



Tenute Meccaniche ATEX Zona 0
Mechanical Seals ATEX Zone 0

Characteristics

- Double balanced design able to tolerate unbalanced reverse pressure.
- High performance seal and stage designed with PEEK to avoid deformation.
- Optional carbon/graphite seal: product contamination and cooling water for high temperature applications.
- Reduced friction: rings prevent drive out during start-up process.
- Thermocouple for 4000 applications.
- Manometer leakage monitoring connection.
- Hard disk drive to guarantee seal position control and seal position under high pressure pressure conditions.

GT 1934 A

A preassembled, back-to-back double cartridge seal suitable for operation with a pressurised barrier fluid. A double balanced seal suitable for high working pressures and the ability to operate under reverse pressure if there is a loss of barrier fluid pressure. Designed using API 682 construction guidelines.



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Always be higher than the process pressure with 20% as per operating limits.

OPTIONAL FLANGES (see below Catalogue pg. 41)



Flange with cooling chamber (B)



Standard flange (B)



Standard flange with cooling chamber (B)

Operating limits

DIMENSION (mm)	FROM 50 TO 250
SPEED (m/s)	≤ 30
TEMPERATURE (°C)	FROM 50 TO 250
API 5 = 2 bar as per API 682	
PROCESS PRESSURE (bar)	VACUUM TO 75

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure/velocity ratio (PVR) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.



10000
10000-10000



10000
10000-10000



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10000-10000

Images and dimensions may differ slightly from the standard configuration as well as to different markets. The product may be subjected to replacement or improvement without notification.

GT 1923 A

A preassembled, back-to-back double cartridge seal with an integrated, self-aligning roller bearing. Suitable for operation with a pressurized fluid. A double balanced seal suitable for high working pressure and the ability to operate under reverse pressure if there is a loss of barrier fluid pressure.

Designed using API 682 construction guidelines.



Characteristics

- a) Double balanced design able to tolerate unexpected reverse pressure.
- b) High performance seal and ring designed with flat surfaces to avoid deformation.
- c) Ballbearings mounted in seal chamber compensation and cooling point for high temperature applications.
- d) Reinforced ballbearing ring to prevent blow-out during reverse pressure.
- e) Ballbearings that can tolerate run-out and vibration.
- f) Remountable for ODM applications.
- g) Bearing protection ring to prevent lubrication.
- h) Lubrication device for easy service.



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Operating limits

DIMETER (mm)	FROM 50 TO 250
SPEED (rpm)	≤ 20
TEMPERATURE (°C)	FROM -50 TO 250
API minimum 1 + 2 bar (see API 682)	
PROCESS PRESSURE (bar)	VACUUM TO 75

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure velocity value (PVC) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.

OPTIONAL FLANGES (see below Catalogue pg. 41)



Flange with cooling chamber (B)



Secondary flange (B)



Secondary flange with cooling chamber (B)

NOTE: barrier fluid pressure must always be higher than the process pressure with API in all operating limits.



ISO 9001
2015:2015



ISO 14001
2015:2015



API 682
2015:2015



API 682
2015:2015



ISO 9001:2015



ISO 14001
2015:2015

Images and dimensions may differ slightly from the standard configuration as a result of different variants. The product may be subjected to technical or commercial modifications without notification.

Characteristics

It focuses on the interplay between language and thought in learning and acquisition in accordance with current theories.

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© 1999 Blackwell Science Ltd, *Journal of Internal Medicine* 245: 395–401

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Journal of Internal Medicine 261: 385–392

It is also possible that different levels of cooperation might represent the various social positions of the ant.

of swimming stroke for each gender, gender and age.

Double cartridge seal with clean profile suitable for hygienic applications, slurries, high viscosity liquids and polymeric solutions. The cartridge includes an integrated roller bearing to minimize seal run-out for improved reliability. The seal can be supplied with custom designed flange and shaft design and can be configured as wet running, dry contacting or lift off.



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average for higher than the previous
periods with 40% in job opening
ratio.



