



SURFACE GRINDERS

A Line of Precision Low-cost,
High Performance Surface Grinders

Precision Manual Surface Grinders
Precision Hydraulic Surface Grinders
Precision Automatic Surface Grinders

CLAUSING PRECISION 618 & 818 SERIES

Manual Surface Grinders (H Models)

Longitudinal Hydraulics and Motorized Crossfeed Surface Grinders (2A Models)

Longitudinal Hydraulics, Motorized Crossfeed and Motorized Rapid Up/Down Surface Grinders (3A Models)



Model CSG3A818 shown with optional dresser and coolant/dust system

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 high accuracy grinding performance.

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 and dampening. CSG618/818 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 (CSG618/818 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

- On 2A and 3A the longitudinal movement is driven by a hydraulic system. The cross movement is driven by servo motor for more accurate increment feeding.

MODEL	CSG618H	CSG2A618	CSG3A618	CSG818H	CSG2A818	CSG3A818
Table Size	6" x 18" (152 x 460 mm)	6" x 18" (152 x 460 mm)	6" x 18" (152 x 460 mm)	8" x 18" (203 x 460 mm)	8" x 18" (203 x 460 mm)	8" x 18" (203 x 460 mm)
Max. grinding length (longitudinal)	18.9" (480 mm)	18.9" (480 mm)	18.9" (480 mm)	18.9" (480 mm)	18.9" (480 mm)	18.9" (480mm)
Max. grinding width (crosswise)	7" (178 mm)	7" (178 mm)	7" (178 mm)	8.9" (228 mm)	8.9" (228 mm)	8.9" (228 mm)
Max. distance from table surface to spindle centerline (standard column)	18" (460 mm)	18" (460 mm)	18" (460 mm)	18" (460 mm)	18" (460 mm)	18" (460 mm)
Standard magnetic chuck size	6" x 18" (150 x 450 mm)	6" x 18" (150 x 450 mm)	6" x 18" (150 x 450 mm)	8" x 18" (200 x 450 mm)	8" x 18" (200 x 450 mm)	8" x 18" (200 x 450 mm)
LONGITUDINAL MOVEMENT OF TABLE						
Max. travel (hydraulic)		18.9" (480 mm)	18.9" (480 mm)		18.9" (480 mm)	18.9" (480mm)
Max. travel (manual)	20" (510 mm)	20" (510 mm)	20" (510 mm)	20" (510 mm)	20" (510 mm)	20" (510 mm)
Table speed infinitely variable		196"–1102"/min. (5–28 m/min.)	196"–1102"/min. (5–28m/min.)		196"–984"/min. (5–25 m/min.)	196"–984"/min. (5–25 m/min.)
CROSSFEED TRANSVERSE TRAVEL						
Auto transverse increment		.04" – .4"(1–10 mm)	.04" – .4"(1–10 mm)		.04" – .4"(1–10 mm)	.04" – .4"(1–10 mm)
Max. auto transverse travel		7" (180 mm)	7" (180 mm)		9.25" (235 mm)	9.25" (235 mm)
Max. manual transverse travel	7.68" (195 mm)	7.68" (195 mm)	7.68" (195 mm)	9.84" (250 mm)	9.84" (250 mm)	9.84" (250 mm)
Handwheel per revolution	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)
Handwheel per graduation	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)
WHEELHEAD VERTICAL DOWNFEED						
Rapid Travel Approx.			10" (250 mm)/min			10" (250 mm)/min
Handwheel per revolution	0.05" (1 mm)	0.05" (1 mm)	0.05" (1 mm)	0.05" (1 mm)	0.05" (1 mm)	0.05" (1 mm)
Handwheel per graduation	0.0002" (.005 mm)	0.0001" (.0025 mm)	0.0001" (.0025 mm)	0.0002" (.005 mm)	0.0001" (.0025 mm)	0.0001" (.0025 mm)
GRINDING SPINDLE DRIVE						
Speed (rpm)	3450	3450	3450	3450	3450	3450
Power rating	2 Hp (1.5kw)	2 Hp (1.5kw)	2 Hp (1.5kw)	2 Hp (1.5kw)	2 Hp (1.5kw)	2 Hp (1.5kw)
STANDARD GRINDING WHEEL						
Diameter	8" (203 mm)	8" (203 mm)	8" (203 mm)	8" (203 mm)	8" (203 mm)	8" (203 mm)
Width	.5"–.75"(13–19 mm)	.5"–.75"(13–19 mm)	.5"–.75"(13–19 mm)	.5"–.75"(13–19 mm)	.5"–.75"(13–19 mm)	.5"–.75"(13–19 mm)
Bore	1.25" (31.75 mm)	1.25" (31.75 mm)	1.25" (31.75 mm)	1.25" (31.75 mm)	1.25" (31.75 mm)	1.25" (31.75 mm)
MOTORS						
Hydraulic motor (power rating)		1 Hp x 6P	1 Hp x 6P		1 Hp x 6P	1 Hp x 6P
Crossfeed motor (power rating)		40W x 6P	40W x 6P		40W x 6P	40W x 6P
Elevating motor (power rating)			40W x 4P			40W x 4P
WEIGHT						
Net Weight	1,587 lbs (720kg)	1,808 lbs (820kg)	1,874 lbs (850kg)	2,332 lbs (1060kg)	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)
ADDITIONAL SPECS						
Total rated power requirements (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)
Total floor space required (LxWxH)	71.3" x 44.6" x 65.4" (1810x1133x1660 mm)	71.3" x 44.6" x 65.4" (1810x1133x1660 mm)	71.3" x 44.6" x 65.4" (1810x1133x1660 mm)	71.3" x 50.6" x 66.1" (1810x1285x1680 mm)	71.3" x 50.6" x 66.1" (1810x1285x1680 mm)	71.3" x 50.6" x 66.1 (1810x1285x1680 mm)
Shipping dimensions (L x W x H)	77" x 55" x 76" (1940x1400x1930 mm)	78" x 56" x 76" (1980x1420x1930 mm)	78" x 56" x 76" (1980x1420x1930 mm)	76.4" x 55" x 76" (1940x1400x1930 mm)	75" x 64" x 76" (1890x1630x1930 mm)	75" x 64" x 76" (1890x1630x1930 mm)

All specifications subject to change without notice or obligation.

CLAUSING PRECISION 10-12-16 SERIES

Longitudinal Hydraulics and Motorized Crossfeed Surface Grinders (2A)

Longitudinal Hydraulics, Motorized Crossfeed and Motorized Rapid Up/Down Surface Grinders (3A)



Model CSG3A1020 shown with optional dresser and coolant/dust system



Model CSG3A1228 shown with optional paper/coolant system

Features

Column

- Wide, deep base & honeycomb ribbing are especially suitable for heavy duty grinding.

Construction

- Table, saddle and base are cast from high grade iron, and strong ribbing for better accuracy.

Spindle

- Large diameter spindle is supported by four preloaded precision angular contact ball bearings and one NU Type Roller bearing for durable, heavy duty operation.

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.

Slideways

- Vertical, cross (double V's) and longitudinal (V & flat) slideways are coated with Turcite-B, to provide stable movement, durability, and accuracy.

Automatic Continuous Lubrication System

- All slideways and screws are fully oiled by automatic continuous lubrication system to minimize wear on slideways & screws.

Cross Feed

- Ball screw for cross travel, powered by AC motor.

Proximity

- Has a built-in type (hidden) proximity switch for easy operation.

Table Speed Control

- Presettable hydraulic table speed control allows operator to pre-set speed rate, enables you to have same speed rate when engaging hydraulic table every time. 12 and 16 models have a dual throttle valve for 25mm to 25M Longitudinal speeds.

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MODEL	CSG2A1020	CSG3A1020	CSG2A1224	CSG3A1224	CSG3A1228	CSG3A1236	CSG3A1632	CSG3A1640
Table Size	10" x 20" (254 x 508 mm)	10" x 20" (254 x 508 mm)	11.81" x 23.62" (300 x 600 mm)	11.81" x 23.62" (300 x 600 mm)	12" x 28" (305 x 712 mm)	12" x 36" (305 x 915 mm)	16" x 32" (406 x 813 mm)	16" x 40" (406 x 1020 mm)
Max. grinding length (longitudinal)	20.47" (520 mm)	20.47" (520 mm)	23.6" (600 mm)	23.6" (600 mm)	28" (712 mm)	36" (915 mm)	32" (813 mm)	40" (1020 mm)
Max. grinding width (crosswise)	11" (280 mm)	11" (280 mm)	11.81" (300 mm)	11.81" (300 mm)	13" (330 mm)	13" (330 mm)	16" (410 mm)	16" (410 mm)
Max. distance from table surface to spindle centerline (standard column) (optional column)	19.68" (500 mm) 23.62" (600 mm)	19.68" (500 mm) 23.62" (600 mm)	23" (585 mm)	23" (585 mm)	24.8" (630 mm) 28.35" (720 mm)	24.8" (630 mm) 28.35" (720 mm)	24.8" (630 mm) 28.35" (720 mm)	24.8" (630 mm) 28.35" (720 mm)
Standard magnetic chuck size	10" x 20" (250 x 500 mm)	10" x 20" (250 x 500 mm)	11.81" x 23.63" (300 x 600 mm)	11.81" x 23.63" (300 x 600 mm)	11.81" x 27.56" (300 x 700 mm)	11.81" x 35.43" (300 x 900 mm)	15.75" x 31.5" (400 x 800 mm)	15.75" x 39.37" (400 x 1000 mm)
LONGITUDINAL MOVEMENT OF TABLE								
Max. travel (hydraulic)	22.83" (580 mm)	22.83" (580 mm)	25.59" (650 mm)	25.59" (650mm)	30" (760 mm)	37.8" (960 mm)	35" (890 mm)	41.73" (1060 mm)
Max. travel (manual)	24.41" (620 mm)	24.41" (620 mm)	28.74" (730 mm)	28.74" (730 mm)	32.68" (830 mm)	39.37" (1000 mm)	36.61" (930 mm)	43.31" (1100 mm)
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.)	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"–.5"(1–13 mm)	.04"–.5"(1–13 mm)	.04"–.75"(1–19 mm)	.04"–.75"(1–19 mm)	.04"–1"(1–25 mm)	.04"–1"(1–25 mm)	.04"–1"(1–25 mm)	.04"–1"(1–25 mm)
Max. auto transverse travel	10.63" (270 mm)	10.63" (270 mm)	12.2" (310 mm)	12.2" (310 mm)	13.78" (350 mm)	13.78" (350 mm)	17" (430 mm)	17" (430 mm)
Max. manual transverse travel	11.81" (300 mm)	11.81" (300 mm)	13.39" (340 mm)	13.39" (340 mm)	15" (380 mm)	15" (380 mm)	18" (460 mm)	18" (460 mm)
Handwheel per revolution	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)
Handwheel per graduation	0.001" (.025 mm)	0.001" (.025 mm)	0.001" (.025 mm)	0.001" (.025 mm)	0.001" (.025 mm)	0.001" (.025 mm)	0.001" (.025 mm)	0.001" (.025 mm)
WHEELHEAD VERTICAL DOWNFEED								
Rapid Travel Approx.		6"(150 mm)/min		6"(150 mm)/min	6"(150 mm)/min	6"(150 mm)/min	6"(150 mm)/min	6"(150 mm)/min
Handwheel per revolution	0.04" (1 mm)	0.04" (1 mm)	0.04" (1 mm)	0.04" (1 mm)	0.04" (1 mm)	0.04" (1 mm)	0.04" (1 mm)	0.04" (1 mm)
Handwheel per graduation	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)
GRINDING SPINDLE DRIVE								
Speed (rpm)	3450	3450	1750	1750	1750	1750	1750	1750
Power rating	3 Hp	3 Hp	5 Hp	5 Hp	7.5 Hp	7.5 Hp	7.5 Hp	7.5 Hp
STANDARD GRINDING WHEEL								
Diameter	8" (203 mm)	8" (203 mm)	12" (304 mm)	12" (304 mm)	14" (355 mm)	14" (355 mm)	14" (355 mm)	14" (355 mm)
Width	.75"–.1"(19–25 mm)	.75"–.1"(19–25 mm)	1.25" (31.75 mm)	1.25" (31.75 mm)	2" (50 mm)	2" (50 mm)	2" (50 mm)	2" (50 mm)
Bore	1.25" (31.75 mm)	1.25" (31.75 mm)	3" (76.2 mm)	3" (76.2 mm)	5" (127 mm)	5" (127 mm)	5" (127 mm)	5" (127 mm)
MOTORS								
Hydraulic motor (power rating)	2 Hp x 6P	2 Hp x 6P	2 Hp x 6P	2 Hp x 6P	3 Hp x 6P	3 Hp x 6P	3 Hp x 6P	3 Hp x 6P
Crossfeed motor (power rating)	80W x 6P	80W x 6P	80W x 6P	80W x 6P	80W x 6P	80W x 6P	80W x 6P	80W x 6P
Elevating motor (power rating)		80W x 6P		80W x 6P	1/4 Hp x 6P	1/4 Hp x 6P	1/4 Hp x 6P 1/4	Hp x 6P
WEIGHT								
Net Weight	3,916 lbs (1780kg)	3,990 lbs (1810kg)	4,299 lbs (1950kg)	4,387 lbs (1990kg)	6,659 lbs (3020kg)	7,341 lbs (3330kg)	7,496 lbs (3400kg)	8,818 lbs (4000kg)
Gross Weight	4,695 lbs (2130kg)	4,762 lbs (2160kg)	4,960 lbs (2250kg)	5,038 lbs (2290kg)	7,760 lbs (3520kg)	8,157 lbs (3700kg)	8,818 lbs (4000kg)	9,920 lbs (4500kg)
ADDITIONAL SPECS								
Total rated power requirements (approx.)	5 Hp (3.7 kw)	5.2 Hp (3.9 kw)	7.5 Hp (5.6 kw)	8.25 Hp (6.1kw)	11 Hp (8.2 kw)	11 Hp (8.2 kw)	11 Hp (8.2 kw)	11 Hp (8.2 kw)
Total floor space required (LxWxH)	94.5"x57"x68.9" (2400x1450x1750 mm)	94.5"x57.5"x68.9" (2400x1450x1750 mm)	106.3"x63"x73" (2700x1600x1850 mm)	106.3"x63"x73" (2700x1600x1850 mm)	116"x78"x81" (2950x1970x2050 mm)	140"x78"x81" (3550x1970x2050 mm)	130"x87"x81" (3290x2200x2050 mm)	158"x87"x81" (4020x2200x2050 mm)
Shipping dimensions (L x W x H)	91"x72"x83" (2290x1830x2100mm)	98"x82"x83" (2480x2060x2100mm)	93"x84"x83" (2340x2130x2100mm)	98"x84"x83" (2480x2140x2100mm)	98"x90"x87" (2500x2290x2220mm)	118"x90"x88" (3000x2290x2220mm)	111"x91"x88" (2800x2290x2220mm)	128"x90"x87" (3250x2290x2220mm)

All specifications subject to change without notice or obligation.

CLAUSING PRECISION ASDIII AUTOMATIC SURFACE GRINDERS



Model CSG1640ASDIII shown
with optional paper/coolant system

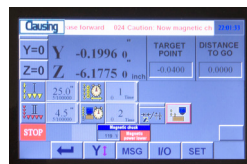
ASDIII SERIES OPERATION PANEL

Delta PLC Digital Control features a 7.2" color touch screen and is equipped with the exclusive EQUIPTOP Conversational mode working system, easy to learn and operate.

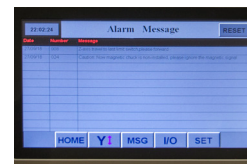


7.2" Touch
Color Screen

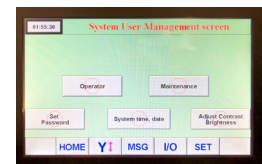
Chuck Control
Section



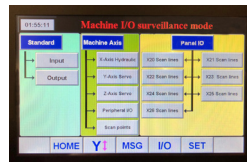
Grinder Condition Input



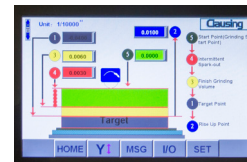
Alarm Message



System Data



Machine I/O Monitoring



Grinding Size Input

Features

- On ASDIII models, you can set the vertical zero point, start point, finish grinding volume, target point and the grinding wheel rise-up point.
- The machine features a simple and clear digital display & touch control panel for easy learning and operation.
- Vertical feed powered by dual motors, AC motor for rapid up / down and stepping motor for microdownfeed positioning, slow auto downfeed and slow up / down.
- Vertical positioning is displayed on the screen showing present spindle and setting the start point, rough grinding volume, finish grinding volume, downfeed volume for finish grinding, target point, rise up point, intermittent spark-out.
- Cross transverse travel powered by DC servo motor, allows step feed and continuous infeed grinding.
- The speed of wheel dressing can be adjusted on the control panel.
- Wide, deep base and honeycomb ribbed column on 10, 12, 16 & 20 series, designed for heavy-duty grinding.
- High quality, ribbed, cast iron table, saddle and base.
- All slideways and screws are fully oiled by an automatic continuous lubrication system to minimize wear on slideways & screws.
- High Grade Anti-Wear Slideways... The saddle rides on precision, hand-scraped double V ways, and the table rides on precision hand-scraped V and flat ways coated with "TURCITE-B".
- Precision spindle cartridge, supported by preloaded precision angular contact ball bearings and one NU type roller bearing. 618 and 818 have one NN type roller bearing instead of NU.
- Presettable hydraulic table speed control allows operator to pre-set speed rate, so you can have the same speed rate every time the hydraulic table is engaged (10 thru 20 series).
- Ball screw for cross travel, powered by DC servo motor.

