GASTI	Technical Details for GASTI Mixing and Feeding Pump	D 125 - 25 M

See drawing S 3102 - 1117
and PS 3000 - 1204

This pump is employed for the feeding and mixing of cold or heated stirred yogurt with jam or other liquid or pulpy fruit contents. The ratio of components is infinitely variable from 1:5 to 1:20 by regulating the pumping volume of the fruit pump.

The pump for the yogurt base is constantly pumping the same volume.

Working method: (see PS 3000-1204)

The two filling products are drawn up from the individual storage tanks, item 2 and 3, by means of the pumps. Then the two products are fed into the compressed air chamber of the mixing and feeding pump (in which a further mixing is effected) via a mutual pressure pipe; from the compressed air chamber the product is fed into the hopper of the filler via pipe, item 4.

The control of the mixing and feeding pump is effected by a float switch incorporated in the hopper of the filler, as well as by a contactor incorporated in the pump.

Output: The pump drawing up the yogurt base is steadily feeding approx. 50 litres per minute.

According to requirements a special design feeding either 33 litres or 25 litres per minute is also available.

The pumping volume of the fruit pump can be adjusted according to scale, for a ratio of components from 1:5 up to approx. 1:20.

Contact parts: All parts in contact with the product are made of special stainless steel - German Specification No. 1.4301 and 1.4541.

Construction: Modern design, especially sturdy and stable. Frame and covering made of stainless steel. Fittings and parts easily detachable for cleaning.

Drive: Normally by electric squirrel cage A.C. motor of the totally enclosed type, operating on 220 or 380 Volts, 50 cycles.
Connected load: 0,55 K/W.

MACHINERY WORLD

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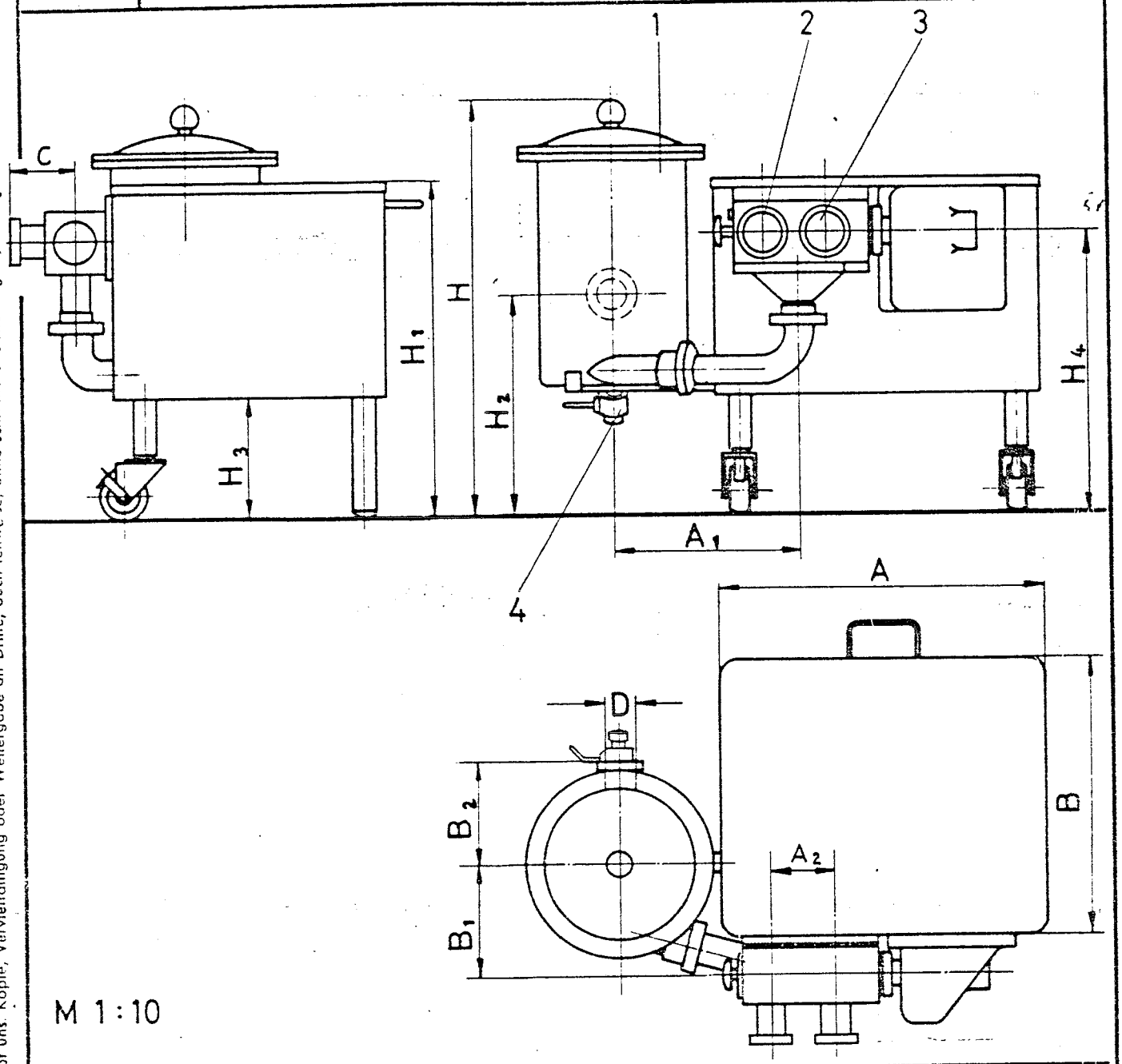
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Vo. Nr. 402

