#### Measurement Van for C.P.- Services

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#### A Wide Selection to Suit Every Vehicle

We have worked closely for many years with big manufacturers of commercial vehicles. The result is that whatever type of vehicle you use we can find the best solution for you and your cathodic corrosion staff.

#### As an example: Mercedes-Benz Sprinter 310 CDI

#### Technical engine data for the Sprinter

4x2 drive system	Standard
No. of cylinders	4
Arrangement	in-line
No. of valves per cylinder	4
Displacement (cc)	2,143
Rated output (hp/kW)	95/70
at engine speed (rpm)	3,800
Rated torque (Nm)	250
at engine speed (rpm)	1,400-2,400
Manual transmission	ECO Gear 360 6 speed
Manda transmission	manual transmission
Automatic transmission	Option
Fuel type	Diesel
Tank capacity (I)	approx. 75
Mixture preparation	Electronically controlled direct injection with common rail, turbocharger and intercooler
Battery (V/Ah)	12/74
Alternator (V/A)	14/120
GVW (kg)	3,500
GCW (kg)	5,500

#### Modul-System

Modul-System is made up of modules with a support frame that is designed to give added strength. The base version of support frame is naked, and this can be clad with end panels and/or tool boards to suit individual needs and improve versatility for the user. All essential structural strength is provided by the frame, which is self-supporting and takes up all loads.



#### **Modul-Boxes with Windows**

The Modul-Box is a practically designed storage box.

It has an ergonimically shaped handle and can be fitted with a viewing window to view the product and maximise the storage capacity.





- Available in 4 vehicle lengths
- A choice of 3 load compartment heights
- Spacious interior



Sliding-door sizes up to 1.30 m wide x 1.82 m high (depending on variant)

#### **Drawer Units**



Drawer units are modular in width, depth and height, and can easily be combined with other products and drawer units in the range. Drawer unit support frames have an integrated, uniquely designed T-track that is used for securing cargo, attaching accessories and for versatile surface mounting. End panels, tool boards and locks can be added as optional accessories. Drawers can be arranged as required and are available in three heights (low, medium and high). Each drawer is fitted with ball bearing runners as standard, and opens fully to give unrestricted access to contents. The maximum load is 30 kg per drawer, with a maximum of 100 kg per drawer unit. For extra heavy loads (max. 50 kg per drawer) medium and high drawers can be fitted with double ball bearing runners.

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#### Lockers

The range of lockers provides effective storage for your cargo and can usefully be combined with drawer units and other components.

All vertical, horizontal and gas lockers are modular in width, depth and height. Support frames have an integrated, uniquely designed T-track that can be used for securing cargo, attaching accessories and for versatile surface mounting. Lockers with a square base are especially versatile as they can be rotated through a full 360 degrees.

#### **Shelves**

Shelves in modular widths, with a height of 54 mm. Long edges are double-folded to increase load capacity. Cut-outs in front and back for mounting dividers.

#### Standard shelves

Shelves are available in depths of 216 mm, 324 mm and 486 mm. The 216 mm wide shelf is ideal for use as a top shelf in taller racking systems. For ultimate practicality, shelves can be combined with Modul-Boxes and rubber mat for greater convenience.



#### Extendable drawer sections

Extendable drawer sections provide a system that can be used in cars, pickups and vans. The extendable drawer sections can accommodate most of the items you need to take along, from tools and instruments to document files and paper. The units can support a load of up to 70 kilograms and open 70 per cent of their depth. They are manufactured from aluminium with a natural anodised finish to protect against stains and scratches. The system can be freely combined to suit your cargo and vehicle perfectly. Units are available in two widths, two heights and five depths. They can be stacked on top of one another by using our stacking profiles. The extendable drawers have ball bearing runners for ease of opening and closing. All drawers are equipped with aluminium handles with a catch to hold the drawers closed while driving. Drawers also have a leaf spring safety catch to prevent them from sliding out fully when opened.



Practical extendable frame for permanent mounting in vehicle. Intended to be used with a separate loading platform of suitable size. The extendable frame locks automatically in the extended and closed positions. Load capacity approx. 200 kg with an evenly distributed load. The frame consists of a steel structure with runners and fittings, etc.



#### Work benches and tool boards

By combining Modul-System work benches and tool boards with drawer units, extension frames and shelving you can create a useful and practical space for working and stowing items in your vehicle.

#### Bench top

Bench top in beech with a stop at the rear and steel edging at the front. Available in widths of 972 mm, 1134 mm and 1458 mm. The 1458 mm wide bench top is prepared for easy cutting to a width of 1296 mm. Total height 54 mm.

#### Angle bracket for bench

For fitting to shelf end supports as support bracket for bench top.

#### Tool boards

A flexible system for hanging tools, etc. The system has 9-mm square holes with a spacing of 34 mm. The tool boards and tool rails can be used in many different ways wherever you need to keep tools in order. Tool boards and rails are made from aluminium.

