

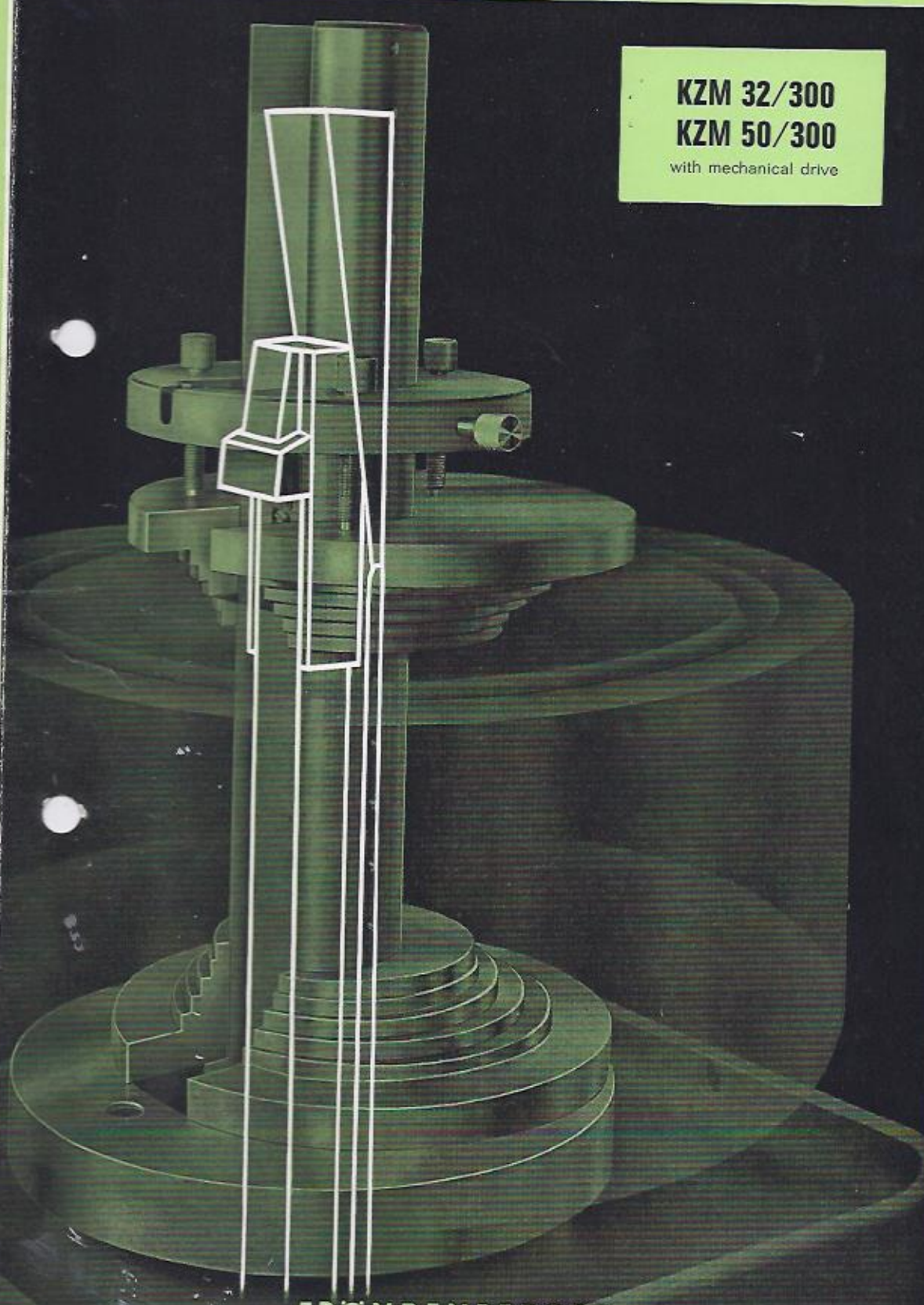
FRÖMAG

KEYSEATING MACHINES

KZM 32/300

KZM 50/300

with mechanical drive



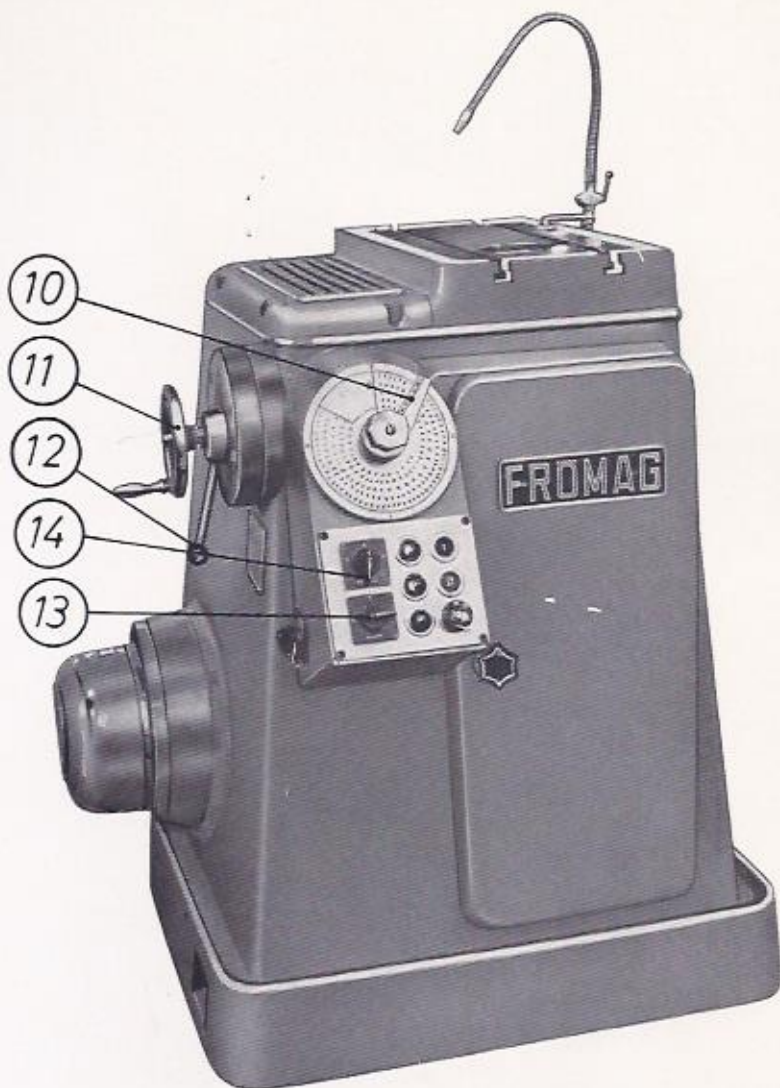
**FRÖNDENBERGER
MASCHINEN- UND APPARATEBAU-GESELLSCHAFT M. B. H
FRÖNDENBERG / RUHR**



... Office
204 TOORAK ROAD,
SOUTH YARRA, 24 7630

FROMAG Keyseaters KZM 32/300 and KZM 50/300

- 10 setting of keyway depth
- 11 handwheel for the feed
- 12 lever for feed adjustment
- 13 main switch
- 14 speed switch



Machine arrangement. All machine movements are controlled by a standard flange-type motor which is coupled directly to a worm gear and a crank mechanism.

The cutter relief is compulsorily controlled.

The feed increment movement is interlocked with the cutter relief, so that both actions are carried out during the same machine movement.

The cutting speed can easily be controlled in three different steps 20, 30, 60 strokes/min., (15 and 30 strokes/min. with KZM 32/300).

The feed control together with the other controls is fitted to the left top part of the machine in such a manner as to allow comfortable re-setting of the stroke.

The lubrication is effected by a gear pump through a magnetic filter. The oil pressure in the system is controlled by a special switch.

The electrical equipment is in a switch cabinet in the rear of the machine, containing all relays, connection points and fuses. The standard equipment is for A. C. supply, 380 volts with neutral phase, 50 cycles. On request the electrical equipment can be delivered for other current supplies and voltages.



