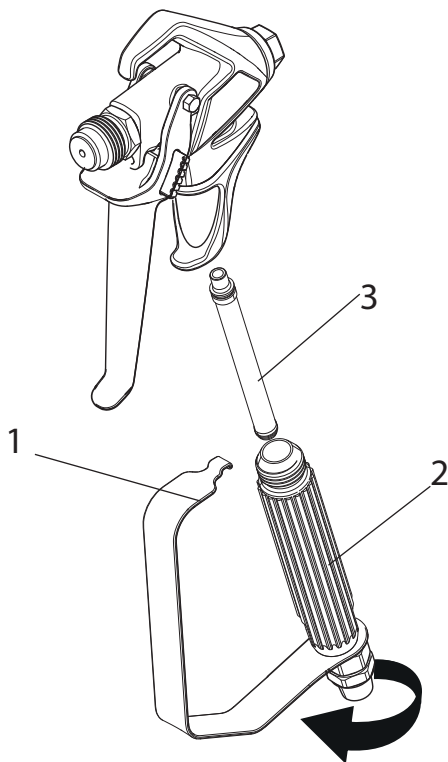
**8.3 HIGH-PRESSURE FILTER**

1. Set pressure relief valve to  (pressure relief, circulation).
2. Switch the unit off using the ON/OFF switch (Pos. 0).
3. Open the high-pressure filter and clean the filter insert. To do so:
4. Unscrew the filter housing (1) by hand.
5. Remove the filter insert (2) and pull out the bearing spring (3).
6. Clean all the parts with the corresponding cleaning agent. If compressed air is available – blow through the filter insert and bearing spring.
7. When mounting the filter ensure that the bearing ring (4) in the filter insert is positioned correctly and check the O-ring at the filter housing for damage.
8. Screw on the filter housing by hand until it stops (a higher tightening force only impedes later dismantling).



## 8.4 CLEANING THE AIRLESS SPRAY GUN

1. Rinse the Airless spray gun with a suitable cleaning agent under lower operating pressure.
2. Clean the tip thoroughly with a suitable cleaning agent so that no suitable coating material rests remain.
3. Do not store the tip in solvent because this reduces the durability considerably.
4. Clean the outside of the Airless spray gun thoroughly.



### Insertion filter in the Airless spray gun

1. Unclip the top of the trigger guard (1) from the gun head.
2. Using the bottom of the trigger guard as a wrench, loosen and remove the handle assembly (2) from the gun head.
3. Pull the old filter (3) out of the gun head. Clean or replace.
4. Slide the new filter, tapered end first, into the gun head.
5. Thread the handle assembly into the gun head. Tighten with the trigger wrench.
6. Snap the trigger guard back onto the gun head.

## 9 SERVICING

### 9.1 GENERAL SERVICING



We strongly recommend having an annual check carried out by technicians for safety reasons. Please observe all the applicable national regulations.

#### Minimum check before every startup:

1. Check the high-pressure hose, spray gun with rotary joint, power supply cable with plug for damage.
2. Check whether the pressure gauge can be read.

#### Check at periodical intervals:

1. Check inlet and outlet valve according wear. Clean it and replace worn out parts.
2. Check all filter inserts (spray gun, suction system) clean it and replace if necessary.

### 9.2 HIGH-PRESSURE HOSE

Inspect the high-pressure hose visually for any notches or bulges, in particular at the transition in the fittings. It must be possible to turn the union nuts freely. A conductivity of less than 1 MΩ must exist across the entire length.



Attention

Have all the electric tests carried by the Titan Service.



The risk of damage rises with the age of the high-pressure hose. Titan recommends replacing high-pressure hoses after 6 years.



## 10 REPAIRS AT THE UNIT



Switch the unit off.  
Before all repair work: Unplug the power plug from the outlet.

