آرتا صنعت آرسن

ARSEN

Sealing Systems Co.

مکانیکال سیل

Mechanical Seal

Mechanical Seal

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ARSEN

Introduction of Arsen company

Arsen Company with a history of several years of activity in the construction and erection of equipment in oil and gas and petrochemical industries, steel, power plants, wood and pharmaceutical industries, has profits cooperation with its European partners in designing and manufacturing all kinds of seals with different brands (john crane, burgman, flowserve, fluiten)

With the presence of a team of experienced domestic experts and technicians has attempted to stablish and provide after – sales service of all kinds of sealing systems (mechanical Seal) in accordance with the international standard (API682 / ISO21049, ACS, NACE, ANSI, …)

Today, supporting domestic production is along with self –sufficiency and creation enthusiasm for young people to serve our beloved homeland and hope for a better future in the field of industry and subsequent employment in the hands of wise and experienced people like you. this will lead to Create the most effective inner motivation for the youth of this border and canvas with your tact and approach.

It should be noted that over the years we are proud to be a high quality domestic manufacturer of different kinds of sealing systems with the background of attending different contractions and successful experiences in repair, design, equilibrium, production of mechanical seals and its different parts which has been done in critical conditions of Dear customers. we have taken a small step earning their satisfaction regarding high performance and best quality.

Due to the increased sensitivity in the function of rotating equipment of sealing systems, our company aims to meet the needs of internal industries, indigenous technical knowledge and achieve a suitable position to gain greater and more effective share in this field and strives to have a long –standing relationship Based on honesty and fairness with customers.

Therefore, in line with stated purposes, Arsen Company declares preparation for customer's needs in the field of training, maintenance and repairing (notes) in the form of periodic visits aimed at identifying and determining technical certificates, design, construction, reverse engineering and repair of mechanical seals.

Outlook

Attendance as one of the most authentic and powerful manufacturer of mechanical seals in energy, pertrochemistry, pow plants, refineries, food industries, mining and chemical industries in middle east.

Goal and policy

Design and Mechanical seals for Energy, Petrochemical, Power Plants, Refineries, Food Industries, Mining and Chemical Industries
Identifying the needs of the oil, gas and petrochemical industries and other customers for sealing and supplying equipment \/ construction
Customer companionship to optimize and use products
Increasing productivity, empowerment and satisfaction of employees and customers as the most important capital of the organization

Competitive benefits

easy access

We have an active sales team that is constantly accountable. There are many ways to communicate with us. We're there when you need us.

Reliability and trust

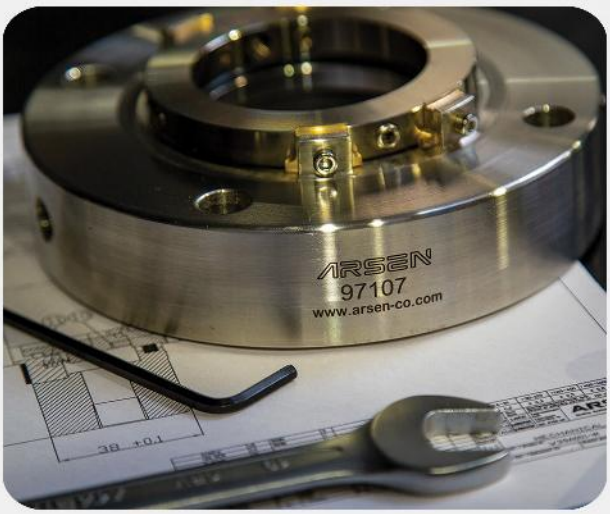
We are proud of the technical knowledge and expertise of the mechanical design and production of the seal and its related equipment, and we are always developing technical knowledge. Our job is to provide the best technical solution.

Compromise and flexibility

We have a variety of products that enhance our ability to flexibility. We believe that there is no better pleasure than customer satisfaction.

Preparation

We believe that sales are not the end of the job, but the beginning of a commitment.



Company Values

Responsibility

Trying to gain customer trust and fulfill our obligations is one of our long–term goals. We will pursue our work, which means that trying to fulfill our daily obligations is as an essential condition to pay attention to the needs of others.

Ethical

We need to promote moral attitudes to staff, customers, suppliers and all shareholders, so we have created an internal ethical policy and we are trying to achieve it. We are responsible for helping to create a better and more balanced world.

Teamwork

We believe that creating the right work environment and designing professional projects requires the use of different efforts and ideas. By joining thinking and energy, we can face more complex challenges. We have to insist on doing a complete job by a professional team.

Motivation and passion

We believe that no project can progress without enthusiasm. Many factors, such as passion and enthusiasm, create a sense of responsibility and loyalty to common ideas.

Being Different

Arsen family, as a company, is constantly trying to create new and better ideas. Each application has its own specific specifications; our task is to provide the best solution.

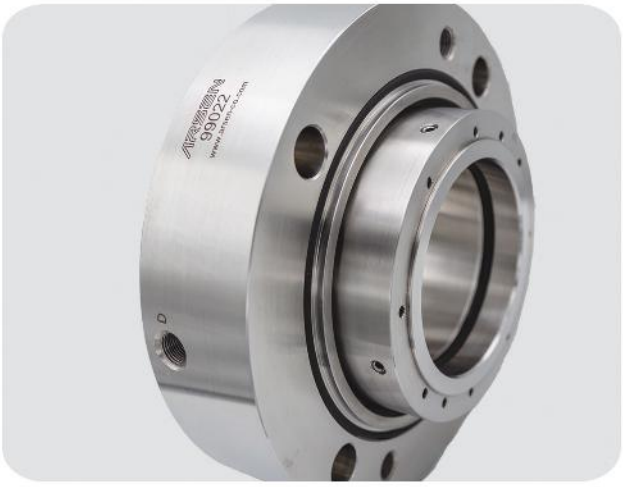
Arsen in profile

We are there when you need us

Customers want proximity, speed and solutions to their problems. Thanks to our personal presence, flexibility and specialist know-how we can face these challenges with quiet confidence. All over the Iran we offer our in depth package of service from the simple stuffing box packing to the complex high tech seal, plus the backing of our total seal care modular support offering, which allows each customer to put together exactly the right service package based on individual needs and requirements.

Making our customer more successful

Our customer expects their machines to operate without problems. With this objective in mind, we are working to produce innovative, economically rational and easy to use seal solutions that help to fulfill the highest requirements in terms of environmental protection and safety. The technical knowledge, creativity, motivation and performance of our workforce make a major contribution to achieving these objectives and making our customers more successful.



Skills

- **Seal Selection by Media**
- **Mechanical Seals for Pumps and Compressors Mechanical Seals for Agitators, Mixers and Reactors**
- **Supply System and Components for liquid-lubricated Mechanical Seals**
- **Recommendations For Applications**
- **Design, Installation and Operation**

Important Note

All the technical references are based on extensive tests and our many years of experience. The diversity of possible applications means, that they can serve as guide values only. No guarantee can be given for a specific case unless the exact conditions of application are exact
conditions of application are known to use and confirmed in a special agreement. For particularly critical conditions of operation, e.g. involving a mixture of products, we recommend you consult with our specialist engineers. It should be noted that the maximum values of each operating parameter cannot be applied at the same time. Subject to change.

Corporate Values

Responsibility

Efforts to gain customer confidence and fulfill our obligations are one of our long-term goals.
We will follow up on our work. This implies striving to fulfill our daily commitments as an essential premise in attending to the needs of others.

Ethics

We must promote ethical attitude to employees. Customers and suppliers and all stakeholders, so we have created an internal ethical policy and we are working to enforce it. We are responsible for helping us create a more just and balanced word.

Team Work

We believe that the creation of a work environment and the design of professional prohects requires the use of different efforts and ideas. By joining forces, we can come up with more challenging challenges. And we have to insist on doing the perfect job in the hands of a professional team.

Passion

We believe that no project can progress without enthusiasm. Many factors, such as eagemess and enthusiasm, develop a sense of responsibility and loyalty to common ideas.

Diversity

The Arsen family, as a group company, seeks to strengthen diversity as a symbol to create a better world and always strives to create new and better ideas. Every application has its own special requirements profile, and our job is to provide the best sealing solution.

Mission

Designing and Manufacturing of Mechanical Meals for Energy, Power plants, Refineries, Food Processing, Mining and chemical industry.
Identification of needs of oil, gas and petrochemical industries and other customers for sealing and supply/fabrication equipment.
Customers' Companionship for The Selection and Optimal Use of Products.
Increasing the Efficiency, Empowerment and satisfaction of Employees and Customers as the Most Important Capital of the Organization.

Vision

To be One of the Most Reliable and Powerful Manufacturer of Sealing System and Solution in Energy.
Petrochemical, Power Plants, Refineries, Food Processing, Mining and Chemical Industry in Middle East.

Competitive advantages

Availability

We have an active sales team that does not recognize pleasure except customer satisfaction and is always responsive to your needs. There are also many ways to connect with us. We are there when you nees us.

Reliability

We are proud to have the technical knowledge and expertise of designing and manufacturing of the mechanics of floods and equipment around it and we are always developing in technical matters. Every application has its own special requirements profile, and our job is to provide the best sealing solution.

Adaptability

We have a variety of products which enhances our ability to be flexible. We believe there is no better pleasure than customer satisfaction.

Accessibility

We use a strong and committed sales team which will be constantly responding to customers. We believe that the sale is not the end of the work, but the beginning of a commitment.

Seal Selection & Design By Arsen

The recommendations in the media tables on the "typical case" of a seal for a horizontal centrifugal pump. Other of machine, installation conditions, modes of operation, designer's and operator's specifications, local regulations and so on can result in a different choice of mechanical seal...

- Single Seals
- Unbalanced
- Elastomer Bellows & Conical Spring
- Dependent & Independent of direction of rotation


- Single seal (Component & Cartridge)
- Unbalanced & Balanced
- Dependent & Independent of direction of rotation
- Single Spring & Multiple Springs & Welded Bellow


- Double Seal & Single Seal (component & cartridge)
- Unbalanced & Balanced
- Independent of direction of rotation
- Multiple springs


	Type		Maximum Pressure (Bar)	Temperature (°C) Min. - Max.	Speed (m/s)
Multi Spring Seals		AMS-H09	25	-50+220	10
		AMS-M07S	16	-50+220	20
		AMS-H075	40	-50+220	20
		AMSD-M074	25	-50+220	20
Single Cartridge Seals		ASC-CARTEX-TN	25	-40+220	16
		ASC-CARTEX-SN	25	-40+220	10
		ASC-CARTEX-QN	25	-40+220	16
		ASC-MBTEX	16	-30+200	20
		ASC-H007	40	-30+200	20
		ASC-M007	20	-40+250	20

	Type		Maximum Pressure (Bar)	Temperature (°C) Min. - Max.	Speed (m/s)
Double Cartridge Seals		ADC-CARTEX-FB	25	-40+220	16
		ADC-H00R	25	+220	20
		ADC-CARTEX	25	-40+220	16
		ADC-CARTEX-BB	25	-40+220	16
		ADC-H075	40	-30+220	20
		ADC-H075-FB	40	-30+220	20
		ADC-SH-FF	40	-30+220	60
		ADC-H075-FF	40	-30+200	20
		ADC-KL48	16	-30+200	5
		ADC-KL46	16	-40+200	5

	Type		Maximum Pressure (Bar)	Temperature (°C) Min. - Max.	Speed (m/s)
Conical Spring Seals		ASS-M037	10	-20+180	10
		ASS-M37G	10	-20+120	10
		ASS-M003	10	-20+180	10
		ASS-M032	10	-20+130	10
Bellows Seals		ASSB-M004	10	-15+200	10
		AEB-G01S	12	-20+220	10
		AEB-G001	12	-20+120	10
		AEB-G012	12	-20+120	10
		AEB-G013	12	-20+120	10
		ATB-M001	12	-40+100	16

	Type		Maximum Pressure (Bar)	Temperature (°C) Min. - Max.	Speed (m/s)
Bellows Seals		ATB-M002	12	-40+150	16
		ATB-M021	12	-20+120	16
		AMB-M080	16	-20+400	20
		AMB-M085	25	-40+220	20
		ARB-M095	16	-40+280	20
		AMB-M065	16	-100+100	20
		AMB-M090	16	-20+400	20
Wave Spring Seals		ASS-M007	16	-50+220	20
		ASS-M078	16	-50+180	20
		ASS-H007	45	-50+220	20

Design and Equivalent of Sealing Systems

Since the progress and development of our beloved country in the field of industry, it will first be achieved by relying on God and then the craftsmanship of the craftsmen, therefore Arsen Company honors the encouragement of self -sufficiency and creation of enthusiasm in service to support domestic manufacturing and production.

It should be noted that during years Arta Sanat Arsen as a domestic manufacturer of sealing systems has been trying to step up to meet our beloved homeland industrial needs, using the technical knowledge of experienced experts.

following is an excerpt from Arsen's activity in the field of designing and equilibrium of Seals:

Arsen is proud to equate and even design almost all the mechanicals of Indian pumps (AKAI) for Lavan Oil Refining Company. Indian Akai pumps that were inevitably provided by the Lavan and Bandar Abbas refinery were of poor quality and many deficiencies in design.

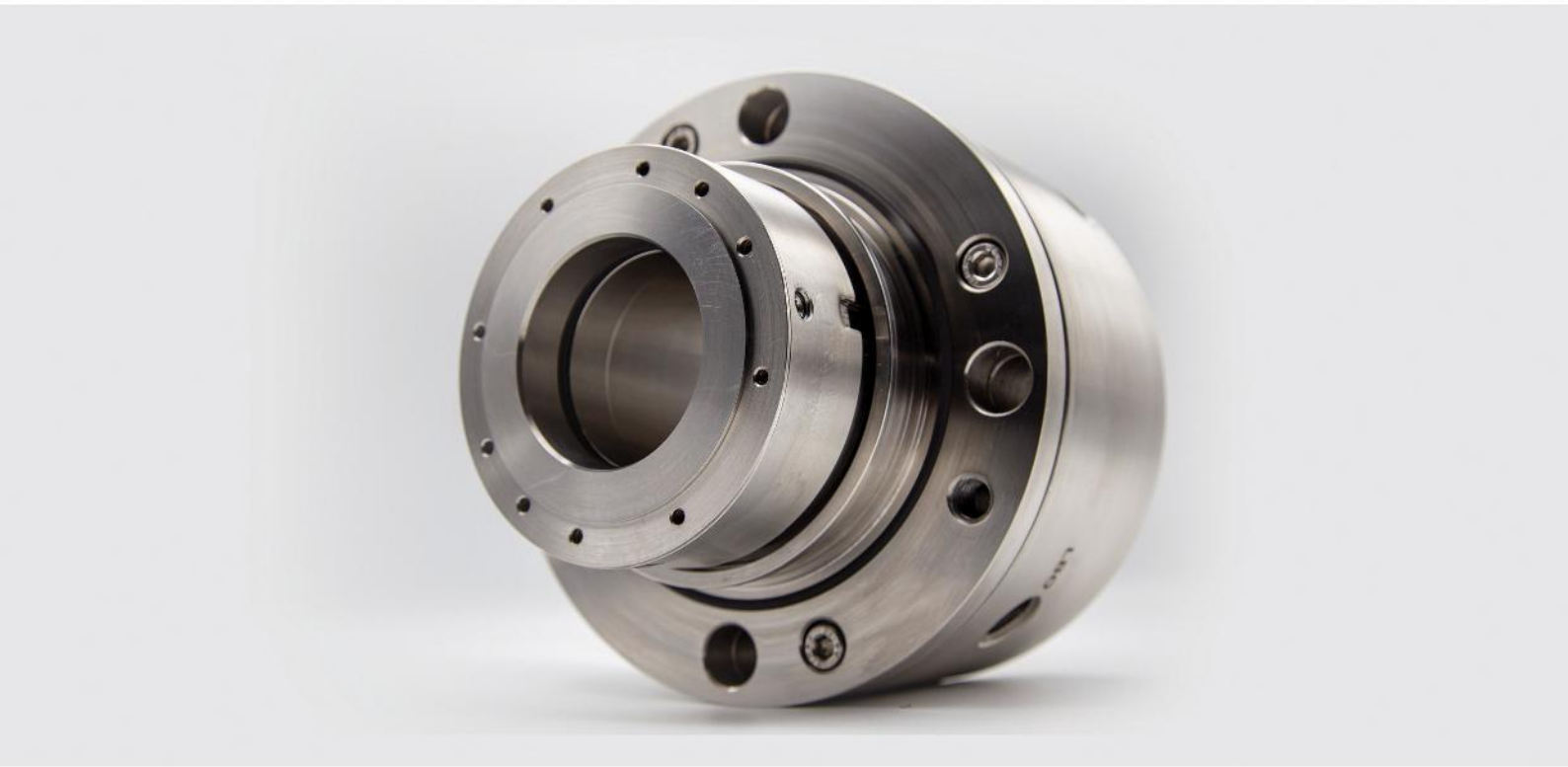
Following the collaboration with Lavan Oil Refinery, due to the customer's full satisfaction with the designs, we succeeded in equivalent to pumps P 1601 and P 1604 and P 1609 and P 1512 and P 102 and P 1316 and P 1109 and P 1109 and P 1109 Etc. ... with the best quality and finally with the full customer satisfaction

Also, in total, we designed Lavan oil refinery seawater pumps by changing the stuffing box space for Beijing pumps, mechanical seal

And in another experiment we designed mechanical seal with a change (the stuffing box) in the pump waxp-1608 of Polynar petrochemical company for pumping system pumps,

We have also succeeded in mechanical sealing the p-18001A/B pump of Bandar Abbas oil refining company by satisfying the respective mechanical seal of Akay pumps numbered p-20708, p-20710A/B, P-20711A/B, P-20712A/B and also, we equated the mechanical seal p-405, which was designed by john crane with a temperature of 400 degrees cesius

Arsen company also designed and replaced several mechanical seals in new refinery phases, including Tabriz and shiraz.



