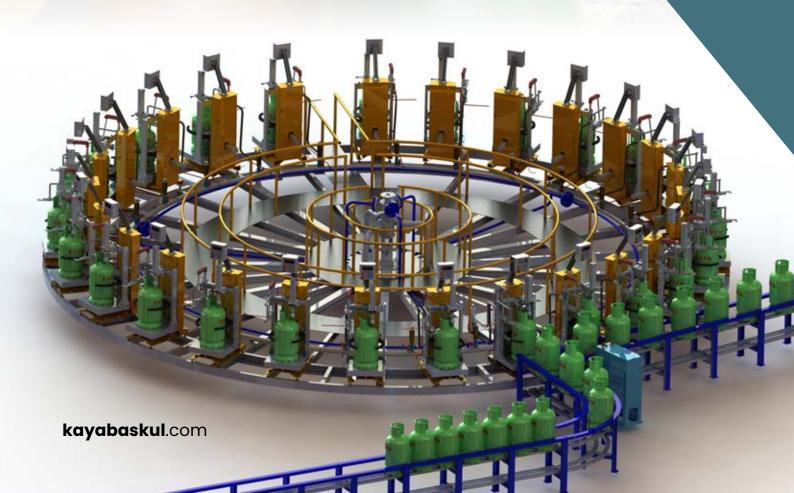


# LPG CYLINDERS FILLING SYSTEMS



## LPG CYLINDERS FILLING systems

## ABOUT US

Kaya Baskül was founded in 1975 by Şaban and I.Hakki kaya In the Eminönü area at the heart of Istanbul. Kaya Baskül is known for manufacturing high-quality LPG cylinder filling systems.

Since 1975. KAYA Baskül has been providing tailor-made LPG cylinder refilling solutions for its customers.

KAYA is a leading local and regional producer of LPG cylinder filling systems. From a single filling posttoaturn-keyprojectincluding all necessary equipment, we are proud to serve our friends from all over the World and to assist them as their next-door neighbors for any help they might require.





Developed with the market increasing demand for electronic LPG filling scales and in order to provide our customers with a high quality services we developed the Kayatronik.

KAYATRONİK offers multiple advantages to its users especially in the fields of precision and accuracy thanks to its new software and its high performance control unite.

Because of its large screen and the simple user interface, it provides the operator with safer, accurate, and user friendly working experience on the other hand, KAYATRONİK provides the LPG filling facilities with high efficiency solution, KAYATRONİK stands out with its robust structure, superior performance, high filling precision, and new intelligent software

- Ocan hold up to nine different programs
- Easy calibration
- Large built in operation memory up to 15 days
- ♦ Large interface screen
- Automatic filled cylinder weight inspection for higher accuracy
- Filling accuracy does not affected by LPG turbulence inside the cylinder
- Equipped with LED lamps for describing the fillings situation
- Equipped with built in memory for working errors
- Turkish, English and French operation languages
- Equipped with centering mechanism.

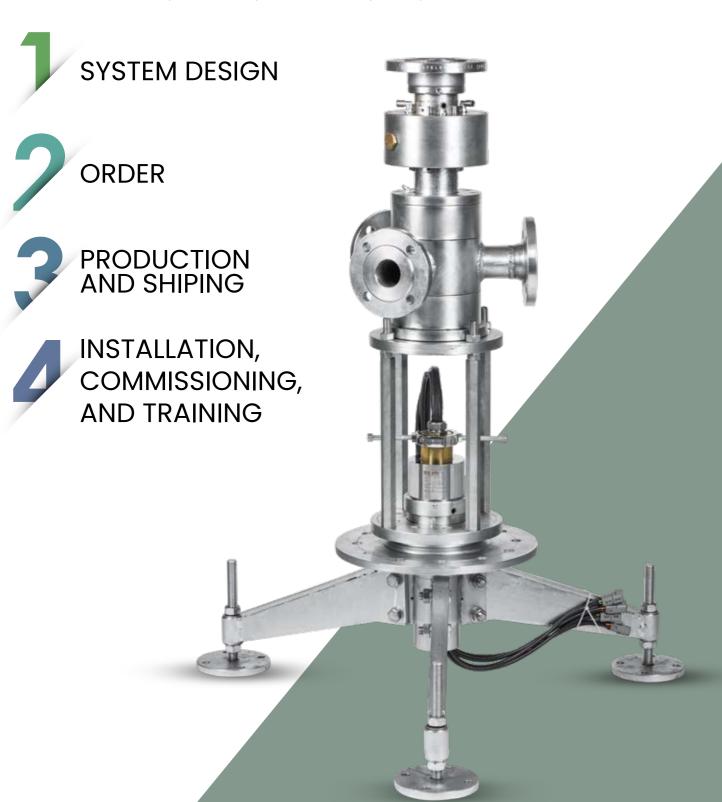
- Has a double stage LPG cut-off valve.
- Stronge and electrostatic painted body.
- Stainless steel platform
- Minimum maintenance and service needs
- Can be used alone or over a Carousel
- Can be equipped with two different filling heads for handwheeled and
- self-closing valves.
- Easy to install and use
- Safe to use
- **1** Low energy and air consumption





