

# G Force

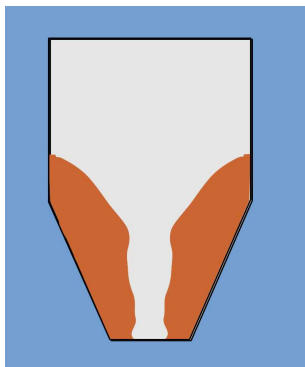
**Air Blasters for Flow Promotion**



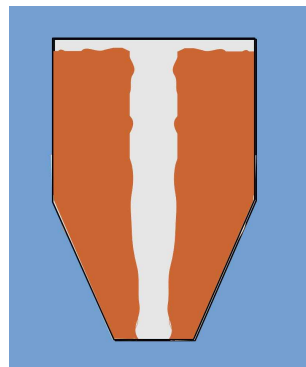
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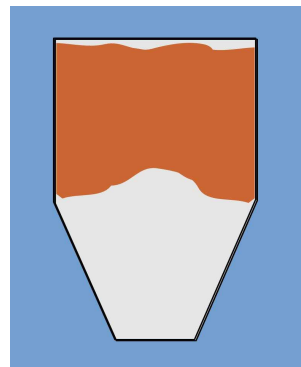
Air Blasters or some times mentioned as Air Cannons contribute a major role in the Flow Promotion of bulk material. These are widely used in industries such as Cement, Power, Mining and Mineral processing. These industries have complex bulk material handling systems consisting of conveyor belts, bins, transfer chutes, storage silos etc. Uninterrupted flow of the bulk material through these systems is key to productivity of the plant. Air Cannon systems have proved to be the best solution to ensure flow of bulk material in such conditions. Some common flow problems are illustrated below.



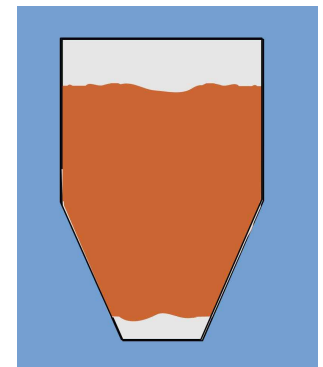
*Funnelling*



*Rat - Holing*



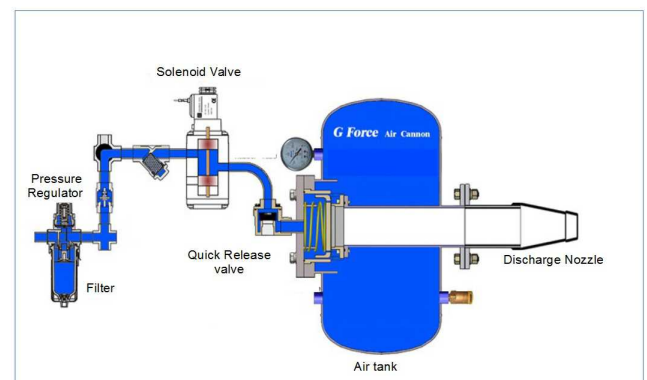
*Arching*



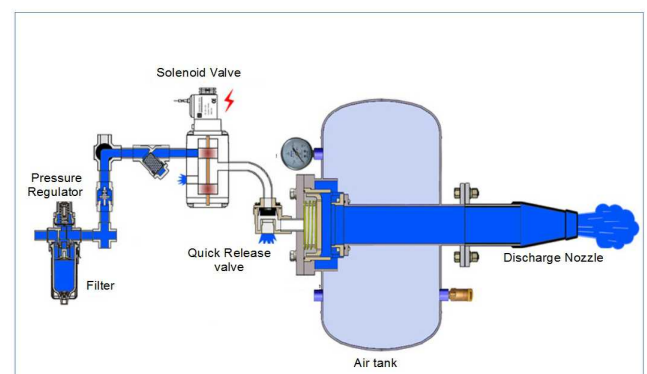
*Bridging*

The basic principle of Air Blasters is to inject compressed air stored inside a tank into the bulk material clinging to the vessel surface, in a fraction of a second. The sudden but controlled discharge of air causes the material particles to vibrate and break free from other particles and the vessel surface. The controlled discharge ensure that the impact force of the air is not transferred to the vessel and the supporting steel structures.

Various stages in the operation cycle of an air blaster is illustrated below. When the air blaster is charged, compressed air is filled into the tank until tank pressure is equal to the line pressure and the blaster will be ready to discharge.



By activating the solenoid valve, the air supply is shut off and the air line between the QRV and solenoid is emptied. This allows the QRV to quickly release the pressure holding the piston. The piston is instantly forced back by the pressure stored in the tank thereby releasing the pressurized air stored in the tank through the discharge pipe.



