SHOTBLASTING EQUIPMENT

BLAST POT

CYM MATERIALES S.A.
INDUSTRIAL SOLUTIONS

BLASTPOT FOR SANDBLASTING AND SHOTBLASTING

CYM Materiales SA manufactures shot blast hoppers with compressed air and abrasive circuits designed for high performance and safety.

CYM shot blast hoppers allow the blasting of different types of abrasives, both metallic (carbon or stainless steel shot) and mineral (sand, aluminum oxide, slag, garnet, etc.), without the need to make changes in the equipment or in the control circuit accessories.

The blasting hoppers can be supplied with four different types of abrasive cutting control, manual control for the M model, automatic control without depressurization for the P model and with remote control and automatic depressurization for the D and DD models.

On the D, DD and P models the air and abrasive cutting is done with the remote control mounted on the end of the abrasive hose near the blasting nozzle and "Dead Man" dead man system.

The DD model with dual drive allows the operator a double selection of work by blasting only shot or only compressed air to blast the shot remaining on the parts as needed.

The standard shot blasting hoppers are designed to work with pressures up to 7 Kg/cm2 and up to 10 Kg/cm2 for special equipment.

CONSTRUCTION FEATURES

SHOTBLASTING TANK

- Manufactured under ASME standard, with semi-elliptical head and conical bottom with cylindrical waist.
- Structure does not support the conical bottom, avoiding tank deformation.
- Manhole: Wide manhole to facilitate maintenance and replacement of the automatic loading valve.

VALVES

- Pop-up automatic filling valve: large diameter with rubber O'Ring seal.
- Pressure limiting safety valves.
- Abrasive dosing valves.
    - Manual Suitable for all types of abrasives with manual precision adjustment and minimum wear due to abrasion.
    - Dual Manual: allows either to spray abrasive or only spray pressurized air.
    - Automatic: allows the regulation of abrasive flow and shut-off in the same valve.
- Manually operated high flow air exhaust with exhaust noise attenuator.
- Remote control.
    - Electric or pneumatic drives.
    - Trigger system or ball system.

OPTIONAL

- Grids Located at the top of the pressure tank to retain coarse particles. The screen can be supplied with or without top cover.
- Wheels: for heavy duty work not with the equipment loaded; they only work when transported empty.

ABRASIVE CUTTING CONTROL SYSTEMS

The modular design of the CYM blasting pots allows a quick adaptation of the basic manual control equipment to any Dead Man control system by means of easily mountable conversion kits.

MANUAL CONTROL (M)

Suitable for jobs where abrasive hoses are used in short lengths with the spraying operator in sight, in order to communicate with the hopper operator.

REMOTE CONTROL (D, DD AND P)

It is the system that gives the operator the greatest freedom of movement, maximum safety at work and abrasive savings. Thanks to its "dead man" system, all air and abrasive projection stops when the operator stops pulling the trigger or releases the hose.

- Cutting system with tank depressurization (D) allowing automatic abrasive refilling when working with accumulation silos.
- Cutting system with dual tank depressurization (DD) that allows indistinct blasting or torch blasting from the same end of the hose.
- Double effect Pinch (P) cutting system that minimizes the wear of the cutting hose.

M Y D MODEL

DD MODEL

P MODEL

Functions	Remote control system model available			
	M	D	DD	P
Pressurized and depressurized	Manual	Automatic	Automatic	Manual
Abrasive dosage	Manual	Manual	Manual	Manual
Air and abrasive cutting	No	Yes	Yes	Yes
Dead Man Control	No	Yes	Yes	Yes
Dual selection system for shot blasting or torch	No	No	Yes	No

ACCESSORIES.

HOSES

Manufactured inside with black abrasion resistant rubber and reinforcement fabrics, using 100% virgin material, giving them a longer useful life than hoses manufactured with recycled materials.

They have external protection against atmospheric-ozone conditions, are abrasion resistant and have a static dissipator to reduce the risk of sparks or static shock experienced by operators.

The hoses have excellent flexibility and weigh approximately 30% less than conventional hoses, ensuring high productivity due to better working conditions for operators.

COUPLINGS

Made of hard injected nylon, lightweight, strong and durable, the couplings are ideal for use in any type of compressed air blasting application.

- Nozzle couplings (NNH) are specially designed to attach the abrasive blasting nozzle to the blast hose. They are supplied with a rubber washer and a complete set of screws to fit the blast hose.
- Hose couplings (NHC) specially designed for attaching blast hoses to each other or with thread for attaching to the pressure tank. They have safety locking springs that automatically lock when two couplings are mounted together.

NOZZLES

The long line of Venturi nozzles with tungsten carbide or boron carbide cores have been developed for a wide range of blasting applications. Tungsten carbide nozzles offer good durability and toughness while boron carbide nozzles provide longer life and lighter weight.

The Venturi design provides supersonic performance which increases the velocity of the abrasive thrown from the nozzle, thereby improving cleaning speed.