## HOW WE WORK

Four simple steps between you and your new filling systems. We are at KAYA are proud to guide you through all these steps to get the right solution for your application.





In the carousel type filling system, the filling machines are mounted on top of a rotating platform which is called (Carousel). The carousel system has one entrance for receiving the empty cylinders and one exit and returning the full cylinders to the system. As the cylinders are being filled while rotating with the carousel it gives the system higher efficiency and productivity.

## Advantages:

- High filling capacity.
- Low manpower required for operation.
- Heavy duty and minimum maintenance requirement.
- Low installation time.

## System details:

- Can be manufactured to suit any type of cylinders.
- Can be manufactured starting from 9 filling positions up to 36 filling positions.
- Firm and rigid main structure for higher filling accuracy.
- Adjustable supporting wheels to ensure the rotation stability of the carousel.
- Can work with both mechanical and digital filling machines.
- Rotation speed can be adjusted within a range between 60 to 120 second per rotation.



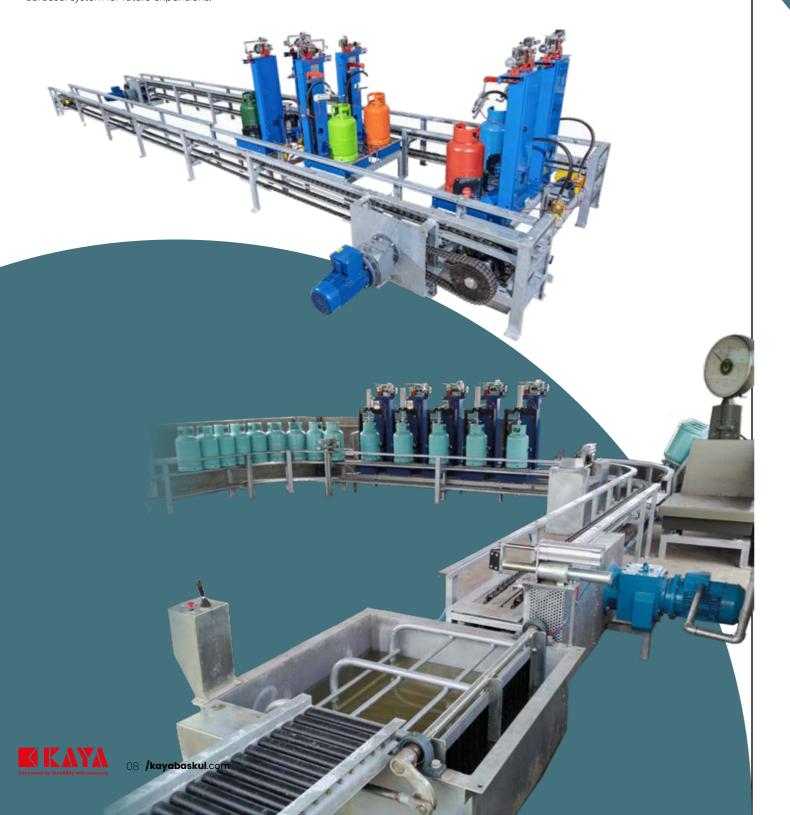


# filling system FIXED MOUNT

In the fixed mount filling system, the filling machines are mounted either directly to the ground or to a stationary platform

## Advantages:

- Filling capacity can range from low up to high filling capacity.
- High filling flexibility. As each filling machine cab work separately.
- **S** Easy to install and operate.
- Easy to expand and to modify.
- All the equipment used in this type of system can be disassembled and assembled again for carousel system for future expansions.



