



Conceived for durability with accuracy

**LPG FILLING &  
AUTOMATION SYSTEMS**

**2019-20**  
**PRODUCT CATALOG**

# ABOUTS

LPG FILLING &  
AUTOMATION SYSTEMS



KAYA BASKUL was founded in 1975 by Saban KAYA and I.Hakkı KAYA in İstanbul Eminönü. Then he moved to Beykoz district of İstanbul by enlarging the area.

KAYA BASKUL has taken its place in the world market with turnkey projects in Electronic/Mechanical automatic LPG filling scales and LPG filling stations.

Our main goal is to establish LPG filling station. But we in the meantime carry out the activities for producing and erecting the items needed in the those units upon the request of our clients.

**KAYA BASKUL Product;**  
Mechanical Filling Scales, Electronic Filling Scales, LPG Filling Equipments, LPG Filling Systems, LPG Cylinder Refurbishment Systems, Leakage Check Systems, Cylinder Handling Systems, Safety Units.

**KAYA BASKUL INDUSTRY AND TRADE LTD. CO**  
LPG FILLING STATION and LPG FILLING SCALES

45 Years Experience in the Field



Conceived for durability with accuracy





## KAYATRONİK; Developed based on the industry needs with the aid of 45 years of experience

Along 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.



**Carousel Center Column**

The Carousel Center Column is responsible for distributing the LPG, Compressed air and Electricity to the filling scale while rotating with the carousel. The Carousel Center Column and the Electricity distributor is completely developed and manufactured by KAYA.

Four simple steps between you and your new carousel filling system.

- 1 System Design
- 2 Order
- 3 Production and shiping
- 4 installation

## “KAYATRONİK is the right choice for the right filling”



Digital Precision

Mechanical Strength





**Kayatronik  
LPG filling scales  
are used for filling  
LPG cylinders.**

- Can 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 filling 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.
- Strong 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
- Low energy and air consumption

*45. Years*



**Carousel Type  
Filling System**

INLET MECHANISM IS USED WITH THE CAROUSEL FILLING SYSTEM TO DIVERT COMING EMPTY CYLINDERS FORM THE CHAIN CONVEYOR TO THE FILLING SCALE'S PLATFORM AUTOMATICALLY.

- DESIGNED ACCORDING CYLINDER TYPE AND SIZE.
- FULL AUTOMATIC CONTROL.
- ADJUSTABLE SPEED.

CAROUSEL IS A ROTATING PLATFORM IS MANUFACTURED FOR THE PURPOSE OF FILLING LIQUEFIED GASES INTO GAS CYLINDERS WITH THE LOWEST LABOR EFFORT AND HIGHEST TIME EFFICIENCY. OUR CAROUSEL IS MANUFACTURED USING THE LATEST TECHNOLOGY AND HIGH-QUALITY MATERIALS. THANKS TO THE AUTOMATIC CONNECTIONS, THE PERFORMANCE OF THE CAROUSEL IS EXTREMELY GOOD AND THE LPG FILLING ACCURACY IS THE SAME FOR LARGE AND SMALL CYLINDERS. CAROUSEL FILLING UNITS ARE THE FIRST CHOICE OF LIQUID GAS FILLING PLANTS BECAUSE THEIR LIFE IS LONG AND EASY TO MAINTAIN. CAROUSEL IS ASSEMBLED AND INSTALLED ON SITE. IT WILL BE BROUGHT IN SECTIONS AND INSTALLED IN THE AREA TO BE ESTABLISHED.

WITH THE START OF THE CAROUSEL, THE CYLINDERS IN THE INLET MECHANISM ARE PUSHED TO LPG FILLING SCALES. THIS PROCESS CONTINUES IN SEQUENCE. LPG CYLINDERS WHICH ARRIVED ON THE FILLING SCALE ARE ROTATING TOGETHER WITH THE CAROUSEL. THE TIME REQUIRED FOR THE CAROUSEL TO COMPLETE ONE TURN, FILL THE LPG CYLINDER AND BE READY TO TAKE ONE MORE CYLINDER TO BE FILLED RANGING FROM 60 SECONDS TO 90 SECONDS

- CAROUSEL'S DIMENSIONS AND DIRECTION OF ROTATING IS DECIDED ACCORDING TO SITE RESTRICTIONS.
- CYLINDERS CAN REACH THE REQUIRED FILLING WEIGHT WITHIN 60 TO 90 SECONDS.
- OPERATING TEMPERATURE BETWEEN -45 °C AND +57 °C.
- CAN BE DESIGNED TO CARRY FROM 9 TO 60 FILLING SCALES.
- ADJUSTABLE SPED.
- AUTOMATICALLY FILLED CYLINDER EJECTING.
- SMOOTH FILLING.
- EXCELLENT BALANCE WHICH INCREASES THE FILLING ACCURACY.





