SCANMASKIN 32 WORLD SERIES

MANUAL

SCANMASKIN

MACHINES–MINERALS–KNOW-HOW

Important Information!

This Manual only concerns the floor grinding machines "**SCANMASKIN 32 World Series**" hereby referred to as "**SCANMASKIN 32 WS**". SCANMASKIN 32 WS may only be used for grinding horizontal surfaces approved by Scanmaskin Sweden AB.

If SCANMASKIN 32 WS is used for other purposes or handled in ways other than that described in this Manual, Scanmaskin Sweden AB disclaims all responsibility.

Especially note the section "2*Safety Regulations*". Read the Manual before using the floor grinding machine SCANMASKIN 32 WS. The spare parts, grinding discs used on SCANMASKIN 32 WS must be approved by Scanmaskin Sweden AB.

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1 Specifications

The SCANMASKIN 32 WS is available with different power inputs and some options regarding wet grinding. This is described in the different sections later on in this chapter.

1.1 Electrical specifications

To find the specifications that apply to your machine, check the information plate on the electrical cabinet door.

Never connect the SCANMASKIN 32 WS to any other voltage or number of phases than described in this specification.

The power source must be fused according to "External fuse" in this specification; also, the cables used must be marked and rated in accordance with the fuse used. Failure to comply with the correct fuses may cause fire or injuries.

Power choice[1]	**400 V 3~**[2]	**230 V 3~**
Power	15 kW (20 hp)	11 kW (15 hp)
Current	32 A	50 A
Voltage	380 – 400 V 3~	200 – 240 V 3~
Frequency	50/60 Hz ± 5%	50/60 Hz ± 5%
External fuse[3]	32 A	50 A
Power inlet[4]	IEC 60309 3P+N+E 400V 32A	IEC 60309 3P+E 250V 32A
Partnumber Inlet	Eu **570057** US **910911**	US **910912**

Table 1-1 Electrical specifications

All models are CE-marked.

If using a generator see "2.6.2Using a generator"

[1] This refers to different power choices. Note that a Scanmaskin 32 WS made for one choice of power must be used with that particular choice.
[2] Standard
[3] Maximum current for the fuses used in the power source *(i.e. the distribution box)*.
[4] This is the standard inlet used. Machines sold outside of EU will be shipped either with a local standard inlet or an adapter.

1.2 Mechanical specifications

Model	SCANMASKIN 32 WS
Grinding width	785 mm (31”)
Grinding head diameter	280 mm (11”)
Grinding head speed	350 – 850 Rpm
Mass	610 kg (1345 lbs) / **RC** 640 kg (1410 lbs)
Water tank	20 liter / 5.2 gal
Gear barrel	Synchronized 

Table 1-2 Mechanical specifications

Measurements of SCANMASKIN 32 WS

Width	800 mm	(32”)
Height	1250 mm	(49.2”)
Length	1550 mm	(61”)

Measurements of shipping box

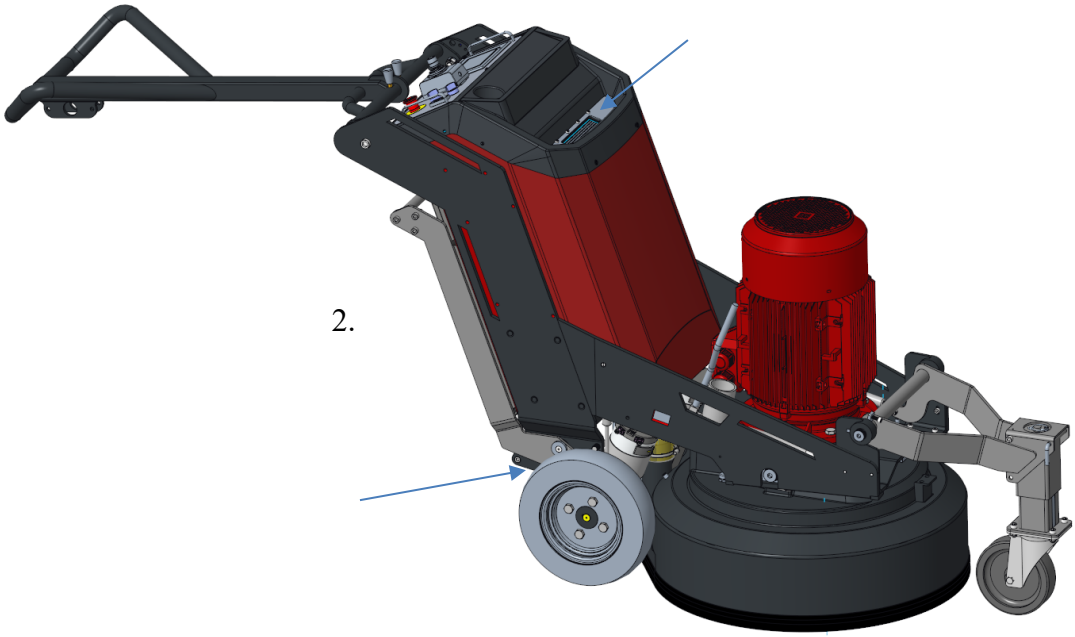
Width	850 mm	(33.5”)
Height	1500 mm	(59”)
Length	1600 mm	(63”)

Ambient temperature range during operation -10°C to +50°C (14°F to 122°F)
Ambient temperature range during storage -40°C to +70°C (-40°F to 158°F)

When using water, the ambient temperature must never fall below 0°C (32°F).

1.3 Water tank

1.



2.

Figure 1-1 Standard SCANMASKIN 32 WS

Scanmaskin 32 WS has a built-in water tank (1.) that can be used to keep the grinding tools at the lower temperature and in those occasions where it´s not possible to use a dust collector together with the machine.

The water tank has a built-in system that prevents the water from getting out while the machine is tilted back for grinding tool exchange. It also has a filter that prevents larger debris to get into the tank.
System in general:
Inside the floating cover over the machine house there is a sprinkler system connected to the water tank. To engage the water flow after filling he water tank set the control on the operation panel Water to “1”. To stop the flow, turn the control nub to “0”
At the backs lower end of the machine chassis underneath the electrical cabinet there is a valve to adjust the flow of water.

1.4 Tools

The machine must be equipped with tools approved by Scanmaskin Sweden AB before operation.
Failure to follow the directions in this Manual will void the warranty

See "Grinding guide" for information about available tools and "4.14 Changing tools*" for information about how to change the tools.*

The tools are fitted using the Scan-On system for easy fitting.

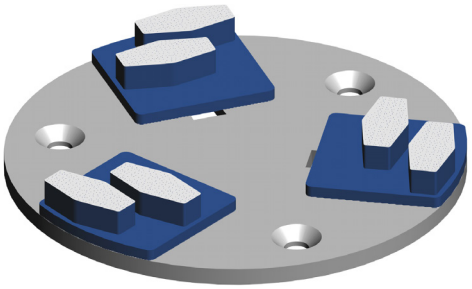


Figure 1-2 Scan-On plate with tools fitted.

1.5 Range of application

SCANMASKIN 32 WS is exclusively designed to process horizontal surfaces. SCANMASKIN 32 WS must not be used for other purposes than stated in this Manual. The manufacturer will not be liable for damage or injury resulting from incorrect usage of SCANMASKIN 32 WS. Failure to follow the directions in this Manual will void the warranty.

Typical applications

- Removal of old coatings, carpets, putty from hard surfaces
- Removal of undulated concrete surfaces
- Preparation of the surface for coatings
- Polishing of the surface
- Removal of coating defects
- Removal of glue residues

1.6 Scope of supply

The following parts are included with the standard SCANMASKIN 32 WS grinding machine:

- Key to electrical cabinet
- Manual

Machines sold outside of Europe will be either equipped with a local standard connector for the power inlet or the mating connector will be included and fitted at the main power inlet.

Read "2.6 Electrical safety" before connecting any included connectors.

1.7 Overview

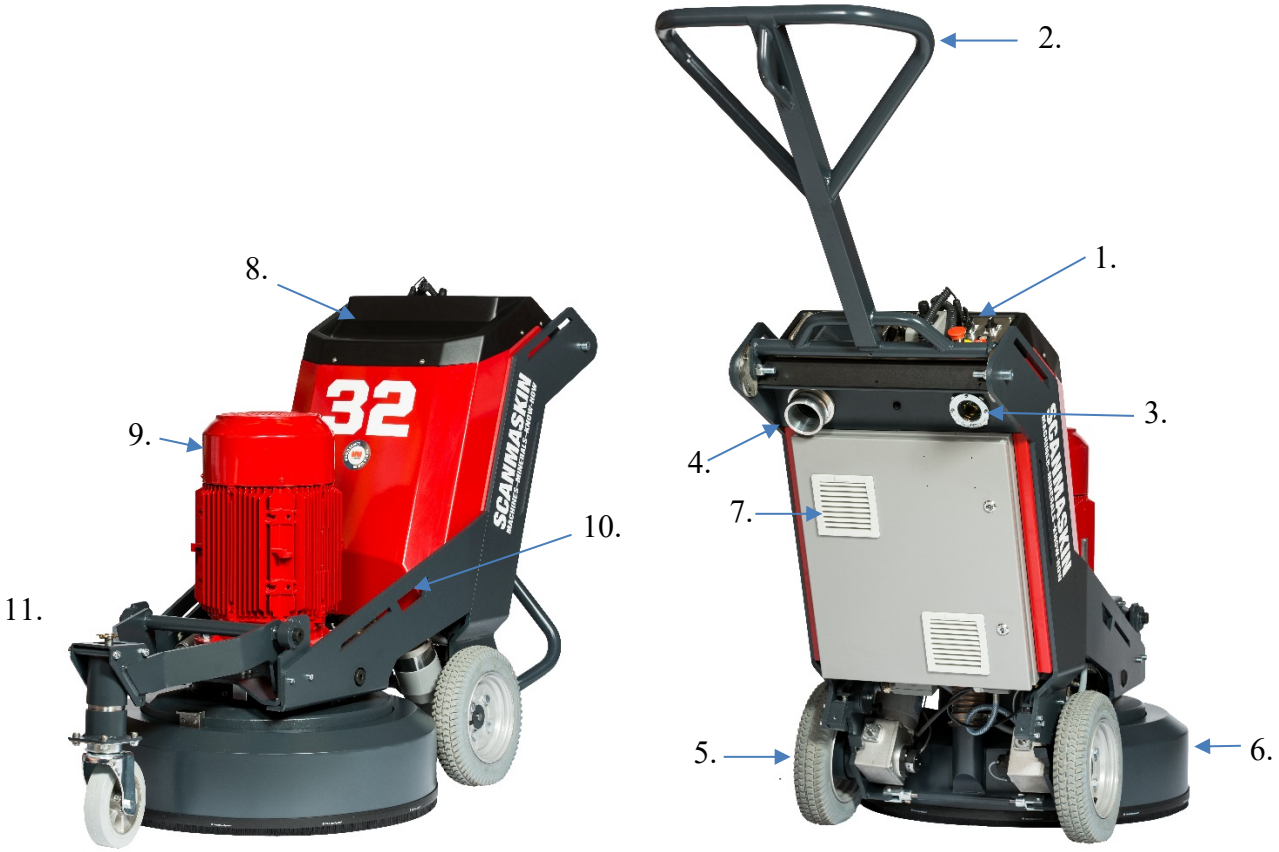


Figure 1-3 Overview of SCANMASKIN 32 WS

Item	Description	Reference
1	Control panel	*4.3Control panel*
2	Handle	
3	Power inlet	*1.1Electrical specifications*
4	Dust collector connection	*6 Spare Parts*
5	Wheel	*6 Spare Parts*
6	Floating Cover	*6 Spare Parts*
7	Air inlet Electrical cabinet	
8	Water inlet	
9	Motor	*1.1Electrical specifications*
10	Lifting points	*3.3 Lifting*
11	Front wheel	
12	Cover	
15	Electrical cabinet	*1.1Electrical specifications*

Table 1-3 Machine parts overview

2 Safety Regulations

Read this entire chapter carefully! Failure to comply with safety regulations may result in serious injuries or damages.

2.1 Legend

	Notation regarding safety
	Notation regarding electrical safety
	Notation regarding safety during transport
	Tipping hazard
	See reference

2.2 Safety precautions

Any machine, if it is not used according the regulations, may be hazardous for operating, setting-up and service personnel. The operating authority is responsible for compliance with the safety regulations during operation and maintenance, and for the use of safety devices supplied with the machine, as well as the provision of appropriate additional safety devices!

Eye and ear protection must be worn at all times.

Never operate the machine when it’s not in its upright position.

Make sure there is no debris in the work area.

Check the work area for screws or other hard objects in the concrete. Don’t use the machine if there are any foreign objects stuck into the surface. Such objects must be removed prior to operation of machine.

Read “*2.3Organizational measures*” and “*2.5Safety regarding operation of machine*” thoroughly before operation!

2.3 Organizational measures

The Manual is to be kept near the location where the machine is being operated and must be within reach at all times.

In addition to this Manual general and legal regulations regarding accident prevention and environmental protection must be complied with as per local regulations.

Such duties may, for example, relate to the handling of hazardous substances, or to the provision and wearing of personal protection equipment, as well as compliance with traffic regulations.

The Manual must be supplemented by other instructions, including the duty to supervise and report incidents relating to particular working practices, for example work organization, work procedures and personnel safety.

Personnel entrusted with working with the machine must read the Manual before starting work, in particular the "2*Safety Regulations*" chapter. To read these instructions after work is commenced is too late. This particularly applies to incidental activities such as setting up the equipment, carrying out maintenance work or training staff to work with the machine.

From time to time the working practices of the operators are to be checked by a supervisor especially to the items regarding awareness of safety and hazards.

Operators must tie back long hair, and not wear loose clothing or jewelry including rings. There is a risk of injury through items getting caught or being drawn into moving machinery.

Eye and ear protection must be worn at all times!

Use personnel protection equipment if necessary or required by local regulations! Take notice of all safety and hazard notices on the machine!

All safety and hazard notices at or on the machine must be kept complete and legible!

If safety-critical changes occur to the machine or its working method, the machine must be shut down immediately! The cause of the fault must be established, and rectified.

Changes, add-ons or conversation to the machine, which might impair safety, must not be made, without the manufacturer's permission!

This applies in particular to the fitting and adjustment of safety devices.

Spare parts must comply with the technical requirements specified by the manufacturer. This is always guaranteed if original spare parts are used.

Intervals for recurring checks and inspections specified in this Manual must be complied with!

To perform maintenance work correctly it is imperative to be equipped with the proper tools for the task in question.

Repairs may only be made by Scanmaskin Sweden AB certified service technicians.

Some grinding work may generate sparks under certain circumstances. Personnel working with the machine must therefore be aware of the risk of fire and how to handle a fire situation properly.

Do not use the machine in areas with highly flammable and/or explosive materials.

2.4 Personnel qualification

Fundamental duties:

- Work on the machine may only be undertaken by trained personnel.
- Specify clearly the responsibilities of personnel for operation, setting up, servicing and maintenance work!
- Make sure that only authorized personnel operate or work on the machine!
- Define responsibilities of the machine operator, with regard to traffic safety regulations, and inform him not to take instructions from third parties who may not be complying with the local safety requirements.
- Personnel, who are being trained to operate equipment, may only use the machine under constant supervision of an experienced person!
- Work on electrical equipment may only be undertaken by a skilled electrician or by trained persons under the supervision of a skilled electrician, as well as in accordance with the local electrical engineering regulations.

2.5 Safety regarding operation of machine

Do not allow any method of working that impairs safety!

Recognized official procedures have to be used to ensure the machine is operated in safe and best conditions.

Only operate the machine when all safety devices and related safety equipment are present and operational!

Check the machine visually for any damage and defects at least once a day.

In the event of operational malfunction, the machine must be shut down immediately and secured!

Secure the work area around the machine in public areas providing a safety distance of at least 10 m (3.3 ft) from the machine.

Faults must be immediately rectified.

Carry out the switch on and switch off operations in accordance with this Manual.

Before switching on the machine make sure that no-one can be endangered when the machine starts up.

Never operate the machine when not in its upright position.

Do not switch off or remove the exhaust and or the ventilation devices whilst the machine is running!

All persons in the proximity of the machine must wear ear and eye protection as well as safety shoes. In addition, the machine operator must wear close-fitting protective clothing.

Only use extension cables that are sized and marked in accordance with the overall power consumption of the machine and the valid VDE guidelines.

See "2.6Electrical safety" for further information.

Make sure there is no debris in the work area.

Check the work area for screws or other hard objects in the concrete. Don't use the machine if there are any foreign objects stuck into the surface. Such objects must be removed prior to operation of machine

2.6 Electrical safety

The power source must be equipped fuses according to the table in "*1.1Electrical specifications*". All cables used must be marked and rated according to the fuses used. Never connect the machine to a power source that does not provide protective earth!

Work on electrical equipment may only be undertaken by a skilled electrician or by trained persons under the supervision of a skilled electrician as well as in accordance with the local electrical engineering regulations.

Use only extension cables, that are used for extending the main cable, that are sized and marked in accordance with the overall power consumption of the machine and the valid VDE guidelines.

The electrical equipment for the plant must be inspected regularly. Defects such as loose connections or scorched cables must be rectified immediately. Call as skilled electrician or out customer services.

A second person must be in attendance whilst the electrical engineer is working on the equipment.

The work area must be secured against any third party entering the work area. Follow local electrical engineering regulations while working on the machine. Never leave a machine unattended. Use only tools that are insulated against electricity.

Only start work after you are familiar with the electrical engineering regulations that apply to the local area.

Only use voltage seekers that comply with the regulations when troubleshooting. From time to time check voltage seekers to ensure that they are operationally efficient.

2.6.1 Cables

Only use cables that are marked and rated according to the specifications in "*1.1Electrical specifications*". Don't use excessive length of the cables. If a very long cable is needed we recommend that you use a cable rated for more current and connect it to a distribution central near the machine. Never lay the cable in a loop when operating the machine, this will cause the cable to heat up and may cause fire. See "*Figure 2-1*" for explanation.

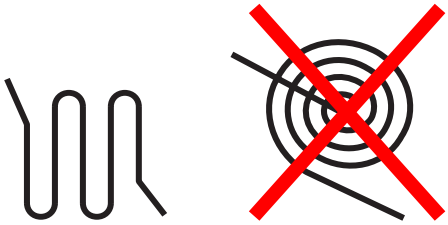


Figure 2-1 Recommended way to handle excessive cable length.

2.6.2 Using a generator

The generator must be equipped with protective earth and operated in accordance with the current EN-VDE directives (this applies to the protective earth conductor in particular) in order to ensure that all safety devices are functioning and eliminate possible damage to electrical components.

2.7 Definition of the "Safety off position"

The machine is in a safe condition where it cannot be any hazard.

How to set the machine in the Safety off position:

1. Switch off the machine
2. If a dust collector is used, switch it off
3. Wait for all drives to come to a complete stop
4. Disconnect the main power
5. Secure against unintended restart

Always disconnect the main power at the machine end to be able to prevent other persons from accidentally reconnect the main power while working on the machine.

2.8 Safety regarding maintenance

Set the machine into the Safety off position before beginning any work on the machine.

See "2.7Definition of the "Safety off position"".

Never work on the machine while power is still connected!
All parts must have come to a complete stop before beginning any work!

When the machine is lying down on its back it might tilt to its upwards position. Take extra care to prevent this from happening to ensure that no injuries or damages occur.

When the machine has been operated the segments, Scan-On plates and other parts on the gear barrel may be hot. Take extra care to prevent burn injuries.

Adjustment, servicing and inspection work on the period of time limits, specified in this Manual as well as any information on the replacement or parts and equipment must be undertaken and/or complied with!

These activities may only be undertaken by qualified personnel.

The machine must not be connected to any power source while cleaning.

See "2.7Definition of the "Safety off position"" for further information.

2.9 Safety regarding transport

Always remove the tools before transport. The tools may fall of or damage the surface the machine is transported along.

2.9.1 Manual transport

When transporting the machine manually be observant about ramps and/or edges. Follow local traffic regulations for the work site to prevent accidents. Failure to comply with these regulations may cause injuries or damages.

2.9.2 Lifting

The machine must be secured according to local safety regulations before lifted. No person is allowed beneath a lifted machine! The machine must be lifted according to the instructions in "3.3Lifting"Observe the machines point of balance before lifting! Failure to comply with these regulations may cause injuries or damages. Only use straps approved for the weight and circumstances!

2.9.3 Inside vehicles

Secure the machine according to local transport safety regulations before transporting the machine inside a vehicle.

3 Transport

3.1 Precautions

Read "2.9Safety regarding transport" before attempting to transport the machine.
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3.2 Manual transport

- Detach the tools according to the instructions in "*4.14 Changing* tools".
- Push the handle downwards to lift the gear barrel about 10 cm (4") from the ground.
- Push the machine in desired direction.

3.3 Lifting

Before attempting to lift the machine, read "*2.9.2Lifting*"

- Detach the tools according to the instructions in "*4.14 Changing* tools".
- Fasten the straps used for lifting at the two handles as shown in "*Figure 3-1*".
- Lift the machine.

Figure 3-1 Lifting points

3.4 Inside vehicles

- Detach the tools according to the instruction in "*4.14 Changing* tools".
- Secure the machine inside the vehicle.

4 Operation

4.1 Precautions

Any machine, if it is not used according the regulations, may be hazardous for operating, setting-up and service personnel. The operating authority is responsible for compliance with the safety regulations during operation and maintenance, and for the use of safety devices supplied with the machine, as well as the provision of appropriate additional safety devices!

Never operate the machine without proper tools.

Eye and ear protection must be worn at all times.

Never operate the machine when it's not in its upright position.

Make sure there is no debris in the work area.

Check the work area for screws or other hard objects in the concrete. Don't use the machine if there are any foreign objects stuck into the surface. Such objects must be removed prior to operation of machine.

Read "2*Safety Regulations*" before operating the machine.

4.2 Operation of machine

The machine head has three grinding heads that rotates in the opposite direction of the lower machine body. Each grinding head is equipped with a Scan-on tool plate where the tools used are attached. See "*Figure 4-1*".

Figure 4-1 Illustrates the rotation of the grinding heads versus the lower gear.

4.3 Control panel

4.3.1 Standard Control Panel

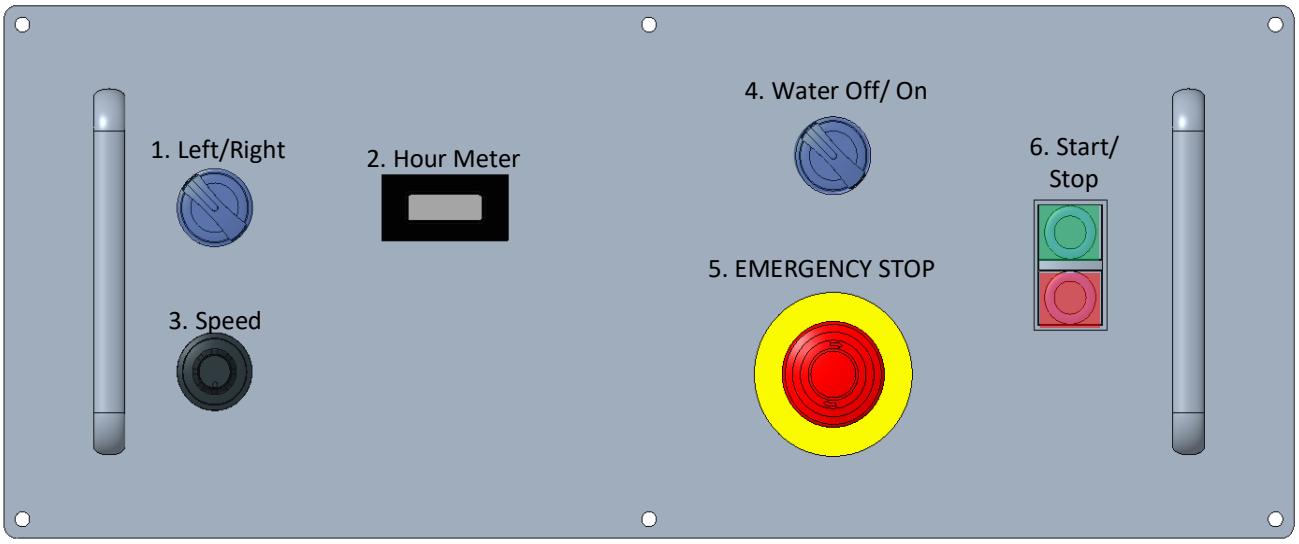


Figure 4-2 Control panel of SCANMASKIN 32 WS Standard.

