

# SUPER-TITAN<sup>TM</sup>

Split-case pumps with power, performance and reliability for a world of applications



**Thompsons Kelly & Lewis**

**The Prestige.  
The Performance.**

# **SUPER-TITAN<sup>TM</sup> PUMPS**

**The Best Just  
Got Better.**

The Thompsons Kelly & Lewis Super-Titan split-case pump has long been used for the handling of liquids where the utmost in reliability and maintainability are demanded.

At first glance, the TKL Super-Titan pump may look like any other split-case pump. However, a close look inside will show how special attention devoted to design of the component parts makes the TKL Super-Titan pump different, a leader among split-case pumps.

## **Features**

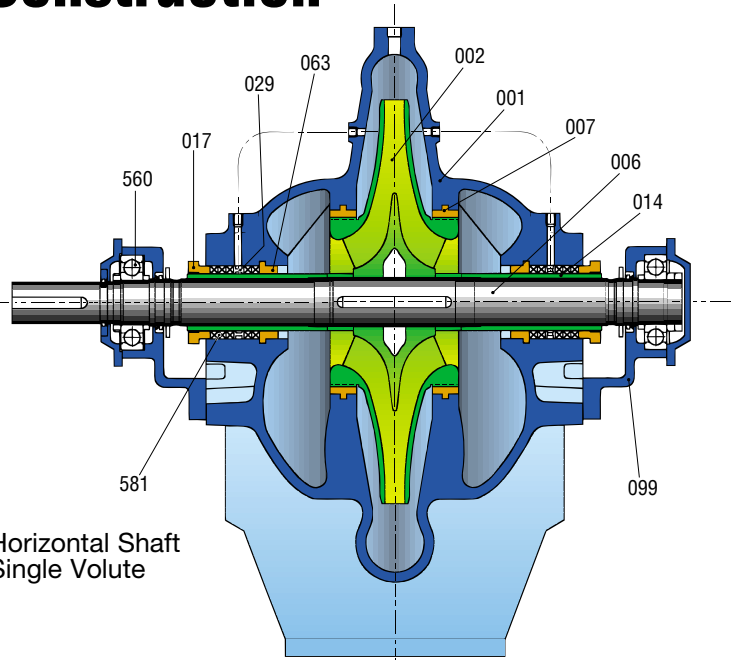
The TKL Super-Titan pump makes a significant contribution to the operator's requirements.

The numerous design features offer longer life of all parts. Our engineers considered the many service needs of modern general purpose pumps: higher operating pressures, dependability for continuous operation in process applications, high efficiency for economical operation, low monitoring and maintenance on any service.

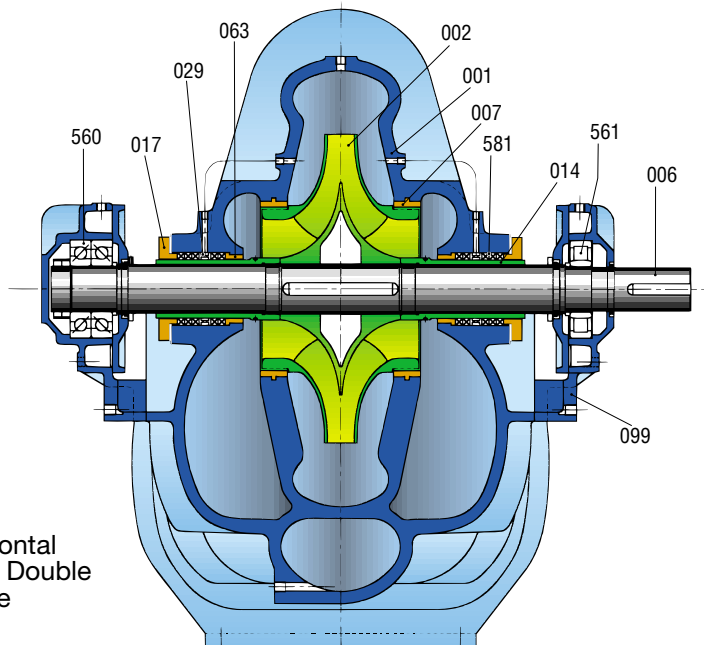
The TKL Super-Titan, a rugged, dependable and efficient pump meets all these requirements.



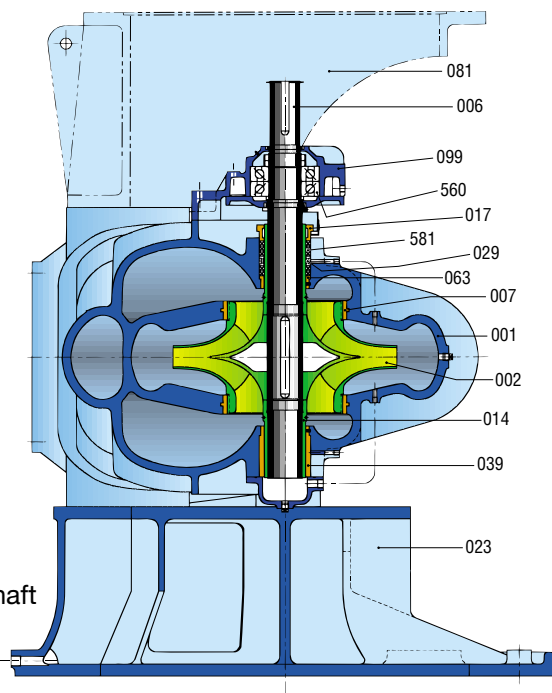
# Construction



Horizontal Shaft Single Volute



Horizontal Shaft Double Volute



Vertical Shaft

**CASING 001** Single or double volute for optimum hydraulic performance. Split on horizontal centreline - no need to disturb piping or motor for servicing.

**CASE WEAR RINGS 007** Renewable case rings eliminate casing wear. Low cost replacement to refurbish to design clearances.

**IMPELLER 002** Double suction arrangement requires minimum NPSH. Balanced construction reduces thrust loads and prolongs bearing life.

**BEARING HOUSING 099** Designed for short bearing span, flanged and doweled for easy rotating element removal and accurate alignment on reassembly. Five standard grease lubricated bearing elements cover complete pump range, reducing operators' spare parts inventory.

For high intensity operation, the bearing housing 099 on larger models can be furnished with integrally cast cooling jackets and temperature sensing.

**BEARINGS 560/561** Pre-lubricated single and double row angular contact anti-friction bearings sized to give long life under the toughest conditions of radial and axial load. Water throwers and grease seals protect bearings from moisture and dirt.

**SHAFT 006** Large diameter and short span minimises shaft deflection and prolongs seal and bearing life.

**SHAFT SLEEVES 014** Renewable to protect the shaft. Threaded to axially locate and lock the impeller inboard of the shaft seals. Thread is opposed to direction of shaft rotation.

**STUFFING BOXES** Fitted with renewable neck bushes 063, lantern rings 029, high quality packing 581 and split glands 017 as standard. Mechanical seals are optional.

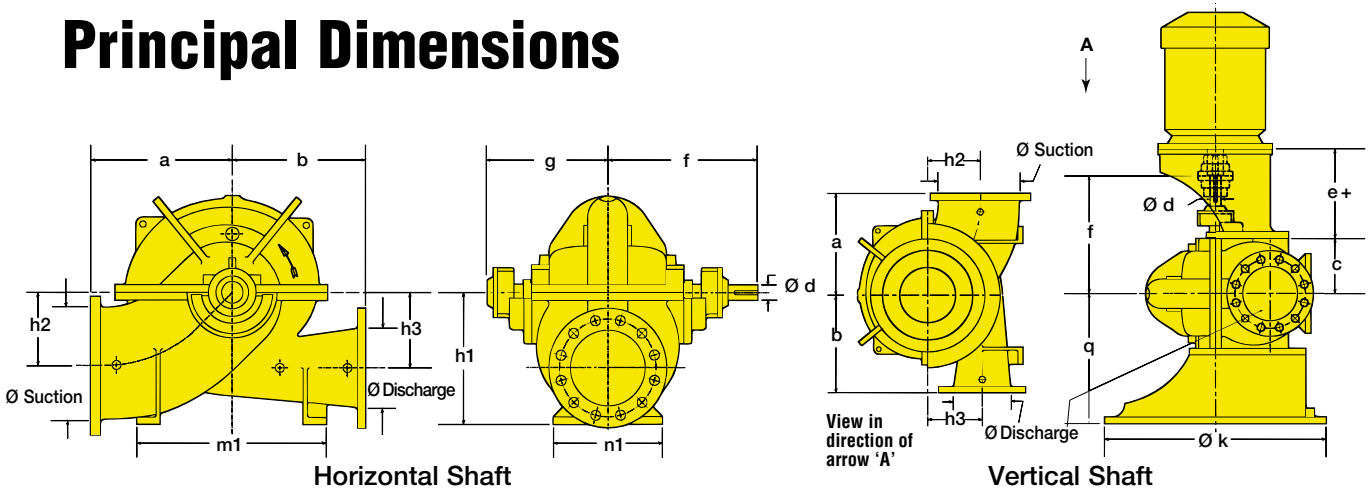
**VERTICAL CONFIGURATION** Space saving design with most of the features of the horizontal version and in addition the pump is supplied with a pump support stool 023 and motor mounting flange 081. The external upper bearing 560/561 carries all thrust and radial loads, the internal lower sleeve bearing 039 is liquid lubricated.

