



TGS-618B, TGS-818B,  
PFG-1020AH, PFG-1224AH, PFG-1632AH  
PFG-2040AHR, PFG-2060AHR, PFG-2080AHR  
PFG-2440AHR, PFG-2460AHR, PFG-2480AHR  
PFG-2840AHR, PFG-2860AHR, PFG-2880AHR

## HIGH PRECISION SURFACE GRINDERS



PFG-2460AHR COLUMN TYPE SURFACE GRINDER SHOWN

## SADDLE TYPE MANUAL FEATURES:

- Meehanite cast iron of base, column, saddle, and table provides greater rigidity and highest possible grinding load capacity
- Ball bearing slideways resist damage due to impact or wear
- Precision spindle running in high precision angular roller bearings to ensure high accuracy, superior surface finish, low temperature rise, and maintenance free
- Automatic lubrication to all slideways and leadscrews to maintain smooth movement and minimize machine wear and tear



TGS-818B

## SADDLE TYPE FEATURES:

- Meehanite casting of base, column, saddle, and table with outstanding structure designed and through internal stress elimination to ensure greater rigidity, accuracy, and stability
- Precision spindle with P4 precision angular contact bearings and cartridge design that is completely sealed and lubricated to ensure high accuracy, durability, and superior surface finish
- Hydraulic driven longitudinal table movement
- Longitudinal and cross slideways are coated with Turcite-B to provide stable movement and superior accuracy. It's specially designed to maintain long life span
- Cross feed control unit consists of a solid state relay which is designed to ensure a long service life
- Automatic lubrication to all slideways when hydraulic switch is "On"
- Optional automatic down feed with elevating micro-feed motor and intuitive control panel to add more convenience to grinding operations



PFG-1020AH

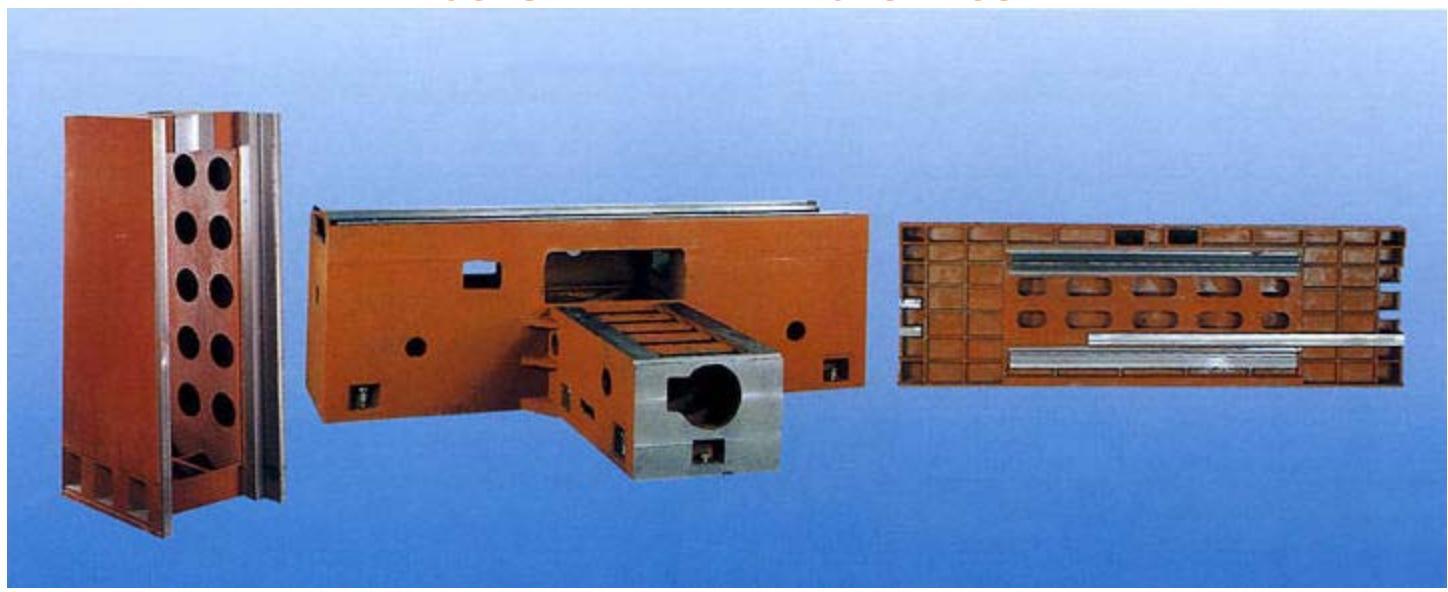
## COLUMN TYPE FEATURES:

- Vertical travel driven by AC servo motor
- Vertical travel operated by MPG function handwheel with 3 graduation selections
- One piece base design to provide greater rigidity and free twist deformation to ensure superior surface finish and higher accuracy
- Column, base, and table adopt double wall construction casting to ensure greater rigidity, accuracy, and stability during heavy grinding. And through internal stress elimination assures rigidity, stability, and accuracy
- High precision and heavy pre-compression ballscrews on vertical and cross feeds to provide powerful and precise grinding force
- Hydraulic driven longitudinal table movement
- Automatic cross feed powered by AC motor transmitting through MCU. The travel distance set by cam and limit switch installed on right side of machine base. The feed volume can be adjusted by panel switch
- 2 single-acting hydraulic cylinders to maximize stable table movement by preventing table floating (Excluding PFG-2040AHR, 2440AHR, 2840AHR)
- Optional automatic down feed with elevating micro-feed and intuitive control panel to add more convenience to grinding operations



PFG-2460AHR

## COLUMN TYPE MAIN CASTINGS



Column

Base

Table

<b>SPECIFICATIONS</b>		<b>TGS-618B</b>	<b>TGS-818B</b>
<b>CAPACITY</b>	Table Size	6" x 18" (150 x 450 mm)	8" x 18" (200 x 450 mm)
	Max. table travel	7" x 19" (177 x 480 mm)	8" x 19" (200 x 480 mm)
	Max. surface ground	6" x 18" (150 x 450 mm)	8" x 18" (200 x 450 mm)
	Max. distance from spindle center to table top	18" (450 mm)	
	Permanent chuck size	6" x 18" (150 x 450 mm)	8" x 18" (200 x 450 mm)
<b>TABLE</b>	Table speed	Manual	
	Table slideway	Ball rolling way	
<b>CROSS FEED</b>	Cross feed	Manual	
	Cross handwheel feed per graduation	0.0005" (0.01 mm)	
	Cross handwheel feed per revolution	0.2" (5 mm)	
<b>DOWN FEED</b>	Down feed	Manual	
	Vertical down handwheel feed per graduation	0.0002" (0.005 mm)	
	Vertical down handwheel feed per revolution	0.05" (1.25 mm)	
<b>WHEEL</b>	Wheel size (O.D. x T x I.D.)	8" x 0.5" x 1.25" (203 x 12.7 x 31.75 mm)	
	Spindle wheel speed	3,600 rpm	
<b>POWER</b>	Spindle drive motor	2 HP	
<b>WEIGHT &amp; DIMENSIONS</b>	Net weight (Approx.)	1,584 lb. (720 kg)	1,800 lb. (820 kg)
	Gross weight (Approx.)	1,870 lb. (850 kg)	2,090 lb. (950 kg)
	Packaging dimensions (LxWxH)	52" x 45" x 78"	52" x 47" x 78"

• Specifications are subject to change without notice for further design improvements.