SPECIFICATIONS

MODEL	CSG818ASDIII	CSG1020ASDIII	CSG1224ASDIII	CSG1228ASDIII	CSG1236ASDIII	CSG1632ASDIII	CSG1640ASDIII	CSG2040ASDIII
Table Size	8" x 18" (203 x 460 mm)	10" x 20" (254 x 508 mm)	12" x 24" (300 x 600 mm)	12" x 28" (305 x 712 mm)	12" x 36" (305 x 915 mm)	16" x 32" (406 x 813 mm)	16" x 40" (406 x 1020 mm)	20" x 40" (506 x 1020 mm)
Max. grinding length (longitudinal)	18.9" (480 mm)	20.47" (520 mm)	23.62" (600 mm)	28" (712 mm)	36" (915 mm)	32" (813 mm)	40" (1020 mm)	40" (1020 mm)
Max. grinding width (crosswise)	8.9" (228 mm)	11" (280 mm)	11.81" (300 mm)	13" (330 mm)	13" (330 mm)	16" (410 mm)	16" (410 mm)	20" (500 mm)
Max. distance from table surface to spindle centerline (standard column) (optional column)	18" (460 mm)	19.68" (500 mm) 23.62" (600 mm)	23" (585 mm)	24.8" (630 mm) 28.35" (720 mm)	24.8" (630 mm) 28.35" (720 mm)	24.8" (630 mm) 28.35" (720 mm)	24.8" (630 mm) 28.35" (720 mm)	24.8" (630 mm) 28.35" (720 mm)
Standard magnetic chuck size	8" x 18" (200 x 450 mm)	10" x 20" (250 x 500 mm)	11.81" x 23.63" (300 x 600 mm)	11.81" x 27.56" (300 x 700 mm)	11.81" x 35.43" (300 x 900 mm)	15.75" x 31.5" (400 x 800 mm)	15.75" x 39.37" (400 x 1000 mm)	19.68" x 39.37" (500 x 1000 mm)
LONGITUDINAL MOVEMENT OF TABLE								
Max. travel (hydraulic)	18.9" (480 mm)	22.83" (580 mm)	25.59" (650 mm)	30" (760 mm)	37.8" (960 mm)	35" (890 mm)	41.73" (1060 mm)	41.73" (1060 mm)
Max. travel (manual)	20" (510 mm)	24.41" (620 mm)	28.74" (730 mm)	32.68" (830 mm)	39.37" (1000 mm)	36.61" (930 mm)	43.31" (1100 mm)	43.31" (1100 mm)
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.)	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" (1-10 mm)	.04"- .5" (1-13 mm)	.04"- .75" (1-19 mm)	.04"- 1" (1-25 mm)	.04"-1" (1-25 mm)	.04"-1" (1-25 mm)	.04"-1" (1-25 mm)	.04"-1" (1-25 mm)
Auto constant feeding speed	.79"-12.6" (20-320 mm)/min.	.79"-12.6" (20-320 mm)/min.	.79"-12.6" (20-320 mm)/min.	.79"-12.6" (20-320 mm)/min.	.79"-12.6" (20-320 mm)/min.	.79"-12.6" (20-320 mm)/min.	.79"-12.6" (20-320 mm)/min.	.79"-12.6" (20-320 mm)/min.
Max. auto transverse travel	9.25" (235 mm)	10.63" (270 mm)	12.2" (310 mm)	13.78" (350 mm)	13.78" (350 mm)	17" (430 mm)	17" (430 mm)	20" (510 mm)
Max. manual transverse travel	9.84" (250 mm)	11.81" (300 mm)	13.39" (340 mm)	15" (380 mm)	15" (380 mm)	18" (460 mm)	18" (460 mm)	20.47" (520 mm)
Handwheel per revolution	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)	0.2" (5 mm)
Handwheel per graduation	.0005" (.0127 mm)	.0005" (.0127 mm)	.0005" (.0127 mm)	.0005" (.0127 mm)	.0005" (.0127 mm)	.0005" (.0127 mm)	.0005" (.0127 mm)	.0005" (.0127 mm)
WHEELHEAD VERTICAL DOWNFEED								
Automatic infeed	.00005"- .0025" (0.001-0.05 mm)	.00005"- .0025" (0.001-0.05 mm)	.00005"- .0025" (0.001-0.05 mm)	.00005"- .0025" (0.001-0.05 mm)	.00005"- .0025" (0.001-0.05 mm)	.00005"- .0025" (0.001-0.05 mm)	.00005"- .0025" (0.001-0.05 mm)	.00005"- .0025" (0.001-0.05 mm)
Step Feed (JOG)	.00004" (0.001 mm)	.00004" (0.001 mm)	.00004" (0.001 mm)	.00004" (0.001 mm)	.00004" (0.001 mm)	.00004" (0.001 mm)	.00004" (0.001 mm)	.00004" (0.001 mm)
Rapid Travel Approx.	6" (150 mm)/min	6" (150 mm)/min	6" (150 mm)/min	6" (150 mm)/min	6" (150 mm)/min	6" (150 mm)/min	6" (150 mm)/min	6" (150 mm)/min
Slow travel, approx.	.236" (6 mm)/min	.236" (6 mm)/min	.236" (6 mm)/min	.236" (6 mm)/min	.236" (6 mm)/min	.236" (6 mm)/min	.236" (6 mm)/min	.236" (6 mm)/min
*Minimum display value	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)	0.0005" (.0127 mm)
GRINDING SPINDLE DRIVE								
Speed (rpm)	3450	3450	1750	1750	1750	1750	1750	1750
Power rating	2 Hp (1.5kw)	3 Hp (2.2kw)	5 Hp (3.7kw)	7.5 Hp (5.5kw)	7.5 Hp (5.5kw)	7.5 Hp (5.5kw)	7.5 Hp (5.5kw)	7.5 Hp (5.5kw)
STANDARD GRINDING WHEEL								
Diameter	8" (203 mm)	8" (203 mm)	12" (304 mm)	12" (304 mm)	14" (355 mm)	14" (355 mm)	14" (355 mm)	14" (355 mm)
Width	.5"- .75" (12.7-19 mm)	.75"-1" (19-25 mm)	1.25" (31.75 mm)	2" (50 mm)	2" (50 mm)	2" (50 mm)	2" (50 mm)	2" (50 mm)
Bore	1.25" (31.75 mm)	1.25" (31.75 mm)	3" (76.2 mm)	5" (127 mm)	5" (127mm)	5" (127 mm)	5" (127 mm)	5" (127 mm)
MOTORS								
Hydraulic motor (power rating)	1 Hp (.75kw)	2 Hp (1.5kw)	2 Hp (1.5kw)	3 Hp (2.2kw)	3 Hp (2.2kw)	3 Hp (2.2kw)	3 Hp (2.2kw)	3 Hp (2.2kw)
Crossfeed motor (power rating)	1/2 HP 400W	1 HP 750W	1 HP 750W	1 HP 750W	1 HP 750W	1 HP 750W	1 HP 750W	1 HP 750W
Elevating motor (power rating)	60W x 4P	1/4 Hp (.2kw)	1/4 Hp (.2kw)	1/4 Hp (.2kw)	1/4 Hp (.2kw)	1/4 Hp (.2kw)	1/4 Hp (.2kw)	1/4 Hp (.2kw)
WEIGHT								
Net Weight	2,657 lbs (1205kg)	3,990 lbs (1810kg)	4,387 lbs (1990kg)	6,659 lbs (3020kg)	7,341 lbs (3330kg)	7,496 lbs (3400kg)	8,818 lbs (4000kg)	10,582 lbs (4800kg)
Gross Weight	3,031 lbs (1375kg)	4,762 lbs (2160kg)	5,038 lbs (2290kg)	7,760 lbs (3520kg)	8,157 lbs (3700kg)	8,818 lbs (4000kg)	9,920 lbs (4500kg)	11,464 lbs (5200kg)
ADDITIONAL SPECS								
Total rated power requirements (approx.)	3.8 Hp (2.9kw)	7 Hp (5.2kw)	8.25 Hp (6kw)	12 Hp (8.9kw)	12 Hp (8.9kw)	12 Hp (8.9kw)	12 Hp (8.9kw)	12 Hp (8.9kw)
Total floor space required (LxWxH) (1810x1285x1680 mm)	71.3" x 44.6" x 65.4" (2380x1450x1750 mm)	93.7"x57"x68.9" (2700x1600x1850 mm)	106.3"x63"x73" (2950x1970x2050 mm)	116"x78"x81" (3550x1970x2050 mm)	140"x78"x81" (3290x2200x2050 mm)	130"x87"x81" (4020x2200x2050 mm)	158"x87"x81" (4170x2200x2100 mm)	164"x86.6"x82.7"
Shipping dimensions (L x W x H) (1880x1830x1960 mm)	74"x72"x72" (2480x2080x2100 mm)	98"x82"x83" (2480x2140x2100 mm)	98"x84"x83" (2500x2290x2220 mm)	98"x90"x87" (3000x2290x2220 mm)	119"x91"x88" (2800x2290x2220 mm)	111"x91"x88" (3250x2290x2220 mm)	128"x90"x87" (3500x2290x2220 mm)	138"x90"x87"

*ADSIII models have no elevating handwheel but jog buttons per revolution or graduations. All specifications subject to change without notice or obligation.

