



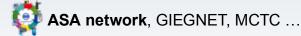
Roller Brake Tester for Cars, Vans and Commercial Vehicles

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

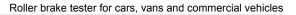




- ► Fully automatic testing procedure with operator guidance
- Digital measurement value recording and storage
- From classic to all-wheel drive: the modular design
- Patented, correct all-wheel drive testing
- Robust, easy-to-service technology
- Network compatible







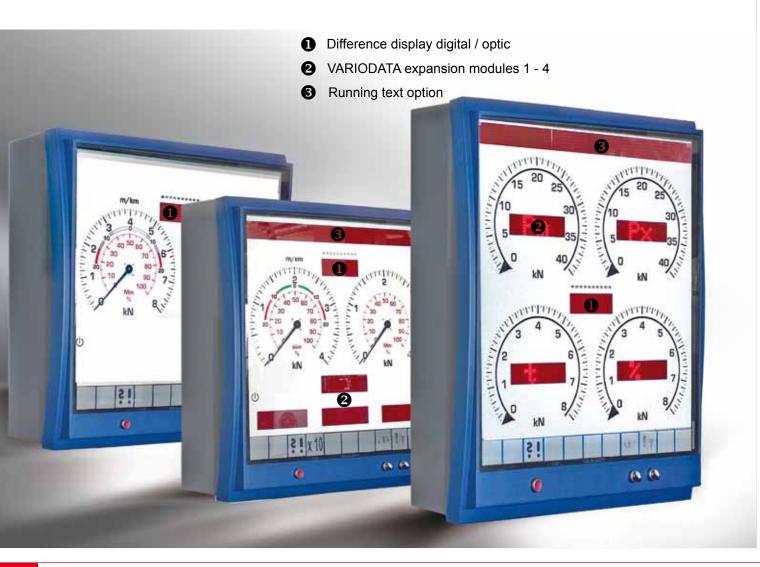
The MAHA modular system – the individual tester from the series including brake testers up to testing lanes

	Page
Roller brake tester IW 4 S	4
Roller brake tester IW 4/7 LON CLASSIC	5
Roller brake tester IW 4/7 LON COMPETENCE	6
Roller brake tester IW 4/7 LON ALL-WHEEL	7
Roller brake tester IW 4/7 EUROSYSTEM	8
Specifications	9
Accessories	10 - 11
Planning examples	12

The right tester for every application. Made to order or compiled from the construction kit.

VARIODATA display – the new display generation from MAHA

The new VARIODATA display has been specially tailored for the requirements of the customers. The customer can flexibly design the display with this generation of displays and specify himself which measurement value (axle load, braking pressure, deceleration, braking force, pedal force, braking force difference) is displayed.





Roller brake tester IW 4 S	All measured values are quickly and clearly displayed on the analogue display of the IW 4 S roller brake tester with automatically changing display range (0-8 / 0-16 kN). The display is already prepared for testing lane use and also provides the display possibility for a shock absorber tester and for a side slip tester. An optional difference display (dig- ital) for braking force and damping supports the analogue displays. With its permissible drive-over axle load of 8 t, the roller brake tester is particularly suitable for workshops and testing stations with a high proportion of trucks and vans.
Roller brake tester IW 4/7 LON CLASSIC	The IW 4/7 LON CLASSIC roller brake tester is equipped with the classic dual analogue display and an automatically changing display range (0-4 / 0-40 kN). Using the already integrated digital display, information about braking force and shock absorber difference and operator prompting instructions are displayed in a compact way. There is also the possibility of equipping the analogue display with up to four VARIO-DATA displays for weight, braking pressure, braking intensity and running text for operator prompting. The tester is particularly suitable for brake diagnostics depending on the weight measurement for low to medium vehicle throughput.
Roller brake tester IW 4/7 LON COMPETENCE	This tester combines the traditional analogue display with the most up- to-date electronics. The measured values on two 8 and 40 kN displays are clearly displayed in a large area on the multifunctional analogue display with four dials. An integrated digital display is provided for outputting the braking force and shock absorber difference measured values and instructions for operator prompting. There is also the possibility of equipping the centre of the individual analogue dials with up to four additional VARIODATA displays (e.g. for weight, braking pressure and braking intensity) and the top display area for running text (operator prompting). The wireless remote control REC01 which certainly simplifies vehicle testing for multiple axle vehicles is already included as standard equipment. The tester is particularly suitable for comprehensive brake diagnostics with high vehicle throughput.
Roller brake tester IW 4/7 LON ALL-WHEEL	The IW4/7 LON ALL-WHEEL brake tester with the multifunctional analogue display and the four dials provides you with all-wheel drive testing technology in a compact design. With the patented measuring methods, you have the security of being able to correctly test all-wheel drive vehicles without damage. MAHA has been setting the standard for more than 25 years for testing all-wheel drive vehicles and is 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 test- ing. The tester is a "must" for reception and diagnostics lanes with a high proportion of all-wheel drive vehicles.
Roller brake tester IW 4/7 EUROSYSTEM	The IW 4/7 EUROSYSTEM brake tester is the premium tester of the IW 4/7 series. With the EUROSYSTEM testing lane software based on Windows XP and an SQL data- base, it provides the user with endless possibilities. Whether "only" needed as a brake tester, used as diagnostics reception or as control unit for the workshop processes. The IW 4/7 EUROSYSTEM is the all-rounder. In combination with other testers, it provides a complete, objective assessment of the vehicle within seconds. Recommended by vehicle manufacturers and tested by international testing organizations in endurance tests, the tester provides a high degree of ergonomics. Upgradeable with all-wheel regulation set, the IW 4/7 EUROSYSTEM is the ideal diagnostic brake tester. Particularly suitable for reception and diagnostics lanes with high vehicle throughput; it exceeds the requirements for the main inspection and is network-compatible.