4.3.2 RC Control Panel

Figure 4-3 Control panel of SCANMASKIN 32 WS RC

Item	Text	Description	Partnumber
1	Left/Right	Selects rotation direction grinding motor	596001+596022+596020
2	Hour Meter	Total running hours	570028
3	Speed	Changing the grinding motor speed	596008 + 596009
4	Water Off/On	Engage the water flow	596001+596022+596020
5	EMERGENCY STOP	Emergency Stop	596003+596022+ (2)596021
6	Start/Stop	Starts and Stops the grinding motor	596006+596022+596020+596021
7	Main key switch	Main key switch	
8	Joystick	Manual Joystick for wheel system	572064
9	DSP System	HMI, Human, Machine Interface	572012

Table 4-1 Description of the control panels.

4.4 Start up

See "*4.1Precautions*" before starting the machine.

How to start the machine

- Make sure that the machine has the optimal Scanmaskin approved grinding tools for the surface.
- Make sure that the power plug and hoses for dust collector (if used) are connected to the machine.
- Turn on the dust collector if used.
- Make sure that the "EMERGENCY STOP" button (5) is in its upper position. If not, release it by turning it clock wise until it rises and press the "STOP" (6) red button once to reset.
- Adjust the motor speed (3) to the lower first half.
- For RC models please see the chapter ??? before starting.
- Make sure to have a firm grip on the handle.
- Press "START" (6) the green button.
- Adjust the speed (3) to get desirable cut.

4.5 Stop

How to stop the machine

- Press the "STOP" (6) button.
- Wait for the machine to come to a complete stop before letting go of the handle.
- Turn off the dust collector if used.

4.6 Adjusting grinding speed

Turn the “SPEED” knob (3) clock wise to increase the grinding speed and counter clock wise to decrease it. See “*1.2Mechanical specifications*” for the rotation speed range.

4.7 Change grinding direction on a standard machine

Use the “L/R” switch (1) to select grinding direction. The machine will automatically come to a complete stop and restart in the selected direction.

4.8 Changing grinding direction on a RC machine

Use the symbols , to select grinding direction. The machine will automatically come to a complete stop and restart in the selected direction.

4.9 Safety off position

When working on the machine, either maintenance or tool change, the machine must be set to the “Safety off position”. See “*2.7Definition of the “Safety off position”*” for further information.

4.10 Grinding

Refer to “*Grinding guide*” for instructions and information about grinding.

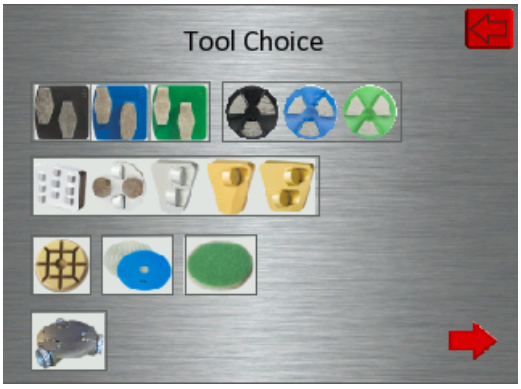
4.11 Navigate the “HMI” on a RC model

- Make sure that the power plug is connected to the machine.
- Engage the main switch to power up the HMI screen.
- Follow the steps below for a fast startup:

Step 1. Tap gently on the screen.

Step 2. Two main choices, “Fast Start” or “Tool Guide”.

If there is an ongoing job use the “Back to job in progress” if the incoming power has been cut off.



Step 3. If “Fast Start” is selected then choose wich tool that is intended to be use by tapping on it.

Operating screen The machine is now in operation mode and the operator will have full feedback on “Forward Speed”, Power consuption. Grinding tool life time and “Tool Wear” this to make sure the correct tool always is used.

Settings. To access the settings, go to the main screen and tap on “settings”

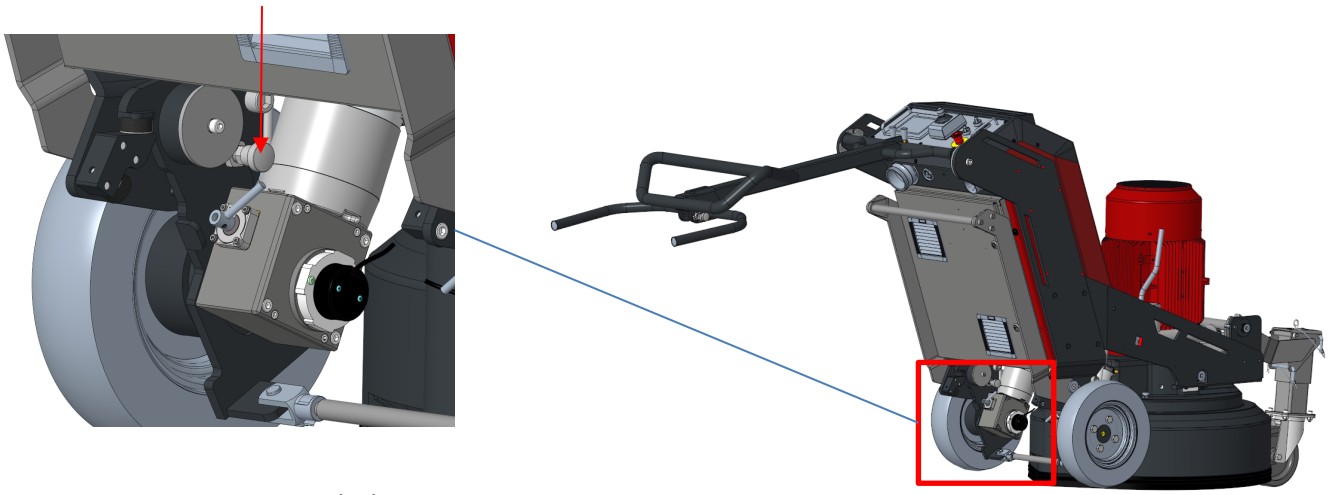
In the main settings it´s possible to choose language by tapping on the local flag. It’s also possible to do the calibration if the joystick or tool sensor is changed. In the “Fault History” the last six faults will be shown. It´s also possible to view the total machine hours if the “Trip” is selected, the password is 14753.

4.12 Adjusting the grinding pressure

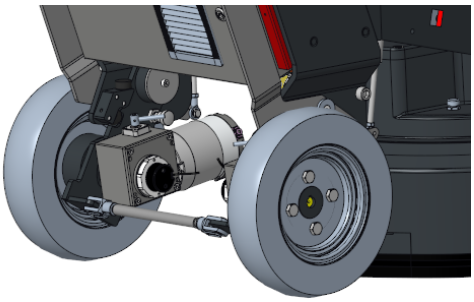
The machine has a system for changing the grinding pressure, this will give 60 kg (132 lbs.) of extra head pressure. Follow the procedure below:

Moving parts, take extra care while doing this procedure.

1. Unlock the sprint on the wheel frame
2. Drive the rear wheels backwards

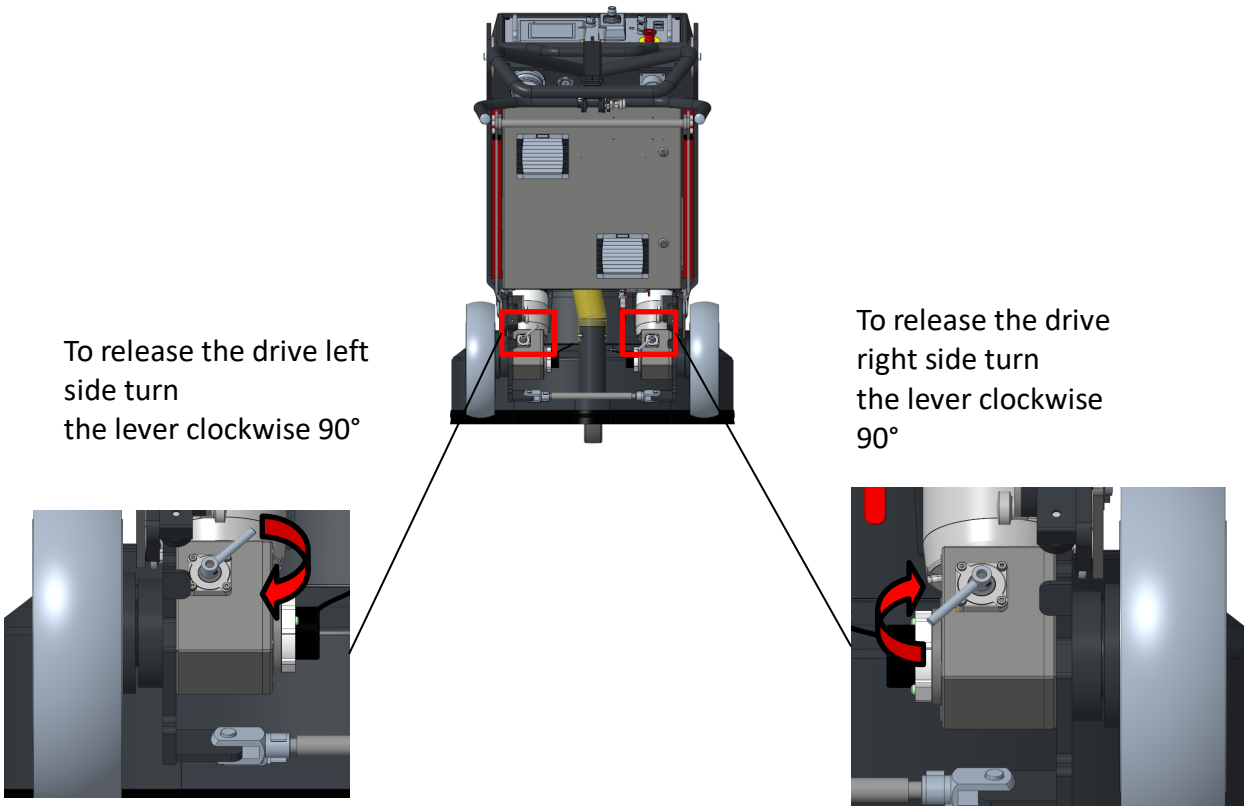


3.Lock the sprints in its inner position



4.13 Wheel release system Scanmaskin 32 RC

The Scanmaskin 32 RC machine is equipped with a drive system for the wheels. This can easily be released so the wheels are free spinning. Follow the steps described below:



4.14 Changing tools

Before changing tools, read "*2.8Safety regarding maintenance*".

This illustration shows how to change the tools.

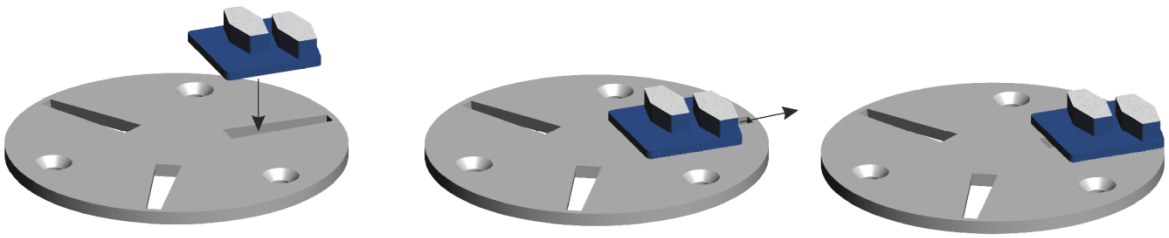


Figure 4-3 How to fit the diamond segments on the Scan-On plate.

1 Insert the segment at the widest part of the slot
2 Push the segment outwards
3 The segment is now fit on the Scan-On plate

To make sure that the tool is secured, use a small plastic hammer and slightly hit the tool outwards. In reverse this technique can be used to loosen tools that are stuck.

4.15 Using with generator

The generator must be equipped with protective earth and operated in accordance with the current EN-VDE directives (this applies to the protective earth conductor in particular) in order to ensure that all safety devices are functioning and eliminate possible damage to electrical components.

5 Maintenance

5.1 Precautions

Set the machine into the Safety off position before beginning any work on the machine.

See "2.7Definition of the "Safety off position"".

Read "2.6Electrical safety" before beginning any maintenance work.

Never work on the machine while power is still connected!
All parts must have come to a complete stop before beginning any work!

When the machine is lying down on its back it might tilt to it's upwards position. Take extra care to prevent this from happening to ensure that no injuries or damages occur.

When the machine has been operated the segments, Scan-On plates and other parts on the gear barrel may be hot. Take extra care to prevent burn injuries.

Adjustment, servicing and inspection work on the period of time limits, specified in this Manual as well as any information on the replacement or parts and equipment must be undertaken and/or complied with!

These activities may only be undertaken by qualified personnel.

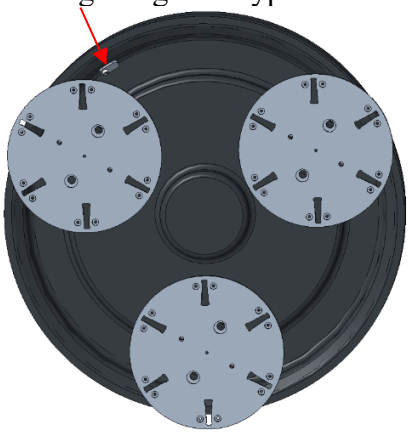
The machine must not be connected to any power source while cleaning.

5.2 Daily inspection prior to operation

Inspect the following items prior to operation

- Inspect the wheels for damage.
- Inspect the grinding heads. Dirt between the Scan-On plate and the grinding hub can impair the flexibility of the grinding head.
- If any screws appear loose, tighten them.
- Look over the machine for any other damage.

5.3 Maintenance and inspection list

Daily	▪ Inspect the wheels ▪ Inspect the grinding heads ▪ Look for any other damage
12 hours after service	▪ Check bolts on the grinding heads
Every 250 hours	▪ Add grease for the main radial seal. This is done with a grease gun and the grease nipple is located at the lower end of the machine house. Remove the cover that protects the grease nipple and pump 3 pumps. Use regular grease type NLGI 2.  ▪ Check the spring steel disc on each grinding head for cracks (560116) Replace if damaged.
Every 500 hours For more detailed information about the 500-hour service interwall check the Service Manual	**This service is recommended to be performed by Scanmaskin authorized workshop** ▪ Change the v-ring seals that is fitted on the grinding heads upper side. (570136) ▪ Change the rubber damper that is located on each grinding head. (910093) ▪ Open up the machine house and inspect main radial seal (580312) No dust should be inside the machine house. ▪ Check the main belt for wear. ▪ Check tension on the belt ▪ Clean and lubricate the gears and gear ring inside the machine house.

Every 500 hours For more detailed information about the 500-hour service interwall check the Service Manual	Only use approved grease from Scanmaskin. (570100) **Note this grease is only for transmissions and not for seals.** **Before closing the machine house, make sure to lubricate the radial seal and the surface where the radial seal is working against with grease. Use regular grease type NLGI 2**
Every 1000 hours For more detailed information about the 1000-hour service interwall check the Service Manual	**This service is recommended to be performed by Scanmaskin authorized workshop.** ▪ Remove the grinding heads and change the three radial seals (580334) that protects the bearings. Clean and lubricate with grease before installing new ones. Use regular grease type NLGI 2 ▪ Change the main radial seal (580312) **Before closing the machine house, make sure to lubricate the radial seal and the surface where the radial seal is working against with grease. Use regular grease type NLGI 2**
Every 2000 hours For more detailed information about the 2000-hour service interwall check the Service Manual	**This service is recommended to be performed by Scanmaskin authorized workshop.** ▪ Change the three gearwheels. (580352+580353)
Every 5000 hours For more detailed information about the 5000-hour service interwall check the Service Manual	**This service is recommended to be performed by Scanmaskin authorized workshop.** ▪ Change all bearings inside the machine house. ▪ Change the main cog belt (580338) The maximum expected lifetime for the belt is 6 years.

5.4 Grinding head replacement / assembly

Follow these steps to replace the grinding head plate

- Make sure the machine is in its "Safety off position"
- Tilt the machine backwards and secure it.
- Remove any tools used.
- Loosen the two screws holding the grinding head.
- Put the plate upside down and loosen the bolts that holds the spring steel discs
- Replace the grinding head or spring steel discs.
- It's recommended that new screws are used to fasten the replacement Grinding head plate.
- Tighten all screws by hand and make sure that they are secured.

5.5 Cleaning the machine

Before starting to clean the machine, make sure it is in its" Safety off position"
The power must not be connected while cleaning the machine.
Do not use highly pressurized water to clean the machine.
Water and soap are recommended.

5.6 Trouble shooting

5.6.1 Common faults

Symptom	Cause	Correction	A[5]
The machine won't start	▪ There is a power failure from the power supply	▪ Inspect the fuses in the worksites fuse box ▪ Inspect fuses inside electrical cabinet ▪ Inspect cables ▪ Measure that all three phases are present and at full voltage near the machine	O O E E
	▪ The emergency stop button is depressed	▪ Release the emergency stop button.	O
	▪ Internal error	▪ If possible, read the fault code present at the display inside of the electrical cabinet. ▪ Contact Scanmaskin Sweden AB	O
The machine is weak and might stop when on the ground.	▪ One of the three phases are missing from the power supply ▪ There is a voltage drop at the power supply	▪ Inspect the display on the inverter for any fault code ▪ Inspect fuses inside electrical cabinet ▪ Inspect the fuses in the worksites fuse box ▪ Inspect cables ▪ Measure that all three phases are present and at full voltage at the cable end near the machine. ▪ Make sure that the cable is not to long. If the cable should be to long, use a cable with higher rating to a distribution box nearer the machine.	O O E E E O
The machine vibrates a lot	▪ The grinding speed is to high	▪ Lower the speed	O
	▪ The tools are damaged ▪ The grinding head spring steel is damaged	▪ Inspect the tools ▪ Change the tools if needed ▪ Change the flexible spring steel discs	O O O

Table 5-1 Common faults

Abbreviation	Person
O	Machine Operator
E	Electrician
S	Scanmaskin certified service technician

Table 5-2 Access rights for different persons

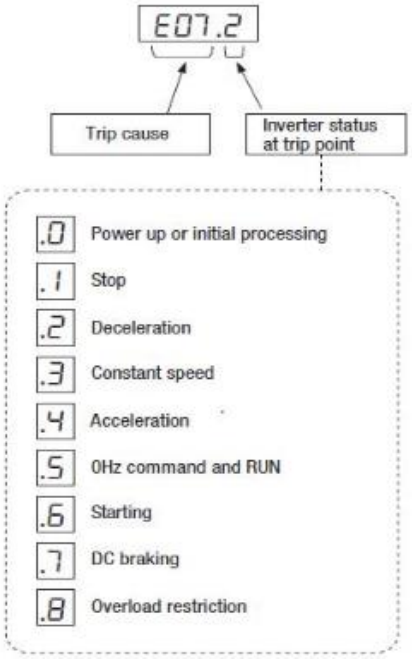
[5] See access table "Table 5-2"

5.6.2 Error codes

We strongly recommend that you first find the cause of the fault before clearing it.

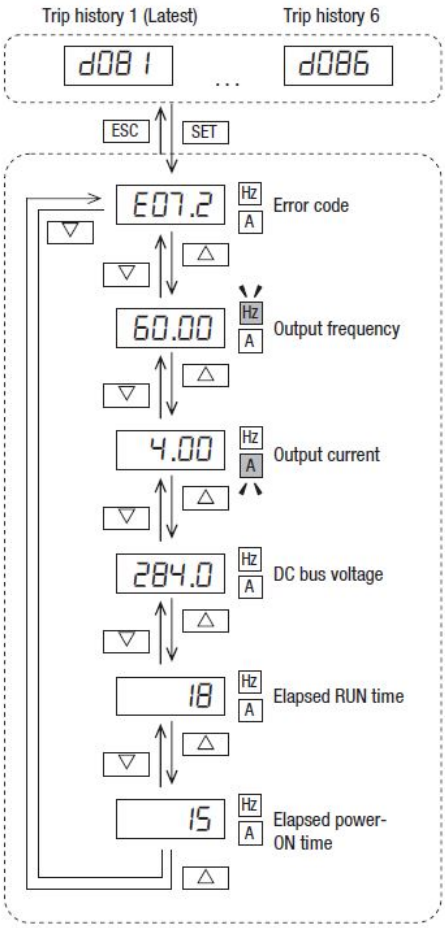
Code	Description	Cause	Correction
E01 E02 E03 E04 E05	Over current *OC “OC” during deceleration “OC” during acceleration “OC” during other conditions Overload protection	▪ One of the three phases is missing from the power supply ▪ There is a voltage drop at the power supply	▪ Inspect the fuses in the worksites fuse box ▪ Inspect cables ▪ Measure that all three phases are present and at full voltage at the cable end near the machine ▪ Make sure that the cable is not too long. If the cable should be too long, use a cable with higher rating to a distribution box nearer the machine
		▪ The environmental temperature is too high. When the temperature is above 40°C (104°F) the inverter will decrease its maximum output current	▪ Inspect the ventilation fans ▪ Inspect the filters to the fans
E07	Over voltage protection	▪ DC bus voltage exceed a threshold	▪ Inspect the power source
E08	EEPROM error	▪ Built in EEPROM has problems due to noise or excessive temperature.	▪ Check the fans/ let the motor drive cool down ▪ Fault code explanation
E09	Under voltage	▪ One of the three phases is missing from the power supply ▪ There is a voltage drop at the power supply	See E01-E05
E10 E11	Internal error current detection Internal error CPU	Contact Scanmaskin service centre	
E13	Unattended Start Protection	Unattended Start Protection active	▪ Reset the drive by pressing “STOP/RESET”
E14	Protective earth failure	▪ The cable to the motor has been damaged ▪ The motor has been damaged ▪ Water have entered the motor	▪ Inspect the motor cable ▪ Inspect the motor connection ▪ Contact Scanmaskin service centre
E15	Input over voltage	▪ The power supply has got voltage transients	▪ Inspect the power source
E21	Over temperature	▪ The internal temperature in the inverter is above 120°C (248°F). This could be caused by faulty ventilation in the electrical cabinet.	▪ Inspect the ventilation fans ▪ Inspect the filters to the fans ▪ Contact Scanmaskin service centre
E25	Short circuit in motor	▪ The cable to the motor has been damaged ▪ The motor has been damaged	▪ Inspect the motor cable ▪ Inspect the motor connection ▪ Contact Scanmaskin service centre
E37	Safe Stop	▪ Emergency is active	▪ Reset the Emergency stop
E038	Overload during low speed	▪	▪ Increase the speed
E41	Communication Error	▪ Communication fails between motor drive and PLC (DSP machines)	▪ Check the RJ45/Ethernet cable
E81	Speed reference error	▪ The potentiometer on the control panel is damaged	▪ Inspect the potentiometer ▪ Replace if necessary

Table 5-3 Error codes



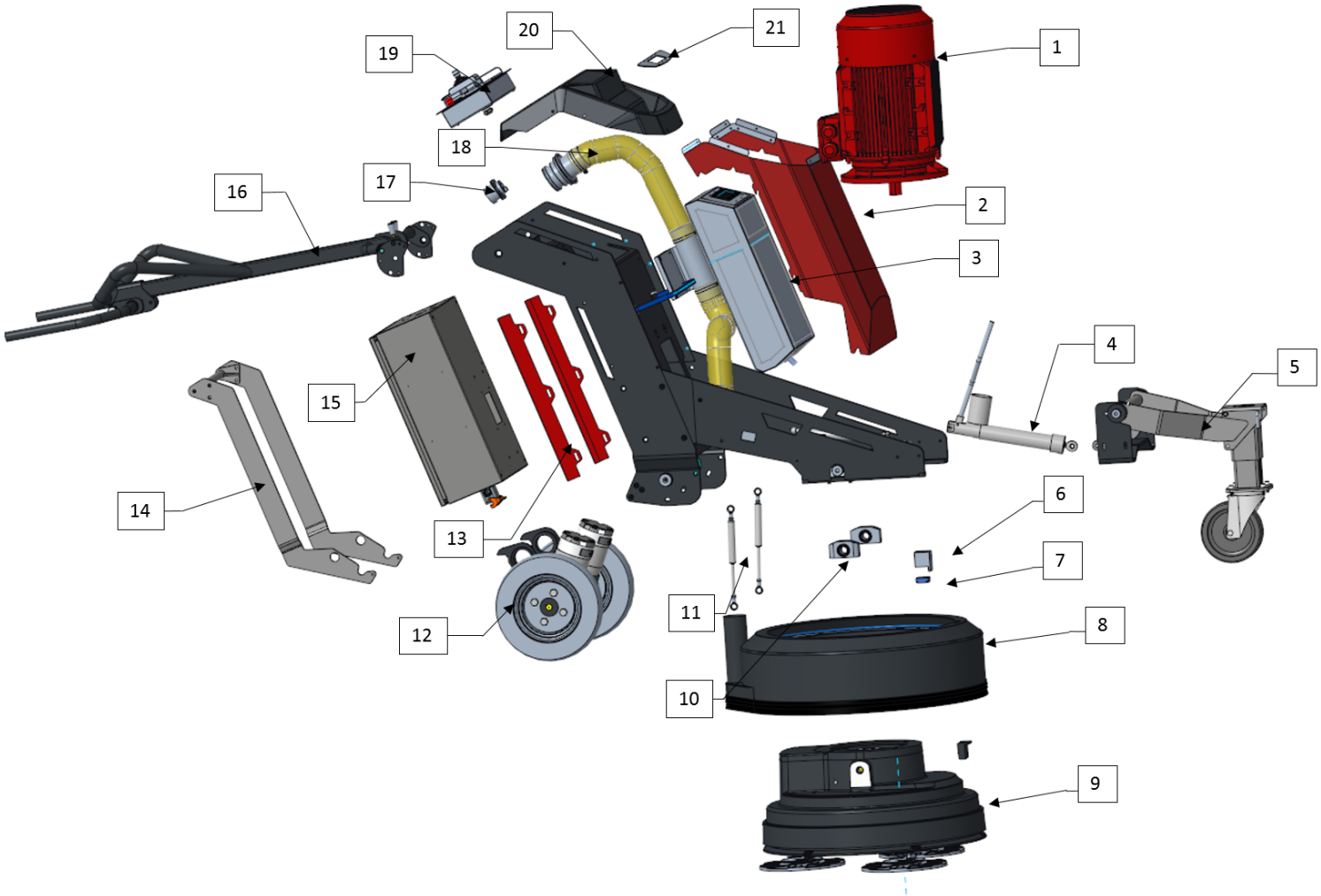
5.6.3 Fault history

When a fault occurs, the inverter stores important performance data at the moment of the fault. To access the data, use the monitor function (dxxx) and select d081 details about the present fault. The previous 5 faults are stored in d082 to d086. Each error shifts d081-d085 to d082-d086, and writes the new error to d081.
The following Monitor Menu map shows how to access the error codes. When fault(s) exist, you can review their details by first selecting the proper function: D081 is the most recent, and D086 is the oldest.