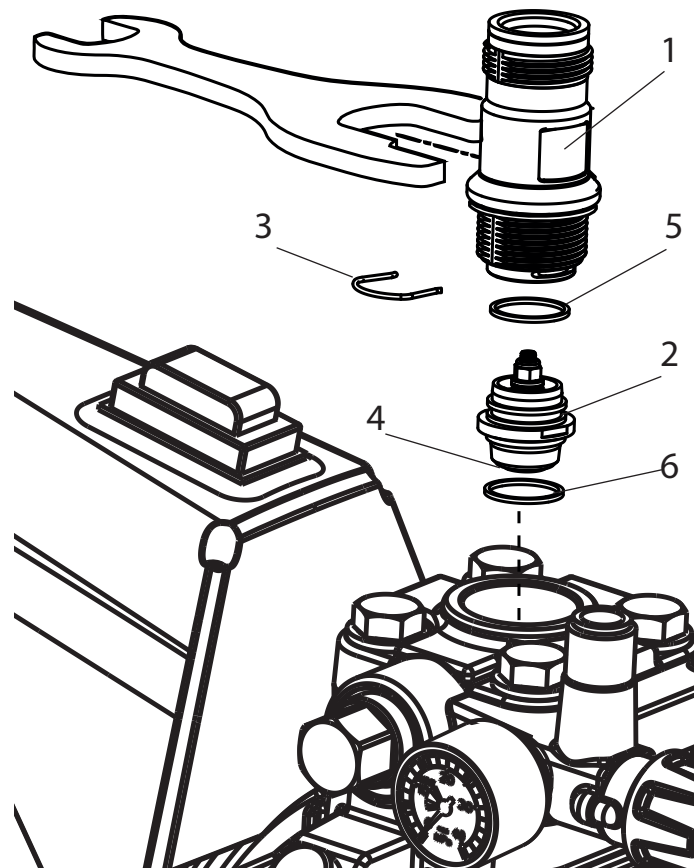
### 10.1 INLET VALVE

#### Disassembly

1. Place the enclosed 30 mm wrench on the housing (1).
2. Loosen the housing (1) with light blows of a hammer on the end of the wrench.
3. Screw out the housing with the inlet valve (2) from the paint section.
4. Pull of the clasp (3) using the enclosed screwdriver.
5. Place the enclosed 30 mm wrench on the inlet valve (2). Turn out the inlet valve carefully.
6. Clean the valve seat (4) with a cleaning agent and brush (ensure that no brush hairs are left behind).
7. Clean the seals (5, 6) and check for damage. Replace, if necessary.
8. Check all the valve parts for damage. In case of visible wear replace the inlet valve.

#### Installation

1. Insert the inlet valve (2) into the housing (1) and secure with the clasp (3). Ensure that the (black) seal (5) is mounted in the housing.
2. Screw the unit from the housing and the inlet valve into the paint section. The same (black) seal (6) has to be mounted in the paint section.
3. Tighten the housing with the 30 mm wrench and tighten with three light blows of the hammer on the end of the wrench. (Corresponds to approx. 90 Nm tightening torque).

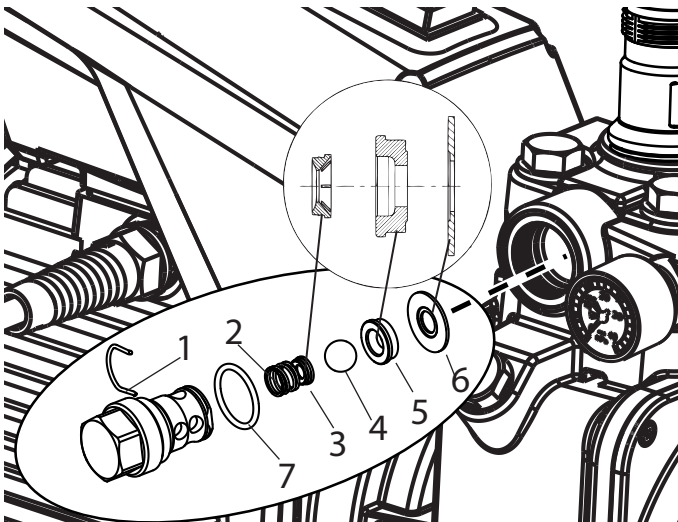


## 10.2 OUTLET VALVE

1. Use a 22 mm wrench to screw the outlet valve from the paint section.
2. Carefully remove the clasp (1) using the enclosed screwdriver. The pressure spring (2) pushes out ball (4) and valve seat (5).
3. Clean or replace the components.
4. Check the O-ring (7) for damage.
5. Check the installation position when mounting the spring support ring (3) (clipped onto spring (2)), outlet valve seat (5) and seal (6), refer to figure.

