

FACTORY AUTOMATION TRAINER

Model Number : GOTT-FAT-1077



The System Consist Of :

- | | |
|-----------------------|-------------------------|
| A) Loading Station | C) Robotic Station |
| B) Processing Station | D) Pick & Place Station |

FEATURES

Factory Automation Trainer is a unique concept in Multi-skilling technology, utilizing a range of industrial drives & control methods. This system consists of a range of 4 differing modules, which can be independently or alternatively connected together, to form part or complete system.

Each module utilizes a selection of different technologies therefore can be used for a variety of curricula, by students through to technician levels. A separate P.L.C is installed for the module & all that is required to power the system is a compatible air supply and 230V 50Hz single-phase electrical supply.

Independent exercise is available for each module or exercises for the combination of modules as well.

The "Robot Station" when used in a 'system' will typically intermediate module, which can transfer a component from upstream module (e.g. Processing Station) to a down module (e.g. Pick & Place Station) and comprises of robotic arms. All control system is designed so that P.L.C program monitoring etc. can be carried out without accessing the panel. Each module is supplied completely assembled and tested on an extruded aluminium profile trolley, fitted with 4 swivel castors (2 lockable), allowing mobility of the module to be relocated between different training locations. Each module has itself power requirement module, control, connection & interlinking cables, along with programming software, manuals and exercise.

LOADING STATION

CODE
105-178

FUNCTION

The Loading (Handling) Station separates, feeds and distributes components. Up to 10 components may be stored in the manually loaded magazine tube. A compact double acting cylinder pushes the components out of the magazine, individually, for transfer by a Rod-less cylinder with gripper assembly. When used as an independent module the Rod-less cylinder can distribute the components to either output chutes. If the Loading Station is used as part of a system, it transfers components to the downstream module.

TECHNICAL SPECIFICATION

Operating Pressure	: 3-6 bar (300-600kPa)
Electrical Supply	: AC 240V 50Hz Single Phase
P.L.C Specification	: 14 digital inputs/10 digital outputs
Components Diameter	: 40mm
Components Length	: 45mm
Components Supplied	: 5 off Aluminum, 5 off Nylon


EQUIPMENT LIST


- Extruded aluminium profile trolley with 4 swivel castors (2 lockable)
- Control cabinet complete with P.L.C (14 input, 10 output), complete with 3 input switches, illuminated mains switch and emergency stop switch
- Pneumatic Valve Island
- Air service unit with ON / OFF valve
- Pressure gauge
- Compact cylinder
- Guided compact cylinder
- Rod-less cylinder
- Pneumatic gripper
- Cylinder sensors
- Flow control valves
- Aluminium components work piece
- Nylon components work piece
- Load Magazine
- Output chutes
- Power Lead
- PC - P.L.C. connection cable
- Accessory pack (tubing, cables, cables ties, sleeves, pneumatic fittings etc.)
- Set of safety guards
- PC Programming software
- P.L.C. manual (CD format)



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PROCESSING STATION		CODE 105-179
	FUNCTION <p>On the Processing Station components are drilled and tapped (simulated) on a rotary index table, which is driven by an electrical (d.c) stepper motor. The index table is positioned by a P.L.C controlled circuit and its position is detected by an inductive sensor. When on the index table the components are drilled and tapped in two parallel processes, the drilling and tapping heads are powered by DC motors and fed by means of twin rod guided pneumatic cylinder, with sensors and flow control incorporated. When used as an independent module the index station can be programmed to give numerous operations (number of indexed positions selectable is infinitely variable e.g. if indexing to 1° angle then 360° positions, both clockwise and counter-clockwise.) If the Processing Station is used as part of a system it is fed with components from an upstream module before processing the component, which is then presented for transfer to a downstream module.</p>	EQUIPMENT LIST <ul style="list-style-type: none"> Extruded aluminium profile trolley with 4 swivel castors (2 lockable) Control cabinet complete with P.L.C. (14 input, 16 output), complete with 3 input switches, illuminated mains switch and emergency stop switch Index table with 4 component location (24VDC stepper motor driven) Inductive sensor for index table positioning Drill station (24VDC motor driven) Tapping station (24VDC motor driven) Manifold mounted Pneumatic valves Air service unit with ON/OFF valve Pressure gauge Twin-rod guided cylinder Cylinder sensors Flow control valves Power Lead PC - P.L.C connection table Accessory pack (tubing, cables, cables ties, sleeve, pneumatic fitting etc.) Set of safety guards PC programming software P.L.C. manual (CD format) User's manual with exercises
	TECHNICAL SPECIFICATION <p>Operating Pressure : 3-6 bar (300-600kPa) Electrical Supply : AC 240V 50Hz Single Phase P.L.C Specification : 14 digital inputs/10 digital outputs</p>	

