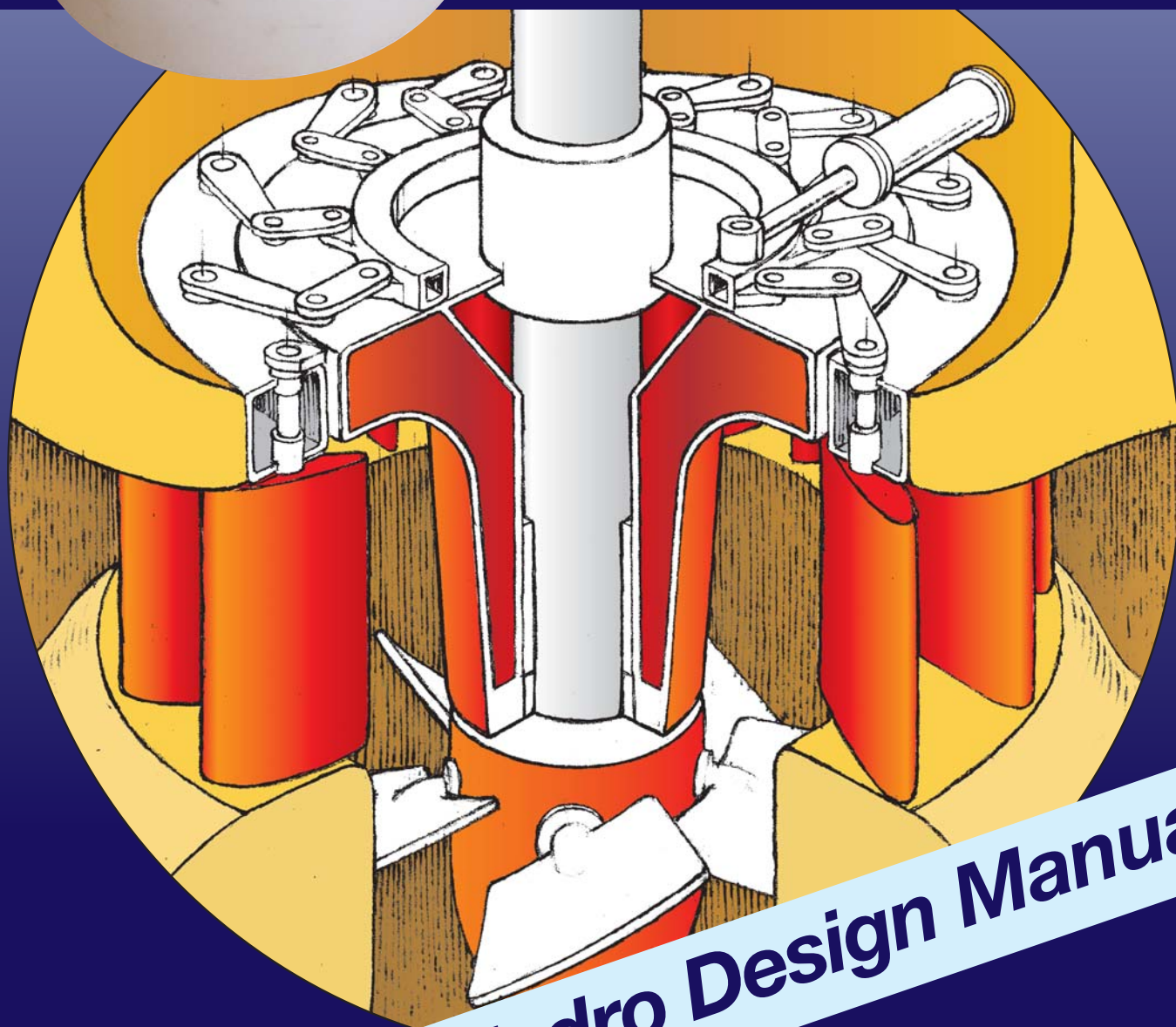


Vesconite Hilube



Wicket gate and turbine bushings

- Enviro friendly
- No swell
- Self lube
- Fit and forget



Hydro Design Manual



From the smallest to the largest bearings, Vesconite Hilube generally provides the most cost saving long term solution

Vesconite Hilube is an ideal bushing material for the demanding, long life requirements of the hydro-power industry.

