

# EC

**Large flow high head multistage split casing pump with superior advantages**



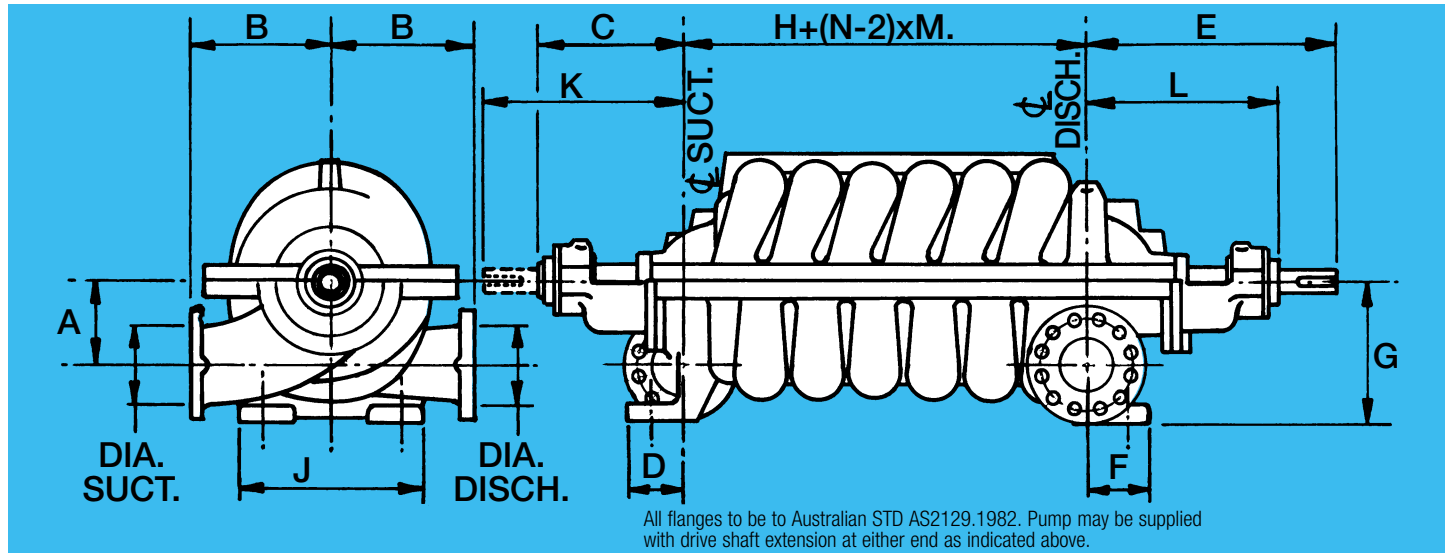
**Thompsons Kelly & Lewis**

# Unmatched efficiency and durability make the EC pump the best choice for your pumping station

In large water flow and high head pumping applications there's one pump that stands out head and shoulders above the rest – the EC multistage split casing pump from Thompsons, Kelly & Lewis. It's made at our Castlemaine (Victoria) pump production

centre with a robust durability second to none. A proven track record in pumping stations around the country has earned it the reputation of being virtually indestructible. In addition to this strength, it also features a superior efficiency rating, which means power savings for decades to come.

## Outline Dimensions



Pump Designation			Dimensions in millimetres											
DIA DISCH mm	DIA SUCT mm	No. STAGES 'N'	A	B	C	D	E	F	G	H	J	K	L	M
75	75	MIN 2 MAX 7	140	279	285	127	457	127	216	159	381	378	365	114
100	100	MIN 2 MAX 8	156	356	360	133	597	133	254	218	432	487	470	102
125	125	MIN 2 MAX 7	135	343	400	140	600	140	305	267	457	489	514	127
150	150	MIN 2 MAX 7	219	381	394	165	676	172	381	330	508	537	543	156
200	200	'ECS' N = 2	267	457 SUCT 508 DISCH	406	178	740	203	406	299	660	562	584	-
200	200	MIN 3 MAX 5	267	508	378	165	660	229	483	406	813	521	518	229
250	250	MIN 2 MAX 5	308	610	410	-	826	254	533	518	914	568	667	254

Dimensions are to nearest mm

## Specifications

**GENERAL** The Split Casing "EC" type pump has been specially developed to enable high pressure pumps to have the following advantages which are not available with the cellular type of pump held together by longitudinal bolts.

- (1) The ready inspection of the pump interior without breaking the piping joints, simply by lifting the cover half casing.
- (2) The complete rotating element may be easily removed for inspection without disturbing the alignment of the pump or motor.
- (3) The heavy casing construction ensures permanent and accurate alignment of the pump parts, whereas the cellular built-up type must vary due to the number of sections and machined parts. The pump is designed and constructed in accordance with best modern practice, and capable of withstanding severe and continuous duty, consistent with efficiency. Standard materials are listed below, but all parts can be manufactured in other materials to suit the service.