# filling system CONTAINERIZED FILLING

In containerized filling system all the equipment required for filling are installed in one container. LPG cylinders filling machines, LPG pumps, LPG, air and file fighting pipes, electricity connections.

## Advantages:

- Plug and play style LPG cylinders filling system.
- Reducing the civil construction cost as all the system is already in the container.

  > Fast installation.
- > Can be moved and placed in another place if needed.
- > High level of security as the system can completely closed under

- System details:
  All the system is included with 40' DC container.
  Can be equipped with 2 LPG cylinders filling machines for industrial cylinders and 8 for household cylinders with total 10
- Equipped with 2 LPG filling pumps.
  Screw type Air compressor.
  Firefighting pump.

- > Ex-proof electricity panel.











THE SMALLEST IN TERMS OF SIZE AND FILLING CAPACITY SYSTEM. IT IS MAINLY USED FOR RURAL AREAS AND UP-COUNTRY AREAS. IT BASED TO PUT ALL THE EQUIPMENT'S REQUIRED FOR FILLING INSIDE A SMALL CABIN MOUNT ON A SKID.

- Plug and play style LPG cylinders filling system.
- Reducing the civil construction cost as all the system is already in the container.

- Can be moved and placed in another place if needed.
  High level of security as the system can completely closed under lock and key.

## **System details:**

- All the system is included within a pre-fabricated cabin.
- Can be equipped with 2 LPG cylinders filling
   Equipped with 1 LPG filling pumps.

- Piston type Air compressor.
  Ex-proof electricity panel.





## **KB-32 MECHANICAL LPG CYLINDERS FILLING SCALE**

- Ex-Proof filling machine ATEX certified.
  Can be equipped with one or 2 filling heads.
- Can be mounted either on a fixed platform or on
- Can be equipped with centering mechanism and automatic cylinder ejector.
- On be electrostatic painted or can be manufactured completely of stainless-steel.
- Weighing span 32 kg.
- Sensitivity 100 g.
- Accuracy 75 gStainless steel platform.









# FILLING Cales

## **KB-110 MECHANICAL LPG CYLINDERS FILLING SCALE**

- Ex-Proof filling machine ATEX certified.
  Can be equipped with one or 2 filling heads.
- On be mounted either on a fixed platform or on
- Can be equipped with centering mechanism.
- Ocan be electrostatic painted or can be manufactured completely of stainless-steel.
- Weighing span 110kg.
- Sensitivity 100 g.
- Accuracy 75 gStainless steel platform.











## **KB-10 MECHANICAL LPG CYLINDERS** FILLING SCALE

- Ex-Proof filling machine ATEX certified.Can be equipped with one filling head.
- Can be mounted either on a fixed platform or on carousel.
- On be equipped with centering mechanism and automatic cylinder ejector.
- Can be electrostatic painted or can be manufactured completely of stainless-steel.
- Weighing span 10 kg.
- Sensitivity 100 g.
- Accuracy 75 g
- Stainless steel platform.













