



Sealing Station SE 1



Instruction Manual

The company reserves the right to change equipment specifications and models without notice. Pictures are representative and may not be part of the standard equipment.

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Foreword

The Sealing Station is a compact and space efficient machine developed for inserting and removing the inner lope. It consists of various Components Tyre lifting system, Pneumatic locking system.

The machine is designed and manufactured for accurate and trouble free performance and can be operated by persons with little training. This instruction manual details installation, commissioning, operation and preventive maintenance procedures.

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01 Description

The Sealing Station consists of the following major components:

Main Frame

The Main Frame is a fabricated structure which houses all the main components such as Rotary Disc assembly, Vertical support and pneumatic controls.

Rotary Disc Assembly

The Rotary Disc assembly is mounted at the Main Frame. This Rotary Disc helps to Place the Tyre and Inserting Inner lope and its Supportive Components.

Pneumatic Controls

This unit consists of Pneumatic Drives which is powered by air and manually Controlled using Hand operated Valves with the help of that we can lift.

02 Specifications

Model	SE 1
Catalogue Number	MD30 1
Tyre Range	6.50 - 14 to 12.00 - 24.5
Spider lift	Against counter weight
Loading capacity (kg)	300
Dimensions (L x W x H) (mm)	1560 x 2200 x 3545

03 Assembly and Commissioning Tools

Accessories

Standard	Vertical support for spider arms with counter weight
Optional	Curing system (curing rims, sealing flanges, flex seal with gasket...)
	Pneumatic hoses and pipe fitting to inflate /deflate Tyres
	Monorails for Tyre handling

Tools

Spanners	Double end 10 -11
	Double end 12 -13
	Double end 16 -17
	Double end 24 -27
	Double end 20 -22
	Double end 32 -36
Allen key	Allen key 5mm
	Allen key 6mm
	Allen key 7mm
	Allen key 8mm
Screw driver	Screw driver star end
	Screw driver minus end

Materials

In coming cables up to machine
Pneumatic line up to machine
Lubricating oil SAE - 40 (for FRL Air line unit) : 250 ml

04 Installation and Commissioning

Pneumatic Installation

- Installation air filter regulator fitted in the equipment. After installation open and rotate the regulator filter valve leaving it with a setting of 8 kg/cm² using pressure gauge mounted in the regulator.
- Activate the pneumatic valves to test the lift height of the cylinder.
- Do not use the regulator filter for other purposes other than for the proper use of the equipment.

05 Pre-Operation Checks

- The floor must be leveled, if the equipment is installed in monorail systems, it should be placed below the mono rail junction.
- Proper seating of Monorail vs sealing station for smooth movement of Tyre hooks.
- Ensure the steel structures are grouting properly and no shake while in operation.
- Vertical post to be aligned and ensure smooth movement of counter weight.
- All the nuts mentioned in the parts list are to be tightened properly.
- Air leaks in pneumatic lines.

06 Operation

How to lock the tyre using the spider device

- Open the air line and the valve (s) of the regulator filter (s).
- Adjust the top spider assembly, depending on the tyre to be used.
- Actuate the lever valve to lower the chain of the locking device of the spider device, pull the upper device assembly near the tyre and fit the chain in the curing rim clamping assembly.
- Operate the lever valve to raise the chain, the spider and curing rim clamping assembly will join the two parts of the tyre.
- With the upper spider device adjusted relative to the tyre, turn manually in the direction of locking the two parts of the curing rim, joining them together.

Unlock the tyre by using the spider

How to u device

- Repeat the opposite operation of the process above.

07 Do's and Don'ts

Do's

- Use the machine only for the purpose of assembling, dismounting wheels and inserting the inner lope.
- Use the upper pneumatic locking system, by counterweight action to join the curing rim parts, turn it and lock it.
- Use the arm of the spider device to line it on the table.

Don'ts

- Do not operate the equipment if the main air line is leaking or system faulty.
- Do not use the equipment if there are breaks in the welds or in the structure.
- Do not use the equipment if there is a malfunction in the pneumatic actuators (Valves).
- Do not use the equipment if it breaks or any other type of damage.

08 Troubleshooting

Symptoms / Problems	Possible Causes	Remedies
<p>Pneumatic system does not work.</p>	<p>Air is not reaching the equipment.</p>	<ul style="list-style-type: none"> • Check that the machine is properly connected. • Check that the compressed air inlet is open • Check that the regulator is correct.
<p>Pneumatic system is in order, the air reaches the system, but the cylinders do not work.</p>	<p>Mechanical locking of hoses.</p>	<ul style="list-style-type: none"> • Check that there are no hose bent or bent to prevent air from entering or leaving the pneumatic cylinder. • Check whether the flow regulators are open or require adjustment.
<p>Pneumatic system, hoses, and flow regulators are in operation, but the cylinders are unable to actuate the equipment or lock at some point.</p>	<p>Mechanical locking of equipment.</p>	<ul style="list-style-type: none"> • Check for dust accumulation in the sliding bushings or if the shafts are damaged, preventing the bushings from sliding freely. • Unscrew the cylinder axle nut for the system to run freely on the guides. • If any upper or lower locking is identified, unscrew the bolts, position the assembly on top, and tighten the bolts. • Repeat the same operation for the bottom, leaving the system working free.

