



## ROLLER BRAKE TESTERS FOR CARS AND VANS



**The MAHA modular system – the individual tester from the series including brake testers up to testing lanes**

- ♦ Fully automatic testing procedure with operator guidance
- ♦ Digital measurement value recording and storage
- ♦ From LON to EUROSISTEM: the modular structure
- ♦ Patented, correct all-wheel drive testing
- ♦ Robust, easy-to-service technology
- ♦ Network compatible – ASA network, GIEGNET, MCTC, ...

## Description

The MBT 2100 brake tester is the successful result of a consistently on-going developmental effort to design high-quality brake testers. Its display unit stands out with clearly readable round instruments and an integrated optical differential display. The flat and light-weight design facilitates versatile installation possibilities and presents a professional and modern workshop outfitting. "Plug and Play preparation" is used for easy and efficient installation. The MBT 2100 meets the requirements for the main inspection (HU) and is network-compatible due to its PC interface.

## Scope of delivery

- ◆ Analogue display for brake force values
- ◆ Differential display for brake force
- ◆ Tester is pre-wired with 12 m of cable
- ◆ Software control by 32 Bit microprocessor electronics
- ◆ Flash-Prom for variable system configuration
- ◆ Electronic start-up monitoring and roller exiting aid
- ◆ Delayed automatic switch-on after vehicle has entered the test stand
- ◆ Automatic cut-off at selected slip with pointer stop and automatic restart
- ◆ Automatic shut-off after exiting the test stand
- ◆ Electronic DMS measuring system
- ◆ Interface RS 232 for printer or PC
- ◆ Self-supporting, enclosed roller set
- ◆ Roller surface welded (optionally plastic-coated)
- ◆ Corrosion protection: powder coating
- ◆ TÜV approved



**MAHA MBT 2100**  
 \*\*\*\*\*  
 Prüfstand: V:2 05 R112  
 Text : V:2 05 R109- 49

MAHA  
 Hagen 28  
 87490 Haldenwang  
 Tel 08374 585-0  
 Fax 08374 585-497

Datum : 25.08.2008  
 Uhrzeit: 17:03

**VORDERACHSE:**  
 Bremskräfte:  
 li 3.37kN re 3.47kN  
 Achse: 6.84kN  
 Differenz: 3%  
 Rollwiderstand:  
 li 0.27kN re 0.29kN  
 Ovalität:  
 li 0.02kN re 0.03kN

statische Gewichte:  
 li 653kg re 644kg  
 Achse: 1297kg  
 stat. Abbremsung: 53%

**FESTSTELLBR.:**  
 Bremskräfte:  
 li 2.1kN re 2.69kN

Bremskräfte:  
 li 2.61kN re 2.69kN  
 Achse: 5.30kN  
 Differenz: 3%

**HINTERACHSE:**  
 Bremskräfte:  
 li 3.38kN re 3.38kN  
 Achse: 6.76kN  
 Differenz: 2%  
 Rollwiderstand:  
 li 0.27kN re 0.29kN  
 Ovalität:  
 li 0.02kN re 0.01kN

statische Gewichte:  
 li 653kg re 644kg  
 Achse: 1297kg  
 stat. Abbremsung: 53%

**ENDRAUSWERTUNG:**  
 Bremskraft BBA: 13.52kN  
 Bremskraft FBA: 5.38kN  
 stat. Gewicht: 2594kg  
 stat. Abbrems. BBA: 53%  
 stat. Abbrems. FBA: 21%

**Kennzeichen:**

Printed via "Thermoprint" printer



**livestream**

## TECHNICAL DATA

### DISPLAY

|                                    |                                 |
|------------------------------------|---------------------------------|
| Analogue display                   | 2 x Ø 350 mm                    |
| Display range                      | 0 – 6 / 0 – 8 kN*               |
| Display box dimensions (H x W x L) | 470 x 840 x 100 mm              |
| Interface connection               | RS 232 for DIN A4 printer or PC |