## Optional Configurations

The standard TKL Super-Titan pump is designed to meet most requirements. However, to satisfy special conditions, a number of optional configurations are available:

- Seal flush through cyclone separator to filter liquid supply to the stuffing boxes, and to the bottom bearing of vertical pumps.
- Quench glands for temperatures above 105°C.
- High-speed kit with extended neck bushes in non-metallic material for pump operation above 1500 r/min.
- Splash guards to contain excessive spray from gland leakage.
- Pressure gauge tappings on pump branches.
- Grease nipples fitted to bearing covers.
- Air and drain piping to a common discharge point.
- Increased sealing ring clearances for 'dirty water' operation.
- Opposite-hand shaft rotation; standard rotation is clockwise viewed from drive end.
- Alternative flange drilling.

# Principal Dimensions



**Notes:**

1. All pumps have Table 'E' flanges except those with impeller diameters 590 mm and above which have Table 'F'.
2. Tender drawing only, not for construction.
3. # Approximate only, subject to change.
4. Dimensions in millimetres for cast iron pumps.
5. \* Double volute casing.
6. ~ Frame 18 bearings and frame 16 stuffing box.
7. + Approximate only, can vary with motor size.

PUMP DESIGNATION				PUMP & PUMP SUPPORT													
DIA Discharge mm	DIA Suction mm	NOM IMP DIA mm	Frame No.	a	b	c	ød	e+	f	g	h1	h2	h3	øk	m1	n1	q
150	200	560	12	460	460	280	55	372	519	413	425	292	318	965	580	370	625
200	250	400A	12	410	410	280	55	402	549	443	425	254	279	965	600	470	625
200	250	400B	12	410	410	280	55	402	549	443	425	254	279	965	600	470	625
200	250	500	12	460	460	280	55	442	549	443	475	305	330	965	600	405	625
200	250	630A	14	530	530	300	65	480	608	470	560	380	406	965	670	350	645
200	250	630B	14	530	530	300	65	480	608	470	560	380	406	965	670	350	645
200	300	630	14	530	530	300	65	486	608	470	560	380	406	965	670	350	645
250	300	335	12	460	460	280	55	402	549	443	450	254	279	965	600	470	625
250	300	425A	12	500	500	320	55	402	549	443	475	279	305	965	600	495	665
250	300	425B	12	500	500	320	55	440	549	443	475	279	305	965	600	495	665
250	300	500A	14	530	530	300	65	446	608	470	530	330	356	965	670	445	645
250	300	500B	14	530	530	300	65	446	608	470	530	330	356	965	670	445	645
#~*300	350	695	18	680	610	370	85	650	740	627	720	445	445	1170	780	600	830
350	400	335	14	600	560	375	65	436	638	500	560	315	315	965	600	520	720
350	400	425	14	560	560	350	65	406	608	470	560	305	305	965	600	545	695
350	400	500	14	600	600	350	65	516	638	500	600	350	350	965	780	445	695
# 350	400	590	16	700	686	394	75	480	695	594	670	432	432	965	780	600	695
# 400	450	420	14	670	500	410	65	480	678	540	670	356	360	965	780	600	755
400	450	425	14	670	500	400	65	516	638	500	670	356	360	965	780	600	745
# 400	450	550	16	686	686	440	75	570	745	644	670	406	406	965	780	600	785
** 400	450	600	16	700	686	430	75	570	745	644	750	470	445	965	780	600	767
# 400	450	630	18	700	670	340	85	667	837	724	700	450	450	1170	780	600	820
* 400	500	675	20	840	660	470	95	612	775	662	785	457	457	1676	780	600	1000
* 400	500	695	20	840	660	470	95	612	775	662	785	457	457	1676	780	600	1000
450	500	375	14	700	600	450	65	556	718	580	750	400	400	965	780	600	795
450	500	475	14	700	670	461	65	556	746	580	750	428	406	965	780	600	820
# 450	600	525	16	810	700	500	75	550	755	654	880	495	495	965	1000	700	825
** 450	600	540	18	990	762	500	85	575	825	712	900	530	470	1170	1000	700	950
# 500	500	550	14	700	670	475	65	480	718	580	750	428	406	965	780	600	820
# 500	600	680	18	838	737	521	85	590	920	750	850	508	508	1170	1168	940	971
* 550	600	445	16	900	600	565	75	600	850	799	900	475	475	1170	900	700	1000
600	750	740	22	990	990	620	100	693	1100	883	965	597	597	1350	1000	700	1092