- 1- Telescopic conveyor
- 2- Conveyor driving unit
- 3- Conveyor system
- 4- Cylinders soap dispensing tunnel
- 5- Cylinders side brushing machine
- 6- Cylinders top brushing machine
- 7- High pressure cylinder washing machine
- 8- Cylinders drying unit
- 9- Automatic check scale
- 10- Manual check scale

- 11- Leak detector
- 12- Leak detection pool
- 13- Cylinder body sleeve shrinking unit
- 14- Automatic valve sleeve shrink machine
- 15- Manual valve sleeve shrink machine
- 16- Valve plug fixing machine
- 17- Gas transfer unit
- 18- Valve changing machine
- 19- Hydrostatic test unit

# CYLINDER Systems HANDLING



THE TELESCOPIC CONVEYOR IS A CYLINDER HANDLING SYSTEM EQUIPMENT DESIGN TO ASSIST THE CYLINDER HANDLERS DURING LOADING AND LOADING CYLINDERS FROM AND TO THE TRUCKS. THE TELESCOPIC CONVEYOR IS RECOMMENDED FOR THE FILLING SYSTEMS WHERE INCREASE THE EFFICIENCY AND REDUCING THE MANPOWER IS NEEDED.

## **Advantages:**

- Easy to install and operate.
- Reduce loading and loading time.
- ncrease the system overall efficiency.
- Reduce the operator fatigue within the day.
- Reduce cylinder damage by reducing handling distance by hand.
- Reduce work injury by making cylinder handling by handling easier

## Details

- Effective elongation length (Length progress inside the truck 8 M).
- Motor powered conveyor.
- Motor powered forward and backward movement.
- Antey collusion safety mechanism (Prevent the moving part from hitting the operators while moving)
- Exproof electric equipment used (Motors, switches, and junction boxes)





CONVEYOR DRIVING UNIT IS THE RESPONSIBLE EQUIPMENT FOR MOVING THE CHANS OF THE CONVEYOR CARRYING THE CYLINDER BETWEEN THE DIFFERENT FILLING AND INSPECTION STAGES WITHIN THE SYSTEM IN THE MOST EFFICIENT WAY.

- Ex-proof motor powered with 3 kw motor (motor power can vary according to the design requirement).
- Shafts, bearings and power transmission sprockets and chains. • CC600 cast iron sprockets.
  - Water pool for conveyor chains lubrication.
  - Safety machine covers.
- All the steel structure of the driving unit either can be painted or



**CONVEYOR SYSTEMS ARE USED TO FACILITATE** THE CYLINDERS MOVING WITHIN THE FILLING SYSTEM DIFFERENT STAGES.

## **Conveyor system Details**

- All the steel structure of the conveyor either can be painted or galvanized.
  - Ocomes with riveted chains.
- 1 Its height and width can be design according to the. All the chains ways are lined with anti-friction material for lower noise and longer chains life.

## AUTOMATIC INLET DEVICE

AUTOMATIC INLET DEVICE IS USED WITH THE CAROUSEL FILLING SYSTEMS TO INTRODUCE THE EMPTY CYLINDERS TO THE SCALE AUTOMATICALLY WHILE THE CAROUSEL IS ROTATING. IT IS PERFECT TO REDUCE MANPOWER AND INCREASE THE SYSTEM EFFICIENCY.

- Fully synchronized with the carousel.
  Can detect the empty filling scale and push cylinder to it.
  If there is a cylinder on the scale another cylinder will no be pushed.
  Can be activated or deactivated manually if needed.

- Pneumatic powered and controlled.
  Designed according cylinder type and s
  Full automatic control.

- Adjustable speed.
   Working temperature -15 C° +57C°.
   Working air pressure 5 7 Bar.
   Capacity 1200 cylinder/Hr.











CYLINDER SOAP DISPENSING TUNNEL WHERE THE CYLINDERS COVERED WITH SOAP AND OTHER CLEANING CHEMICALS.

- The tunnel is made of anti-corrosion materials

- The tunnel is automatically operated.
  The tunnel is closed to prevent any chemicals or soap to go out.
  Keeps the working are clean by using a soap and chemicals collecting pan beneath it.



AFTER THE CYLINDERS IS COVERED WITH CLEANING SOAP AND CLEANING CHEMICALS, THEY PASS THROUGH THE SIDE BRUSHING MACHINE TO MECHANICALLY REMOVE ANY UNWANTED MATERIALS COVERING THE CYLINDERS SIDES.