**KB32 - 04**



- KB 32 / 04 LPG FILLING SCALES ARE USED FOR FILLING 12 KG LPG CYLINDERS.
- SUITABLE FOR HOUSEHOLD CYLINDERS
  - CONFIGURED FOR HOUSEHOLD CYLINDERS WITH SELF CLOSING VALVES
  - ATEX CERTIFIED
  - STAINLESS STEEL PLATFORM
  - STRONG AND ELECTROSTATIC PAINT SKELETON
  - EQUIPPED WITH CENTERING MECHANISM
  - TARE/KG INPUT PARTS ARE STAINLESS WITH CHROME PLATING
  - FILLING ACCURACY DOES NOT AFFECTED BY LPG TURBULANCE INSIDE THE CYLINDER
  - MINIMUM MAINTENANCE AND SERVICE NEEDS
  - LOW AIR CONSUMPTION
  - EASY TO INSTALL AND USE
  - CAROUSEL OR FIXED MOUNTING

Weighing Sensitivity	100 gr
Weighing Capacity	32 kg
Scale Weight	82 kg
Dimensions	42 x 66 x 142 (cm)
Max.Working Temperature	+50 °C
Air Pressure	6 – 8 Bar
LPG Pressure	Max. 25 Bar
Certificate No	IEP 13 ATEX 0179
Control System	Manual/Semi Automatic/Full Automatic
Working Position	Fixed Mounting / Carousel



**KB32 - 03**

- KB 32 / 03 LPG FILLING SCALES ARE USED FOR FILLING 12 KG LPG CYLINDERS.
- SUITABLE FOR HOUSEHOLD CYLINDERS
  - CONFIGURED FOR HOUSEHOLD CYLINDERS WITH HAND SELF CLOSING VALVES AND HAND WHEELED VALVES
  - ATEX CERTIFIED
  - STAINLESS STEEL PLATFORM
  - STRONG AND ELECTROSTATIC PAINT SKELETON
  - TARE/KG INPUT PARTS ARE STAINLESS WITH CHROME PLATING
  - FILLING ACCURACY DOES NOT AFFECTED BY LPG TURBULANCE INSIDE THE CYLINDER
  - MINIMUM MAINTENANCE AND SERVICE NEEDS
  - LOW AIR CONSUMPTION
  - EASY TO INSTALL AND USE
  - CAROUSEL OR FIXED MOUNTING

Weighing Sensitivity	100 gr
Weighing Capacity	32 kg
Scale Weight	82 kg
Dimensions	42 x 66 x 142 (cm)
Max.Working Temperature	+50 °C
Air Pressure	6 – 8 Bar
LPG Pressure	Max. 25 Bar
Certificate No	IEP 13 ATEX 0179
Control System	Manual/Semi Automatic/Full Automatic
Working Position	Fixed Mounting / Carousel



**KB32 - 05**

- KB 32 / 05 LPG FILLING SCALES ARE USED FOR FILLING HOUSEHOLD LPG CYLINDERS.
- DOES NOT NEED ELCTERICITY OR COMPRESSED AIR TO OPERATE
  - ATEX CERTIFIED
  - CAN BE EQUIPPED WITH THE SUITABLE FILLING HEAD ACCORDING OT THE VALVE TYPE
  - ELECTROSTATIC PAINT AND STAINLESS STEEL PLATFORM
  - TARE/KG INPUT PARTS ARE STAINLESS WITH CHROME PLATING
  - FIXED MOUNTING

Weighing Sensitivity	100 gr
Weighing Capacity	32 kg
Scale Weight	80 kg
Dimensions	42 x 66 x 142 (cm)
Max.Working Temperature	+50 °C
LPG Pressure	Max. 25 Bar
Certificate No	IEP 13 ATEX 0179
Working Position	Fixed Mounting



# Mechanical Filling Scales

# LPG Filling Systems



**KB110 - 03**



**KB10 - 02**

KB 110 / 03 LPG FILLING SCALES ARE USED FOR FILLING 24 - 45 KG LPG CYLINDERS.

- SUITABLE FOR INDUSTRIAL CYLINDERS
- CONFIGURED FOR INDUSTRIAL CYLINDERS WITH HAND SELF CLOSING VALVES AND HAND WHEELED VALVES
- ATEX CERTIFIED
- STAINLESS STEEL PLATFORM
- STRONG AND ELECTROSTATIC PAINT SKELETON
- TARE/KG INPUT PARTS ARE STAINLESS WITH CHROME PLATING
- FILLING ACCURACY DOES NOT AFFECTED BY LPG TURBULANCE INSIDE THE CYLINDER
- MINIMUM MAINTENANCE AND SERVICE NEEDS
- LOW AIR CONSUMPTION
- EASY TO INSTALL AND USE
- FIXED MOUNTING

KB 10 / 02 LPG FILLING SCALES ARE USED FOR FILLING 3 - 5 KG LPG CYLINDERS.

