



## DESCRIPTION OF THE

### SEETAL EUROCABIN NULLABOR

### COMBINATION SPRAY BOOTH AND BAKE OVEN

The Seetal Eurocabin Nullabor is a Fully Down Draught, Side Exhaust, Pressurized Car and Industrial Spray Booth Bake oven with single front door entry.

Designed to be constructed on a level concrete floor. With dry fiberglass exhaust filters in lower part of left and right hand side walls.

Complete Spray Booth body including front concertina door and doorframe, escape and service doors, plenum chamber, inlet filter arrangement and filters.

Spray Booth to be constructed out of 50mm Polystyrene Sandwich Board.

Front door construction is of concertina type, self-supporting manufactured out of 0.9mm galvanised steel, hinged on full-length piano hinges. Each wing will have centre-locking device to activate top and bottom pins, built into door shell. Upper door track and weight carrier arranged with C-section and ball bearing runners. 6mm laminated glass window in each of the four door wings will be provided, one door wing will have built in service door (Escape door).

Direct Fired Gas Heating System temperature controlled fresh air during the Spray and Bake cycle.

During normal operation of the Booth the solvent concentrations are always below the minimum safe levels required by AS 1375 for the following reasons.

1. The Spray Booth convection oven is a straight through system with 100% fresh air supply and 100% discharge at Spray and Bake. The fresh air supply is ducted from the outside of the building. Discharged air is also ducted to the outside of the building and arranged so that no discharge air can enter into the fresh air supply. No solvent laden air is able to cross the burner. Airflow through system is checked and proven by airflow switches, across the main fan, and position proven of the Spray and Bake damper.
  - a. The burner is only called to fire after position proving of airflow in the Booth and after the Booth has purged Five (5) times.
  - b. Typical airflow measured on Spray 9000 L.p.s. per Machine.  
Typical airflow measured on Bake 2100 L.p.s per Machine.



2. The Bake Cycle (Once through system):

When the bake cycle is called, the Booth will be purged to a minimum of Five (5) times within 60 seconds before call for heat. A baffle arrangement will then slow down air movement to approximately 2100 L.p.s per machine to allow the air to heat up, to a maximum of 80°C.

TEMPERATURE LIMIT DEVICE:

An air temperature limit device (Safety Thermostat) is fitted, in accordance with AG501 clause 3.4, 2.3, to shut off the gas supply before the temperature of the air at the heater outlet reaches 80°C

3. During the Bake Cycle:

The control of air movement in to the Booth is constantly maintained by an airflow which is position proved during the initial purge at the start of the Spray Cycle. The air supply to the Spray Gun is interlocked and cannot be switched on during Bake Cycle.

N/C Solenoid to be used (fail safe) to shut off Spray Gun air supply.

The Seetal Spray Booth is fitted with a Seetal D.F. 850 MJ air heat burner and uses the Direct Fired principle.

The system is of the total loss type, no re-circulation of any kind is employed.

Maximum heat requirement during Spray cycle is 500 MJ/hr, to heat 540m<sup>3</sup> air per minute from 5<sup>0</sup>C to 25<sup>0</sup>C. This of course means that in the summer season no burner operation is required most of the time.

The Seetal Eurocabin Nullabor is designed to be constructed on a level concrete floor.

The Booth is worked with One (1) only Euro Space Saver Machine, located on roof of booth construction.



In the "Spray" position, the fresh air is brought in from the outside through a duct system into the Heat Chamber for warming up (if necessary) to approximately 22<sup>0</sup>C. It will then be delivered via a centrifugal fan, to a plenum chamber over the top of the Booth section. From there, the supply air is passed down through a set of filters in the ceiling to the working area. (Down Draught System).

The air passes the operator vertically and leaves the Spray Booth through openings in both side walls horizontally.

The "non-sparking" exhaust fan pushes the cleaned air through the duct system out into the open.

After the completion of the spray painting job, the operator sets the baking temperature and time then pressed the "bake" button.

The control system of the Spray Booth will now automatically change the airflow to bake mode, and the direct fired heat unit will take air up to the required temperature (80<sup>0</sup>C max).