Arsen Company in collaboration with MAPSA Pumping Company has designed a mechanical seal for Tehran refinery and Abadan refinery, which is one of the best design examples for Arsen. (Design from Datasheet and enhances our beloved country gasoline production capacity.)

At the Tehran Refinery for the southern P 201 A pump, in line with the plan to increase the country's gasoline production that pumps the dangerous gasoline fluid, we designed two double –mechanical seals with two Plan 53b for BB5 pump, which has customer satisfaction and proved our capability. We did this for their northern P 201 B.

For the Abadan Refinery, we also designed a mechanical number of Bilosi floods with Plan41. There are also extensive activities with large pumps such as Petko and Navid Sahand and Sepandab Kian Company. Arsen's participation in the large and national projects of Gore Jask and atomic power, new phases of refinery and other large industries and projects with internal pump makers have been significant.

Arsen has also designed mechanical seal with Plan51 in order to work with a sample of Agitator Pars Shimmer Pharmaceutical Company, which was satisfied with customer satisfaction.

Arsen Company in collaboration with Arvand Petrochemical Company has designed mechanical seals for pumps: 42p 14002 a\/b\/c\/d mechanical double to Back and for two site units from Takht Jamshid Pars Asalouyeh and Kurdistan.

we have designed all its mechanical Seals . Here's a look at Arsen's designs

PO	Customer	Description
93044	Mapsa	design and production of mechanical seal p-201&plan 53b for tehran refinery
94012	Mapsa	design and production of high temprature mechanical seal plan41 for abadan refinery
94045	Lavan Refinary	design and production of high pressure mechanical seal p-1601for 1600 unit pump feed for lavan refinery
94055	Lavan Refinary	design and production of high temprature mechanical seal p-1604 for 1600 sulfur unit for lavan refinery
95057	Lavan Refinary	design and production of mechanical seal p-1506 instead of mechanical seal akay for lavan refinery
95075	Pars Shimer	design and production of mechanical seal agitator mixer
95076	Lavan Refinary	design and production of mechanical seal p-1109 instead of akay mechanical seal for lavan refinery
95077	Lavan Refinary	design and production of mechanical seal p-102
95079	Lavan Refinary	design and production of mechanical seal p-1512 instead of akay mechanical seal for lavan refinery
95092	Foolad Technic	design and production of plan 31 for use in desalination of gachsaran foolad technique
95098	Polynar	design and production of wax mechanical seal
96008	Mapsa	design and production of mechanical seal and plan53b for gas station of tehran refinery
96069	Lavan Refinary	design and prodution of mechanical seal o° seawater gallery pumps instead of packing
96096	Petco	design and production of mechanical seal for kermanshah refinery
97004	Lorestan Petrochemical	design and production of mechanical seal water vapor flood for lorestan pc
97015	Bandar Abbass Refinary	design and production of mechanical seal p-18001 instead of akay mechanical seal
97016	Petco	design and production of mechanical seal for oil-rich areas of the south
97021	Petco	design and production of mechanical seal elmatco project
97024	Petco	design and production of mechanical seal flood with a diameter of 165 for use in tabriz refinery
97025	Petco	design and production of mechanical seal clear iran project
97028	Lavan Refinary	design and prodution of mechanical seal o° seawater gallery pumps instead of packing
97056	Arvand Petrochemical	design and prodution of mechanical seal p-2001 and production of plan 31
97058	Bandar Abbass Refinary	design and production of high temperature p-1405 with temperature of 400 c
97060	Bandar Abbass Refinary	design and production of mechanical seal p-20708 instead of akay mechanical seal for bandar abbas refinery
97061	Bandar Abbass Refinary	design and production of mechanical seal p-20710 instead of akay mechanical seal for bandar abbas refinery
97062	Bandar Abbass Refinary	design and production of mechanical seal p-20711 instead of akay mechanical seal for bandar abbas refinery
97063	Bandar Abbass Refinary	design and production of mechanical seal p-20712 instead of akay mechanical seal for bandar abbas refinery
97064	Rejal Petrochemical	design and production of high tempreture p-2001 for rejal pc
97067	Petco	design and production of mechanical seal N1OEC PROJECT
97068	Petco	DESign and production of mechanical seal petro zagros project
97088	Laleh Petrochemical	design of mechanical seal p-2001 for laleh pc
97104	Mapsa	shazand refinery of arak 6 mechanical seal size70
97105	Mapsa	43 mechanical seal size 40 oil and gas caroon
97106	Lavan Refinary	design and production of mechanical seal p-9012 for lavan refinery
97109	Abadan Refinary	design and production of mechanical seal p-2009 for sepandap
98007	Sepandab	design and production of mechanical seal for use in abadan refinery
98010	Petco	design and production of mechanical seal for use in the petrochemical industry for petco
98015	Sepandab	Kharg mechanical seals (QTY:5)
98028	Takht Jamshid Pars Petrochemical	all mechanical seals unit p-2812,p-2809,p-2811 for takhtejamshid pc
98029	Takht Jamshid Pars Petrochemical	all mechanical seals unit p-2201,p-2107,p-2701 p-2801 for takhtejamshid pc

98030	Kordestan Petrochemical	all mechanical seals unit p-1804,p-1830,p-0202 for kordestan pc
98031	Kordestan Petrochemical	all mechanical seals unit p-1803,p-1820 for mapsa
98039	Mapsa	design of mechanical seal shiraz oil refining
98041	Tabriz Refinary	P-1603,P1604,P-1606,P-1607,P-1608,P-1613,P-1616,P-1620,P-1622,P-1623
98077	persian gulf star refinery	design and production of critical mechanical seal p-0201 for persian gulf star refinery
98090	Petco	design and production of mechanical seal of farabord project in shiraz for use in gachsaran petrochemical
98102	Petco	design and production of persian gulf star refinery project
98105	persian gulf star refinery	design and production of high tempreture and critical tempreture mechanical seal p-0112 for persian gulf star refinery
98107	wise rotary machine	design and production of 6 mechanical seal in isfahan steel company
99003	persian gulf star refinery	design and production of mechanical seal and production of plan 53b for p-1801
99009	Sepandab	design and production of mechanical seal diameter 70 for abadan oil refinery
99021	Petco	design and production of mechanical seal for amirkabir petrochemical project
99022	Petco	design and production of mechanical seal for offshore project
99023	Petco	design and production of mechanical seal finder equipment project
99027	persian gulf star refinery	design and production of mechanical seal and production of plan 53b for p-1804 for persian gulf star refinery
99028	persian gulf star refinery	design and production of high tempreature mechanical seal p-112 for persian gulf tar refinery
99029	persian gulf star refinery	design and production of mechanical seal critical pump with fluid p-502 LPG persian gulf star refinery
99044	Petco	Goreh jask national project design and production of 30 iran arvin mechanics
99106	Shiraz Refinary	design and production of mechanical seal for shiraz refinery gasoline unit
99111	Navid Sahand	design and production of mechanical seal and production of plan 52 for masna nuclear power plant
99114	persian gulf star refinery	design and production of mechanical seal p-3601 for persian gulf star refinery
99115	Petco	goreh jask national project design and production of chandi shapoor mechanical seal
00005	wise rotary machine	design and production of mechanical seal petrochemical for wise rotary machine
00013	Petco	design and production of mechanical seal ODCC project for installation in tabriz refinery
00014	Petco	goreh jask national project design and production of petro omid asia mechanical seal
00015	Petco	goreh jask national project design and production of chandi shapoor mechanical seal
00016	Petco	goreh jask national project design and production of iran arvin mechanical seal
00066	Petco	design and production of mechanical seal for offshore project
00092	persian gulf star refinery	design and production of mechanical seal oil so\torage for persian gulf star refinery

