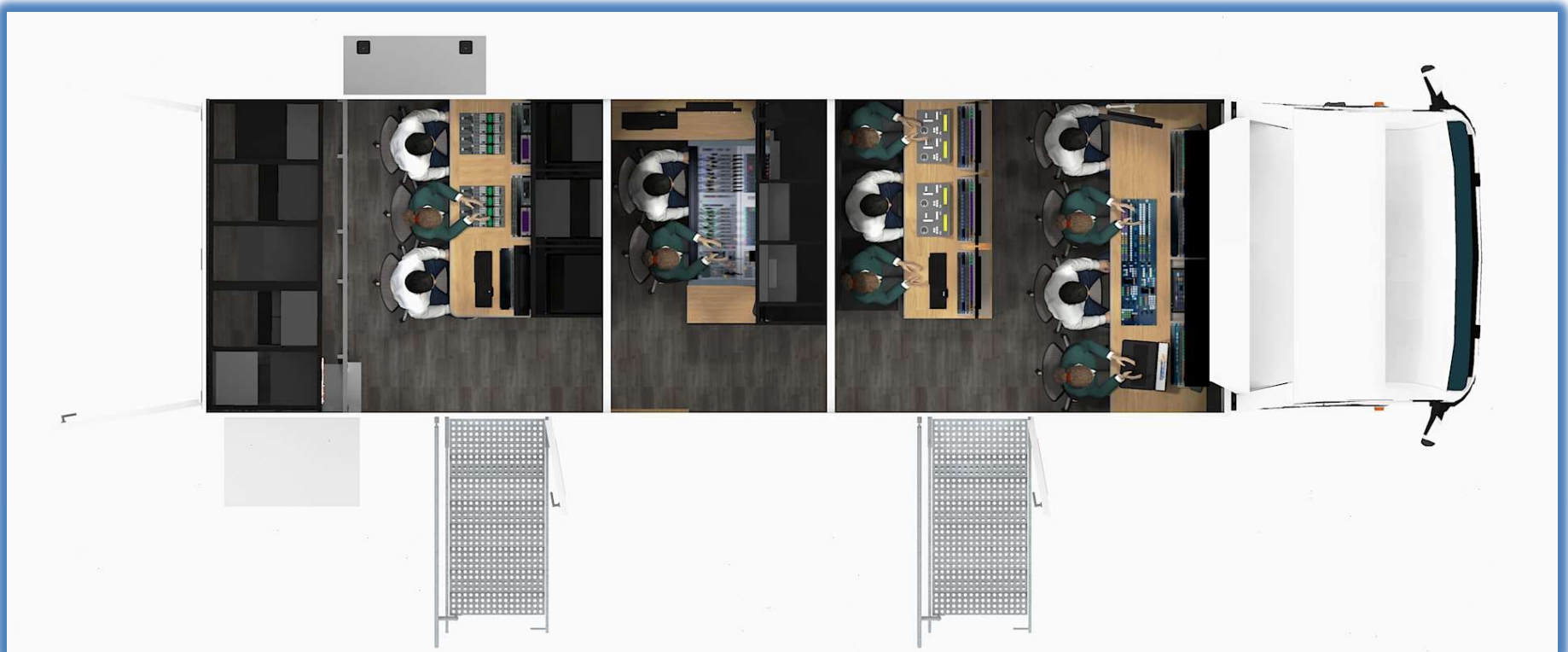


# S8L

## COACHBUILDING CONCEPT



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## 1 Technical description

### 1.1 Truck:

**15 t, two axle truck with air suspension at the rear axle and the following features:**

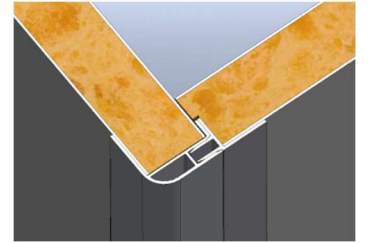
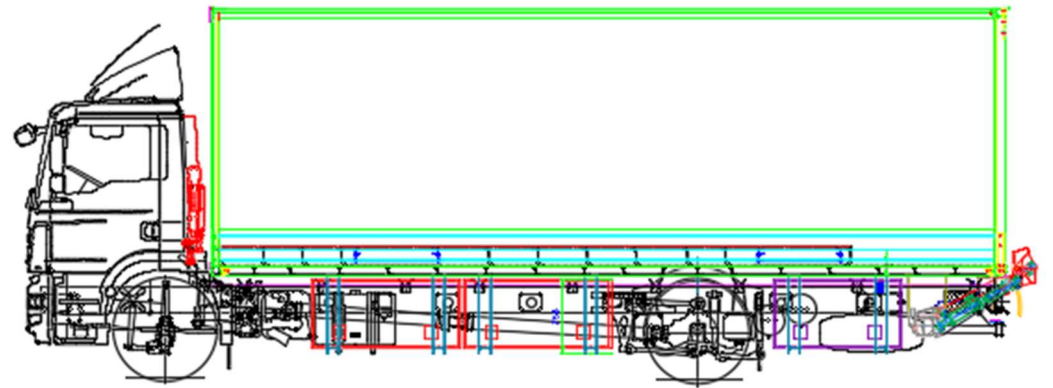
- Brand: MAN
- Type: TGM 15.290 4x2 BL
- Wheelbase: 5425 mm
- Driver cabin C, compact
- Steering layout: right or left
- Total weight: 15.500kg
- Engine: 290 hp / 213 kW Euro 6 SCR-1150Nm, C-R HCl
- 6-cylinder in-line engine – 6,9 l capacity.
- Manual gear box, ZF 9S-1310 OD
- Fuel tank 220l and 20l AdBlue
- MAN BrakeMatic (electronic brake system)
- Emergency Brake Assist 2 (EBA2)
- Radio MAN Media.
- Air conditioning system AC R134A without CFC-free
- Driver's seat, high-comfort, with air suspension.
- Co-driver's seat static, with longitudinal, seat back adjustment
- Roof spoiler





## 1.2 Coach features:

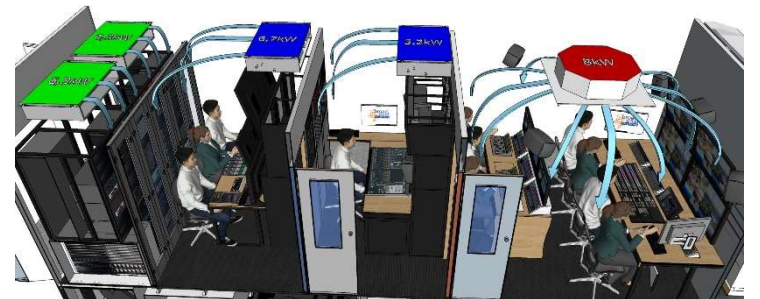
- Dimension box body:
  - Length: 8100mm
  - Width: 2550mm
  - Height: 2400mm
- Walls and roof 30mm composite panel, 0.6mm steel, 29mm insulation, 0.6mm steel. Outside and inside steel skin powder coated.
- Inside floor 24mm plywood.
- Security small size double glass windows at each door.
- Service door at the rear side
- Entrance doors 2x co-driver side
- Slide out ladders with stainless steel handrail at each door.
- Inboard service access the central racks.
- Locker area left and ride side with gas spring supported flaps.
- Four-point hydraulic jack system with auto level function, operation by LCD remote panel
- rear view camera system with 7" monitor in the driver cabin
- battery charging line from the tractor with high current connectors charging the trailer batteries during driving