### ROLLER SET

|   | RS 2  | RS 4  | RS 5  |
|---|---|---|---|
| Drive power of motors                   | 2 x 3 kW / 2 x 4 kW*                        | 2 x 3 kW / 2 x 4 kW*                        | 2 x 4 kW                                    |
| Test speed                              | 5 km/h                                      | 5 km/h                                      | 5 km/h                                      |
| Measured value display                  | 0 – 6 kN / 0 – 8 kN*                        | 0 – 6 kN / 0 – 8 kN*                        | 0 – 8 kN                                    |
| Permitted axle load (drive-over)        | 3.0 t / 4.0 t*                              | 3.5 t / 4.0 t*                              | 5.0 t                                       |
| Track, minimum                          | 780 mm                                      | 780 mm                                      | 780 mm                                      |
| Track, maximum                          | 2200 mm                                     | 2500 mm                                     | 2800 mm                                     |
| Roller diameter                         | 202 mm                                      | 202 mm                                      | 202 mm                                      |
| Roller axle distance                    | 400 mm                                      | 400 mm                                      | 400 mm                                      |
| Electrical connection / fuse protection | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay |
| Bearing                                 | water-tight, maintenance free               | water-tight, maintenance free               | water-tight, maintenance free               |
| Corrosion protection                    | powder coating (opt. hot-dip galvanised)    | powder coating (opt. hot-dip galvanised)    | powder coating (opt. hot-dip galvanised)    |
| Roller set dimensions (H x W x L)       | 280 x 680 x 2320 mm                         | 280 x 680 x 2644 mm                         | 280 x 680 x 2925 mm                         |
| Weight, including packaging             | 375 kg                                      | 410 kg                                      | 450 kg                                      |

\*optional

### Description

The MBT 2200 LON brake tester is used as the basic module for the test lane. The automatic test procedure with display, allows for a convenient and user-friendly operation and enables an accurate diagnosis of the tested vehicle. With the analogue display, included in the scope of delivery, all measurement values of the connected test devices can be clearly displayed. In combination with the standard braking force difference display a top-class assessment of the measurement values can be performed. The brake tester is particularly suitable for reception and diagnostics lanes; it exceeds the requirements for the main inspection (HU), comes with a PC interface which makes it network-compatible.

## Scope of delivery

- ◆ Multi-functional analogue display for measurement values of brake tester, shock absorber tester and side slip tester including switching elements
- ◆ Braking force difference display digital
- ◆ Lockable main switch
- ◆ RS 232 interface connection for printer or PC
- ◆ Electronic start-up monitoring and roller exiting aid
- ◆ Single wheel switchover, delayed automatic startup
- ◆ Automatic shut-off after exiting the test stand
- ◆ Automatic cut-off at selected slip with measured value display and automatic restart
- ◆ Electronic DMS strain gauge measuring system
- ◆ Self-supporting, enclosed roller set
- ◆ Roller surface optionally welded or plastic-coated
- ◆ Corrosion protection: powder coating
- ◆ TÜV approved



PC connection (optional)

[illegible]

Printed with the data printer  
"DIN A4 dot matrix printer"



**livestream**

## TECHNICAL DATA

### DISPLAY

|   |  |
|---|--|
| Analogue display                        | 2 x Ø 350 mm   |
| Display range                           | 0.02 – 0.3 D, 0 – 100 % / -20 m/km – +20 m/km / 0 – 8 kN |
| Display box dimensions (H x W x L)      | 630/910* x 870 x 240/300* mm                             |
| Electrical connection / fuse protection | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay              |
| Interface connection                    | RS 232 for DIN A4 printer or PC                          |

### ROLLER SET

|   | RS 2  | RS 4  | RS 5  |
|---|---|---|---|
| Drive power of motors                   | 2 x 3 kW / 2 x 4 kW*                        | 2 x 3 kW                                    | 2 x 4 kW                                    |
| Test speed                              | 5 km/h                                      | 5 km/h                                      | 5 km/h                                      |
| Measured value display                  | 0 – 8 kN                                    | 0 – 6 kN / 0 – 8 kN*                        | 0 – 8 kN                                    |
| Permitted axle load (drive-over)        | 3.5 t / 4.0 t*                              | 3.5 t / 4.0 t*                              | 5.0 t                                       |
| Track, minimum                          | 780 mm                                      | 780 mm                                      | 780 mm                                      |
| Track, maximum                          | 2200 mm                                     | 2500 mm                                     | 2800 mm                                     |
| Roller diameter                         | 202 mm                                      | 202 mm                                      | 202 mm                                      |
| Roller axle distance                    | 400 mm                                      | 400 mm                                      | 400 mm                                      |
| Electrical connection / fuse protection | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay |
| Bearing                                 | water-tight, maintenance free               | water-tight, maintenance free               | water-tight, maintenance free               |
| Corrosion protection                    | powder coating (opt. hot-dip galvanised)    | powder coating (opt. hot-dip galvanised)    | powder coating (opt. hot-dip galvanised)    |
| Roller set dimensions (H x W x L)       | 280 x 680 x 2320 mm                         | 280 x 680 x 2644 mm                         | 280 x 680 x 2925 mm                         |
| Weight, including packaging             | 375 kg                                      | 410 kg                                      | 450 kg                                      |