### **STANDARD MACHINE ACCESSORIES**

- |                          |                               |
|--------------------------|-------------------------------|
| 1. Grinding wheel        | 5. Wheel dresser with diamond |
| 2. Wheel flange          | 6. Dust guard                 |
| 3. Wheel balancing arbor | 7. Leveling screw and nuts    |
| 4. Wheel balancing base  | 8. Work light                 |

### **OPTIONAL MACHINE ACCESSORIES**

- |                                     |                                |
|-------------------------------------|--------------------------------|
| 1. Permanent magnetic chuck         | 6. Demagnetizer                |
| 2. Clamping kit                     | 7. Sine bar                    |
| 3. Extra wheel flange               | 8. Angle forming attachment    |
| 4. Coolant system                   | 9. Radius forming attachment   |
| 5. Dust suction with coolant system | 10. Wheel dresser with diamond |

<b>SPECIFICATIONS</b>		<b>PFG-1020AH</b>	<b>PFG-1224AH</b>
<b>CAPACITY</b>	Table Size	10" x 20" (250 x 500 mm)	12" x 24" (300 x 600 mm)
	Max. table travel	10-3/4" x 22" (270 x 550 mm)	13" x 27" (330 x 685 mm)
	Max. surface ground	10" x 20" (250 x 500 mm)	12" x 24" (300 x 600 mm)
	Max. distance from spindle center to table top	20" (500 mm)	
	Electromagnetic chuck size	10" x 20" (250 x 500 mm)	12" x 24" (300 x 600 mm)
<b>TABLE</b>	Table speed	200" ~ 1,000" / min (5 ~ 25 M / min)	
	Table slideway	V & Flat Turcite Way	
<b>CROSS FEED</b>	Auto cross feed increment	0.004" ~ 0.47" (0.1 ~ 12 mm)	0.004" ~ 0.8" (0.1 ~ 20 mm)
	Power cross feed	44" / min (1,100 mm / min)	
	Cross handwheel feed per graduation	0.001" (0.025 mm)	
	Cross handwheel feed per revolution	0.2" (5 mm)	
<b>DOWN FEED</b>	Rapid power head elevation (Optional)	13" / min (330 mm / min)	
	Auto down feed (including rapid) (Optional)	0.0001" ~ 0.0999" / Time option	
	Vertical down handwheel feed per graduation	0.0001" (0.0025 mm)	
	Vertical down handwheel feed per revolution	0.05" (1.25 mm)	
<b>WHEEL</b>	Max. wheel size (O.D. x T x I.D.)	7" x 0.5" x 1.25" (178 x 12.7 x 31.75 mm)	14" x 1.5" x 5" (355 x 38 x 127 mm)
		Max 8" x 0.75" x 1.25" (203 x 19 x 31.75 mm)	
	Spindle wheel speed	3,500 rpm (7" wheel) 1,750 rpm (14" wheel)	1,750 rpm
<b>POWER</b>	Spindle drive motor	3 HP (7") / 5 HP (14")	5 HP
	Hydraulic pump motor	1 HP	
	Auto cross feed motor	1/5 HP	
	Rapid head elevation motor (Optional)	1/5 HP	
	Coolant pump motor	1/8 HP	
<b>WEIGHT &amp; DIMENSIONS</b>	Net weight (Approx.)	2,970 lb. (1,350 kg)	3,740 lb. (1,700 kg)
	Gross weight (Approx.)	3,410 lb. (1,550 kg)	4,290 lb. (1,950 kg)
	Packaging dimensions (LxWxH)	84" x 59" x 79"	90" x 71" x 83"

• Specifications are subject to change without notice for further design improvements.

### **STANDARD MACHINE ACCESSORIES**

- |                     |                               |                              |
|---------------------|-------------------------------|------------------------------|
| 1. Grinding wheel   | 4. Wheel balancing arbor      | 7. Leveling screw and plates |
| 2. Wheel flange     | 5. Wheel balancing base       | 8. Work light                |
| 3. Flange extractor | 6. Wheel dresser with diamond |                              |

