

# PERFORMANCE MEASUREMENT TECHNOLOGY DYNAMOMETERS

**MSR 400**  
VP 630012



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The MSR 400 single roller inertia dynamometer for motorcycles is used in workshops for designers, tuners as well as educational institutions. It is perfect for dynamic power measurement with controllable acceleration as well as static power measurement at constant speed. The MSR 400 ensures the greatest measurement accuracy and reproducibility due to its active measurement of the towing power (measurement of the parasitic losses of the dyno, the losses in the vehicle's drive train and the friction losses from the tyres to the roller).

### **PRODUCT DETAILS/ACCESSORIES**

Description:  
Inertia single roller dynamometer for motorcycles, for flush-floor installation

- Test speeds of up to 320 km/h
- Tyre rolling action as it would be on the road
- Tyres are preserved as a result of limited flexing action

High level of flexibility in use due to extensive variety of operating modes, covering all fields of application:

- Static power measurement at constant RPM
- Static power measurement at constant speed
- Static power measurement at constant tractive force
- Dynamic power measurement with adjustable acceleration
- MAHA towing power measurement guarantees the highest degree of accuracy when measuring power: Precision calculation of the parasitic losses of the dynamometer, of the vehicle's drive train and the tyre to roller friction and flex losses
- Tachometer testing with up to ten freely selectable test points
- Distance measurement included
- Stopwatch function for measurement of acceleration between optional speed markers as standard
- Optional load simulation with freely programmable load profile
- Optional driving simulation with freely programmable speed profile
- Option of storing programmed profiles in database

Professional, intuitive-use software for the highest expert standards with:

- continuous graphic display and recording of up to 16 freely selectable parameters per performance measurement cycle on one measurement screen.
- In addition to the current performance measurement cycle, fade-in of up to three stored cycles on the measurement screen for optimum comparability during calibration work
- Two circular dial displays for RPM and speed as well as current oil temperature display, ensuring constant control of key parameters during performance measurement
- Determination of wheel power, power dissipation, engine power and torque
- Standardised extrapolation of motor power in line with DIN 70020, EEC 80/1269, ISO 1585, JIS D 1001 and SAE J 1349

(configuration-dependent)

- Circular dial display of motor power, RPM, speed and tractive force during simulation cycles
- Colour-highlighted user prompts integrated within the circular dial facilitate the accurate reproduction of simulation cycles
- With radio remote control as standard for complete control of the dynamometer from within the vehicle.
- Radio remote control with long-life battery and charging station
- Cooling fan switched on and off either at the control console or with the radio remote control
- Interface box optionally upgradeable with MAHA plug-in analogue input module card with 4 sensor inputs for temperature and pressure sensors or lambda sensors.
- Optional connection of MAHA MGT 5, MDO 2 LON and MET SERIES emission testers
- Optional connection of Krupp/AIC fuel consumption measuring instruments for petrol- and diesel engines

#### MCD 2000 Communication Desk Description

- Robust and multifunctional metal encasement
- Integrated switch cabinet for housing electronic components
- Lockable drawer for keypad and PC mouse and storage compartment for small items of equipment
- VESA standard bracket for holding the all-in-one PC or PC monitor
- Can be extended with optional PC storage compartment or side shelves
- Varnished with high-quality powder coating: window grey, RAL 7040 (switch cabinet) anthracite grey, RAL 7016, (side faces)

#### MCD 2000 Standard Delivery

- MCD 2000 Communication Desk
- Radio remote control for dynamometer operation with battery and charging station
- Cooling fan control
- Measuring program

#### Roller Set Standard Delivery:

- Self-supporting closed inertia roller set
- Varnished with high-quality powder coating: Anthracite Grey, RAL 7016

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## COMMUNICATION DESK TECHNICAL DATA

Desk dimensions (W x H x D)	860 x 1500 x 420 mm
Power supply	3/N/PE 400 V 50 Hz
(Special voltage 1 x 230 V, 50/60 Hz)	
gG fuse	16 A
Weight including packaging	approx. 150 kg
Axle load	1000 kg
Weight	270 kg
Roller set rotating mass	approx. 150 kg
Roller diameter	400 mm
Roller set dimensions (L x W x H)	546 x 770 x 456 mm
Measurement principle	Flywheel test stand
Max. air pressure	7 bar
Max. test speed	320 km/h
Wheel power (dynamic) peak	> 350 kW
Max. tractive force	6.5 kN
Measurement accuracy	
Wheel power measurement	+/- 2% from measured value

## ACCESSORIES

VZ 910177	Industrial PC Compact with Windows 10 -NET PRICE	VZ 990274	Interface Box 1 with support and connection cable with plug-in environment module
VZ 955275	Holder for Compact/Performance PC, suitable for placement inside MCD 2000 desk	VZ 990275	Interface Box 2
VZ 910052	PC Keyboard and Mouse -NET PRICE	VZ 911145	Pressure Temperature Module (CAN P2T2 Module)
VZ 910091	A4 Ink jet colour printer (incl. printer cable) -NET PRICE-	VZ 911240	Analogue Input Module (CAN-AIN4 Module)
VZ 910200	PC Flat screen 24 VGA/DVI/HDMI, (TFT standard) -NET PRICE-	VZ 990438	Analog Outputs at Terminal Strip (4 pcs), f. LPS 3000/MSR
VZ 910192	LCD simultaneous display unit 40 incl. pedestal; HDMI -NET PRICE-	VZ 990211	Trigger Clamp for MGT 5, LPS 3000 with Cable (6 m)
VZ 955244	Rotatable & Folding Wall Holder f. TFT Industrial- or TV Flat Screens (up to 42)	VZ 990276	TEMP Exhaust Temperature Sensor, max. 1000 degrees C, manu factured on customer's request
VZ 910179	HDMI Cable 15 m -NET PRICE	VZ 911152	Connection Package Petrol Emissions for test chamber connection,
VZ 910180	HDMI Cable 30 m -NET PRICE	VZ 911155	Connection Package External PC-Measur. Station Emissions
VZ 910181	HDMI Splitter, 4-port incl. 2 m cable -NET PRICE	VZ 990427	Wideband Lambda/AFR kit for lambda value or AFR display in test stand software
VZ 955274	Side Shelf for Comm. Desk EUROSYSYSTEM MCD 2000	VZ 975652	Calibration Device LPS R50/R100/R 200 universal (Telma CC 160, CC 330)
VZ 955277	External PC Storage Shelf for Communication Desk EUROSYSYSTEM MCD 2000		<b>SUPPLEMENTARY CHARGES</b>
VZ 935244	Eddy Current Brake w. Casing and Control Components	VT 998119	Transportkosten MSR 400
VZ 975011	Mechanic Holding Device for front wheel	VM 996186	Montagekosten ScheitelrollenLPS MSR 400 -AUF ANFRAGE
VZ 980008	Pneumatic Holding Device for front wheel		
VZ 935250	Holding Brake for MSR 400		