Misch- und Förderpumpe

Mixing and Feeding - Pump

D 125 - 25 M



M 1:10

A	550	Pos.	Benennung
A_1	310	1	Druckwindkessel
A_2	105	2	Pumpe mit 50... 250 ccm Gewindestutzen NW 50
		3	Pumpe mit 1000 ccm konstant Gewindestutzen NW 50
		4	Ablaßhahn
B	450		
B_1	186	Item	Denomination
B_2	170	1	Compressed air chamber
C	104	2	Pump for variable pumping volume from 50...250 cc
D	NW 50		joining socket NW 50
		3	Pump for steady pumping volume 1000 cc.
H	670		joining socket NW 50
H_1	555	4	draw - off - valve
H_2	350		
H_3	200		
H_4	465		

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S 3102 - 1117

Vo Nr 402

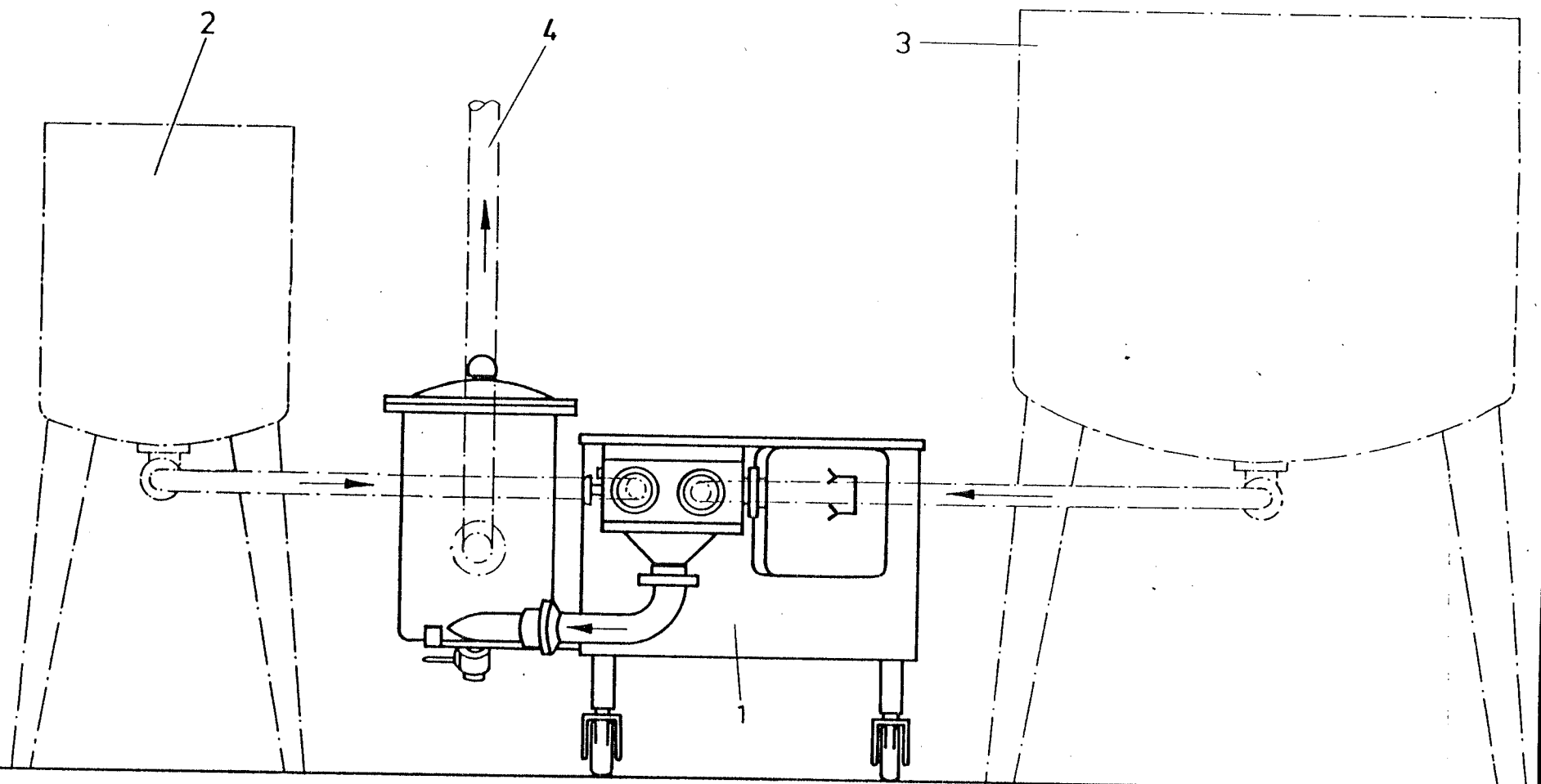
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Hierzu S 3102-1117
TE 3102-1113



Pos.	Benennung
1	Misch-und Förderpumpe
2	Vorratsbehälter für Früchtebrei
3	Vorratsbehälter für Joghurt
4	Druckleitung zur Füllmaschine

Item	Denomination
1	Mixing and Feeding - Pump
2	Storrage tank for fruit pulp
3	Storrage tank for yogurt
4	Pressure pipe to the filling machine

Arbeitsprinzip der Misch-und Förderpumpe für Joghurt mit Früchtebrei und dergleichen

Working Principle Mixing and Feeding Pump for yogurt base with fruit pulp and similar products

D 125 - 25 M

GANZHORN+STIRN, MASCHINENFABRIK, SCHWÄBISCH HALL

PS 3000 - 1204

OPERATING INSTRUCTIONS FOR MIXING AND FEEDING PUMP D125-25M

A. Description of design

B. Starting-up procedure

C. Adjustment

D. Cleaning and maintenance

A. Description of design

The mixing and feeding pump is employed for the mixing and feeding of warm or cold stirred yogurt with fruit purée or jam.
It has been designed for a feeding capacity of approx. 50 liters/min. but is also delivered in special design with a lower output. The mixing ratio can be infinitely varied from 1:5 to approx. 1:2, whereby the yogurt pump is working at a constant feed flow; however the pumping volume of the pump for the fruit contents is infinitely varied.

Both of the filling products are sucked out of their hoppers by the pumps and subsequently pumped into the compressed air chamber via a common pressure pipe. A guide sheet is located at the mouth of the chamber for the purpose of a repeated mixing of the fruit yogurt already pre-mixed inside the mixing pipe. The main function of the compressed air chamber is a comprehensive reduction of the pressure shocks by the pistontype pumps in the pressure pipe. The fruit yogurt, which is now ready to be filled up, is then fed from the air chamber into the hopper of a filling machine.
The product level inside this hopper is regulated by means of an incorporated float switch, which controls the starting and stopping of the machine.

MACHINE'S SAFETY DEVICES

A motor security switch switches-off the machine in case of overload or short circuit.

The upper cover is equipped with a magnet and magnet switch.
If the cover is opened, the machine is switched off immediately or cannot be started.

Safety devices are provided to protect personnel and the machine; they must not be tampered with or bypassed.

B. Starting-up

Before putting the mixing and feeding pump into service, the type of power supply and voltage must first be checked to ensure they coincide with the data on the motor output plate. The correct direction of rotation must also be ensured (arrow marking on motor).

When the electrical parts have been checked and found to be in order, the pump can be connected to the mains, as well as to the conduit of pipes and the float switch; then the pump can be put into service.

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C. Adjustment - see picture 70/33-3

For the adjustment of the required mixing ratio put the socked wrench (1) onto the spindle end (2). By turning the wrench the spindle nut can be vertically adjusted in the guide rail in accordance to the scale (3) fitted therein.

D. Cleaning and maintenance

1. Compressed air chamber - see picture 73/6-0

   Loosen screwed pipe connections for the feeding and discharge (4) of the pressure container and remove the chamber from its holding device (5). The cover of this chamber can be removed by loosening the three nuts (6) and swinging the hasp screws outwards.

2. Filling head - see pictures 73/6-1 and 72/35-15

   Loosen screw (7) and swing out catch (8). Withdraw cock plug (9) at the handle. Loosen screws (10) and remove mixing tube (11). After having loosened the four hat nuts (12) the cock housing can be withdrawn forwards.

3. Pumps - see picture 70/33-2

   Remove retaining rings (13) and nuts (14) and push out pistons along with piston rods forwards. Then pull out pump cylinders (15) and (16) forwards.

   After cleaning the parts coming into contact with the product, re-assembly is effected in inverse sequence. The surface of piston and plug have to be greased with a small amount of Vaseline or another grease approved for food processing purposes;(see the "Table of lubricants for the filling area" of the Klüber company.) When fitting the pistons and plugs care should be taken that the hat-type packings and gaskets are not damaged. During the fitting of the cock plug the latter must be turned (with slightly pressure applied to it) until the pins of the cock plug catch in the groove of the compensating disc.

   The various running surfaces of the mixing and feeding pump are provided with lubricating grease by a centralized holder fitted with lubricating nipples.
   Lubricants see in GASTI - lubrication charts
   Lubrication of the bearing for the filling head control is effected through a drilled hole (17) in the machine frame covering.
   To guarantee a sufficient lubrication, a small amount of grease should be pressed into these nipples daily.

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OPERATING INSTRUCTIONS FOR MIXING AND FEEDING PUMP D125-25M

Setting synopsis

Ratio of components	Scale value		for 1.000 l stirred yogurt		Ratio of fruits %	
	theore-tical	practical	yogurt	fruits		
1 : 5	8,3		833	167	16,7	
1 : 6	6,1		857	143	14,3	
1 : 7	4,8		875	125	12,5	
1 : 8	4,2		889	111	11,1	
1 : 9	3,6		900	100	10,0	
1 : 10	3,1		909	91	9,1	
1 : 11	2,7		917	83	8,3	
1 : 12	2,5		923	77	7,7	
1 : 13	2,3		928	72	7,2	
1 : 14	2,1		933	67	6,7	
1 : 15	1,9		937	63	6,3	
1 : 16	1,8		941	59	5,9	
1 : 17	1,7		945	55	5,5	
1 : 18	1,6		948	52	5,2	
1 : 19	1,5		950	50	5,0	
1 : 20	1,4		952	48	4,8	

The scale values have been determined by way of calculating; in practical operation the actual values vary therefore slightly from values given herein.

Exact values must be determined by measuring and noted in this setting synopsis.

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