- Carbone dioxide extinguisher 2kG with wall bracket
- rear locker box for 24VDC electric cable drum unit suitable for 8-12x triax or SMPTE cable
- Roof coated with anti-slip.
- Antenna spoiler at the front wall integrated in the Aircon mounting
- Manual operated flap roofs above the entrance doors
- Cable mouse hole in each room





### 1.3 Aircon system:

- Mitsubishi Heavy Industries Aircon units
- 4x outside units with up to 29,6kW cooling power, or 32,6kW heating power over all.
- Mounting of Aircon outside units:
  - 2x at the front, above the driver cabin
  - 2x at the locker area, driver side
- All units mounted with attuned shock absorber to prevent vibrations and resultant noise strain
- 2x 6,3 kW evaporator for the central racks
- 1x 8,0 kW evaporator for the production
- 1x 3,2 kW evaporator for audio.
- 1x 6,7 kW evaporator for engineering
- Each room with separate wall mounted electronic remote control panel.
- Aircon in every room and central racks adjustable independently



### 1.4 Active fresh air system

- Fresh air system with fan and filter box
  - Independent tubing and air mass adjustment to each room
  - speed controlled fan
  - always filtered air
  - easy to clean or replace
- filter class P5 (standard) up to P9 (pollen) are optional available



### 1.5 Emergency hot air exhaust system for the central racks:

- Emergency hot air exhaust system for the central racks.
- Thermostat controlled high power fans (2x 400m<sup>3</sup>/h) with warning buzzer in the VE.
- Non-return valve in the tubing and emergency air inlets, no negative interference during normal aircon operation.
- Automatic operation system, no additional actions are needed.
- temperature measurement per rack group, with display, warning buzzer and light in the distribution panel

