

# 50 mm

## SPECIFICATIONS

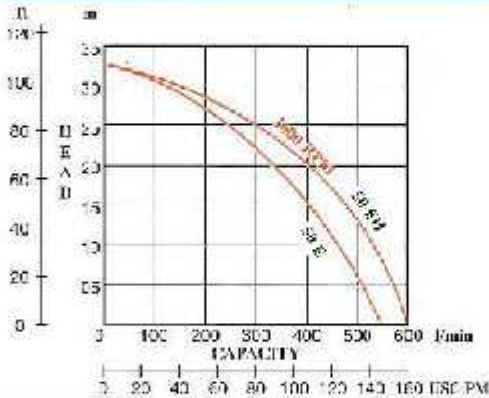
- Suction port 50mm (2")
- Discharge port 50mm (2")
- Max. speed 3600 R.P.M.

## APPLICATIONS

- Water tankers
- Cooling towers
- Cattle dips
- Industrial plant drainage
- Flood & sprinkler irrigation
- Dirty water handling
- Paddy fields
- Trench dewatering
- Public works.

### ENGINE DRIVEN (PETROL OR DIESEL)

### MODEL 50E & 50EH

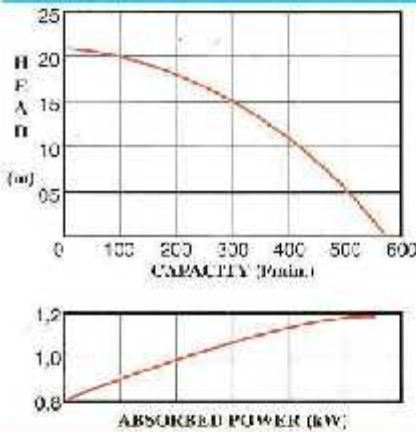


MODEL	50E	50EH
Total head at 3600 RPM	33m	33m
Maximum capacity $\ell$ /min	550	600
Maximum suction lift (SL)	8m	8m
Self priming time /m	10sec	8sec
Engine power H.P.	3,5	5

- Fits all engines having a standard three quarter inch keyed shaft.

### ELECTRIC MOTOR DRIVEN (220 OR 380 VOLT)

### MODEL 50EL



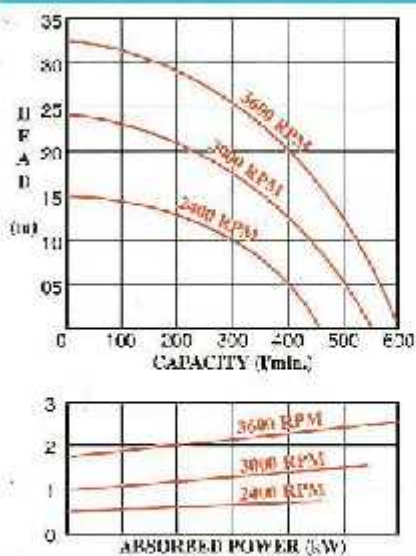
Total head,	21m
Maximum capacity	550 $\ell$ /min
Maximum suction lift (SL)	6m
Self priming time /m	20sec
Motor power,	1,5 kW
Motor speed	2800 RPM

#### OPTIONAL MOUNTING

- On carry frame.
- On baseplate

### PEDESTAL MOUNTED (FOR V-BELT OR DIRECT DRIVE)

### MODEL 50EP



Total head	33m
Maximum capacity	600 $\ell$ /min
Maximum suction lift (SL)	8m
Standard shaft	304 s/s

#### OPTIONAL EXTRAS

- Tubular wrap around frame
- Flexible shaft coupling
- Coupling guard.

