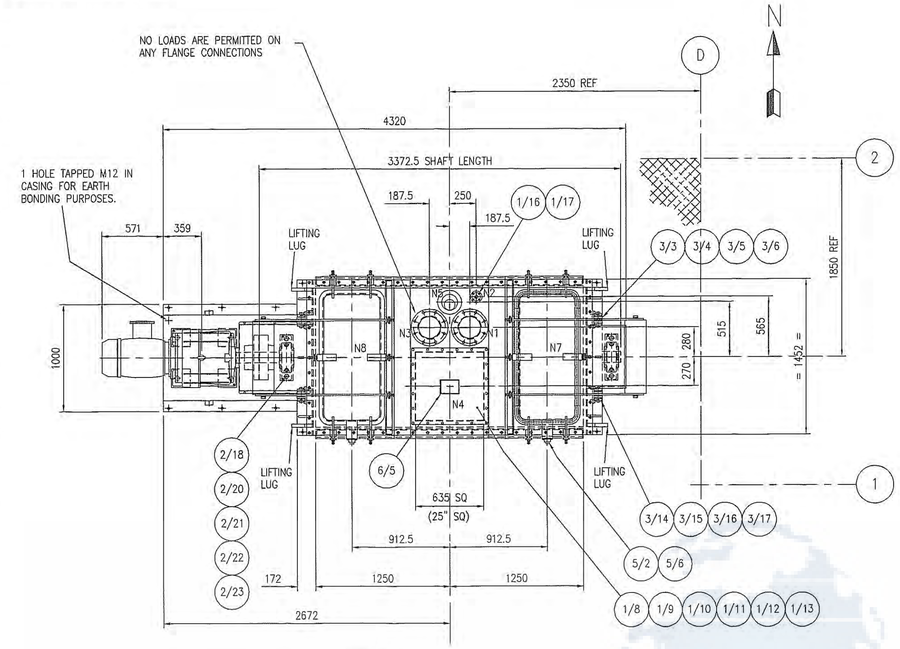
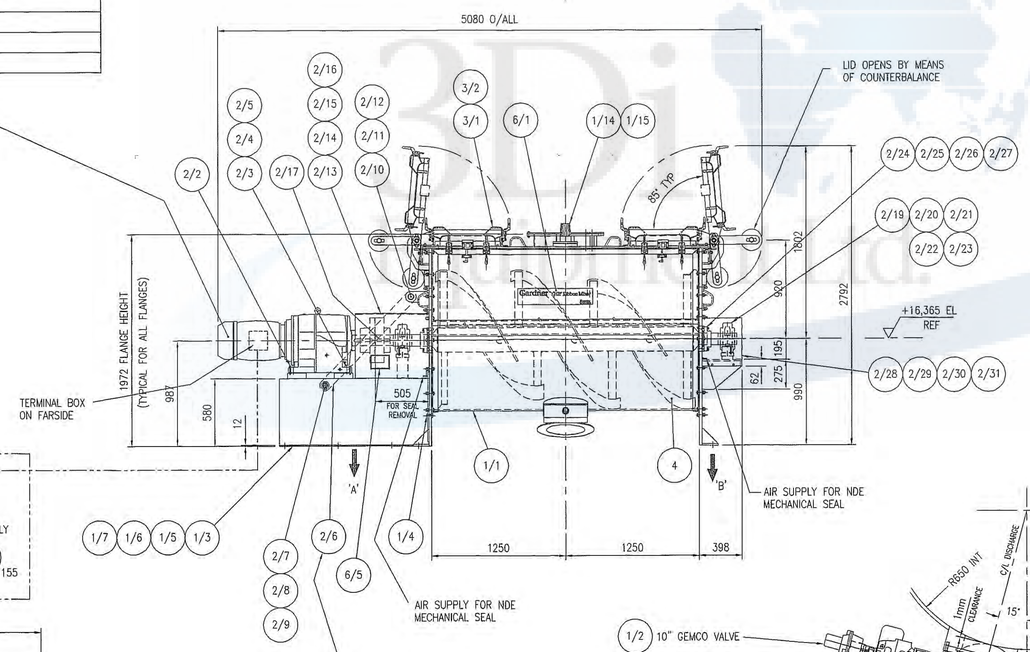
MAIN ITEMS/PARTS LIST