- SUITABLE FOR CAMP CYLINDERS
- ATEX CERTIFIED
- STAINLESS STEEL PLATFORM
- STRONG AND ELECTROSTATIC PAINT SKELETON
- EQUIPPED WITH CENTERING MECHANISM
- TARE/KG INPUT PARTS ARE STAINLESS WITH CHROME PLATING
- FILLING ACCURACY DOES NOT AFFECTED BY LPG TURBULANCE INSIDE THE CYLINDER
- MINIMUM MAINTENANCE AND SERVICE NEEDS
- LOW AIR CONSUMPTION
- EASY TO INSTALL AND USE
- CAROUSEL OR FIXED MOUNTING

Weighing Sensitivity 100 gr

Weighing Capacity 110 kg

Scale Weight 98 kg

Dimensions 42 x 66 x 180 (cm)

Max.Working Temperature +50 °C

Air Pressure 6 - 8 Bar

LPG Pressure Max. 25 Bar

Certificate No IEP 13 ATEX 0179

Control System Manual

Working Position Fixed Mounting

Weighing Sensitivity 50 gr

Weighing Capacity 10,5 kg

Scale Weight 57 kg

Dimensions 36 x 58 x 112 (cm)

Max.Working Temperature +50 °C

Air Pressure 6 - 8 Bar

LPG Pressure Max. 25 Bar

Certificate No IEP 13 ATEX 0179

Control System Manual/Semi Automatic/Full Automatic

Working Position Fixed Mounting / Carousel



## CONTAINERIZED FILLING SYSTEM

THIS CONTAINERIZED LPG CYLINDER FILLING PLANT IS DESIGNED AS FIXED MOUNTING FILLING SCALES BASED FILLING PLANT IT CONSISTS OF FILLING SCALES, EX-PROOF MOTOR POWERED CHAIN CONVEYORS TO TRANSPORT THE LPG CYLINDERS BETWEEN THE DIFFERENT FILLING STAGES, THIS FILLING PLANT IS ALSO EQUIPPED WITH A TILTING LEAKAGE CHECK POOL AND, CHECK SCALE. ALL THE COMPONENTS OF THE FILLING STATION CAN BE PACKED INSIDE THE 40' CONTAINER. THIS SYSTEM ALSO CAN BE MANUFACTURED ACCORDING TO THE CUSTOMER'S REQUIREMENTS LIKE THE NUMBER AND THE SCALES MODEL, TYPE OF THE CONVEYOR, SIZE OF THE CONTAINER (20' OR 40'), ETC.



## FIXED MOUNTING FILLING UNIT

FIXED FILLING SYSTEM IS A FILLING SYSTEM WHERE THE FILLING SCALE ARE MOUNTED ON A PLATE FORM FIXED TO THE GROUND IN ORDER TO FILL THE LPG CYLINDERS. THE FIXED MOUNTING FILLING SYSTEM COULD BE CONNECTED TO A CONVEYOR LINE OR NOT.



## MINI FILLING SYSTEM

MINI FILLING SYSTEM; IN GENERAL, IT HAS BEEN SPECIALLY PRODUCED TO BE ABLE TO PERFORM LPG CYLINDERS FILLED IN REMOT AREAS AND DIFFICULT CONDITIONS. IT IS PREFERD ALSO FOR ITS HIGH MOBILITY. LPG FILLING SCALES ARE PLACED ON THE SKID ACCORDING TO THE TYPES OF THE LPG CYLINDERS THAT WILL BE FILLED.

TANK VOLUME CHANGES ACCORDING TO THE REQUIRED CAPACITY. THE TOP PART OF THE FILLING SYSTEM CAN BE CLOSED (SHADED) ON THE REQUEST. MINI FILLING SYSTEM;CHASSIS, MOTOR / PUMP GROUP, TANKER / GAS PIPES AND AIR LINE CONNECTION, SAFETY EQUIPMENT AND LPG FILLING SCALES.





## INLET MECHANISM

INLET MECHANISM IS USED WITH THE CAROUSEL FILLING SYSTEM TO DIVERT COMING EMPTY CYLINDERS FROM THE CHAIN CONVEYOR TO THE FILLING SCALE'S PLATFORM AUTOMATICALLY.

- DESIGNED ACCORDING CYLINDER TYPE AND SIZE.
- FULL AUTOMATIC CONTROL.
- ADJUSTABLE SPEED.
- WORKING TEMPERATURE  $-15^{\circ}\text{C}$   $+57^{\circ}\text{C}$
- WORKING AIR PRESSURE 5 - 7 BAR
- CAPACITY 1200 CYLINDER/HR.