\*optional

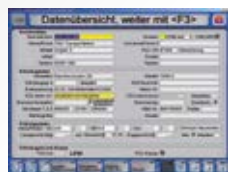
## Description

The MBT 2250 EUROSISTEM brake tester is the premium tester of the MBT 2000 series. With the EUROSISTEM test lane software based on Windows and an SQL database, it provides the user with endless possibilities. Whether “only” applied as a brake tester, used as a diagnostics reception device or as a control unit for workshop processes: The MBT 2250 EUROSISTEM is the all-rounder. In combination with other testers, it provides a complete, objective vehicle assessment within in seconds. Recommended by vehicle manufacturers and tested in endurance tests by international inspection organisations, the brake tester is highly ergonomic and cost-effective. The MBT 2250 EUROSISTEM is the ideal diagnostics brake tester and can also be upgraded with a four-wheel drive regulator set. The brake tester is particularly suitable for reception and diagnostics lanes with high vehicle through-put; it exceeds the requirements for the main inspection (HU) and is network-compatible.

## Scope of delivery

- ♦ Communication Desk or Switching cabinet for test stand control
  - Communication Desk MCD 2000 with integrated Switching and electro-cabinet
  - Lockable drawer for keyboard and mouse including storage shelf
- ♦ Single wheel switchover, delayed automatic startup
- ♦ Automatic shut-off after exiting the test stand
- ♦ Automatic cut-off at selected slip with measured value display and automatic restart
- ♦ Electronic DMS strain gauge measuring system
- ♦ Self-supporting, enclosed roller set
- ♦ Roller surface optionally welded or plastic-coated
- ♦ Corrosion protection: powder coating
- ♦ TÜV approved

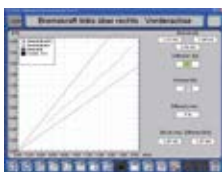
## Software



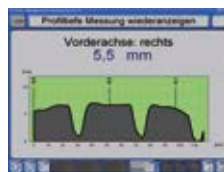
**Customer data screen**  
For recording owner and vehicle data.