Dividing Attachment TA 80

A tilting table can be supplied for keywaying taper bores parallel to the bore wall. It is mounted on the table of the machine and tilts up to 6°.



For multiple splines we supply a Dividing Attachment. A rim gear with 120 teeth serves as dividing plate. The swivel plate carrying the work workpieces is mounted on ball bearings. An easy rotary movement ensures maximum dividing accuracy. To safeguard against faulty dividing, cover plates for various divisions can be supplied on request. The following divisions can be obtained: 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 30, 40, 60, 120. On request any other dividing plate is available.

The dividing attachment is

- type TA 80 for bores up to 3 1/4" dia.
- type TA 230 for bores up to 9 1/16" dia.

W. E. SYKES LTD.
Melbourne Offices
204 TOORAK ROAD,
SOUTH YARRA, 24 7630

Keyseating Machines

KZM 32/300

KZM 50/300

| Capacity | Width of keyway cut | | 1/8" - 1 1/4" | 1/8" - 2 1/4" | | |
|--------------------------|--|-----------------------|-----------------|------------------|------------------|------------------|
| | | Maximum keyway length | 11 3/4" | 11 3/4" | 11 3/4" | |
| | Bore diameter | 1/2" - 11 3/4" | 1/2" - 11 3/4" | 1/2" - 15 3/4" | | |
| | Maximum cutting pull | 5,500 lbs. | 5,500 lbs. | 7,700 lbs. | | |
| | Strokes per minute | 15-30 | 15-30 | 20-30-60 | | |
| | Loading capacity | 22,000 lbs. | 22,000 lbs. | 22,000 lbs. | | |
| Drive | Motor | | 3.0 3.5 | 4.5 4.0 4.5 | | |
| | Speed of motor | | 750, 1500 | 1000, 1500, 3000 | | |
| Measurements and weights | Floor space required | | 34" x 34" | | | |
| | Height of machine, without equipment | | 42" | | | |
| | Net weight, without equipment | | 1,915 lbs. | | | |
| | Gross-weight, packed for road/rail transport | | 2,100 lbs. | | | |
| | Gross-weight, packed for exportation | | 2,500 lbs. | | | |
| | Size of case containing machine | | 59" x 51" x 57" | | | |
| | Size of case containing equipment | | 66" x 26" x 24" | | | |
| Standard Tooling Sets | | 50 a | 60 a | 70 a/300 | 80 a/300 | 90 a/300 |
| | Width of keyway | 1/8" - 3/16" | 3/16" - 7/16" | 7/16" - 7/8" | 7/8" - 1 1/4" | 1 1/4" - 2 1/4" |
| | Bore diameter | 1/2" - 3/4" | 3/4" - 1 3/4" | 1 3/4" - 3" | 3" - 5" | 5" - 9" |
| | Length of keyway | 4" | 5 7/8" | 11 3/4" | 11 3/4" | 11 3/4" |
| | Diameter of cutter guide bar | 1/2" | 3/4" | 1 3/4" | 2 1/2" | 3 3/8" |
| | Number of cutter holders | 1 | 1 | 2 | 1 | 1 |
| | Number of centring bushes | 1 set = 2 | 1 set = 2 | 1 set = 2 | 2 sets = 4 | 3 sets = 6 |
| | Range of bore diameters for centring bushes | 5/8" - 3/4" | 7/8" - 1 3/4" | 2" - 3" | 3" - 5" | 5" - 9" |
| | Type of cutter | A | A | B/P | P | P |
| | Net weight | 13 lbs. | 15 lbs. | 29 lbs. | 55 lbs. | 100 lbs. |
| Extra Equipment | Wedge inserts for taper work | - | 1 | 1 | 1 | 1 |
| | Adjustable centring bushes | - | - | 1 set = 2 | 1 set = 2 | 1 set = 2 |
| | Range of bore diameters | - | - | 3 1/8" - 7 7/8" | 5 1/8" - 11 3/4" | 7 3/4" - 15 3/4" |

1 Cutter Grinding Attachment to suite all widths of cutters.