### STANDARD ACCESSORIES SUPPLIED WITH ALL MODELS



2" Galvanised steel suction strainer



Two 2" BSP quick couplings for pump and hose connections



Three hose clamps

## OPERATING HINTS

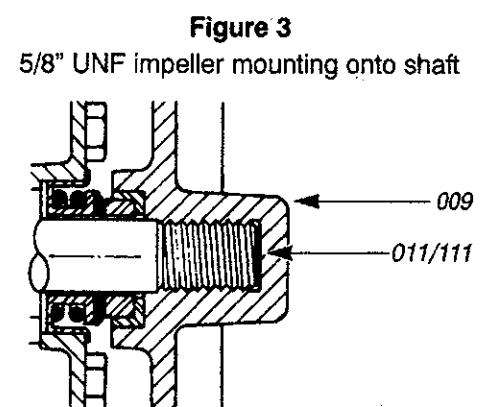
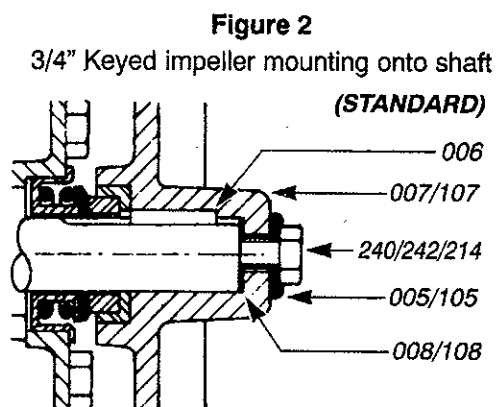
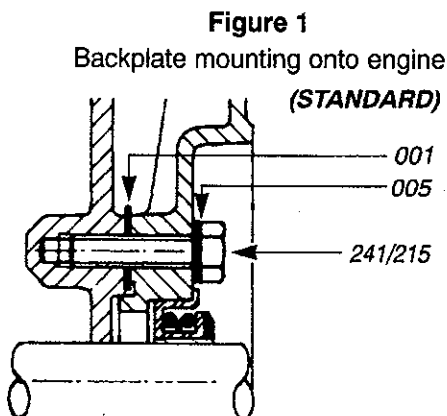
- Always use a suction strainer. If stones enter the pump, they will damage the impeller.
- For the best pumping efficiency, the suction line should be as short and straight as possible.
- When pumping dirty water, use the suction strainer to avoid clogging of the pump.
- Ensure that there are no leaks 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.

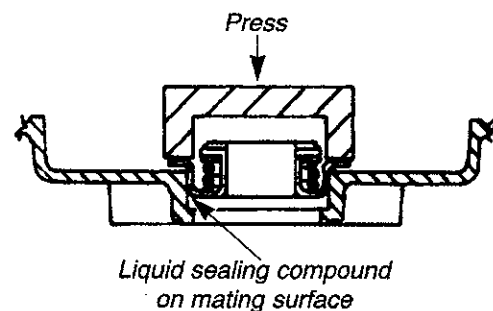
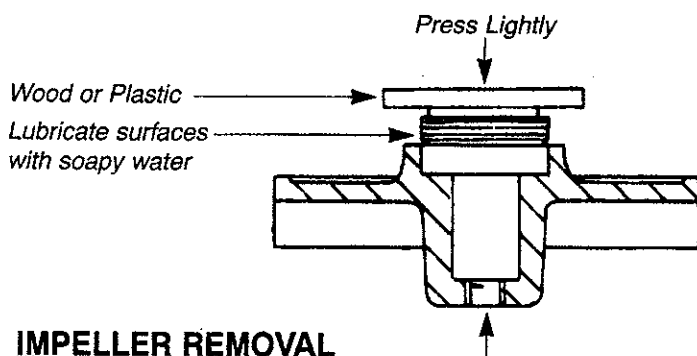
GAP GO (mm)	0,2	0,4	0,6	0,8	1,0	1,2	1,4	1,6
GAP NO GO (mm)	0,4	0,6	0,8	1,0	1,2	1,4	1,6	1,8
SHIMMS REQUIRED	Nil	1 x 0,2	2 x 0,2	1 x 0,5	1 x 0,2 1 x 0,5	2 x 0,5	1 x 0,2 2 x 0,5	2 x 0,2 2 x 0,5

