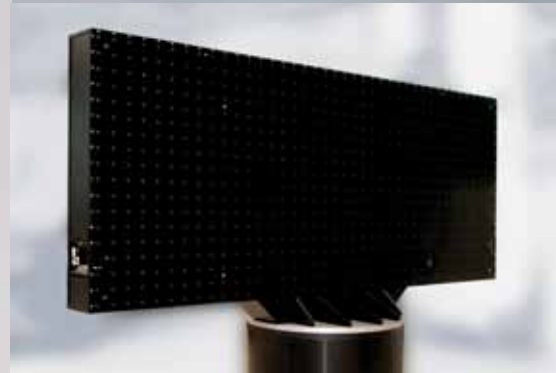
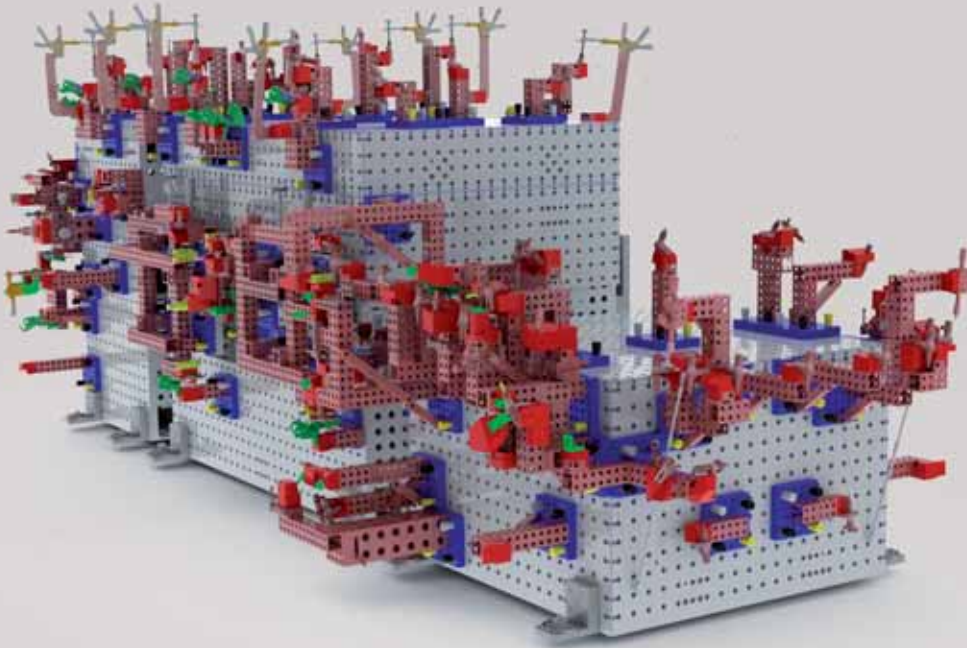


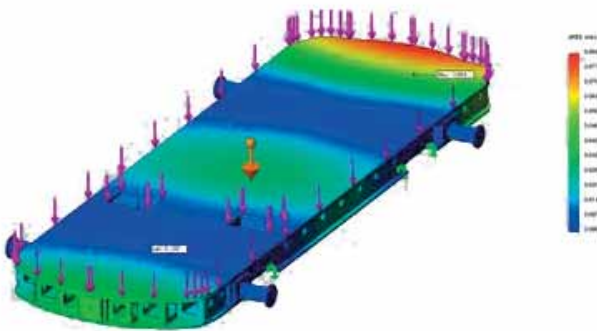
# Witte FixBase®

Brochure 2018<sup>DO5</sup>



Mobile precision in XXL format





All Alu Structure Plates are tested and optimized for capacity and rigidity according to FEM analysis

## Witte FixBase®

### Base plates and positioning systems

■ Accurate and very rigid Alu Structure Plates are used as bases for measuring or holding fixtures, as a cantilever for CMM measuring surfaces or as transport plates. They offer highest rigidity but are comparatively lightweight

■ Alu Structure Plates can be used vertically or horizontally.

■ According to customer request plates are available with natural or black anodized surface, hard coating is also possible.

■ Whether extremely lightweight and economical or very accurate and demanding one of our options will suit your company's needs. Almost any type of grid can be integrated into the plate surface/s.

■ Important accessories to large plates are PWS (Precision Witte System) or PPS (Precision Positioning System) quick clamp systems. These are systems integrated into the plate to allow quick, accurate and repeatable positioning of sub-plates or adapter plates onto the Alu Structure Plate.

■ Optional accessories i.e.

- Cable/radio remote control
- Camera with monitor
- Position sensors
- Visual and acoustic warning signals
- Laser-scanner to monitor area of movement

As well as special versions such as

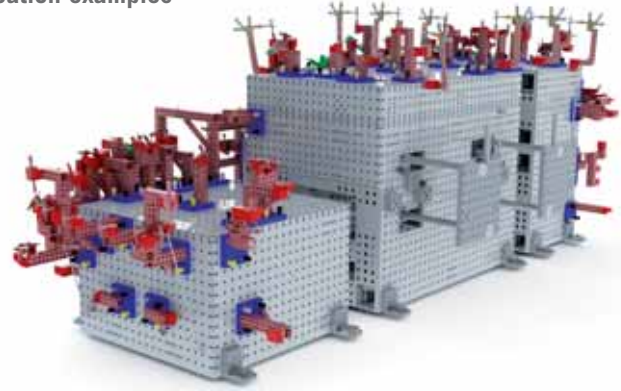
- Motor driven, automated
- Contoured plates which fit to work piece, also three dimensional plates
- Contoured plates which fit to work piece, in segments or modular
- Mounted with moveable surface plates
- With integrated scissor trolleys are available on request





Horizontal and vertical structure plates, on guide rails, automated

**Witte FixBase®**  
Application examples



FixBase cube combination mounted with column type supports

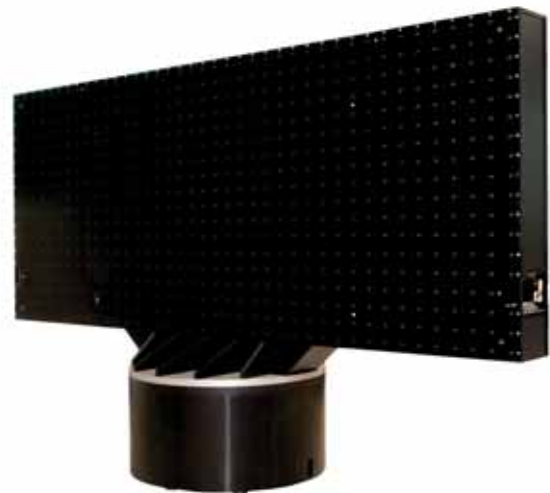
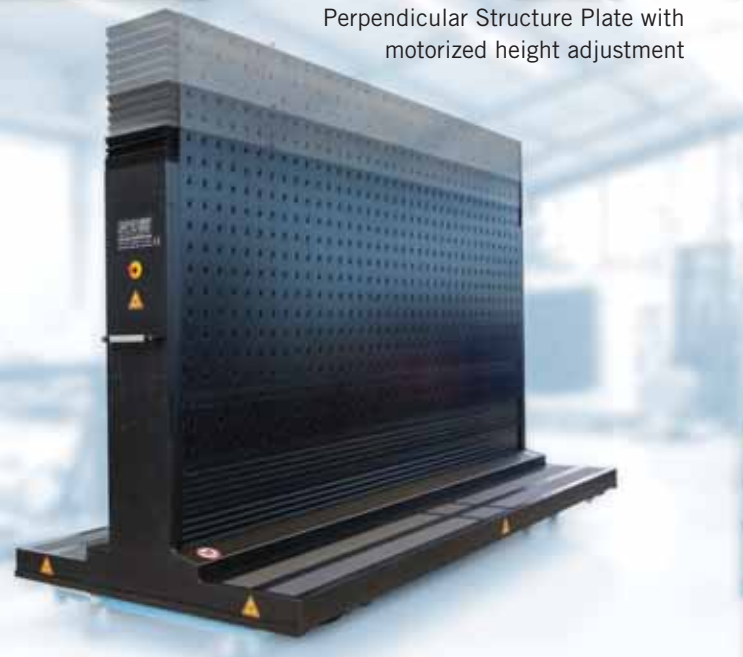


