



Industry 4.0

KT 2250-NC
(Servo Control) CRANKSHAFT GRINDING MACHINE

Double Separated Elec. Handwheel Control
0.001mm Grinding Precision
TouchScreen Control Panel
Reference Indicator and Semi Automatic Grinding Technology

WWW.POLEKS.COM.TR



POLEKS MAKİNA SAN. VE TİC.AŞ.

2.Organize San. Bol. Yaylacik Cad. İşiktepe Sk. No:21 Konya / TURKEY

www.poleks.com.tr poleks@poleks.com.tr

Tel: +90 332 239 00 11 Fax: +90 332 239 02 59

INDUSTRY 4.0

- Cost-iron base(body)
- Semi Automatic Grinding Mode/Reference Memory Kit
- Automatic Shaft/Spindle Grinding Process (**Automatic Feeding**)
- Ethernet and Remote connection system for software update.
- Easy programming and grinding process
- NC, Servo Control Grinding Wheel and Table Movement.
- Ball Screw system for (**X-Y axis**)
- Automatic lubrication system for all slides (**Lubrication time can adjustable**)
- Automatic lubrication system for all ball screws and gears , main shaft.
- Cooler system for Main shaft (**grinding head shaft**)
- Wheelhead with fast oleodynamic feed
- Electronic Handwheel Movement for (**X-Y axis**)
- Electronic hand-wheel for precision feeds and grinding wheel movement(**0.001**)
- Headstock and tailstock displacement on air cushion (**adjustable air bar**)
- Electronic speed adjustable crank rotation motor (**rpm adjustable**)
- Fast speed powered table traverse
- Precision incremental in-feed (**Electronic Handwheel / 0.001mm**)
- Incremental electronic measuring device (**X-Y axis**)
- Movable Work lighting lamp
- Cooling unit with fabric filter System
- Magnetic Water Separator (**Extra**)
- 220V Electric power plug on control panel for foreign uses
- Moveable centering system (**Extra**)
- Wheel head movement secure system
- (LCD)Touch Screen and **NC-Software system**
- Automatic reference save and grinding function.
- Curtain system for secure the slides
- Electric panel inside lighting lamp





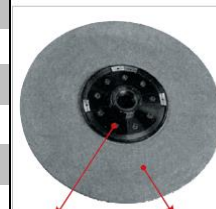
POLEKS MAKİNA SAN. VE TİC.AŞ.

2.Organize San. Bol. Yaylacik Cad. İşktepe Sk. No:21 Konya / TURKEY

www.poleks.com.tr poleks@poleks.com.tr

Tel: +90 332 239 00 11 Fax: +90 332 239 02 59

Technical Specifications		KT 2250- NC
Height of center over table	mm	300
Max.Distance between centers(2 executions)	mm	2250
Max.Swing over Table	mm	600
Max.Head offset	mm	140
Max. Diameter ground with full-size wheel	mm	300
Max. Mass admitted between centers	kg	300
Max.Weight admitted with rests	kg	600
Self-centering chuck diameter	mm	200
Table Micrometer feed per turn of the handwheel	Elc.Handwheel	Max. 6(mm) / Min. 0.01 (mm)
Table Automatic quik movement	mm/dk(mins)	4875
Workpiece rotation speed (stepless)	r.p.m	0 - 100
Grinding wheel diameter	mm	815
Max. Grinding wheel thickness	mm	60
Min. Grinding wheel thickness	mm	20
Air pressure for heads displacement	bar	5
Wheelhead fast traverse speed	mm	200
Wheelhead Micrometer feed speed	mm	0.001
Wheelhead Micrometer feed per turn of the handwheel	Elc.Handwheel	Max. 5(mm) / Min. 0.001(mm)
Precision incremental feed	mm	0.001
Grinding wheel motor power	kw	5.5
Workhead motor power(AC-Servo Motor)	AC(Servo)	1.5
Table control motor power	AC(Servo)	1.5
Cooling unit motor power	kw	0.18
Work length of machine	mm	7000
Length of machine	mm	4750
Width of machine	mm	2050
Height of machine	mm	1600
Weight of machine	kg	4550



02107 TÇK 0023



02102



02105



02103



02104



02100



02108



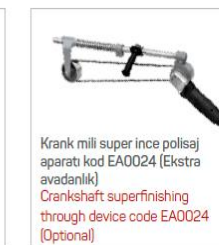
02106



02116



02117



Krank mili super ince polisaj
aparati kod EA0024 (Ekstra
avadanlık)
Crankshaft superfinishing
through device code EA0024
(Optional)

EA0024



Sabit konik punta
Conic centers

02122



Firdöndü aparati
Catch plates for drivers

02120



Firdöndü sıkma aparati
Drivers with locking pins

02121



Aşkı saati aparati
Continuous measurement
attachment

02119



İlave ağırlık aparati
Additional weight

02118



POLEKS MAKİNA SAN. VE TİC.AŞ.

