



GAODETEC

Refractory Equipment

We full strive for shared NORMS and VALUES:

- Safety and Stringent quality control
- Maneuverability and Operator comfort
- Reliability
- Technical sophistication & after-sales full support



Refractory Gunning Machine

Refractory gunning machine is specifically designed for refractory dry-mix shotcrete applications, as well as for concrete shotcrete application. You can get low dust and high performance spraying flow in nozzle.



GZ-3ER



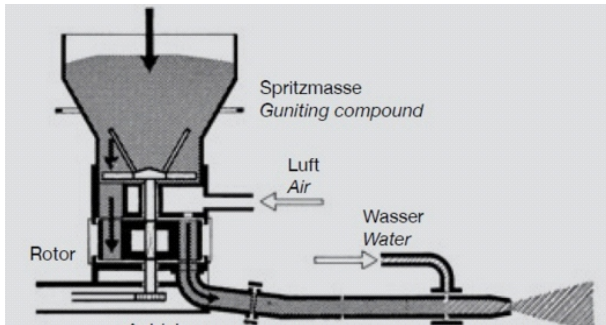
GZ-5ER



GZ-9ER

Model	GZ-3ER	GZ-5ER	GZ-9ER
Rate Output	1-3m ³ /h(2-6 tons/h)	1-5m ³ /h (2-10 tons/h)	1-9m ³ /h (2-18 tons/h)
Max.Horizontal Conveying Distance	200m	200m	200m
Conveying Hose Inner Diameter	38mm	51mm	64mm
Operating Air Pressure	0.2-0.4MPa	0.2-0.4MPa	0.2-0.4MPa
Air Consumption	5~6m ³ /min	8~9m ³ /min	10-12m ³ /min
Motor Power	4Kw	5.5Kw	7.5Kw
Rotor Speed	0-13.2r/min	0-13.2r/min	0-11r/min
Overall Dimensions	1.35x0.7x1.3m	1.4x0.75x1.45m	1.65x0.9x1.25m
Weight	500kg	650kg	900kg
Note: Air motor drive machine can be customized according to project requirement.			

Rotor System



10 round holes



12 round holes



12 sector holes

Our machines have different types of rotor body and steel rotor plate

- ★ ABB Frequency Converter, output capacity could adjust;
- ★ Electric Vibration Motor, high excitation force;
- ★ High Pressure Water Pump;
- ★ New Type Pre-dampening Nozzle Assy.

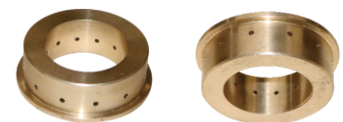
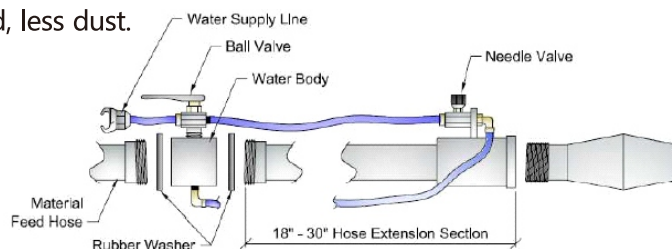


ABB Frequency Converter

Pre-dampening Nozzle Assy

Improve the gunning quality by using the gunmix moistening system. At the gunmix moistening system the gunning material is moistened in mixing head by a fog of compressed air and water.

- ★ Two water way supply water, ensure water and materials mixed even;
- ★ High pressure water atomizes through the water ring hole;
- ★ Improved quality, compactness and strength;
- ★ Less rebound, less dust.



Copper water ring 12/16 holes

Gunning Machine Upgrade New Model

Compared with our market popular GZ-3ER, This GZ-3ER/S is a new version. It is specifically designed for Refractory Dry-mix shotcrete applications, as well as for concrete shotcrete application. With this GZ-3ER/S, you can get low dust and high performance spraying flow in nozzle.



Model	GZ-3ER/S
Rate Output	1.5-3m ³ /h
Horizontal Conveying Distance	200m
Max. Aggregate size	Ø10mm
Conveying Hose Inner Diameter	32/38mm
Operating Air Pressure	0.2-0.4MPa
Air Consumption	6~7m ³ /min
Motor Power	4kw
Material Charging Height	1.3m
Rotor Speed	4-8r/min
Water pump output	26L/min
Water pump pumping head	70m
Automatic lubrication volume	2L
Overall Dimension	1.6x1x1.3m
Weight	665kg

1. Automatically to clean delivery line blockage, equipped with PLC+VFD+Air Pressure Sensor.
2. Sector hole to replace the circle hole in the rotor to improve the volume of the rotor and to decrease friction area, then with the same output, the rotor speed will be lower to improve the work life of rubber sealing plate and keep the motor power lower.
3. The combination of gunning machine and high pressure water, it is easy to move.
4. To add automatic lubricator to the rubber seal plate to make the work life of wear parts longer and make the motor power lower.