Fixbase Cube for mounting single parts of vehicle front



Horizontal Structure Plate with integrated motor driven jack system

Perpendicular Structure Plate with motorized height adjustment

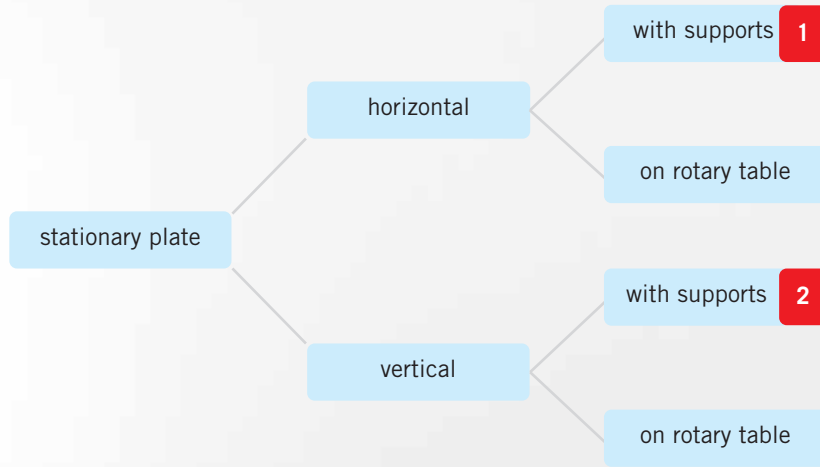


Horizontal Structure Plate with integrated motor driven jack system

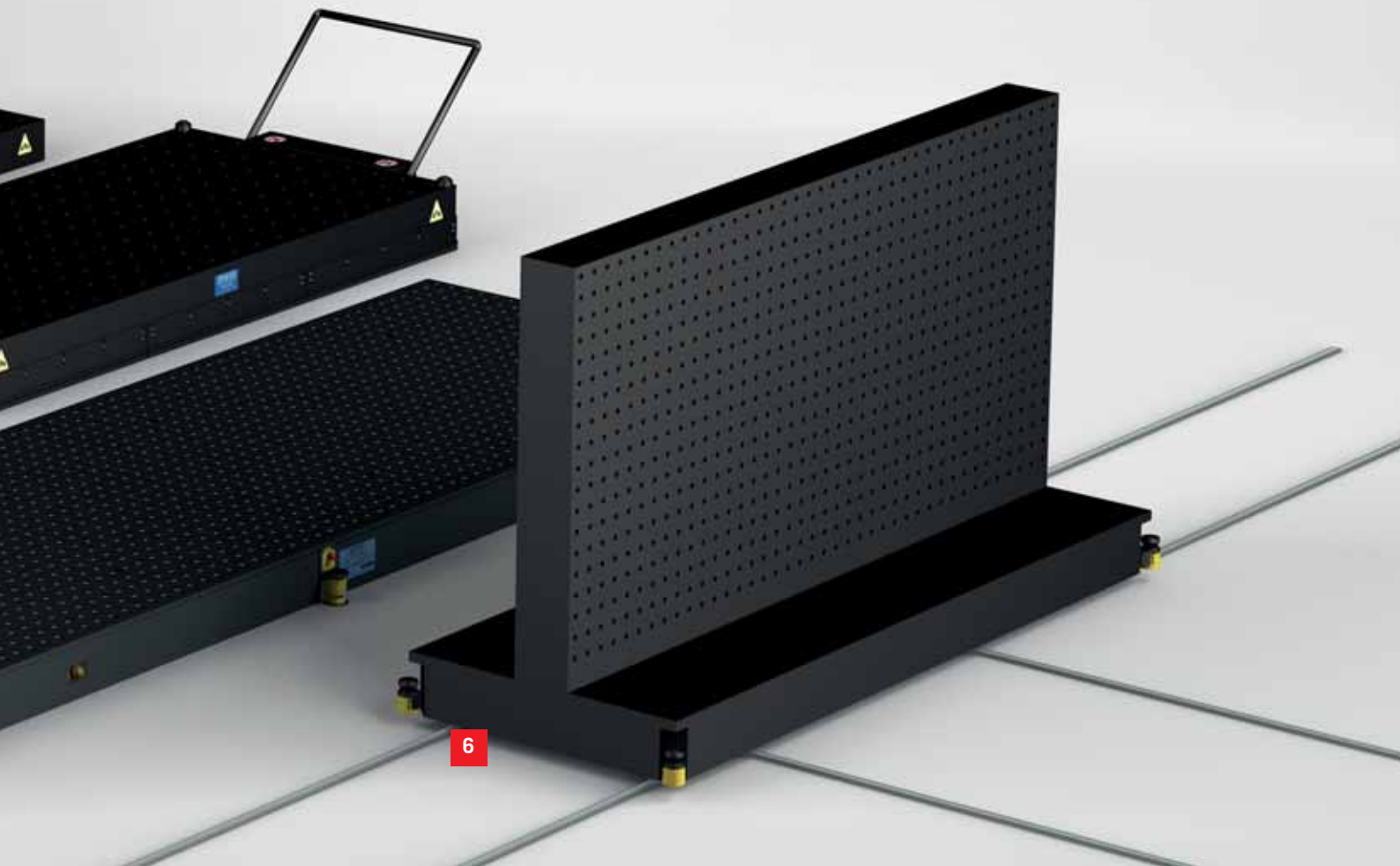


**Witte FixBase®** elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

# Witte FixBase®



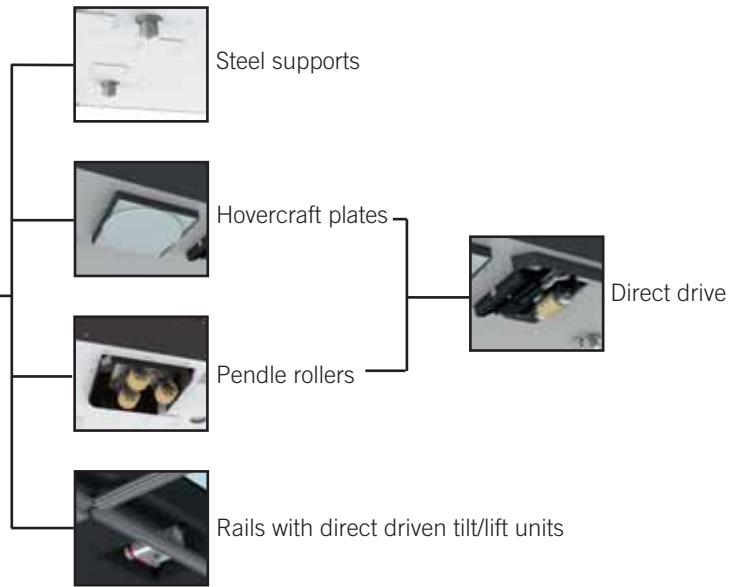
# Plate versions



# Witte FixBase® Equipment

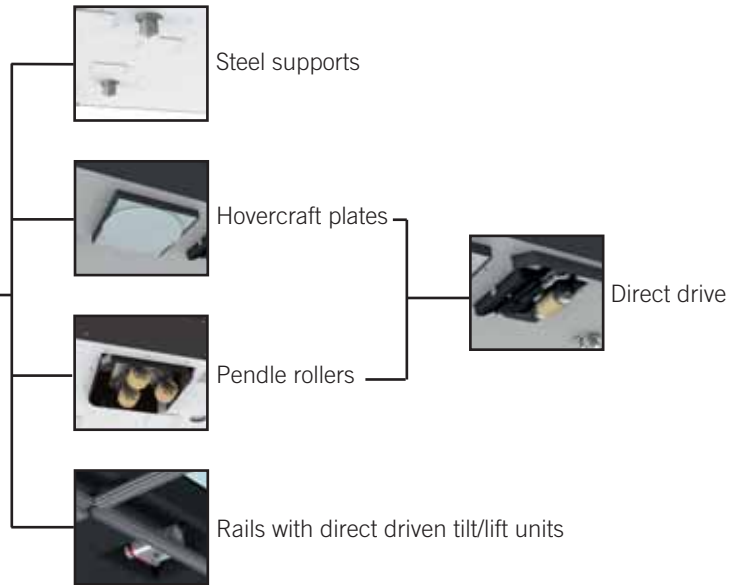
According to design

## Horizontal Structure Plate:

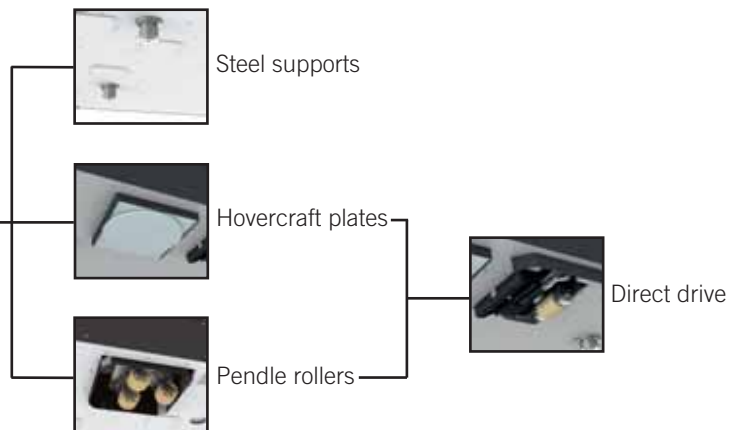


## Vertical Structure Plate:

with horizontal substructure



## Vertical Structure Plate:





## Dimensions

Length x width, one-piece:

1,5 x 3m to 2,4 x 10m

Thickness:

150mm to 1000mm

**Larger plates (multi-part)  
on request.**

Flatness:

Acc. DIN 876 II Gen. 3 (up to 5m x 2m),  
**higher precision on request**

Grid:

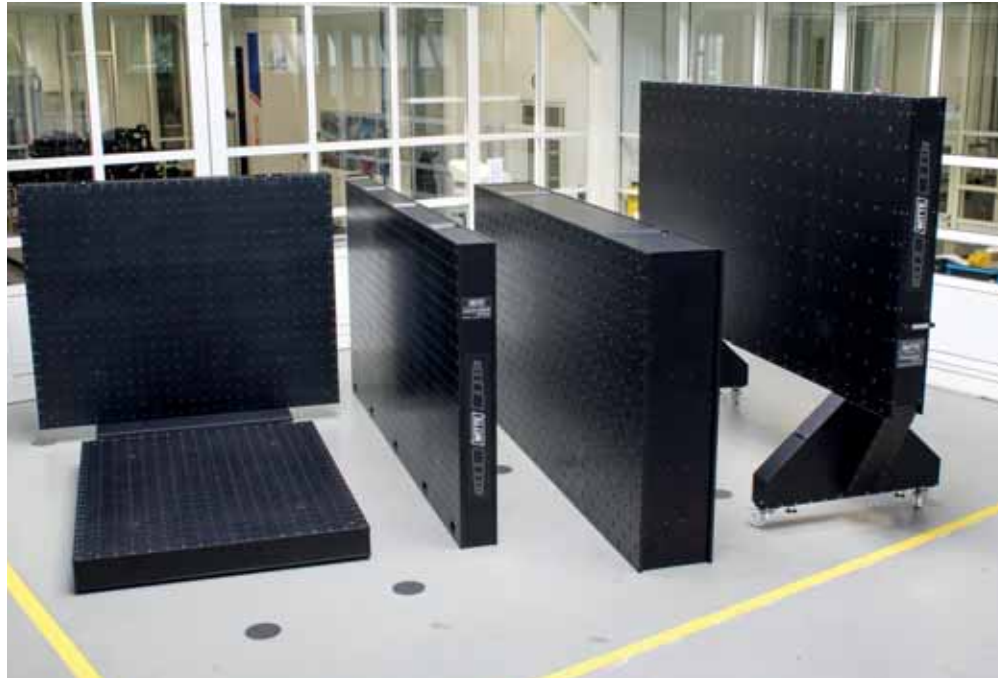
Grid tolerance JS7,  
Over all toleranc JS8

**higher precision on request**

load rating:

500kg/m<sup>2</sup> up to 2000kg/m<sup>2</sup> standard,

**Higher ratings on request**



## Set up surface



### Column connection classic – with fitted screw



Simple and proven version.

Two types of locators are available:

- Snug fit, floating (XY positioning)
- Without fit (only clamping)

### Column connection with Witte PPS-quick clamp system



Separate positioning and fixation of footplates via centering pin and clamp units

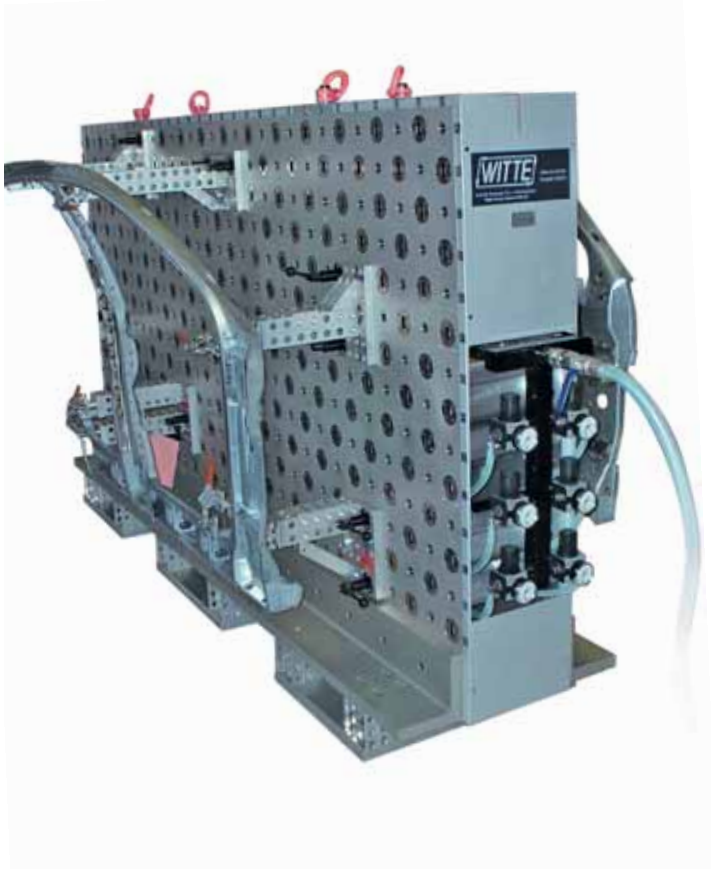
### Column connection with Witte PWS-quick clamp system



Expanding clutch bolt centers and clamps footplate on PWS grid or Alu Structure Plate

## Console types





## Alu Structure Plate with hovercraft hose connected

Alu Structure Plates can be Witte-equipped with a hovercraft cushion system. This enables easy and quick transport of the plate from loading area to checking area (CMM surface area). Even plates with heavy loads can easily be moved over cracks, seams or ridges in the floor. Air pressure is individually regulated to adjust to irregular weight distribution guaranteeing a smooth and even ride.

