



SURFACE PREPARATION

TUMBLE BELT



CYM MATERIALES S.A.
INDUSTRIAL SOLUTIONS

TUMBLE BELT SHOT BLASTING MACHINE

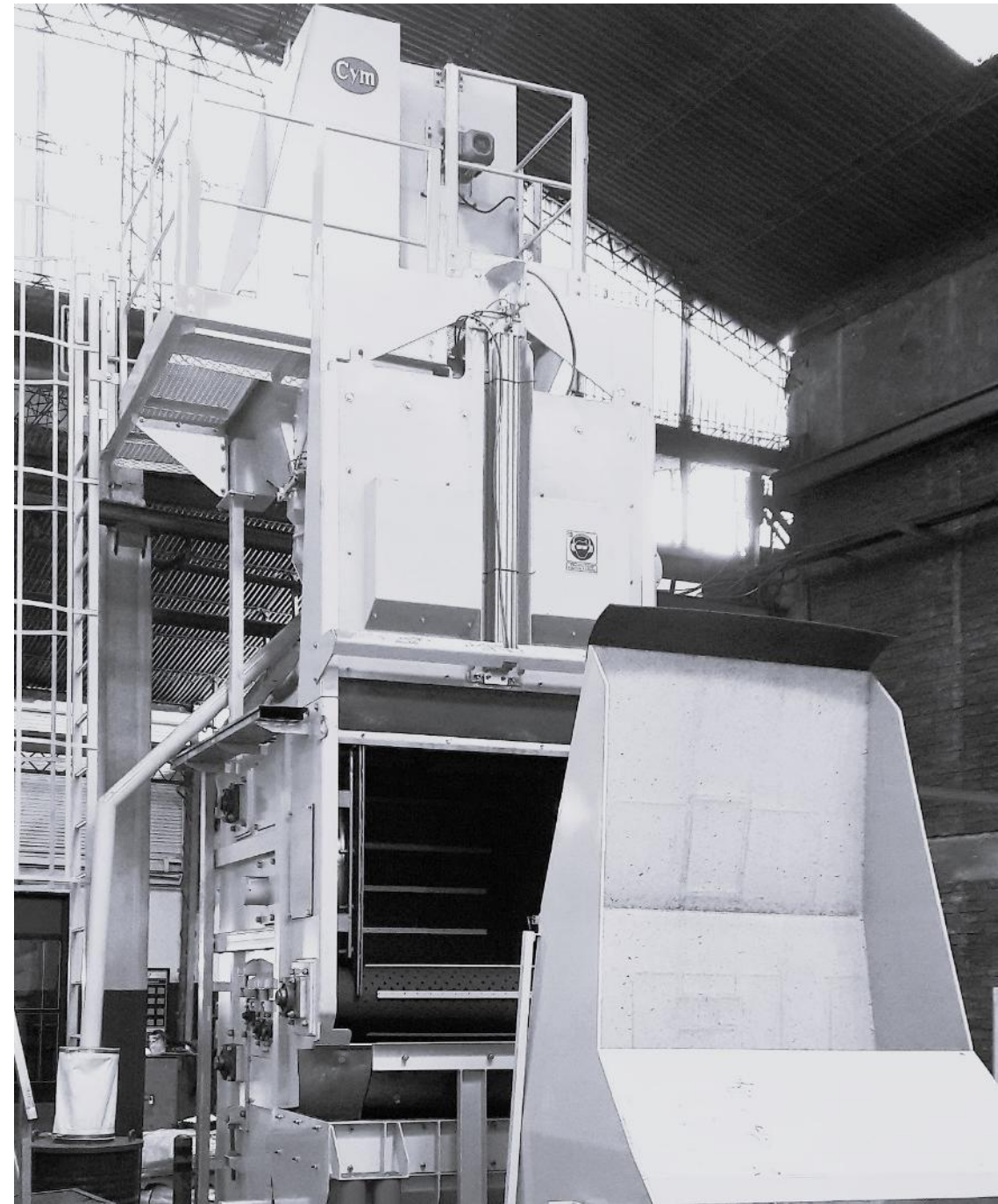
Tumble belt shot blasting machines are the most universal among all shotblasters as their design makes them suitable for processing parts of different sizes in bulk loads.

