

The background of the top half of the image is a photograph of industrial machinery, likely a conveyor system or a material handling unit, featuring various metal frames, pipes, and structural components. The image is partially obscured by a semi-transparent grey overlay on the right side where the text is located.

SURFACE
PREPARATION
SPECIALIST

Plates, Pipes,
Profiles and
Steel Construction



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
 - Cyclon
- 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.



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Shot Blasting Machine for Profiles and Steel Construction

Cym Materiales SA manufactures continuous flow equipment for shot blasting welded structural shapes, profiles, bars, plates, steel strips and pipes according to the needs of each customer.

The abrasive is propelled by centrifugal turbines. The number of turbines for each machine depends on the size of the parts to be blasted or the speed required.

In the **PER** and **CH** equipment lines, the blast wheels are located at 90degrees from the parts pass-line, while in the **PER-I** and **EST** line, they are located at different abrasive projection angles.

The conveyors may be a parallel roller bed or an overhead rail conveyor that introduces the parts into the chamber continuously. The machine may be equipped with in-line painting to avoid costly secondary handling of the parts.

Advantages of Wheel Blast Machines

- Higher production volume, minimizing operating cost.
- Enhanced finish consistency of processed pieces.
- 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.
- They do not pollute the environment

Features Construction



Blast Cabinet

- Manufactured with triple layer of steel
 - SAE1010 steel external structure
 - Double internal lining
 - MN steel (11-14%) covering 100% of the main cabinet
 - Additional reinforcement in hot areas with high chrome cast steel plates ($\geq 64\text{Rc}$)
- 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



Work Conveyor

- Two options
 - Parallel roller conveyor
 - Continuous monorails hook conveyor allows to process parts in line with painting processes
- Conveyor length as required
- Variable speed of advance of pieces for different qualities of cleaning
- Screw conveyor return of shot to the equipment
- Transfer and feeding equipment for loading and unloading parts



Blast Wheel

- Located strategically with a correct distribution of shot on the rod to be treated resulting in a better coverage and better performance of the machine
- Drive from 10 HP up to 100 HP
- Direct drive
- 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

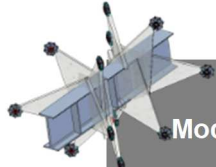
- Steel construction: 3.2 mm thick
- Cartridge media cleaning: reverse Pulse jet
- Easy replacement of cartridges
- Efficiency ≥ 0.5 micron / 99.9%
- Emission < 1 mg/m³
- 200L dust accumulation drum with lid transition to drum with sleeve filter
- Intermediate gravitational separator located between 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

Technical Data - Steel Construction Shotblasting System - EST



 Model	Blast Wheel		Section mm (*)		Material				WorkingSpeed Mts. / min (**)
	Qty.	Hp	Width	High	Profile	Struct ures	Plates	Pipes Spool	
EST 6 x 15	8	10/15 20/30	800	1500	X	X	X	X	0.4 a 6
EST 15 X 10			1600	1200					0.3 a 5
EST 15 X 15			1600	1700					0.3 a 4
EST 15 X 20	12		1600	2000					0.4 a 5
EST 15 x 30	12-16		1600	3000					0.3 a 4.5
EST 25 X 15			2500	1500					0.4 a 6
EST 25 X 25			2500	2500					0.3 a 5
EST 35 X 17			3500	1700					0.3 a 5

Note:

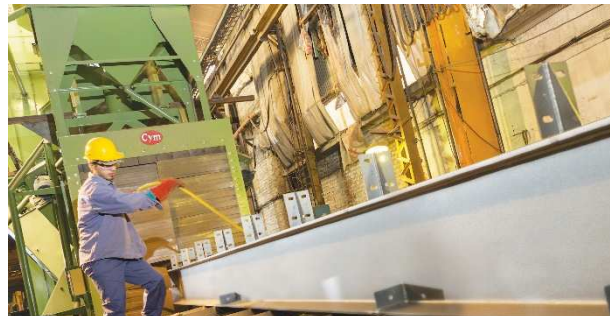
(*)The maximum parts pass size section and the production speed can be adapted to the customer precise requirement.

(**)The production can vary depending the degree of rust, mill scale, and or other contaminants present

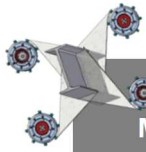
(***)If the equipment you require is not in this catalog please contact our sales or engineering departments which will help to develop the best equipment to suit your needs with our goal to reduce operating costs and increase profitability in your production systems.

