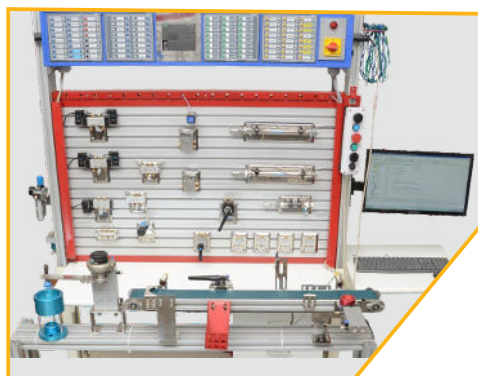
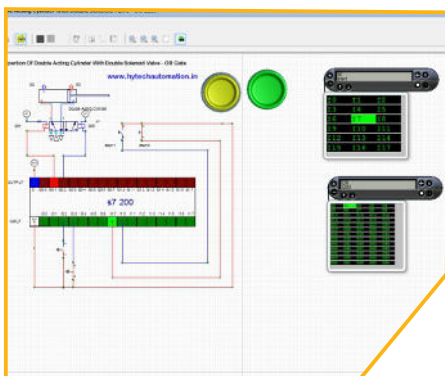


Pneumatic Training

HYTECH

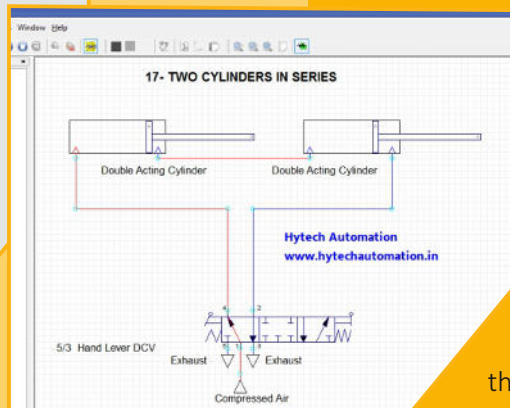
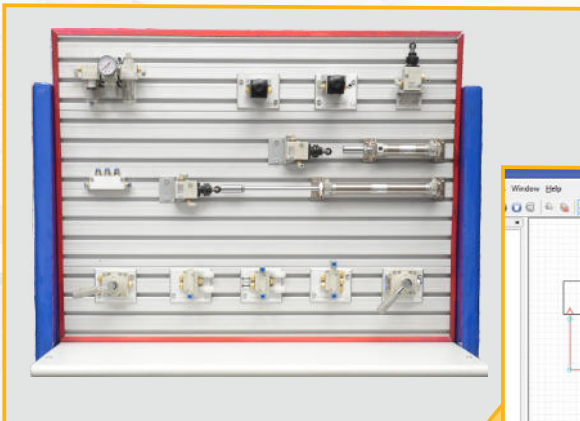
Since 1992

www.hytechautomation.in



Hytech Electropneumatic Training kits are computer controlled with PLC. Entire operation can be simulated as well as dynamically operated directly from Pneumatic Circuit Design and Simulation software. Advance Electropneumatic training kit covers Basic as well as PLC based operation modules of Pneumatic Training.

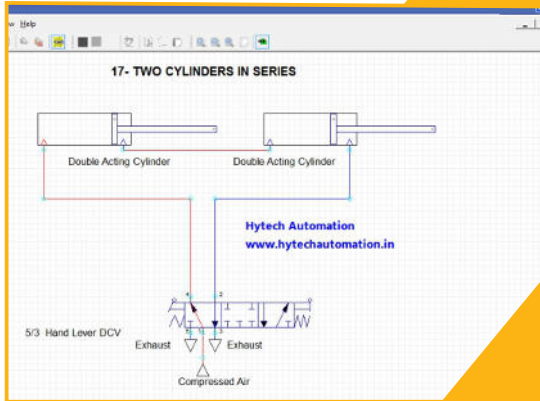
PNEUMATIC TRAINING KIT - BASIC



Hytech Basic Pneumatic training kit is a dual faced training kit made of heavy duty aluminum extrusions. Basic pneumatic training kit covers almost all of the commonly used conventional pneumatic valves. Hytech Training kit comes with pneumatic circuit design and simulation software. User can design and simulate a basic pneumatic circuit on software and execute the same on hardware training kit.