Clearly readable dials, combined with the VARI-ODATA digital displays and operator prompting (running text) including switch cabinet.

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

IW 4 S

All measured values are quickly and clearly displayed on the analogue display of the IW 4 S roller brake tester with automatically changing display range (0-8 / 0-16 kN). The display is already prepared for testing lane use and provides the display possibility for a shock absorber tester and for a side slip tester.

An optional difference display (digital) for braking force and damping supports the analogue displays.

With its permissible drive-over axle load of 8 t, the roller brake tester is particularly suitable for workshops and testing stations with a high proportion of trucks and vans. The control system meets the requirements for the main inspection, has a PC interface and is thus network-compatible.



- RS 232 interface connection for printer or PC
- lockable main switch

Roller set IW 4 EURO No. 5 with preparation for weighing equipment - axle load 8 t

- motor output 5.5 kW



IW 4/7 LON CLASSIC

The IW 4/7 LON CLASSIC roller brake tester is equipped with the classic dual analogue display and an automatically changing display range (0-4 / 0-40 kN). Using the already integrated digital display, information about braking force and shock absorber difference and operator prompting instructions are displayed in a compact way. There is also the possibility of equipping the analogue display with up to four VARIODATA displays for weight, braking pressure, braking intensity and running text for operator prompting.

The tester is particularly suitable for brake diagnostics depending on the weight measurement for low to medium vehicle throughput. The control system meets the requirements for the main inspection, has a PC interface and is thus network-compatible.



Standard Equipment:

- multi-functional analogue display with two dials for displaying measured values of brake tester, shock absorber tester and side slip tester including switching elements (motor protection switch, relay or necessary switchgear depending on the connected device)
- difference display digital / optic
- lockable main switch
- RS 232 interface connection for printer or PC

Clearly readable dials, combined with the VARI-ODATA digital displays and operator prompting (running text) including switch cabinet.



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

IW 4/7 LON COMPETENCE

This tester combines the traditional analogue display with the most up to date electronics. The measured values on two 8 and 40 kN displays are clearly displayed in a large area on the multifunctional analogue display with four dials. An integrated digital display is provided for outputting the braking force and shock absorber difference measured values and instructions for operator prompting. There is also the possibility of equipping the centre of the individual analogue dials with up to four additional VARIODATA displays (e.g. for weight, braking pressure and braking intensity) and the top display area for running text (operator prompting). The wireless remote control REC01 which certainly simplifies vehicle testing for multiple axle vehicles is already included as standard equipment. The tester is particularly suitable for comprehensive brake diagnostics with high vehicle throughput. The control system meets the requirements for the main inspection, has a PC interface and is thus network-compatible.



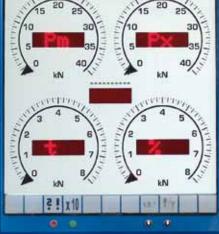
Standard Equipment:

- multifunctional analogue display for measurement values of brake tester, shock absorber tester and side slip tester including switching elements (motor protection switch, relay or necessary switchgear) depending on the connected device) difference display disital (antia)
- difference display digital / optic
- two VARIODATA digital displays
- wireless remote control RECO 1
- lockable main switch
- RS 232 interface connection for printer or PC



Remote control RECO 1

Handheld remote control with the clockwise/anticlockwise/on/off motor functions and program selection.