**Brake test**  
Digital and graphical display of brake values.



**“Brake Test” graphic**  
Clear display of brake values using graphical or digital analyses



**Tire tread measuring device**  
TM 1000: Automatic measurement of the full tire tread (circumference and tire width).



**Shock absorber test**  
Graphical and digital display of the measurement values.



**Side slip test**  
Clear display of the directional stability of the vehicle axes.



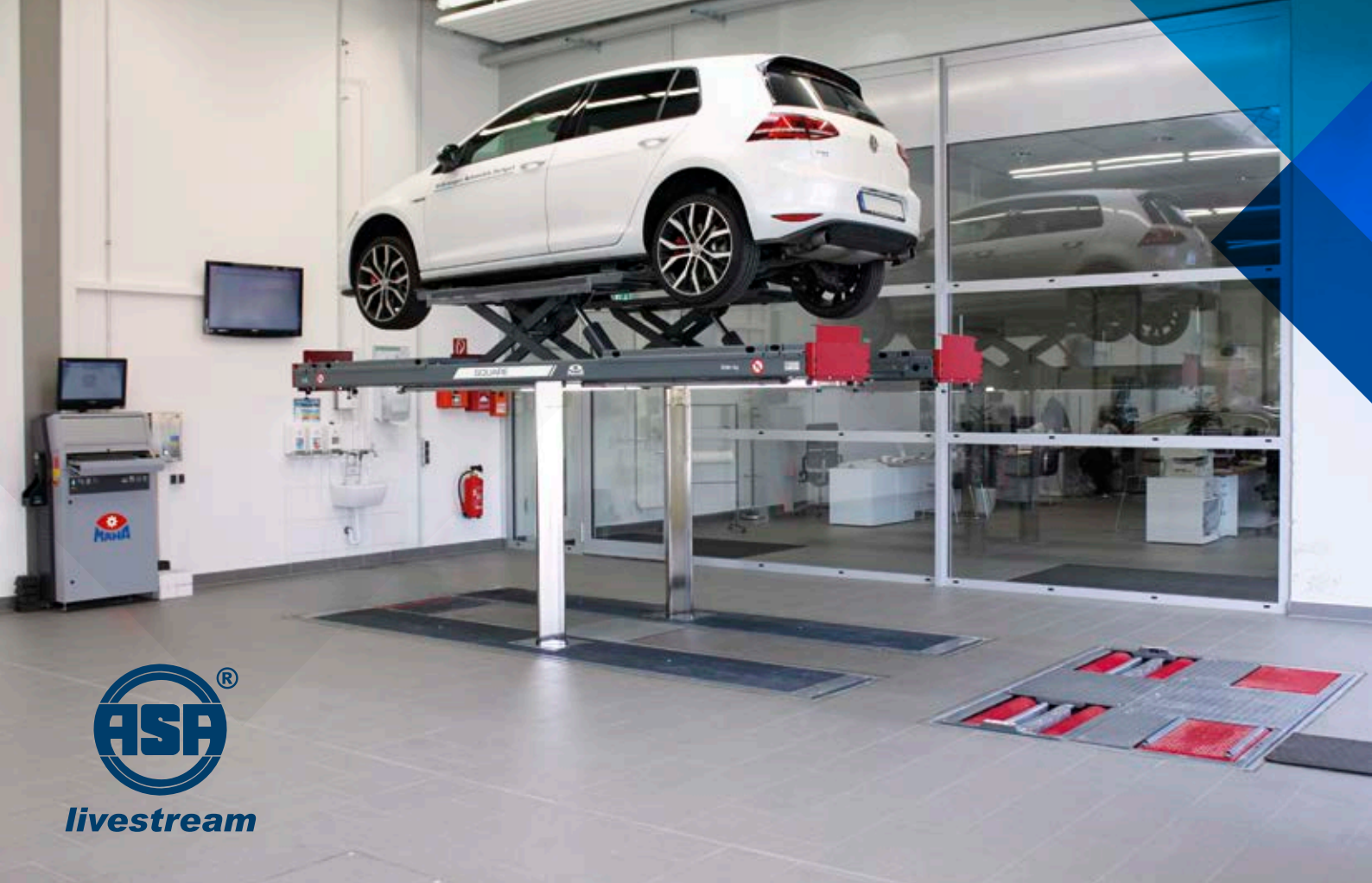
**Light test**  
Digital determination of the headlight setting by means of a CMOS camera.



**Database**  
Comprehensive databases holding customer and vehicle specific information.



Printout via “EUROSISTEM”  
test lanes software.



## TECHNICAL DATA

### COMMUNICATION DESK MCD

|   |   |
|---|---|
| Display unit                                | PC monitor, optional via TV screen, simultaneous display, radio touchscreen |
| Control                                     | Fully automatic via MCD 2000 communication console                          |
| Power supply                                | 3 x 400 V / N / PE 50/60 Hz   |
| Dimensions (W x H x D)                      | 860 x 1230 x 350 mm   |
| Dimensions incl. printer shelf* (W x H x D) | 860 x 1500 x 420 mm   |