## CONVEYOR SYSTEM

CHAIN CONVEYORS ARE INSTALLED FOR THE TRANSFER OF THE LPG CYLINDERS IN THE FILLING PLANT TO THE REQUIRED POINTS.

- SUITABLE DESIGN ACCORDING TO CYLINDERS TYPES
- DESIGNED ACCORDING TO THE PROJECT LAYOUT.
- RAILS ARE DESIGNED ACCORDING TO THE CYLINDER DIAMETER
- WITH AND WITHOUT FOOT MANUFACTURING
- CHAIN SPEED 2-30 M / MIN
- WATER-SOAP BUILT IN BED.
- EASY TO REPAIR AND EXTEND.
- ALL THE BODY PARTS OF THE CONVEYOR CAN HAVE GALVANIZED OR PAINT FINISH



## CONVEYOR DRIVING UNIT END DRIVE

IT IS THE RESPONSABLE FOR MOVING THE CHAINS OF THE CONVEYOR THAT CARRYING THE CYLINDERS THROUGH THE DIFFERENT FILLING STAGES. DRIVE MOTOR AND REDUCER ARE INSTALLED TO THE SIDE SECTION OF THE CONVEYORS.

### Chains returning mechanism

- Working with the conveyor and the driving unit in a synchronized movement
- Chains returning mechanism; responsible for returning the chains on the conveyor line

Electric Motor Power (Kw)	1,6 / 2,5 / 3,6 / 4
Reducer ( RPM )	According to the required speed
Working Environment Temperature	$-40^{\circ}\text{C}$ $+57^{\circ}\text{C}$
Min. Chains Linear Speed	3 m/min
Air PresaMax. Chains Linear Speedsure	45 m/min
Length ( m )	1,3 - 2,5
Width	According to cylinder width



## TELESCOPIC CONVEYOR

TELESCOPIC CONVEYOR; PROVIDES GREAT ASSISTANCE TO THE WORKERS AND THE FILLING PLANT DURING THE LPG CYLINDERS LOADING AND UNLOADING THANKS TO ITS ABILITY TO EXTEND TILL THE DEEPEST PART OF THE VEHICLES. HAS BEEN DESIGNED AND PRODUCED TO UNLOAD THE EMPTY CYLINDERS FROM TRUCKS TO BE FILLED OR TO LOAD THE ALREADY FILLED CYLINDER BACK TO TRUCKS.

### OPERATING PRINCIPLE

IT WILL BE INSTALLED ANT THE AREA WHERE THE LOADING AND THE UNLOADING OF THE CYLINDERS FROM AND TO THE TRUCKS WILL BE EXECUTED. THE UPPER PART OF THE CONVEYOR MOVES ON THE LOWER FIXED PART OF THE CONVEYOR. BY THIS WAY IT WILL ACT AS LPG CYLINDERS LOADING OR UNLOADING METHOD. ALL THE ELECTRICAL EQUIPMENTS HAS BEEN SELECTED TO WITHSTAND ANY EXTERNAL EFFECTS.

- LONG SERVICE LIFE
- EASY INSTALLATION AND MAINTENANCE
- MANUAL OR REMOTE CONTROL
- WORKING ENVIROMENT TEMPERATURE:  $-40^{\circ}\text{C}$  UP TO  $+57^{\circ}\text{C}$
- MAX WORKING CAPACITY: 1500 CYLINDER/HOUR
- REDUCING MANPOWER AND TIME
- EASY LOADING AND UNLOADING FOR FULL OR EMPTY CYLINDERS
- CAN REACH THE DEEPEST PART OF THE TRUCK
- ALL THE BODY PARTS OF THE TELESCOPIC CONVEYOR CAN HAVE GALVANIZED OR PAINT FINISH
- THE AUTOMATIC SAFETY SENSOR SYSTEM ON THE TELESCOPIC CONVEYOR REDUCES THE RISK OF ACCIDENT.

Truck Size	Conveyor length ( M )	Chains driving motor power ( Kw )	Forward-Backward motor power ( Kw )
Truck, pickup truck and so on.	4 - 6,5	1,5	-
Lorry	6,5 - 10	1,5 - 2,2	1,5
40' feet or more	10 - 18	1,5 - 2,2	1,5





## POOL

THE FILLED LPG CYLINDERS GOES TO LEAKAGE CHECK POOL. BY DIVING INTO THE POOL USING THE MOVEMENT OF THE CHAIN CONVEYOR. THE FILLED LPG CYLINDERS ARE SUBMERGED UNDER WATER WHICH MAKES LEAKAGE DETECTION MUCH EASIER AND FASTER USING VISUAL OBSERVATION BY THE OPERATOR AFTER THAT THE DEFECTED CYLINDERS CAN BE SORTED MANUALLY.