PNEUMATIC TRAINING MODULES

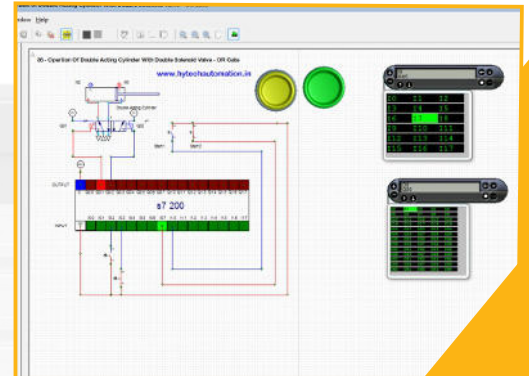
BASIC PNEUMATIC CIRCUIT DESIGN AND SIMULATION



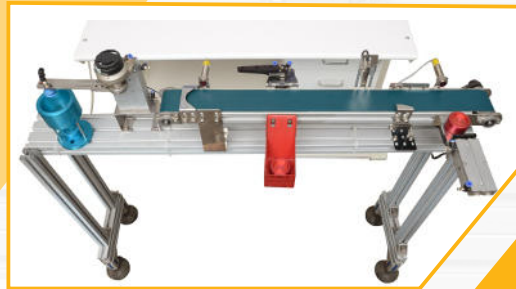
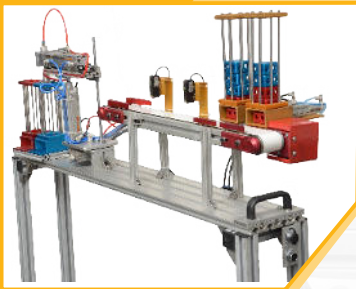
IRAI Automsim is supplied along with Hytech Basic Pneumatic Training Kits. Automsim is a basic pneumatic circuit design and simulation software from IRAI – France. Every valve used in the Hytech Pneumatic Training kit is available in the software library. Participants can design a basic circuit and simulate the same before executing it on Pneumatics Training Kit.

ADVANCE ELECTROPNEUMATIC (WITH PLC) CIRCUIT DESIGN AND SIMULATION

IRAI Automgen is supplied along with Hytech Advance Electropneumatic Training Kits. User can design a PLC ladder diagram along with advance pneumatic circuit and simulate the same on the software. The software is capable of uploading a ladder diagram in PLC and dynamically operate the entire training kit in real time with simulation. No other software is required for PLC ladder updation. Any circuit (100+ circuits) that can be designed and executed on Hytech Advance Electropneumatic training kits can be designed as well as simulated on IRAI Automgen. The software is capable of generating executable circuit simulations which can be simulated on a system without active software license.



AUTOMATION MODULES



integrated with Advance Pneumatic training kits which is operated with Solenoid valves and PLC. 'Color Based Sorting Conveyor' module can be integrated with Advance Pneumatic Training kits which gives hands on experience on industrial color sorting technology.

ADVANCE PNEUMATICS (ELECTROPNEUMATIC) RELAY BASED OPERATION MODULE

Relay based module consists of Relay Unit (4 CO, 3Qty) and Electrical Push button based power supply module. This module is used for Electropneumatic training (Basic) in integration with Advance Pneumatics (Electropneumatic) Module 1. This module is equipped with patch cord based Banana sockets with which electropneumatic training experiments can be performed.



ADVANCE PNEUMATICS (ELECTROPNEUMATIC) PLC BASED OPERATION MODULE

This Advance Electropneumatic module consists of PLC, Field Input and Output modules, PLC input and output modules and Workstation to carry out computer controlled Electropneumatic training experiments. Entire pneumatic circuit can be designed, simulated as well as operated directly from IRAI-Automgen software with dynamic real-time simulation.



