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# Questionnaire for Voith Turbo Couplings with Constant Fill on Electromotive Drives

# VOITH

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In case of enquiries or orders, please answer the following questions as fully as possible. Your data will be used for an exact design of the Voith turbo couplings (VTC).

## Does it concern a/an:

new drive to be designed  
existing drive

☐☒

please indicate the 6- to 7-digit serial number (stamped in by figure stamps at the outer diameter of VTC).....

## Type of driving machine:

Make; motor type:  
Rated power / rated speed:  
Motor runup:

Electric motor

Number of drives..... 2

30 [kW]

1450 [rpm]

☒ star/delta connection

☐ others: .....

☐ voltage dip on runup

Direction of rotation (viewed from motor VTC - driven machine) for TurboSyn:

☒ CW (clockwise)



☐ CCW (counter-clockwise)



## Type of driven machine:

Characteristic:  
(if possible, attach torque/speed curve)  
Mass moment of inertia:  
For belt conveyors:

..... [kgm<sup>2</sup>] relative to speed: ..... [rpm]

..... tonnage [t/h] ..... conveying length [m]

..... belt width [mm] ..... belt velocity [m/s]

..... conveying height [m]

Operating speed:

1450 [rpm] (possibly gear ratio: 1:21.6)

Rated power:

..... [kW]

Max. power:

400 [kW]

Duration and frequency of peak load:

## Function of turbo coupling:

☒ starting aid

☒ torsional vibration damping

☒ overload protection

☐ regenerative braking (not for TurboSyn)

☐ reversing duty (not for TurboSyn)

Starting frequency:

..... /hour; ..... /day

Temperature at the jobsite:

min. .... °C; max. .... °C

Position of turbo coupling:

☒ horizontal

☐ motor on top, angle to the horizontal: .....

☐ bottom motor, angle to the horizontal: .....

## Use in hazardous areas?

☒ no

☐ yes (EC Directive 2006/42/EC, ATEX)

(2)

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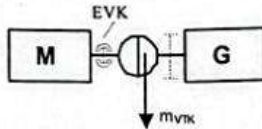
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### Arrangement examples:

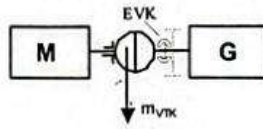
#### 1) Coupling outer parts connected with motor (outer wheel drive)

- ☐ a) Electric motor, flexible connecting coupling (EVK), VTC, driven machine (brake drum / brake disk can be mounted)



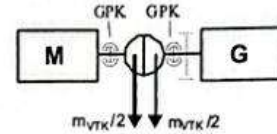
Coupling weight - output side

- ☐ b) Electric motor, VTC, flexible connecting coupling (EVK), driven machine (brake drum / brake disk can be mounted)



Coupling weight - input side

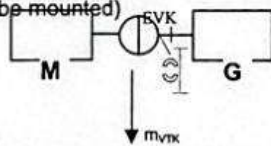
- ☐ c) Electric motor, all-metal disk pack coupling (GPK), VTC, GPK, driven machine (brake drum / brake disk can be mounted)



Coupling weight - splitted

#### 2) Coupling inner parts connected with motor (inner wheel drive, not for TurboSyn)

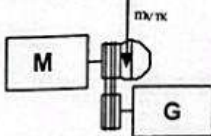
- ☒ Electric motor, VTC, flexible connecting coupling (EVK), driven machine (brake drum can be mounted)



Coupling weight - input side

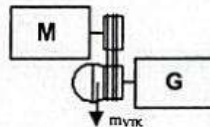
#### 3) Pulley drive

- ☐ a) Electric motor, VTC TR / TRI pulley drive, driven machine (not for TurboSyn)



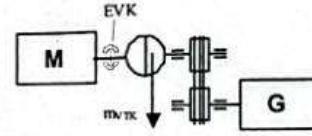
Coupling weight - input side

- ☐ b) Electric motor, pulley drive VTC TR / TRI, driven machine



Coupling weight - output side

- ☐ c) Electric motor, flexible connecting coupling (EVK), VTC on jack shaft



Coupling weight on jack shaft

### Data as to brake system (if existing):

Type:

☐ brake drum

☐ brake disk

Dimensions:

..... width [mm]

..... diameter [mm]

Distance to gear shaft shoulder:

..... [mm]

Gear axial fan exists on input shaft:

yes ☐

no ☐

### Connecting dimensions:

Distance from motor to gear shaft shoulder:

Space behind electric motor:

..... [mm]

☒ limited ☐ free ..... [mm]

### Electric motor:

Shaft diameter: ..... 60 ..... [mm]

Fit: .....

Shaft length: ..... [mm]

Key: .....

Number of keys: ☐ 1 ☐ 2

Shaft balanced with: ☐ half key

☐ whole key

### Machine, jack shaft or gear unit:

Shaft diameter: ..... 35 ..... [mm]

Fit: .....

Shaft length: ..... [mm]

Key: .....

Number of keys: ☐ 1 ☐ 2

Shaft balanced with: ☐ half key

☐ whole key

### For couplings with input or output via pulley:

a) V-belt pulley

Outer pitch diameter: ..... [mm]

b) Flat belt pulley:

Pulley as per DIN 111 cylindrically / bulged