ERIKS Sealing & Polymer

ENGINEERED GASKETS

Let's make industry work better

ERIKS

“With our standard range of stocked items, make to order capabilities and regionally based application engineers ERIKS Sealing & Polymer are here for all your MRO plant needs.

Site Solutions include full stock optimisation surveys, pre-planned maintenance shutdown services and leak technology imaging.”

Garry Wakeling

Supply Chain Manager

ERIKS Sealing & Polymer

Contents

Publisher
ERIKS Industrial Services Limited
www.eriks.co.uk

LET'S MAKE INDUSTRY WORK BETTER

We are ERIKS, a multi-product specialist offering a wide range of engineering components and technical services to all areas of industry.

Our product teams and locally-based supply specialists work with companies across the UK to find, implement and then maintain solutions to help you meet your productivity and reliability objectives at the lowest total cost of ownership.

Through our passion, specialism and innovation we, together with you, make industry work better.

Specialists in the sealing of process equipment

Safe guarding our processes, employees and the environment necessitates the correct selection, production and installation of fluid sealing products. Our Materials and Design Engineering teams draw upon a wealth of knowledge and tool-sets to help our customers engineer robust performance into their applications, whilst our Quality Assurance Team control our manufacturing operations and supply chains to deliver capable products that meet current regulatory requirements.

Regionally based Applications Engineers support you with selection and installation advice, drawing upon vast experience to ensure correct specification; whether a standard product from stock or on a make to order basis.

ERIKS manufacture a broad range of cut gaskets supplied from multiple UK cutting facilities in a wide range of branded materials to meet custom and industry specifications including ASME B16.21, ASME B16.47A, ASME B16.47B, BS EN 1514-1 (DIN) and BS3063 (BS10).

- Fibre - Non-asbestos sheet jointing available in industrial, BS7531 X&Y and specialist grades.
- Graphite - Semi-rigid, laminated and reinforced graphite.
- PTFE – Virgin, expanded and modified PTFE materials, available with FDA/USP compliance.
- Rubber gaskets - EPDM, NBR, FKM and VMQ materials available in various colours with FDA/WRAS compliance.

Our stock range also includes:

- Spiral wound gaskets
- Ring Type Joints (RTJ)
- Soft-cut gaskets
- Corrugated graphite gaskets
- Sheet jointing
- Rubber sheeting
- Compression packings

Maintenance Operations

Supporting you in keeping your plant and equipment operating at its optimum is our goal and having a range of tried and tested gasket products is only the start. We support you with application engineering advice, flexible rapid production services, advanced logistics and supply options as well as provide installation support including torque loading and material constants.

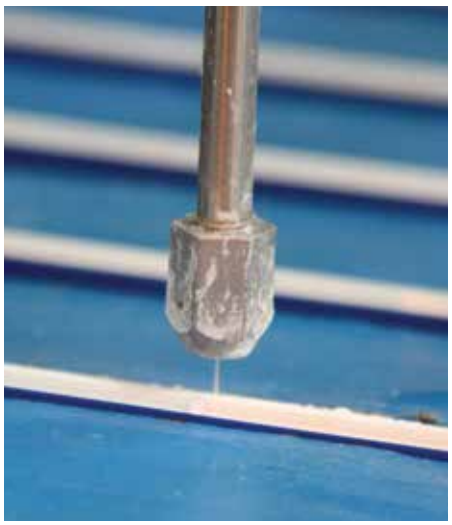
Make-To-Order

To ensure you get the exact gasket you need when you need it, ERIKS has regionally located facilities able to cut or manufacture most gasket types to your required dimensions.

Spiral wound gaskets and RTJ's are available from stock with specials made to order.

Capabilities include:

- Oscillating knife cutting
- Die cutting
- Spiral winding
- Waterjet
- Machining



Application Engineering

Regionally based Application Engineers can assist you in gasket material and design selection, provide installation advice and arrange other technical services on your behalf.

Leak Technology

Optical Gas Imaging (OGI) makes gas leaks visible by using specialist thermographic cameras, making it possible not only to see the leak but also to identify which gas is leaking.

ERIKS' OGI can form part of a condition monitoring contract and these are undertaken every 3-6 months depending on site requirements.

Product Training Courses

Our specialists continually review industry regulations and best practice and are available to support customer operations through industry specific product training and consultation with your process experts.

Stock Optimisation

If you carry stocks to keep your critical assets working, we can support your Maintenance team with our Product Specialists to help identify your most frequently used and critical 'must stock' gasket requirements and proactively optimise your engineering stores recommending upgrade or cost saving alternatives as part of the process.

Pre-plan Shutdown Service

ERIKS works with you (especially plant operators and piping construction companies) to plan and prepare a comprehensive and detailed package for shut downs, turnarounds and new projects. The service, which may start with a comprehensive survey of your plant, includes all products required before your scheduled shutdown to maximise efficiency. We can also support you with consulting and professional on-site assembly work.

On-site temporary stores

- Material storage according to customer request
- Standard and special gaskets
- Material supply by ERIKS employees
- Material removal by customer
- Stock replenishment as necessary
- Billing for replenishment or removal

On-site gasket consulting

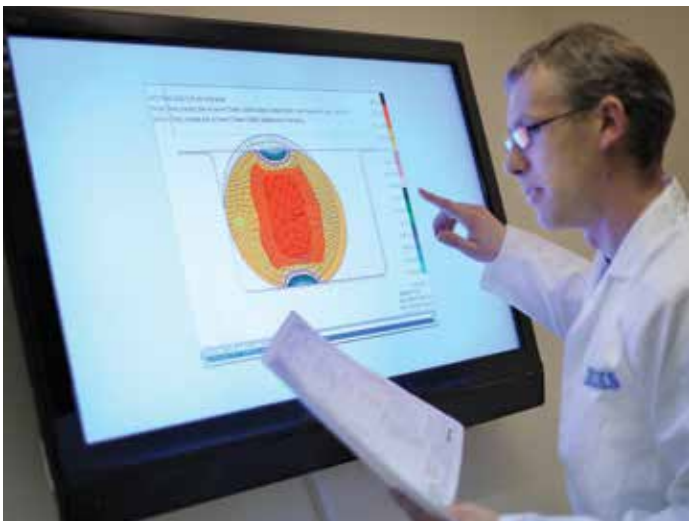
- Order acceptance and issue by ERIKS site services team
- On-site identification of gaskets
- Consulting and direct problem solving
- Calculation of the tightening torques
- Direct consultation with the user

Supervision of flange assembly on site

- Installation
- Supervision by experienced personnel
- Documentation of the assembly
- Coordination of the supervision together with the customer
- Training of assembly personnel

Materials Technology Centre

ERIKS Materials Technologists based in our Technology Campus use the latest testing technologies and equipment in accordance with current test procedures (for example, standard leakage tests or blow out resistance, relaxation and crushing tests) and also to measure characteristic values in accordance with EN 13555. In addition they also evaluate sealing behaviour, as required in the VDI 2440/2200, to ensure our gaskets will perform to your expectations.



Determining the characteristic values of gaskets

- Characteristic values according to EN 13555
- Qsmax and Qsmin (EN 13555)
- PQR value (EN 13555)
- EG Modulus (EN 13555)
- DIN 28090, DIN 28091
- DIN 3535
- DIN 52913
- TA-Luft VDI2440

Calculation of bolt torque

- Flange type
- Leak detection
- Calculation according to EN1591-1
- Documentation of the calculation for TUV

Direct Support for Original Equipment Manufacturers

Our direct manufacturing support team are there to meet the needs of batch and serial equipment manufacturers. Customers are supported by Industry Specialist Business Development Managers and dedicated, product focussed, Internal Sales Administrators; all backed up by Materials, Design and Quality Control Engineers providing a range of products and materials to ensure you can meet your customers expectations.

Design and Material Selection

Our Materials and Design Engineers collaborate with you to select materials and co-create conceptual designs through application of extensive knowledge and toolsets such as Computer Aided Design (CAD), Finite Element Analysis (FEA) and Design for Six-Sigma.

Prototype Manufacture

Once a concept has been agreed we employ rapid manufacturing techniques to deliver functional prototypes, helping you minimise your time to market for new products, giving you competitive advantage.

Validation Testing

Whilst it is normal for, and expected of, our customers to perform validation testing of our products in representative application conditions, ERIKS Sealing & Polymer have numerous test rigs which are frequently used to perform customer specific product testing.

Robust Logistics

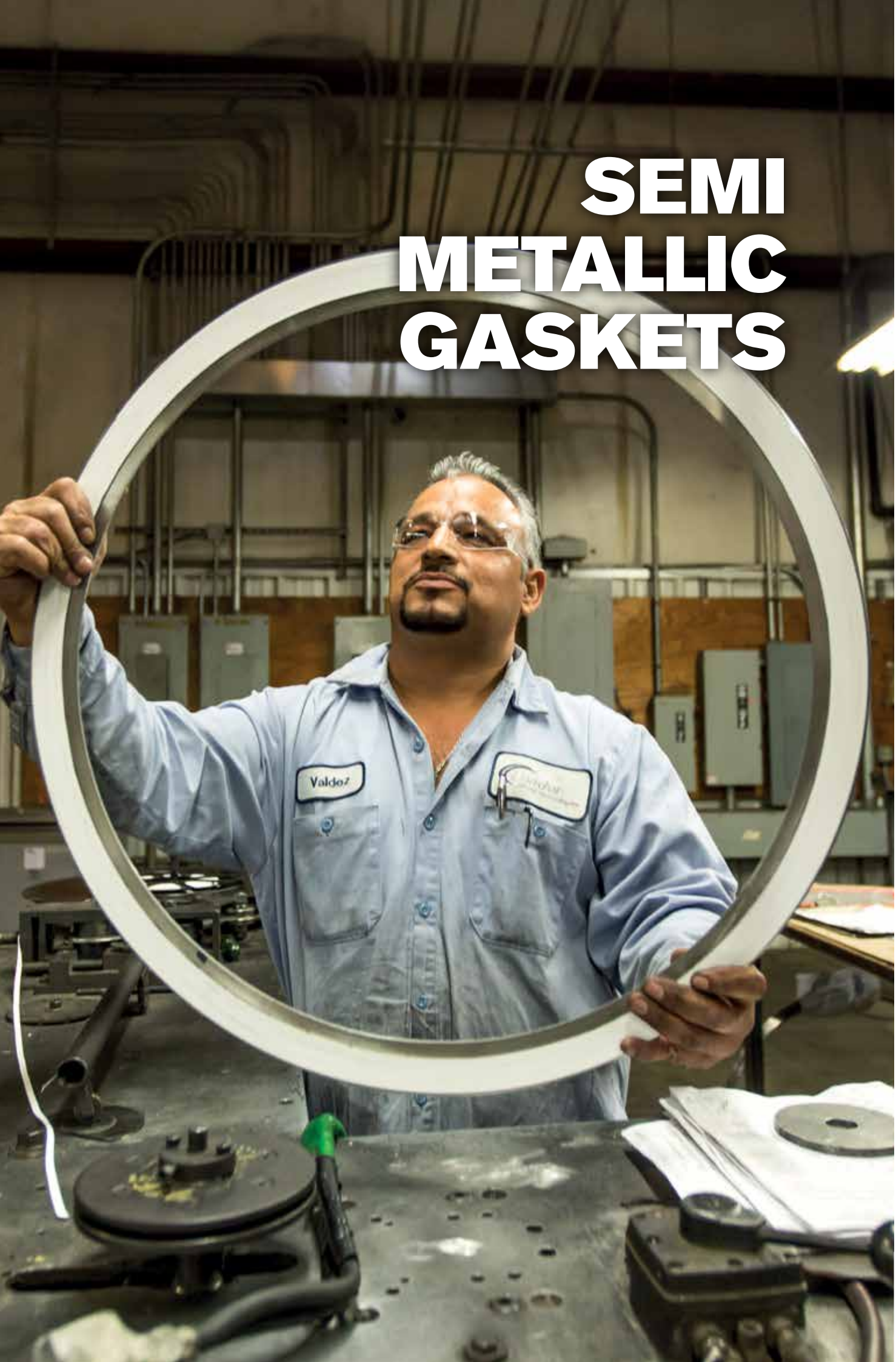
Customer specific stockholding, demand forecast models and predictive purchasing algorithms help us maintain continuity of supply, whilst our risk based quality control and product specialist supply chain management reduce your enterprise risk.

We are glad to offer both in-house and partner manufactured products that can be delivered through numerous logistical methods including line-side Kanban supply.

Quality Control

We apply a risk based quality inspection regime to incoming goods and can agree customer specific inspection criteria. By inspecting customer specific stockholdings upon goods receipt we identify problems at the earliest possible opportunity, providing additional time to rectify any issues, further securing your continuity of supply.

SEMI METALLIC GASKETS



Spiral Wound Gaskets

The spiral gasket is without any doubt one of the most widely used semi-metallic gaskets. The design is based on an existing concept which has proven its excellent properties over many years.

The basic principle of the spiral gasket consists of alternating layers of V-shaped metal coils and soft, non-metallic filler material. The first and the last coils consist only of metal in order to reinforce the spiral on the inner and outer diameters.

This sandwich construction, in conjunction with the special V-shape of the spiral metal band and the properties of the filler material make the spiral gasket ideal for applications with varying temperature and associated stress relaxation and flange distortion.

Applications

- Piping (DIN/ANSI)
- TA-Luft
- Temperature fluctuations
- Tongue and groove connections
- Heat exchangers
- Equipment/containers
- Steam boilers
- High pressures

Properties

Outer ring

- Centres the gasket
- Prevents blow-out
- Increases mechanical strength
- Identification
- Material: steel, stainless steel, non-ferrous metals
- Temperature cycling

Inner ring

- Prevention of turbulence
- Strengthening of the gasket
- Protection against contamination of the medium
- Always for PTFE filler
- Required for vacuum
- Compression stop

Spirals

- 3.2mm/4.5mm/6.4mm thickness
- Filler: e.g. Graphite, PTFE, mica
- Winding metal in various grades
- Acts as sealing element
- Forms: round or oval

Pressure:

Max. 200 bar, depending on the installation and surface pressure

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
S & SR			
Graphite filler	20	70	300
	300	70	145
SI & SRI			
Graphite filler	20	70	300
	300	70	250
S & SR			
PTFE filler	20	70	175
	200	70	160
SI & SRI			
PTFE filler	20	70	300
	200	70	280

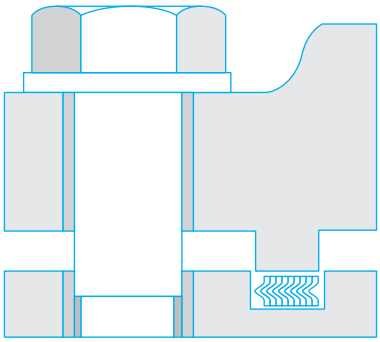
Characteristic values in accordance with EN 13555 can be found at gasketdata.org

Approvals

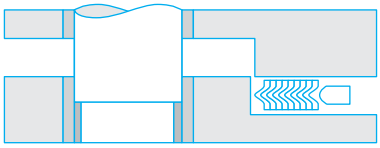
BAM · TA-Luft certified · fire safe · Blow-Out certified

(Depending on material)

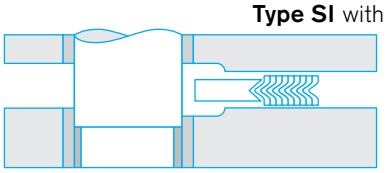
Types of Spiral Wound Gasket



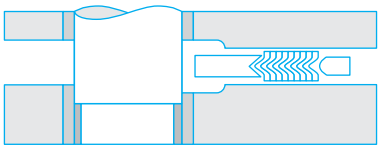
Type S without inner and outer ring



Type SI with inner ring



Type SR with outer ring



Type SRI with inner and outer ring

Part Number Identifier

SRI A 01 02 GR 03 300 I 0125

- **Size** *(1 ¼" = 0125 1000mm = 1000)*
- **Unit of Measure** *I = Imperial M = Metric*
- **Class** *eg. 150, 600, PN16, PN40 , TABE or TABF*
- **Outer Ring** *01, 03*
- **Filler** *GR*
- **Windings** *02*
- **Inner Ring** *00, 01*
- **Specification** *A, B, C, D or E*
- **Product** SRI = Inner & Outer Ring *SR = Outer Ring only*

Examples:

Metric SRD0002GR03PN40M1000

Imperial SRIA0102GR03600I0125

All SR and SRI gaskets for these standard flanges are 0.175" (4.5mm) thick, fitted with 0.125" (3.2mm) thick solid metal rings, unless otherwise stated.

Specification		Class	Rings	Windings	Filler
A	B16.50	150, 300, 600, 900 &1500	**00** No ring		**GR** Graphite
B	B16.47 A	150, 300, 600 & 900	**01** 316		
C	B16.47 B	150, 300 & 600		**02** 316L	
D	DIN	PN6, PN10, PN16, PN25 & PN40	**03** Carbon Steel		
E	BS10	TABA, TABD, TABE, TABF, TABH TABJ, TABK, TABR, TABS			

Other materials available on request

* The DIN range of certain sizes may be supplied as multi-class i.e. PN10 - PN40

Kammprofile Gaskets

The use of kammprofile gaskets has increased in recent decades – not only for the sealing of standard flanges, but also of equipment components, such as heat exchangers and containers.

Kammprofile gaskets with soft material layers are characterised on the one hand by a very low minimum surface pressure which is determined by the facing material. On the other hand, the maximum permissible surface pressure is very high as this is determined by the metal carrier material.

This gives the kammprofile gasket a very wide range of applications. They are therefore almost universally applicable. The bolt force to be applied when using kammprofile gaskets is determined by the characteristic stiffness of the bolts.

Applications

- Flanged pipes (DIN/ANSI)
- TA-Luft
- Heat exchanger
- Plant / Containers
- Boilers
- High pressure

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
KV, KV9, KB9- Steel / Stainless steel carrier			
Graphite Facing	20	20	500
	300	20	400
PTFE Facing	20	25	500
	200	25	120

Characteristic values in accordance with EN 13555 can be found at gasketdata.org

Properties

Metal carrier

- Stainless steel/steel in various grades
- Depending on the thickness of the layers, the carrier material contains the precisely defined comb-like grooves

Soft material layer

- Thickness 0.5mm or 1.0mm
- Graphite -200 to +450°C
- PTFE -240 to +200°C
- Mica 0 to +800°C
- Silver -270 to +750°C

Pressure

- Max. 200 bar, depending on the installation and surface pressure

Types (forms)

- Round, oval, rectangular
- With seam gaps according to drawing

Total thickness

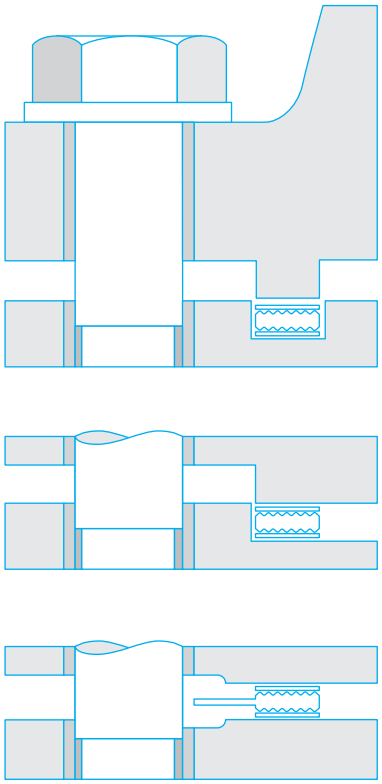
- Standard: 4 or 5mm

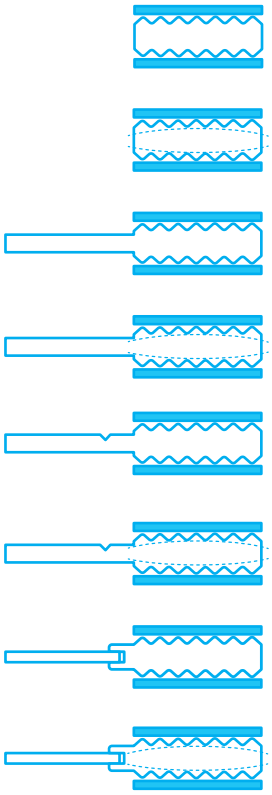
Approvals

BAM · TA-Luft certified · fire safe · Blow-Out certified

(Depending on material)

Types of Kammprofile Gasket





Type KV without locating ring

Type KB crowned without locating ring

Type KV9 with turned locating ring

Type KB9 crowned with turned locating ring

Type KV9S with turned locating ring and predetermined breaking point

Type KB9S crowned with turned locating ring and predetermined breaking point

Type KV9L with loose locating ring

Type KB9L crowned with loose locating ring

Made to Order
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Materials - Overview*

Material	DIN / EN	Metallic	AISI / UNS	Temperature °C
1.4301	X5CrNi18-10	Stainless Steel	304 (S30400)	-200 to +550
1.4404	X2CrNiMo17-12-2	Stainless Steel	316L (S31603)	-200 to +550
1.4571	X6CrNiMoTi17-12-2	Stainless Steel	316Ti (S31635)	-270 to +550
1.4541	X6CrNiTi18-10	Stainless Steel	321 (S32100)	-270 to +550
1.0038	St 37-2	General Structural Steel	A570 Gr.36 (S235JR)	-40 to +450
1.4876	X10NiCrAlTi32-20	Incoloy® 800 (Alloy 800)	ASTM B409 (N08800)	-110 to +950
2.4617	NiMo28	Hastelloy® B2 (Alloy B2)	ASTM B333 (N10665)	-200 to +450
2.4819	NiMo16Cr15W	Hastelloy® C276 (Alloy C276)	ASTM B575 (N10276)	-200 to +450
2.4816	NiCr15Fe	Inconel™ 600 (Alloy 600)	ASTM B168 (N06600)	-60 to +900
2.4360	NiCu30Fe	Monel® 400 (Alloy 400)	ASTM B127 (N04400)	-60 to +425
3.7035	Ti 2	Titanium Gr. 2	ASTM B265 (R50400)	-40 to +300
Graphite ≥98%		-	-	-200 to +450**
Graphite ≥99.85%		-	-	-200 to +450**
PTFE		-	-	-240 to +200
ePTFE		-	-	-240 to +200
Silver		-	-	-270 to +750
Mica		-	-	0 to +800

Other materials available on request

* The information listed here is not claimed to be exhaustive and serves only as a guide; despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided

** (to +550°C only after consultation)

ElastaGraph™

ElastaGraph™ gaskets feature a corrugated core made of stainless steel, which is seamlessly coated with flexible graphite of different densities and thicknesses. This product provides much better seal characteristics in comparison to standard corrugated ring gaskets.

