

USER MANUAL
- SUPER-DIG X40 -

SUPER  DIG



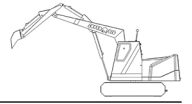
NESEVEGEN 81
4352 KLEPPE
NORWAY



We ask you to read thru the manual before installing,
and starting to use the Super Dig X40

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Information

The super dig is a hydraulic operated excavator intended for children from 3 years of age under supervision of adult person.

The Super Dig operates the same way as an adult excavator. It has an electrical hydraulic pump that generates hydraulic pressure. There is a hydraulic distribution valve with three proportional valves that can be manipulated from three levers, by manipulating the levers the user can make the excavator arm on the Super Dig to dig like an adult excavator.

The super Dig X 40 was developed in 1986 and was inspired by the world famous Brøyt excavator. The Super Dig has been a magnet for kids and adults all over the world.

The Super dig is manufactured in our own facility in Norway and the machine is built of steel plates and pipes that are welded together to the chape of the Super Dig X40 model.

All the steel components are dipped in a coating to prevent corrosion.

After the coating we use a high-quality powder paint to cover the surfaces to make sure we deliver paint that can handle wear and tear in a sandbox with kids.

We use powder paint with corrosion class C4. to make sure the Super Dig X 40 can stand outside all year.

The seat is built of fibreglass where the colour of the seat is painted in the mould before fibreglass is moulded to the colour which make it strong for wear.



Warnings:

- One must never adjust the hydraulic pump to more than 20 Bar pressure.
- Kids under 16 years of age must have adult supervision.
- Only one person to use the machine at the same time.
- There must not be any persons in the digging area when the machine is in use.
- It is recommended that the digging area is behind fence.





Technical Data:

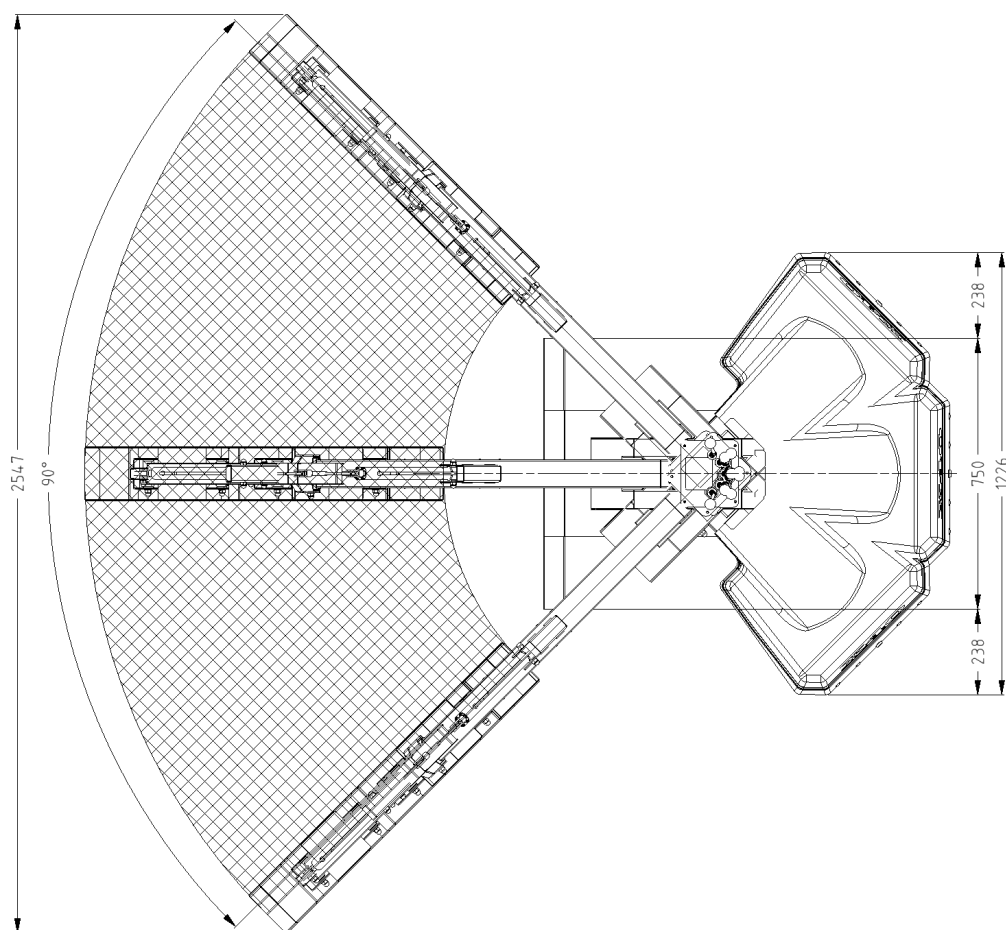
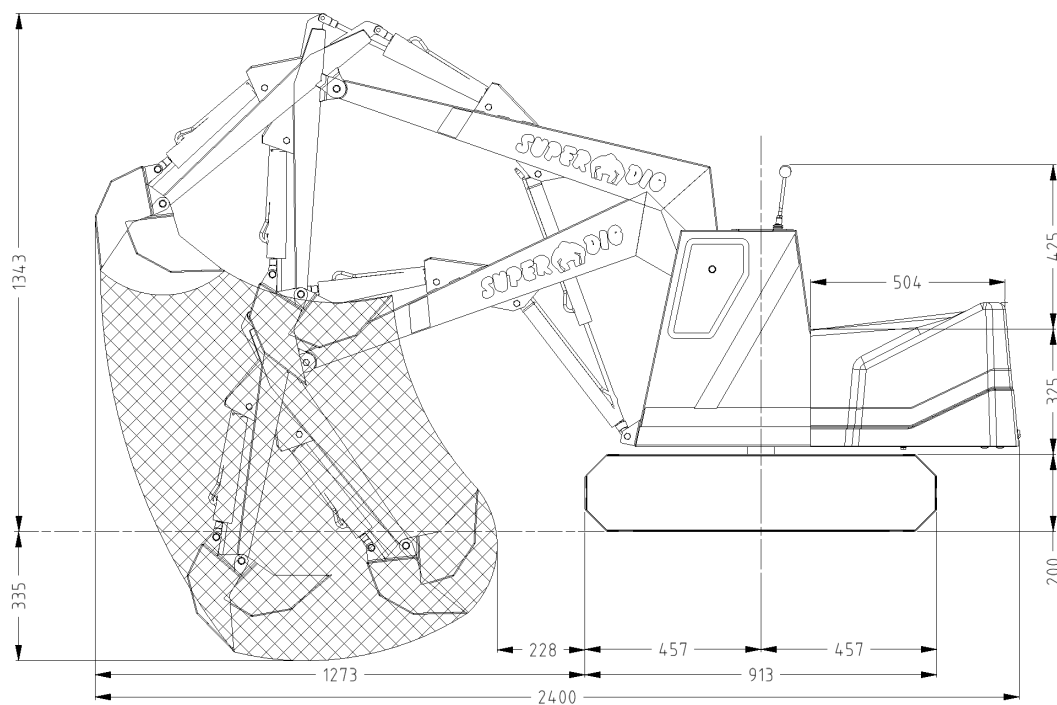
Electrical System		
<i>Input Power</i>		
Nominal Input Power	230	V-AC
Maximum Current usage	2	A
<i>Energy usage</i>		
Sleeping modus (Hydraulic pump not activated)	10	W
Active modus (Hydraulic pump is activated)	500	W
<i>Internal electronic</i>		
Maximum Power	24	V-DC
Maximum Current	5	A
Hydraulic		
Maximum Pressure	20	bar
Hydraulic Functions single acting (Boom)	1	
Hydraulic Functions double acting (Stick and Bucket)	2	
Climate		
Temperature range	+ 50	C°
	- 10	C°
Physical Dimensions		
<i>Footprint</i>		
Length - Belt module	913	mm
Width – Belt Module	750	mm
Height – Belt Module	200	mm
<i>Envelope</i>		
Total length	2400	mm
Total With	2210	mm
Total Height	1343	mm
Maximum digging depth – Below ground plane	355	mm
Turning angle of digging arm	90	deg
Total weight	≈ 80	kg
<i>Practical information</i>		
Volume of bucket	2.8	L
Maximum Noise level	65	dB

User

Minimum Age – Under supervision of	3	Years
Maximum weight on seat	150	kg
Capacity – (Number of persons sit on the machine at the same time)	1	Person



Physical dimensions





Getting known with the Super Dig

Super Dig is a hydraulic machine where the hydraulic pressure is generated by an electric hydraulic pump. The pump is connected to the high power 240V AC grid. All other electrical functions use 24V DC power. The working pressure on the pump must never exceed 20 Bar due to safety reasons.