ROBOTIC STATION		CODE 105-180
	FUNCTION <p>The robot station can take components that are presented from an up-stream module and manipulate them before processing them and then presenting them to a downstream module. A genuine trial robot (Mitsubishi) or a lower cost education robot can be supplied .The Robot comes with industrial standard programming software.</p>	EQUIPMENT LIST <ul style="list-style-type: none"> Extruded aluminium profile trolley with 4 swivel castors (2 lockable) Control cabinet complete with P.L.C Robot Robot Teach box Robot actuator Single Acting Cylinder (ISO 6432 Type) Manifold mounted pneumatic valves Air Services unit with ON/OFF valve Pressure gauge Flow control Valve Cylinder sensor Induction sensor Capacitive sensor Power Lead PC - P.L.C connection cable Accessories pack (tubing, cables, cable ties, sleeves, pneumatic fittings etc.) Set of safety guards PC programming software (CD format) P.L.C Manual (CD format) Robot Programming Software (CD format) Robot manual (CD format) User's manual with exercises
	TECHNICAL SPECIFICATION <p>Operating Pressure : 3-6 bar (300-600kPa) Electrical Supply : AC 240V 50Hz Single Phase P.L.C Specification : Still to be finalized</p>	

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PICK & PLACE STATION		CODE 105-181
	FUNCTION <p>On the pick and place station various processes may be performed, for instance components can be sorted & rotated from one position to any one of three others, according to the P.L.C programmer used. The pick and Place manipulator is operated and positioned by a P.L.C controlled circuit and its position is detected by an inductive (Magnetic) Sensors. Numerous P.L.C programs can be entered into the long list, with the 2 options of components location plate supplied the number of exercise possibilities becomes long enough to keep even the most advanced students occupied. If the Pick and Place station is used as part of a system, it is fed with components from an upstream module before processing them and then presenting them for transfer to downstream modules.</p>	EQUIPMENT LIST <ul style="list-style-type: none"> • Extruded aluminium profile trolley with 4 swivel castors (2 lockable) • Control cabinet complete with P.L.C (14 input, 10 output) Complete with input switch, illuminated mains switch and emergency stop switch • Pick and place components location plate (component sorting) • Pick and place components location plate (clean & rinse of components) • Double ended, twin-rod guided cylinder • Twin-rod guided cylinder • Compact guided cylinder • Pneumatic Gripper • Cylinder sensor • Flow control Valve • 4-Station Pneumatic Valve Island • Air services unit with ON/OFF valve • Pressure valve • Power Lead • PC-P.L.C connection cable • Accessories pack • Set of safety guards • PC programming software • P.L.C Programming Manual (CD format) • User's manual with exercises
	TECHNICAL SPECIFICATION <p>Operating Pressure : 3-6 bar (300-600kPa) Electrical Supply : 14 digital inputs/10 digital outputs</p>	

Manuals :

- (1) All manuals are written in English
- (2) Model Answer
- (3) Teaching Manuals

General Terms :

- (1) Accessories will be provided where applicable.
- (2) Manuals & Training will be provided where applicable.
- (3) Designs & Specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

Warranty :

2 Years

ORDERING INFORMATION :

ITEM	MODEL NUMBER	CODE
FACTORY AUTOMATION TRAINER	GOTT-FAT-1077	105-177

*Proposed design only, subject to changes without any notice.