

# YSG-618/52 A1S

## UNIQUE PRECISION TECHNOLOGY

- Efficient slot grinding
- Automation
- Greater accuracy
- Longer accuracy life

- Advanced surface roughness
- Higher productivity
- Easier to operate
- Heavy duty grinding

### FEATURES:

#### ■ RIGID CONSTRUCTION

All main element are made of "Meehanite GC275" castings which have been annealed stress released for long lasting accuracy and stability. Rib reinforced box type construction of all main parts ensure high rigidity.

#### ■ AUTOMATIC LUBRICATION SYSTEM

The lubrication pump works as soon as the main power is switched on. Lubrication system continuously floods ways, vertical lead screw and its' bearing and gears.

#### ■ ADVANCE HYDRAULIC CIRCUIT DESIGN

Improved hydraulic circuit provide vibration-free reversing motion of table, easier to handle table by handwheel when table hydraulic feed is switched off. External, independent hydraulic tank provides with no transfer of heat to the base.

#### ■ ANTI-DUST AND WATER-PROOF DESIGN

All ways and electric cabinet are well protected free from dust and water to ensure consistent accuracy life.

#### ■ TABLE HYDRAULIC FEED

Speed range from 1 m/min to 25m/min (8 fpm-83fpm) provides easy operation of the machine. Stroke is adjustable by a pair of dogs in front side of the table. Non-contact proximity Switch are used.

#### ■ SUPER PRECISION

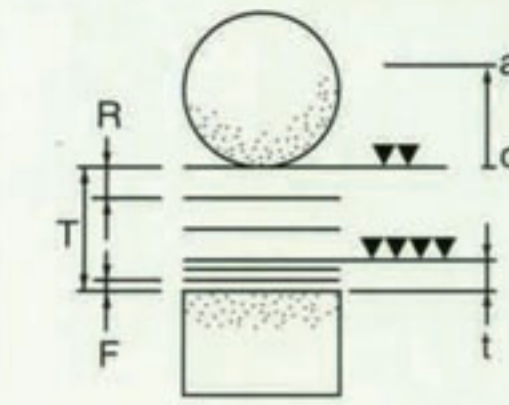
Consistent temperature control unit (room temperature  $\pm 1.2^{\circ}\text{C}$ ) for hydraulic system is provided as an option for preventing thermal distortion of the machine when super precision is required.

#### ■ AUTOMATIC OPERATION

A combination of precision ball screw and a electric motor driving system provides quick, smooth automatic cross feed. Advanced stepping motor driving system provides easy, accurate, and efficient control of automatic vertical feed. See detail "NC features" on the right page.

