



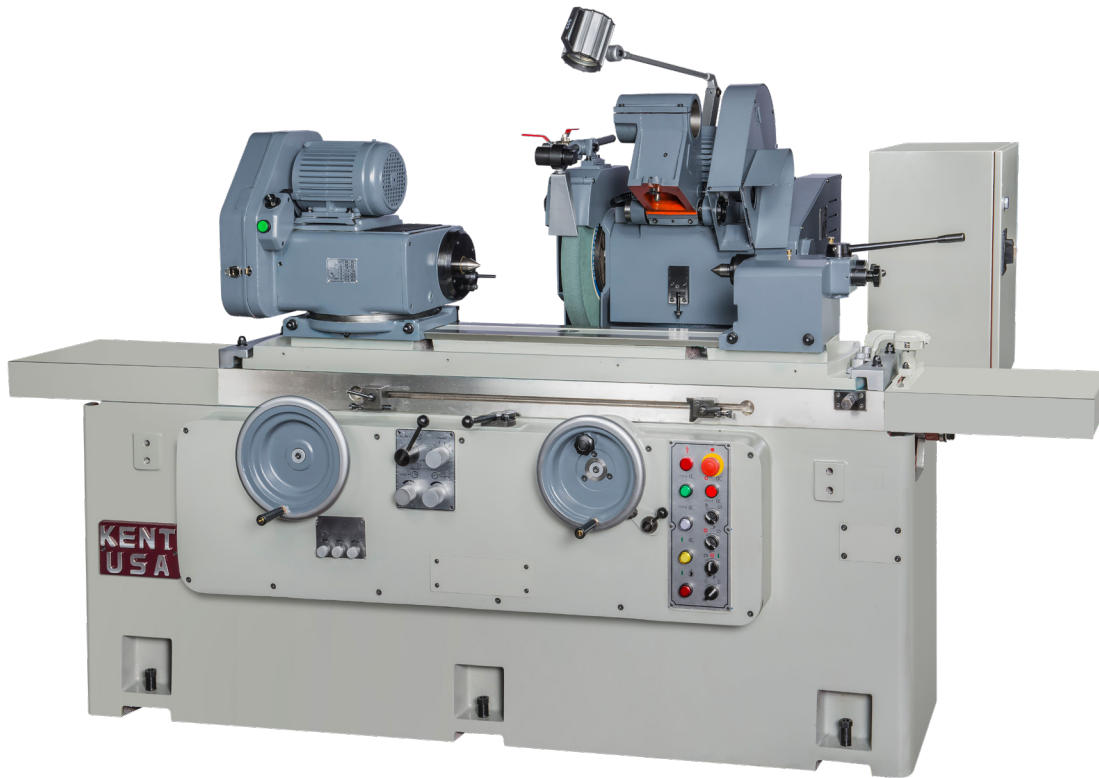
# Cylindrical Grinder

## KUG Series



[www.kentusa.com](http://www.kentusa.com)

# Cylindrical / Universal Grinding Machine



## KUG-27 SERIES

Grinding Diameter: 10"  
Grinding Length: 23"-78"

## KUG-35 SERIES

Grinding Diameter: 13"  
Grinding Length: 23"-78"

**Internal Attachment**  
(Universal Cylindrical Standard Accessory)

**Feeding Rate**  
Manual Grinding Feeding  
Z-Axis Hydraulic Movement  
Z-Axis Manual Movement



## **KUG-27NC1** SERIES

Grinding Diameter: 10"  
Grinding Length: 23"-78"

## **KUG-35NC1** SERIES

Grinding Diameter: 13"  
Grinding Length: 23"-78"

### **NC Controller**

Comes equipped with conversational touch screen interface for enhanced productivity.

### **Feeding Mode**

X-Axis Servo Motor  
Z-Axis Hydraulic Movement  
Automatic Grinding

# CNC Cylindrical Grinding Machine

## KUG-27 CNC SERIES

Grinding Diameter: 10"  
Grinding Length: 23"-78"

## KUG-35 CNC SERIES

Grinding Diameter: 13"  
Grinding Length: 23"-78"

### Feeding Rate

X Axis Servo Motor  
Z Axis Servo Motor  
Automatic Grinding Cycle  
Automatic Dressing Compensation  
Dressing Feeding  
Automatic Coordinate Setting