Clearly readable dials, combined with the VARI-ODATA digital displays and operator prompting (running text) including switch cabinet.



IW 4/7 LON ALL-WHEEL

The IW4/7 LON ALL-WHEEL brake tester with the multifunctional analogue display and the four dials provides you with all-wheel drive testing technology in a compact design. With the patented measuring methods, you have the security of being able to correctly test all-wheel drive vehicles without damage. MAHA has been setting the standard for more than 25 years for testing all-wheel drive vehicles and is 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. The tester is a "must" for reception and diagnostics lanes with a high proportion of all-wheel drive vehicles; exceeds the requirements for the main inspection, has a PC interface and is thus network-compatible.





25 years all-wheel drive testing technology

Standard Equipment:

- multifunctional analogue display with four dials for displaying measured values of brake tester, shock absorber tester and side slip tester including switching elements (motor protection switch, relay or necessary switchgear depending on the connected device)
- difference display digital / optic
- two VARIODATA digital displays
- wireless remote control FFB 3 + pedal force recorder
- all-wheel drive regulation set for all drive types including Anti Slip Regulator / differential lock effectiveness test
- lockable main switch
- RS 232 interface connection for printer or PC



PC-Anbindung (Option)

IW 4/7 LON roller set (not IW 4 S)

Roller set IW 4 EURO No. 2 without preparation for weighing equipment

- axle load 13 t (can be loaded up to 15 t)
- motor power from 9 kW to 11 kW
- rear roller raised by 40 mm

Roller set IW 7 EURO No. 2 with preparation for weighing equipment

- axle load 18 t (can be loaded up to 20 t)
- motor power from 11 kW to 16 kW
- rear roller raised by 50 mm
- low-loader version option

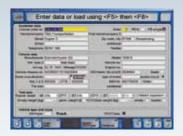


The MAHA modular system – the individual tester from the series including brake testers up to testing lanes

EUROSYSTEM safety testing lane

The IW 4/7 EUROSYSTEM brake tester is the premium tester of the IW 4/7 series. With the EUROSYSTEM testing lane software based on Windows XP and an SQL database, it provides the user with endless possibilities. Whether "only" needed as a brake tester, used as diagnostics reception or as control unit for the workshop processes. The IW 4/7 EUROSYSTEM is the all-rounder. In combination with other testers, it provides a complete, objective assessment of the vehicle within seconds. Recommended by vehicle manufacturers and tested by international testing organizations in endurance tests, the tester provides a high degree of ergonomics. Upgradeable with all-wheel regulation set, weighing equipment, pull-down device and radio pressure converter, the IW 4/7 EUROSYSTEM is the ideal diagnostic brake tester. Particularly suitable for reception and diagnostics lanes with high vehicle throughput; it exceeds the requirements for the main inspection and is network-compatible.

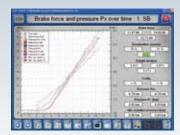




The input screen for vehicle and operator data can directly access the SQL database.



All relevant data is clearly displayed during the brake testing.



Clear presentation of the brake values by means of graphical and digital evaluation.



Predefined test procedures reduce the operating complexity to a necessary minimum.



Display unit					
Display on 2 analogue displays (W x H x D)	870 x 910 x 300 mm scale	diameter 2 x 350 mm			
Display on 4 analogue displays ($W \times H \times D$)	870 x 1060 x 300 mm sca	e diameter 4 x 350 mm			
Switch cabinet (option) (W x H x D)	800 x 950 x 300 mm				
Difference display	digital / optic				
Display range	2 displays: 0 – 4 kN / 0 - 40 kN, 0 - 100 mm / %, -20 – +20 m/km				
	4 displays: 0 – 8 kN und 0 – 40 kN, 0 - 100 mm / %, -20 – + 20 m/km				
Roller set	IW 4 S	IW 4	IW 7		
Axle load (permitted drive-over)	8 t	13 t / 15 t*	18 t / 20 t*		
Drive power	2 x 5,5 kW	2 x 9 kW	2 x 11 kW		
Reinforced drive motors		2 x 11 kW*	2 x 16 kW*		
Testing speed	5 km/h	2,3 km/h (2,3 / 4,6 km/h)*	3 km/h (3 / 6 km/h)*		
Roller length	1000 mm	1000 mm	1150 mm		
Roller diameter	192 mm	202 mm	265 mm		
Roller distance between axes	400 mm	430 mm	475 mm		
Electrical connection value	400 V / 50 Hz 3 P + N + E	400 V / 50 Hz 3 P + N + E	400 V / 50 Hz 3 P + N + E		
Fuse	35 A delayed-action	50 - 63 A delayed-action	63 - 80 A delayed-action		
Star-delta connection	x	x	x		
Dimensioning of the roller sets	see technical data sheet	see technical data sheet	see technical data sheet		
Options					
PC communication desk 3000 (W x H x D)	800 x 1400 x 670 mm				
PC-Software EUROSYSTEM	Windows				
Software modules	tractor/trailer synchronisation, main inspection program, SP program, country specific modules				
Simultaneous display, analogue	analogue display with 2 scales 2 x 350 mm				
	analogue display with 4 sc	ales 4 x 350 mm			
Radio pressure converter, pneumatic	0 - 20 bar				
Radio pressure converter, hydraulic	0 - 160 bar				
Hydraulic weight simulator	0 - 10 t				
Weighing equipment	0 - 20 t				
Accessories Remote control, pedal force meter, printer, si	de elia tester MINIO II, teste				