### Please also pay particular attention to the following notes:

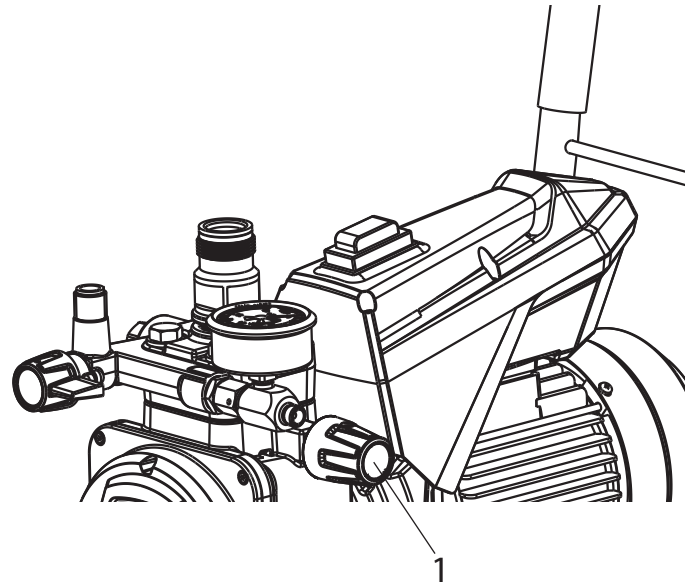
1. The torque for fitting the outlet valve is 50 Nm.
2. During normal operation, check regularly whether the outlet valve has become loose.
3. Always also replace the seal (6) if you have dismantled the outlet valve, regardless of which component you want to replace. Note: The seal (6) is located inside the paint section.
4. The groove in the seal (6) points outwards when replaced.



## 10.3 PRESSURE CONTROL VALVE



Only have the pressure control valve (1) replaced by the customer service. The max. operating pressure has to be reset by the customer service.



## 10.4 TYPICAL WEAR PARTS

Despite the use of high-quality materials the highly abrasive effect of the paints means that wear can occur at the following parts:

**Inlet valve** (spare part Order No.: 2393043)

For replacing refer to Section 10.1

(failure becomes noticeable through performance loss and/or poor or no suction)

**Outlet valve** (spare part Order No.: 2393106)

For replacing refer to Section 10.2

(failure becomes noticeable through performance loss and/or poor suction) The outlet valve is usually considerably more durable than the inlet valve. Thorough cleaning may already help here.

## REPAIRS AT THE UNIT

## 10.5 REMEDY IN CASE OF FAULTS

TYPE OF MALFUNCTION	WHAT ELSE?	POSSIBLE CAUSE	MEASURES FOR ELIMINATING THE MALFUNCTION
Unit does not start	The device does not start after it has been plugged in and switched on.	No voltage applied	Check voltage supply
		Unit fuse has triggered	Let the motor cool down
		Capacitor in terminal box burned out	Replace capacitor
Unit does not suck in	Air bubbles do not exit at the return hose	Inlet/outlet valve clogged / worn	Remove the valves and clean then (-> refer to Section Pkt.10.1/10.2) / replace worn parts
		Pressure control valve turned down completely	Turn the pressure control valve to the right until the stop is reached
	Air bubbles exit from the return hose	Unit is sucking in outside air	Check if Suction system is properly tightened
			Check if red inlet is installed in the inlet valve housing (-> see 4.1)
Unit does not generate pressure	Unit has sucked in	Air in the oil circuit (Possible reasons: long time not used, replacement of diaphragm or hydraulic oil change)	Bleed the oil circuit in the unit by turning the pressure control valve completely to the left (until overturning) and let it run approx. 2 – 3 min. Then turn the pressure control valve to the right and set the spraying pressure (repeat process several times, if necessary).
		Unit reached pressure, but the pressure collapses, also at the pressure gauge, during spraying.	Suction filter clogged
	Paint cannot be worked in this state. Due to its properties the paint clogs the valves (inlet valve) and the delivery rate is too low.		Dilute the paint
	Unit reached pressure, but the pressure collapses during spraying. pressure gage still shows high pressure	Clogged filter do not let enough paint pass	Check/clean the (high-pressure filter) gun filter
			Tip clogged
	Unit does not generate the max. pressure possible. Paint nevertheless exits at the return hose.	Relief valve defective	Contact your Titan dealer or a Titan authorised service centre.

