

DESIGN DATA SHEET FOR EQUIPMENT

Conveying rotary valve

TON 450H009A/B

Item 43Z-45050A/B

Rev. 03

Rev	Rev
1	Quantity operat./stand-by 2 0
2	Type/Designation drop through for conveying
3	33 Operation continuous
4	03 Capacity 12000 - 23200 kg/h,
5	02 34 03 Location Outdoor under roof
6	Process description Dilute phase conveying
7	35 01 Equip. consists - feed hopper - rotary valve
8	36 01 of/Addition - rotor tips bevelled
9	Process fluid S-PVC powder (dry), conveying air
10	37 03 - vent line with connettion
11	01 Density solid/bulk kg/m ³ 1382.000 580.000
12	38 03 - frame
13	Density liquid kg/m ³
14	Density vapour/gas kg/m ³ 1.29
15	Physical condition S
16	Class of hazard non lethal
17	03 Max. operating temp. °C 70.00
18	Max. operating pressure bar g 0.75
19	Operating temperature °C 50.00
20	03 Operating pressure bar a 1.750
21	Design temperature °C 85.00
22	Design pressure bar g 2.00
23	43 01 - bucket wheel with gear motor
24	Characteristic Dimensions
25	Length mm
26	Width mm
27	Height mm
28	Diameter mm
29	Material (process side) SS/Al-alloy
30	Surf.-treatm./coat. (proc.side) Casing: Al hard coated
31	Insulation (type)
32	Bulk density range: kg/m ³ 420-610
33	44 01 - variable speed max. 20 rpm
34	45 03 - filling ratio max. 80%
35	46 - shaft sealing purged by AIPC
36	47 Origin
37	48
38	49
39	50
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42	53
43	54
44	55
45	56
46	57
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52	63
53	64

65 03 Remarks:
 A) line 11: average particle size 150 µm
 B) line 17: deleted
 C) line 21 differential pressure < 1,0 bar
 D) line 2: deleted
 E) line 35: solenoid valve, internal piping SS

Abbreviations for physical condition: (S)olid, (L)iquid, (G)as, (V)apour

71	Design code	Manufacturer Standard	93	Drive	E-Motor
72	Corros. allow., for calcul. mm		94	Type of motor	Geared electric motor, variable speed f t,
73	Joint efficiency		95	Shaft power, required kW	1.50
74	Seismic factor	acc. Zone2B as per UBC	96	Speed min-1	1500.00
75	Wind loads acc. to	UBC	97 03	Voltage V	
76	Ambient temperature °C		98 03	Frequency Hz	
77	03 Elevat. abv. mean sea level m	1)	99	Ex-protection	non
78	Sound pr. level, max. allow. dB(A)	85	100	Mechanical protection	IP 55
79	Inspection by	Client, Uhde	101 01	Motor supplied by	vendor
80	Required tests		102 03	Motor mounted by	vendor
81	Test pressure bar g		103	Motor: TON	450H009A/B-M01
82	Heat treatment		104	Manufacturer	Motan Material Handling
83	Nondestructive test		105 03	Type of Equipment	APY 500/87 HC
84	Derusting		106 03	Part	Material
85	Painting		107 03	Casing	Al hard coated
86	Pickling		108	Internals	SS
87	Insulation mm		109	Frame/supports	CS galv.
88	03 Weight, delivery kg	850.00	110	Sealing	PTFE
89	Weight, with process fluid kg		111	bolts + nuts	SS / CS, chrom.
90			112		
91			113		
92			114		

115 03 Remarks:
 1) acc. GES site conditions
 2) deleted
 3) acc. GES for instrumentation