WORKING ENVIRONMENT TEMPERATURE:  
FROM +1 °C TO +57 °C

MAX WORKING CAPACITY : 1600 CYLIN-  
DER/HOUR

- DIRECT INLET.
- DESIGNED ACCORDING CUSTOMER'S NEEDS.
- SUITABLE FOR HOUSEHOLD AND CAMPING CYLINDERS.
- POOL'S WIDTH IS ADJUSTABLE ACCORDING TO CYLINDER'S DIAMETER.
- MOUNTED ON-LINE.



## LEAKAGE CHECK POOL

THE FILLED LPG CYLINDERS GOES TO LEAKAGE CHECK POOL. BY DIVING INTO THE POOL USING THE MOVEMENT OF THE CHAIN CONVEYOR. THE FILLED LPG CYLINDERS ARE SUBMERGED UNDER WATER WHICH MAKES LEAKAGE DETECTION MUCH EASIER AND FASTER USING VISUAL OBSERVATION BY THE OPERATOR AFTER THAT THE DEFECTED CYLINDERS CAN BE SORTED MANUALLY.

WORKING ENVIRONMENT TEMPERATURE: FROM +1 °C TO +57 °C

- MAX WORKING CAPACITY : 1600 CYLINDER/HOUR
- DIRECT INLET.
  - DESIGNED ACCORDING CUSTOMER'S NEEDS.
  - SUITABLE FOR HOUSEHOLD AND CAMPING CYLINDERS.
  - POOL'S WIDTH IS ADJUSTABLE ACCORDING TO CYLINDER'S DIAMETER.
  - MOUNTED ON-LINE.

Panel	Ex-proof II 2G EXD II B T4 T5 T6
LPG Sensing element	DRAGER (LCD Panel)
LPG sensing span	0-1000 PPM
Vacuum time	Max 4 sec
Mounting position	900 Cylinder/Hour
Fan Motor	On-line
Fan Specification	Aluminum body



## LEAK DETECTOR

THE CYLINDERS COMING INTO THE LEAK DETECTOR ARE FIXED BY THE CENTERING MECHANISM AND THE LEAKAGE / LEAKAGE TEST IS PERFORMED BY THE GAS LEAKAGE CONTROL HEAD AUTOMATICALLY FALLS ON THE VALVE.

IF THERE IS A FAULT / LEAK, IT IS SENT TO THE FAULT / LEAKAGE SECTION BY MEANS OF A SHOOTER.

IF THERE IS NO FAULT / LEAK, IT CONTINUES ITS MOVEMENT ON THE CONVEYOR.

IT WORKS WITH THE PPM UNIT AND IS CALIBRATED ACCORDING TO THE PPM UNIT. C3H4 IS EQUAL TO 1 LEL = 220 PPM BASED ON THE EXPLOSION LIMIT OF PROPANE GAS. LEAK DETECTOR ADVANTAGES:

- EXPROOF
- PROVIDES 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
- FULL AUTOMATIC TEST.
- MINIMUM SPACE REQUIREMENT.
- EASY INSTALLATION AND OPERATING.
- MEASURING AND ALARM SYSTEM.
- EQUIPPED WITH LPG MEASURING SENSOR AND WARNING SYSTEM.
- EQUIPPED WITH CENTERING MECHANISM.
- AUTOMATIC SORTING FOR THE DEFECTED CYLINDERS



## GAS TRANSFER UNIT

OUR GAS TRANSFER UNIT 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.

IT THE MOST SAFE AND PROPER WAY TO TRANSFER THE GAS FROM THE LPG CYLINDERBACK TO THE STOCK TANK

- PNEUMATIC POWERED AND CONTROLLED
- DESIGNED ACCORDING TO THE CYLINDERS DIMENSIONS.
- CAN BE EQUIPPED WITH DIFFERENT CONNECTING HEADS ACCORDING TO VALVE TYPE
- EASY TO USE AND MAINTAIN

Max. Working capacity	26 l/min
Dimensions	60 x 140 x 95 cm
Working LPG pressure	14 – 16 Bar
Working Pneumatic pressure	5-7 Bar
Working environment Temp.	-15 °C +57 °C



## MANUAL VALVE SHRINK

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

- USED FOR INDUSTRIAL AND HOUSEHOLD CYLINDERS.
- SELF-CLOSING STEAM HEAD.
- EASY TO SETUP AND USE.
- CAN BE MOUNTED ONLINE.
- SUITABLE STEAM HEAD FOR EACH VALVE TYPE.

