

ATILIM MAKINE Imalat San. ve Tic. Ltd. Sti. was fou nded by Mr. Ilhan DENIZLI and commenced its early activities at the year 1986, in Istanbul, Turkey. It is specialized in producing, marketing, assembling LPG Filling and Storage Facilities, fixtures, machinery, and rendering After-Sale services. In a short time, it obtained a significant share in LPG sector with its high quality and wide range of products.

In order to meet increasing demands both locally and internationally, ATILIM MAKINE had to expand its machinery and production capacities and facilities. In the year 2015, the company founded a 4-Floors new Factory with a indoor and outdoor total of 7200 m2 both production facilities, and even another sister company called "Net Baskül Ltd." in the year 2001, which en- abled it to almost double its production abilities from 1250 m2 indoor and 1500 m2 outdoor space in 1996. It kept developing its productions lines by using modern up-to-date machinery with the help of its more than 50 bluecollars and 10 administrative staff.

Today, ATILIM MAKINE managed to fulfill all the requirements of the LPG sector from A to Z. It continues its endless eforts to bring its production quality to a more and more higher quality levels by developing all types of new devices and spare parts required by its mostly valuable local and international customers, for whom, and since its foundation, it produced and assembled LPG Filling Facilities, including many turnkev projects, and countless assembling, repairing, and renovation operations all over the globe. Its products are ranked with the top most admiration both locally and international.

ATILIM MAKINE exports yearly more than 87% of its total production; while its sister company "Net Baskül Ltd." produces LPG Filling Scales with high sale ratios for local and international LPG markets. Since its foundation, "Net BaskülLtd." managed to export 90% of its production to the international market.

In short, we can say that **ATILIM MAKINE** and NET BASKÜL combined together wrote a real true "Success Story!" to be remembered forever!





### **Filling Solution**

LPG Products

LPG Transfer

Fire Fighting System





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### Fire Fighting System

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t is a system which can be used either automatically or manually to refill LPG Cylinders. The Telescopic Conveyor is usedtoputthecylindersontheconveyorof the system. The Tare Control scale placed on the conveyor conveys the weight of the empty cylinders to the weighing electronic machines. The Input Mechanism pushes the cylinders on the conveyor to be placed over the filling machines on the Carousel. While the Carousel is rotating, the filling machines fill the cylinders and push the cylinder back to the conveyor

using the piston placed on it. Cylinders placed on the conveyor go to the Check Scale. Correctly filled cylinders continue their path. Cylinders filled with extra or less weight go to the Correction Filling Scale. The remaining cylinders on the conveyor continue their way to the Gas Leakage Detector, or to the Water Pool, to check them. In the last stage of the filling process, correct- ly filled cylinders go to the Branding Machine (Shrinking Machine) to cover their valves by the shriking sleeves with the company logo printiton it. Cylinder then go to the trailer.

### **Telescopic Conveyor**



transportation to the transfer vehicles. The part that goes inside into loading and unloading vehicles without any serious effort. the vehicle can be produced between 3 meters to 11 meters as per the between 3 meters to 11 meters as per the desired size.

elescopic conveyors are manufactured to facilitate cylinder desired size. Operators can easily control the telescopic conveyor





### **Conveyor Group**



**Roller Conveyor** 



t is a system ensures that the cylinders to be filled are transported most efficiently to the other equipment which will be between the discharge and filling points.

- 90° radius corner conveyor
- "Y" type separator conveyor
- "V" type centering conveyor

Conveyors can be manufactured by galvanizing them or by painting them. According to the cylinder model, the conveyor width can be customized to customer requirements. The height of the conveyor can also be produced according to the required height at zero (buried) or any other required height.

Conveyor Chains are manufactured either casted or from steel. The chains work on ULPOLEN 1000 material inside the conveyor. This increases the durability of the chains and allows for more comfortable working.

### **Conveyor Driving Groups**

hese are used to drive the conveyor chains. Body is manufactured from NPU iron steel profile where railings are made from steel pipes. ULPOLEN-1000 is a wear resistant material in the chain belts. They are manufactured in sizes of 3m or else. They consist of return pulleys, pulley-shaft and bearings, conveyor chain, gal chains, chain tension weights, soapsuds pool, motor guard and Ex-Proof motor reducer selected to conform to speed.



### **Conveyor Chains**

Conveyor chains are produced in the most suitable way to cary cylinders. 2 different types of conveyor chains are produced according to different countries and customer requirements.

### **Steel chain**

Steel chains; manufactured of St 52 material by means of cold shaping. Rupture Resistance: 7,350 kg



### **Cast iron chain**

Cast iron chains; manufactured from EN-GJS-500-7 quality cat. Rupture Resistance: 6,500 Kg



### **Filling Carousel**



Carousel Dimension		
12 Section Carousel Dimension	Dia 3700 mm	
18 Section Carousel Dimension	Dia 4800 mm	
24 Section Carousel Dimension	Dia 5800 mm	
30 Section Carousel Dimension	Dia 6950 mm	
36 Section Carousel Dimension	Dia 8250 mm	



Carousels designed for high-capacity fillings are produced in two different types, electronic and mechanical. Electronic or mechanical carousel selection is made according to the suitability of the scale models to be used. Automatic cylinder entry mechanism,Check Scale,Chain Conveyor,Tare Scale can be integrated optionally. The carousel chassis is dipped galvanized and thus becomes resistant to corrosion for many years. Carousels are produced in different diameters according to their filling capacity. min. 450 - max. 1800 cyl./h. (85% efficiency) The filling process has been made safer with the ventilation system installed under the carousel in order to remove possible LPG leaks from the filling platform. There is a pneumatically controlled valve located in the center column of the carousel. this valve is designed to minimize the potential risk of fire. During a fire, the valve closes itself automatically and stops the flow of LPG coming from the main line.

### Features

• It is a revolving system on which cylinder filling machines are fixed over.

Provides speed and easiness for cylinder filling operations. They are manufactured in a compatible fashion to any LPG cylinder filling machine.
Driven by an Ex-Proof motor redactor selected accordingly to the required filling capacity and the speed of the chain conveyor.

• There is a pneumatically controlled input mechanism used for loading cylinders to the filling machine between conveyor and carousel.

 To prevent concentration of gas leakage in working environment, accumulated gas should be removed. That's why a ventilation system is placed under the Carousel so the concentrated gas is removed continuously.



LPG Installation LPG Pipe Connection Size: 3" Filling Pressure : Max. 17,5 bar Test Pressure : Max. 26 bar

**Air Installation** Air Pipe Connection Size: 1/2" - 1" Working Pressure : 6 - 8 bar

**Electricity Line** Electricity Connection : Electronic LPG Filling Scales Electricity Feeding Power: 12V Voltage : Single Phase

Frequency: 50/60 Hz Grounding: Max < 2.0 Ω Carrousel Speed:(Changes According to Diameter) 40 - 90 sec. / turn

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### ADME-8000 Series The Electronic Filling Mechines



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Electronic LPG Filling Machine is produced for automatic fillings for LPG filling Carousel.

NEW

It provides convenience to the user with many functions such as DATA Transfer, tare entry, calibration settings, filling start, number of cylinders filled with the help of the computer on it. It can work together with the automatic cylinder entry mechanism. In this way, LPG cylinders are loaded from the main chain conveyor to the filling scales without operator assistance. With the help of the cylinder clutch unit on the scale, it allows the cylinder valves to be connected to the filling heads automatically.

