

KL-ISO™

End suction back pull-out pumps for general industry, mining, rural and building services



Thompsons Kelly & Lewis

KL-ISO

WHY COMPROMISE?

The TKL KL-ISO end suction, back pull-out pump range is anything but ordinary – it is the result of an intensive Research and Development Program which culminated in the design of a range of 32 versatile and reliable multi-purpose pumps with more advanced characteristics and higher performance levels than ever before.

KL-ISO is a ROBUST, HIGH QUALITY pump ensuring EXTENDED LIFE at LOW COST, producing an all-round balance of strength and hydraulic performance. KL-ISO IS YOUR GUARANTEE OF QUALITY.

DESIGNED AND BUILT TO INTERNATIONAL STANDARD ISO 2858

The ISO 2858 is currently the only recognised international standard relating to end suction centrifugal pumps. This standard has gained wide acceptance amongst users internationally, with the Standards Association of Australia having already adopted the ISO pump test codes. KL-ISO complies with ISO 2858 and thereby establishes superiority through standardisation and interchangeability over other pumps.

STURDIER MECHANICAL CONSTRUCTION

ISO 2858 specifies dimensions that ensure low shaft stresses, and longer bearing life than is required by other standards.

SUPERIOR SUCTION ABILITY

ISO 2858 ensures that the suction branch is larger on most sizes than required by other standards, thus allowing optimum suction ability.

HIGH STRENGTH

The 1600 kPa working pressure rating for ISO 2858 pumps is a 60% increase over most others. This ensures robust, solid construction.

HIGHER PERFORMANCE

Advanced computer technology was used in the design of key KL-ISO components, resulting in a pump which can outperform, size for size, any other pump on the market. Improved non-overloading power characteristics are featured in most models.

The pumps are designed for a working pressure of 1600 kPa with some low head sizes classed at a lower pressure rating.

LOWER OPERATING COSTS

A computerised flow analysis program achieves higher efficiencies than ever before, and as a result, operating costs are greatly reduced.

SIMPLE, LOW COST MAINTENANCE

The KL-ISO incorporates the proven back pull-out feature which simplifies maintenance and reduces your costs accordingly – pipework and driver remain undisturbed during routine service and maintenance procedures.

EXCELLENT INTERCHANGEABILITY

A new level of component standardisation in KL-ISO pumps means that you can greatly reduce your spare parts stockholding – for example, the full 32 pump range uses only three sizes of standard bearings.

CHOICE OF PUMP MATERIALS

KL-ISO is engineered in your choice of quality materials to handle the most demanding of your pumping requirements.

SALES AND SERVICE

Stocks of KL-ISO pumps are conveniently located throughout the world, permitting off-the-shelf delivery of bare shaft pumps and a fast build-up of motor or engine driven units. Each of these centres provides a full back-up of after sales and spare parts service.

OPTIONAL EQUIPMENT

The standard KL-ISO pump can be equipped with the following options.

MECHANICAL SEALS – A choice of mechanical seals is available to suit specific applications where gland leakage cannot be tolerated.

WEAR RINGS – Front seal and rotating element have been designed to eliminate the need for wear rings. However, if desired, they can be supplied in cast iron or bronze in two combinations: casing ring only or casing and impeller rings.

SHAFT SLEEVE – Since the pump has a wear resistant AISI 431 stainless steel shaft as standard, a shaft sleeve is not necessary but is available as an optional item in AISI 431 stainless steel.

