



High Productivity and Flexibility Solutions

VOUMARD VM 110 Series

Flexible ID/OD grinding machine
for medium sized work pieces in small or high volume production



kellenberger.com



VOUMARD VM 110 Series

Latest Technology as Standard –
Highest Precision for all Materials and Industries



The **VOUMARD VM 110** is a flexible tool for ID/OD grinding operations with small to medium sized work pieces in small batches as well as in volume production.

Typical applications are grinding operations on parts for:

- Hydraulic components
- Bearings
- Fuel injection systems

Equipment:

- Four position NC indexing spindle turret (for maximum flexibility) or single spindle stock with two parallel spindles (for highest throughput) permits multiple ID/OD grinding operations with different grinding wheels on the same work piece
- High precision X- and Z-axis
- Manual or numerical controlled B-axis for angular swivel of the workhead for taper grinding

- Work head available for either chuck workholding or with devices for centerless grinding
- Various dressing tools for conventional and CBN grinding wheels

Loading / unloading options

- Manual loading/unloading
- Automatic loading/unloading with double arm device
- Gantry loader
- Robot

Control:

- Fanuc CNC with proprietary VOUMARD graphical user interface
- Offline programming tool on external computer minimizes downtime when creating new grinding sequences
- Remote diagnosis system for quick trouble shooting



Four positions turret



Typical example of external grinding

VOUMARD VM 110 Series – The Main Technical Characteristics

Internal grinding diameter		up to 150 mm
Work pieces max. external dimensions	a) in chucking, manual loading b) in chucking, automatic loading c) in centreless	160 x 80 mm 120 x 80 mm 160 x 50 mm
Chucking equipment	max. chuck dia. max. compounded weight programmable rotation speed axial clamping force	250 mm 50 daN/100 mm 0 ÷ 1500 min ⁻¹ 600 daN
X and Z axes	useable X travel useable Z travel resolution max. traverse speed	220 mm 300 mm 0.1 µm 20 m·min ⁻¹
Centre height	over workhead table over wheelhead table	130 mm 245 mm
Floor space	L x D x H	2000 x 1560 x 2100 mm
Weight		approx. 2800 kg

All informations contained in this document are subject to change without notice

Internal and External Grinding Perfection

VOUMARD high productivity grinding machines are designed for flexible ID and OD grinding operations. Highly accurate chucks and centerless work holding solutions allow for processing work pieces of almost every geometry and performing multiple internal and external grinding operations in a single clamping.

The VOUMARD machine range provides every customer with both high productivity and high flexibility grinding solutions. Our machines are appreciated

worldwide and integrated in production lines or manufacturing workshops of market-leading companies in major industry segments like automotive, aerospace, bearing, tooling and spindle manufacturing.

VOUMARD systems are suitable for a large variety of parts manufactured in large batches (like diesel common rail and hydraulics-pneumatics components) or low quantities (like high precision bearings and machines spindles components).

Competence and a world-wide partnership



Over the years the Hardinge Group has constantly evolved its range of products and areas of activity. As globally active and diversified company, the Hardinge Group has production sites in North America, Europe and Asia.

In addition to the development and construction of turning machines and work-holding fixtures, with Bridgeport the Hardinge Group also has a manufacturer of machining centers.

The Hardinge Group is a major global provider of customer-specific solutions for grinding applications. The Hardinge Grinding Group encompasses all activities in the areas of cylindrical, surface and jig grinding, and includes the well known brands of Kellenberger, Hauser, Tschudin, Jones & Shipman, Usach and Voumard. The Hardinge Grinding Group has a global network of partners with trained staff in sales, service and application engineering. This guarantees competent advice and support for evaluation, purchase, and use of the grinding systems.

L. Kellenberger & Co. AG

Heiligkreuzstrasse 28
9008 St.Gallen / Switzerland
Phone +41 (0) 71 242 91 11
Fax +41 (0) 71 242 92 22
www.kellenberger.com
info@kellenberger.net

L. Kellenberger & Co. AG

Längfeldweg 107
2500 Biel-Bienne 8 / Switzerland
Phone +41 (0) 32 344 11 52
Fax +41 (0) 32 344 13 93
www.kellenberger.com

Sales and Service in China:

Hardinge Machine (Shanghai) Co., Ltd

No.1388 Kangqiao RD (East),
Shanghai, China 201319
Phone +86 21 3810 8686
Fax +86 21 3810 8681
Service:
Phone +86 21 3810 8689
Sales:
Phone +86 21 3810 8686
EXT 8403
www.hardinge.com.cn

Sales and Service in Great Britain and The Republic of Ireland:

Jones & Shipman Hardinge Ltd

Murrayfield Road
Braunstone Frith Industrial Estate
Leicester LE3 1UW/England
Phone +44 (0) 11 62 013 000
www.jonesshipman.com
info@jonesshipman.com

Sales and Service in USA and Canada:

Hardinge Inc.

One Hardinge Drive
Elmira, New York 14902-1507 USA
Phone +1 (607) 734 2281
Fax +1 (607) 735 0570
www.hardinge.com
info@hardinge.com

Usach Technologies Inc.

1524 Davis Road
Elgin, IL 60123 USA
Phone +1 (847) 888 0148
Fax +1 (847) 888 0144
www.usach.com
info@usach.com

Your local KELLENBERGER Partner:

