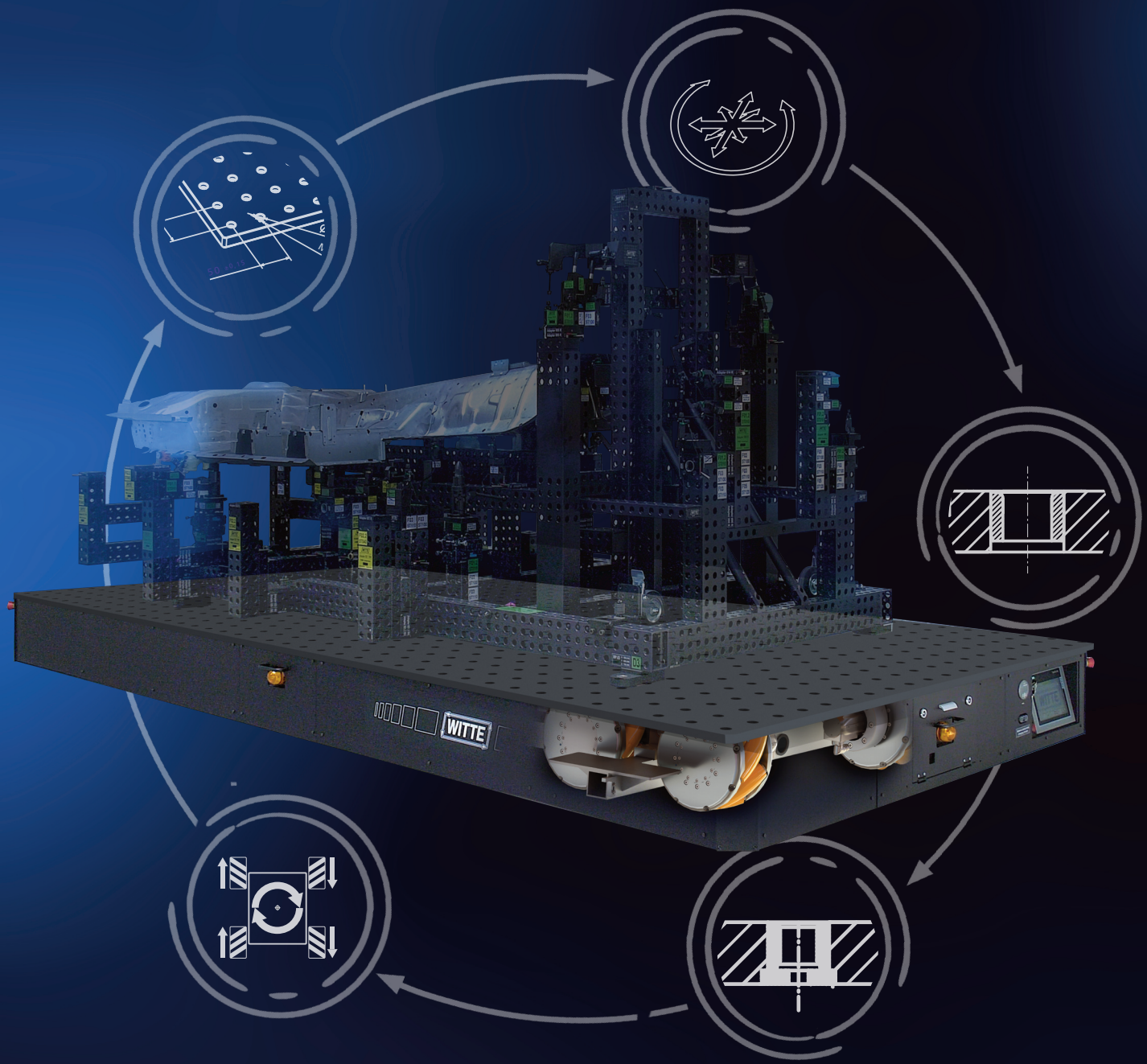
Witte FixBase® MDD

Mobile structure plates with MultiDirectionalDrive



Key for dynamic measurement and production processes

Witte FixBase® MDD: Mobile structure plates with multidirectional drive

Strong base for structures and fixtures. Precise measurement base. Smart transport plate. All of the above in perfect combination.

- Witte FixBase MDD® are the mobile, self-propelled, multidirectional steering structure plates for dynamic efficient part logistics, loading process and measuring room coordination.

- Extremely maneuverable, very robust, with highest accuracy, flatness and parallelism. Equipped with the latest controller technology and based on decades of Witte experience in the field of structure plate builds with sandwich type design. As a 100 percent Witte in-house development to the highest quality and manufacturing standards.

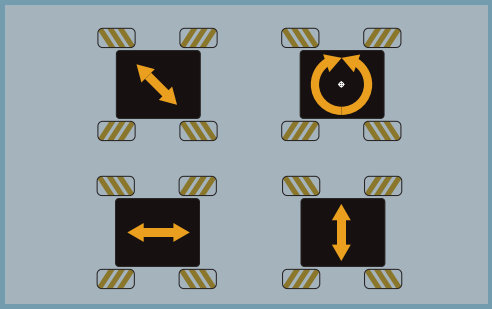
Witte FixBase® MDD: Determine where you're going. For efficiency in your workflow.

