

TANK VENT DRYERS



Product Description

To remove water vapour and dehumidify, there are three types of tank vent dryers available, which are the Adsormats, Wall Mounted Tank Vent Dryers and Floor Mounted Tank Vent Dryers.

Floor Mounted Tank Vent Dryers

Floor Mounted Tank Vent Dryers are filled with Envirogel desiccant for the removal of water vapour and provide protection for larger capacity storage tanks with higher discharge rates. Alternative types of adsorbents are available to remove other harmful contaminants other than water vapour. Two sizes of floor mounted dryers are available to handle different storage tank capacities and discharge rates.

The Floor Mounted Tank Vent Dryers can contain up to 50Kg of desiccant and it is suitable for tanks with capacity of up to 500000 litres.

All dryers have a removable desiccant container which allows the desiccant to be changed without breaking the breather pipe connection. The desiccant container is secured below the mounting frame assembly and can be easily removed and refilled as required by releasing the retaining screws. The desiccant container has a UV stabilised polycarbonate clear window which allows for clear visibility of the desiccant charge and enables users to check the desiccant condition with ease. When the Envirogel Desiccant colour changes from orange to green, the charges should be replaced as it has become saturated with water vapour. The adsormats are fitted with a three-level relative humidity indicator to measure adsorption and check the desiccant condition.

Tank Vent Dryers are fabricated from mild steel which is phosphate and powder coated to provide adequate defence against most industrial environments. Dryers that require extra protection from highly corrosive materials or environments are available in stainless steel. The option to change the window material from clear polycarbonate to glass is also available.

Industries Served

- Power & Refinery



Adsormats

The Adsormats are filled with molecular sieve desiccant for the removal of water vapour. Alternative types of adsorbents are available to remove other harmful contaminants other than water vapour. The Adsormats also comes in both Wall-Mounted and Floor-Mounted options.

The desiccant container of Adsormats has a UV stabilised polycarbonate clear window fitted with a humidity indicator card. This allows the user to check the desiccant condition with ease. The indicator card changes from blue to pink as the desiccant material is saturated with moisture.

Wall Mounted Tank Vent Dryers

The Tank Vent Dryers are filled with Envirogel desiccant for the removal of water vapour. Alternative types of adsorbents are available to remove other harmful contaminants other than water vapour. Three sizes of wall mounted dryers are available to handle different storage tank capacities and discharge rates.

The Wall Mounted Tank Vent Dryers are good for companies that store lots of materials in tanks which are either located in the open or vented to atmosphere. The Wall Mounted Tank Vent Dryers can contain up to 12.5Kg of desiccant.

Stainless Steel Tank Vent Dryers

Stream Peak has introduced a new range of tank vent dryers in high grade stainless steel to compliment their existing aluminium, steel and plastic versions. The dryers and adsorbents prevent valuable fluid materials from being contaminated by harmful moisture condensation.

These stainless steel tank vent dryers are suitable for use in aggressive and hostile environments such as the North Sea, and are designed for use with storage tanks containing corrosive fluids such as acid and alkalies. Typical locations would include chemical sites, plant works and processing installations.



Key Features

- Quick and easy to install
- Visual colour change indication
- IP65 rating
- Available in mild or stainless steel
- ISO9001:2008 design approved
- Polycarbonate or glass sight window
- Easy ENVIROGEL replacement
- Floor and wall mounting
- Refillable
- ATEX Directive 94/9/EC approved
- High grade stainless steel
- Chemical resistant seals

Typical materials which can be readily protected:

- Acetic Acid
- Brake Fluid
- Glycerol
- Polyalcohols
- Polyethers
- Acid and Oil Vapours
- Sulphuric Acid
- Transformer Oils
- Heat Transfer Fluids
- Printing Inks

Protection Against:

- High Humidity
- Water Condensation
- Fluid Contamination
- Hydraulic Fluid Contamination
- Sedimentation
- Viscosity
- Production Dilution



Installing Tank Vent Dryers

- TANK VENT DRYERS should be positioned out of the direct rays of the sun and on the shaded side of the tank.
- The three smaller models are suitable for wall mounting and the larger two are intended for floor mounting.
- Floor mounted models should be positioned so that the atmospheric air intake cannot be blocked with debris.
- Please contact our technical staff for details of pipe work and non-return valve arrangement for removal units handling volatile contaminants.