### **Technical Specificiations**

- Load Cell: Mettler Toledo
- Pneumatic Equipments: Festo, Parker
- Data Collection System
- Aluminum & Steel Body
- Cylinder Type: 2-60 Kg
- Cylinder Diameter: 220-370 mm

### ADME PRO

Faster & More Powerful

- Broadcom BCM2711, Quad core Cortex-A72 (ARM v8) 64-bit SoC @1.5 Ghz
- 4 GB LPDDR4-3200 SDRAM (depending on model)

### Now is More Big Screen & More Vivid Colors.

800x480 Wide Angle 4,3" IPS Display Screen

### **Fast Networking**

Adme 8000 comes with Gigabit Ethernet, along with onboard 2.4 GHz and 5.0 GHz IEEE 802.11ac wireless networking and Bluetooth. 5.0. BLE



We continue to develop in LPG cylinder filling machines with developing new technologies. We have developed our new

barcode filling software in order to minimize the error in cylinder filling. In our barcode systems, we not only provide convenience in filling, but also provide extensive data about the history of the cylinder by keeping a record of what processes the cylinders have

Filling by QR and Barcode





### **Features**

- Prevent incorrect LPG Cylinder Filling.
- Suitable for stationary filling scales by hand terminal.
- Automatic QR scanning system for Carousel filling.
- Helps cylinder tracking system.
- Bluetooth Connection.
- Ability to scan any type of code.
- Atex certified.

### **Real Time Monitoring**





### (ADTS) Filling Analysis Has Never Been So Simple.

ADTS cylinder filling software provides the opportunity to monitor every detail of lpg filling from a single screen with its analysis. It is a web-based software system that does not require installation. It provides live monitoring from a local computer or from mobile devices from outside the facility.

It records and presents many data such as: Filling sensitivity, number of filled cylinders, daily LPG consumption, etc.

### **Features**

gone through.

- PC and Mobile monitoring of real time production status
- Automatic data collection
- Automatic update of new software versions via internet
- IOS & Android monitoring applications

### Cylinder Input & Output Mechanism



### **Output Mechanism**

Output Mechanism is pneumatically equipped and assembled upon requirment on each filling scale. It automatically unloads cylinders, which are already filled, from carousel to the chain conveyor. LPG cylinder has important role in increasing cylinder filling capacity. Cylinders, which are not filled yet, are not loaded to the Chain Conveyor.

### **Input Mechanism**

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Cylinder Input Mechanism offers fast and safe transportation of the cylinders from the chained conveyor to the filling carousel. Input mechanism synchronizes the filling process of the carousel in a fast way. The Automatic Input Mechanism doesn't load cylinders to the filling machines of which filling process is still not finalized yet. It waits for the next empty cylinder filling machine and loads the cylinder to its suitable filling machine automatically.



### **Output Mechanism Technical Properties**

### Capacity

• Max. 1500-1800 cylinder / hour Capacity may change according to cylinder size and carousel speed.

### Air Installation

Air Hose Connection Size : 8 mm

### Working Pressure

- Min. 6 bar Max. 10 bar
- Grounding ■ Max <2.0 Ω

### Weight ■ <u>1</u>50 Kg

### Input Mechanism Technical Properties

### Capacity

• Max. 1500-1800 cylinders / hour Capacity may change according to cylinder size and carousel speed.

### **Air Installation**

Air Hose Connection Size: 8mm

### Working Pressure

Min. 6 bar - Max. 10 bar

### Grounding

Max < 2.0 Ω</p>

Weight ■ 150 Kg ADME-8000 Series The Electronic Filling Machines

### ADME-8100 Mod-1

### ADME-8000 Series The Electronic Filling Machines

CE Ex



ADME-8100 Series The Electronic Filling Machines A Electronic Filling Machine to fill Cylinders up to 2-3 Kg

### **Technical Specificiations**

Can be used Cylinder input and output systems mechanism Aluminum and inox Body and Pan

Filling Accuracy: 50 gr Maximum Filling Capacity: 8 Kg Machine Weight: 85 Kg

- With a pneumatic and electronic control system
- Can be used only over a Carousel
- Include Automatic Output Mechanism
- Certified by ATEX
- With 2 Years Guarantee
- It can be connected to computer
- > Cylinder Diameter 220 mm> Cylinder Type: 2 Kg.



# Machines

### ADME-8100 Mod-2

### ADME-8000 Series The Electronic Filling Machines

ADME-8100 Series The Electronic Filling Machines A Electronic Filling Machine to fill Cylinders up to 2-6 Kg



### Technical Specificiations

Can be used Cylinder input and output systems mechanism Aluminum and inox Body and Pan

Filling Accuracy: 50 gr Maximum Filling Capacity: 8 Kg Machine Weight: 75 Kg

- With a pneumatic and electronic control system
- Can be used only over a Carousel-Stand alone
- Include Automatic Output Mechanism
- Certified by ATEX
- With 2 Years Guarantee
- It can be connected to computer
- > Cylinder Diameter 220-300 mm
- > Cylinder Type: 2-6 Kg.



Stand-alone Type

Carousel Type

### ADME-8200 Mod-1

### ADME-8000 Series The Electronic Filling Machines

ADME-8200 Series The Electronic Filling Machines A Electronic Filling Machine to fill Cylinders up to 10-15 Kg

### **Technical Specificiations**

Can be used Cylinder input and output systems mechanism Aluminum and inox Body and Pan

Filling Accuracy: 50 gr Maximum Filling Capacity: 18 Kg Machine Weight: 80 Kg

- With a pneumatic and electronic control system
- Can be used only over a Carousel-Stand alone
- Include Automatic Output Mechanism
- Certified by ATEX
- With 2 Years Guarantee
- It can be connected to computer

> Cylinder Diameter 300-360 mm

> Cylinder Type: 10-15 Kg.







### ADME-8200 Mod-2

### ADME-8000 Series The Electronic Filling Machines

ADME-8200 Series The Electronic Filling Machines A Electronic Filling Machine to fill Cylinders up to 10-15 Kg

### **Technical Specificiations**

Can be used Cylinder input and output systems mechanism Aluminum and inox Body and Pan

Filling Accuracy: 50 gr Maximum Filling Capacity: 18 Kg Machine Weight: 95 Kg

- With a pneumatic and electronic control system
- Can be used only over a Carousel-Stand alone
- Include Automatic Output Mechanism
- Certified by ATEX
- With 2 Years Guarantee
- It can be connected to computer

> Cylinder Diameter 300-360 mm> Cylinder Type: 10-15 Kg.





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Stand-alone Type

Carousel Type

### ADME-8200 Mod-4



### ADME-8000 Series The Electronic Filling Machines

### ADME-8200 Series The Electronic Filling Machines A Electronic Filling Machine to fill Cylinders up to 3-15 Kg

### **Technical Specificiations**

Can be used Cylinder input and output systems mechanism Aluminum and inox Body and Pan

### Filling Accuracy: 50 gr Maximum Filling Capacity: 18 Kg Machine Weight: 90 Kg

- With a pneumatic and electronic control system
- Can be used only over a Carousel-Stand alone
- Include Automatic Output Mechanism
- Certified by ATEX
- With 2 Years Guarantee
- It can be connected to computer

> Cylinder Diameter 300-360 mm

> Cylinder Type: 3-15 Kg.



Electronic & Mechanical Filling Carousel



**Container Type Filling Plants** 

Skid Type Filling Station



Stand alone Type Fillin Plants





Mobile Type Filling Plants



### ADME-8300 Mod-1



### ADME-8000 Series The Electronic Filling Machines

### ADME-8300 Series The Electronic Filling Machines A Electronic Filling Machine to fill Cylinders up to 2-45 Kg

A Electronic Filling Machine to hit Cylinders up to

### **Technical Specificiations**

Can be used Cylinder input and output systems mechanism Aluminum and inox Body and Pan

### Filling Accuracy: 50 gr Maximum Filling Capacity: 50 Kg Machine Weight: 100 Kg

- With a pneumatic and electronic control system
- Can be used only over a Carousel-Stand alone
- Include Automatic Output Mechanism
- Certified by ATEX
- With 2 Years Guarantee
- It can be connected to computer

> Cylinder Diameter 220-360 mm

> Cylinder Type: 6-45 Kg.