08.09.04 11:53:30

Designation of parts Delivery valve A1/AG11 without rapid cleaning option

<input type="checkbox"/> 01	Case	<input type="checkbox"/> 17	Fillister head screw
<input type="checkbox"/> 02	Rotor	<input type="checkbox"/> 18	Fillister head screw
<input type="checkbox"/> 03	Bearing shield	<input type="checkbox"/> 19	Hexagong head bolt with disc
<input type="checkbox"/> 04	Bearing shield	<input type="checkbox"/> 23	Chain wheel, rotary valve
<input type="checkbox"/> * 05	Deep-groove ball bearing	<input type="checkbox"/> 24	Chain wheel, motor
<input type="checkbox"/> * 06	Shaft ring	<input type="checkbox"/> * 25	Chain with chain joint
<input type="checkbox"/> 07	Shim ring	<input type="checkbox"/> 26	Motor plate
<input type="checkbox"/> 08	Guard ring	<input type="checkbox"/> 27	Chain guard
<input type="checkbox"/> 09	Hose coupling	<input type="checkbox"/> 29	Set screw
<input type="checkbox"/> 10	Shim ring	<input type="checkbox"/> 30	Spline
<input type="checkbox"/> 12	Cover	<input type="checkbox"/> 37	Air distribution ring
<input type="checkbox"/> * 13	Shaft nut	<input type="checkbox"/> 47	O-ring ¹⁾
<input type="checkbox"/> 14	Clamping ring		
<input type="checkbox"/> * 16	Cup spring		

¹⁾ Only with gas-tight execution together with pos. 47

Wear parts (wear parts for 2 year operation term are marked *)

<u>Pos.</u>	<u>Pcs.</u>	<u>Designation</u>
05	4	Deep-groove ball bearing
06	4	Shaft sealing rings
13	1	Shaft nut
16	2	Cup spring
25	1	Chain with chain joint

Inquiry Order form

Sender:

always to be indicated in case of inquiries:

Compny: _____

Fabrication no.:

Department: _____

Rotary valve type: _____

Place: _____

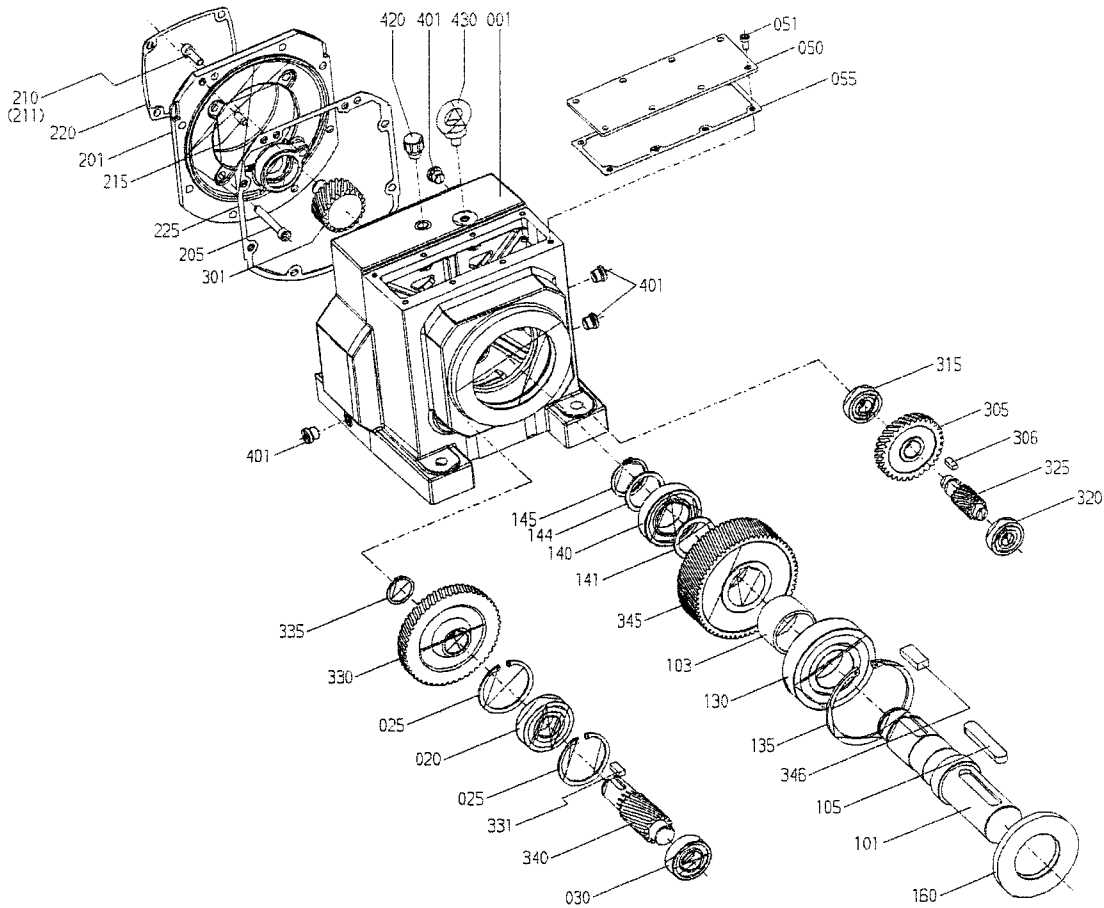
Number of pieces: _____

Signature: _____

Fax no.: _____

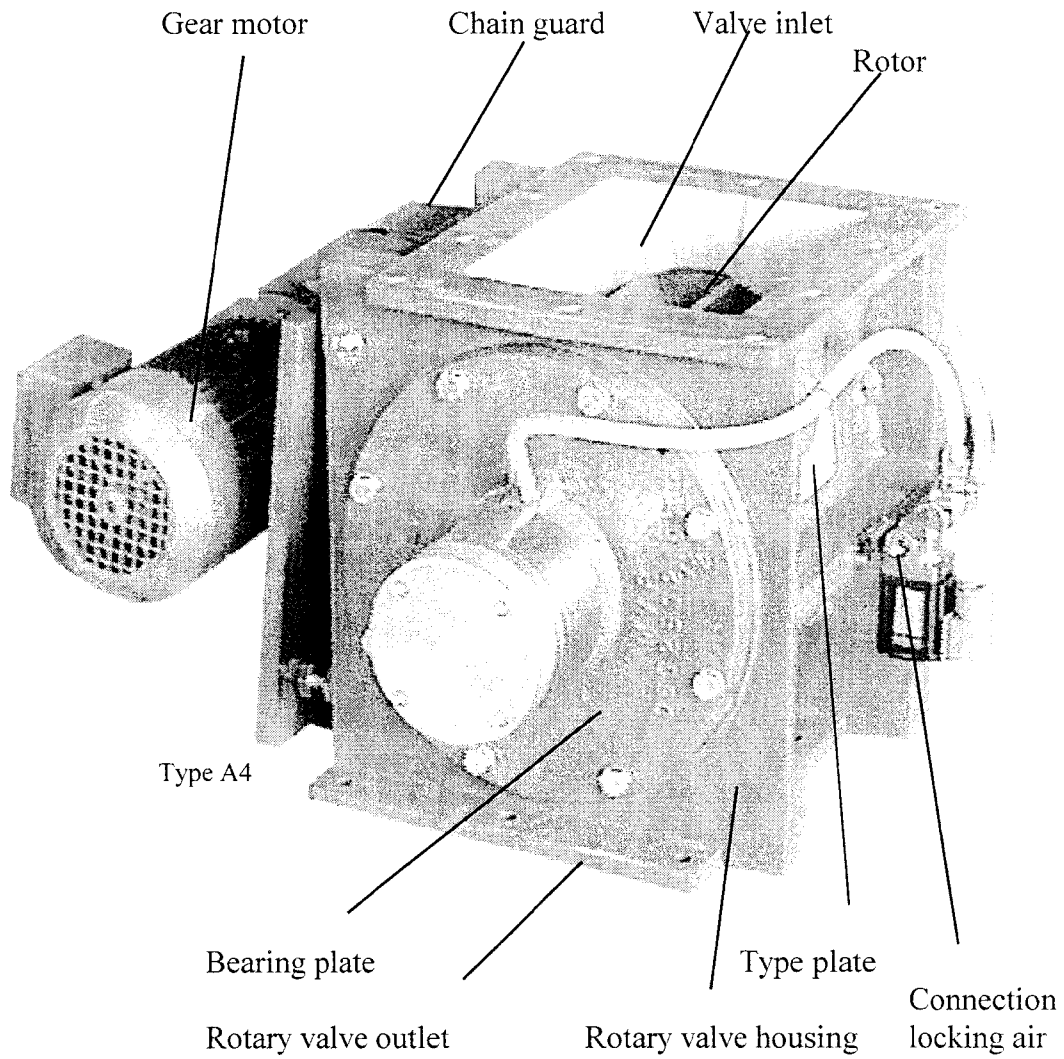
Fax to: +49 (0) 7541 / 202 581

12.2.2 Two and three-stage helical gear units Size 38 - 188



- 001 Gear unit housing
- 020 Bearings
- 025 Locking ring
- 030 Bearings
- 050 Housing cover
- 051 Bolt
- 055 Seal
- 101 Output shaft
- 103 Spacer/bush
- 105 Parallel key
- 130 Bearings
- 135 Locking ring
- 140 Bearings
- 141 Supporting disk/shim
- 144 Supporting disk/shim
- 145 Locking ring
- 160 Shaft seal
- 201 Adapter plate
- 205 Bolt
- 210 Bolt
- 211 Screw lock
- 215 Parallel pin
- 220 Seal
- 225 Seal
- 301 Plug-in pinion
- 305 Gear wheel
- 306 Parallel key
- 315 Bearings