Electricity	380V / 220V
Thermostat Temperature	150 °C
Steam pressure	3-4 Bar
Water tank volume	100 L
	-5 °C +57 °C
Working capacity	350 – 515 Cylinder/hour



## CLINDER SHRINK MACHINE

USING STEAM AS A HEAT SOURCE TO SHRINK A HEAT SENSITIVE FILM AROUND THE LPG CYLINDERS. IT IS AN EASY WAY TO ADD BRAND NAME AND CYLINDER'S, GAS SPECIFICATION

- USED FOR HOUSEHOLD CYLINDERS.
- MANUAL PNEUMATIC CONTROL.
- MOUNTING CAN BE ONLY OFFLINE.
- EQUIPPED WITH SAFETY SYSTEM TO ENSURE SAFE OPERATION.
- EASY TO SETUP AND USE.
- COMING WITH VENTILATION VALVE.

Electricity	380V / 220V
Thermostat Temperature	150 °C
Steam pressure	3-4 Bar
Water tank volume	100 L
	-5 °C +57 °C
Working capacity	350 -600 cylinder/ hour



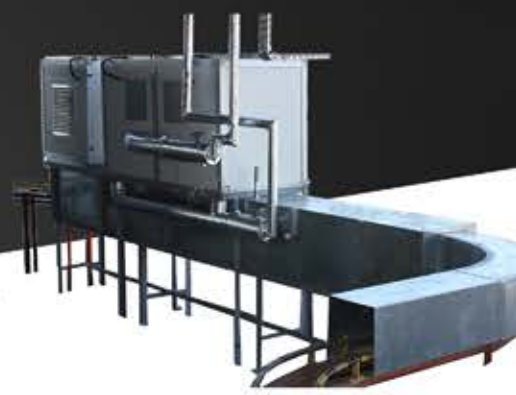




## Hydrostatic Test Unit

## Drying Machine

## Brushing Machine



### O-RING CONTROL

LPG CYLINDERS ENTER THE O-RING TEST MACHINE AND BY THE UTILIZATION OF A SPECIALLY DESIGNED TEST HEAD AND PRESSURIZED AIR IF THERE IS ANY CYLINDER WITH DEFECTED O-RING WILL BE DETECTED AND SEGREGATED AUTOMATICALLY USING AN AUTOMATIC PUSHER.

- PNEUMATIC POWERED AND CONTROLLED.
- DESIGNED ACCORDING TO CUSTOMER REQUIREMENTS AND VALVE TYPE.
- FULL AUTOMATIC CONTROL.
- AUTOMATIC CENTERING MECHANISM.
- AUTOMATIC SEGREGATION MECHANISM.
- ONLINE MOUNTING.

### AUTO CHECK SCALE

CHECK SCALE IS MOUNTED ON-LINE. BY USING ELECTRONIC SCALE EQUIPPED WITH SENSITIVE LOAD CELL AND SPECIALLY DESIGNED WEIGHING MECHANISM CYLINDER'S WEIGHT CAN BE CHECKED AFTER FILLING IS DONE. TO DETECT ANY CYLINDER WITH WEIGHT PROBLEM AND AUTOMATICALLY SORT THEM OUT TO BE REGULATED. SUITABLE FOR HOUSEHOLD AND CAMPING CYLINDERS.

### GASLEAKAGE TEST HEAD

GAS LEAKAGE CONTROL UNIT IS DESIGNED AND MANUFACTURED BY KAYA BASKÜL TO PROVIDE THE 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.

- SUITABLE HEAD FOR EACH VALVE TYPE.
- USED FOR INDUSTRIAL AND HOUSEHOLD CYLINDERS.
- EASY TO SETUP AND USE.
- CAN BE MOUNTED ONLINE.

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

EASY ANALYSIS  
JUST SAFE CYLINDERS PASSES THE TEST  
HIGH CAPACITY  
PRESSURE TEST UNIT  
MANUAL AND AUTOMATIC  
CYLINDER TEST RAKES HAS 6 OR 12 CYLINDER POSITIONS  
SPECIAL DESIGN FOR WATER TANKS  
TWO WATER TANKS 1000 LITER EACH  
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

Capacity	48 cylinder/Hr.
Test pressure	30 Bar
Maximum working pressure	45 Bar
Manometer pressure	60 Bar
Machine's outer dimensions	1000x4000x2000
Working electricity ratings	230 v-380 v / 50 Hz
Water tank volume	2000 L
Pneumatic working pressure	6-8 Bar

LPG CYLINDERS DRYING MACHINE IS RESPONSIBLE FOR DRYING LPG CYLINDERS AFTER BEING WASHED AND BEFORE GETTING TO PAINTING UNIT. DRYING PROCESS CONSISTS OF TWO STAGES FIRST STAGE IS DONE USING FORCED AIR GENERATED BY FANS AND THE SECOND USING HOT AIR DRYING UNIT.

