

**CHARTERED ACCEL INDUSTRIES**



# Catalogue

**Mechanical Seals , Rotary Joint,  
Sealing System &  
Rubber Products**

## **INDUSTRIAL APPLICATIONS**

**Pharmaceutical / Chemical / Petrochemical / Oil & Gas  
Refinery / Power Fertiliser / Paper / Textile / Marine**

## About the company

Chartered Accel Industries design and manufacturers mechanical seals and associated product mainly for The oil & gas, chemical, pharmaceutical, pulp & paper, Power, Mining and many more Industrial application. Chartered Accel Industries can help relieve stress and reduce the life cycle costs Associated with the most important aspects of plan operation. Chartered Accel Industries has a longstanding Tradition of providing mechanical Seals and sealing Services that are trusted by the industry.

## Sealing Technology

With a wide range of products and services, Chartered Accel Industries has solutions for every sealing requirement - such as Pusher Seals, Standard Cartridge Seals, Elastomer Bellows Seals, Metal Bellows Seals, Engineered Seals, Split Seals, Gas-Lubricated Seals and many more. Each and every Chartered Accel Industries seal is the result of numerous steps involving extensive engineering and thus processing the same in various production steps. Our engineers at Chartered Accel Industries work with discipline and passion to maintain high standards in their respective fields. With the use of 3D modelling we ensure optimum performance of application specific seals. Chartered Accel Industries has engineered high-performance products that reliably withstand extreme environments, challenging applications and evolving legislation. No matter how strict the specification or how unique the application, we have the solutions to offer. Extremely complicated seal faces for Dry Gas Seals are manufactured under a controlled environment, deploying sophisticated machines to produce intricate profiles on the seal face.

## Quality

We mean what we say when we talk about quality. Designing and manufacturing seals and auxiliaries that exceeds our customer's expectations is an important part of our dedication of total quality

## Service

staff is available to resolve customer's problems. Our Engineers have great experience and technical knowledge of mechanical seals support system and rotating equipments, which enables them to quickly point out the root cause accurately.



# MECHANICAL SEAL



## TYPE:- CAI-101

Face Materials	Silicon Carbide, Carbon, TC , Ceramic
Metal Parts	SS 316 , SS 304
Seal Elastomer	Nitrile, Viton , EPDM ,NBR
Applications	Water Pumps, Submersible Pump, Sewage Pump
Operating Limits	Shaft Diameter d1:- 10.....100mm Pressure p :- 10 bar ( max) Temperature :- 20.....+180°C Speed :- 3000 r.p.m

## TYPE:- CAI-102

Face Materials	Silicon Carbide, Carbon, Lecrolloy , Ceramic
Metal Parts	SS 316 , SS 304
Seal Elastomer	Nitrile ,Viton
Applications	Water Pumps, Submersible Pump
Operating Limits	Shaft Diameter d1:- 12.....100mm Pressure p :- 08 bar(max) Temperature :- 20.....+180°C Speed :- 3000 r.p.m



## TYPE:- CAI-103

Face Materials	Carbon,Tungsten Carbide,Silicon Carbide
Metal Parts	SS 316 , SS 304
Seal Elastomer	Viton,EPDM,Silicon,Aflas,PTFE,GFT,Karlez,FEP,TTV
Applications	Water Pump, Circulation Pump for heating Chemical Process Pump,Sewage
Operating Limits	Shaft Diameter d1:- 12.....90mm Pressure p :- 08 bar(max) Temperature :- 20.....+180°C Speed :- 3000 r.p.m





## TYPE:- CAI-104

Face Materials	Carbon,Ceramic,Tc ,Silicon Carbide,Lecrolloy
Metal Parts	SS 316 , SS 304
Seal Elastomer	Viton,EPDM,Silicon,Aflas,PTFE,GFT,Karlez,FEP,TTV
Applications	Crystalizing Slurry, Suspended Solid Slurry, Saturated Chemical Slurry,General Chemicals
Operating Limits	Shaft Diameter d1:- 12.....100mm Pressure p :- 12 bar(max) Temperature :- 20.....+180°C Speed :- 3000 r.p.m

