

# PROGROUT

## POWER GROUTER

PSM8

*For injecting mortar into joints between brickwork, stone work & paving.*

### General Safety

- Operators must wear protective clothing.
- Keep children, animals and bystanders away from the work area.
- Never use this equipment if you are ill, feeling tired or under the influence of drugs or alcohol.
- If the equipment shows signs of damage or excessive wear, do not use it.
- This equipment should only be used by a competent person who has read and understood these instructions.

### Electrical Safety

Progrout Power Grouters are designed to be used with battery operated centre handle drill drivers and some suitable 110v drills, provided speed control is available. Max 1800rpm.

- Do not use electrical equipment in very damp or wet conditions. This can be dangerous.
- Always use a suitable RCD (Residual Current Operated Device) to reduce the risk of shock.

### Getting Started

#### Assembly

Your unit comes complete with a bottom bracket, the bar to be cut to length to suit the drill of the choice. Open the bracket and attach to the handle with the screw facing you

Ensure that the rubber insert remains in place and tighten the bracket - do not over tighten. This bracket is for support only.

Attach the drill to the input shaft of the gearbox, at the same time guiding the bracket bar into the hole in the handle.

Tighten the chuck and adjust the torque to a high setting.

You are now ready to use the Power Grouter.

#### Mixes

Progrout will pump any mix provided the mix has workability and does not separate.

Fine sands are more difficult to work with but can be used provided the lime or cement content is increased to suit.

Mixes need to be wetter as nozzle size decreases.

To avoid jamming the nozzle with large stones, **ALWAYS SIEVE THE SAND WITH THE SIEVE PROVIDED.**

#### General Mixes

Sand / Cement	3 - 6	Parts good quality builders sand (BS1200)
	1	Part Cement
	1	Part Hydrated Lime (if required)
Lime	2 - 3	Parts Sharp Sand (3mm max)
	1	Part Slaked Lime Putty

Note: Lime mix usually requires sharper sand to achieve its strength. Approximately 2 parts hydrated lime will make 1 part lime putty when mixed with water to a creamy paste.

As an alternative to lime, a chemical plasticiser can be used, following the manufacturers instructions.

If the auger repeatedly jams when using particularly sharp sand mixes, loosen the grub screw, remove the auger and cut 3-5mm off the length and refit. This will set the auger back in the hopper and increase the clearance between the hopper wall.

**Cutting too much off will reduce the efficiency of the unit.**

Using the bucket provided, add the sieved sand and fresh cement, mix with water and lime or plasticiser as required. Continue mixing until fairly loose but not too wet.

Select the nozzle size required and screw onto the end of the hopper, ensuring the washer or 'O' ring is in place and tight enough to prevent leakage. Hand tight is usually enough. However, failure to tighten sufficiently will cause the mix to separate and clog the nozzle.

#### Basic Technique

Hold the unit steady under the hopper and fill the hopper with the mix up to but not beyond the fill line. **Do not overfill.** The bearing should stay clean and clear of mortar at all times.

Adopt a comfortable posture, holding the machine with both hands, engage clockwise drive, then squeeze the trigger until the mortar mix begins to appear at the nozzle. The unit is designed to be used at an approximate 45-degree angle.

Commence filling the joints, holding the nozzle slightly off the surface, so that the mortar stands proud of the bricks. By slackening the nozzle nut, the nozzle can be rotated for different applications i.e.: pointing paths, patios and flashings.

**Note:** during operation the unit may require a quick jolt downwards to ensure the auger is being fed with mortar. Periodically stir the mortar in the bucket to prevent it becoming too stiff. Unused cement mortar should be discarded after 2 hours.

When rubbing up it is important to test a small area of work before using the grouter for extended periods, as the timing depends on the weather and the ability of the face work to suck moisture from the mortar. Too wet and you will push out the mortar and stain the brickwork. To dry and the mortar will be difficult to rub up. Start with the vertical joints, followed by the horizontal joints. Once rubbed up leave the semi dry and finally brush over with a soft brush. As the mortar dries, it should be protected from the direct sunlight and lightly sprayed with water to prevent drying too fast and cracking.

#### Equipment Care

- Do not leave the unit with mortar mix still inside. If you must stop, rinse the hopper through.
- Keep the equipment clean, especially the hopper bearing.
- Do not immerse the whole unit in water - disconnect the auger assembly first.
- Lubricate the hopper bearing and nozzle thread daily with grease provided.

#### Progrout Handy Hints

1. Getting the correct mix can take some practice depending of type of sand and finish required due to regional variations in building sand.
2. Hydrated lime can be used as an alternative to plasticiser.
3. The mortar mix needs to be fairly creamy when mixing in the bucket. If it will not pump, it is too stiff or there is not enough plasticiser/lime.
4. Periodically stir the mortar in the bucket to prevent it becoming stiff.
5. Smaller nozzles require a slightly wetter mix. If the nozzle blocks the mix is too stiff. If the nozzle drips, the mix is too wet.
6. Before removing the nozzle to clear blockage, first try immersing the tip in a bucket of water and reverse the motion of the drill for a few seconds, suck up a little water then revert to forward motion
7. Wetter mixes will dry slightly weaker, e.g. a 1-4 mix will dry to a 1-5 mix
8. ALWAYS use fresh cement and clean equipment
9. Building sand used MUST be sieved for successful pointing. NOTE: Some cements are now manufactured with their own plasticiser and no further additives should be necessary.
10. Wet inside of hopper before use and do not overfill.
11. 5mm, 8mm, 10mm and 15mm diameter nozzles are available if required. Use more cement and plasticiser to form a creamier wetter mix to ensure there are no lumps in the sand or cement.
12. Wash out the hopper with a hose using a spray attachment after finishing work or leaving for long periods between jobs.
13. Do not forget to lubricate the bearing housing daily using a general purpose grease. Periodically the gearbox will benefit from internal cleaning and re-lubricating.
14. To prevent build-up of mortar around the outside of the bearing housing and to increase life, thinly smear around the top with grease.
15. Always fully charge batteries before commencing work. New batteries improve significantly after a few discharges and recharges.