- The side brushing machine is made or coated with anti-corrosion material.
- The side brushing machine is automatically operated.
- The side brushing machine is closed to prevent any chemicals or
- Keeps the working are clean by using a soap and chemicals collecting pan beneath it.
- All the brushes are powered with ex-proof motors.
- No need to stop the cylinders to get cleaned.



AFTER THE CYLINDERS IS COVERED WITH CLEANING SOAP AND CLEANING CHEMICALS, THEY PASS THROUGH THE TOP BRUSHING MACHINE TO MECHANICALLY REMOVE ANY UNWANTED MATERIALS COVERING THE TOP OF THE CYLINDERS.

## Details

- The top brushing machine is made or coated with of anti-corrosion material.
- The top brushing machine is automatically operated.
- The top brushing machine is closed to prevent any chemicals or soap to go out.
- Keeps the working are clean by using a soap and chemicals collecting pan
- All the brushes are powered with ex-proof motors.

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No need to stop the cylinders to get cleaned.









USING HIGH PRESSURE WATER JETS TO REMOVE ALL THE FOREIGN MATERIALS LOCATED ON THE SIDES OR TOP OF THE CYLINDERS. POWERED WITH HIGH PRESSURE WATER PUMP THE HIGH-PRESSURE CYLINDERS WASHING MACHINES CAN EFFECTIVELY CLEAN THE LPG CYLINDERS.

## High pressure cylinder washing machine details.

- High pressure cylinder washing machine is made or coated with of anti-corrosion material.
- High pressure cylinder washing machine is automatically operated.
- High pressure cylinder washing machine is closed to prevent any chemicals or soap to go out.
- Keeps the working are clean by using a soap and chemicals collecting pan beneath it.
- No need to stop the cylinders to get cleaned.

## CYLINDERS DRYING LPG CYLINDERS DRYING MACHINE BEFORE THE CYLINDERS PROCEED TO THE FILLING STAGE AND AFTER THE WASHING STAGE THIS UNIT IS RESPONSIBLE FOR DRYING THE CYLINDERS. IT CAN BE ON TWO STAGES THE FIRST IS BY AIR USING EX-PROOF

FANS AND THE SECOND IS USING DRYING UNKNIT.

- 2 All the machine parts either mad of anti-corrosion materials or coated





## PRECISION Systems



AUTOMATIC CHECK SCALE IS AN ONLINE WEIGHT CHECKING UNIT IT IS A PLC POWERED SMART PIECE OF EQUIPMENT AUTOMATICALLY CHECKING THE WEIGHT OF THE CYLINDERS PASSING ON TOP OF IT AND SORTING THE UNDER AND OVER FILLED CYLINDERS AUTOMATICALLY.

## **Advantages**

- The most efficient way to 100% inspect the filled cylinders.
- Can be programmed to different checking formulas according to the customer's request.
- Automatically sorting the under and over filled cylinders.

## Details

- PLC powered.
- Mounted online.
- Weighing the cylinder without stopping it.
- Automatic sorting.
- 300 Kg ATEX certified single point load cell.





MOUNTED OFFLINE AND REQUIRES OPERATOR TO MANUALLY CHECK THE WEIGHT OF THE CYLINDER AFTER FILLING. USUALLY USED FOR SMALL TO MEDIUM CAPACITY FILLING SYSTEM.

## Details

- Ocomes in 300 Kg platform capacities.
- Radial dial easy to read.
- **3** 360 degree turning head.
- Loading points are made of Hardened steel.





ELECTRONIC LPG CYLINDERS LEAK DETECTOR IS DESIGNED AND MANUFACTURED BY KAYA BASKÜL USING THE LATEST TECHNOLOGY AND HIGH SENSITIVITY EQUIPMENT TO PROVIDE LPG CYLINDERS FILLING STATIONS WITH A DEVICE CAPABLE TO DETECT ANY LEAKING FROM FILLED CYLINDERS DUE TO MALFUNCTION IN ITS VALVE OR VALVE TO CYLINDER CONNECTION

## Advantages

- Rovides highest levels of safety.
- Eliminates human errors.
- Detecting leaks around the valve.
- Can work with all valve's types.
  Suitable for all cylinder's diameters
- Fully automatic test.
- Minimum space requirement.
- Easy installation.
- Seasy operating.
- Measuring and alarm system.
- Equipped with LPG measuring sensor and warning system.
- Equipped with centering mechanism.

