

80 mm

FEATURES

- High efficiency aluminium pumps with replaceable steel wear plate
- Semi open cast iron impellers which can handle small solids
- Mechanical seals in carbon, ceramic, stainless steel and nitrile rubber

SPECIFICATIONS

- Suction port 80mm (3")
- Discharge port 80mm (3")
- Max. speed 4000 R.P.M.

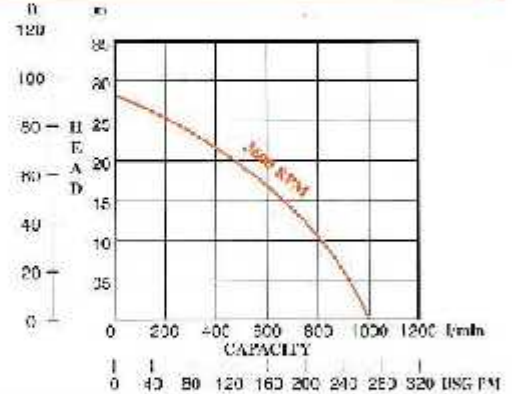
ENGINE DRIVEN (PETROL OR DIESEL)

MODEL 80E

MODEL

Total head @ 3600 RPM	28m
Maximum capacity ℓ /min	1000
Maximum suction lift (SL)	7m
Self priming time /m	25sec
Engine power H.P.	5

80E

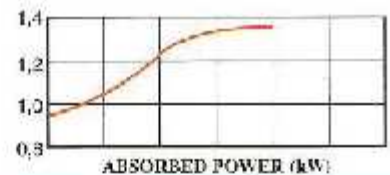
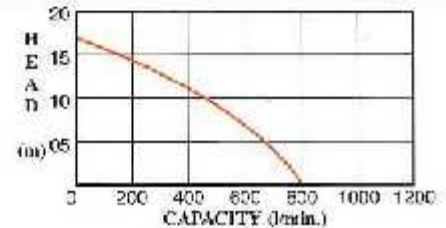


- Available with all popular makes of petrol and diesel engines.

ELECTRIC MOTOR DRIVEN (220 OR 380 VOLT)

MODEL 80EL

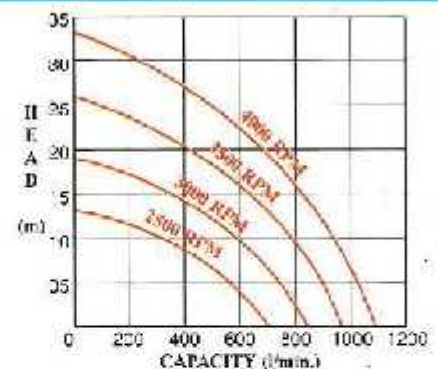
Total head	17m
Maximum capacity	800 ℓ /min
Maximum suction lift (SL)	6m
Self priming time /m	30sec
Motor power	1.5 kW
Motor speed	2800 RPM



PEDESTAL MOUNTED (FOR V-BELT OR DIRECT DRIVE)

MODEL 80EP

Total head	33m
Maximum capacity	1100 ℓ /min
Maximum suction lift (SL)	7m
Standard shaft	304 s/s