Vesconite Hilube was developed as an internally lubricated, low friction bushing material to give long bearing life with minimal maintenance.

The environmentally sensitive hydro-power industry requires components that are long lasting with minimal attention and that also avoid river contamination.

Vesconite Hilube eliminates the need for lubricant and grease in many applications as it can run without lubrication or can be lubricated by process water.



Eliminate lubrication

Vesconite Hilube is internally lubricated with advanced solid polymers. Avoid environmental risk and other problems associated with greasing and lubrication systems.

Can run dry

The internal lubricants of Vesconite Hilube allow bushings to run dry in many oscillating applications. Vesconite Hilube can run dry for some time in high speed rotational applications with limited low loads like pump lineshaft bearings.

No water swell

No more swell. Vesconite Hilube is dimensionally stable and does not swell in water. Bushings can be designed and manufactured with close clearances without the fear of seizure. Vesconite will not delaminate.

Low wear

Get long life. Vesconite Hilube demonstrates exceptionally low wear both to the bushing and to the expensive metal counter surface.

Low friction

Stop chatter and vibration. Low friction Vesconite Hilube eliminates vibration caused by stick-slip.

Typical properties of Vesconite Hilube

		Metric	Imperial
Maximum design load (static, oscillating or occasional movements)		30 MPa	4,250 psi
Linear expansion at 65% relative humidity		0.04%	0.04%
Linear - saturated		0.07%	0.07%
Guide to maximum operating temperature	Immersed Dry or grease lubricated	65 °C 100 °C	150 °F 212 °F
Thermal coefficient of expansion		6×10^{-5} mm/mm/°C	3.3×10^{-5} in/in/°F
Density / specific gravity		1.38 g/ml	1.38
Modulus of elasticity		2.2 MPa	493 000 psi

Temperature rating of Vesconite Hilube

Typically Vesconite Hilube is limited to 65 °C (150 °F) in immersed conditions and 100 °C (212 °F) in dry conditions.

Contact us about **Hitemp** for higher temperatures. **Hitemp 150** is designed for immersed temperatures up to 120°C (250 °F) and 150 °C (300 °F) in dry conditions.

Wicket gates, control arms, side plates and bull rings

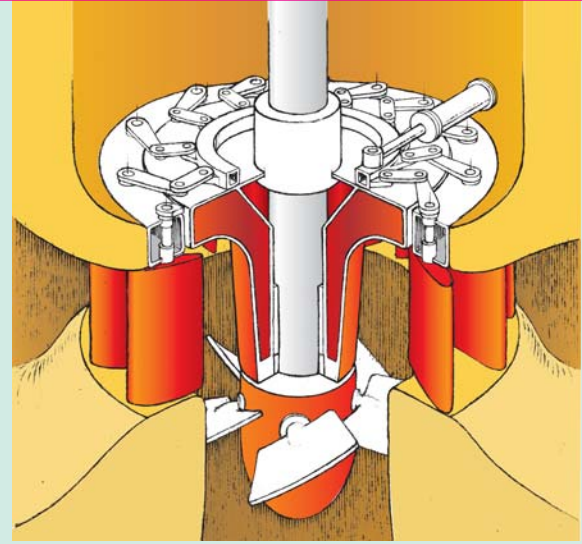
Vesconite Hilube is self lubricating and does not require additional lubrication. This is especially important for the high frequency micro-oscillations that occur in wicket gates. These micro oscillations are so small that they do not spread lubricant effectively.

Vesconite Hilube bushings give an exceptionally long life with minimal maintenance.