The corrugated form of ElastaGraph™ ensures a constant springback against the flange surfaces. The reduced effective seal area makes maximum use of the bolt force when initial torque is applied, as the entire ring edge is not immediately compressed.

In contrast to conventional graphite gaskets, the method of production of ElastaGraph™ creates a type of gasket without adhesive. The corrugated core is completely covered with graphite.

An additional graphite region with a higher density is applied to the internal part of ElastaGraph™ on both sides. This creates a region of high stress around the inner edge of the gasket which significantly increases the sealing behaviour in comparison to classic gaskets. The core is also made of stainless steel and can withstand potential damage.

Applications

- Flanged Pipes (DIN/ANSI)
- Compensates for flange irregularities

Approvals

TA-Luft certified · DIN DVGW product · BAM · fire safe · Blow-Out certified

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
ElastaGraph™			
Graphite Facing	20	20	250
	300	20	150

Characteristic values in accordance with EN 13555 can be found at gasketdata.org

LeaderGasket

Properties

Metal Carrier

- Thickness 0.6mm
- Standard 1.4404 (316L)
- Other materials possible

Soft Material Layer

- Thickness 0.5mm or 1.0mm
- Graphite -200 to +450°C

Pressure

- Max. 64 bar, depending on the installation and surface pressure

Types

- Circular
- Only for standard flanges IBC / RF
- Standard dimensions up to DN 600 or 24 inches
- For special dimensions see ElastaGraph™ SG

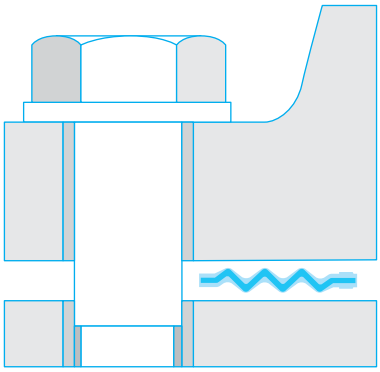
Special Features

- High compressibility
- Good sealing behaviour at low bolt forces
- Good adaptibility in uneven flange surfaces
- High conformability even on poor flange surfaces
- High fault tolerance in assembly
- Very good recovery function
- Good mechanical properties with temperature fluctuations
- Very good stability (high P_{QR})

Total Thickness

- Standard: 1.6mm, 2.2mm or 3.2mm

ElastaGraph™



ELGR A 0150 I 0050 16

Thickness
16 = 1.6mm 22 = 2.2mm 32 = 3.2mm

Size
1.1/4" = 0125 50mm = 0050

Unit of Measure
I = Imperial M = Metric

Class Size
0150=150 0300=300 PN10 PN16 PN25 PN40

Specification
A = B16.21 D = Din

ElastaGraph Designator

Example: ELGAA0150I040016

ELGADPN10M006516

ElastaGraph™ SG

ElastaGraph™ SG consists of a corrugated metal carrier which is coated with graphite on both sides.

The corrugated form of ElastaGraph™ SG guarantees a very good conformability against the flange surfaces. Applying the graphite layer to the carriers grooves in the manufacturing process makes maximum use of the bolt force of the initial torque, as the entire ring edge is not immediately compressed.

The corrugated design creates concentric regions of high stress which significantly improves the sealing efficiency in comparison to classic gaskets. The core is also made of stainless steel and can withstand potential damage.

Applications

- Pipes (DIN/ANSI)
- Heat exchanger
- Plant / Containers
- Boilers
- Compensates for flange irregularities

Approvals

TA-Luft certified · DIN DVGW product · BAM · Blow-Out certified

(Depending on material)

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
ElastaGraph™-SG			
Graphite Facing	20	20	250
	300	20	150

Characteristic values in accordance with EN 13555 can be found at gasketdata.org

Properties

Metal Carrier

- Thickness 0.5mm
- Standard 1.4404 (316L)
- Other materials available

Soft material layer

- Thickness 0.5mm, 0.8mm, 1.0mm
- Graphite -200 to +450°C

Pressure

- Max. 64 bar, depending on the installation and surface pressure

Types (forms)

- Circular, square, oval
- With seam gaps according to drawing

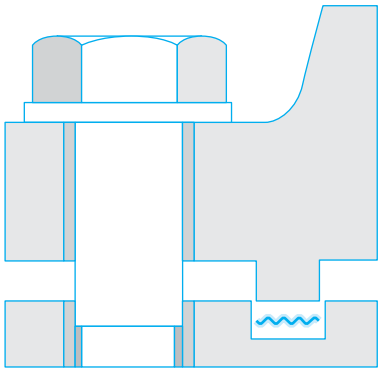
Special Features

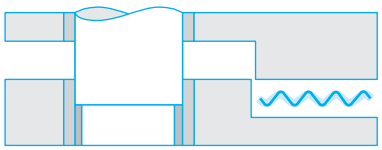
- High compressibility
- Good sealing characteristics at low bolt load
- Good adaptability to rough or uneven flange surfaces
- High conformability even on poor flange surfaces
- Very high fault tolerance in assembly and operation
- Very good recovery
- Good mechanical properties at high temperature
- Manufactured to special dimensions on request

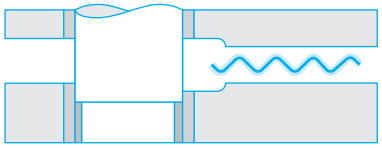
Total Thickness

- Standard approx. 2.5mm, 3.0mm or 3.5mm
- Other thicknesses available on request

ElastaGraph™ SG







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Materials - Overview*

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1.4541	X6CrNiTi18-10	Stainless Steel	321 (S32100)	-270 to +550
1.0038	St 37-2	General Structural Steel	A570 Gr.36 (S235JR)	-40 to +450
1.4876	X10NiCrAlTi32-20	Incoloy® 800 (Alloy 800)	ASTM B409 (N08800)	-110 to +950
2.4617	NiMo28	Hastelloy® B2 (Alloy B2)	ASTM B333 (N10665)	-200 to +450
2.4819	NiMo16Cr15W	Hastelloy® C276 (Alloy C276)	ASTM B575 (N10276)	-200 to +450
2.4816	NiCr15Fe	Inconel™ 600 (Alloy 600)	ASTM B168 (N06600)	-60 to +900
2.4360	NiCu30Fe	Monel® 400 (Alloy 400)	ASTM B127 (N04400)	-60 to +425
3.7035	Ti 2	Titanium Gr. 2	ASTM B265 (R50400)	-40 to +300
Graphite ≥98%		-	-	-200 to +450**
Graphite ≥99.85%		-	-	-200 to +450**

Other materials available on request

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** (to +550°C only after consultation)

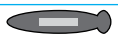
Elastomet

The Elastomet gasket is constructed of a vulcanised rubber sealing surface with steel inner ring.

This flange gasket is used in applications that require the secure sealing of water, waste water, gas, air, acids, alkalis and hydrocarbons with low forces at relatively low temperatures.

Suitable for all flanges made of steel, stainless steel, GFRP, PP, PVC, PE and coated flanges.

Elastomet Profiles

Drawing	Type	Part	Description
	V	GS	Rubber – Steel Gasket
	OR	GS	Rubber – Steel Gasket with O-ring

Applications

- Flanged pipes (DIN/ANSI)
- Steel and plastic flanges
- Low surface pressure
- Compensates for flange irregularities

Properties

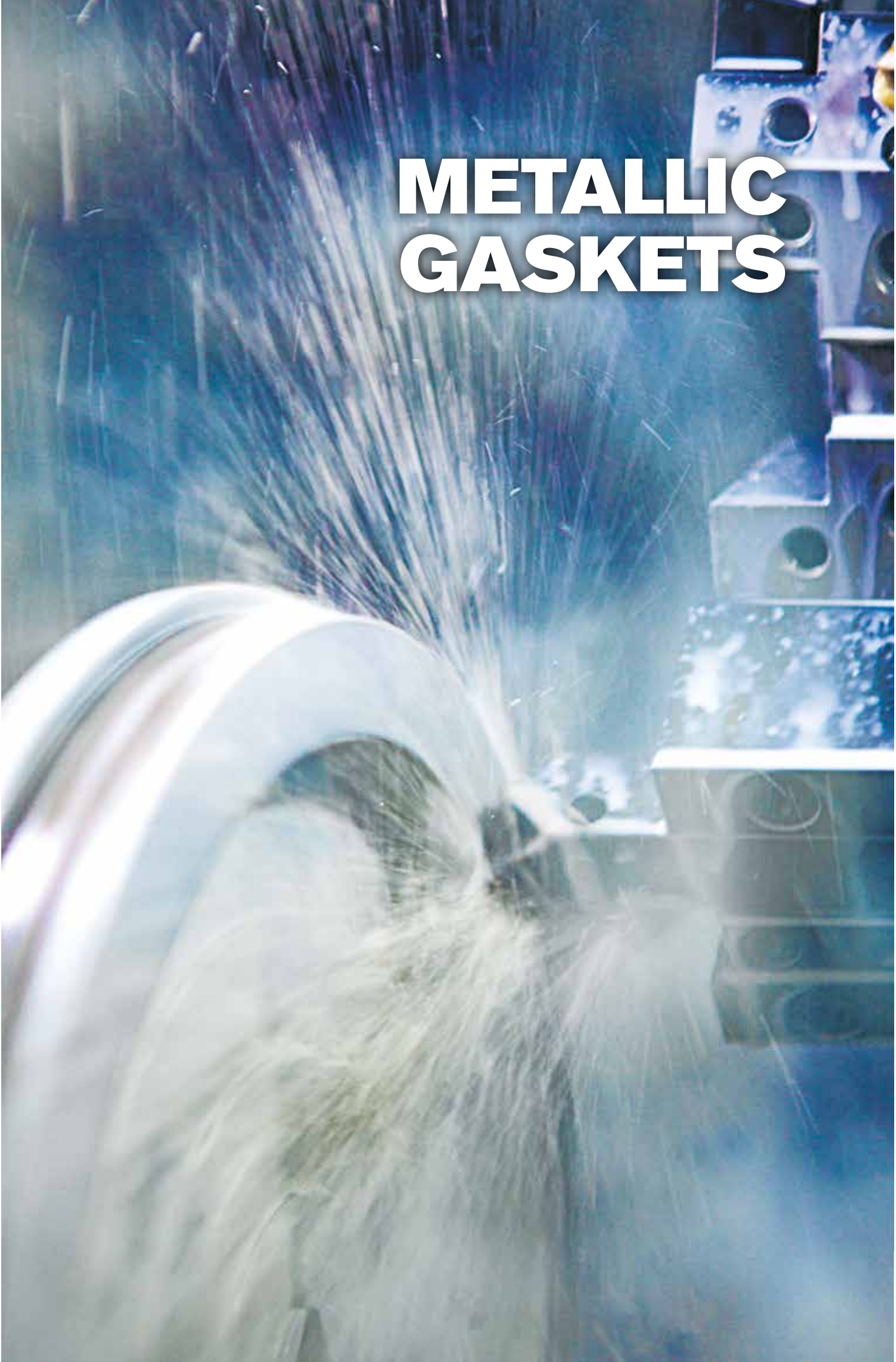
- Easy assembly
- Dimensionally stable
- Can be used up to 40 bar
- Very good recovery
- **NBR**: Resistant to oils and grease (DVGW and KTW approved) Temp. max. 120°C
- **EPDM:** Resistant to acids, ozone, ageing and weathering, W270 approved Temp. max. 150°C
- **FKM (e.g. Viton®)**: Resistant to solvents and other chemicals Temp. max. 250°C

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Elastomet			
EPDM, NR, NBR, FKM	20	5	12
	300	-	-

Approvals

(Depending on material)



METALLIC GASKETS

Ring Type Joint Gaskets

RTJ gaskets are large, turned metal gaskets with a special profile, for use in special flanges. Ring joint gaskets are designed for use under high pressures and temperature. They are used primarily in the petrochemical industry.

Dimensions and profiles are defined in the standards API 6a, ASME B16.20 and ISO 7483.

The contact surfaces between RTJ gaskets and flanges are relatively small so that a very high surface pressure can be realised. This is necessary to fit the RTJ tightly to the flange.

In order to avoid damage to the flanges, it is important that the RTJ is softer than the material of the flanges.

For this reason, the API 6A specifies maximum values for the hardness of different materials for RTJ seals.

LeaderGasket

Applications

- Piping
- Very high pressures
- Refinery
- Gas Industry
- Petrochemicals
- High pressure valves
- Gas compressors

Properties

Metal

- Various metals in accordance with material table

Type

- R - Oval
- R - Octagonal
- RX
- BX (with pressure relief hole)

Pressure

- Max. 400 bar, depending on the installation and surface pressure (BX up to 1330 bar)

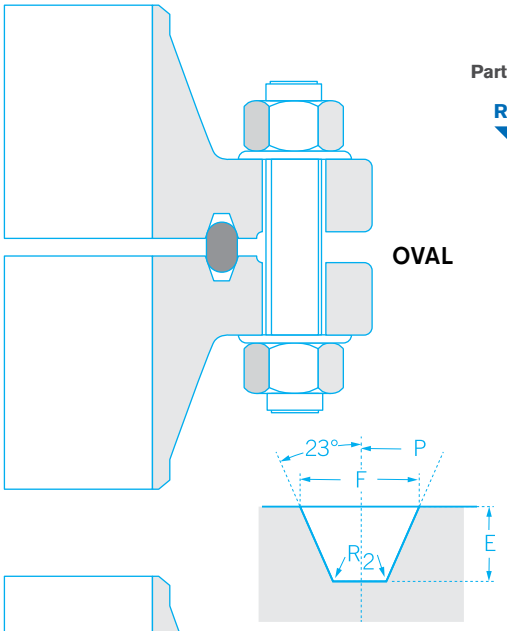
Types

- In accordance with API 6A, ASME B16.20
- Special dimensions also available

Surface pressure limits

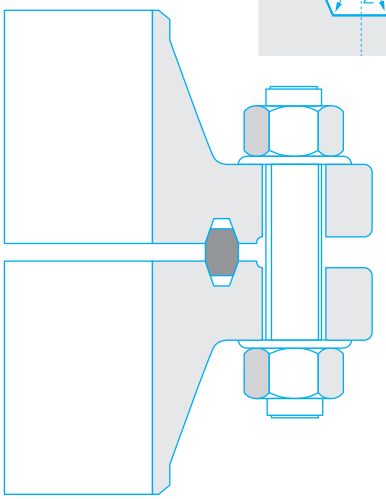
Type	Temp. °C	Min. MPa	Max. MPa
RTJ-Gasket			
Soft iron	20	240	520
	300	240	300
Stainless steel	20	330	750
	200	330	620

Types of Ring Type Joint Gasket



OVAL

OCTAGONAL

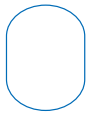


Part Number Identifier

RTJ	OCR	11	SI

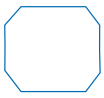
- **Material** *SI=Soft Iron SS=316*
- **Size** *11 to 303*
- **Shape** *OVR, OCR, RX or BX*
- **Product** *RTJ*

Examples: RTJOCR11SI
RTJRX303SS



Style OVR

Oval Section - For use with ASME and API flanges with flat bottomed or oval groove

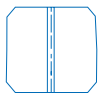


Style OCR

Octagonal Section - For use with ASME and API flanges with flat bottomed groove

Style RX

Asymmetric Octagonal Section - For use in ASME and API flat bottomed grooves



Style BX

Square Octagonal Section - For use in API BX flanges

Materials - Overview*

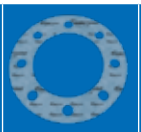
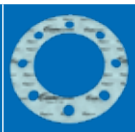
DIN / EN Description	Material	AISI ASTM UNS	Hardness (Max)*		Temperature (°C)		Density (g/cm³)
			Brinell HB	Rockwell B	Min.	Max.	
Soft Iron	-	-	90	52	-60	500	7.9
X5CrNiMo 17-12-2	1.4401	316 (S31600)	ca. 160	83	-200	550	7.9
X2CrNiMo 17-12-2	1.4404	316 L (S31603)	ca. 160	83	-270	550	7.9
X6CrNiMoTi17-12-2	1.4571	316 Ti (S31635)	ca. 160	83	-270	550	7.9

Other materials available on request

* The information listed here is not claimed to be exhaustive and serves only as a guide; despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided

SOFT GASKET MATERIALS

Gasket Selection Chart

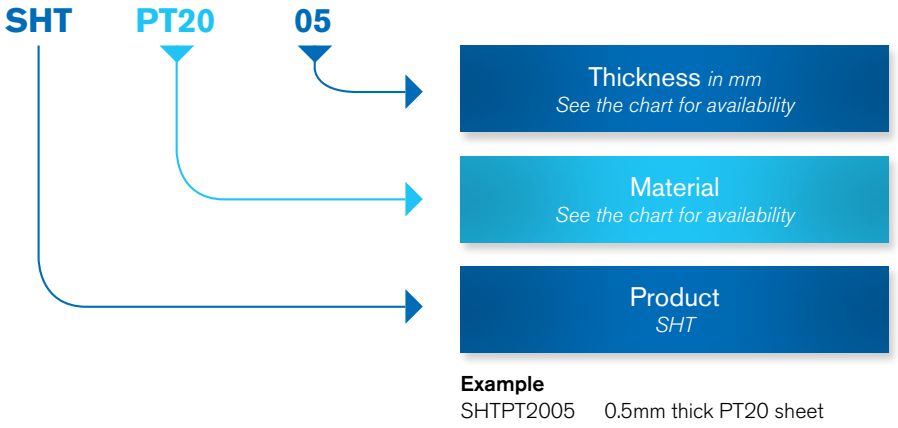
Material	 Fybar PT20	 Fybar PT30	 Fybar PT50	 Fybar PT60	 Clipperlon 2100	 Clipperlon 2110	 Clipperlon 2115	 Clipperlon 2120
Maximum Operating Temperature (°C)	**150**	**+250 +200 (Steam)**	**+200**	**+250**	**-240 +240**	**-240 +240**	**-240 +240**	**-240 +240**
Maximum Pressure (Bar)	**60**	**100**	**80**	**100**	**85**	**55**	**55**	**55**
Air	Y	Y	Y	Y	Y	Y	Y	Y
Steam		Y	Y	Y				Y
Oxygen					Y			Y
Oil	Y	Y	Y				Y	Y
Solvent				Y	Y	Y		Y
Petrochemical Products			Y	Y				Y
Potable Water		Y	Y	Y	Y	Y		Y
Weak Acid	Y	Y	Y	Y	Y	Y	Y	Y
Strong Acid					Y	Y		
Weak Alkali		Y	Y	Y	Y	Y	Y	Y
Strong Alkali					Y	Y	Y	Y
Food Stuffs							Y	
Conformability	M	M	M	M	L	H	H	VL
ASME **m** **Y (psi)**	**3.5** **2000**	**3.5** **2000**	**2.5** **3200**	**2.5** **2600**	**3.5** **2500**	**3.0** **1600**	**3.5** **2450**	**3.5** **2450**
ROTT **Gb (psi)** **a** **Gs (psi)**	**300** **0.4** **5**	**300** **0.4** **5**	**2400** **0.2** **50**	**2400** **0.2** **50**	**500** **0.3** **6**	**450** **0.3** **5**	**432** **0.3** **1**	**432** **0.3** **1**