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Stand-alone Type

### ADME-8300 Mod-2



### ADME-8000 Series The Electronic Filling Machines

ADME-8300 Series The Electronic Filling Machines A Electronic Filling Machine to fill Cylinders up to 2-45 Kg

### **Technical Specificiations**

Can be used Cylinder input and output systems mechanism Aluminum and inox Body and Pan

Filling Accuracy: 50 gr Maximum Filling Capacity: 50 Kg Machine Weight: 100 Kg

With a pneumatic and electronic control system

- Can be used only over a Stand alone
- Certified by ATEX
- With 2 Years Guarantee
- It can be connected to computer

> Cylinder Diameter 220-360 mm

> Cylinder Type: 2-45 Kg.



are manufactured either with flat plates or rollers, with aluminum

poles, electrostatically painted body, pneumatic control system, and

### **Ex-net Series The Mechanical Filling Machines**

They are filling machines to be used to fill LPG Cylinders manually or automatically. To be used to fill cylinders of capacities ranging between 2 Kg and 50 Kg. They are to be used either over the Carousel, one by one separately, or above the SKID System. They

### Ex-Net 7 Mod-3

### **Ex-net 7 Series The Mechanical Filling Machines**

stainless steel arms.

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### EXNET-7 MECHANICAL FILLING MACHINE (MANUEL) A Mechanical Filling Machine to fill Cylinders up to 2-6 Kg

Technical Specificiations Aluminum and inox Body and Pan

Weighing Accuracy: 100 gr Filling Accuracy: 100 gr Maximum LPG + Tare: 15 Kg Machine Weight: 60-65 Kg

- With a pneumatic control system
- Can be used only over a Stand alone
- Certified by ATEX
- With 2 Years Guarantee

> Cylinder Diameter 220-300 mm> Cylinder Type: 2-6 Kg.



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### Ex-Net 7 Mod-4

### Ex-net 7 Series The Mechanical Filling Machines



### **Technical Specificiations**

Aluminum and inox Body and Pan

Weighing Accuracy: 100 gr Filling Accuracy: 100 gr Maximum LPG + Tare: 15 Kg Machine Weight: 72 Kg

- With a pneumatic control system
  - Can be used only over a Carousel
- Include Automatic Output Mechanism
- Certified by ATEX
- With 2 Years Guarantee

> Cylinder Diameter 220-300 mm

> Cylinder Type: 2-6 Kg.





Carousel Type

### Ex-Net 7 Mod-5



### Ex-net 7 Series The Mechanical Filling Machines

### EXNET-7 MECHANICAL FILLING MACHINE (AUTOMA-

TIC ON CAROUSEL) A Mechanical Filling Machine to fill Cylinders up to 2-6 Kg

**Technical Specificiations** Aluminum and inox Body and Pan

Weighing Accuracy: 100 gr Filling Accuracy: 100 gr Maximum LPG + Tare: 15 Kg Machine Weight: 72 Kg

- With a pneumatic control system
- Can be used only over a Carousel
- Include Automatic Output Mechanism
- Certified by ATEX
- With 2 Years Guarantee

> Cylinder Diameter 220-300 mm

> Cylinder Type: 2-6 Kg.







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### Ex-Net 32 Mod-2

### Ex-net 32 Series The Mechanical Filling Machines

### EXNET-32 MECHANICAL FILLING MACHINE (MANUEL)

A Mechanical Filling Machine to fill Cylinders up to 10-15 Kg

Technical Specificiations Aluminum and inox Body and Pan

Weighing Accuracy: 100 gr Filling Accuracy: 100 gr Maximum LPG + Tare: 32 Kg Machine Weight: 82 Kg

- With a pneumatic control system
- Can be used only over a Carousel-Stand alone
- Certified by ATEX
- With 2 Years Guarantee

> Cylinder Diameter 300-370 mm

> Cylinder Type: 10-15 Kg.





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Carousel Type

Stand-alone Type

### Ex-Net 32 Mod-3

# <image>

### Ex-net 32 Series The Mechanical Filling Machines

### EXNET-32 MECHANICAL FILLING MACHINE

(MANUEL) A Mechanical Filling Machine to fill Cylinders up to 10-15 Kg

### **Technical Specificiations**

Aluminum and inox Body and Pan

Weighing Accuracy: 100 gr Filling Accuracy: 100 gr Maximum LPG + Tare: 32 Kg Machine Weight: 82 Kg

- With a pneumatic control system
- Can be used only over a Carousel-Stand alone
- Certified by ATEX
- With 2 Years Guarantee

> Cylinder Diameter 300-370 mm

> Cylinder Type: 10-15 Kg.



### Ex-net 32 Series The Mechanical Filling Machines

### EXNET-32 MECHANICAL FILLING MACHINE (MANUEL)

A Mechanical Filling Machine to fill Cylinders up to 10-15 Kg

### **Technical Specificiations**

Aluminum and inox Body and Pan

Weighing Accuracy: 100 gr Filling Accuracy: 100 gr Maximum LPG + Tare: 32 Kg Machine Weight: 85 Kg

- With a pneumatic control system
- Can be used only over a Carousel-Stand alone
- Certified by ATEX
- With 2 Years Guarantee

> Cylinder Diameter 300-370 mm> Cylinder Type: 10-15 Kg.



Carousel Type

CÈ







### Ex-Net 32 Mod-8

### Ex-net 32 Series The Mechanical Filling Machines

### EXNET-32 MECHANICAL FILLING MACHINE (MANUEL)

A Mechanical Filling Machine to fill Cylinders up to 10-15 Kg

### Technical Specificiations

Aluminum and inox Body and Pan

Weighing Accuracy: 100 gr Filling Accuracy: 100 gr Maximum LPG + Tare: 32 Kg Machine Weight: 85 Kg

- With a pneumatic control system
- Can be used only over a Carousel-Stand alone
- Certified by ATEX
- With 2 Years Guarantee

> Cylinder Diameter 300-370 mm

> Cylinder Type: 10-15 Kg.











### Filling Heads (Adb Series)

- Adb Series filling heads are produced according to the different types of cylinder valves.
- They can either be of a manual type or an automatic pneumatic type depending on the needs of the customer.
- Filling Heads are made of brass metal and suitable for ex-proof standards.
- Impermeability material suitable for LP gas provides many long years of services for the Adb series filling heads.

### Adb - fvpu02

## Cylinder Valve Size Ø 20-22 mm



### Adb - fvpuy02

Adb - fvm01

**Cylinder Valve Size** 

Adb - jvm02

**Cylinder Valve Size** 

Ø 22 mm

Ø 20-22 mm

Cylinder Valve Size Ø 20-22 mm

### Adb - fvpuy03

# Cylinder Valve Size Pol

### Adb - jvm05

**Cylinder Valve Size** Ø 33 mm



Adb - jvm03

**Cylinder Valve Size** Ø 27 mm



### Adb - fvpuyo02

Cylinder Valve Size Ø 20-22 mm

### Adb - pv04

### Cylinder Valve Size



### Adb - jvm01

Cylinder Valve Size Ø 20 mm



Adb - jvm04

### Cylinder Valve Size





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### Adb - hdvk01

**Cylinder Valve Size** 26-27 mm AA Air discharger



### Adb - hdvk02

**Cylinder Valve Size** Ø 16-17 mm Air discharge



Adb - hdvk04

**Cylinder Valve Size** Ø 26-27 mm



Adb - ktp01

**Cylinder Valve Size** 26-27 mm AA



Adb - sp02

**Cylinder Valve Size** Ø 16-17 mm





**Cylinder Valve Size** Ø 35 mm



### Adb - hdvk03

**Cylinder Valve Size** Ø 20-22 mm



### Adb - ktp02

**Cylinder Valve Size** Ø 20 mm Vanalı kamp

Adb - sp03

**Cylinder Valve Size** 

Ø 20-22-25-27 mm



Adb - ktp03

**Cylinder Valve Size** 26-27 mm AA



Adb - fqc00

**Cylinder Valve Size** Ø 22 mm



Adb - jvyo02





### Tare Control Scale





he Electronic Tare Control Scale, which is mounted on a chain conveyor with the help of a special chassis, is used to determine the weights of the cylinders to be filled before they enter the filling machine. Tare weighted cylinders continue their way to the Electronic Filling Machines located on the carousel. According to the information received from the tare control scale, filling of the LPG in the Electronic Filling Machine is done.