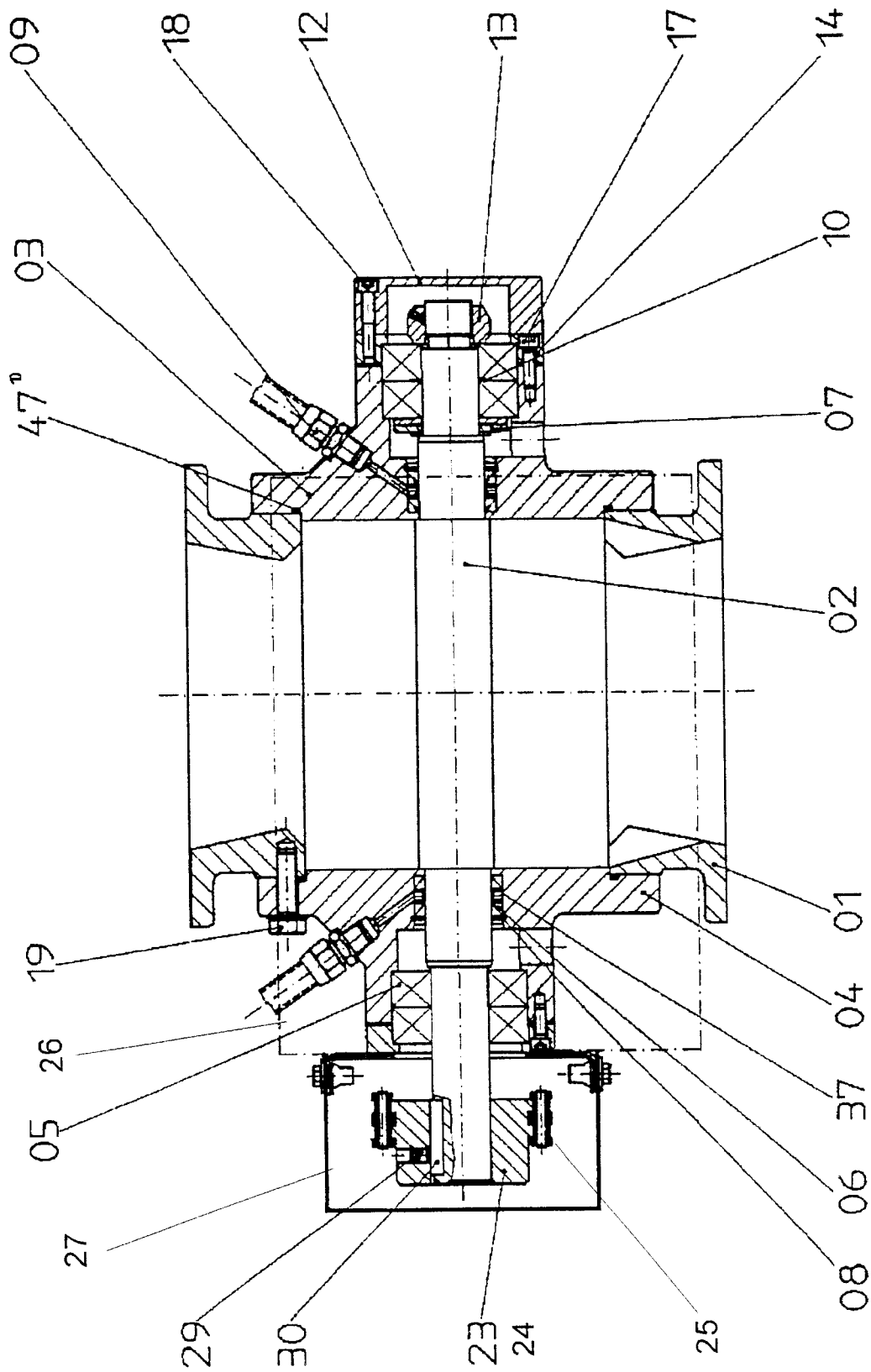
3. Function and construction

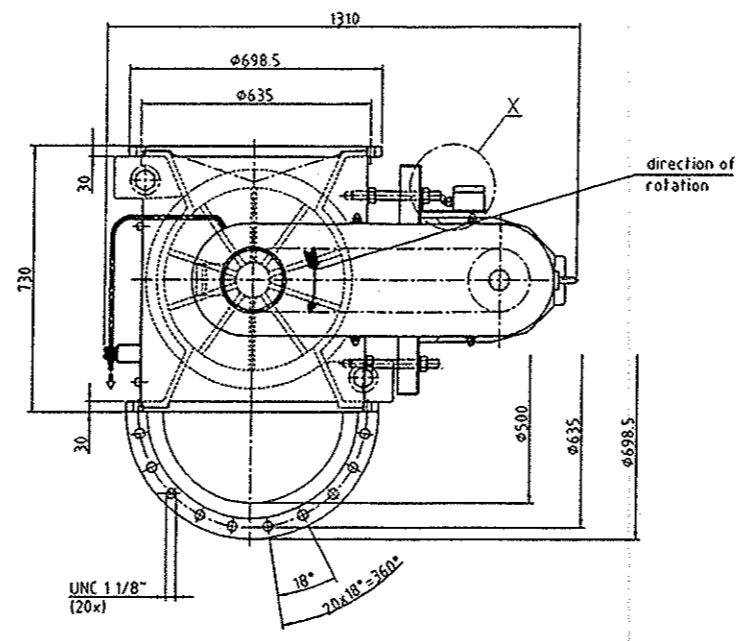
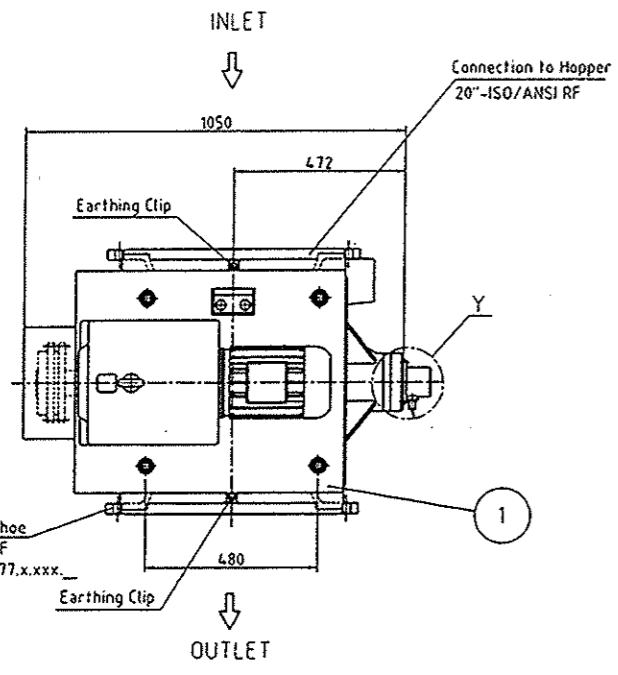


Function:

If installed in an overall system, the product to be conveyed flows into the rotary valve inlet from above and the rotor pockets are filled. Driven by the gear motor, the rotor rotates and the filled rotor pockets turn and move over the valve outlet, where the product is discharged.

Sectional drawing Delivery valve A1/AG11 without rapid cleaning option





M=1:1

Udde
 UAN: 03-3039
 Name: ...
 Manufacturer: ...
 Serial No.: ...
 Type: A1-500/90HC

M=1:1

MOTAN
 MOTAN Materials Handling GmbH - GMBH
 Order No. 06.777.0
 Type A1-500/90 HC
 Year 2005
 Volume / Size 790
 Fabr. No. ...
 Design Temp. ...
 Design Pressure ...
 Base ...
 ...

Fabr/serial.no.	Ton No	Item No
6618	450H009A	43Z-45050A
6619	450H009B	43Z-45050B

PPD MASTER
 Original Issue
 Ref. No.: T-CB-CT-1544
 Date: ...
 Signature: Z-KH
 Date: ...