## TYPE:- CAI-105

Face Materials	Carbon TC , Ceramic Silicon Carbide
Metal Parts	SS 316 , SS 304
Seal Elastomer	Viton,EPDM,Silicon,Aflas,PTFE,GFT,Karlez,FEP,TTV
Applications	Crystalizing Slurry, Suspended Solid Slurry, Saturated Chemical Slurry,General Chemicals
Operating Limits	Shaft Diameter d1:- 20....100mm Pressure p :- 20 bar(max) Temperature :180°C Speed :- 3000 r.p.m



## TYPE:- CAI-106

Face Materials	Carbon,Tungsten Carbide,Silicon Carbide
Metal Parts	SS 316 , SS 304
Seal Elastomer	Viton,EPDM,Silicon,Aflas,PTFE,GFT,Karlez,FEP,TTV
Applications	Slurry Pump, pulp & paper, Sludge & Syrup Pump , Chemical,Petrochemical
Operating Limits	Shaft Diameter d1:- 18.....100mm Pressure p :- 5.....35 bar(max) Temperature :- 20.....+260°C Speed :- 3000 r.p.m

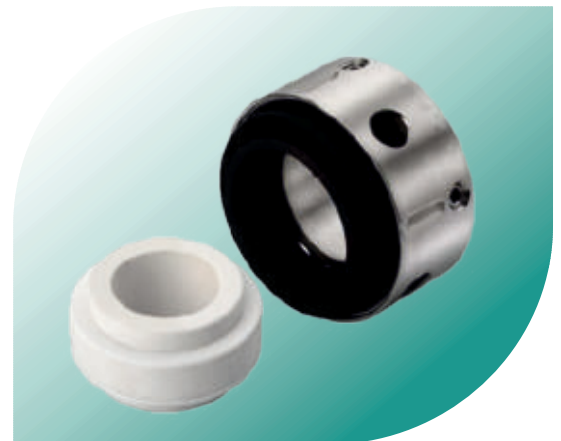
## TYPE:- CAI-107



Face Materials	GFT / Ceramic, Silicon Carbide / Silicon Carbide, Silicon Carbide / Ceramic, Carbon / Ceramic
Metal Parts	SS 316, SS 304, Hastelloy – C, Alloy 20
Seal Elastomer	PTFE and GFT
Applications	Extremely Corrosive Services
Operating Limits	Shaft Diameter d1 :18....100mm Pressure p : 20 bar (max) temperature : -20....+260°C Speed: 3000 r.p.m

## TYPE:- CAI-108

Face Materials	Carbon, Ceramic, Tungsten Carbide, Silicon Carbide
Metal Parts	SS 316, SS 304, Hastelloy – C, Alloy 20
Seal Elastomer	Viton, EPDM, TTV, FEP and FFKM
Applications	Petrochemicals, Petroleum Refineries, General Chemicals, Light Hydrocarbons
Operating Limits	Shaft Diameter d1 :16....70mm Pressure p : 08 bar (max) temperature : +120°C Speed: 3000 r.p.m



## TYPE:- CAI-109



Face Materials	Carbon / Silicon Carbide, Carbon / Tungsten Carbide, Silicon Carbide / Tungsten Carbide
Metal Parts	SS 316, SS 304, carpenter 42
Seal Elastomer	Hast- C, Am350, Inconel
Applications	Chemicals, Petrochemical, Refinery, Corrosive Chemical
Operating Limits	Shaft Diameter d1 :25....100mm Pressure p : 25 bar (max) temperature : -70....+350°C Speed: 3000 r.p.m



