

THE COMPACT LINE

High Pressure Liquid & Gas **Test PAC** in convincing PASKALS quality

- › Liquid Pressure up to 100000 psi
- › Suitable for all FLUIDS (Liquids & Gases)
- › Tough & Reliable & Well Established



YOU ALSO NEED IT



Due to its legendary quality & reliability under the toughest worldwide conditions combined with low weight and an excellent price quality ratio the **TestPAC** is first choice test engineers & research scientist across industries.

In technical collaboration with



THE COMPACT LINE and Company Profile

PASKALS is a complete fluid Systems Company offering a wide range of custom built Fluid Systems based in **Noida/ New Delhi**.

PASKALS represents HASKEL INC. USA (www.haskel.com), **WORLD LEADER** in high pressure equipment.

PASKALS offers complete range of advanced fluid systems. Our expertise spans all fluids (including specialty gases) and all applications. From Ultimate Vacuum Systems to systems with pressures up to 7000 Bars. We build systems for high technology industries like Aviation, Defense, R&D, Chemical, oil & Gas, Automotive, Shipping etc.

PASKALS has cumulative experience of more than 100 engineering years in this domain

And an established niche customer base in INDIA.

We have supplied several systems with various types of gases including Oxygen/Helium/Nitrogen/Refrigerants and developed advanced Fluid Systems on them.

PASKALS customers are high end Application Users like Defense R&D Labs/Aviation Industry/Navy Research and other establishments.

We specialize in Vacuum Systems, Hydraulic/ Servo Hydraulic Test Rigs, ATF Fuel System Test Rigs, Pneumatic System Test Rigs, Oxygen/ Special Gases system Test Rigs, Very High Pressure Systems.

THE COMPACT LINE and Industry wise application notes

YOU MAY SELECT THE RIGHT MODEL NUMBER or CALL US for finding the right product for your application

Pneumatic Driven TestPAC ™ Specification Sheet/ Selection Chart			
Model No.	Max. Output Pressure (Bar)	Max Output Flow (LPM)	Drive Air (4-7 Bar) Requirement Flow -SLPM (SCFM)
TP-33-MS-21	145	1.6	425 (15)
TP-33-MS-36	248	0.98	425 (15)
TP-33-MS-71	490	0.49	425(15)
TP-33-MS-110	689	5.7	425 (15)
TP-33-MS-188	689	5.7	425 (15)
TP-200-AW-B10	69	17	2123 (75)
TP-200-AW-B15	103	11.4	2123(75)
TP-200-AW-B25	172	6.8	2123(75)
TP-200-AW-35	241	4.9	1416(50)
TP-200-AW-60	414	2.3	1416(50)
TP-200-AW-100	689	1.9	2123(75)
TP-200-AW-150	1035	1.1	849(30)
TP-200-ASF-B10	69	17	2123(75)
TP-200-ASF-B15	103	11.4	2123(75)
TP-200-ASF-25	172	6.8	2123(75)
TP-200-ASF-35	241	4.9	1416(50)
TP-200-ASF-60	414	2.3	1416(50)
TP-200-ASF-100	689	1.9	1416(50)
TP-200-ASF-150	1035	1.1	849 (30)
TP-200-HSF-202	1379	1.5	1416(50)
TP-200-HSF-225	1551	0.8	1416(50)
TP-200-HSF-300	2068	0.6	849(30)
TP-200-HSF-302	2068	1.1	849(30)
TP-200-DS HF-452	3103	0.8	849(30)
TP-200-DS HF-602	4137	0.6	849(30)
TP-200-DS HF-903	5171	0.6	849(30)

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If we were to try and list every possible application of the **TestPAC**, it would Doubtless run for many thousands of pages and be out of date before it was completed.

What we have attempted to do here is give you a selection of some of the more obvious applications with which you can identify. Where possible we have provided a brief description of the application and where our products fit in.

