

Pressure and beyond...



K.MASS
CONTROL PVT. LTD.

**A House of Valves
&
Valve Test Equipment**



Tamed by Technology, Driven by Pressure & Powered by Values



About Us

“Engineering without imagination is just ‘Calculation’.

Welcome to K.MASS, where we Engineer Art.”

At K.MASS, we manufacture a wide range of Standard as well as custom-built Test Equipment for all types of Industrial Valves. Built-in with Liquid, Gas & Vacuum Test Systems; these Test Benches are versatile and can simulate testing requirements of Valve Manufacturers, End-Users as well as the Service Industry.

OUR PRODUCTS

Valve Test Bench (Standard & Custom-built)

- Safety Relief Valve Test Bench
- Breather Valve Test Bench
- Control & Shut Off Valve Test Bench (Vertical/Horizontal)
- Control & Shut Off Valve Test Bench (Tilting)
- Combination Valve Test Bench
- Multi-Port Test Benches (*for Manufacturers*)
- Containerized Onshore Valve Test & Repair Workshops (10 ft / 20ft / 40 ft)
- Containerized Offshore Valve Test & Repair Workshops (10 ft / 20ft)

Test System Accessories

- Test Media Prefilling & Recirculation System
- API Digital Laser Bubble Counter
- PC based Data Acquisition System
- HP Utility Air Supply System
- Air Operated – Liquid Power Packs
- Air Operated – Gas Power Packs

OUR SERVICES

Training Programmes

- Installation & Commissioning – Training in works & Supervision at site
- Operation, Scheduled Maintenance & Troubleshooting – Training in works & at site

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Safety & Relief Valve Test Bench - Single Port

CLAMPING SYSTEM (2 OPTIONS)

A 3-Jaw, Spring Energized,
Piston type, Mechanical
Manual Auto Clamping System

SIZE RANGE

Flanged Valves
1/2" to 16"
Screwed Valves
1/4" to 2-1/2"

A 3-Jaw, Unilateral, Proportional
**Hydraulic Clamping System
with Safety Interlock**

AIR GUN

For cleaning of
Valves & Test
Equipment
during & after
Liquid Testing.

ERGONOMICALLY DESIGNED CONTROL PANEL

For Operator Safety & Optimal Performance
with Instrument Read-Outs at Eye level &
Controls at Shoulder Level

STAINLESS STEEL FLUID DRIP TRAY

Below Clamping System
to collect Liquid spillage
& route to drain or re-
circulate

ALL WETTED PARTS IN STAINLESS STEEL

For System Durability
and a corrosion free
Test Environment.

RIGID CARBON STEEL BASE SKID

With Aluminium Chequered Plate
Flooring for Modular Integration of
Clamping System & Control Panel,
and to allow easy movement for
Installation & Relocation.

LIQUID TEST SYSTEM

Up to 100 / 200 / 400 / 689 bar

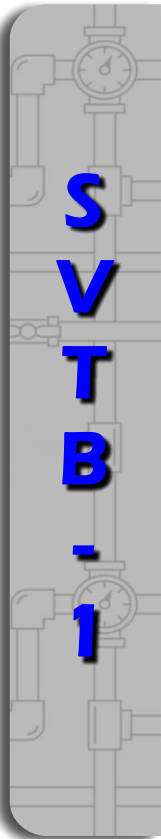
GAS TEST SYSTEM

Up to 10 / 100 / 200 / 345 / 400 bar



SAFETY SCREEN

With Transparent
Lexan Polycarbonate
(Unbreakable) Shield
For Safety against
Accidents





Safety & Relief Valve Test Bench - Double Port

CLAMPING SYSTEM (2 CLAMPING STATIONS WITH 2 OPTIONS)

A 3-Jaw, Spring Energized,
Piston type, Mechanical
Manual Auto Clamping System

A 3-Jaw, Unilateral, Proportional
**Hydraulic Clamping System
with Safety Interlock**

ERGONOMICALLY DESIGNED CONTROL PANEL

For Operator Safety & Optimal Performance
with Instrument Read-Outs at Eye level &
Controls at Shoulder Level

SIZE RANGE

Flanged Valves
1/2" to 16"
Screwed Valves
1/4" to 2-1/2"

STAINLESS STEEL FLUID DRIP TRAY

Below Clamping System
to collect Liquid spillage
& route to drain or re-
circulate

ALL WETTED PARTS IN STAINLESS STEEL

For System Durability
and a corrosion free
Test Environment.

RIGID CARBON STEEL BASE SKID

With Aluminium Chequered Plate
Flooring for Modular Integration of
Clamping System & Control Panel,
and to allow easy movement for
Installation & Relocation.

LIQUID TEST SYSTEM

Up to 100 / 200 / 400 / 689 bar

GAS TEST SYSTEM

Up to 10 / 100 / 200 / 345 / 400 bar



AIR GUN

For cleaning of
Valves & Test
Equipment
during & after
Liquid Testing.



SAFETY SCREENS

With Transparent
Lexan Polycarbonate
(Unbreakable) Shield
For Safety against
Accidents

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Breather Valve Test Bench

ERGONOMICALLY DESIGNED CONTROL PANEL

For Operator Safety & Optimal Performance
with Instrument Read-Outs at Eye level &
Controls at Shoulder Level

U-TUBE MANOMETER

For Precision Read-Outs

DIGITAL MANOMETER

For Digital Output

LOW PRESSURE

GAS TEST SYSTEM

Up to 5 / 7 / 10 bar

VACUUM TEST SYSTEM

Up to -5 / -7 / -9 psi

RIGID CARBON STEEL BASE SKID

With Aluminium Chequered Plate
Flooring for Modular Integration of
Clamping System & Control Panel,
and to allow easy movement for
Installation & Relocation.