Relevant Features

- They process all types of welded structures, spools and raw materials (plates, angle profiles, L, H, etc. and tubes), with high production volume and minimum operating cost.
- Equipped with 8, 12 or 16 turbines, blasting the pieces at multiple angles of impact achieve a correct cleaning homogeneity in the processed parts
- Using Continuous monorails hook conveyor to process parts in suspended load allow to work in line with painting processes



Technical Data - Steel Construction Shotblasting System – PER I



Model	Blast Wheel		Section mm (*)		Material				Working Speed Mts. / min (**)
	Qty.	Hp	Width	High	Profile	Structures	Plates	Pipes Spool	
PER 4X4 I	4	10/15 20/30	400	400	X	X	X	X	0.4 a 5
PER 6X6 I			800	700					0.3 a 3.5
PER 6X15 I			800	1500					0.3 a 4
PER 9X9 I			1100	1050					0.2 a 3
PER 12X12 I			1300	1400					0.2 a 3
PER 15X10 I			1600	1200					0.2 a 3
PER 15X15 I			1600	1700					0.2 a 2.7
PER 20X5 I			2000	500					0.2 a 2.5

Note:

(*)The maximum parts pass size section and the production speed can be adapted to the customer precise requirement.

(**)The production can vary depending the degree of rust, mill scale, and or other contaminants present

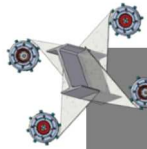
(***)If the equipment you require is not in this catalog please contact our sales or engineering departments which will help to develop the best equipment to suit your needs with our goal to reduce operating costs and increase profitability in your production systems.

Relevant Features

- Equipped with 4 inclined turbines with respect to the passage of parts, they can process both simple welded structures, spools and raw materials (plates, angle profiles, L, H, etc. and tubes) with a high production volume and minimum cost
- Complex welded structures can be processed by passing twice through the equipment so that they are properly shot blasting
- Using Continuous monorails hook conveyor to process parts in suspended load allow to work in line with painting processes



Technical Data – Profile and Pipes Shotblasting System – PER R



Model	Blast Wheel		Section mm (*)		Material				Working Speed Mts. / min (**)
	Qty.	Hp	Width	High	Profile	Struct ures	Plates	Pipes Spool	
PER 4X4	4	10/15 20/30	400	400	X	-	X	X	0.4 a 5
PER 6X6			800	700					0.3 a 3.5
PER 9X9			1100	1050					0.3 a 4.5
PER 15X10			1600	1200					0.2 a 3

Note:

(*)The maximum parts pass size section and the production speed can be adapted to the customer precise requirement.

(**)The production can vary depending the degree of rust, mill scale, and or other contaminants present

(***)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.

Relevant Features

- Equipped with 4 turbines and located at 90 ° with respect to the passage of recommended parts to process raw materials (angle profiles, L, H, etc. and tubes) with high production volume and minimum operating cost
- Enhanced finish consistency of processed pieces.
- 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



Alternative Shot Blasting and Painting Machines



Preservation Lines

- Complete blasting and painting lines at speeds of 1 to 8 m / minute
 - Horizontal passage (CH-H) for raw materials, plates and H profiles and pipes
 - Vertical passage (CH-V) for plates
- Shot blasting machines are complemented by paint booths and in-line drying ovens for shop primer applications, thus avoiding unnecessary manipulation of parts with high productivity and low operating cost



Paint Booth for Welded Structures

- The continuous flow combined shot blasting, painting and drying facilities are an ideal solution for the treatment of all types of welded structures
- The continuous flow line, developed for processes that require high production, process flexibility and diversity of parts, allows to apply coatings on elements of different shapes, weight and sizes.
- Significantly reduces the area occupied in the paint line, minimizes downtime, ensures quality in the treatment of parts and works with a minimum operating cost.



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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Industrial Solutions

Argentina

Brig. Estanislao Lopez N° 6
[S2108AIB] Soldini – Santa Fé – Argentina

☎ +54 341 490 1100

☎ +54 9 341 515-0249

✉ info@cym.com.ar

www.cym.com.ar

Brasil

Rua Mário Junqueira da Silva nº 684 – Jd Eulina
[CEP.13063-000] Campinas – SP – Brasil

☎ +55 19 3242-9777

☎ +55 19 98144-2277

✉ metalcym@metalcym.com.br

www.metalcym.com.br