	ITEM	DESCRIPTION	QTY	SUPPLIER	DRG No/REMARKS
A	1/1	WELDED TROUGH ASSEMBLY	1	.	A00700009
	1/2	10" VALVE – BALL SEAT TYPE	1	GEMCO LTD	.
	1/3	DRIVE PLINTH	1	.	A00700008
	1/8	EMERGENCY VENT COVER	1	.	A00700019
	1/9	GASKET EMG'Y VENT	1	.	A00700030
	1/14	SIGHT PORT	1	VISILUME	.
	1/15	SIGHT PORT LAMP	1	J.M. CANTY LTD	HYL80-1T-FP-FB1-12-S-LC4305-2.
	1/16	BLIND FLANGE 25 NB	1	.	.
B	1/17	GASKET 25 NB	1	.	.
	1/18	OUTLET GASKET	1	.	A00700041A
	2/1	GEARED MOTOR UNIT C/W COUPLING	1	DAVID BROWN	.
	2/6	TRANSIT STRAP	2	.	A00700034
	2/13	COUPLING GUARD	.	.	A00700027
	2/18	PLUMMER BLOCK ø105 SPLIT TYPE	1	COOPER	FIXED
	2/19	PLUMMER BLOCK ø105 SPLIT TYPE	1	COOPER	EXPANSION
	2/24	MECHANICAL SHAFT SEAL ø110	2	TEKHNISEAL	.
C	2/28	NDE GUARD	1	.	A00700026
	3/1	ACCESS LID	2	.	A00700010
	3/2	LID SEAL	2	.	39000014 (CUT TO LENGTH)
	3/3	HINGE BRACKET	4	.	A00700025
	3/7	COUNTERBALANCE	2	.	A00700024
	3/8	TOGGLE CLAMP	16	DE-STA-CO	.
	3/14	FLANGED BEARING ø25	8	RHP	.
D	4	WELDED AGITATOR ASSEMBLY	1	.	A00700011
	5/1	ROTARY SWITCH, SPECIAL FSK63 EEXD	1	CASTELL	LOCK SYMBOL = '85'
	5/2	ACCESS INTERLOCK – FSMAI	2	CASTELL	LOCK SYMBOL = '85A'
	5/3	KEY EXCHANGE BOX – FSX(3 FRONT)	1	CASTELL	TRAPPED = 85: RELEASE = 85A
	5/4	KEY – SWITCH – FK4W3-NI	1	CASTELL	SYMBOL = 85
	5/5	KEY – ACCESS LOCK – FK4-NI	2	CASTELL	SYMBOL = 85A
	5/6	LOCK COVER	3	CASTELL	BRASS, 'FLIP' TYPE
	6/1	NAMEPLATE – GARDNER	4	.	80117138
E	6/2	LABEL C/WISE	1	.	1514 MA
	6/3	LABEL ANTI C/WISE	1	.	1515-MA
	6/4	PRESSURE PLATE/SERIAL No PLATE	1	.	A00700042A
	6/5	LABEL – WARNING	3	.	80117095

NOTE! ITEM BALLOONS REFER TO KEMUTEC FULL PARTS LIST/B.O.M.

DO NOT SCALE DRAWING – IF IN DOUBT ASK



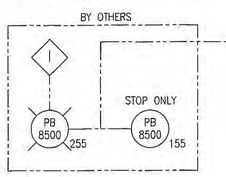


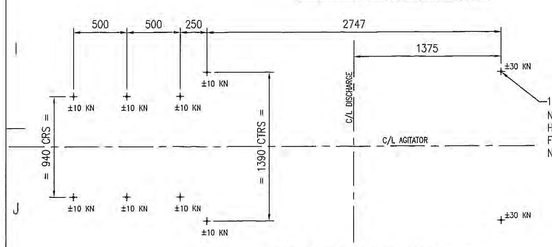
GEARED MOTOR UNIT (2/1)

MOTOR
INVENSYS BROOK CROMPTON
T.E.F.V 22 KW 415V 3PH 50HZ
PROTECTION IP55
Eexd ZONE 1 GAS GROUPS IIA & IIB TEMP CLASS T4
INSULATION CLASS – F
ARGUS CAST IRON FRAME
FRAME SIZE – AEF180LZD
FULL LOAD SPEED 1465 RPM
FLANGE MOUNTED – B5
WEIGHT – 225 kg