In this user manual there will be referred to two different modus on the Super Dig X40:

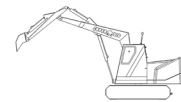
- * **Sleeping Modus**
 - *This means that the electrical power is connected and the machine is ready to use, the hydraulic aggregate is not running, and no hydraulic function is active.*
- * **Digging Modus**
 - *This means that the hydraulic aggregate is running, and all hydraulic function is active.*

Activating the machine from Sleeping Mode to Digging mode

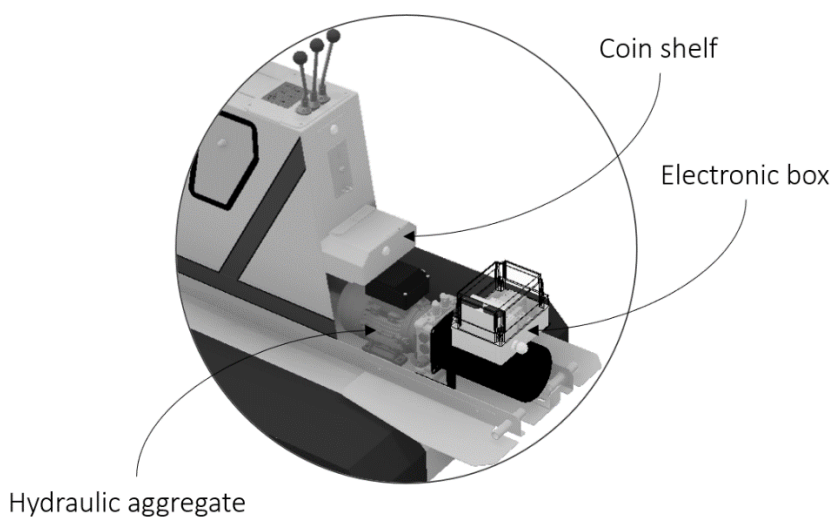
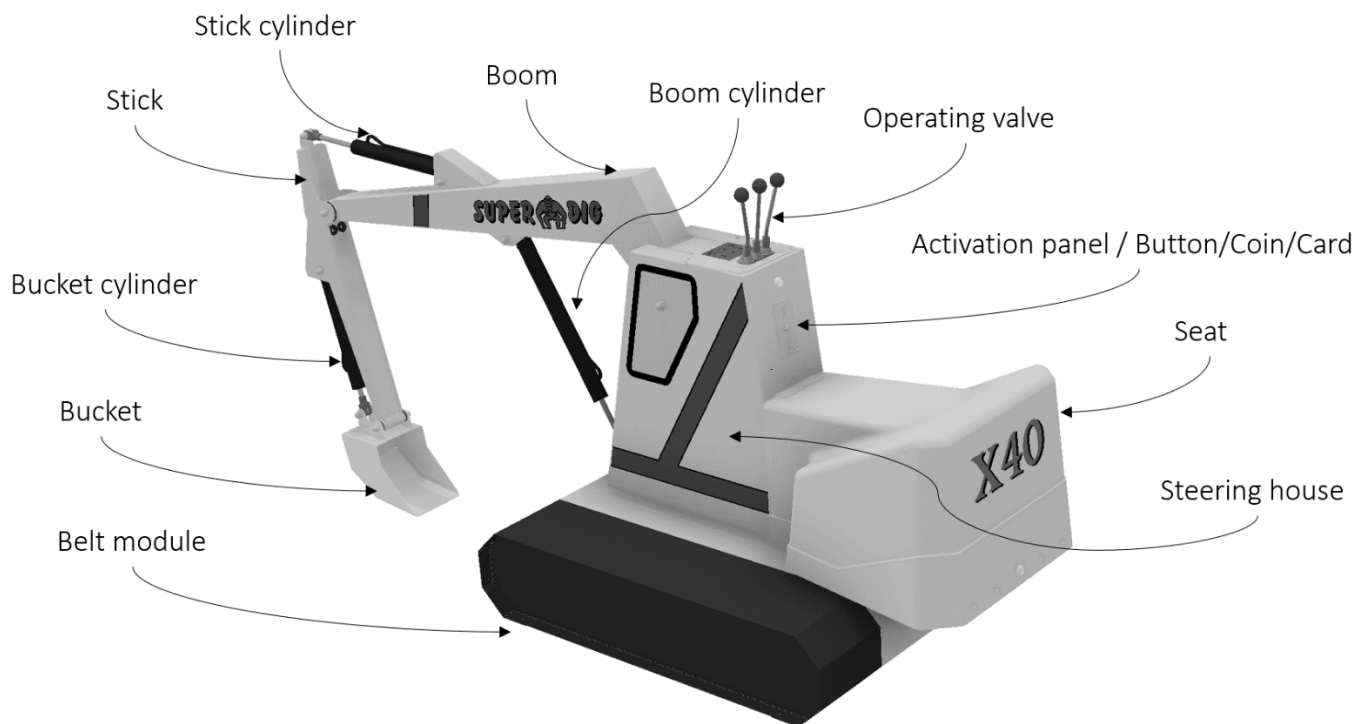
There are different ways to activate Digging Modus. The machine is delivered with the option the customer need. The principal is the same, they all activate a timer that activates the hydraulic pump for a pre-set time. The time is also customer specific and can easily be adjusted by the owner.