### ROLLER SET

|   | RS 2  | RS 4  | RS 5  |
|---|---|---|---|
| Drive power of motors                   | 2 x 3 kW / 2 x 4 kW*                        | 2 x 3 kW                                    | 2 x 4 kW                                    |
| Test speed                              | 5 km/h                                      | 5 km/h                                      | 5 km/h                                      |
| Measured value display                  | 0 – 8 kN                                    | 0 – 6 kN / 0 – 8 kN*                        | 0 – 8 kN                                    |
| Permitted axle load (drive-over)        | 3.5 t / 4.0 t*                              | 3.5 t / 4.0 t*                              | 5.0 t                                       |
| Track, minimum                          | 780 mm                                      | 780 mm                                      | 780 mm                                      |
| Track, maximum                          | 2200 mm                                     | 2500 mm                                     | 2800 mm                                     |
| Roller diameter                         | 202 mm                                      | 202 mm                                      | 202 mm                                      |
| Roller axle distance                    | 400 mm                                      | 400 mm                                      | 400 mm                                      |
| Electrical connection / fuse protection | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay |
| Bearing                                 | water-tight, maintenance free               | water-tight, maintenance free               | water-tight, maintenance free               |
| Corrosion protection                    | powder coating (opt. hot-dip galvanised)    | powder coating (opt. hot-dip galvanised)    | powder coating (opt. hot-dip galvanised)    |
| Roller set dimensions (H x W x L)       | 280 x 680 x 2320 mm                         | 280 x 680 x 2644 mm                         | 280 x 680 x 2925 mm                         |
| Weight, including packaging             | 375 kg                                      | 410 kg                                      | 450 kg                                      |

\*optional

## Description

The MBT 2250 EUROSISTEM with optional 4WD regulation set brake tester with analogue display provides you with high-precision 4WD testing technology in a compact design. With the patented measuring methods, you have the security of being able to correctly test 4WD vehicles without damage. MAHA brake tester have been setting the standard for more than 30 years for testing 4WD vehicles and are keeping pace with modern vehicle technology. The modern, electronic control system also enables the checking of ASR (Anti Slip Regulator) and electronic parking brakes in the course of the brake testing. It is particularly suitable for reception and diagnostics lanes with a high proportion of 4WD; exceeds the requirements for the main inspection, has a PC interface and is thus network-compatible.

## Scope of delivery

- ♦ Communication Desk or Switching cabinet for test stand control
  - Communication Desk MCD 2000 with integrated Switching and electro-cabinet
  - Lockable drawer for keyboard and mouse including storage shelf
- ♦ Remote control IFB3
- ♦ Pedal force meter
- ♦ Lockable main switch
- ♦ Electronic start-up monitoring including automatic roller blocking
- ♦ Single wheel switchover, delayed automatic startup
- ♦ Automatic shut-off after exiting the test stand
- ♦ Automatic cut-off at selected slip with measured value display and automatic restart
- ♦ Electronic DMS strain gauge measuring system
- ♦ Four-wheel drive regulation set with electronically controlled roller set
- ♦ Self-supporting, enclosed roller set
- ♦ Roller surface optionally welded or plastic-coated
- ♦ Corrosion protection: powder coating
- ♦ TÜV approved

German Patent No. 3603508

European Patent No. 3641339

## Software

### ALL-WHEEL AUTOMATIC “DRIVE CONTROL PRO“

The automatic all-wheel detection from MAHA, supports the inspector in safe and accurate brake testing.

Step by step for a reliable test result



1. The brake tester detects a high starting resistance and notifies the inspector about any possible remedies.



2. The brake tester starts for a second time and checks the starting resistance. If the all-wheel drive has been deactivated, a brake test can possibly be performed in standard mode.



3. The brake tester starts in a regulated counter run mode. First, test the left side.



4. Brake test, left side. The braking force is only displayed for the wheel that is rotating in a forward direction.



5. Brake test, right side.



6. After the brake test is completed, the related measurement values of an axle are displayed clearly and automatically stored.



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## TECHNICAL DATA

### COMMUNICATION DESK MCD

|   |   |
|---|---|
| Display unit                                | PC monitor, optional via TV screen, simultaneous display, radio touchscreen |
| Control                                     | Fully automatic via MCD 2000 communication console                          |
| Power supply                                | 3 x 400 V / N / PE 50/60 Hz   |
| Dimensions (W x H x D)                      | 860 x 1230 x 350 mm   |
| Dimensions incl. printer shelf* (W x H x D) | 860 x 1500 x 420 mm   |