GEAR REDUCER
TYPE : HELICAL SPUR
RATIO : 65.7:1
OUTPUT SPEED : 22 RPM
WEIGHT –381 kg INC. LUBRICANT

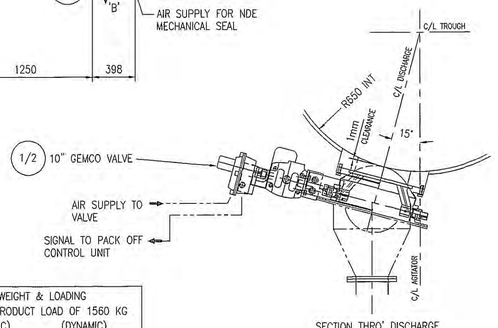
COUPLING
TYPE : CONE RING
SIZE : 10
T/L BUSH – DRIVING : ø100
T/L BUSH – DRIVEN : ø100





H/DOWN BOLT PLAN & MAXIMUM LOADINGS

	WEIGHT & LOADING WITHOUT PRODUCT		WEIGHT & LOADING WITH PRODUCT LOAD OF 1560 KG	
	(STATIC)	(DYNAMIC)	(STATIC)	(DYNAMIC)
POSITION 'A' D.E	4300 KG	6250 KG	5080 KG	7620 KG
POSITION 'B' N.D.E	3000 KG	4500 KG	3780 KG	5670 KG



SECTION THRO' DISCHARGE VALVE ON CENTRELINE SCALE 1:10

NOZZLE No	DESCRIPTION	SIZE	FLANGE TYPE/ CLASS/RATING	GASKET	REMARKS
No 1	POWDER CHARGE FLANGE	8" NOM	ANSI B16.5,150# RF	ø270 x ø203 PTFE	GASKET BY OTHERS
No 2	INERTING GAS INLET FLANGE	1" NOM	ANSI B16.5,150# RF	ø50.8 x ø24.3 PTFE	C/W BLIND FLANGE AND GASKET
No 3	MIXER VENT FLANGE	8" NOM	ANSI B16.5,150# RF	ø270 x ø203 PTFE	GASKET BY OTHERS
No 4	EMERGENCY VENT FLANGE	25" SQ FLANGE	N/A	FDA approved White Sponge Rubber	C/W BLIND FLANGE AND GASKET
No 5	SIGHT / LIGHT PORT	150 DIA APERTURE	10 BAR	SILICONE	FDA APPROVED
No 6	OUTLET FLANGE	250mm DIA	AS NOTED	ø534 x ø359 SILICONE	C/W GASKET
No 7	R.H ACCESS LID	1190x540mm OPENING	N/A	SILICONE SECTION 18.5mm x 15mm	FDA APPR. – LENGTH TO SUIT GROOVE
No 8	L.H ACCESS LID	1190x540mm OPENING	N/A	SILICONE SECTION 18mm x 15mm	FDA APPR. – LENGTH TO SUIT GROOVE
	MECH. SEAL AIR SUPPLY	6mm 'PUSH IN'	N/A		
	GEMCO VALVE – AIR SUPPLY	1/4" N.P.T. FEM.	N/A		

NOTES/DOC. REFERENCES

1) MOTOR STARTS D.O.L.
2) SAFETY INTERLOCK SYSTEM PROCEDURE : (CASTELL KEY EXCHANGE)
3) PRE-SHIPMENT CLEANING OF EQUIPMENT TO 285.001_010
4) INSTALLATION PROCEDURE DOC. REF : N/A (INSTALLATION BY OTHERS)
5) INERT GAS NOZZLE SUPPLIED WITH BOLTED ON BLIND FLANGE AND FDA GASKET
6) EMERGENCY VENT NOZZLE SUPPLIED WITH BOLTED ON BLIND FLANGE AND FDA GASKET
7) GEMCO 10" TLD VALVE BALL TO CLEAR INTERNAL WALL RADIUS BY 1mm
8) SIGHT PORT LAMP – 80 WATT,110,240VAC SWITCHABLE WITH INTEGRAL 6min/3Hr TIMER.
9) AIR PRESSURE REGULATOR/FLOW CONTROL FOR MECHANICAL SEALS TO BE SUPPLIED BY OTHERS