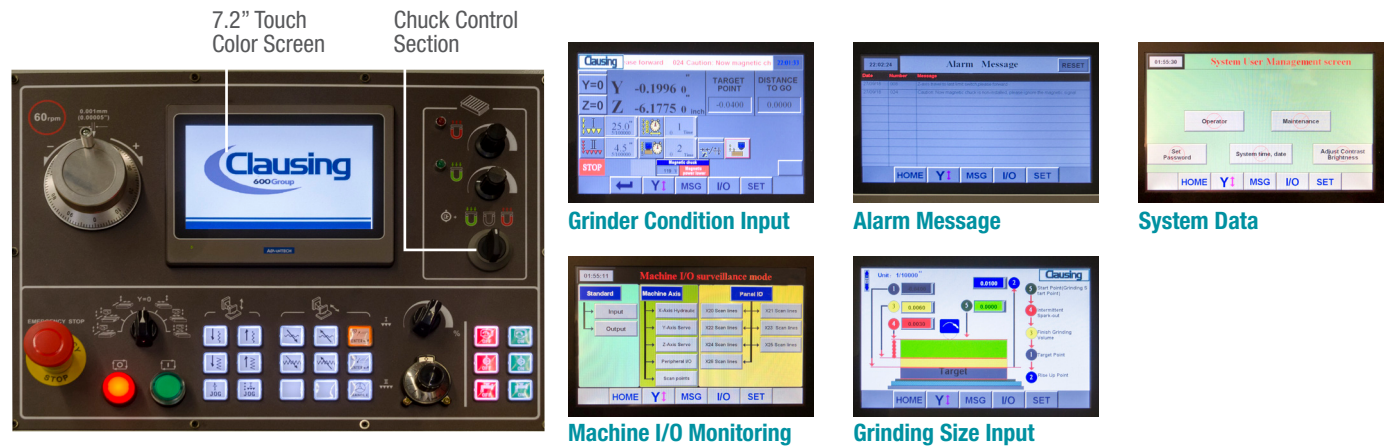
CLAUSING LARGE CAPACITY PRECISION ASDIII AUTOMATIC SURFACE GRINDERS



Shown with optional MPG, Dynamic Balancer, Coolant System with Auto Paper Feeding Device and Magnetic Separator

ASDIII SERIES OPERATION PANEL

Delta PLC Digital Control features a 7.2" color touch screen and is equipped with the exclusive EQUIPTOP Conversational mode working system, easy to learn and operate.



Features

- Large capacity up to 32" x 120" (810 x 3050mm) Table
- Enlarged extra strong ribbed column, ideal for heavy-duty grinding.
- Table, saddle and base are constructed of high grade cast iron and ribbed for maximum strength.
- Spindle is supported by 4 front and 2 rear precision angular contact ball bearings.
- All slideways and ballscrews fully oiled by an automatic continuous lubrication system to minimize wear on slideways and ballscrews.
- Longitudinal hydraulic transverse with constant speed function or manual speed handle. Table rides on double V slideways coated with "TURCITE-B" for maximum stability.
- Cross traverse travel powered by DC servo motor and ballscrew, allows step feed and continuous infeed grinding.
- Vertical positioning by precision ballscrew.
- Pre-set hydraulic table speed control allows operator to pre-set table speed rate and maintain the same speed rate every time the hydraulic table is engaged.

All specifications subject to change without notice or obligation.

