

**TECHNICAL SPECIFICATION
FOR
Hydraulic Trainer Kit**

TECHNICAL SPECIFICATIONS

1. Hydraulic Trainer Kit

Features

- Sleek and rugged design
- Industrial components
- A unique Snap-on mounting base saves time in mounting & removal of components
- Industrial application focused exercises
- Suitable for modular aluminum extruded profile plate
- Upgradation and expansion possible



Application:

The Hydraulic trainer kit is designed with capability to demonstrate the design, construction and application of Hydraulic components and circuits. Suitable for engineering syllabus for various disciplines like Mechanical, Mechatronics, Production, Instrumentation and more, and for companies having ISO & TPM training systems.

Technical Specifications:

Ordering Code	-
Installation	Vertical / Horizontal
Ambient temperature	60°C Max.
Medium	Oil VG68
Max. Operating Pressure	20 bar
Materials of construction	Aluminium, Brass, Steel, Nitrile rubber, Acetal

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List of Items

Ref. No	Product Name	Product No.	Qty	Uom
1	Hydraulic Trainer Kit	CS40834/1	1	Nos
1.1	Hydraulic power pack	JTK-HPP-10L	1	Nos
1.2	Pressure relief valve, pilot operated	MP0269	1	Nos
1.3	Drip Tray	A90304	1	Nos
1.4	Pressure Gauge with Mounting (100kg/cm ²)	MP0176	1	Nos
1.5	5-Way junction box	MP0221	1	Nos
1.6	Hydraulic double acting cylinder	MP0171	1	Nos
1.7	Weight Unit (ITI)	MP0261	1	Nos
1.8				
1.9	3/2 way directional control valve	MP0218	1	Nos
1.10	4/2 Hand lever Operated valve spring return	MP0193	1	Nos
1.11	4/3 Hand lever Operated valve with detent (closed mid. Pos)	MP0194	1	Nos
1.12	Non return valve (0.6 Mpa opening)	MP0178	1	Nos
1.13	Non Return Valve type Pilot operated	MP0179	1	Nos
1.14	Flow Control Valve (one flow control valve)	MP0197	1	Nos
1.15	T-distributor	MP0183	2	Nos
A	Recommended items			
A1	P&T Junction box (shut off valve)	MP0181	1	Nos
A2	Hose Set	MP0184	1	Nos
1.16	Vertical Profile Plate	JTK-PTVD-1	1	Nos
2	Work Table	JTK-PTHWB-1	1	Nos
	Draw unit	JTK-PTD/W-1	1	Nos
3	Cut Section - Hydraulics			
3.1	4/3 Hand lever valve	-	1	Nos
3.2	Double acting cylinder	-	1	Nos
3.3	Single acting cylinder	-	1	Nos
3.4	Pressure relief valve	-	1	Nos
3.5	Non return valve	-	1	Nos

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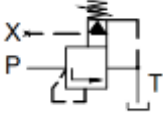
1. Hydraulic Trainer Kit

1.1 Hydraulic Power Pack (10 ltr)




Model	JTK-HPP-10L
Size (in cm)	33 x 26 x 27
Tank capacity	10 ltr
Operating voltage	230V AC 50Hz
Maximum pressure	60 bar
Motor capacity	1 HP
Output flow	2.5 Ltrs/min
Power cord	3Pin , Type D
Material	Aluminium, Steel

1.2 Pressure relief valve, pilot operated



Symbol	Ordering No	
	-	
Technical specifications		
Port size	R 1/4	
Pressure setting	Upto 50 bar	
Operating Pressure	0-60 bar	
Maximum Working Pressure	0-250 bar	
Construction	Sub plate type conforming to ISO6264	
Mounting	Press to lock / Unlock	

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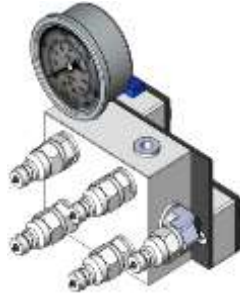
1.3 Drip tray

Ordering No	A90304	
Technical specifications		
Size(in mm)	1160x760x30	
Material	Stainless steel	

1.4 Pressure Gauge with Mounting (100kg/cm²)



Symbol	Ordering No	
	MP0176	
Technical specifications		
Port Size (inch)	G 1/4	
Accuracy	1.6% of full scale	
Range	0-100	
Mounting	Turn to Lock / Unlock	

1.5 5-Way junction box



Ordering No		
MP0221		
Technical specifications		
Port Size	1/4 inch	
Pressure gauge	0-100 bar	
Mounting	Press to lock / Unlock	

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1.6 Hydraulic Double acting cylinder


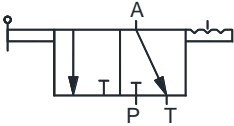
Symbol	Ordering No	
	MP0171	
Technical specifications		
size	32/12/200	
Type	Double acting Cylinder	
Max operating pressure	60 bar	
Operating Pressure range	1 - 20 bar	
Mounting	Turn to Lock / Unlock	