### **Technical Properties**

Cylinder Type: All types of Cylinder Production Capacity: 1200 Cylinder/h.

### **Features**

IC E

- Automatic and manuel operation.
- Automatic PLC control system.





t is a special Electronic Check Scale mounted on the chain conveyor by a special chassis. It is used to control the weights of the filled cylinders. Correctly filled cylinders continue their path. If there are cylinders with weights more or less the desired weight, they cause problems. They are to be separated and sent to Correction Scale

### **Technical Properties**

Cylinder Type: All types of Cylinder Production Capacity: 800 Cylinder/h.

### **Features**

- Automatic and manuel operation.
- Automatic PLC control system.
- Automatic cylinder sort-out system.







orrection scale, corrects missing or excess of incorrectly filled cylinders. It has LPG filling and discharging feature.

### **Technical Properties**

Cylinder Type: All Types of Cylinder Production Capacity: 50 Cylinder/h.

### **Features**

- Automatic and manuel operation.
- Automatic PLC control system.

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### LPG Cylinder Leakage Detector



### **Technical Properties**

- Sensitivity: 3,000 ppm
- Valve Type: All types of valves
- Automatic Production Capacity: 800-1600 Cylinder/h. \*
- Manuel Production Capacity: 500 Cylinder/h.
- Weight: 450 Kg.
- Certificates: Atex, CE

\*valid on multiple models.

### **Features**

- Installed on a Chain Conveyor.
- Adjustable Detection Level.
- Combined with PLC Managment.
- Real Time Display Measured Leak.

### Automatic Leakage Detector

Automatic leakage detectors are manufactured to be assembled on the Chain Conveyor easily.

Filled cylinders are stopped automatically by a stopper while they are still on the conveyor. The detecting head of the automatic leakage detector positions itself over the cylinder by a centering mechanism. It controls whether the cylinder valve is leaking or not. If it doesn't, the cylinder continues on chain conveyor. However, if it does, then the leakage alarm is launched and the cylinder is separated into specifically designed roller conveyor.

Automatic leakage detector has infrared module technology inside it and detects a minimum of 3.000 ppm gas leakage.

1. Suitable to control all kinds of cylinder valves.

2. To dispose the accumulated gas inside the detector after many runs, the leakage detector is equipped with an automatic air circulation system.



**Manuel Leakage Detector** 



### In-Line Leak Detection With Water Bath





The leakage test of the cylinders passing through the water-filled conveyorized pool is done by visual inspection. Leakage from the body or the valve can be detected. The galvanized steel pool is produced in sizes ranges between 6 m and 8 m.

### **Technical Properties**

Production Capacity: 1,800 - 2,000 Cylinder/h. Cylinder Types: 220 - 360 mm. All Type Cylinder. Size: 6-8 m.

### **Features**

 $\mathbf{C}\mathbf{E}$ 

Test Type: Full Body and Valve Leak Control. Material: Galvanized Constriction (Optional)

### **Tilting Leak Detection Pool**



### **Technical Properties**

Model Size: 4, 6, 8, 12 Sections. Production Capacity: 600-1,500 cylinder/h. 4 Section: 500 Cylinders / h. 8 Section: : 1,000 Cylinders / h. 12 Section: : 1500 Cylinders / h. Cylinder Types:220 - 360 mm. All Type Cylinder. Air Pressure: 6-8 Bar.

### **Features**

Test Type: Full Body and Valve Leak Control. Material: Galvanized Constriction (Optional) There are 3 different models with 4, 8, and 12 Cylinders capacities. It has advantages such as small footprint and the ability to control cylinders of different diameters at the same time.



### **Shrinking Machine**



### Automatic Shrinking

Œ

t ensures labeling of the checked cylinders after filling, it consists of an automatic shrink head and a vapour generator. Vapour obtained by the vapour generator outside the filling building is delivered through the pipes to the automatic shrink machine so cylinders passing on the conveyor get shrunk here.

### **Features**

- It is 100% safe with an audible alarm system and safety valve at maximum pressure entering the circuit.
- Automatic Water Supply tank to the system with a pump.
- Ready to work in about 15 minutes.
- Produced according to CE norms.

**Manuel Shrinking** 

**Body Shrinking** 



### ASM-01 Valve Shrinking Machine (Automatic Operation)

Water Capacity: 60 Lt. Steam Capacity: 39 kg/h Capacity: 800-1600 Cylinder/h. \* Working Pressure: 4 bars. Resistance Power: 4x7,5 kW

\*valid on multiple models.

### ASM-01 Valve Shrinking Machine (Manuel Operation)

Water Capacity: 60 Lt. Steam Capacity: 39 kg/h Capacity: 800-900 Cylinder/h. Working Pressure: 4 bars. Resistance Power: 4x7,5 kW

### **Steam Boiler**



### **Cylinder Body Shrinking Machine**

Water Capacity: 60 Lt. Steam Capacity: 39 kg/h Capacity:700-800 Cylinder/h. Automatic Operation Required Chain Conveyor Required Pipeline

### **Cylinder Washing & Brushing Machine**



Technical Properties Automatic Robot System: 450 Cylinders/h. High Pressure Washing: 950 Cylinders/h. Online 8 Pieces Brush System: 900 Cylinders/h.

### Features

**Cylinders Washing:** The automatic robot brush rotates along aside a fixed cylinder redactor brush with a detergent pump. The detergent is drained and rinsed out.

**Rinsing:** In the on-line system, the brush is cleaned while the rotating cylinder passes in front of it, and rinsing is performed at the exit.

### Automatic/Manual Paint Cabin



### Œ

Cylinders, which are passing through a washing cabin. Hot and cold water washed with two pressure pumps, Non-Stopage passing of the cylinders avoid time waste. Cylinders, which left the wash cabin, are dried with high pressure fans.



Before filling the cylinder it is used to paint it. Manufactured in one Bor two sided for any type of cylinders. Ensures collection of paint waste in the environment; cylinders are painted on the conveyor to ensure saving in time and manpower.

### **Technical Properties**

Production Capacity Automatic Robot: 400-600 cylinder/h. Production Capacity Manuel: 300-400 cylinder/h. Cylinder Types: 220 - 360 mm. all type cylinder. Paint Tank: 20-30 Lt. Air Pressure: 6-8 bar Features

**Production Type:** Automatic Robot and Manuel by hand. **Material:** Galvanized or Painted Constriction. Ex-Proof Ventilation Ex-Proof Water Pump

### Hydrostatic Cylinder Testing Machine





### $\mathbf{\epsilon}$

U sed for hydrostatic testing for any type of LPG cylinders. Empty cylinders are compressed with pneumatic pistons. The water is pumped inside the cylinders with electric water pumps up to a maximum of 40 bar pressure. After the test is completed water inside the cylinder is discharged by air pressure. There are two models exist automatic and manuel.

### **Features**

- Automatic and manuel rotation.
- Automatic PLC control system.
- Automatic and manuel pnuematic control system.
- 5 or 10 testing posts.

### Cylinder Type: All types of Cylinder

### **Production Capacity**

### 6 Kg for

5 Posts: 200 Cylinder / h. 10 Posts: 400 Cylinder / h.

12 Kg for

5 Posts: 120 Cylinder / h. 10 Posts: 240 Cylinder / h.

### 50 Kg for

5 Posts: 35 Cylinder / h. 10 Posts: 70 Cylinder / h.

Max. Test Pressure: 45 Bar.