Background in activity

Mechanical seal and Systems Saplas:

1. Design, manufacture, manufacture, repair and optimization of sealing systems (mechanical seal) in oil, gas, petrochemical, steel, food industries, pharmaceuticals, poultry, compressors, etc. with European technical and material knowledge.
2. References, Problems, and Failure to Mechanical seal.
3. Provide technical engineering advice on promotion of Sealing System for adaptation to world standards.
4. Retrofit other builders with mechanical designed seal designed inside.
5. Reverse Engineering of Mechanical seal in accordance with API682 standards.
6. Sapla SPLAs and its equipment for optimal mechanical performance of seal.
7. Making Refill Units in different volumes to charge mechanical seal support systems

استانداردهای فولاد و متریال

ASME SETTING THE STANDARD MEMBER

ASTM INTERNATIONAL

DIN

American Iron and Steel Institute

استاندارد پمپهای سانتریفیوژ

energy API

API STD-610

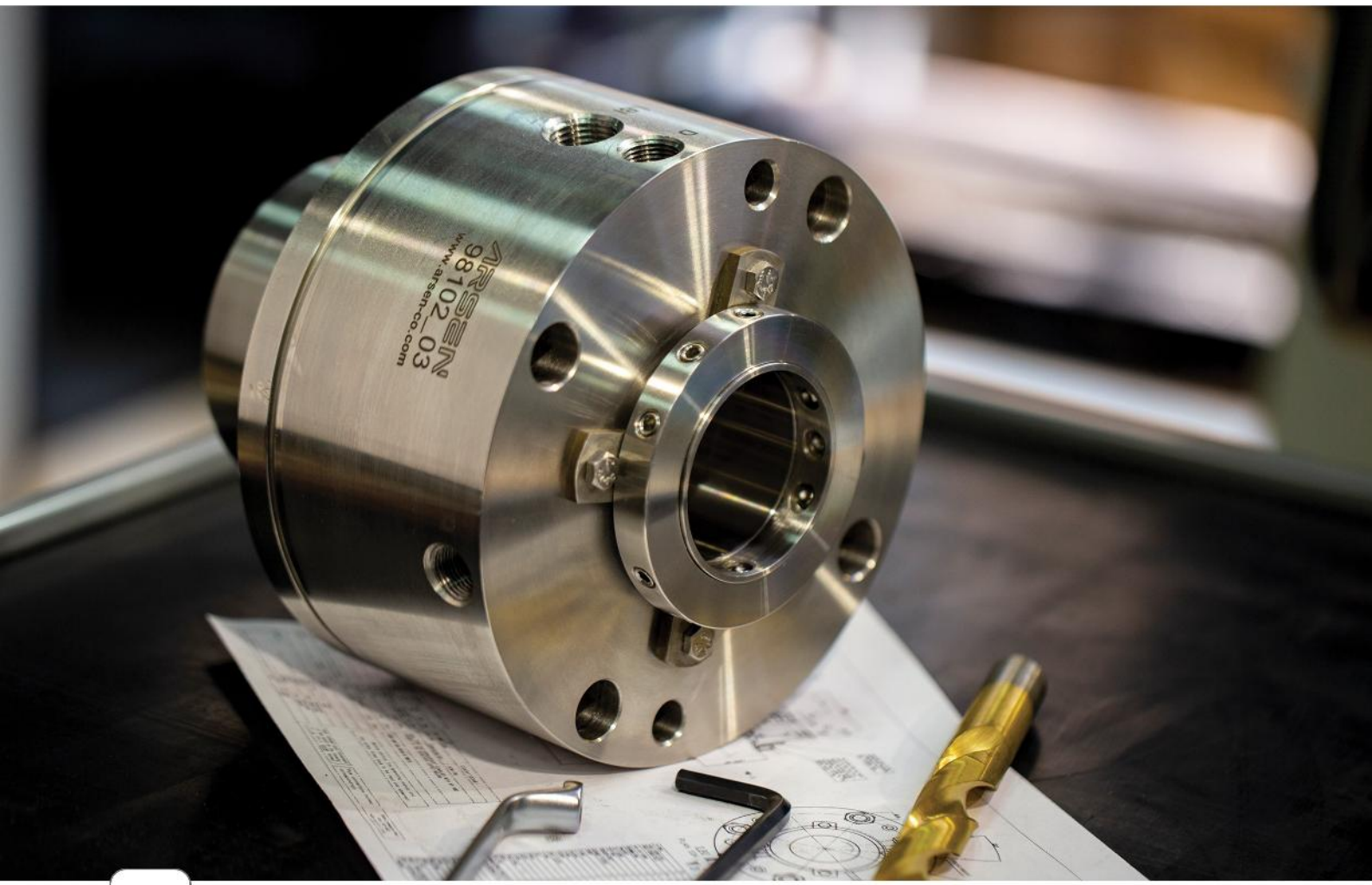
Centrifugal Pump Standard

استاندارد نقشه کشی صنعتی

DIN ISO 2768

استاندارد مکانیکال سیل ها و ساپلای سیستمها

API 682

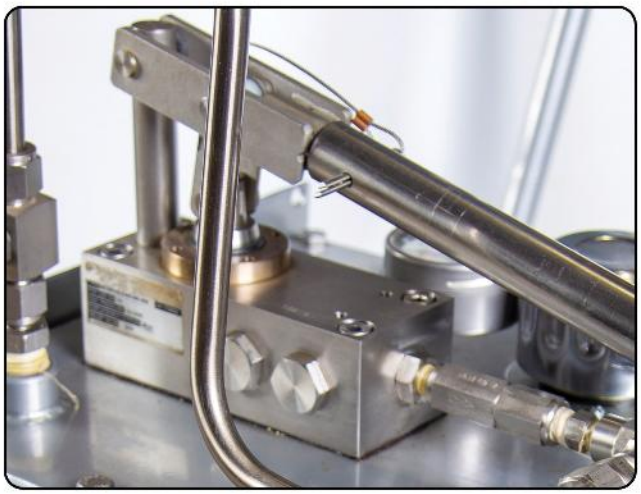


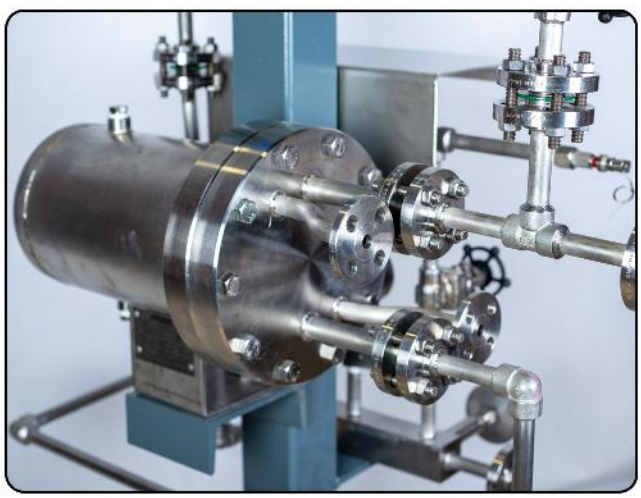
Design, manufacture and implementation of common standard plans

API 682 4TH Edition

API 682 is an accepted global standard related to refinery industry. Arsen offers a wide range of mechanical seal and high -quality systems in accordance with the API 682 4TH Edition.

Arsen is your reliable partner from specialized and engineering consulting to service solutions and launching sealing systems.