STANDARD ACCESSORIES SUPPLIED WITH ALL MODELS



3" Galvanised steel suction strainer



Two 3" BSP quick couplings made of reinforced nylon



Three hose clamps

OPERATING HINTS

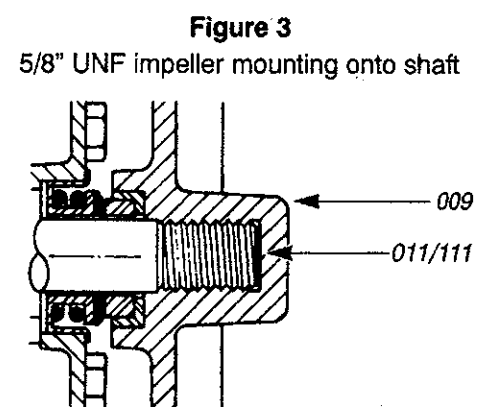
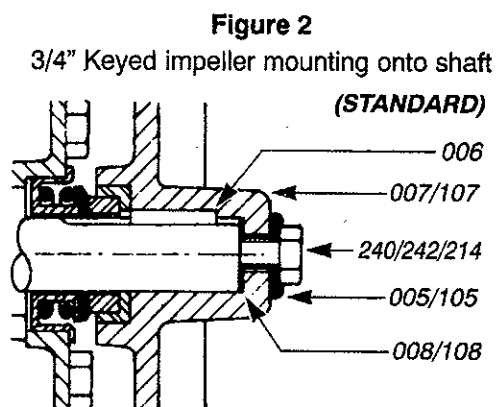
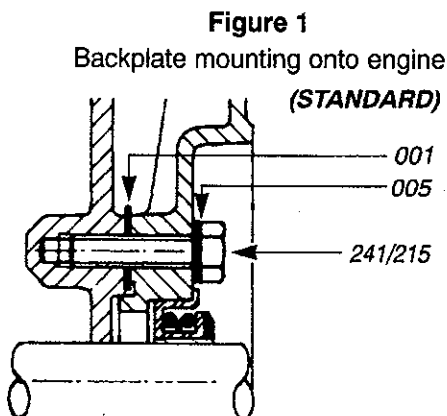
- Always use a suction strainer. If stones enter the pump, they will damage the impeller.
- For the best pumping efficiency, the suction line should be as short and straight as possible.
- When pumping dirty water, use the suction strainer to avoid clogging of the pump.
- Ensure that there are no leaks 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 shims 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 shims as per following table to give the desired impeller gap of 0,2mm to 0,5mm.

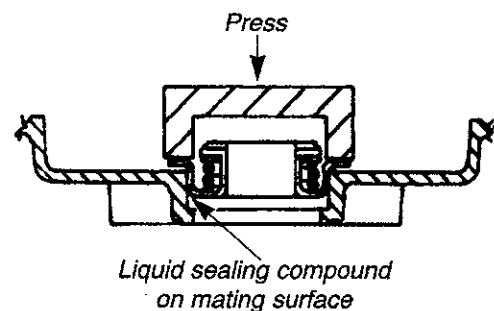
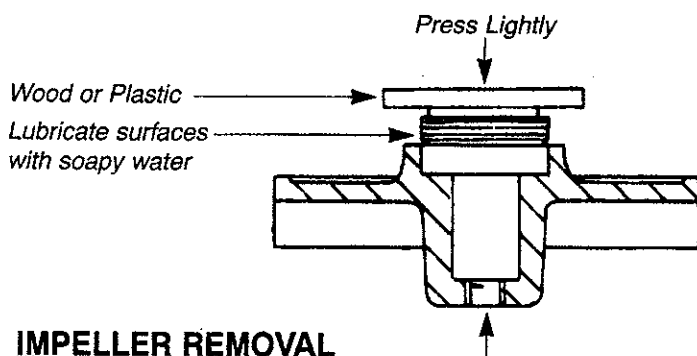
GAP GO (mm)	0,2	0,4	0,6	0,8	1,0	1,2	1,4	1,6
GAP NO GO (mm)	0,4	0,6	0,8	1,0	1,2	1,4	1,6	1,8
SHIMMS REQUIRED	Nil	1 x 0,2	2 x 0,2	1 x 0,5	1 x 0,2 1 x 0,5	2 x 0,5	1 x 0,2 2 x 0,5	2 x 0,2 2 x 0,5

- 4) Remove the impeller and refit with shims, 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.