### ROLLER SET

#### RS 2

#### RS 4

#### RS 5

|   |   |   |   |
|---|---|---|---|
| Drive power of motors                   | 2 x 3 kW / 2 x 4 kW*                        | 2 x 3 kW                                    | 2 x 4 kW                                    |
| Test speed                              | 5 km/h                                      | 5 km/h                                      | 5 km/h                                      |
| Measured value display                  | 0 – 8 kN                                    | 0 – 6 kN / 0 – 8 kN*                        | 0 – 8 kN                                    |
| Permitted axle load (drive-over)        | 3.5 t / 4.0 t*                              | 3.5 t / 4.0 t*                              | 5.0 t                                       |
| Track, minimum                          | 780 mm                                      | 780 mm                                      | 780 mm                                      |
| Track, maximum                          | 2200 mm                                     | 2500 mm                                     | 2800 mm                                     |
| Roller diameter                         | 202 mm                                      | 202 mm                                      | 202 mm                                      |
| Roller axle distance                    | 400 mm                                      | 400 mm                                      | 400 mm                                      |
| Electrical connection / fuse protection | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay | 3 x 400 V, N, PE 50/60 Hz / 25 A time-delay |
| Bearing                                 | water-tight, maintenance free               | water-tight, maintenance free               | water-tight, maintenance free               |
| Corrosion protection                    | powder coating (opt. hot-dip galvanised)    | powder coating (opt. hot-dip galvanised)    | powder coating (opt. hot-dip galvanised)    |
| Roller set dimensions (H x W x L)       | 280 x 680 x 2320 mm                         | 280 x 680 x 2644 mm                         | 280 x 680 x 2925 mm                         |
| Weight, including packaging             | 375 kg                                      | 410 kg                                      | 450 kg                                      |








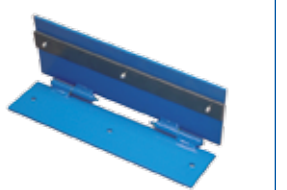






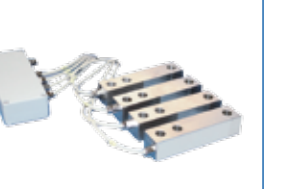








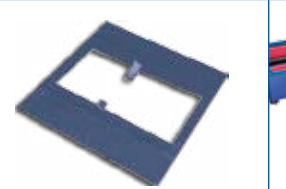
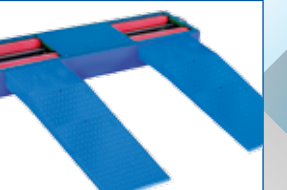