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THEJO offers **G-Force** series of Air Blasters featuring tried and tested designs combined with latest cutting-edge technology. **G-Force** Air Blasters are designed to operate in the most punishing conditions and dislodge any material build-up and overcome all material caking, bridging and flow problems - even under the most adverse conditions

Our **G-Force** air blasters feature

- High temperature resistance
- Self lubrication Valve Assembly
- Low maintenance – **300000** Firing Guaranteed
- High Impact Force – 30% more Blast Force
- Reliability and compatibility

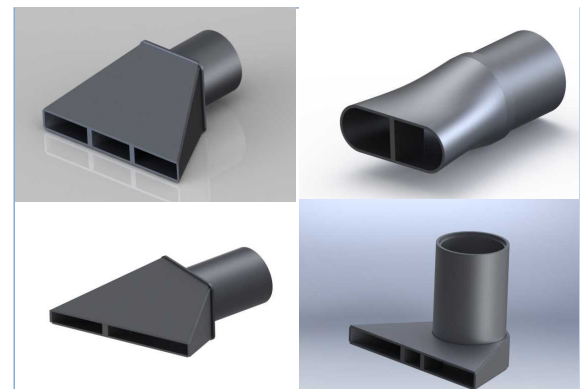
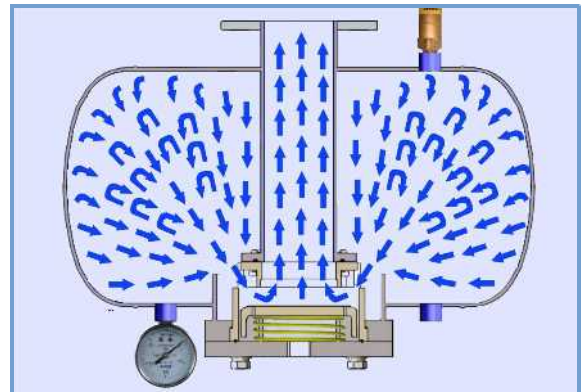
**G- Force** Air Blasters features an Elastomer free Valve Constructions. This enables them to perform uninterrupted during high temperature applications such as pre - heater cyclones, kiln inlet and grate coolers in cement plants.

The Cylinder wall of **G- Force** Air Blaster is lined with a self lubricating alloy sleeve which allows the blaster to have a full metal valve body construction for a guaranteed 300000 firings.

Very Close tolerance levels inside the valve and patented valve technology helps **G- Force** blasters achieve a huge impact force of 8000 N, 30% more than the conventional blaster available in the market. This helps in reducing the quantity of blaster to achieve the same result, thereby saving initial investment and operational cost.

The Internal Valve design of **G- Force** features a unique tank and valve body construction. This ensures optimized air flow inside the tank, helping in achieving a considerable increase in the impact force of G Force.

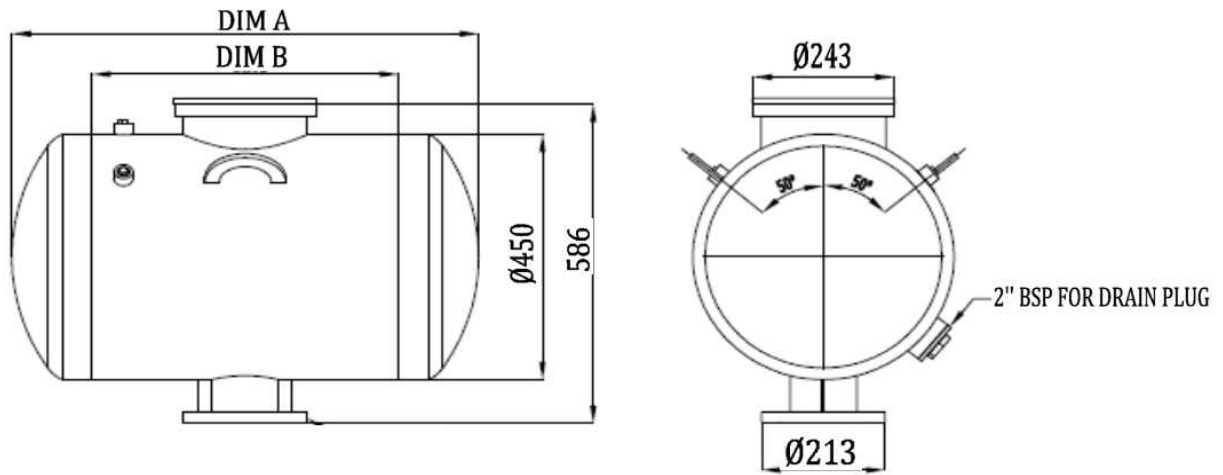
**G- Force** utilizes various nozzle designs to suit different applications. Flat, Angular, Fan jet and Flat angular nozzles are selected after detailed study of the application and impact force requirement.



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SL. No.	Type	A (mm)	B (mm)	Air Capacity (free air) Ltr	Air Capacity (@ 6 Bar)Ltr	Weight (Kg)
1	GF 0075	655	380	75	533	65
2	GF 0100	805	530	100	710	75
3	GF 0125	905	630	125	887	80
4	GF 0150	1045	750	150	1065	95

SL. No.	Type	Working Pressure (Bar)	Impact Force (N)
1	GF 0075	4 - 8	2350 - 6450
2	GF 0100	4 - 8	2580 - 7960
3	GF 0125	4 - 8	3265 - 8950
4	GF 0150	4 - 8	3950 - 9850

## PART NUMBERS

# TAB-GF-XXXX-X

AIR TANK CAPACITY \_\_\_\_\_

SERVICE TEMPERATURE \_\_\_\_\_

**AIR TANK CAPACITY**

150 LTR - 0150      100 LTR - 0100  
125 LTR - 0125      75 LTR - 0075

**SERVICE TEMPERATURE**

800°C > - N      800°C < - H

For more information, contact Thejo Engineering representative or write to us on [thejo@thejo-engg.com](mailto:thejo@thejo-engg.com)