























### **Production**

1. During the production phase of work, monitor pump and mixer performance continuously, being alert to any signs of abnormality.
2. Keep mixers free of material build-up; keep the outside of the machine clean.

### **Clean-Up**

#### **NOTE:**

**Never run pump without fluid, as it will cause severe damage.**

1. After disposing of excess production material, carefully wash out mixer paddles, screen into the pump hopper, and pump the resulting washout material through the grout hoses to a suitable disposal site.
2. Continue this operation until only clear water is discharged.
3. It is advisable to drain all residual wash water from the pump and all hoses when washout is complete

### **Mixing Procedure**

1. Load approximately 80% of the water or liquid anticipated for the size batch to be mixed and with the mixer running add the required amount of cement.
2. Allow sufficient time for the slurry to mix to a creamy consistency, before pumping or adding filler material (sands, fly ash, etc), slowly add sand if required, until the mix just begins to lose the cement colour. This should be the maximum amount of sand the mix can accommodate and it may be necessary to use slightly less sand for subsequent batches.
3. The water may be adjusted for the relative wetness or dryness of sand to produce a grout that is just pourable.
4. Never switch the mixer off during mixing batches. This will cause excessive load and will damage the motor and gearbox.

### **Premix Grouts**

1. Many building material suppliers manufacture pre-blended cement based grouts, of which are pumpable and some are not pumpable.
2. Before attempting to pump a pre-blended grout material, determine whether the material conforms to the criteria described above. It is also necessary to determine whether the material has a short working time before set because there may be insufficient working time to pump.
3. Before pumping any pre-blended cement-based grout mix, it is good practice to first coat the pump and lines with cement slurry mix as previously described, prior to pumping the grout mix.

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### **“Homemade” Grout**

1. Sometimes commercially prepared grouts are not readily available, and in these cases, it may be necessary to formulate and produce the material on site. This can be done quite successfully, but certain basic principles must be observed.
2. The resultant material should exhibit the following characteristics:
  - a. A stable suspension of solids that does not separate while at rest.
  - b. Colour must be predominantly that of the cement used.
  - c. Fluid enough to pour from a container, but not too wet. (Thick batter consistency)

### **Cement**

1. There are several types of Portland cements manufactured to satisfy a variety of specific requirements, such a high early strength sulfate resistance and other needs.
2. The most common of these is Type I Portland, and is that which is most frequently used in the production of cementitious grout.

### **Water**

1. In most instances, the water to be used for the production of grout should be clean and free of sulfates or other dissolved chemicals. If available, potable water is ideal.
2. Since the water to cement ratio is the important factor in the quality of the material in its final state, the water content should be kept to the minimum that will produce material with the characteristics listed above.

### **Admixtures**

1. Admixtures are available to modify and enhance the grout mixture. These include plasticizers, water reducing agents, expansive agents, Anti-washout ingredients and others.
2. If used at all, they should be used only with a full understanding of their effects, and only according to the manufacturers' recommendations.

### **Fly Ash**

1. In some parts of the country, fly ash (a byproduct of coal burning power stations) is available. This material has often been used to enhance the properties of cementitious grouts or reduce them cement fraction in some cases.
2. Use of this material should be used with **CAUTION**, since ash from some sources has been observed to cause **FLASH SET** in grout mixes.

3. If the use of this product is anticipated, trial mixes should be made to prove their applicability.

### **Sand**

1. If the use of sand is anticipated, several factors must be considered such as the shape, size and gradation of the sand to be used.
2. In general, the sand should be clean, well-graded and of rounded, natural shape. Regular particles such as manufactured sands should be avoided. Larger amounts of well graded and rounded, natural shape. Angular such as manufactured sands should be avoided. Larger amounts of well-graded and round shaped sand particles may be used in the mix rather than sand which is poorly graded or has a significant number of flat, sharp or angular particles.
3. Concrete sand is usually not pumpable but masonry and plaster sands usually are pumpable

**ROCKCRETER C70A WETCRETER/BOXCRETER – PRE USE CHECK LIST**

Checked by: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_  
 Section: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WARNING: REPORT DAMAGE, DEFECTS OR FAULTY OPERATION IMMEDIATELY. DO NOT OPERATE ROCKCRETE PUMP UNTIL CORRECTED**

Checked and in order

Checked and found defective

**SAFETY PRECAUTIONS**

1. Isolate all air & electric's during inspection and maintenance.
2. Keep hands away from moving parts.
3. Wear all necessary safety gear.