CLAMPING SYSTEM

A 6-Jaw (2 Sets of 3 Jaws),
Manual Mechanical Clamping System

SIZE RANGE

Flanged Valves
2" / 4" to 16" / 24"

SAFETY SCREEN

With Transparent
Lexan Polycarbonate
(Unbreakable) Shield
For Safety against
Accidents





Control, Shut Off & Safety Valve Test Bench - Vertical

CLAMPING SYSTEM (DUAL CLAMPING SYSTEM)

A 3-Jaw, Unilateral, Proportional
Hydraulic Clamping System
with Safety Interlock

Lead-Screw type
Swivelable Body Clamping
Yoke for Bilateral Clamping

SIZE RANGE

Flanged Valves
1/2" to 16"

Screwed Valves
1/4" to 2-1/2"



AIR GUN

For cleaning of Valves &
Test Equipment during &
after Liquid Testing.

STAINLESS STEEL FLUID DRIP TRAY

Below Clamping System
to collect Liquid spillage
& route to drain or re-
circulate

ALL WETTED PARTS IN STAINLESS STEEL

For System Durability
and a corrosion free
Test Environment.

SAFETY VALVE TESTING

The Swivelable Body
Clamping Yoke enables
testing of Safety Relief
Valves which require
clearance on the top



SAFETY SCREEN

With Transparent
Lexan Polycarbonate
(Unbreakable) Shield
For Safety against
Accidents

RIGID CARBON STEEL BASE SKID

With Aluminium Chequered Plate
Flooring for Modular Integration of
Clamping System & Control Panel,
and to allow easy movement for
Installation & Relocation.

ERGONOMICALLY DESIGNED CONTROL PANEL

For Operator Safety & Optimal Performance
with Instrument Read-Outs at Eye level &
Controls at Shoulder Level



LIQUID TEST SYSTEM

Up to
100 / 200 / 400 bar

GAS TEST SYSTEM

Up to
10 / 200 / 400 bar

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Control & Shut Off Valve Test Bench - Horizontal

ERGONOMICALLY DESIGNED CONTROL PANEL

For Operator Safety & Optimal Performance
with Instrument Read-Outs at Eye level &
Controls at Shoulder Level

LIQUID TEST SYSTEM

Up to
100 / 200 / 400 bar

GAS TEST SYSTEM

Up to
10 / 200 / 400 bar

RIGID CARBON STEEL BASE SKID

With Aluminium Chequered
Plate Flooring for Modular
Integration of Clamping
System & Control Panel, and
to allow easy movement for
Installation & Relocation.



SAFETY SCREEN

With Transparent Lexan
Polycarbonate (Unbreakable) Shield
For Safety against Accidents

CLAMPING SYSTEM

A Compression Type,
Bilateral Hydraulic
Proportional Clamping System

SIZE RANGE

Flanged Valves
2" to 16"

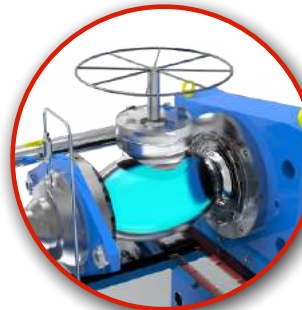
DEDICATED STANDALONE HYDRAULIC POWER PACK

With PLC Controlled Motor,
Dual Gear Pump System &
Pressure Control Switching
Module - for a reliable &
trouble-free Clamping
arrangement.



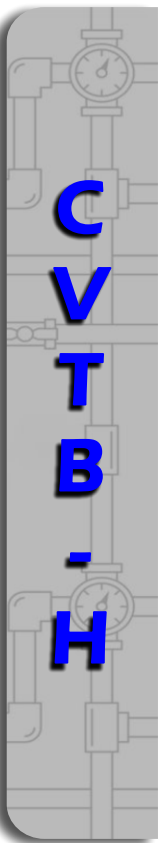
AIR GUN

For cleaning of Valves & Test
Equipment during & after
Liquid Testing.



CLOSED LOOP LIQUID PRE-FILLING & RE-CIRCULATION SYSTEM

For quick pressurization, air
removal & reuse of the Liquid
Test media.