### **OPTIONAL MACHINE ACCESSORIES**

- |                              |  |
|------------------------------|--|
| 1. Electromagnetic chuck     | 8. Auto demagnetizer   |
| 2. Angle forming attachment  | 9. Dust suction system   |
| 3. Radius forming attachment | 10. Dust suction with coolant system                                   |
| 4. Sine bar                  | 11. Magnetic separator with coolant                                    |
| 5. Tool makers vise          | 12. Auto paper strip filter  |
| 6. Punch former              | 13. Auto paper strip filter with magnetic separator and coolant system |
| 7. Extra wheel flange        | 14. Auto down feed system  |

<b>SPECIFICATIONS</b>		<b>PFG-1632AH</b>
<b>CAPACITY</b>	Table Size	16" x 32" (400 x 800 mm)
	Max. table travel	18" x 34" (450 x 860 mm)
	Max. surface ground	16" x 32" (400 x 800 mm)
	Max. distance from spindle center to table top	22" (550 mm)
	Electromagnetic chuck size	16" x 32" (400 x 800 mm)
<b>TABLE</b>	Table speed	200" ~ 1,000" / min (5 ~ 25 M / min)
	Table slideway	V & Flat Turcite Way
<b>CROSS FEED</b>	Auto cross feed increment	0.004" ~ 0.8" (0.1 ~ 20 mm)
	Power cross feed	44" / min (1,100 mm / min)
	Cross handwheel feed per graduation	0.001" (0.025 mm)
	Cross handwheel feed per revolution	0.2" (5 mm)
<b>DOWN FEED</b>	Rapid power head elevation (Optional)	13" / min (330 mm / min)
	Auto down feed (including rapid) (Optional)	0.0001" ~ 0.0999" / Time option
	Vertical down handwheel feed per graduation	0.0001" (0.0025 mm)
	Vertical down handwheel feed per revolution	0.05" (1.25 mm)
<b>WHEEL</b>	Max. wheel size (O.D. x T x I.D.)	14" x 2" x 5" (355 x 50 x 127 mm)
	Spindle wheel speed	1,750 rpm
<b>POWER</b>	Spindle drive motor	5 HP (7.5 HP Optional)
	Hydraulic pump motor	2 HP
	Auto cross feed motor	1/5 HP
	Rapid head elevation motor (Optional)	1/5 HP
	Coolant pump motor	1/8 HP
<b>WEIGHT &amp; DIMENSIONS</b>	Net weight (Approx.)	5,830 lb. (2,650 kg)
	Gross weight (Approx.)	6,380 lb. (2,900 kg)
	Packaging dimensions (LxWxH)	90" x 90" x 85"

• Specifications are subject to change without notice for further design improvements.

### **STANDARD MACHINE ACCESSORIES**

- |                     |                               |                              |
|---------------------|-------------------------------|------------------------------|
| 1. Grinding wheel   | 4. Wheel balancing arbor      | 7. Leveling screw and plates |
| 2. Wheel flange     | 5. Wheel balancing base       | 8. Work light                |
| 3. Flange extractor | 6. Wheel dresser with diamond |                              |

### **OPTIONAL MACHINE ACCESSORIES**

- |                              |  |
|------------------------------|--|
| 1. Electromagnetic chuck     | 8. Auto demagnetizer   |
| 2. Angle forming attachment  | 9. Dust suction system   |
| 3. Radius forming attachment | 10. Dust suction with coolant system                                   |
| 4. Sine bar                  | 11. Magnetic separator with coolant                                    |
| 5. Tool makers vise          | 12. Auto paper strip filter  |
| 6. Punch former              | 13. Auto paper strip filter with magnetic separator and coolant system |
| 7. Extra wheel flange        | 14. Auto down feed system  |

