



***TKL™ Hydro-Titan™
Heavy Duty Back Pull-out
Water & Process Liquid Pump***



Experience In Motion

The total cost of a pump includes not only purchase price, but cost of operation: power costs, reliability, ease and frequency of maintenance.

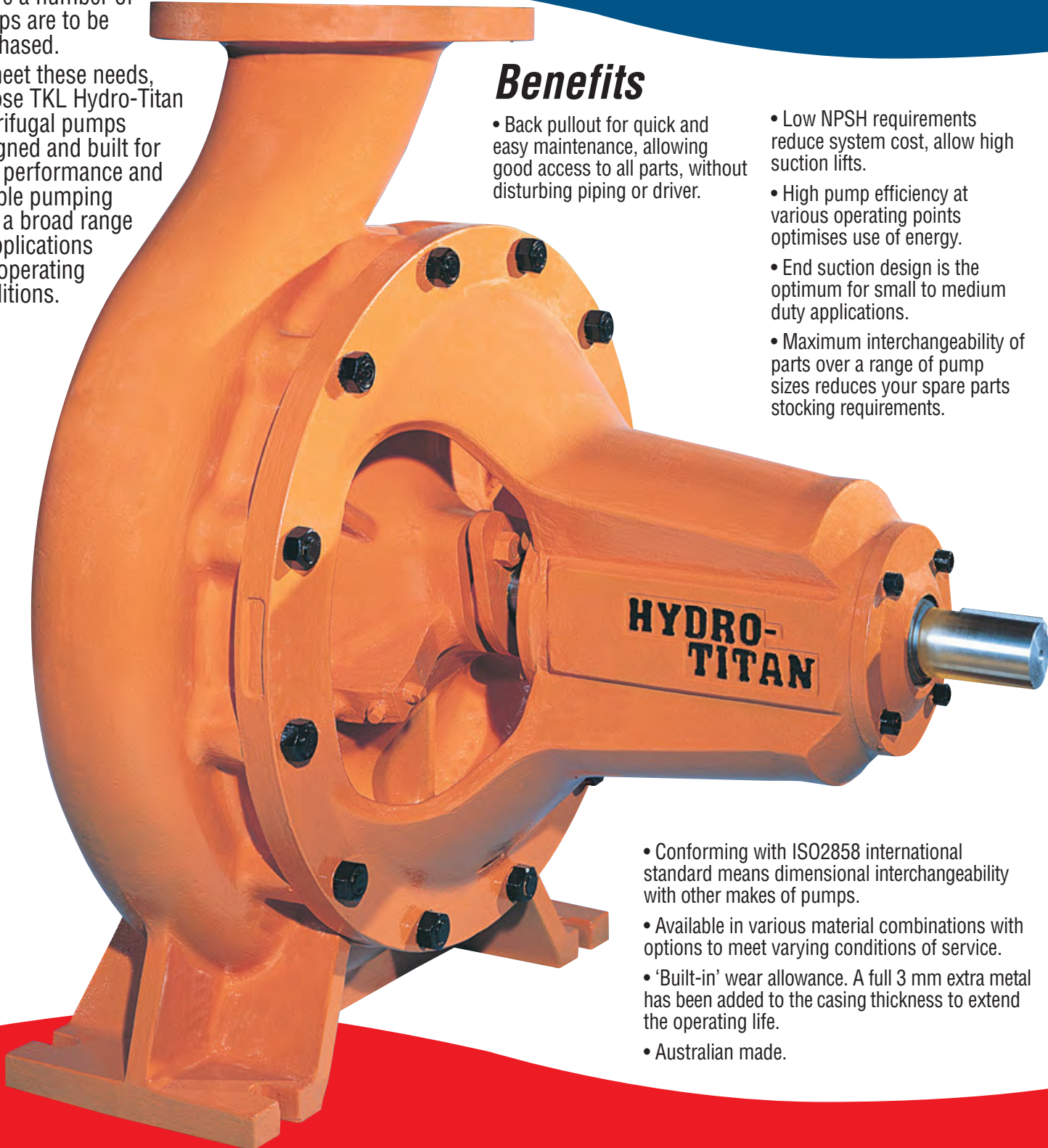
Whenever a pump is needed, it is worthwhile to carefully evaluate all these factors. Also consider the versatility, coverage, and parts interchangeability, where a number of pumps are to be purchased.

To meet these needs, choose TKL Hydro-Titan centrifugal pumps designed and built for high performance and reliable pumping over a broad range of applications and operating conditions.

