



A large industrial machine with a blue frame and yellow rollers is processing a large, horizontal metal cylinder. In the background, there are stacks of smaller metal cylinders in a warehouse setting.

SURFACE
PREPARATION
SPECIALIST

LPG –CNG
Cylinders



CYM MATERIALES S.A.
Industrial Solutions

Company

Since 1960, Cym Materiales SA has provided services to the metallurgical industry. We are manufacturing centrifugal blast wheel shot blasting machines as well as air shot blasting equipment to cater to surface cleaning or peening applications. Besides offering standard equipment from their stable, Cym also offers customized designs wherever required so as to cater to unique operating needs for maximal customer satisfaction.

Cym Materiales SA offers a full line of Surface Preparation Systems and Industrial dust collectors.

- Blast Cleaning Machine
 - Wheel Blast
 - Air Blast - Sand Blasting.
- Shot Peening and Stress Peening machine
- Spare parts
- Industrial Dust collectors
 - Cartridges
 - Wet Scrubbers
 - Machining Mist Collectors
 - Cyclone
- Abrasives:
 - Steel Shot & Grit.
 - Cut Wire.
 - Stainless Steel
 - Glass Bead.
 - Aluminum Oxide.
 - Garnet



ISO9001-2015 Certification

Since 2006 our manufacturing standards are endorsed by standardized quality and control methods through the ISO9001-2015 standard.

All this accompanied by personalized attention that allows us to respond to the specific needs of each client.



CYM MATERIALES S.A.
Soluciones Industriales



GLP and GNC Cylinder Shot Blasting Machine

Cym Materiales SA presents GAR its complete line of continuous shot blasting machine for new or used LPG and CNG cylinders, removing liquid or powder paints, rust, scale and other contaminants, leaving the surfaces ready to apply all type of coating.

GAR machine meets the highest demands of work being the same robust, reliable and compact and thanks to an exclusive design and applied know-how, ensure high productivity at a low cost operating and investment working with a non-polluting process of the environment

Depending on the production process of each client, our machines can be complemented with a series of additional equipment that favors the automation and optimization of the same by attaching external horizontal or vertical passage conveyors with automatic loading and unloading systems and dosing of cylinder entry into the machine

Advantages in the use of Cym Shot Blasting Machines

- High production volume, with minimal operating cost.
- Enhanced finish consistency of processed parts.
- Automatic shot blasting process which does not require skilled labor
- With proper equipment operation, there are no health problems for the staff, or damage to the facilities and not pollute the environment

Features Construction



Blast Cabinet

- External structure with robust and compact design made of SAE1010 steel.
- Internal lining made of high chrome cast steel ($\geq 64\text{Rc}$) and MN Steel (11-14)
- Screw conveyor - Spiral 15b30 boron-steel
- Access door blast cabinet
- Inlet and outlet chambers with sealing curtains to minimize abrasive escape from the blast compartment

External Chain Conveyor

- For continuous loading cylinders



Internal Cylinder Conveyor

- Internal RI and RD conveyors with simultaneous advance and rotation system exposing the entire surface of the cylinders to shot blasting
 - RI- Non-parallel rollers, with low maintenance cost.
 - RD – Diablo rollers, recommended for use on machines with high cylinder production
- Rollers made of high chrome cast steel ($\geq 64\text{Rc}$)
- Variable cylinder advance speed for the different sizes and blasting qualities required



Blast Wheel Unit

- Located strategically with a correct distribution of shot on the cylinders to be treated resulting in a better coverage and better performance of the machine
- Direct Drive from 10 HP up to 60 HP
- Housing manufacture in MN (11-14%) steel Forming together with the internal liners and double resistant wear wall
- High chrome steel Internal liners ($\geq 64\text{Rc}$). Liners attached by screw with hardened cast steel head cover for abrasion protection
- Positioning and fixing system for control cage, eliminates the risk of incorrect adjustment of the hot spot.
- Labyrinth seal of abrasive between engine coupling and housing with possibility to mount the turbines in any position



Abrasive Recovery System

- Bucket elevator
 - Cast bucket – SAE 1035 steel
- High efficiency Air flow abrasive cleaning
- Upper Screw - Spiral 15b30 boron-steel
- Storage hopper for good abrasive
- Maintenance platform
- Pneumatic Valves flow
- Optional
 - Automatic Abrasive Regeneration