<b>SPECIFICATIONS</b>		<b>PFG-2040AHR</b> <b>PFG-2440AHR</b> <b>PFG-2840AHR</b>
<b>CAPACITY</b>	<b>Table Size</b>	19.68" x 39.37" (500 x 1,000 mm) 23.62" x 39.37" (600 x 1,000 mm) 27.55" x 39.37" (700 x 1,000 mm)
	<b>Max. table travel</b>	22.00" x 45.27" (560 x 1,150 mm) 25.98" x 45.27" (660 x 1,150 mm) 29.92" x 45.27" (760 x 1,150 mm)
	<b>Max. surface ground</b>	20" x 40" (500 x 1,000 mm) 24" x 40" (600 x 1,000 mm) 28" x 40" (700 x 1,000 mm)
	<b>Max. distance from spindle center to table top</b>	23.62" (600 mm)
	<b>Electromagnetic chuck size</b>	19.68" x 39.37" (500 x 1,000 mm) 23.62" x 39.37" (600 x 1,000 mm) 27.55" x 39.37" (700 x 1,000 mm)
<b>TABLE</b>	<b>Table speed</b>	200" ~ 985" / min (5 ~ 25 M / min)
	<b>Table slideway</b>	V-flat Way
<b>CROSS FEED</b>	<b>Auto cross feed increment</b>	0.004" ~ 0.8" (0.1 ~ 20 mm)
	<b>Power cross feed</b>	44" / min (1,100 mm / min)
	<b>Cross handwheel feed per graduation</b>	0.001" (0.02 mm)
	<b>Cross handwheel feed per revolution</b>	0.2" (5 mm)
<b>DOWN FEED</b>	<b>Rapid power head elevation (Servo motor)</b>	31" / min (800 mm / min)
	<b>Auto down feed (including rapid) (Optional)</b>	0.0001" ~ 0.0999" / Time option
	<b>Vertical down handwheel feed per graduation</b>	(x1) 0.0001", (x5) 0.0005", (x10) 0.0010" by MPG (x1) 0.001, (x5) 0.005, (x10) 0.01 mm by MPG
	<b>Vertical down handwheel feed per revolution</b>	(x1) 0.01", (x5) 0.05", (x10) 0.1" by MPG (x1) 0.1, (x5) 0.5, (x10) 1 mm by MPG
<b>WHEEL</b>	<b>Max. wheel size (O.D. x T x I.D.)</b>	16" x 2" x 5" (406 x 50 x 127 mm)
	<b>Spindle wheel speed</b>	1,750 rpm
<b>POWER</b>	<b>Spindle drive motor</b>	10 HP
	<b>Hydraulic pump motor</b>	3 HP
	<b>Auto cross feed motor</b>	1/5 HP
	<b>Rapid head elevation motor</b>	AC servo motor
	<b>Coolant pump motor</b>	1/8 HP
<b>WEIGHT &amp; DIMENSIONS</b>	<b>Net weight (Approx.)</b>	13,200 / 13,900 / 14,600 lb. (6,000 / 6,300 / 6,600 kg)
	<b>Gross weight (Approx.)</b>	15,000 / 15,700 / 16,300 lb. (6,800 / 7,100 / 7,400 kg)
	<b>Packaging dimensions (LxWxH)</b>	148" x 90" x 101"

• Specifications are subject to change without notice for further design improvements.

## **STANDARD MACHINE ACCESSORIES**

- |                     |                               |                              |
|---------------------|-------------------------------|------------------------------|
| 1. Grinding wheel   | 4. Wheel balancing arbor      | 7. Leveling screw and plates |
| 2. Wheel flange     | 5. Wheel balancing base       | 8. Work light                |
| 3. Flange extractor | 6. Wheel dresser with diamond |                              |

## **OPTIONAL MACHINE ACCESSORIES**

- |                              |  |
|------------------------------|--|
| 1. Electromagnetic chuck     | 8. Auto demagnetizer   |
| 2. Angle forming attachment  | 9. Dust suction system   |
| 3. Radius forming attachment | 10. Dust suction with coolant system                                   |
| 4. Sine bar                  | 11. Magnetic separator with coolant                                    |
| 5. Tool makers vise          | 12. Auto paper strip filter  |
| 6. Punch former              | 13. Auto paper strip filter with magnetic separator and coolant system |
| 7. Extra wheel flange        | 14. Auto down feed system  |