## TYPE:- CAI-110

Face Materials	Carbon, Ceramic, Silicon Carbide, Tungsten Carbide
Metal Parts	SS 316, SS 304
Seal Elastomer	Viton, EPDM, Nitrile
Applications	Slurry pump, Pulp & paper, Sludge & Syrup pump, Chemical, Petrochemical & Refinery
Operating Limits	Shaft Diameter d1 :12....22mm Pressure p : 05 bar (max) temperature : -45....+180°C

## TYPE:- CAI-111

Face Materials	Carbon, Ceramic, Tungsten Carbide, Silicon Carbide
Metal Parts	SS 316, SS 304
Seal Elastomer	Viton, EPDM, Silicon, Aflas, PTFE, GFT, Karlez, FEP, TTV
Applications	Petrochemicals, Petroleum Refineries, General Chemicals, Light Hydrocarbons
Operating Limits	Shaft Diameter d1 :10....100mm Pressure p : 08 bar (max) temperature : -20.....200°C Speed: 3000 r.p.m



## TYPE:- CAI-112



Face Materials	Carbon, Ceramic, Silicon Carbide,
Metal Parts	SS 316, SS 304, Hastolloy- C and Alloy 20
Seal Elastomer	Viton, EPDM, TTV, FEP and FKM
Applications	Slurry pump, Pulp & paper, Sludge & Syrup pump, Chemical, Petrochemical & Refinery
Operating Limits	Shaft Diameter d1 :12....70mm Pressure p : 08 bar (max) temperature Upto....+120°C Speed: 3000 r.p.m



## TYPE:- CAI-113

Face Materials	Carbon,Tungsten Carbide,Silicon Carbide
Metal Parts	SS 316 , SS 304
Seal Elastomer	Viton,EPDM,Silicon,Aflas,PTFE,GFT,Karlez,FEP,TTV
Applications	Petrochemicals,Petroleum Refineries, General Chemicals, light Hydrocarbons
Operating Limits	Shaft Diameter d1:- 18.....100mm Pressure p :- 5.....35 bar(max) Temperature :- 20.....+260°C Speed :- 3000 r.p.m

## TYPE:- CAI-114

Face Materials	Carbon,Tungsten Carbide,Silicon Carbide
Metal Parts	SS 316 , SS 304
Seal Elastomer	Viton,EPDM,Silicon,Aflas,PTFE,GFT,Karlez,FEP,TTV
Applications	Slurry Pump, pulp & paper, Sludge & Syrup Pump , Chemical,Petrochemical
Operating Limits	Shaft Diameter d1:- 18.....100mm Pressure p :- 5.....35 bar(max) Temperature :- 20.....260°C Speed :- 3000 r.p.m



## TYPE:- CAI-115

Face Materials	Carbon,Tungsten Carbide,Silicon Carbide
Metal Parts	SS 316 , SS 304
Seal Elastomer	Viton,EPDM,Silicon,Aflas,PTFE,GFT,Karlez,FEP,TTV
Applications	Slurry Pump, pulp & paper, Sludge & Syrup Pump , Chemical,Petrochemical
Operating Limits	Shaft Diameter d1:- 18.....100mm Pressure p :- 5.....35 bar(max) Temperature :- 20.....+260°C Speed :- 3000 r.p.m



## Dry Running Seal Type:-CAI-10U For Top Entry Agitators, Vessels and Mixers



Face Materials	Carbon , Silicon Carbide and Tungsten carbide
Metal Parts	SS 316, SS 304
Seal Elastomer	Viton, EPDM, Silicon, Aflas, PTFE, GFT, Karlez, FEP, TTV
Applications	Food Products, Pharmaceutical Products
Operating Limits	Shaft Diameter d1 :15....150mm Pressure p : 08 bar (max) temperature : -30.....150°C Speed: 3000 r.p.m