CYM Materiales SA manufactures two groups of tumble belt machines. The blasting units belonging to the first group are rather small with one turbine and a shot capacity range of 20 to 60 liters while the second group has two turbines and a shot capacity from 130 to 900 liters.

In addition, for its optimal use and utilization, we provide customized solutions that include automatic part loading and unloading systems, rubber or steel belts, maintenance platforms, magnetic sand separator, self-cleaning rotary sieve, etc.

Tumble belt shot blasting machines are very easy to operate. Once the door is closed the blasting cycle initiates. The wheels and the belt start spinning producing a continuous rotation of the parts thereby ensuring that all components are exposed to the shot blasting stream for consistent cleaning.

When the blasting process finishes, the machine stops automatically allowing the unloading of the parts to take place. Then, the operator moves the belt in the reverse direction to prepare the machine for a new load.



FEATURES CONSTRUCTION

BLAST CABINET

- External structure with robust and compact design made of SAE1010 steel.
- Cast steel Liner plates ($\geq 64Rc$) and manganese steel plates to protect cabinet.
- Loading / unloading door for parts with manual or pneumatic opening according to model.
- Screw conveyor - Spiral 15b30 boron-steel.
- Wide easily accessible rear door for internal maintenance of the cabinet and bottom of the bucket elevator.



BELT CONVEYOR

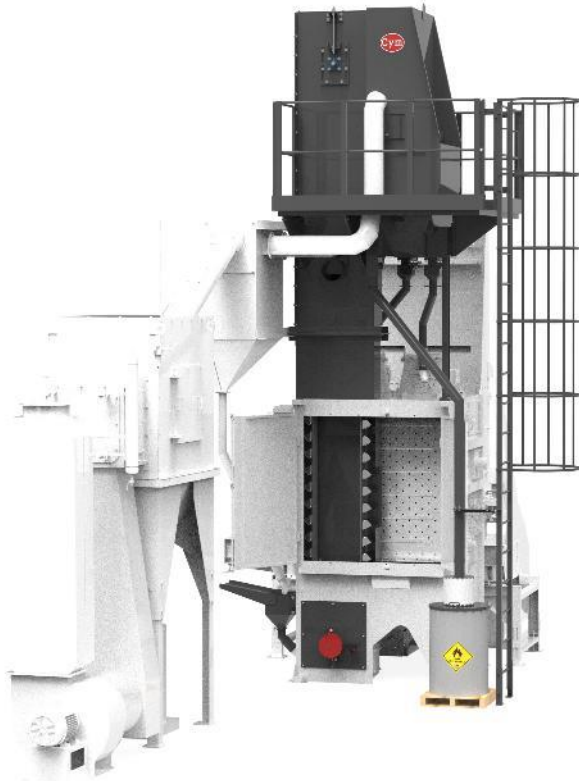
- Two options of high resistance to wear belt
- LT-G - Rubber belt
 - LT-M - Steel belt

LOADING & UNLOADING

- Hydraulic parts loader
- Vibratory or belt conveyor for parts unloading

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.
- Direct Drive from 4 HP up to 50 HP
- Housing manufacture in MN (11-14%) steel forming together with the internal liners and double resistant wear wall
- High chrome steel Internal liners ($\geq 64Rc$). 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
- High efficiency Air flow abrasive cleaning
- Upper Screw - Spiral 15b30 boron-steel
- Storage hopper for good abrasive
- Maintenance platform
- Abrasive flow control valves
- Optional
 - Automatic Abrasive Regeneration
 - Automatic abrasive curtain formation adjustment system including sensors and airflow monitoring, all controlled from the HMI
 - Self-cleaning rotary sieve, automatically removes large particles that the shot mixture may bring.
 - Magnetic sand separator.

