

## OUTLINE

This is a machine specialized only in cutting off the gap portions with the cutter trindling in the 3 directions of X, Y and Z in the semi-automatic mode.

The ring set in the mandrel can be flowed to the next process as it is.

## 94500 Group

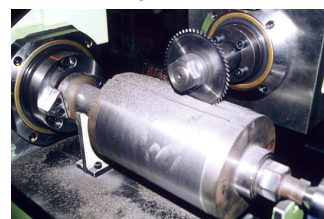
CNC SEMI AUTOMATIC PISTONRING  
MILLING MACHINE

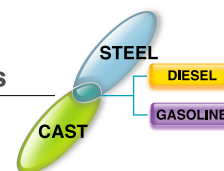
GM-2

7/16-94500

## GAP MILLING

|                     |                         |        |
|---------------------|-------------------------|--------|
| ● Use               | DIESEL / GASOLINE       |        |
| ● Material          |                         | C      |
| ● Condition         |                         | D      |
| ● O.D.Range         | $\phi 70 \sim \phi 160$ |        |
| ● Chucking Breadth  | 180mm(                  | p.c.s) |
| ● 1-cycle processes | MULTI                   |        |
| ● Machining Profile |                         |        |





# PISTONRING MILLING MACHINE 11311 Series List of Specifications

| 仕様項目                           |                                     | 11311 7/16-94500                |                            |  |
|--------------------------------|-------------------------------------|---------------------------------|----------------------------|--|
|                                |                                     | GM-2                            |                            |  |
| SPEC SHEET                     |                                     |                                 |                            |  |
| Type of machining              |                                     | Gap milling                     |                            |  |
| No. of work clamps             |                                     | Multiple                        |                            |  |
| Method of work clamp           |                                     | Mandrel on both sides           |                            |  |
| Work head side                 |                                     | Mandrel on both sides           |                            |  |
| Tailstock side                 |                                     | Tailstock                       |                            |  |
| Closing sleeve                 |                                     | ×                               |                            |  |
| Structure                      |                                     | Horizontal type                 |                            |  |
| Operation mode                 | Full automatic                      | ○                               |                            |  |
|                                | Semi automatic                      |                                 |                            |  |
| Machining count per cycle      |                                     | Multiple                        |                            |  |
| S P E C I F I C A T I O N S    | Machining capacity                  | Ring nominal diameter( $\phi$ ) | 70~160                     |  |
|                                |                                     | No. of heads                    | 1                          |  |
|                                | Work head                           | Motor output(kW)                | 8rpm                       |  |
|                                |                                     | Rotation speed(rpm)             | AC servo motor +Worm wheel |  |
|                                | Tool head                           | No. of heads                    | 1                          |  |
|                                |                                     | Motor output(kW)                | 1.5                        |  |
|                                |                                     | Rotation speed(rpm)             | 150~250                    |  |
|                                | Machine dimensions                  | L × D × H(mm)                   | 1725×1560×1985             |  |
|                                | Machine weight(kg)                  |                                 | 2500                       |  |
|                                |                                     |                                 |                            |  |
| B a s i c<br>s t r u c t u r e | NC controlled axes                  | X                               | 1                          |  |
|                                |                                     | Y                               | 1                          |  |
|                                |                                     | Z                               | 1                          |  |
|                                |                                     | C                               | 1                          |  |
|                                | Loader                              |                                 | ×                          |  |
|                                | Unloader                            |                                 | ×                          |  |
|                                | Stocker                             | IN stocker                      | ×                          |  |
|                                |                                     | OUT stocker                     | ×                          |  |
|                                | Hydraulic unit                      |                                 | ×                          |  |
|                                | Pneumatic unit                      |                                 | ○                          |  |
|                                | Forcible lubrication unit for slide |                                 | ○                          |  |
|                                | Electric system                     | Control panel                   | ○                          |  |
|                                |                                     | NC unit                         | ○                          |  |
|                                | S e c o n d a r y                   |                                 | ×                          |  |
|                                |                                     |                                 | ○                          |  |
| Standard attachments           | Cutter arbor                        |                                 | ○                          |  |
|                                | Leveling bolt & plate               |                                 | ○                          |  |
|                                | Adjustment tool                     |                                 | ○                          |  |
|                                | Machine instruction manual          |                                 | ○                          |  |
|                                | NC instruction manual               |                                 | ○                          |  |
| Basic options                  |                                     |                                 |                            |  |
| Added options                  | CE marking                          |                                 | ○                          |  |
| options                        | C V                                 | Safety cover                    | ○                          |  |
|                                |                                     |                                 |                            |  |
|                                | A I R                               | Air blow                        | ○                          |  |
|                                |                                     |                                 |                            |  |
|                                | V                                   | Dust collector                  | ○                          |  |
|                                |                                     | Cover & hood for dust collector | ○                          |  |
|                                | H Y D                               | Fan cooler for hydraulic unit   | ×                          |  |
|                                |                                     | Heater for hydraulic unit       | ×                          |  |
|                                |                                     | Oil controller                  | ×                          |  |
|                                | E                                   | 3-lamp signal tower             | ○                          |  |
|                                |                                     | 4-lamp signal tower             | ○                          |  |
|                                |                                     | Air conditioner                 | ○                          |  |
|                                |                                     | Jig                             | ○                          |  |
|                                |                                     | Cutter                          | ○                          |  |
|                                |                                     | Cutter arbor                    | ○                          |  |
|                                |                                     | Spare part 1                    | ○                          |  |
|                                |                                     | Spare part 2                    | ○                          |  |

Added options mark

CV : Cover CL : Coolant unit MC : Mist collector D : Dressing unit G : Measuring unit AIR : Pneumatic unit V : Dust collector HYD : Hydraulic unit  
E : Electric system LUB : Lubricator