## Agitators, Seal Type:-TM CAI-11U For Top Entry Agitators, Vessels and Mixers

Face Materials	Carbon, Silicon Carbide, Tungsten Carbide
Metal Parts	SS 316, SS 304
Seal Elastomer	Viton, EPDM, Silicon, Aflas, PTFE, GFT, Karlez, FEP, TTV
Applications	Corrosive Chemical, General light Chemical, Food Products, Pharmaceutical Products
Operating Limits	Shaft Diameter d1 :25....200mm Pressure V.....30 bar (max) temperature : -30....+260°C Speed: 3000 r.p.m



## Thermosyphon Vessel Seal Type:-TM CAI-11R

Metal Parts	Thermosyphon Shell : Carbon Steel / SS 304 / SS 316 / MS Cooling Coil : SS 304 / SS 316
Operating Limits	20 Pressure Limit : 20 bar 40 Pressure Limit : 40 bar Temperature (max) : 200°C





# ROTARY JOINT

All Types of Rotary Joint, Rotary Union & Roto Seal Couplings.



## Rotary Joint Water Application

Face Materials	Carbon, Silicon Carbide, Tungsten Carbide, Stellite
Metal Parts	SS 316, SS 304, Brass
Seal Elastomer	Viton, Silicon, TTV, PTFE.
Operating Limits	SIZE : 3/8" To 6.0" Pressure : 15 Bar temperature : 150° C Speed: 3500 RPM



## Rotary Joint for Air Application

Face Materials	Carbon, Silicon Carbide, Tungsten Carbide, Stellite,
Metal Parts	Aluminium
Seal Elastomer	Viton, PTFE.
Operating Limits	SIZE : 3/8" To 6.0" Pressure : 10 Bar Air, 0.07 Bar to 7 Kpa Vacuum Temperature : 150° C Speed: 2800 RPM



# ROTARY JOINT

All Types of Rotary Joint, Rotary Union & Roto Seal Couplings.

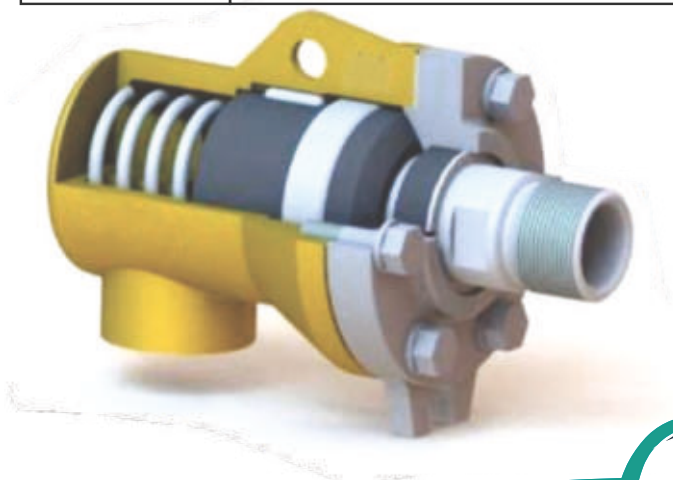


## Hydraulic Rotary Joint

<b>Metal Parts</b>	SS 316, SS 304, Brass, Gun Metal.
<b>Seal Elastomer</b>	Viton, PTFE.
<b>Operating Limits</b>	SIZE : 3/8" To 6.0" Pressure : 400 Bar temperature : 150° C Speed: 1500 RPM

## Rotary Joint for Hot Oil & Thermic Fluid

<b>Face Materials</b>	Antimony Carbon.
<b>Metal Parts</b>	MS, SS 304
<b>Seal Elastomer</b>	Grafoil Gasket, Asbestos Gasket.
<b>Operating Limits</b>	SIZE : 0.5" to 6.0" Pressure : 07 Bar Temperature : 350° C Speed: 750 RPM