Tank Vent Dryers In Operation

Many fluids, semi-solids and powders are seriously affected by moisture and other contaminants. Materials which are affected are stored in tanks which are either located in the open and vented to atmosphere or are located in the process area.

Fluid Contaminants

The ingress of these contaminants occurs whenever material is drawn from the tank by:

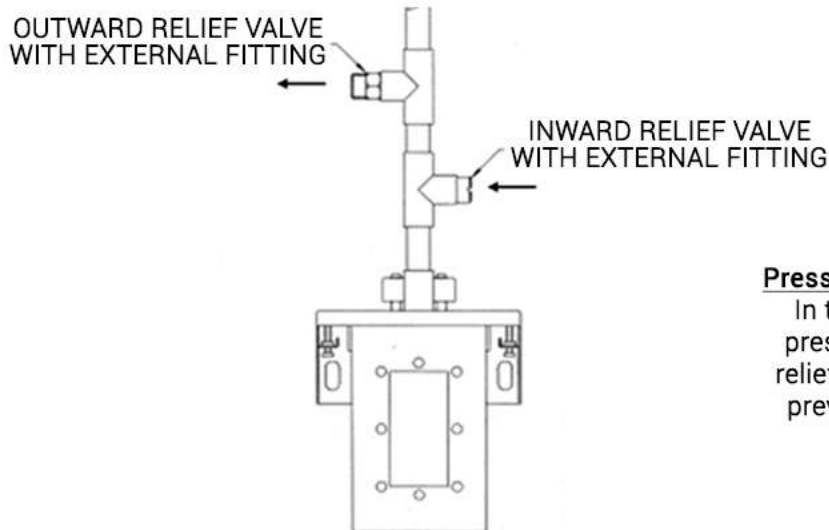
- Operational demand
- Thermal breathing
- Barometric pressure

Moisture in the form of water vapour is a prime source of contamination. Possible affects can include dilution, fungal or biological growth & lowering of electrical

The following properties can be affected by contamination:

- Viscosity
- Stability
- Polymer breakdown
- Heat Transfer
- Freezing Temperature
- Sludge
- Increased Corrosivity
- Fluid Dilution

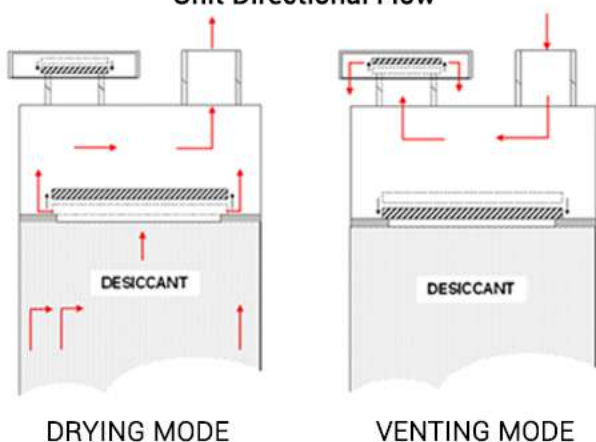




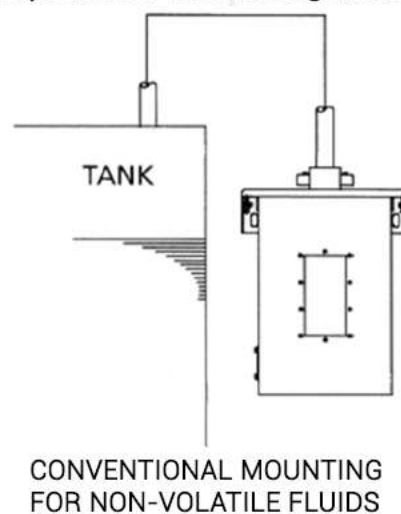
Pressure Relief Valve Protection

In the event of an excessive pressure or vacuum pressure relief valves can be installed to prevent excessive positive or negative pressure