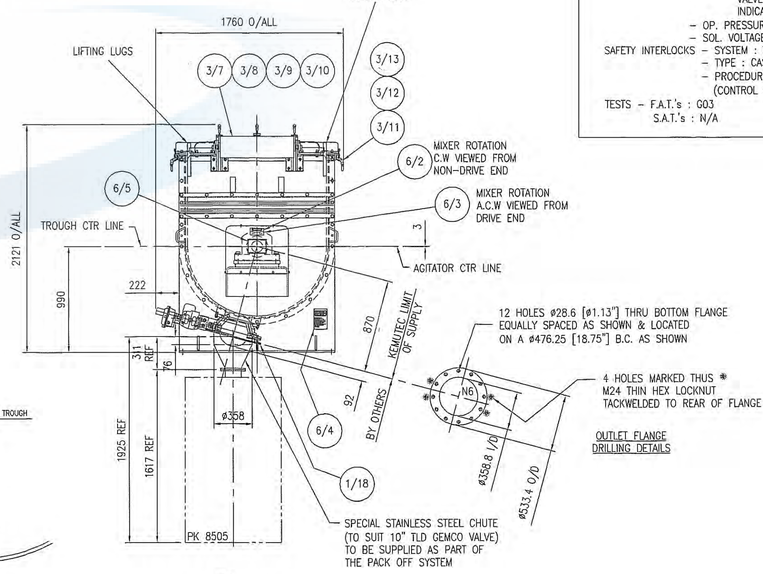
MATERIALS OF CONSTRUCTION

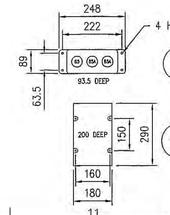
CASING & COVERS : 316L STAINLESS STEEL
AGITATOR ASSEMBLY : 316L STAINLESS STEEL
GASKETS/SEALS : F.D.A. APPROVED
NON-CONTACT PARTS : 304L STAINLESS STEEL
EXTERNAL FRAME : 304L STAINLESS STEEL
DISCHARGE VALVE : 316 STAINLESS STEEL
ø110 SHAFT SEAL – FACE MATERIALS
OUTBOARD : CARBON/SILICON CARBIDE
INBOARD : LIP SEAL : PTFE
PROPRIETARY EQUIPMENT : AS SUPPLIED

DESIGN DATA/PARAMETERS

DESIGN CODE – MIXER BODY : BS5500 CAT3
SPECIFICATIONS : KVAERNER : 420154-90-42-505
DESIGN PRESSURE : FULL VACUUM TO 1BARg
DESIGN TEMPERATURE : 120°C
OPERATING PRESSURE : ATMOSPHERIC
OPERATING TEMPERATURE : 20 to 25°C
TEST PRESSURE : 1.2 BARG
N.D.T. : DYE PEN. TO Q.A.P. 9.6
VOLUME – GROSS : 4425 LITRES
VOLUME – OPERATING : 3000 LITRES
MATERIAL HANDLED : LOSARTAN POTASSIUM
INSPECTION AUTHORITY : ZURICH ENG. LTD
MIXER FINISH – INTERNAL : Ra=0.4MICRON & PASSIVATED
EXTERNAL : Ra=0.9MICRON PICKLED & PASSIVATED
AGITATOR FINISH : AS INTERNAL
PROPRIETARY EQUIPMENT : VENDORS STANDARD

WEIGHT – EMPTY 7300kg
– OPERATING 8860kg
– FULL OF WATER 11725kg
MAX MAINTENANCE LOAD : 1500kg, AGITATOR ASSY'
MAX. WITHDRAWAL DISTANCE REQD : 3050mm
DISCHARGE RETENTION (by wt.) : 1% OF PRODUCT
RIBBON TO WALL CLEARANCE 3mm MAX
DRIVE ARRGT : DIRECT IN LINE C/W COUPLING
ROTATING SPEED OF RIBBON : 22RPM (EMPTY)
SHAFT SEAL – TYPE : MECHANICAL
– PURGE GAS : GOOD QUALITY FILTERED & DRY AIR
– PRESSURE : 0.5 BARG
– FLOWRATE : 30 LITRES (FAD)/MIN @ 20/25° RUNNING
SHAFT BEARINGS – TYPE : COOPER SPLIT ROLLER – ø105
DISCHARGE VALVE – TYPE: GEMCO TLD 10" PNEUMATICALLY OPERATED FLUSH FITTING BALL VALVE C/W SOLENOID VALVE, LIMIT SWITCHES AND BEACON INDICATOR.
– OP. PRESSURE : 5 BARG (73.5 PSIG) MIN
– SOL. VOLTAGE : 24V DC
SAFETY INTERLOCKS – SYSTEM : TWO HINGED TOP COVERS
– TYPE : CASTELL KEY
– PROCEDURE : N/A (CONTROL SYSTEM BY OTHERS)
TESTS – F.A.T.'s : 003
S.A.T.'s : N/A





5/3 KEY EXCHANGE BOX (SUPPLIED SEPARATE)

5/1 ROTARY SWITCH (SUPPLIED SEPARATE)

5/4 ROTARY SWITCH KEY SYMBOL 85 (SUPPLIED SEPARATE)

5/5 INTERLOCK KEY SYMBOL 85A (SUPPLIED SEPARATE)

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NOT PLOTTED

DRAWING SPECIFICATIONS
UNLESS OTHERWISE STATED
Screw threads to BS3643
ISO Metric Coarse Pitch Series (Medium Fit)
Surface Finish to BS1134 in micrometres
Welding Symbols to BS499 Part 2
Dimension & Geometrical Tolerances to BS308
Limits & Fits to BS4500

TOLERANCE SPECIFICATIONS
UNLESS OTHERWISE STATED
SHEET METAL DIMENSIONS: 0 to 300 ± 1.00; 300 to 1000 ± 2.00; Over 1000 ± 3.00
MACHINED DIMENSIONS: 0 to 150 ± 0.30; Over 150 ± 0.60
ANGULAR DIMENSIONS ± 0°-30'
UNMACHINED DIMENSIONS: 0 to 150 ± 0.50; Over 150 ± 1.50

ALL DIMENSIONS IN MILLIMETRES

THIRD ANGLE PROJECTION

For all material, weld and finish specifications refer to purchase/works order

ISS		
K	ISS K 31/01/02 S.A.BAILEY TEST PRESSURE WAS 1.8 BARG	
J	ISS J 08/01/02 S.A.BAILEY ADDED STIFFNERS ON TOP PLATE	
I	ISS I 30/10/01 S.A.BAILEY ADDED STIFFNERS ON D.E & N.D.E ENDPLATES	
H	ISS H 08/10/01 S.A.BAILEY ITEM 6/4 WAS 80117001A	
G	ISS G 24/08/01 S.A.BAILEY LABELED LIFTING LUGS E-MAILED TO CLIENT	
F	1.NOTE No 2 (CONTROL SYSYTEMS BY OTHERS) 2. ADDED NOTE REGARDING COUNTERBLANCE 3. REF DIM 1925 WAS 1944 REF DIM 1617 WAS 1633 4. DRAWN ROTARY SWITCH & KEY EXCHANGE BOX 5. ADDED ITEM 1/18 OUTLET GASKET	
E	MODIFIED TO CONTRACT REQUIREMENTS. SEE MARKED UP PRINT IN CONTRACT FILE FOR FULL COMMENTS. S.BIRCHALL 14/06/01	
D	FOLDED STIFFENER BEAM ADDED TO SIDEPLATES. S.BIRCHALL 11/06/01	
C	1. CHANGED MOTOR SPEC. 2. ADDED VALVE DIMS Ø70 & 92. 3. ADDED MECH SEAL & OUTLET VALVE AIR SUPPLY PRESSURE. 4. ADDED EXPLOSION VENT BLANK PLATE 5. ADDED VALVE POSITION INDICATOR & DIM 253 6. NOZZLE CHART 'N6' USED TO STATE 250MM 7. ADDED BALLOONS 8. ADDED WEIGHT & LOADING CHART S.A.BAILEY 10/05/01	
B	COMPLETE REDRAW S.A.BAILEY 25/04/01	
A	ISS FOR APPROVAL	

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DWN BY	T.A. Bailey
CHECKED	
APPROVED	
SCALE	1:20
DATE	12/06/01
TITLE	3000HE MIXER KVAERNER
DRG No	A00 A00700003
ISSUE	K