Vesconite Hilube is ideal for bushings in wicket gate control arms, side plates and on bull rings.

Vesconite Hilube carries high loads. Vesconite Hilube can take high compressive loads (30 MPa) without creeping.

Vesconite Hilube will operate even if lubrication systems fail.



Wicket gate control arms

Turbine main shaft guide bearings

Vesconite Hilube is ideal for water lubricated turbine bearings found in Kaplan turbines.

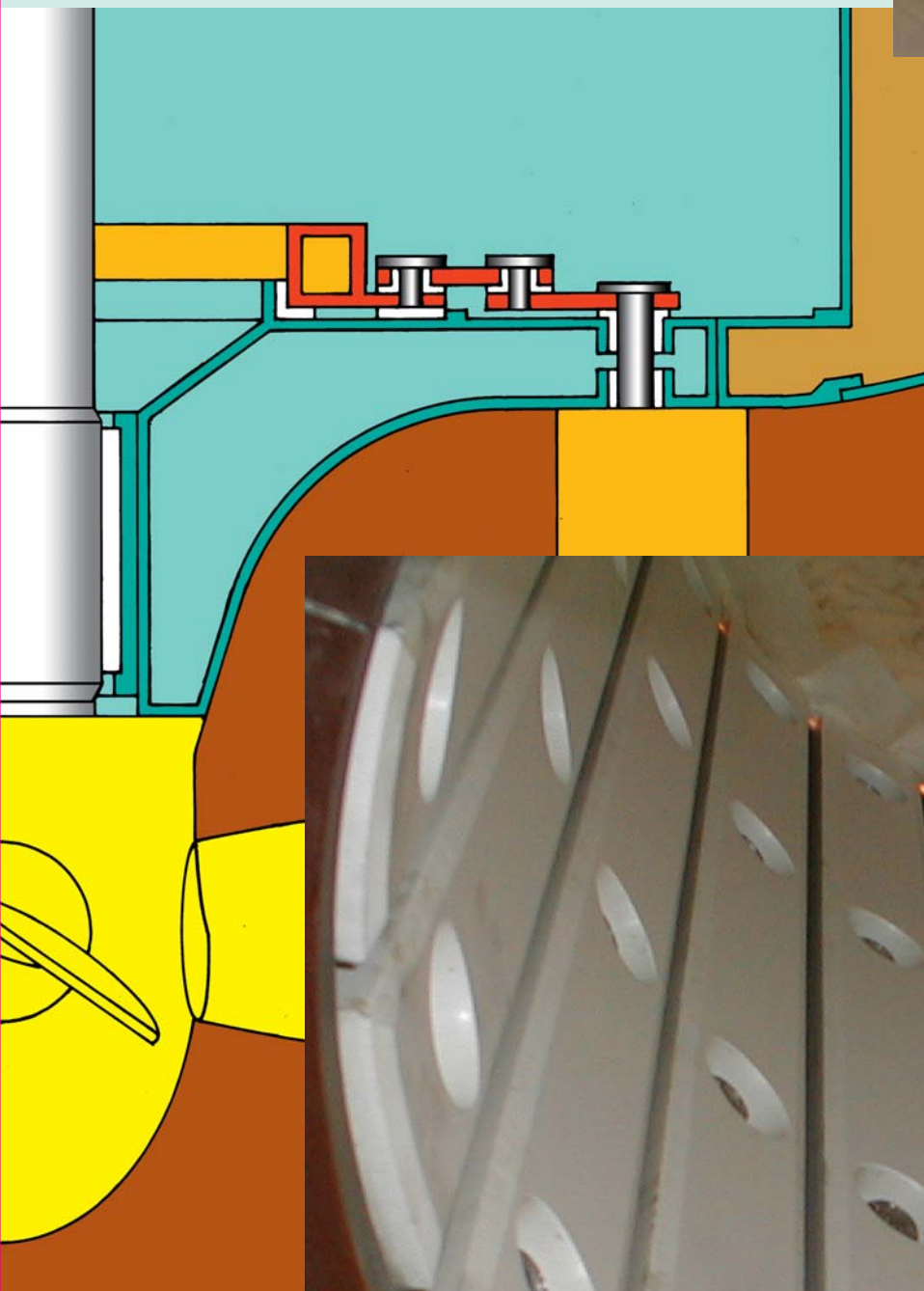
Vesconite Hilube does not swell in water and close clearances can be maintained without fear of seizure.