Conformability: VL - Very Low
L - Low
M - Medium
H - High
VH - Very High

 Clipperlon 2130	 Clipperlon 2135	 Egraflex SPG	 Novaphit SSTC XP	 NovaMica Thermex	 S-Graph	 N-Graph	 Virgin PTFE	 EPDM E-70-772	 EPDM E-60-773
-240 +240	**-240 +240**	**+450**	**+550**	**+1000**	**+450**	**+450**	**-200 +200**	**-25 +120**	**-25 +120**
40	**40**	**150**	**250**	**10**	**100**	**100**	**50**	**20**	**20**
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Y	Y	Y	Y	Y	Y	Y	Y		
Y	Y	Y					Y		
Y	Y	Y	Y	Y			Y	Y	Y
Y	Y	Y	Y	Y	Y	Y	Y		
Y	Y	Y	Y	Y	Y	Y	Y		
Y	Y						Y	Y	
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
							Y		
Y	Y	Y	Y	Y	Y	Y	Y		
Y							Y		
	Y						Y		Y
VH	VH	H	H	M	VH	VH	L	H	H
2.5 2900	**2.5 2900**	**2.0 2500**	**2.5 1600**	**2.5 4350**	**2.0 900**	**2.0 900**	**2 3000**	**1.0 200**	**1.0 200**
1250 0.2 4	**1250 0.2 4**	**1400 0.3 1**			**800 0.4 0.5**	**800 0.4 0.5**			

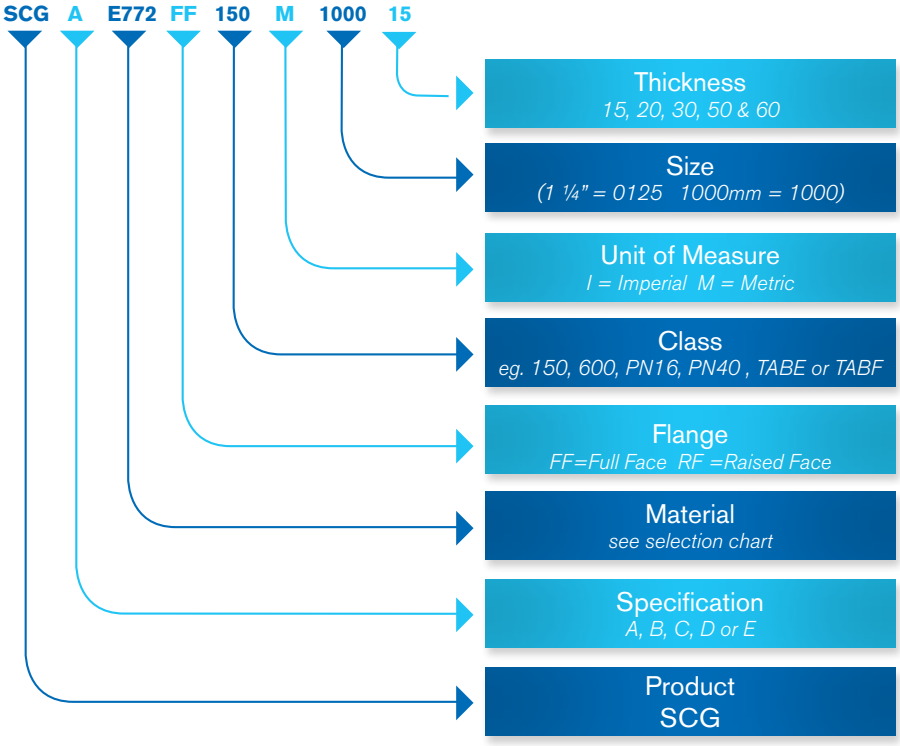
Soft Gasket Selection Part Codes

Sheet Part Number Identifier



Example
SHTPT2005 0.5mm thick PT20 sheet

Cut Gasket Part Number Identifier



Examples: Metric = SCGE772FFPN25M100015
Imperial = SCGAE773RF1500I12530

Material	Code	Thicknesses available from stock (mm)							
		0.5	0.8	1.0	1.5	2.0	3.0	5.0	6.0
Fybar PT20	PT20	■		■	■	■	■		
Fybar PT30	PT30	■	■	■	■	■	■		
Fybar PT50	PT50	■	■	■	■	■	■		
Fybar PT60	PT60	■	■	■	■	■	■		
Egraflex	EGRA				■	■	■		
Clipperlon 2100	2100		■		■	■	■		
Clipperlon 2110	2110				■		■		■
Clipperlon 2115	2115				■	■	■		■
Clipperlon 2120	2120				■		■		
Clipperlon 2130	2130				■		■		
Clipperlon 2135	2135				■	■	■		
Novaphit™ SSTC XP	SSTX			■	■		■		
Novamica™ Thermex	NMTH			■	■	■	■	■	
S-Graph	SGRA			■	■	■	■		
N-Graph	NGRA			■	■	■	■		
Virgin PTFE	VPTF	■	■	■	■	■	■	■	■
E-70-772 EPDM	E772				■	■	■	■	■
E-60-773 EPDM	E773						■	■	■

Other thicknesses available on request

Specification		Class
A	B16.21	150, 300, 600, 900 &1500
B	B16.47 A	150, 300, 600 & 900
C	B16.47 B	150, 300 & 600
D	DIN/BS EN1514-1	PN6, PN10, PN16, PN25 & PN40
E	BS10	TABA, TABD, TABE, TABF, TABH TABJ, TABK, TABR & TABS

Fybar PT20

Aramid fibres bound with NBR suitable for use in the case of non – aggressive media such as air, water, oils, grease and mild acids.

Applications

- Flanged pipes (DIN/ANSI)
- Plant / Containers
- Fittings
- Pressure test

Properties

- **Can be used from -80°C to approx. 150°C***, depending on the installation and operating conditions
- **Max. 60 bar***, depending on the installation and operating conditions
- Good handling, simple disassembly
- Reduced adhesion to other materials
- Good general chemical resistance
- **Sheet format**: 1500 x 1500mm
- **Thickness**: 0.5mm, 0.8mm 1.0mm, 1.5mm, 2.0mm, 3.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Fybar PT20			
2 mm	20	40	150
	100	30	80

(*Pressure and temperatures not to be used simultaneously)

Fybar PT30

Aramid fibres bound with NBR suitable for general purpose use in hot and cold water, steam, oils, fuels, gases and a wide range of commonly used chemicals.

Applications

- Flanged pipes (DIN/ANSI)
- Heat exchanger
- Plant / Containers
- Fittings
- Pressure tests

Properties

- **Can be used from -80°C to approx. 250°C***, depending on the installation and operating conditions
- **Max. 100 bar***, depending on the installation and operating conditions
- Low diffusion rate
- Good handling, simple disassembly
- Scratch resistant
- Little adhesion to other materials
- Good chemical resistance
- **Sheet format:** 1500 x 1500mm
- **Thickness:** 0.5mm, 0.8mm 1.0mm, 1.5mm, 2.0mm, 3.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Fybar PT30			
2 mm	20	40	150
	200	30	80

Approvals

Meets BS7531 Grade “Y”

(*Pressure and temperatures not to be used simultaneously)

Fybar PT50

Aramid fibres bound with NBR suitable for use in the case of oils, water, gases, salts, fuels, alcohols, organic and inorganic acids, hydrocarbons, lubricants and coolants.

Applications

- Flanged pipes (DIN/ANSI)
- Grooved flanges
- Heat exchanger
- Plant / Containers
- Fittings
- Pressure tests

Properties

- **Can be used from -100°C to approx. 200°C***, depending on the installation and operating conditions
- **Max. 80 bar***, depending on the installation and operating conditions
- Low diffusion rate
- Good blow-out safety and good mechanical strength
- Good handling, simple disassembly
- Scratch resistant
- Little adhesion to other materials
- Very good chemical resistance
- Long-term stable compression and springback behaviour
- **Sheet format**: 1500 x 1500mm
- **Thickness**: 0.5mm, 0.8mm 1.0mm, 1.5mm, 2.0mm, 3.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Fybar PT50			
2 mm	20	40	150
	100	30	100

Characteristic values in accordance with EN 13555 can be found at gasketdata.org

Approvals

Meets BS7531 Grade "Y"

(*Pressure and temperatures not to be used simultaneously)

Fybar PT60

Glass/aramid fibres, bound with NBR suitable for use in the case of oils, water, vapours, gases, salts, fuels, alcohols, organic and inorganic acids, hydrocarbons, lubricants and coolants.

Applications

- Flanged pipes (DIN/ANSI)
- Tongue and groove flanges
- Heat exchanger
- Plant / Containers
- Cable glands
- Pressure tests

Properties

- **Can be used from -100°C to approx. 250°C***, depending on the installation and operating conditions
- **Max. 100 bar***, depending on the installation and operating conditions
- Low diffusion rate
- Good blow-out safety and good mechanical strength
- Good handling, simple disassembly
- Scratch resistant
- Little adhesion to other materials
- Very good chemical resistance
- Long-term stable compression and recovery behaviour
- **Sheet format**: 1500 x 1500mm
- **Thickness**: 0.5mm, 0.8mm 1.0mm, 1.5mm, 2.0mm, 3.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Fybar PT60			
2 mm	20	40	150
	100	30	100

Approvals

- BS7531 GradeX

(*Pressure and temperatures not to be used simultaneously)

Clipperlon 2100

Modified PTFE sheet (gasket) with silica filler

The finely divided silica filler gives a very good cold flow resistance and good stress retention properties, even at elevated termperatures. Due to the low diffusion properties and uniform structure, Clipperlon 2100 is the ideal sealing material for applications with the highest demands for low emissions.

LeaderGasket

Applications

- Pipes (DIN/ANSI)
- Tongue and groove flanges
- Heat exchanger
- Plant / Containers
- Cable glands
- For high surface pressure
- For highly aggressive media
- In the full pH range 1 - 14
- Temperature-stressed components

Properties

- **Can be used from -240°C to approx. 240°C***, depending on the installation and operating conditions
- **Max. 85 bar***, depending on the installation and operating conditions
- 100% modified PTFE with inorganic filler
- Filling: Silica
- Greatly reduced cold flow
- High stability under thermal load
- Chemically inert (with the exception of molten alkali metals and elemental fluorine)
- **Sheet format**: 1500 x 1500mm, special format available
- **Thickness**: 0.5mm, 1.0mm, 1.5mm, 2.0mm, 3.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Clipperlon 2100			
2 mm	20	40	150
	200	30	100

Approvals

TA-Luft certified · FDA · Blow-Out certified · EC 1935/2004

FDA only applies to unprinted sheets

(*Pressure and temperatures not to be used simultaneously)

Clipperlon 2110

Modified PTFE sheet (gasket) with hollow glass microsphere filler

Uniform distribution of the hollow microsophere filler leads to a low density material with low sealing stress and good adaptability to rough or uneven flanges. Low leakage rate and low creep leads to safe sealing. Clipperlon 2110 is a general purpose PTFE sealing material for all flange connections, also for flanges with easily damaged sealing surfaces (including glass lining) and it also has good electrical insulating properties for where electrical isolation is required.

LeaderGasket

Applications

- Flanged Pipes (DIN/ANSI)
- Glass, ceramic or plastic flanges
- Enamelled pipe flanges
- Steel flanges
- Heat exchanger
- Plant / Containers
- For low surface stress sealing
- For highly aggressive media
- In the full pH range 1 - 14
- For damaged sealing surfaces
- For pressure-sensitive components

Properties

- **Can be used from -240°C to approx. 240°C***, depending on the installation and operating conditions
- **Max. 55 bar***, depending on the installation and operating conditions
- 100% modified PTFE filled with hollow glass microspheres
- Greatly reduced cold flow
- High compressibility and flexibility
- Very good heat and chemical resistance
- Residue free removal
- Chemically inert (with the exception of molten alkali metals and elemental fluorine)
- **Sheet format**: 1500 x 1500mm
- **Thickness**: 0.5mm, 1.0mm, 1.5mm, 2.0mm, 3.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Clipperlon 2110			
2 mm	20	20	60
	200	20	50

Characteristic values in accordance with EN 13555 can be found at gasketdata.org

Approvals

TA-Luft certified · FDA · Blow-Out certified · EC 1935/2004

FDA only applies to unprinted sheets

(*Pressure and temperatures not to be used simultaneously)

Clipperlon 2115 USP VI Pigment Free

Natural white modified PTFE plate (seal) containing hollow glass microspheres

Modified PTFE, free of pigments, specifically for pharmaceutical, food, and applications where high purity is required.

Uniform distribution of the hollow microsphere filler leads to a low density material with low sealing stress and good adaptability to rough or uneven flanges. Low leakage rate and low creep leads to safe sealing. Clipperlon 2115 is a general purpose PTFE sealing material for all flange connections, also for flanges with easily damaged sealing surfaces (including glass lining) and it also has good electrical insulating properties for where electrical isolation is required.

Clipperlon 2115 USP VI meets Food & Dairy requirements FDA 21 CFR 177.1550 and EC1953/10/2011.

United States Pharmacopeia (USP) Class VI testing determines the effects of materials upon living tissue in-vitro (Suffix 87) and in-vivo (Suffix 88).

Applications

- Flanged Pipes (DIN/ANSI)
- Glass, ceramic or plastic flanges
- Enamelled pipe flanges
- Steel flanges
- Heat exchanger
- Plant / Containers
- For low surface stress sealing
- For highly aggressive media
- In the full pH range.
- For damaged sealing surfaces
- For pressure-sensitive components
- Direct contact with media

Properties

- **Can be used from -240°C to approx. 240°C***, depending on the installation and operating conditions
- **Max. 55 bar***, depending on the installation and operating conditions
- 100% modified PTFE filled with hollow glass microspheres
- Greatly reduced cold flow
- High compressibility and flexibility
- Very good heat and chemical resistance
- Residue free removal
- Chemically inert (with the exception of molten alkali metals and elemental fluorine)
- Broad solvent resistance
- **Sheet format**: 1500 x 1500mm
- **Thickness**: 0.5mm, 1.0mm, 1.5mm, 2.0mm, 3.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Clipperlon 2115			
2 mm	20	20	60
	200	20	50

Characteristic values in accordance with EN 13555 can be found at gasketdata.org

Approvals

TA-Luft certified · FDA · USP · EC 1935/2004 · Blow-Out certified

(*Pressure and temperatures not to be used simultaneously)

Clipperlon 2120

Modified PTFE plate (seal) with barium sulphate

Clipperlon 2120 features, thanks to its composition, one of the highest chemical resistance against highly concentrated alkalis, hydrofluoric acid and chlorine. Leader Clipperlon 2120 has a high density and is very resistant to pressure (vacuum up to 85 bar). It is mechanically very stable and characterized by a low compressibility and a highly optimized creep.

Thanks to its high density, Leader Clipperlon 2120 is used in applications with monomers where the 'popcorning effect' can occur.

LeaderGasket

Applications

- Direct contact with process media
- Flanged Pipes (DIN/ANSI)
- Chlorine plant
- Steel flanges
- Heat exchanger
- Plant / Containers
- For highly aggressive media
- In the full pH range 1 - 14

Properties

- **Can be used from -240°C to approx. 240°C***, depending on the installation and operating conditions
- **Max. 55 bar***, depending on the installation and operating conditions
- 100% modified PTFE filled with barium sulphate
- Greatly reduced cold flow
- Very good heat and chemical resistance
- Very good stress retention properties
- Residue free removal
- Chemically inert (with the exception of molten alkali metals and elemental fluorine)
- **Sheet format**: 1500 x 1500mm
- **Thickness**: 0.5mm, 1.0mm, 1.5mm, 2.0mm, 3.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Clipperlon 2120			
2 mm	20	40	150
	200	30	100

Approvals

TA-Luft certified · FDA · Blow-Out certified · EC 1935/2004 · The Chlorine Institute

FDA only applies to unprinted sheets

(*Pressure and temperatures not to be used simultaneously)

Clipperlon 2130

Clipperlon 2130 gasket sheets are made of 100% pure, multi-directional expanded PTFE, with virtually unlimited chemical resistance. When installed, Clipperlon gaskets provide exceptionally good adaptability to flange roughness and unevenness. A high surface pressure is maintained in operation under pressure and temperature load.

Clipperlon 2130 achieves very good stability and tightness with good blow-out resistance especially in demanding steel flange applications. The good resistance behaviour of the material leads to increased operating safety, even in changing operating conditions.

Applications

- Flanged Pipes (DIN/ANSI)
- Steel and enamel flanges
- Heat exchanger
- Plant / Containers
- For high surface stress
- For highly aggressive media
- In the full pH range 1 - 14
- For damaged sealing surfaces

Properties

- **Can be used from -240°C to approx. 240°C***, depending on the installation and operating conditions
- **Max. 40 bar***, depending on the installation and operating conditions
- 100% pure multi-directional expanded PTFE
- Good adaptability to surface irregularities
- Low creep relaxation
- Residue free removal
- Chemically inert (with the exception of molten alkali metals and elemental fluorine)
- **Sheet format**: 1500 x 1500mm
- **Thickness**: 0.5mm, 1.0mm, 1.5mm, 2.0mm, 3.0mm, 4.0mm, 6.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Clipperlon 2130			
2 mm	20	25	150
	200	25	100

Characteristic values in accordance with EN 13555 can be found at gasketdata.org listed as Flowtite under ERIKS

Approvals

TA-Luft certified · FDA · Blow-Out certified · EC 1935/2004

FDA only applies to unprinted sheets

(*Pressure and temperatures not to be used simultaneously)

Clipperlon 2135

Clipperlon 2135 gasket sheets are made of 100% pure, multi-directional expanded PTFE, with virtually unlimited chemical resistance. When installed, Clipperlon gaskets provide exceptionally good adaptability to flange roughness and unevenness. A high surface pressure is maintained in operation under pressure and temperature load.

Clipperlon 2135 achieves very good stability and tightness with good blow-out resistance especially in demanding steel flange applications. The good resistance behaviour of the material leads to increased operating safety, even in changing operating conditions.

Due to the product being free from printing it is ideal for the food and pharmaceutical industries

Applications

- Flanged Pipes (DIN/ANSI)
- Steel and enamel flanges
- Heat exchanger
- Plant / Containers
- For high surface stress
- For highly aggressive media
- In the full pH range 1 - 14
- For damaged sealing surfaces
- Ink – free sheet marking for food / pharma application

Properties

- **Can be used from -240°C to approx. 240°C***, depending on the installation and operating conditions
- **Max. 40 bar***, depending on the installation and operating conditions
- 100% pure multi-directional expanded PTFE
- Good adaptability to surface irregularities
- Low creep relaxation
- Residue free removal
- Chemically inert (with the exception of molten alkali metals and elemental fluorine)
- **Sheet format**: 1500 x 1500mm
- **Thickness**: 0.5mm, 1.0mm, 1.5mm, 2.0mm, 3.0mm, 4.0mm, 6.0mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Clipperlon 2135			
2 mm	20	25	150
	200	25	100

Approvals

TA-Luft certified · FDA · Blow-Out certified · EC 1935/2004

(*Pressure and temperatures not to be used simultaneously)

N-Graph

N- Graph is a graphite sheet product, adhesively bound to a nickel – foil core (13 µm)

The thin nickel core provides a substantial degree of tear resistance compared to the relatively fragile graphite facing, and also helps to increase the ability of gaskets to resist blowout, whilst still allowing the material to be easily cut – using scissors if necessary. At the same time, the soft graphite layers allow the gasket to compress easily and conform regularly to imperfections of the flange sealing face.

Applications

- Flange pipes (DIN/ANSI)
- For all common flange constructions in the field
- Plant / Containers
- For high temperatures

Properties

- **Can be used from -200°C to approx. 450°C** (oxidizing) 650 °C (steam) depending on the installation and operating conditions
- **Max. 100 bar**, depending on the installation and operating conditions
- Very high fault tolerance in assembly and operation
- High compressibility and adaptability to sealing surface defects
- Low ageing or embrittlement, owing to low level of binders
- **Sheet format**: 1500mm x 1500mm, 1000mm x 1000mm
- **Thickness**: 1.0mm, 1.5mm, 2.0mm, 3.0mm
- **Insert**: flat nickel foil (13 µm)

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
N-Graph			
2 mm	20	10	110
	450	10	90

S-Graph

S- Graph is a graphite sheet product, adhesively bound to a stainless 316 – foil core (50 µm)

The thin steel core provides a high degree of tear resistance compared to the relatively fragile graphite facing, and also helps to increase the ability of gaskets to resist blowout, whilst still allowing the material to be easily cut – using scissors if necessary. At the same time, the soft graphite layers allow the gasket to compress easily and conform regularly to imperfections of the flange sealing face.