## Materials

The TKL Super-Titan pump is supplied as standard with a cast iron casing, bronze impeller and stainless steel shaft. Other materials to match a wide range of requirements and specific liquids can be furnished. These include austenitic cast iron and zinc free bronze for casing and impeller; cast iron, austenitic cast iron and stainless steel alloys for impeller; and a choice of metals for the wear and sealing rings, sleeves, glands and lantern rings.





# Installations & Applications

The well known TKL Super-Titan pumps are used extensively in Australia and many other countries for important and exacting duties in many industries and services, to handle untreated, clean and non-potable water. Following are just a few of the more common services for which these pumps are particularly suitable.

## **WATER WORKS, UTILITIES, IRRIGATION**

Raw water (low and high lift), backwash, transfer, booster services, pipeline

**PULP AND PAPER** Fan pumps, white water, raw water, weak black liquor, primary cleaner

**STEEL MILLS** Service water, roll cooling, strip cooling, blast furnace cooling, cooling tower, BOF gas cleanup systems

**MARINE** Cargo unloading, fire, ballast, tank cleaning, dry docks

## **SUGAR, FOOD & OTHER INDUSTRIES**

Cooling water, liquor, various chemical solutions

**MINING** Dewatering, water supply, heap leach spray, dust suppression

**POWER GENERATION** Condenser circulation

**BUILDING SERVICES** Water supply, fire services

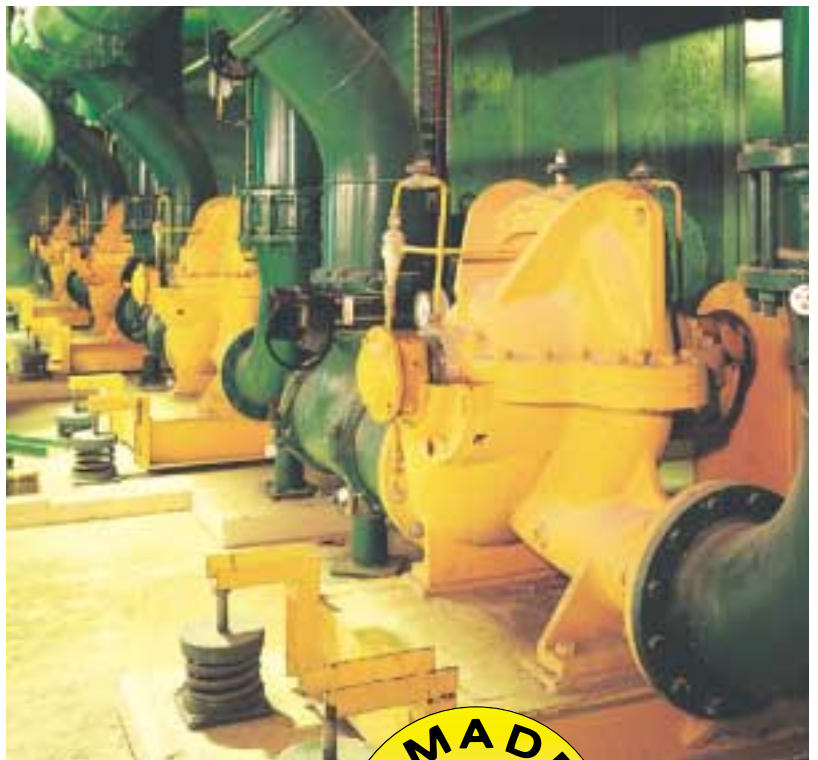
# Customer Service

TKL offers a comprehensive Aftersales Customer Service to support our pumps in operation. Qualified supervisors for erection and commissioning engineers for start-up are available to ensure that the equipment we supply is correctly installed and placed into service.

Spare parts are made as standard products and high usage items are available off-the-shelf.

TKL has pump service workshops at key industrial locations and accredited service representatives in regional centres.

Service engineers are available for on-site consultation and maintenance. Both in-house and on-site training is available covering pump application, maintenance and operation and we are pleased to provide stock recommendations and enter contracts for spare parts supply.



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For further information, sales, service or technical assistance, consult your telephone directory for nearest sales office.

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