

Surface INTERNATIONAL



Automatic Abrasive Blasting & Peening (Air / Airless) Systems, Dust Collector and Blast Room

START GUNITING.... START WITH "SURFACE"



Powerful SURFACE pneumatic SHOTCRETE & GUNITING machine meets the high demand in building and construction industry by providing specialized concrete spraying technique. They are equally suitable for refractory lining work in foundries, power plant, refineries and steel industry.

SHOTCRETE & GUNITING MACHINES

Facts about SURFACE guniting machines

What is Guniting ?

It is a process in which cement mortar is sprayed at high speed with sufficient quantity of water by stream of compressed air onto surface.

How it works ?

SURFACE Guniting machines have the task to continuously feed dry or damp material into the compressed air stream. The introduced material is carried with strong acceleration through guniting hose to guniting nozzle. At nozzle, water is added to the mix. The hydrated material is pneumatically forced at very high velocity onto the surface.

What are properties of sprayed surface ?

Better adhesion, superior strength, homogeneity, impermeability, low co-efficient of expansion, high density and high compressive strength of material sprayed.

How much thickness can be applied ?

From a fraction of cm to 35 cms or more. Area may be small crack or patch, surface may be flat or irregular and in any dimension.

At how much distance material can be sprayed ?

Over 400 mtr. horizontally and over 100 mtr vertically.

What are additional facilities needed ?

SURFACE guniting machine needs only mixture to be sprayed. It may be concrete or refractory materials and water and compressed air as per requirement.

What are its special features ? They are :

Extra Portability

SURFACE guniting machines are mounted on three heavy duty castor wheels for portability.

Optimum Hydration

A valve is provided at the nozzle for the regulated flow of water ensuring very efficient and controlled hydration of the mixture.

Automatic Refilling Valve

First time one lever operation for charging the material into working chamber. Hence, tremendous labour saving and operation is made easy & safe.

Low Air Consumption

Manifolds are provided in airline to ensure minimum air pressure loss thus optimum utilization of air is guaranteed. Hence, saving in air consumption.

Minimum Maintenance

The upper and bottom vessels can be unbolted for inspection and cleaning. A check valve is provided before manifold to prevent back flow of material into valves and air motor.

Universal Applications

Apart from guniting and refractory spray, it can be used for shotcrete, grouting and sand/shot blasting jobs.

Easy to Operate

SURFACE guniting machines are simple and safe to operate and can be operated even by an inexperienced person.

ACCESSORIES

STANDARD HOSES

For air, water and material discharge with end connections.

NOZZLE BODY

Light weight mixing nozzle complete with water regulating valve, water ring and nozzle tip with wear resistant liner. Special nozzle assemblies for shotcrete, sand blasting and refractory lining work.



UNMATCHED QUALITY, YOU CAN TRUST

SHOTCRETE & GUNITING MACHINE

OPTIONAL ACCESSORIES

VIBRATING SILO

- Sieves concrete before it goes into machine.
- Over-sized aggregates & debris retained over screen.
- Uninterrupted & smooth flow of concrete ensured.

SEMI WET NOZZLE

- Pre-dampen the concrete.
- Reduced rebound and dust problems.
- Specially recommended when spraying concrete in enclosed structures like tunnels, underground structures.

SAND BLASTING KIT

- It allows effective sand blasting operation by Guniting & Shotcrete machine.
- It consists of
 - a) Tungsten / Boron Carbide Nozzle with holder
 - b) Helmet, Gum Boot & Hand Gloves

TWIN WATER TANK

- Two water tanks each having capacity of approximately 100 litres of water are mounted on a three wheel trolley. These tanks are air pressurized and interconnected for uninterrupted supply of pressurized water through 12 mm hose pipe to nozzle. A handle is provided for manual pushing of trolley.

REMOTE CONTROL SYSTEM

Converts your manual Shotcrete & Guniting machine to automatic one.

Its advantages are :

- It places complete ON/OFF control of flow of concrete in the hand of operator at nozzle point.
- Guniting/Shotcreting starts just by pressing handle and stops by releasing it.
- It saves concrete when operator changes position or performing patch-up repairing and shotcreting work, because operator can start or stop guniting / shotcreting operation at will.
- It provides added safety to operator and other personnel in the area because should the operator for any reason lose the control of hose, guniting / shotcreting will stop instantly and automatically.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	D-3 Basic	D-3 Conversion	D-6 Basic	D-6 Conversion	S-6	D-6(S) Basic	D-6(S) Conversion
Nozzle size (mm)	12 & 20	20 & 25	20 & 25	25 & 31	20 & 25	31 & 38	38 & 50
Internal dia of hose (mm)	25	31	31	38	31	50	63
Compressed air required at 6 Kg/cm ²	7.00	9.00	9.00	10.4	9.00	17.0	21.5
Maximum aggregate size (mm)	6	10	10	12	10	20	25
Discharge (m ³ /hr)	1	1.5	1.5	2	-	3 - 4	4 - 5
Chamber Capacity (m ³)	0.085	0.085	0.17	0.17	0.17	0.17	0.0.17
Overall Dimensions							
Length (mm)	1220	1220	1500	1500	1500	1500	1500
Width (mm)	800	800	900	900	900	900	900
Height (mm)	1450	1450	1800	1800	1300	1800	1800
Weight (approx. in Kg.)	400	400	550	550	400	550	550
Operation; Cont. = Continuous	Cont.	Cont.	Cont.	Cont.	Non Cont.	Cont.	Cont.
	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Note : Machines are also available with pneumatic motor drive.

SHORTCRETE MACHINE ROTOR TYPE

DIMENSIONS :

Length : Approx. 1450 mm
Width : Approx. 750 mm
Filling Height : Approx. 1720 mm

WATER DOSAGE :

Water Pressure Required : 6 bar
Size of water hose : 3/4" I.D.

ELECTRIC DRIVE :

Motor : 415 V / 3 P / 50 Hz AC
Capacity : 10 HP, 1440 rpm
Conveying Hose Pipe Dia : 4 to 5 m³ per hr
Maximum Aggregate size : 20 mm
Compressed Air Requirement : 12 m³ / min at 6 Kg/cm² pressure

CONVEYING CAPACITY :

Conveying length Horizontal : 100 mtrs
Conveying Height Vertical : 50 mtrs



ELECTRIC GROUT PUMP

Output : 500 - 3000 ltrs/hr
Operating Pressure : 6.0 Kg/cm², 12.0 Kg/cm², & 24.0 Kg/cm²
Power Consumption : 5 to 12 HP

Notes : 1) Grout pump and mixing tank are offered as one unit.
2) On special request, Grout pump alone is also available without mixing unit.

PNEUMATIC GROUT PUMP PISTON CYLINDER TYPE

Maximum Output : 1600 ltrs/hrs
Maximum Grouting Pressure : 90 Kg/cm²
Compressed Air requirement : 4 m³ / Minute at 7 Kg/cm²
Optional Accessories : Twin Grout Preparation Tank



PNEUMATIC CONCRETE PLACER

Capacity : 1/4 & 1/2 cb. yard / batch
Compressed Air requirement : 1.7 to 2.7 m³/min. at 6.0 Kg/cm²
Size of aggregate Permitted : upto 40 mm
Max. Conveying Distances : 15 mtr vertically
40 mtr horizontally

Note : 1) Adequate capacity air receiver tanks & conveying pipes available.
2) Concrete places are also available with Mechanical Loader.

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