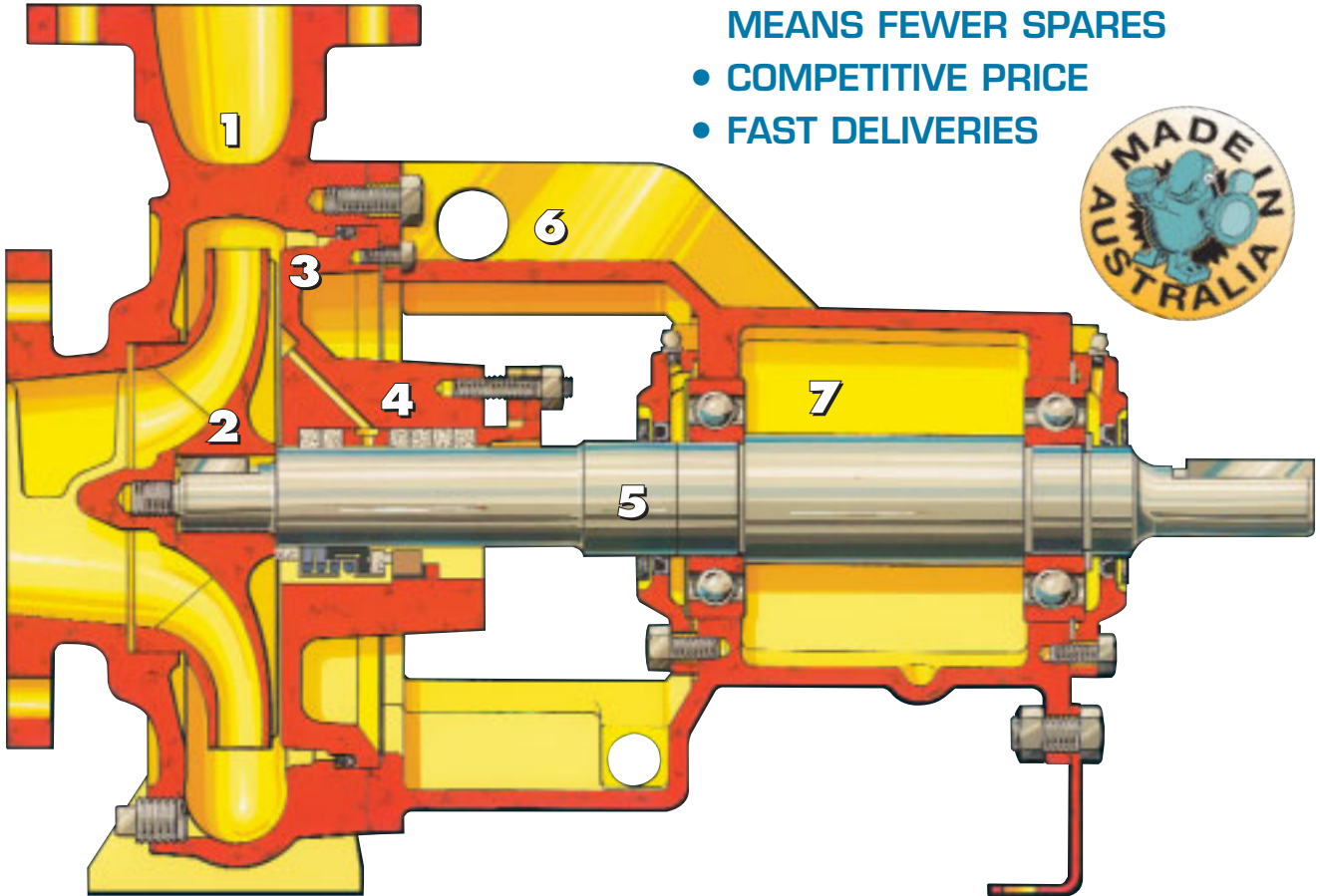
EXTERNAL GLAND FLUSH – Recommended when pumping abrasive fluids. Stuffing box wear is reduced by the introduction of clean fluid from an external source.

OIL LUBRICATED BEARINGS – Recommended for applications involving high temperature liquids.

GAUGE TAPPINGS – Provision is available at both the inlet and outlet branches to drill and tap to allow connection of performance instrumentation.

THE BENEFITS TO YOU:

- BETTER VALUE FOR YOUR MONEY
- GREATER RELIABILITY DUE TO 'ISO' DESIGN
- ROBUST CONSTRUCTION FOR EXTENDED LIFE
- LOWER OPERATING COSTS
- SIMPLE 'BACK PULL-OUT' LOW COST MAINTENANCE
- PARTS INTERCHANGEABILITY MEANS FEWER SPARES
- COMPETITIVE PRICE
- FAST DELIVERIES



1. **CASING** – Highly efficient volute type, designed with finite element stress analysis computer technology for high strength and maximum performance. Features an anti-swirl vane in suction branch for stability of head with vertical centreline discharge branch as standard.