Unit Directional Flow



Pipe Work & Valve Arrangements



Product Specifications

MODEL		602	603	604	605	610	615	620	630
Maximum Filling or Emptying Rate	m ³ /hr	8.4	10.7	13.8	24.6	28.9	62.9	114	250
	Litres/min	150	200	250	410	480	1048	1897	4163
	c.f.m	5.3	7	8.8	14.5	17	37	67	147
	Imp. galls/min	33.3	44.4	55.5	90	106	230	417	916
Maximum Fluid Capacity Related to Desiccant Content	m ³	0.5	1.5	3	9	55	125	225	500
	Litres	500	1500	3000	9000	55000	125000	225000	500000
	ft ³	17.6	53	106	318	1942	4431	7930	17658
	Imp. Galls	111	333	666	1981	12098	27593	49387	109972
Replacement Desiccant Charge Data	Wt. of spare charge	N/A	N/A	N/A	3.30kg	10.75kg	20.00kg	35.00kg	67.00kg
	Wt. of desiccant	0.60kg	1.20kg	1.90kg	1.40kg	5.60kg	12.50kg	22.40kg	50.00kg



Wall Mounted Models

MODEL		605	610	615
A	in	0.5	1.0	1.5
B	mm	125	171	256
C	mm	174	220	305
D	mm	90	125	190
E	mm	35	45	48
F	mm	50	50	50
G	mm	146	194	260
H	mm	193	381	381
Weight	kg	4.1	11.5	23.0

Floor Mounted Models

MODEL		620	610
A	in	2	3
B	mm	340	508
C	mm	400	560
D	mm	250	355
E	mm	60	-
J	mm	30	30
K	mm	250	254
L	mm	360	520
M	mm	495	495
Weight	kg	55.0	101.0

Related Products



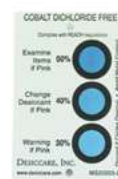
Silica Gel



Reservoir Vent Dryers



Desiccant Refills



Humidity Indicator Card



DRG No

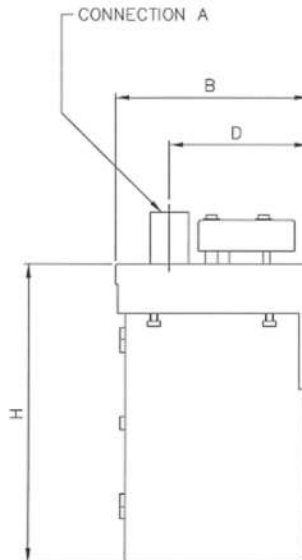
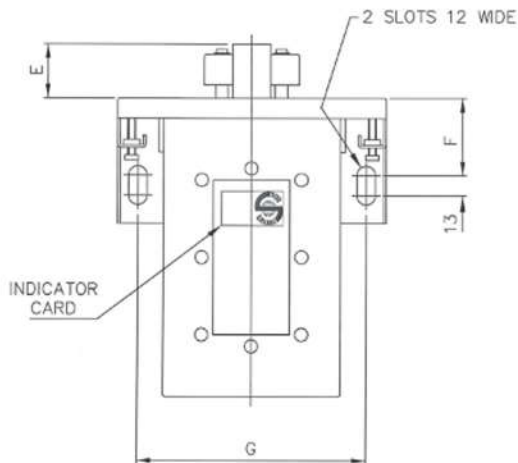
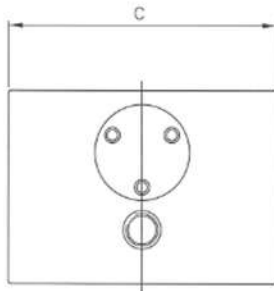
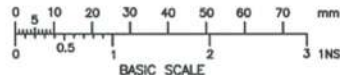
BL/D9881/01-03 INST

USED ON

THIRD ANGLE PROJECTION

REMOVE ALL SHARP EDGES UNLESS SPECIFIED

DO NOT SCALE - ASK



DRG No	BL/D9881/01	BL/D9881/02	BL/D9881/03
MODEL	M605	M610	M615
DIMN A	0.5" BSP	1.0" BSP	1.5" BSP
DIMN B	125	171	256
DIMN C	174	220	305
DIMN D	90	125	190
DIMN E	35	45	48
DIMN F	50	50	50
DIMN G	146	194	260
DIMN H	193	381	381

NOTE: UNITS FILLED WITH MOLECULAR SIEVE DESICCANT.