In many of these applications we have available more detailed descriptions, drawing or other data that may help you. Please do not hesitate to request this as and when required.

1. HYDROSTATIC PRESSURE TESTING:

Probably this is the most common usage for the **TestPAC**. This heading covers both burst and proof testing of components.

There are a vast number of components that require pressure testing. These include such items as: Hose, Pipelines, Valves, Pressure Vessels, Gas Bottles, Boilers, Heat Exchangers, Accumulators, Fire Extinguishers, Turbines, Oil-Well Equipment, and many more.



The mediums normally used in pressure testing are: water, water and soluble oil, or oil.

2. ISOSTATIC PRESSING:

Known as cold Isostatic Pressing, this is a method of compacting powdered materials in all directions simultaneously.

The following are just a few of the industries and uses for Isostatic Presses:-

- a) **Ceramic Industry:** Making high tension insulator blanks for the Electrical and Power market, electro ceramic parts, vapor lamps, sewer pipes, spools for the Textile markets, tubes for Sodium.
- b) **Power/Metallurgy:** Making filter elements, bearings, and blades for turbines, cutting tools, drill bits, hard metal dies and tools, forging performs.



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3. CRIMPING AND SMALL POWER TOOLS

The connection of couplings to hydraulic hoses, plugs and connectors to cables and wires is achieved by crimping. Normally this is done with the aid of a small hydraulic press using an air driven pressure pump. Sometimes a more portable press unit is needed and this can be solved by using the **TestPAC**

Typical items that are crimped include Hydraulic and Pneumatic Hoses, Electrical Wires and Cables, Telephone Cables, Refrigerant Coils

There are, in addition to crimping, many other purposes for **TestPAC** in the small industrial machine market.

These include machines for, Riveting, Punching, Fastening, Clamping, Cutting, Swaging, and Shearing

4. HYDRAULIC PRESSES:

This is a natural and very common usage for **TestPAC**. Some Processes in which it can be used are Press Operation, Press Overload, and Curing Presses
Some of the industries using large numbers of Hydraulic Presses, **Automotive Industry, Rubber Industry, Metals Industry, Plastics Industry, Woodworking**

5. WATER INJECTION BLAST CLEANING:

A **TestPAC** is used to inject water into nozzle at a pressure of around 125 psi and at a discharge rate of approximately 2.5 gpm. This provides the wet element. This method eliminates dusty blast cleaning allowing operators to wash down blast cleaned surfaces with air and water and then using the air only blow down to dry the damp surface.

6. VALVE ACTUATION

Pipelines in the Oil, Gas and Petrochemical Industries are fitted with fail safe valve systems.

Such systems can be found in Offshore Oil platforms, Oil Pipelines, Gas Pipelines, and Chemical Pipelines

7. LIQUID CHROMATOGRAPHY

High Pressure Liquid Chromatography is a process used to separate, identify and measure closely related compounds in a given mixture.

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For columns packing type HPLC separation, the method of packing the columns is critical

TestPAC can be used for this purpose.

HPCL or High Performance Liquid Chromatography is used throughout Industry to analyze virtually any substance which can be dissolved in a liquid.

8. FILTER PRESSES

One of the major requirements of a filter press is to achieve a relatively high pressure at the end of the cylinder stroke.

This provides a very effective use for a **TestPAC**.

Filter Presses can be found in the following industries, Ceramic, Brewing, Sewerage and Water Waste Treatment, Glass, Food, Chemicals

9. CHEMICAL INJECTION AND METERING

Our **TestPAC** are ideal for injecting additives Chemicals, detergents, corrosion inhibitors and such like into transmission pipeline systems. Virtually any chemical, pressure and flow injection requirement can be accommodated.

Markets range from Chemical, Oil and Gas, Pharmaceutical, Food, Laboratories, Breweries, Textiles



10. JACKING/LIFTING

TestPAC are commonly used in the jacking systems employed by such industries as Aircraft, Construction, Automotive, etc.