Gunning Machine Upgrade New Model

Refractory gunning machine is based on the rotor principle. Its well-proven design makes it extremely robust, easy to set up and simple to operate. Various configurations and a wide choice of specialized nozzle kits make it become the machine of choice for small-to-medium projects.

Application

- ★ Refractory castable;
- ★ Slope protection;
- ★ Small-to-medium area repairs;
- ★ Swimming pool construction;
- ★ House building;
- ★ Spraying of fine mortars for joint repairs.

Main Feature

- ★ Very robust and simple design for a long service life;
- ★ Easy cleaning due to single-spindle clamping system;
- ★ Freely accessible wear parts;
- ★ Quick exchange of rotor type and outlet for different outputs/applications;
- ★ Rubber sealing plate and steel rotor plate can be refaced for a long service life.



Model	GZ-5ER/S
Max. Output	5m ³ /h
Motor Power	4Kw
Voltage	3 x 380 - 480 V/ 50 - 60 Hz
Conveying hose ID	32/38mm
Hopper Volume	45L
Feeding height	1100
Dimension	1510x735x1100mm
Weight	470Kg
Conveying distance	200m (H)/60m (V)
Note: air drive available on request.	

Portable Refractory Gunning Machine

GAODE GZ-6AR/RD Air Driven Gunning Machine provides a steady flow of material which allows (uniform hydration and very smooth placement.)

The adjustable output of material may be increased without sacrificing the quality of the application. The compact GZ-6AR/RD is capable of spraying materials through 38mm inner diameter conveying hoses. Widely used in refractory spraying and installing project.

Standard Features

- ★ Direct Drive 5HP Air Motor;
- ★ Continuous Feed Hopper;
- ★ Bag Breaker Included;
- ★ 2 Blade Material Agitator;

Application

- ★ Refractory Spraying;
- ★ Structural Concrete Repair;
- ★ Slope Stabilization;
- ★ Tunnels and Mine Support;
- ★ Pools and Spas;
- ★ Retaining and Fire Walls;
- ★ Dams and Reservoirs;
- ★ Sand and Gravel Backfill;



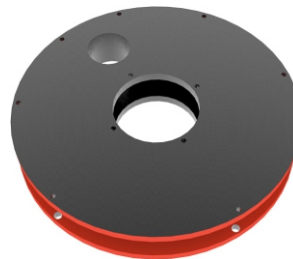
Model	GZ-6AR/RD
Maximum Output	6m ³ /h
Max. Aggregate size	10mm
Feed Bowl Pocket Number	16
Hose ID	38mm
Air motor power	5HP
Air Consumption	9~11m ³ /min
Dimension	1100x790x920mm
Weight	230Kg
Note: GAST air motor for option.	

Environmentally friendly refractory gunning machine



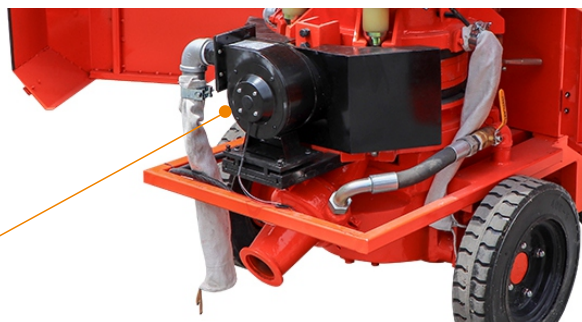
Model	GZ-1.5E-R
Output Capacity	0.7~1.5m ³ /h
Max. Aggregate size	10mm
Conveying Pressure	0.2~0.4Mpa (29-58PSI)
Conveying Hose ID	32/38mm
Air Consumption for conveying material	5~6m ³ /min(180-215CFM)
Motor Power	4Kw
Conveying Distance	60m (Vertical)
Conveying Distance	200m (Horizontal)
Material Charging Height	1.16m
Rotor Speed	7r/min, continuous spraying
Weight	660Kg
Overall Dimension	1600×840×1300mm
Note: Air motor full pneumatic for option.	

★ Rotor system could change different size rotor body, achieve different output capacity from 0.7m³/h to 3m³/h.



