




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. Sturdy and service-friendly technology has been expanded with a roller set integrated control. A separate control cabinet in the workshop area is no longer needed. "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: hot dip galvanised (series) or powder coating (RAL 5010)
- ◆ TÜV and GS 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:

Brmskräfte:		
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: 54%

FESTSTELLBR.:

Brmskräfte:		
li 2.1kN	re 2.69kN	

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

HINTERACHSE:

Brmskräfte:		
li 3.38kN	re 3.38kN	
Achse:	6.68kN	
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:

Brmskraft BBA:	13.52kN
Brmskraft FBA:	5.30kN
stat. Gewicht:	2594kg
stat. Abbrems BBA:	53%
stat. Abbrems FBA:	21%

Kennzeichen:

Printed via "Thermoprint" printer



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 5
Drive power of motors	2 x 3 kW / 2 x 4 kW*	2 x 4 kW
Test speed	5 km/h	5 km/h
Measured value display	0 – 6 kN / 0 – 8 kN*	0 – 8 kN
Permitted axle load (drive-over)	3.0 t / 4.0 t*	5.0 t
Track, minimum	780 mm	780 mm
Track, maximum	2200 mm	2800 mm
Roller diameter	202 mm	202 mm
Roller axle distance	400 mm	400 mm
Electrical connection / fuse protection	3 x 400 V, N, PE 50/60 Hz / 25 A inert	3 x 400 V, N, PE 50/60 Hz / 25 A inert
Bearing	water-tight, maintenance free	water-tight, maintenance free
Corrosion protection	hot dip galvanized (series) or powder coating (RAL 5010)	hot dip galvanized (series) or powder coating (RAL 5010)
Roller set dimensions (H x W x L)	280 x 680 x 2320 mm	280 x 680 x 2925 mm
Packaging dimensions (H x W x D)	500 x 820 x 2340 mm	400 x 800 x 3000 mm
Weight, including packaging	375 kg	450 kg

*optional

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



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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 inert
Interface connection	RS 232 for DIN A4 printer or PC

ROLLER SET

RS 2

RS 5

Drive power of motors	2 x 3 kW / 2 x 4 kW*	2 x 4 kW
Test speed	5 km/h	5 km/h
Measured value display	0 – 8 kN	0 – 8 kN
Permitted axle load (drive-over)	3.5 t / 4.0 t*	5.0 t
Track, minimum	780 mm	780 mm
Track, maximum	2200 mm	2800 mm
Roller diameter	202 mm	202 mm
Roller axle distance	400 mm	400 mm
Electrical connection / fuse protection	3 x 400 V, N , PE 50/60 Hz / 25 A inert	3 x 400 V, N , PE 50/60 Hz / 25 A inert
Bearing	water-tight, maintenance free	water-tight, maintenance free
Corrosion protection	hot dip galvanized (series) or powder coating (RAL 5010)	hot dip galvanized (series) or powder coating (RAL 5010)
Roller set dimensions (H x W x L)	280 x 680 x 2320 mm	280 x 680 x 2925 mm
Packaging dimensions (H x W x D)	500 x 820 x 2340 mm	400 x 800 x 3000 mm
Weight, including packaging	375 kg	450 kg

*optional

MBT 2250 EUROSISTEM

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: hot dip galvanised (series) or powder coating (RAL 5010)
- ♦ TÜV and GS approved

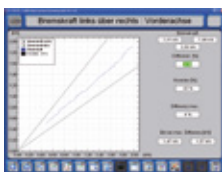
Software



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 5

Drive power of motors	2 x 3 kW / 2 x 4 kW*	2 x 4 kW
Test speed	5 km/h	5 km/h
Measured value display	0 – 8 kN	0 – 8 kN
Permitted axle load (drive-over)	3.5 t / 4.0 t*	5.0 t
Track, minimum	780 mm	780 mm
Track, maximum	2200 mm	2800 mm
Roller diameter	202 mm	202 mm
Roller axle distance	400 mm	400 mm
Power supply	3 x 400 V / N / PE 50/60 Hz	3 x 400 V / N / PE 50/60 Hz
Fuse	25 A, slow-blow	25 A, slow-blow
Bearing	water-tight, maintenance free	water-tight, maintenance free
Corrosion protection	hot dip galvanized (series) or powder coating (RAL 5010)	hot dip galvanized (series) or powder coating (RAL 5010)
Roller set dimensions (H x W x L)	280 x 680 x 2320 mm	280 x 680 x 2925 mm
Packaging dimensions (H x W x D)	500 x 820 x 2340 mm	400 x 800 x 3000 mm
Weight, including packaging	375 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: hot dip galvanized (standard) or powder coating (RAL 5010)
- ♦ TÜV and GS approved

German Patent No. 3603508

European Patent No. 3641339

Software

ALL-WHEEL AUTOMATIC “DRIVE CONTROL”