Control & Shut Off Valve Test Bench - Tilting

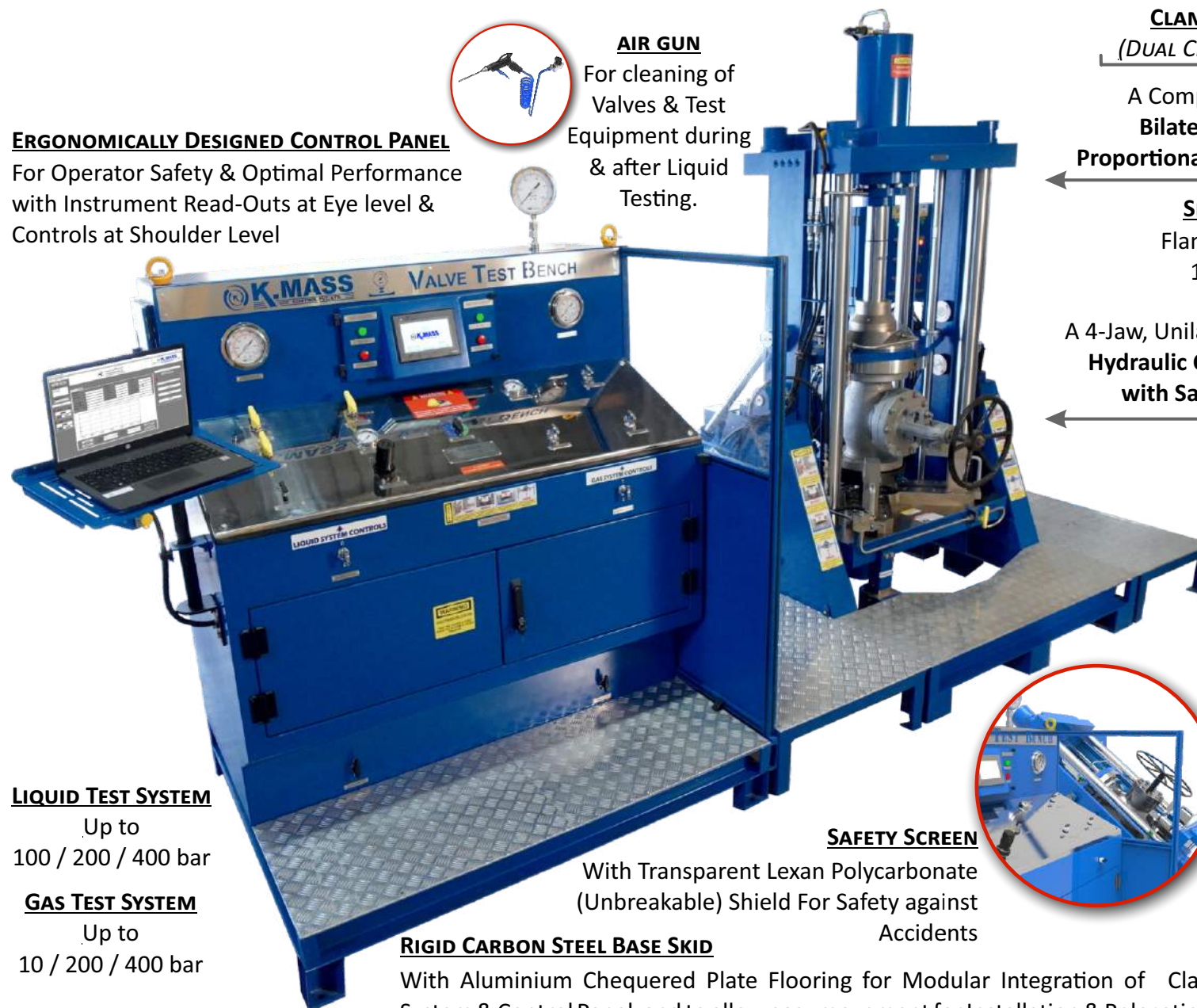
ERGONOMICALLY DESIGNED CONTROL PANEL

For Operator Safety & Optimal Performance with Instrument Read-Outs at Eye level & Controls at Shoulder Level



AIR GUN

For cleaning of Valves & Test Equipment during & after Liquid Testing.



LIQUID TEST SYSTEM

Up to
100 / 200 / 400 bar

GAS TEST SYSTEM

Up to
10 / 200 / 400 bar

CLAMPING SYSTEM

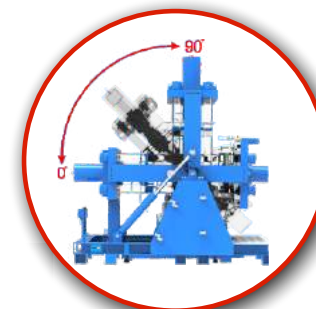
(DUAL CLAMPING SYSTEM)

A Compression Type,
**Bilateral Hydraulic
Proportional Clamping System**

SIZE RANGE

Flanged Valves
1" to 16"

A 4-Jaw, Unilateral, Proportional
**Hydraulic Clamping System
with Safety Interlock**



90° Tilting (Rotating)

Clamping System

with Precision
Controls, for easy
Loading & Unloading
of Valves



SAFETY SCREEN

With Transparent Lexan Polycarbonate
(Unbreakable) Shield For Safety against
Accidents

RIGID CARBON STEEL BASE SKID

With Aluminium Chequered Plate Flooring for Modular Integration of Clamping System & Control Panel, and to allow easy movement for Installation & Relocation.

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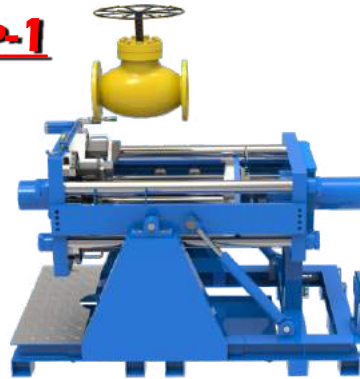


Control & Shut Off Valve Test Bench - Tilting

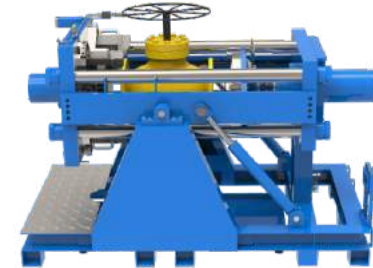
Valve Clamping Procedure on the Tilting System