MATERIAL

MILD STEEL

PROTECTIVE TREATMENT

PHOSPHATE
DEF STAN 03-11
CLASS 2
POLYESTER POWDER
COAT BLUE

TOLERANCES
UNLESS
STATED

DIMNS IN INS/mm

MM

SCALE (ORIGINAL)

N.T.S

SÜD-CHEMIE

TITLE

TANK VENT DRYERS

ORIGINAL

CHANGE

MOD No

ISSUE

1 09-03-06

DATE

RED DOT = ORIGINAL
BLACK DOT = COPY

DRAWN
PKCHECKED
K

DRAWING No

BL/D9881/01-03 INST

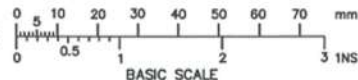
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BL/D9882/02 INST

THIRD ANGLE PROJECTION

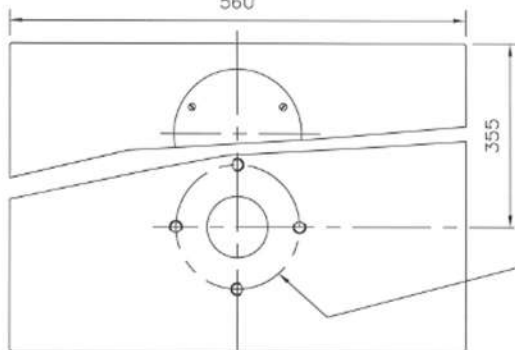
USED ON

REMOVE ALL SHARP EDGES UNLESS SPECIFIED
560

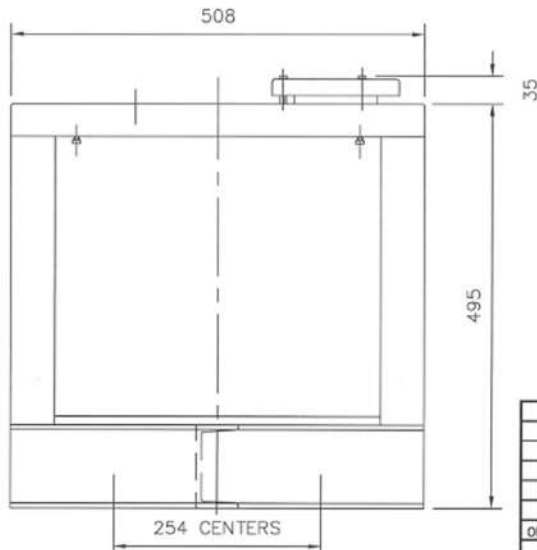
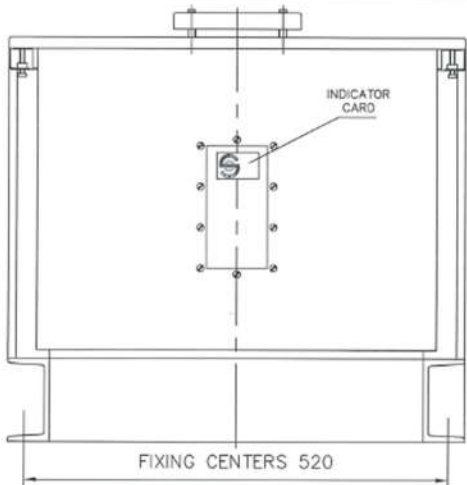
DO NOT SCALE - ASK



NOTE :-
FILLED WITH 50Kg OF MOLECULAR SIEVE DESICCANT



FIXINGS FOR ANSI CLASS 125 80mm FLANGE (M15)