6 Spare Parts

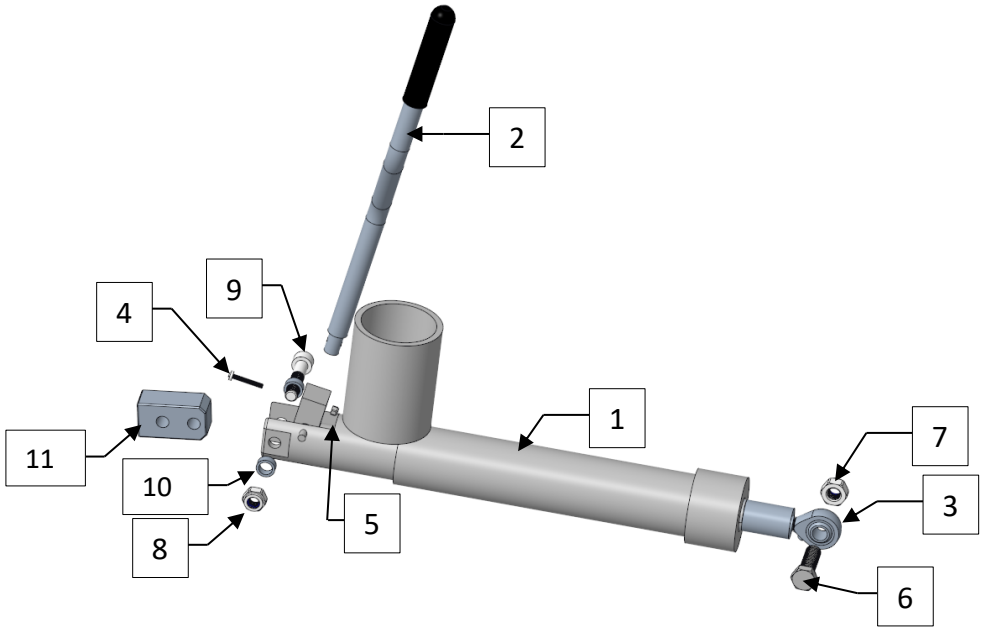
6.1 General parts



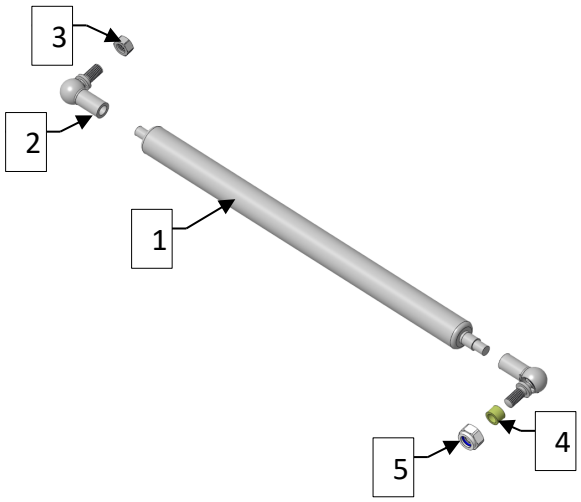
General parts SM-32

Pos	Art. No	Denomination
1	580308	Electric motor 15KW (20hp) 3~ (400-480)V
1	580309	Electric motor 11KW (15 hp) 3~ 230V
2	580440	Red cover SM-32
3	580420	Water tank complete SM-32
4	*see Actuator, Hydraulic*	Actuator, Hydraulic SM-32
5	*see Frontwheel SM-32*	Front wheel SM-32
6	580348	Sensor mount, machine housing SM-32RC
7	572022	Inductive sensors SM-32 RC
8	*see Floating Cover SM-32*	Floating Cover SM-32
9	*see further parts*	Machine house SM-32 electric
10	580343	Chassi / Machine house blocks
11	580519	Gas spring for Kick stand SM-32
12	*see Wheel system SM-32 RC*	Wheel drive system Assembly RC model
12	*see Wheel system SM-32 Standard*	Wheel system, Standard version
13	580442	Rear bars SM-32
14	*see Kick stand*	Kick Stand Assembly SM-32
15	572046	Electrical cabinet RC Model (3~ 400V)
15	580370	Electrical cabinet Standard Model 3~ (400-480)V
15	583076	Frequency Converter 15kW SM-32 Model 3~(400-480V)
15	580371	Electrical cabinet Standard Model 3~230V
15	581200	Frequency Converter 11kW Model 3~230V
16	*see Handle SM-32*	Handle SM-32
17	570057	Power Inlet CEE 3~400V (Europe)
17	910911	HUBBELL POWER INLET 3~ 480V 50 AMP (US)
17	910912	HUBBELL POWER INLET 3~ 230V 50 AMP USA
18	*see House system SM-32*	Hose SM-32
19	*see Control Panel SM-32 RC*	Control panel SM-32 RC
19	*see Control Panel SM-32 Standard*	Complete Control Panel SM-32 Standard (3~230 & 480V)
20	580450	32 Panel Cover SM-32
21	580452	Water filter lock. SM-32

6.2 Actuator, Hydraulic

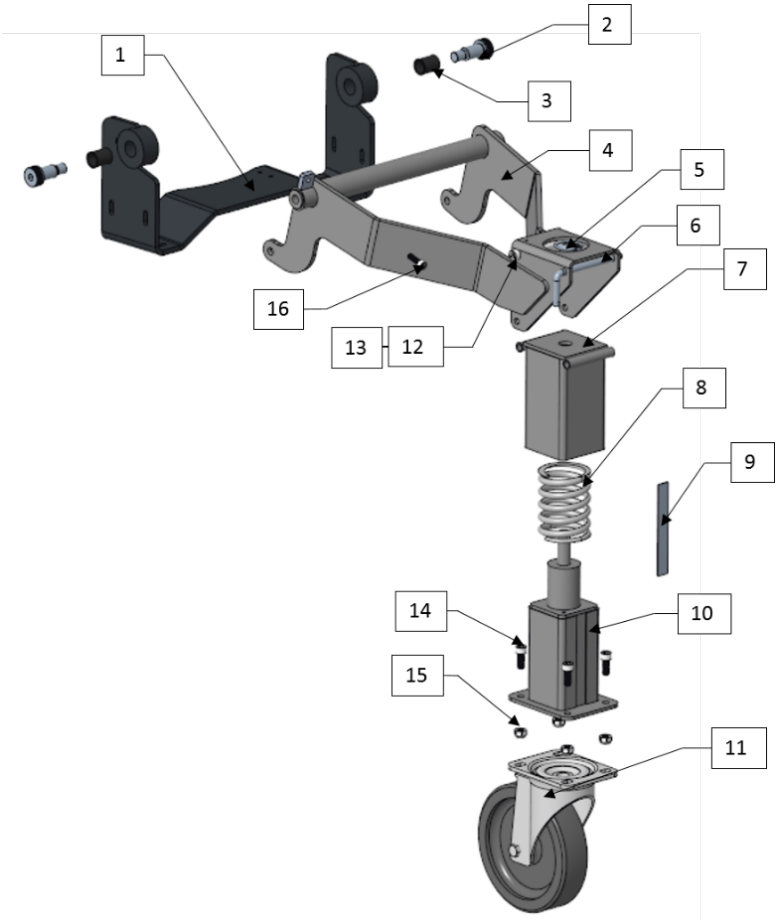


Pos	Qty	Drawing No	Denomination
1	1	580527	Actuator, Hydraulic
2	1	580525	Handle, hydraulic cylinder
3	1	580529	Joint head, hydraulic cylinder
4	1	910100	M4x25 Screw
5	1	910016	NYLOC M4
6	1	910153	M12 X 40 Screw
7	1	910053	NYLOC M12
8	1	910049	NYLOC M10
9	1	910102	10x50 Screw
10	2	580550	Actuator distance
11	1	580526	Bracket, hydraulic cylinder



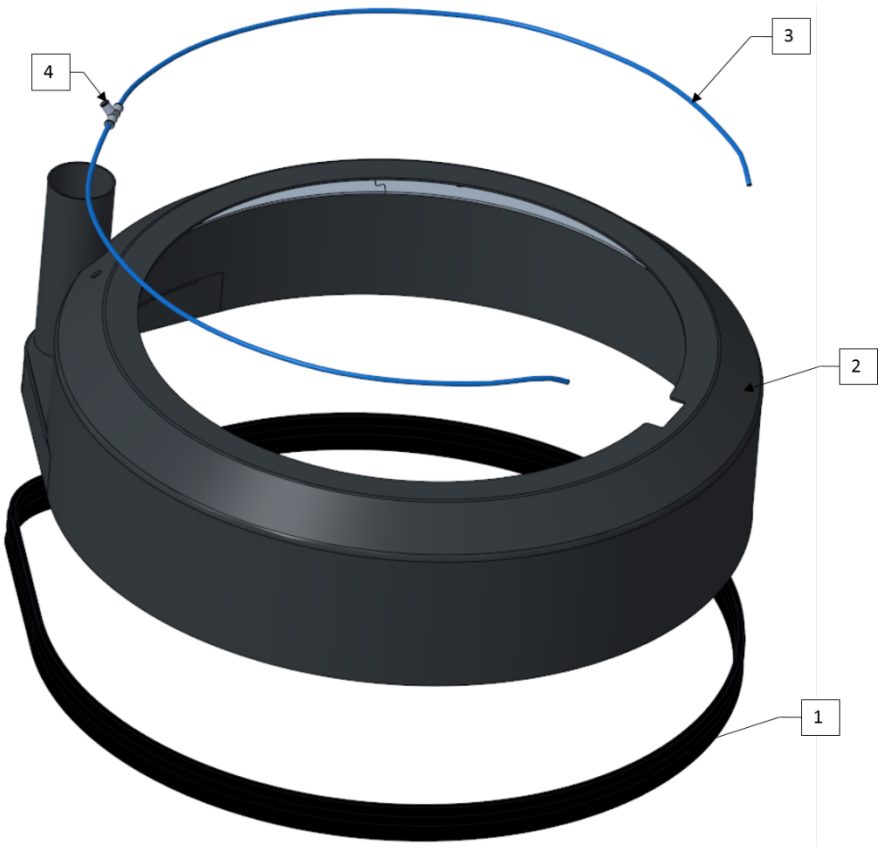
Pos	Qty	Drawing No	Denomination
1	1	580523	Gas dampers 250-600
2	1	580535	Gas damper, Angle link WG30
3	1	910132	Nut M8
4	1	580524	Gas spring damper, Bushing
5	1	910050	NYLOC M8

6.3 Front Wheel SM-32



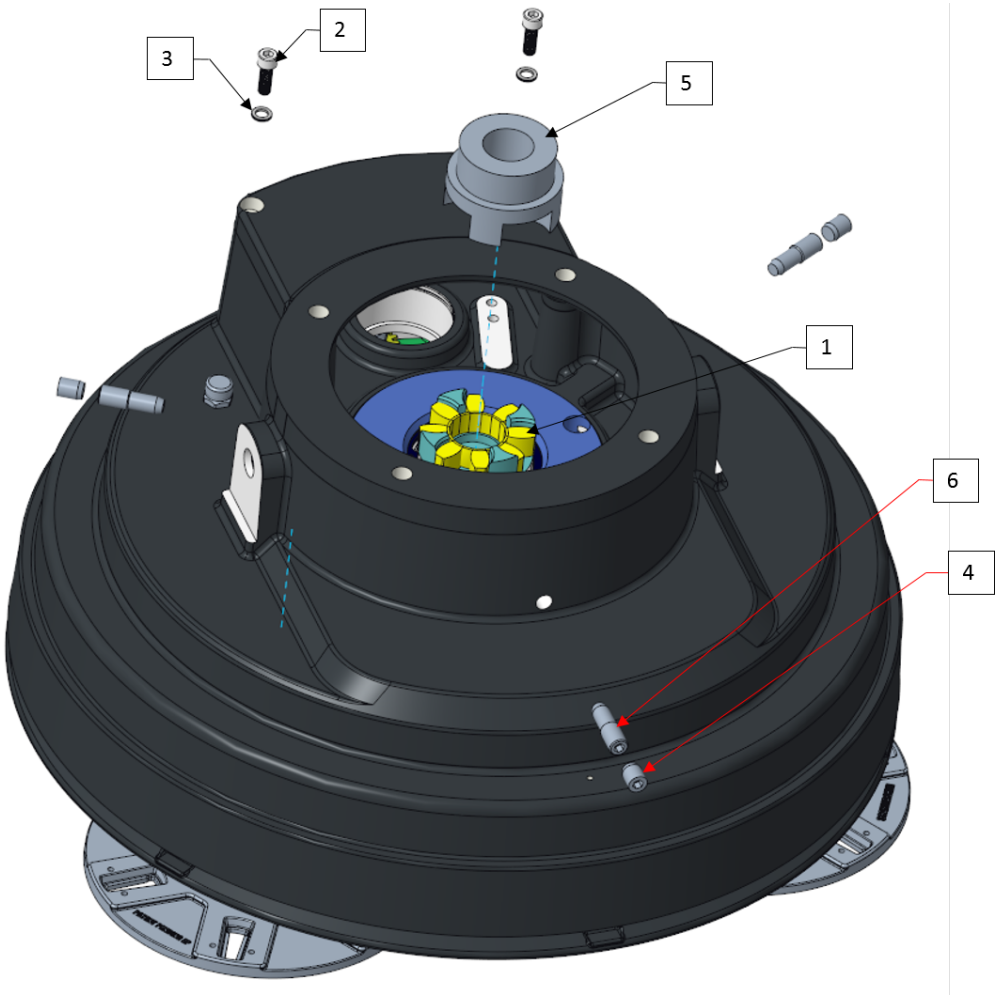
Pos	Qty	Art. No	Denomination
1	1	580432	Front Wheel attachment SM-32
2	2	580439	Front Wheel Bolt M16 SM-32
3	2	580449	Front Wheel Bussing SM-32
4	1	580431	Front Wheel Frame SM-32
5	1	910134	Front Wheel Pin TRSP 6x2 SM-32
6	1	580447	Front Wheel Adjustment pin SM-32
7	1	580445	Front Wheel, Outer tube SM-32
8	1	910135	Front Wheel, Spring SM-32
9	1	580448	Front Wheel Scale SM-32
10	1	580436	Front Wheel, Inner tube Sm-32
11	1	580446	Front Wheel Wheel assembly
12	1	910213	Front Wheel, Bolt M10x120
13	1	910046	Front Wheel, Nut M10 nylon
14	4	910087	Front Wheel Bolt M10x25
15	4	910049	Front Wheel, Nut M10 nylon
16	1	910036	Front Wheel Bolt M8x25

6.4 Floating Cover



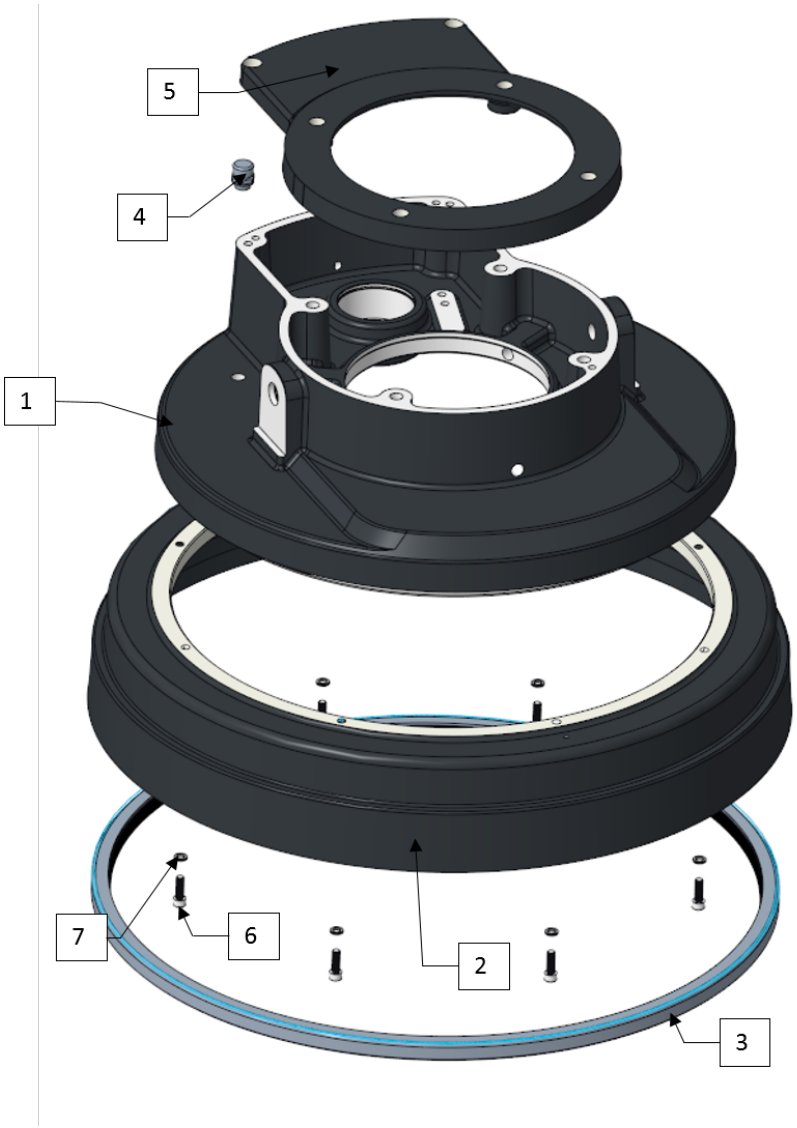
Pos	Qty	Art No	Denomination
1	1	580379	Brush SM-32
2	1	580345	Mashine House Floating cover SM-32
3	1	910626	Machine House Water hose set SM-32
4	1	570191	Machine House T-Connection Water hose SM-32

6.5 Upper Machine House Connections



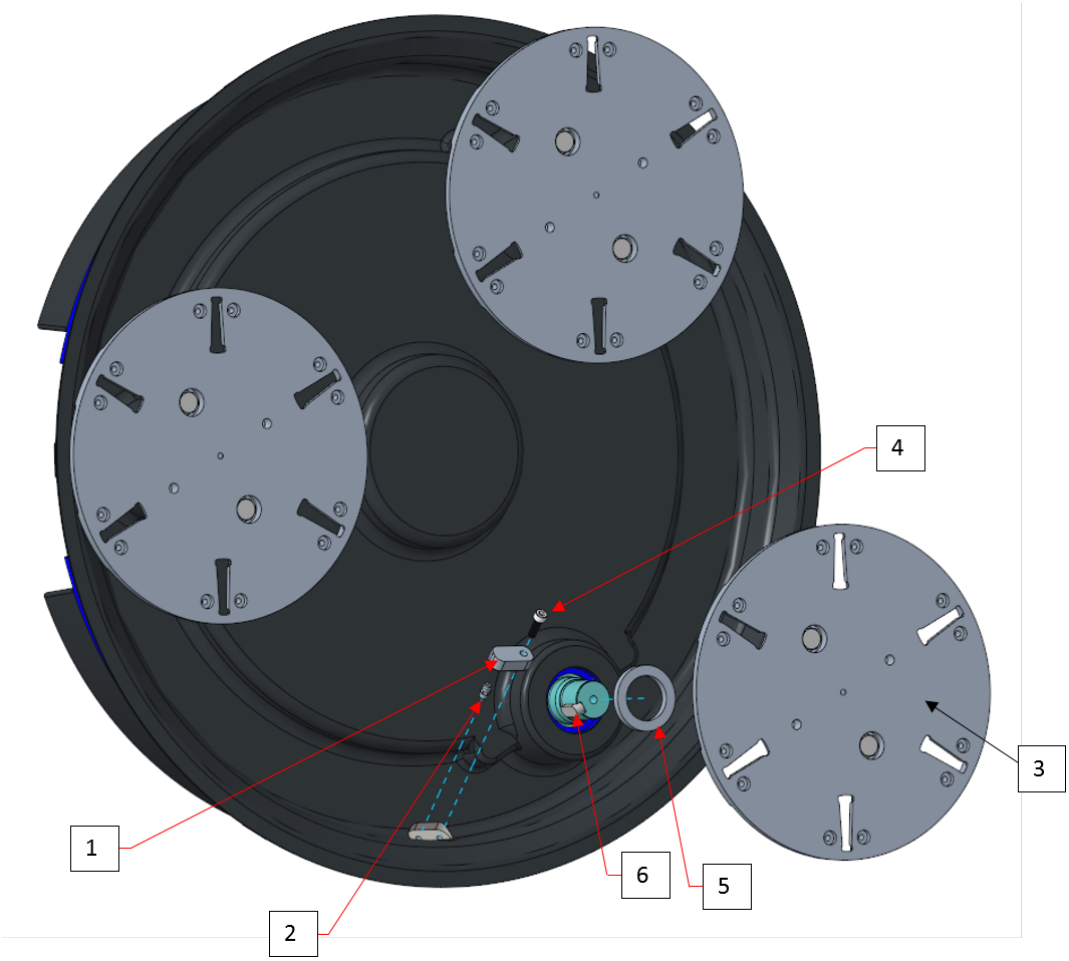
Pos	Qty	Art No	Denomination
1	1	570053	Rubber Element GP42A
2	2	910103	Bolt M10x30
3	2	910197	Nord Lock for M10
4	3	580324	Machine House Set Screw M16 outer SM-32
5	1	570067	Motor Coupling GP42A
6	3	580323	Machine House set screw M16 inner SM-32

