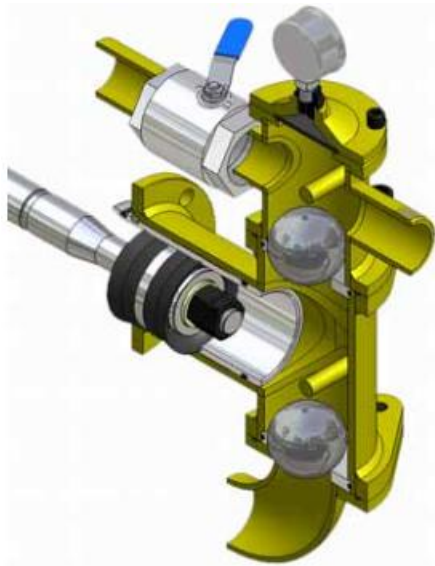


**AMP50/40 Single Piston Motar pump Product Picture****AMP50/40 Single Piston Motar pump Pump Head Assemble****AMP50/40 Single Piston Motar pump Introduction:**

This machine is a kind of piston and ball controlling pump, and the conveying line, piston and cylinder is specially designed and processed, so this machine is workable for high pressure grouting/spraying mortar (the mixture of sand:cement:water).

**AMP50/40 Single Piston Motar pump Applications:**

And is successfully used in sealing, strengthening, stabilizing of rock and soil, tunneling, building hydro-power project, etc, and also used for spraying mortar in construction and 3D Panel, etc.

AMP50/40 is available in the following versions.

- BASIC                      Electric drive
- DIESEL                     Diesel drive

**AMP50/40 Single Piston Motar pump Features:**

- Single piston single acting
- Switch by ball valve
- Mechanical transmission, lower failure rate
- Compact structure, convenient for maintaining

**AMP50/40 Single Piston Motar pump Technical Data**

Cylinder Dia	φ90 mm
Output	50 L/min
Rated Working Pressure	4 Mpa (40bar, 580psi)
Conveying distance	horizontal 120m; vertical 50m
Piston stroke	85 mm
Piston Speed	95 /min
Inlet diameter	75 mm
Outlet diameter	50 mm
Max.Aggregate.size	5 mm
Cement : Sand	≥1:3
Dimension	1610×1024×900 mm
Weight	300 kg
Power unit	5.5 Kw(Electric) / 10hp(Diesel)
Note: Single or Double Passageway. Skid or Tyre	