STEP-1



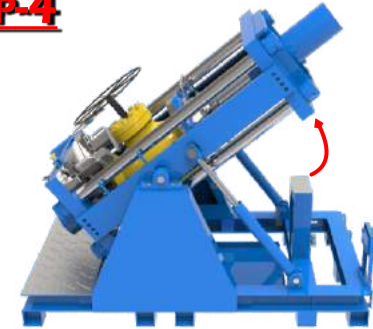
STEP-2



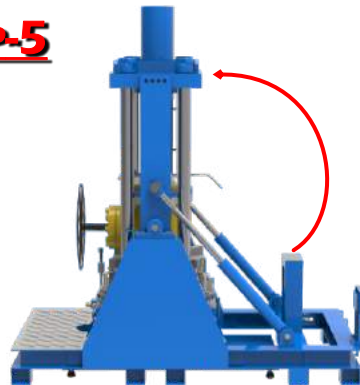
STEP-3



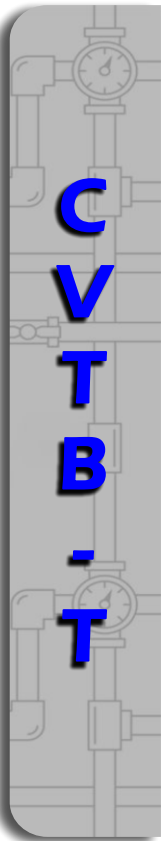
STEP-4



STEP-5



READY TO TEST





Combination Valve Test Bench (Type-1)



AIR GUN

For cleaning of Valves & Test Equipment during & after Liquid Testing.

SAFETY VALVE TEST PORT

SIZE RANGE

Flanged Valves
1/2" to 16"
Screwed Valves
1/4" to 2-1/2"



A 3-Jaw, Spring Energized, Piston type, Mechanical **Manual Auto Clamping System**

A 3-Jaw, Unilateral, Proportional **Hydraulic Clamping System with Safety Interlock**

CLAMPING SYSTEM (2 OPTIONS)

MODULAR CARBON STEEL BASE SKIDS

With Aluminium Chequered Plate Flooring for Clamping System & Control Panel, and to allow easy movement for Installation & Relocation.

ERGONOMICALLY DESIGNED COMMON

INDEPENDENT CONTROL PANEL

For Operator Safety & Optimal Performance with Instrument Read-Outs at Eye level & Controls at Shoulder Level



LIQUID TEST SYSTEM

Up to 100 / 200 / 400 bar

GAS TEST SYSTEM

Up to 10 / 200 / 400 bar



CONTROL & SHUT OFF

VALVE TEST PORT

SIZE RANGE

Flanged Valves
1" to 16"

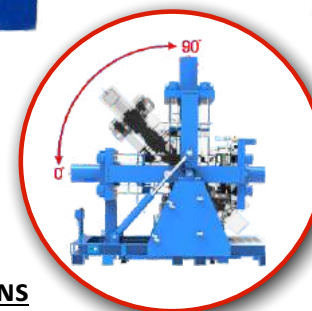


CLAMPING SYSTEM

(DUAL CLAMPING SYSTEM)

A Compression Type, Bilateral Hydraulic Proportional Clamping System

A 3-Jaw, Unilateral, Proportional **Hydraulic Clamping System with Safety Interlock**



90° Tilting (Rotating) Clamping System

with Precision Controls, for easy Loading & Unloading of Valves

ALL WETTED PARTS IN STAINLESS STEEL

For System Durability and a corrosion free Test Environment.



DUAL SAFETY SCREENS

With Transparent Lexan Polycarbonate (Unbreakable) Shield For Safety against Accidents



Combination Valve Test Bench (Type-2)

ERGONOMICALLY DESIGNED COMMON INDEPENDENT CONTROL PANEL

For Operator Safety & Optimal
Performance with Instrument Read-
Outs at Eye level & Controls at
Shoulder Level

SAFETY VALVE TEST PORT CLAMPING SYSTEM (2 OPTIONS)

A 3-Jaw, Spring
Energized, Piston type,
Mechanical **Manual
Auto Clamping System**

SIZE RANGE

Flanged Valves
1/2" to 16"
Screwed Valves
1/4" to 2-1/2"

A 3-Jaw, Unilateral,
Proportional **Hydraulic
Clamping System
with Safety Interlock**



BREATHER VALVE TEST PORT

CLAMPING SYSTEM

A 6-Jaw (2 Sets of 3 Jaws),
**Manual Mechanical
Clamping System**

SIZE RANGE

Flanged Valves
2" to 24"

LOW PRESSURE

GAS TEST SYSTEM

Up to 5 / 7 / 10 bar

VACUUM TEST SYSTEM

Up to -5 / -7 / -9 psi

LIQUID TEST SYSTEM

Up to 100 / 200 / 400 bar

HIGH PRESSURE

GAS TEST SYSTEM

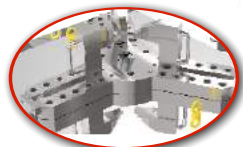
Up to 100 / 200 / 400 bar

DUAL SAFETY SCREENS

With Transparent Lexan
Polycarbonate (Unbreakable)
Shield For Safety against
Accidents

AIR GUN

For cleaning of Valves &
Test Equipment during
& after Liquid Testing.