MECHANICAL SEAL REPLACEMENT

Check that the seal is parallel after pressing

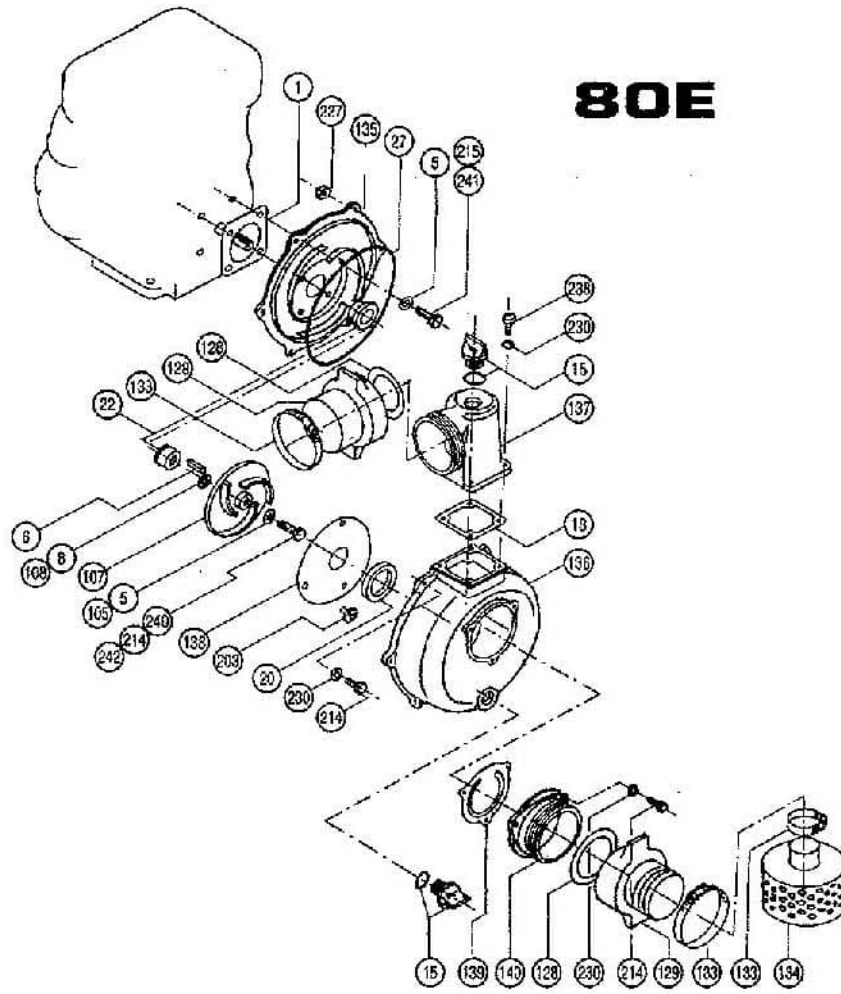


IMPELLER REMOVAL

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.



80E

No	Qty	Description
001*	1	Backplate Gasket
005*	4 or 5	Dubo Washer M8
006	1	Key 3/16"
008	As Req	Shimm 0,2mm (Std Imp.)
015	2	Plug with 'O' ring
018*	1	Discharge Gasket
020*	1	Suction Gasket
022	1	Mechanical Seal
027*	1	Housing 'O' Ring
043	*	Gasket Set
105	0 or 1	Dubo Washer M10 (EY20)
107	1	Impeller 3/4" Keyed
108	As req.	Shimm 0,5mm
128	2	Coupling Gasket
129	2	Quick Coupling Set
133	3	Hose Clamp
134	1	Strainer
135	1	Backplate Housing
136	1	Pump Housing
137	1	Discharge Elbow
138	1	Wear Plate
139	1	Suction Valve
140	1	Suction Cover
203	3	Screw M6 x 12
214	9 or 10	Bolt M8 x 25 HT
215	0 or 4	Bolt M8 x 30 (diesel)
227	6	M8 Hex Nut
230	13	M8 Serrated Washer
238	4	Capscrew M8 x 25
240	1	Bolt 5/16 x 1" UNF
241	4	Bolt 5/16 x 1 1/4" UNF
242	0 or 1	Bolt 3/8 x 1" UNF (EY20)