Cooperation records

Cooperation in the field of sealing systems:

Signing annual contracts with Gulf Star and Bandar Abbas Oil Refineries

Signing of an annual agreement and contract with Persian Gulf Petrochemical Holding Companies, including Lordgan Petrochemicals and Persian Gulf Gas Refinery

Mechanical design and construction of seals of oil refineries in the country, especially in launching new phases of gasoline, including Lavan Oil Refineries, Persian Gulf Star, Bandar Abbas, Tehran and Tabriz

Mechanical production and repair of South Pars gas phases floods in every 12 South Pars Gas Refineries

Mechanical Construction and Repair of Gas Refineries of the country, including Bidband Gas Refineries 1 and 2, Ilam, Shahid Hasheminejad, Qeshm Gas Refinery and South Zagros Gas Refinery

Mechanical Design and Manufacture of Petrochemical Floods of Assaluyeh District including Jam Petrochemicals, Aria Sasoul, Poly Pro Pillenn Jam, Pearl, Kavian, Persepolis Pars, Sabalan and Mobin

Mechanical design and construction of Mahshahr petrochemical floods including Port Petrochemicals Imam (Kimia & Basparan), Maroon, Laleh, Tondguyan, Arvand, Rajal, Ghadir, Takht Jamshid Mahshahr, Shazand, Razi, Farabi, Fanavaran, Karun and Aria

Mechanical design and construction of petrochemical floods in other areas including Holding Petrochemicals (Kurdistan, Kermanshah Polymer, Lorestan, Mahabad, Kavian) and Khorasan, Shiraz, Poly Nar, Kermanshah, Ghaedbasir, Ilam, Khark, Shazand and Lordegan

Design and construction of seals in national projects of Gore Jask, Nuclear Power Plant, Oil Distribution Refining, Petrochemical Industries and Oil Regions (Desalcious Projects)

Extensive cooperation with subsidiaries of the Ministry of Petroleum, including Continental Oil and Iran Pipeline and Telecommunication Company

Mechanical design and manufacture of domestic pump floods to meet the need for imported seals, including companies Petko, Maqas, Pompeiran, Navidsand, Sepandab Kian and Dana rotary car in various projects in the country

Mechanical repair and construction of silage used in Aerzen and Kobelco Japan compressors used in direct resuscitation units of steel industry including Arfa Steel, Kavian Steel, Hormozgan Steel, Khorasan Steel, Mobarak and Khuzestan Steel ...

Mechanical seals of Tomgaz CNG Compressors and ....

Mechanical Power Plant sealing in MAPNA and Toga and Power Plant Companies, Gilan Power Management, Ramin Ahvaz Power Plant

Mechanical Caspian, Artaville Ardebil and Fiber Gilan and Pars Neopan

مشتریان

پالایشگاه نفت

شرکت پالایش نفت تهران
شرکت پالایش نفت آبادان
شرکت پالایش نفت امام خمینی (ره) اشتهارد
شرکت نفت ستاره خلیج فارس
پالایش نفت آفتاب
شرکت پالایش نفت شیراز
شرکت پالایش نفت اصفهان
شرکت پالایش نفت لاوان
شرکت پالایش نفت بندرعباس
شرکت پالایش نفت تبریز

پتروشیمی

شرکت پتروشیمی خارک
شرکت کالای پتروشیمی
شرکت پتروشیمی لاله
شرکت پلیمر آریا ساسول
پتروشیمی تخت جمشید
پتروشیمی شهید تندگویان
پتروشیمی قائد بصیر
شرکت صنایع پتروشیمی خلیج فارس
شرکت پتروشیمی فدارلی
شرکت پتروشیمی مارون
شرکت پتروشیمی نوری
شرکت پتروشیمی شیراز
شرکت پتروشیمی نازند
شرکت پتروشیمی تخت جمشید پارس
شرکت صنایع پتروشیمی سبلان
شرکت پتروشیمی مروارید
شرکت پتروشیمی مبین
شرکت پتروشیمی فجر
شرکت پتروشیمی کارون
شرکت پتروشیمی جم
شرکت پتروشیمی اروند
شرکت پتروشیمی خذیر
شرکت پتروشیمی ایلام
شرکت پتروشیمی فن آوران
شرکت پتروشیمی رازی
شرکت پتروشیمی بندر امام (سهامی خاص)
شرکت پلیمر کرمانشاه
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نفت و گاز

شرکت ملی مناطق نفت خیز جنوب
شرکت بهره برداری نفت و گاز گچساران
شرکت ملی مناطق نفت‌خیز جنوب
شرکت نفوذ لوله و مخابرات نفت ایران
شرکت پالایش گاز ایلام
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KSC
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شرکت مدیریت پروژه های صنعتی ابدال
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Maritime Industry
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Pharmaceutical Industry
Oil & Gas Refinery

Lidering
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TO WHOM IT MAY CONCERN

Cornellà de Llobregat, 18/04/2021

We hereby have the pleasure to confirm that the company

آرسن صنعت آرتا
ARSEN
Sealing Systems Design & Repair Co.

ARSEN-CO
No. 16, west first st.,Golgoonn Complex
Zone,Shahriar Road,
Tehran,
IRAN.

Is confirmed to be appointed

OFFICIAL AUTHORIZED DISTRIBUTOR
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At the same time this company is guaranteed our technical assistance and cooperation in order to optimize the service to the industries.

We assure the supply of genuine parts from our Headquarter in Barcelona, Spain.

This certificate is valid until 31.08.2022

Roser Mestres Roig

International Business Manager

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08940 Cornellà de Llobregat BARCELONA
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Management system as per
5S (Sorting Out, System Arrangement, Spic & Span, Standardization and Self Discipline)

In accordance with TÜV AUSTRIA CERT procedures, it is hereby certified that

ARSEN

ARTA SANAT ARSEN Co.

No.16, West 1st St., Golgoon Industrial Town,
Shahriar junction Road, Tehran, Iran

applies a management system in line with the above standard for the following scope

Design, Production and Repair of Sealing Systems

Certificate Registration No. **TA130203008820**
Valid until: **2024-11-04**
Initial certification: **2016-01-02**

Certification Body
at TÜV AUSTRIA CERT GMBH
Vienna, **2021-11-14**

This certification was conducted in accordance with TÜV AUSTRIA CERT auditing and certification procedures and is subject to regular surveillance audits.
TÜV AUSTRIA CERT GMBH Deutschstraße 10 A-1230 Wien www.tuv.at

CERTIFICATE

Monitoring & Conformity Assessment Iran

Management system as per
ISO 45001: 2018

In accordance with procedures of Monitoring & Conformity Assessment Iran Co. (PNIRAN), it is hereby certified that

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ARTA SANAT ARSEN Co.

No.16, West 1st St., Golgoon Industrial Town,
Shahriar junction Road, Tehran, Iran

applies a management system in line with the above standard for the following scope

Design, Production and Repair of Sealing Systems

Certificate Registration No.: **PN-IR 116 21/133**
Valid until: **2024-11-04**
Initial certification: **2016-01-02**

S. Khavari

Certification Body
at Monitoring & Conformity Assessment Iran Co. (PNIRAN)
Tehran, **2021-11-14**

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Monitoring & Conformity Assessment Iran Co.
Apt. 4, 5th Floor, Firoozeh Building, No. 22, Firoozeh St., North Sohrevardi St.,1553813346 - Tehran, Iran

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Management system as per
ISO 14001: 2015

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No.16, West 1st St., Golgoon Industrial Town,
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Design, Production and Repair of Sealing Systems

Certificate Registration No.: **PN-IR 104 21/132**
Valid until: **2024-11-04**
Initial certification: **2016-01-02**

S. Khavari

Certification Body
at Monitoring & Conformity Assessment Iran Co. (PNIRAN)
Tehran, **2021-11-14**

This certification was conducted in accordance with the auditing and certification procedures of PNIRAN and is subject to regular surveillance audits.

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Apt. 4, 5th Floor, Firoozeh Building, No. 22, Firoozeh St., North Sohrevardi St.,1553813346 - Tehran, Iran

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No.16, West 1st St., Golgoon Industrial Town,
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applies a management system in line with the above standard for the following scope

Design, Production and Repair of Sealing Systems

Certificate Registration No.: **PN-IR 100 21/131**
Valid until: **2024-11-04**
Initial certification: **2016-01-02**