## 11 SPARE PARTS AND ACCESSORIES

### 11.1 ELITE 3100 ACCESSORIES

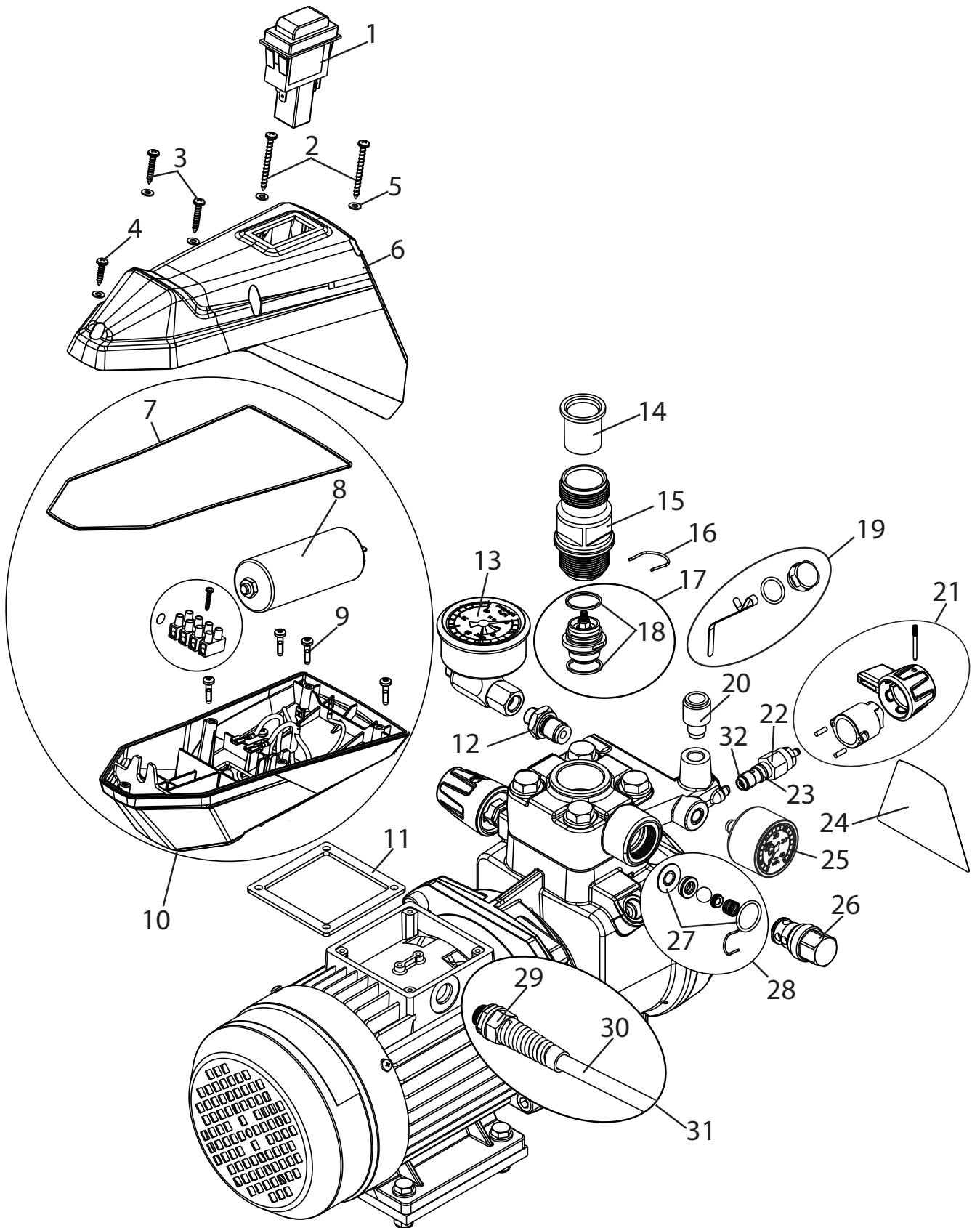
PART NO.	DESCRIPTION
<b>SPRAY GUNS</b>	
0538005	RX-80 with TR-1 517 Tip
0538020	RX-Pro with TR-1 517 Tip
0550060	S-3 spray gun
0550070	S-5 spray gun
0289013	M-4 spray gun
0538217	RX-Pro, small grip
0538218	RX-Pro, medium grip
0538219	RX-Pro, large grip
<b>SPRAY TIPS AND ACCESSORIES</b>	
662-XXX	SC-6+ Tip*
330-XXX	TR-1 HEA Tip*
695-XXX	TR-1 Tip*
692-XXX	TR-2 Tip*
671-XXX	Fine Finish Tip*
0289228	Tip Guard
651-139	Tip Swivel
661-020	Tip seat and seal kit (5 pack)
<b>FILTERS</b>	
0089957	Coarse Mesh Filter (Green)
0089958	Medium Mesh Filter (White)
0089959	Fine Mesh Filter (Yellow)
0089960	Extra Fine Mesh Filter (Red)