8408205-CB-PU-VDP-0009-0006
 DZ 03-3039-10427106
 P000 R07
 Valve Weight: 480kg

Dwg. No.	Description	Dwg. No.	Description
8408205-CB-PU-VDP-0009-0006	General arrangement drawing		

OWNER:
 National Petrochemical Company
 Arvand Petrochemical Company

PROJECT:
 PVC ARVAND

CONTRACTORS:
 Uhde
 SAZEH CONSULTANTS

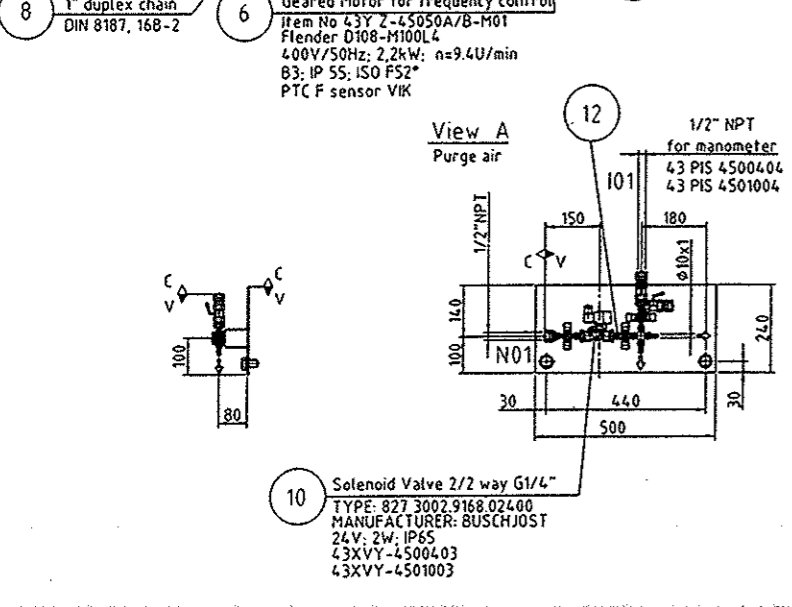
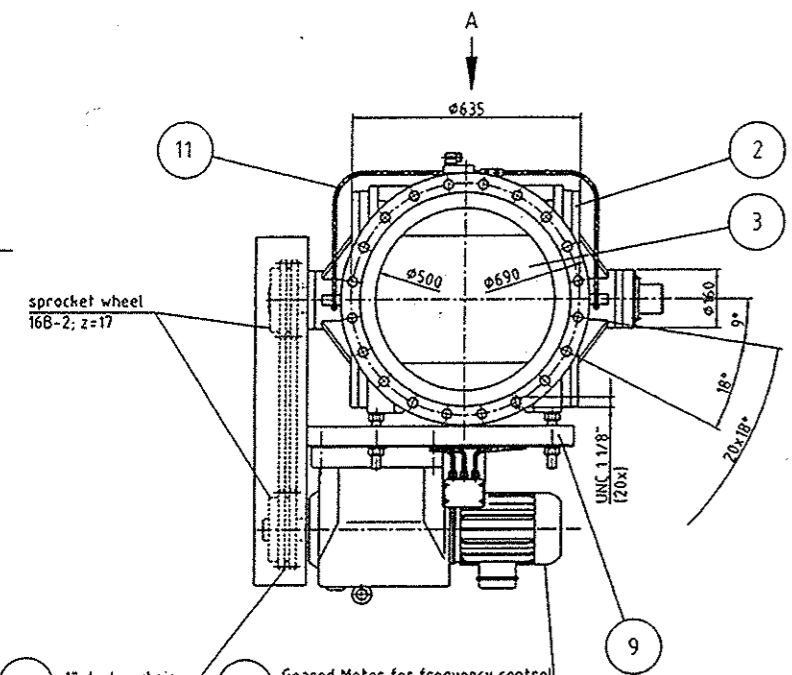
UHDE check stamp:
 UHDE
 APPROVED AS NOTED / RELEASED FOR CONSTRUCTION
 This approval does not release the supplier from full responsibility for the design and fabrication.
 NOT APPROVED
 Please, read...
 Date: ...