PNEUMATIC TRAINING MODULES

Sr No	Description	Qty	Make
1	Basic Pneumatic Module 1		
1.1	FRL Unit with Pressure Gauge	1	SMC / Festo
1.2	Junction Box with 8 ports	2	SMC / Festo
1.3	Isolation box with 8 ports	1	SMC / Festo
1.4	Three Way Two Position Hand Slide Valve	1	SMC / Festo
1.5	Two way Flow control valve	4	SMC / Festo
1.6	Single acting cylinder (Stroke: 50 mm, with One Way Flow Control Valve)	1	SMC / Festo
1.7	Double acting cylinder (Stroke: 200mm, with One Way Flow Control Valve)	2	SMC / Festo
1.8	PU Tube Dia 6mm - Blue Color	10 Meter	NA
1.9	PU Tube Dia 6mm - Red Color	10 Meter	NA
1.10	PU Tube Dia 6mm - Black Color	10 Meter	NA
1.11	Blanking Plug Dia 6	12	NA
1.12	Union Tee Dia 6mm	5	NA
1.13	Union Y Dia 6mm	5	NA
1.14	Tube Cutter	1	NA
2	Basic Pneumatic Module 2		
2.1	Two Pressure Valve	2	SMC / Festo
2.2	Shuttle Valve	2	SMC / Festo
2.3	Quick Exhaust Valve	1	SMC / Festo
2.4	Three Way Two Position Way Push Button (Three Port) Valve	2	SMC / Festo
2.5	Three Way Two Position Knob Operated Direction Control Valve (NC Type)	1	SMC / Festo
2.6	Three Way Two Position Roller Operated Direction Control Valve (NC Type)	2	SMC / Festo
2.7	Five Way Two Position Mushroom Head Switch Operated Direction Control Valve	1	SMC / Festo
2.8	Five Way Two Position Lever Operated Direction Control Valve	1	SMC / Festo
2.9	Five Way Two Position Lever Operated Direction Control Valve (Spring Return)	1	SMC / Festo
2.10	Five Way Three Position Lever Operated Direction Control Valve	1	SMC / Festo
3	Basic Pneumatic Module 3		
3.1	Three Way Two Position Pilot Operated Direction Control Valve (NC Type)	1	SMC / Festo
3.2	Five Way Two Position Single Pilot Direction Control Valve	1	SMC / Festo
3.3	Five Way Two Position Double Pilot Direction Control Valve	4	SMC / Festo
3.4	Five Way Three Position Double Pilot Direction Control Valve	1	SMC / Festo
3.5	Three Way Two Position idle return Valve	1	SMC / Festo
4	Basic Pneumatic Module 4		
4.1	Pneumatic Motor	1	Reputed Make
4.2	Pressure Regulator	1	SMC / Festo

Sr No	Description	Qty	Make
4.3	Vacuum generator	1	SMC / Festo
4.4	Vacuum Cup	1	SMC / Festo
4.5	Vacuum Generator based pick and drop assembly module	1	NA
4.6	Three Way Two Position Time Delay Valve	1	SMC / Festo
5	Circuit Design and Simulation Software		
5.1	Automgen (IRAI France) - Pneumatic Circuit design and simulation software (Perpetual)	1	IRAI - France
6	Manuals for Basic Pneumatics		
6.1	Operation Manual (Basic Pneumatics)	1	NA
6.2	Experimentation Manual (Basic Pneumatics)	1	NA
6.3	Pneumatics Text Book (Basic Pneumatics)	1	NA
7	Advance Pneumatics (Electropneumatic) Module 1		
7.1	Three Way Two Position Solenoid Operated Direction Control Valve (NC Type)	1	SMC / Festo
7.2	Five Way Two Position Single Solenoid Direction Control Valve	1	SMC / Festo
7.3	Five Way Two Position Double Solenoid Direction Control Valve	3	SMC / Festo
7.4	Five Way Three Position Double Solenoid Direction Control Valve	1	SMC / Festo
7.5	Magnetic Reed Switch with bracket for Cylinders	6	SMC / Festo
8	Advance Pneumatics (Electropneumatic) Relay based operation module		
8.1	2mm Patch cord connector set	1 set	NA
8.2	Electrical Push button based power supply module	1	NA
8.3	Relay unit module (4 CO, 3Qty)	1	NA
9	Advance Pneumatics (Electropneumatic) PLC Based operation module		
9.1	PLC with 24 inputs and 16 outputs	1	Siemens
9.2	Power supply and control panel for PLC	1	Reputed Make
9.3	Control panel box with mounting for Advance Electropneumatic Training Kit (1200 x 400 x 300mm)	1	NA
9.4	PLC Input module with input override switches (24 inputs)	1	HYTECH
9.5	Field input module (24 inputs)	1	HYTECH
9.6	PLC output module (24 outputs)	1	HYTECH
9.7	Field output module (24 outputs)	1	HYTECH
9.8	Remote operation unit with 2 selector switches, 2 push buttons and 2 mushroom head switches	1	NA
9.9	2mm Patch cord connector set	1 set	NA