PART NO.	DESCRIPTION
<b>EXTENSIONS</b>	
2418848	5" (12.5 cm) Tip Extension
2418850	10" (25 cm) Tip Extension
2418851	20" (50 cm) Tip Extension
2418852	30" (75 cm) Tip Extension
2418862	3' (0.9 m) Extension Pole
2418863	6' (1.8 m) Extension Pole
<b>AIRLESS HOSE AND ACCESSORIES</b>	
2432927	1/4" x 15 m Airless Hose
316-506	3/16" x 1.5 m Whip Hose
490-012	1/4" x 1/4" hose connector
0508239	High Pressure Fluid Gauge
<b>LUBRICANTS AND CLEANERS</b>	
2412657	Liquid Shield™ 946 ml
314-480	Piston Lube™, 240 ml
700-926	Piston Lube™, 946 ml
0297055	Pump Shield™, 355 ml
<b>VARIOUS</b>	
2404445	Innerfeed Roller
0341267	Hopper 5l
2393 123	Suction system (flexible)
0097 531	Filter bag, mesh width 0,3 mm
*	Go to <a href="http://www.titantool-international.com">www.titantool-international.com</a> for tip sizes

## SPARE PARTS AND ACCESSORIES

**11.2 SPARE PARTS ELITE 3100**

ITEM	ORDER NO.	DESIGNATION
1	9953696	Motor protection switch
2	2393002	Oval-head tapping screw 4,2 x 45 (2 pcs.)
3	2393003	Oval-head tapping screw 4,2 x 25 (2 pcs.)
4	2388381	Oval-head tapping screw 4,2 x 22
5	2388377	Disc
6	2411145	Cover
7	2422779	Round cord (1 m)
8	2393015	Capacitor 25uf 400V assy.
9	2393018	Oval-head screw M4x18 (4 pcs.)
10	2432886	Terminal box assy. (pos. 7-9)
11	2369517	Motor seal
12	2369436	Reducing double nipple
13	0340257	Pressure gauge assy. AUS
14	2369454	Inlet
15	2388291	Inlet valve housing
16	2369455	Clamp
17	2393043	Inlet valve assy. (incl. pos. 18)
18	2369458	Sealing ring
19	2393044	Oil level measuring set
20	2369586	Fitting
21	2393047	Pressure relief knob assy.
22	2369631	Pressure relief valve (incl. pos. 23,32)
23	9971395	O-ring
24	2401314	Label Elite 3100
25	0252475	Pressure gauge assy. EU
26	2393102	Outlet valve housing assy.
27	2393105	O-ring and sealing ring
28	2393106	Outlet valve assy. (incl. pos. 27)
29	2388374	Cable gland
30	2394776 0341520	Mains cable EU Mains cable AUS
31	2400157 2400156	Mains cable assy. EU (pos 29-30) Mains cable assy. AUS (pos 29-30)
32	2450467	Sealing ring