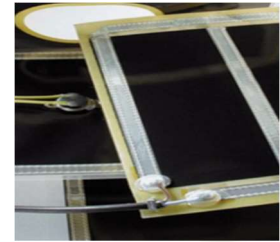
### 1.6 Diesel pre-heating

- Webasto diesel preheater with 5,5kW heating power
- Cable remote control
- Additional 100l Diesel tank with fuel indicator mounted in one locker box



## 1.7 Floor heating

- floor heating at each workplace, 240W/m<sup>2</sup>, 42V operation voltage, self-regulated



## 1.8 Power system

- 1x 22,5 kVA isolation power input transformer



- Power cable drum with 1x 40m 5x6mm<sup>2</sup> cable and 32A CEE plug.



- Easy accessible power distribution panel built in central rack
- Electronic measurement device for V/A/Hz.
- Main switch for different sections.
- All circuits with ELCB (earth leakage circuit breaker).



- 24VDC/30A Victron battery charger.
- Burglar alarm system with 8 alarm zones and 3x optical smoke/fire sensor





- 3x Eaton UPS 3000VA with battery extension each unit to power AV equipment
- UPS bypass switch

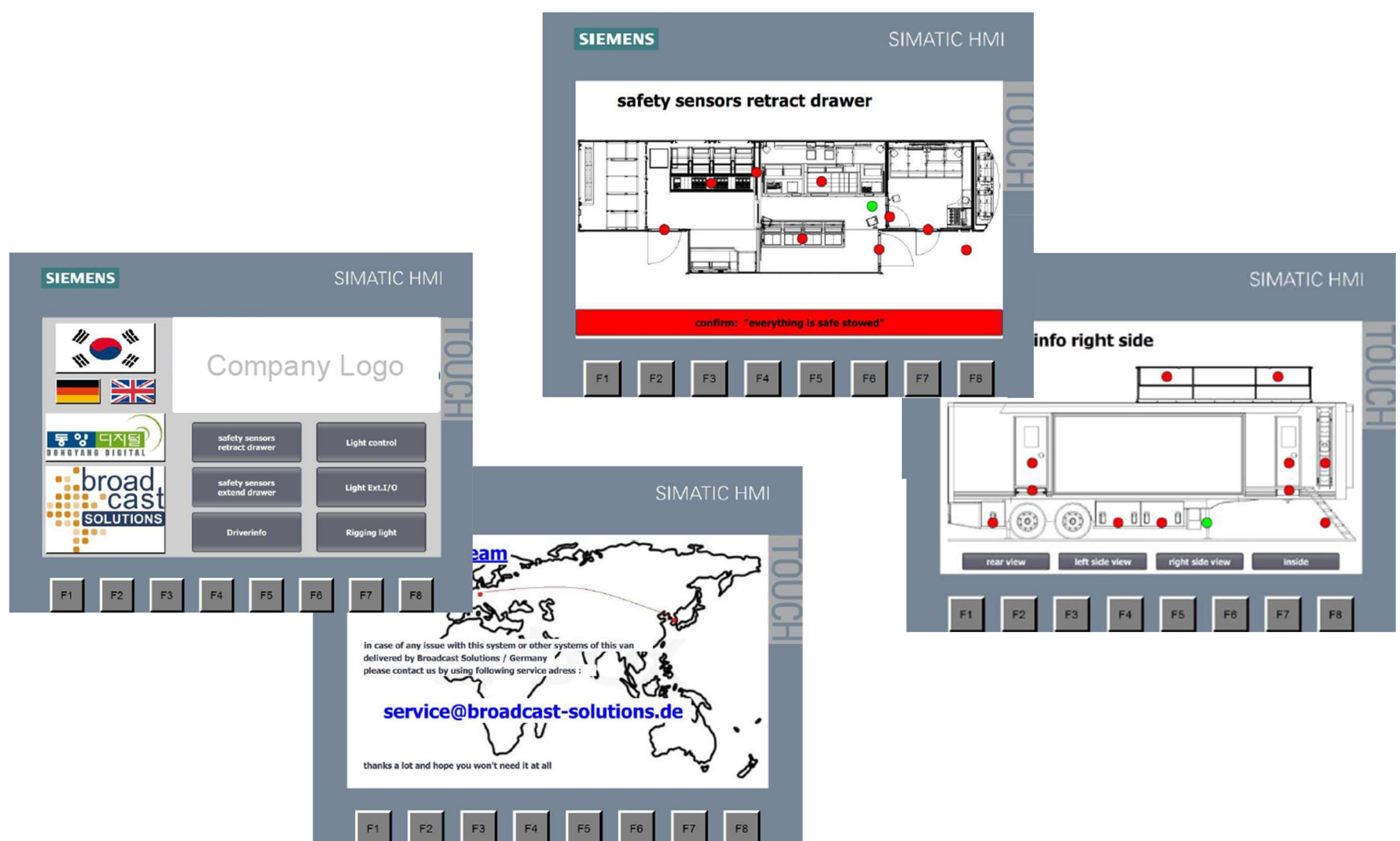


- Trailer Control System (Multifunctional Logic Control Unit), controlling and/or monitoring of:
  - DC Voltage
  - DC light control
  - Fuel Gauge
  - Warning functions
  - Emergency Light function for DC Room light
  - Flap control, Drivers warning
  - Rack temperature control
  - Remote Service function over GSM/GPRS/UMTS/LTE network



Trailer Control System

Siemens SIMATIC



## 1.9 Lighting

- Outside LED rigging light over the entire vehicle length



- Outside LED rigging light punctually

- 1560 lumens; > 620 lux @ 1 metre
- Unique curved light projections covering over 30m²
- Solid aluminium casting
- Multi-voltage (10-32V)
- Waterproof to IP67
- E-type approved