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

KOMMUNIKATIONSPULT 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 5

Drive power of motors	2 x 3 kW / 2 x 4 kW*	2 x 4 kW
Test speed	5 km/h	5 km/h
Measured value display	0 – 8 kN	0 – 8 kN
Permitted axle load (drive-over)	3.5 t / 4.0 t*	5.0 t
Track, minimum	780 mm	780 mm
Track, maximum	2200 mm	2800 mm
Roller diameter	202 mm	202 mm
Roller axle distance	400 mm	400 mm
Power supply	3 x 400 V / N / PE 50/60 Hz	3 x 400 V / N / PE 50/60 Hz
Fuse	25 A, slow-blow	25 A, slow-blow
Bearing	water-tight, maintenance free	water-tight, maintenance free
Corrosion protection	hot dip galvanized (series) or powder coating (RAL 5010)	hot dip galvanized (series) or powder coating (RAL 5010)
Roller set dimensions (H x W x L)	280 x 680 x 2320 mm	280 x 680 x 2925 mm
Packaging dimensions (H x W x D)	500 x 820 x 2340 mm	400 x 800 x 3000 mm
Weight, including packaging	375 kg	450 kg

*optional

ACCESSORIES-MATRIX

DESCRIPTION

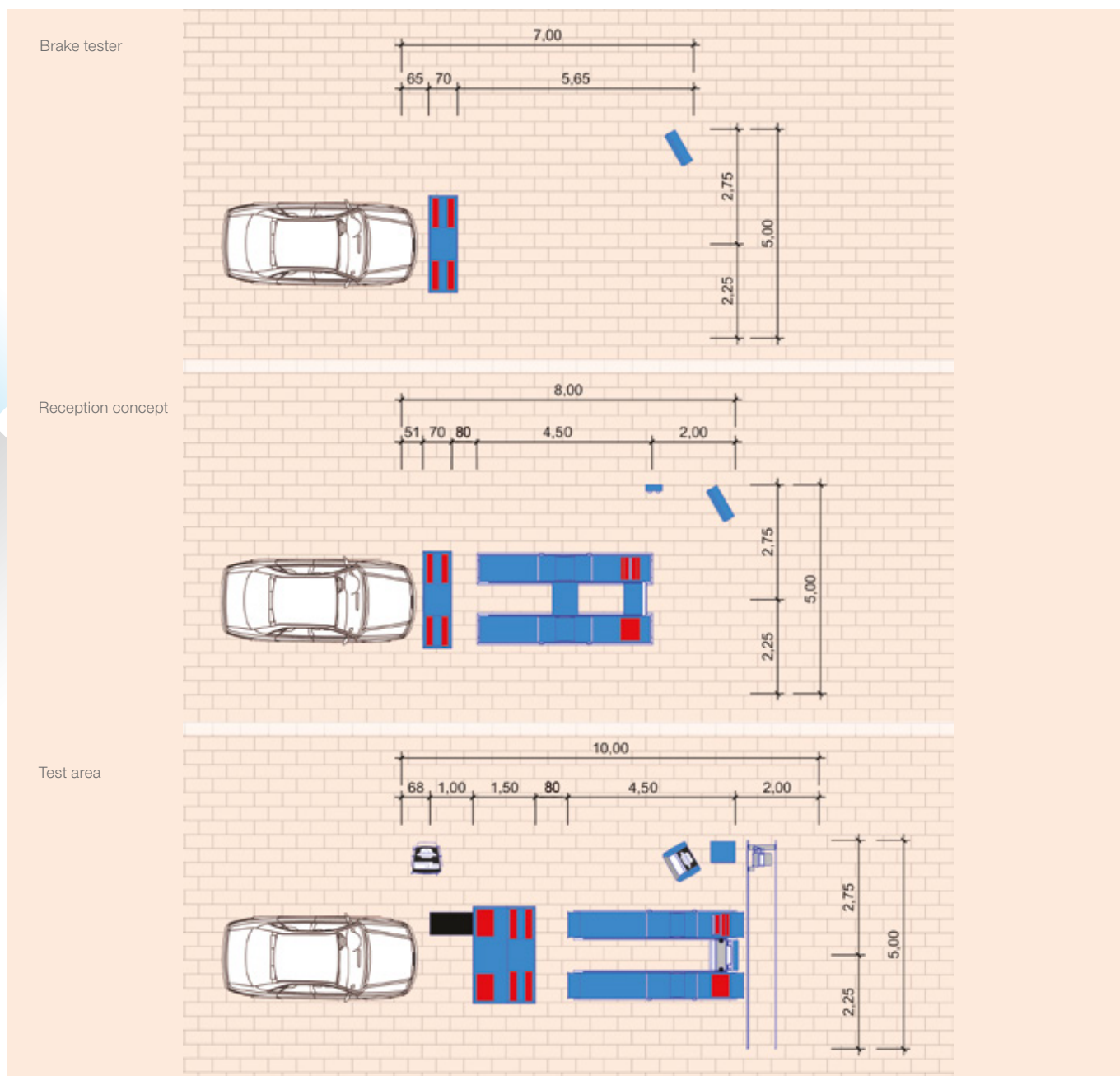
ITEM NO.