Positioned for Reliability

Benefits

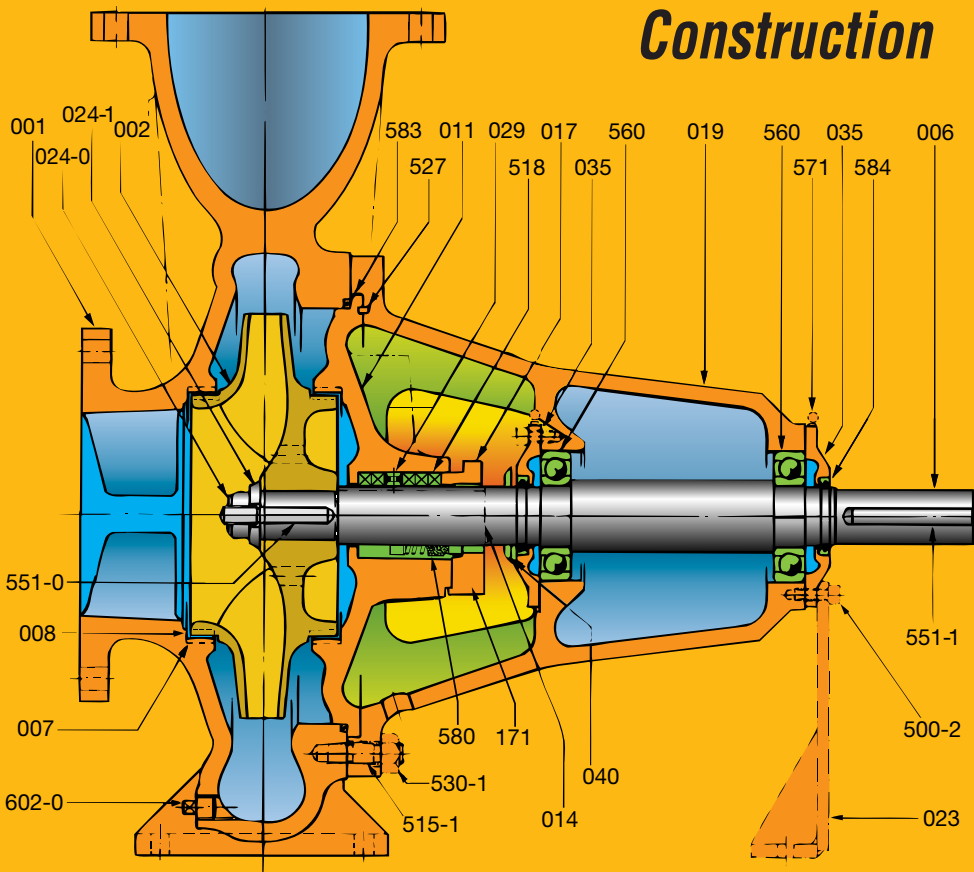
- Back pullout for quick and easy maintenance, allowing good access to all parts, without disturbing piping or driver.
- Low NPSH requirements reduce system cost, allow high suction lifts.
- High pump efficiency at various operating points optimises use of energy.
- End suction design is the optimum for small to medium duty applications.
- Maximum interchangeability of parts over a range of pump sizes reduces your spare parts stocking requirements.