Here is a list of activation mechanisms.

Name	Description
Button	A button placed on the machine, a press on the button will activate Digging modus for the specific time. <i>Typically, 3min</i>
Single Mechanical Coin Selector	A single coin insert placed on the machine, when a correct coin is placed in the slot, and it is accepted the machine will start for the specific time. <i>Typically, 3min</i>
Double Mechanical Coin Selector	A double coin insert placed on the machine, here one has two different values on the coins and a specific time for each coin. when a correct coin is placed in one of the slots, and it is accepted the machine will start for the specific time for that coin. <i>Typically, 3min for the small coin and 6 minutes for the big coin.</i>
Electrically Coin Selector	A single slotted coin insert is placed on the machine, here one can place different coins from same currency, and it will accumulate until the required amount is achieved and the digging modus will be activated.
Card / Contactless	A card reader is placed on the machine. By tapping a credit/debit card or using any contactless payment device the machine will charge the amount and activate digging modus.



Description of main elements of the Super Dig X40



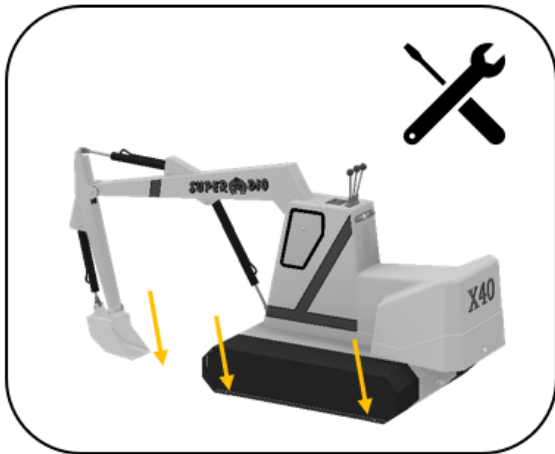


Setting up the machine

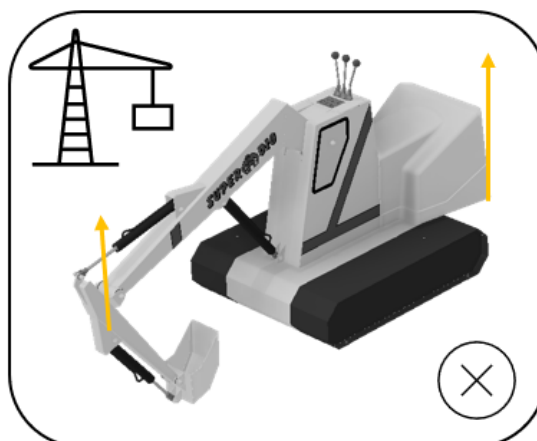
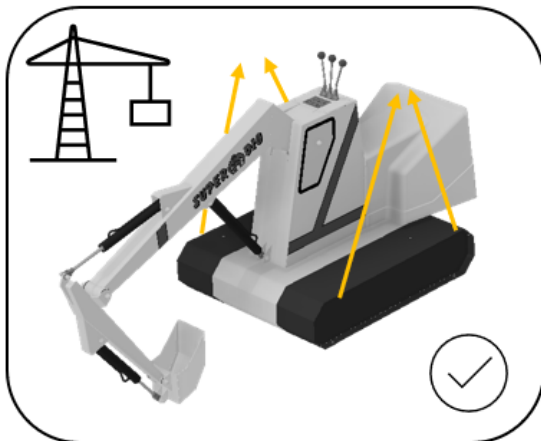
The Super Dig is bolted to the wooden pallet and covered in plastic film.