1.7 & 1.8 Weight unit with mounting kit – Hydraulics


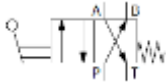
Symbol	Ordering No	
	MP0261	
Technical specifications		
Size (L X B X H)	925x112x164	
Mass	9 Kg	
Mass Size (L X B X H)	72x72x222 mm	
Material	Aluminium, Steel	
Mounting	Suitable for JTK-PTVD-1	

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1.9 3/2 way directional control valve


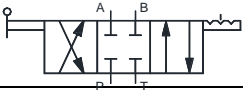
Symbol	Ordering No	
	MP0218	
Technical specifications		
Construction	Spool type	
Pressure Range	0-60 bar	
Nominal Flow	63lpm	
Working Temperature range	(-20C to +70C)	
Mounting	Press to lock / Unlock	

1.20 4/2 way directional control valve


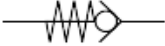
Symbol	Ordering No	
	MP0193	
Technical specifications		
Construction	Spool type	
Pressure Range	0-60 bar	
Nominal Flow	60 lpm	
Working Temperature range	-30°C to +70°C	
Mounting	Press to lock / Unlock	

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1.21 4/3 Hand lever Operated valve with detent (Closed mid position)


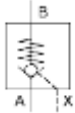
Symbol	Ordering No	
	MP0194	
Technical specifications		
Construction	Spool type	
Nominal flow	60 lpm	
Operating pressure	0-60bar	
Working temperature range	-30°C to +70°C	
Mounting	Press to lock / Unlock	

1.22 Non return valve (0.6 MPa opening)



Symbol	Ordering No	
	MP0178	
Technical specifications		
Flow Direction	Free Flow A to B, Leak free closure in opp. direction	
Cracking pressure	6 bar	
Operating pressure	0-60 bar	
Nominal flow handling capacity	15 lpm	
Mounting	Directly connected in hose	

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
1.23 Non-return Valve pilot operated

Symbol	Ordering No	
	MP0179	
Technical specifications		
Flow direction	Free flow A to B; Piloted flow B to A	
Operating pressure	0-60 bar	
Cracking pressure	1 bar	
Max Flow	80lpm	
Mounting	Press to lock / Unlock	

1.24 Flow Control Valve (one way flow control valve)

Symbol	Ordering No	
	MP0197	
Technical specifications		
Operating pressure	0-60bar	
Max. Operating pressure	120bar	
Flow	20 lpm @ Δp 3 bar	
Mounting	Press to lock / Unlock	



1.25 T-distributor

Symbol	Ordering No	
	MP0183	
Technical specifications		
Port Size (inch)	G 1/4	
Mounting	End connected with couplers	



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A.Recommended Items

A1. P&T Junction box (shut off valve)

Symbol	Ordering No	
	MP0181	
Technical specifications		
Type	2/2 Ball valve	
Working temperature range	-30°C to +70°C	
Size (inch)	G 1/4	
Max operating pressure	120bar	
Mounting	Turn to Lock / Unlock	

A2. Hose Set

Symbol	Ordering No	
	MP0184	
Technical specifications		
Material	SAE100R1 type S (Thermoplastic)	
Nominal size	6mm	
Max working pressure	220bar	
Hose Length in mm and Qty	1200x2, 1000x8, 500x8	
Mounting	Both end with quick coupler	

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1.16 & 2. Workstation for ITI



Technical specifications	
Work Table	
Ordering No	JTK-PTHWB-1
Size (L x W x H) in mm	1200 x 900 x 900
Material	Aluminium, steel, and Wood
Vertical Profile Plate	
Model	JTK-PTVD-1
Size (in mm)	1200x720x40 (With side mounting 120mm)
Profile groove width	8.3 mm
Groove to groove distance	40 mm
Material	Aluminium, Steel
Draw unit	
Ordering No	JTK-PTD/W-1
Size (in mm)	470 x 565 x825
No. of rack	5
Lock	5 (each 1 / Rack)
Material	Steel

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3. Cut Section – Hydraulics

Features

- Compact, Handy and Sleek design
- Precut foam for component storage
- Visualisation of internal elements
- Effortless handling of components



(This image is for representation purpose only)

Application

Hydraulics cut section enables a trainer to demonstrate the internal construction of a product with real world products that are to actual scale and makes the trainees to visualise them and gives a realistic view of components in a better way than the graphical representations on books and animations.

Technical Specifications

Ordering Code	-
Size (in cm)	40 x 40 x 20
Installation	Vertical/ Horizontal
Ambient temperature	60°C Max.
Materials of construction	Aluminium, Polyacetal, Steel, Rubber

Part list

S. No	Description	Qty
1.	4/3 Hand lever valve	1
2.	Double acting cylinder	1
3.	Single acting cylinder	1
4.	Pressure relief valve	1
5.	Non return valve	1