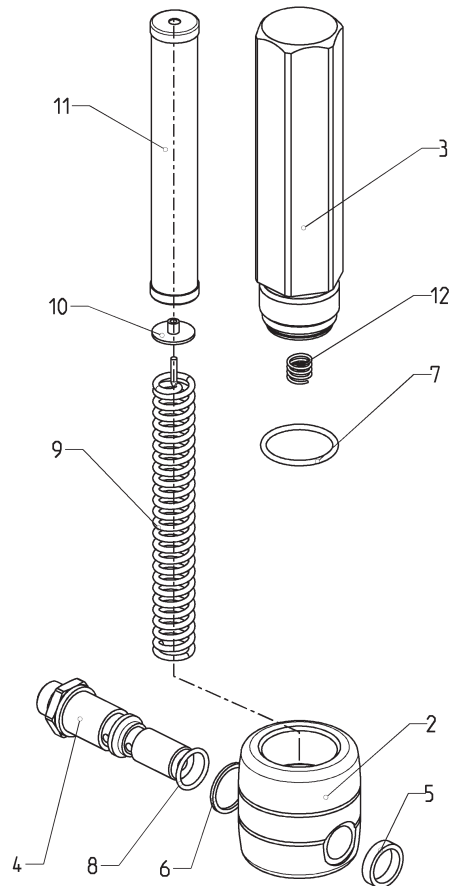
Spare parts diagram Elite 3100



SPARE PARTS AND ACCESSORIES

**11.3 SPARE PARTS LIST HIGH-PRESSURE FILTER**

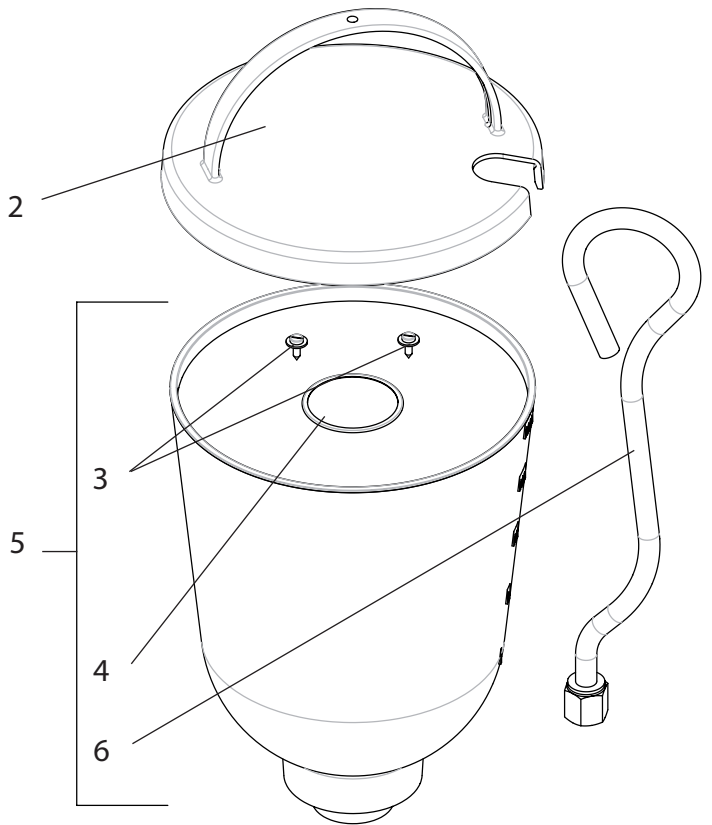
ITEM	ORDER NO.	DESIGNATION
1	0097 121	High-pressure filter HF- 01 compl.
2	0097 301	Filter block
3	0097 302	Filter housing
4	0097 303	Hollow screw
5	0097 304	Seal ring
6	9970 110	Seal ring
7	9974 027	O-ring 30x2 (PTFE)
8	9971 401	O-ring 16x2 (PTFE)
9	0508 749	Bearing spring
10	0508 603	Bearing ring
11	0508 748	Filter insert 60 meshes
	0508 450	Optional: Filter insert 100 meshes
	0508 449	Filter insert 30 meshes
12	9994 245	Pressure spring



