

RDT-48A

TANDEM SEAL FOR HIGH PRESSURES AND SPEEDS

Description

Cartridge mechanical seals of RDT-48A family are designed sealing high pressure hot water heavy and light hydrocarbons, including VOCs, and other hazardous and chemically aggressive liquids at oil refineries and petrochemical plants, chemical plants, power plants.

RDT-48A family seals are used for the same applications as the following seals:

H7/H75/SH family by Burgmann Germany

QBQ/DHTW by Flowserve, USA

8B/59/58/RREP by John Crane, USA

Advantages

- FEA optimized design intended to be used at high pressure/high speed applications:
 - springs are static;
 - seal faces deformations under pressure and temperature are minimized.
- Impeller design ensure good frictional heat removal
- Up-to-date materials are used for seal faces
- Hastelloy C material for springs guarantees that chloride stress corrosion never happens

Materials	
Seal faces	Tungsten carbide, Silicon carbide, Carbon Special materials
Secondary seals	Viton®, ethylene-propylene, kalrez®, etc
Metal parts	SS304 SS316 Special alloys
Springs	Hastelloy C

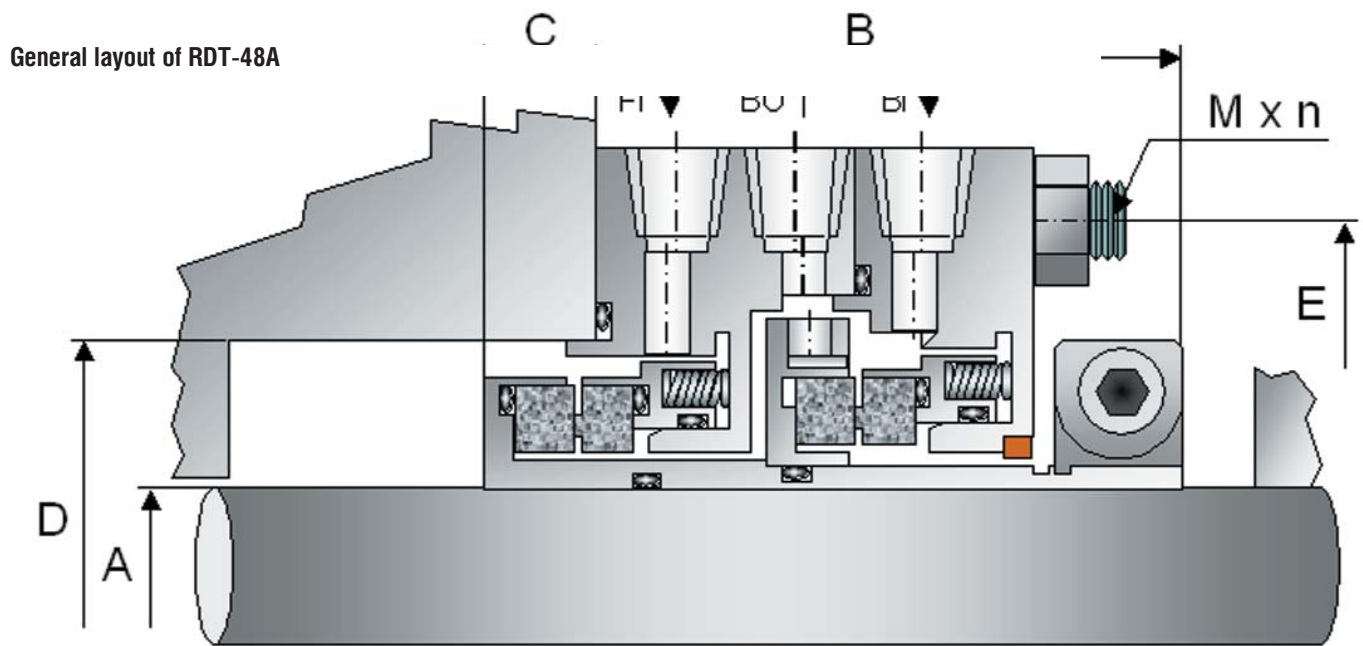
Technical data	
Temperature	From -50 up to +260°C (depending on o-rings material)
Pressure	Up to 50bar (100 bar dynamic/200 bar static with special design)
Speed	Up to 50 m/sec

Reccomended API plans for RDT37 seal			
API Plan (per API 682)	Description	Application guidelines	Auxiliary utility
52	Non-pressurized external fluid reservoir with forced circulation	Most of combustible liquids, volatile flammable liquids (light and heavy hydrocarbons), alcohols, solvents, ethanolamine, etc	Barrier fluid tank with heat exchanger SO-1, SO-3 or SO-5 with auxiliary valves
11, 13	Recirculation via throttling orifice to/out of chamber before the seal	VOCs, crystallizing fluids, fluids with solids	-

All of the above systems can be supplied with:

- level sensors/indicators
- pressure switch
- temperature sensor
- safety valve
- ball valves
- and other I&C devices and valves

Mechanical seals for oil and gas refinery, petrochemical applications



The seal is designed to every pump individually.



Due to compactness of RDT-48A seals in radial direction they can be installed into sealing chamber of most pumps, mixers, reactors and other equipment, including imported one. To receive an offer for RDT-48A mechanical seals for specific applications, it is advisable to fill in the seal selection form.

RDT-48A seals were successfully designed for the pumps of many famous manufacturers:

- Sulzer
- Flowserve
- Worthington
- KSB
- Byron Jackson
- RuhrPumpen
- EBARA
- Nigata
- Ingersoll Dresser Pumps

"The RDT48A seals proved to be reliable solution for high pressure liquid gases at FCC and gas fractioning units"

Omsk refinery

"The RDT48A seals have been working successfully at main oil double end oil pumps and atmosphere distillation unit"

Lukoil-Volgograd

