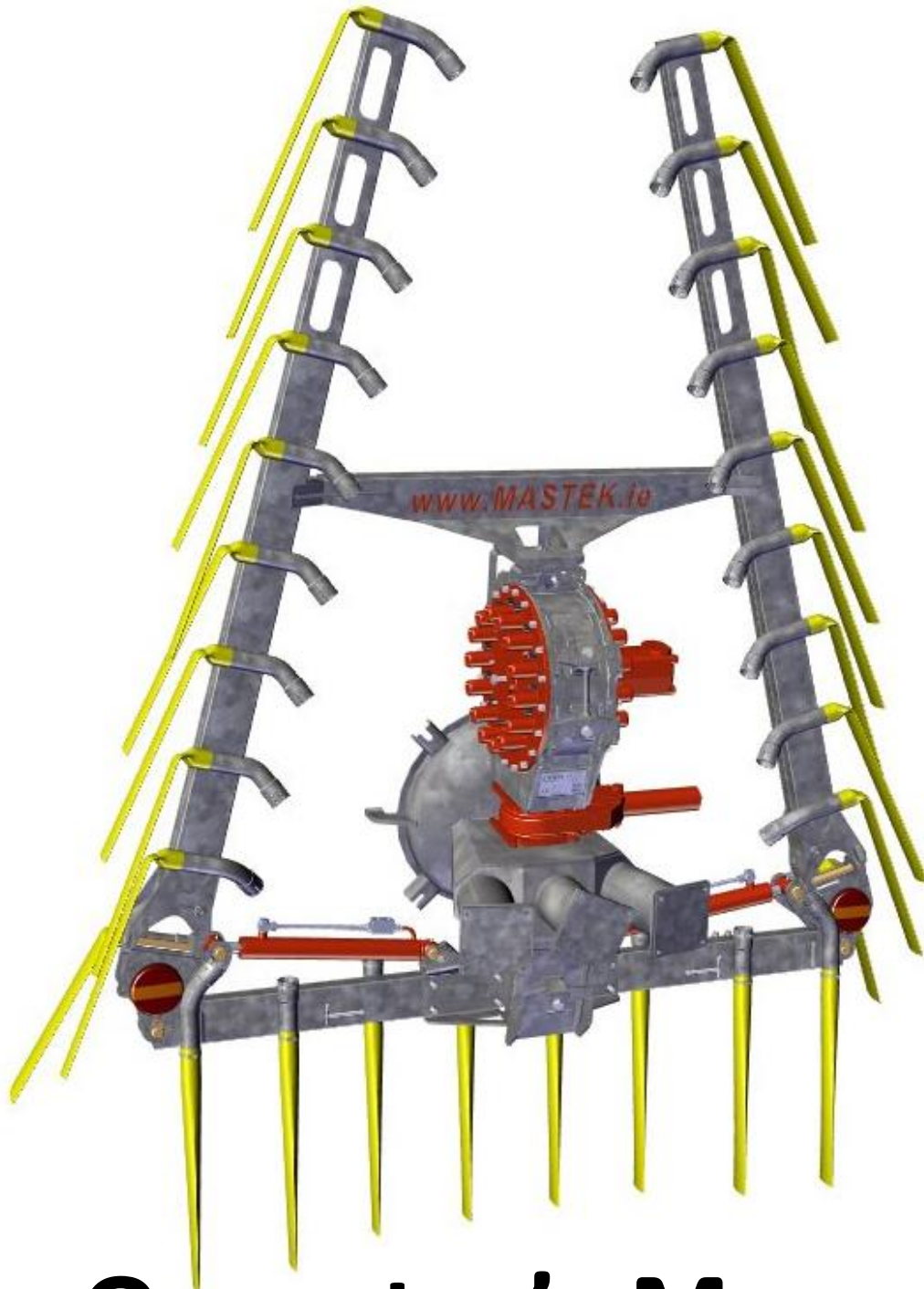


**Professional
Universal Dribble Bar
6.5m/7.5m/8m (PUDB)**



Operator's Manual

This operations manual caters for all the machines listed below.
Including different mounting frames and optional extras.

Machine Size	Part number
7.5m	MSA02331

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Owner Assistance

- We at Mastek want you to be completely satisfied with your investment in our product. Sometimes in unlikely circumstances a problem may occur. We at Mastek advise to follow the steps below to resolve the problem.
 1. Contact your local dealer, supplier of the implement and explain the problem, if required request assistance.
 2. If the implement was purchased directly through Mastek or the dealer fails to assist, then please contact Mastek. (see numbers below.)

Mastek Limited

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EC Declaration of Conformity



We, **Mastek Limited**

Cootehill Business Park, Cootehill, Co.Cavan

Tel: +353495555953 Email: enquiries@mastek.ie

www.mastek.ie

Declare that the equipment specified hereafter:

- Product:
- Serial No.:
- Functions: For use in the agricultural sector for the specific purpose of spreading slurry

Conform to the following EU directives:

- **BS EN ISO 12100:2010** Safety of Machinery - General principles for design - Risk assessment & Risk reduction (ISO 12100:2010)
- **BS EN ISO 4254-1:2009** Agricultural Machinery – Safety Part 1: General requirements (ISO 4254-1:2008)
- **BS EN ISO 4254-6:2009** Agricultural Machinery – Safety Part 6: Sprayers and liquid fertilizer distributors (ISO 4254-6:2009)
- **BS EN 707:1999+A1:2009** Agricultural Machinery – Slurry tankers – Safety

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(S)

Paul Quinn

Director

Mastek Limited

14/10/2016



Safety

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

- It is essential that the attached operator's manual and safety instructions are read before operation of this machine

WARNING

- ⚠ Slurry is a known Chemical hazard!
- ⚠ Wear protective appropriate clothing when working with chemicals. Do not allow chemicals to contact skin or eyes. Always follow the chemical manufacturer's instructions.
- ⚠ Failure to comply could result in death or serious injury.
- ⚠ Unexpected machine movement!
- ⚠ Disengage power, shut down the tractor, and be sure that all moving parts have stopped before servicing, adjusting, cleaning, or unclogging the equipment.
- ⚠ Failure to comply could result in death or serious injury.

Escaping fluid!

⚠ Hydraulic fluid leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately. Continuous long term contact with hydraulic fluid may cause skin cancer. Avoid long term contact and wash the skin promptly with soap and water.

Failure to comply could result in minor or moderate injury.