6.6 Upper Machine House SM-32



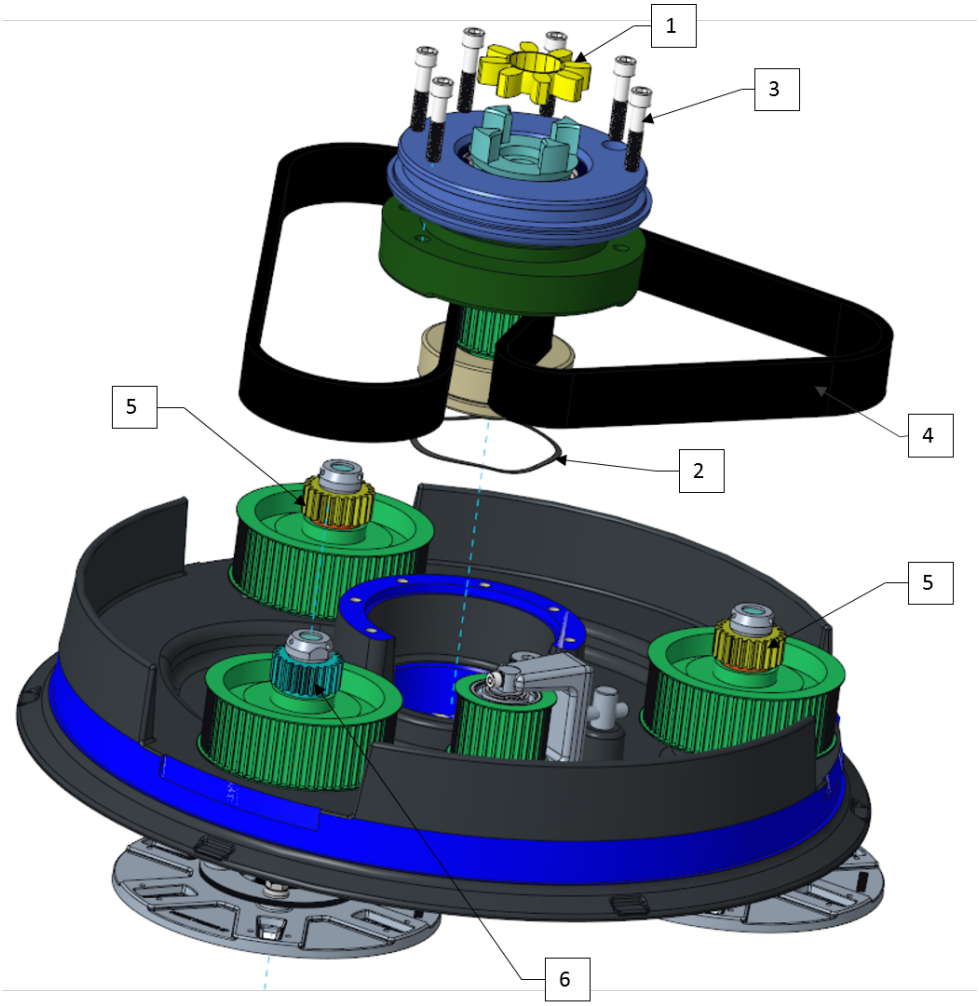
Pos	Qty	Art No	Denomination
1	1	580310	Machine House Casted Upper SM-32
2	1	580311	Machine House Casted Outside Cover SM-32
3	1	580312	Machine House Radial Seal 670x710x20 SM-32
4	1	580340	Machine House Breath Plug SM-32
5	1	580341	Machine House Electic Motor Bracket, Casted SM-32
6	8	910036	Bolt M8x25
7	8	910196	Washer Nord Lock 8,6X13,5X2,7

6.7 Machine house lower end SM-32



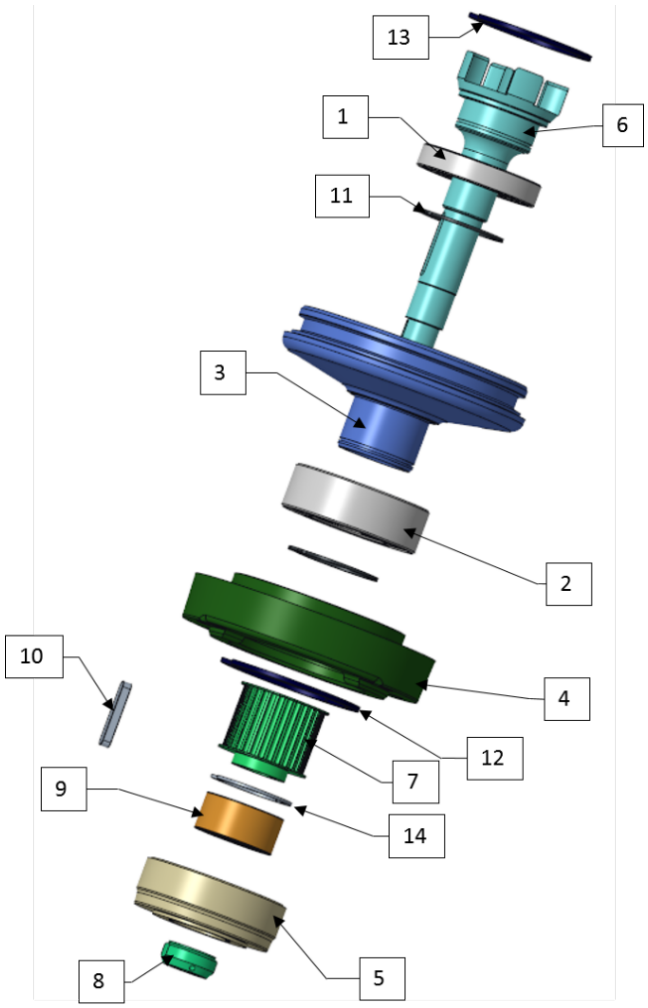
Pos	Qty	Art No	Denomination
1	1	580351	Machine House Grease Plug Cover SM-32
2	1	580372	Machine House Grease Plug SM-32
3	3	see Grinding Head SM-32	Grinding Head 280mm / 11" SM-32
4	1	910024	Bolt M6x20
5	3	580334	Machine House Radial Seal 38x55x7
6	1	910204	Parallel Key 10x8x25, Grinding Shaft SM-32

6.8 Machine House Belt System SM-32



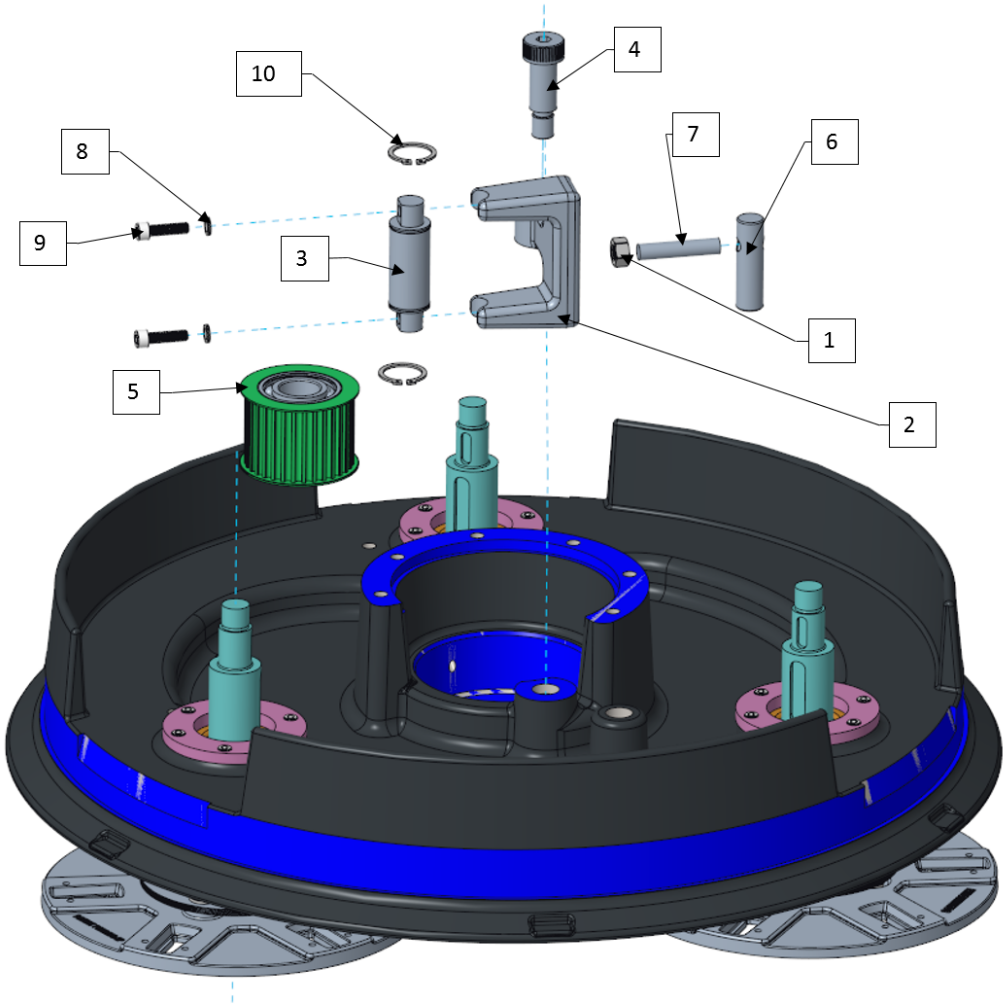
Pos	Qty	Art No	Denomination
1	1	570053	Rubber Element GP42A
2	1	580327	Machine House Vave Washer f Central Shaft SM-32
3	6	910111	Bolt M12x60 MC6S
4	1	580338	Cog Belt 2248 D8M-50 CXA
5	2	*see Shaft Assembly*	Shaft Assembly with bushed gear wheel SM-32
6	1	see Shaft assembly	Shaft Assembly with locked gear wheel SM-32

6.9 Center Shaft Assembly SM-32



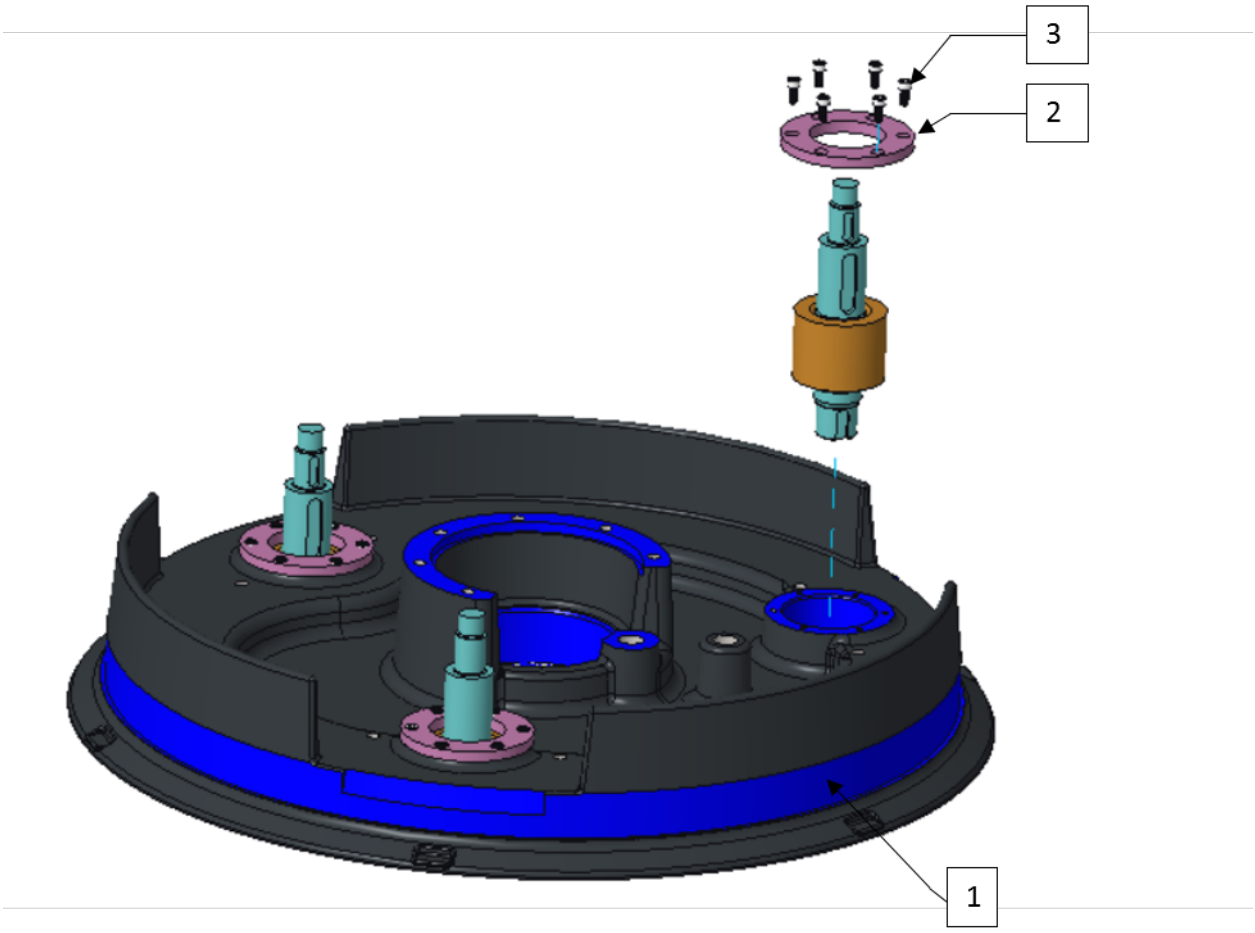
Pos	Qty	Art No	Denomination
1	1	570103	Bearing 6014 RS1 C3
2	1	570114	Bearing 3214
3	1	580322	Bearing Box Upper Central shaft SM-32
4	1	580325	Bearingbox Main Central shaft SM-32
5	1	580326	Bearingbox Lower Central shaft SM-32
6	1	580328	Center Shaft SM-32
7	1	580329	Central Pulley 30-8M-50 SM-32
8	1	580331	Nut M30x1,5 (KMT 6) Central Shaft SM-32
9	1	580339	Bearing BAH-0013 D Central Shaft SM-32
10	1	580374	Parallel Key 10x8x60, Central Shaft SM-32
11	2	910307	Circlip SGA 67 Central Shaft SM-32
12	1	910309	Circlip SGH 125 Central Shaft SM-32
13	1	910312	Circlip SGH 110 Central Shaft SM-32
14	1	910314	Circlip SGH 72 Central Shaft SM-32

Belt tensioner system SM-32



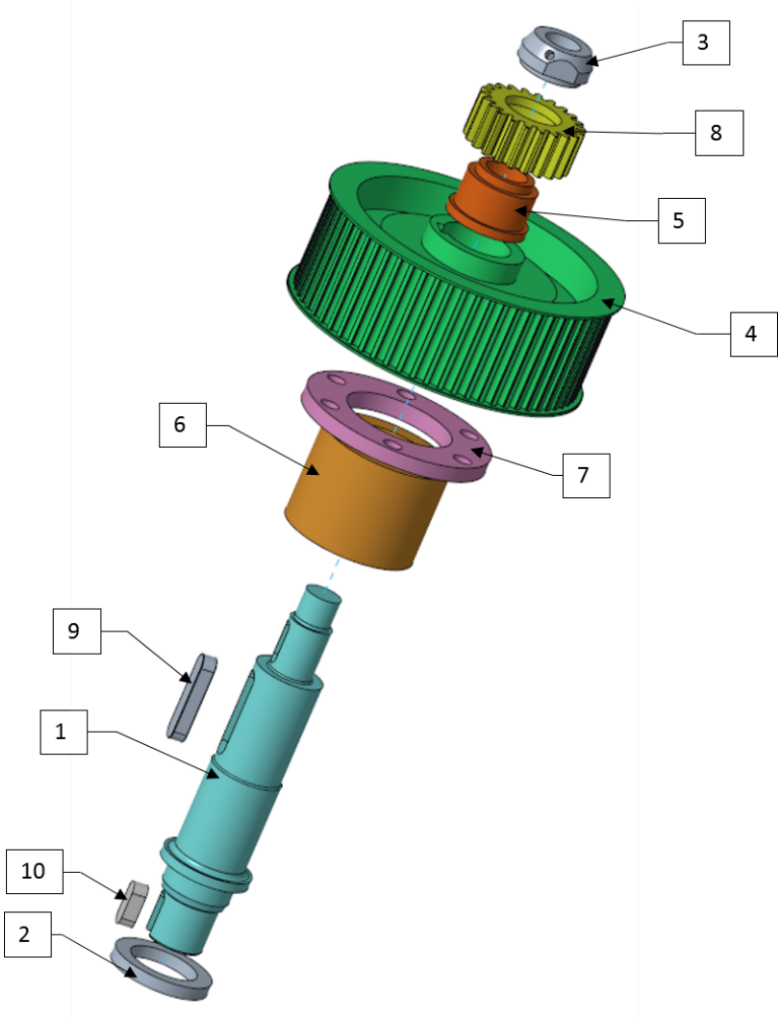
Pos	Qty	Art No	Denomination
1	1	910144	Nut M12 Standard
2	1	580315	Belt tensioner casted body SM-32
3	1	580316	Main Shaft for belt tensioner SM-32
4	1	580317	Bolt for belt tensioner SM-32
5	1	580318	Pulley for belt tensioner SM-32
6	1	580320	Secondary Shaft for belt tension SM-32
7	1	580321	M12 Set screw for belt tensioner
8	2	910196	Nord lock washer for M8 bolt
9	2	910201	Bolt M8x30
10	2	910304	Circlip SGA 30

6.10 Machine House Lower



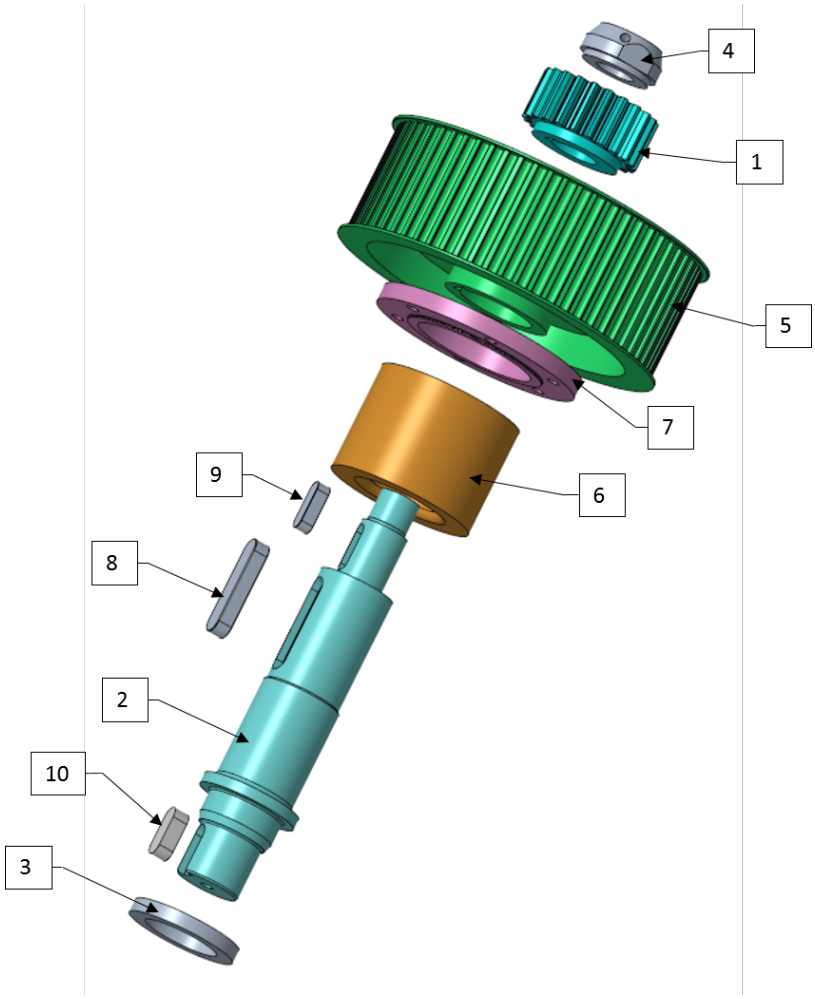
Pos	Qty	Art. No	Denomination
1	1	580314	Machine House Lower Casted SM-32
2	1	580350	Bearing Flange, Grinding shaft SM-32
3	18	910072	Bolt M6x14

6.11 Grinding Shaft with bushed gear wheel (2 per machine)



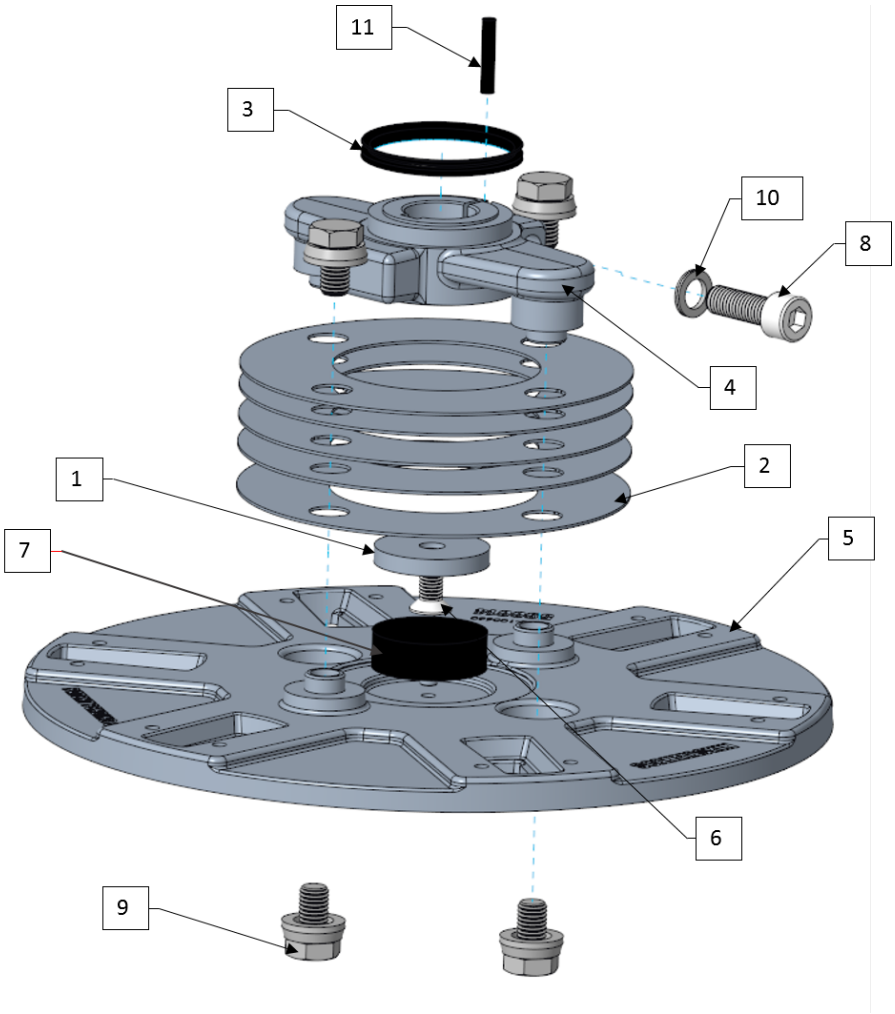
Pos	Qty	Art No	Denomination
1	1	580332	Grinding Shaft SM-32
2	1	580334	Radial Seal 38x55x7 SM-32
3	1	580335	Nut KMT 4 M20x1 Grinding Shaft SM-32
4	1	580336	Pulley 64-8M-50 Grinding Shaft SM-32
5	1	580337	Bushing for gear wheel, Grinding shaft SM-32
6	1	580342	Bearing BTH-1024 C, Grinding Shaft SM-32
7	1	580350	Bearing Flange, Grinding shaft SM-32
8	1	580353	Gear Wheel Bushed, Grinding Shaft SM-32
9	1	580373	Parallel Key 12x8x50,Grinding Shaft SM-32
10	1	910204	Parallel Key 10x8x25,Grinding Shaft SM-32

