

Data Sheet:

januar 11, 2021

MTX\_B – Solid material mixer



Various setup



Outdoor filling with acid and stain free steel plating



Indoor with hydraulic lid for closing



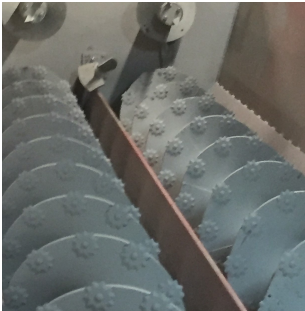
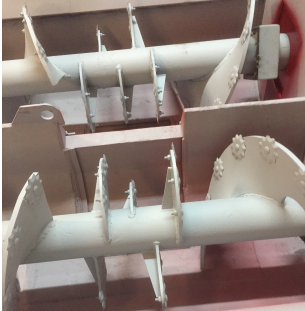
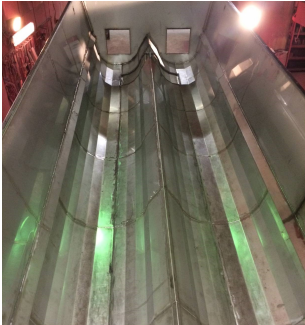

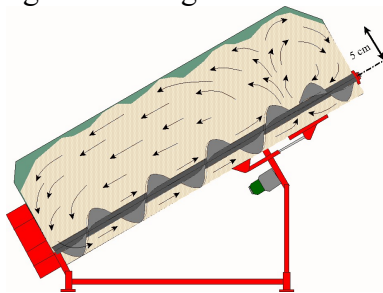
Indoor with open top for automatic filling from crane system

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	  <p>Full knife mounting on auger and sable cut outlet</p>
Machine details	  <p>Acid and stain free cover plates also on augers for transport and stuffing auger into the digester.</p>
Machine number	1071-003B (18 m <sup>3</sup> ), 1071-005B (22 m <sup>3</sup> ), 1071-006B (30 m <sup>3</sup> ), 1073-002B (42 m <sup>3</sup> ), 1073-001B (50 m <sup>3</sup> )
Custom tariff number	84369900
Machine paint	<p>Standard ISO 12944-5 category C2.</p> <p>Machines, guards etc. comes in a colour type RAL 3001 red suitable for indoor, non corrosive environment - water and oil resistant -15 to + 60 degrees C, surface purified with alkaline degreaser, painted with a machine primer and here after coating paint.</p>
Standard	<p>DS/EN 60204-1:2006 Safety of Machinery - Electrical Equipment of Machines, DS/EN ISO 13850 of January 29th 2007 emergency stop, DS/EN ISO 13849-1 safety-related parts of control systems, DS/EN 60204-1: 2006, cable installation method E</p>
Machine function	<p>The Cormall Biogas mixer and feeder is based on our traditional diet feed mixer. The material is filled into the rear of the machine where two main augers transport the material to the top. At the top is the material either taken out or reversed to the back of the machine by the molehill in the top. The mixer can be used for batch mixing, and for continuous mixing and feeding at the same time.</p>  <p>The machine is placed on load cells with a weight control to ensure the constant refill of material and keeping a certain amount of material in the machine at all time</p>

Function of the discharge system	<p>The components used for discharge system:</p> <ol style="list-style-type: none"> <li>1. Discharge Shutter, standard MTX</li> <li>2. Hydraulic pump and valves, standard MTX</li> <li>3. 1-0-2 switch for open/close signal, manually.</li> <li>4. Ø 560 mm discharge auger</li> <li>5. Rod sensor for measuring opening level of the shutter</li> </ol> <p>Notice that this can be done in two ways, with or without rod/string sensor (5.)</p> <p><u>Method 1- Manual overwrite 1-0-2 switch:</u> The standard shutter can be operated manually with the switch (3). The opening of the shutter can be seen from the measure arm on the side of the shutter.</p> <p><u>Method 2 - Automatic adjustment of shutter opening:</u> The rod sensor pos 6, is used to have exact knowledge of the shutter position and is used for remote control or automatic regulation of the shutter opening.</p>
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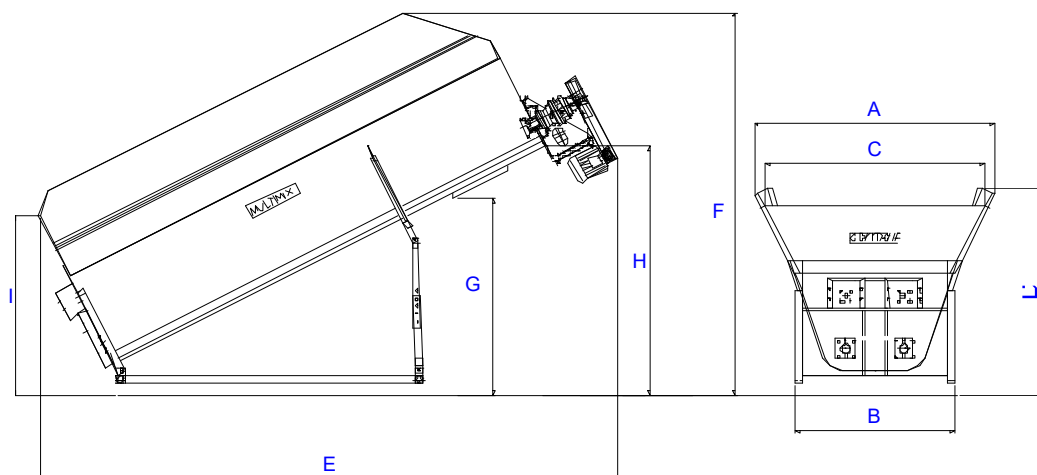