ORIGINAL 1 09-03-06

CHANGE MOD No ISSUE DATE

RED DOT=ORIGINAL
BLACK DOT=COPY

DRAWN PK
CHECKED

DRAWING NUMBER
BL/D9882/02 INST

MATERIAL
STEEL

PROTECTIVE FINISH
PHOSPHATE DEF STAN
03-11 CLASS 2
POLYESTER POWDER
COAT BLUE

TOLERANCES ±3

DIMENSIONS IN in/mm mm

SURFACE ROUGHNESS

SCALE (ORIGINAL) 1:5

SÜD-CHEMIE

TITLE
MODEL M630 TANK DRYER

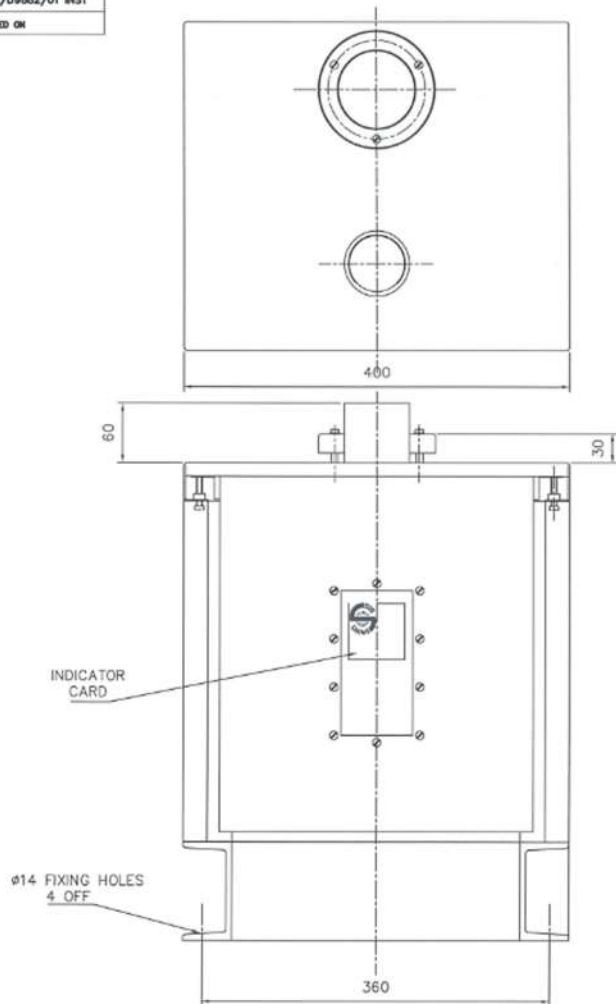
EST. WT.

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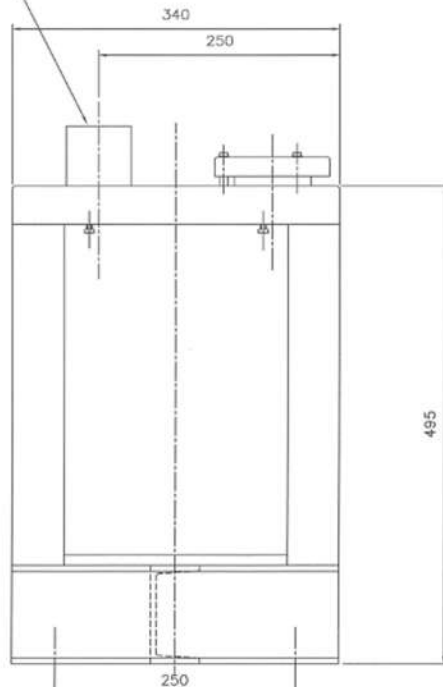


NOTE :-

FILLED WITH MOLECULAR SIEVE DESICCANT



2" BSP



MATERIAL MILD STEEL	PROTECTIVE FINISH PHOSPHATE TO DEF STAN Q3-11 CLASS 2 POLYESTER POWDER COAT BLUE	TOLERANCES ±0.3		TITLE MODEL M620 TANK DRYER	ORIGINAL CHANGE MOD No ISSUED DATE 1 18-8-88 RED DOT = ORIGINAL BLACK DOT = COPY PK
	DIMENSIONS IN IN./MM SURFACE ROUGHNESS SCALE NTS	DRAWING NUMBER BL/D9882/01 INST			

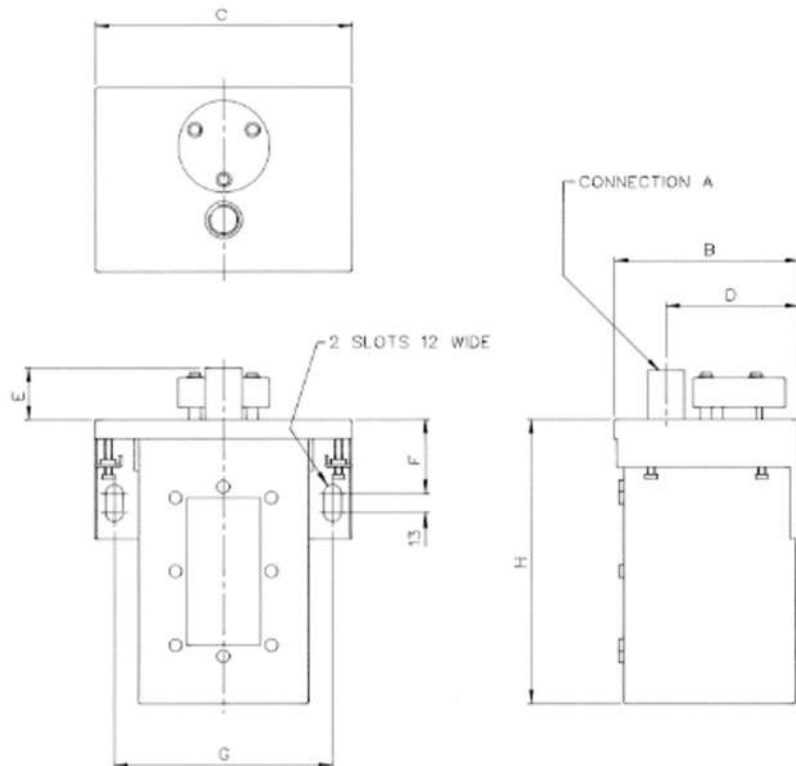
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DRG No.
BL/D 6340/01-03 INST
USED ON