6.12 Grinding Shaft with locked gear wheel (1 per machine)



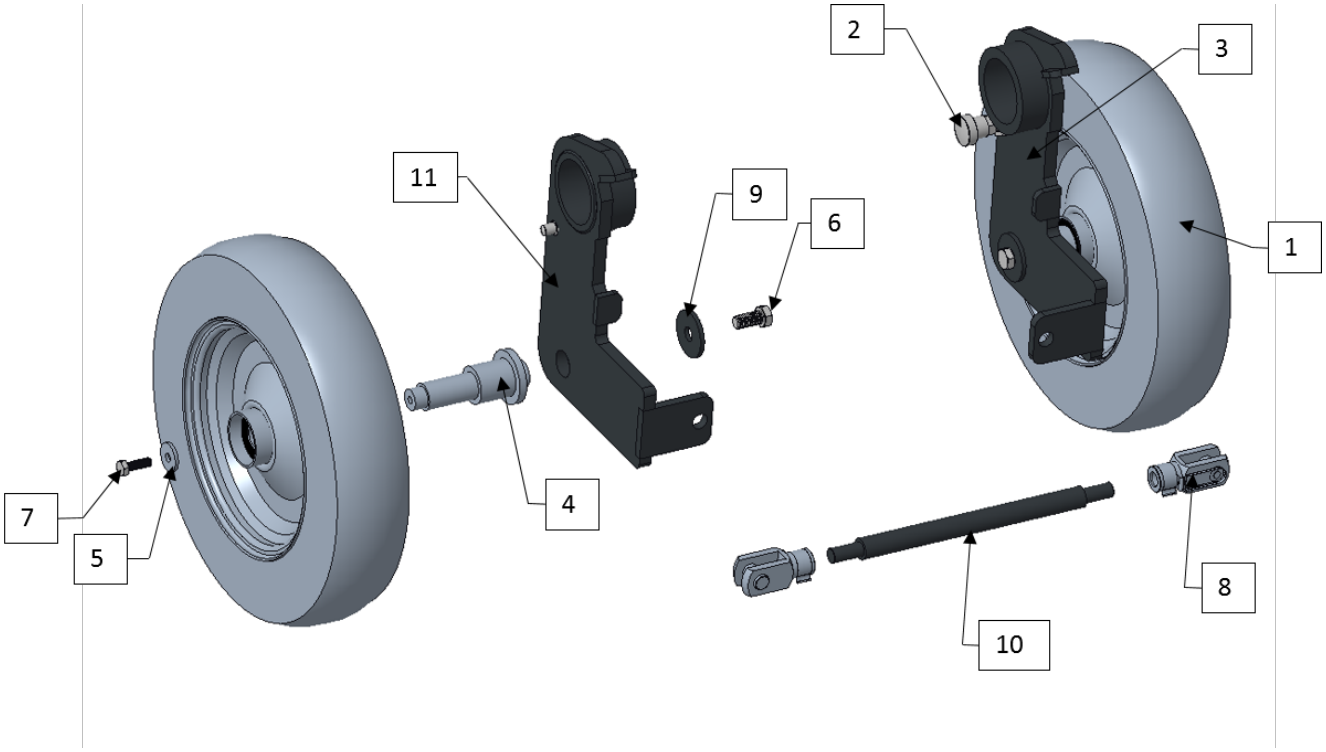
Pos	Qty	Art No	Denomination
1	1	560515	Gear Wheel Locked SM-32
2	1	580332	Grinding Shaft SM-32
3	1	580334	Radial Seal 38x55x7 SM-32
4	1	580335	Nut KMT 4 M20x1 Grinding Shaft SM-32
5	1	580336	Pulley 64-8M-50 Grinding Shaft SM-32
6	1	580342	Bearing BTH-1024 C, Grinding Shaft SM-32
7	1	580350	Bearing Flange, Grinding shaft SM-32
8	1	580373	Parallel Key 12x8x50,Grinding Shaft SM-32
9	1	910203	Parallel Key 8x7x25, Grinding shaft SM-32
10	1	910204	Parallel Key 10x8x25,Grinding Shaft SM-32

6.13 Grinding Head SM-32



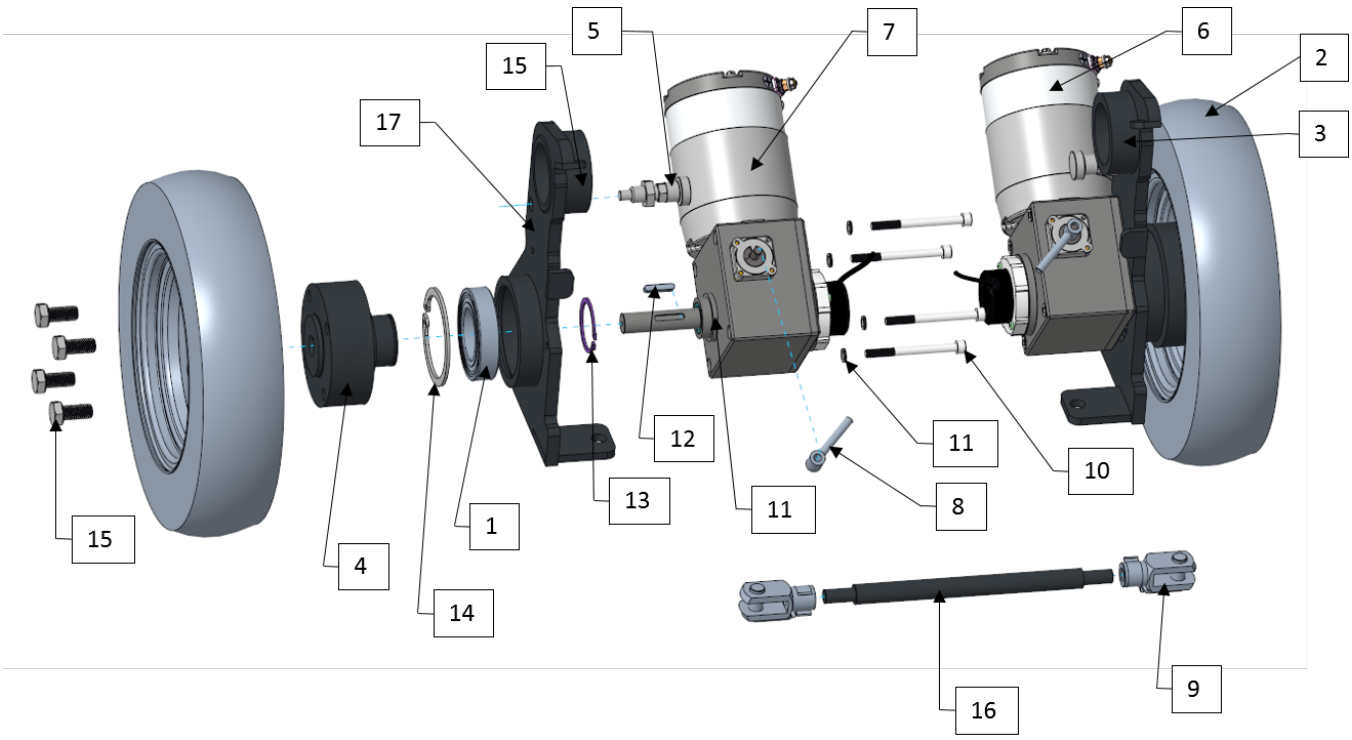
Pos	Qty	Art No	Denomination
1	1	560110	Washer 40x5
2	5	560116	Spring Steel disc 1mm Grinding Head SM-32
3	1	570136	Seal VA-50 Grinding Head SM-32
4	1	580160-32	Central Hub, Grinding Head SM-32
5	1	590014	Tool Head 280mm / 11" SM32
6	1	910030	Bolt M8x16
7	1	910093	Rubber Damper
8	1	910103	Bolt M10x30
9	4	910109	Bolt Machine head M10
10	1	910197	Nord Lock for M10 bolt
11	1	580162	Seal 5mm Grinding Head Central Hub

6.14 Wheel System Standard SM-32



Pos	Qty	Art No	Denomination
1	2	580513	Wheel SM-32 Standard / Propane
2	2	580488	Adjustment Plunger Wheels SM-32
3	1	580489	Wheel frame Right SM-32 Standard
4	2	580510	Wheel shaft SM-32 Standard
5	2	560110	Washer 40x5
6	2	910052	M12x25 M6S
7	2	910030	M8x16
8	2	910136	Joint M14
9	2	910179	Washer 44x4
10	1	580480_2	Bar
11	1	580489_10	Wheel frame Left SM-32 Standard

6.15 Wheel System SM-32 RC

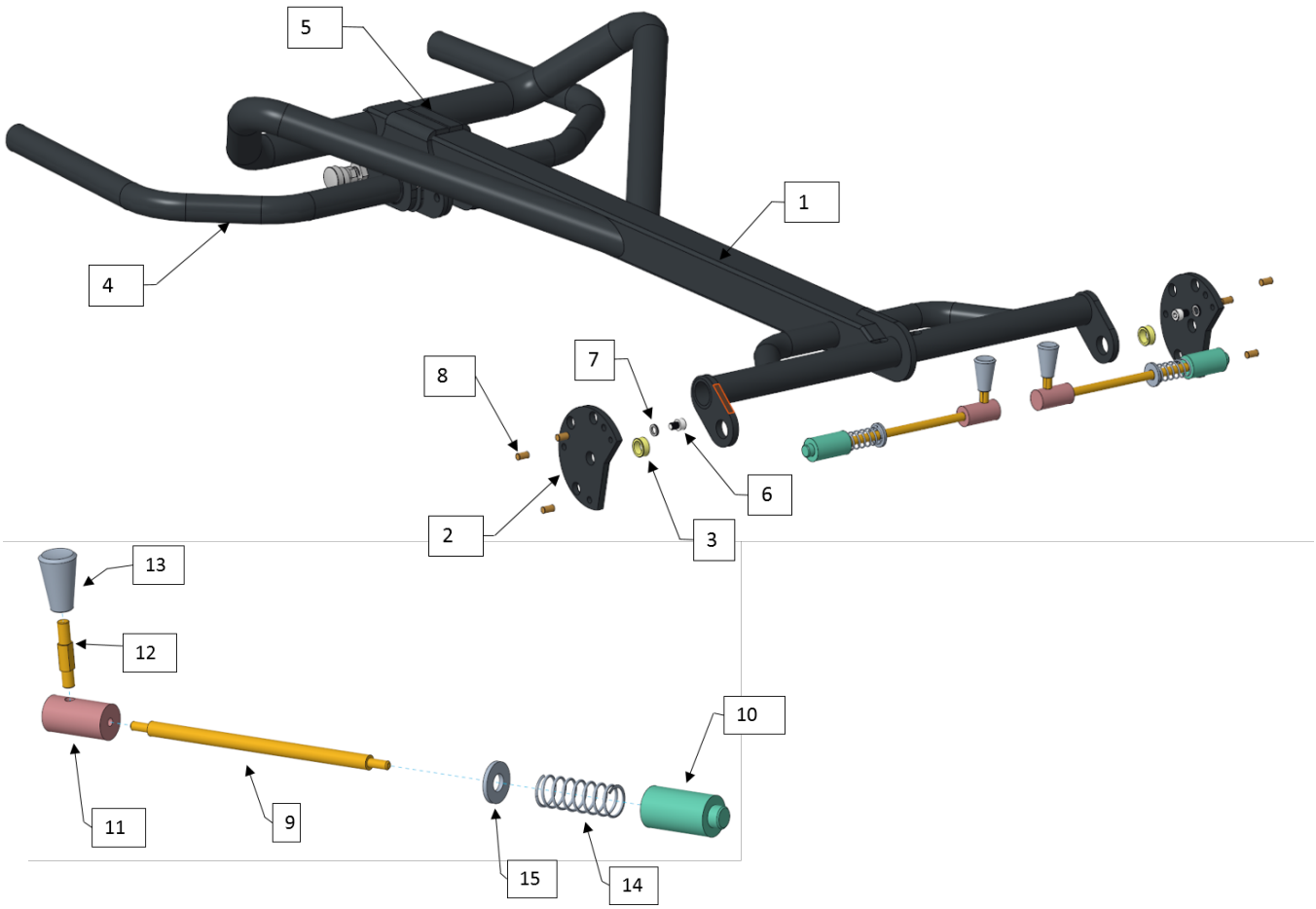


Pos	Qty	Art No	Denomination
1	2	530018	Bearing 6210
2	2	580514	Wheel SM-32 RC
3	1	580482	Wheel Frame Right SM-32 RC
4	2	580486	Wheel connection Hub SM-32 RC
5	2	580488	Adjustment Plunger Wheels SM-32
6	1	580507	Wheel Drive Motor Right SM-32 RC
7	1	580508	Wheel Drive Motor Left SM-32 RC
8	2	580509	Wheel free roll adjustment handle SM32 RC
9	2	910136	Joint M14
10	8	910137	Bolt M8x90
11	8	910196	Nord Lock Washer for M8
12	2	910214	Parallel Key 6X6X30
13	2	910305	Circlip SGA 50
14	2	910358	Circlip SGH 90
15	8	911015	Bolt M14x30 M6S
16	1	580480_2	Bar for Wheel system SM-32
17	1	580482_10	Wheel Frame Left SM-32 RC

6.16 Kick Stand SM-32

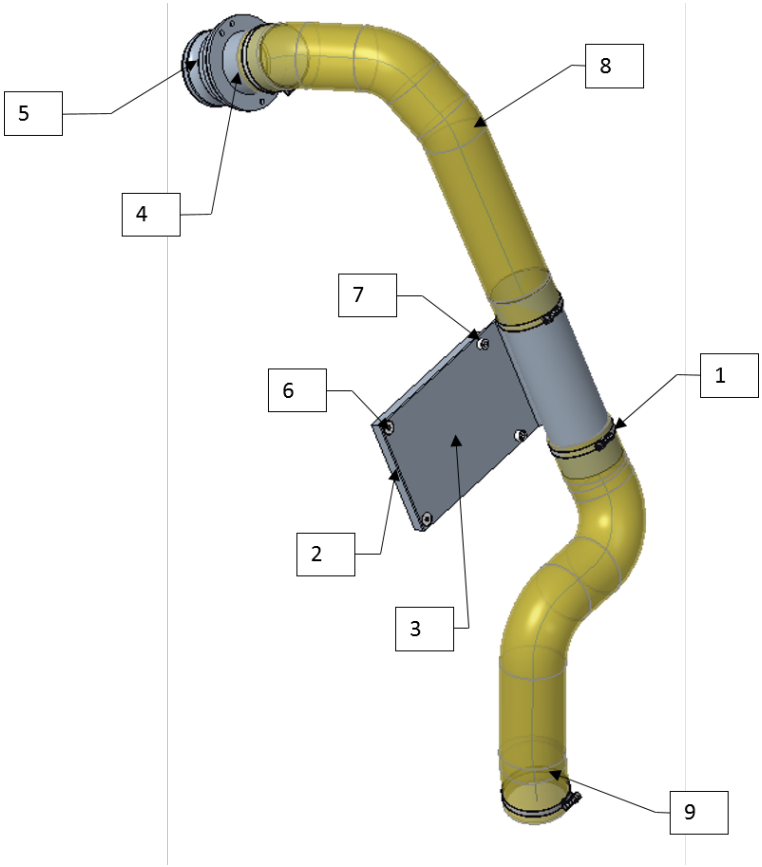
Pos	Qty	Art No	Denomination
1	1	580516	Kick Stand Right Arm SM-32
2	1	580517	Kick Stand Left Arm SM-32
3	1	580518	Kick Stand Bar SM-32
4	6	910069	Bolt M10x18 MC6S

6.17 Handle SM-32



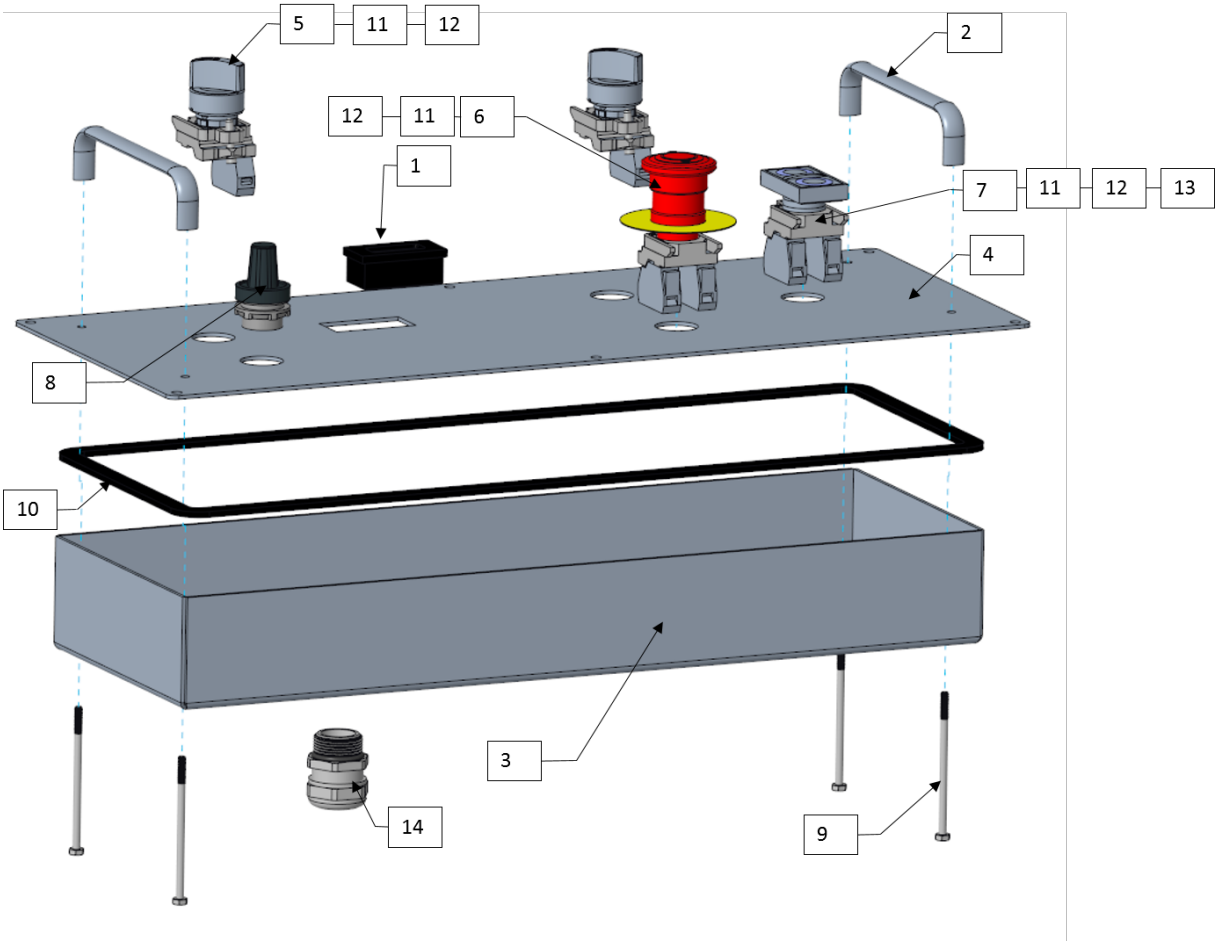
Pos	Qty	Art No	Denomination
1	1	580411	Handle Frame SM-32
2	2	580412	Attachment Plat for Handle SM-32
3	2	580413	Bushing for M16 bolt Handle SM-32
4	1	580546	Hip Support SM-32
5	1	580549	Center mekanism, Hip Support SM-32
6	2	910035	M8x10 MC6S
7	2	910196	Nord Lock Washer for M8
8	6	580419	Pins 8x14mm
9	2	580492	Handle locking mekanism, Bar SM-32
10	2	580493	Handle locking mekanism, Lockin Pin SM-32
11	2	580494	Handle locking mekanism, Center hub Sm-32
12	2	580495	Handle locking mekanism, M8 Pin bolt SM-32
13	2	580496	Handle locking mekanism, Knob SM-32
14	2	580497	Handle locking mekanism, Spring SM-32
15	2	580528	Handle locking mekanism, Washer Ø 28x3 SM-32

6.18 Chassis hose system SM-32



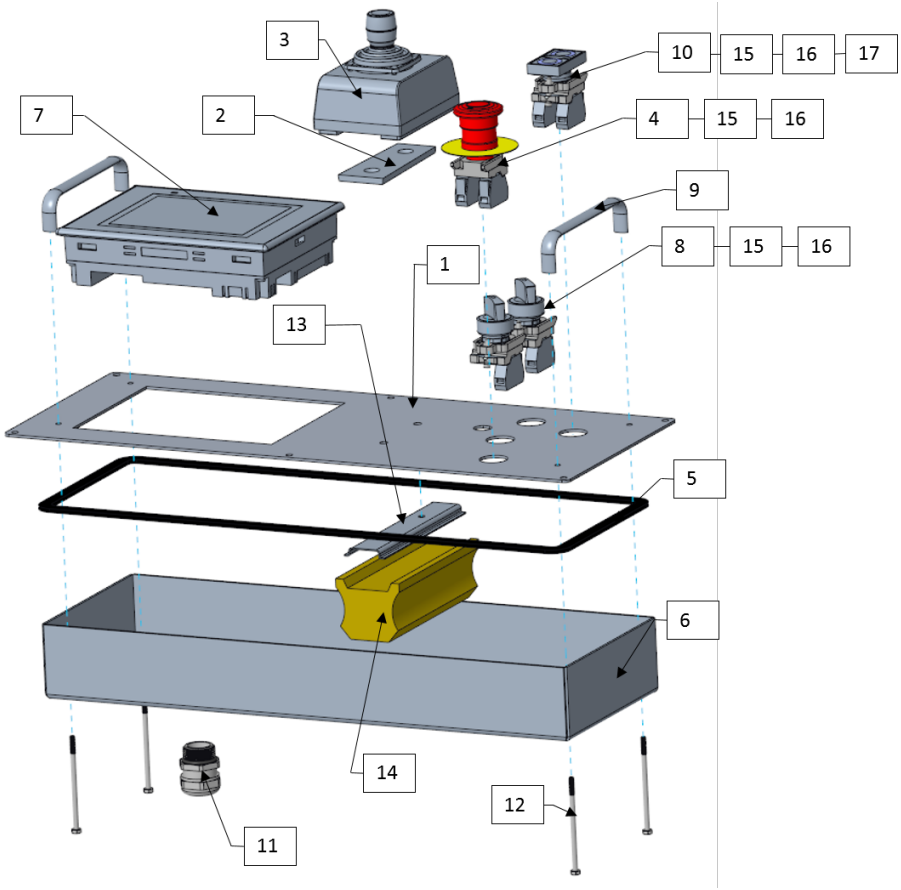
Pos	Qty	Art No	Denomination
1	4	570173	Hose Clamp for 76mm / 3"
2	1	580472	Cooling plate for electrical cabine SM-32
3	1	580473	Cooling Plate attachment for Hose SM-32
4	1	580474	Chassi attachment for 76mm / 3" hose SM-32
5	1	780060	Camlock inlet 3"
6	2	910031	Bolt M8x16
7	2	910098	Bolt M8x15 MLC6S
8	1	570171	Hose PU 76mm / 3" Length 620mm
9	1	570171	Hose PU 76mm / 3" Length 580mm