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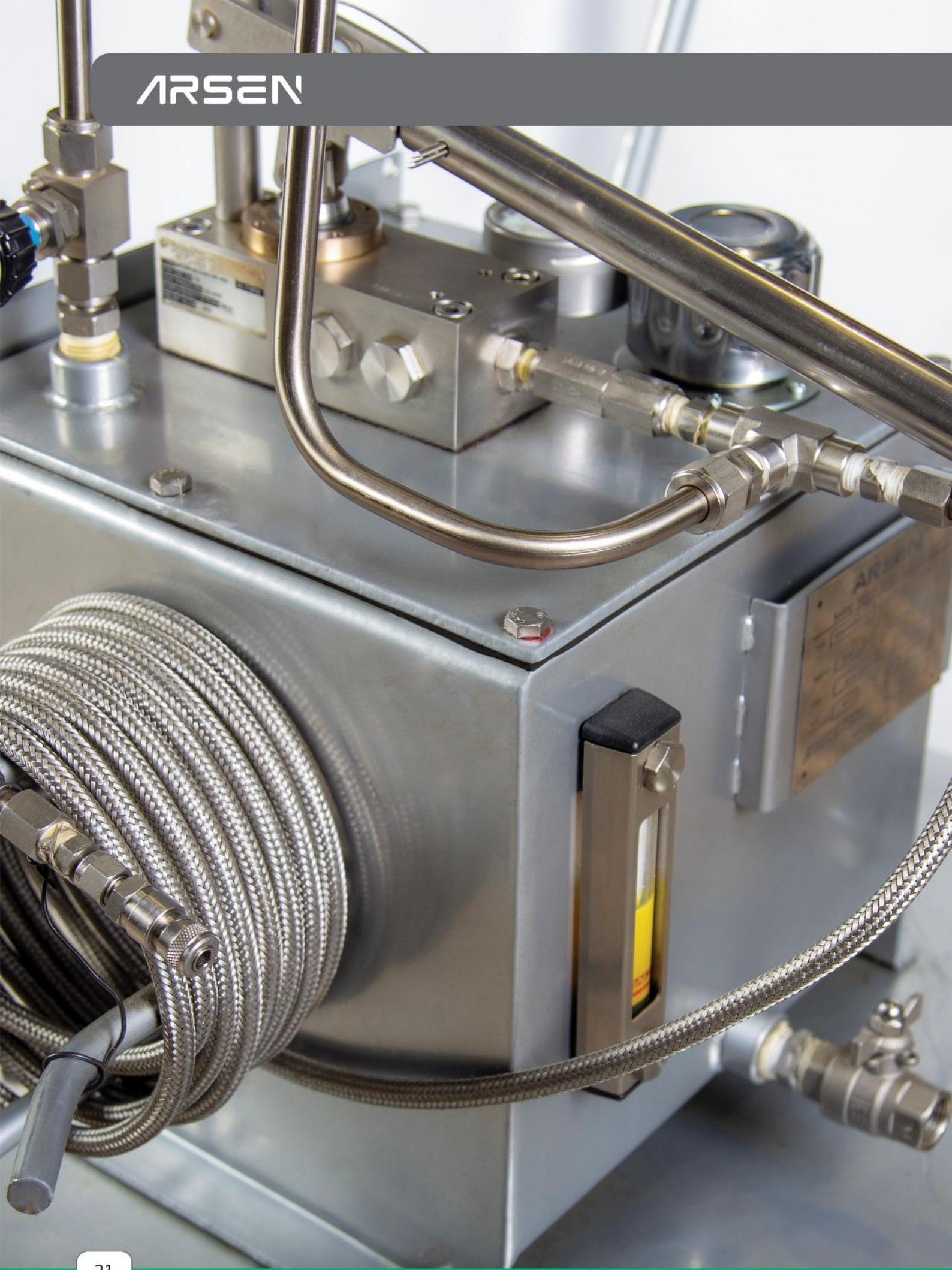
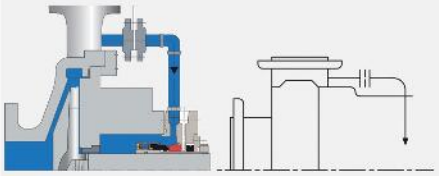


Plan 11 Single Seal



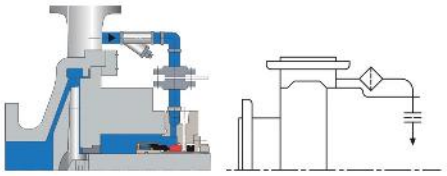
Description
Product recirculation from pump discharge to seal through a flow control orifice.

Features
1. Prevents product from vaporizing by maintaining positive pressure above vapor pressure.
2. Becomes a self-venting plan for horizontal pumps.
3. Default API Plan for most single seals.

Use
1. In general, applications with clean non-polymerizing fluids with moderate temperatures.

Caution
1. Calculation of recirculation flow rate, heat removal and orifice size are required.
2. Orifice size should be at least 1/8" (3.2mm).
3. Check the margin between discharge pressure & seal chamber

Plan 12 Single Seals



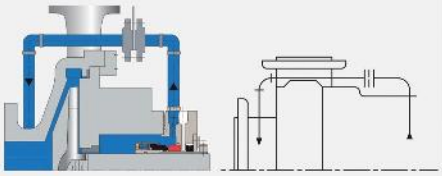
Description
Product recirculation from pump discharge through a Y strainer and a flow control orifice to seal chamber.

Features
1. Becomes a self-venting plan for horizontal pumps.
2. Can handle dirty liquids to some extent.

Use
1. In general used in slightly dirty and non-polymerizing fluids.

Caution
1. Always ensure that orifice is placed after the Y strainer.
2. This plan is normally discouraged due to non-reliability of Y strainer.
3. Calculation of recirculation.

Plan 13 Single Seals



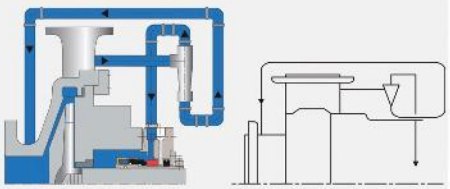
Description
Product recirculation from seal chamber to pump suction via a flow control orifice.

Features
1. Provides continuous vent for vertical pumps.

Use
1. Wherever Plan 1 is not usable due to low-pressure margin between discharge & seal chamber pressure.
2. Used in vertical pumps.

Caution
1. Check margin between seal chamber pressure & suction pressure.
2. Orifice size should be at least 1/8" (3.2mm).

Plan 31 Single Seals



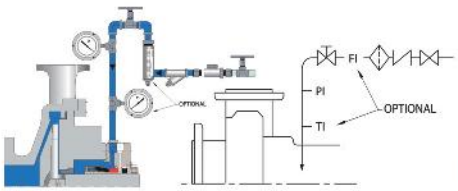
Description
Product recirculation from discharge through a cyclone separator, which directs clean fluid to the seal and solids back to pump suction.

Features
1. Removes entrained solids from the process fluid.
2. Particles from cyclone separator are returned to suction.

Use
1. Used in media with suspended solids.

Caution
1. Pump throat bushing is recommended.
2. Ensure use for services containing solids with specific gravity twice or more than that of process fluid.

Plan 32 Single Seals



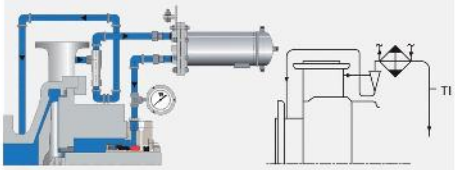
Description
Injection of clean or cool liquid from external source into the seal chamber.

Features
1. Reduces flashing or air intrusion across seal faces by providing a positive flush.
2. Maintains vapor pressure margin.
3. Always provided at a pressure greater than seal chamber pressure.
4. If maintained properly the best of all single seal plans (subject to acceptance of contamination).

Use
1. Dirty or contaminated fluids.
2. High temperature applications.
3. Polymerizing and oxidizing fluids.
4. Media with poor lubrication properties.

Caution
1. External source should be continuous and reliable at all times, even during start up & shut down.
2. Flush fluid must be compatible with process fluid due to product contamination.

Plan 41 Single Seals



Description
Product recirculation from discharge through a cyclone separator and a heat exchanger to seal chamber.

Features
1. Improves pressure margin to vapor pressure.
2. Improves temperature margin to meet secondary sealing element limits, to reduce coking or polymerizing & to improve lubricity.
3. Removes entrained solids from the process fluid.

Use
1. In hot services containing suspended solids.

Caution
1. Pump throat bushing is recommended.
2. Ensure use for services containing solids with specific gravity twice or more than that of process fluid.
3. Cooler duty is high leading to fouling on waterside.

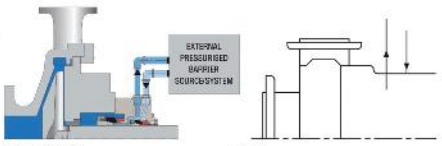
Plan 53C Dual Seals, Pressurized

Description
Pressurized barrier fluid circulation in outboard seal of dual seal configuration. Circulation is maintained by using pumping ring in running condition and with thermosyphon effect in stand still condition. The pressure is maintained and fluctuations are compensated in the seal circuit by a piston type accumulator.

Features
1. There will always be some leakage of barrier fluid in to the product. Check compatibility of barrier fluid with product.
2. Vent system properly before start up.
3. Heat is removed from the circulation system by an air-cooled or water-cooled heat exchanger.
4. In no case media leakage to atmosphere.

Use
1. Applications where no leakage to atmosphere can be tolerated e.g. hazardous, toxic, inflammable media.
2. For dirty, abrasive or polymerizing products where media is unsuitable as a lubricant for inboard seal faces.