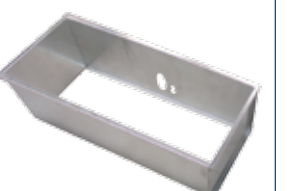
\*optional

# ACCESSORIES-MATRIX

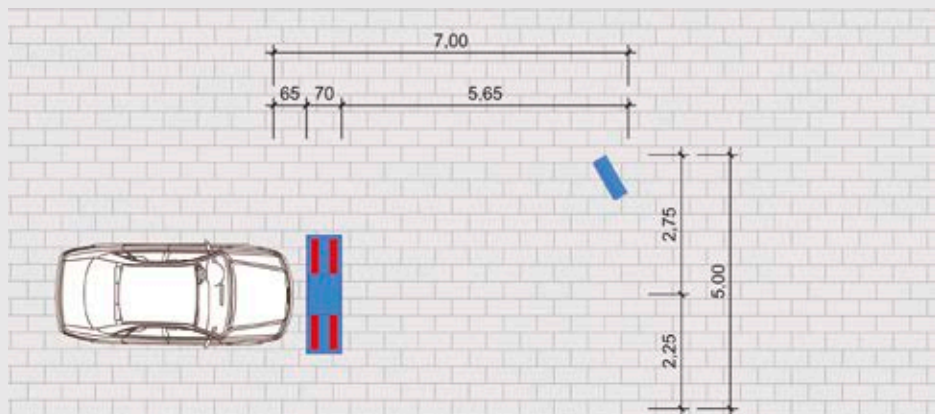
| DESCRIPTION   | ITEM NO.  |          |              |                      |                            |
|---|-----------|----------|--------------|----------------------|----------------------------|
|   |           | MBT 2100 | MBT 2200 LON | MBT 2250 EUROSYS-TEM | MBT 2250 EUROSYS-TEM (4WD) |
| Add-on Kit: Directive 2011  | VZ 955278 | O        | O            | O                    | O                          |
| Plastic-coated roller surface                                       | VZ 935110 | O        | O            | O                    | O                          |
| Roller Set RS4 3.5 t, 3 kW  | VZ 930103 | O        | O            | O                    | O                          |
| Reinforced roller set RS 2, 4 kW, 4 t                               | VZ 930067 | O        | O            | O                    | O                          |
| Roller set RS 5, 4 kW, 5 t  | VZ 930068 | O        | O            | O                    | O                          |
| Roller set covers passable by 4 t axle load                         | VZ 935182 | O        | O            | O                    | O                          |
| Roller heating  | VZ 935068 | O        | O            | O                    | O                          |
| Divided roller set  | VZ 930040 | -        | O            | O                    | O                          |
| Automatic lifting threshold   | VZ 930041 | O        | O            | O                    | O                          |
| Mechanical-Hydraulic Roller Set Raiser 2.5 t                        | VZ 935243 | O        | O            | O                    | O                          |
| Tire tread measuring device TM 1000, only in combination with RS 2* | VZ 935144 | -        | -            | O                    | O                          |
| Roller set covers for motorcycle brake testing                      | VZ 975073 | -        | O            | O                    | O                          |
| Dynamic weighing equipment for RS 2                                 | VZ 975557 | O        | O            | O                    | O                          |
| Dynamic weighing equipment for RS 2 divided                         | VZ 975559 | -        | O            | O                    | O                          |
| Manually reversible rotation and measuring direction                | VZ 935132 | O        | O            | O                    | X                          |
| Automatic 4WD detection „Drive Control Pro“                         | VZ 911294 | O        | O            | O                    | X                          |
| Difference display analogue   | VZ 955264 | O        | -            | -                    | -                          |
| Base for analogue display MBT 2100                                  | VZ 955261 | O        | -            | -                    | -                          |
| Wall hinge  | VZ 955001 | O        | -            | -                    | -                          |
| 4WD detection and 4WD set   | VZ 990355 | -        | O            | O                    | X                          |
| DC Brake  | VZ 935114 | -        | O            | O                    | X                          |
| Special voltage 3 x 230 V / 50 Hz                                   | VZ 990352 | O        | O            | O                    | O                          |
| Wall bracket  | VZ 955256 | -        | O            | -                    | -                          |
| Base for display cabinet  | VZ 955257 | -        | O            | -                    | -                          |
| Simultaneous Display MSA C CLASSIC                                  | VZ 950055 | -        | O            | O                    | O                          |
| Difference display digital  | VZ 955252 | -        | O            | O                    | O                          |
| Display module VARIODATA  | VZ 955253 | -        | O            | O                    | O                          |
| Radio touchscreen FTS 2018  | VZ 955295 | -        | -            | O                    | O                          |
| DIN A 4 Dot Matrix Printer  | VZ 910053 | -        | O            | -                    | -                          |
| Wireless remote control RECO 1                                      | VZ 910153 | O        | O            | -                    | -                          |
| Printer-Set 'RECO 1'  | VZ 910159 | O        | -            | -                    | -                          |
| Motorcycle connection including roller set cover                    | VZ 935229 | O        | -            | -                    | -                          |
| Infrared remote control IFB3  | VZ 910047 | O        | O            | O                    | X                          |
| Pedal force meter (only in combination with IFB3)                   | VZ 990050 | O        | O            | O                    | X                          |
| Communication Desk MCD  | VP 186050 | O        | O            | X                    | X                          |
| Automatic license plate recognition                                 | VZ 955287 | -        | -            | O                    | O                          |
| Operating hours counter   | VZ 955014 | -        | O            | O                    | O                          |
| Hot dip galvanized roller set                                       | VZ 995457 | O        | O            | O                    | O                          |
| Hot dip galvanized roller set divided version                       | VZ 995458 | O        | O            | O                    | O                          |
| Adjusting device MJV II   | VP 975887 | O        | O            | O                    | O                          |
| Permanent formwork  | VP 930045 | O        | O            | O                    | O                          |

\* Not in combination with lifting threshold  
For more accessories, please see our current price list!