6.19 Control Panel SM-32 Standard



Pos	Qty	Art No	Denomination
1	1	570028	Hour Meter
2	2	572058	Protection bar for Control Panel
3	1	580462	Cover underneath Control Panel
4	1	580467	Control Panel Sheet metal
5	2	596001	Left Right Switch
6	1	596003	Emergency Stop
7	1	596010	Start / Stop Grinding Motor
8	1	596510	Speed Pot, complete
9	4	910140	Bolt M4x75
10	1	910875	Seal for Control Panel
11	4	596022	Contact block holder
12	4	596021	Contact block normally closed
13	1	596020	Contact block normally open
14	1	530041	Cable Gland M25

6.20 Control Panel SM-32 RC



Pos	Qty	Art No	Denomination
1	1	580461	Control Panel SM-32 RC Sheet metal
2	1	572063	Joystick Attachment SM-32 RC
3	1	572064	Joystick SM-32 RC
4	1	596003	Emergency Stop
5	1	910875	Seal for Control Panel SM-32
6	1	580462	Cover underneath Control Panel
7	1	572012	HMI for DSP Machine RC
8	2	596001	Left Right Switch
9	2	572058	Ptotection Bar for Control Panel
10	1	596010	Start/Stop Grinding Motor
11	1	530041	Cable Gland M25
12	4	910140	Bolt M4x75
13	1	910870	DIN Rail for Panel SM-32-RC
14	1	580460_2	Plints for Panel SM-32 RC
15	4	596022	Contact block holder
16	5	596021	Contact block normally closed
17	1	596020	Contact block normally open

6.21 Wiring Schematics SM-32 WS Std

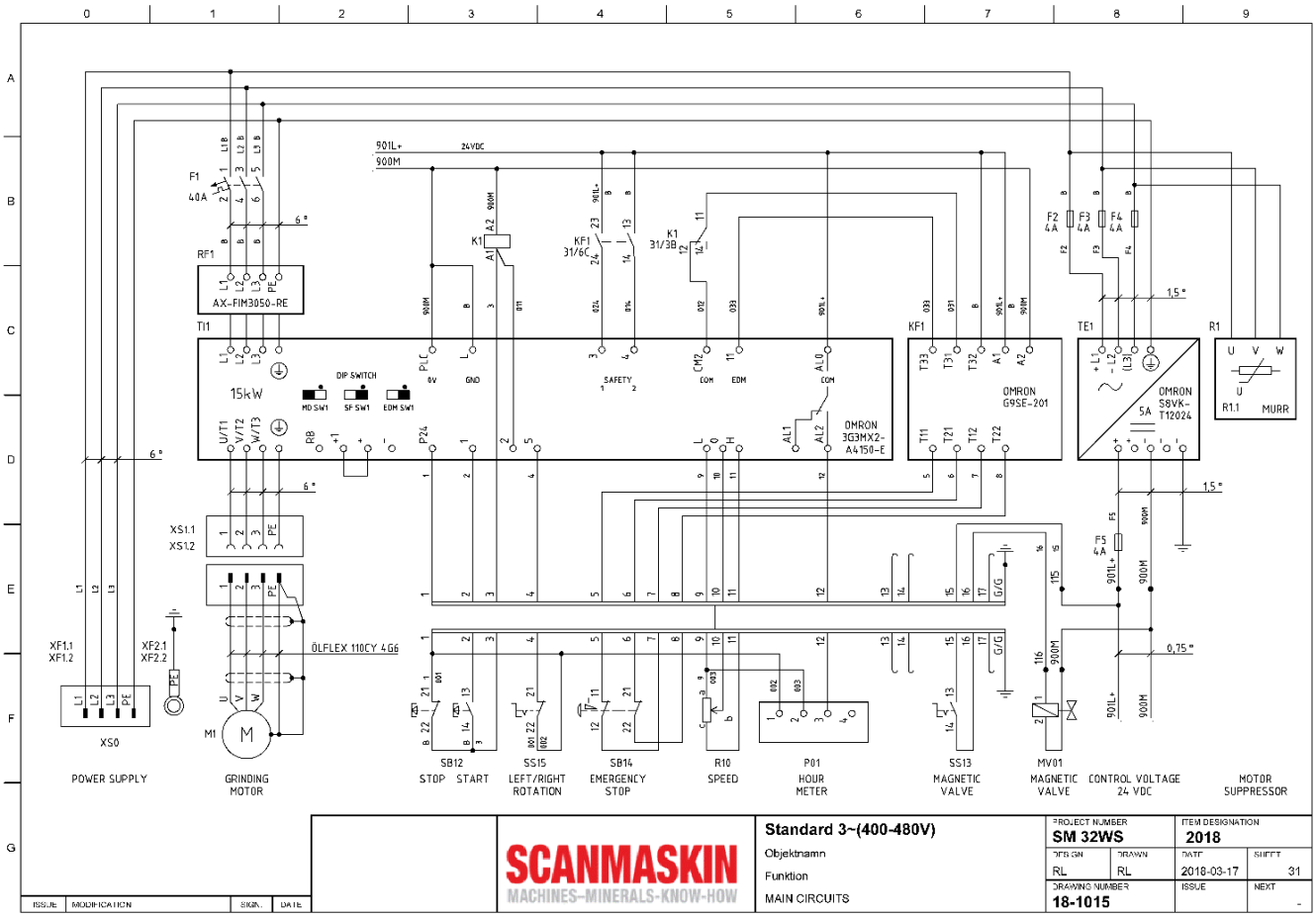
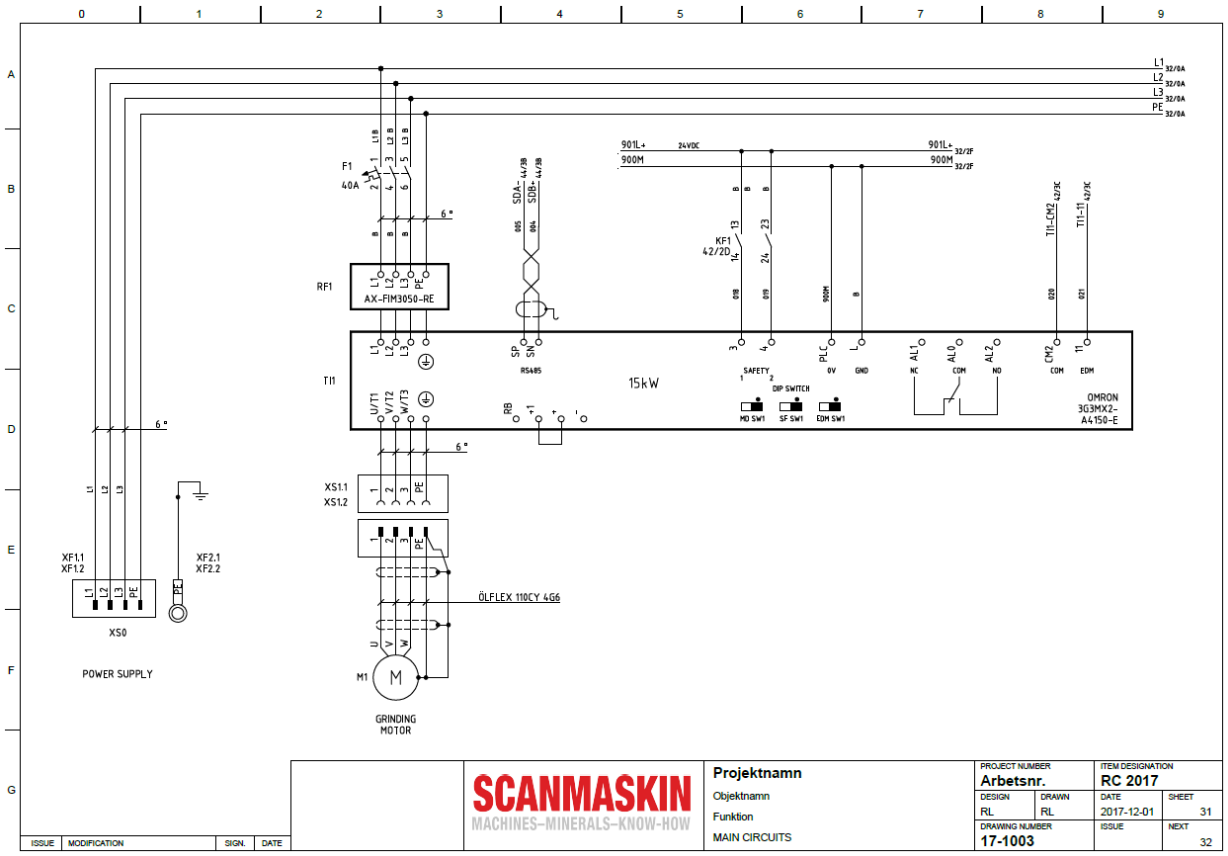


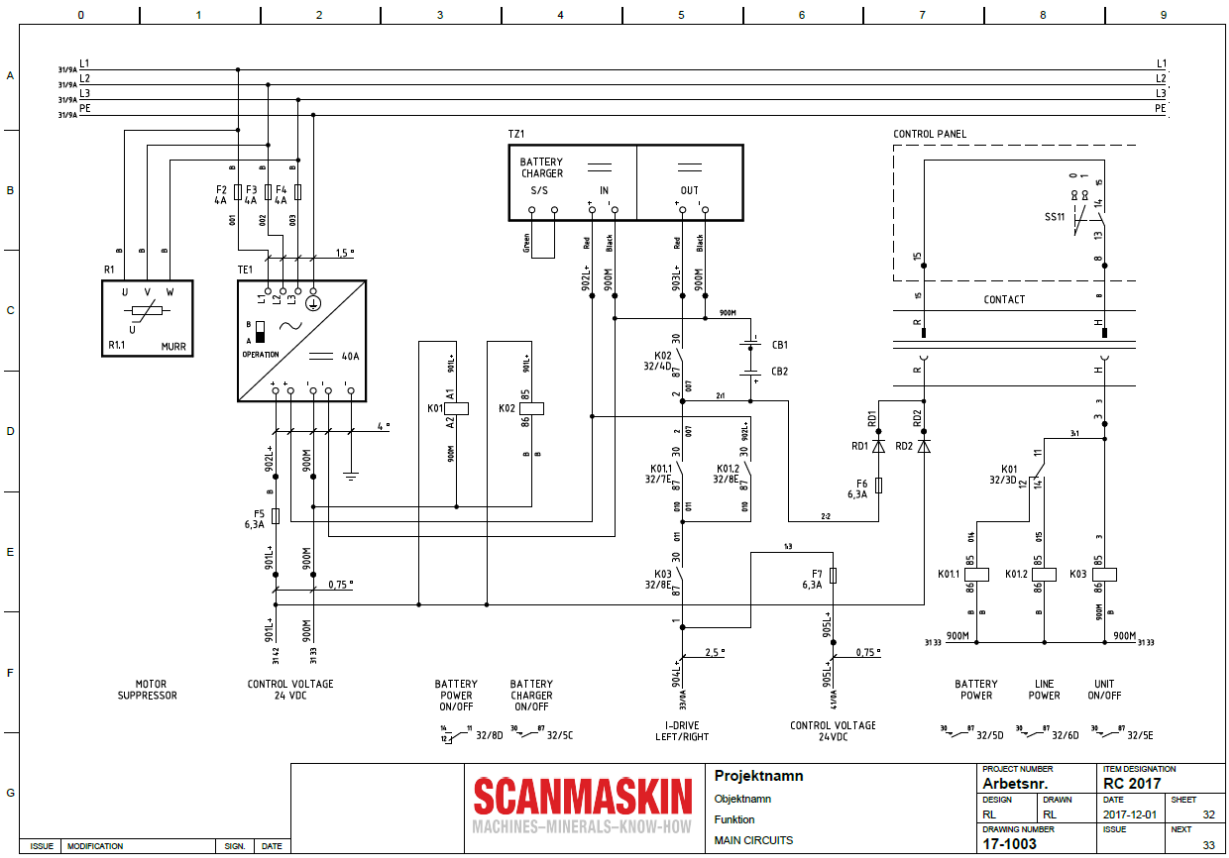
Figure 7-4 Electrical schematic SCANMASKIN 32 WS “Standard”

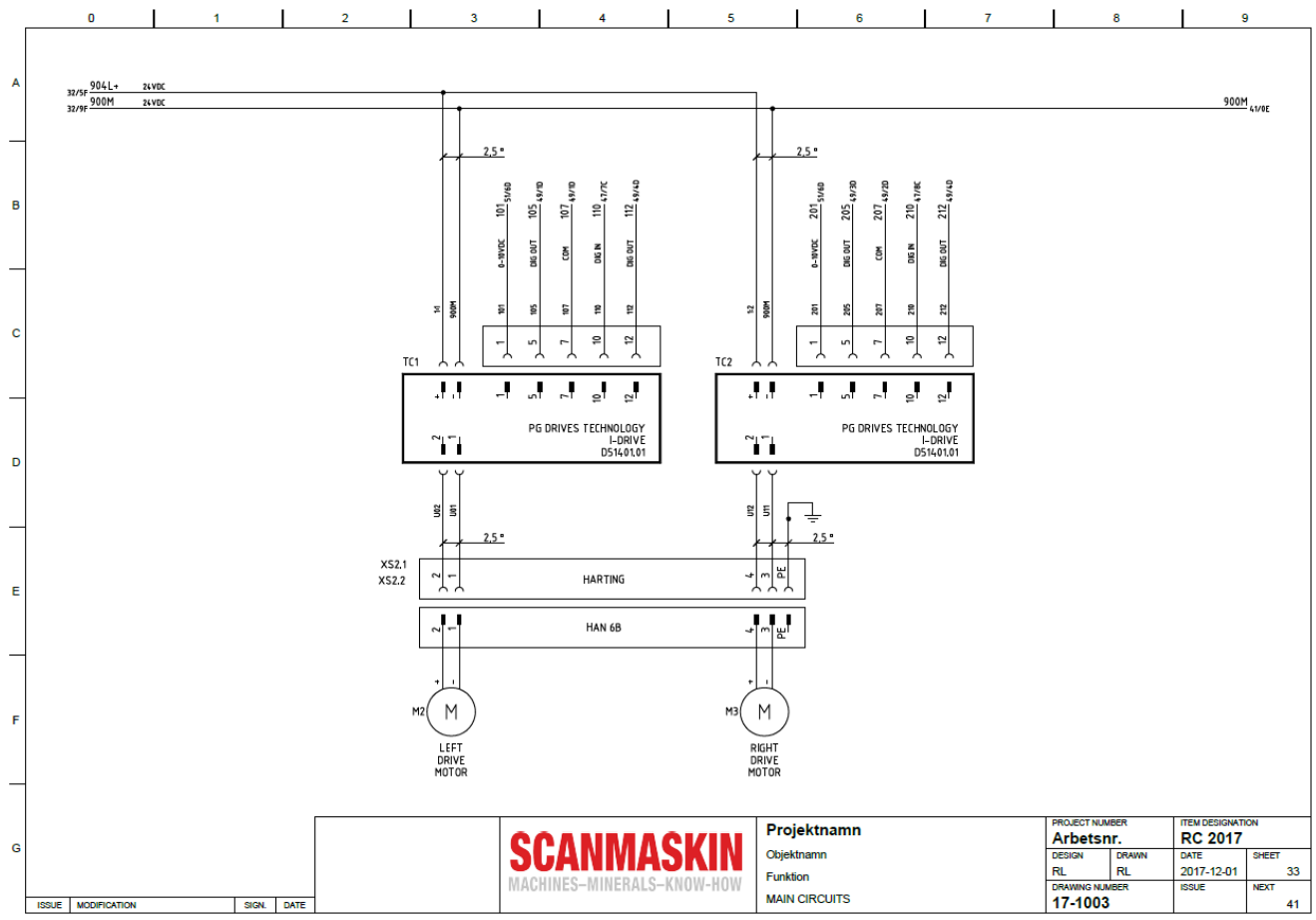
Component	Description	Art. No.
P01	Hour meter	570028
SS15	Left/Right Rotation	596001
R10	Speed Potentiometer	596008
SB12	Stop Start	
SB14	Emergency stop	596003
TI1	Inverter 15kW Omron	583076
XS0	Power inlet	*See General parts*
	Motor cable	530131
CN1	Motor connector chassis	570157/570158
CN2	Motor connector cable	570156/570159