		MBT 2100	MBT 2200 LON	MBT 2250 EUROSYSYSTEM	MBT 2250 EUROSYSYSTEM (4WD)
Difference display digital	VZ 955252	-	O	O	O
Difference display analogue	VZ 955264	O	-	-	-
Display module VARIODATA	VZ 955253	-	O	O	O
Simultaneous Display MSA C CLASSIC	VZ 950055	-	O	O	O
Communication Desk MCD	VP 186050	O	O	X	X
THERMOPRINT data printer	VZ 910152	-	O	-	-
Printer-Set 'RECO 1'	VZ 910159	O	-	-	-
Printer-Set 'IFB 3'	VZ 910160	O	-	-	-
DIN A 4 Dot Matrix Printer	VZ 910053	-	O	-	-
Base for display cabinet	VZ 955257	-	O	-	-
Wall bracket	VZ 955256	-	O	-	-
Base for analogue display MBT 2100	VZ 955261	O	-	-	-
Wall hinge	VZ 955001	O	-	-	-
Plastic-coated roller surface	VZ 935110	O	O	O	O
Wireless remote control RECO 1	VZ 910153	O	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
Wireless touchscreen FTS 2016	VZ 955265	-	-	O	O
Operating hours counter	VZ 955014	-	O	O	O
Manually reversible rotation and measuring direction	VZ 935132	O	O	O	X
4WD detection and reversible rotation and measuring direction using remote control	VZ 935133	O	O	O	X
4WD detection and 4WD set	VZ 990355	-	O	O	X
Special voltage 3 x 230 V / 50 Hz	VZ 990352	O	O	O	O
Roller set RS 5, 4 kW, 5 t	VZ 930068	O	O	O	O
Reinforced roller set RS 2, 4 kW, 4 t	VZ 930067	O	O	O	O
Divided roller set	VZ 930040	-	O	O	O
Splashproof motors	VZ 935067	X	X	X	X
Automatic lifting threshold	VZ 930041	O	O	O	O
Tire tread measuring device TM 1000, only in combination with RS 2*	VZ 935144	-	-	O	O
Roller set covers passable by 4 t axle load	VZ 935182	O	O	O	O
Roller set covers for motorcycle brake testing	VZ 975073	-	O	O	O
Motorcycle connection including roller set cover	VZ 935229	O	-	-	-
Set of ramps 500 x 2000 mm for RS 2 (4 pieces)	VZ 930009	O	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
Weighing equipment preparation	VZ 975555	-	O	O	O
Roller heating	VZ 935068	O	O	O	O
Adjustment device	VZ 975201	O	O	O	O
Permanent formwork	VP 930045	O	O	O	O
Hot dip galvanized roller set	VZ 995400	X	X	X	X
Powder-coated roller set	see price list	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 VZ 955252	Difference display analogue VZ 955264	Display module VARIODATA VZ 955253	Simultaneous Display VZ 950055	Base for LON-Display cabinet VZ 955257
				
Wall bracket VZ 955256	Base for analogue display VZ 955261	Wall hinge for analogue display VZ 955001	Communication desk MCD VP 186050	Wireless touchscreen FTS 2016 VZ 955265
				
Infrared remote control IFB 3 VZ 910047	Pedal force meter PFM 1000 VP 990434	Wireless remote control RECO 1 VZ 910153	Printer-Set RECO VZ 910159	Data printer Thermoprint VZ 910152
				
Reversible rotation and measuring direction, remote control change-over VZ 935133	Operating hours counter VZ 955014	Rigid all-wheel regulation set VZ 990355	Roller set configuration No. 5, axle load 5 t VZ 930068	Plastic-coated roller surface VZ 935110
				
Lifting threshold VZ 930041	Tire tread depth measuring device TM 1000 VZ 935144	Roller set covers passable by 4 t axle load VZ 935182	Roller set covers for motorcycle brake testing VZ 975073	Set of ramps VZ 930009
				
Dynamic weighing equipment VZ 975557	Roller heating VZ 935068	Adjustment device VZ 975201	Permanent formwork VP 930045	Combination emissions tester VP 135213



GLOBAL PLAYER

... in more than 150 countries worldwide

Subsidiaries

Australia
Canada
Chile
China

France
India
Ireland
Japan

New Zealand
Poland
Russia
Singapore

Spain
South Africa
UK
USA

UAE
Vietnam

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