

B I C Y C L E   P R O D U C T I O N   T E C H N O L O G Y



**BMD**

## INTRODUCING BMD



**BMD** produces high-quality wheel-building machines and test equipment. Primarily intended for the bicycle industry. BMD has extensive expertise and experience in production techniques and methods.

### Your needs are foremost

BMD's years of experience in various parts of the international industry have given the company an in-depth understanding of the sector's needs and possibilities. Together with your specific wishes and needs, this understanding forms the basic for our products. 3D CAD systems used in the design of BMD products, ensure optimum design and functionality

### Quality and specialization guaranteed

BMD equipment complies with the highest quality requirements, including the European Machinery Directive. BMD has specialized in equipment design, assembly, installation and implementation. Every one of these processes is important in determining the quality of the end product.

### Worldwide distribution

BMD is an internationally oriented company, manufacturing products for companies throughout the world. Enquiries and projects from around the world can be handled and supervised.

## LACING MACHINES



The CC lacing machine, combines in one machine lacing and tightening according to a well-tried method. Standard it works with extremely high rims up to 45 mm from 16" to 28". It standard handles all special lacing patterns, as it is standard. To provide an ergonomic working position for different operators the working height of the machine is adjustable over a range of 200 mm and is placed at a slight angle.

### CC Lacing machines

The "CC" Lacing Machine laces spokes in rims quickly and efficiently. The machine adjusts automatically to different wheel diameters and has numerous extras. The designers of the machine took a careful look at users and their working position. As a result, the wheel is tilted at an ergonomic 10°angle towards the operator. The height can be adjusted over a range of 200 mm. This allows your personnel to work efficiently all day long. Standard features include: complete graphical user interface (GUI), storage of production data and a customised database. Optional: clamping system for special hubs, remote operation and diagnosis, integration in (local) network.

The CC is an automatically convertible lacing machine with numerous extras. Standard features include storage of production data and a large wheel database. The user interface is an operator-friendly system that controls the functions of the machine. In this standardized system, menus are the same for BMD lacing and truing machines and give the operator full control over the machine's various functions.

## LACING MACHINES



**Wheel diameter:** 16" to 28"  
(special diameters on request)

**Dimensions:** 1700x1400x1000  
mm (w x h x d)

**Weight:** 350 kg

**Air pressure:** 5 bar operating  
pressure

**Air consumption:** 100 l/min

**Power supply:** 230 V, 50 Hz,  
other supply possible

**Power consumption:** 1,0 kW  
maximum

## TRUING MACHINES



## Product Specifications CC Lacing Machine

- Output, 35 - 60 wheels per hour (depending on operator and components)
- Automatic switching between different wheel diameters
- Storage of production data such as processing time, quantity
- Software module calculates recommended spoke length and stores the information in the current wheel info
- Ergonomically sound working position for the operator
- Standard and programmable lacing methods
- Graphical user interface

The Obelisk is a fast, highly user-friendly truing machine with two simultaneously operating nipple keys. The use of modern techniques, such as brush less servomotors without gearbox, and digital control, mean that the Obelisk II can be set with great accuracy. With a production speed of 40 to 100 wheels per hour, the Obelisk II is one of the fastest machines of its type.

In the Obelisk truing machine a stabiliser module is incorporated in the housing of the truing machine. This set-up allows an extra operation without extra handling, wheel buffering or logistics.

Simple operation by means of graphical user interface. The graphical user interface makes operating virtually intuitive. Use of computers enables collection of production data over a long period. The data can also be transferred to your company production system via a network (LAN) connected to the machine. Remote operation and diagnosis are also possible.

## Low maintenance

The Obelisk's brush less servomotors without gearbox and the digital servo-control guarantee a maintenance-free, accurately controllable drive to the nipple keys, with continuously adjustable torque. This means that the wheel quality can be more accurately supervised, thus substantially increasing the quality. The non-contact system for measuring wheel hop and wobble reduces maintenance even further.

**Capacity:**

40 to 100 wheels per hour

**Wheel diameter:** 16" to 28"  
(special diameters on request)**Dimensions:** 1,2 m x 1,6 m x 1,0 m  
(w x h x d, ex. buffers)**Weight:** 500 kg**Air pressure:** 5 bar operating pressure**Air consumption:** 100 l/min.**Power consumption:**  
1,0 kW maximum**Power supply:**  
single-phase 230 V, 50 Hz**Technical specifications**

Automatic setting for different wheel diameters, rim height (deep-V 50 mm) and spoke angle, detection of front, rear and derailleuer wheels, adjustment of in feed and out feed channel, storage of production data (wobble, hop, processing time, quantity), simple operation via graphical user interface (GUI), brush less (no wearing) servo-motors for the nipple keys, AC digital servo-amplifier (accurate control), continuously adjustable torque.

**Wheel Stabiliser in truing robot.**

The patented BMD stabiliser module can be incorporated in the Obelisk II truing machine in the same small housing. This set-up allows stabilising without extra handling, wheel buffering or transport of the wheel. The result is a much higher quality wheel with increased lifetime stability.



BMD offers a series of modern test rigs. In compliance with the CE, DIN PLUS. Affordable testing systems offering prompt test results.

**Brake-testing machine.**

- High-speed linear servo drive, no pneumatics.
- Performs several times better than any pneumatically driven system.
- Rapid loading and clamping system
- Dry and wet test in encapsulated machine
- Data recording and logging

**Drum testing machine from complete bicycles.**

- Testing a fully loaded bicycle
- Database with 32 separate waypoints
- Independent speed, time or distance setting per waypoint
- Safety switches to the parts ensure full stop at material failure.
- Protective frame around the whole bicycle.

Testing is becoming increasingly important. It is an important tool to enable and test new developments of parts. Consider the long-term liability for manufacturing defects. It is therefore important to subject your products to extensive endurance tests.

Each of these rigs is able to perform tests and operates much faster than the traditional pneumatic testing systems. High quality components are used for controlling and measuring within the machines.

**CONTACT BMD**



## More information?

Want to know more about BMD or our products? A phone call or fax is all it takes. We'll be pleased to send you our complete product information or make an appointment for a personal discussion - conversation.

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