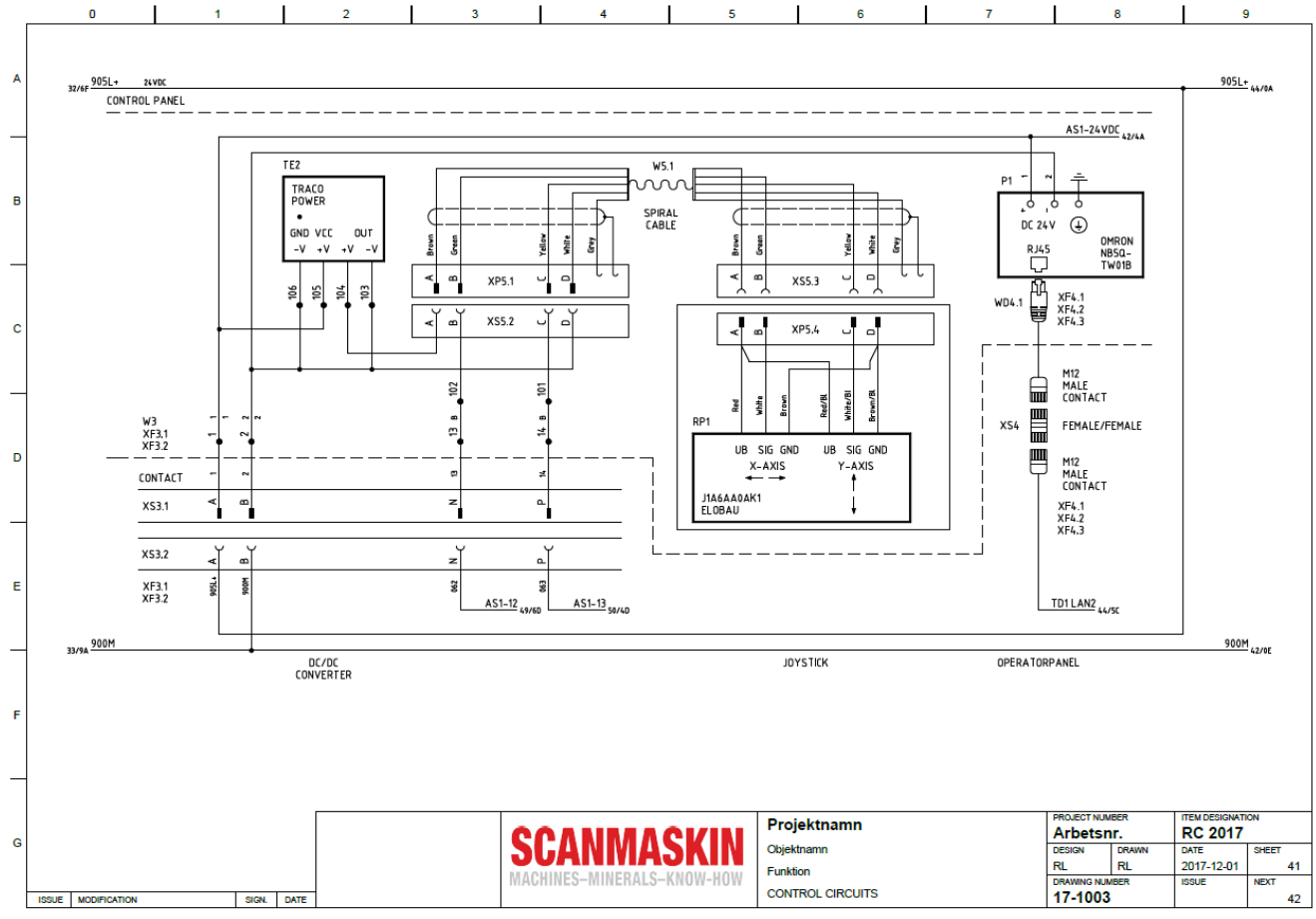
Table 7-5 Electrical spare parts

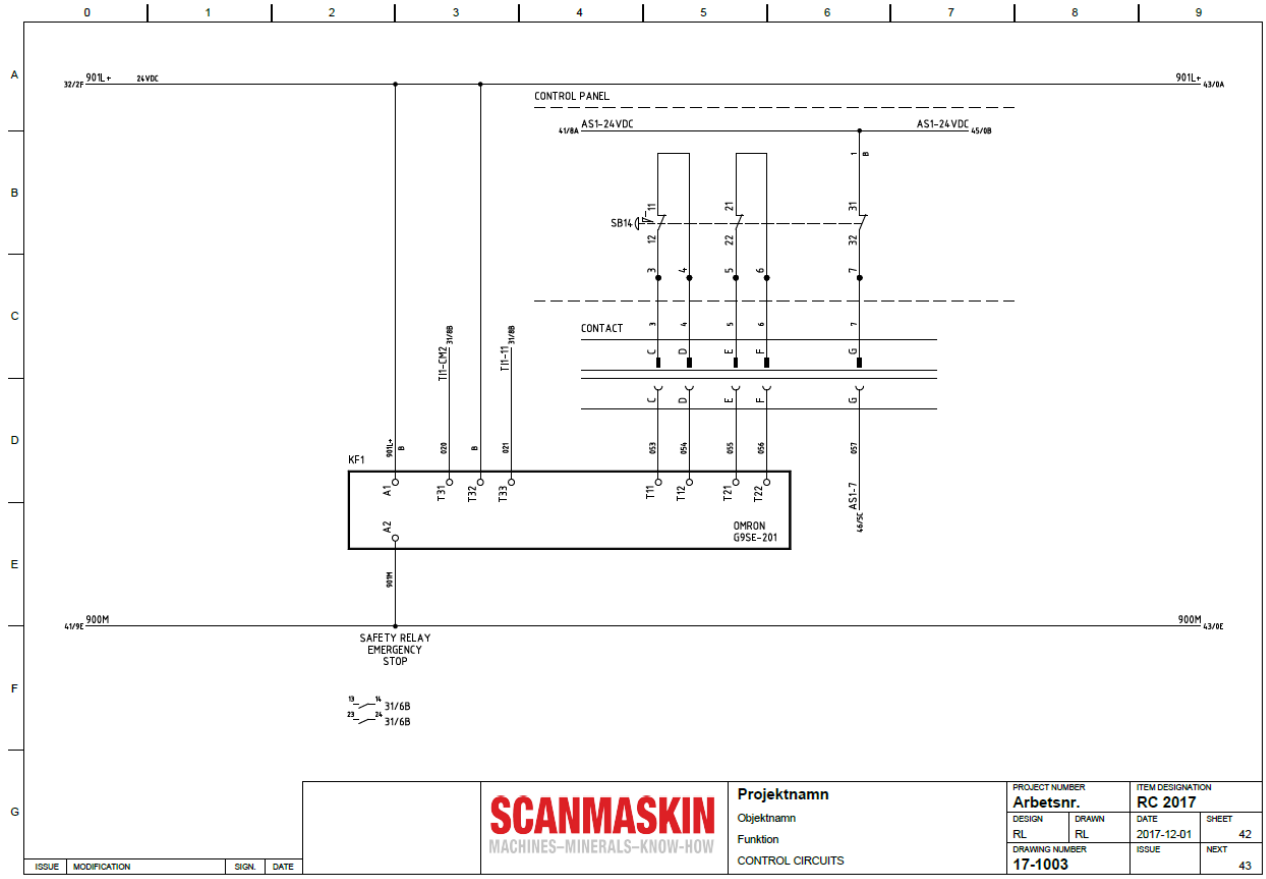
6.22 Wiring schematics SM-32 WS RC

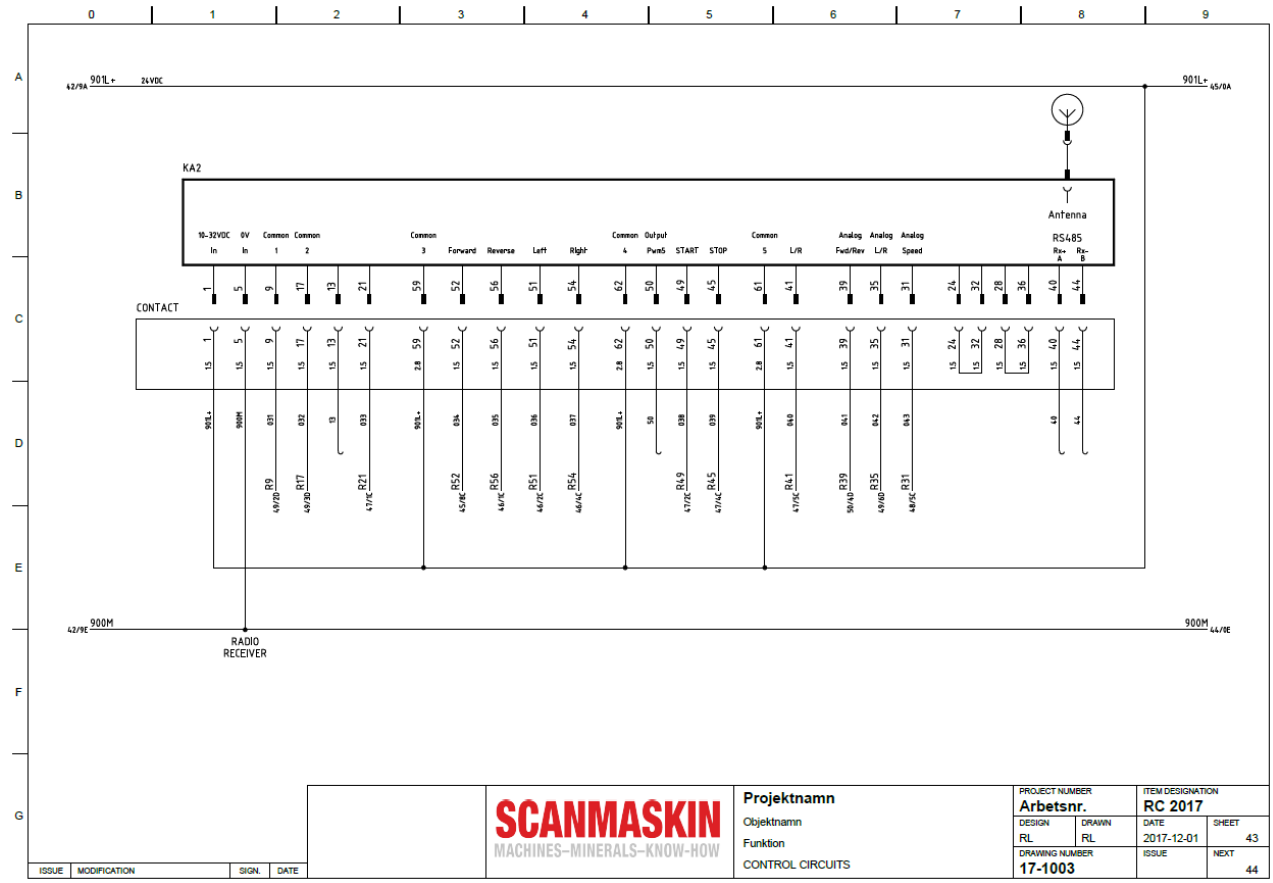


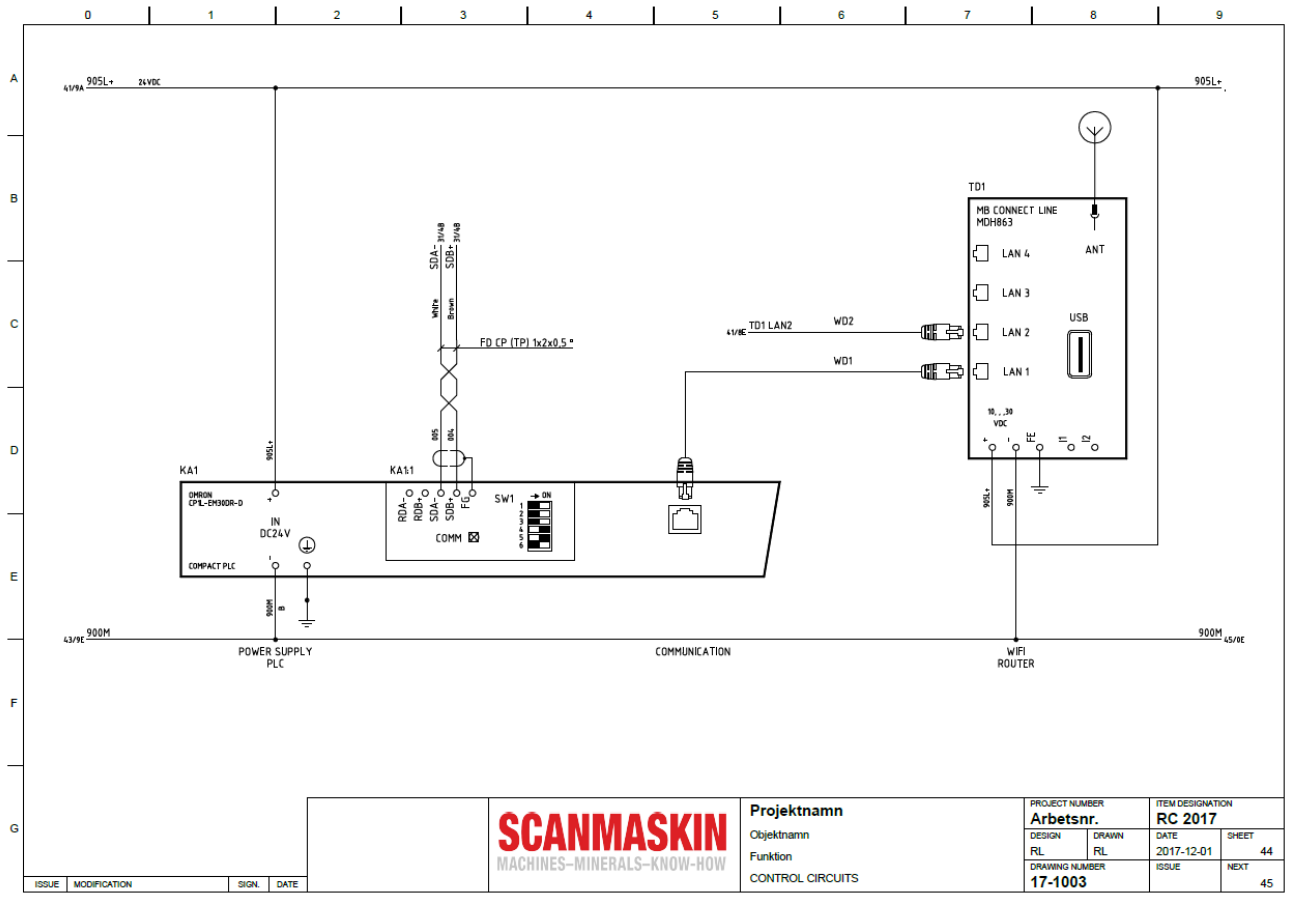



904L+ 24VDC
900M 24VDC
TC1
TC2
PG DRIVES TECHNOLOGY
I-DRIVE
DS14.01.01
HARTING
HAN 6B
M2
M3
LEFT DRIVE MOTOR
RIGHT DRIVE MOTOR
SCANMASKIN
MACHINES–MINERALS–KNOW-HOW
Projektnamn
Objektnamn
Funktion
MAIN CIRCUITS
PROJECT NUMBER
Arbetsnr.
ITEM DESIGNATION
RC 2017
DESIGN RL
DRAWN RL
DATE 2017-12-01
SHEET 33
DRAWING NUMBER
17-1003
ISSUE
NEXT 41
ISSUE MODIFICATION SIGN. DATE


905L+ 24VDC
CONTROL PANEL
AS1-24VDC
TE2
TRACO POWER
W5.1
SPIRAL CABLE
XP5.1
XS5.2
XS5.3
XP5.4
P1
DC 24 V
RJ45
OMRON NB5Q-TW01B
WD4.1
XF4.1
XF4.2
XF4.3
M12 MALE CONTACT
FEMALE/FEMALE
XS4
RP1
UB SIG GND
X-AXIS
Y-AXIS
J1A6AA0AK1
ELOBAU
W3
XF3.1
XF3.2
CONTACT
XS3.1
XS3.2
AS1–12
AS1–13
TD1 LAN2
900M
DC/DC CONVERTER
JOYSTICK
OPERATORPANEL
SCANMASKIN
MACHINES–MINERALS–KNOW-HOW
Projektnamn
Objektnamn
Funktion
CONTROL CIRCUITS
PROJECT NUMBER
Arbetsnr.
ITEM DESIGNATION
RC 2017
DESIGN RL
DRAWN RL
DATE 2017-12-01
SHEET 41
DRAWING NUMBER
17-1003
ISSUE
NEXT 42
ISSUE MODIFICATION SIGN. DATE

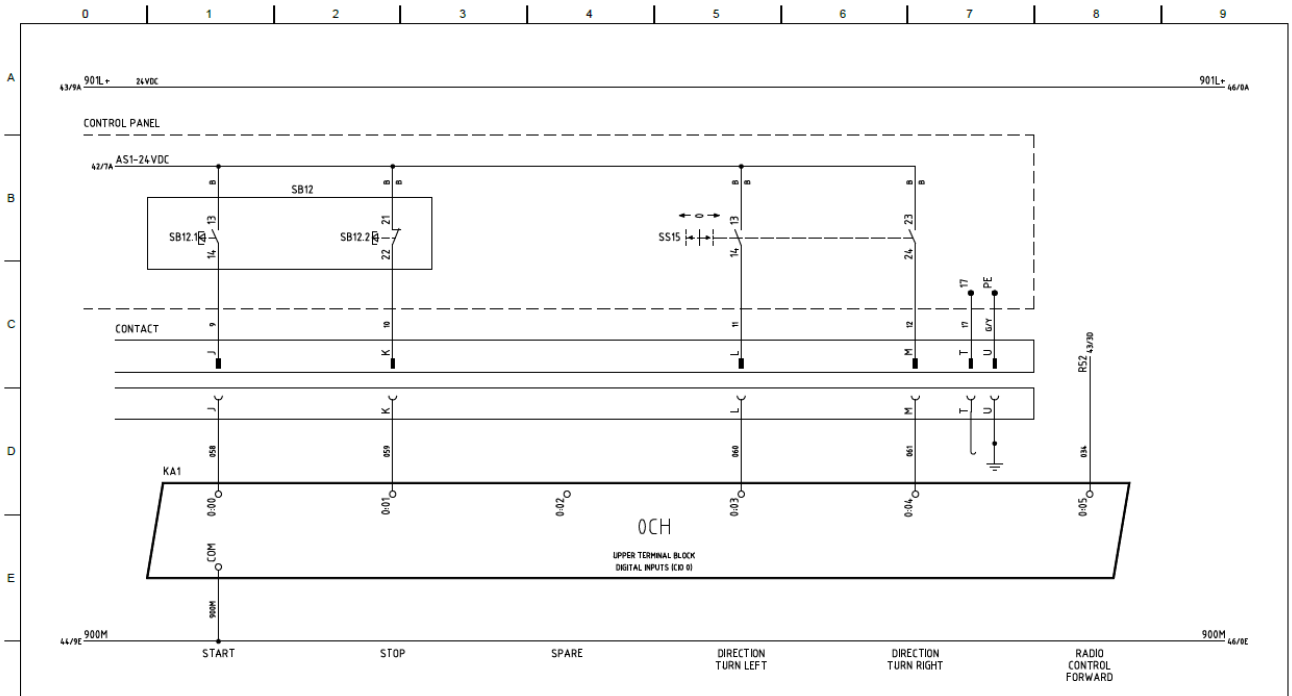

CONTROL PANEL
AS1-24VDC
SB14
CONTACT
KF1
OMRON
G9SE-201
SAFETY RELAY
EMERGENCY
STOP
31/6B
31/6B
SCANMASKIN
MACHINES–MINERALS–KNOW-HOW
Projektnamn
Objektnamn
Funktion
CONTROL CIRCUITS
Arbetsnr.
RC 2017
17-1003
2017-12-01
42
43


KA2
Antenna
RS485
CONTACT
RADIO
RECEIVER
SCANMASKIN
MACHINES–MINERALS–KNOW-HOW
Projektnamn
Objektnamn
Funktion
CONTROL CIRCUITS
Arbetsnr.
RC 2017
17-1003
2017-12-01
43
44



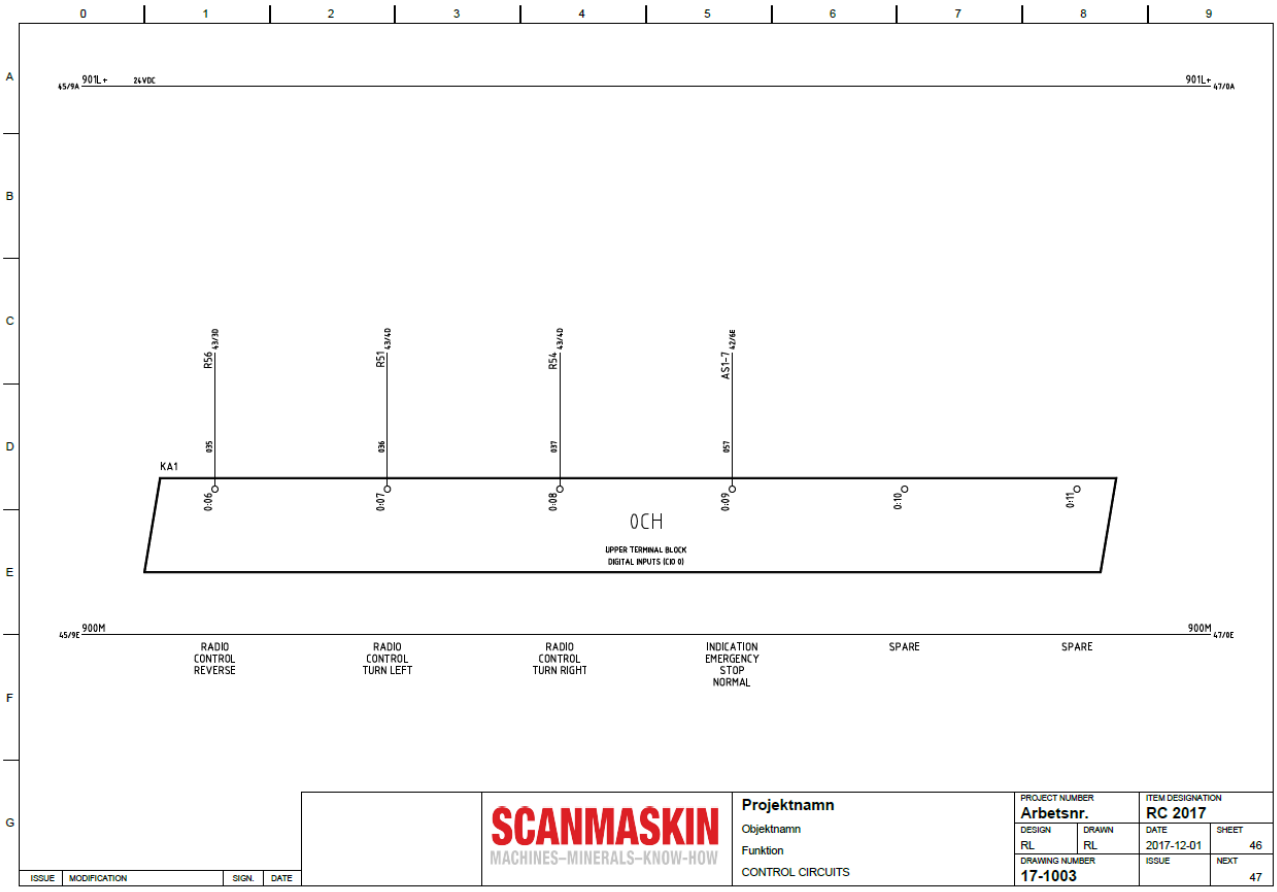
ISSUE	MODIFICATION	SIGN.	DATE	SCANMASKIN MACHINES–MINERALS–KNOW-HOW	Projektnamn: Objektnamn / Funktion: CONTROL CIRCUITS

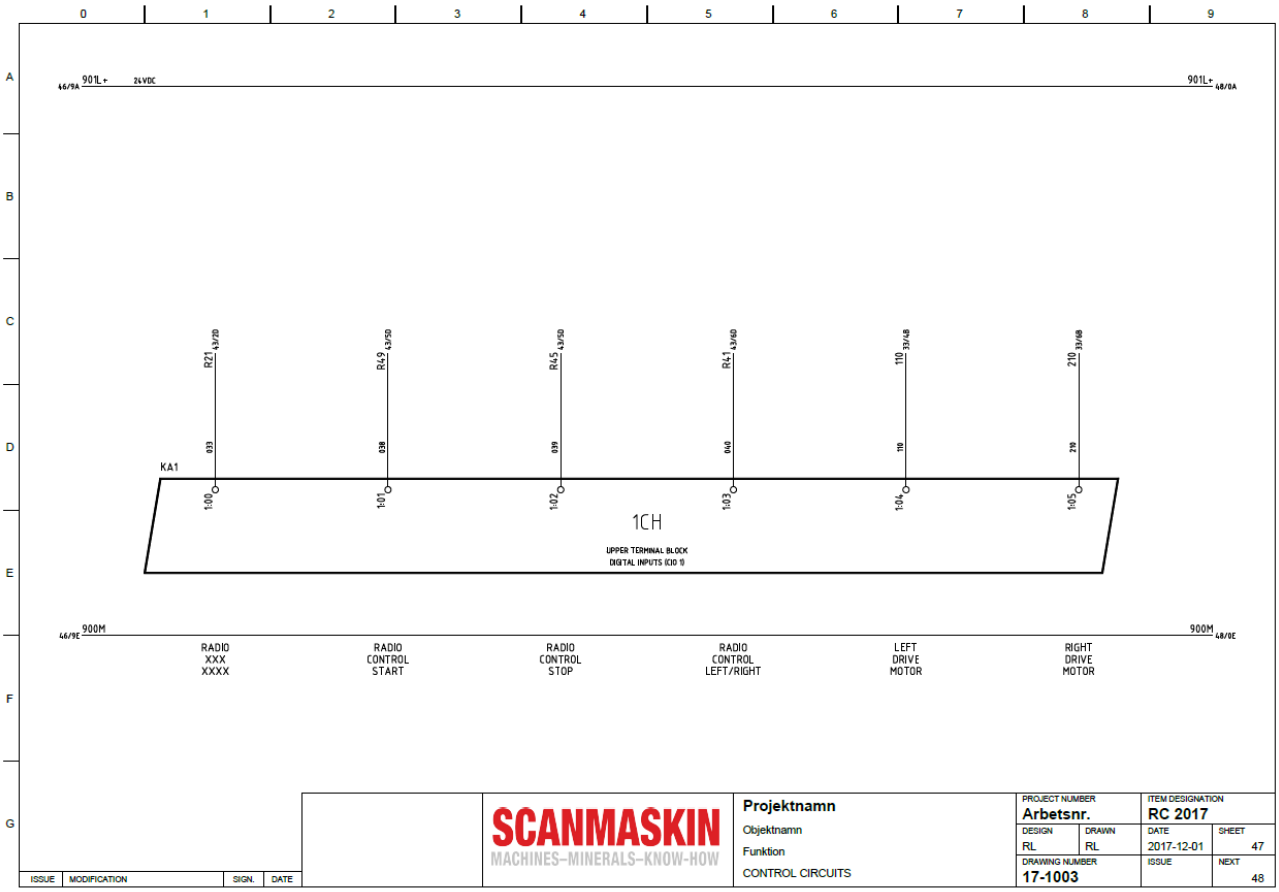
PROJECT NUMBER		ITEM DESIGNATION	
Arbetsnr.		RC 2017	
DESIGN	DRAWN	DATE	SHEET
RL	RL	2017-12-01	44
DRAWING NUMBER		ISSUE	NEXT
17-1003			45

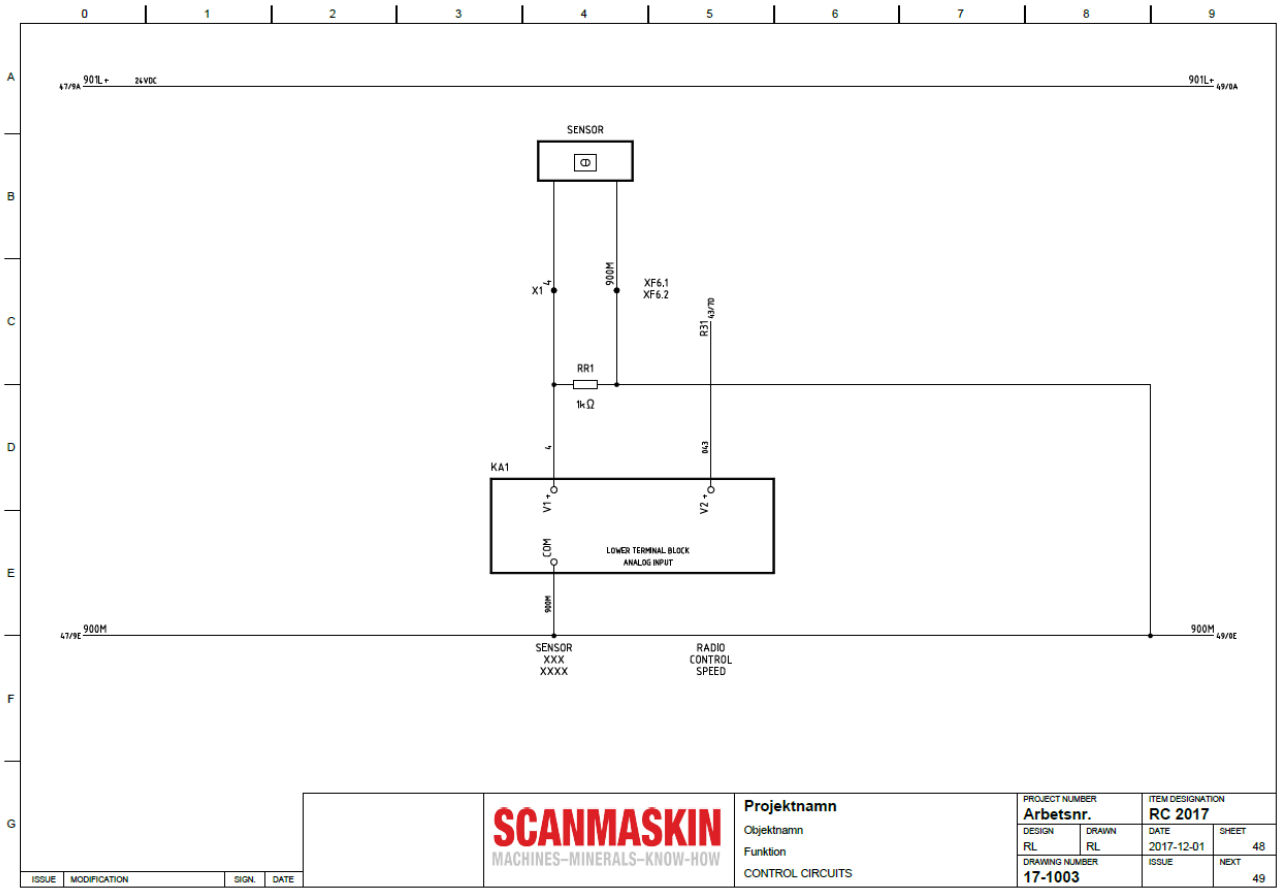


ISSUE	MODIFICATION	SIGN.	DATE	SCANMASKIN MACHINES–MINERALS–KNOW-HOW	Projektnamn: Objektnamn / Funktion: CONTROL CIRCUITS