09 Preventive Maintenance

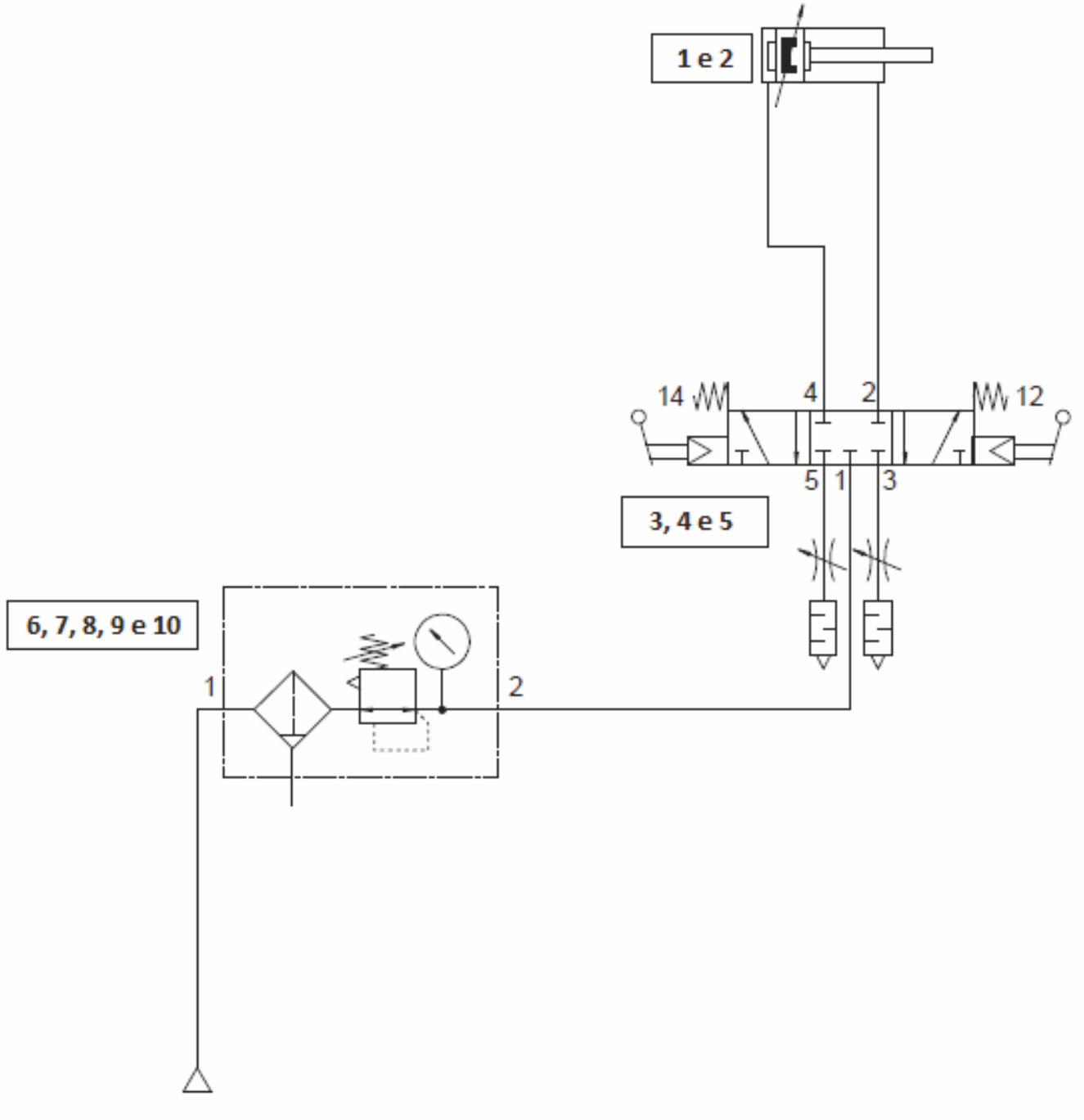
Daily maintenance

- Check for air leakage in the pneumatic assembly.
- Deplete the humidity of the air regulator filter.