For effective and problem free performance of hovercraft systems, a smooth non porous surface i.e. plastic coated, ground cement or vinyl flooring is ideal. Please contact us for specifications to ensure proper function in your facility.



Hovercraft cushions mounted on underside of Structure Plate, optional direct drive and steel supports





## Alu Structure Roller Plate

with floating heavy duty guided rollers



View from underneath

### Applications:

- For uneven, porous or joined (tiled) floors
- If no air pressure is available or current operations will be adversely affected

### Characteristics:

- Automatic crawl speed when reaching final position

### Equipment options:

- Direct drive or E-Mover drive
- Camera with integrated screen



Control panel with camera monitor



Witte FixBase® elements can be anodized in different colours. The colour natural is standard, black (-1) is available as an alternative. Other colours on request.

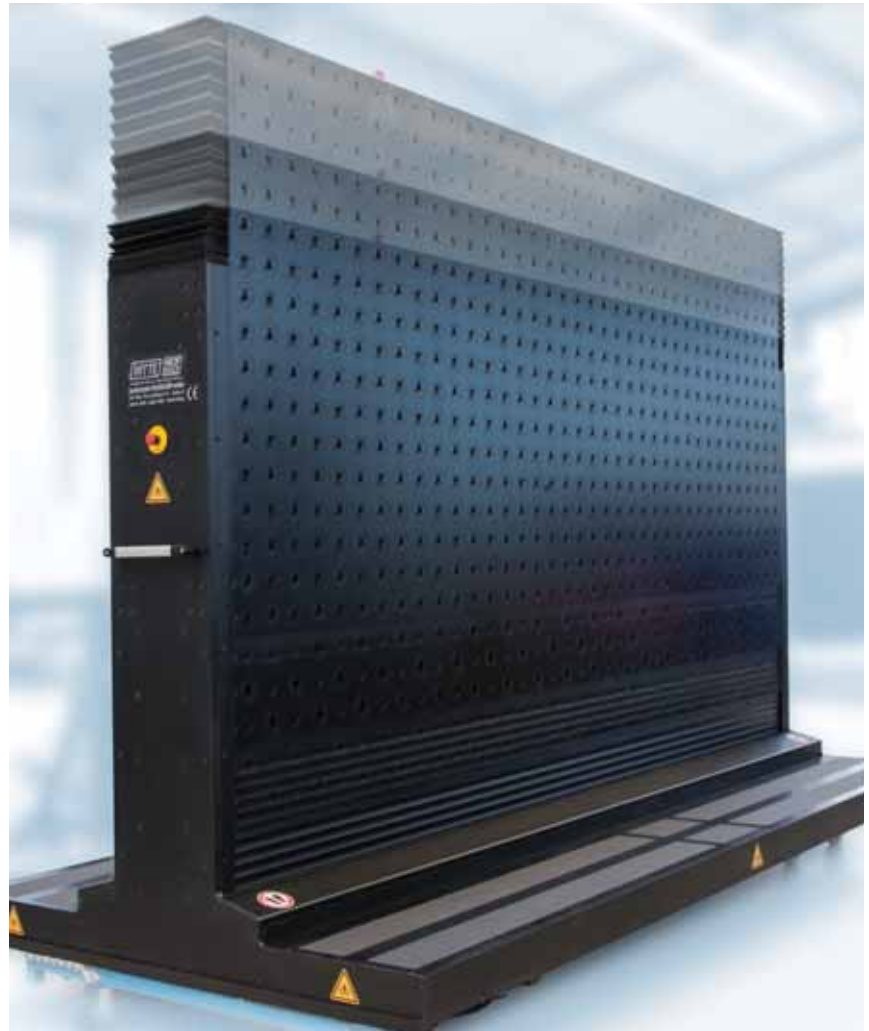
## Alu Structure Plates

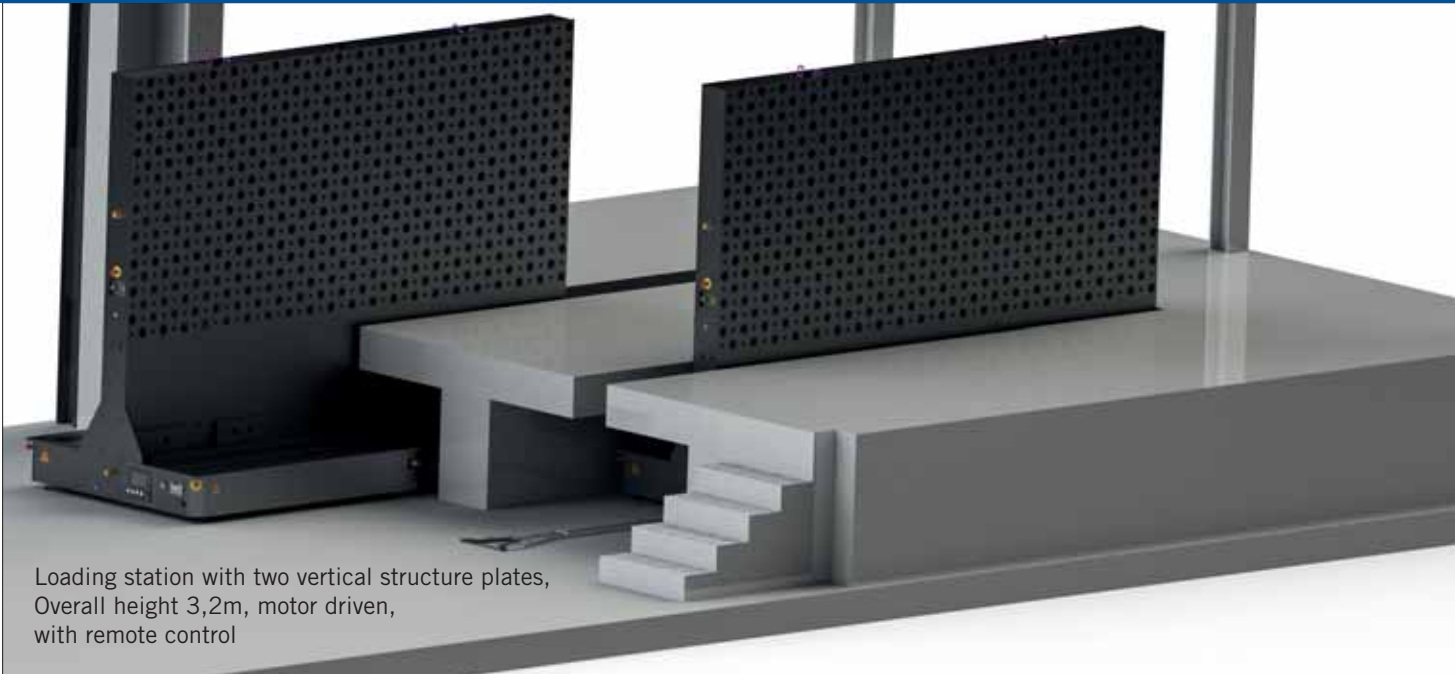
### height-adjustable

Motor driven height adjustable Alu Structure Plate for parallel use of tactile and photogrammetry measuring tasks.