★ Equipped with collect dust system, environmental friendly.

Collect dust system



Refractory Shotcrete Pump

Refractory shotcrete pump is our ultra-high pressure swing tube piston pump designed for refractory and shotcrete applications requiring as much as 4m³/h. We designed the pump to be user-friendly and easy to operate and maintain. It could work together with refractory pan mixer, and achieve refractory castable wet spraying in refractory installing project.



Output	0-4m ³ /h (0-6tons/h)
Max. pressure	15Mpa
Distribution valve type	S valve
Stroke x cylinder ID	550×100mm
Hopper volume	210L
Power	30Kw
Max. horizontal conveying distance	300m
Max. vertical conveying distance	100m
Hydraulic oil tank	160L
Air pressure for spraying	0.7Mpa
Air consumption for spraying	6m ³ /min
Max. aggregate size	20mm
Accelerator pump working pressure	8bar
Accelerator pump output	20-100L/h
Dimensions	3500x1360x1530mm
Weight	1515kg

Vessel Gunning Machine

The use of pressure vessel gunning machine is recommended, when bigger amounts of gunning material shall be processed. These machines cause only very low wear costs due to their construction principle. In most cases the machines are filled big bags, but it is also possible to use a pre-container for the storage of gunning material. GVG-I and GVG-II series pressure vessel gunning machine is equipped for transportation by crane or fork lift. it is designed for the hot repair of converters, electric arc furnaces and ladles.



GVG-I



GVG-II



GVG-I Series

Description	Technical Data				
Model	GVG-I-500	GVG-I-1000	GVG-I-1500	GVG-I-2500	GVG-I-4000
Tank loading amount	500Kg	1000Kg	1500Kg	2500Kg	4000Kg
Output capacity	30~60Kg/min	40~80Kg/min	60~80Kg/min	70~90Kg/min	80~100Kg/min
Max. Aggregate size	≤5mm	≤5mm	≤5mm	≤7mm	≤7mm
Conveying distance	50m (V)	50m (V)	50m (V)	50m (V)	50m (V)
	150m (H)	150m (H)	150m (H)	150m (H)	150m (H)

GVG-II Series

Description	Technical Data		
Model	GVG-II-1500	GVG-II-2500	GVG-II-4000
Tank loading amount	1500Kg	2500Kg	4000Kg
Charge amount	60~80Kg/min	70~90Kg/min	80~100Kg/min
Output capacity	≤5mm	≤5mm	≤7mm
Conveying distance	50m (V)	50m (V)	50m (V)
	150m (H)	150m (H)	150m (H)

Fettling Machine

Fettling Machine is mainly used for the banks repair of electric arc furnaces (EAF) with hearth mass. Pneumatic drive for rotation of chute and material dosing. According to different loading materials volume, we have 3.5tons, 6tons and 10tons for option.



Advantages

- ★ Useable for multiple furnaces on the same floor;
- ★ Gunning and fettling with one single machine reduces repair time;
- ★ Reduces rebound;
- ★ Increased EAF availability;
- ★ Improved visibility and work safety for operators by means of a radio remote control;
- ★ Less physical strain on operating personnel;
- ★ Low maintenance and wear costs;
- ★ 3.5tons, 6tons and 10tons for option.

Centrifugal Machine

Centrifugal Machine is mainly used for the quick repair of the slag zone and hot spots of electric arc furnaces (EAF) with magnesitic or dolomitic materials. According to different loading materials amount, we have 2.5tons, 4tons, 6tons and 10tons for option.



Advantages

- ★ Short repair times;
- ★ Sector selection enables precise mix application;
- ★ Mix shut-off device reduces mix consumption;
- ★ Big bag charging;
- ★ Pneumatically powered machine;
- ★ Easy to use;
- ★ 2.5tons, 4tons, 6tons and 10tons for option.

Tundish Spraying Machine

Tundish spraying machine is a high developed combined mixing, pump and spraying unit for the spraying of refractory-slurry masses for Tundish-repair in steel mills.

- ★ Homogenous mix by steadily working continuous mixer;
- ★ Adjustable, controlled water - material proportion;
- ★ Constant conveying of wet material;
- ★ Less rebound or loss of material, less dust during spraying;
- ★ Joint free, monolithic coating of Tundish linings;
- ★ Fast and easy cleaning of all machine parts which have been in contact with wet mortar.