SPECIFICATIONS		PFG-2060AHR PFG-2460AHR PFG-2860AHR	PFG-2080AHR PFG-2480AHR PFG-2880AHR
CAPACITY	Table Size	19.68" x 59.05" (500 x 1,500 mm) 23.62" x 59.05" (600 x 1,500 mm) 27.55" x 59.05" (700 x 1,500 mm)	19.68" x 78.74" (500 x 2,000 mm) 23.62" x 78.74" (600 x 2,000 mm) 27.55" x 78.74" (700 x 2,000 mm)
	Max. table travel	22.00" x 64.96" (560 x 1,650 mm) 25.98" x 64.96" (660 x 1,650 mm) 29.92" x 64.96" (760 x 1,650 mm)	22.00" x 84.65" (560 x 2,150 mm) 25.98" x 84.65" (660 x 2,150 mm) 29.92" x 84.65" (760 x 2,150 mm)
	Max. surface ground	20" x 60" (500 x 1,500 mm) 24" x 60" (600 x 1,500 mm) 28" x 60" (700 x 1,500 mm)	20" x 80" (500 x 2,000 mm) 24" x 80" (600 x 2,000 mm) 28" x 80" (700 x 2,000 mm)
	Max. distance from spindle center to table top	23.62" (600 mm)	
	Electromagnetic chuck size	19.68" x 59.05" (500 x 1,500 mm) 23.62" x 59.05" (600 x 1,500 mm) 27.55" x 59.05" (700 x 1,500 mm)	19.68" x 78.74" (500 x 2,000 mm) 23.62" x 78.74" (600 x 2,000 mm) 27.55" x 78.74" (700 x 2,000 mm)
TABLE	Table speed	200" ~ 985" / min (5 ~ 25 M / min)	
	Table slideway	V-flat Way	
CROSS FEED	Auto cross feed increment	0.004" ~ 0.8" (0.1 ~ 20 mm)	
	Power cross feed	44" / min (1,100 mm / min)	
	Cross handwheel feed per graduation	0.001" (0.02 mm)	
	Cross handwheel feed per revolution	0.2" (5 mm)	
DOWN FEED	Rapid power head elevation (Servo motor)	31" / min (800 mm / min)	
	Auto down feed (including rapid) (Optional)	0.0001" ~ 0.0999" / Time option	
	Vertical down handwheel feed per graduation	(x1) 0.0001", (x5) 0.0005", (x10) 0.0010" by MPG (x1) 0.001, (x5) 0.005, (x10) 0.01 mm by MPG	
	Vertical down handwheel feed per revolution	(x1) 0.01", (x5) 0.05", (x10) 0.1" by MPG (x1) 0.1, (x5) 0.5, (x10) 1 mm by MPG	
WHEEL	Max. wheel size (O.D. x T x I.D.)	16" x 2" x 5" (406 x 50 x 127 mm)	
	Spindle wheel speed	1,750 rpm	
POWER	Spindle drive motor	10 HP	
	Hydraulic pump motor	5 HP	
	Auto cross feed motor	1/5 HP	
	Rapid head elevation motor	AC servo motor	
	Coolant pump motor	1/8 HP	
WEIGHT & DIMENSIONS	Net weight (Approx.)	15,900 / 16,500 / 17,200 lb. (7,200 / 7,500 / 7,800 kg)	18,500 / 19,200 / 19,800 lb. (8,400 / 8,700 / 9,000 kg)
	Gross weight (Approx.)	17,900 / 18,500 / 19,200 lb. (8,100 / 8,400 / 8,700 kg)	20,700 / 21,400 / 22,000 lb. (9,400 / 9,700 / 10,000 kg)
	Packaging dimensions (LxWxH)	154" x 90" x 101"	188" x 90" x 101"

• Specifications are subject to change without notice for further design improvements.

### STANDARD MACHINE ACCESSORIES

1. Grinding wheel	4. Wheel balancing arbor	7. Leveling screw and plates
2. Wheel flange	5. Wheel balancing base	8. Work light
3. Flange extractor	6. Wheel dresser with diamond	



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