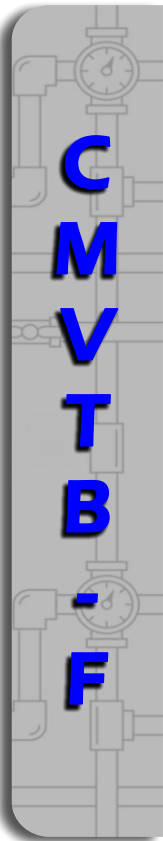


ALL WETTED PARTS IN STAINLESS STEEL

For System Durability
and a corrosion free
Test Environment.

MODULAR CARBON STEEL BASE SKIDS

With Aluminium Chequered Plate Flooring
for Clamping System & Control Panel, and to
allow easy movement for Installation &
Relocation.





Multi Port Valve Test Bench (for Manufacturers)

MULTIPLE TEST PORTS

Automated Hydraulic Sequential Clamping Systems
With Individual DRO's & Lexan Safety Enclosure

AUTOMATED CONTROL PANEL

Fully PLC Controlled
With Pre-fed Test
Sequences & Valve
Inspection Criteria

CUSTOM TEST SYSTEMS

With Liquid, Gas & Vacuum
Test Capabilities

Fully Pre-programmed &
Re-programmable Test Cycles

With Test Result Analysis
& Data Acquisition System

INDIVIDUAL - MANUAL OVERRIDE CONTROLS

for Each Test Port With dedicated Pass / Fail
Indicators & Emergency Shut Off

AIR GUN

For cleaning of Valves &
Test Equipment during
& after Liquid Testing.



ALL WETTED PARTS IN STAINLESS STEEL

For System Durability
and a corrosion free
Test Environment.



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Hose Test Rig

AIR ACTUATED FRONT ACCESS DOOR WITH TRANSPARENT LEXAN (UNBREAKABLE) POLYCARBONATE WINDOW SHEILDS

For clear visibility of Test Specimen & to protect the operator from exposure to any accidental outburst.

ERGONOMICALLY

INTEGRATED ADJACENT CONTROL PANEL

For Operator Safety & Optimal Performance with Instrument Read Outs at Eye level and Controls at Shoulder Level



PLC SYSTEM WITH CUSTOM PROGRAM

For Pump Control & Electronic Over Pressure Protection



OVERHEAD PANEL LIGHT

Inside the Test Chamber for clear visibility of the test article while testing.

ALL STAINLESS STEEL TEST CHAMBER

For rust prevention, durability and integrity of the system.

STAINLESS STEEL WATER RESERVOIR

With Filler Cap, Level Gauge, Suction Strainer, Discharge Strainer & Drain Valve

HIGH VOLUME DIAPHRAGM TYPE PRE-FILLING PUMP

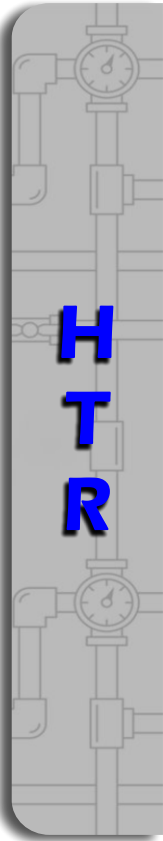
For quick filling of Test Hoses with water and removal of Air Pockets before pressurization.

AIR OPERATED RECIPROCATING HIGH PRESSURE PUMP

For easy, safe, trouble-free & precise pressurization of Multiple Test Hoses.

SIMULTANEOUS TEST ENABLED

For 4 to 6 Nos Hoses with Individual Isolation & Pressure Read-Out





Containerized Valve Test & Repair Workshops

CERTIFIED TRANSPORTABLE CONTAINERS

Custom fitted with Valve Test & Repair Equipment along with Standard workshop Tooling & Utilities



READY TO USE

With Single Point Utility Supply inlets, these Workshop Containers are completely piped, wired & assembled for easy operation & maintenance.



10 FT WORKSHOP CONTAINERS

With Single Port Test Units



20 & 40 FT WORKSHOP CONTAINERS

With Double & Multi-Port Test Units

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Containerized Valve Test & Repair Workshops



- ✓ Lifting arrangement in the four upper corners & Fork-lift pockets at the



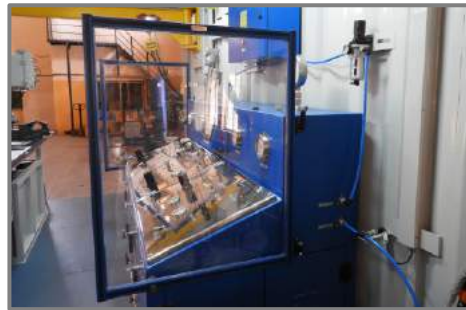
- ✓ Work Benches for streamlined workflow & Storage Cabinets for Documents.



- ✓ Shock Resistant ~ Anti Skid - Rubber Flooring for a safe work environment



- ✓ Swivelable Hoists for easy Valve Lifting & Handling



- ✓ Lexan Polycarbonate Safety Screens for Operator Safety from Accidents.



- ✓ Separate Instrument & Electrical Control Panels for Safety



- ✓ Custom designed Tool Rack with CNC Precision cut Foam Inserts for Tools.



- ✓ Built-in racks for Accessories like Flanges, Adaptors, Clamps & Hoses



- ✓ Installed with workshop equipment like Table Vice & Chuck Vice



Containerized Tool-Room Workshops



TAILOR MADE

Tool Room Workshops, with all necessary Hand Tools, Measuring Instruments & Power Tools.