Example configuration on the right:

- 750 mm lift from 2050 to 2800 mm.
- Clamping surface on both sides 3700 x 1700 mm
- Hovercraft with direct drive
- Double sided PPS grid
- Walk-on base for easy use of plate
- Grid surface anodized black
- Equipped with safety features, hook-eyes, emergency stop on both face ends and allround foot protection





Loading station with two vertical structure plates,  
Overall height 3,2m, motor driven,  
with remote control



## Alu Structure Plates Special solutions

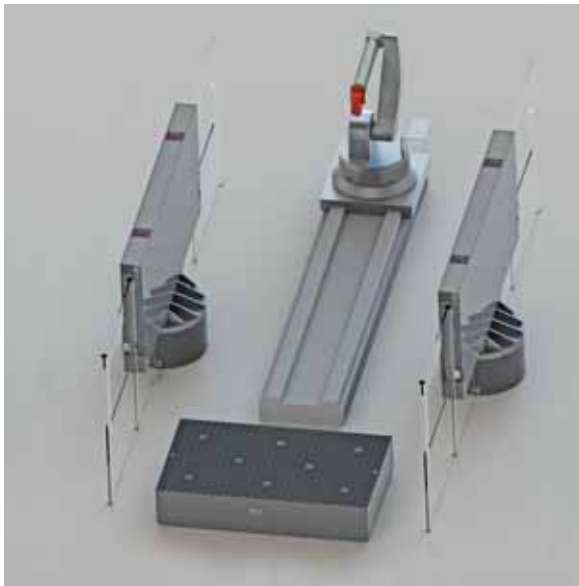
Complete vehicle unit for inspection and measuring of test cars or cars due for delivery. The vehicle is either driven or pulled onto the plate using a winch. After scissor trolleys raise the vehicle it is set down on RPS or car jack up points.

The Alu Structure Plate is equipped with hovercraft and as an option can be driven with friction wheels. Scissor trolleys and winch are power operated.



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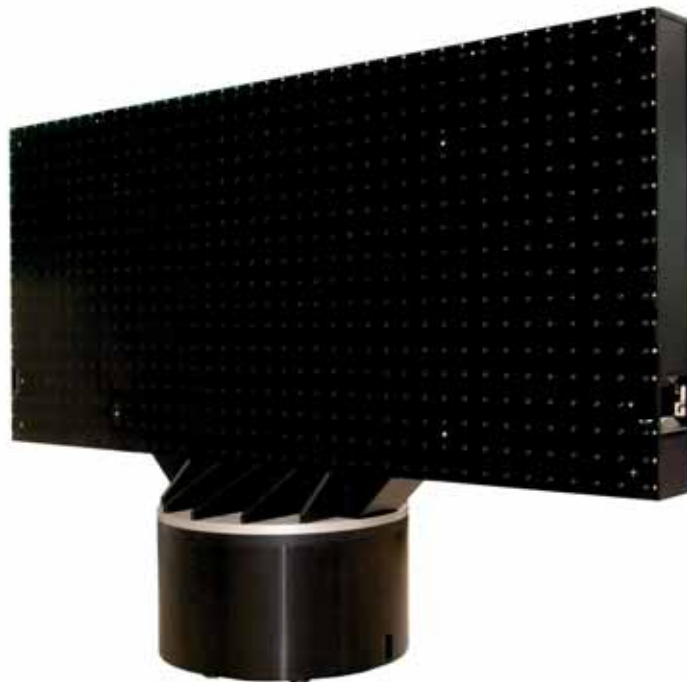
## Alu Structure Plates

rotating

Robot measuring cell for optical measuring

Configuration:

- 2 vertical Alu Structure Plates mounted on rotating hovercraft supports, rotatable by 180°
- 1 stationary, horizontal Alu Structure Plate with extended height
- On hovercraft, rotary and tact tables
- To reach both work pieces or do assembly from outside without interrupting measuring process
- Integrated safety monitoring, release switch



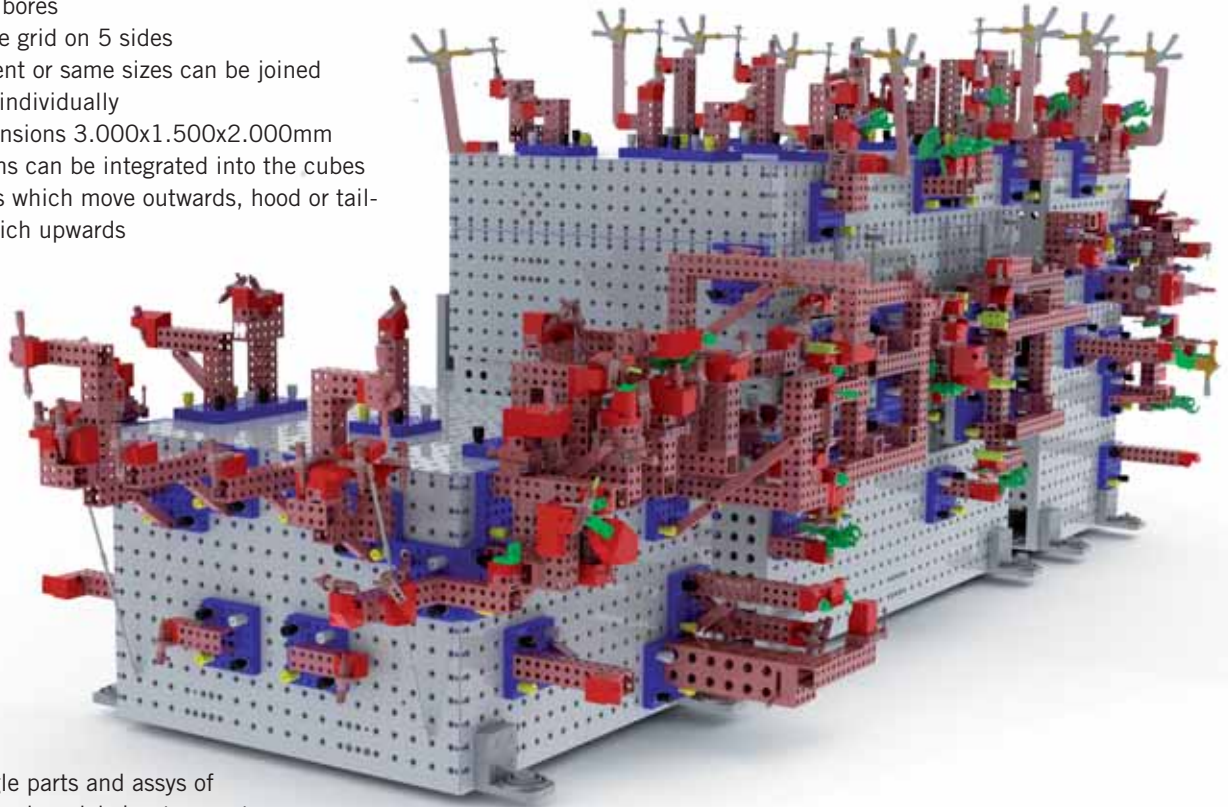
Vertical Alu Structure Plate on hovercraft rotary table



