

RELY ON EXCELLENCE

QFT3000

Seal Supply Systems | Quench fluid systems



Advantages

- Two sight-glasses fitted on opposite sides enable optimum reading of the fluid level and condition of the medium
- Tank made of 1.4571: high resistance to corrosive media
- Return flow via integrated rising pipe for selective current control
- Combined filling and ventilation filter in the quench fluid tank for reliable operation

Recommended applications

- Chemical industry
- Food and beverage industry
- Pharmaceutical industry

Features

Quench fluid supply systems are used to supply single or tandem mechanical seals. They act as a convenient fluid reservoir. The exchange of fluid takes place by the thermosiphon principle or by forced circulation, e.g. with a pumping screw. The QFT3000 stainless steel tank is equipped with a sight-glass for monitoring the MIN filling level and can be fastened with a lug fixture.

Supply of mechanical seal based on API 682 / ISO 21049, [Plan 51](#).

Functional description

Quench fluid systems are employed:

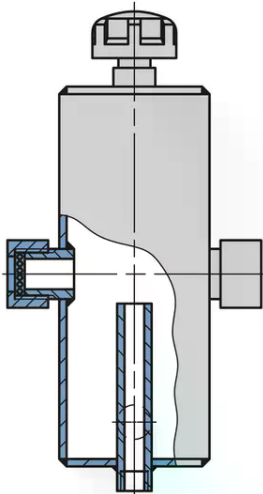
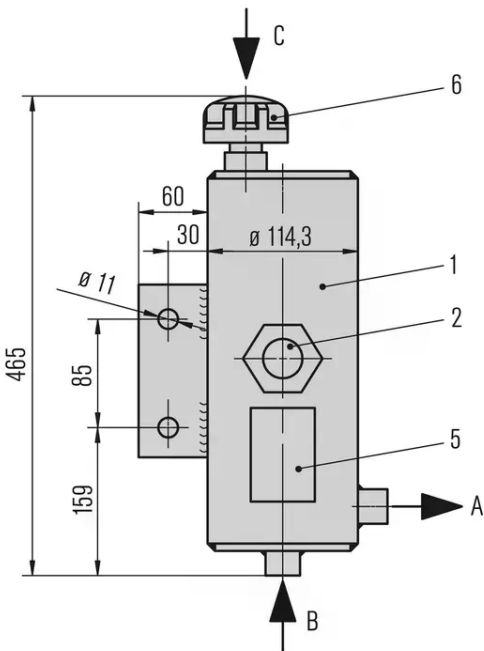
- to absorb leakage
- to monitor the leakage rate (e.g. through periodic reading of the level in the tank)
- to lubricate and to cool the outboard mechanical seal in a tandem arrangement
- to prevent icing
- to protect against dry running
- to stabilize the lubricating film
- to exclude air from the media in order to prevent a reaction with oxygen in the air

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Notes

Install the quench fluid tank approx. 1 ... 2 m (3.3 ... 6.6 ft) above the mechanical seal. Install connection pipes to the mechanical seal with low flow resistance. Pipes must vent automatically in the direction of the tank. It is imperative that air pockets are prevented. The minimum filling level must always be above the connection socket at the side (in the case of the thermosiphon principle).

Quench fluid systems can be operated in two different modes.

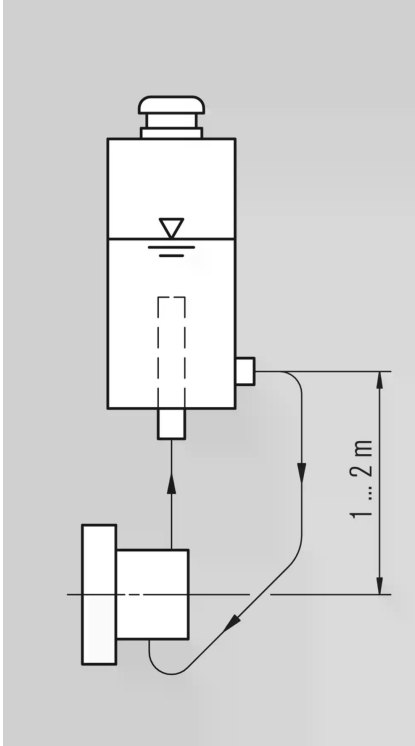


Item	Description
1	Storage tank (capacity 3 l)
2	Sight glass
5	Name plate
6	Filter and breather

Connections	****
A	To the mechanical seal
B	From the mechanical seal
C	Filling

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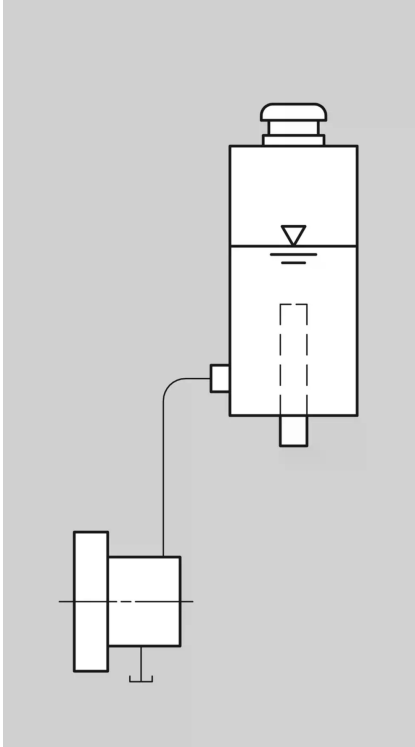
Installation, details, options



Circulation

of the quench fluid from an elevated tank; external tank, pressureless; thermosiphon or forced circulation. In this case heat is dissipated by the circulation. Cooling capacity by convection is minimal, however.

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Dead-end quench (API Plan 51):

Quench fluid from an elevated tank. The characteristic feature of this principle is that no heat is dissipated by the system.

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Product variants

Designation	QFT3000-00	QFT3000/M001
Standard design	■	■
Volume (liters)	3	3
Allowable pressure	Pressureless	Pressureless
Allowable temperature	-40 °C ... +120 °C (-40 °F ... +248 °F)	-40 °C ... +120 °C (-40 °F ... +248 °F)
Material, tank:		
1.4571	■	■
Material, filling filter		
Glass-fibre reinforced polyamide		■
Material, inspection glass		
Borosilicate/PTFE	■	■
Process connections		
G 1/2"	■	■

Other versions on request.