### **Air Filling And Vacuuming Machine**



n the manufacture of LPG Cylinders, after the body is welded, air is filled in the LPG cylinders in order to control the leakage at points such as the body and colleret, the air escapes from the cracked welding areas to the atmosphere and these leaks are detected by the pool test. Thus, possible manufacturing errors are prevented with the unit, it is purifed from the air inside LPG cylinder and will be ready for LPG filling.

### **Technical Properties**

- Cylinder Type: All types of Cylinder
- Production Capacity: 150-400 Cylinder/h.
   4 Posts: 150-200 Cylinder / h.
   8 Posts: 200-300 Cylinder / h.
   10 Posts: 300-400 Cylinder / h.
- Air Pressure: 6-8 Bar.

### Valve Screwing & Unscrewing



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ydraulic Valve Screwing and Unscrewing Unit is used to replace defective cylinder valves inside cylinder fabrication plants or LPG filling plants.

### **Technical Properties**

- **Operation:** Semi-Automatic
- Production: 120-150 Qty/h.
- Model: On Line Type
- Cylinder Stopper Piston
- Torque Control
- Hydraulic Power Unit



### **Technical Properties**

Avsm 02

- Operation: Semi-Automatic
- Production: 50 Qty/h.
- Model: Table Type
- Cylinder Stopper Piston
- Torque Control
- Hydraulic Exproof Unit



M anuel Valve Screwing and Unscrewing Machines are used to replace defective cylinder valves inside filling stations.

### **Technical Properties**

- Operation: Manuel
- Production: 30 Qty/h.
- Model: Table Type

### **Defective Cylinder Evacuation Unite**





### Aga-100.8.25-y



Defective cylinder evacuation unit is used to discharge LPG from inside the defective LPG cylinders. Discharged LP gas is transferred to the LPG stock tank by this unit to be re-used. There is a uniquely suitable filling head for each discharge head.



### **Technical Properties**

### **Transfer Capacity**

Model 1: 20lt / min. Model 2: 30lt / min.

### Air installation

Air Hose Connection Size : 10 mm Working Pressure : min. 6-8 bar

### Weight

40-50 Kg.





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### **Container LPG Filling Plant**



### 

### **Features**

- Applied for 20 and 40 feet containers.
- Easy and fast way to fill the cylinders.
- Low-cost and full-capacity filling plant.

### **Equipments**

- Capacity : Filling Capacity up to 400 cylinders per hour.
- From 4 and up to 8 cylinder filling machines.
- Electronic leak detector.
- Shrinking machine.
- Default cylinder discharging unit.
- Electronic check scale.
- Chain conveyors and roller conveyors.
- LPG Pump.
- Fire fighting system.
- LPG Transfer hose.
- Ex-proof Electrical panel.
- Air Compressor and pipe line.









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### High Capacity Filling Skid

Easy and fast way to fill the cylinders. Low-cost and full-capacity filling plant. **Capacity:** Filling capacity up to 600 cylinders per hour. It can fit inside of the 40 ft container

### **Technical Properties**

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- From 4 and up to 12 cylinder filling machines.
- Electronic leak detector.
- Shrinking machine.
- Default cylinder discharging unit.
- Electronic check scale.
- Chain conveyors and roller conveyors.
- LPG Pump.
- Fire fighting system.
- LPG supply hose.
- Ex-proof Electrical panel.
- Air Compressor and pipe line.

### Low Capacity Filling Skid



### **Technical Properties**

Tank Capacity: 10-38 m3 Storage tanks

- 2-4 Filling scale
- LPG Pump.

CE

- Ex-proof Electrical panel.
- Air Compressor and pipe line.
- LPG supply hose.
- Type of cylinders: 2-50 kg

### **Features**

- Ready to work cylinder fillling station on steel chasis.
- Easy to install and use for new entrants to the filling plant industry.
- Simple layout and maximum safety.
- Flexible and modular solution.



t allows safe handling of liquefied petroleum gas (LPG) transportation, storage, filling and unloading operations. Those are safety devices and accessories used in Tanks and Pipes Installations. USAGE AREAS Transport tanks Storage tanks LPG piping Autogas stations LPG filling plants





### **LPG Products**

### **Internal Valves**



3" Flanged Internal Valve





t is specially designed for LPG storage facilities and transport tanks. Used for liquid and vapor transfer, or vapor qualization. Can be operated pneumatically or manually.

All criticall operating components are located in the valve body inside the container coupling for maximum protection aganist physical damage. Built-in excess flow valve.

Technical Properties				
Part Number	Model Size	Inlet Connection	Outlet Connection	Service
Adiv - 01	2"	2" M. NPT	2" F.NPT	LPG
Afiv - 01	3"	3" 300 # ANSI RF Modified Flange	3" 300# ANSI RF Flange	LPG







Quarter turn actuator

p max: 8 bar p nom: 6 bar



For manuel operation.


#### **Hydraulic Valves**



DIAMETERS						
DIN	2"	3"	4"	6"	8"	10"
ANSI	ANSI 2" 3" 4" 6" 8" 10"					

They are used as Remotly Controlled Safety Valves at the fixed LPG storage tanks, spherical tanks or LPG transportation tanks (from 30 m3 to 5000 m3), at liquid gas phase, or at Piping Lines. They can be either placed directly inside the outlet of the tank or outside it by installing them inside a housing case.

#### **Technical Properties**

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- Nominal Diameter: DN 50-DN 200
- Connecting Flanges: DIN 2533- 2535 ASME B 16.5 RF
- Operating Pressure: 20 Bar
- Testing Pressure : 30 Bar
- On-off Movement Distance: 40 mm.
- Means of Operation: One way
- Opening Process: Oil pressure
- Closing Process: Spring pressure
- Hydraulic Connection: R 1/4" female thread
- Sealing Element: NBR, Teflon
- Main Body Flange: GGG-50 nodular cast iron
- Piston Casing : Honed seamless pipe
- Spring: Stainless steel.

#### **Hydraulic Operator**

AHO 1501

AHO 1502

AHO 1505

AHO 1507

AHO 1510

2 Lt

3 Lt

5 Lt

7 Lt

12 Lt



Aluminum

Aluminum

Aluminum

Aluminum

Aluminum

50bar

50bar

50bar

50bar

50bar

R3/8 F.Thread

R3/8 F.Thread

R3/8 F.Thread

R3/8 F.Thread

R3/8 F.Thread

t allows the oil inside it to reach the hydraulic valves by hand pressing and by exerting pressure which forces the hydraulic valves to open and close.

- Max. Pressure: 50 bar
- Hydraulic Connection: R 3/8" Female Thread
- Storage Capacity: 2 lt, 3 lt and 7 lt
- Solenoid Control Also Avaible: 7 lt



#### **External Safety Relief Valve**



A evs relief valves are used to relieve the excessive pressure formed hin LPG tanks and LPG pipes in general. The relief valves are set to open at a pressure of 17.5 bar. It is manufactured for stock tanks and LPG pipe installation.