- FIRST STAGE SPECIFICATIONS:  
- ELECTRIC MOTOR / 5,2 KW - 3000 RPM - EX  
- PROOF - EEX-D II B T4  
- FAN / Q = 800M<sup>3</sup>/HR. EX PROOF
- SECOND STAGE SPECIFICATIONS:  
- MOTOR / 2,2 KW X 2 PIECES - 3000 RPM EX - PROOF  
- FAN / Q = 3000M<sup>3</sup>/HR. - H = 100 MSS - EX - PROOF
- ENVIRONMENTAL FRIENDLY.
- CYLINDERS COMES OUT DRY.
- DESIGNED ACCORDING CYLINDER TYPE AND DIMENSIONS.
- TIME SAVING.
- VIBRATION AND NOISE ISOLATION.
- HIGH POWER EFFICIENCY.

Heating Module	800 Kcal/h * 2 units
Motor Power	Optionally changeable
Fan	Optionally changeable
Max Working Capacity	1200 Cylinder/Hour
Working Environment Temp.	+20 °C ile +80 °C

Camping cylinder brushing machine  
This Machine is developed, Manufactured and tested by KAYA in order to brush the top side of the camping cylinders.  
This machine consists of a carousel with six brushing positions for brushing the cylinders. The cylinders enter and exit the machine while it is moving on the chain conveyor thanks to the star mechanism.

- General specifications:
- 1- Rotation speed the same as the chain conveyor.
  - 2- Brushes rotation speed of 240 RPM
  - 3- Total motor power 2.2 kW on two motors 1.1 kW each.
  - 4- Driving chain 16B-1

- Advantages;
- 1- Fully automatic system.
  - 2- Anti-jamming mechanism
  - 3- Automatic inlet and exit for the cylinders
  - 4- Automatic synchronization system
  - 5- Eliminates the bottleneck problem that is existing in the conventional brushing machine because it is working with the same speed as the chain conveyor.
  - 6- All the machine parts are even galvanized or stainless steel.
  - 7- All the brushes movement are mechanically controlled so it is reliable and easy to maintain piece of equipment

Capacity	960 cylinder/Hr.	Weighing sensitivity	50 Gr
Outer Dimensions	50 x 125 x 200 cm	Working pneumatic pressure	5-7 Bar
Working Temperature	-15 °C / +57 °C	Working environment TEMP.	-15 °C +57 °C
		Max. Working capacity	1200 Cylinder/ hour





**Straight hook filling gun 1**

**Manual filling gun**

## VALVE CHANGING

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

- CAPABLE TO LOOSEN DEFECTED VALVES
- EASY TO SETUP AND OPERATE
- VALVE TIGHTENING AND LOOSENING
- PNEUMATIC CHECKING SYSTEM FOR HOUSEHOLD CYLINDERS
- CAN BE USED ON OR OFF LINE

Heating Module	5 Kw
Motor Power	200 Bar
Fan	14 - 16 Bar
Max Working Capacity	5-7 Bar
Working Environment Temp.	-25 °C +60 °C

## WASHER MACHINE

WITH BRUSHES WASHER MACHINE; BEFORE THE CYLINDERS GO TO THE FILLING STAGE IT PASSES THROUGH THE WASHING UNITE TO REMOVE DIRT OF THE CYLINDERS USING WATER SOAP AND ROTATING BRUSHES.

- ENVIRONMENT FRIENDLY
- CLEAN CYLINDERS AT THE OUTPUTAUTOMATIC SYSTEM
- MOUNTED ON THE CONVEYOR
- DESIGNED ACCORDING TO CYLINDER DIMENSIONS
- ADJUSTABLE WASHING TIME
- PNEUMATIC AND MECHANICAL SYSTEM

Electric Motor Power (Kw)	1,5 Kw x 2 units
Max. Working Capacity	900 Cylinder/hour
Working Pressure	8 - 10 Bar
Working Environment Temperature	+ 2 °C +57 °C



