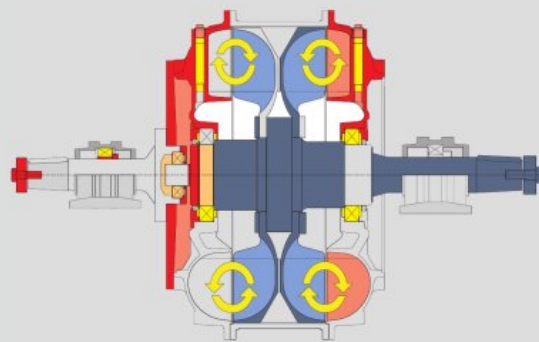


## Shaft Line



*Type DTL turbo coupling*



*Type DTL turbo coupling with constant oil filling*

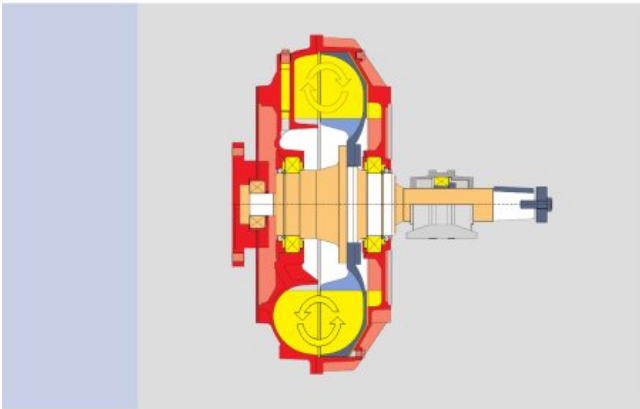
The shaft line for transmitting the motor output to the Voith Schneider Propeller normally consists of a Voith turbo coupling and a displaceable curved teeth coupling with an intermediate shaft. The use of a hydrodynamic coupling guarantees smooth starting and stopping of the whole propulsion system.

Moreover, the turbo coupling divides the entire vibration system into a primary and secondary side,

whereby all the oscillatory pulses from the main motor are extensively dampened in the coupling and almost none are transmitted to the secondary side.

There are basically two versions of the turbo coupling:

1. Turbo coupling with constant oil filling
2. Turbo coupling with oil flow control



*Type TM1 VTK turbo coupling with constant oil filling*



*Double-ended ferry "Sahilbent", Turkey*

For most applications turbo couplings with constant oil filling can be used. These are virtually wear-free and therefore require little maintenance. In the majority of cases we supply turbo couplings with constant oil filling for direct installation onto the engine. The engine manufacturer must determine whether the engine can withstand the load reaction on the turbo coupling input side. If this is not the case, turbo couplings with pedestal bearings at the input and output side can be supplied.

In this case, the engine manufacturer must design and supply the required resilient coupling between engine and turbo coupling.

Flow-controlled turbo couplings are only used for special applications such as when extremely high torques or speeds are required.

Smaller Type R4 propellers or propulsion units with an electric drive do not require turbo couplings.

For Type R4 propellers with diesel engine propulsion, clutch couplings must be used instead of turbo couplings.

The propeller input shaft must be linked to the downstream shaft line/turbo coupling output shaft by means of a displaceable coupling or drive shaft.