2. **IMPELLER** – Developed with computer hydraulic design technology to produce higher efficiencies and suction lifts. Fully enclosed type with twisted vane design for maximum performance. Swept back clearing vanes are featured to balance axial thrust and protect packing and shaft from wear by abrasive particles. Impeller is hydraulically and statically balanced.

3. **BACK COVER** – Of advanced design to complement high performance characteristics of casing and impeller. It features unique 'O' ring seal for positive, leak-proof connection to pump casing. With this advanced seal design, unique to the KL-ISO range, the pump is made a rigid structural unit by permitting face contact between casing and housing.

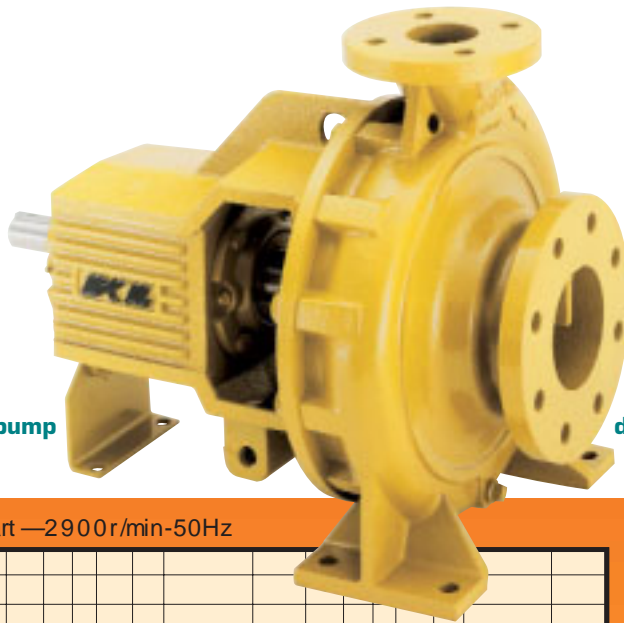
4. **STUFFING BOX** – Extra deep design, fitted with six rings of high quality packing and features a split gland to simplify replacement of packing. All pumps have a liquid sealed stuffing box, pressure regulated by the clearing vanes and provision for an external supply of

clean fluid to be connected into the stuffing box where abrasive liquids are being handled. The liquid seal prevents air entering the pump via the stuffing box when operating on a suction lift. A choice of various mechanical seals is available to suit specific applications.

5. **SHAFT** – Machined from stainless steel, shaft is sturdily proportioned to minimise deflection and provide long-term reliable service.