DUST COLLECTOR

- Manufactured with mild steel – 3,2 mm thick
- Cartridge media cleaning: reverse Pulse jet
- Easy replacement of cartridges
- Emission: $\leq 1 \text{ mg/m}^3$
- Efficiency $\geq 0.5 \text{ micron} / 99.9\%$
- 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 $\leq 85\text{dBA}$ 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 - TUMBLE BELT SHOT BLASTING MACHINE - LT 1TR

Model	Turbine			Belt		Maximum load capacity					Production Kgs./ hora (**)			
	Qty	Motor		G	M	Liter (*)	Total (kg)		Unit (kg)		Product density (kg / m3)			
		HP	Kw				G	A	G	A	800	1000	1500	2000
LT 20	1	4	3	X	-	20	60	-	10	-	65	80	120	160
							95	120	180	240				
LT 40	1	5.5	4.12	X	-	40	90	-	10	-	128	160	240	320
							92	240	360	480				
LT 60	1	10	7.5	X	-	60	150	-	15	-	192	240	360	480
							290	360	540	720				

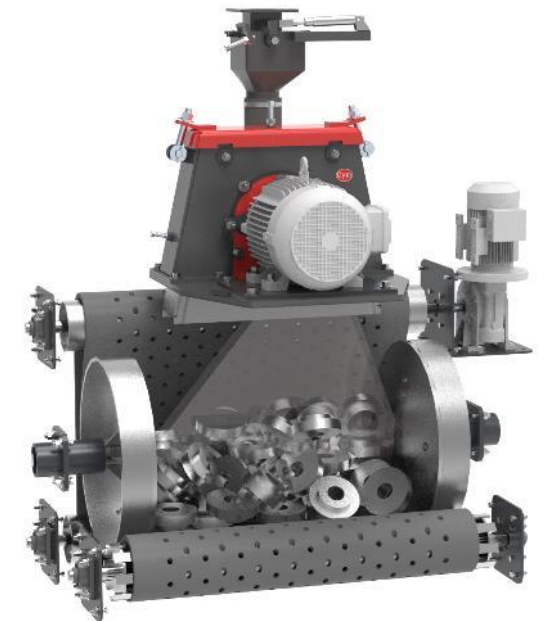
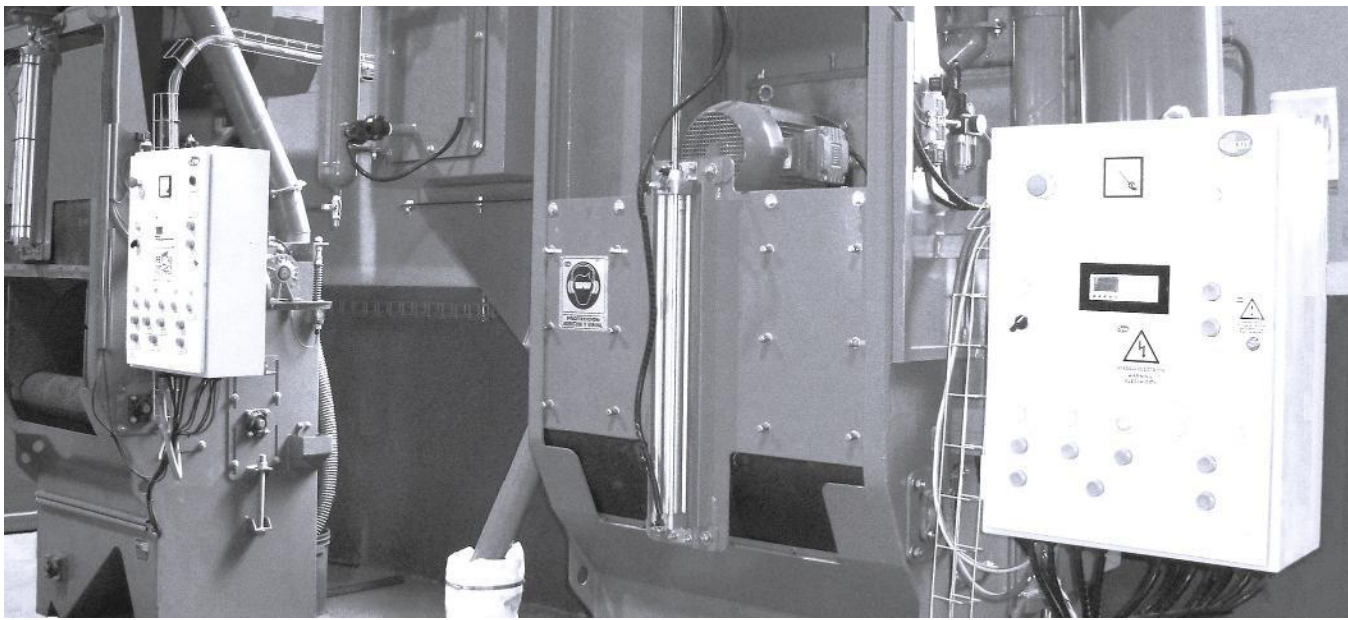
Note: R: Rubber // S: Steel

(*) The value of liters of payload is averaged, varying according to the type of parts to be shot.