CAUTION

- Make sure all guards, shields and handrails are in good condition and properly installed before operating machine. Never operate the machine with shields removed. Always close access doors or panels before operating the machine.
- Before use, check the machine for safety, bearing in mind its intended use and if traveling on the public highway, ensure it complies with the road traffic laws.
- Be familiar with the equipment, control panels, and their functions before operating the machine.

- Avoid fire danger and keep machine clean.
- Ensure before driving, starting or shutting down the machine that no one is standing in the operating area. Pay special attention to children. Make sure that there is a good view out of the tractor.
- It is strictly forbidden during operation or transport to have passengers on the machine.
- Couple the machine to the tractor in accordance with the operating instructions, and ensure it is properly locked in position.
- Take special care when you couple or un-couple the machine from the tractor, as hydraulic oil may be trapped in some hydraulic lines.
- Observe the permitted maximum dimensions for transport.
- Transport accessories such as lights, license plates, and all covers must be fitted before transporting.
- Place controls such as user panel or locking rope so that they are easily accessible for operation.
- Before traveling on the public highway, set the machine in transport position, and lock it in accordance with the manufacturer's instructions.

- Be aware of the hazard zone for your machinery and ensure no one stands in that area.
- Secure the machine before leaving it and ensure that no unauthorized person can tamper or interfere with it, thereby injuring themselves or leaving it in a dangerous state so that the legitimate operator is at risk
- As well as the specific safety rules mentioned in this manual, overserve the general accident and safety regulations both for yourself and others.
- The stickers and plates on the machine give important directions for safety use. Observe these signs.

Terms of warranty

The following warranty terms relate to parts only.

- This Machine is covered by the manufactures warranty for twelve months or one season.
- Machines hired out to and operated by third parties are not covered by manufacturer's warranty.
- Under no circumstances will warranty claims be accepted for any damage caused by failing to adhere to the operating instruction or maintenance requirements as outlined in this manual.
- Under no circumstances will warranty claims be accepted for accidents caused by negligence or any modifications not carried out by Mastek.
- Claims relating to wear and tear on the machine will not be claimable under warranty
- Warranty claims will only be assessed if the machine has been serviced regularly and according to the conditions set out in the manual
- Warranty claims will only be assessed when all alleged faulty parts have been returned to the manufacturer. All parts dispatched to replace damaged parts under warranty consideration are chargeable, pending decision on claim.
- The Warranty on parts that are used on Mastek machines but manufactured by a third party on behalf of Mastek (motors, pumps, tyres, cylinders etc..) will only be return when warranty is received by Mastek from that third party.
- Mastek cannot be held responsible for damages suffered to the machine or accessories during transport and handling. Machines parts and accessories are transported at the client's own risk.
- Mastek can at no time be held liable for complaints or injuries to the owner, a third party or any other liabilities following such complaints or injuries.

Operation

Tractor Requirements

- The tractor must have 1 spare rear remote valve, (1 lever must not be in use in the tractor cab) As this system will require 1 additional valve to operate the macerator and arms on a solenoid, and 1 valve to open/ close the lolly pop which should be already fitted.



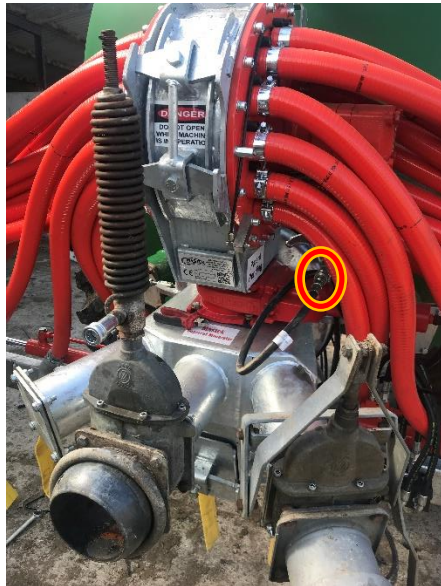
Note,
The lolly pop has now got 2 hoses to operate, the original hose and the Red hose work together in one valve.
The green hoses work together for the arms and macerator, in a separate valve.

A 12 Volt power supply is required to power the solenoid valve which switches the hydraulic flow between the rams and Macerator. (If fitted)



Switching between Macerator & Splash Plate

The Slurry flow to the macerator can be diverted to the rear splash plate, by changing the hose position.



Slurry flow provided to the macerator.



Slurry flow provided to the rear splash plate.



This change over is completed using $\frac{1}{4}$ " quick release couplings.
Simply change the supply hose to the valve requested to be operated.

Arm & Macerator on Solenoid

Pull the 2nd hydraulic lever to let down and fold out the arms as stated above



By clicking this switch in the tractor cab, it will change the oil flow from arms over to the Macerator.
(This switch is currently set for the Arms)



A light will illuminate to indicate the oil flow has been changed to the macerator.



Note

There may be no solenoid fitted to your machine so there would be a separate line for your arms your macerator and your gate valve in total 3 lines

Spreading in the field

1. Lower the arms as stated on previous page Switch off
2. Using 2nd lever open the rear lollypop
3. Turn on the tractor P.T.O. (Vacuum Pump)
4. Turn on the solenoid switch (Red light will go on) then using same lever as to fold down arms, turn on the oil flow to the macerator and leave on while spreading.



Spreading in the field the **macerator must be running** to ensure an even distribution of slurry across the dribble bar.

NEVER RUN THE MACERATOR DRY!

Finished spreading in the field

1. Turn off the oil flow to the Macerator (2nd lever)
2. Turn off tractor P.T.O. (Vacuum Pump)
3. Turn off the solenoid switch and Lift the arms using the same lever as the macerator
4. Close the lollypop