**AMP50/40 Single Piston Motar Pump Drive**
**Electric (Basic)**

Motor output : 5.5 kW/7.5hp

Speed range : 1450 rpm

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

**Diesel (Diesel)**

Motor output : 7 kW/10hp

Speed range : 2200 rpm

**Theoretical conveying data**

HoseΦ (mm) : 50

Conveying output (L/min): 50

max. grain (mm): 6

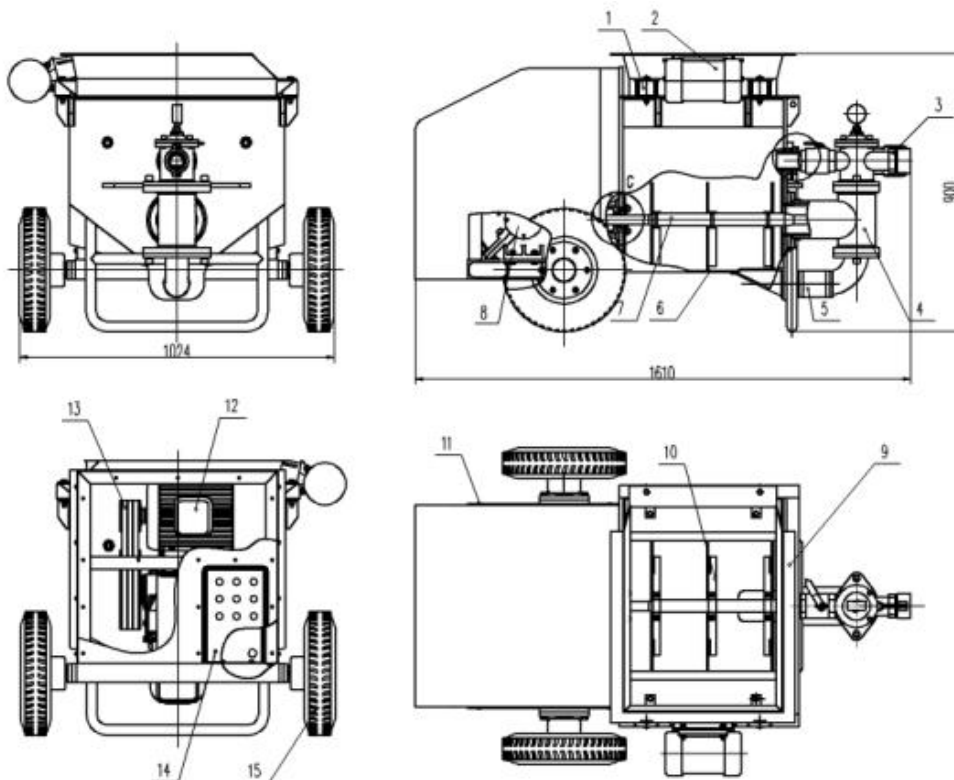
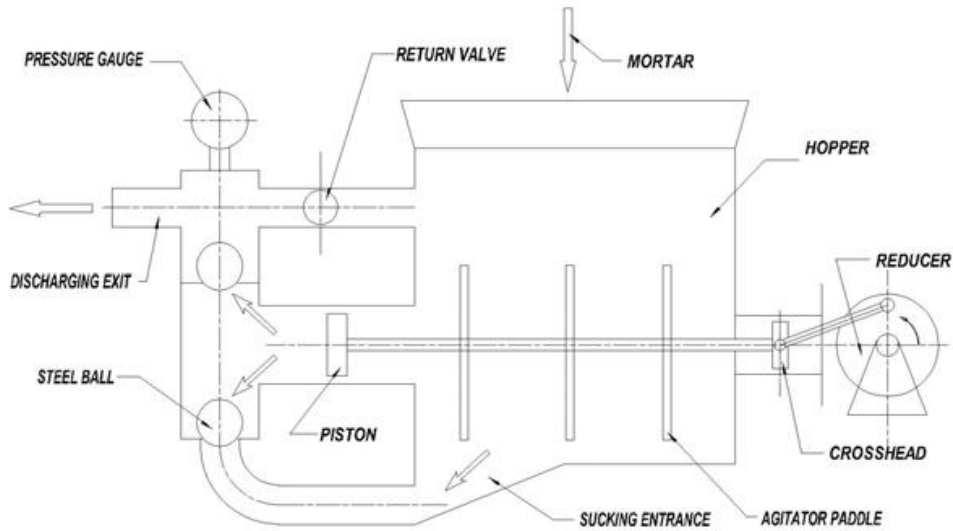
max. aggregate ratio (cement/sand): 1/3

If motor with 60 Hz =20% higher conveying capacity

**AMP50/40 Single Piston Motar Pump Working Principle**

The mixed materials complying with the required ratio are filled into hopper, piston reciprocate driven by reducer and the connecting rod, and with this action, the mortar in the hopper is sucked in the cylinder through the sucking entrance, and is discharged through the discharging exit.

- Return Valve - Open it and make the materials return to the hopper when the block happens momentarily.
- Agitator Paddle - It reciprocate in the horizontal direction driven by reducer and the connecting rod, and agitate the material to prevent eduction and deposition happening.



- |                    |                         |                             |
|--------------------|-------------------------|-----------------------------|
| 1.Vibrating Spring | 2.Vibrating Motor       | 3.Quick joint               |
| 4.Pump Head        | 5.Sucking Hose          | 6.Hopper                    |
| 7.Piston Rod       | 8.Reducer               | 9.Vibrating Hopper          |
| 10.Agitator Paddle | 11.Cover                | 12.Electric Motor or diesel |
| 13. V Belt         | 14.Electric Control Box | 15.Soild Tyre               |

**Spraying Mortar Description**

**A. Request Compressure Air**

The request compressure air should be 4-7bar (87-100psi), and the output is 0.3m<sup>3</sup>/min(11CFM). When spraying, the operator should adjust air pressure and output in order to make the spraying layer uniformity and reducing rebound.

**B. Spraying Description**

- 1, Spraying Thickness every time: the recommending spraying thickness every time is 3 to 5 mm.
- 2, Spraying distance: The recommending spraying distance is 350mm.
- 3, Spraying angle: The recommending spraying angle is that nozzle is vertical to the wall surface.
- 4, Spraying route: The recommending spraying route is from lower to upper with “s”shape.

**C. Mortar Ratio**

The workable mortar should select middle sand, which the quantity of 1mm sand by weight is 60 percent of the total sand. And max. sand grain is less than 5mm with fineness modulus >2.3. For the workable mortar, please refer to the following table:

Ratio	1:2.5 (volume) or 1: 3.24: 0.97 (weight)	
Name	Volume (m <sup>3</sup> )	Weight (T)
Cement	0.3664	0.4376
Dry Sand	0.916	1.4198
Water	0.347	0.347

The information contained in this document is believed to correct but A.E.G(Wuxi) Machinery Co., Limited accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. Please consult the respective machine manual for all matters related to operations and maintenance.