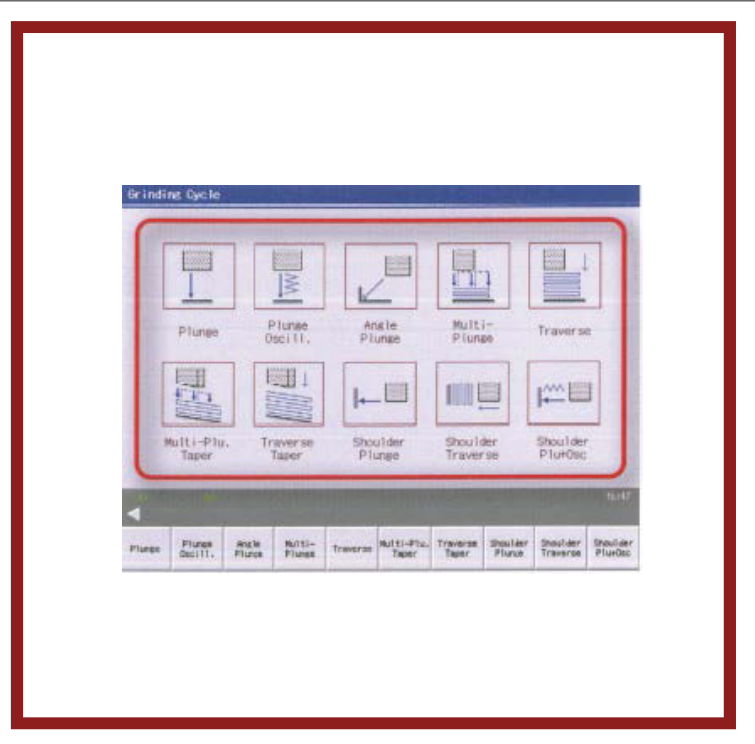
Suitable for Mass Production or Short Runs.



## Variety Grinding Cycles

Designed to be practical and meet user needs with ease of operation.

- Plunge w/o Oscillation
- Plunge with Oscillation
- Angle Plunge Grinding
- Multi-Plunge Grinding
- Traverse Grinding
- Multi-Plunge Taper Grinding
- Traverse taper Grinding
- Shoulder Plunge w/o Oscillation
- Shoulder Traverse Grinding
- Shoulder Plunge with Oscillation



## Form Type fill in for Editing Processes.

Form Type is designed for easy and fast editing for different grinding cycles. The regular program with NC Editing allows the user to edit any processing mode. Easy expansion for special grinding cycle for any processing needs.

## Control Options



Fanuc



Siemens



Mitsubishi



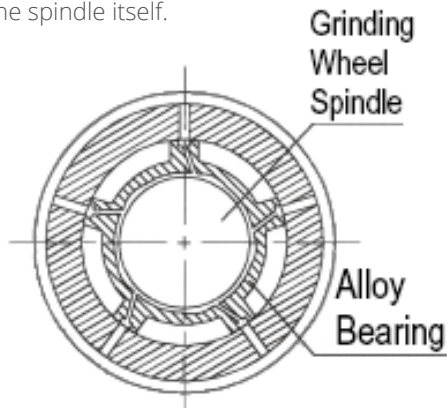
## Wheel Head

### Vibration Absorbing Design

The forced lubrication system of the grinding wheel spindle features a vibration absorbing function. The oil film pressure created by the hydrodynamic bearing automatically absorbs the vibration according to the current working condition.

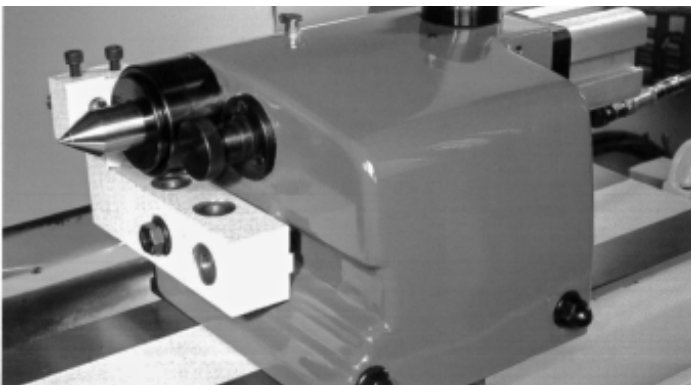
### Precise Rigid Spindle

The grinding wheel spindle is supported by two special hydrodynamic bearings on the end with a five-point support. The five-point supported bearings provide maximum rigidity and stability while running the spindle. In the case of insufficient lubrication to the spindle occurs, the spindle stops automatically to avoid wearing out the hydrodynamic bearing and the spindle itself.