Witte FixBase® MDD

Mobile structure plates with MultiDirectionalDrive

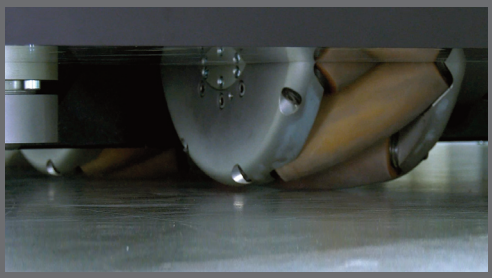
Multidirectional mobility

Unrestricted, precise mobility in all directions thanks to the unique Witte MultiDirectional-Drive technology. Intelligent modular linking of chassis and drive unit. Unlimited, variable combination of driving directions.



Mecanum wheels

Eight Mecanum wheels per chassis - four of which are powered - each on two air-lift bag chassis swing arms. For absolute controlled, smooth and balanced acceleration, moving and decelerating in every direction.



Chassis with air-lift bags and Z-positioning

Complete relief of the wheels and precise lowering of the plate to the Z rest position / placement phases. For

- high repeat accuracy due to physical, form fit type, locators
- exact leveled positioning also on uneven ground - indispensable especially for tactile measurements,
- create a safety distance between the floor and the placed plate.

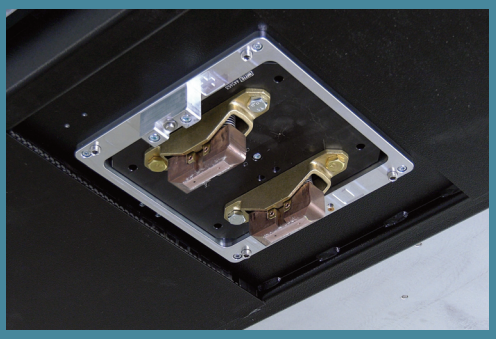
Load-bearing, light and highly precise plate structure

FixBase MDD® benefits from Witte's profound experience in the development and build of structure / sandwich plates. The tried and tested frame design

- is known for high rigidity and therefore the best long-term accuracy,
- can be adapted to different load cases and dimensions,
- allows great flexibility of integration / fastening of built-in components,
- offers good accessibility for maintenance and service,
- guarantees highest overall accuracy, flatness and parallelism of the structure.

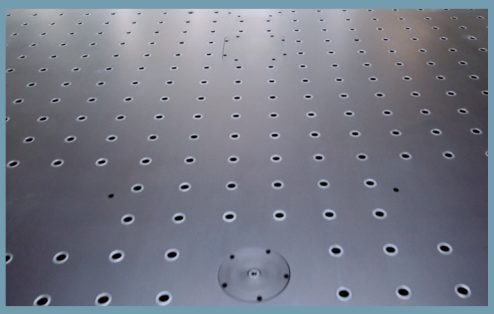
Integrated floor charging contacts for refreshing of the battery charge status

Charging contacts in the plate and matching floor charging contacts at the resting positions ensure that the on-board batteries are constantly refreshed during the positioning / parking phases. For permanent availability without loss of performance and additional protection against deep discharge of the batteries.



Individual formats, grid and bushing sizes/types

FixBase MDD® offers the complete flexibility of the Witte structure plate concept with individually selectable plate size, grid distances and bushing geometries, even interchangeable bushings and threads. Precisely adaptable to the respective application conditions and user requirements.



Performance- and safety-oriented lead-gel batteries

Equipped with cost effective, performance- and safety-oriented lead-gel batteries:
- technically reliable
- readily available
- short charging cycle times
- well protected against deep discharge and overcharging
- uncomplicated logistics (transport is not classified as a hazardous shipment, such as with Li- batteries)

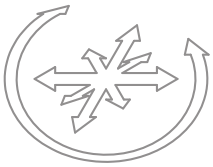
Intuitive handling via radio remote control and / or control panel

Effortless, precise steering and positioning via radio remote control as well as controller activation by touch recognition. Large-format status monitor, multilingual user interface, extensively customizable and editable. Blocking against unauthorized access as well as complete activity log via status memory.

Safe positioning via physical guide rails and visual laser spots

Significantly higher mechanically guided accuracy and reliability compared to only electronic guidance. Recognized to be the best solution even in confined spaces and for optimal use of the measuring volume. Ideally acting in combination with laser spots for positioning and driving information.

Performance overview / parameters of the MDD



Structure	sandwich build with frame structure and integrated chassis
Standard size	(one piece) 3600 x 1800 mm to 8000 x 2400 mm larger dimensions on request
Flatness / parallelism	DIN 376 / III 0,25 mm
Standard height	lowered 365 mm, 404 mm when raised for movement
Mass	at 4000 x 2000 mm: ~2000 kg (depending on equipment integrated)
Load	at 4000 x 2000 mm: 4000 kg, (greater loads possible on request)

Drive	4 electric motors
Speed	0,8 m/sec (standard), adjustable, depending on the load and floor conditions
Operating voltage	48 V
Power supply	via on board batteries
Charging	permanent in the measuring volume and / or parking position through floor contacts

Chassis	modular chassis structure with pendulum swing arms, 4 Mecanum wheels per pendulum arm, 2 of which are powered
Positioning method	by position sensor with end stop / compressed air switch for automatic lowering, or static positioning system with physical guide rail (both optional)
Positioning assistance for operator	4 LED floor spots, 2 on each long side

Driving operation	manually by the operator, optional partial or full automation
Type of movement	omnidirectional, typical of Mecanum
Floor adaptivity	Self-balancing/forgiving, thanks to air-lift bags
Safety technology	collision protection with laser scanners for automatic route monitoring, driving camera and monitor for operator support (both optional)
Control unit	single joystick with sensor for operator identification and protection against unwanted operation/movement

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