2.Organize San. Bol. Yaylacik Cad. İşiktepe Sk. No:21 Konya / TURKEY

www.poleks.com.tr poleks@poleks.com.tr

Tel: +90 332 239 00 11 Fax: +90 332 239 02 59

Serial No	Standard Extra Equipments	KT 2250
02100	Service Kit	1
02101	Stroke or Center Position Checking Apparatus	1
02102	Device for taking the crank throw	1
02103	Centering rod mounted on square for centering crankshaft journals	1
02104	Self Centering Chucks	1
02105	Wheel Flange disassembly kit	1
02106	Narrow Steady Rest with built-in centering fixture	1
02107	Pair of flanges for grinding wheel	1
02108	Grinding wheel face and radius dresser(cutter diamond excluded)	1
02109	Cooling system tank (magnetic separator excluded)	1
02111	Pneumatic system	1
02112	Fixing Locks	1
02113	Precision incremental in-feed (Electronic Hand Wheel/3 speed adj./0.001)	1
02126	LCD Control Panel (Touch Screen)	1
02114	Electronic Powered Fast Table Traverse	1
02115	Electronic Digital Feed Measuring Device (two axis,X-Y)	1
EA0024	Crankshaft super finishing through device	Extra
TÇK0023	Grinding wheel	1
02116	Work lighting lamp	1
02117	Grinding wheel balancing apparatus	1
02118	Counter Weight	Extra
02119	Contunious meausrement attachment	Extra
02120	Catch plates for drivers	Extra
02121	Drivers with locking pins	Extra
02122	Conic Centers	Extra
02123	Safety flop and switch	Extra
02124	Lubrication Pump	1
02125	Automatic lubrication system (for all slides and bearings)	1
02126	Electronic Handwheel (three different functions can adjust)	1
02127	Ethernet and Remote connection system for software/maintnance	1
02128	Semi Automatic Grinding Mode/Reference Memory Kit	1
02129	Automatic Shaft/Spindle Grinding Mode/Unlocked on Software	1



Work head position checking attachment. The crankshaft is held between chucks.Auxiliary counter weights fitted to workhead faceplate.



FIXING LOCK
You are able to fix even very heavy crankshafts easily using this lever. It provides you practical use when you want to measure.



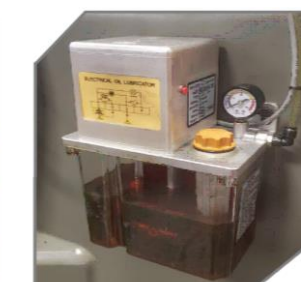
Safety flop and switch (CE Extra Avadanlık)
KT 3000 Extra
KT 2250 Extra
KT 1800 Extra
KT 1600 Extra



Tail end emergency stop grinding wheel.
KT 3000 Extra
KT 2250 Extra
KT 1800 Extra
KT 1600 Extra



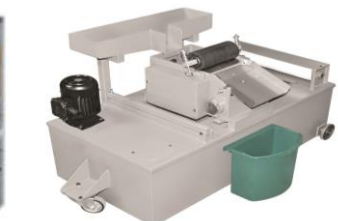
Additional emergency stop
KT 3000 Extra
KT 2250 Extra
KT 1800 Extra
KT 1600 Extra



AUTOMATIC LUBRICATION SYSTEM KT Series – Crankshaft Grinding Machines has automatic lubrication station system and this system has time limit settings and machine do it automatically by it self every 15 mins or operator can change the lubrication times.



LCD CONTROL PANEL
Touch-screen control panel helps to operate machine more easy and useful. Electronic handwheel for use sensitive feeds.



COOLANT TANK
Coolant apparatus is a standard part of the machine. It is necessary to use a special coolant water to prevent the burning of the work. Resting reservoirs exists in the cauldren.



WIRING AND PNEUMATIC SYSTEM
Wiring is designed to provide the machine work practically. Work r.p.m can be provided at the required r.p.m due to the special driver. Pneumatic system is accomodated at the back of electricity panel, and it insulates the system lubricating the air.