CSG24 and 32 are column type construction

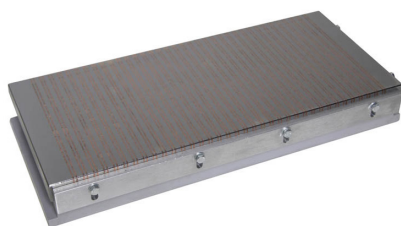
MODEL	CSG2448ASDIII	CSG2460ASDIII	CSG2480ASDIII	CSG3260ASDIII	CSG3280ASDIII	CSG32120ASDIII
Table Size	23.6" x 47.24" (600 x 1200 mm)	23.6" x 59" (600 x 1500 mm)	23.6" x 78.7" (600 x 2000 mm)	31.9" x 60" (810 x 1525 mm)	31.8" x 80.7" (810 x 2050 mm)	31.8" x 120" (810 x 3050 mm)
Max. grinding length (longitudinal)	49.6" (1260 mm)	61.4" (1560 mm)	81" (2060 mm)	61" (1550 mm)	80.7" (2050 mm)	120" (3050 mm)
Max. grinding width (crosswise)	24" (610 mm)	24" (610 mm)	24" (610 mm)	31.9" (810 mm)	31.9" (810 mm)	31.9" (810 mm)
Max. distance from table surface to spindle centerline (standard column) (optional column)	28.3" (720 mm) 33.5" (850 mm)	28.3" (720 mm) 33.5" (850 mm)	28.3" (720 mm) 33.5" (850 mm)	28.3" (720 mm) 33.5" (850 mm)	28.3" (720 mm) 33.5" (850 mm)	28.3" (720 mm) 33.5" (850 mm)
Standard magnetic chuck size	23.6" x 47.2" (600 x 1200 mm)	23.6" x 29.5" ea 2pcs (600 x 750 mm) ea 2pcs	23.6" x 39.37" ea 2pcs (600 x 1000 mm) ea 2pcs	31.5" x 29.5" ea 2pcs (800 x 750 mm) ea 2pcs	31.5" x 39.4" ea 2pcs (800 x 1000 mm) ea 2pcs	31.5" x 39.4" ea 3pcs (800 x 1000 mm) ea 3pcs
LONGITUDINAL MOVEMENT OF TABLE						
Max. travel (hydraulic)	51.18" (1300 mm)	63" (1600 mm)	82.7" (2100 mm)	63" (1600 mm)	82.5" (2100 mm)	122" (3100 mm)
Max. travel (manual)	53" (1350 mm)	64.9" (1650 mm)	84.6" (2150 mm)	64.9" (1650 mm)	84" (2150 mm)	124" (3150 mm)
Table speed infinitely variable	196"–984"/min. (5–25m/min)	196"–984"/min. (5–25m/min)	196"–984"/min. (5–25m/min)	196"–984"/min. (5–25m/min)	196"–984"/min. (5–25m/min)	196"–984"/min. (5–25m/min)
COLUMN CROSSFEED TRANSVERSE TRAVEL						
Auto transverse increment (JOG)	0.04"–1" (1–25 mm)	0.04"–1" (1–25 mm)	0.04"–1" (1–25 mm)	0.04"–1" (1–25 mm)	0.04"–1" (1–25 mm)	0.04"–1" (1–25 mm)
Auto constant feeding speed	1"–11"/min. (25–280 mm/min)	1"–11"/min. (25–280 mm/min)	1"–11"/min. (25–280 mm/min)	1"–11"/min. (25–280 mm/min)	1"–11"/min. (25–280 mm/min)	1"–11"/min. (25–280 mm/min)
Max. auto transverse travel	26" (660 mm)	26" (660 mm)	26" (660 mm)	33.8" (860 mm)	33.8" (860 mm)	33.8" (860 mm)
Max. manual transverse travel	27" (690 mm)	27" (690 mm)	27" (690 mm)	34.8" (885 mm)	34.8" (885 mm)	34.8" (885 mm)
Handwheel per revolution	0.004" (.1 mm)	0.004" (.1 mm)	0.004" (.1 mm)	0.004" (.1 mm)	0.004" (.1 mm)	0.004" (.1 mm)
Handwheel per graduation	.00004" (.001 mm)	.00004" (.001 mm)	.00004" (.001 mm)	.00004" (.001 mm)	.00004" (.001 mm)	.00004" (.001 mm)
WHEELHEAD VERTICAL INFEEED						
Automatic infeed	0.05" (1 mm) jogging downfeed 0.25/10000" (0.001 mm)					
Step feed (JOG)	jogging downfeed: 1–25/10000" (0.001–0.05 mm)					
Manual pulse generator (per graduation)	0.00005" (0.001 mm)	0.00005" (0.001 mm)	0.00005" (0.001 mm)	0.00005" (0.001 mm)	0.00005" (0.001 mm)	0.00005" (0.001 mm)
Rapid travel, approx.	18"(460 mm)/min.	18"(460 mm)/min.	18"(460 mm)/min.	18"(460 mm)/min.	18"(460 mm)/min.	18"(460 mm)/min.
Slow travel, approx.	0.25"(6 mm)/min.	0.25"(6 mm)/min.	0.25"(6 mm)/min.	0.25"(6 mm)/min.	0.25"(6 mm)/min.	0.25"(6 mm)/min.
Handwheel per revolution	0.004" (0.1 mm)	0.004" (0.1 mm)	0.004" (0.1 mm)	0.004" (0.1 mm)	0.004" (0.1 mm)	0.004" (0.1 mm)
Handwheel per graduation	0.00004" (0.001 mm)	0.00004" (0.001 mm)	0.00004" (0.001 mm)	0.00004" (0.001 mm)	0.00004" (0.001 mm)	0.00004" (0.001 mm)
GRINDING SPINDLE DRIVE						
Speed (rpm)	1750	1750	1750	1750	1750	1750
Power rating	10 Hp (7.5kw)	10 Hp (7.5kw)	10 Hp (7.5kw)	10 Hp (7.5kw)	10 Hp (7.5kw)	10 Hp (7.5kw)
STANDARD GRINDING WHEEL						
Diameter	16" (405 mm)	16" (405 mm)	16" (405 mm)	16" (405 mm)	16" (405 mm)	16" (405 mm)
Width	2" (50 mm)	2" (50 mm)	2" (50 mm)	2" (50 mm)	2" (50 mm)	2" (50 mm)
Bore	5" (127 mm)	5" (127 mm)	5" (127 mm)	5" (127 mm)	5" (127 mm)	5" (127 mm)
MOTORS						
Hydraulic motor (power rating)	7.5 Hp/6P	7.5 Hp/6P	7.5 Hp/6P	10 Hp/6P	10 Hp/6P	10 Hp/6P
Crossfeed motor (power rating)	2.6 Hp (2kw)	2.6 Hp (2kw)	2.6 Hp (2kw)	2.6 Hp (2kw)	2.6 Hp (2kw)	2.6 Hp (2kw)
Elevating motor (power rating)	2.6 Hp (2kw)	2.6 Hp (2kw)	2.6 Hp (2kw)	2.6 Hp (2kw)	2.6 Hp (2kw)	2.6 Hp (2kw)
WEIGHT						
Net Weight	14,330 (6500kg)	16,535 (7500kg)	18,740 (8500kg)	29,700 (13500kg)	33,000 (15000kg)	37,400 (17000kg)
Gross Weight	16,535 (75000kg)	18,740 (8500kg)	20,944 (9500kg)	33,000 (15500kg)	36,300 (165000kg)	41,800 (19000kg)
ADDITIONAL SPECS						
Total rated power requirements (approx.)	22.7 Hp	22.7 Hp	22.7 Hp	30.2 Hp	30.2 Hp	30.2 Hp
Total floor space required (LxWxH) (4300x3500x2350 mm)	170"x138"x 93" (4300x3500x2350 mm)	193"x138"x 93" (4902x3500x2350 mm)	233"x138"x 93" (5900x3500x2350 mm)	244"x146"x 109" (6200x3700x2750 mm)	284"x146"x 97" (7200x3700x2450 mm)	367"x146"x 97" (9300x3700x2450 mm)

All specifications subject to change without notice or obligation.