- LED locker lights with motion sensor

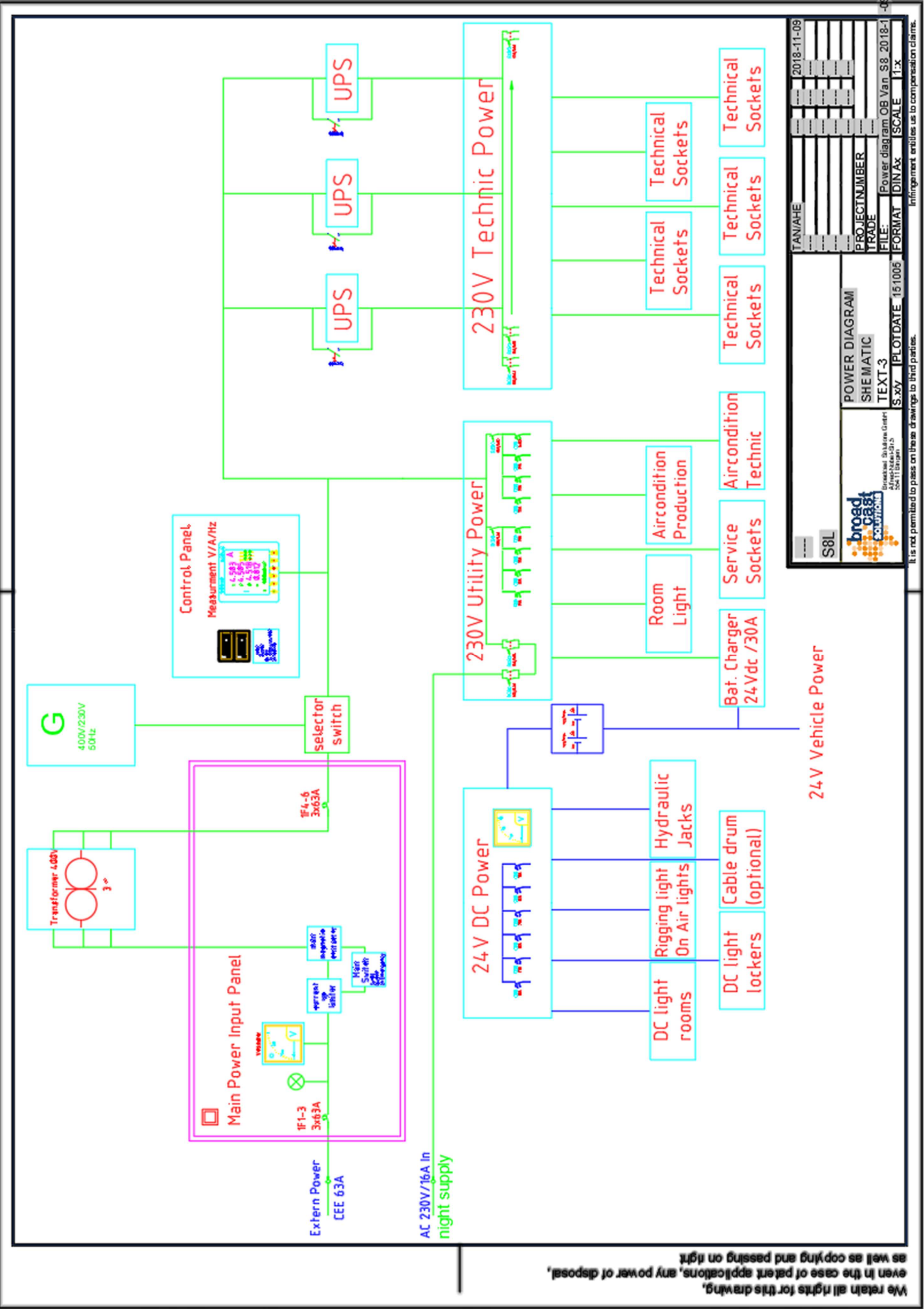


- Interior 24VDC operating emergency LED lights in each room.
- Suitable amount of dimmable LED Spots in each room.





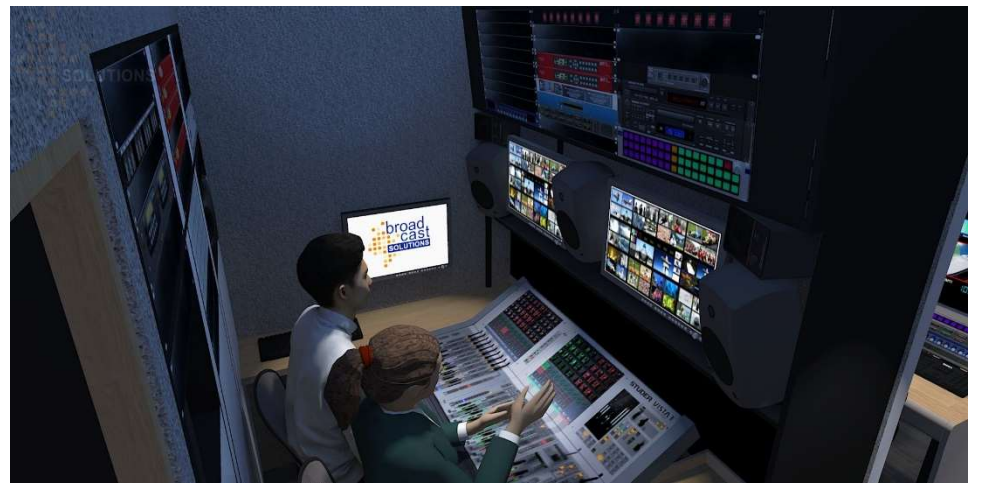
1.10 Power Diagram



## 2 Interior furniture:

### 2.1 Audio

- One workplace
- Separate audio room.
- 2x19" over-head-racks above the main audio mixer.
- Optimized video and audio monitoring.
- Sound insulating curtain to the production.



### 2.2 Production

- 4 workplaces
- Full width main production desk for main vision mixer.