Please refer to the current price list for additional accessories.

* Option



Accessories matrix Roller brake tester IW 4/7 LON

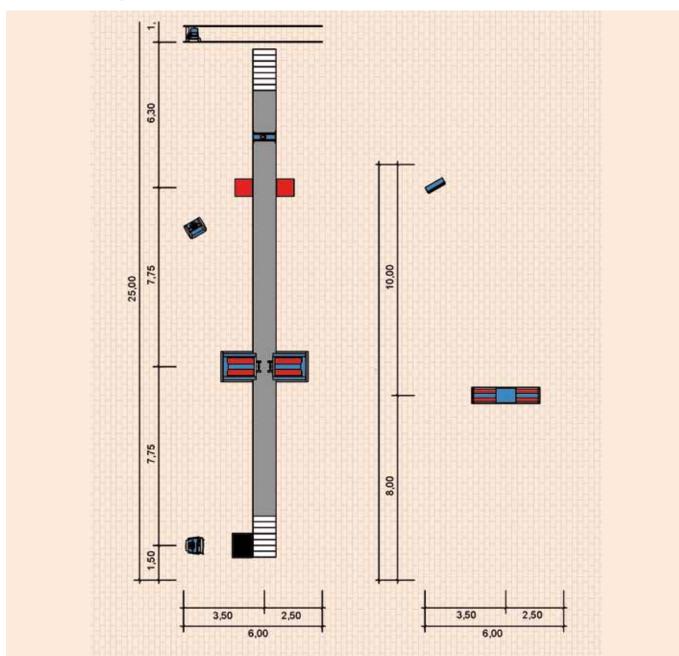
Accessories matrix Roller brake tester IW 4/7 LON				101 AN CAN	45,0,0	MOL	#7 EUROSYSTEM
				, w	کر ج	, , , , , , , , , , , , , , , , , , ,	T Q
Description	ltem no.	111	Str.	1/1/	1/1/1/1	07<141	HILF.
Difference display digital / optic	VZ 955252	Х	0	0	0	0	
VARIODATA display	VZ 955253	Х	Х	0	0	-	
LED moving letters with operator guidance	VZ 955254			Х	Х	-	
Wall bracket	VZ 955256			Х	Х	-	
Base for display cabinet	VZ 955257			Х	Х	-	
THERMOPRINT data printer	VZ 910152			Х	Х	-	
Radio remote control RECO 1	VZ 910153			0	Х	-	
Radio remote control FFB 3	VZ 910154				0	Х	
Start set for radio controlled pressure converter	VZ 980035			Х	Х	Х	
Radio pressure converter pneumatic	VZ 980029			Х	Х	Х	
Radio pressure converter hydraulic	VZ 985028				Х	Х	
Special voltage 3 x 230 V / 50 Hz	VZ 990350				Х		
Pit safety GSQ	VP 155009				Х		
Flashing light with signal horn	VZ 955071		Х		Х		
Radio touchscreen FTS 2004	VZ 955234		-	-	-	Х	
4 wheel drive regulator set Visco	VZ 990181				0	Х	
4 wheel drive regulator set rigid	VZ 990182			Х	0	Х	
DC-Brake (electronic exit assistance)	VZ 935114 / VZ 935113			Х	0	Х	
Weighing equipment	see price list			Х	Х	Х	
Plastic coated roller surface	VZ 935110				Х		
Hydraulic Load Simulator	VZ 935033			Х	Х		
Raisable roller set	VZ 935169 / VZ 935170	-	Х	Х	Х		
Reinforced drive motors	see price list		Х	Х	Х		
Splash-proof motors	VZ 935045			Х	Х		
Reversible rotation and measurement direction (manual)	VZ 935072			Х	-	Х	
Reversible rotation and measurement direction (remote control)	VZ 935134			Х	0	Х	
Two test speeds	VZ 935077			Х	Х	Х	
Detachable roller cover	VZ 935140 / VZ 935141		Х	Х	Х	Х	
Installation frame	see price list	-	Х	Х	Х	Х	
Operating hours counter	VZ 955014						
Roller set heating	VZ 935068 / VZ 935006				Х		
Control cabinet heating	VZ 955080					Х	
Plastic hood for multi-analog display	VZ 955258				Х	-	
Roller set divided	VZ 930040						
Roller set version flush floor	VZ 935010 / VZ 955016			Х			
Adjustment device	VZ 975551 / VZ 975003				Х		
TCS tachograph control	VP 140007	Х	Х	Х	Х	Х	
							Legend: X = Option
							O = Standa
							- = not ava

