

►► **Built for a Lifetime**

## ► Fusion 5 Axis Series



The Fusion 5 Axis Series of CNC routers from Komo Machine has been developed specifically for the customer who requires more machining flexibility and more Z travel than a Fusion XL. These machines feature a moving table configuration and a choice of 36" or 48" Z travel.

### Features

- ◆ Four-pole, 20HP (15kw), 22,000 RPM, HSK 63F, liquid-cooled spindle (standard; other spindle options available)
- ◆ 15 position automatic tool changer (optional additional 15 position tool changer shown)
- ◆ Advanced Fanuc HVI servo system tuned for optimum acceleration and deceleration
- ◆ Fanuc Panel i control with integrated PC
- ◆ Universal grid fixture table available in composite (standard) or aluminum (option)
- ◆ Pressurized automatic centralized lubrication system
- ◆ KOMO Production Manager and Machine Monitoring software
- ◆ 19" touch screen display

### Construction

- ◆ FEA "Finite Element Analysis" engineered structure
- ◆ Heavy-duty steel fabrication
- ◆ Closed-loop counterbalance system minimizes plant air consumption

# KOMO

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# Fusion 5 Axis Series - Technical Data

## Spindle

Quantity	One (1) standard
Type	20HP (15kw), four-pole, liquid cooled (standard)
RPM	Up to 22,000, fully programmable
Taper	HSK 63F

## Table

510	60" x 120" (1524mm x 3048mm)
512	60" x 144" (1524mm x 3658mm)

## Tool Changer

Max Quantity	15 tools
Max Diameter	3.25" (82mm) positions full; 6.5" (165mm) adjacent positions empty
Max Weight	12 lbs each / 96 lbs total (5.4kg / 43.5kg)
Max Length	11" (280mm)

## Feed Rate/Traverse

X Axis	3150ipm (80mpm)
Y Axis	3150ipm (80mpm)
Z Axis	735ipm (18.7mpm)
A and C Axes	82.5°/sec
Acc/Dec	205 in/sec <sup>2</sup>

## Axis Travel

510	144" (3658mm) x 95" (2413mm) x 36" (914mm)
512	168" (4267mm) x 95" (2413mm) x 36" (914mm)
	Z Axis travel available in 48" (1220mm)
A Axis	±120°
C Axis	±213°

## Positioning

Accuracy	±0.0008" (±0.02mm) linear axis repeatability 20 arc seconds A and C axes unidirectional repeatability
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## Control System

Fanuc Panel i	With integrated PC and 19" touch screen display
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## Options

Tooling Package	Tool holders, collets, bench top tool changing block, wrench
Vacuum System	With low vacuum sensing interface
Vacuum Pumps	Started via pushbutton on main operator panel, with remote start relay
A and C Encoders	Rotary encoders increase the repeatability tolerance of the A and C axes
A and C Brakes	Hydraulic brakes add rigidity to indexing operations
C Distributor	Rotary distributor allows the C axis to rotate continuously without unwinding
Part Labeling	Print labels directly onto parts prior to machining
Safety Equipment	Laser scanners, light curtains, pressure mats
Dual Screen	Additional 19" screen attached to the HMI
Metal Cutting	Mist coolant, dust/chip enclosure for cutting non-ferrous metals
Table	Aluminum universal grid, threaded inserts, custom options