Note

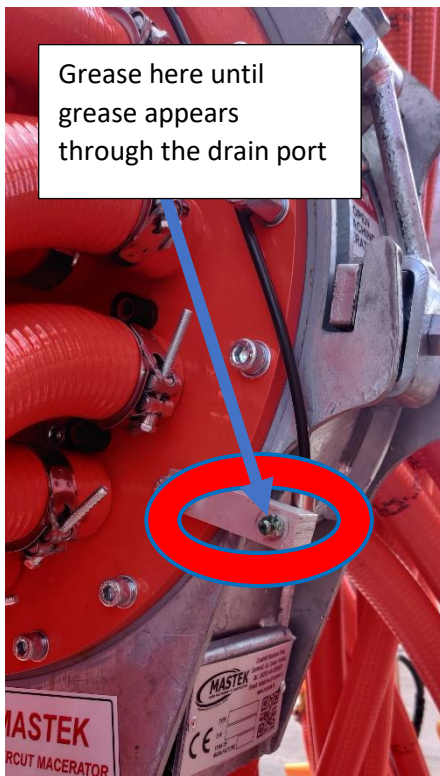
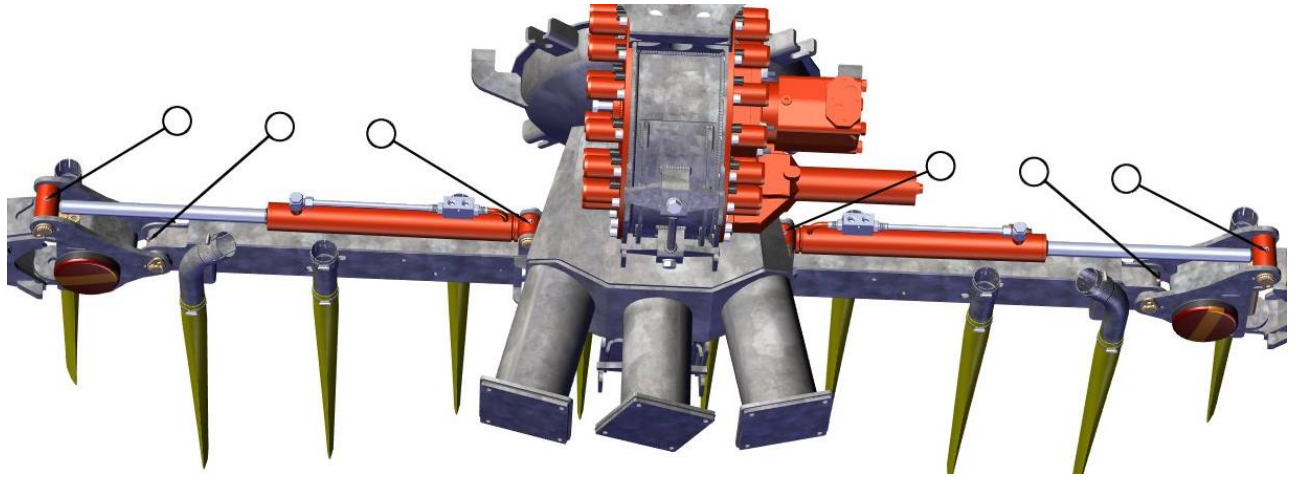
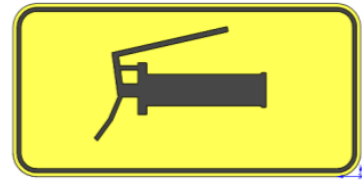
This could vary depending on the number of hydraulic valves in your tractor and how the machine is piped. If unsure contact your dealer or us here at Mastek.

Maintenance

- To avoid premature wear to the macerator it is advised daily to change the rotation by moving the hydraulic lever in the cabin to the opposite direction when starting to operate in the field.
- The hydraulic oil flow from the tractor should not exceed 120 LPM to the motor.
- Inside the macerator there is a hub assembly and as it rotates, it closes/opens the different slurry outlet hoses. If the drum is rotating too fast it will not allow enough pressurised slurry into the hose to give good distribution.
- The correct operation is after the macerator is running continuously for 1 hour or if the macerator jams, to run the macerator in reverse. This is to prevent wear on one side of the rotary scrapers and to help the macerator clear itself of any blockages. It is advised to minimise the running of the macerator when dry as the rotary scrapers may suffer and wear quicker. **[Here at Mastek we recommend not running the macerator while dry for any more than 30 seconds.](#)**
- Ensure the macerator stone trap is empty of items – a build-up may block the macerator.

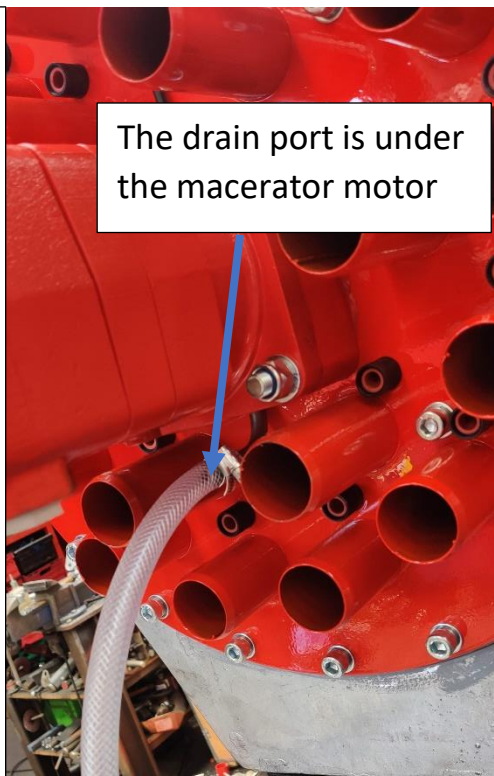
Greasing points

This system has a total of 7 greasing points.