- Ergonomic monitor wall, with quick release function.
- Multi functionally monitor on swing arm, total extension 600mm, lockable during traveling
- 600mm slidable production desk for easy Monitor access
- Direct entrance from outside.
- Optimized audio monitoring



### 2.3 Slomo

- 2 workplaces
- Ergonomic monitoring
- Over-head-racks 2x19"
- Side cable ducts with 1x19" vertical RU



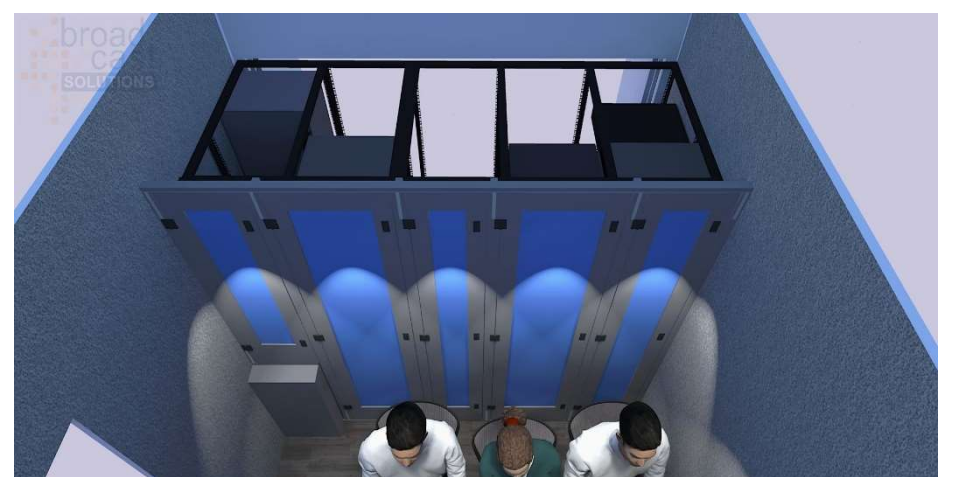
### 2.4 Vision engineering

- 2 workplaces
- Ergonomic monitoring.
- 2x19" overhead.
- Side cable ducts with 1x19" vertical RU



