

ASM-3D Dry Type Shotcrete Machine



A.E.G Shotcrete Machine Introduction:

Shotcrete process is to use compressed air to convey the pre-dampened mix through delivery hose to the nozzle to project the material onto the sprayed surface under high velocity, and then to form concrete support layer after the projected material coagulates and hardens. With simple technology, special effect, economy cost, flexibility and high construction efficiency, shotcrete technology has widely been applying in construction, railway and super highway engineering, underground engineering, tunneling, mining operations, hydropower projects and slope stabilization, etc. and showing prosperous future.

A.E.G Shotcrete Machine Features:

- Non-adhesion going-through rotor with new material chamber, completely eliminate bonding and blocking during operation so as to reduce clearance and maintenance period.
- Thin flow conveying method with vortex flow, so the spraying flow is even, continuous and steady, to improve the shotcrete quality.
- Four-point clamping device make it easy to adjust the press between sealing plate and rotor disk so as to no air and dusk leak and prolong consumption parts life.

A.E.G Shotcrete machine types: dry type, wet type, wet and dry type.

Dry type shotcrete machine has 3 types:

mini-sized ASM-3D, medium-sized ASM-5D, large-sized ASM-9D.

Wet type shotcrete machine is model ASM-7W.

Wet and dry type shotcrete machine is model ASM-5R.

Shotcrete robot arm is model ASMS-30.

A.E.G dry type shotcrete machine working principle:

Dry mix components (not including water) according to the design ratio, directly feed the mix into hopper (by hand or by feeder) compressed air introduced through air compressor conveys the mix to the nozzle through delivery hose, water is added to the mix at the nozzle, spray the mix with high velocity.

A.E.G dry type shotcrete machine models:ASM-3D, ASM-5D, ASM-9D.

We can choose a suitable one for your working requirements.

ASM-3D Dry type shotcrete machine description:

ASM-3D is a minitype concrete spraying machine for the processing of dry mix.

ASM-3D can be used as well for small jobs, such as joint filling, as well for extensive slope consolidation work.

ASM-3D is available in the following versions:

BASIC - Electric drive, **AIR** - With air drive, **DIESEL** - Diesel drive

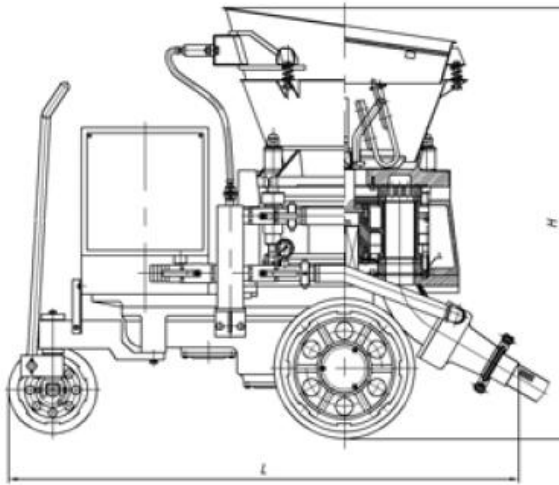
Basic: electric drive can be combined with tyre chassis

Extended (optional): air motor drive combined skid or with single hydraulic power pack

Skid or Rail-wheel

ASM-3D Technical Data Sheet

| | |
|---------------------------------|---|
| Output | 3 m ³ /h |
| Maximum horizontal convey dist | 200m |
| Suitable Mix Ratio(Cement/Sand) | ≤1:4~5 |
| Mmaximum aggregate size | 10mm |
| Conveying hose inner size | φ42/51mm |
| Operating air pressure | 0.2-0.6MPa |
| Air consumption | 5-6 m ³ /min |
| Filling Height | 1.1m |
| Rotor Speed | 6.5/13r/min |
| Motor power | 3kW(4hp) |
| Voltages | 380V,440V,660V,1140V 50Hz/60Hz |
| Basic chassis | Basic chassis is tyre .Skid and rail-wheel are optional |
| Overall Dimension | 1.13×0.54×1.02m |
| Net Weight | 430kg |

Dimensions:

Length L : 1130 mm(1800mm,diesel)

Height H : 1020 mm

Width : 540 mm

Weight : 430 kg(480kg,diesel)

Content of hopper : 30 Liters

Drive**Electric (Basic)**

Motor output : 3 KW /4.1hp

Speed range : 1490 rpm

Voltages : 380 V50 Hz ,440 V50/60 Hz, 220 V 50/60 Hz

With air motor (Air)

Motor output : 3.2 KW/4.4hp

Speed range : 500-1000 rpm

Pressure : 0.5 MPa/73psi

Air consumption : 4.8 m3/min

Diesel

Motor output : 5.5hp/6hp

Speed range : 3000rpm/3600rpm

For more information, please refer to diesel engine technical data sheet

Theoretical conveying date (only dry)

Hose: Φ (mm) 42

Conveying output (m3/h): BASIC: 3, AIR/DIESEL: 1.5~3

With theoretical filling degree of 100%. If motor with 60 Hz =20% higher conveying capacity

max. grain (mm): 12

max. conv. dist. (m) Horizontal / Vertical: 200 / 70

Theoretical data for air consumption for conveying

Air consumption (m³/min): Dry spraying, 60 m-4.5, 120 m-5.5

Air consumption data are approximate values and are depending on conveying distance.

CAUTION: For the configuration AIR (with air motor) it has to be considered:

Total air consumption = Air consumption for conveying + Air consumption for air motor!

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