Grease here until grease appears through the drain port

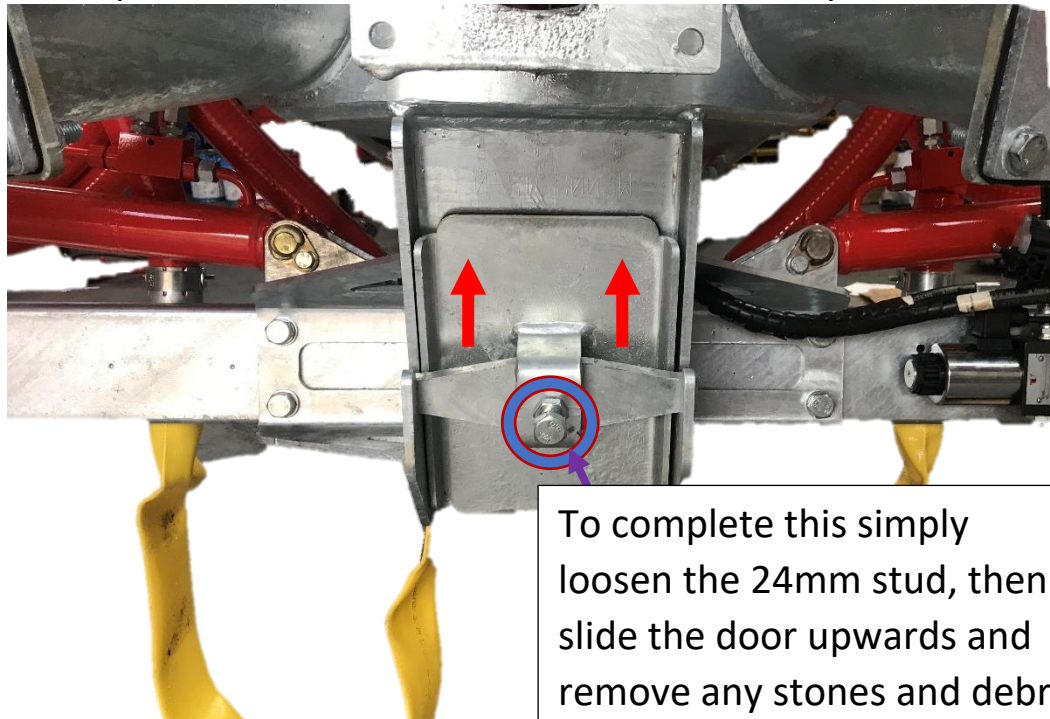
If oil appears from this port, this indicates that there is an issue with the hydraulic motor and requires further inspection.



The drain port is under the macerator motor

Emptying stone trap

The Stone trap is recommended to be cleaned out daily.



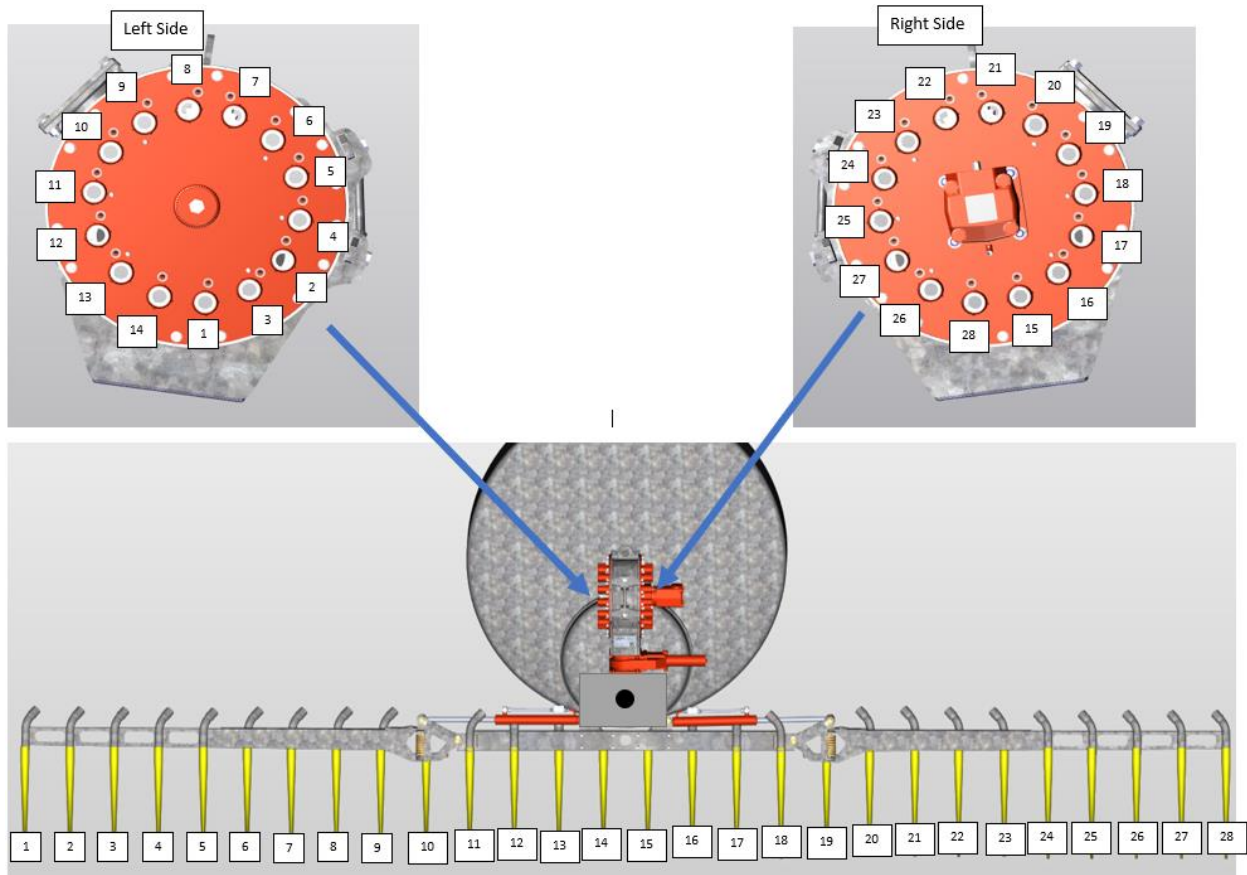
Cleaning after use

Once finished operating the slurry tanker, we strongly recommend cleaning out the duckbills, we recommend using a hose or pressure washer for this.

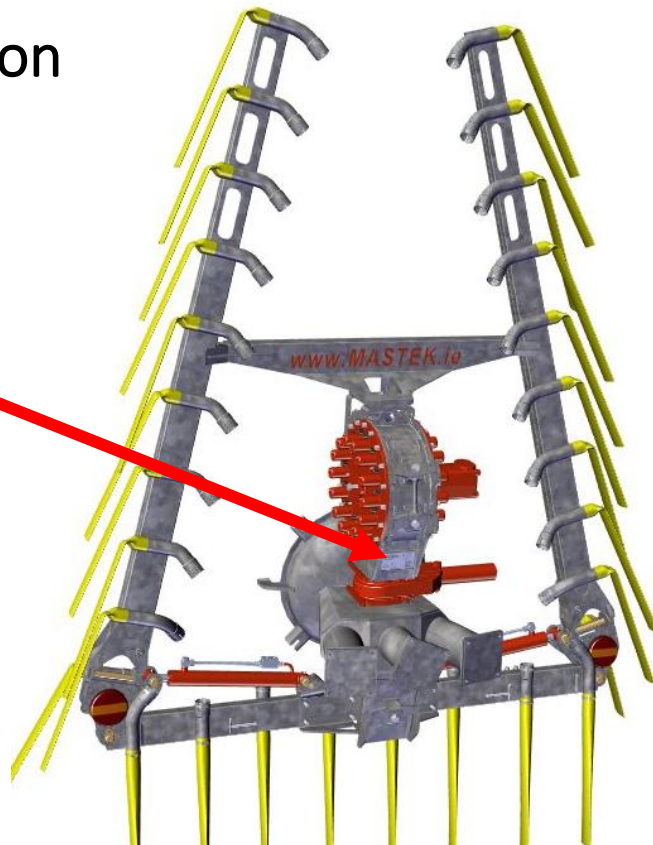
At Mastek we advise when the slurry spreading season is finished or storing the tanker for a long period, to remove the rear macerator door and flush the macerator out with water.

If storage is for a long period, then we advise to grease the knife plates as well.

Correct Orientation of Piping



Serial number location



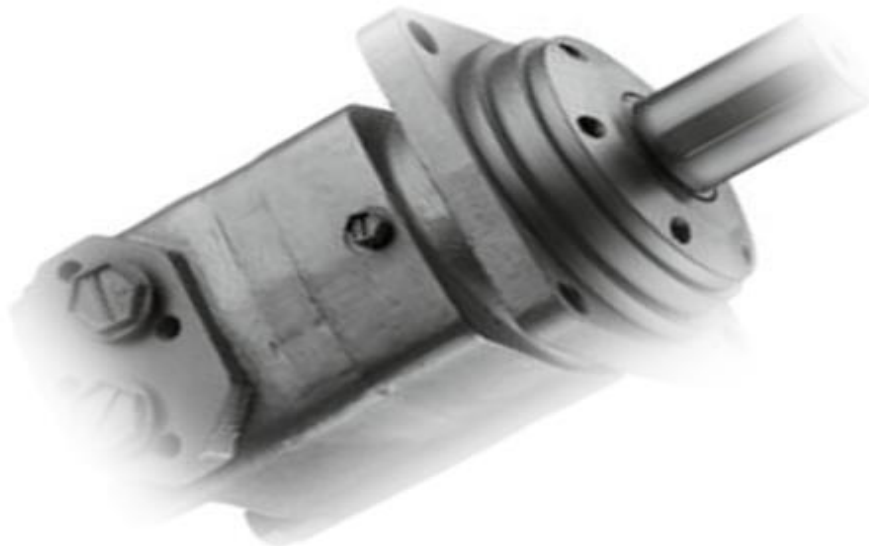
Trouble Shooting

Fault	Possible Cause	Action To Be Taken
Macerator Vibrates	Rotor runs too slowly	Check hydraulic settings
	Rotor is clogged	Clean macerator
	Ventilation is blocked	Clean, use water to flush out
Bad Distribution	Rotor speed too high	Check hydraulic settings
	Pressure in tank too low	Check vacuum pump
	Macerator not running	Check power at solenoid valve / hydraulic flow at the motor
Only a few hoses are fed with slurry	Rotor not turning	Reverse rotor several times
		Disassemble Macerator and clean
		Check motor is running
Macerator will not run	No Hydraulic oil reaching the motor	Check solenoid valve is operating and the small LED light is illuminating at the valve when powered
Rear valve is sucking air when tank is filling.	Valve not closed fully due to trapped oil pressure	Turn off the tractor and move the hydraulic lever used for the lolly pop releasing all hydraulic pressure, move the hydraulic tap valve on the bottom of the macerator gate valve, then complete the same action.
Macerator will not turn	Not flushed out before storage	Open studs on right side of macerator and try to turn rotor

Specification

Macerator Motor

Model	BM4-320	
Displacement (ml/r)	317.5	
Max Pressure (Mpa)	Cont	20
	Int	24
	Peak	28
Max Torque (N.m)	Cont	902
	Int	1143
	Peak	1322
Speed. Range (r/min)	7-380	
Max. Flow (l/min)	125	
Max. Output. Power (Kw)	25.2	
Weight (Kg)	22.4	



Delivery Report

Customer Name _____

Model _____

Serial Number _____

Bolts missing

Check bolt torque

Hose damaged

Hoses missing

Hose clips missing

Hydraulic oil leakage

General operation of machine

Lights

Hose and harness routing

Grease points

General Appearance

Condition of paint, galvanizing

Defect Notes;

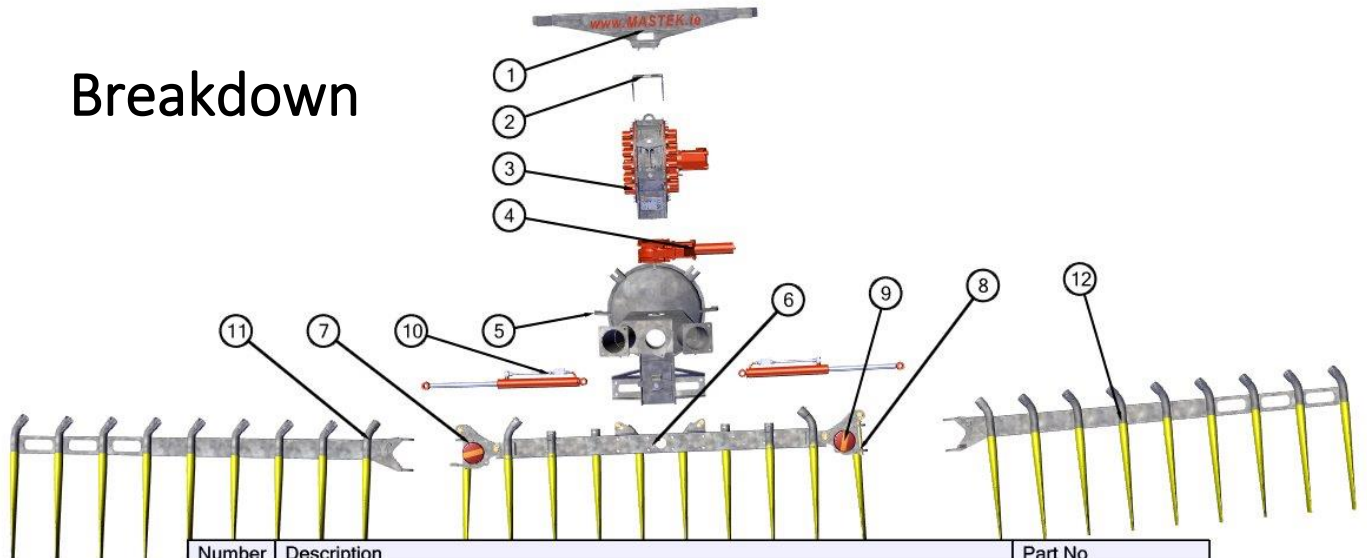
Signed; _____ (person whom completed the inspection)