### 2.5 Central racks

- 4x 45RU racks for all equipment.
- 1x 28RU rack for electronic parts
- Optimized depth of 900mm for easy service and maintenance.
- Inboard service access.
- Sound isolating doors in front of the racks (noise reduction approx. 25dB).
- High power aircon system, partly redundant





## 2.6 Office chairs

- Ergonomic design office chair with 3D backrest
- Color black
- Seat width: 455mm
- Seat height: 420mm-550mm
- Seat depth: 390mm
- mechanism: permanent contact



## 2.7 Storage area

- customized locker boxes
  - colored stainless steel
  - covered inside with water resistant plywood
  - integrated in the underfloor area



## 2.8 Outside patch panel

- 2x 19" 16RU
- Vertical flap with weather protection or sun protection roof function
- Cable flap with additional mechanism in 5-10° lockable, keeping cables connected



2.9 Dimensions (approximately)





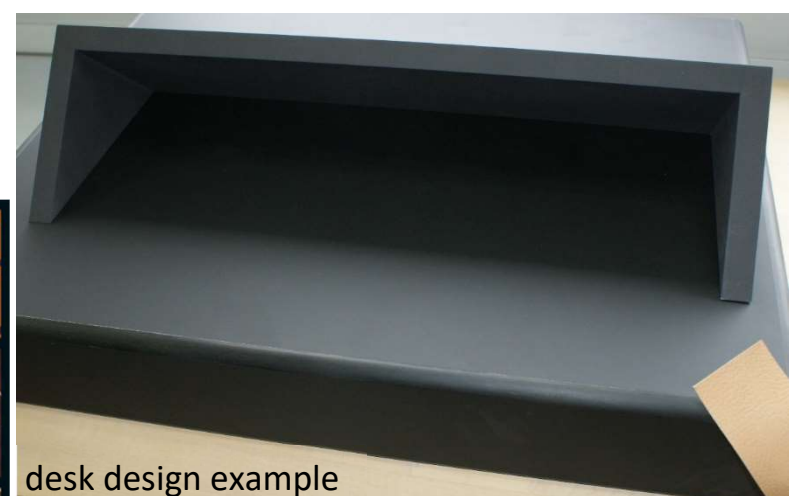
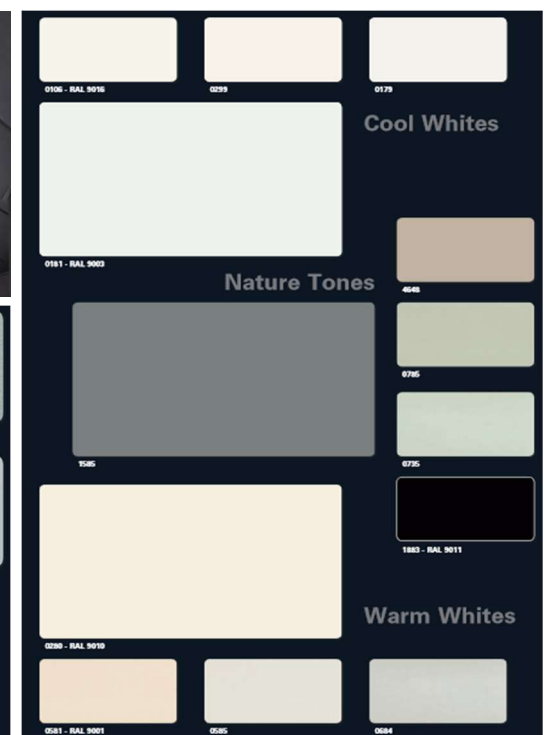
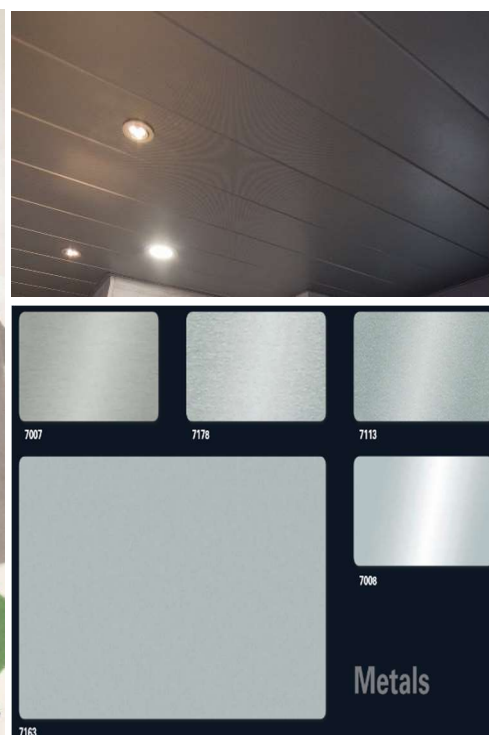
### 3 General features:

- The floor in all rooms is coated with a high quality antistatic lining.
- All walls are covered with velour carpet.
- The wooden furniture is coated with plastic laminate.
- All ceilings are covered with perforated aluminum panels.
- All metal furniture, like 19" racks, is powder coated, standard RAL 9005 black.
- Colors of carpet, wooden furniture's, ceiling etc. will be decided together with the customer.

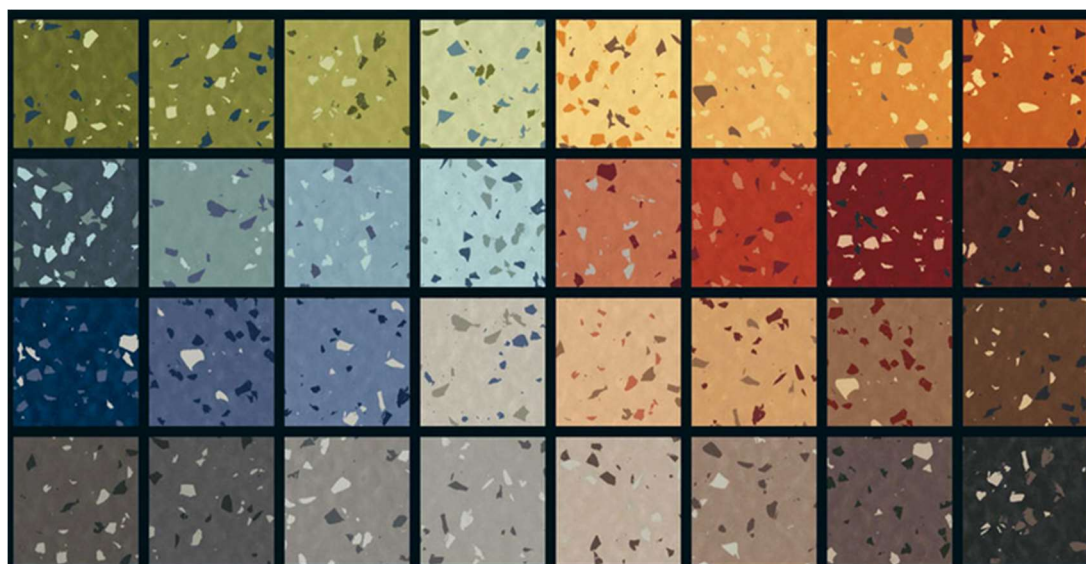
#### Samples:



velour wall carpet



desk design example



antistatic floor coating

### 4 Design samples

The following pictures shall illustrate possible variations of the interior design.



## 4.1 Sandstone





## 4.2 Blue-Grey





### 4.3 Grey-Wood-Rubber V1





#### 4.4 Grey-Wood-Linament





## 4.5 Grey-Red





## 4.6 Grey-Wooden-Floor





## 5 Coachbuilding

### Overall Approach

- Complete in-house design and construction:
- The complete construction and design works are carried out in-house at Broadcast Solutions GmbH. In-house construction and manufacturing