\*Discharge pressures can be adjusted as 3,5-22 bar

	Technical Properties					
Part Number	Start to Discharge Setting (bar)	Container Connection M.NPT	Application LP-Gas	Flow Capasity CE (At 120& of Set Ressure)		
Aevs014	17,5 bar	1/4"	Yes	-		
Aevs012	17,5 bar	1/2"	Yes	612		
Aevs034	17,5 bar	3/4"	Yes	4205		
Aevs001	17,5 bar	1"	Yes	6818		
Aevs114	17,5 bar	1 1/4"	Yes	13125		
Aevs112	17,5 bar	1 1/2"	Yes	12410		
Aevs002	17,5 bar	2"	Yes	20000		
Aevs212	17,5 bar	2 1/2"	Yes	21208		

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#### Internal Safety Relief Valve







Aevts003





	Technical Properties					
Part Number	Start to Discharge Setting (bar)	Container Connection M.NPT	Application LP-Gas	Flow Capasity CE (At 120& of Set Ressure)	Material	
Aevts002	17,5 bar	2"	Yes	20000	Stainless Steel	
Aevt00	17,5 bar	2"	Yes	20000	Brass	
Aevts003	17,5 bar	3"	Yes	26000	Stainless Steel	
Aevt003	17,5 bar	3"	Yes	26000	Brass	







A Check-Lok Valve is a safety valve allows mounting and dismounting to the lines or to the tanks safely. (Serves as a safety lok)

Part Number	Container Connection (M.NPT)	Relief Safety Valve Connection (F.NPT)
ACL 2102	3/4"	1/2"
ACL 2103	2"	1 1/4"
ACL 2104	2"	1 1/2"
ACL 2105	2"	2"
ACL 2106	1"	3/4"
ACL 2107	3"	2 1/2"
ACL 2108	1 1/4"	1 1/4"
ACL 2109	1"	1"
ACL 2110	3/4"	3/4"
ACL 2111	1 1/4"	1"
ACL 2114	2 1/2"	2"
ACL 2116	2 1/2"	2 1/2"

Manifold For Safety Relief Valve





t is designed for double safety valve and during maintenance, one of the safety valve is replaced while the other safety valve remains in operation.

Part Number	Connection For Safety Relief Valve	Flanged Connecton To The Tank
AMV 001	1" F.NPT	UNI PN40 DN50 Ø 2" ANSI 300 RF
AMV 114	1 1/4" F.NPT	UNI PN40 DN50 Ø 2" ANSI 300 RF
AMV 012	1 1/2" F.NPT	UNI PN40 DN50 Ø 2" ANSI 300 RF

#### **Foot Valve**





They are used at the suction nozzles of the overhead inlet pumps. It prevents air intaking by obstructing the backflow of the liquid at suction step.

Technical Properties				
Part Number Size Material				
AFV 2201	1 1/2"	Aluminum		
AFV 2202	2"	Aluminum		
AFV 2203	3"	Aluminum		

#### **Excess Flow Valves**



Excess Flow Valves can be used for filling,vapor equalizing and withdrawal in containers or line applications.Valves are connected to the bottom of the tank for liquid operations. It can also be connected to the top of the tank in vapor operation.When the flow rate increases, the valve closes itself and remains closed. When the pressure is balanced at the inlet and outlet of the valve, the spring of the valve moves the valve to the open position.

	Technical Properties				
Part Number	Service	Inches	Description		
Aav 1201	LP-Gas	1"	One Side Threaded		
Aav 1202	LP-Gas	1"	Two Side Threaded		
Aav 1211	LP-Gas	1 1/4"	One Side Threaded		
Aav 1212	LP-Gas	1 1/4"	Two Side Threaded		
Aav 1221	LP-Gas	1 1/2"	One Side Threaded		
Aav 1222	LP-Gas	1 1/2"	Two Side Threaded		
Aav 1231	LP-Gas	2"	One Side Threaded		
Aav 1232	LP-Gas	2"	Two Side Threaded		
Aav 1241	LP-Gas	3"	Two Side Threaded		
Aav 1242	LP-Gas	3"	One Side Threaded		
Aav 1251	LP-Gas	4"	Two Side Threaded		
Aav 1252	LP-Gas	4"	One Side Threaded		

#### **Excess Flow Valves**





#### **Manometer Excess Flow Valve**

7 V



Part Number	Size	Material
Aofv 034	3/4"	Stainless-Brass
Aofv 001	1"	Brass
Aofv 114	1 1/4"	Stainless-Brass
Aofv 002	2"	Stainless

M anometer excess flow is used to minimize gas leakage in case the manometer is damaged.

Technical Properties				
Part Number	Inches	Service	Material	
Aavm 3414P	3/4" - 1/4"	LP-Gas	Stainless	
Aavm 3414S	3/4" - 1/4"	LP-Gas	Brass	
Aavm 3412P	3/4" - 1/2"	LP-Gas	Stainless	
Aavm 3412S	3/4" - 1/2"	LP-Gas	Brass	
Aavm 1214P	1/2" - 1/4"	LP-Gas	Stainless	
Aavm 1214S	1/2" - 1/4"	LP-Gas	Brass	

#### **Filler Valve**

The design of the filling valve, the upper and lower check valves open automatically when the LPG flow starts and the flow is ensured. When the LPG flow is closed and the hose coupling is removed, the lower and upper check valves are automatically closed to ensure the safety of the tank

Part	Tank	Filler	Material
Number	Connection	Connection	
Afv 114	1 1/4"- NPT	1 3/4"	Stainless Stell- Brass

#### Back Pressure Check Valve

A YCV 02





Back pressure check valves are manufactured according to the One-way flow working principle. With the spring inside, it is in the closed position and LPG does not flow out of the tank. When the flow starts from the outside into the tank, the pressure overcomes the force of the spring, allowing the check valve to open and LPG Transfer is provided. The check valve closes when the flow stops or reverses.

Part Number	Inlet Connection F.NPT	Inlet Connection M.NPT	Material
A YCV 02	2"	3"	Steel
A YCV 03	3"	3"	Steel

# Vent Valve Avv 100 Lis specially designed to evacuate the liquid or vapor pressures trapped in the transfer line. It is widely used in equipment such as LPG transfer hose, Filling valve,Rotagage, acme adapters. Number Service Connection Avv 100 LP Gas 1/4" M.NPT Liquid Withdrawal Valve Alwv 100 LP Gas 1/4" M.NPT Service Service Connection Service Service Service Liquid Withdrawal Valve Avv 100 LP Gas 1/4" M.NPT Service

Part Number	Container Connection	Outlet Connection
Alwv 100	1 1/4" - 11.5 NPT	M25 x 1,5 (Plugged)

#### **ACME Adapters**

AHA - 2821



#### AHA - 2832



AHA - 2820



	Flange Diameter		2"
	Hose Connection (M. ACME)		3 1/4"
	Flange Connection (M.NPT) ACME Plug (F.ACME)		2"
			3 1/4"
	Vent Valve		1/4"
Gasket			NBR
	Material Brass-Steel		

AHAM - 2820



	Flange Dia	ameter	2"
	Hose Connection (M. ACME)		m60x4
	Flange Connection (M.NPT)		2"
	ACME Plug (F.ACME)		m60x4
1	Vent Valve		1/4"
/	Gasket		NBR
	Material Brass-Steel		

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#### Aha - 2831



Hose Connection (M. ACME)		1"
Coupling Connection (F.ACME)		13/4"
Vent Valve		-
Material Brass-Steel		

#### Aha - 2827



Hose Connection (M. ACME)		1 1/2"
Coupling Connection (F.ACME)		3 1/4"
Vent Valve		1/4"
Material Brass-Steel		

#### Aha - 2824



Hose Connection (M. ACME)		2"
Coupling Connection (F.ACME) 3 1/4"		
Vent Valve		-
Material Brass-Steel		

#### Spanner Wrench for ACME Connectors



#### Aha - 2825



Hose Connection (M. ACME)		1"
Coupling Connection (F.ACME)		3 1/4"
Vent Valve		1/4"
Material Brass-Steel		

#### Aha - 2837



Hose Con	Hose Connection (M. ACME)	
Coupling	Coupling Connection (F.ACME)	
Vent Valve		-
Material Brass-Steel		

#### Aha - 2835



Hose Connection (M. ACME)		2"
Coupling Connection (F.ACME)		3 1/4"
Vent Valve		1/4"
Material Brass-Steel		

#### Aha - 2836



Hose Connection (M. ACME)		1 3/4"
Coupling Connection (F.ACME)		3 1/4"
Vent Valve		1/4"
Material Brass-Steel		

#### Aha - 2826



Hose Connection (M. ACME)		1 1/4"
Coupling Connection (F.ACME)		3 1/4"
Vent Valve		1/4"
Material Brass-Steel		

#### Aha - 2838



Hose Connection (M. ACME)		2 1/4"
Coupling Connection (F.ACME)		3 1/4"
Vent Valve		1/4"
Material Brass-Steel		

# This brass spanner wrench is especially designed for use with 2 1/4" and 3 1/4" ACME couplings, adapters and caps.

Part Number	ACME Connector Size
Aasa 2901	3 1/4"
Aasa 2902	2 1/4"

#### **Dry Gas Couplings**

#### Adgc 002



# Quick and safe connection of hose assemblies and loading arms to mobile and stationary tanks, under pressure and with minimised liquid loss.

