

Hytech Automation – Hydraulic Training Modules

	Details of Hydraulic Training Kit Modules:		
Sr No	Description	Qty	Make
	Trainer Kit Base and Structure (Basic)		
1	Basic Hydraulic Trainer Base with Aluminum extrusion based work surface (Double Sided) of minimum dimensions: Horizontal work area on front face: 1200mm x 360mm Horizontal work area on back face: 1200mm x 760mm Vertical work area on front face: 1200mm x 720mm Vertical work area on back face: 1200mm x 720mm MS based structure with castor wheels and load bearing capacity of 380 KG Drip Tray: 1200mm x 800mm	1	НҮТЕСН
	Trainer Kit Base and Structure (Advance)		
2	Advance Hydraulic Trainer Base with Aluminum extrusion based work surface (Double Sided) of minimum dimensions: Horizontal work area on front face: 1200mm x 450mm Horizontal work area on back face: 1200mm x 450mm Vertical work area on front face: 1200mm x 720mm Vertical work area on back face: 1200mm x 720mm MS based structure with castor wheels and load bearing capacity of 380 KG Drip Tray: 1200mm x 850mm	1	НҮТЕСН
	Trainer Kit Base and Structure (Proportional Kit)		
3	Proportional Hydraulic Trainer Base with Aluminum extrusion based work surface of minimum dimensions: Horizontal work area: 1200mm x 720mm MS based structure with castor wheels and load bearing capacity of 380 KG	1	НҮТЕСН
4	Hydraulic Power Pack Module		
4.1	Hydraulic tank with 60 Litre capacity, Oil cleanliness: Level 8	1	НҮТЕСН
4.2	Three Phase flange mounted electric motor 2 HP -1500 rpm	1	Siemens / CG
4.3	Gear Pump (Flow Rate: 8 LPM, Max Pressure: 70 Bar)	1	Yuken / Rexro
4.4	Pressure Gauge 0 to 100 Bar, Glycerin filled, 2 inch	2	Baumer / WIK
4.5	Pressure Relief Valve (Subplate Mounted) with Locking Arrangement	1	Yuken / Rexro
4.6	Suction Line Filter	1	Reputed Mak
4.7	Return Line Filter	1	Reputed Mak

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4.8	Pressure Line Manifold with 4 Ports (Hard piped with powerpack and mounted on the front work surface)	1	НҮТЕСН
4.9	Pressure Line Manifold with 2 Ports (Hard piped with powerpack and mounted on the rear work surface)	1	НҮТЕСН
4.10	Return Line Manifold with 4 Ports (Hard piped with powerpack and mounted on the front work surface)	1	НҮТЕСН
4.11	Return Line Manifold with 2 Ports (Hard piped with powerpack and mounted on the rear work surface)	1	НҮТЕСН
4.12	Test Line Manifold with 2 Ports (Hard piped with powerpack and mounted on the front work surface)	1	НҮТЕСН
4.13	Pressure Gauge 0 to 100 Bar, Glycerin filled, 4 inch	1	Baumer / WIKA
4.14	Tray for Hydraulic Powerpack	1	NA
5	Basic Hydraulic Module 1		
5.1	Pressure Relief Valve (Direct operated relief valve)	2	Yuken / Rexroth
5.2	Flow Control Valve (Non Pressure Compensated) with Check Valve .	2	Yuken / Rexroth
5.3	Flow Control Valve (Pressure Compensated) with Check Valve	1	Yuken / Rexroth
5.4	Four way Three position manually operated direction control valve - Tandem Center	2	Yuken / Rexroth
5.5	Four way Three position manually operated direction control valve - Closed Center	1	Yuken / Rexroth
5.6	Three way Two position manually operated direction control valve - Closed Center	1	Yuken / Rexroth
5.7	Vertical Weight loading arrangement for hydraulic cylinder	1 set	NA
5.8	Set of weights for loading arrangement	1 set	NA
5.10	Single Acting Cylinder (Stroke: 100mm, Dia: 25mm, Test Pressure: 70 Bar)	1	Yuken / Rexroth
5.11	Double Acting Cylinder (Stroke: 200 mm minimum Test Pressure 130 Bar)	2	Yuken / Rexroth
5.12	Proximity Sensor Assmbly for Hydraulic Cylinder	6	NA
5.13	Cut Section models for Hydraulic components 1. Double Acting Hydraulic Cylinder 2. Pressure Relief Valve Direction Control Valve	1	НҮТЕСН
6	Basic Hydraulic Module 2		
6.1	Hydraulic Motor Bidirectional .	1	Yuken / Eaton