- 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

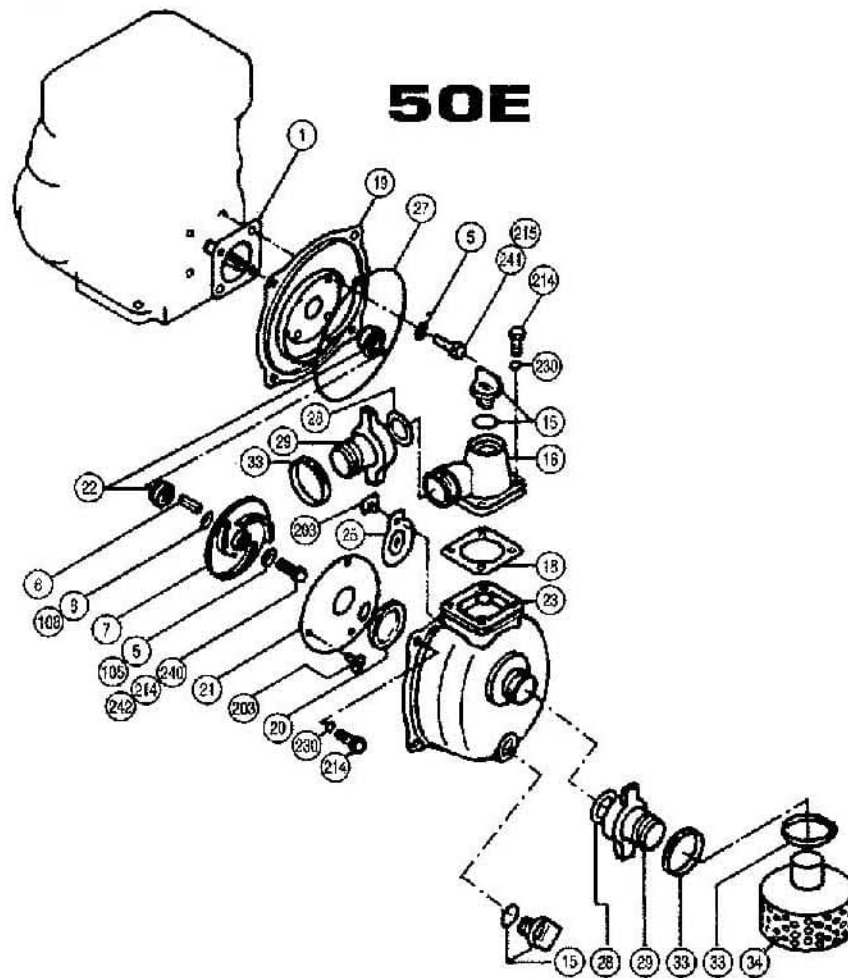


## IMPELLER REMOVAL

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.



No	Qty	Description
001*	1	Backplate Gasket
005*	4 or 5	Dubo Washer M8
006	1	Key 3/16"
007	1	Impeller 3/4" Keyed
008	As Req	Shimm 0,2mm (Std Imp.)
009	1	Impeller 5/8" UNF Screw On
011	As Req	Shimm 0,2mm (screw imp)
015	2	Plug with 'O' ring
016	1	Discharge Elbow
018*	1	Discharge Gasket
019	1	Backplate Housing
020*	1	Suction Gasket
021	1	Wear Plate
022	1	Mechanical Seal
023	1	Pump Housing
025	1	Suction Valve
027*	1	Housing 'O' Ring
028	2	Coupling Washer
029	2	Quick Coupling Set
033	3	Hose Clamp
034	1	Strainer
043	*	Gasket Set
105	0 or 1	Dubo Washer M10 (EY20)
108	As req.	Shimm 0,5mm (Std. imp.)
111	As req.	Shimm 0,5mm (screw imp.)
203	4	Screw M6 x 12
214	8 or 9	Bolt M8 x 25 HT
215	4 or 0	Bolt M8 x 30 (diesel)
230	8	M8 Serrated Washer
240	1	Bolt 5/16 x 1" UNF
241	4	Bolt 5/16 x 1 1/4" UNF
242	1 or 0	Bolt 3/8 x 1" UNF (EY20)