Plan 54 Dual Seals, Pressurized

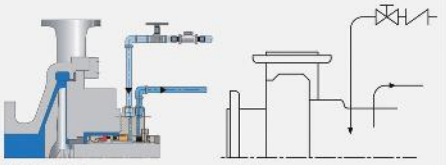


Description
Pressurized external barrier fluid circulation from a central pressure source or by a stand alone pumping unit

Features
1. Ensures higher flow rate, better heat dissipation & positive circulation of barrier fluid.
2. If maintained properly, is the most reliable pressurized plan for dual seals as compared to Plan 53 A/B/C.
3. Can also be given as a stand alone unit per pump.

Uses
1. Applications where no leakage to atmosphere can be tolerated e.g. hazardous, toxic, inflammable.
2. For dirty, abrasives or polymerizing products where media is unsuitable as a lubricant for inboard seal faces.
3. For media with high pressure and / or high temperature and / or high heat generation between faces.
4. Wherever Plan 53 A/B/C circulation is insufficient to dissipate heat.

Plan 62 Quench seals



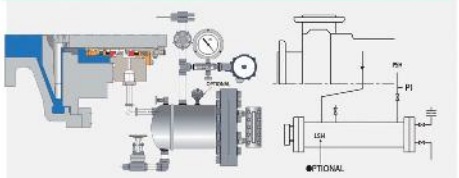
Description
An external fluid stream is brought to atmospheric side of the seal faces using quench and drain connections.

Features
1. The quench fluid acts as barrier in between atmosphere and process fluid.
2. The quench fluid reduces oxidation and coking of product & also cools seal faces.
3. Flushes away undesirable material build up under seal faces.
4. Can be used with water, steam or an inert gas.

Use
1. In caustic or crystallising fluids.
2. In oxidising fluids or hot hydrocarbons.
3. Can be used to purge steam in hot applications especially for stationary bellows to avoid coking.

Caution
1. Ensure availability of continuous supply of low-pressure quench fluid limited to maximum 1 bar.
2. Use of throttle bushing on atmosphere side is mandatory.

Plan 75 Secondary containment Seals



Description
Leakage of process liquid from inboard seal of a dual containment seal is directed to a liquid collector.

Features
1. Can be used with Plan 72 with buffer gas or with Plan 71 without buffer gas systems.
2. Collection can be redirected to process fluid by using separate pumping device.
3. Can be used in single containment seal also.
4. Test connection is provided to check the inner seal by closing the block isolation valve while pump is in operation and noting the time / pressure build-up relationship in the collector.

Use
1. Duties with condensing leakages.
2. Hazardous, toxic fluids.
3. May also be used for non-condensing leakages. In such cases, the collector can help in collecting condensate from the vapor recovery system.

Plan 76 Secondary containment Seals

Description
Vapor leakages from inboard seal of dual containment seal are directed to a vapor recovery system via a vent connection.

Features
1. Can be used with Plan 72 with buffer gas or with Plan 71 without buffer gas system.
2. Vapor leakage collection ensures zero to very low process emissions from out board containment seal.

Use
1. For high vapor pressure fluids, light hydrocarbons.
2. In hazardous or toxic media.

مکـــانیکـــال سیـــل

Mechanical Seal

Piping Plans

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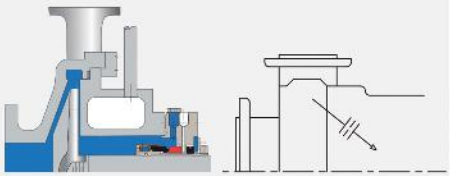
Mechanical Seal Piping Plans

Plan 01 Single Seals



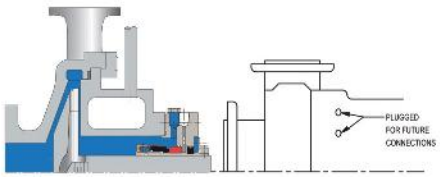
Description
Integrated (internal) product recirculation from pump discharge to seal chamber.

Features
1. Minimizes risk of freezing / polymerizing of fluid in flush piping plans exposed to atmosphere.
2. Removes heat from the seal chamber as well as acting as a vent connection in horizontal pumps.

Use
1. Recommended in clean fluids.
2. Recommended for fluids which thicken at ambient temperature.

Caution
1. Ensure that the recirculation is sufficient for seal heat removal.

Plan 02 Single Seals



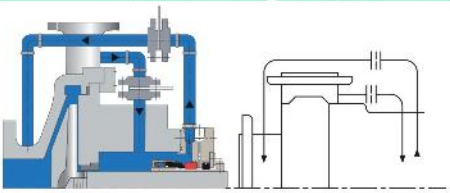
Description
Dead ended seal chamber with no flush fluid circulation.

Features
1. Applicable to low seal chamber pressure and process temperature.
2. Can be used with tapered seal chambers, especially for slurries.
3. Normally is used along with a jacketed seal chamber.

Use
1. In cool clean fluids with high specific heat, such as water, in relatively low speed pumps.

Caution
1. To avoid flashing, process fluid temperature must be taken into consideration.
2. Avoid use without cooling / heating jacket (for cylindrical chambers).
3. Ensure top point vent in throat bush (for cylindrical chambers in horizontal pumps).

Plan 14 Single Seals



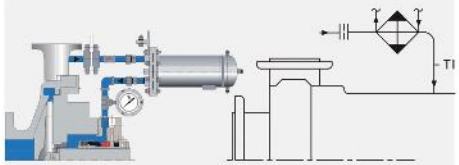
Description
Product recirculation from pump discharge to seal chamber through a flow control orifice and seal chamber back to suction through another flow control orifice.

Features
1. Ensures product recirculation as well as venting.
2. Reduces seal chamber pressure.

Use
1. Used in vertical pumps.
2. Used in light hydrocarbon services.

Caution
1. Check for pressure

Plan 21 Single Seals



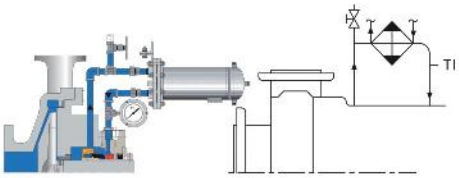
Description
Product recirculation from discharge through flow control orifice and heat exchanger to seal chamber.

Features
1. Improves pressure margin over vapor pressure.
2. Improves temperature margin to meet secondary sealing element limits, to reduce coking or polymerizing & to improve lubricity.
3. Self venting plan.
4. Provides sufficient pressure difference to allow proper flow rate.

Use
1. For high temperature applications e.g. hot water application (temperature > 80°C), hot hydrocarbons etc.
2. In hot non-polymerizing fluids.

Caution
1. Always ensure that cooler is placed after the orifice.
2. Check pressure difference between discharge and seal chamber.
3. Cooler duty is high leading to fouling on waterside.
4. Potential plugging on process side if fluid viscosity gets high quickly.

Plan 23 Single Seals



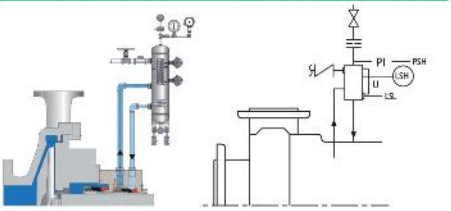
Description
Product recirculation from seal chamber to heat exchanger and back to seal chamber.

Features
1. Circulation is maintained by pumping ring.
2. In idle condition heat transfer is maintained by thermosyphon effect and in running condition by a pumping ring.
3. Lower product stabilization temperature is achieved.
4. Establishes required margin between fluid vapor pressure and seal chamber pres sure.

Use
1. In hot and clean services e.g. in boiler feed water and hot hydrocarbon services.

Caution
1. Maintain maximum 0.5m horizontal distance from seal chamber to heat exchanger.
2. Vent valve required at highest point of piping system.

Plan 52 Dual Seals, Unpressurized

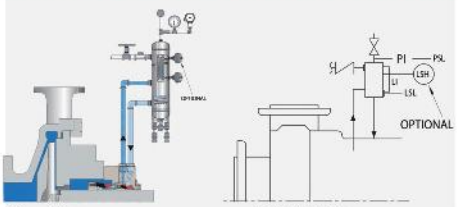


Description
Depressurized buffer fluid circulation in outboard seal of a dual seal configuration through a seal support system. Circulation is maintained by using pumping ring in running condition and by thermosyphon effect in stand still condition.

Features
1. No process contamination.
2. No direct process leakage to atmosphere.
3. No need to maintain pressure system as in Plan 53A.

