

Clausing Precision 618 & 818 Series Surface Grinders

- Manual Surface Grinders
- Longitudinal Hydraulics and Motorized Crossfeed Surface Grinders
- Longitudinal Hydraulics, Motorized Crossfeed and Motorized Rapid Up/Down Surface Grinders



Model CSG-3A818 shown with optional dresser and coolant/dust system

Outstanding Features...

■ High Precision Cartridge Spindle

High precision cartridge type spindle is supported by 2 preloaded precision angular contact ball bearings & one NN type roller bearing and driven by V3 class motor that allows highly accurate grinding performance. (CSG-618/818 series driven by 2HP motor).

■ Anti-wear Guide Ways

The saddle rests on precision hand-scraped double V ways & the table rests on precision hand-scraped V & flat ways which are coated with 'TURCITE-B'. These guide ways are equipped with auto lubrication to resist wear for lasting accuracy & dampening. CSG-618/818 hand feed grinders have ballways between table and saddle.

■ Rigid Cast Construction

Machines are constructed of high grade cast iron with heavy walls & reinforced ribs to provide excellent rigidity and dampening.

■ Enlarged Column & Base

Enlarged column & base create high stability & rigidity. The maximum height is 18" (460mm) from table surface to the center line of spindle.

■ Auto Lube System

Automatic lubrication system is supplied as standard to ensure sufficient lubrication to lead-screws & guideways for greater longevity.

■ Timing Belt Table Drive

Handfeed models (CSG-618/818 only) use a timing belt for the table drive which has enclosed high tensile steel cores that ensure more smooth table movement and longevity. The table handwheel can be indexed to 9 different positions, without backlash, for more convenient operation.

■ Longitudinal & Cross Drive

For all models, except CSG-618 & 818 handfeed, the longitudinal movement is driven by a hydraulic system; On 2A and 3A series, the cross movement is driven by motor for more accurate increment feeding.