Date; _____

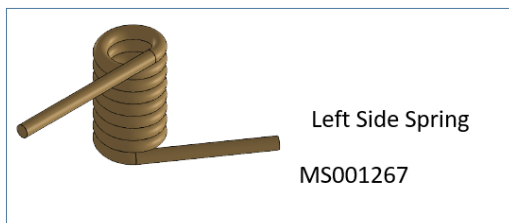


Dribble Bar Spare Parts

Breakdown

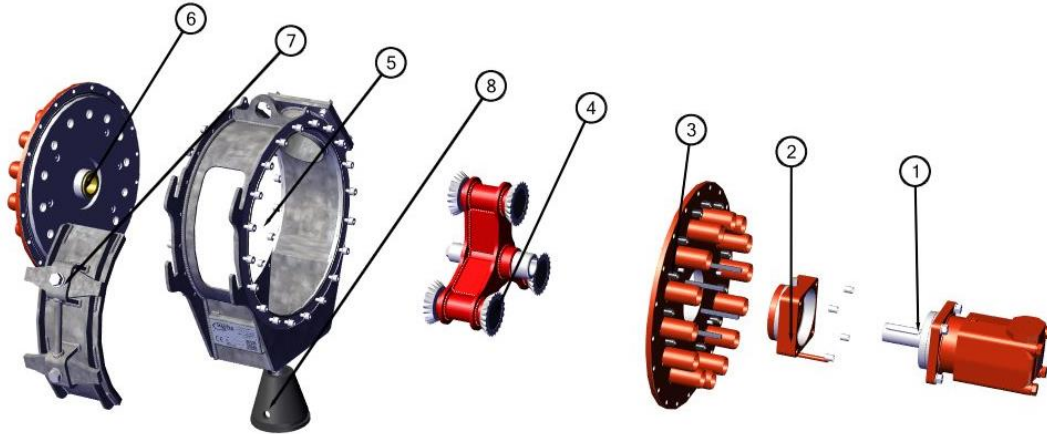


Number	Description	Part No
1	7.5M TRANSPORT ARM FULL ASSEMBLY	MSA03558
2	TRANSPORT ARM BASE (GALVANISED)	MS004416
3	28 Outlet Macerator	MSA01076
4	6" HERTELL SLEW VALVE (CAST IRON)	MS000147
5	THERE ARE MANY VARIATIONS OF THIS DISH TO SUIT DIFFERENT TANKERS	CONTACT MASTEK
6	GALVANISED 7.5 CENTER ASSEMBLY WITH LEGS	MS010554
7	GALVANISED R-H HINGE ASSEMBLY	MS010972
8	GALVANISED L-H HINGE ASSEMBLY	MS010974
9	MCHUGH LED CIRCULAR LIGHT	MS008833
10	TMDB0176 TMDB ARM CYLINDER	MS002738
11	GALVANISED 7.5M R-H ARM ASSEMBLY	MS007670
12	GALVANISED 7.5M L-H ARM ASSEMBLY	MS007671