## MOBILE SERVICE VEHICLES Measurement Van for C.P.- Services

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### Equipment and tools for monitoring and maintenance of cathodic corrosion protection systems

Qty.	Description	Chapter	Document No.
1	Portable transformer rectifier 230 V/50 Hz, DC output: 0-50 V, 0-20 A	02	02-109-R0
1	Multifunction instrument MoData 2	11	11-200-R0
3	Current interrupter GPS-Syntakt	11	11-501-R0
2	Data logger MiniLog 512	11	11-401-R0
1	Soil box, Test cell	11	11-310-R0
2	Digital multimeter FLUKE 175	11	11-106-R0
1	High voltage insulation tester METRISO 5000A	11	11-108-R0
6	Portable reference electrode Cu/CuSO4, Type: RE5 complete	11	11-701-R0
1	Portable reference electrode Cu/CuSO4, Type: CUS-01	11	11-701-R0
1	Electronic pin bracing unit, Type. S30XC complete	09	09-500-R0
1	Ground resistance tester GEOHM C with accessories set 4	11	11-301-R0
1	Pipe and cable locator, Type: RD8000	11	11-601-R0
1	DC Microvoltmeter, Type: 2000	11	11-101-R0
1	Holiday (Pin Hole) detector, Type: Poro Test 7	11	11-620-R0
1	DC AC Inverter, DC 12V / AC 230 V, 50 Hz, 600 VA		
5	Hand held cable reels with 50 m measuring cable 0.75 mm <sup>2</sup>		
4	Cable reels BIGSPOOL with 900 m measuring cable 0.75 mm <sup>2</sup>		
1	Electrical soldering set, 230 V, 80 W		
1	Blowtorch with automatic piezo ignition		
5	Gas cartridges for Blowtorch		
8	Grounding rods with wooden handle		
2	Professional tool set with 186 pieces		
1	Set of alligator clips, banana plugs etc.		
1	Set of test leads		
1	Set of spare batteries		
1	Set of consumables		

We will provide the equipment based on your needs and requirements.

#### **Mobile Workshop**

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#### Mobile workshops

These are equipped individually according to your requirements and completely for all purposes; for example, with workbenches and cupboards, welding generator, flame cutter, machines and tools, compressor, power generator, special tools, lifting equipment etc.

The division of doors or a separate generator room as well as the configuration of the different machines and devices will be practically arranged for you.

### A wide range of vehicles suitable for your application

We have worked closely for many years with big manufacturers of commercial vehicles. The result is that whatever type of vehicle you use we can find the best solution for you and your maintenance staff.

# As example: Daimler-Benz Unimog 435/U 1300 L Technical data

Engine	Direct injected diesel engine
cylinders	6 in series
cylinder bore x stroke	97 x 128 mm
stroke volume	5675 ccm
output	130 PS (96 kW) at 2800 rpm
torque	36.3 mkg at 1800 rpm
compression ratio	1:17
fuel injection pump	Bosch
valves	overhead, side crankshaft, drive through spur gear
crankshaft bearings	7
cooling	water / pump
lubrication	forced-feed lubrication
battery	2 x 12 V, 125 Ah
generator	3 phase, 55 Ah, 24 V (1540 W)
starter	24 V, 2.9 kW

Power transmission	All-wheel drive
dutch	single-plate dry dutch
gearshift	3 gearshift levers
transmission	8 speed transmission
synchronizer	I - VIII
gear ratio reduction	6.36

Chassis	U-section frame
front suspension	portal axle rigid, coil springs, stabilizer
rear suspension	portal axle rigid, coil springs, and add-it springs
steering system	recirculating ball, servo 5.5
foot brake	compressed air-hydraulic. 2 circuits
hand brake	accumulator, rear wheels





Double wing door at the rear - entrance ladder mounted under the body - made of galvanized steel - nonslip steps.

Arrangement and dimensions of windows and doors could be selected arbitrarily.



Roof rack with flood lights for night use

#### **Mobile Workshop**

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DQ	=	<b>ENGINEERING</b>
10	5	GMBH

-	
General data	
wheelbase	3250 mm
tread width front / rear	1860 / 1860 mm
overall dimensions	5540 x 2300 x 2750 mm
cargo area	3150 x 2200 mm
loading height	1230 mm
tires	12.5R20MPT
fording depth	440 mm
turning circle	13.8 m
vehicle weight	5250 kg
total weight (perm.)	7500 kg
total weight	5190 kg
top speed	80 km/h
consumption / 100 km	21 liters















#### Use site

In most cases, the mobile workshop must be placed as close as possible to the job site. As a result, we select a suitable vehicle for both good highway and off road handling.

#### Versatility

The mobile workshop will be equipped with carefully selected multi-purpose tools and equipment to correct most field problems and still occupy only a limited space.

#### **Climate Characteristics**

For extreme hot, cold, dry and humid climate conditions, we provide proper preparations on vehicles, chassis, body, equipment and tools upon our customer's request.