Revision	Description	Date	By
03	Revised Issue		
02	Revised Issue		
01	Revised Issue		
00	First Issue		

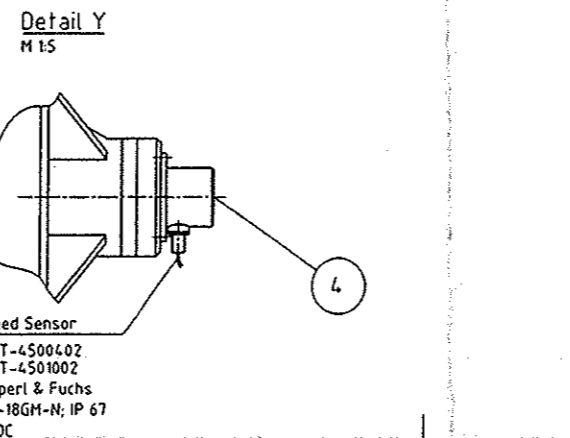
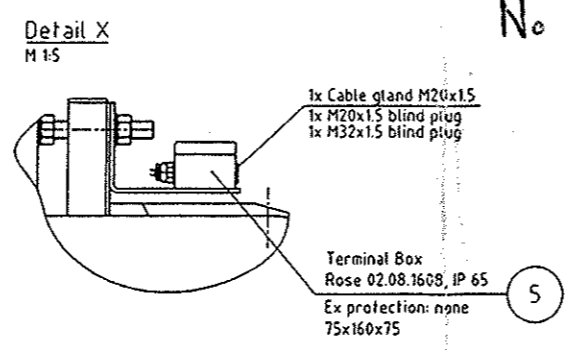
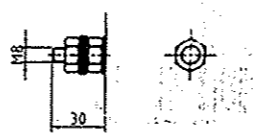
Scale: 1:10
 Date: 04.10.13
 Name: Vogel
 UAN: 03-3039
 PLANT: S-PVC

TON 450H009A/B
 Equipment designation: Conveying Rotary Valve
 Quantity: 2
 Item No. 43Z-45050A/B
 Order No.: 34036656
 Engineered by: UHDE GMBH
 Client Doc. No.: 8408205-CB-PU-VDP-0009-0006

Type of Drawing: Detail
 Manufacturer: MOTAN
 Mfg. Job No.: 06.777.0
 Mfg. Dwg. No.: 06.777.1201
 Rev.: 07



Earthing Clip M8 (2x)
 M 1:2



No Comment

P&ID - 45004 / 45010

NOTE

- DIMENSIONS ARE IN MILLIMETERS, ELEVATION ARE IN METERS, UNLESS OTHERWISE INDICATED.
- PLATFORMS TO BE CONTINUED BY VENDOR.
- FLANGES DRILLED ACC. ANSI (THICKNESS OF FLANGES IS DIFFERENT)
- FOR THE HOZZLE ORIENTATION AND ALL ATTACHED PARTS ONLY THE PLAN VIEW IS VALID.
- SLIP-STARTING IN SILENCE
- ALL HOZZLE AND OTHER CONNECTIONS TO BE PROVIDED WITH CARBON LUGS
- PLANTS, SLO, PIPELINES AND OTHER COMPONENTS MUST BE EARTHED CONTINUOUSLY

No.	Description	Quant.	Standard	Material	Material report
12	Fitting G1/2"	4			Swagelok
11	Pipe instrument / Air lines	1	14541		Ø10x1
10	2-2 Way Solenoid Valve	1	NPT 1/2"		BUSCHJOST
9	Motor Plate	1		CS galv.	
8	Chain Drive	1		Al/CS	
7	Speed Sensor	1		SS	P-F
6	Gear Motor	1		Grey cast iron	Flender
5	Terminal Box	1			Rose
4	Speed Sensor Housing	1	DIN 1725-2	3.3535	
3	Rotor	1	DIN 17440/1	14541	3.1 B
2	Side Plate	2	DIN 1725-2	3.2371	3.1 B HC
1	Housing	1	DIN 1725-2	3.2371	3.1 B HC

Port	Description	Quant.	Standard	Material	Material report
101	pressure indicator	1/2"	-	NPT	
N01	purge air	1/2"	-	NPT	

101 pressure indicator 1/2" - NPT
 N01 purge air 1/2" - NPT

Nozzle symbol
 Designation
 NPS inch
 Rating lbs.
 Standard ANSI Norm
 Flange type
 Flange facing
 Pipe dimensions at welding edge
 Rohrmaße an Schweißkanten