

COMPUTER AIDED MODELING MACHINE

CAMM-3

by ROLAND DIGITAL GROUP

MODEL PNC-300



3D Models by Programmable Numerical Control



The modeling produced using a clipart data of STUDIO Pro™ from © Strata Inc.

Experience for yourself the physical reality of the 3D images you create. The PNC-300 can make this dream come true.

The CAMM-3 Model PNC-300 is a radical new 3D Computer Aided Modelling Machine that gives physical form to 3D data that up to now could only be viewed by screen or printout without vast investments. The PNC-300 offers outstanding spec's, functions, operability, and high-precision machining performance, delivering output quality that is guaranteed to satisfy. The PNC-300 achieves an affordable low price that makes it a great choice for use in a wide range of applications.



From Screen to Hand — 3D Designs That You Can Shape, See, Touch, and Experience

Have you ever wanted to give the 3D data you create a form that you can see, touch, and experience? Roland's new CAMM-3 Model PNC-300 can do this for you. The PNC-300 takes data you create with 3D software and gives it physical form, right on the spot. Conventional machines for three-dimensional modelling are extremely expensive, making it difficult to find an easy method to make actual models of 3D designs. Users who find it hard to access such machines have been forced to visualize three-dimensional images from their on-screen representations, with no method available to make actual confirmation. The PNC-300 can give shape to three-dimensional data quickly and easily, achieving sophisticated functioning at an unheard-of price. Now it is possible to make confirmation models of designs directly and accurately.

High-precision Machining

The PNC-300 is the world's first low-cost 3D modelling solution. In a complete departure from conventional 3D modelling, the PNC-300 is based on the radical new concept of giving shape to data on the spot for

immediate verification. What is more, the PNC-300 offers high-precision machining performance—now it's easy to access sophisticated three-dimensional modelling with maximum operation speeds of 3.6 meter/minute for the X and Y axes and 1.8 meter/minute for the Z axis, software resolution of 0.01 mm/step, and mechanical resolution of 0.00125 mm/step. And in addition to modelling, the PNC-300 can do engraving as well.

Safe and Clean

The PNC-300 is not just convenient, it's been designed to ensure safety in every way. The cover that makes the cutting mechanism inaccessible during operation simultaneously helps to keep swarf and dust produced during the machining operation from entering the surrounding environment. This makes it possible to operate the PNC-300 in an office environment. The PNC-300 is also designed for low-noise operation that won't intrude on creativity and concentration. And because its compact design can ensure space-saving installation, the PNC-300 is sure to enjoy use in a wide range of situations, including schools, offices, in R & D facilities as well as manufacturing facilities.

Supports a Wide Variety of Materials

Modelling can be accomplished with materials such as modelling wax, chemical wood, modelling foam, many types of resins, and soft non-ferrous metals like aluminium and brass. Because the material can be chosen to meet the need, the PNC-300 gives the user accessible verification modelling matched to any of a wide range of purposes.

High-efficiency Modelling That Faithfully Reproduces the Image

The attractiveness of arcs and curved surfaces is where the true value of a modelling machine is really put to the test. The PNC-300 is equipped with a smoothing function that provides smooth control of movement in the X-Y plane, allowing cutting to be carried out quickly as well as smoothly. Other features include an optional 1 Mbyte memory buffer. When this is installed, it is possible to make use of the repeat function, whereby a job sent to the PNC-300 can be machined repeatedly without re-sending the data from the host computer — just one of the ways the PNC-300 strives for high-efficiency machining operations as it does in every way.

■ PNC-300 Specifications

MODEL	PNC-300 (Preliminary)
Operation Range	X-axis : 120 mm (4-11/16"); Y-axis : 100 mm (3-7/8"); Z-axis : 120 mm (4-11/16")
Spindle Motor	26 W (DC Motor)
Spindle Rotation Speed	3,000 - 8,000 rpm (Controllable by manual or by instruction)
Tool Chuck	Collet System dia. 6 mm Standard
Maximum Work Speed	X & Y Axes.: 3.6 m / min. Z Axis: 1.8 m / min.
Minimum Work Speed	0.03 m / min.
Software Resolution	0.01 mm / step or 0.025 mm / step
Interface	Parallel (Centronics), Serial (RS-232C)
Instruction System	CAMM-GLI (mode 1: Compatible with Roland 's CAMM-2 & CAMM-3 series . mode 2: HP-GL emulation, also plotter unit = 0.025 mm can be accepted)
Safety Function	Safety Cover , Emergency Stop Switch
Buffer Size (I/O)	1 KB (expandable up to 1 MB)
Display	LCD: 20 Letters X 2 Lines (Back-Lit)
Environmental Requirements	5 ~ 40C* (41-104* F), 35~80% (non-condensing)
Power Consumption	1.7 A / 117 V 1.0 A / 220 - 230 V 0.9 A / 240 V
Dimensions (w x d x h)	490 mm x 516 mm x 430 mm (19-5/16" x 20-3/8" x 16-15/16")
Weight	36 kg (7.9 lb.)
Acoustic Noise Level	Operating mode : under 60 dB (A) , Stand-by mode : under 55 dB (A) (According to ISO 7779)

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Roland
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