PROJECT NUMBER		ITEM DESIGNATION	
Arbetsnr.		RC 2017	
DESIGN	DRAWN	DATE	SHEET
RL	RL	2017-12-01	45
DRAWING NUMBER		ISSUE	NEXT
17-1003			46


0 1 2 3 4 5 6 7 8 9
A B C D E F G
45/9A 901L+ 24VDC
901L+ 47/8A
R56 43/10
R51 43/40
R54 43/40
AS1-7 42/6E
835
836
837
857
KA1
0:06
0:07
0:08
0:09
0:10
0:11
0CH
UPPER TERMINAL BLOCK
DIGITAL INPUTS (CID 0)
45/9E 900M
900M 47/0E
RADIO CONTROL REVERSE
RADIO CONTROL TURN LEFT
RADIO CONTROL TURN RIGHT
INDICATION EMERGENCY STOP NORMAL
SPARE
SPARE
ISSUE MODIFICATION SIGN. DATE
SCANMASKIN
MACHINES–MINERALS–KNOW-HOW
Projektnamn
Objektnamn
Funktion
CONTROL CIRCUITS
PROJECT NUMBER
Arbetsnr.
ITEM DESIGNATION
RC 2017
DESIGN RL
DRAWN RL
DATE 2017-12-01
SHEET 46
DRAWING NUMBER 17-1003
ISSUE
NEXT 47


0 1 2 3 4 5 6 7 8 9
A B C D E F G
46/9A 901L+ 24VDC
901L+ 48/8A
R21 43/20
R49 43/50
R45 43/50
R41 43/60
110 33/48
210 33/48
033
038
039
040
110
210
KA1
1:00
1:01
1:02
1:03
1:04
1:05
1CH
UPPER TERMINAL BLOCK
DIGITAL INPUTS (CID 1)
46/9E 900M
900M 48/0E
RADIO XXX XXXX
RADIO CONTROL START
RADIO CONTROL STOP
RADIO CONTROL LEFT/RIGHT
LEFT DRIVE MOTOR
RIGHT DRIVE MOTOR
ISSUE MODIFICATION SIGN. DATE
SCANMASKIN
MACHINES–MINERALS–KNOW-HOW
Projektnamn
Objektnamn
Funktion
CONTROL CIRCUITS
PROJECT NUMBER
Arbetsnr.
ITEM DESIGNATION
RC 2017
DESIGN RL
DRAWN RL
DATE 2017-12-01
SHEET 47
DRAWING NUMBER 17-1003
ISSUE
NEXT 48


901L+ 24VDC
901L+
SENSOR
X1
4
900M
XF6.1
XF6.2
R31
43/7D
RR1
1kΩ
KA1
V1+
V2+
COM
LOWER TERMINAL BLOCK
ANALOG INPUT
900M
SENSOR
XXX
XXXX
RADIO
CONTROL
SPEED
SCANMASKIN
MACHINES–MINERALS–KNOW-HOW
Projektnamn
Objektnamn
Funktion
CONTROL CIRCUITS
PROJECT NUMBER
Arbetsnr.
ITEM DESIGNATION
RC 2017
DESIGN
RL
DRAWN
RL
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2017-12-01
SHEET
48
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17-1003
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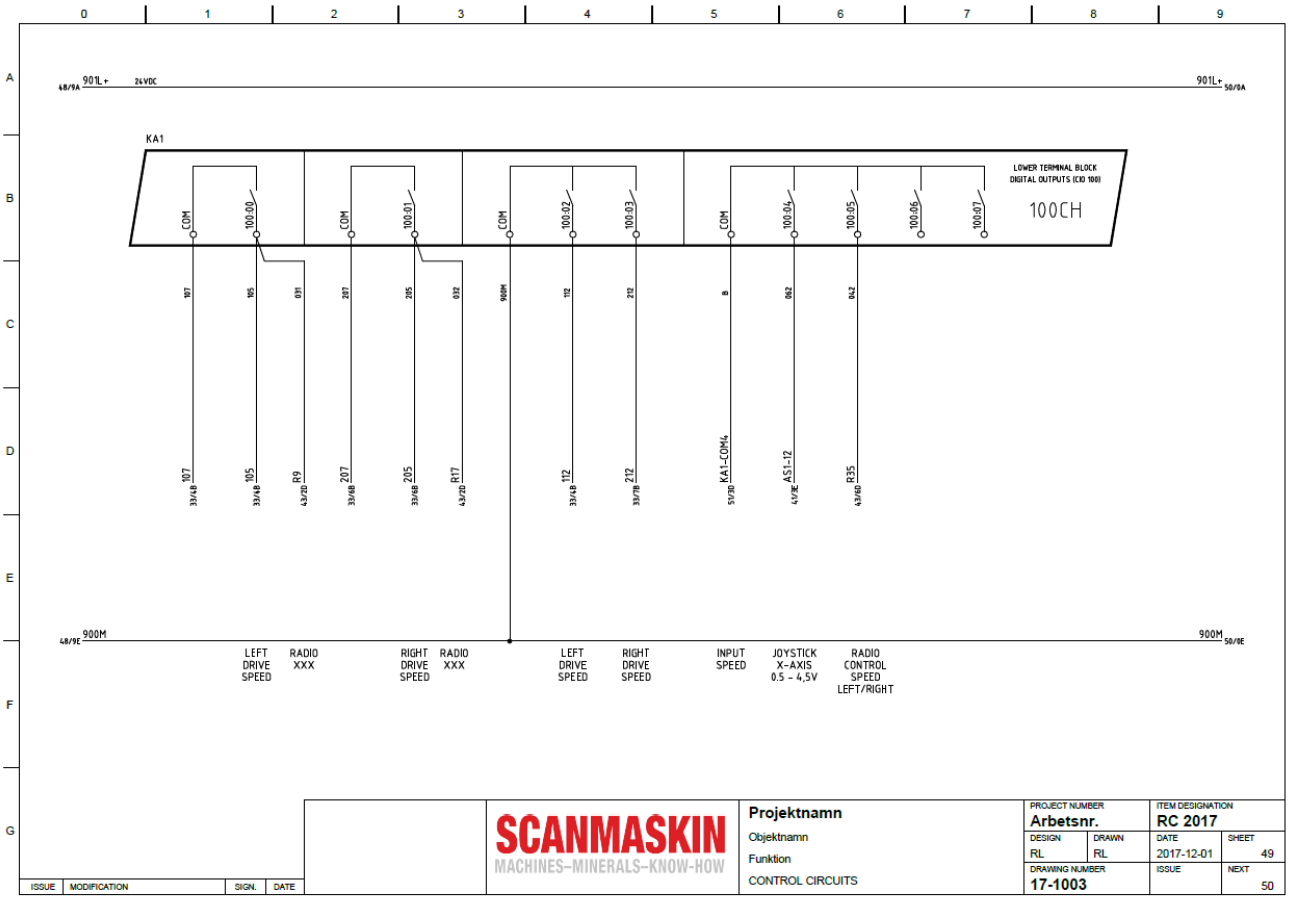
ISSUE
MODIFICATION
SIGN.
DATE


901L+ 24VDC
901L+
KA1
LOWER TERMINAL BLOCK
DIGITAL OUTPUTS (CIO 100)
100CH
COM
100:00
100:01
100:02
100:03
100:04
100:05
100:06
100:07
900M
LEFT
DRIVE
SPEED
RADIO
XXX
RIGHT
DRIVE
SPEED
RADIO
XXX
LEFT
DRIVE
SPEED
RIGHT
DRIVE
SPEED
INPUT
SPEED
JOYSTICK
X-AXIS
0.5 – 4,5V
RADIO
CONTROL
SPEED
LEFT/RIGHT
SCANMASKIN
MACHINES–MINERALS–KNOW-HOW
Projektnamn
Objektnamn
Funktion
CONTROL CIRCUITS
PROJECT NUMBER
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ITEM DESIGNATION
RC 2017
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DRAWN
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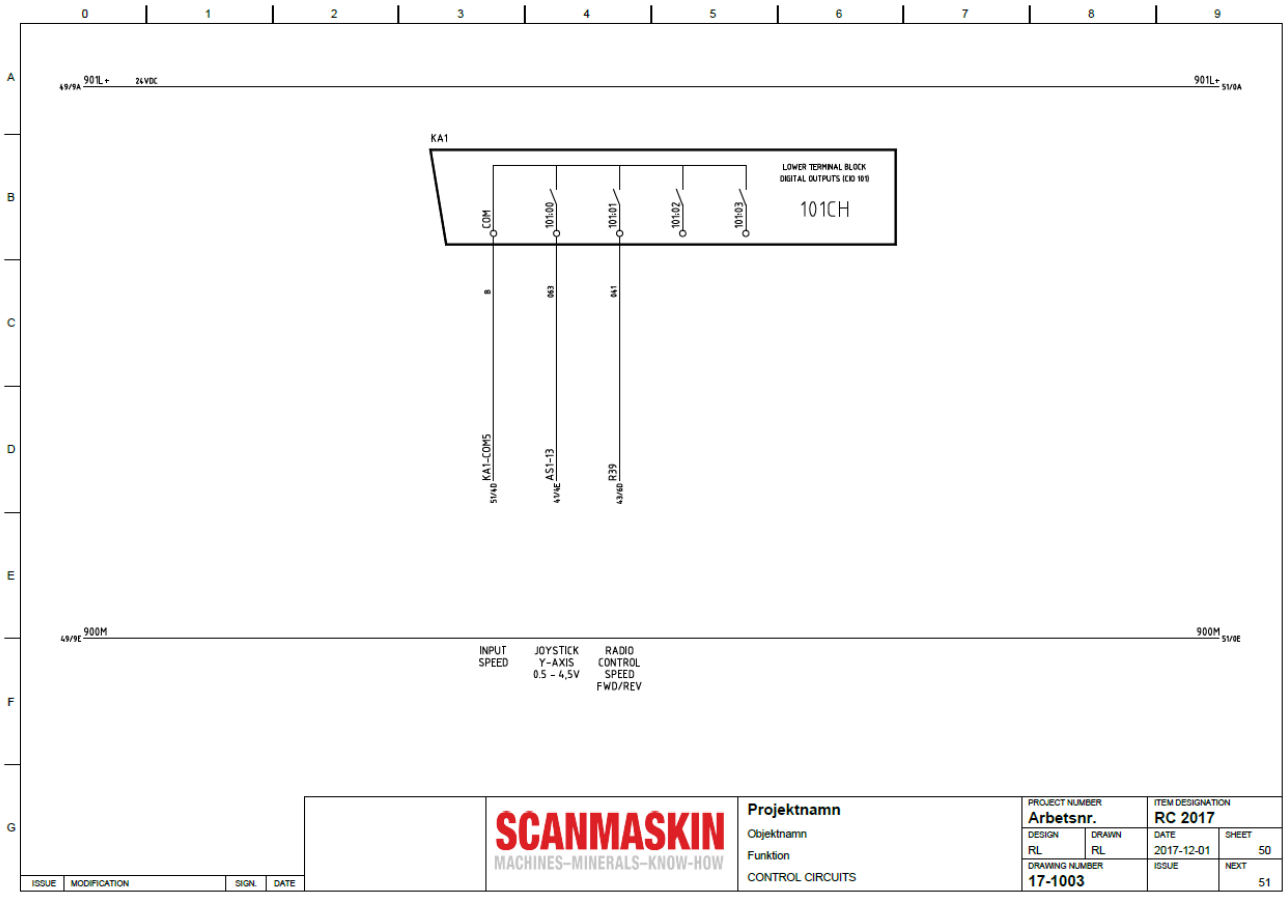
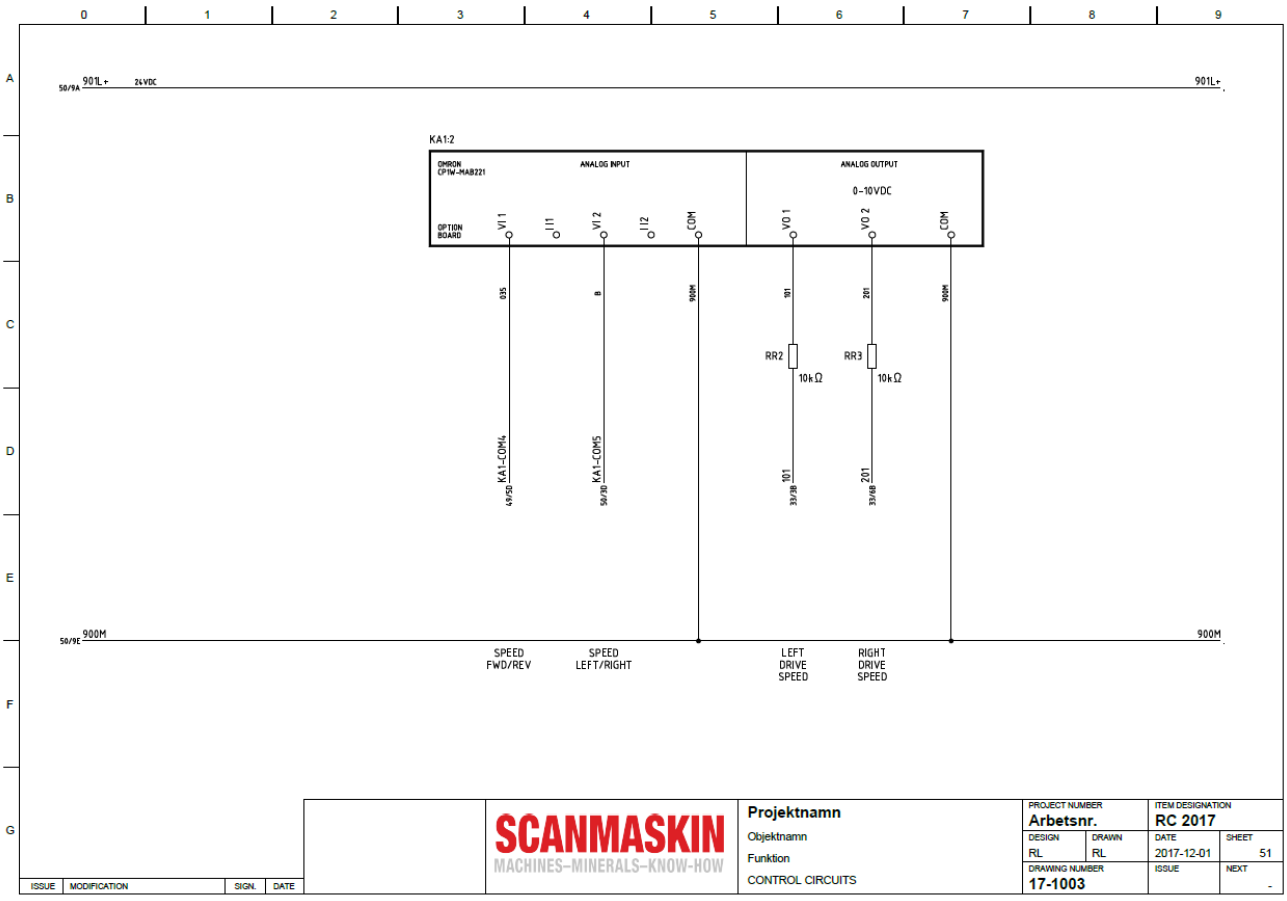
SIGN.
DATE


KA1
LOWER TERMINAL BLOCK
DIGITAL OUTPUTS (CIO 101)
101CH
COM
101:00
101:01
101:02
101:03
901L+ 24VDC
900M
INPUT SPEED
JOYSTICK Y-AXIS 0.5 - 4,5V
RADIO CONTROL SPEED FWD/REV
SCANMASKIN
MACHINES-MINERALS-KNOW-HOW
Projektnamn
Objektnamn
Funktion
CONTROL CIRCUITS
Arbetsnr.
RC 2017
17-1003
2017-12-01
50
51


KA1-2
OMRON CP1W-MAB221
ANALOG INPUT
ANALOG OUTPUT
0-10VDC
OPTION BOARD
VI 1
II1
VI 2
II2
COM
VO 1
VO 2
COM
RR2
10kΩ
RR3
10kΩ
901L+ 24VDC
900M
SPEED FWD/REV
SPEED LEFT/RIGHT
LEFT DRIVE SPEED
RIGHT DRIVE SPEED
SCANMASKIN
MACHINES-MINERALS-KNOW-HOW
Projektnamn
Objektnamn
Funktion
CONTROL CIRCUITS
Arbetsnr.
RC 2017
17-1003
2017-12-01
51
-

7 Warranty

This product from Scanmaskin Sweden AB comes with a 24-month warranty or 1500 hours, whichever comes first. Scanmaskin Sweden AB warrants to the original end user, each new machine, new accessories and genuine replacement parts against defects in material and workmanship under normal use and service. Warranty coverage shall begin on the date of purchase by the original end user (as evidenced by your invoice from the factory or Authorized Dealer) or six (6) months from the date the machine was shipped from the factory, whichever comes first. The warranty registration form must be completed within 30 days of purchase visit www.scanmaskin.com/register-your-product/ to fill in the form.
Our obligation under this warranty is limited to repair or replacement of the defective item at our factory or by an Authorized Service Center according to the following conditions:

1. The warranty only applies to persons that have legal right to the equipment during the warranty period.
2. The manufacturer's undertaking is limited to the repair of defective parts or the replacement of these according to the manufacturer's assessment. Costs and risks for transport as well as dismantling and reinstallation of the product / products and other direct or indirect costs, associated with the repair in question, are not covered by this warranty.
3. Periodic inspections, adjustments, maintenance work and changes are not covered by the warranty.
4. Scanmaskin is not liable for any damages to grinding discs, drive belts or other similar equipment.
5. The machine must be equipped with grinding tools approved by Scanmaskin Sweden AB
6. The warranty only applies to material and design deficiencies and does not apply in the following cases:
    a. Damage caused through accidents, carelessness, changes, use of spare parts or grinding tools that are not original components, or incorrect use and installation.
    b. Damage caused by lightning, water, fire, vandalism, incorrect mains voltage, incorrect ventilation or other causes that lie outside of the manufacturer's control.
7. Scanmaskin reserves the right to modify the design – or make improvements without obligation to change previously manufactured products.
8. Costs for repairs, carried out by an unauthorised workshop, will not be reimbursed by Scanmaskin. If such repairs damage this product these are not cover by the warranty agreement.

8 EU Declaration

Declaration of conformity CE

Manufacturer	Scanmaskin Sweden AB
Address	Heljesvägen 10 437 36Lindome Sweden
Product	Grinding machine
Name	Scanmaskin 32 World Series
Serialnumber	_____
Standards used including number	
Machine directives	2006/42/EG
EMC	2004/108/EC
LVD	2006/95/EG
Harmonized standards	
Safety of machinery	EN ISO 12100:2010
Safety of machinery	EN ISO 60204-1
Safe Torque Off	EN 61800-5-2
Place of issue	Lindome / Gothenburg / Sweden
Name of authorized representative	Paulo Bergstrand
Position	Managing Director

Declaration

We declare that as the authorized representative, the above information in relation to the supply / manufacture of this product is in conformity with the stated standards and other related documents following the provisions of EEC directives.

Signature of authorized representative:

9 Alphabetical reference

V,W

10 Contact information

Sweden (Head Office)
Heljesvägen 10
Box 187
SE-437 22 Lindome

Phone: +46 (0) 31 99 49 70
Fax: +46 (0) 31 99 48 70
E-mail: info@scanmaskin.se
Website: www.scanmaskin.se

Denmark
Torvegade 22
DK-7330 Brande

Phone: +45 97 18 00 58
Fax: +45 97 18 45 58
E-mail: info@scanmineral.dk
Website: www.scanmaskin.se

Norway
Maridalsveien 91
NO-0461 Oslo

Phone: +47 63 87 60 00
Fax: +47 63 87 60 01
E-mail: info@scanmaskin.no
Website: www.scanmaskin.no

Finland
Raudoittajantie 3 A
FIN-06450 Porvoo / Borgå

Phone: +358 10 292 4700
E-mail: info@scanmaskin.fi
Website: www.scanmaskin.fi

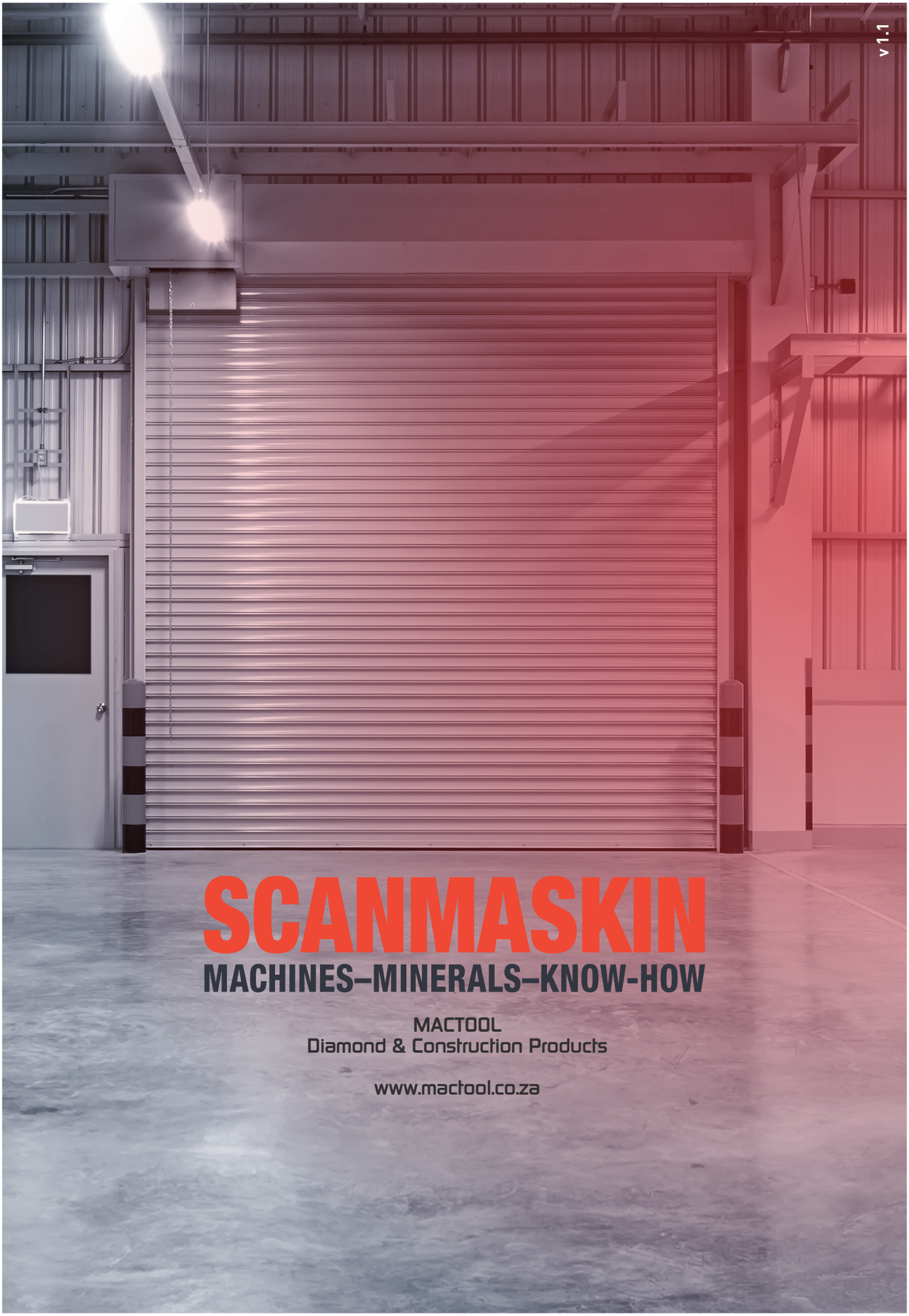
USA
18868 72nd AVE S
WA-98032 KENT

Phone: +1 425 209 0147
E-mail: info@scanmaskin.com
Website: www.scanmaskin.com

NOTERINGAR/NOTES

NOTERINGAR/NOTES

NOTERINGAR/NOTES



v1.1

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Diamond & Construction Products

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