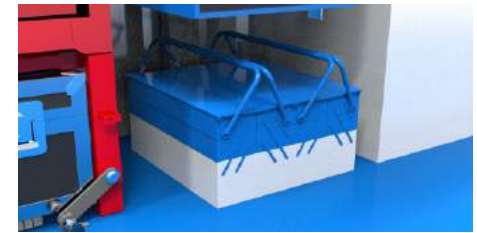
✓ 5 & 7 Drawer Customized, Heavy Duty, Lockable Tool Racks.



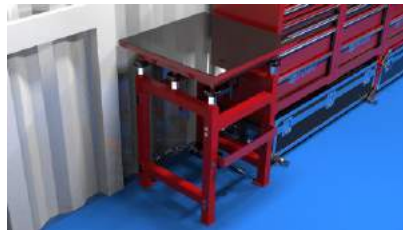
✓ Custom Designed Cosanta Power Tool Boxes with Swivel Castors.



✓ CNC Precision Cut Inserts for all types of Hand Tools.



✓ Portable Tool Boxes to collect Tool assortments for site.



✓ Cast Iron Surface Plates for Precision Measurements.



✓ Heavy Duty, Lockable, Overhead Storage Compartments.



✓ CNC Precision Cut Inserts for all types of Measuring Instruments.



✓ Split Type HVAC System with secured Indoor & Outdoor Unit mounting.

✓ Additional Equipments Options in Containerized Workshops



AIR COMPRESSOR



WELDING MACHINE



SHOT BLASTING



MILLING MACHINE



MAGNETIC DRILL



LATHE MACHINE



Containerized Workshop - Compliances

OFFSHORE WORKSHOPS

- ✓ Available in 10 Feet & 20 Feet Versions
- ✓ Certified to DNV 2.7-1 for Offshore container Compliance.



- ✓ Supplied with an option for ATEX (Explosion Proof) Electrical for Offshore Compliance.



ONSHORE WORKSHOPS

- ✓ Available in 10 Feet, 20 Feet & 40 Feet Versions
- ✓ Certified by American Bureau of Shipping for CSC Compliance.



- ✓ Supplied with Standard (IP 65) Electrical for Weather proofing.



- ✓ All workshops are available with Single Phase as well as Three Phase AC Power Supply Options with Single-Point Utility connection inlets.



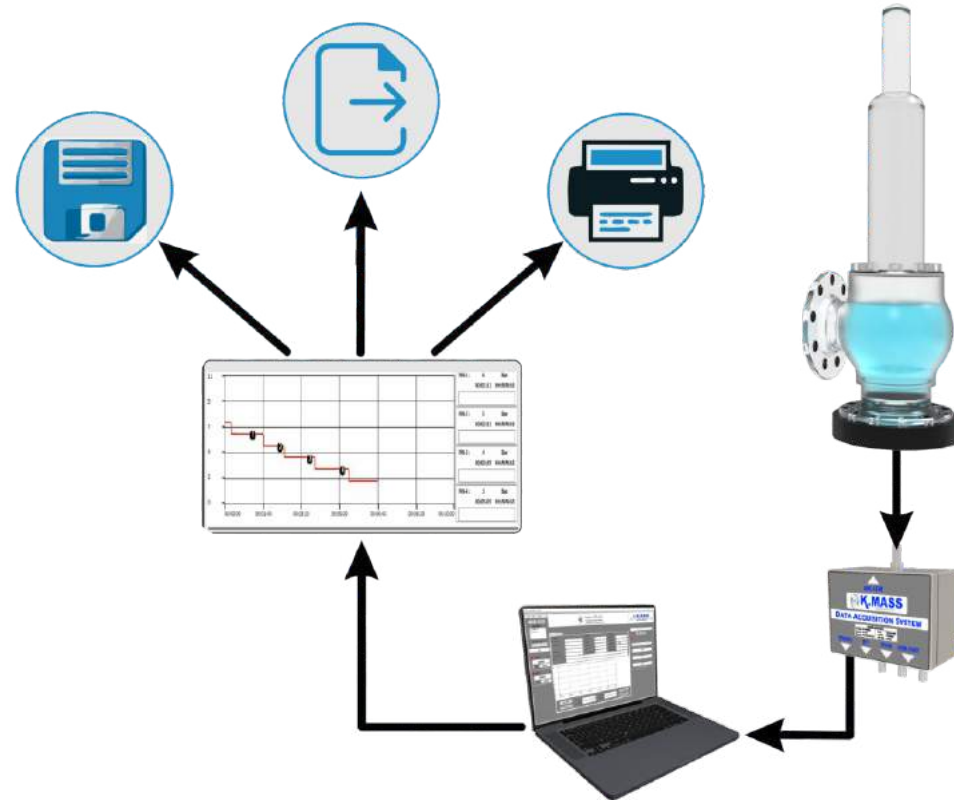
API Digital Bubble Counter (Test System Accessory)



- ✓ Enables user to perform seat leak test accurately & with ease, without any tedious manual counting procedure. A standalone system which is connected to the discharge side of the valves by means of quick push type fittings and a PU tube.
- ✓ No pre-set limits on the test duration or maximum bubble count.
- ✓ Complies with API-527 as well as API-598 Seat Leak Test procedure & sizing.
- ✓ RS 485 Communication port with Modbus RTU for Remote switch & Data Acquisition.
- ✓ Supplied in a wooden carry case with all accessories as a ready to use package.



Data Acquisition System (Test System Accessory)



✓ A PC based recording system which operates thru windows based Custom designed software that displays a real time online Pressure Vs Time Graph & predefined Data Input fields.