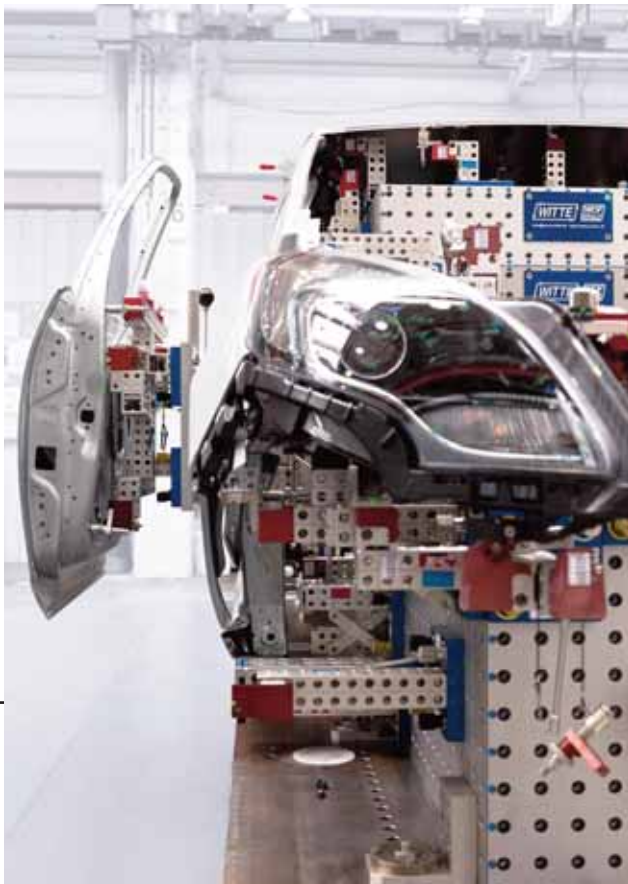
Horizontal Alu Structure Plate on motorized rotary table (shown without base unit). Force is directed to the rotary plate via inner plate structure

## FixBase® Cubes

- Cubes mounted with grid plates:
- Grid with fitted bores
- Flat, full surface grid on 5 sides
- Cubes in different or same sizes can be joined together or used individually
- Maximum dimensions 3.000x1.500x2.000mm
- Further functions can be integrated into the cubes i.e. door supports which move outwards, hood or tail-gate supports which upwards



Supports for single parts and assys of various versions and models i.e. two-seater, notchback, limousine, estate, van, SUV are possible using corresponding configurations



Application example for FixBase cubes

- Single cube for frontend (top)
- Combination of several cubes to mount all parts of a body-in-white

## Fully automated solutions

# DTS - Driverless Transport Systems

## With Alu Structure Plates Rail-guided

- For fully automatic controlled loading stations
- Quiet forcibly guided run rails embedded in the floor
- No edges or grooves to stumble over
- 90° cross operation due to correspondingly arranged pivoting wheels
- Electro drive with battery operation
- Position monitoring/controlling with RFID transponders and IW-LAN radio network
- Positioning in CMM by lowering on to centering rings

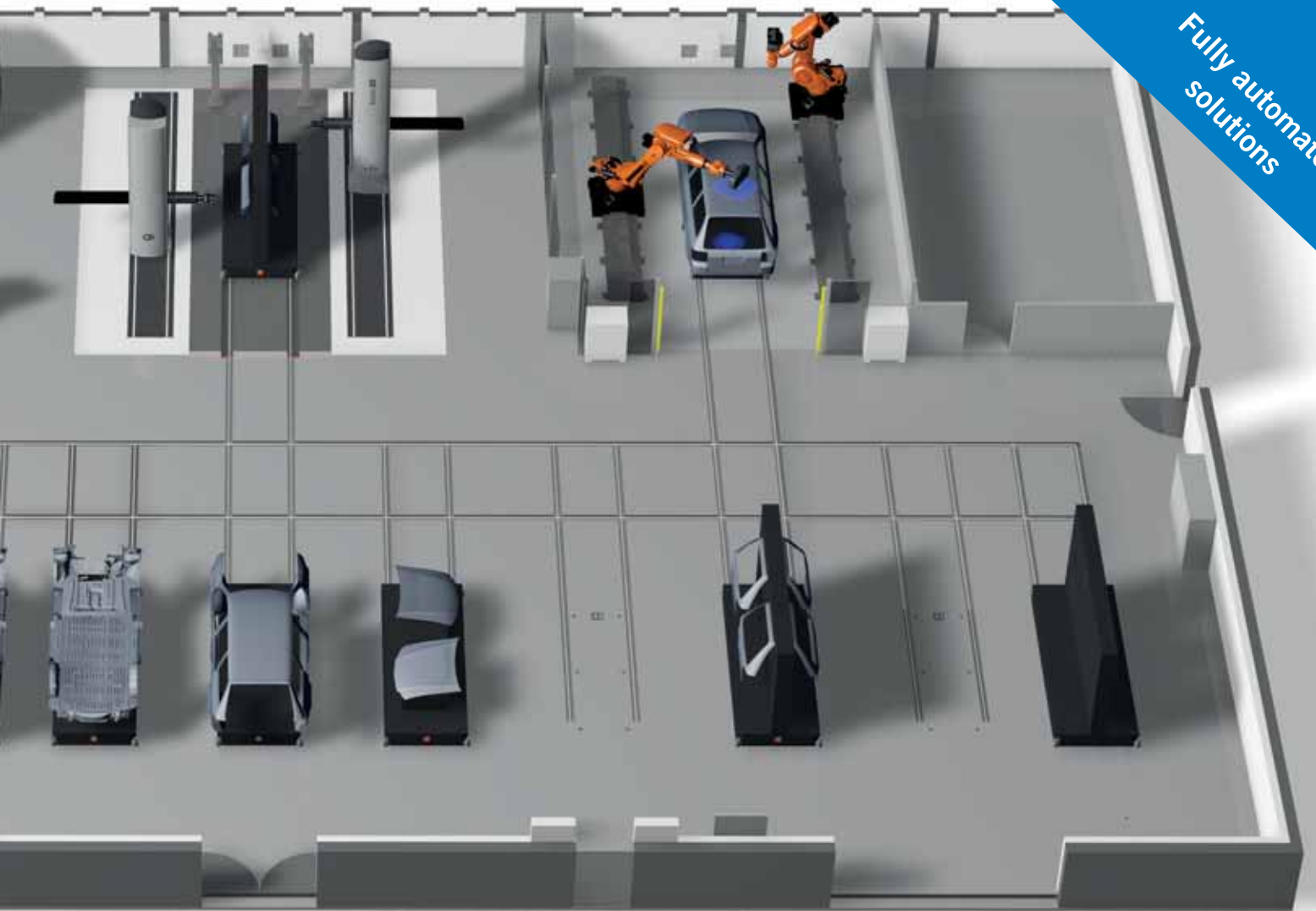


Example of a recent project:

- 6 horizontal, 5 vertical Alu Structure Plates
- Loading of 2 tactile double arm CMM and a duplex robot cell for blue-light photogrammetry
- Plate system and measuring equipment are remote-controlled by a master control station