S- Graph is much stronger than its companion product N-Graph

Applications

- Flange pipes (DIN/ANSI)
- For all common flange constructions in the field
- Plant / Containers
- For high temperatures

Properties

- **Can be used from -200°C to approx. 450°C** (oxidizing) 650 °C (steam) depending on the installation and operating conditions
- **Max. 100 bar**, depending on the installation and operating conditions
- High mechanical strength
- Very high fault tolerance in assembly and operation
- High compressibility and adaptability to sealing surface defects
- Low ageing or embrittlement, owing to low level of binders
- **Sheet format**: 1500mm x 1500mm, 1000mm x 1000mm
- **Thickness**: 1.0mm, 1.5mm, 2.0mm, 3.0mm
- **Insert**: flat stainless steel 316 foil (50 µm)

Surface pressure limits

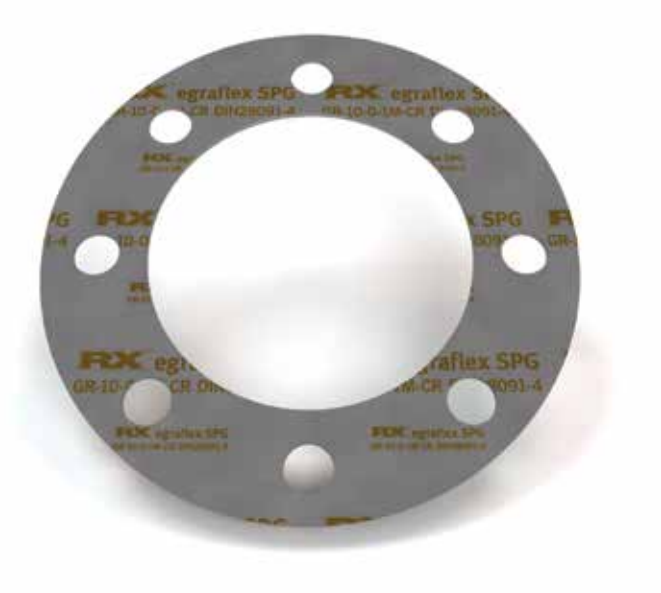
Type	Temp. °C	Min. MPa	Max. MPa
S-Graph			
2 mm	20	10	110
	450	10	100

Egraflex SPG

Egraflex SPG is an adhesive-free graphite gasket sheet consisting of flexible graphite foil reinforced by a stainless steel (316L) tanged sheet.

The tanged steel support imparts strength to the product, and being mechanically bound to the graphite layers does not have the potential limitations of adhesive – bound products in contact with certain solvents or when subject to combinations of high surface stress and high temperature.

This material has a higher blowout resistance, and therefore higher maximum service pressure, than adhesively bonded products, but is more difficult to cut by hand. It can be most easily cut using standard equipment such as waterjet and oscillating knife cutters.



Applications

- Flanged pipes (DIN/ANSI)
- For all common flange constructions in the field of piping and containers
- Heat exchanger
- Plant / Containers
- For low and high surface stresses
- For high temperatures
- For old installations
- For steam lines
- For damaged sealing surfaces

Properties

- **Can be used from -200°C to approx. 450°C***, depending on the installation and operating conditions
- **Max. 150 bar*** depending on the installation and operating conditions
- High blowout resistance and high mechanical strength
- Very high fault tolerance in assembly and operation
- High compressibility and adaptability to surface defects
- Good heat resistance
- Low ageing or embrittlement, owing to absence of adhesives and binders
- Good chemical resistance
- Sheet format: 1500 mm x1500mm
- **Thickness:** 1.5mm, 2.0mm, 3.0mm
- **Graphite:** ≥98%
- **Chloride content:** < 50ppm
- **Insert:** 316L stainless steel tanged sheet

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Egraflex SPG			
2 mm	20	40	150
	450	30	110

Approvals

(*Pressure and temperatures not to be used simultaneously)

Novaphit® SSTC XP

Novaphit® SSTC XP is a multi-layered, high strength sheet made from 0.5 mm thick layers of high-quality graphite foil (≥=99.85%) and expanded stainless steel sheet . Depending on the desired sheet thickness, several layers of graphite and stainless steel sheets are directly joined together in a special procedure. Novaphit® SSTC XP is a gasket material of excellent quality with outstanding mechanical properties, while the XP technology eliminates adhesion to flanges during disassembly.

Applications

- Flanged pipes (DIN/ANSI)
- For all common flange constructions in the field
- Heat exchangers
- Plant / Containers
- For high surface stresses
- For high temperatures
- For legacy assets
- For steam pipes
- For damaged sealing surfaces
- For tongue and groove connections

Properties

- **From -200°C to ca. 550°C***, depending on the installation and operating conditions
- **Max. 250 bar***, depending on the installation and operating conditions
- High blowout resistance and high mechanical strength
- Very high fault tolerance in assembly and operation
- High compressibility and adapability to sealing surface defects
- Good recovery
- Low ageing or embrittlement, owing to absence of adhesives and binders
- Low adhesion to flanges, facilitating disassembly
- High degree of stiffness
- **Sheet format:** 1000x1000mm / 1500x1500mm
- **Thickness:** 1.0mm, 1.5mm, 2.0mm, 3.0mm
- **Graphite:** ≥99,85%
- **Chloride Content:** < 10ppm
- **Insert:** 316L stainless steel expanded metal sheet

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Novaphit® SSTC XP			
2 mm	20	40	400
	450	30	150

Characteristic values in accordance with EN 13555 can be found at gasketdata.org

Approvals

TA-Luft certified · BAM · DIN DVGW product · fire safe · Blow-Out certified

(*Pressure and temperatures not to be used simultaneously)

Novamica Thermex®

Novamica Thermex® is an adhesive-free mica gasket sheet consisting of flexible mica foil reinforced by a stainless steel (316L) expanded metal sheet.

As the surface layer is largely inorganic (silicate) it does not share the potential of graphite gaskets to be oxidized at high temperature, which can lead to failure. The temperature capabilities of Novamica Thermex® are therefore far in excess of what can be achieved by graphite.

Applications

- Flange pipes (DIN/ANSI)
- For all common flange constructions in the field
- Plant / Containers
- For high surface stresses
- For very high temperatures

Properties

- **Can be used from -200°C to approx. 1000°C,** depending on the installation and operating conditions
- **Max. 10 bar**, depending on the installation and operating conditions
- High blowout resistance and high mechanical strength
- Very high fault tolerance in assembly and operation
- High compressibility and adaptability to sealing surface defects
- Good recovery
- Low ageing or embrittlement, owing to low level of binders
- Scratch-resistant due to impregnation
- **Sheet format:** 1200 x 1000mm
- **Thickness:** 1.0mm, 1.5mm, 2.0mm, 3.0mm
- **Insert:** 316L stainless steel expanded metal sheet

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Novamica® Thermex			
2 mm	20	40	400
	450	30	150

Virgin PTFE

Virgin PTFE is a white, unfilled polytetrafluoroethylene sheet of 50 Shore D hardness, suitable for applications involving food contact (complies with FDA 21 CFR §177.1550)

All PTFE materials, especially those such as virgin PTFE (no filler present) have near – universal chemical resistance, being attacked only by molten alkali metals and fluorine. It is therefore resistant to attack from even the most aggressive cleaning agents, which is highly advantageous when used as a seal in food processing equipment which requires regular sterilization.

Applications

- Flange pipes (DIN/ANSI)
- For all common flange constructions in the field
- Plant / Containers
- Excellent chemical resistance
- Wide temperature range
- Exceptionally low coefficient of friction (0.06 dry sliding)

Properties

- **Can be used from -200°C to approx. 200°C**, depending on the installation and operating conditions
- **Max. 50 bar**, depending on the installation and operating conditions
- **Thickness**: 0.5mm, 0.8mm 1.0mm, 1.5mm, 2.0mm, 3.0mm, 5.0mm, 6.0mm
- **Sheet format (stock)**: 1200mm sq

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
Virgin PTFE			
2 mm	20	20	50
	100	15	40

Approvals

FDA

EPDM E-70-772

Compound E-70-772 is a black EPDM sheet of 70 Shore A hardness, suitable for applications involving potable water.

It offers excellent resistance to water, polar solvents and phosphate ester hydraulic fluids. Suitable for potable water contact up to 23 °C (WRAS Approved). The compound is resistant to attack by many of the chemicals used in the treatment and purification of water, which makes it particularly suitable for manufacturing seals for use in such applications.

This product is REACH, RoHS and PAH compliant.

Applications

- Flange pipes (DIN/ANSI)
- For all common flange constructions in the field
- Plant / Containers
- For low surface stresses
- For moderate temperatures

Properties

- **Can be used from -40°C to approx. 120°C**, depending on the installation and operating conditions
- **Max. 20 bar,** depending on the installation and operating conditions
- Low sealing stress
- **Thickness**: 1.0mm - 10mm
- **Roll width**: 1400mm
- WRAS approval to 23˚C

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
E-70-772			
2 mm	20	5	20
	100	2	15

Approvals

WRAS APPROVED MATERIAL

EPDM E-60-773

Compound E-60-773 is a white EPDM sheet of 60 Shore A hardness, suitable for applications involving food contact

It offers excellent resistance to water, polar solvents and phosphate ester hydraulic fluids. Suitable for food contact applications, the material is formulated to meet the requirements of FDA 21 CFR 177.2600 and is ADI, therefore BSE/TSE/ Porcine free. The compound is resistant to attack by many of the chemicals used in the cleaning and sterilization of food processing equipment, which makes it particularly suitable for manufacturing seals for use in such applications.

This product is REACH, RoHS and PAH compliant.

Applications

- Flange pipes (DIN/ANSI)
- For all common flange constructions in the field
- Plant / Containers
- For low surface stresses
- For moderate temperatures

Properties

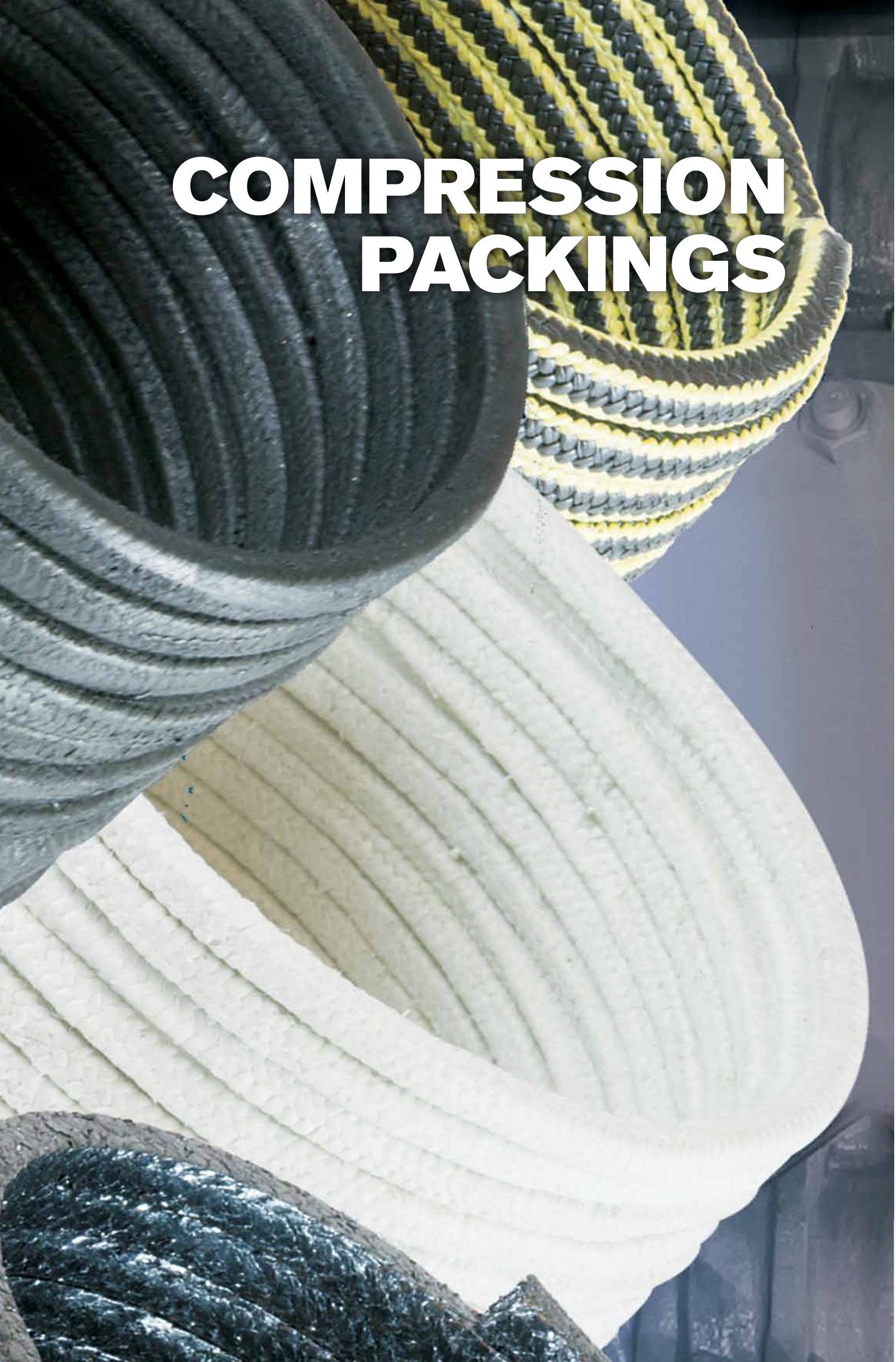
- **Can be used from -25°C to approx. 120°C**, depending on the installation and operating conditions
- **Max. 20 bar**, depending on the installation and operating conditions
- Low sealing stress
- **Thickness**: 1.0mm - 10mm
- **Roll width**: 1400mm

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
E-60-773			
2 mm	20	5	20
	100	2	15

Approvals

COMPRESSION PACKINGS

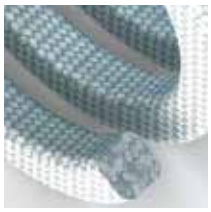


Compression Packings

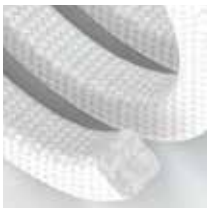
GLP110 is a cost effective cotton fibre compression packing impregnated with graphite and mineral oil.

GLP130 is a high quality braided packing made of PTFE yarn with incorporated graphite and reinforcing corner yarns of aramid fibre.

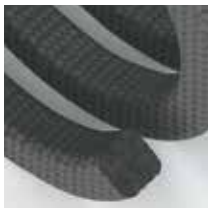
GLP140 is manufactured from continuous fibreglass yarn impregnated with an elastomeric compound with a high proportion of graphite, with additional lubricant and corrosion inhibitor.



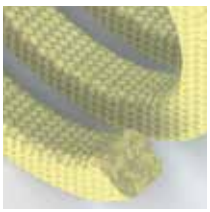
GLP150 is manufactured from continuous fibreglass yarn impregnated with PTFE dispersion and silicone lubricant.



GLP170 is manufactured from continuous PTFE yarn impregnated with PTFE dispersion and additional lubricants.

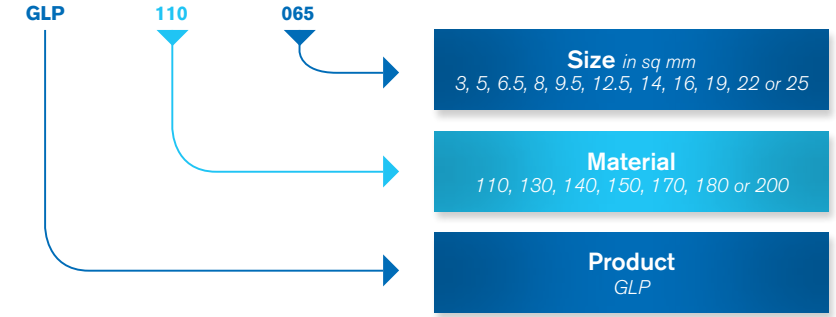


GLP180 is manufactured from flexible graphite with cotton fibre and Inconel® wire reinforcement. It has low coefficient of friction, excellent heat transfer properties, wear – resistant with exceptional chemical resistance.



GLP200 is manufactured from continuous aramid yarn impregnated with PTFE dispersion. This composition results in a packing with very high strength suitable or operating at medium high pressure and high surface speeds.

Part Number Identifier



All coils are generally supplied at 8 metres in length

Example: GLP110065 (065 = 6.5mm)

Grade	Typical Uses	Temp 0°C	Valve Max Pressure Bar	Max Shaft Speed M/S	pH Limits	Typical Applications
GLP110		120°C	70	5	4 - 12	General industrial use
GLP130		-100/280°C	250	20	2 - 12	Chemical, paper and pulp, General industries.
GLP140		590°C	150	2	4 - 11	General industrial use.
GLP150		280°C	150	8	3 – 12	Petrochemical, chemical, food, pharmaceutical.
GLP170		-200/280°C	250	20	0 - 14	Petrochemical, chemical, food, pharmaceutical.
GLP180		-200/460°C	180	10	0 - 14	Petrochemical chemical and power generation industries.
GLP200		280°C	250	12	2 - 12	Steel, chemical, paper, pulp and cement industries.

PTFE TAPES


LeaderGasket
Clipperlon 660
MULTI DIRECTIONAL TAPE
100% multidirectional expanded PTFE tape | 100% Reines multidirektional expandiertes PTFE Dichtungsband | 100% multidirectioneel geexpandeerd PTFE afdichtingsband | Ruban 100% PTFE expansé multidirectionnel
Temperature Resistance of PTFE | Temperaturbeständigkeit des PTFE | Temperatuurbestendigheid van PTFE | Résistance thermique du PTFE
-240°C - 270°C
Chemical resistance | Chemische Beständigkeit | Chemische bestendigheid | Résistance chimique
pH 0 - pH 14
Distributed by:
Lenght | Länge | Lengte | Longeur | Width | Breite | Breedte | Largeur | Thickness | Dicke | Dikte | Épaisseur |
m
mm
mm
Meets | Entspricht | Conform | Conforme à |
FDA21 CFR 175.1550 (PTFE)
FDA21 CFR 177.105 (adhesive)
EC 1935 / EC 10-2011
lot nr.
www.leadergt.com

Clipperlon 600 Tape

Mono-directional ePTFE tapes for universal use, TUV/BAM/ DVGW tested, FDA compliant.

Clipperlon 600 tape consists of pure, 100% expanded polytetrafluoroethylene (ePTFE). When pressed, the universal flat gasket tape adjusts to the sealing surface and forms a thin, tear-resistant sealing film. It creates a reliable seal connection that is resistant against aggressive media and durable. Even in the case of large flanges, complex geometries and damaged surfaces it is simply a case of removing the covering paper, sticking the seal on the clean sealing surface, overlapping the ends and closing the sealing connection. Clipperlon 600 is the one-sided self-adhesive economic sealing solution for all standard applications.

LeaderGasket

Applications

- Compensators
- Machine housings
- Plant / Containers
- Oven doors
- Manway access hatch
- For low surface stress sealing
- Flue gas and air ducts
- For highly aggressive media
- In the full pH range 1 - 14

Properties

- **From -240°C to approx. 240°C**, depending on the installation and operating conditions
- **Max. 20 bar**, depending on the installation and operating conditions
- 100% pure mono-directional expanded PTFE
- Good adaptability to surface irregularities
- Low creep relaxation
- Residue free removal
- Chemically inert (with the exception of molten alkali metals and elemental fluorine)
- In various roll lengths, widths and thicknesses (See table P56)
- No waste material (cut to size)

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
600 Tape			
	20	10	100
	200	10	30

Approvals

Clipperlon 660 Tape

Multi-directional ePTFE sealing tape for metallic and enamelled flanges, TA-Luft certified FDA compliant.

Clipperlon 660 is a high-quality PTFE gasket tape roll that helps reduce maintenance and material costs for large pipes and metal or enamelled machine flanges. Clipperlon 660 is a multi-directional ePTFE sealing tape, made of 100% pure PTFE. After simple, application-specific mounting, it creates a high-quality and efficient seal on installation, the properties of which are directly comparable with a seal from sheet material. The multi-directional ePTFE gives the material excellent creep resistance to ensure a permanently closed and blow-out resistant seal. Clipperlon 660 ePTFE gasket tapes are one-sided self-adhesive, elastic and extremely flexible.