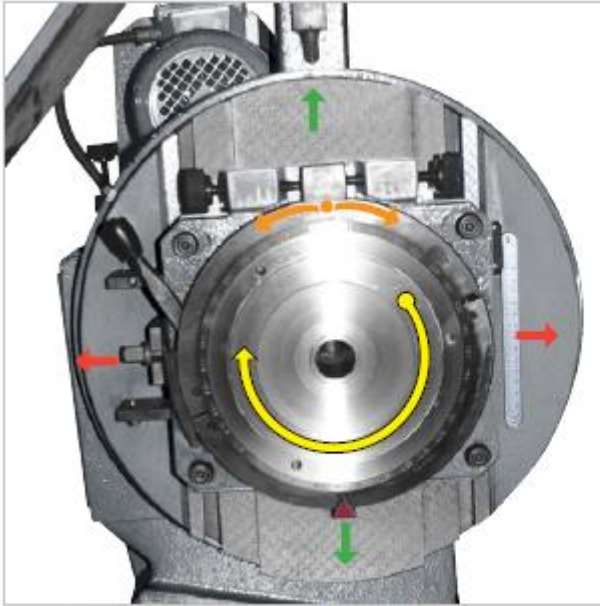


POLEKS MAKİNA SAN. VE TİC.AŞ.

2.Organize San. Bol. Yaylacik Cad. İşiktepe Sk. No:21 Konya / TURKEY

www.poleks.com.tr poleks@poleks.com.tr

Tel: +90 332 239 00 11 Fax: +90 332 239 02 59



Kolay merkezlenebilir eksantrik kafalar
Easily centralised eccentric heads



ECCENTRIC HEADS

This machine includes eccentric heads especially designed for you. Using these heads, you are able to centralize the crankshaft easily

Workheads: You can adjust speed of boring head with motor control device between 0-100 r.p.m and you can check speed at digital display of control panel. Power of engine doesn't change at min. or max. period.



The eccentric heads are provided with the following movements:

A: Vertical movement for the rod journals centering

B: Transverse movement for the compensation of any eventual irregularity centering the rod journals.

C: 360 degrees angular movement with quick release and control of the position on graduated nonius for the grinding of rod journals with different angular phases

D: Micrometric angular adjustment.

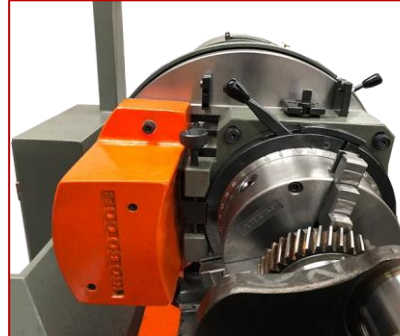
A B C D



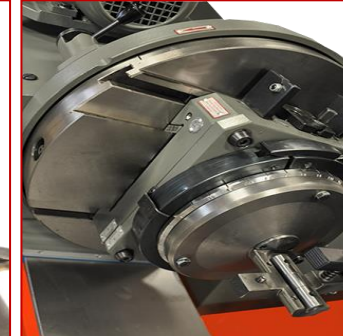
WEIGHT SETTING is very simple and easy on KT series. Left/Right sides have the small window each sides and operator need to open the small windows and set up the weight distance with a special easy system. Also KT series have the LOCK system for the weights. Lock system present the POLEKS security CE rules.



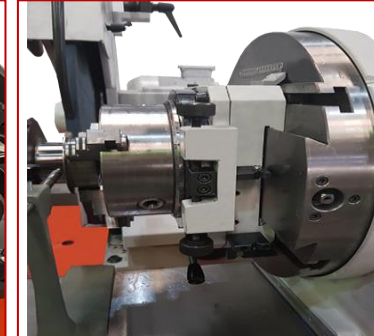
WORK HEAD POSITION checking attachment. The crankshaft is held between chucks. Auxiliary counter weights fitted to workhead faceplate.



FIXING LOCK You are able to fix even very heavy crankshafts easily using this lever. It provides you practical use when you want to measure.



WORK HEADS You can adjust speed of boring head with motor control device between 0-100 r.p.m and you can check speed at digital display of control panel. Power of engine doesn't change at min. or max. period.



ECCENTRIC HEADS This machine includes eccentric heads especially designed for you. Using these heads, you are able to centralize the crankshaft easily



POLEKS MAKİNA SAN. VE TİC.AŞ.