**BEFORE STARTING THE ROCKCRETER C70A**

1. Check that air and water pressure is sufficient.
2. Check all air, electrical & water connections are in safe working order.
3. Check rotor and stator, if worn, replace. Apply grease before reassembling.
4. Check discharge, clean & replace if worn
5. Check hoses for any material or blockages before turning on the machine.
6. Check and make sure the sieve is in place and secure.
7. Check nozzle tip for any blockages, if blocked clean. Check o-rings. Apply grease on o-rings.
8. Check auger for wear.
9. Check clamps & gaskets are in place and secure to all fittings.

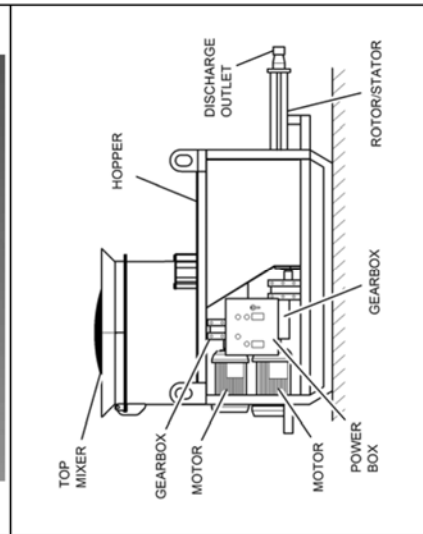
CHECK	GO	NO GO
1		
2		
3		
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11		

