# AGRA

HIGH PRECISION
HANDFEED SURFACE GRINDER
HYDRAULIC SURFACE GRINDER





# **HIGH PRECISION**

#### **FEATURES**

#### **MACHINE CONSTRUCTION**

The main parts of the machine such as base, column & saddle are made of "MEEHANITE" castings which are stress released by annealing to ensure stable rigidity and high accuracy and to extend machine life.

#### SLIDEWAYS (BALL WAYS OR TURCITE WAYS)

Both longitudinal & cross slideways are precisely handscrapted and laminated with TURCITE B providing a smooth movement and ever low wearing, mostly suitable for FORMING grinding.

Ball ways are available for hand feed grinder ASG-618B/818Bonly. Finely selected steel balls are utilized for a light movement so as to maximize working efficiency.

#### SPINDLE

The precision cartridge spindle, greased & free of maintaince, is incoperated with 4 pieces of preloaded class 7 (P4) super precision angular contact ball bearings in a room with constant temperature offering a stable & nose-free rotation so as to extend its longivity. The spindle is directly mounted onto the motor for direct drive. It not only provides a high torque but also vibration free under heavy

#### TABEL REVERSE DEVICE (1A/2A/3A/AD)

With application of proximity switches, the table stroke can be set and adjusted easily according to the workpiece size to enhance grinding efficiency. Noise-free traverse.

#### **AUTO LUBRICATION SYSTEM**

The automatic lubrication system is furnished as standard to provide ample lubrication on all slideways and leadscrews enabling a smooth movement so as to minimize wearing possibility.

#### RAPID VERTICAL FEED (3A/AD-OPT FOR 1A/2A)

Rapid vertical feed is driven by an AC motor to maximize working efficiency.

#### CENTRALISED CONTROL PANEL

All buttons & switches are situated on the control panel for an easy and convenient operation.

#### **AUTOMATIC DOWNFEED: (618AD/818AD)**

The automatic downfeed is executed by PLC control featuring a variety of performances such as, 2-speeds downfeed (rapid & slow speeds), micro down-feed, zero return setting after cycle grinding, surface or plunge grinding, left side/right side/both sides downfeed, etc to accommodate different grinding demands.



# SURFACE GRINDER

### **OPTIONAL ACCESSORIES AT EXTRA COSTS**



Electromagnetic chuck



Permanent mag. Chuck



Inclinable permanent magnetic chuck



Dust collector



Coolant system



Coolant & dust unit



Diamond dresser



Splash guard



Balancing stand



Manual overhead dressing attachment



Manual demagnetizer



Chuck control with auto demagnetizer



Spare wheel flange



Halogen lamp



Radius forming attachment



Precision vise



Punch former



Digital read out



Optidress-E



Diaform wheel forming attachment

## STANDARD ACCESSORIES



- Grinding wheel with flange
- Wheel extractor
- Wheel wrench
- Balancing arbor
- Auto lube system
- Tool box with adjusting tools
- Levelling screws with blocks
- Operation manual with parts list



CDECIEICATION.