Fully automated solutions



## Fully automated solutions

# DTS - Driverless Transport Systems

## With Alu Structure Plates, transponder-guided

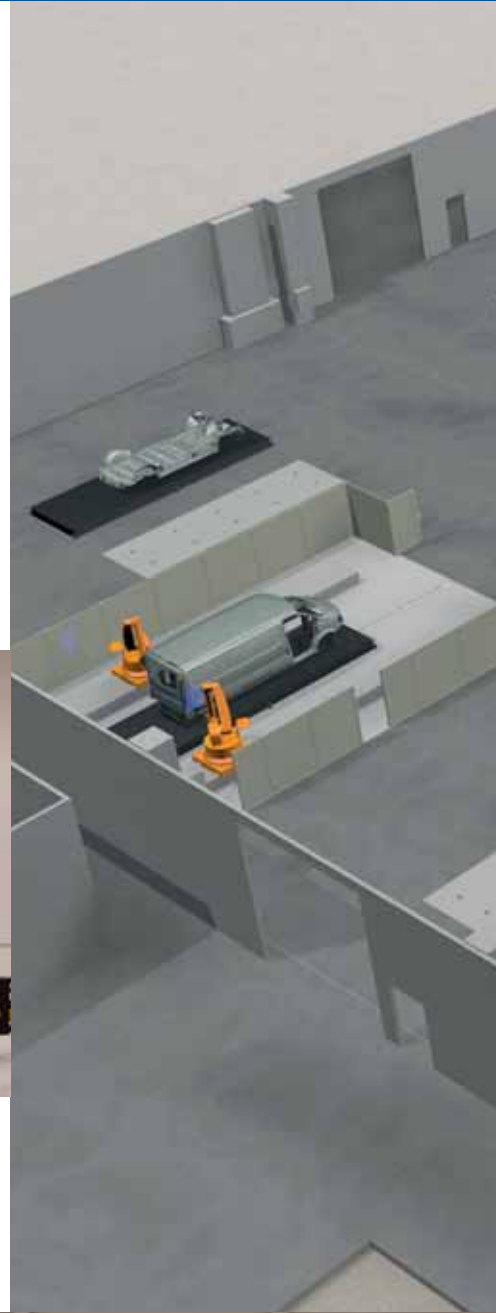
For fully automatic loading systems

- Quiet, accurate precise running via RFID chips embedded in the ground
- No mechanical travel or guiding elements required
- Straight forward / backward movement and turn on the spot
- Electric motor drive with battery supply
- Position monitoring / control with transponders and IW-LAN wireless network
- Repeatable positioning in the CMM by lowering on centering rings



Example of an implemented system:

- 9 horizontal structure plates 8x2,4m
- loading of 2 tactile double-column CMMs and 4 duplex robotic cells  
For photogrammetry measurement
- independent start / target movement with loading / collision monitoring





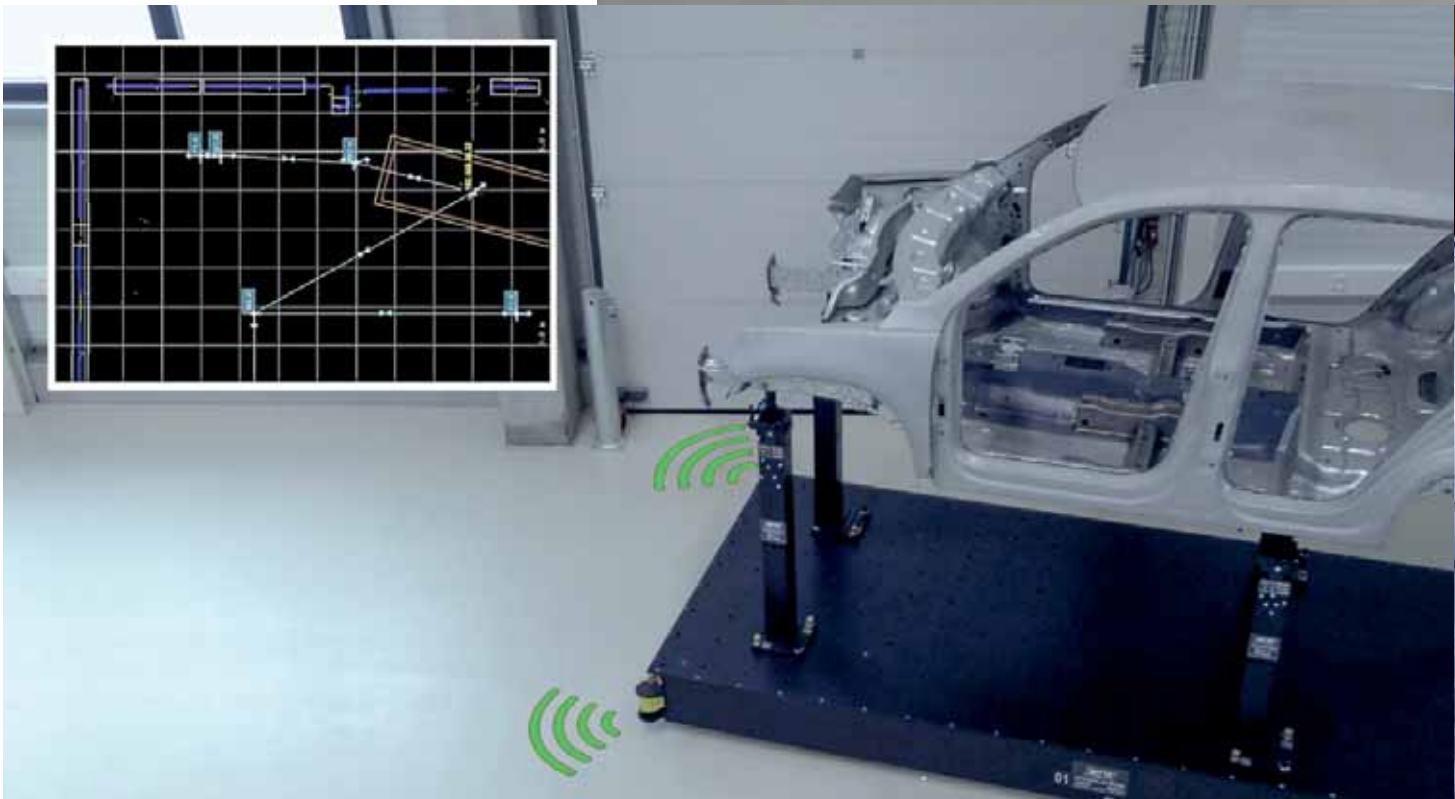
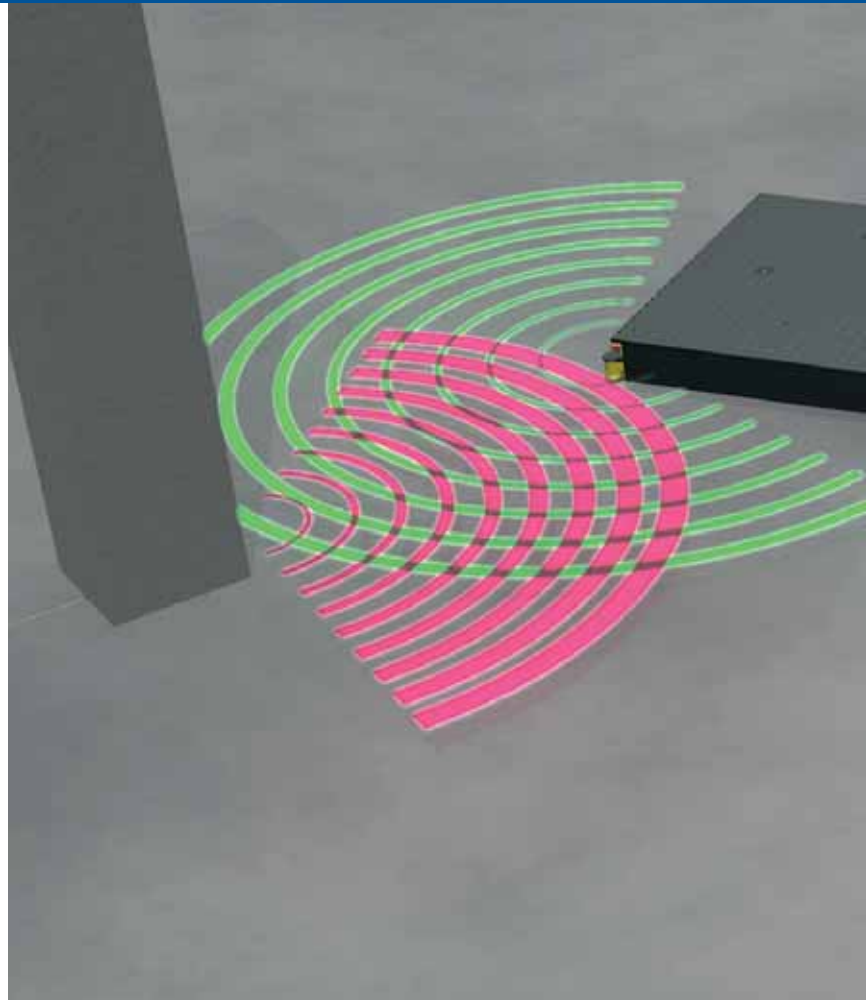