Remove the plastic film.

Remove the bolts on the belt module and the bucket.



Lifting must only be done by grabbing the belt module.
Do Not lift the machine by lifting in the arm or the seat.

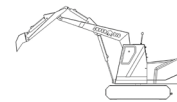


Place the machine on a stable surface.

Connect the power plug to a certified grounded socket.

The machine will automatically power up in sleeping mode when power plug is connected to the grid.
You can now activate the digging modus.

Your Super Dig x40 is now ready for use.

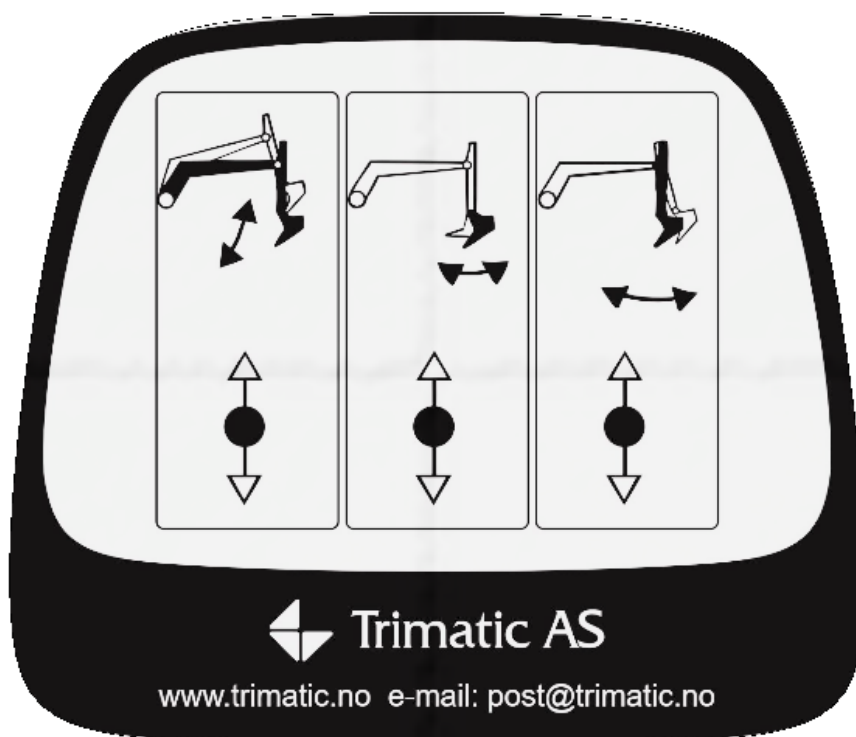


Operating the machine

When the machine is in Digging modus one can manipulate the Levers for hydraulic functions to operate the machine

In front of the levers one can see an illustration illustrating the functions on each lever.

Lever					
Boom		Bucket		Stick	
Left Side		Center		Right Side	
Push	Lower	Push	Forward	Push	Forward
Pull	Lift	Pull	Backward	Pull	Backward