LeaderGasket

Applications

- Pipes
- Steel and enamel flanges
- Heat exchanger
- Plant / Containers
- Oven doors
- Manway access hatch
- For high surface stress
- For highly aggressive media
- In the full pH range 1 - 14
- For damaged sealing surfaces

Properties

- **Can be used -240°C to approx. 240°C***, depending on the installation and operating conditions
- **Max. 40 bar***, depending on the installation and operating conditions
- 100% pure multi-directional expanded PTFE
- Good adaptability to surface irregularities
- Low creep relaxation
- Residue free removal
- Chemically inert (with the exception of molten alkali metals and elemental fluorine)
- In various roll lengths, widths and thicknesses (See table P56)
- No waste material (cut to size)

Surface pressure limits

Type	Temp. °C	Min. MPa	Max. MPa
660 Tape			
	20	25	150
	200	25	60

Approvals

TA-Luft certified · FDA · Blow-Out certified · EC 1935/2004

(*Pressure and temperatures not to be used simultaneously)

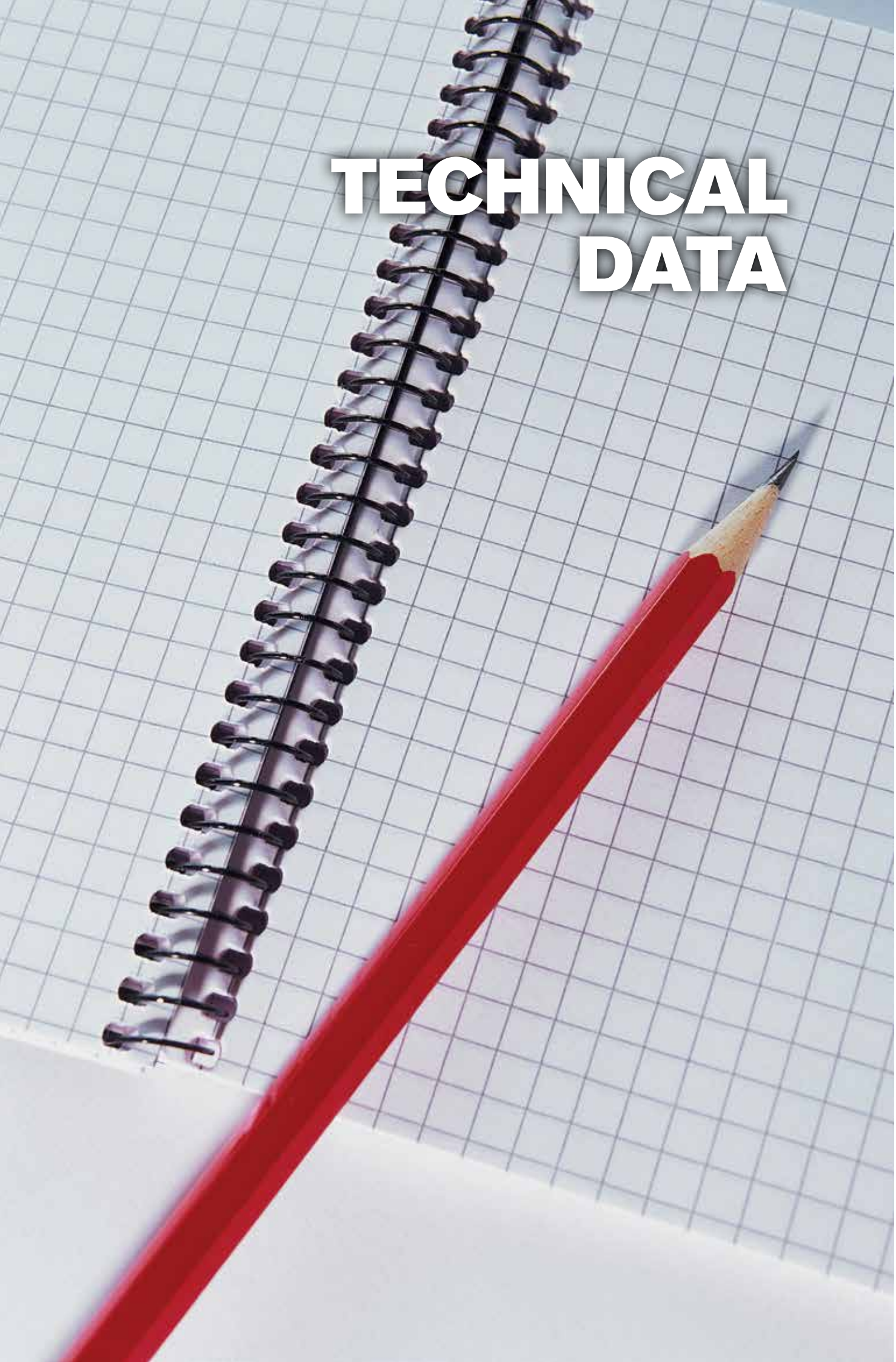
Clipperlon 600 Part Numbers

Part Number	Width (mm)	Thickness (mm)	Length (mm)
CLIPP600-03-10-25	3	1	25
CLIPP600-03-15-25	3	1.5	25
CLIPP600-05-20-25	5	2	25
CLIPP600-07-25-25	7	2.5	25
CLIPP600-10-30-10	10	3	10
CLIPP600-10-30-25	10	3	25
CLIPP600-12-40-10	12	4	10
CLIPP600-12-40-25	12	4	25
CLIPP600-14-50-10	14	5	10
CLIPP600-14-50-25	14	5	25
CLIPP600-17-60-10	17	6	10
CLIPP600-20-70-05	20	7	5
CLIPP600-20-70-10	20	7	10
CLIPP600-25-80-05	25	8	5
CLIPP600-25-80-10	25	8	10

Clipperlon 660 Part Numbers

Part Number	Width (mm)	Thickness (mm)	Length (mm)
CLIPP660-10-20-10	10	2	10
CLIPP660-15-20-10	15	2	10
CLIPP660-20-20-11	20	2	10
CLIPP660-25-20-10	25	2	10
CLIPP660-30-20-10	30	2	10
CLIPP660-35-20-10	35	2	10
CLIPP660-10-30-10	10	3	10
CLIPP660-15-30-10	15	3	10
CLIPP660-20-30-10	20	3	10
CLIPP660-25-30-10	25	3	10
CLIPP660-30-30-10	30	3	10
CLIPP660-35-30-10	35	3	10
CLIPP660-40-30-10	40	3	10
CLIPP660-45-30-10	45	3	10
CLIPP660-50-30-10	50	3	10
CLIPP660-55-30-10	55	3	10
CLIPP660-60-30-10	60	3	10
CLIPP660-65-30-10	65	3	10
CLIPP660-10-60-10	10	6	10
CLIPP660-15-60-10	15	6	10
CLIPP660-20-60-10	20	6	10
CLIPP660-25-60-10	25	6	10
CLIPP660-30-60-10	30	6	10
CLIPP660-35-60-10	35	6	10
CLIPP660-40-60-10	40	6	10
CLIPP660-45-60-10	45	6	10
CLIPP660-50-60-10	50	6	10
CLIPP660-55-60-10	55	6	10
CLIPP660-60-60-10	60	6	10
CLIPP660-65-60-10	65	6	10
CLIPP660-10-90-10	10	9	10
CLIPP660-15-90-10	15	9	10
CLIPP660-20-90-10	20	9	10
CLIPP660-25-90-10	25	9	10
CLIPP660-30-90-10	30	9	10
CLIPP660-35-90-10	35	9	10
CLIPP660-40-90-10	40	9	10
CLIPP660-45-90-10	45	9	10
CLIPP660-50-90-10	50	9	10
CLIPP660-55-90-10	55	9	10
CLIPP660-60-90-10	60	9	10
CLIPP660-65-90-10	65	9	10

TECHNICAL DATA



ASME B16.21 Class 150

Dimensions to suit ANSI Standard Flanges

Nominal Bore (Inches)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
1/2"	48 x 21	89 x 21	4	16	60
3/4"	57 x 27	95 x 27	4	16	70
1"	67 x 33	108 x 33	4	16	79
1 1/4"	76 x 42	117 x 42	4	16	89
1 1/2"	86 x 48	127 x 48	4	16	98
2"	105 x 60	152 x 60	4	19	121
2 1/2"	124 x 73	178 x 73	4	19	140
3"	137 x 89	191 x 89	4	19	152
3 1/2"	162 x 102	216 x 102	8	19	178
4"	175 x 114	229 x 114	8	19	191
5"	197 x 141	254 x 141	8	22	216
6"	222 x 168	279 x 168	8	22	241
8"	279 x 219	343 x 219	8	22	298
10"	340 x 273	406 x 273	12	25	362
12"	410 x 324	483 x 324	12	25	432
14"	451 x 356	533 x 356	12	29	476
16"	514 x 406	597 x 406	16	29	540
18"	549 x 457	635 x 457	16	32	578
20"	606 x 508	699 x 508	20	32	635
24"	718 x 610	813 x 610	20	35	749

Soft Cut Gasket Dimensions

ASME B16.21 Class 300

Dimensions to suit ANSI Standard Flanges

Nominal Bore (Inches)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
1/2"	54 x 21	95 x 21	4	16	67
3/4"	67 x 27	117 x 27	4	19	83
1"	73 x 33	124 x 33	4	19	89
1 1/4"	83 x 42	133 x 42	4	19	98
1 1/2"	95 x 48	156 x 48	4	22	114
2"	111 x 60	165 x 60	8	19	127
2 1/2"	130 x 73	191 x 73	8	22	149
3"	149 x 89	210 x 89	8	22	168
3 1/2"	165 x 102	229 x 102	8	22	184
4"	181 x 114	254 x 114	8	22	200
5"	216 x 141	279 x 141	8	22	235
6"	251 x 168	318 x 168	12	22	270
8"	308 x 219	381 x 219	12	25	330
10"	362 x 273	445 x 273	16	29	387
12"	422 x 324	521 x 324	16	32	451
14"	486 x 356	584 x 356	20	32	514
16"	540 x 406	648 x 406	20	35	572
18"	597 x 457	711 x 457	24	35	629
20"	654 x 508	775 x 508	24	35	686
24"	775 x 610	914 x 610	24	41	813

ASME B16.21 Class 600

Dimensions to suit ANSI Standard Flanges

Nominal Bore (Inches)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
1/2"	54 x 21	95 x 21	4	16	67
3/4"	67 x 27	117 x 27	4	19	83
1"	73 x 33	124 x 33	4	19	89
1 1/4"	83 x 42	133 x 42	4	19	98
1 1/2"	95 x 48	156 x 48	4	22	114
2"	111 x 60	165 x 60	8	19	127
2 1/2"	130 x 73	191 x 73	8	22	149
3"	149 x 89	210 x 89	8	22	168
3 1/2"	162 x 102	229 x 102	8	25	184
4"	194 x 114	273 x 114	8	25	216
5"	241 x 141	330 x 141	8	29	267
6"	267 x 168	356 x 168	12	29	292
8"	321 x 219	419 x 219	12	32	349
10"	400 x 273	508 x 273	16	35	432
12"	457 x 324	559 x 324	20	35	489
14"	492 x 356	603 x 356	20	38	527
16"	565 x 406	686 x 406	20	41	603
18"	613 x 457	743 x 457	20	44	654
20"	683 x 508	813 x 508	24	44	724
24"	791 x 610	940 x 610	24	51	838

Soft Cut Gasket Dimensions

ASME B16.47 A Class 150

Dimensions to suit ANSI Standard Flanges

Nominal Bore (Inches / mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
22 (550)	660 x 559	749 x 559	20	35	692
26 (650)	775 x 660	870 x 660	24	35	806
28 (700)	832 x 711	927 x 711	28	35	864
30 (750)	883 x 762	984 x 762	28	35	914
32 (800)	940 x 813	1060 x 813	28	41	978
34 (850)	991 x 864	1111 x 864	32	41	1029
36 (900)	1048 x 914	1168 x 914	32	41	1086
38 (950)	1111 x 965	1238 x 965	32	41	1149
40 (1000)	1162 x 1016	1289 x 1016	36	41	1200
42 (1050)	1219 x 1067	1346 x 1067	36	41	1257
44 (1100)	1276 x 1118	1403 x 1118	40	41	1314
46 (1150)	1327 x 1168	1454 x 1168	40	41	1365
48 (1200)	1384 x 1219	1511 x 1219	44	41	1422
50 (1250)	1435 x 1270	1568 x 1270	44	48	1480
52 (1300)	1492 x 1321	1626 x 1321	44	48	1537
54 (1350)	1549 x 1372	1683 x 1372	44	48	1594
56 (1400)	1607 x 1422	1746 x 1422	48	48	1651
58 (1450)	1664 x 1473	1803 x 1473	48	48	1708
60 (1500)	1715 x 1524	1854 x 1524	52	48	1759

ASME B16.47 A Class 300

Dimensions to suit ANSI Standard Flanges

Nominal Bore (Inches / mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
22 (550)	705 x 559	838 x 559	24	41	743
26 (650)	835 x 660	972 x 660	28	44	876
28 (700)	899 x 711	1035 x 711	28	44	940
30 (750)	953 x 762	1092 x 762	28	48	997
32 (800)	1007 x 813	1149 x 813	28	51	1054
34 (850)	1057 x 864	1207 x 864	28	51	1105
36 (900)	1118 x 914	1270 x 914	32	54	1168
38 (950)	1054 x 965	1168 x 965	32	41	1092
40 (1000)	1115 x 1016	1238 x 1016	32	44	1156
42 (1050)	1165 x 1067	1289 x 1067	32	44	1207
44 (1100)	1219 x 1118	1353 x 1118	32	48	1264
46 (1150)	1273 x 1168	1416 x 1168	28	51	1321
48 (1200)	1324 x 1219	1467 x 1219	32	51	1372
50 (1250)	1378 x 1270	1581 x 1321	32	54	1429
52 (1300)	1429 x 1321	1657 x 1372	32	54	1480
54 (1400)	1492 x 1372	1683 x 1372	28	60	1579
56 (1450)	1543 x 1422	1708 x 1422	28	60	1600
58 (1500)	1594 x 1473	1759 x 1473	32	60	1651
60 (1550)	1645 x 1524	1810 x 1524	32	60	1702

Soft Cut Gasket Dimensions

ASME B16.47 A Class 600

Dimensions to suit ANSI Standard Flanges

Nominal Bore (Inches / mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
22 (550)	733 x 559	870 x 559	24	48	778
26 (650)	867 x 660	1016 x 660	28	51	914
28 (700)	914 x 711	1073 x 711	28	54	965
30 (750)	972 x 762	1130 x 762	28	54	1022
32 (800)	1022 x 813	1194 x 813	28	60	1080
34 (850)	1073 x 864	1245 x 864	28	60	1130
36 (900)	1130 x 914	1314 x 914	28	67	1194
38 (950)	1105 x 965	1270 x 965	28	60	1162
40 (1000)	1156 x 1016	1321 x 1016	32	60	1213
42 (1050)	1219 x 1067	1403 x 1067	28	67	1283
44 (1100)	1270 x 1118	1454 x 1118	32	67	1334
46 (1150)	1327 x 1168	1511 x 1168	32	67	1391
48 (1200)	1391 x 1219	1594 x 1219	32	73	1461
50 (1250)	1448 x 1270	1670 x 1270	28	79	1524
52 (1300)	1499 x 1321	1721 x 1321	32	79	1575
54 (1350)	1556 x 1372	1778 x 1372	32	79	1632
56 (1400)	1613 x 1422	1854 x 1422	32	86	1695
58 (1450)	1664 x 1473	1905 x 1473	32	86	1746
60 (1500)	1721 x 1524	1994 x 1524	28	92	1822

Soft Cut Gasket Dimensions

ASME B16.47 B Class 150

Dimensions to suit ANSI Standard Flanges

Nominal Bore (Inches / mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
26 (650)	725 x 660	786 x 660	36	22	745
28 (700)	776 x 711	837 x 711	40	22	795
30 (750)	827 x 762	887 x 762	44	22	846
32 (800)	881 x 813	941 x 813	48	22	900
34 (850)	935 x 864	1005 x 864	40	25	957
36 (900)	987 x 914	1057 x 914	44	25	1010
38 (950)	1045 x 965	1124 x 965	40	29	1070
40 (1000)	1095 x 1016	1175 x 1016	44	29	1121
42 (1050)	1146 x 1067	1226 x 1067	48	29	1172
44 (1100)	1197 x 1118	1276 x 1118	52	29	1222
46 (1150)	1256 x 1168	1341 x 1168	40	32	1284
48 (1200)	1307 x 1219	1392 x 1219	44	32	1335
50 (1250)	1357 x 1270	1443 x 1270	48	32	1386
52 (1300)	1408 x 1321	1494 x 1321	52	32	1437
54 (1350)	1464 x 1372	1549 x 1372	56	32	1492
56 (1400)	1514 x 1422	1600 x 1422	60	32	1543
58 (1450)	1580 x 1473	1675 x 1473	48	35	1611
60 (1500)	1630 x 1524	1726 x 1524	52	35	1662

Soft Cut Gasket Dimensions

ASME B16.47 B Class 300

Dimensions to suit ANSI Standard Flanges

Nominal Bore (Inches / mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
26 (650)	772 x 660	867 x 660	32	35	803
28 (700)	826 x 711	921 x 711	36	35	857
30 (750)	886 x 762	991 x 762	36	38	921
32 (800)	940 x 813	1054 x 813	32	41	978
34 (850)	994 x 864	1108 x 864	36	41	1032
36 (900)	1048 x 914	1172 x 914	32	44	1089
38 (950)	1099 x 965	1222 x 965	36	44	1140
40 (1000)	1149 x 1016	1273 x 1016	40	44	1191
42 (1050)	1200 x 1067	1334 x 1067	36	48	1245
44 (1100)	1251 x 1118	1384 x 1118	40	48	1295
46 (1150)	1318 x 1168	1461 x 1168	36	51	1365
48 (1200)	1368 x 1219	1511 x 1219	40	51	1416
50 (1250)	1419 x 1270	1562 x 1270	44	51	1467
52 (1300)	1470 x 1321	1613 x 1321	48	51	1518
54 (1350)	1556 x 1372	1673 x 1372	48	51	1578
56 (1400)	1594 x 1422	1765 x 1422	36	60	1651
58 (1450)	1673 x 1473	1827 x 1473	40	60	1713
60 (1500)	1705 x 1524	1878 x 1524	40	60	1764

ASME B16.47 B Class 600

Dimensions to suit ANSI Standard Flanges

Nominal Bore (Inches / mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
26 (650)	765 x 660	889 x 660	28	44	806
28 (700)	819 x 711	953 x 711	28	48	864
30 (750)	879 x 762	1022 x 762	28	51	927
32 (800)	933 x 813	1086 x 813	28	54	984
34 (850)	997 x 864	1162 x 864	24	60	1054
36 (900)	1048 x 914	1213 x 914	28	60	1105

Soft Cut Gasket Dimensions

PN10

Dimensions to suit DIN Standard Flanges

Nominal Bore (mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
10	45 x 18	90 x 18	4	14	60
15	50 x 22	95 x 22	4	14	65
20	60 x 28	105 x 28	4	14	75
25	70 x 35	115 x 35	4	14	85
32	82 x 43	140 x 43	4	18	100
40	92 x 49	150 x 49	4	18	110
50	107 x 61	165 x 61	4	18	125
65	127 x 77	185 x 77	8*	18	145
80	142 x 90	200 x 90	8	18	160
100	162 x 115	220 x 115	8	18	180
125	192 x 141	250 x 141	8	18	210
150	218 x 169	285 x 169	8	22	240
200	273 x 220	340 x 220	8	22	295
250	328 x 274	395 x 274	12	22	350
300	378 x 325	445 x 325	12	22	400
350	438 x 356	505 x 356	16	22	460
400	489 x 407	565 x 407	16	26	515
450	539 x 458	615 x 458	20	26	565
500	594 x 508	670 x 508	20	26	620
600	695 x 610	780 x 610	20	30	725
700	810 x 712	895 x 712	24	30	840
800	917 x 813	1015 x 813	24	33	950
900	1017 x 915	1115 x 915	28	33	1050
1000	1124 x 1016	1230 x 1016	28	36	1160
1100	1231 x 1120	1340 x 1120	32	39	1270
1200	1341 x 1220	1455 x 1220	32	39	1380
1400	1548 x 1420	1675 x 1420	36	42	1590
1500	1658 x 1520	1785 x 1520	36	42	1700
1600	1772 x 1620	1915 x 1620	40	48	1820
1800	1972 x 1820	2115 x 1820	44	48	2020
2000	2182 x 2020	2325 x 2020	48	48	2230

*Gaskets for cast iron and copper alloy flanges may have 4 bolt holes

Soft Cut Gasket Dimensions

PN16

Dimensions to suit DIN Standard Flanges

Nominal Bore (mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
10	45 x 18	90 x 18	4	14	60
15	50 x 22	95 x 22	4	14	65
20	60 x 28	105 x 28	4	14	75
25	70 x 35	115 x 35	4	14	85
32	82 x 43	140 x 43	4	18	100
40	92 x 49	150 x 49	4	18	110
50	107 x 61	165 x 61	4	18	125
65	127 x 77	185 x 77	8*	18	145
80	142 x 90	200 x 90	8	18	160
100	162 x 115	220 x 115	8	18	180
125	192 x 141	250 x 141	8	18	210
150	218 x 169	285 x 169	8	22	240
200	273 x 220	340 x 220	12	22	295
250	329 x 274	405 x 274	12	26	355
300	384 x 325	460 x 325	12	26	410
350	444 x 356	520 x 356	16	26	470
400	495 x 407	580 x 407	16	30	525
450	555 x 458	640 x 458	20	30	585
500	617 x 508	715 x 508	20	33	650
600	734 x 610	840 x 610	20	36	770
700	804 x 712	910 x 712	24	36	840
800	911 x 813	1025 x 813	24	39	950
900	1011 x 915	1125 x 915	28	39	1050
1000	1128 x 1016	1255 x 1016	28	42	1170
1100	1228 x 1120	1355 x 1120	32	42	1270
1200	1342 x 1220	1485 x 1220	32	48	1390
1400	1542 x 1420	1685 x 1420	36	48	1590
1500	1654 x 1520	1820 x 1520	36	56	1710
1600	1764 x 1620	1930 x 1620	40	56	1820
1800	1964 x 1820	2130 x 1820	44	56	2020
2000	2168 x 2020	2345 x 2020	48	62	2230