## **Leak detector testing points**

- F-valve outlet leakage.
- Ocylinder to valve joint leakage.
- Valve's body leakage.F-valve hand wheel leakage.
- Self closing valve leakage.





## PRECISION



FILLED LPG CYLINDERS AFTER FILLING THEY DIVE TROUGH THE LEAK DETECTION POOL USING THE MOVEMENT OF THE CHAIN CONVEYOR. THE FILLED LPG CYLINDERS ARE SUBMERGED UNDER WATER WHICH MAKES LEAKAGE DETECTION MUCH EASIER AND FASTER VIA VISUAL OBSERVATION.

## **Advantages**

- Easy to operate and install.
- Requires minimum maintenance.
- Easy to detect the leaking cylinders by observing if there are any gas bubbles coming out of the cylinders.
- Checks for both cylinder's body and valve leakage.
- All the pool structure are made of carbon steel and hot dip galvanized.

## Details

- Hot dip galvanized.
- Draining valve 2".
- Width and length decided according to the cylinders to be tested.









THE CYLINDER BODY SLEEVE SHRINKING UNIT IS USED FOR BOTH CAMP AND HOUSEHOLD CYLINDERS WHENEVER THE CUSTOMER WANTS TO ADD MORE BRANDING TO THEIR CYLINDERS. THE BRANDING SLEEVE WHICH IS MADE FORM A HEAT SENSITIVE MATERIAL IS PLACE AROUND THE CYLINDER AFTER THAT THE CYLINDER PASSES THROUGH A STEAM TUNNEL. USING THE STEAM AS A HEAD SOURCE TO HEAT UP THE BRANDING SLEEVE IT SHRINKS AND BECOME TIGHT AT THE CYLINDER.

- The machine tunnel is made or coated with water resistance material.
- The steam tunnel includes all the required steam distribution pipes and nozzles.
- The body sleeve shrink machine is mounted online
- 1 It can be manufactured according to the cylinders

- Help to make the cylinders brand more recognizable.
- Help to use the cylinders as small billboards for the company.
- Reduce the necessity to repaint the cylinder as the body sleeve protects the cylinder.
- The machine is easy to use.



## AUTOMATIC VALVE SLEEVE SHRINK MACHINE

USING THE STEAM COMING FROM STEAM GENERATING UNITE A HEAT SENSITIVE FILM WHICH WRAPPING THE VALVE PART OF LPG FILLED AND INSPECTED CYLINDER BEING SHRUNK UPON IT. THIS MACHINE CAN BE MOUNTED ON THE CONVEYOR AND CAN BE EQUIPPED WITH SUITABLE CENTERING MECHANISM ACCORDING TO CYLINDER'S SIZE. THIS MACHINE IS EQUIPPED WITH SPECIALLY DESIGNED STEAM HEAD ACCORDING TO VALVE TYPE.

## **Details**

- Suitable for household cylinders.
- Self-closing steam head.
- Easy setup and operating
- Oan be mounted online
- Pneumatic powered and controlled.
- Suitable Steam Head for each valve type.
   Working temperature from +2 °C To 57 °C
- ♦ Electricity 380V/22
- Thermostat limit 150 °C
- Steam pressure 3 4 bar
- Water tank capacity 100 L (or according to customer preferences)

## **Advantages**

- Sealing cylinders after filling to
- ensure the safety.
- Put the brand name on the cylinder
- Fully automatic.
- Has centering mechanism.



# PRECISION ystems



## MANUAL VALVE SLEEVE SHRINK MACHINE

IS USED TO COVER THE VALVE PART OF THE FILLED LPG CYLINDER WITH A HEAT SENSITIVE FILM USING THE STEAM GENERATED FROM THE STEAM UNITE (STEAM GENERATOR) IN A FAST AND EFFICIENT WAY. BEFORE COVERING THE.

