

Transmission Component – Parking Pawl

Kira KA3-6VS Fully Integrated 4 Station CNC Dial Machine

Key Features

- (3) CNC production center modules integrated into one system
- Flexible fixturing with the capability for quick changeover to different work pieces.

PRODUCTION CHALLENGE:

- Produce more than 100 parking pawls per hour at 1.67 CPK, process includes face milling, reaming and drilling of casting. Cycle time is 35 seconds per part
- The machine must be capable of easy changeover to different parts in the future.
- All three CNC machines must be operated by one person or one robot

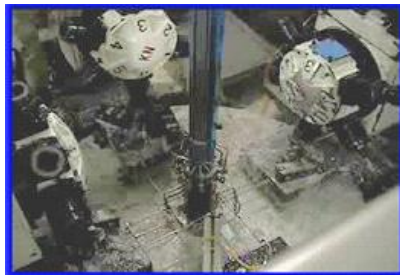
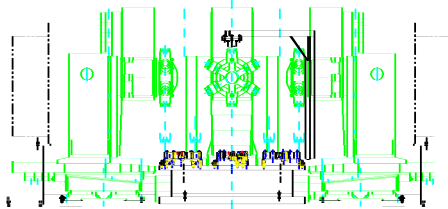


SOLUTION:

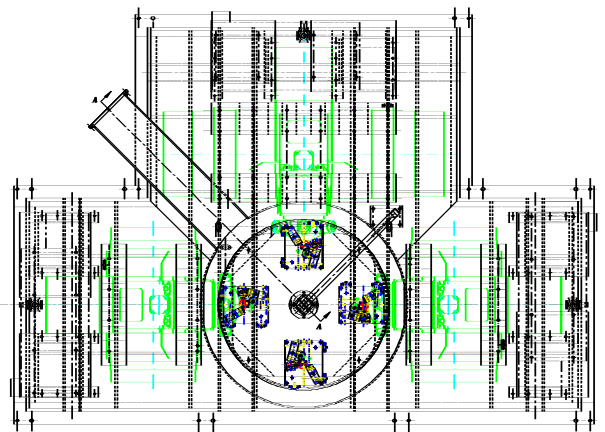
- Place three (3) Kira KA3-6VS 3 axis turret modules around a 4 station precision index table creating a CNC dial machine.
- All three (3) Kira modules are fully programmable to facilitate future part print changes or for quick and effective changeover to a different part altogether
- Provide a fixturing system that allows the customer to quickly exchange a full set of fixtures with new fixtures capable of holding completely different parts.
- Bring the system together electronically through an Allen Bradley PLC at the load station which communicates with all three (3) of the Kira / Fanuc CNC systems.

RESULTS:

- A self contained, compact, dry floor machine which produces parking pawls at the required rate and CPK specifications
- Provides "FLEXIBILITY" through CNC programming and "AGILITY" through its capability for quick change over to different work pieces.



"Fully Integrated System"



Parking Pawl



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MACHINE SPECIFICATIONS	KA3-6VS	KA3-40Hb
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AXIS

X axis stroke	15.7" (300 or 400mm)	19.7" (500mm)
Y axis stroke	9.8" (250mm)	15.8" (400mm)
Z axis stroke	11.8" (300mm)	15.8" (400mm)
Rapid traverse (X,Y)	24000mmpm~954ipm	48000mmpm~1889 ipm
Rapid traverse (Z)	24000mmpm~394ipm	48000mmpm~1889 ipm

SPINDLE

Spindle Speed

Standard	8,000RPM (5 or 7.5HP)	8,000RPM (10 or 15HP)
Optional	4,000RPM (5 or 7.5HP)	10,000RPM (15HP)
Optional	10,000RPM (5 or 7.5HP)	12,000RPM (10 or 15HP)

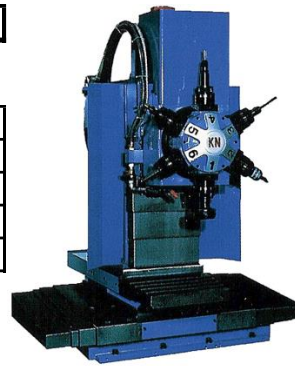
ATC

No. of tools	6 (Optional 4 or 8)	20 (Optional 30 or 40)
Max. tool diameter	3.9" (100mm)	3.9" (100mm)
Max. tool length	9.8" (250mm)	9.8" (250mm)
Max. tool weight	6.6 lbs (3kg)	11 lbs (5kg)
Tool selection	Random	Random
Tool change time (T/T)	1sec	1.5 sec
Tool change time (C/C)	3 sec	3 sec

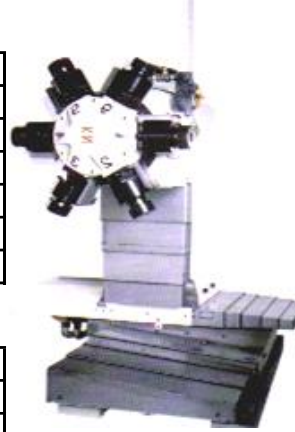
CUTTING CAPACITY (S45C)

Drilling	LowØ23mm~MidØ18mm~HighØ12mm	MidØ20mm~HighØ16mm
Tapping	Low M18~Mid M12~High M8	MidØM18~HighØM12
Milling	Low25cc/min~Mid15cc/min~High8cc/min	MidØ20cc/min~HighØ10cc/min

All specifications are subject to change without notice.



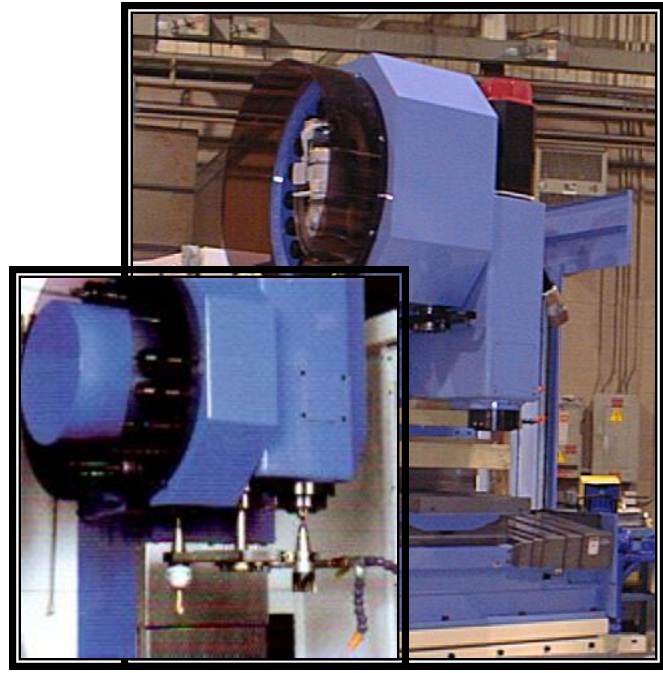
Turret Style Vertical



Turret Style Horizontal



Horizontal 40 Taper tool changer style.



Vertical 30 or 40 Taper tool changer style.