

# **User Manual**



Hydraulic Testing Machine (Model no. –P1301-Test Pac)

**Document Prepared and Published By** 

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# 1.) <u>Packing List</u>

The Supply consists of:

- Pack-1 : TEST PAC UNIT
- Pack-2 : Outlet hose 1m
- Pack -3 : User Manual, Pressure gauge calibration certificate.



# 2.) <u>Do's& Don'ts List(Reference Circuit Diagram)</u>

Test PAC is a High Pressure system and requires handling by trained personnel. Kindly go through the User Manual in detail before operating the equipment.

#### <u>Do's</u>

- 1. Before starting the test make sure that Test PAC unit must be connected with Drive Air & Hydraulic Tank should be completed connected.
- 2. Before starting the test make sure that Pressure regulator (4.0) should be in CLOSE position, if not please take it on CLOSE position, while rotating it anticlockwise.
- 3. Needle valve (14.1) just after Pressure regulator (4.0) should be in open condition and Filling Valve (14.2) should be closed.
- 4. Make sure that all joints with Hoses are properly tightened before starting the test.
- 5. Please ensure that the drive Air must be @  $6 \text{ kg/cm}^2$  (Min.)

#### **Don'ts**

1. Don't disconnect Test-Unit without venting the test pressure.



### 3). Test PAC Technical Specifications

Pressure PAC SPECIFICATIONS for the proposed SYSTEM			
S.no.	Name of Characteristic	Value of Characteristic	
1	Drive Pressure (Air)	6 kg/cm <sup>2</sup> Min.	
2	Purity of Drive Air/Nitrogen	40 Micron	
3	Drive Flow Required (Air/Nitrogen)	60 SCFM	
4	DPT of Air required (Customer	$-40^{0}$ C	
	Scope)		
5	Inlet Hydraulic Tank	As Required	
6	Purity of Hydraulic Fluid		
7	Output Pressure Range (for Pressure	2000 PSI	
	Testing)		
8	Working Media	Water	
9	Machine Pressure Range	0-2000 PSI	
10	Outlet Gas flow rate	Variable (As per requirement)	
11	Movement Control of Trolley	Portable on 4 wheel	



# 4). Test PAC System Detail

Paskal's has developed Test Pac for Testing @ 2000 PSI Whole system is divided into Five parts:-

A. Air Drive Section: - Dry & Filter Air @ 4 Kg/cm<sup>2</sup> is required for drive the Test PAC.

**Please Note** 

When Valve (6.1) is OPEN the Hydraulic Booster shall operate and shall BOOST the Hydraulic Fluid. When User wants to STOP the Hydraulic Booster, this Valve (6.1) should be manually CLOSED.

B. **Hydraulic Inlet Line:** - Hydraulic Fluid enters from the tank to the Haskel Air Driven Hydraulic Pump from the Valve (6.3).





- C. **Hydraulic Boosting Section**: This section comprises of Haskel Air Driven Liquid Pump (13.0) to boost the available Hydraulic Fluid to its desired value and its pressure can be seen over High Pressure Gauge (15.0) to monitor the outlet pressure. Working pressure of system as 2000 PSI.
- D. **Filling Section**: This section comprises of the Liquid Pump driven by motor (16.0)
  - From the Valve (6.4) Hydraulic Fluid Enters from SS tank to the Liquid Pump.



• From the Valve (14.2) this fluid can be filled to the UUT.

#### **Please Note**

Both the Valve (14.1) and (14.2) should be in open condition and one valve will be used in Pressurizing Fluid and other valve will be used in Filling Propose



**E. Air Flushing Section:** This section comprises of the Ball valve (6.2) and Non Returning valve (7.0). When user wants to air flushing in the UUT, this valve (6.2) should be manually open.

# 5). <u>Test PAC Dimensions</u> LENGTH – 780mm WIDTH – 800mm HEIGHT – 900mm

# 6). <u>Test PAC- Photograph showing User Interface Points</u>







# 7). Test Pac - Unpacking & Installation

- 1. Upon receipt of the system, visually inspect the shipping carton for signs of damage or mishandling. Immediately contact the carrier for an inspection if the shipping carton is damaged or evidence of mishandling exists.
- 2. Carefully remove the outer crafting materials. Care must be taken during unpacking to avoid enclosure damage or scratching.
- 3. Inspect the system for dents, scratches, or other evidence of mishandling during shipment. Request an immediate inspection from the carrier if damage is evident.
- 4. Keep the Test PAC unit in well-ventilated area (Temperature not Exceed beyond 40 degree centigrade).
- 5. Connect the Test PAC unit with Industrial Air supply hose. with compressed air
- 6. Connect the Test PAC unit with Inlet Hoses which is already connected in machine



- 7. Connect Outlet Test Hose to UUT
- 8. Check all Hose connections should be fully tightened.

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# 6. Test PAC- Operation Procedure (Reference Circuit Diagram and Panel)

**Step-1** After Filling the SS Tank Open the Valve (6.3) and (6.4) so the Hydraulic Fluid enters to the Air Driven Pump and Electrical Driven Pump .



**Step-2** Then Start the Electrical Motor Pump with the help of Control Panel Button as shown in below image



Step- 3 After it open the valve (14.2) which will be used to fill the UUT.





Step- 4 Open the Ball Valve in Air Line (6.1) so the Air Driven Pump (13.0) starts to develop pressure which can be seen over the pressure Gauge (15.0).







Step5- Open the Isolation Valve (14.1) so the pressurized fluid can enter the UUT through the help of High Pressurized Hose.



When the Test is being done, you can drop the pressure with the valve of Valve (14.2)





Now to Flush the Compressed Air in UUT you can use the Valve (6.2), as recommended by the customer.





# 8.) Test PAC- Safety Features

- **1.** All the Joints should be fully tightened.
- 2. Please don't touch any high pressure hose & Tubes during Testing.
- 3. Before starting the test make sure that NUT must be fully tightened
- 4. Don't touch any component during testing.
- **5. Don't change setting of internal Pressure regulator.**
- 6. Please ensure that door of the Pressure PAC must be close during testing



#### 9. Circuit Diagram





# Sales & Service

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