2A: Longitudinal Hydraulics and Motorized Crossfeed

3A: Longitudinal Hydraulics, Motorized Crossfeed and Motorized Rapid Up/Down

Specifications

| Model | CSG618 | CSG2A618 | CSG3A618 | CSG818 | CSG2A818 | CSG2A818 |
|--|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Table Size | 6" x 18" (152 x 460mm) | 6" x 18" (152 x 460mm) | 6" x 18" (152 x 460mm) | 8" x 18" (203 x 460mm) | 8" x 18" (203 x 460mm) | 8" x 18" (203 x 460mm) |
| Max. grinding length (longitudinal) | 19" (480mm) | 19" (480mm) | 19" (480mm) | 19" (480mm) | 19" (480mm) | 19" (480mm) |
| Max. grinding width (crosswise) | 7" (179mm) | 6.61" (168mm) | 6.61" (168mm) | 9.375" (238mm) | 9" (228mm) | 9" (228mm) |
| Max. distance from table surface to spindle centerline (standard column) | 18" (460mm) | 18" (460mm) | 18" (460mm) | 18" (460mm) | 18" (460mm) | 18" (460mm) |
| Standard magnetic chuck size | 6" x 18" (150 x 450mm) | 6" x 18" (150 x 450mm) | 6" x 18" (150 x 450mm) | 8" x 18" (200 x 450mm) | 8" x 18" (200 x 450mm) | 8" x 18" (200 x 450mm) |
| Longitudinal movement of table | | | | | | |
| Max. travel (hydraulic) | - | 19" (480mm) | 19" (480mm) | - | 19" (480mm) | 19" (480mm) |
| Max. travel (manual) | 20" (510mm) | 20" (510mm) | 20" (510mm) | 20" (510mm) | 20" (510mm) | 20" (510mm) |
| Table speed infinitely variable | - | 196"-984"/min. (5-25 m/min.) | 196"-984"/min. (5-25 m/min.) | - | 196"-984"/min. (5-25 m/min.) | 196"-984"/min. (5-25 m/min.) |
| Crossfeed transverse travel | | | | | | |
| Auto transverse increment | - | .04" - .4"(1-10mm) | .04" - .4"(1-10mm) | - | .04" - .4"(1-10mm) | .04" - .4"(1-10mm) |
| Max. auto transverse travel | - | 7" (180mm) | 7" (180mm) | - | 9.25" (235mm) | 9.25" (235mm) |
| Max. manual transverse travel | 7.68" (195mm) | 7.68" (195mm) | 7.68" (195mm) | 9.84" (250mm) | 9.84" (250mm) | 9.84" (250mm) |
| Handwheel per revolution | 0.05" (1mm) | 0.05" (1mm) | 0.05" (1mm) | 0.05" (1mm) | 0.05" (1mm) | 0.05" (1mm) |
| Handwheel per graduation | 0.0001" (.005mm) | 0.0001" (.005mm) | 0.0001" (.005mm) | 0.0001" (.005mm) | 0.0001" (.005mm) | 0.0001" (.005mm) |
| Wheelhead vertical downfeed | | | | | | |
| Handwheel per revolution | .04" (1mm) | .04" (1mm) | .04" (1mm) | .04" (1mm) | .04" (1mm) | .04" (1mm) |
| Handwheel per graduation | .0002" (.005mm) | .0002" (.005mm) | .0002" (.005mm) | .0002" (.005mm) | .0002" (.005mm) | .0002" (.005mm) |
| Grinding spindle drive | | | | | | |
| Speed (rpm) | 3450 | 3450 | 3450 | 3450 | 3450 | 3450 |
| Power rating | 2 Hp | 2 Hp | 2 Hp | 2 Hp | 2 Hp | 2 Hp |
| Standard grinding wheel | | | | | | |
| Diameter | 8" (203mm) | 8" (203mm) | 8" (203mm) | 8" (203mm) | 8" (203mm) | 8" (203mm) |
| Width | .5"(12.7mm) max .75"(19mm) | .5"(12.7mm) max .75"(19mm) | .5"(12.7mm) max .75"(19mm) | .5"(12.7mm) max .75"(19mm) | .5"(12.7mm) max .75"(19mm) | .5"(12.7mm) max .75"(19mm) |
| Bore | 1.25" (31.75mm) | 1.25" (31.75mm) | 1.25" (31.75mm) | 1.25" (31.75mm) | 1.25" (31.75mm) | 1.25" (31.75mm) |
| Hydraulic motor (power rating) | - | 1 Hp x 6P | 1 Hp x 6P | - | 1 Hp x 6P | 1 Hp x 6P |
| Crossfeed motor (power rating) | - | 1/6 Hp x 6P | 1/6 Hp x 6P | - | 1/6 Hp x 6P | 1/6 Hp x 6P |
| Elevating motor (power rating) | - | - | 40W x 4P | - | - | 40W x 4P |
| Total space required (LxWxH) | 71"x45"x65" (1810x1133x1660mm) | 71"x45"x65" (1810x1133x1660mm) | 71"x45"x65" (1810x1133x1660mm) | 71"x50.6"x66" (1810x1285x1680mm) | 71"x50.6"x66" (1810x1285x1680mm) | 71"x50.6"x66" (1810x1285x1680mm) |
| Weight | | | | | | |
| Net weight | 1,587 lbs (720kg) | 1,808 lbs (820kg) | 1,874 lbs (850kg) | 2,332 lbs (11060kg) | 2,579 lbs (1170kg) | 2,657 lbs (1205kg) |
| Gross weight | 1,873 lbs (850kg) | 2,138 lbs (970kg) | 2,204 lbs (1000kg) | 2,662 lbs (1210kg) | 2,954 lbs (1340kg) | 3,031 lbs (1375kg) |
| Rated power, approx | 2 Hp (1.5 kw) | 3 Hp (2.3 kw) | 3 Hp (2.3 kw) | 2 Hp (1.5 kw) | 3 Hp (2.3 kw) | 3 Hp (2.3 kw) |
| Packing dimensions (L x W x H) | 51"x45"x76" (1300x1140x1930mm) | 65"x45"x76" (1650x1140x1930mm) | 71"x52"x76" (1800x1320x1930mm) | 60"x45"x76" (1530x1300x1930mm) | 67"x53"x76" (1710x1340x1930mm) | 75"x56"x76" (1890x1430x1930mm) |

Machine design, control, and specifications are subject to change without notice.