✓ Records the entire test and generates certificates for tests executed with any high pressure or Vacuum system.

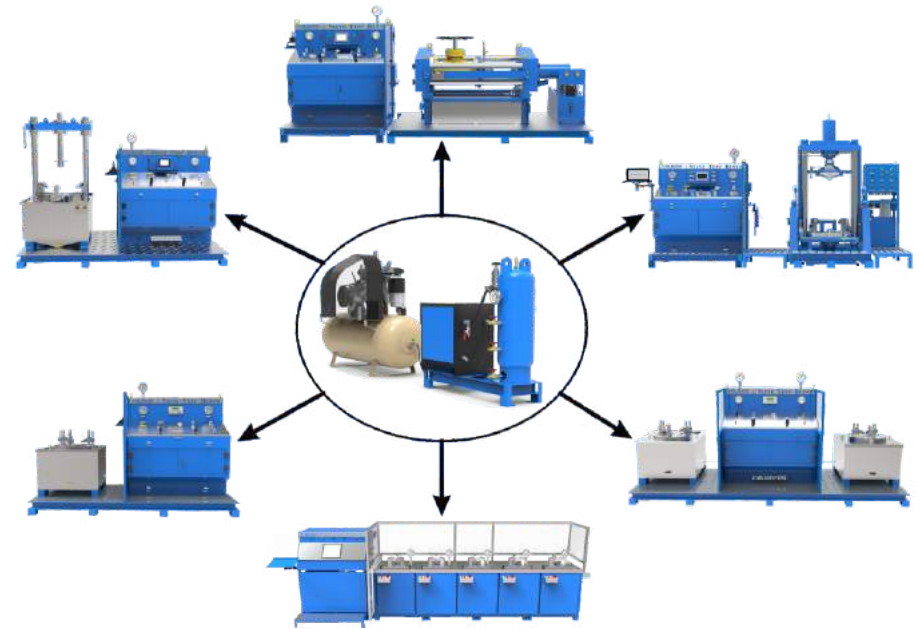
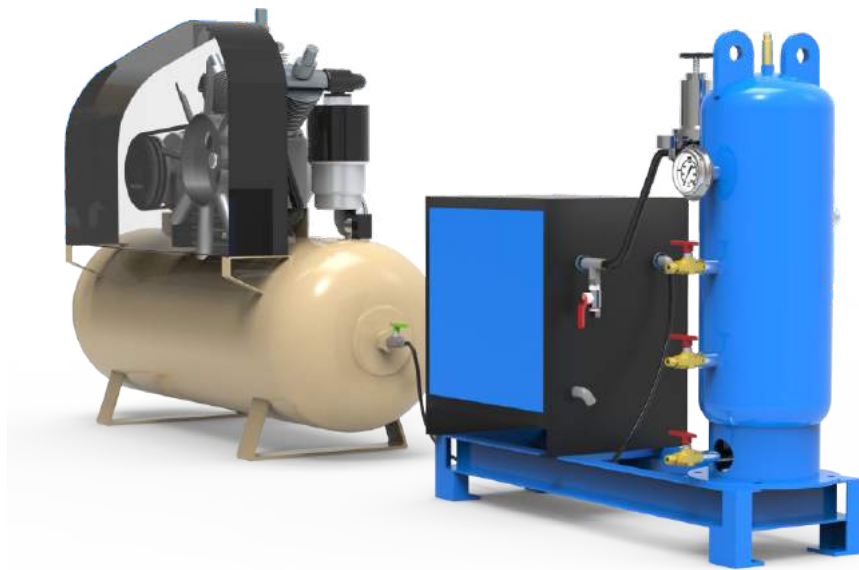
✓ Dedicated Data Logger Hardware Unit in accordance with IP 65/67 & Capable of Logging Test Data from up to four input channels, either simultaneously or one at a time.

✓ Available in both Laptop as well as Industrial Touch Panel PC based variants, to facilitate on site as well as workshop testing.





HP Utility Air Supply System (Test System Accessory)