Both coupling parts are equipped with a flat poppet valve. For the connection, the hose unit is pushed onto the tank unit and coupled / sealed by turning the coupler clockwise by 15 degrees. When the unit is turned by 100 degrees, the valves move into the tank unit so that the medium can flow. When a similar turn is made counter-clockwise, the flow is stopped and the coupler can be pulled off.

Part Number	Service	Size
Adgc 002	LP-Gas	2"
Adgc 003	LP-Gas	3"

**Breakaway Coupling** 



**B**reakaway coupling is used with LPG supply hoses to prevent probable accidents which can happen when the vehicle moves while the hose is still connected to it.

#### **Technical Properties**

- Dimension: 2", 1"
- Adapter Connection FNPT: R2"
- Container Connection Flange: 2"

Part Number	Service	Size
Akda 02	LP-Gas	2"

#### Rotagage



They are used to measure the volume of the LPG in the tank mechanically. They are of various sizes depending on the diameter of the tank.

Technical Properties				
Part Number	Tank Size	Weight	Tube Lenght	Inlet Connection
ART 2025	2000-2500D	3 Kg	85 cm	1" NPT
ART 2515	1500-2500D	2 Kg	-	1" NPT
ART 2535	2500-3500D	4 Kg	120 cm	1" NPT

#### **Tanker Filling Hose Reels**



Part Number	Service	Inlet Connection (M.NPT)	Hose Lenght
TFHR 1001	LP-Gas	1"	40-45 m.
TFHR 1002	LP-Gas	1"-1 1/4"	20-25 m.
TFHR 1003	LP-Gas	1"-1 1/4"	30-35 m.

#### Filling Valve With Acme Connector



They allow winding up small size hoses used in transport tanks. They are manufactured in single or double reels to suit the required size and diameters. It is controlled by a pneumatic motor, thus making it easier to wind the hose. Can be controlled using the vehicle's air compressor.





Provides fast connection to the 1 3/4" ACME connector. It is used at the end of the 1" transfer hoses of the LPG bulk tankers. Open-Close is made by a simple action. It includes a safety catch to avoid turning it on accidentally. When filling process has just got completed, the gas inside it is discharged with the Purge which allows closing the valve, it provides full passage and it has high flow capacity. It is leak tested under 25 bar pressure.

Technical Properties				
Part Number	Service	Inlet Connection (F.NPT)	Outlet Connection (F.NPT)	Locking Handler
Afvac-1	LP-Gas	1"	13/4"	Yes

#### Hose End Swivel Connectors



Dha 01

ose end swivel connector Allows easy connection to Acme filling valve and 360 degree rotation of the hose, preventing the hose from breaking and buckling.

Part Number	Inlet F.NPT	Outlet M.NPT
Dha 01	1"	1"

#### **Differential Valve**



Ensures fixing the LPG pump pressure at a preset value. The desired pressure value is adjusted by the adjustment valve on the top.

Technical Properties			
Part Number Service Size Flange			
Adv 1601	LP-Gas	2"	2" DIN
Adv 1701	LP-Gas	3"	3" DIN

#### **By-Pass Valve**



G enerally used with Autogas pumps to fix the pump pressure at the desired value (average 10 Kg/cm2). Inlets and outlets are R1" female threaded.

Part Number	Service	Size
Adp 2301	LP-Gas	1"
Adp 2302	LP-Gas	2"

#### Strainer (Filter)



S trainer is among a group of valves that are used to filter and clean foreign substances that may be in the fluids passing through the installation, are frequently used in pipe installations, and have an mportant place for system helth.

Technical Properties			
Part Number Service Size			
Aft 2403	LP-Gas	3"	
Aft 2404	LP-Gas	4"	

#### Monoblock - Ballvalves



- PN40, PN 16, ANSI CLASS LIB, ANSI CLASS 150 LIB threaded and flanged ball valves
- PN40 mono block ball valves,
- Butterfly and Globe valves
- Strainers
- Check valves
- Pneumatic actuated mono block ball valves
- Compensators







he LPG Transfer Unit transfers LPG from one place to the other.

JSAGE PLACES Autogas stations Stocking facilities Filling facilities Gas transfer from sea tankers to land

#### LPG Compressor



G as compressor allows transport of liquid LPG (Liquefied Petroleum Gas) from one place to another with vapour transfer.

Pressure difference should be present for the transfer of liquid LPG. Gas compressors suck LPG in gas phase from one tank and forces it into another tank which causes pressure increase there and with increased pressure LPG starts flowing into the other tank to fulfill the transfer.

Suitable elevation difference as required by the pumps is not needed; liquid transfer can be made in every circumstance.

Compressor has two pistons. While one of them sucks, the other piston forces it to the place of transfer. This system is maintained by suction and compression valves.

Piston rings sucking and compressing the gas are made from special Teflon (PTFE) material.

To prevent gas passing into the bottom section, the lubrication part, a set of adjustable gaskets with nut and spring, are placed at the neck of the piston pin for sealing purposes. This gasket is made from special Teflon material.

Movement of the pistons is maintained by a crank The crank is placed inside the crankcase and lies on bearings on two sides. Oil pump is activated with one side of the crank and automatic lubrication is maintained with the lubrication pump. Sufficient lubrication is checked by visual inspection through the inspection cap placed on the side and by oil pressure indicator. A pulley is placed on the other side of the crank and it obtains its movement from the electric motor driving the belts.

A safety valve, to protect the compressor from pressure increases, which might occur on the output (compression) end, is in-stalled.

Suction and compression heads are joined with a four-way valve to interchange the suction and compression directions.

- Piston Diameter: 101 mm.
- Piston Stroke Length: 76 mm.
- Max. Transfer Capacity: 57,5 m3/hour
- Max. Operating Pressure: 24 kg./cm2
- Motor Power: 11 Kw.
- Max. Compression Power of Piston Arm: 1.760 kg.
- Max. Operating Temperature: 75 Co
- Empty Weight: 412 Kg.
- Transfer Capacity: 770 Lt. /Minute
- Pressure Dif- Ference: 1~2 Kg./cm2



### **LPG Transfer**

#### LPG Pumps



Part Number	Transfer Capacity	Pressure (bar)	Motor (kw)
PSC 3006	3.8 m <sup>3</sup>	8 bar	4 kw
PSC 3008	4 m <sup>3</sup>	10 bar	5,5 kw
PSC 4006	7 m <sup>3</sup>	8 bar	7,5 kw
PSC 4008	7,5 m <sup>3</sup>	10 bar	11 kw
PSC 4008	9 m <sup>3</sup>	8 bar	7,5 kw
PSC 5006	14 m <sup>3</sup>	10 bar	15 kw
PSC 5008	13 m <sup>3</sup>	14 bar	18,5 kw
PSC 6006	20 m <sup>3</sup>	12 bar	30 kw
PSC 6008	28 m <sup>3</sup>	10 bar	30 kw
LPG 250-8	28 m <sup>3</sup>	10 bar	30 kw

LPG Sliding Vane Pump



**P**SC model pumps are horizontal and self-priming, side channel with a NPSH inducer stage suitable for handling liquids which do not contain solid or abrasive matter. The NPSH inducer stage allows the pump to operate on the suction side under unfavourable conditions and at positive suction heads lower than 0.5m.