Vesconite Hilube fitted to main shaft guide bushings in Brazil

www.vesconite.com

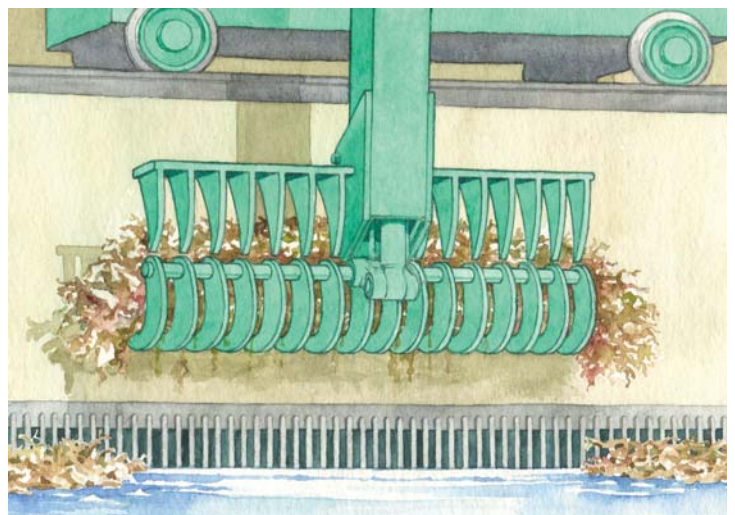
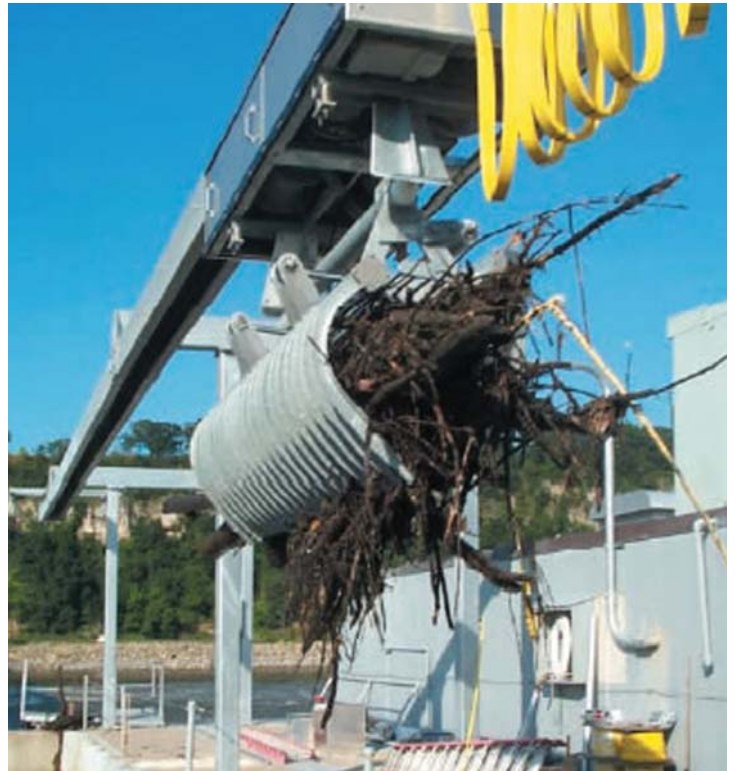
Vesconite Hilube fitted to main shaft guide bushings in a South California power facility



Trash rake bushings and bearing slides

Vesconite Hilube is ideal for high load, low speed applications on many designs of trash rakes.

