OPERATING HINTS

- Always use a suction strainer. If stones enter the pump, they will damage the impeller.
- For the best pumping efficiency, the suction line should be as short and straight as possible.
- When pumping dirty water, use the suction strainer to avoid clogging of the pump.
- Ensure that there are no leaks on the suction line as this will prevent self priming and effective pumping.
- Always fill the pump housing with water before starting. Dry running will damage the seal.
- Maximum volume is achieved with a straight discharge line and a minimum number of pipe fittings.
- For permanent or automatic installations, use a foot valve on the suction line. The suction valve in the pump does not prevent seepage when idle. Fit a non-return valve to systems prone to water hammer.
- Do not screw steel fittings and pipe directly onto the aluminium pump. Always use plastic quick couplings with a short piece of hose to avoid stresses.

ASSEMBLY INSTRUCTIONS (when supplied in kit form)

1) Assemble the backplate onto engine as per figure 1. Use blue locktite on the bolts.
2) Fit the impeller tightly onto the shaft without shimms or a key.
3) Place a straight edge across the volute scrolls and measure the gap between the straight edge and the impeller vanes with a feeler gauge. Select the required shimms as per following table to give the desired impeller gap of 0,2mm to 0,5mm.

GAP GO (mm)	0,2	0,4	0,6	0,8	1,0	1,2	1,4	1,6
GAP NO GO (mm)	0,4	0,6	0,8	1,0	1,2	1,4	1,6	1,8
SHIMMS REQUIRED	Nil	1 x 0,2	2 x 0,2	1 x 0,5	1 x 0,2 1 x 0,5	2 x 0,5	1 x 0,2 2 x 0,5	2 x 0,2 2 x 0,5

4) Remove the impeller and refit with shimms, key, centre screw and dubo washer, as per figure 2. Check that the gap is between 0,2mm and 0,5mm.
5) Fit wear plate with M6 x 12 screws. Turn the motor to ensure there is no rubbing.
6) Fit 'O' ring to backplate. Fit suction gasket to suction port of pump housing and assemble onto backplate.
7) Fit discharge elbow with gasket in desired discharge position.

Figure 1
Backplate mounting onto engine

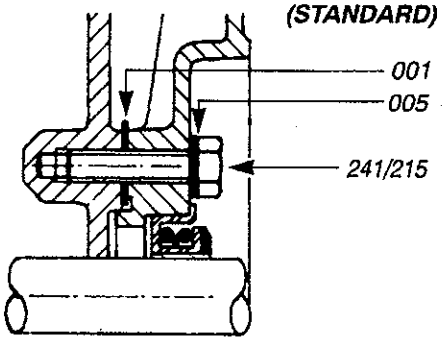


Figure 2
3/4" Keyed impeller mounting onto shaft

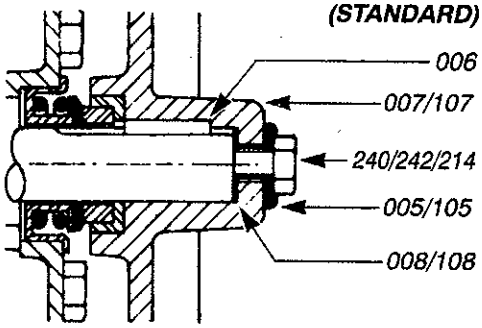
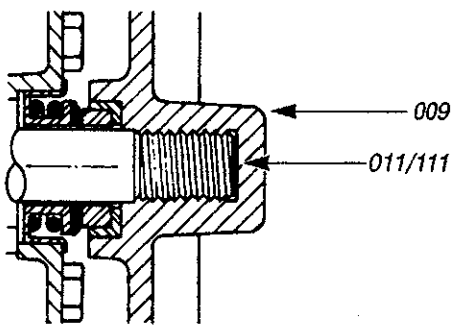
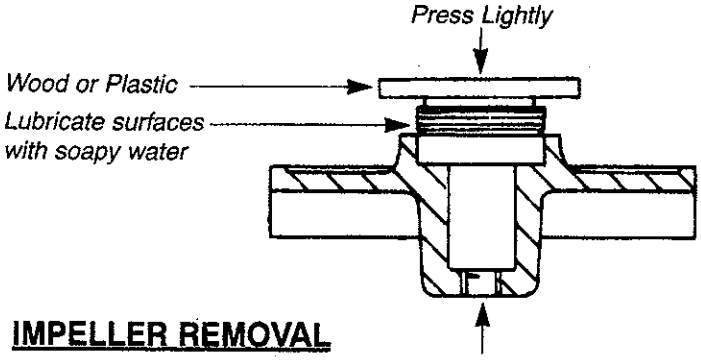


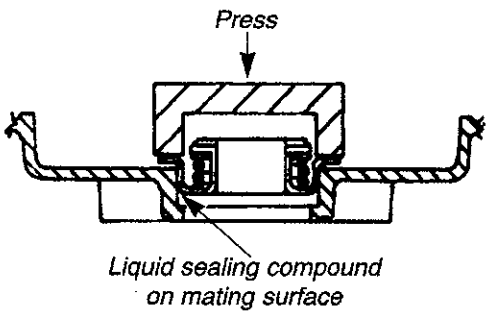
Figure 3
5/8" UNF impeller mounting onto shaft



MECHANICAL SEAL REPLACEMENT

Check that the seal is parallel after pressing





IMPELLER REMOVAL

The hub of keyed impellers is tapped M12. Remove the centre bolt which is either 5/16" UNF, M8 or 3/8" UNF depending on the shaft. If the impeller is tight on the shaft due to rust, proceed as follows: Insert a short grub screw, with the same thread as the centre bolt, to the end of the shaft. Screw an M12 bolt into the hub of the impeller. This will act as a puller.

WARRANTY

Pumps manufactured and assembled at the Hymech Works are guaranteed against faulty materials and workmanship for a period of one year, fair wear and tear excluded.