**AFTER STARTING THE ROCKCRETER C70A**

10. Check rotation of auger – anti clockwise
11. Check smooth operation of ROCKCRETER C70A

**NOTE: ALWAYS KEEP ENOUGH WATER ON SITE OF CLEANING**

**ROCKCRETER C70 WETCRETER/BOXCRETER**









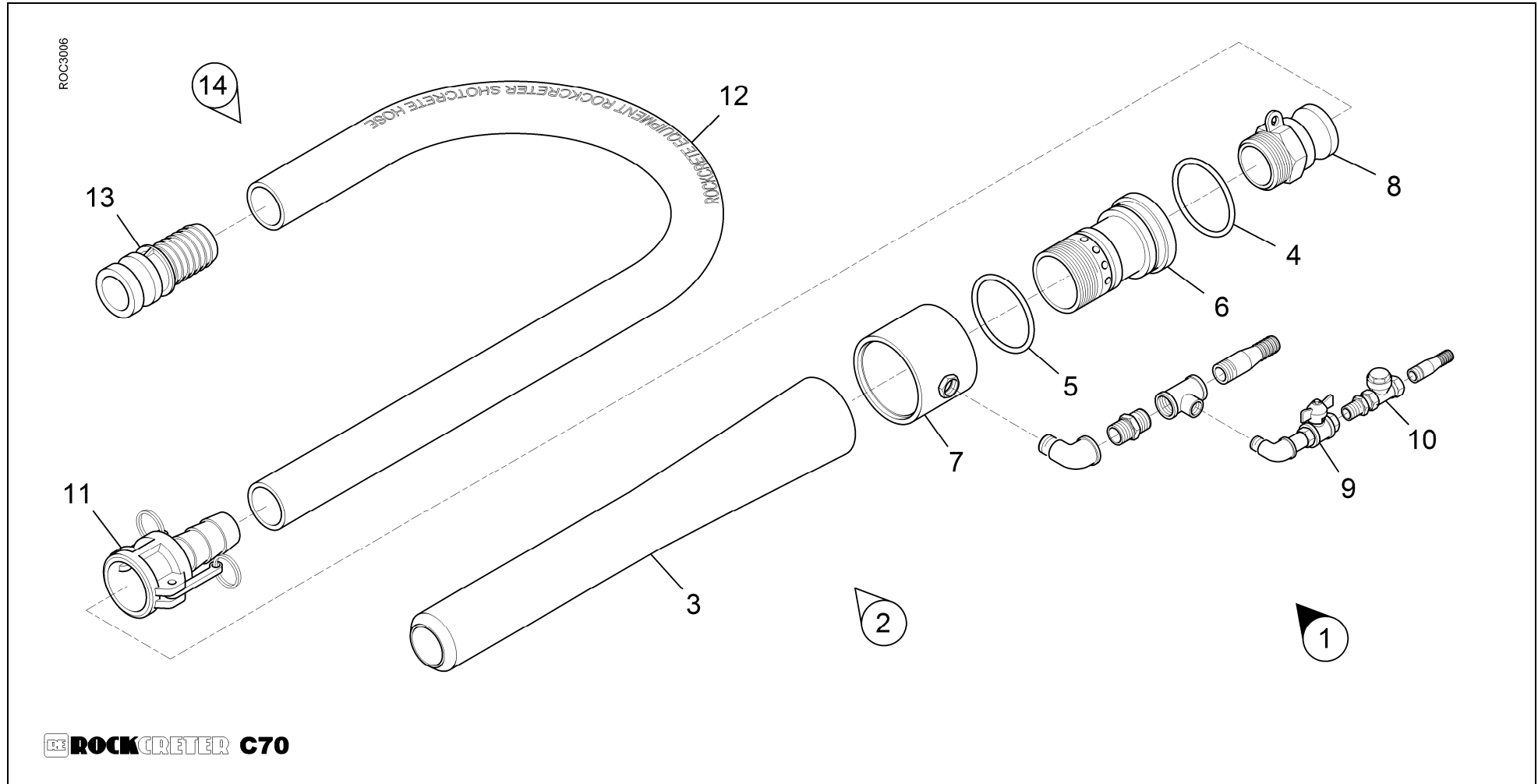
## 1. BODY ASSEMBLY

ITEM NO	DESCRIPTION	PART NO	QTY	COMMENTS
1	C70 MIXER COMPLETE	KGPF002	1	
2	C70 PUMP ASSEMBLY	ARC70E5	1	
3	C70 HOPPER AND FRAME	KGPF013	1	
4	ELECTRIC MOTOR 525V – 4 kW	EA028	1	
5	ELECTRIC MOTOR 525V – 7.5 kW	EA028C	1	
6	BOX CONTROL DUAL – 525V – 7.5kW	EA037A	1	
7	C70 GEARBOX PUMP DRIVE	KGPF202	1	
8	C70 INLINE GEARBOX	KGPF203	1	
9	C70 MIXER TOP BEARING	KGPF014	1	
10	AUGER C70	KGPF003	1	
11	MRT ROTOR / STATOR SET	KGPF005A	1	
12	VALVE WATER 1”	PV05	1	
13	FLOW METER	KGPF009	1	
14	DISCHARGE OUTLET 50mm	KGPF006	1	
15	SPANNER AND CHAIN	KGPF020	1	
16	SIEVE MIXER	KGPF050	1	
17	HOPPER MIXER	KGPF051	1	
18	MIXER ARM ASSEMBLY	KGPF052	1	
19	STUFFING BOX COMPLETE	KGPF001	1	
20	MIXER MAIN SHAFT	KGPF053	1	





## 2. HOSE ASSEMBLY



**1. HOSE ASSEMBLY**

ITEM NO	DESCRIPTION	PART NO	QTY	COMMENTS
1	WET SHOTCRETE NOZZLE & HOSE ASSEMBLY	W001B	1	
2	WETCRETE NOZZLE ASSEMBLY COMPLETE	W001A	1	
3	WETCRETE NOZZLE TIP	W001D	1	
4	O-RING 74mm	W002	1	
5	O-RING 73mm	W002A	1	
6	WETCRETE AIR RING	W003	1	
7	WETCRETE NOZZLE BODY	W004	1	
8	2" F CAMLOCK S/STEEL	W005	1	
9	TAP ASSEMBLY ACCELERATOR	E013	1	
10	NON RETURN VALVE ½"	PV19	1	
11	2" C CAMLOCK S/STEEL	W006	1	
12	WET SHOTCRETE HOSE 10M X 50mm	W011A	1	
13	2" E CAMLOCK S/STEEL	W006C	1	
14	WET SHOTCRETE HOSE ASSEMBLY	W011	1	C/W COUPLER