After the pre-set time for baking has elapsed, automatically the air flow is once again switched the same way as in "Spray" position, and with the heater switched off, the whole plant is cooled down to ambient or required temperature.

Fore re-spray jobs the whole cycle requires approximately 80 – 100 minutes. Five to seven vehicles can therefore be processed during a normal working day.



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### SEETAL EUROCABIN NULLABOR

#### DIMENSIONS:

Overall Height of booth:	3100mm
Overall Height (including machine):	4200mm
Overall Length:	7300mm
Overall Width:	5000mm
Internal Height:	2600mm
Internal Width:	4100mm
Internal Length:	7200mm

#### POWER REQUIREMENTS:

32 Amp 3 Phase:    3 Active  
                              1 Neutral  
                              1 Earth

#### INLET FANS:

One (1) only inlet air-handling unit with 5.5KW 940Rpm 50Hz electric motor, direct driven, centrifugal backwards-curved aluminium air-foiled fan.

MODEL: Seetal MMI 1000 and all necessary ductwork, transitions and weather hoods.

#### EXHAUST FANS:

One (1) only exhaust tube axial air handling unit with 3KW, 1440 Rpm 50 Hz electric motor, belt driven tube axial non-sparking fan.

MODEL: Seetal MME 1000 and all necessary ductwork, transitions and weather hoods.

#### HEATING SYSTEM:

One (1) only direct-fired gas burner.

MODEL: Seetal D.F. 850 MJ DD.

Maximum heat output 850MJ per hour.

Approved type with all necessary controls and interlocking devices.

Flame monitor system Model LFL 1 635.



TEMPERATURE:

During Spray Painting - adjustable to 20 - 25<sup>0</sup>C.  
During Baking – adjustable to 35 – 80<sup>0</sup>C

BAKING TIME:

Bake Time – adjustable from 6 minutes to 6 hours.

AIR FOR SPRAY GUN:

Only available if the inlet fans and exhaust fans are working and all access doors are shut.  
Air regulator with mist separator and heat resistant diaphragm is included in the Seetal Eurocabin Nullabor.

ELECTRICAL CONTROLS:

Control of all functions is affected from a handy located control panel. It includes the following:

- a. Main Switch for power.
- b. Light Switch.
- c. Timer circuit for baking time.
- d. Hour meter.
- e. Stop button.
- f. Button to select "Spray" or "Bake " cycles.
- g. Temperature setting controls over spray and baking.
- h. Temperature gauge with digital readout.
- i. Burner control and fault lights.
- j. Fan and pump protection.
- k. Pressure regulators for pneumatic drives and spray air.
- l. Fault detection and trouble shooting lights.

ILLUMINATION:

Sixteen (16)-twin fluorescent ceiling height light fittings, arranged in four rows, fitted along each side, and two front and two rear. Four (4) twin fluorescent vertical light fittings, one in each corner.

Above light system is a certified type. Certification No: EX 1392 (Refer to supplied copy of certificate of Conformity).



INLET FILTER:

High efficiency inlet filters running along the **full length and width** of the ceiling with knife-edge seal. Simple and quick to replace. Filter change takes approx. 30 minutes using Seetal inlet filter exchange system.

Filter media Seetal A3 / 600 G Din. 53438 is recommended for replacement to ensure 100% satisfaction in relation to dust and proper airflow.

EXHAUST AIR FILTER:

Dry Fibreglass.

DUCTS:

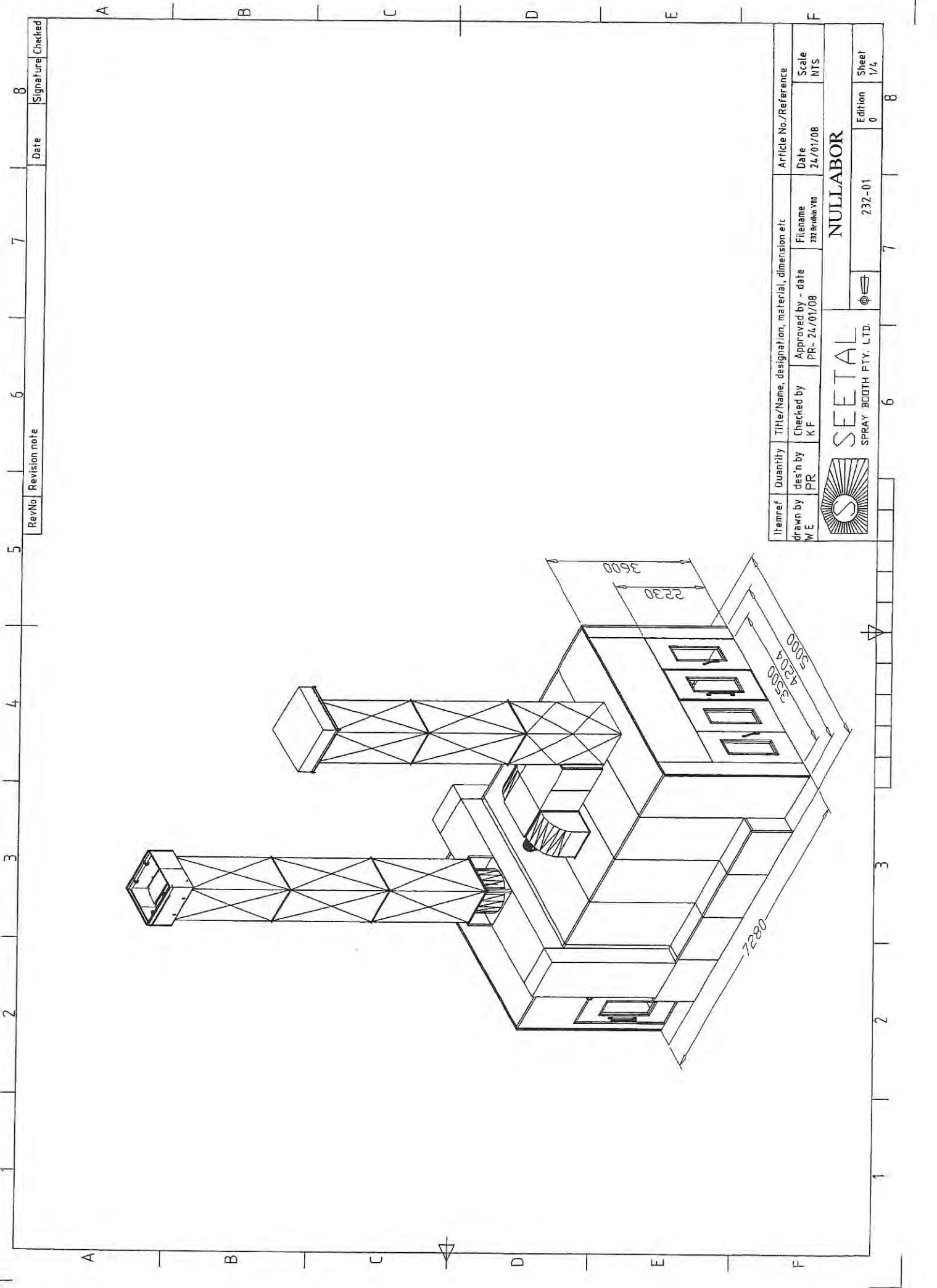
All galvanised construction includes bird screen and weather hood. Height to E.P.A. requirements. Maximum of 5m of inlet and 5m of exhaust ductwork standard supplied.

ILLUMINATION AND DOOR GLASS:

6.3mm laminated and metal sashed glass panels.

OPTIONAL EXTRAS:

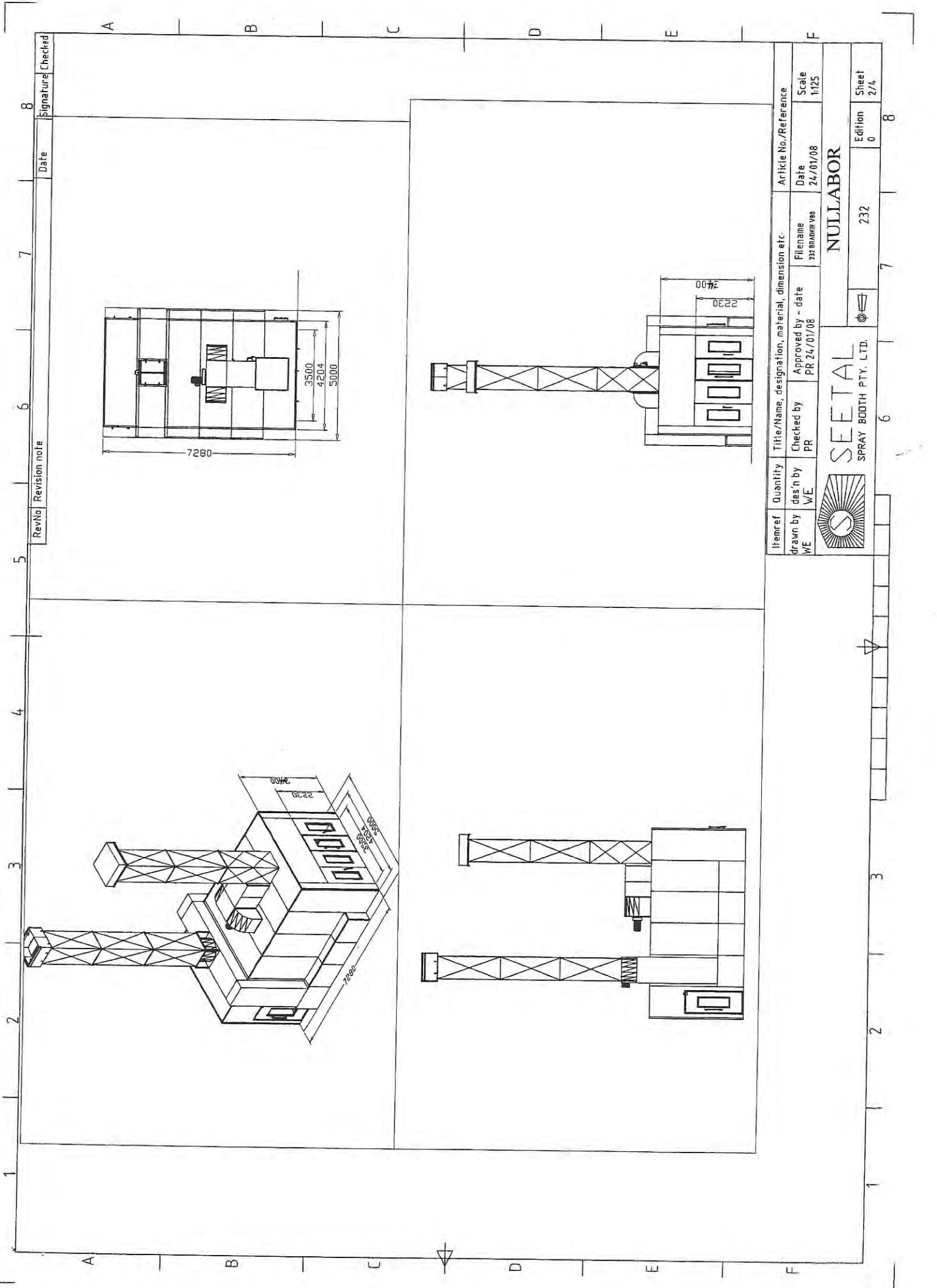
- Drive through configuration, involves extra vehicle access doors at rear of Booth.
- Paint Mixing Room adjoining the Booth.
- Viewing windows in walls.




RevNo	Revision note	6	7	8
Date	Signature	Checked		

Itemref	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference
drawn by WE	des'n by PR	Checked by KF	Date 24/01/08
		Approved by - date PR- 24/01/08	Scale NTS
		Filename 232.arcdwg.vba	
<b>SEETAL</b> SPRAY BOOTH PTY. LTD.			<b>NULLABOR</b>
		Edition 0	Sheet 1/4