#### ★ HS-2µm precision handscrape model on request

S:TURCITE-B SLIDEWAYS B:BALL SLIDEWAYS AD:3A+AUTO DOWNFEED

VAYS 1A:LONG. HYDRAULIC TRAVERSE
2A:1A+MOTORIZED CROSS FEED
3A:2A+RAPID DOWNFEFD

| SPECIFICATION:           |  |                   | AD:3A+AUTO DOWNFEED 3A:2A |  | +RAPID DOWNFEED                          |
|--------------------------|--|-------------------|---------------------------|--|--|
| DESCRIPTION              | MODEL<br>DN                                      | ASG- 618S<br>618B | ASG-818B                  | 618/1A<br>618/2A<br>ASG- 618/3A<br>618AD | 818/1A<br>ASG: 818/2A<br>818/3A<br>818AD |
| General<br>Capacity      | Table size                                       | (6x18")           | (8x18")                   | (6x18")                                  | (8x18")                                  |
|                          | Max. grinding length                             | (18-3/4")         | (18-3/4")                 | (18-3/4")                                | (18-3/4")                                |
|                          | Max. grinding width                              | (16-1/3")         | (8.6°)                    | (6-1/3")                                 | (8.6")                                   |
|                          | Distance from table surface to<br>spindle center | (15-3/4")         | (15-3/4")                 | (15-3/4")                                | (15-3/4")                                |
|                          | Standard mag chuck size                          | (6x18")           | (8x18")                   | (6x18")                                  | (8x18")                                  |
| Longitudinal<br>Movement | Manual travel                                    | (19")             | (19")                     | (19")                                    | (19")                                    |
|                          | Hydraulic traverse                               | -                 |                           | (18-15/16")                              | (18-15/16")                              |
|                          | Table speed (infi variable)                      | -                 | -                         | (1/8~1")                                 | (1/8~1")                                 |
| Cross<br>Movement        | Manual travel                                    | (7") -            | (9-1/2")                  | (7")                                     | (9-1/2")                                 |
|                          | Rapid traverse (2A/3A/AD)                        |                   | -                         | 48inch/min                               | 48inch/min                               |
|                          | Auto increment feeds (2A/3A/AD)                  | -                 | -                         | (1/16"~1/3")                             | (1/16"~1/3")                             |
|                          | Handwheel per graduation                         | (0.001")          | (0.001")                  | (0.001")                                 | (0.001")                                 |
|                          | Handwheel per revolution                         | (0.2")            | (0.2")                    | (0.2")                                   | (0.2")                                   |
| Vertical<br>Downfeed     | Rapid traverse (3A)                              | -                 | -                         | (9"/min)                                 | (9"/min)                                 |
|                          | Auto downfeed (AD)                               | -                 |                           | (0.00003~0.004")                         | (0.00003~0.004")                         |
|                          | Handwheel per graduation                         | (0.0002")         | (0.0002")                 | (0.0002")                                | (0.0002")                                |
|                          | Handwheel per revolution                         | (0.05")           | (0.05")                   | (0.05")                                  | (0.05")                                  |
| Grinding<br>Wheel        | Wheel size (dia X width X bore)                  | (7x2/3x1-1/4")    | (7x2/3x1-1/4")            | (7x2/3x1-1/4")                           | (7x2/3x1-1/4")                           |
|                          | Spindle speeds (60C/50C)                         | 3600/3000 rpm     | 3600/3000 rpm             | 3600/3000 rpm                            | 3600/3000 rpm                            |
| Motors                   | Spindle motor                                    | 1.5HP             | 2 HP                      | 1.5 HP                                   | 2 HP                                     |
|                          | Cross feed motor (2A/3A/AD)                      | -                 | -                         | 1/6 HP                                   | 1/6 HP                                   |
|                          | Elevating motor (3A/AD)                          | -                 | -                         | 1/4 HP                                   | 1/4 HP                                   |
|                          | Hydraulic motor                                  | - 1               |                           | 1HP                                      | 1HP                                      |
| Weight                   | Net (approx)                                     | (1584 lbs)        | (1980 lbs)                | (1974 lbs)                               | (2530 lbs)                               |
|                          | Gross (approx)                                   | (1870 lbs)        | (2860 lbs)                | (2233 lbs)                               | (2860 lbs)                               |
| acking Size              | length X width X height                          | (55"x45"x78")     | (57"x49"x78")             | (63"x45"x78")                            | (57"x49"x78")                            |

NOTE:We reserve the right to modify the specs of this brochure without prior notice.

## **ACRA MACHINERY, INC.**

2050 N. DURFEE AVE. S. EL MONTE, CA91733 TEL:(800)225-4631 FAX:(626)279-1540

E-MAIL:acramach@pacbell.net