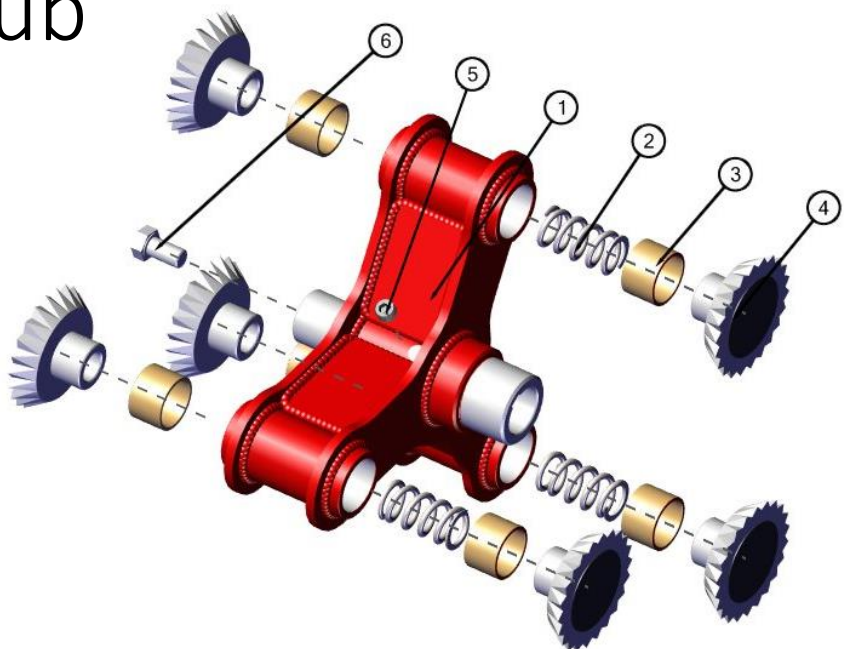
Macerator Spare parts

Breakdown MSA01076



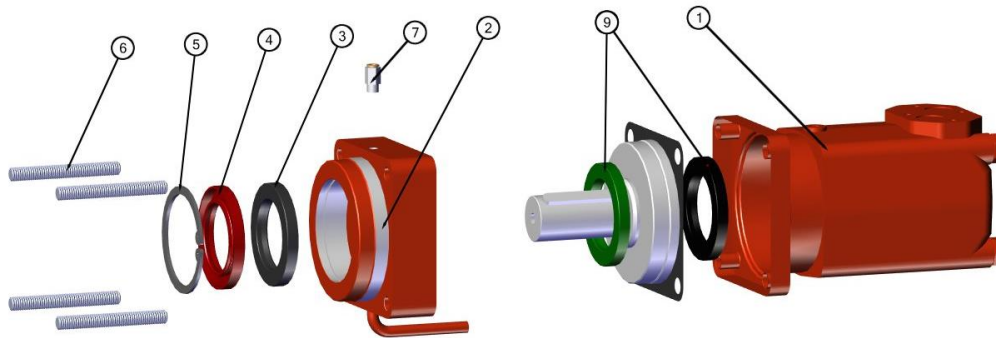
Centre Hub

MSA00787



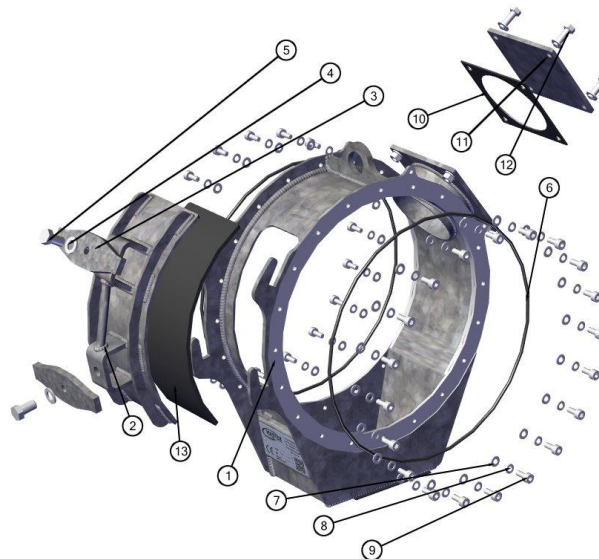
Number	Description	PartNo
1	MSA01532 PAINTED RAL 2002	MS004696
2	MACERATOR SPRING (OLD TYPE)	MS001220
3	BRONZE BUSHING	MS002144
4	ROTARY SCRAPER ASSEMBLY	MSA00851
5	M16 X 12 GRUBSCREW (FLAT HEAD)	MS003717
6	M16 HEX HEAD SETS (8.8) - 30MM	MS002850

Motor & Isolation Block



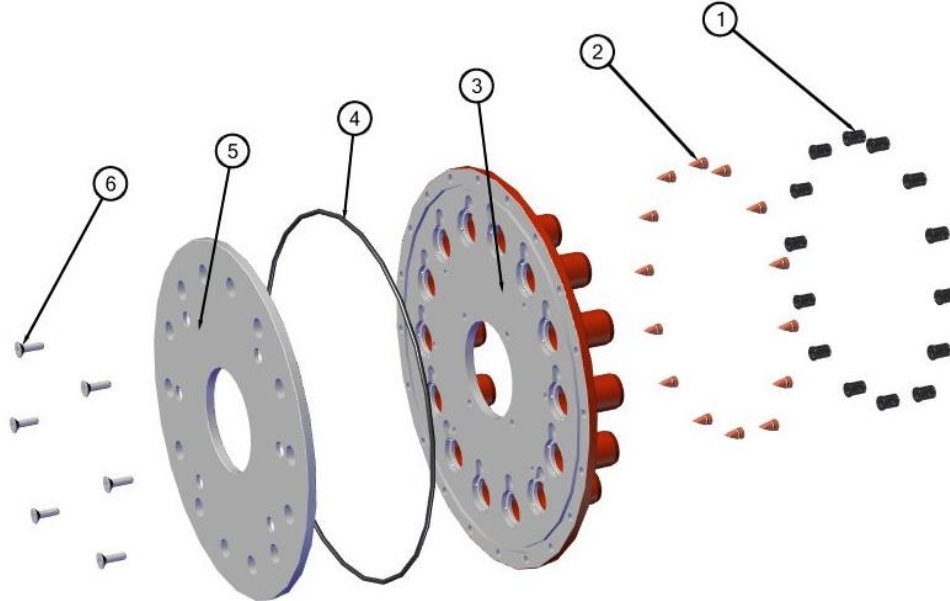
Number	Description	Patr No
1	HAC-OMT315CD (317CC)	MS003168
2	HYDRAULIC OIL ISOLATION BLOCK	MS007343
3	ROTARY SHAFT LIP SEAL 90X60X10 (S/S) (macerator)	MS007345
4	Slurry Seal 90X60X10	MS005457
5	INTERNAL CIRCLIP 90MM	MS006982
6	M12 X 100 THREADED STUD	MS007284
7	1/8" BSP Q-R GREASE PORT	MS006980
9	Motor Seal Kit	MS005397

Carcass & Access Doors



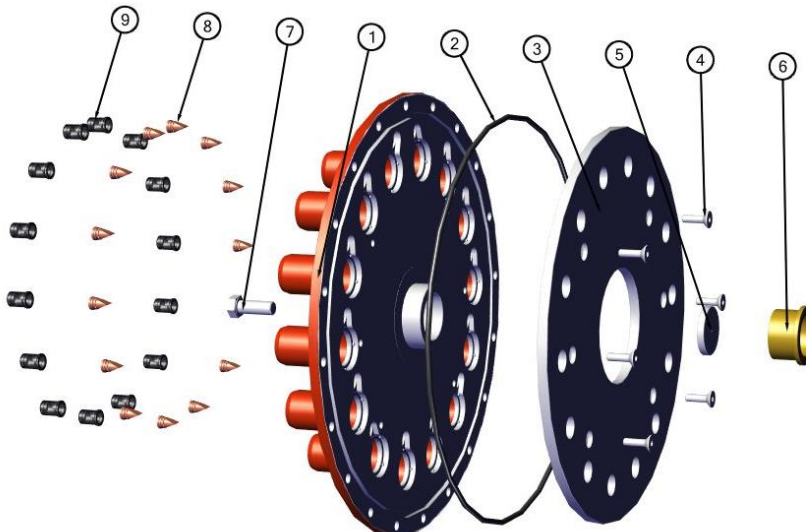
Number	Description	PartNo
1	MACERATOR CARCAS MK4-B (GALVANISED)	MS003
2	MACERATOR ACCESS DOOR MK4-B (GALVANISED)	MS003
3	MACERATOR COVER LATCH (THREADED)	MS001
4	M16 PLAIN WASHER	MS000
5	M16 HEX HEAD SETS (8.8) - 30MM	MS002
6	SIDEPLATE O-RING	MS002
7	M10 PLAIN WASHER	MS000
8	M10 SPRING WASHER	MS000
9	M10 X 25 SOCKET HEAD BOLT	MS002
10	4" SQUARE FLANGE GASKET SEAL	MS000
11	FLANGE BLANK (SQUARE)	MS001
12	M12 HEX HEAD BOLT (8.8) - 40MM	MS000
13	INSPECTION COVER SEAL 8MM (MK4-B)	MS003