**BALANCING** Each impeller is hydraulically balanced independently and any unbalanced thrust is supported by a ball bearing.

**CASING** The Casing is of multiple volute type, having passages correctly proportioned for the most efficient conversion of velocity to pressure. It is divided into two sections along the axial centre line, having both suction and delivery branches on the fixed half to allow the removal of the rotating element without breaking any pipe joints or disturbing the bearing or motor alignment. The material used in its construction is of high grade cast iron. Suction and delivery branches are flanged in accordance with British Standard practice.

**IMPELLERS** Impellers are of gunmetal, accurately machined and balanced, with water passages hand finished to a smooth surface.

They are of the enclosed single entry type, keyed to the shaft and held in place with sleeves and locknuts.

**SEALING RINGS** Renewable Bronze Rings in one piece are fitted in the casing. The rings are locked in position by means of a tongue which fits into a mating groove in the casing.

**INTERSTAGE BUSHINGS** Between stages, where short-circuiting is possible, diaphragm bushes of bronze are fitted to the casing. These bushes are also locked in position by means of a tongue and groove.

**SHAFT** The Shaft is of low carbon steel finished by grinding to gauge. It is of very robust proportions, of ample size to transmit the maximum power of the pump and to prevent deflection and vibration.

**SHAFT SLEEVES** Shaft Sleeves between stages and in the stuffing boxes are of gunmetal accurately machined and polished on the external surface.

**STUFFING BOXES** Stuffing Boxes are of liberal depth and, where required, water sealed. Neck bushes of bronze are provided at the inner end. The packing is high quality graphite impregnated T.F.E. type.\*

**GLANDS** Glands are of cast iron with sufficient drawback space to assure accessibility and ease in renewing the stuffing box packing.

**BEARINGS** The Bearings are of the ball or roller type arranged for grease lubrication. Each bearing is arranged entirely outside the pump casing in split housings with seals to exclude dust and gland leakage.

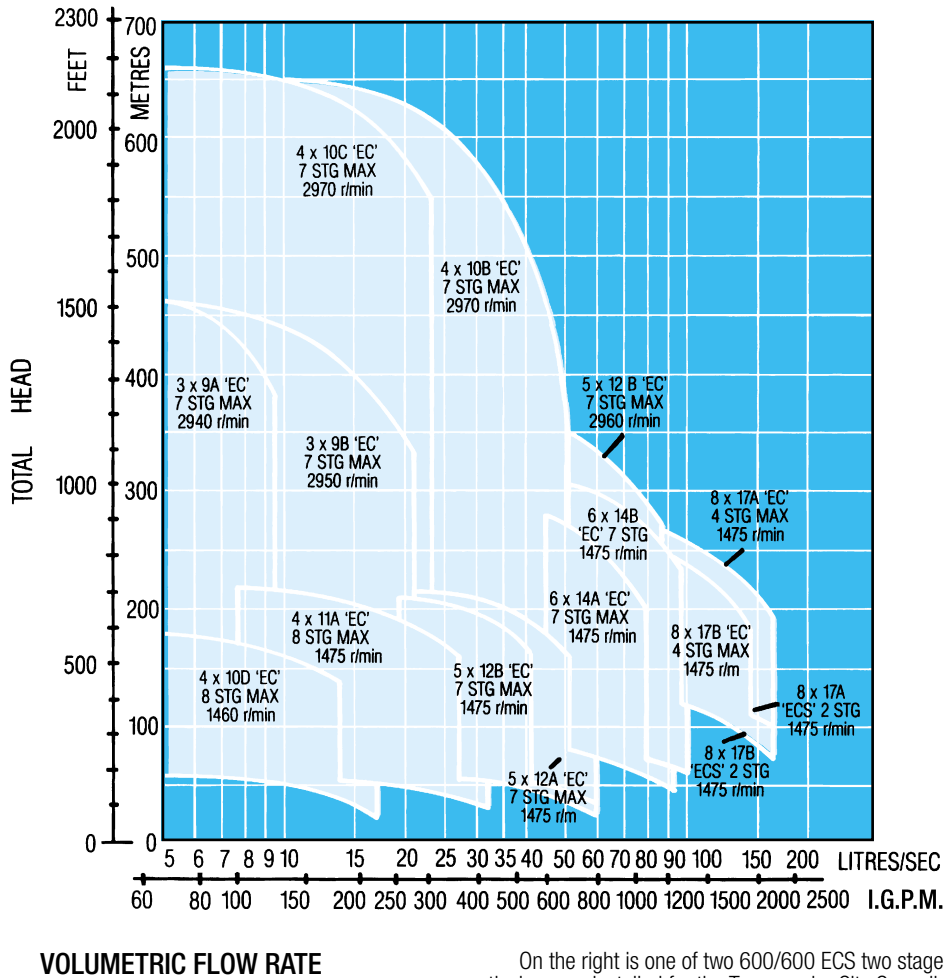
**COUPLING** The standard flexible Coupling is of the cone-ring type.