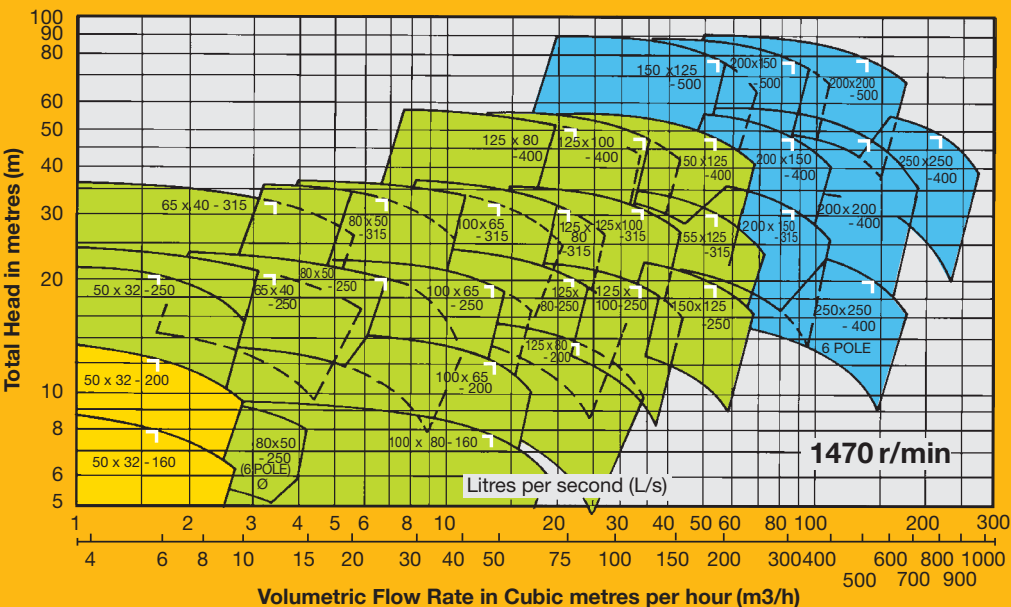
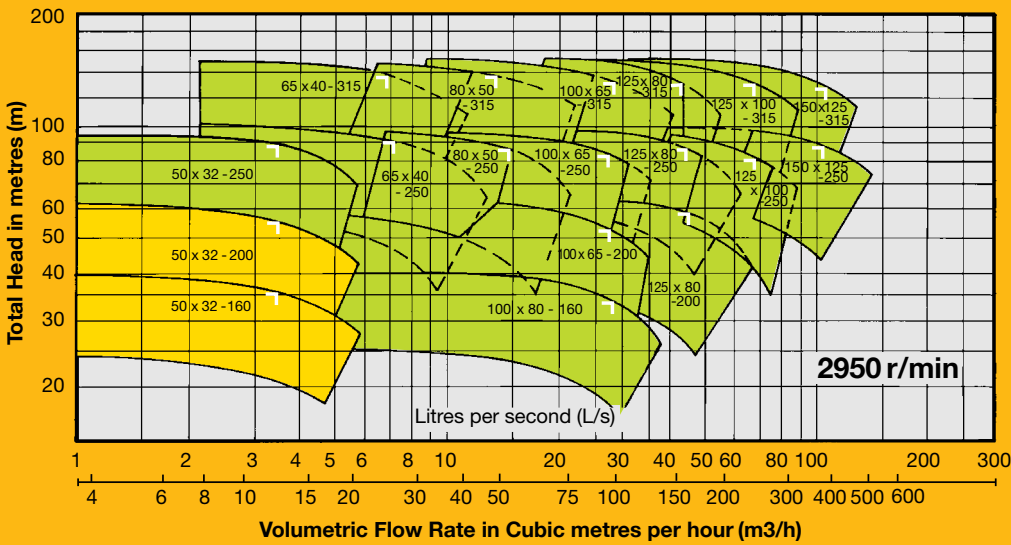
- Conforming with ISO2858 international standard means dimensional interchangeability with other makes of pumps.
- Available in various material combinations with options to meet varying conditions of service.
- 'Built-in' wear allowance. A full 3 mm extra metal has been added to the casing thickness to extend the operating life.
- Australian made.

Experience In Motion

Construction



- 001 Casing
- 002 Impeller
- 006 Shaft
- 007 Seal Ring
- 008 Wear Ring
- 011 Back Cover
- 014 Shaft Sleeve
- 017 Gland
- 019 Bearing Housing
- 023 Mounting Foot
- 024-0 Impeller Nut
- 024-1 Impeller Washer
- 029 Lantern Ring
- 035 Bearing Cover
- 040 Water Thrower
- 171 Seal Cover
- 500-2 Cap Screw
- 515-1 Stud Casing
- 527 Peg
- 530-1 Nut Casing
- 518 Packing
- 551-0 Key Impeller
- 551-1 Key Coupling
- 560 Ball Bearing
- 571 Grease Nipple
- 580 Mechanical Seal
- 583 O-Ring
- 584 V-Ring
- 602-0 Drain Plug



Space Saving Installations

Where space limitations require more compact pumping units, the frame mounted TKL Hydro-Titan can be supplied in alternative configurations:

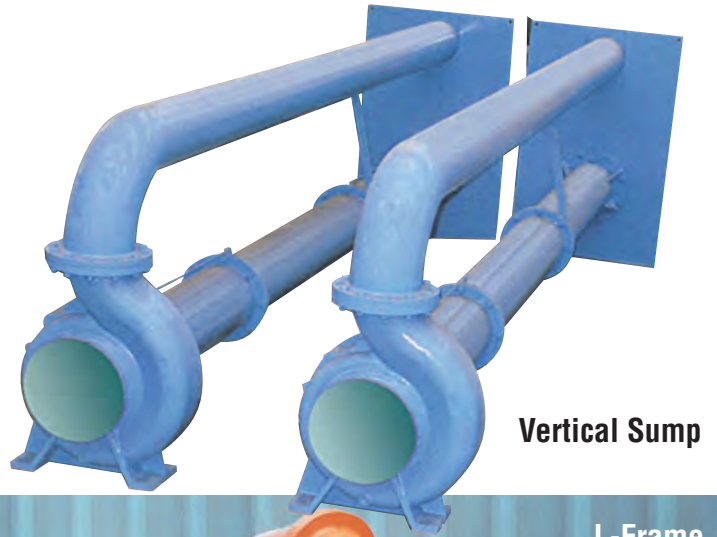
- Close-coupled variation
- Extended vertical sump models
- L-frame for horizontal discharge

Selection Charts - 50 Hz

■ indicates best efficiency
 Group 07 ■ Group 10 ■ Group 12 ■

Extensive coverage provides a good selection at any design point and makes the TKL Hydro-Titan the perfect pump to use in large numbers within an industrial complex.

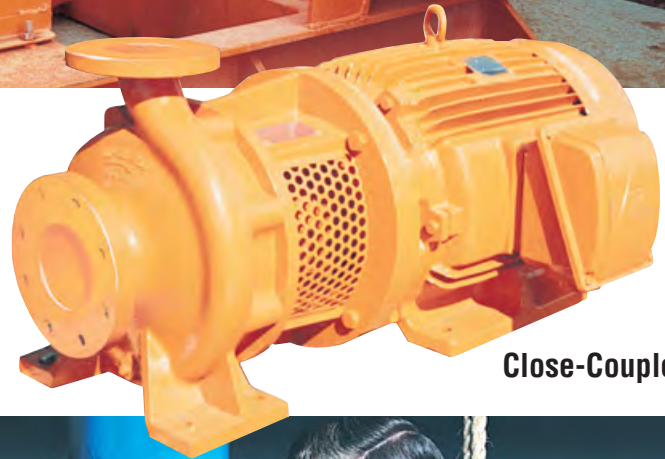
The pump designation from left to right includes suction size, discharge size and maximum impeller diameter all in millimetres.



Vertical Sump



L-Frame



Close-Coupled

Service Advantage

The TKL Hydro-Titan pump is designed for easy service requiring only common hand tools. Routine inspections are quickly carried out.

With the back pullout facility and the fitting of a spacer type coupling the entire rotating assembly can be removed without disturbing pipework or driver, giving instant access to most parts.

Maintenance is therefore considerably simplified, both in terms of time and in the different trade skills required.



Features

CASING Volute type with flanged centreline pump discharge, integrally cast feet and a 3 mm wear allowance.

BACK COVER Separate for easy pump servicing. 'O' ring seal for positive connection to pump casing. The cover incorporates the stuffing box and shaft seal arrangement.

STUFFING BOX Conforms to ISO3069 and is fitted with soft packing, lantern ring and gland assembly. Mechanical seals are available as an option.

IMPELLER Double shrouded and hydraulically balanced design, keyed to shaft and locked with a stainless steel 'Nyloc' nut.

SHAFT Just three shaft groups cover the entire range and all pumps common to one shaft group have identical bearings, stuffing box and impeller fastening.

BEARING HOUSING Rigid one piece casting to secure back cover and casing with large openings for access to stuffing box.

BEARINGS Two identical deep groove ball bearings, sized for long life and factory packed with lithium based grease. Protected by bearing covers which are fitted with 'V' rings to exclude dust and water.

Options

The standard TKL Hydro-Titan pump can be supplemented with options for specific applications as follows:

SHAFT SLEEVES

In a variety of materials depending on operating conditions.

MECHANICAL SEALS From various manufacturers, selected for optimum seal solution for hazardous fluids, abrasive fluids or high temperature and pressure applications.

WEAR RINGS

(Casing / Impeller) of the renewable type in a variety of materials to refurbish running clearances quickly and inexpensively.

FLANGE OPTIONS

To suit preferred pipework standards including Australian, British, ANSI, ASA and other international codes.

STAINLESS STEEL BOLTING

For situations where corrosion has to be eliminated.