Side Plate Motor Side 28 outlet



Number	Description	PartNo
1	BREATHER MOUNT	MS002057
2	DUCK BILL	MS001980
3	TMDB MK4-A SIDEPLATE PAINTED	MS003143
4	SIDEPLATE O-RING	MS002261
5	TMDB KNIFEPLATE (MK4)	MS002323
6	M10 X 25 CSK SCREW (STAINLESS STEEL)	MS003440

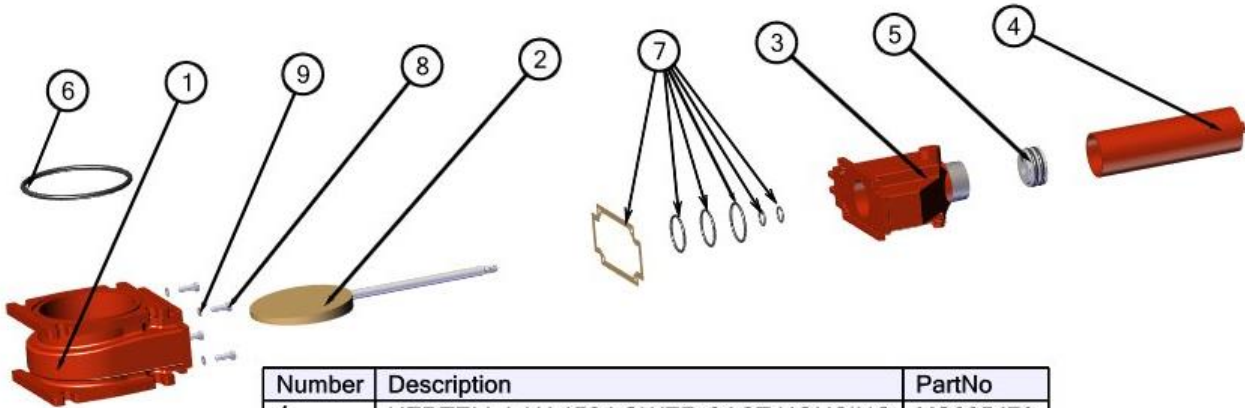
Side Plate Left side 28 outlet



Number	Description	PartNo
1	SIDEPLATE PAINTED	MS003107
2	SIDEPLATE O-RING	MS002261
3	TMDB KNIFEPLATE (MK4)	MS002323
4	M10 X 25 CSK SCREW (STAINLESS STEEL)	MS003440
5	HEAVY WASHER	MS002170
6	BRONZE BUSHING	MS002165
7	M16 HEX HEAD SETS (8.8) - 45MM	MS002265
8	DUCK BILL	MS001980
9	BREATHER MOUNT	MS002057

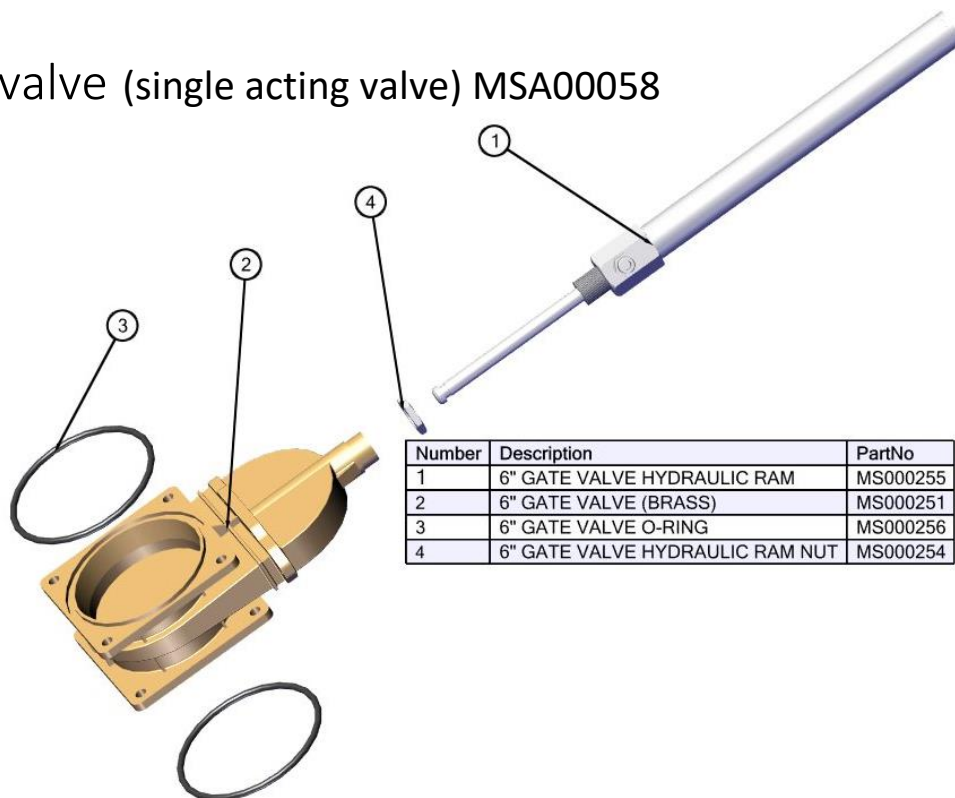
Gate valves (universal to all) (Optional)

Hertel (Two way valve) MS000147



Number	Description	PartNo
1	HERTELL LAU 150 LOWER CAST HOUSING	MS005479
2	BRASS CHISEL FOR 150 GATE	MS005483
3	HERTELL LAU 150 UPPER CAST HOUSING	MS005481
4	HERTELL VALVE TUBE	MS010904
5	HERTELL VALVE PISTON	MS010905
6	O RING OD 174MM SECTION 8MM	MS010891
7	HERTELL GATE VALVE SEAL KIT	MSA01629
8	M08 HEX HEAD BOLT (8.8) - 25MM	MS001100
9	M8 PLAIN WASHER	MS002722

Brass valve (single acting valve) MSA00058



Number	Description	PartNo
1	6" GATE VALVE HYDRAULIC RAM	MS000255
2	6" GATE VALVE (BRASS)	MS000251
3	6" GATE VALVE O-RING	MS000256
4	6" GATE VALVE HYDRAULIC RAM NUT	MS000254

Miscellaneous parts (Universal to all)



45mm Flex Pipe
MS001988
Sold Per meter



50mm Layflat Hose
MS000189
Sold Per meter



Pipe strapping
MS001243



Wiring harness complete.
MS000954



6 Port Solenoid valve,
Part Number MS001106