Legend: X = Option O = Standard - = not available



Accessories Limitless flexibility via modular design for brake testers up to test lanes

Difference display digital / optic VZ 955252	VARIODATA display VZ 955253	Wall bracket VZ 955256	Base for display cabinet VZ 955257	Thermoprint data printer VZ 910152
Radio remote control RECO 1 VZ 910153	Infrared remote control FFB 3 VZ 910154	Pedal force meter VZ 990050	Start set radio controlled pres- sure converter VZ 980035	Radio pressure converter, pneumatic VZ 980029
HAC			Eler .	
Special voltage 3x230 V VZ 990350	Pit safety GSQ VZ 155009	Flashing light with signal horn VZ 955071	Radio touchscreen FTS 2004 VZ 955234	Radio pressure converter, hydraulic VZ 980028
4 wheel drive regulation set VZ 990181 / VZ 990182	Weighing equipment static / dynamic	Plastic-coated roller surface VZ 935110	Hydraulic Load Simulator VZ 935033	Raisable roller set VZ 935169 / VZ 935170
			(al	
Reinforced drive motors see price list	Rotation & measuring direc- tion VZ 935072	Two testing speeds VZ 935077	Roller cover VZ 935140 / VZ 935141	Installation frame see price list
				Polo
Operating hours counter	Roller set heating	Adjustment device	TCS tacho control	Diesel emissions tester



MAHA testing concepts for the workshop

Production Program:

Testing Technology for Cars, Trucks, Motorcycles, Tractors, Forklifts, Aircraft · Roller Brake Testers · Platform Brake Testers · Shock Absorber and Suspension Testers · Side-Slip Testers · Play Detectors · Roller Dynamometers for Performance and Function Testing · Speedometer Testers · Tachograph and Taximeter Testers · Axle and Wheel Load Scales · Scissors Lifts · Two- and Four-Post Lifts · In-Ground Lifts · Pit Jacks · Axle and Transmission Jacks · Mobile Column Lifts · Headlight Testers · Diesel Smoke Meters · Emission Testers for Petrol and Gas Engines · Sound Level Meters · Air Conditioning Service Equipment · Decelerometers · Closing Force Meters · Brake Fluid Testers · Complete Test Lanes for Cars and Trucks · Mobile Test Containers · Wheel Alignment Analysers · Wheel Balancers · Tire Changers. Additional Services: Workshop Design and Planning · Training Seminars for Users and Service Technicians



MAHA Maschinenbau Haldenwang GmbH & Co. KG. Hoyen 20 · 87490 Haldenwang · Germany Tel.: +49 (0)8374-585-0 · Fax: +49 (0)8374-585-497 Internet: www.maha.de · E-Mail: sales@maha.de

MAHA U.K. Ltd. • Wisbech • Great Britain

- MAHA Ireland Ltd. Dublin Ireland
- MAHA España Girona Spain
- MAHA Polska Tarnowskie Góry Poland
- ► MAHA Russia St. Petersburg Russian Fed.
- MAHA France Strasbourg France
- ► Joint Venture Romaha Belfast Northern Ireland
- ► HETRA International AG Zurich Switzerland
- ► MAHA USA Pinckard AL USA
- ►MAHA China Peking, Shanghai China
- MAHA Japan Tokyo Japan (Rep. Office)
- ► MAHA Singapore Singapore (Rep. Office)
- MAHA South Africa (Pty.) Ltd. Johannesburg South Africa