*Gaskets for cast iron and copper alloy flanges may have 4 bolt holes

Soft Cut Gasket Dimensions

PN25

Dimensions to suit DIN Standard Flanges

Nominal Bore (mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
10	45 x 18	90 x 18	4	14	60
15	50 x 22	95 x 22	4	14	65
20	60 x 28	105 x 28	4	14	75
25	70 x 35	115 x 35	4	14	85
32	82 x 43	140 x 43	4	18	100
40	92 x 49	150 x 49	4	18	110
50	107 x 61	165 x 61	4	18	125
65	127 x 77	185 x 77	8	18	145
80	142 x 90	200 x 90	8	18	160
100	162 x 115	220 x 115	8	18	180
125	192 x 141	250 x 141	8	18	210
150	218 x 169	285 x 169	12	22	240
200	273 x 220	340 x 220	12	22	295
250	329 x 274	405 x 274	12	26	355
300	384 x 325	460 x 325	16	26	410
350	444 x 356	520 x 356	16	26	470
400	514 x 407	620 x 407	16	36	550
450	564 x 458	670 x 458	20	36	600
500	624 x 508	730 x 508	20	36	660
600	731 x 610	845 x 610	20	39	770
700	833 x 712	960 x 712	24	42	875
800	942 x 813	1085 x 813	24	48	990
900	1042 x 915	1185 x 915	28	48	1090
1000	1154 x 1016	1320 x 1016	28	56	1210
1100	1254 x 1120	1420 x 1120	32	56	1310
1200	1364 x 1220	1530 x 1220	32	56	1420
1400	1578 x 1420	1755 x 1420	36	62	1640
1500	1688 x 1520	1865 x 1520	36	62	1750
1600	1798 x 1620	1975 x 1620	40	62	1860
1800	2000 x 1820	2195 x 1820	44	70	2070
2000	2230 x 2020	2425 x 2020	48	70	2300

Soft Cut Gasket Dimensions

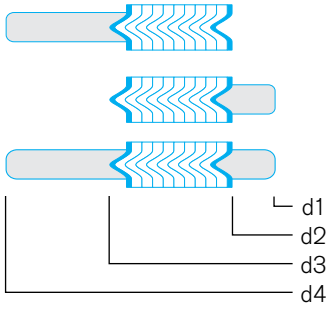
PN40

Dimensions to suit DIN Standard Flanges

Nominal Bore (mm)	I.B.C. Gasket	Full Face Gasket			
	OD x ID (mm)	OD x ID (mm)	Number of Bolt Holes	Hole Diameter (mm)	Bolt P.C.D. (mm)
10	45 x 18	90 x 18	4	14	60
15	50 x 22	95 x 22	4	14	65
20	60 x 28	105 x 28	4	14	75
25	70 x 35	115 x 35	4	14	85
32	82 x 43	140 x 43	4	18	100
40	92 x 49	150 x 49	4	18	110
50	107 x 61	165 x 61	4	18	125
65	127 x 77	185 x 77	8	18	145
80	142 x 90	200 x 90	8	18	160
100	168 x 115	235 x 115	8	22	190
125	194 x 141	270 x 141	8	26	220
150	224 x 169	300 x 169	8	26	250
200	290 x 220	375 x 220	12	30	320
250	352 x 274	450 x 274	12	33	385
300	417 x 325	515 x 325	16	33	450
350	474 x 356	580 x 356	16	36	510
400	546 x 407	660 x 407	16	39	585
450	571 x 458	685 x 458	20	39	610
500	628 x 508	755 x 508	20	42	670
600	747 x 610	890 x 610	20	48	795
700	852 x 710	995 x 710	24	48	900
800	974 x 820	1140 x 820	24	56	1030
900	1084 x 910	1250 x 910	28	56	1140
1000	1194 x 1010	1360 x 1010	28	56	1250

Spiral gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.5



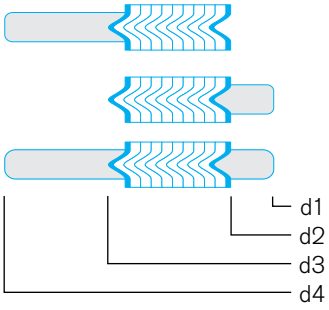
CLASS	150				300				400			
Bore (inches)	Dimensions (mm)				Dimensions (mm)				Dimensions (mm)			
	d1	d2	d3	d4	d1	d2	d3	d4	d1	d2	d3	d4
1/2"	14.2	19.1	31.8	47.8	14.2	19.1	31.8	54.1	14.2	19.1	31.8	54.1
3/4"	20.6	25.4	39.6	57.2	20.6	25.4	39.6	66.8	20.6	25.4	39.6	66.8
1"	26.	31.8	47.8	66.8	26.9	31.8	47.8	73.2	26.9	31.8	47.8	73.2
1 1/4"	38.1	47.8	60.5	76.2	38.1	47.8	60.5	82.6	38.1	47.8	60.5	82.6
1 1/2"	44.5	54.1	69.9	85.9	44.5	54.1	69.9	95.3	44.5	54.1	69.9	95.3
2"	55.6	69.9	85.9	104.9	55.6	69.9	85.9	111.3	55.6	69.9	85.9	111.3
2 1/2"	66.5	82.6	98.6	124.0	66.5	82.6	98.6	130.3	66.5	82.6	98.6	130.3
3"	81.0	101.6	120.7	136.7	81.0	101.6	120.7	149.4	81.0	101.6	120.7	149.4
4"	106.4	127.0	149.4	174.8	106.4	127.0	149.4	181.1	102.6	120.7	149.4	177.8
5"	131.8	155.7	177.8	196.9	131.8	155.7	177.8	215.9	128.3	147.6	177.8	212.9
6"	157.2	182.6	209.6	222.3	157.2	182.6	209.6	251.0	154.9	174.8	209.6	247.7
8"	215.9	233.4	263.7	279.4	215.9	233.4	263.7	308.1	205.7	225.6	263.7	304.8
10"	268.2	287.3	317.5	339.9	268.2	287.3	317.5	362.0	255.3	274.6	317.5	358.9
12"	317.5	339.9	374.7	409.7	317.5	339.9	374.7	422.4	307.3	327.2	374.7	419.1
14"	349.3	371.6	406.4	450.9	349.3	371.6	406.4	485.9	342.9	362.0	406.4	482.6
16"	400.1	422.4	463.6	514.4	400.1	422.4	463.6	539.8	389.9	412.8	463.6	536.7
18"	449.3	474.7	527.1	549.4	449.3	474.7	527.1	596.9	438.2	469.9	527.1	593.9
20"	500.1	525.5	577.9	606.6	500.1	525.5	577.9	654.1	489.0	520.7	577.9	647.7
24"	603.3	628.7	685.8	717.6	603.3	628.7	685.8	774.7	590.6	628.7	685.8	768.4

CLASS	600				900				1500				2500			
Bore (inches)	Dimensions (mm)				Dimensions (mm)				Dimensions (mm)				Dimensions (mm)			
	d1	d2	d3	d4	d1	d2	d3	d4	d1	d2	d3	d4	d1	d2	d3	d4
1/2"	14.2	19.1	31.8	54.1	14.2	19.1	31.8	63.5	14.2	19.1	31.8	63.5	14.2	19.1	31.8	69.9
3/4"	20.6	25.4	39.6	66.8	20.6	25.4	39.6	69.9	20.6	25.4	39.6	69.9	20.6	25.4	39.6	76.2
1"	26.9	31.8	47.8	73.2	26.9	31.8	47.8	79.5	26.9	31.8	47.8	79.5	26.9	31.8	47.8	85.9
1 1/4"	38.1	47.8	60.5	82.6	33.3	39.6	60.5	88.9	33.3	39.6	60.5	88.9	33.3	39.6	60.5	104.9
1 1/2"	44.5	54.1	69.9	95.3	41.4	47.8	69.9	98.6	41.4	47.8	69.9	98.6	41.4	47.8	69.9	117.6
2"	55.6	69.9	85.9	111.3	52.3	58.7	85.9	143.0	52.3	58.7	85.9	143.0	52.3	58.7	85.9	146.1
2 1/2"	66.5	82.6	98.6	130.3	63.5	69.9	98.6	165.1	63.5	69.9	98.6	165.1	63.5	69.9	98.6	168.4
3"	81.0	101.6	120.7	149.4	78.7	95.3	120.7	168.4	78.7	92.2	120.7	174.8	78.7	92.2	120.7	196.9
4"	102.6	120.7	149.4	193.8	102.6	120.7	149.4	206.5	97.8	117.6	149.4	209.6	97.8	117.6	149.4	235.0
5"	128.3	147.6	177.8	241.3	128.3	147.6	177.8	247.7	124.5	143.0	177.8	254.0	124.5	143.0	177.8	279.4
6"	154.9	174.8	209.6	266.7	154.9	174.8	209.6	289.1	147.3	171.5	209.6	282.7	147.3	171.5	209.6	317.5
8"	205.7	225.6	263.7	320.8	196.9	222.3	257.3	358.9	196.9	215.9	257.3	352.6	196.9	215.9	257.3	387.4
10"	255.3	274.6	317.5	400.1	246.1	274.6	311.2	435.1	246.1	266.7	311.2	435.1	246.1	270.0	311.2	476.3
12"	307.3	327.2	374.7	457.2	292.1	323.9	368.3	498.6	292.1	323.9	368.3	520.7	292.1	317.5	368.3	549.4
14"	342.9	362.0	406.4	492.3	320.8	355.6	400.1	520.7	320.8	362.0	400.1	577.9				
16"	389.9	412.8	463.6	565.2	374.7	412.8	457.2	574.8	368.3	406.4	457.2	641.4				
18"	438.2	469.9	527.1	612.9	425.5	463.6	520.7	638.3	425.5	463.6	520.7	704.9				
20"	489.0	520.7	577.9	682.8	482.6	520.7	571.5	698.5	476.3	514.4	571.5	755.7				
24"	590.6	628.7	685.8	790.7	590.6	628.7	679.5	838.2	577.9	616.0	679.5	901.7				

Spiral gaskets according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.47 Series A

(formerly API 601 For flanges according to MSS SP-44)



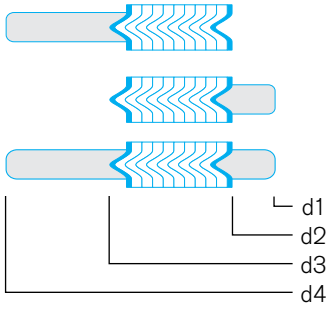
CLASS	150				300				400			
Bore (inches)	Dimensions (mm)				Dimensions (mm)				Dimensions (mm)			
	d1	d2	d3	d4	d1	d2	d3	d4	d1	d2	d3	d4
26”	654.1	673.1	704.9	774.7	654.1	685.8	736.6	835.2	660.4	685.8	736.6	831.9
28”	704.9	723.9	755.7	831.9	704.9	736.6	787.4	898.7	711.2	736.6	787.4	892.3
30”	755.7	774.7	806.5	882.7	755.7	793.8	844.6	952.5	755.7	793.8	844.6	946.2
32”	806.5	825.5	860.6	939.8	806.5	850.9	901.7	1006.6	812.8	850.9	901.7	1003.3
34”	857.3	876.3	911.4	990.6	857.3	901.7	952.5	1057.4	863.6	901.7	952.5	1054.1
36”	908.1	927.1	968.5	1047.8	908.1	955.8	1006.6	1117.6	917.7	955.8	1006.6	1117.6
38”	958.9	977.9	1019.3	1111.3	952.5	977.9	1016.0	1054.1	952.5	971.6	1022.4	1073.2
40”	1009.7	1028.7	1070.1	1162.1	1003.3	1022.4	1070.1	1114.6	1000.3	1025.7	1076.5	1127.3
42”	1060.5	1079.5	1124.0	1219.2	1054.1	1073.2	1120.9	1165.4	1051.1	1076.5	1127.3	1178.1
44”	1111.3	1130.3	1178.1	1276.4	1104.9	1130.3	1181.1	1219.2	1104.9	1130.3	1181.1	1231.9
46”	1162.1	1181.1	1228.9	1327.2	1152.7	1178.1	1228.9	1273.3	1168.4	1193.8	1244.6	1289.1
48”	1212.9	1231.9	1279.7	1384.3	1209.8	1235.2	1286.0	1324.1	1206.5	1244.6	1295.4	1346.2
50”	1263.7	1282.7	1333.5	1435.1	1244.6	1295.4	1346.2	1378.0	1257.3	1295.4	1346.2	1403.4
52”	1314.5	1333.5	1384.3	1492.3	1320.8	1346.2	1397.0	1428.8	1308.1	1346.2	1397.0	1454.2
54”	1358.9	1384.3	1435.1	1549.4	1352.6	1403.4	1454.2	1492.3	1352.6	1403.4	1454.2	1517.7
56”	1409.7	1435.1	1485.9	1606.6	1403.4	1454.2	1505.0	1543.1	1403.4	1454.2	1505.0	1568.5
58”	1460.5	1485.9	1536.7	1663.7	1447.8	1511.3	1562.1	1593.9	1454.2	1505.0	1555.8	1619.3
60”	1511.3	1536.7	1587.5	1714.5	1524.0	1562.1	1612.9	1644.7	1517.7	1568.5	1619.3	1682.8

CLASS	600				900			
Bore	Dimensions (mm)				Dimensions (mm)			
(inches)	d1	d2	d3	d4	d1	d2	d3	d4
26”	647.7	685.8	736.6	866.9	660.4	685.8	736.6	882.7
28”	698.5	736.6	787.4	914.4	711.2	736.6	787.4	946.2
30”	755.7	793.8	844.6	971.6	768.4	793.8	844.6	1009.7
32”	812.8	850.9	901.7	1022.4	812.8	850.9	901.7	1073.2
34”	863.6	901.7	952.5	1073.2	863.6	901.7	952.5	1136.7
36”	917.7	955.8	1006.6	1130.3	920.8	958.9	1009.7	1200.2
38”	952.5	990.6	1041.4	1104.9	1009.7	1035.1	1085.9	1200.2
40”	1009.7	1047.8	1098.6	1155.7	1060.5	1098.6	1149.4	1251.0
42”	1066.8	1104.9	1155.7	1219.2	1111.3	1149.4	1200.2	1301.8
44”	1111.3	1162.1	1212.9	1270.0	1155.7	1206.5	1257.3	1368.6
46”	1162.1	1212.9	1263.7	1327.2	1219.2	1270.0	1320.8	1435.1
48”	1219.2	1270.0	1320.8	1390.7	1270.0	1320.8	1371.6	1485.9
50”	1270.0	1320.8	1371.6	1447.8				
52”	1320.8	1371.6	1422.4	1498.6				
54”	1378.0	1428.8	1479.6	1555.8				
56”	1428.8	1479.6	1530.4	1612.9				
58”	1473.2	1536.7	1587.5	1663.7				
60”	1530.4	1593.9	1644.7	1733.6				

Spiral gaskets according to ASME B16.20 (2012)

in accordance with ASME/ANSI B16.47 Series B

(formerly API 601 For flanges according to API 605)

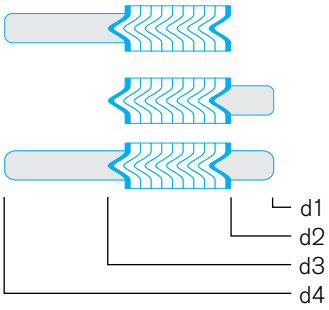


CLASS	150				300				400			
Bore (inches)	Dimensions (mm)				Dimensions (mm)				Dimensions (mm)			
	d1	d2	d3	d4	d1	d2	d3	d4	d1	d2	d3	d4
26”	654.1	673.1	698.5	725.4	654.1	673.1	711.2	771.7	654.1	666.8	698.5	746.3
28”	704.9	723.9	749.3	776.2	704.9	723.9	762.0	825.5	701.8	714.5	749.3	800.1
30”	755.7	774.7	800.1	827.0	755.7	774.7	812.8	886.0	752.6	765.3	806.5	857.3
32”	806.5	825.5	850.9	881.1	806.5	825.5	863.6	939.8	800.1	812.8	860.6	911.4
34”	857.3	876.3	908.1	935.0	857.3	876.3	914.4	993.9	850.9	866.9	911.4	962.2
36”	908.1	927.1	958.9	987.6	908.1	927.1	965.2	1047.8	898.7	917.7	965.2	1022.4
38”	958.9	974.6	1009.7	1044.7	971.6	1009.7	1047.8	1098.6	952.5	971.6	1022.4	1073.2
40”	1009.7	1022.4	1063.8	1095.5	1022.4	1060.5	1098.6	1149.4	1000.3	1025.7	1076.5	1127.3
42”	1060.5	1079.5	1114.6	1146.3	1085.9	1111.3	1149.4	1200.2	1051.1	1076.5	1127.3	1178.1
44”	1111.3	1124.0	1165.4	1197.1	1124.0	1162.1	1200.2	1251.0	1104.9	1130.3	1181.1	1231.9
46”	1162.1	1181.1	1224.0	1255.8	1178.1	1216.2	1254.3	1317.8	1168.4	1193.8	1244.6	1289.1
48”	1212.9	1231.9	1270.0	1306.6	1231.9	1263.7	1311.4	1368.6	1206.5	1244.6	1295.4	1346.2
50”	1263.7	1282.7	1325.6	1357.4	1267.0	1317.8	1355.9	1419.4	1257.3	1295.4	1346.2	1403.4
52”	1314.5	1333.5	1376.4	1408.2	1317.8	1368.6	1406.7	1470.2	1308.1	1346.2	1397.0	1454.2
54”	1365.3	1384.3	1422.4	1463.8	1365.3	1403.4	1454.2	1530.4	1352.6	1403.4	1454.2	1517.7
56”	1422.4	1444.8	1478.0	1514.6	1428.8	1479.6	1524.0	1593.9	1403.4	1454.2	1505.0	1568.5
58”	1478.0	1500.1	1528.8	1579.6	1484.4	1535.2	1573.3	1655.8	1454.2	1505.0	1555.8	1619.3
60”	1535.2	1557.3	1586.0	1630.4	1557.3	1589.0	1630.4	1706.6	1517.7	1568.5	1619.3	1682.8

CLASS	600				900			
Bore (inches)	Dimensions (mm)				Dimensions (mm)			
	d1	d2	d3	d4	d1	d2	d3	d4
26”	644.7	663.7	714.5	765.3	666.8	692.2	749.3	838.2
28”	685.8	704.9	755.7	819.2	717.6	743.0	800.1	901.7
30”	752.6	778.0	828.8	879.6	781.1	806.5	857.3	958.9
32”	793.8	831.9	882.7	933.5	838.2	863.6	914.4	1016.0
34”	850.9	889.0	939.8	997.0	895.4	920.8	971.6	1073.2
36”	901.7	939.8	990.6	1047.8	920.8	946.2	997.0	1124.0
38”	952.5	990.6	1041.4	1104.9	1009.7	1035.1	1085.9	1200.2
40”	1009.7	1047.8	1098.6	1155.7	1060.5	1098.6	1149.4	1251.0
42”	1066.8	1104.9	1155.7	1219.2	1111.3	1149.4	1200.2	1301.8
44”	1111.3	1162.1	1212.9	1270.0	1155.7	1206.5	1257.3	1368.6
46”	1162.1	1212.9	1263.7	1327.2	1219.2	1270.0	1320.8	1435.1
48”	1219.2	1270.0	1320.8	1390.7	1270.0	1320.8	1371.6	1485.9
50”	1270.0	1320.8	1371.6	1447.8				
52”	1320.8	1371.6	1422.4	1498.6				
54”	1378.0	1428.8	1479.6	1555.8				
56”	1428.8	1479.6	1530.4	1612.9				
58”	1473.2	1536.7	1587.5	1663.7				
60”	1530.4	1593.9	1644.7	1733.6				

Spiral gaskets according to EN 1514-2 (2014)

For flanges according to EN 1092-1-2-3-4

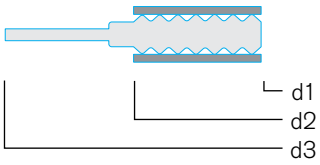


	Inner ring Inner diameter (mm)	Sealing element Inner diameter (mm)	Sealing element Outer diameter (mm)		Locating ring Outer diameter (mm)						
Bore	d1	d2	d3		d4						
DN			PN 10-40	PN 63-160	PN10	PN16	PN25	PN40	PN63	PN100	PN160
10	18	24	34	34	46	46	46	46	56	56	56
15	23	29	39	39	51	51	51	51	61	61	61
20	28	34	46	47	61	61	61	61	-	-	-
25	35	41	53	53	71	71	71	71	82	82	82
32	43	49	61	65	82	82	82	82	-	-	-
40	50	56	68	68	92	92	92	92	103	103	103
50	61	70	86	86	107	107	107	107	113	119	119
65	77	86	102	106	127	127	127	127	137	143	143
80	90	99	115	119	142	142	142	142	148	154	154
100	115	127	143	147	162	162	168	168	174	180	180
125	140	152	172	176	192	192	194	194	210	217	217
150	167	179	199	203	218	218	224	224	247	257	257
200	216	228	248	252	273	273	284	290	309	324	324
250	267	279	303	307	327	329	340	352	364	391	388
300	318	330	354	358	377	384	400	417	424	458	458
350	360	376	400	404	437	444	457	474	486	512	
400	410	422	450	456	488	495	514	546	543	572	
500	510	522	550	556	593	617	624	628	657	704	
600	610	622	650	656	695	734	731	747	764	813	
700	710	722	756	762	810	804	833	852	879	950	
800	810	830	864	870	917	911	942	974	988		
900	910	930	964	970	1017	1011	1042	1084	1108		
1000	1010	1030	1074	1080	1124	1128	1154	1194			

*Despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided

Kammprofile gaskets according to EN 1514-6 (2003)