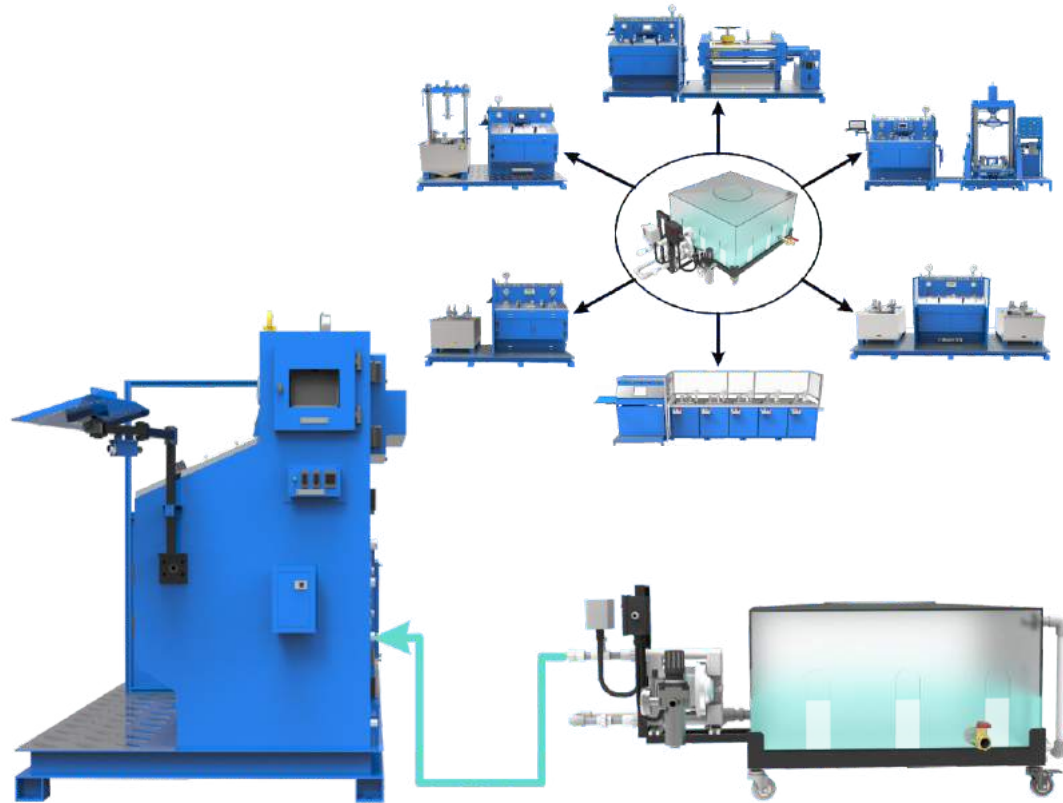
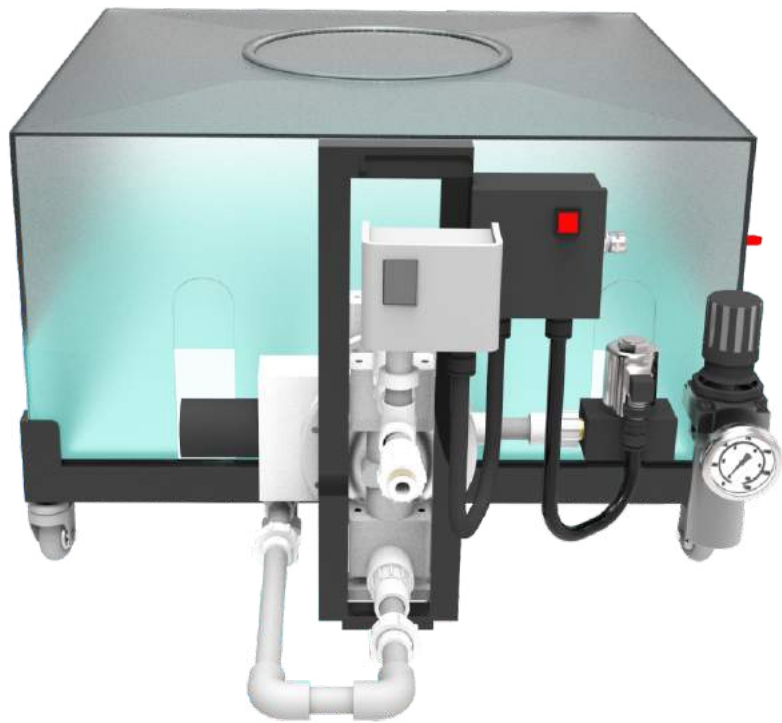


HPASS

- ✔ Designed to cater to the Drive Air & Pre-charged Air requirement of the Liquid & Gas Boosters installed in all K.Mass Valve Test Equipment.
- ✔ Makes the Test Bench Systems self-sufficient and independent, requiring just a Power & Liquid source to ensure a trouble free operation.
- ✔ A Ready to use System with in-built Controls - with no site assembly required besides Interconnection of Hoses & Utility Power Connections.
- ✔ Multiple Utility Outlets – for Various Utility requirements of different Test Units.
- ✔ Installed with a Refrigerant Air Dryer to provide Cool & Dry Air to Boosters.
- ✔ Automatic On/Off function with a dedicated Pressure Switch.
- ✔ Supplied as a complete package with all Interconnecting Valves & Hoses



Portable Liquid Pre-Filling System (Test System Accessory)



- ✔ Configured with a High Output Pump, to enable the user to Pre-Fill the Test Valves with Liquid Test Media & Remove Air Pockets prior to Testing, thus reducing the total pressurization time to a great extent.
- ✔ Carbon Steel Trolley Frame – with a rigid structure, installed with Swivel type Castor Wheels to ensure portability & easy movement of the System.

- ✔ Y-Type Strainers at suction and discharge ends of the Reservoir to remove any contaminations.
- ✔ Option to recirculate the depressurizing discharge and the drain Liquid back to the reservoir.
- ✔ Option to recirculate the depressurizing discharge and the drain Liquid back to the reservoir.



Portable Power Pack Units - Liquid & Gas (Test System Accessory)



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- ✓ A wide range of self contained & ready to operate Power Pack Units which require compressed instrument air and test media supply for Liquid or Gas Pressurization.
 - ✓ Designed as complete test units these Units are capable of performing Choke, Kill, Pressure and Burst Tests.
 - ✓ Suitable for both; Onshore and Offshore environments which require a remote pressure source these Power packs are tailored in various configurations depending on the users selection criteria.
 - ✓ With a Pressure Range of up to 20Kpsi these power units are also offered with dual pumps.
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Contact Information

OUT CONTACT DETAILS FOR MORE INFORMATION ON OUR PRODUCTS, OR FOR ANY PRODUCT SPECIFIC ENQUIRY, ARE AS BELOW:-



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