



## CYM BLAST WHEEL UNITS

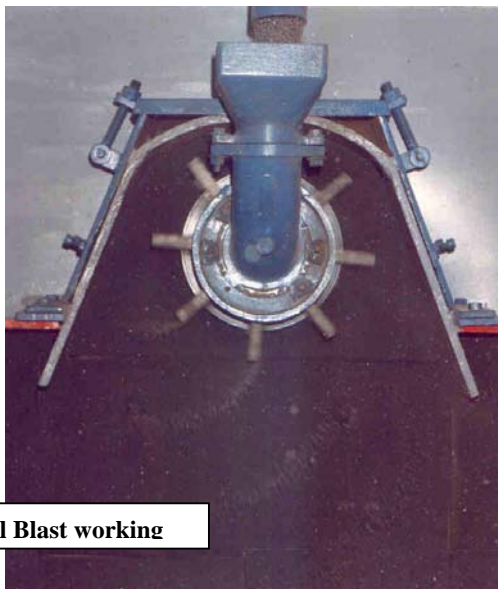
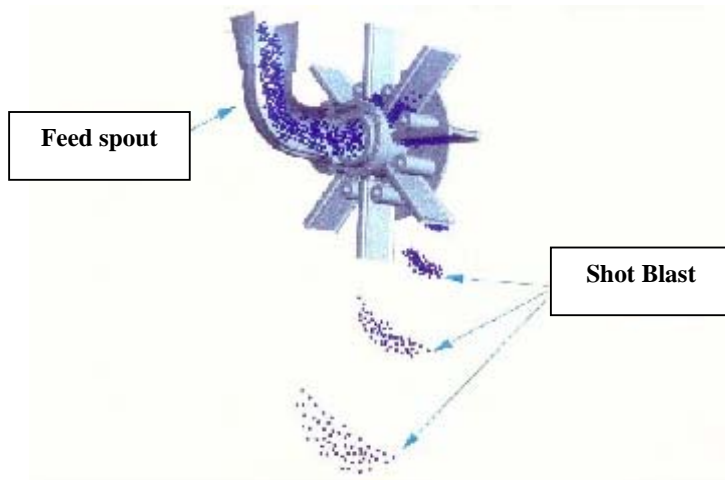
Blast wheel shot blasting is the most economical method among the current cleaning techniques, as well as the one that minimizes environmental impact. The shot blasting principle is based on the use of kinetic energy from the abrasive used when it impacts the surface of the piece, removing impurities. The performance of the equipment depends on the **quality, quantity, speed and direction of the shot**; these last three factors depend entirely on the correct operation of the blast wheels.

The wheel is the heart of the machine, and has decisive influence on the effectiveness of the work performed, the appearance of the blasted surface, the production costs and thus the profitability of the process.

### Operation Principle

The operation of blast wheels is similar to that of a fan or a centrifuge pump. The wheels throw the abrasive through centrifugal force in a determined direction, speed and amount.

The abrasive enters the wheel through the down comer elbow or feeding bushing, from the storage hopper. The impeller provides an initial acceleration of the shot, pushing it through the opening of the control cage. Then the shot continues toward the vanes or blades. The shot is thrown by the latter, through centrifugal force, until it reaches the pieces to be treated.



Shot blasting machines can use multiple wheels located in such a way that they allow the abrasive to cover the whole surface of the items to be shot blasted. The number of wheels mounted on a machine is determined by the shape and size if the items to be cleaned. The shot blasting power installed is usually what is required to achieve the desired surface finish in one process at an adequate speed.

It is necessary to perform periodical adjustment to the wheels, which should not exceed 50 service hours. If the wheel is scheduled for intensive service, it is convenient to have a spare complete unit, in order to minimize system downtime.

CYM MATERIALES S. A.

Brigadier Estanislao Lopez N°6 (C.P.S2108AIB) Soldini - Santa Fe - República Argentina  
Phone: (54-341) 490-1100 / Fax: (54-341) 490-1366 / www.cym.com.ar / E-mail: infocym@cym.com.ar



- BLAST MACHINE
- MAQUINAS GRANALLADORAS
- EQUIPAMENTO DE JATEAMENTO



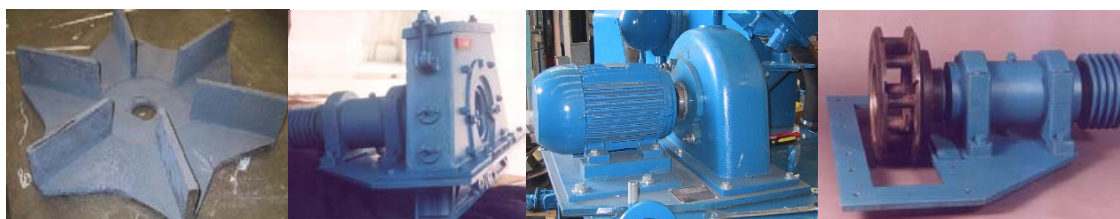
### Wheel blast Models

Cym Materiales has a wide range of wheel models available, which can be tailored to each customer's specific needs. The different wheel models are the following:



- Seven Wheel models of 166, 250, 300, 360, 380, 500 y 600 mm diameter
- Wheel operation with a power ranging from 4 HP to 150 HP.
- Shot flows between 40 kgs to 1500 kgs of abrasive per minute.
- Shot velocities ranging from 50 meters/second to more than 110 meters/second
- Three different blade widths: thin, standard and wide
- Control cages with 20°, 30°, 40°, 50° and 60° shot openings
- Two types of wheel operation,
  - Direct coupling of the motor to the wheel
  - Indirect coupling interface between motor and wheel
- Two different models of wheels
  - Monoblock Wheel for models TR 166, TR 250, TR 300 and TR 360
  - Steel wheel with interchangeable blades for models TR 380, TR 500 and TR 600

Model	TR-166	TR -250	TR -300	TR 360	TR-380	TR-500	TR-600
Wheel Diameter	166	300	300	380	380	500	600
Type of Wheel	Monoblock	Monoblock	Monoblock	Monoblock	Interchang-able Blades	Interchang-able Blades	Interchang-able Blades
Number of blades	4	6	6	6	8	8	12
Blades with (mm)	Thin	-	-	-	24	35	35
	Standard	30	66	66	66	59	59
	Wide	-	-	-	-	122	122
Power (HP)	4 a 7,5	4 a 30	4 a 30	4 a 30	15 a 100	15 a 150	15 a 150
Intermediate Tube	CCJ-220	CCJ-220	CCJ-220	CCJ-220	CCJ-310	CCJ-410	CCJ-410
Direct Drive (50 hz)	1500 RPM	-	-	-	-	-	66 mts/seg
	3000 RPM	-	60 mts/seg	60 mts/seg	78 mts/seg	78 mts/seg	-
Direct Drive 60 hz	1800 RPM	-	-	-	-	-	60 mts/seg
	3600 RPM	-	78 mts / seg	78 mts / seg	97 mts/seg	97 mts/seg	-



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