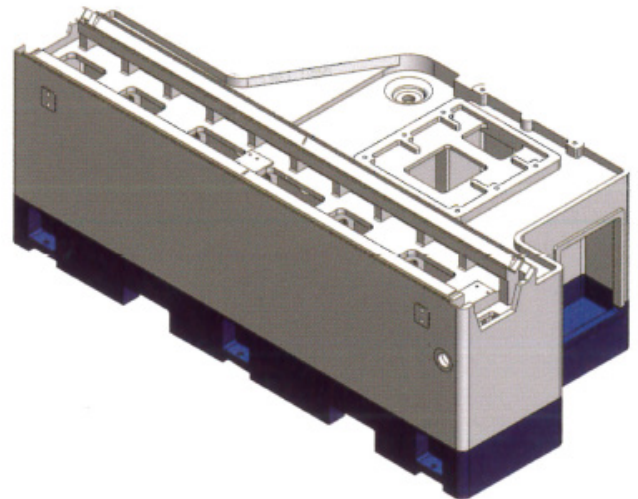
## Hydraulic Tailstock (CNC)

For convenient work piece loading and unloading the sleeve movement is hydraulically operated. Work piece clamping and unloading force can be adjusted by turning a knob. For maximum wear resistance and rigidity, the sleeve is machined from hardened alloy.

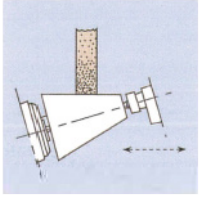


## One-Piece Fabricated Base

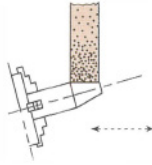
The One-Piece base is manufactured from Meehanite cast iron. The Box Type Base construction provides superior stability and rigidity during operations.



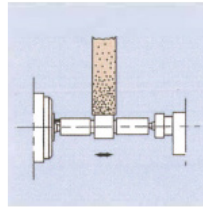
## Universal/NC Cylindrical Grinding Example



**Taper Grinding**  
between two Center

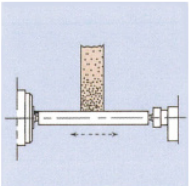


**Straight Plunge Grinding**

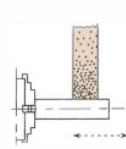


**Hold on Taper Grinding**

## Universal/NC/CNC Cylindrical Grinding Example

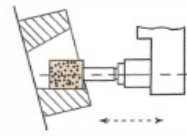


**Hold on Horizontal Grinding**

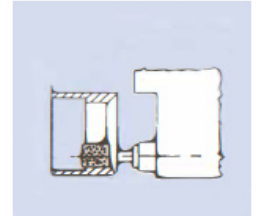


**Horizontal Grinding between two Centers**

## Universal Cylindrical Grinding Example



**Internal Taper Grinding**



**Taper Grinding**

## CNC Cylindrical Wheel Dressing Cycles

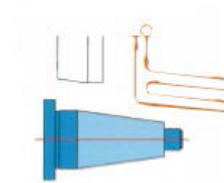


**Straight Grinding Wheel**

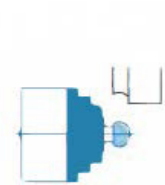


**Forming Wheel with Curve**

## CNC Cylindrical Grinding Example



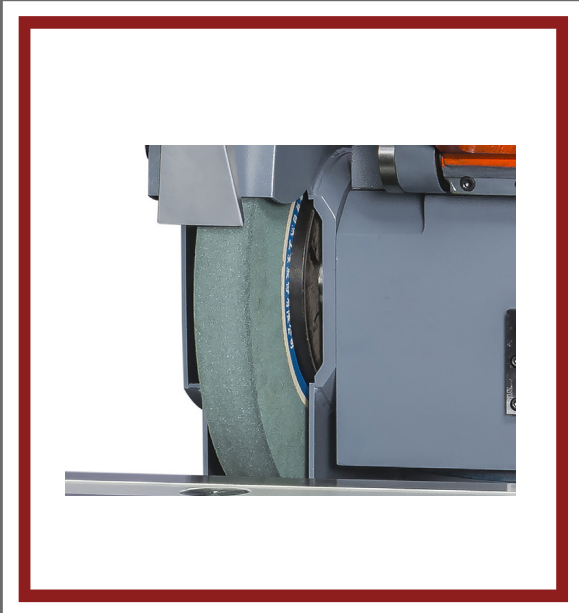
**Tapered Traverse Grinding**



**Curve & Endface Plunge Grinding**

Kent USA Cylindrical Grinders combine various grinding functions into one machine, making it effective for precision grinding while providing operation convenience.