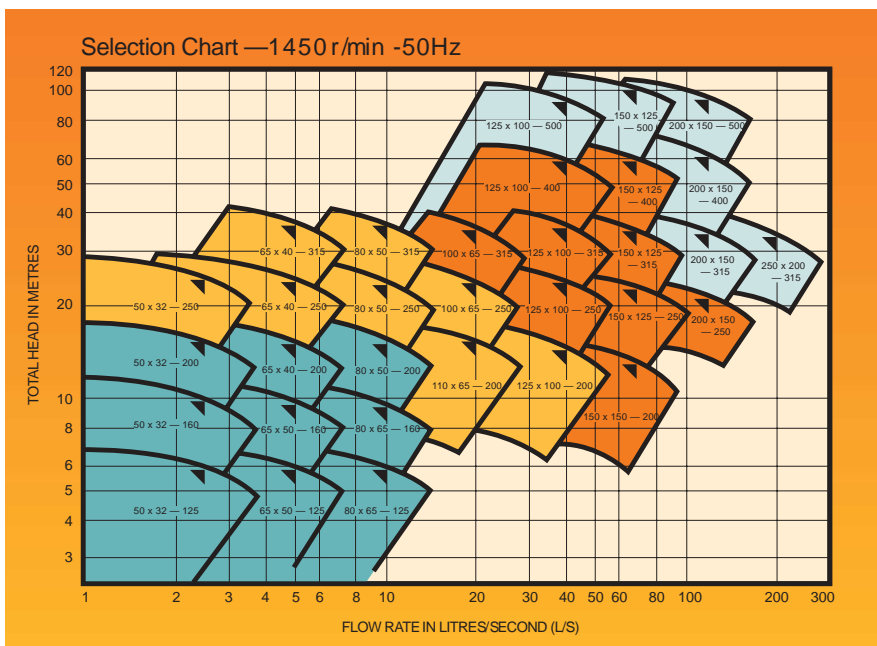
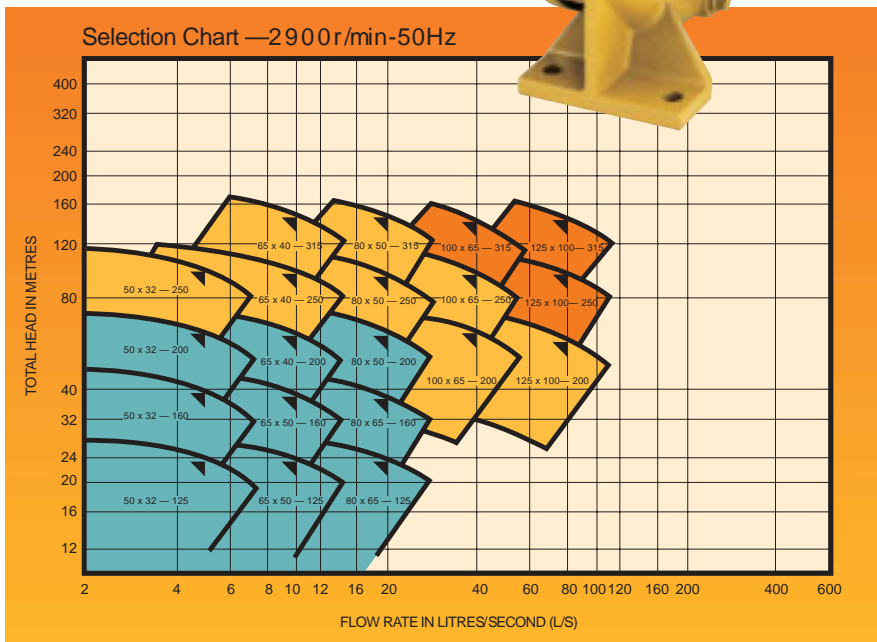
6. **HOUSING** – Rigid single-piece casting for strength and durability featuring positive no-gap location to casing, ensuring accurate coupling realignment. Equipped with lifting ring at centre of gravity of rotating assembly to facilitate handling. The housing drain is generously sized for gland drippage, necessary for packing lubrication.

7. **BEARINGS** – Two heavy duty, single row, deep groove ball bearings are design-rated to ensure an exceptionally long, trouble-free life. Precise location of outboard bearing eliminates all axial bearing shuttle. Each bearing is protected by the cast iron cover with inbuilt seal and contamination deflector. Grease lubrication is standard.



A new dimension pump

designed with the future in mind.



▲ Indicates peak efficiency

Interchangeability between housing sizes is achieved with four shaft elements with No. 2 and No. 3 having the same bearings and stuffing box components.

No.1 No.2 No.3 No.4

ACCESSORIES

The following range of accessories is available for electric motor or engine-driven applications –

BASEPLATES – Factory designed steel baseplates are available.

COUPLING GUARDS – Closed-type steel coupling guards can be supplied.

DRIVE EQUIPMENT – A variety of direct-drive flexible standard or spacer couplings plus vee-belt configurations can be arranged to suit specific applications.

APPLICATIONS

AGRICULTURAL INDUSTRY

- Irrigation (Sprinkler, drip, turf, flood)
- Stock watering
- Emergency fire service
- Domestic water supply

BUILDING SERVICES

- Fire protection systems
- Air conditioning plants
- Plumbing systems
- General mechanical services

GENERAL INDUSTRY

- Food and beverage processing
- Municipal services
- Paper, sugar industries
- Marine industry
- Automotive industry
- Iron and steel production

MINING AND MINERAL TREATMENT

- Mining process systems
- Mine water supply
- Mine dewatering
- Power generation systems
- General mechanical services

CHEMICAL INDUSTRY

- Process applications
- Emergency fire service
- Power generation systems
- General mechanical services