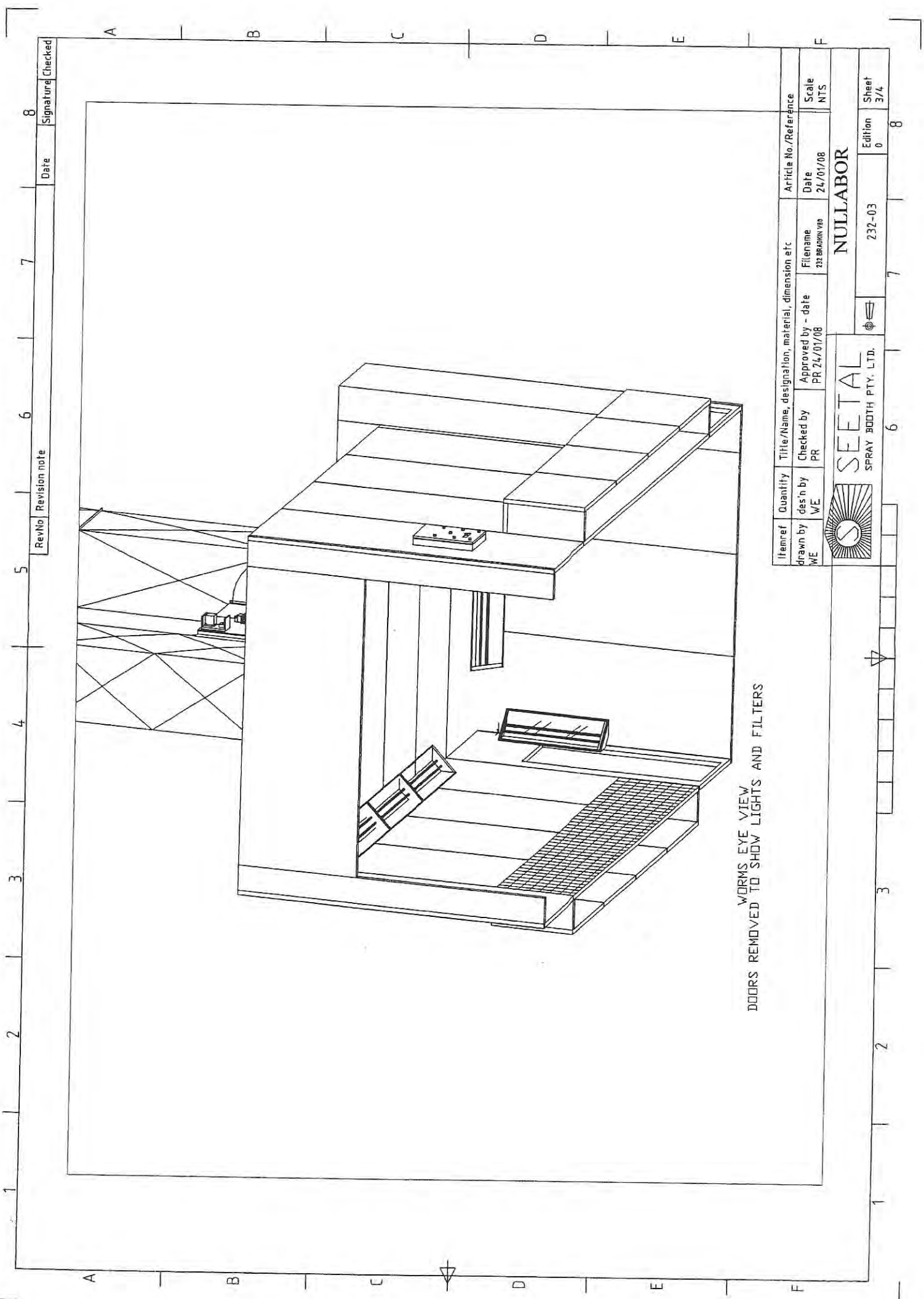


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Itemref drawn by WE	Quantity des'n by WE	Title/Name, designation, material, dimension etc. Checked by PR	Approved by - date PR 24/01/08	Article No./Reference Filename 232.BOXBOOTH.VBP	Date 24/01/08	Scale 1:125
		<b>SEETAL</b> SPRAY BOOTH PTY. LTD.		<b>NULLABOR</b> 232		Edition 0
						Sheet 2/4







WORMS EYE VIEW  
DOORS REMOVED TO SHOW LIGHTS AND FILTERS

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5				
6				
7				
8				

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