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RISK ASSESMENT Machine	The machine can be used as a “stand alone” machine and is therefore also delivered with a CE marking and conformity declaration.				
EN/ISO 13849-1	Safety levels: PLr: a, as machine with manual start PLr: c, as machine with automatic start if access is possible and not restricted.				
Analyzed risk following EN-ISO 13849-1:		S	F	P	PLr
1. Mounting: The machine is provided lifting positions that ensures balance when lifting and strong enough to hold machine load. Follow instruction from the manual, when mounting the machine. Work place assessment should be made, before start with mounting.		S2	F1	P1	c
2. Operating: a. In automatic: The machine has to be mounted with a filling device, that provides cover for accidental entering into the machine like Cormall BT 170 straw bale table or similar, and with a closed connected outtake Cormall twin auger or similar.		S2	F1	P1	c
b. In manual with front loader: The machine must be specific ordered for this and placed on same floor level as the loader is driving at, to prevent accidental entering of the machine.		S2	F1	P1	C
3. Servicing: a. All lubrication positions are from a safe position.		S1	F1	P1	A
4. Renovation: a. Change of knives inside the machine can happen 3-4 times a year. To change knives one has to go into the machine. Access into the machine is provided through filling hole from filling device, cormall BT 170 bale table or similar. Before entering the machine must be turned off on the main switch and locked. The filling device must also be turned off. Before entering from filling device, place/drop down over the two bale breaker augers a wood plate, to prevent from stepping down onto the knives. Work place assessment should be made.		S2	F2	P1	D
b. Oil change on the main planetary gears must be made from a build up platform suitable for the job. Work place assessment should be made		S1	F1	P1	A
5. Scrapping/recycling: same comment as under 1. Mounting		S2	F1	P1	C

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**Dimensions:**

Mixes	18 m <sup>3</sup>	22 m <sup>3</sup>	30 m <sup>3</sup>	42 m <sup>3</sup>	50 m <sup>3</sup>
A	2900	2900	3100	3800	3800
B <sup>#</sup>	2400	2400	2600	3190	3190
C	2450	2450	2640	3380	3380
D	2550	2550	3040	3290	3290
E	6000	6900	7800	8000	8500
F	4550	5100	5650	5990	6200
G	2050	2300	3030	3030	3500
H	2550	3000	3640	3640	4150
I	2050	2050	2150	2150	2150
weight kg	6800	7900	8900	11200	14100
plate mm	10	10	10	10	10
Shutter mm.	400	900	900	900	900
<b>Auger size</b>					
15mm, Ø	600	600	600	800	800
rpm/min (280/160)	25	25	25	25	25
<b>Motor</b>					
kW 2x	7,5	11	15	18,5	22
RPM min <sup>-1</sup>	1400	1400	1400	1400	1400
Starter	Y/D	Y/D	Y/D	Y/D	Y/D
Wire mm <sup>2</sup>	7x2,5	7x2,5	7x2,5	7x4	7x4
kW pump	0,75	0,75	0,75	0,75	0,75
Starter	DOL	DOL	DOL	DOL	DOL
Wire mm <sup>2</sup>	4x1	4x1	4x1	4x1	4x1
kW Valve 2x	0,1	0,1	0,1	0,1	0,1
Starter	DOL	DOL	DOL	DOL	DOL
Wire	4x0,75	4x0,75	4x0,75	4x0,75	4x0,75

#) incl. Weight

## Maintenance for MTX

### Oil Exchange:

Position	Quantity	Producer/Type	Interval
Planetary gear: MTX 18, 22, 30	2x 6,5 L	SAE 85W/140 -	First time after 100 hour here after every 4000 hours
Planetary gear MTX 42, 50	2x 12 L (2522) 2x 12,5L (310)	Q8 Goya 220 -	
		Ore other similar oil	
Hydraulic	5 L	Tellus 22	1-2 times a year depend- ing on how frequent it is used

### Greasing:

Position	Quantity	Lubricatuion	Interval
Other bearings	Appropriate, 1 squeeze.	Shell Calithia EP T2	Every 100 hours - <b>Notice!</b> Do not over grease.

**Tightening bolts:** All bolts and mothers must be tightened after the first 10 hours.