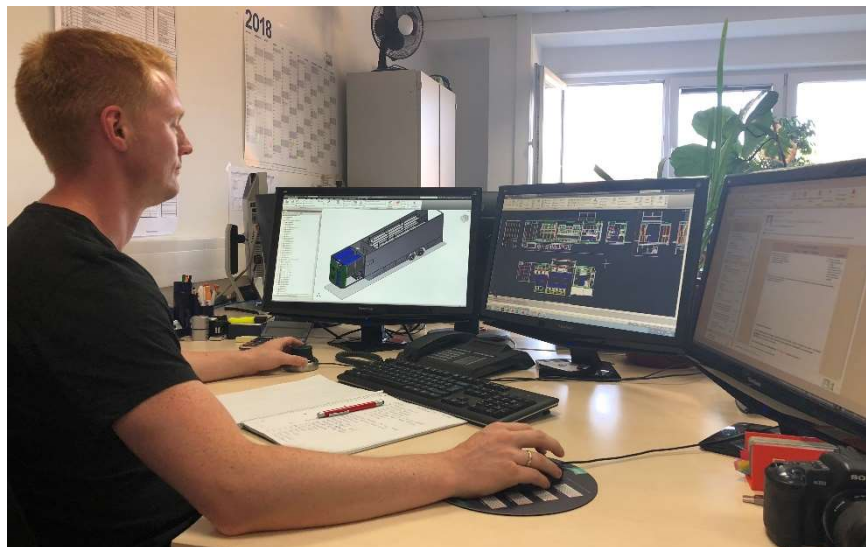


Figure 1: Mechanical Design Department in-house



Figure 2: In-house construction and manufacturing let us accomplish every customer need



Figure 3: Perfection down to the most minute. All compressors are fitted with the appropriate vibration damper, so that the resulting noise is optimally kept away from the interior

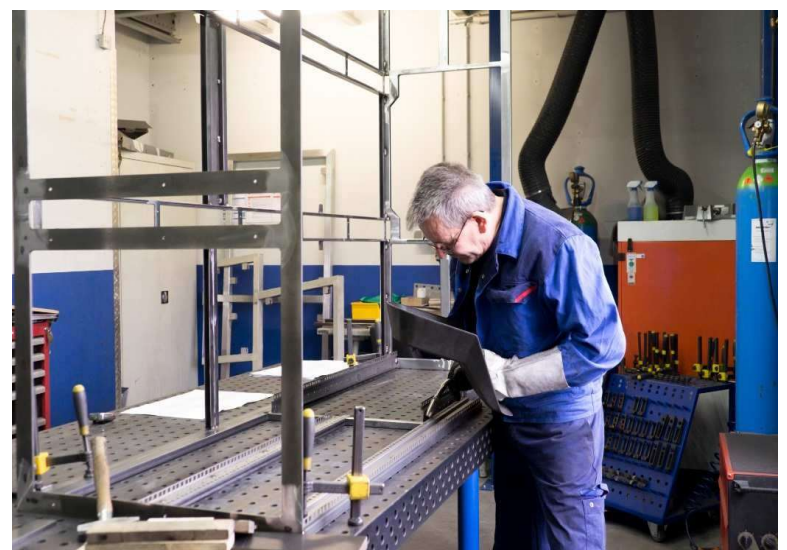


Figure 4: Rack welding accurate to the millimetre in-house



Figure 5: Fully equipped metal working shop



Figure 6: Carpentry work is done in-house





Figure 7: Metal working is done in-house

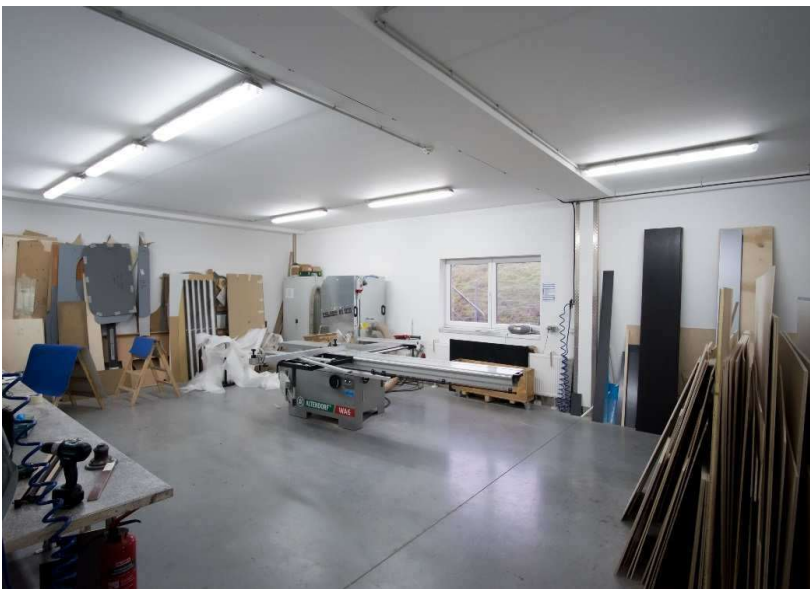


Figure 8: Carpenter's workshop with modern tools



Figure 9: High quality controls during the whole production process



Figure 9: Electrical installation in-house