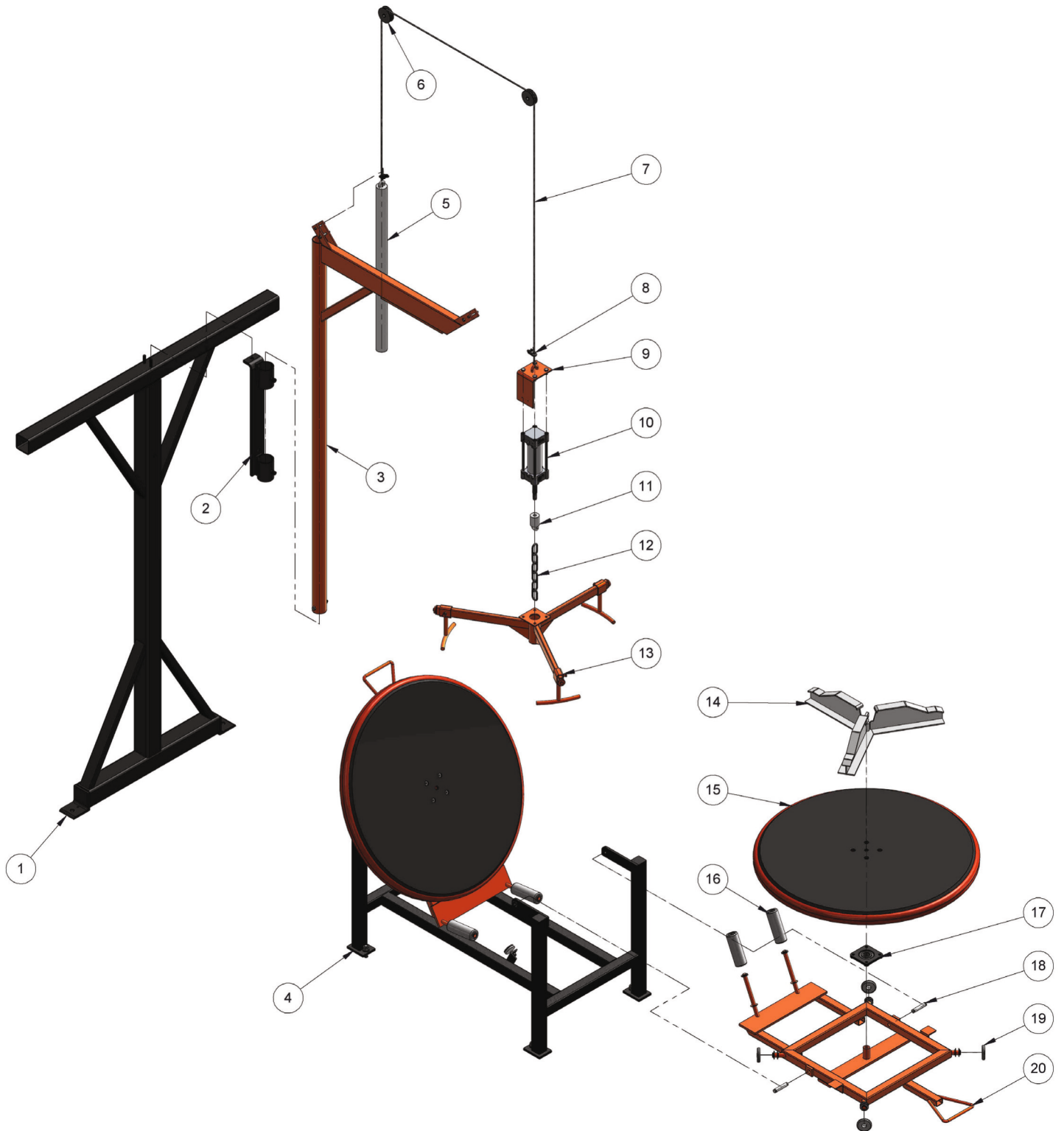
Weekly maintenance

- Clean the equipment by removing any rubber residue.
- Check the general condition of the pneumatic assembly.
- Check the general condition of the electrical assembly.
- Lubricate the moving parts.
- Check that the screws are tight.

10 Pneumatic Circuit



11 Parts List



Parts List - BOM

S. No.	Order Code	Description	UOM	Qty.
1	MD301/1	TRUCK MR COLUMN DOUBLE 180DEG	Nos	1
2	MD301/2	ARM BRIDGE SUPPORT ASSEMBLY	Nos	1
3	MD301/3	ARM BRIDGE WITH PIPE ASSEMBLY	Nos	1
4	MD301/4	MAIN FRAME ASSEMBLY – DISC TABLE	Nos	1
5	MD301/5	BALANCE WEIGHT ASSEMBLY	Nos	1
6	MD301/6	PULLEY	Nos	2
7	MD301/7	STEEL ROPE DIA 6 x 3500 Lg	Mtr	3.5
8	MD301/8	ROPE LOCK LOOP	Nos	2
9	MD301/9	CYLINDER MOUNTING BROCKET	Nos	1
10	MD301/10	PNUEMATIC CYLINDER DSBG - 80-160-PPVA-N3/P.No.1646777	Nos	1
11	MD301/11	COUPLING BUSH	Nos	1
12	MD301/12	CHAIN 1/4" x 6 LINKS	Nos	1
13	MD301/13	SPIDER ASSEMBLY	Nos	1
14	MD301/14	CURING RIM CLAMPING ASSEMBLY	Nos	1
15	MD301/15	DISC WITH RUBBER SHEET ASSEMBLY	Nos	2
16	MD301/16	NYLON ROLLER FRONT	Nos	4
17	MD301/17	SQUARE FLANGED UNIT UCF206D1	Nos	2
18	MD301/18	SWIVAL PIN	Nos	4
19	MD301/19	NYLON ROLLER CORNER	Nos	8
20	MD301/20	SWIVAL FRAME ASSEMBLY	Nos	2