**BASEPLATE** Baseplate to support the Pump and Driver is of rigid construction in fabricated steel.

\*Mechanical seals can be provided when requested.

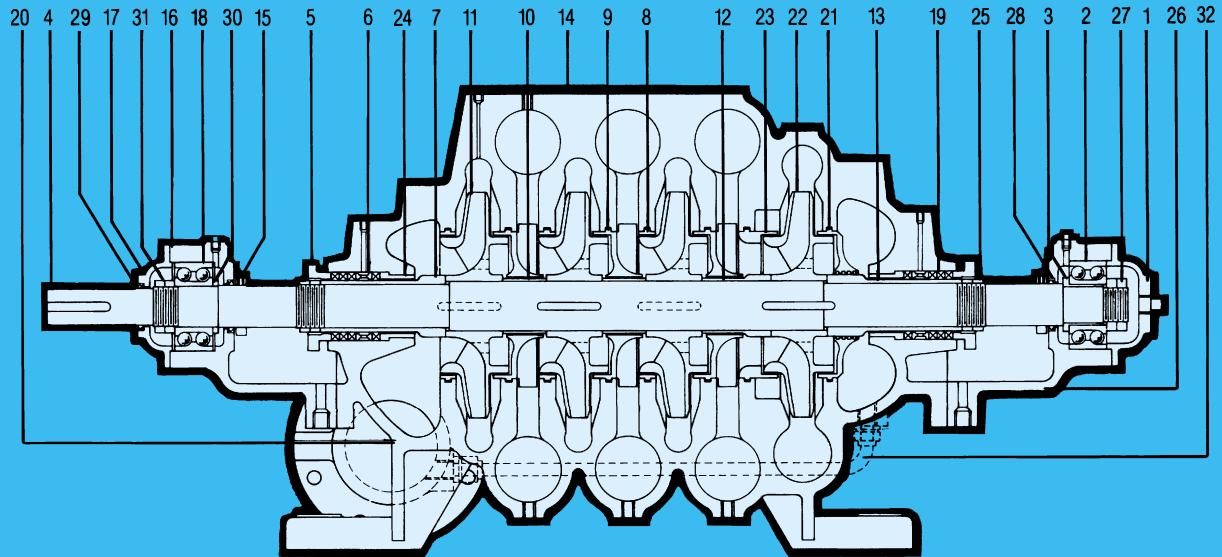


The Onehunga Borough Council (New Zealand) water supply pumping station features five EC Pumps.



On the right is one of two 600/600 ECS two stage vertical pumps installed for the Toowoomba City Council.

# EC pump: a water-tight investment into the new century



## List of parts

- |                                    |                                |                                |                         |
|------------------------------------|--------------------------------|--------------------------------|-------------------------|
| 1 Bearing Cover                    | 9 Diaphragm                    | 17 Bearing Cover               | 25 Sleeve Nuts          |
| 2 Ball Bearings –<br>Non-Drive End | 10 Interstage Sleeve           | 18 Ball Bearing<br>– Drive End | 26 Bearing Housing      |
| 3 Bearing Sleeve                   | 11 Impeller                    | 19 Packing                     | 27 Bearing Nuts         |
| 4 Pump Shaft                       | 12 Final Stage Sleeve          | 20 Bottom Half Casing          | 28 Vee Rings – Inner    |
| 5 Gland                            | 13 Discharge End Sleeve        | 21 Final Stage Diaphragm       | 29 Vee Rings – Outer    |
| 6 Lantern Ring                     | 14 Top Half Casing             | 22 Final Stage Impeller        | 30 Bearing Collar       |
| 7 Suction End Sleeve               | 15 Water Thrower<br>– Optional | 23 Final Stage Casing Ring     | 31 Bearing Nuts         |
| 8 Casing Ring                      | 16 Bearing Cap                 | 24 Neck Bush                   | 32 Pressure Relief Pipe |



**Thompsons, Kelly & Lewis Pty. Ltd.**  
 A.B.N. 15 004 249 012  
 26 Faigh Street Mulgrave Victoria 3170 Australia  
 PO Box 160 Springvale Victoria 3171 Australia  
 Tel +61 3 9562 0744 Fax +61 3 9562 2816  
 E-mail: [tkl.sales@tkl.com.au](mailto:tkl.sales@tkl.com.au)  
 Internet: [www.tkl.com.au](http://www.tkl.com.au)

For further information, sales, service or technical assistance, consult your telephone directory for nearest sales office.  
 AUSTRALIA Sydney Melbourne Brisbane Adelaide Perth  
 NEW ZEALAND Christchurch Hamilton  
 EAST ASIA Singapore

TM - Trademark owned by Thompsons, Kelly & Lewis Pty Ltd  
 Alteration Rights Reserved



Quality  
 Endorsed  
 Company

ISO 9001 Lic 2685  
 Standards Australia