2.Organize San. Bol. Yaylacik Cad. İşktepe Sk. No:21 Konya / TURKEY

www.poleks.com.tr poleks@poleks.com.tr

Tel: +90 332 239 00 11 Fax: +90 332 239 02 59



ELECTRONIC HANDWHEELS

KT Series – Crankshaft Grinding Machines has system for have more precision wheel traverse movement and table right/left movement with elc.handwheel. Those elc.handwheels can set up different speeds. Important note both sides have precision 0.001mm



TOUCH SCREEN & GRINDING MODES

Machine control and all operating will be on touchscreen and control panel has different grinding modes automatic/semi and manual modes.



TOUCH SCREEN & GRINDING MODES

Machine control and all operating will be on touchscreen and control panel has different grinding modes automatic/semi and manual modes.



V-TYPE Slides upgrade and increase the precision of the machine grinding sensitiveness



CENTERING APPARATUS

Centering rod mounted on square for centering crankshaft journals. The crankshaft is held between centers.



CRANK SUPPORT APPARATUS

is the Device for taking the crank throw. While operator can use this support device for any type of Crankshafts.



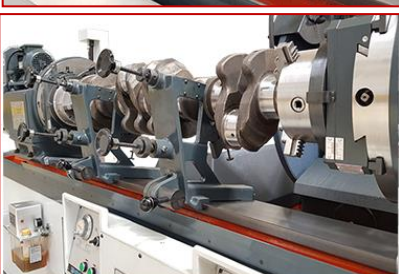
DRESSING APPARATUS

Grinding wheel face and radius dresser. The standard dresser performs all dressing operations on the wheel face, radius and sides. Time is never wasted to mount and dismount multiple dressers.



ELECTRIC PANEL

Electricity panels of our machines are designed as complete and particular by our engineers. Cycle adjuster inverters(power adjusting systems) is located in the panel. Also panel interior lighting system.



NARROW STEADY REST

device is the following duty narrow steady rest with built-in centerin Fixture.



SECURITY LIMIT SENSORS

KT series have the sensors for security the machine health and operation mistake. Those sensors are totally electronic sensors.



UNIVERSAL SPINDLE GRINDING AND AUTOMATIC FEEDING is the process for KT series as following the standard features. This is the applicant for the KT series grinding by automatic feeding of any type of universal spindles.