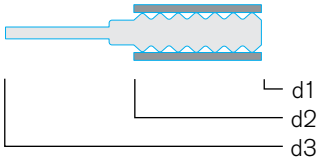
For flanges according to EN 1092-1-2-3-4



	Inner ring Inner diameter (mm)	Sealing element Inner diameter (mm)			Locating ring Outer diameter (mm)									
	d1	d2			d3									
Bore		PN10-40	PN63-160	PN250-400	PN10	PN16	PN25	PN40	PN64	PN100	PN160	PN250	PN320	PN400
10	22	36	36	36	46	46	46	46	56	56	56	67	67	67
15	26	42	42	42	51	51	51	51	61	61	61	72	72	
20	31	47	47	47	61	61	61	61						
25	36	52	52	52	71	71	71	71	82	82	82	83	92	104
32	46	62	62	66	82	82	82	82						
40	53	69	69	73	92	92	92	92	103	103	103	109	119	135
50	65	81	81	87	107	107	107	107	113	119	119	124	134	150
65	81	100	100	103	127	127	127	127	137	143	143	153	170	192
80	95	115	115	121	142	142	142	142	148	154	154	170	190	207
100	118	138	138	146	162	162	168	168	174	180	180	202	229	256
125	142	162	162	178	192	192	194	194	210	217	217	242	274	301
150	170	190	190	212	217	217	224	224	247	257	257	284	311	348
175	195	215	215	245	247	247	254	265	277	287	284	316	358	402
200	220	240	248	280	272	272	284	290	309	324	324	358	398	442
250	270	290	300	340	327	328	340	352	364	391	388	442	488	
300	320	340	356	400	377	383	400	417	424	458	458	536		
350	375	395	415		437	443	457	474	486	512				
400	426	450	474		489	495	514	546	543	572				
450	480	506			539	555		571						
500	530	560	588		594	617	624	628	657	704				
600	630	664	700		695	734	731	747	764	813				
700	730	770	812		810	804	833	852	879	950				
800	830	876	886		917	911	942	974	988					
900	930	982	994		1017	1011	1042	1084	1108					
1000	1040	1098	1110		1124	1128	1154	1194	1220					
1200	1250	1320	1334		1341	1342	1364	1398	1452					
1400	1440	1522			1548	1542	1578	1618						
1600	1650	1742			1772	1764	1798	1830						
1800	1850	1914			1972	1964	2000							
2000	2050	2120			2182	2168	2230							
2200	2250	2328			2384	2378								
2400	2460	2512			2594									
2600	2670	2728			2794									
2800	2890	2952			3014									
3000	3100	3166			3228									

Kammprofile gaskets according to EN 12560-6 (2003)

For flanges according to EN 1759-1

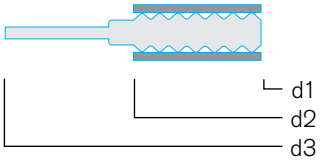


	Inner ring Inner diameter (mm)	sealing element Inner diameter (mm)	Locating ring Outer diameter (mm)						
	d1	d2	d3						
Bore			Class 150	Class 300	Class 400	Class 600	Class 900	Class 1500	Class 2500
1/2”	23.0	33.3	44.4	50.8	50.8	50.8	60.3	60.3	66.7
3/4”	28.6	39.7	53.9	63.5	63.5	63.5	66.7	66.7	73.0
1”	36.5	47.6	63.5	69.8	69.8	69.8	76.2	76.2	82.5
1 1/4”	44.4	60.3	73.0	79.4	79.4	79.4	85.7	85.7	101.6
1 1/2”	52.4	69.8	82.5	92.1	92.1	92.1	95.2	95.2	114.3
2”	69.8	88.9	101.6	108.0	108.0	108.0	139.7	139.7	142.8
2 1/2”	82.5	101.6	120.6	127.0	127.0	127.0	161.9	161.9	165.1
3”	98.4	123.8	133.4	146.1	146.1	146.1	165.1	171.5	193.7
3 1/2”	111.1	136.5	158.8	161.9	158.7	158.7			
4”	123.8	154.0	171.5	177.8	174.6	190.5	203.2	206.4	231.7
5”	150.8	182.6	193.7	212.7	209.5	238.1	244.5	250.8	276.2
6”	177.8	212.7	219.1	247.7	244.5	263.5	285.8	279.4	314.3
8”	228.6	266.7	276.2	304.8	301.6	317.5	355.6	349.3	384.1
10”	282.6	320.7	336.5	358.8	355.6	396.9	431.8	431.8	473.0
12”	339.7	377.8	406.4	419.1	415.9	454.0	495.3	517.5	546.1
14”	371.5	409.6	447.7	482.6	479.4	488.9	517.5	574.7	
16”	422.3	466.7	511.2	536.6	533.4	561.9	571.5	638.1	
18”	479.4	530.2	546.1	593.7	590.5	609.6	635.0	701.7	
20”	530.2	581.0	603.2	650.9	644.5	679.5	695.3	752.4	
22”	581.0	631.8	657.2	701.7	698.5	730.3			
24”	631.8	682.6	714.4	771.5	765.2	787.4	835.0	898.5	

*Despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided

Kammprofile gaskets according to ASME B16.20 (2012)

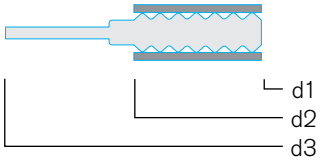
For flanges according to ASME/ANSI B16.5



	Inner ring inner diameter (mm)	Sealing element inner diameter (mm)	Locating ring outer diameter (mm)						
	d1	d2	d3						
Bore	150 - 2500	150 - 2500	Class 150	Class 300	Class 400	Class 600	Class 900	Class 1500	Class 2500
1/2"	23.1	33.3	47.8	54.1	54.1	54.1	63.5	63.5	69.9
3/4"	28.7	39.6	57.2	66.8	66.8	66.8	69.9	69.9	76.2
1"	36.6	47.5	66.8	73.2	73.2	73.2	79.5	79.5	85.9
1 1/4"	44.5	60.2	76.2	82.6	82.6	82.6	88.9	88.9	104.9
1 1/2"	52.3	69.9	85.9	95.3	95.3	95.3	98.6	98.6	117.6
2"	69.9	88.9	104.9	111.3	111.3	111.3	143.0	143.0	146.1
2 1/2"	82.6	101.6	124.0	130.3	130.3	130.3	165.1	165.1	168.4
3"	98.3	123.7	136.7	149.4	149.4	149.4	168.4	174.8	196.9
4"	123.7	153.9	174.8	181.1	177.8	193.8	206.5	209.6	235.0
5"	150.9	182.6	196.9	215.9	212.9	241.3	247.7	254.0	279.4
6"	177.8	212.6	222.3	251.0	247.7	266.7	289.1	282.7	317.5
8"	228.6	266.7	279.4	308.1	304.8	320.8	358.9	352.6	387.4
10"	282.7	320.8	339.9	362.0	358.9	400.1	435.1	435.1	476.3
12"	339.6	377.7	409.7	422.4	419.1	457.2	498.6	520.7	549.4
14"	371.6	409.7	450.9	485.9	482.6	492.3	520.7	577.9	
16"	422.4	466.6	514.4	539.8	536.7	565.2	574.8	641.4	
18"	479.3	530.1	549.4	596.9	593.9	612.9	638.3	704.9	
20"	530.1	580.9	606.6	654.1	647.7	682.8	698.5	755.7	
24"	631.7	682.5	717.6	774.7	768.4	790.7	838.2	901.7	

Kammprofile gaskets according to ASME B16.20 (2012)

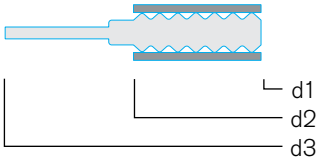
For flanges according to ASME/ANSI B16.47 Series A



	Inner ring Inner diameter (mm)					Sealing element inner diameter (mm)					Locating ring Outer diameter (mm)				
	d1					d2					d3				
Bore	Class 150	Class 300	Class 400	Class 600	Class 900	Class 150	Class 300	Class 400	Class 600	Class 900	Class 150	Class 300	Class 400	Class 600	Class 900
26	673.1	685.8	685.8	685.8	685.8	704.9	736.6	736.6	736.6	736.6	774.7	835.2	831.9	866.9	882.7
28	723.9	736.6	736.6	736.6	736.6	755.7	787.4	787.4	787.4	787.4	831.9	898.7	892.3	914.4	946.2
30	774.7	793.8	793.8	793.8	793.8	806.5	844.6	844.6	844.6	844.6	882.7	952.5	946.2	971.6	1009.7
32	825.5	850.9	850.9	850.9	850.9	860.6	901.7	901.7	901.7	901.7	939.8	1006.6	1003.3	1022.4	1073.2
34	876.3	901.7	901.7	901.7	901.7	911.4	952.5	952.5	952.5	952.5	990.6	1057.4	1054.1	1073.2	1136.7
36	927.1	955.8	955.8	955.8	958.9	968.5	1006.6	1006.6	1006.6	1009.7	1047.8	1117.6	1117.6	1130.3	1200.2
38	977.9	977.9	971.6	990.6	1035.1	1019.3	1016.0	1022.4	1041.4	1085.9	1111.3	1054.1	1073.2	1104.9	1200.2
40	1028.7	1022.4	1025.7	1047.8	1098.6	1070.1	1070.1	1076.5	1098.6	1149.4	1162.1	1114.6	1127.3	1155.7	1251.0
42	1079.5	1073.2	1076.5	1104.9	1149.4	1124.0	1120.9	1127.3	1155.7	1200.2	1219.2	1165.4	1178.1	1219.2	1301.8
44	1130.3	1130.3	1130.3	1162.1	1206.5	1178.1	1181.1	1181.1	1212.9	1257.3	1276.4	1219.2	1231.9	1270.0	1368.6
46	1181.1	1178.1	1193.8	1212.9	1270.0	1228.9	1228.9	1244.6	1263.7	1320.8	1327.2	1273.3	1289.1	1327.2	1435.1
48	1231.9	1235.2	1244.6	1270.0	1320.8	1279.7	1286.0	1295.4	1320.8	1371.6	1384.3	1324.1	1346.2	1390.7	1485.9
50	1282.7	1295.4	1295.4	1320.8		1333.5	1346.2	1346.2	1371.6		1435.1	1378.0	1403.4	1447.8	
52	1333.5	1346.2	1346.2	1371.6		1384.3	1397.0	1397.0	1422.4		1492.3	1428.8	1454.2	1498.6	
54	1384.3	1403.4	1403.4	1428.8		1435.1	1454.2	1454.2	1479.6		1549.4	1492.3	1517.7	1555.8	
56	1435.1	1454.2	1454.2	1479.6		1485.9	1505.0	1505.0	1530.4		1606.6	1543.1	1568.5	1612.9	
58	1485.9	1511.3	1505.0	1536.7		1536.7	1562.1	1555.8	1587.5		1663.7	1593.9	1619.3	1663.7	
60	1536.7	1562.1	1568.5	1593.9		1587.5	1612.9	1619.3	1644.7		1714.5	1644.7	1682.8	1733.6	

Kammprofile gaskets according to ASME B16.20 (2012)

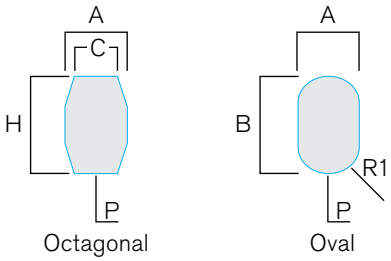
For flanges according to ASME/ANSI B16.47 Series B



	Inner ring Inner diameter (mm)					Sealing element Inner diameter (mm)					Locating ring Outer diameter (mm)				
	d1					d2					d3				
Bore	Class 150	Class 300	Class 400	Class 600	Class 900	Class 150	Class 300	Class 400	Class 600	Class 900	Class 150	Class 300	Class 400	Class 600	Class 900
26	673.1	673.1	666.8	663.7	692.2	698.5	711.2	698.5	714.5	749.3	725.4	771.7	746.3	765.3	838.2
28	723.9	723.9	714.5	704.9	743.0	749.3	762.0	749.3	755.7	800.1	776.2	825.5	800.1	819.2	901.7
30	774.7	774.7	765.3	778.0	806.5	800.1	812.8	806.5	828.8	857.3	827.0	886.0	857.3	879.6	958.9
32	825.5	825.5	812.8	831.9	863.6	850.9	863.6	860.6	882.7	914.4	881.1	939.8	911.4	933.5	1016.0
34	876.3	876.3	866.9	889.0	920.8	908.1	914.4	911.4	939.8	971.6	935.0	993.9	962.2	997.0	1073.2
36	927.1	927.1	917.7	939.8	946.2	958.9	965.2	965.2	990.6	997.0	987.6	1047.8	1022.4	1047.8	1124.0
38	974.9	1009.7	971.6	990.6	1035.1	1009.7	1047.8	1022.4	1041.4	1085.9	1044.7	1098.6	1073.2	1104.9	1200.2
40	1022.4	1060.5	1025.7	1047.8	1098.6	1063.8	1098.6	1076.5	1098.6	1149.4	1095.5	1149.4	1127.3	1155.7	1251.0
42	1079.5	1111.3	1076.5	1104.9	1149.4	1114.6	1149.4	1127.3	1155.7	1200.2	1146.3	1200.2	1178.1	1219.2	1301.8
44	1124.0	1162.1	1130.3	1162.1	1206.5	1165.4	1200.2	1181.1	1212.9	1257.3	1197.1	1251.0	1231.9	1270.0	1368.6
46	1181.1	1216.2	1193.8	1212.9	1270.0	1224.0	1254.3	1244.6	1263.7	1320.8	1255.8	1317.8	1289.1	1327.2	1435.1
48	1231.9	1263.7	1244.6	1270.0	1320.8	1270.0	1311.4	1295.4	1320.8	1371.6	1306.6	1368.6	1346.2	1390.7	1485.9
50	1282.7	1317.8	1295.4	1320.8		1325.6	1355.9	1346.2	1371.6		1357.4	1419.4	1403.4	1447.8	
52	1333.5	1368.6	1346.2	1371.6		1376.4	1406.7	1397.0	1422.4		1408.2	1470.2	1454.2	1498.6	
54	1384.3	1403.4	1403.4	1428.8		1422.4	1454.2	1454.2	1479.6		1463.8	1530.4	1517.7	1555.8	
56	1444.8	1479.6	1454.2	1479.6		1478.0	1524.0	1505.0	1530.4		1514.6	1593.9	1568.5	1612.9	
58	1500.6	1535.2	1505.0	1536.7		1528.8	1573.3	1555.8	1587.5		1579.6	1655.8	1619.3	1663.7	
60	1557.3	1589.0	1568.5	1593.9		1586.0	1630.4	1619.3	1644.7		1630.4	1706.6	1682.8	1733.6	

Ring Type Joints according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.5



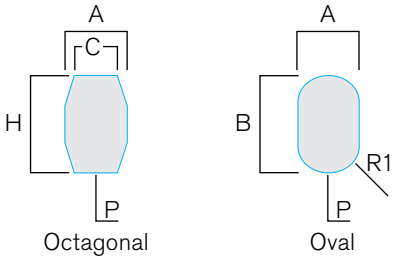
Ring-No.	NPS (inches)	Class	P (mm)	A (mm)	B (mm)	H (mm)	C (mm)	R1 (mm)
R11	1/2	300, 600	34.14	6.35	11.2	9.7	4.32	1.5
R12	1/2	900, 1500	39.70	7.95	14.2	12.7	5.23	1.5
R13	1/2	2500	42.88	7.95	14.2	12.7	5.23	1.5
	3/4	300, 600						
R14	3/4	900, 1500	44.45	7.95	14.2	12.7	5.23	1.5
R15	1	150	47.63	7.95	14.2	12.7	5.23	1.5
R16	3/4	2500	50.80	7.95	14.2	12.7	5.23	1.5
	1	300, 1500						
	1	2000, 3000, 5000						
R17	1 1/4	150	57.15	7.95	14.2	12.7	5.23	1.5
R18	1	2500	60.33	7.95	14.2	12.7	5.23	1.5
	1 1/4	300, 1500						
	1 1/4	2000, 3000, 5000						
R19	1 1/2	150	65.10	7.95	14.2	12.7	5.23	1.5
R20	1 1/2	300, 1500	68.28	7.95	14.2	12.7	5.23	1.5
	1 1/2	2000, 3000, 5000						
R21	1 1/4	2500	72.24	11.13	17.5	16.0	7.75	1.5
R22	2	150	82.55	7.95	14.2	12.7	5.23	1.5
R23	1 1/2	2500	82.55	11.13	17.5	16.0	7.75	1.5
	2	300, 600						
	2	2000						
R24	2	900, 1500	95.25	11.13	17.5	16.0	7.75	1.5
	2	3000, 5000						
R25	2 1/2	150	101.60	7.95	14.2	12.7	5.23	1.5
R26	2	2500	101.60	11.13	17.5	16.0	7.75	1.5
	2 1/2	300, 600						
	2 1/2	2000						
R27	2 1/2	900, 1500	107.95	11.13	17.5	16.0	7.75	1.5
	2 1/2	3000, 5000						
R28	2 1/2	2500	111.13	12.70	19.1	17.5	8.66	1.5
R29	3	150	114.30	7.95	14.2	12.7	5.23	1.5
R30**	3	300, 600	117.48	11.13	17.5	16.0	7.75	1.5
R31	3	300, 900	123.83	11.13	17.5	16.0	7.75	1.5
	3	2000, 3000						
R32	3	2500	127.00	12.70	19.1	17.5	8.66	1.5
R33	3 1/2	150	131.78	7.95	14.2	12.7	5.23	1.5
R34	3 1/2	300, 600	131.78	11.13	17.5	16.0	7.75	1.5
R35	3	1500	136.53	11.13	17.5	16.0	7.75	1.5
	3	5000						
R36	4	150	149.23	7.95	14.2	12.7	5.23	1.5
R37	3 1/2	5000	149.23	11.13	17.5	16.0	7.75	1.5
	4	300, 900						
	4	2000, 3000						
R38	4	2500	157.18	15.88	22.4	20.6	10.49	1.5
R39	4	1500, 5000	161.93	11.13	17.5	16.0	7.75	1.5
R40	5	150	171.45	7.95	14.2	12.7	5.23	1.5
R41	5	300, 900	180.98	11.13	17.5	16.0	7.75	1.5
	5	2000, 3000						
R42	5	2500	190-50	19.05	25.4	23.9	12.32	1.5
R43	6	150	193.68	7.95	14.2	12.7	5.23	1.5
R44	5	1500, 5000	193.68	11.13	17.5	16.0	7.75	1.5
R45	6	300, 900	211.15	11.13	17.5	16.0	7.75	1.5
	6	2000, 3000						
R46	6	1500, 5000	211.15	12.70	19.1	17.5	8.66	1.5
R47	6	2500	228.60	19.05	25.4	23.9	12.32	1.5
R48	8	150	247.65	7.95	14.2	12.7	5.23	1.5
R49	8	300, 900	269.88	11.13	17.5	16.0	7.75	1.5
	8	2000, 3000						
R50	8	1500, 5000	269.88	15.88	22.4	20.6	10.49	1.5
R51	8	2500	279.40	22.23	28.7	26.9	14.81	1.5
R52	10	150	304.80	7.95	14.2	12.7	5.23	1.5

Cont...