Model	GTS-40E/S
Volume of the container	1.5m ³
Output Capacity	40L/min
Working Pressure	20bar
Mixer Power	5.5Kw
Pump Power	7.5Kw
Max. aggregate size	5mm
Required compressed air	300L/min
Voltage	380V, 50HZ, 3phase, customized

Refractory Pan Mixer

Refractory pan mixer uses only top-quality materials to support industrial level mixing. Refractory pan mixer is reinforced with bolt in high wear resistance steel drum liners, making the refractory pan mixer the most durable refractory mixers on the market.

The unique paddle design is exclusive to GAODETEC. The paddles are oriented vertically to forcibly cut through material. Durable mixing blades allow for uniform mixing.



GRM100 & GRM250



GRM500



GRM800 & GRM1000

Feature

- ★ Specially designed for site operation;
- ★ Fast mixing speed and homogeneous;
- ★ Compact structure;
- ★ Comfortable feeding height;
- ★ Easy to move, equipped with wheels or forklift hole;
- ★ Hydraulic discharge door for option;
- ★ With high pressure water washer device;
- ★ Low maintenance cost.

Model	GRM100/GRM250	GRM500	GRM800	GRM1000
Mixing Capacity	100/250KG	500KG	800KG	1000KG
Rotate Speed	38/34rpm	36rpm	39rpm	35rpm
Motor Power	4/7.5Kw	11Kw	30Kw	37Kw
Feeding Height	1000mm	1400mm	2500mm	2500mm
Dimensions	0.81x0.80x1.09m	1.7x1.25x1.35m	2.8x1.88x2.64m	2.8x1.88x2.64m
Weight	420/650kg	1010kg	1350kg	1500kg



Bolt in wear resistance steel drum liners



Limit switch for protecting operator



Soft start protects motor for GRM500 & GRM800



High pressure water washer device for GRM800



Standard configuration manual discharge door



Hydraulic discharge door could be customized

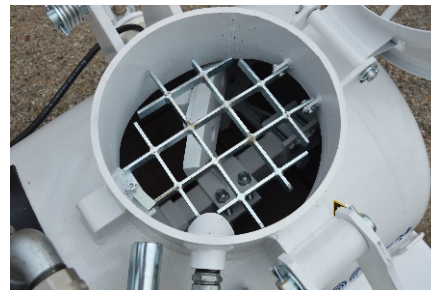
Pneumatic Mixing and Conveying Unit

The pneumatic mixing and conveying unit is dedicated for the manufacturing and conveying of solid and moistened concrete mixture and refractory concretes. It is suitable for the using in the metallurgical industry at the production of the raw iron for the concreting of the canals and outflows, at the production of steel for concreting of the steel-plant pans, hoods, and so on. The machine can be used also in the building (construction) industry at the concreting of base of building, floors and larger concreted areas.



Working principle

Mixture closed in the pressure tank will be aired by motion of blades and by the compressed air, upper air. Blades slide simultaneously the mixture and dose it into the delivery branch of the tank. Additional, lower air entering into the delivery branch slides farther ected mixture, so begins the uniform motion of mixture in transport hoses. Transport of the mixture passes in agglomerates and by its correct composition and density is not created big undulation of transport hoses.



Internal mixing system



Air Distribution System

Applications

- ★ Manufacture and transport of solid and damp concrete mixture and refractory concretes,
- ★ In metallurgy, for pig iron production, spout and gutter concreting, in steel production for steel ladle and lid concreting and alike,
- ★ In civil engineering, for structure foundation floor and large concrete area concreting.



Squeeze Air Valve

Advantages

- ★ The possibility of handling with the machine using a forklift or a crane;
- ★ The possibility of delivery of the machine on wheels enabling its moving on a construction site or in a hall;
- ★ Simple machine control;
- ★ Large transport distance;
- ★ The machine has a system of exact water dosing with the accuracy of $\pm 0,1$ litre;
- ★ An option for an operator to use dosing nozzle or emptying bracket.



Technical Data

Mode	GPX200E	GPX500E	GPX600E
Output	4m ³ /h	10m ³ /h	10m ³ /h
Max. Operating Pressure	0.8Mpa	0.8Mpa	0.8Mpa
Useful volume of the pressure vessel	200L	500L	600L
Geometric volume of the pressure vessel	250L	660L	800L
Max. grain size of the mixture	16mm	32mm	32mm
Electric motor power	11kw	22kw	30kw
Transport distance	Horizontal 100m, Vertical 40m		
Dimension	1600x1300x1210mm	2880x1400x1850mm	3320x1400x1850mm
Weight	860Kg	1640Kg	1740Kg



Diesel engine drive for option



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