

Automotive Transmission Part Machining

Kira KN40Vb Twin Spindle Vertical CNC Production Center

Key Features

- (2) 8mm Ø hole 40mm deep in each part
- All (4) holes drilled in under 4 seconds

Typical Applications



Automotive Transmission



Automotive Rear Hubs



Electric Hand Tools

PRODUCTION CHALLENGE:

- To produce steel automotive transmission parts which require machining on all sides with multiple compound angles
- Output requirements demand fast cycle time

SOLUTION:

- Start with a Kira KN40Vb Super Twin Spindle with automatic pallet changer
- Add a dual axis rotary tilt indexer to each pallet
- Add high pressure coolant through spindle for increased cutting rates
- Equip with hydraulic part clamping

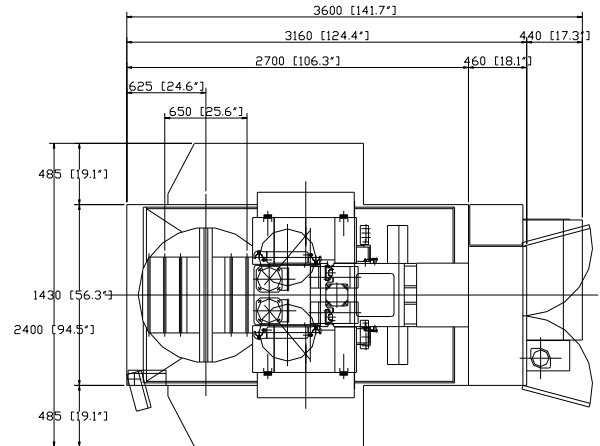
RESULTS:

- Cycle time was achieved; The twin spindles produce two parts at once which doubles the output; Piece part cost is cut in half; This improves our customers competitiveness
- Compact floor space; Self contained system
- The automatic pallet changer allows load/unload to occur during machining cycle
- Quality, reliability, accuracy, flexibility and agility are all achieved affordably
- These are world class results!



Dual Axis Rotary Tilt Indexer

"Small Footprint"



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MACHINE SPECIFICATION	250mm Between Spindles			450mm Between Spindles
	KN40Vb-500 (Non-APC)	KN40Vb-500 Standard 2APC	KN40Vb-500- Large 2APC	KN40Vb-500W (Non-APC)

TRAVEL

X axis stroke	19.7" (500mm)	same	same	same
Y axis stroke	13.8" (350mm)	same	same	same
Z axis stroke	15.7" (400mm)	same	same	same

SPINDLE POWER

Standard	8,000RPM - 10HP	same	same	same
Optional	8,000RPM - 15HP	same	same	same
Optional	12,000RPM - 10HP	same	same	same
Optional	12,000RPM - 15HP	same	same	same

DISTANCE BETWEEN SPINDLES

Standard	9.84" (250mm)	9.84" (250mm)	9.84" (250mm)	17.7" (450mm)
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TABLE / PALLET CHANGER

	Fixed Table	Each Pallet	Each Pallet	Each Table
Working area	27.5"x15.7" (700mmX400mm)	23.6"x13.9" (600mmX350mm)	52"x34" (1320mmX940mm)	27.6"x15.7" (700mmX400mm)
Pallet change time	n/a	4.0sec	4.5sec	n/a
Maximum table load capacity	1100 lbs (500kg)	330 lbs (150kg)	1100 lbs (500kg)	1100 lbs (500kg)
Pallet Rotation	n/a	180°	180°	n/a

FEED RATE

Rapid traverse

X axis	1417 IPM (36,000mm)	same	same	same
Y axis	1417 IPM (36,000mm)	same	same	same
Z axis	1417 IPM (36,000mm)	same	same	same

Cutting feed rate

X axis	394 IPM (10,000mm)	same	same	same
Y axis	394 IPM (10,000mm)	same	same	same
Z axis	394 IPM (10,000mm)	same	same	same

THROAT DIMENSIONS

Spindle nose to table top	21.65" (550mm)	same	same	same
Cutting center line to column surface	16.9" (430mm)	same	same	same

TOOL SHANK

Standard	CT40	same	same	same
Optional	BT40	same	same	same
Optional	HSK 63	same	same	same

TOOL CHANGER

Number of tools (each spindle)	20	same	same	same
Rapid traverse	Random	same	same	same
Tool change time (T-T)	1.2sec	same	same	same
Tool change time (C-C)	3.0sec	same	same	same
Maximum tool diameter	3.9" (100mm)	same	same	same
Maximum tool length	9.8" (250mm)	same	same	same
Maximum tool weight	11 lbs (5kg)	same	same	same

ACCURACY

Positioning accuracy (X, Y & Z axis)	0.0002" (0.005mm)	same	same	same
Positioning repeatability (X, Y & Z axis)	±0.0001" (0.003mm)	same	same	same
Positioning repeatability (X, Y & Z axis)	±0.0001" (0.003mm)	±0.0001" (0.003mm)	±0.0001" (0.003mm)	same

All specifications are subject to change without notice.