Use
1. For media where product dilution is not allowed but leakage to atmosphere in diluted form may be allowed.
2. Preferred for clean, non-polymerizing media with vapor pressure higher than buffer fluid pressure (is also used for lower vapor pressure media).

Plan 53A Dual Seals, Pressurized



Description
Pressurized barrier fluid circulation in outboard seal of dual seal configuration through a seal support system. Circulation is maintained by using pumping ring in running condition and with thermosyphon effect in stand stil condition.

Features
1. In no case media leakage to atmosphere (Provided the seal support system pressure is not lost).
2. Clean fluid film formation between the inboard seal faces gives better seal life.
3. Works as a Plan 52 arrangement if barrier fluid pressure is lost.

Use
1. Applications where no leakage to atmosp here can be tolerated e.g. hazardous, toxic, inflammable media.
2. For dirty, abrasive or polymerizing products where media is unsuitable as a lubricant for inboard seal faces.

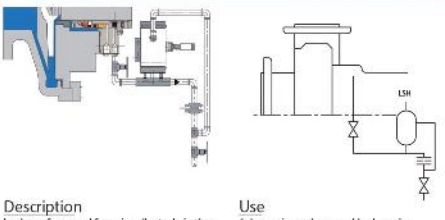
Plan 53B Dual Seals, Pressurized

Description
Pressurized barrier fluid circulation in outboard seal of dual seal configuration. Circulation is maintained by using pumping ring in running condition and with thermosyphon effect in stand still condition. The pressure is maintained in the seal circuit by a bladder accumulator.

Features
1. Keeps barrier fluid and pressurized gas (inert gas) separate by using a bladder.
2. Heat is removed from the circulation system by an air-cooled or water-cooled heat exchanger.
3. Being a stand-alone system does not rely upon a central pressure source. Hence much more reliable than a Plan 53A.
4. In no case media leakage to atmosphere.
5. Clean fluid film formation between the inboard seal faces gives better seal life.

Use
1. Applications where no leakage to atmosphere can be tolerated e.g. hazardous, toxic, inflammable media.
2. For dirty, abrasive or polymerizing products where media is unsuitable as a lubricant for inboard seal faces.

Plan 65 Single Seals



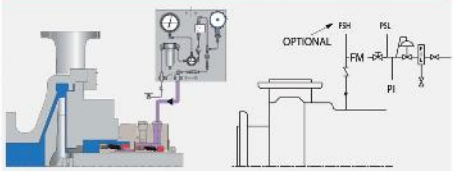
Description
Leakage from seal faces is collected via the drain port & directed to a liquid collection system via a vessel equipped with a high-level alarm.

Features
1. The quench fluid acts as barrier in between atmosphere and process fluid.
2. The quench fluid reduces oxidation and coking of product & also cools seal faces.
3. Flushes away undesirable material build up under seal faces.
4. Can be used with water, steam or an inert gas.

Use
1. In services where seal leakage is condensing.
2. Used for single seals.

Caution
1. Vent connection should always be plugged.
2. Orifice downstream of the level switch should be located in vertical piping leg to avoid accumulation of fluid in drain piping.
3. Shut down the pump as soon as high-level alarm is activated & attend the seal.

Plan 71 Secondary Containment Seals



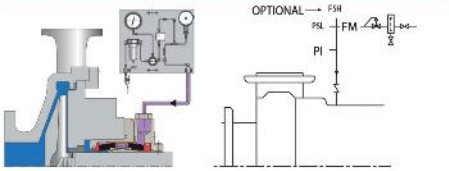
Description
Plugged connections for future provision to supply a buffer gas to a dual containment seal.

Features
1. Vent port can be piped to use as 'CSV' in Plan 76.
2. Drain port can be piped to use as 'CSD' in Plan 75.
3. GBI port can be piped to use as in Plan 72.

Use
1. For future provisions for API Plans 72, 75 and 76.

Caution
1. Always keep the ports plugged. Used for: 2CW-CS.

Plan 74 Dual Gas Seals



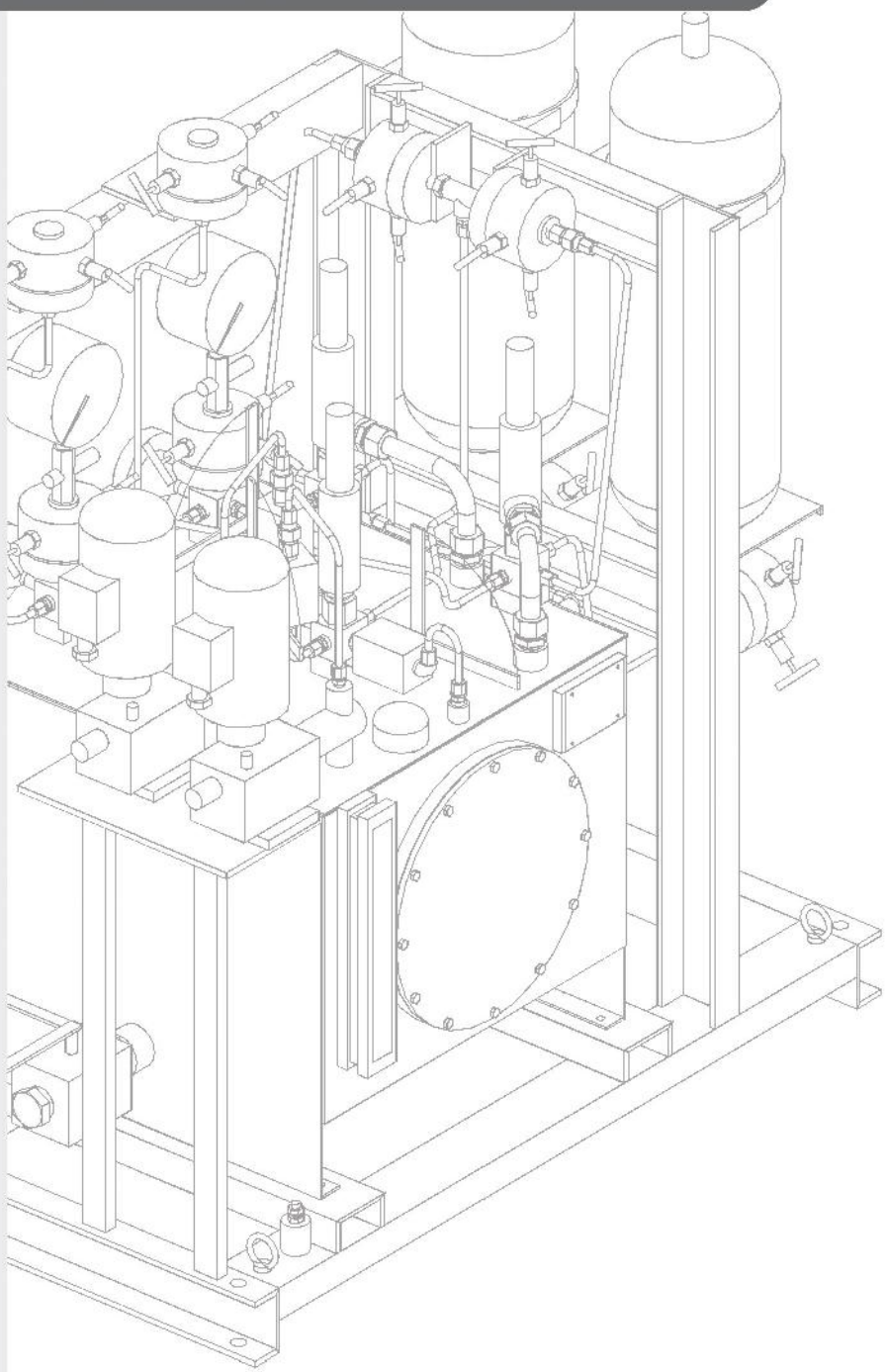
Description
Plugged connections for future provision to supply a buffer gas to a dual containment seal.

Features
1. Vent port can be piped to use as 'CSV' in Plan 76.
2. Drain port can be piped to use as 'CSD' in Plan 75.
3. GBI port can be piped to use as in Plan 72.

Use
1. For future provisions for API Plans 72, 75 and 76.

Caution
1. Always keep the ports plugged. Used for: 2CW-CS.

Arsen Company with many years of experience in the construction and installation of equipment in the oil, gas, petrochemical, steel, power plants, wood, food and pharmaceutical industries with a team of experienced domestic and foreign experts design, manufacture and manufacture of mechanicals The floods have been sealing in accordance with international standards and supply and after - sales services of sealing systems.



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