REMOVE ALL SHARP EDGES UNLESS SPECIFIED

THIRD ANGLE PROJECTION

DO NOT SCALE - ASK



DRG No	BL/D6340/01	BL/D6340/02	BL/D6340/03
MODEL	605	610	615
DMN A	0.5" BSP	1.0" BSP	1.5" BSP
DMN B	125	171	256
DMN C	174	220	305
DMN D	90	125	190
DMN E	35	45	48
DMN F	50	50	50
DMN G	146	194	260
DMN H	193	381	381

NOTE: UNITS FILLED WITH INDICATING SILICA GEL DESICCANT.

SLOT SIZE ADDED	5206	C	25/2/98
MATL & FINISH ADDED	4930	B	1/7/96
		A	12/7/95
CHANGE	MOD. No	ISSUE	DATE

MATERIAL	PROTECTIVE TREATMENT	TOLERANCES UNLESS STATED	
MILD STEEL	PHOSPHATE DEF STAN 03-11 CLASS 2 POLYESTER POWDER COAT BLUE		-
EST. WT.		DIMNS IN mm /m.m.	
		SCALE (ORIGINAL)	N.T.S

BROWNELL LTD. LONDON, N.W.10.	
TITLE	TANK VENT DRYERS

CUSTOMERS REF.	DRAWN	CHECKED
DRAWING No	L.J	
BL/D 6340/01-03 INST		

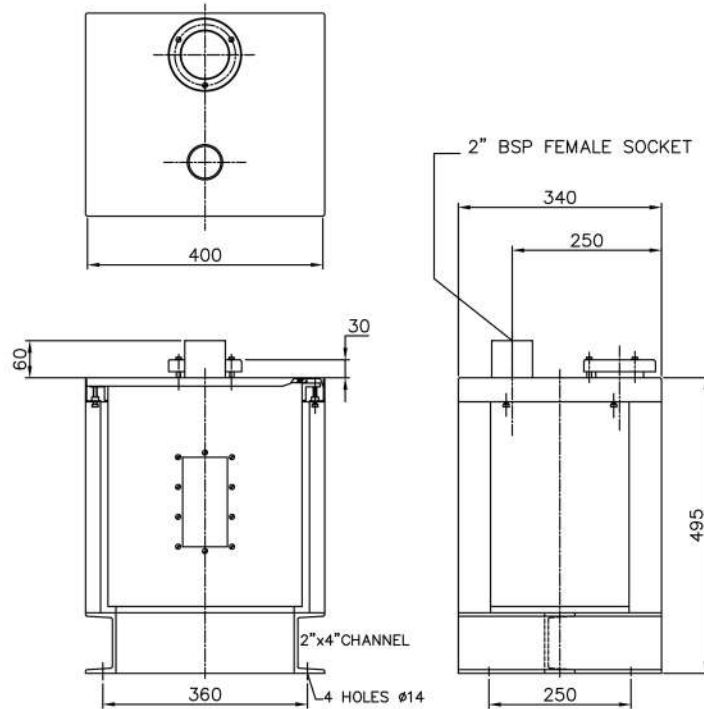
DRG No
BL/D6341/01 INST
USED ON -----

REMOVE ALL SHARP EDGES UNLESS SPECIFIED

THIRD ANGLE PROJECTION

DO NOT SCALE - ASK

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NOTE: UNIT FILLED WITH ENVIROGEL DESICCANT.