**Spare parts diagram high-pressure filter**

**11.4 SPARE PARTS LIST HOPPER**

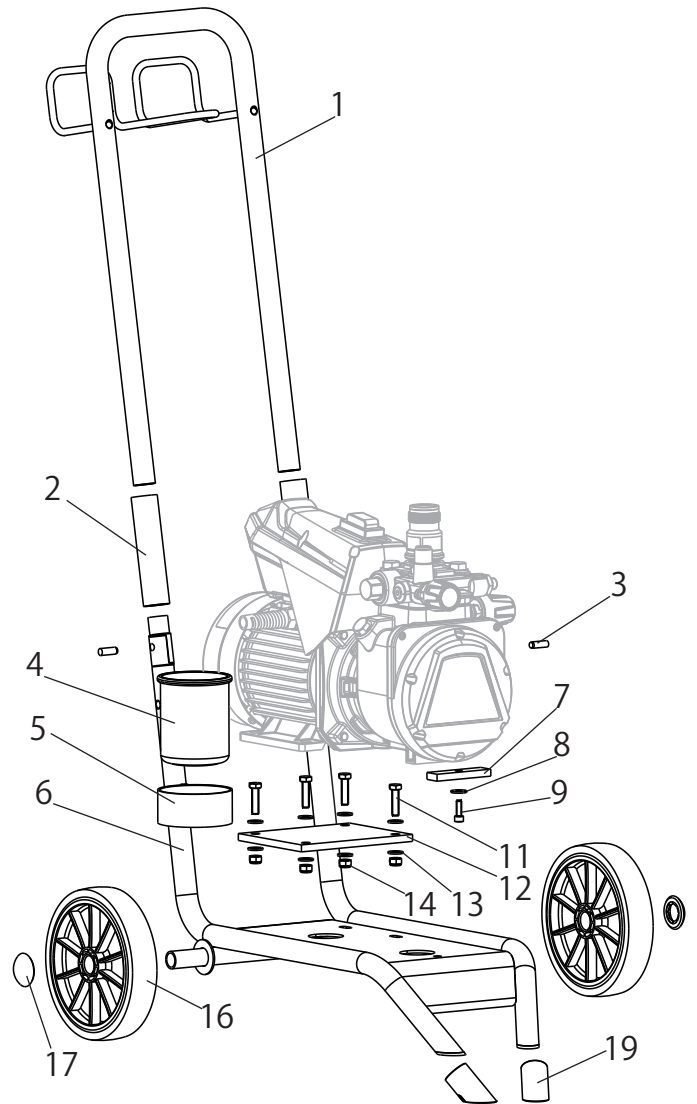
ITEM	ORDER-NO	DESIGNATION
1	0341 267	Hopper 5l, assy. (pos. 2-6)
2	0340 429	Cover
3	9902 313	Sheet metal screw 3,9x13 (2)
4	0003 756	Filter disk, mesh width 0,4 mm
5	0340 265	Hopper
6	0340 908	Return pipe



**Spare parts diagram hopper**

## 11.5 SPARE PARTS LIST TROLLEY

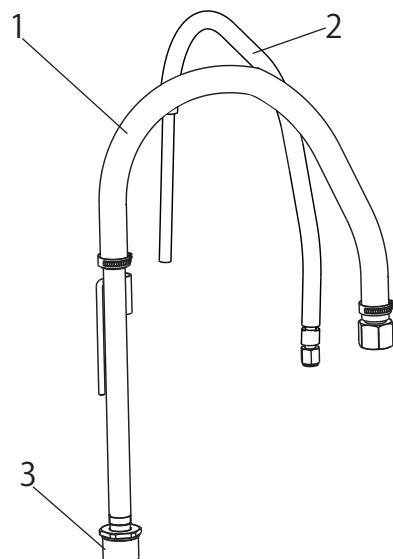
ITEM	ORDER NO.	DESIGNATION
1	2369570	Handle
2	13806	Sleeve
3	2396299	Half-hollow rivet
4	2369585	Cleaning cup
5	2393786	Cleaning cup holder
6	2369550	Bottom frame, cart
7	2369578	Foot, damping
8	9920304	Washer
9	2391181	Hexagon socket head cap screw
10	2393118	Foot, damping assy. (pos. 7-9)
11	9900118	Hexagon screw
12	2369545	Plate, damping
13	9920102	Washer
14	9910208	Hexagon nut
15	2393119	Plate, damping assy. (pos. 11-14)
16	2369556	Wheel
17	9994950	Wheel cap
18	2393121	Wheel assy. (pos. 16, 17)
19	2388543	Foot



Spare parts diagram trolley

## 11.6 SPARE PARTS LIST SUCTION SYSTEM

ITEM	ORDER NO.	DESIGNATION
	2393123	Suction system assy.
1	2390605	Suction hose assy. (incl. filter)
2	2390606	Return hose assy.
3	2323325	Suction filter



Spare parts diagram suction system

### TESTING OF THE UNIT

For safety reasons, we would recommend having the device checked by an expert as required but at least every 12 months to ensure that it can continue to operate safely.