Applications typically include pivot points and boom slides that are highly loaded and often exposed to wet and dirty conditions.



Pressure relief control valve applications

Vesconite Hilube is used in control valves because of its low friction and no stick-slip characteristics.

With higher friction materials the occasional motion causes sticking and vibration. This problem is avoided with Vesconite Hilube.

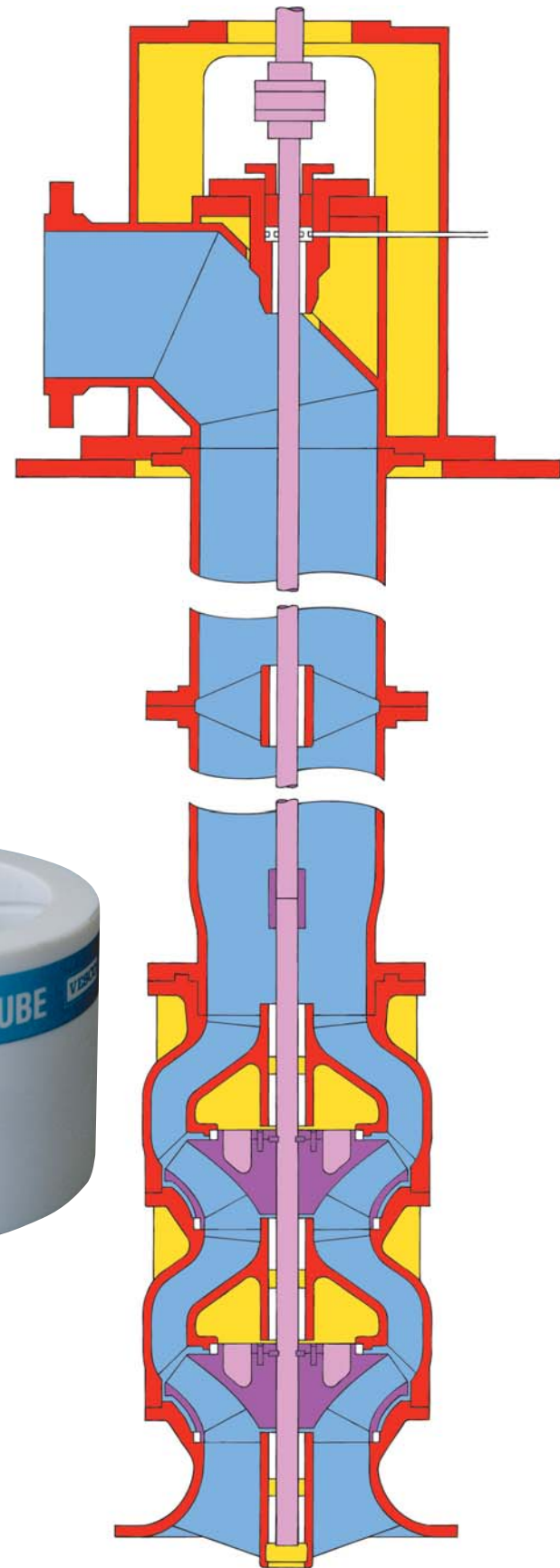


Pump bearings and wear rings

Vesconite Hilube is used in many pump bushing applications, including by OEMs.

These include

- lineshaft and pump bowl bearings
- support bearings
- wear rings.



Penstock shut-off valves

Vesconite Hilube is ideal for shut-off valve applications.

Bushing enquiry - Fax to +27 11 616 22 22 or numbers below

Name:..... Company:.....

Telephone: Email:.....

Would you like a sample?

YES

NO

Application:

.....

.....



Vesconite Hilube

Hydro power bearings

- Self lubricating
- No water swell
- Can run dry
- Low wear
- Low friction



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