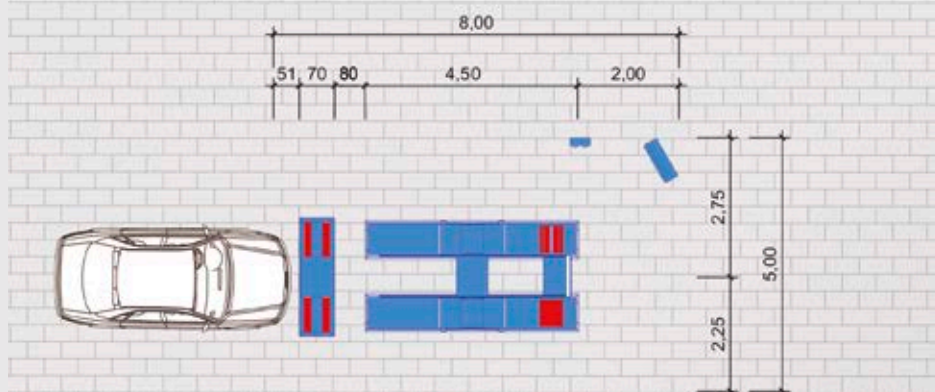
X standard equipment  
O optionally available  
- not available

|  |   |   |  |   |
|--|---|---|--|---|
|    |    |    |    |    |
| Difference display digital<br>VZ 955252  | Difference display analogue<br>VZ 955264  | Display module VARIODATA<br>VZ 955253   | Simultaneous Display<br>VZ 950055  | Base for LON-Display cabinet<br>VZ 955257   |
|    |    |    |    |    |
| Wall bracket<br>VZ 955256  | Base for analogue display<br>VZ 955261  | Wall hinge for analogue display<br>VZ 955001  | Communication desk MCD<br>VP 186050  | Radio touchscreen FTS 2018<br>VZ 955295   |
|   |   |   |   |   |
| Infrared remote control IFB 3<br>VZ 910047   | Pedal force meter PFM 1000<br>VP 990434   | Wireless remote control RECO 1<br>VZ 910153   | Printer-Set RECO<br>VZ 910159  | Dynamic weighing equipment<br>VZ 975557   |
|  |  |  |  |  |
| Reversible rotation and measuring direction, remote control change-over VZ 935133  | Operating hours counter<br>VZ 955014  | Rigid all-wheel regulation set<br>VZ 990355   | Roller set configuration No. 5,<br>axle load 5 t<br>VZ 930068                        | Plastic-coated roller surface<br>VZ 935110  |
|  |  |  |  |  |
| Lifting threshold<br>VZ 930041   | Tire tread depth measuring device<br>see price list                                 | Roller set covers passable by 4 t<br>axle load<br>VZ 935182                         | Roller set covers for motorcycle<br>brake testing<br>VZ 975073                       | Set of ramps<br>VZ 930009   |
|  |  |  |  |   |
| Roller heating<br>VZ 935068  | Adjustment device<br>VZ 975887  | Permanent formwork<br>VP 930045   |  |   |

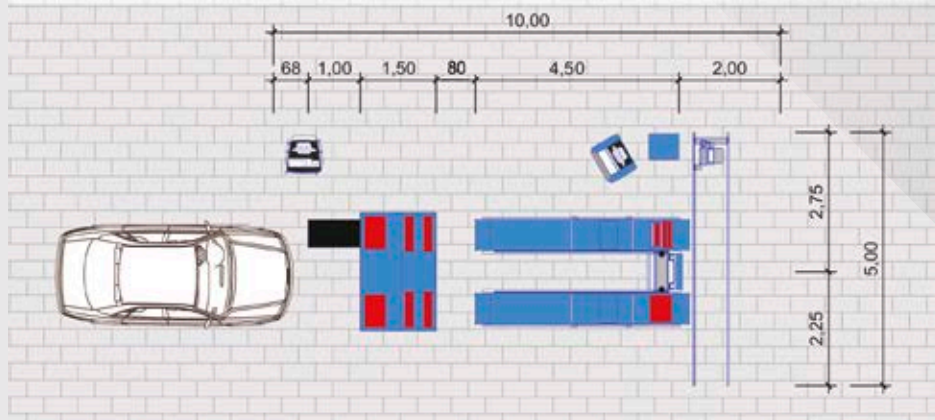
Brake tester



Reception concept



Test area



## GLOBAL PLAYER

... in more than 150 countries worldwide

### Subsidiaries

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France  
India

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Poland  
Russia  
Singapore

Spain  
South Africa  
UK  
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UAE  
Vietnam

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