# Standard Accessories



## Standard Accessories

- Tools and Tool Box
- Grinding Wheel and Wheel Flange
- Wheel Dresser
- 2-Point Center Rest (1m, 1.5m , 2m)
- Water Pump and Tank
- Fully Enclosed Splash Guard
- Oil Mist Collector (CNC only)
- Touch Probe Gauge (CNC only)
- X-Axis Linear Scale (CNC only)

## Optional Accessories

- Magnetic Separator
- Balancing Arbor
- Wheel Balancing Base
- 3-Jaw Chuck
- 3-Point Center Rest (Large)
- 3-Point Center Rest (Small)
- High Speed Spindle
- Center Ring and Jaw Plate
- Paper Filter
- Internal Attachment



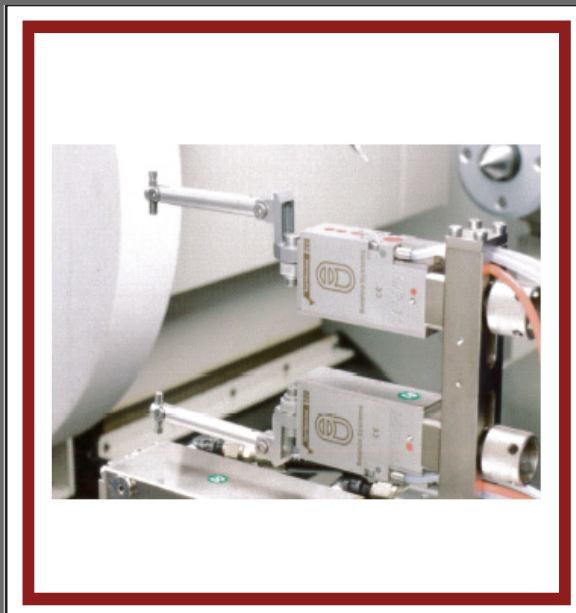
## Standard Accessories

- Tools and Tool Box
- Grinding Wheel and Wheel Flange
- Wheel Dresser
- 2-Point Center Rest (1m, 1.5m , 2m)
- Water Pump and Tank
- Fully Enclosed Splash Guard
- Oil Mist Collector (CNC only)
- Touch Probe Gauge (CNC only)
- X-Axis Linear Scale (CNC only)



## CNC Optional Accessories

- Thickness Measuring Gauge Marpass/BS
- Z-Axis Linear Scale
- Auto In-Process Gauge Marpass
- Auto In-Process Gauge BS
- Automatic Grinding Wheel Balancing System Marpass/BS
- Wheel Crash Control Device Marpass/BS