Dust Collector

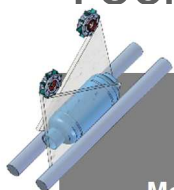
- Steel construction: 3.2 mm thick
- Cartridge media cleaning: reverse Pulse jet
- Easy replacement of cartridges
- Efficiency ≥ 0.5 micron / 99.9%
- Emission < 1 mg/m³
- 200L dust accumulation drum with lid transition to drum with sleeve filter
- Intermediate gravitational separator located between blast cabinet and dust collector allows for increasing the air flow inside the cabinet without risk of carrying good abrasive to the dust collector drum
- Optional
 - Silencer and Mineral wool cover kit to reduce noise ≤ 85 dBA a 1.52m
 - Maintenance platform



Electric Component

- Control panel for operation control
- Components and motors: according to customer requirement IEC, Nema, UL, etc.
- PLC control: Siemens
- Emergency stop button: included
- Wire cables to connect control panel and motors
- Optional
 - Movement sensor motors
 - Cooling
 - Soft Start motors
 - Ewon communication for remote control

Technical Data –Cylinder Shot Blasting Machine - GAR



Model	Blast Wheel	Roller Conveyor	Maximum cylinder diameter (mm)	Total HP Machine		Average production of LPG cylinders Ø 12" (304 mm) x 20.5" (520.70 mm) (*)		
				HP	Kw/hour	New Cylinders	Liquid Paint	Powder Paint (**)
GAR 100 RI	2 x 10 HP	Non Parallel	400	31	23.2	100 a 130	75 a 100	35 a 45
GAR 150 RI	2 x 15 HP			41	30.7	140 a 180	110 a 150	52 a 67
GAR 200 RI	2 x 20 HP			51	38.2	200 a 260	150 a 200	70 a 90
GAR 300 RI	2 x 30 HP			75.5	56.6	285 a 390	220 a 300	100 a 135
GAR 500 RI	2 x 50 HP			140	105	450 a 650	350 a 500	170 a 225
GAR 600 RD	2 x 60 HP	Diablo		160	120	520 a 800	400 a 600	200 a 270

Note

(*) The production of the equipment varies according to the amount of scale, paints, oxides and degree of completion desired in shot blasting The blasting time increases if the heads and bases of the carafes are ery closed and the shot may not flow smoothly into those areas

(**) The productions for the cylinders with powder paint are given for maximum paint thicknesses of the order of 70 microns

(***)If the equipment you require is not in this catalog please contact our sales or engineering departments which will help to develop the best equipment to suit your needs with our goal to reduce operating costs and increase profitability in your production systems

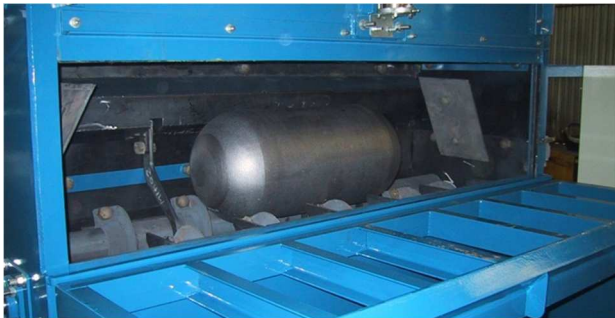


Alternative Shot Blasting Equipment



Batch Shot Blasting Machine

- Recommended for processing low productions of LPG, CNG, fire extinguishers and air gases cylinders.
- **ECO** with parallel rollers to process cylinders in horizontal position. It allows to process the whole range of cylinders being more focused on oxygen and CNG tubes
- **CAB** and **SAT** Cylinders are processed in a vertical position hanging on devices on hooks. Depending on the size of the cylinder to be shot, one or more can be loaded simultaneously.



Continuous Hook Blasting Machine

- Two lines of continuous hook conveyor
 - **TUN** for shot blasting small and medium size cylinders
 - **EST** equipped with 8 or 12 turbines allows to process small, medium and large cylinders size.
- They can work autonomously or be coupled to the same hook conveyor that occupies the paint line, thus avoiding cylinder manipulation between both processes.



Blastroom

- Flexible blasting process allows to process all kinds of pieces that, due to their size or complexity, cannot be processed in automatic shot blasting machines
- One or more operators are inside the blastroom during the blasting process using pressure blast pot to project the abrasive.
- A protective suit and a helmet protect the operator from abrasive impact,
- In combination with nozzle manipulators installed in the blastroom, surfaces can be automatically processed





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