

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) 7243214

Type of driving machine:

Make, motor type:

Rated power / rated speed:

Motor runup:

Electric motor

Number of drives 1

B3B

18.5

[kW] 1460 [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:

[kgm²] relative to speed: [rpm]

170 tonnage [t/h] 21.5 conveying length [m]

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

120 conveying height [m]

Operating speed:

1460 [rpm] (possibly gear ratio: 1:50)

Rated power:

[kW]

Max. power:

18.5 [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?

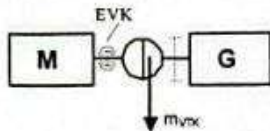
☐ no

☒ yes (EC Directive 2006/42/EC, ATEX)

Arrangement examples:

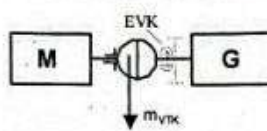
1) Coupling outer parts connected with motor (outer wheel drive)

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



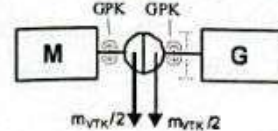
Coupling weight - output side

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



Coupling weight - input side

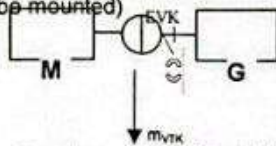
- ☐ c) Electric motor, all-metal disk pack coupling (GPK), VTC, GPK, driven machine (brake drum / brake disk can be mounted)



Coupling weight - splitted

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

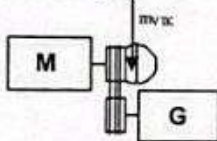
- ☒ Electric motor, VTC, flexible connecting coupling (EVK), driven machine (brake drum can be mounted)



Coupling weight - input side

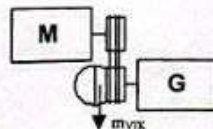
3) Pulley drive

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



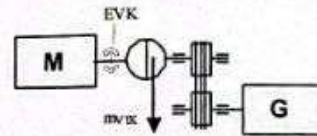
Coupling weight - input side

- ☐ 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: [mm]
 Space behind electric motor: ☒ limited ☐ free [mm]

Electric motor:

Shaft diameter: 50 [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: 30 [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