PNEUMATIC TRAINING MODULES

Sr No	Description	Qty	Make
10	Workstation with Simulation software and licensed PLC Software		
10.1	Intel Mother board Computer with 21 inch LED Monitor (Acer / Dell) and bluetooth keyboard and mouse	1	ACER / DELL
10.2	IRAI Automgen software license (Perpetual) for pneumatic circuit design and simulation	1	IRAI - France
10.3	Necessary interface for direct operation of training kit from simulation software IRAI Automgen (Dynamic realtime simulation and operation)	1	HYTECH
10.4	Workstation operation unit with mounting facility	1	NA
11	Compressor		
11.1	1HP, 50 Ltr capacity Twin cylinder Silent Compressor (Single Phase Supply)	1	Reputed Make
12	Trainer Kit Base and Structure (Basic)		
12.1	Basic Pneumatic Trainer Base with Aluminum extrusion based work surface (Double Sided) of 950mm x 720mm. MDF based wooden base of 950mm x 800mm. MS based structure with castor wheels and load bearing capacity of 250 KG	1	HYTECH
13	Trainer Kit Base and Structure (Advance)		
13.1	Advance Pneumatic Trainer Base with Aluminum extrusion based work surface (Double Sided) of 1200mm x 900mm. MDF based wooden base of 1200mm x 800mm. MS based structure with castor wheels and load bearing capacity of 300 KG	1	HYTECH
14	Optional Module 1		
14.1	Inductive sensor assembly	2	Omron
14.2	Capacitive sensor assembly	2	Omron
14.3	Optical sensor assembly	2	Omron
14.4	Electrical Counter Module	1	MECO / SELEC
14.5	Electrical Buzzer and Indicator Module	1	MECO / SELEC
14.6	Delay Timer Module	1	MECO / SELEC
15	Automation Module 1 - Pneumatic Press (Compatible with Basic and Electropneumatic)		
15.1	Pneumatic Cylinder (50mm Bore, 200mm Stroke)	1	Festo / SMC
15.2	Reed Switch assembly for Pneumatic Cylinder	2	Festo / SMC
15.3	Bearing Housings	4	NA

Sr No	Description	Qty	Make
15.4	Bearings (30mm Dia)	4	NA
15.5	Pneumatic Press Based Bearing assembly kit	1	HYTECH
16	Automation Module 2 - Material Based Sorting Unit (Compatible with Electropneumatic)		
16.1	Conveyor 70 x 500mm	1	Hytech
16.2	AC Motor for Conveyor Drive with Gearbox	1	Panasonic / ZD
16.3	Rotary Motor with rejection Arm (16mm Bore)	1	Festo / SMC
16.4	Sorting Bin	1	NA
16.5	Guided Cylinder for Pick and Place Unit (Minimum stroke: 100mm)	1	Festo / SMC
16.6	Vacuum Generator with Vacuum Cup	1	Festo / SMC
16.7	Rotary Motor (20mm Bore)	1	Festo / SMC
16.8	Capacitive Proximity Sensor (M18)	1	Omron / Autonics
16.9	Inductive Proximity Sensor (M18)	1	Omron / Autonics
16.10	Auto feeder with guided cylinder	1	Festo / SMC
16.11	Photo Sensor for job loading	1	Omron / Autonics
16.12	Photo Sensor for job unloading	1	Omron / Autonics
16.13	Sorting Bin (Vertical)	1	NA
17	Automation Module 3 - Color Based Sorting Unit (Compatible with Electropneumatic)		
17.1	Conveyor 70 x 500mm	1	Hytech
17.2	AC Motor for Conveyor Drive with Gearbox	1	Panasonic / ZD
17.3	Rotary Motor with rejection Arm (16mm Bore)	1	Festo / SMC
17.4	Sorting Bin	1	NA
17.5	Guided Cylinder for Pick and Place Unit (Minimum stroke: 100mm)	1	Festo / SMC
17.6	Vacuum Generator with Vacuum Cup	1	Festo / SMC
17.7	Rotary Motor (20mm Bore)	1	Festo / SMC
17.8	Color Sensor	1	Takex / Reputed Make
17.9	Auto feeder with guided cylinder	1	Festo / SMC
17.10	Photo Sensor for job loading	1	Omron / Autonics
17.11	Photo Sensor for job unloading	1	Omron / Autonics
17.12	Sorting Bin (Vertical)	1	NA