# RUBBER PRODUCTS

## SILICONE EXTRUSION





# RUBBER PRODUCTS



Rubber Sheet



Silicone Sponge



FBD Gasket



Butter Fly Gaskets



PTFE Coated Diaphragms



Rubber Diaphragms



O Rings



Rubber Expansion Bellow



# RUBBER PRODUCTS



SILICONE DIAPHRAGMS



T PARTITION GASKETS



SILICONE DUST CUP



SILICONE MOUTHPIECE



SILICONE HOOPER GASKET



SILICONE PAD FOR FETTE



SILICONE RUBBER BELT



SILICONE MOUTHPIECE



SILICONE ORING



SILICONE BALL MAT



HIGH TEMP HANDLE GRIP



POLYURETHANE CONNECTOR



PARTITION GASKET



SILICONE SPONGE GASKET

# INFLATABLE SEALS



Chartered Accel industries Inflatable seals are made from special grade silicone which is flat to offer contamination proof of sealing in Pharmaceutical application. Inflatable seals are designed specifically to form a tight barrier between the mounting and closure surfaces. The use of inflatable seal is simple & also 100% sealing guaranteed within less inflation force. Inflatable seal is manufactured from special grade silicone confirming FDA standards.

The inflation of gaskets is about 10mm to 20mm on application of working pressure 2 kg/cm<sup>2</sup> to 4kg/cm<sup>2</sup>.

## APPLICATIONS

- Power handling industry
- Pharmaceutical industry
- Food and beverage industry
- Marine & Aerospace

## CONSTRUCTION

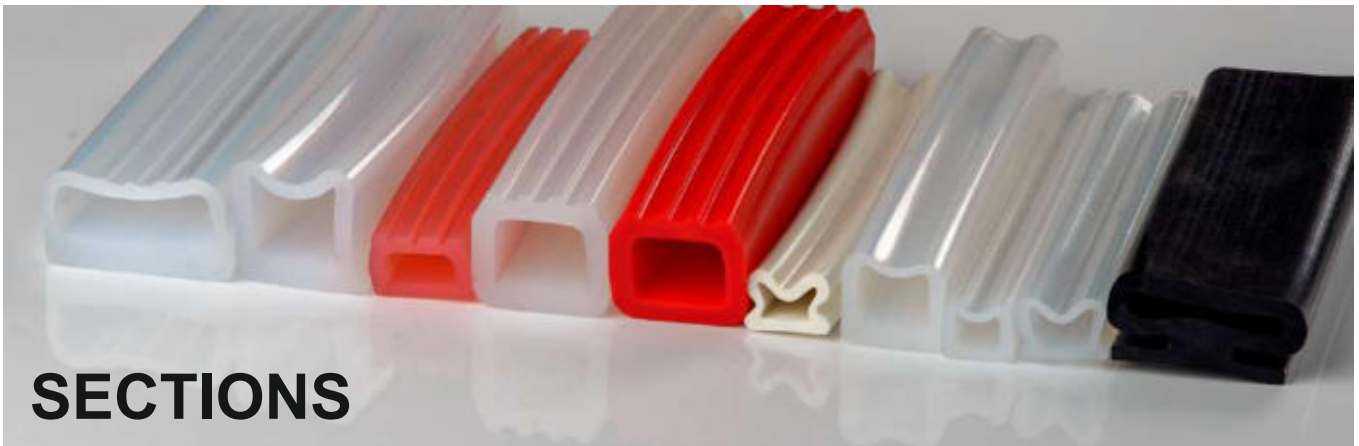
- Perfect sealing property
- Rugged design
- Dimensional accuracy

## INFLATE & DEFLATE DIRECTION

- Axial
- Radial - Inward
- Radial - Outward

## AVAILABLE SHAPES

- **Circular**
- Rectangle with 90 degree angle
- Rectangle with U-Shape



## SECTIONS

## AVAILABLE NOZEL



# TRI-CLOVER GASKET (TC GASKET)

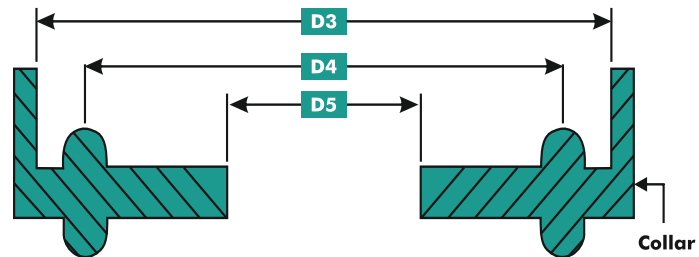


Chartered Accel Industries offers its tri-clamp gaskets in Silicone Rubber (VMQ/MVQ) & also in (Viton) Rubber (FKM).