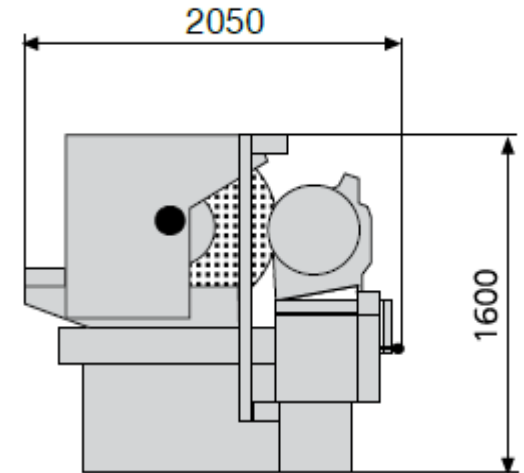
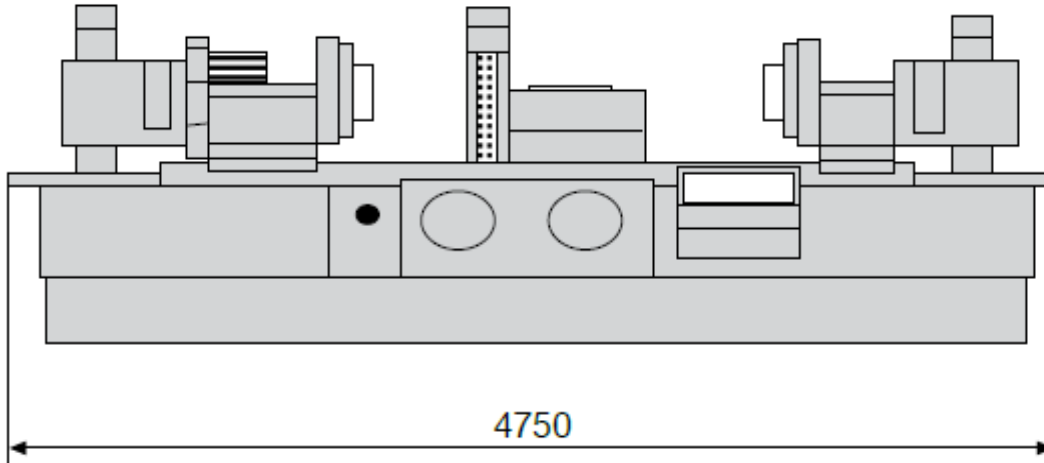
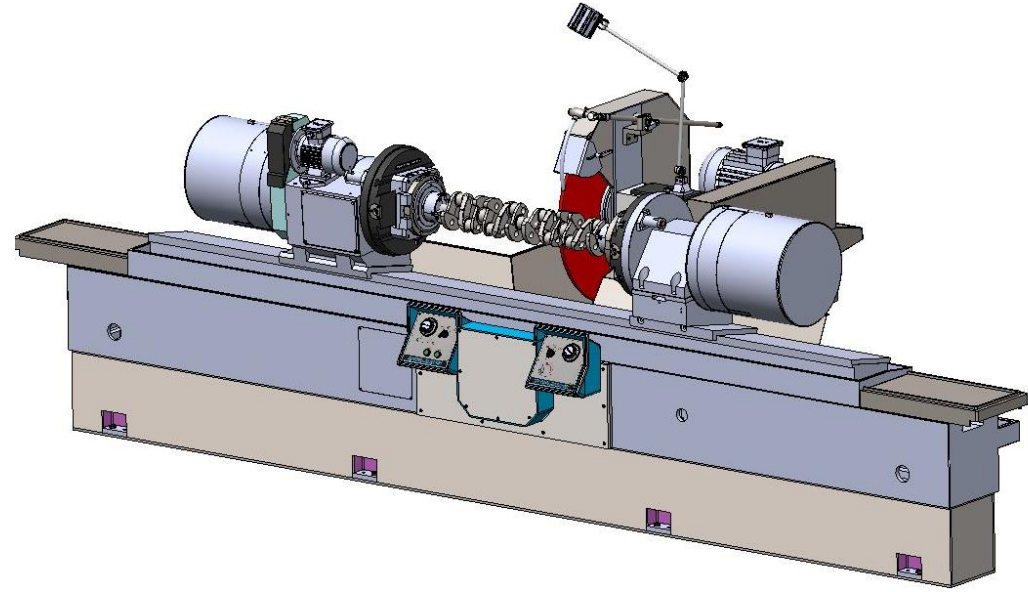
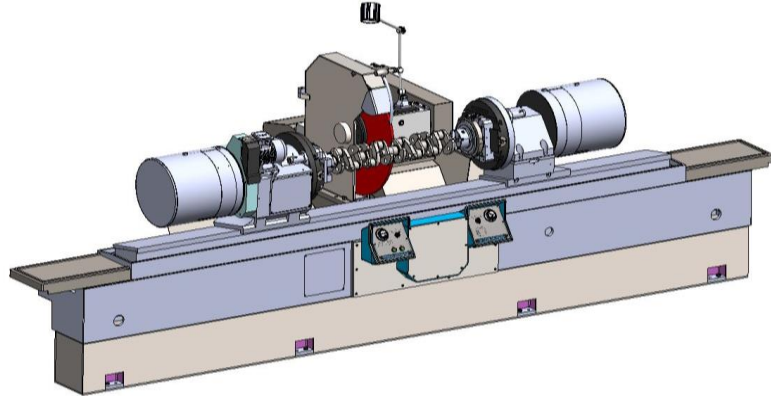
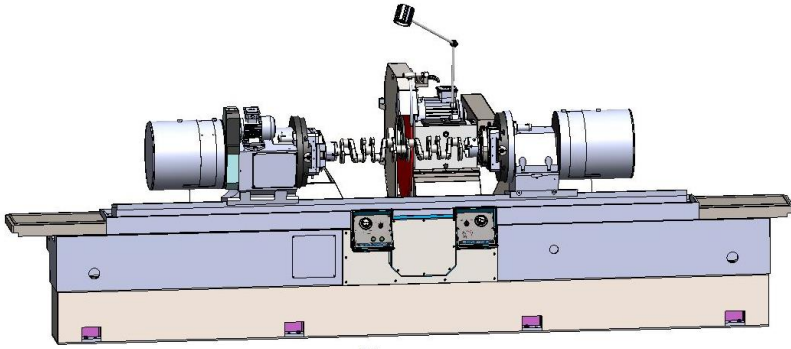


POLEKS MAKİNA SAN. VE TİC.AŞ.

2.Organize San. Bol. Yaylacik Cad. İşiktepe Sk. No:21 Konya / TURKEY

www.poleks.com.tr poleks@poleks.com.tr

Tel: +90 332 239 00 11 Fax: +90 332 239 02 59



GTİP No: 8460.29.10.00.00