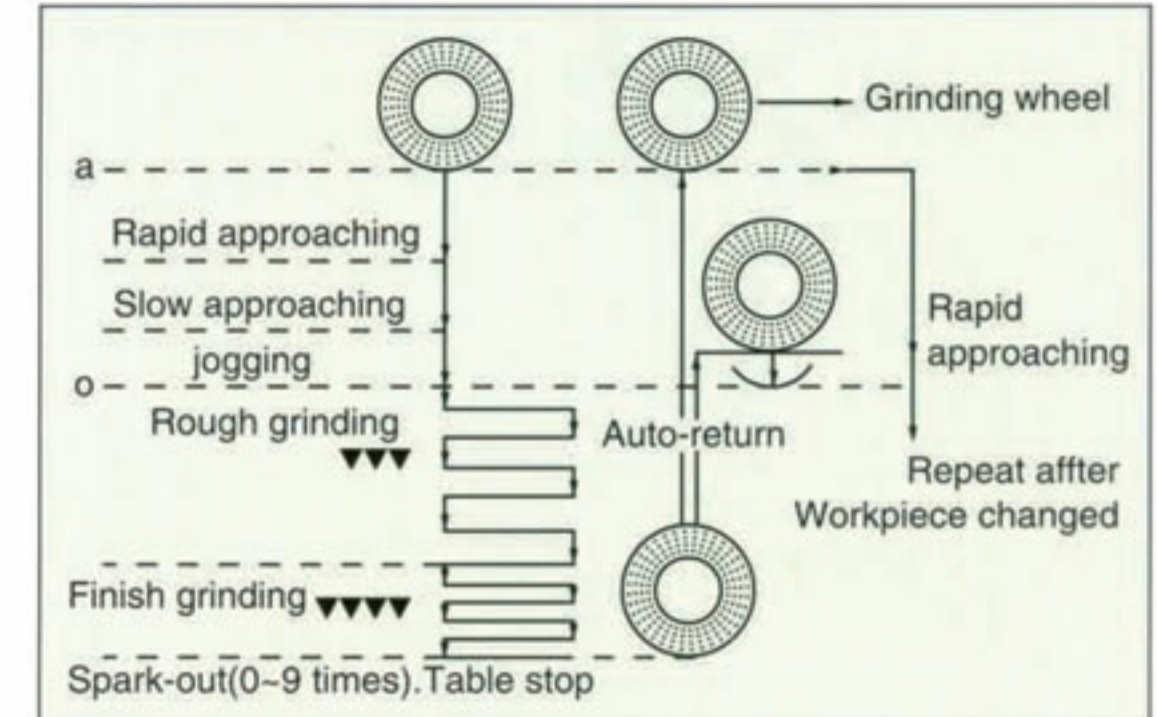


YSG-618 AIS



- T: Total stock removal: 0.001-999.999mm
- R: Coarse feed rate: 0.001-0.099mm
- F: Fine feed rate: 0.001-0.099mm
- t: Fine feed stock removal: 0.001-0.099mm
- a: Elevation amount from zero point: 0-999.999mm

### AUTOMATIC GRINDING CYCLE



### FEATURES OF NC SYSTEM (VERTICAL Y AXIS):

1. Digitally type in the total stock removal and feeding conditions which needs no calculation. And there is no residual exist.
2. "Dialogue" data input system: Printed diagram on main panel combines with high-lighted instruction on the display instructing the operator step by step.
3. Coarse and fine feed process combine with spark out process (maximum to 9 passes) to ensure high precision and highefficiency of grinding work.
4. Position of vertical axis is showing on the display all the times for monitoring the wheel spindle. Zero set and zero return are also available for easy handing.
5. There are 4 kinds of jog functions:
  - 1) Rapid movement:230mm/min
  - 2) Semi-rapid movent:29mm/min
  - 3) Default downfeed (Set-up by F value)
  - 4) 0.001mm down feed.
6. Transverse and plunge automatic cycle are available.
7. 2 selections of feeding for plunge mode.
  - 1) Left side feeding.
  - 2) Both side feeding.
8. 2 selections for ending, mode.
  - 1) After cycle finished, buzzer actuated.
  - 2) Wheel spindle raise to "a" position, table stop to right, cut of main power of the machine.



Big volumn drain device. Install externally for easy accessing and cleaning.



Rib reinforced box type base, with enlarged double Vee ways to ensure the best fundation of accuracy.



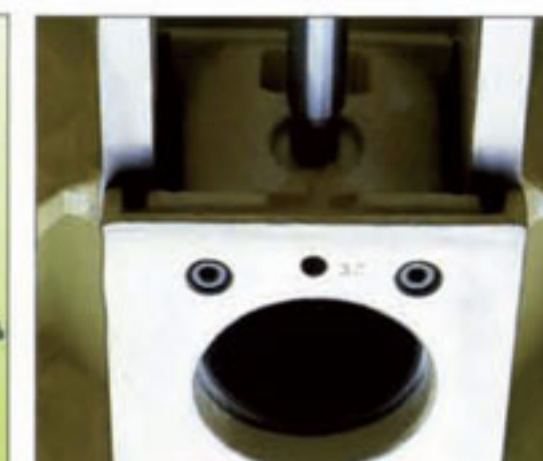
Delicate saddle clamping device is provided for shoulder and slot grinding.



Non-contact proximity switches and dogs for cross feed stroke adjustment.



Precision bearings (ABEC7) in cartridge type spindle unit, with direct drive motor, V3 vibration class.



Precision hand scraped wheel-head unit and its ways with continuous lubrication.



Control box with 2 revolving joints, position of the box can be adjusted easily for operation.



Integrated switches and push buttons for easy handling.