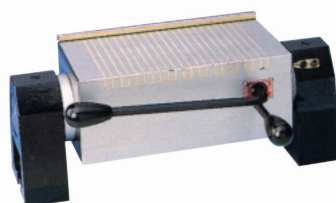
PERMANENT MAGNETIC CHUCK



ELECTRO MAGNETIC CHUCK



INCLINABLE PERMANENT MAGNETIC CHUCK



CHUCK CONTROL

with Demagnetizer
(unit sizes changes with model)

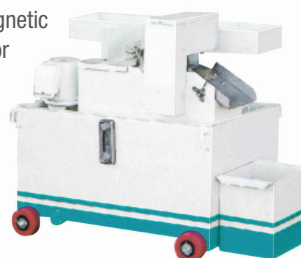


COOLANT SYSTEM



COOLANT SYSTEM

with Magnetic Separator



DUST COLLECTOR



COOLANT AND DUST UNIT

Note: Both systems can not operate at the same time.



COOLANT SYSTEM

with Manual Paper Feeding



AUTO PAPER FEEDING DEVICE

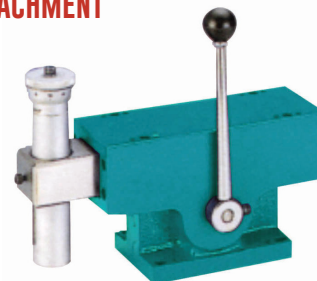
with Magnetic Separator



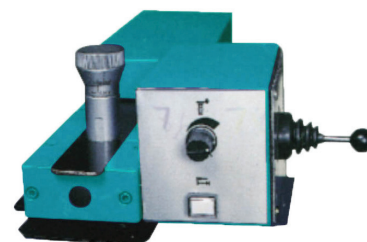
FULL GUARDING SPLASH GUARD



MANUAL PARALLEL DRESSING ATTACHMENT



ELECTRIC PARALLEL DRESSING ATTACHMENT



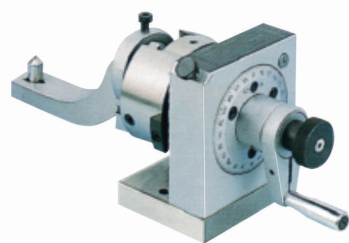
ADJUSTABLE SPEED ROTARY MAGNETIC CHUCK



DYNAMIC BALANCER



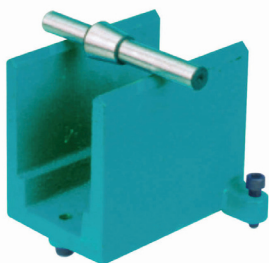
PUNCH FORMER



SPARE WHEEL FLANGE



EXTRA BALANCING STAND

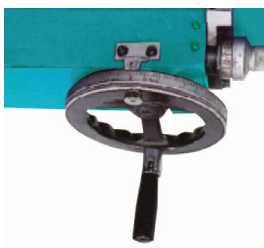


ROLLER TYPE BALANCING STAND



MICRO CROSSFEED

for 616/818 Series



MICRO CROSSFEED

for 10/12/16 Series



MICRO DOWN FEED

for 10/12/16 Series (STD on 2A & 3A1020-2040 models)

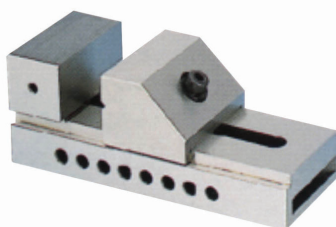


MOBIL MANUAL PULSE GENERATOR

(stationary in counsel on ASDIII models)



PRECISION VICE 3" OR 4"



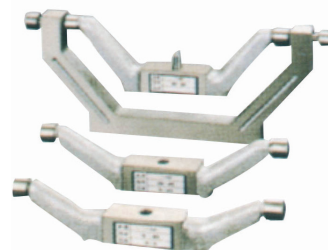
FREQUENCY CHANGER



SWIVEL WHEEL GUARD



CONCAVE/CONVEX FORMING DRESSER



CLAUSING GRINDER STANDARD ACCESSORIES

- Diamond Dresser
- Table Mounting
- Auto Lubrication System
- Wheel Flange
- Grinding Wheel
- Electronic chuck control on all models (optional on all 618 and 818 H,2A and 3A models)
- Worklight
- Leveling Screws with Blocks
- Touch-up Paint
- Tool Box and Tools



Your Single Source for Machine Tools

Clausing Precision Drills

- Clausing Belt-drive Drills
- Clausing Geared-head Drills
- Clausing Radial Drills

Clausing Precision Mills

- Clausing Bed Mills
- Clausing CNC Bed Mills
- Clausing Knee Mills
- Clausing EVS Knee Mills
- Clausing CNC Knee Mills
- Clausing Universal Mills

Clausing Precision Lathes

- Clausing/Colchester Geared Head Lathes
- Clausing/Colchester Professional V.S. Lathes
- Clausing/Colchester MAGNUM V.S. Lathes
- Clausing C Series Lathes
- Clausing Large Swing Standard Lathes
- Clausing Large Swing CNC Lathes
- Clausing Precision Toolroom Lathes

Clausing Precision Grinders

- Clausing Manual Grinders
- Clausing 2 Axes Hydraulic Grinders
- Clausing 3 Axes Hydraulic Grinders
- Clausing ASDIII Automatic Grinders
- Clausing OD/ID Grinders

Clausing Precision Cutting Machines

- Clausing/Kalamazoo Horizontal Bandsaws
- Clausing/Kalamazoo Vertical Bandsaws
- Clausing/Kalamazoo Tilt Frame Miter Bandsaws
- Clausing/Kalamazoo Cold Saws

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