In the case of unused devices, the check can be postponed until they are next started up.

All (potentially deviating) national inspection and maintenance regulations must also be observed.

If you have any questions, please contact the customer service team at Titan.

### IMPORTANT INFORMATION ON PRODUCT LIABILITY

According to an EU directive, the manufacturer is only liable without limitation for faults in the product if all parts come from the manufacturer or have been approved by the manufacturer and have been mounted to the device and are operated properly. If third-party accessories or spare parts are used, the manufacturer is exonerated wholly or partly from his/her liability if use of the third-party accessories or spare parts have caused a defect in the product. In extreme cases, the relevant authorities can completely prohibit using the entire device.

With original Titan accessories and spare parts, compliance with all safety regulations is guaranteed.

### NOTE ON DISPOSAL

In observance of the European Directive 2002/96/EC on waste electrical and electronic equipment and implementation in accordance with national law, this product is not to be disposed of together with household waste material but must be recycled in an environmentally friendly way!



Titan or one of our dealers will take back your used Titan waste electrical or electronic equipment and will dispose of it for you in an environmentally friendly way. Please ask your local Titan service centre or dealer for details or contact us direct.

### EU Declaration of conformity

We declare under sole responsibility that this product conforms to the following relevant stipulations: 2006/42/EC, 2014/30/EU, 2011/65/EU, 2012/19/EU

Applied harmonised norms:

EN ISO 12100, EN 60204-1, EN 1953, EN IEC 61000-3-2, EN IEC 61000-3-11, EN IEC 61000-6-1, EN IEC 61000-6-3, EN 12621

The EU declaration of conformity is enclosed with the product.

If required, it can be re-ordered using order number **2432663**.

### 3 + 2 YEAR GUARANTEE ON THIS TITAN PRODUCT

(Status 03.03.2022)

TITAN exclusively provides the commercial buyer who has purchased the product from an authorised specialist dealer (hereinafter referred to as the „Customer“) with a guarantee for the products listed on the Internet at <https://go.titantool-international.com/warranty> in addition to the statutory warranty regulations, unless there is a guarantee exclusion.

The warranty period for TITAN products (devices) is 36 months and begins with the date of purchase of the initial purchase. This guarantee period is extended by a further 24 months if the product is registered within 28 days of purchase on the Internet at <https://go.titantool-international.com/registration>. In cases of commercial rental, industrial use (e.g. use in shift operation) or equivalent use, the guarantee period is 12 months due to the significantly higher load. We reserve the right to carry out a check in individual cases and refuse the guarantee where necessary.

If any material, machining or performance defects are identified in the device within the guarantee period, then the guarantee claims must be made immediately and within a period of no more than 2 weeks following discovery of the defect.

The detailed guarantee conditions can be obtained on request from our authorised TITAN partners (see website or operating instructions) or in text form on our website:

<https://go.titantool-international.com/warranty-conditions>



Subject to modifications

### UKCA Declaration of conformity

We declare under sole responsibility that this product conforms to the following relevant regulations:

Supply of Machinery (Safety) Regulations 2018  
Electromagnetic Compatibility Regulations 2016  
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012  
The Waste Electrical and Electronic Equipment Regulations 2013

Applied harmonised standards

BS EN ISO 12100, BS EN 60204-1, BS EN 1953, BS EN IEC 61000-3-2, BS EN IEC 61000-3-11, BS EN IEC 61000-6-1, BS EN IEC 61000-6-3, BS EN 12621



**TITAN<sup>®</sup>**

**ELITE**

**3100**

**UNITED STATES SALES & SERVICE**

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**PHONE:** 1-800-526-5362

1770 Fernbrook Lane

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**INTERNATIONAL**

**WEB:** [www.titantool-international.com](http://www.titantool-international.com)