NOTE CHANGED	6776	3	20/11/15
MATL & FINISH ADDED	4930	2	01/07/96
ORIGINAL		1	17/07/95
CHANGE	MOD No	ISSUE	DATE

MATERIAL MILD STEEL		PROTECTIVE FINISH PHOSPHATE DEF STAN 03-11 CLASS 2 POLYESTER POWDER COAT BLUE		TOLERANCES UNLESS OTHERWISE STATED	ANGULAR DIMS. ±0.5°	LINEAR DIMS. DIN 16901-130	TITLE BROWNELL Ltd. LONDON NW10 7XF	RED DOT=ORIGINAL BLACK DOT=COPY	DRAWN RB	CHECKED
EST. WT. -----		DIMENSIONS IN In/mm		SURFACE TEXTURE				DRAWING NUMBER		
		SCALE (ORIGINAL)		N.T.S		TANK VENT DRYER (620)		BL/D6341/01 INST		

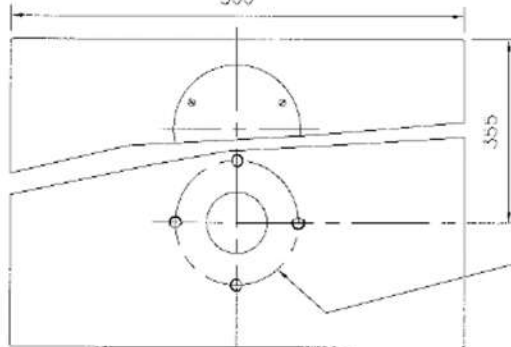
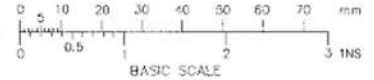
DRG No
BL/D6341/02 INST

USED ON

THIRD ANGLE PROJECTION

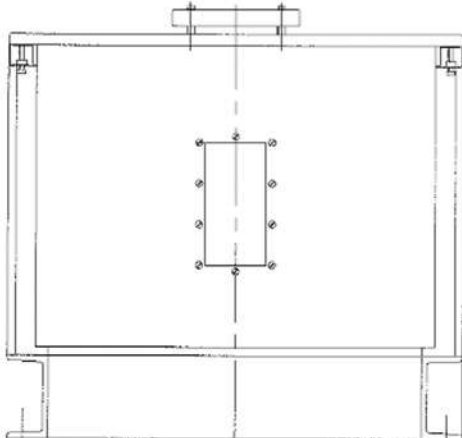
REMOVE ALL SHARP EDGES UNLESS SPECIFIED

DO NOT SCALE - ASK

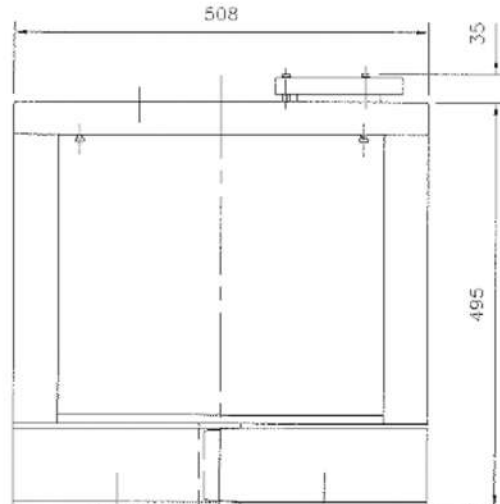


DESICCANT CHARGE 50Kg

FIXINGS FOR 3" ANSI CLASS 125 FLANGE (M16)



FIXING CENTERS 520



254 CENTERS

CHANGE	MOD No	ISSUE	DATE
	5199	3	08-06-08
	4930	2	3/7/08
		1	28/10/04

MATERIAL STEEL	PROTECTIVE FINISH PHOSPHATE DEF STAN 03-11 CLASS 2 POLYESTER POWDER COAT BLUE	TOLERANCES	±3	CUSTOMER BROWNELL Ltd. LONDON NW10	CUSTOMER'S REF	DRAWN PD	CHECKED RS
		DIMENSIONS IN in/mm	mm				
EST. WT.		SURFACE ROUGHNESS			TITLE	DRAWING NUMBER BL/D6341/02 INST	
		SCALE (ORIGINAL)	1:5	MODEL 630 TANK DRYER			