(**) The production calculations (kgs / hs) are estimated according to and vary according to the density of the pieces to be shot (kgs / m3). The referenced values can also vary depending on the amount of scale, paint, sand, oxides, and degree of completion that you want to achieve in the blasting process.

MAIN USES AND APPLICATIONS OF TUMBLE BELT SHOT BLASTING MACHINES

- Surface preparation for paint, metal, rubber, etc.
- Pickling of forgings or parts heat treated
- Blasting Sanding of castings in ferrous and non-ferrous metals.
- Deburring of metallic and non-metallic parts.
- Elimination of oxides and scale
- Shot Peening



TECHNICAL DATA - TUMBLE BELT SHOT BLASTING MACHINE - LT 2TR

Model	Turbine		Belt		Maximum load capacity				Production Kgs./ hour (**)					
	Qty	Motor		G	M	Liter (*)	Total (kg)		Unit (kg)		Product density (kg / m3)			
		HP	Kw				G	A	G	A	800	1000	1500	2000
LT 130	2	10	7.5	X	X	130	250	500	20	60	415	510	780	1040
											625	780	1170	1560
LT 240	2	20	15	X	X	240	1000	1500	50	200	750	960	1440	1920
											960	1200	1800	2400
LT 450	2	30	22.5	X	X	450	1000	1500	50	200	1400	1750	2600	3500
											2160	2700	4050	5400
LT 600	2	30	22.5	X	X	600	1000	1500	50	200	1400	1750	2600	3500
											2160	2700	4050	5400

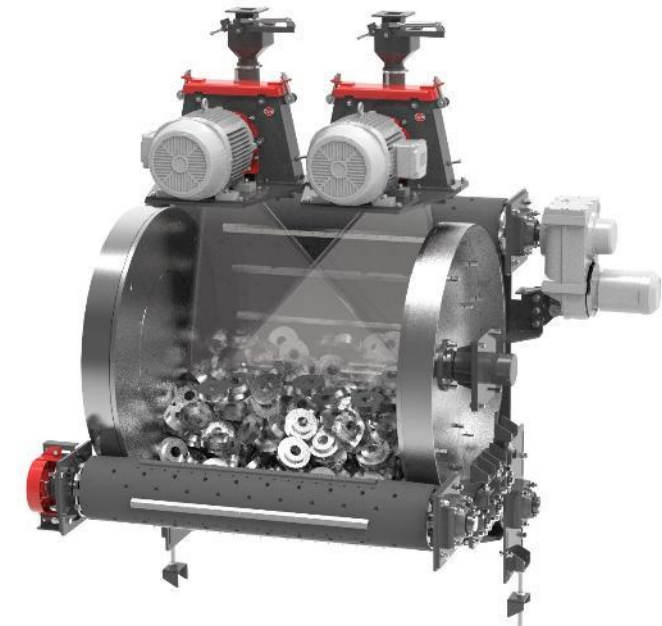
Note: R: Rubber // S: Steel

(*) The value of liters of payload is averaged, varying according to the type of parts to be shot.

(**) The production calculations (kgs / hs) are estimated according to and vary according to the density of the pieces to be shot (kgs / m3). The referenced values can also vary depending on the amount of scale, paint, sand, oxides, and degree of completion that you want to achieve in the blasting process.

ADVANTAGES OF THE USE OF 2-TURBINE TUMBLE BELT MACHINES

- Blasting time reduced between 40% and 50% with similar installed power.
- Maintenance costs reduced by better exploitation of the equipment.
- Amount of blast consumption reduced by finished part.
- Electric consumption reduced by blasted part.
- Working costs reduced.
- More consistent quality of the parts.



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INDUSTRIAL SOLUTIONS



FACTORY AND HEADQUARTERS



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