The high pressure and high output flow make them ideal for this purpose, potentially a very good OEM market.

11. DIE CASTING

An integral part of every die-casting plant is a large accumulator. **TestPAC** are used to ensure that the necessary pressure is maintained in the accumulator, making up any volume or pressure loss.

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12. FIRE INDUSTRY (FILLING & TESTING OF FIRE EXTINGUISHERS)

As mentioned under the hydrostatic test section, all fire extinguishers have to be pressure tested at manufacture. Also once employed, they have to be periodically re-tested. Laws tend to be different and this period can vary between one and four years.

13. ELECTRONICS (WASHING, CUTTING, CURVING & PURGING OF ICs & PCBs)

TestPAC are used for pumping de-ionized water through a spray nozzle at Pressures varying between 2,500 and 4000 psi. This serves to wash any impurities from the chips surface eliminating faults such as shorts.



14. RAILWAYS

Most of the larger railway yard workshops are equipped with pressure test equipment. Often this can be found to be old hand pumps. Most have compressed air or bottled nitrogen on site and can be converted to **TestPAC**.

Another application in this industry is wheel profile machines, removing the locomotive wheels, hub pulling and bolt tensioning.

15. TUNNELS/ MINING/ QUARRYING

Under this heading a host of opportunities arise for **TestPAC**.

- a) **TestPAC** can be used for the rapid setting of high yield hydraulic pit props.
- b) **TestPAC** are used for charging the breathing gas bottles in Mines Rescue Stations.
- c) **TestPAC** is used to expand the roof support bolts which prevent roof Collapse.

16. LUBRICATION

TestPAC are also used in the lubrication business where they serve as a central lubrication system. Building pressure throughout a piping system direct to the component or equipment to be lubricated.

Such systems can be found in the manufacture of Diesel Engines.

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17. AUTOMOTIVE INDUSTRY

TestPAC are used for testing the Air Brake Systems in many of the leading truck and tractor manufacturers.

Pressure Test Applications can be found in the engine shops, and for the hydraulic components in such vehicles as earth movers, back hoe loaders etc.

18. UNIVERSITIES (LABORATORY APPLICATIONS)

Universities can provide a good outlet for all **Paskals** products. Whether it is the laboratories for high pressure chemistry, mechanical engineering, geology, even biology. For example, in materials testing laboratories where steel, wood, concrete Etc. is tested for strength, stress and deflection, **TestPAC** are used, building up the Pressure to apply the necessary load.

19. FOAM MANUFACTURE

There are several different types of foam; two of these hold applications for **TestPAC** Structural Foam & Pellet Foam

20. HYDRAULIC TUBE PULLING / SWAGING

TestPAC are used for the hydraulic pulling and swaging of Tubes in the manufacture Of Heat Exchangers, Marine Boilers and similar. Often working to very high pressures.

21. ARMAMENTS MANUFACTURE (ISOSTATIC & HYDROSTATIC TESTING)

There are a multitude of applications in this field. To name just few Isostatic Pressing of explosives, Hydrostatic testing of breech mechanisms on high velocity rifles, testing of nose cones and tail fins on mortar bombs, Testing of Tank Barrels.

22. CLAMPING:

A typical application is the installation of **TestPAC** to power multiple clamping Cylinders for holding work pieces together during a machinery process. Such clamping arrangements can be found clamping metal bars on mechanical saws, holding aluminum castings, engines, etc.

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23. DIESEL ENGINES

TestPAC is used to push oil to the main engine bearings and cylinder walls for Lubrication prior to the engine being started. Normally this is accomplished within a few seconds.



24. Plastics Injection Moulding & Die Casting

This activity involves high pressure Nitrogen and boosting systems. PET bottle Manufacturers could use our **Gas TestPAC** to augment the capacity of their Small domestic compressors to meet the stringent demands for blow molding. Large injection molding manufacturers use Haskel boosters for generating the high pressure demand.