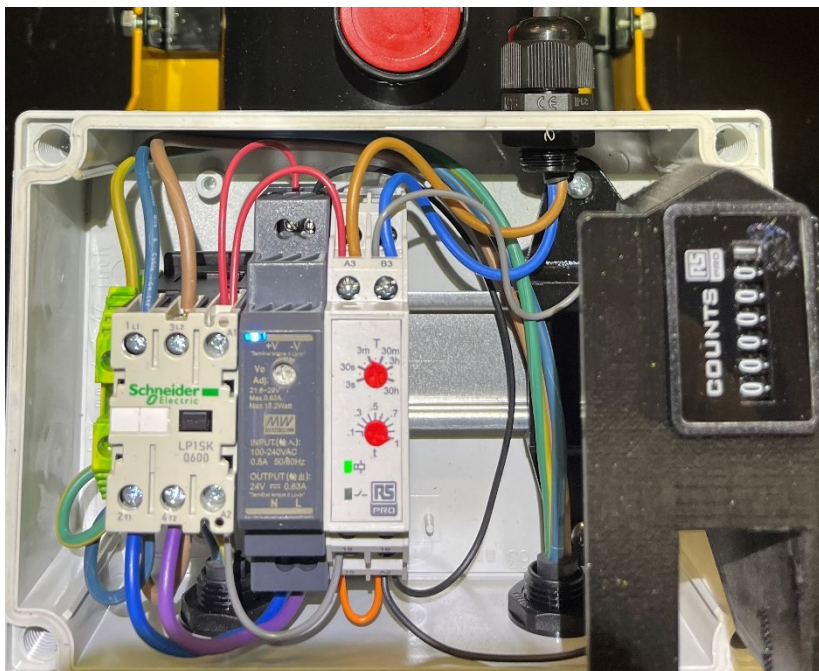
Counters for coins

Under the seat there is an electronic box

There is one counter for each coin selector if you have single coin selector or button you will only find one counter and if you have double coin selector you will find two.

The counter count one step each time digging modus is activated. So, it only counts the number of coins you shall find not the amount.

It is not possible to reset the counters or manipulate them to count backwards.





Adjusting the Digging Modus time

The time the machine will be in digging mode is adjusted to customer request un delivery.

The time can be adjusted by a technician on location.

Under the seat you will find an electronic box. Inside the box you will find the timer relay.

Adjust the time.



Unplug the power cable from the grid. It is important that there is no electrical power connected to the machine. There is high voltage inside, so it is important to cut power before opening the cover. Adjustment of the timer also requires that power is off, time will not be adjusted if adjusted with power connected.

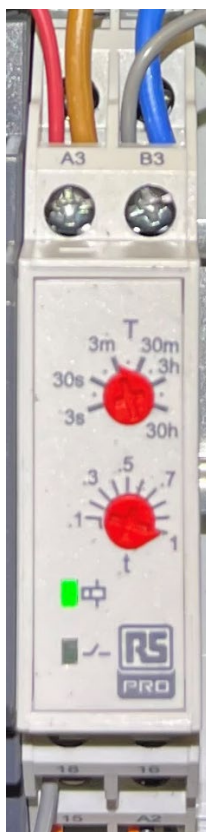
Confirm there is no lights on the electronic inside. It may take one minute from you unplug until all lightst inside shuts off.

Remove the clear cover over the electronic box.

Inside you will find one or two timer relays, depending on if you have single or double coin selectors.

- T - To be adjusted for changing time unit. (3sec ,30sec 3min, 30min, 3hours or 30 hours.)
- t – is as factor number will times itself with the time unit selected on T.

Example:(**T**) is set to 3.min. (**t**) is set to 0.5 Then the machine will be active for 3min x 0.5 = 1.5min





Maintenance

Recommended maintenance:

Description		Interval
Replace hydraulic oil	Indoor use all year	24 mnd.
	Outside use all year	12 mnd.

Recommended oil is:

Mobil DTE 10 Excel 32 (especially for outdoor use in winter time)

Physical / Chemical Hazards:

- No significant hazards.

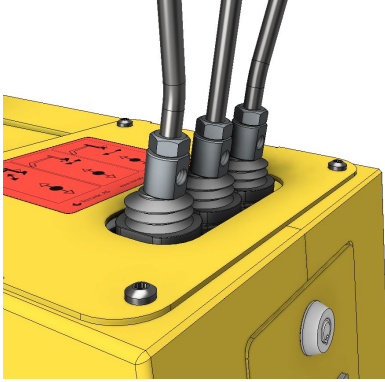
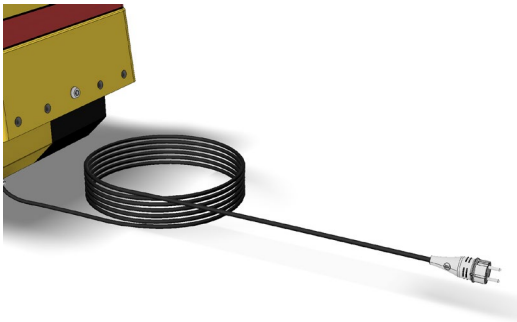
Health Hazards:

- High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation.

Environmental Hazards:

- No significant hazards.

Recommended inspection every 3rd month

<p>Rubber on lever</p>	 <p>If there is damage to the rubber it is recommended to replace the rubber. If sand and water come behind the rubber it can damage the seals in the hydraulic valve.</p>
<p>Inspect insulation quality of the main power cable</p>	 <p>If there is damage on the insulation on the cable. It must be replaced emirate.</p>