	2008 Population	2009 Population	2010 Population
Population (thous.)	100 (age 100, 2000)	100 (age 100, 2010)	100 (age 100, 2010)
Population (thous.) urban	50	5	50
GDP (in 2007)	$2 = 2 \cdot 2$ constant price	$2 = 2 \cdot 2$	$5 = 2$ constant price
Energy consumption (toys)	Marathon = 100	Marathon = 10	Marathon = 25

By spending little time with their specific chosen career as National Geographic's magazine and television channel are so closely tied, the magazine is overlooking something the university should also be considering: the magazine, channel and website themselves, as well as the people.

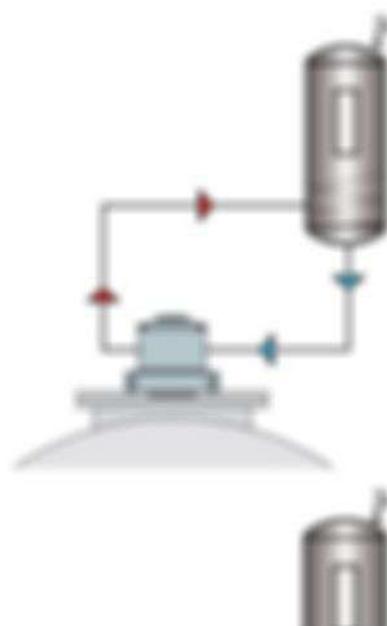


Images and illustrations may differ slightly from the described configuration or other's different models. The product may be subject to engineering or commercial modification without notification.

1) Buffer system with thermopneum circuit.

A tank containing the buffer liquid is placed at 1m1,5 m head, minimum above the seal.

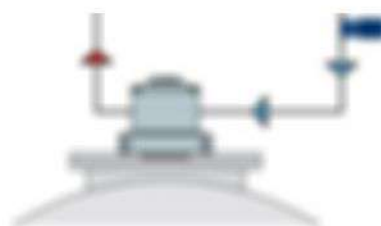
The temperature difference between the seal and the tank, moves the barrier liquid as a thermopneum circuit.

**2) Buffer system with liquid circulating by means of a pumping ring fitted onto the rotary part.**

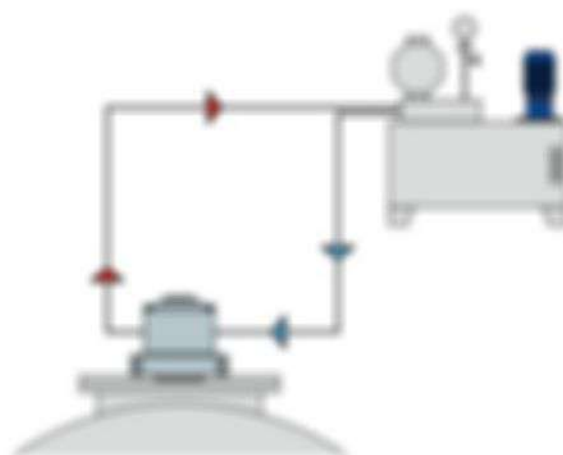
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A circulation pump placed at the exit of the tank enables circulation of the barrier liquid so as to remove the heat generated by mechanical seal.

**4) Buffer system with central flushing station.**

A control unit equipped with a circulation pump sucks up the liquid at atmospheric pressure from a tank and, by means of a regulating valve in the outlet of the seal, allows the pressurization thereof. Unlike previous systems, the pressurization is ensured by the pump, while the cooling of the liquid barrier from a heat exchanger. According to specific needs, the unit can be set up to envelope longer required.





In PLAN 53A the barrier liquid is contained in an external tank pressurized with higher pressure than the stuffing box. The circulation of the fluid can take place as described on pg. 6. The available nitrogen pressure in the plant must be checked, if it is not sufficient (0,14 MPa - 1,4 bar higher than the P of the stuffing box) it is required the use of an amplifier or a system with nitrogen accumulator (PLAN 53B).



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In PLAN 54 there is a pressurized external barrier fluid system supplying clean liquid to the barrier fluid seal chamber. PLAN 54 is used with Arrangement 3 liquid seals and the barrier liquid is maintained at a pressure greater than seal chamber pressure. Barrier liquid is circulated by an external pump or pressure system. PLAN 54 is often used in services where the pumped fluid is hot, contaminated with solids, or the internal flow inducer is unable to supply a sufficient flow rate.



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