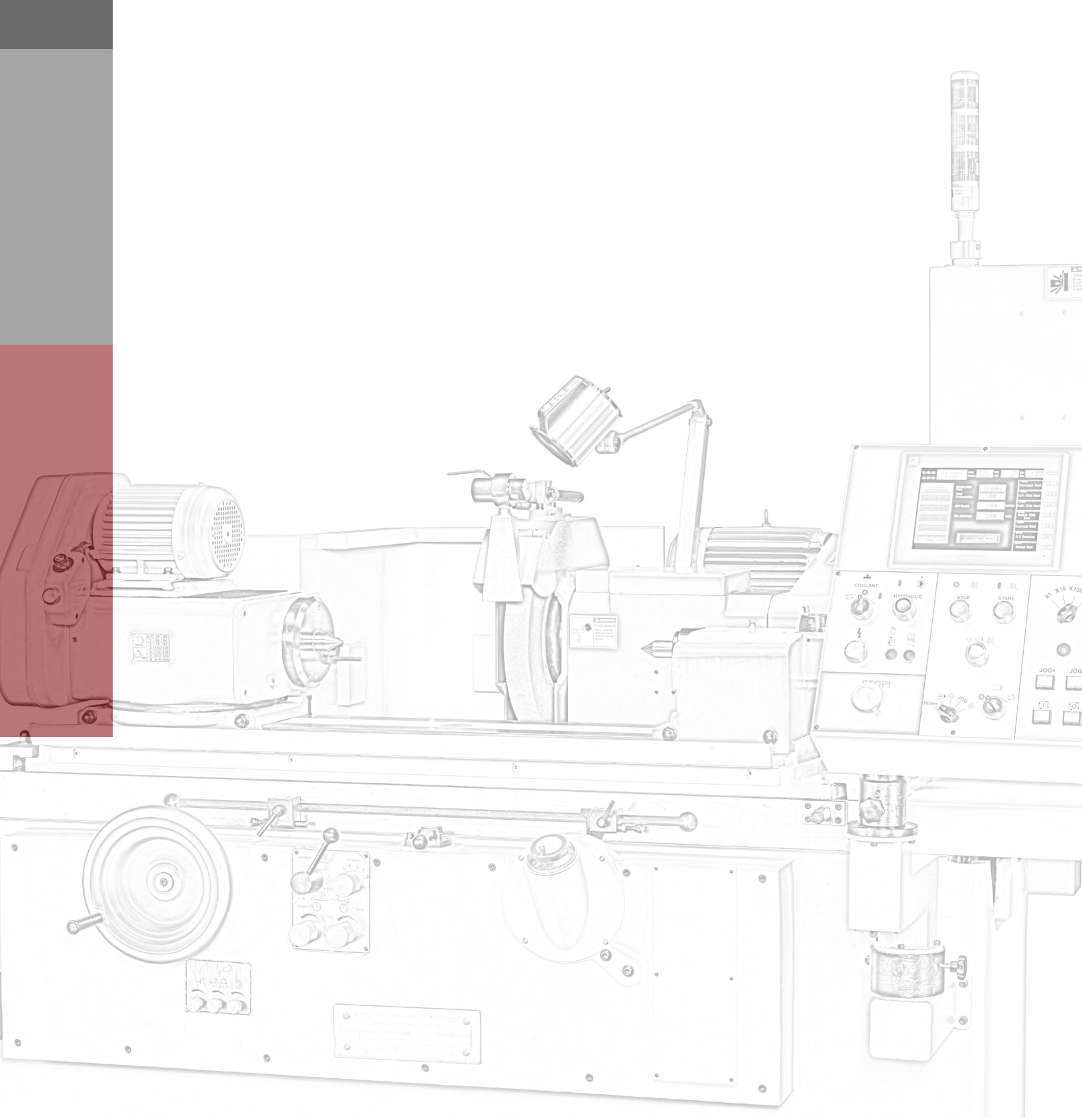
# Conventional H/NC Specifications

Model		KUG-2760 H/NCI	KUG-27100 H/NCI	KUG-27150 H/NCI	KUG-27200 H/NCI	KUG-3560 H/NCI	KUG-35100 H/NCI	KUG-35150 H/NCI	KUG-35200 H/NCI
Capacity	Max Work Swing	11"				14"			
	Max. Grinding Length	24"	40"	60"	79"	24"	40"	60"	79"
	Max Grinding Dia.	10"				13"			
	Max. Job Weight in Center	154 lbs	287 lbs			154 lbs	287 lbs		
Work Head	Speed Range (rpm 60HZ)	11-500 (Variable Speed)							
	Speed Range (rpm 50HZ)	9-420 (Variable Speed)							
	Swivel Angle	120° (CCW : 90°; CW : 30°)							
	Center	MT4							
	Spindle Rotation	Setting, Normal and Reverse Rotation							
Work Table	Horizontal Travel Speed (inch/min)	2"-157"	2"-118"			2"-157"	2"-118"		
	Handwheel/Revolution	.80"							
	Swivel Angle CCW/CW	11°/6°	9°/5°	7°/4°	5°/3°	11°/6°	9°/5°	7°/4°	5°/3°
	Min Travel	.32"							
Wheel Head	Grinding Wheel Size	16" x 1"-2" x 6"							
	Max Peripheral (inch/Min)	78"							
	Grinding Wheel Speed (2-step RPM 60HZ)	1499:1600 (Standard)							
	Grinding Wheel Speed (2-step RPM 50 HZ)	1508: 1603 (Standard)							
	Total Front and Rear Travel	Grinding Wheel 7"				Grinding Wheel 8"			
	Speedy Feed Travel	H Type 1.5" / NC1 Type Adjustment Setting							
	WheelHead Total Feed Travel	Grinding Wheel 5"				Grinding Wheel 6"			
	HeadWheel Feed/Revolution	.04"							
Tail Stock	Center Travel	1.18"							
	Center	MT4							
Motor	Grinding Wheel Motor	5 hp, 4p (Opt. 7.5 hp)							
	Workhead Motor	1/2 hp, 6p							
	Hydraulic Motor	2 hp, 4p							
	Compulsory Lubrication Motor	1 hp, 4p							
	Coolant Motor	1/4 hp, 2p							
	Magnetic Separator Motor	1/25 hp, 2p							
	Internal Grinding Motor	2 hp, 2p							
	X Servo Motor (NC)	2 hp							
Hydraulic System	Hydraulic tank	15 gal							
	Compulsory Lubrication Motor	8 gal							
	Coolant Tank	26 gal							
General	Machine N.W. (Approx. lbs)	6283 lbs	8311 lbs	10141 lbs	11243 lbs	6503 lbs	8531 lbs	10361 lbs	11464 lbs
	Machine G.W. (Approx. lbs)	7165 lbs	9260 lbs	11572 lbs	13227 lbs	7385 lbs	9480 lbs	11794 lbs	13448 lbs
	Packing Size (L x W x H)	110"-242" x 88" x 82"							