- Details
  Suitable for household and industrial cylinders.
  Self-closing steam head.
  Easy setup and operating
  Suitable Steam Head for each valve type.
  Working temperature from +2 °C To 57 °C
  Electricity 380V/22
  Thermostat limit 150 °C
  Steam pressure 3 4 bar
  Water tank capacity 100 L (or according to custon)





## VALVE PLUG FIXING MACHINE

FOR FILLED AND INSPECTED CYLINDERS VALVE PLUG FIXING MACHINE IS USED TO FIX THE VALVE PLUG AUTOMATICALLY. THIS MACHINE IS MOUNTED ONLINE WHEN THE CYLINDER PASSES UNDER IT IS AUTOMATICALLY FIX THE PLUG USING AN PNEUMATIC MECHANISM.

## **Advantaaes**

- Prevent the operator of using normal hammer which can cause spark.
- Fast and efficient.
- No need to stop the cylinders.

## Details

- Painted steel structure.
- Pneumatic powered and controlled.
- Changeable fixing head.
- Mounted online.
- Fully automatic.







OUR GAS TRANSFER UNITE IS USED TO EVACUATE THE DEFECTED CYLINDERS AND SEND LPG BACK TO STATION'S MAIN TANK. OUR MACHINE IS CAPABLE TO EVACUATE LPG CYLINDER WITHIN 3 MINUTES.

## **Details**

- Pneumatic powered and controlled.
- Designed according to customer requirements.
- Gas flow can be observed using check lens.
- Working temperature 10 C ° / + 50 C ° Working air pressure 05 ≈ 07 Bar
- MAX. Gas flow rate 26 LT /min
- Outer dimensions 60 x 140 x 95 (cm)
- ♦ Working gas pressure 1 40 (Bar)







VALVE CHANGING MACHINE IS CAPABLE TO LOOSEN LPG CYLINDERS VALVES WHICH SUFFER FROM ANY MALFUNCTION WHICH CAUSING LEAKAGE OR ANY OTHER PROBLEM AND HELP IN TIGHTENING VALVES ALSO.

- Safe to use.
  Has a strong vise to firmly hold the cylinder during changing proces
  Can be produced in manual or half automatic versions.
  Comes with different heats for different valves.







## PRECISION Systems



THE HYDROSTATIC TEST UNIT IS DESIGNED AND MANUFACTURED FOR THE PURPOSE OF DETERMINING WHETHER THE LPG CYLINDERS ARE WITHIN SAFETY LIMITS OR NOT. BY FILL THE LPG CYLINDERS WITH HIGH PRESSURE WATER. JUST SAFE CYLINDERS PASSES THE TEST

## **Details**

- Testing pressure 30 bar.
- Manual and automatic mode.
- Ocylinder test rakes has 6 or 12 cylinder.
- Special design for water tanks.
- Adjustable water pressure.
- Water pumps high pressure/low pressure.
- Replaceable cylinder's testing heads.
- For industrial cylinders rakes can be adjusted.
- Suitable pipes for the system.
- Adjustable testing time.
- The testing unit rakes are manufactured according to Cylinder's diameter.



# Equipments

**FILLING GUN** 



ROTATING DOUBLE FILLING HEAD



MANUAL FILLING GUN



COMPACT SELF-CLOSING VALVES MANUAL FILLING GUN



COMPACT
SELF-CLOSING
VALVES PNEUMATIC
/ FILLING GUN \



SINGLE STEP GAS STOP VALVE



CAMP CLINDERS FILLING HEAD



DOUBLE STEP GAS



SELF-CENTERING
FILLING HEAD





CANADA USAFOLAND GUYANA BRASIL SLOVENIA GERMANY NORWAY FRANCE **SOVKIA** LIBERIA CAMEROUNTCHAL SOUTH AFRICA **CONGO** EGYPT

TURKEY LEBANON SUDAN SYRIA AZARBAIJAN UAE INDIA IRAQ IRAN RUSSIA KAZAKHST ISTAN PAKISTA ETNAM KOREA NDONESIA





Strong, Accurate

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