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6.2	Needle Valve	2	Yuken /	
0.2	Needle Valve	2	Polyhdron	
6.3	Pressure Sequence Valve	1	Yuken / Rexroth	
6.4	Pressure Reducing Valve	1	Yuken / Rexroth	
6.5	Four way Two position manually operated direction control valve	1	Yuken / Rexroth	
6.6	Check Valve Direct Operated	1	Yuken / Polyhdron	
6.7	Single Pilot Operated Check Valve	1	Yuken / Rexroth	
7	Circuit Design and Simulation Software			
7.1	Automgen (IRAI France) - Hydraulic Circuit design and simulation software (Perpetual)	1	IRAI - France	
8	Manuals for Basic Hydraulics			
8.1	Operation Manual (Basic Hydraulics)	1	NA	
8.2	Experimentation Manual (Basic Hydraulics)	1	NA	
8.3	Hydraulics Text Book (Basic Hydraulics)	1	NA	
9	Advance Hydraulics (Electrohydraulic) Module 1			
9.1	Pressure Switch	1	Yuken / Rexroth	
9.2	Four Way Three Position Double solenoid operated direction control valve	3	Yuken / Rexroth	
9.3	Four Way Two Position Single solenoid operated direction control valve	1	Yuken / Rexroth	
10	Advance Hydraulics (Electrohydraulic) Relay based operation module			
10.1	2mm Patch cord connector set	1 set	NA	
10.2	Electrical Push button based power supply module	1	NA	
10.3	Relay unit module (4 CO, 3Qty)	1	NA	
11	Advance Hydraulics (Electrohydraulic) PLC Based operation	on module		
11.1	PLC with 24 inputs and 16 outpts	1	Siemens	
11.2	Power supply and control panel for PLC	1	Reputed Make	
11.3	Control panel box with mounting for Advance Electrohydraulic Training Kit (1200 x 400 x 300mm)	1	NA	
11.4	PLC Input module with input override switches (24 inputs)	1	HYTECH	
11.5	Field input module (24 inputs)	1	HYTECH	
11.6	PLC output module (24 outputs)	1	HYTECH	

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11.7	Field output module (24 outputs)	1	НҮТЕСН
11.8	Remote operation unit with 2 selector switches, 2 push buttons and 2 mushroom head switches	1	NA
11.9	2mm Patch cord connector set	1 set	NA
12	Workstation with Simulation software and licensed PLC	software	
12.1	Intel Mother board Computer with 21 inch LED Monitor (Acer / Dell) and bluetooth keyboard and mouse	1	ACER / DELL
12.2	IRAI Automgen software license (Perpetual) for hydraulic / electrohydraulic circuit design and simulation	1	IRAI - France
12.3	Necessary interface for direct operation of training kit from simulation software IRAI Automgen (Dynamic realtime simulation and operation)	1	НҮТЕСН
12.4	Workstation operation unit with mounting facility	1	NA
13	Proportional Valve Training Kit Module		
13.1	7 inch colour HMI	1	Siemens
13.2	High Pressure Filter	1	Reputed Make
13.4	Pressure Relief Valve (Subplate Mounted) with Locking Arrangement	1	Yuken / Rexroth
13.5	Pressure Line Manifold with 4 Ports (Hard piped with powerpack)	1	HYTECH
13.6	Return Line Manifold with 2 Ports (Hard piped with powerpack)	1	HYTECH
13.7	Test Line Manifold with 2 Ports (Hard piped with powerpack)	1	HYTECH
13.8	Pressure Gauge 0 to 100 Bar, Glycerin filled, 4 inch	4	Baumer / WIKA
13.9	Complete Piping arrangement	1 Set	HYTECH
13.10	Hydraulic Cylinder with minimum 150mm stroke	1	HYTECH
13.11	Proximity Sensor Assmbly for Hydraulic Cylinder	6	NA
14	Proportional DCV Module		
14.1	Proportional Direction Control Valve	1	Yuken / Argo Hytos
14.2	Control card for Proportional Direction Control Valve	1	Yuken / Argo Hytos
14.3	Four way Three position manually operated direction control valve	1	Yuken / Rexroth
15	Proportional PRV Module		
15.1	Proportional Pressure Reducing Valve	1	Yuken / Argo Hytos
15.2	Control card for Proportional Pressure Reducing Valve	1	Yuken / Argo Hytos
15.3	Four way Three position manually operated direction control valve	1	Yuken / Rexroth