The external protection of the nozzles is made of aluminum, providing excellent protection, robustness and durability. All models have a 50 mm thick thread that avoids clogging with abrasive, achieving greater operational safety and adapting to the most demanding blasting processes.

TECHNICAL DETAILS - SANDBLASTING AND SHOTBLASTING

Models	Load Capacity			Dimensions		Optional (codes)		Max. working pressure (Kg/cm2)	Weight (kg)	Outs		Nozzels Nº	Autonomy (minutes) (3)
	Liters	Shot (Kgs)	Sand (1) (Kgs)	Diam. (mm)	Height (mm)	Grids and covers	Wheels			Qt.	Control tipe (2)		
CY-70	70	300	120	400	800	CYT08054 CYT08054T	Y351C180	7	70	1	M D DD P	Nro.3 - Ø 5 Nro.4 - Ø 6	40 22
CY-150	170	700	300	600	1200	CYT08052 CYT08052T	Y352C180	7	180	1		Nro.3 – Ø 5 Nro.4 – Ø 6 Nro.5 - Ø 8 Nro.6 – Ø 10	72 54 36 24
CY-500	500	2000	800	800	1700	CYT08053 CYT08053T	Y353C180	7	300	1 o 2		Nro.4 - Ø 6 Nro.5 - Ø 8 Nro.6 - Ø 10 Nro.7 - Ø 11 Nro.8 - Ø 12	154 / 77 100 / 50 72 / 36 55 / 23 41 / 20
CY-550	500	2000	800	800	2100	-	-	10	350				

Note:

a) The use of sand as a blasting abrasive can produce a disease called Silicosis recommending the use of alternative abrasives to replace it.

b) If the equipment you are looking for is not listed in this catalog, please contact our sales or engineering department, who will be able to help you develop the best equipment to suit your needs, reducing your operating costs and improving your profitability in your production systems.

c) The remote control can be provided with pneumatic or electric system as required.

d) The detailed working autonomy of CY500 and CY550 hoppers are expressed for 1 or 2 outputs respectively.

AVERAGE PRODUCTION FOR LONG VENTURI NOZZLES

The following reference table details the estimated productions of long Venturi blasting nozzles, according to the type of surface to be treated and the final blasting condition.

Degree of Cleanliness Surface conditions		Production per blast nozzle model M2/hour					
		12.5	11	9.5	8	6.4	4.8
White Metal SA3	Loose lamella	24.5	19.0	13.8	9.3	5.8	3.0
	Hard lamella	20.0	16.1	11.3	7.9	4.7	2.5
	Hard Rust	12.0	9.0	6.6	4.7	2.8	1.5
	Multiple layers	9.5	7.2	5.2	3.7	2.3	1.2
Semi White Metal SA 2 ½	Loose lamella	26.0	19.7	14.9	10.0	5.9	3.3
	Hard lamella	21.3	16.8	11.6	8.2	6.0	2.6
	Hard Rust	12.8	10.0	7.0	5.9	3.0	1.6
	Multiple layers	10.0	8.0	5.6	4.0	2.4	1.3
Comercial Metal SA 2	Loose lamella	62.5	49.0	35.1	24.6	15.0	8.0
	Hard lamella	41.9	32.2	23.3	16.0	10.0	5.0
	Hard Rust	31.1	24.2	17.2	11.9	7.0	3.8
	Multiple layers	20.6	15.9	11.3	7.8	4.7	2.5

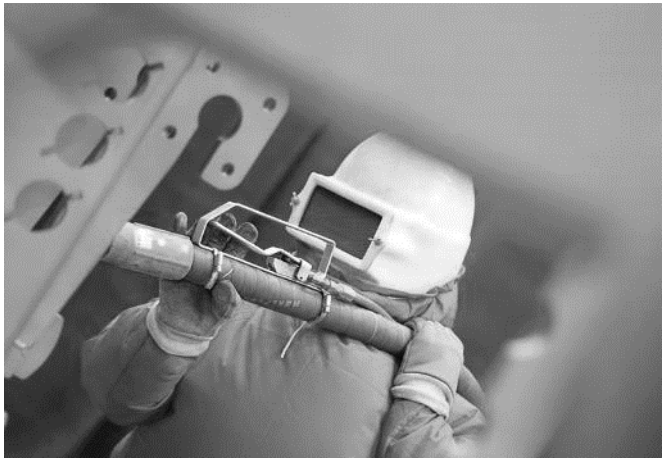
Note: The productions of the different nozzles referenced in the table are estimates. They may change according to the type of abrasive used, operator's skills, etc.

COMPRESSED AIR CONSUMPTION

Per blasting nozzle size without considering wear.

Model	Diam.	Air consumption Comp. (*)	
		CFM	M3/min
3	4.8	45	1.27
4	6.4	81	2.29
5	8.0	137	3.87
6	9.6	198	5.59
7	11.2	254	7.17
8	12.7	338	9.54

Note: (*) Compressed air consumption per blasting nozzle at working pressures of 7 kg/cm^2 / 100 PSI without considering wear.



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