The range comprises of six sizes each with 1 to 8 hydraulic stages whereby an optimum rating is obtained, ensuring the pump selected meets the required capacity and head.

The pumps of the PSC/LS series have a retaining stage to avoid the dry running by controlling the liquid level in the pump. This design is especially developed for the handling of liquids under vapour pressure or when pumping from underground tanks.

#### **Features**

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The range comprises of 6 sizes each with1 to 8 hydraulic stages whereby an optiomum rating is obtained, ensuring the pump selected meets the required capacity and head

- Application variety with 48 different casing size
- Self-priming is up to 740 mbar
- Low NPSHr
- Liquefied gas handling
- Modular hydraulic design allows eacy maintenance
- High resistance materials for the critical conditions

 The pump design is suitable for every type of seal (packing gland, single mechanical seal, double mechanical seal)

High pressure at low capacity

• Can be apply many different material options (cast iron, ductile iron and stainless steel)

Truck pumps for mobile applications are suitable for LPG. The pump is securely mounted on a steel frame fixed to the truck's chassis and piped from the internal valve on the truck's tank.

#### **Features**

 Mechanical seal features a silicon carbide seal seat that lowers leakage rates, minimizes maintenance, and extends the durability and run times of the pump

 High flow inlet and a direct flow outlet minimizes cavitation while pumping at low tank levels

Low-impact, high strength vane driver along with a new vane design extend pump life

Precision machined sideplates are reversible and offer twice the service life

Innovative needle roller thrust bearing design controls heavy thrust loads

#### **Specifications**

Inlet: 2 in. Female NPT Outlet: 2 in. Female NPT Flow-Rate: 41 - 76 GPM (155 - 287 LPM) at 100 psid (6.9 bar)



LPG is a flammable and explosive gas.

For this reason, necessary precautions should always be taken in LPG Filling Facilities. Fire equipment appropriate to the standards should be used.

Fire Pumps: It is selected according to the size of the facility.

Fire Cabinets: The fire hose is intervened by the fire hose inside.

Water Monitors: Provides remote inter vention to the fire.

# **Fire Fighting System**

#### 1200 Liters/min. Water Monitor

#### Asm 1200



Inpu Pressure (bar)	Normal Flow (lt./min.)	Max Shooting Distance (M)
5	800	25
8	1000	40
10	1200	50

#### 1200 Liters/min. Water And Foam Monitor



This is used as a fire extinguishing equipment and ensures easy direction of water and foam to the desired area from a distance. Barrelof the water monitor is replaced to shot foam. Foam rate is adjustable with a ball valve.

• It is used as a fire extinguishing equipment and allows the water to be easily directed to the desired area from a distance.

The monitor offers 1200 lt/min at 10 Kg/cm2 pressure. It is capacitive and it moves 360 degree hor and +90 o, -80 o vertical.

• The barrel is designed to dispense water. The barrel can be changed and replaced with foam.

The barrel material is made of light-metal alloy corrosion-resistant aluminum.

• Su Monitor body joints are bedded with bearings. The surfaces of the sealing felts are covered with hard chrome. NBR nutring and o-ring are used as the sealing element.

• It is controlled by the valve connected to the monitor input. The movement of the monitor is provided manually. Position lock is available.

#### **Technical Properties**

- Max. Working Pressure: 16 Bar
- Min. Working Pressure: 5 Bar
- Test Pressure: 24 Bar
- Inside Diameter of Water Way: 60 mm
- Max. Flow: 1200 lt/min. (under 10 bar pressure)
- Connection Flange: DN65 ND 16
- Output Connection: 2 1/2" Male Threaded
- Horizontal Movement: 3600
- Vertical Movement: +900 800
- Weight: 34 Kg

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- Vertical Movement: +900 800
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Inpu Pressure (bar)	Normal Flow (lt./min.)	Max Shooting Distance (M)
5	800	35
8	1000	50
10	1200	60

#### 2700 Liters/min. Water and Foam Monitor







- Monitor has a capacity of 2700 liters/min. at 7 kg/cm pressure and rotates 360 degrees horizontally and 65 degrees vertically.
- Monitor has two barrels to shoot foam and water.
- Barrel is made from corrosion resistant aluminum-light metal alloy.
- Monitor body is made from bronze.

• Valves are 3" butterfly valves and both can be monitored simultaneously with a single arm.

Monitor is inter transformable from foam to water and from water to foam without turning off water jet action and is manually operated.

Pressure gauge with (0-16 kg/cm ) range is installed at the body outlet.

Body adjustment valve is 1 1/2" ball valve, foam-water proportioning valve can maintain 1-7% proportioning.

- Monitor's water foam valves are operated with the same arm.
- Up-down and horizontal movements are achieved with the help of bronze gears working with manual gear disks.
- Monitor's inlet collector 4"
- Body of 4"inlet collectors are made from aluminum, check valves can be dismantled for replacement.
- Body wall thickness is 8-10 mm.
- Monitor body weight is 150 kg.

#### **Technical Properties**

Max. Working Pressure: 16 Bar Min. Working Pressure: 5 Bar Test Pressure: 24 Bar Inside Diameter of Water Way: 60 mm Max. Flow: 1200 lt/min. (under 10 bar pressure) Connection Flange: DN65 ND 16 Output Connection: 2 1/2" Male Threaded Horizontal Movement: 3600 Vertical Movement: +900 - 800 Weight: 34 Kg

Input Pressure	Normal Flow (lt./min.)	Max. Water Shooting Range (M)	Max. Foam Shoting Range (M)
5	2300	45	55
7	2700	60	65
10	3000	85	73

# **Fire Fighting System**

#### **Fire Fighting Water Pumps**



- Water Pumps Sizes are selected to suit the size of the filling building and the number of tanks and driven electric or diesel engine.
- All interior bolt and screw exposed to pumped liquid shall be made of rolled bronze or corrosion resistant material.
- The pump shall be provided with automatic air-release valve, circulation relief valve and pressure gauges.
- Bearings shall have an L-10 rating of not less than 5000 hours at maximum load.
- The pumps shall be provided with at least four packing rings plus a lantern ring. The lantern ring may be permitted to replace one ring of packing.
- Impellers, wear rings, shafts, lantern rings, glands shall be made of corrosion resistant material.

- **Capacity:** 200-250-300-400-450-500 GPM
- Head: up to 150 PSI
- Speed: up to 3000 rpm
- Casing Pressure (Pmax): 16 bar

Part	Definition	DIN 17007	EN-DIN	ASTM
Casing	Ductile Iron	0.7040	GGG 40 (GJS-400-15)	A536 Gr. 60-40-18
Impeller	Cast Bronze	2.1050.01	G-CuSn 10	B584 C90700
Shaft	Stinless Stell	1.4021	X20 Cr13	A276 Type420
Shaft Sleeve	Stinless Stell	1.4401	X5 Cr Ni Mo 17-12-2	A276 Type316

**ATILIM** MAKİNE

#### Water Spring

#### Aws 1000



Aws 2000

It is made of brass material. It allows water to spread in the shape of an umbrella. At an 8 bar pressure, it generates 15 liters per minute.



#### **Fire Hose Cabinets**



It is made of brass material. It allows water to spread in the shape of an umbrella. At an 8 bar pressure, it generates 15 liters per minute.

• Fire fighting hose: 2" (size 85 – 52mm) originaly imported, rubber inside, circular woven synthetic yarn outside red colored, endures 50 bar pressure, in rolls of 20m.

- Hose nozzle: Size 85 (52mm) German type, aluminum injection
- Monitored nozzle: Size 85 (52mm) German type, aluminum injection, on-off, jet-spraying.

**2**" (size 85): Brass valve and German type aluminum injection bushing

• Outdoor fire cabinet: 70x70x20cm dimensions, 1,5 mm sheet thickness, outdoor type, with roof, with legs, includes reel for 1 unit 2" fire fighting hose, complete and ready to install