**Compact self-closing valves pneumatic filling head**



**Compact self-closing valves manual filling head**



**Camp Cylinders Filling Head**



**Self-Centering Filling Head**



**Mechanical Scales Gas Stop Valve**



**Electronic Scales Gas Stop Valve**



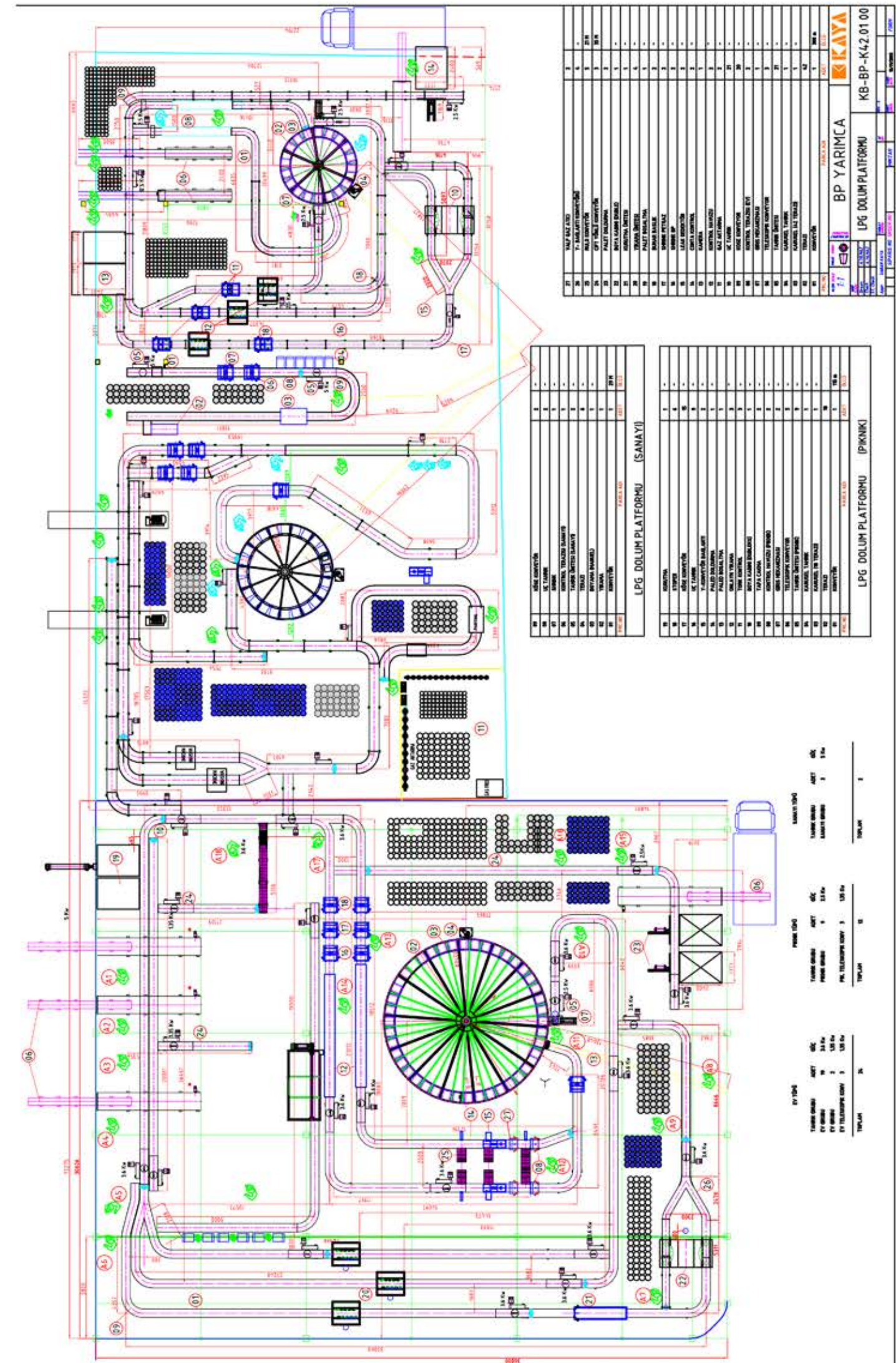
**Rotary Double Filling Head**



# CLINDER REFURBISHMENT SYSTEM

The LPG cylinders refurbishment system generally consists of the following elements however it can be customized according to the customer's needs.

- 1- Conveyor: for handling cylinders between the different stages
- 2- Overhead conveyor: For handling the cylinder in some certain stages for example shoot blast and painting.
- 3- Lower Rim straightening machine: for straightening the cylinder's lower rim
- 4- Upper rim straightening machine: for straightening the cylinder's lower rim
- 5- Valve changing machine: To replace the cylinder's valve
- 6- Hydrostatic test machine: for testing the body of the cylinder if there are any leakages or cracks.
- 7- Marking press: this machine is used for stamping the date of refurbishment and test on the cylinder.
- 8- Shoot blast machine: to recondition the outer surface of the cylinder.
- 9- Electrostatic painting unit: To repaint the outer surface of the cylinder.
- 10- Electrostatic painting sintering oven.
- 11- Cylinder cooling unit with water after the sintering oven
- 12- Upper and lower rims welding machines.
- 13- Hot blowing cylinder body straightening machine.





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