OIL LUBRICATION

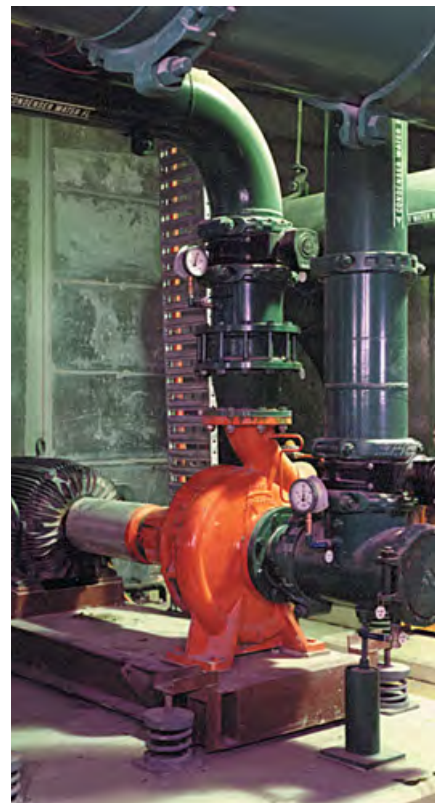
For bearings to suit above normal temperature application or if preferred due to the operating conditions.

BELT DRIVE FOOT

For an alternative drive arrangement via a variable speed belt system.

NON-STANDARD ROTATION

Certain sizes are available with anti-clockwise rotation for coupling to the front of a diesel engine.



Interchangeability

Standardisation of individual components within the range simplifies spare parts stocking.

For example, only three shaft groups are required to cover the complete range.

Applications

TKL Hydro-Titan pumps offer top efficiency and reliability for a full range of applications and liquids.

Applications include:

- Agriculture
- Air conditioning
- Beverages
- Breweries
- Building Services
- Chemical Industry
- Cosmetic Industry
- Dewatering
- Drainage
- Effluent Plants
- Factories
- Factory Process
- Fire Services
- Food Processing
- Heating Circulation
- Irrigation
- Mining
- Paint Plants
- Paper and Cellulose Industry
- Petroleum Products
- Pharmaceuticals
- Plastics
- Quarries
- Refineries
- Sewerage and Clarification Plants
- Water Boosting
- Water Supply
- Water Treatment
- Wineries

Hydrocarbon processing: the HT Process range conforms with many aspects of the API610 specification for overhung-impeller pumps. Refer to separate product data.



Materials

The standard pump has a Cast Iron casing with either a Cast Iron or Bronze impeller and AISI431 Stainless Steel shaft.

Alternative casing materials include, Austenitic Cast Iron, Zinc Free Bronze, Cast Steel, Stainless Steel and SG Iron. For impellers, Austenitic Cast Iron, Cast Steel and Stainless Steel.

The shaft can also be supplied in AISI316 Stainless Steel. In order to select the most suitable materials we require a precise analysis of the liquid pumped.

Specification

Sizes/Discharge	32-250 mm
Flow Rate	to 250 L/s
Total Head	to 150 m
Power Range	0.5 to 200 kW
Rotation	Clockwise looking on shaft end

Operating Limits

Maximum Speed	to 3600 r/min.
Depending on impeller size.	
Suitable for use on 60 Hz electrical supply.	
Working Pressure	to 1600 kPa
Casing Test Pressure	max. to 2400 kPa
Suction Pressure	max. to 1000 kPa
Temperature Range	to 150°C

Drive Arrangements

The frame mounted TKL Hydro-Titan is suitable for:

- Electric motor drive
- Diesel engine drive
- Belt drive
- P.T.O drive through gearbox
- Custom-made drive to suit application

After Sales Service

Flowserve Pump Division can advise you on all aspects of pumping to ensure that you obtain the right solution to any pumping problem. If after sales service is needed, the Flowserve Service Division is at your disposal at all times. With a wide range of spare parts available they are always in a position to provide the necessary assistance.



Your Local Contact Details:

Pump enquiry

phone: 1300 Flowserve
email: Pumpsales_Australia@flowserve.com
Pumprepairs_Australia@flowserve.com

Spare Parts enquiry

phone: 1300 661 777
email: Spare_FPD_Australia@flowserve.com

For further information, sales, service or technical assistance, consult your telephone directory for nearest sales office:
AUSTRALIA Adelaide Brisbane Melbourne Perth Sydney
NEW ZEALAND Auckland Christchurch

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