# CNC Specifications

Model		KUG-2760 CNC	KUG-27100 CNC	KUG-27150 CNC	KUG-27200 CNC	KUG-3560 CNC	KUG-35100 CNC	KUG-35150 CNC	KUG-35200 CNC
Capacity	Max Work swing	11"				14"			
	Max. Grinding Length	24"	40"	60"	79"	24"	40"	60"	79"
	Max Grinding Dia.	10"				13"			
	Max. Job Weight in Center	154 lbs	287 lbs			154 lbs	287 lbs		
	Range of Touch Probe	20"	35"	55"	74"	20"	35"	55"	74"
Work Head	Speed Range ( rpm 60 hz)	11-500 (Variable Speed)							
	Speed Range ( rpm 50 hz)	9-420 (Variable Speed)							
	Swivel Angle	120° (CCW : 90°; CW : 30°)							
	Center	MT4							
	Spindle Rotation	Setting, Normal and Reverse Rotation							
Work Table	Swivel Angle CCW/CW	11°/6°	9°/5°	7°/4°	5°/3°	11°/6°	9°/5°	7°/4°	5°/3°
	Max. Feed Rate	.32"							
	Min Setting Unit	0.00004"							
Wheel Head	Grinding Wheel Size	16" x 1"-2" x 6"							
	Max Peripheral (inch/Min)	78"							
	Grinding Wheel Speed (2-step rpm 60 hz)	1499:1600 (Standard)							
	Grinding Wheel Speed (2-step rpm 50 hz)	1508:1603 (Standard)							
	Max Feed Rate	.23" /min							
	Max Stroke	Grinding Wheel 7"							
	Max Setting Unit	0.00004"							
Tail Stock	Center Stroke	1.18"							
	Center	MT4							
Motor	Grinding Wheel Motor	5 hp, 4p (Opt. 7.5 hp)							
	Workhead Motor	2 hp							
	Hydraulic Motor	1 hp, 4p							
	Compulsory Lubrication Motor	1 hp, 4p							
	Coolant Motor	1/4 hp, 2p							
	Magnetic Separator Motor	1/25 hp, 2p							
	X Servo Motor	1.6 hp							
	Z Servo Motor	2 hp	2 hp	3 hp	3 hp	2 hp	2hp	3 hp	3 hp
Hydraulic System	Hydraulic tank	15 gal							
	Compulsory Lubrication Motor	8 gal							
	Coolant Tank	26 gal							
General Specifications	Machine N.W. (Approx. lbs)	6283 lbs	8311 lbs	10141 lbs	11243 lbs	6503 lbs	8531 lbs	10361 lbs	11464 lbs
	Machine G.W. (Approx. lbs)	7165 lbs	9260 lbs	11572 lbs	13227 lbs	7385 lbs	9480 lbs	11794 lbs	13448 lbs
	Packing Size (L x W x H)	157"-275" x 90" x 90"							

The above specifications are for reference only, we reserve the right to alter them without further notice.



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