Silicone TC Gasket is available in white, blue, red, black & transparent. Silicone Tri Clamp Gasket is available with Collar, and also without Collar, conforming to USO standards (FDA 21 CFR 177.2600)

## STANDARD SIZE

NORMAL SIZE	D3	D4	D5
1/2"	34.0	27.5	10.9
1/2" A (Mini)	22.0	17.0	09.5
3/4"	34.0	27.5	15.4
1"	50.5	43.5	22.8
1 1/2"	50.5	43.5	35.8
2"	64.0	56.5	48.8
2 1/2"	77.5	70.5	60.5
3"	91.0	83.5	73.1
4"	118.0	110.0	96.0



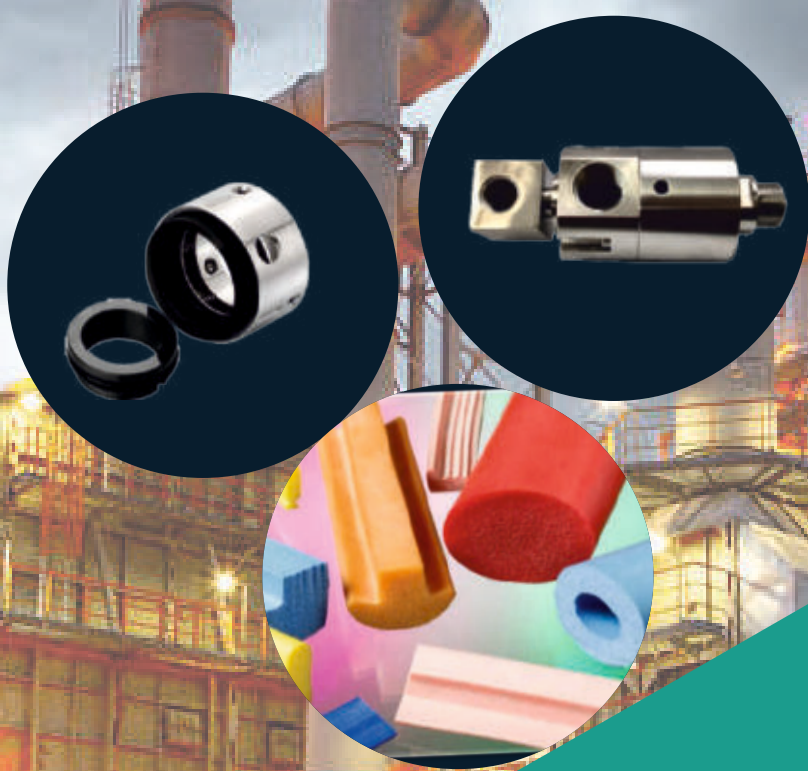
# AUTOCLAVE GASKET



Silicone Auto-clave door gasket, We offer Silicone door gaskets for variety of applications like Auto-claves, Bakery Ovens Etc. These Extruded door gaskets withstand a temp of -80°C to +250°C and also confirms to FDA 21CFR 177.2600

Auto-clave door gaskets are available for Steam Sterilizer and dry heat sterilizer.





# Mechanical Seal Rotary Joint

## Sealing System

## Rubber Products

## Shaft

**Head Office & Factory:-**  
Unit No 12, Fatima Bibi,  
Compound, R.S Marg,  
Pathanwadi, Malad-East,  
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