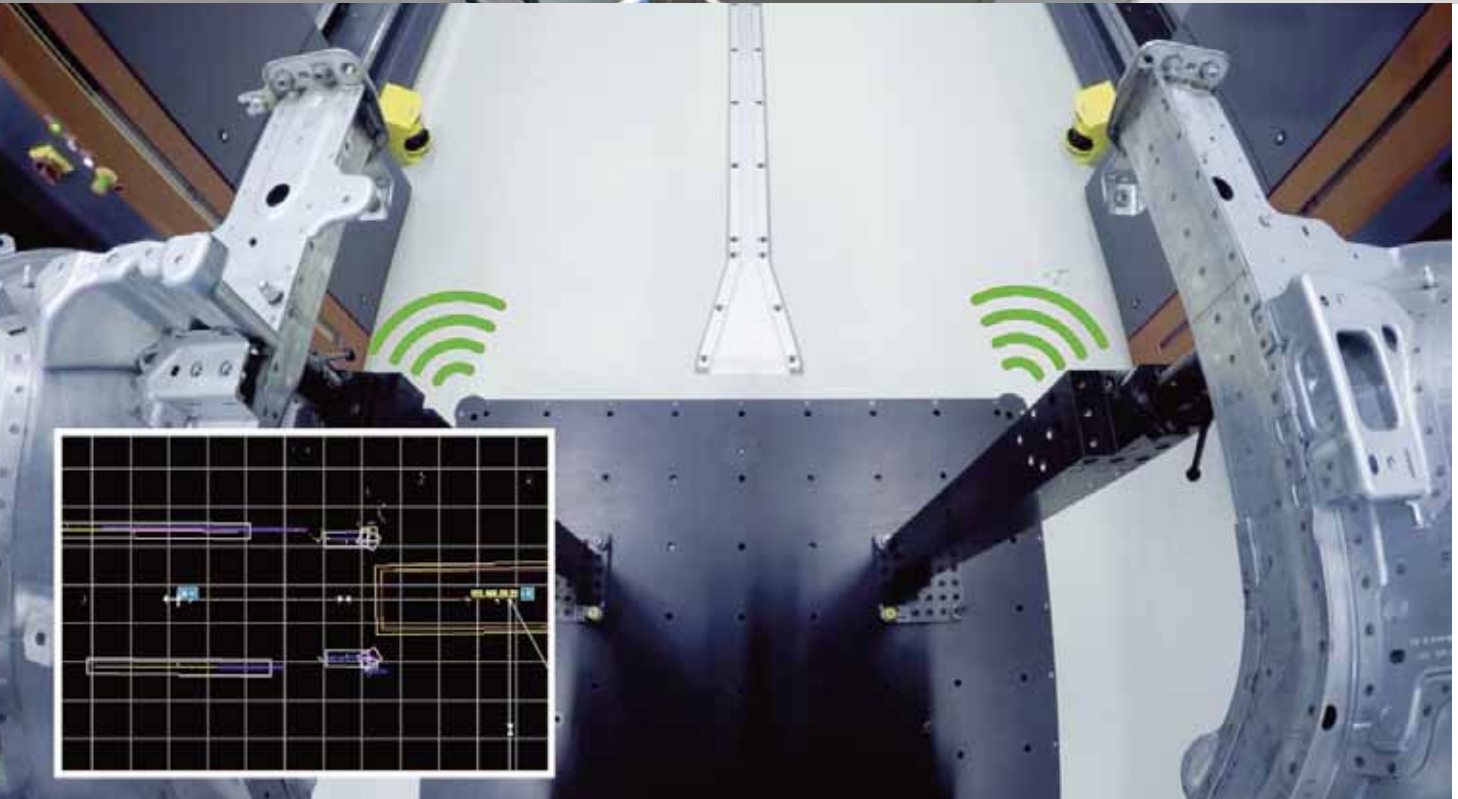


# DTS - Driverless Transport Systems

## Autonomous driven

- For fully automatic controlled loading equipment
- Quiet, accurate running due to permanent, independent orientation and navigation according to hall layout
- No drive or guide elements
- Straight forward / backward movement and turn on the spot, cornering (in preparation)
- Electric motor drive with battery supply
- Repeatable positioning in CMM by lowering on centering rings
- Fast changeover to new halls.  
Layouts customizable, through easy reprogramming of the path tracks
- Independent alternative route calculation possible







### Germany

#### Witte Barskamp KG

Horndorfer Weg 26-28  
D-21354 Bleckede  
Germany  
Tel.: +49 (0) 58 54/89-0  
Fax: +49 (0) 58 54/89-40

E-mail: [info@witte-barskamp.de](mailto:info@witte-barskamp.de)  
[www.witte-barskamp.de](http://www.witte-barskamp.de)

### Asia

#### Witte Far East Pte Ltd

20 Boon Lay Way  
# 01 - 170  
Singapore 609967  
Singapore  
Tel.: +65-6248 5961  
Fax: +65-6898 4542

E-mail: [info@witteasia.com](mailto:info@witteasia.com)  
[www.witteasia.com](http://www.witteasia.com)

### USA & Canada

#### Witte LP

2220 Northmont Pkwy, Suite 250  
Duluth, Georgia 30096  
USA  
Phone: +1 (770) 982 99 32  
Fax: +1 (770) 982 99 28

E-mail: [info@witteamerica.com](mailto:info@witteamerica.com)  
[www.witteamerica.com](http://www.witteamerica.com)

### Mexico

#### Horst Witte de Mexico

S.A. de C.V., c/o Linco  
Paseo Opera 4 Int 112-2  
Lomas de Angelopolis  
San Andres Cholula,  
Puebla 72830, Mexico  
Phone: +52 222893-8211

E-mail: [alufix@linco.com.mx](mailto:alufix@linco.com.mx)  
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