** R30 only for specialised flange

Ring Type Joints according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.5



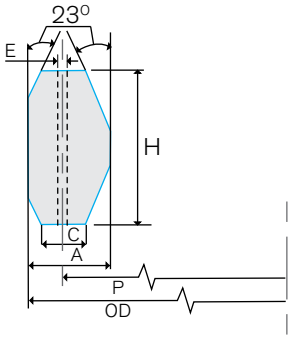
Ring-No.	NPS (inches)	Class	P (mm)	A (mm)	B (mm)	H (mm)	C (mm)	R1 (mm)
R53	10	300, 900	323.85	11.13	17.5	16.0	7.75	1.5
	10	2000, 3000						
R54	10	1500, 5000	323.85	15.88	22.4	20.6	10.49	1.5
R55	10	2500	342.90	28.58	36.6	35.1	19.81	2.3
R56	12	150	381.00	7.95	14.2	12.7	5.23	1.5
R57	12	300, 900	381.00	11.13	17.5	16.0	7.75	1.5
	12	2000, 3000						
R58	12	1500	381.00	22.23	28.7	26.9	14.81	1.5
R59	14	150	396.88	7.95	14.2	12.7	5.23	1.5
R60	12	2500	406.40	31.75	39.6	38.1	22.33	2.3
R61	14	300, 600	419.10	11.13	17.5	16.0	7.75	1.5
	14	2000, 3000						
R62	14	900	419.10	15.88	22.4	20.6	10.49	1.5
R63	14	1500	419.10	25.40	33.3	31.8	17.30	2.3
R64	16	150	454.03	7.95	14.2	12.7	5.23	1.5
R65	16	300, 600, 2000	469.90	11.13	17.5	16.0	7.75	1.5
R66	16	900, 3000	469.90	15.88	22.4	20.6	10.49	1.5
R67	16	1500	469.90	28.58	36.6	35.1	19.81	2.3
R68	18	150	517.53	7.95	14.2	12.7	5.23	1.5
R69	18	300, 600, 2000	533.40	11.13	17.5	16.0	7.75	1.5
R70	18	900, 3000	533.40	19.05	25.4	23.9	12.32	1.5
R71	18	1500	533.40	28.58	36.6	35.1	19.81	2.3
R72	20	150	558.80	7.95	14.2	12.7	5.23	1.5
R73	20	300, 600, 2000	584.20	12.70	19.1	17.5	8.66	1.5
R74	20	900, 3000	584.20	19.05	25.4	23.9	12.32	1.5
R75	20	1500	584.20	31.75	39.6	38.1	22.33	2.3
R76	24	150	673.10	7.95	14.2	12.7	5.23	1.5
R77	24	300, 600	692.15	15.88	22.4	20.6	10.49	1.5
R78	24	900	692.15	25.40	33.3	31.8	17.30	2.3
R79	24	1500	692.15	34.93	44.5	41.4	24.82	2.3
R80			615.95	7.95	...	12.7	5.23	1.5
R81			635.00	14.30	...	19.1	9.58	1.5
R82**	1	10000	57.15	11.13	...	16.0	7.75	1.5
R84**	1 1/2	10000	63.50	11.13	...	16.0	7.75	1.5
R85**	2	10000	79.38	12.70	...	17.5	8.66	1.5
R86**	2 1/2	10000	90.50	15.88	...	20.6	10.49	1.5
R87**	3	10000	100.03	15.88	...	20.6	10.49	1.5
R88**	4	10000	123.83	19.05	...	23.9	12.32	1.5
R89**	3 1/2	10000	114.30	19.05	...	23.9	12.32	1.5
R90**	5	10000	155.58	22.23	...	26.9	14.81	1.5
R91**	10	10000	260.35	31.75	...	38.1	22.33	2.3
R92			228.60	11.13	17.5	16.0	7.75	1.5
R93	26	300, 600	749.30	19.05	...	23.9	12.32	1.5
R94	28	300, 600	800.10	19.05	...	23.9	12.32	1.5
R95	30	300, 600	857.25	19.05	...	23.9	12.32	1.5
R96	32	300, 600	914.40	22.23	...	26.9	14.81	1.5
R97	34	300, 600	965.20	22.23	...	26.9	14.81	1.5
R98	36	300, 600	1022.35	22.23	...	26.9	14.81	1.5
R99	8	2000, 3000	234.95	11.13	...	16.0	7.75	1.5
R100	26	900	749.30	28.58	...	35.1	19.81	2.3
R101	28	900	800.10	31.75	...	38.1	22.33	2.3
R102	30	900	857.25	31.75	...	38.1	22.33	2.3
R103	32	900	914.40	31.75	...	38.1	22.33	2.3
R104	34	900	965.20	34.93	...	41.4	24.82	2.3
R105	36	900	1022.35	34.93	...	41.4	24.82	2.3

** Obsolete – for information only

*Despite careful content control we assume no liability or guarantee for the topicality, correctness and completeness of the information provided

Ring Type Joints according to ASME B16.20 (2012)

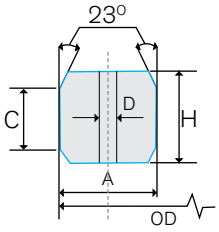
For flanges according to ASME/ANSI B16.47 Series A



Ring-No.	NPS (inches)	Class	P (mm)	OD (mm)	A (mm)	C (mm)	Outside bevel height (mm)	H (mm)	E (mm)	Separation of flanges when assembled (mm)
RX20	1 1/2	2000, 3000, 5000	68.26	76.20	8.74	4.62	3.18	19.05	-	9.70
RX23	2	2000	82.55	93.27	11.91	6.45	4.24	25.40	-	11.50
RX24	2	3000, 5000	95.25	105.97	11.91	6.45	4.24	25.40	-	11.50
RX25	3 1/8	5000	101.60	109.55	8.74	4.62	3.18	19.05	-	-
RX26	2 1/2	2000	101.60	111.91	11.91	6.45	4.24	25.40	-	11.90
RX27	2 1/2	3000, 5000	107.95	118.26	11.91	6.45	4.24	25.40	-	11.90
RX31	3	2000, 3000	123.83	134.54	11.91	6.45	4.24	25.40	-	11.90
RX35	3	5000	136.53	147.24	11.91	6.45	4.24	25.40	-	11.90
RX37	4	2000, 3000	149.23	159.94	11.91	6.45	4.24	25.40	-	11.90
RX39	4	5000	161.93	172.64	11.91	6.45	4.24	25.40	-	11.90
RX41	5	2000, 3000	180.98	191.69	11.91	6.45	4.24	25.40	-	11.90
RX44	5	5000	193.68	204.39	11.91	6.45	4.24	25.40	-	11.90
RX45	6	2000, 3000	211.15	221.84	11.91	6.45	4.24	25.40	-	11.90
RX46	6	5000	211.15	222.25	13.49	6.68	4.78	28.58	-	11.90
RX47	8	5000	228.60	245.26	19.84	10.34	6.88	41.28	-	18.30
RX49	8	2000, 3000	269.88	280.59	11.91	6.45	4.24	25.40	-	11.90
RX50	8	5000	269.88	283.36	16.66	8.51	5.28	31.75	-	11.90
RX53	10	2000, 3000	323.85	334.57	11.91	6.45	4.24	25.40	-	11.90
RX54	10	5000	323.85	337.34	16.66	8.51	5.28	31.75	-	11.93
RX57	12	2000, 3000	381.00	391.72	11.91	6.45	4.24	25.40	-	11.90
RX63	14	5000	419.10	441.73	27.00	14.78	8.46	50.80	-	21.30
RX65	16	2000	469.90	480.62	11.91	6.45	4.24	25.40	-	11.90
RX66	16	3000	469.90	483.39	16.66	8.51	5.28	31.75	-	11.90
RX69	18	2000	533.40	544.12	11.91	6.45	4.24	25.40	-	11.90
RX70	18	3000	533.40	550.06	19.84	10.34	6.88	41.28	-	18.30
RX73	20	2000	584.20	596.11	13.49	6.68	5.28	31.75	-	15.00
RX74	20	3000	584.20	600.86	19.84	10.34	6.88	41.28	-	18.30
RX82			57.15	67.87	11.91	6.45	4.24	25.40	1.5	11.90
RX84			63.50	74.22	11.91	6.45	4.24	25.40	1.5	11.90
RX85			79.38	90.09	13.49	6.68	4.24	25.40	1.5	9.70
RX86			90.50	103.58	15.09	8.51	4.78	28.58	2.3(2.4)	9.70
RX87			100.03	113.11	15.09	8.51	4.78	28.58	2.3(2.4)	9.70
RX88			123.83	139.29	17.48	10.34	5.28	31.75	3.0	9.70
RX89			114.30	129.77	18.26	10.34	5.28	31.75	3.0	9.70
RX90			155.58	74.63	19.84	12.17	7.42	44.45	3.0	18.30
RX91			260.35	286.94	30.18	19.81	7.54	45.24	3.0	19.10
RX99			234.95	245.67	11.91	6.45	4.24	25.40	-	11.90
RX201	1 3/8	5000	46.05	51.46	5.74	3.20	1.45 (3)	11.30	-	-
RX205	1 13/16	5000	57.15	62.31	5.56	3.05	1.83 (3)	11.10	-	-
RX210	2 9/16	5000	88.90	97.64	9.53	5.41	3.18 (3)	19.05	-	-
RX215	4 1/16	5000	130.18	140.89	11.91	5.33	4.24 (3)	25.40	-	-

Ring-type-joints according to ASME B16.20 (2012)

For flanges according to ASME/ANSI B16.47 Series A



Ring-Nr.	Nominal 10000 Size	2000	3000	5000	10000	15000	20000	OUTSIDE DIAMETER OD	HEIGHT OF RING H	WIDTH OF RING A	OUTSIDE DIAMETER OF FLAT ODT	WIDTH OF FLAT C	HOLE SIZE (note 1 & 2) D
BX 150	43	-	-	-	1 11/16	1 11/16	-	72.19	9.30	9.30	70.87	7.98	1.5 (1.6)
BX 151	46	-	-	-	1 13/16	1 13/16	1 13/16	76.40	9.63	9.63	75.03	8.26	1.5 (1.6)
BX 152	52	-	-	-	2 1/16	2 1/16	2 1/16	84.68	10.24	10.24	83.24	8.79	1.5 (1.6)
BX 153	65	-	-	-	2 9/16	2 9/16	2 9/16	100.94	11.38	11.38	99.31	9.78	1.5 (1.6)
BX 154	78	-	-	-	3 1/16	3 1/16	3 1/16	116.84	12.40	12.40	115.09	10.64	1.5 (1.6)
BX 155	103	-	-	-	4 1/16	4 1/16	4 1/16	147.96	14.22	14.22	145.95	12.22	1.5 (1.6)
BX 156	179	-	-	-	7 1/16	7 1/16	7 1/16	237.92	18.62	18.62	235.28	15.98	3.0 (3.2)
BX 157	228 (229)	-	-	-	9	9	9	294.46	20.98	20.98	291.49	18.01	3.0 (3.2)
BX 158	279	-	-	-	11	11	11	352.04	23.14	23.14	348.77	19.86	3.0 (3.2)
BX 159	346	-	-	-	13 5/8	13 5/8	13 5/8	426.72	25.70	25.70	423.09	22.07	3.0 (3.2)
BX 160	346	-	-	13 5/8	-	-	-	402.59	23.83	13.74	399.21	10.36	3.0 (3.2)
BX 161	425 (422)	-	-	16 3/4	-	-	-	491.41	28.07	16.21	487.45	12.24	3.0 (3.2)
BX 162	425 (422)	-	-	16 3/4	16 3/4	16 ¾	-	475.49	14.22	14.22	473.48	12.22	1.5 (1.6)
BX 163	476	-	-	18 3/4	-	-	-	556.16	30.10	17.37	551.89	13.11	3.0 (3.2)
BX 164	476	-	-	-	18 3/4	18 3/4	-	570.56	30.10	24.59	566.29	20.32	3.0 (3.2)
BX 165	540	-	-	21 1/4	-	-	-	624.71	32.03	18.49	620.19	13.97	3.0 (3.2)
BX 166	540	-	-	-	21 ¼	-	-	640.03	32.03	26.14	635.51	21.62	3.0 (3.2)
BX 167	679 (680)	26 3/4	-	-	-	-	-	759.36	35.86(3)	13.11	754.28	8.03	1.5 (1.6)
BX 168	679 (680)	-	26. 3/4	-	-	-	-	765.25	35.86(3)	16.05	760.17	10.97	1.5 (1.6)
BX 169	130	-	-	-	5 1/8	-	-	173.51	15.85	12.93	171.27	10.69	1.5 (1.6)
BX 170	228 (168)	-	-	-	6 5/8	6 5/8	-	218.03	14.22	14.22	216.03	12.22	1.5 (1.6)
BX 171	279 (218)	-	-	-	8 9/16	8 9/16	-	267.44	14.22	14.22	265.43	12.22	1.5 (1.6)
BX 172	346 (283)	-	-	-	11 5/32	11 5/32	-	333.07	14.22	14.22	331.06	12.22	1.5 (1.6)
BX 303	762	30	30	-	-	-	-	852.75	37.95	16.97	847.37	11.61	1.5 (1.6)

Media Resistance

Comparison of media resistance of gaskets manufactured from PT20 / 30 / 50 / 60, Egraflex SPG and Clipperlon 2100, 2110, 2130 (for expanded PTFE tapes, use same entries as Clipperlon 2130)

There are four different cases:

1. Resistant ✔
2. Not resistant ✖
3. Conditionally resistant ●
4. Insufficient data -

The case "conditionally resistant" depends on the particular application conditions , such as temperature or concentration. It is recommended to consult the ERIKS group for advice in this instance.

The following media resistance list should give an overview. For media that are not included in this list, you are advised to contact the application engineers of the ERIKS group.

	PT20	PT30	PT50	PT60	Egraflex	Novamica	Clipperlon 2100	Clipperlon 2110	Clipperlon 2115	Clipperlon 2120	Clipperlon 2130	Clipperlon 2135
Acetaldehyde	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Acetamide	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Acetic acid/glacial acetic acid	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Acetone	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Acetylene	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Acrylic acid, water-free	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Acrylonitrile	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Adipic acid	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Alum	✔	✔	✔	✔	✔	●	✔	✔	✔	✔	✔	✔
Aluminium acetate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Aluminium chlorate	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Aluminium chloride	✔	✔	✔	✔	✖	✖	✔	✔	✔	✔	✔	✔
Aluminium fluoride	✖	✖	✖	✖	✔	✖	✖	-	-	-	✔	✔
Aluminium sulphate	✔	✔	✔	✔	●	●	✔	✔	✔	✔	✔	✔
Ammonia	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Ammonia, gas	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Ammonium bifluoride	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Ammonium carbonate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Ammonium chloride	✔	✔	✔	✔	✖	✖	✔	✔	✔	✔	✔	✔
Ammonium fluoride	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Ammonium hydroxide	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Amyl acetate	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Amyl alcohol	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Aniline (amino benzene)	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Aqua Regia	✖	✖	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔
Barium chloride	✔	✔	✔	✔	✖	✖	✔	✔	✔	✔	✔	✔
Barium salts, watery	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Benzene	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Benzoic acid	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Benzyl chloride	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Black liquor (sulphate)	-	-	-	-	-	-	✔	✔	✔	✔	✔	✔
Black liquor (sulphide)	-	-	-	-	-	-	✔	✔	✔	✔	✔	✔
Bleach, dry	●	●	●	●	✔	●	✔	✔	✔	✔	✔	✔
Borax, aqueous solution	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Boric acid	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Bromine trifluoride	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖
Bromine, liquid	✖	✖	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔
Butadiene	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Butane	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Butanol (butyl alcohol)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Butanone (MEK)	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Butyl acetate	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Butylamine	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Butylphenol	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Butyric acid	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Caesium melt	✖	✖	✖	✖	-	-	✖	✖	✖	✖	✖	✖

	PT20	PT30	PT50	PT60	Egraflex	Novamica	Clipperlon 2100	Clipperlon 2110	Clipperlon 2115	Clipperlon 2120	Clipperlon 2130	Clipperlon 2135
Calcium hydroxide	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Calcium hypochlorite	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Calcium oxide	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Calcium sulphate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Carbolic acid (phenol)	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Carbon dioxide	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Carbon disulphide	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Chlorine bleach	●	●	●	●	●	●	✔	✔	✔	✔	✔	✔
Chlorine dioxide	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Chlorine trifluoride	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖
Chlorine water	●	●	●	●	●	●	✔	✔	✔	✔	✔	✔
Chlorine, dry	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Chlorine, wet	✖	✖	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔
Chlorobenzene	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Chlorofluorocarbons	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Chloroform (trichloromethane)	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Chlorophene	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Chrome plating solutions	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Chromic acid	✖	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔
Chromium potassium sulphate	✔	✔	✔	✔	✖	✖	✔	✔	✔	✔	✔	✔
Copper acetate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Copper sulphate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Cresol	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Cyclohexane	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Cyclohexanol	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Cyclohexanone	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Decalin	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Diammonium phosphate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Dibenzyl ether	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Dibutyl phthalate	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Dichloromethane	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Diesel oil	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Diethyl ketone	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Dimethylamine	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Dimethylformamide	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Dioxane	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Diphenyl	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Dithiophosphoric acid	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Ethane	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Ethanol (ethyl alcohol)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Ethyl acetate	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Ethyl ether	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Ethylene	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Ethylene chloride	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Ethylene glycol	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Ethylene oxide	✖	✖	✖	✖	✔	✔	●	●	●	●	✔	✔
Ethylenediamine	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Fatty alcohols	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Fluorine dioxide	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✔	✔
Fluorine, gas	✖	✖	✖	✖	●	●	✖	✖	✖	✖	✖	✖
Fluorine, liquid	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖	✖
Fluorobenzene	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Fluoroboric acid	-	-	-	-	✖	✖	✔	✔	✔	✔	✔	✔
Formaldehyde (formalin)	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Formamide	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Formic acid	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Glycerol	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Glycol (ethylene glycol)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Green liquor (sulphate)	-	-	-	-	-	-	✔	✔	✔	✔	✔	✔
Green liquor (sulphide)	-	-	-	-	-	-	✔	✔	✔	✔	✔	✔
Heptane	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Hexamethylenetretramine	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Hydraulic Oil	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Hydrazine	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔

Media Resistance

	PT20	PT30	PT50	PT60	Egraflex	Novamica	Clipperlon 2100	Clipperlon 2110	Clipperlon 2115	Clipperlon 2120	Clipperlon 2130	Clipperlon 2135
Hydrocarbons	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Hydrochloric acid	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Hydrocyanic acid	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Hydrofluoric acid, 40%	✖	✖	✖	✖	✔	✔	✖	✖	✖	●	✔	✔
Hydrofluorocarbons	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Hydrofluorosilicic acid	✖	✖	✖	✖	-	-	✖	✖	✖	✖	✔	✔
Hydrogen chloride	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Hydrogen fluoride	✖	✖	✖	✖	✔	✔	✖	✖	✖	✖	✔	✔
Hydrogen peroxide	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Hydrogen sulphide	●	●	●	●	●	●	✔	✔	✔	✔	✔	✔
Iodine	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Isopropyl alcohol	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Kerosene	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Ketones	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Lactic acid	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Lauryl alcohol	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Lead acetate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Lead arsenate	-	-	-	-	✔	✔	✔	✔	✔	✔	✔	✔
Lime water	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Lithium bromide	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Lithium melt	✖	✖	✖	✖	✔	✔	✖	✖	✖	✖	✖	✖
Magnesium hydroxide	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Magnesium sulphate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Maleic acid	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Maleic anhydride	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Methane	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Methanol (methyl alcohol)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Monochloroacetic acid	●	●	●	●	●	●	✔	✔	✔	✔	✔	✔
Monochloromethane	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Morpholine	-	-	-	-	✔	✔	✔	✔	✔	✔	✔	✔
Naphtha	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Naphthalene	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Natural gas	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Nitric acid	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Nitrobenzene	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Octane	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Oil	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Oleic acid	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Oleum (fuming sulphuric acid)	✖	✖	✖	✖	✖	✖	✔	✔	✔	✖	✔	✔
Oxalic acid	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Oxygen up to approx. 350°C	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Palmitic acid	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
p-dihydroxybenzene (hydroquinone)	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Pentane	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Perchloric acid	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Perchloroethylene	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Petrol (gasoline)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Petroleum	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Petroleum ether	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Phenol	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Phosgene	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Phosphoric acid, > 45%	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Phosphoric acid, 20 %	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Phosphoric acid, unclean	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Phthalic acid	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Potassium acetate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Potassium bifluoride	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Potassium carbonate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Potassium chlorate	●	●	●	●	✖	✖	✔	✔	✔	✔	✔	✔
Potassium chloride	✔	✔	✔	✔	✖	✖	✔	✔	✔	✔	✔	✔
Potassium chromate	✔	✔	✔	✔	✖	✖	✔	✔	✔	✔	✔	✔
Potassium cyanide	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔

	PT20	PT30	PT50	PT60	Egraflex	Novamica	Clipperlon 2100	Clipperlon 2110	Clipperlon 2115	Clipperlon 2120	Clipperlon 2130	Clipperlon 2135
Potassium hydroxide	✖	✖	✖	✖	✔	✔	●	●	●	●	✔	✔
Potassium iodide	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Potassium melt to 350°C	✖	✖	✖	✖	✔	✔	✖	✖	✖	✖	✖	✖
Potassium permanganate	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Potassium silicate	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Propane	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Pyridine	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Salicylic acid	-	-	-	-	✔	✔	✔	✔	✔	✔	✔	✔
Soda (sodium carbonate)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Sodium acetate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Sodium aluminate	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Sodium ammonium phosphate	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Sodium bicarbonate	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Sodium carbonate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Sodium chloride	✔	✔	✔	✔	✖	✖	✔	✔	✔	✔	✔	✔
Sodium cyanide	✖	✖	✖	✖	✔	-	✔	✔	✔	✔	✔	✔
Sodium hexafluoroaluminate	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Sodium hydrogen sulphite	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Sodium hydroxide (caustic soda)	●	●	●	●	●	●	●	●	●	●	✔	✔
Sodium hydroxide solution	●	●	●	●	●	●	●	●	●	●	✔	✔
Sodium hypochlorite	●	●	●	●	✖	✖	✔	✔	✔	✔	✔	✔
Sodium melt to 350°C	✖	✖	✖	✖	✔	✔	✖	✖	✖	✖	✖	✖
Sodium phosphate, dibasic	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Sodium phosphate, tribasic	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Sodium silicate (water glass)	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Sodium sulphate	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Sodium sulphide	✔	✔	✔	✔	●	●	✔	✔	✔	✔	✔	✔
Stearic acid	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Styrene	✖	✖	✖	✖	✔	✔	●	●	●	✔	●	●
Sulphur dioxide	✖	✖	✖	✖	●	●	✔	✔	✔	✔	✔	✔
Sulphur trioxide	✖	✖	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔
Sulphuric acid, up to 70%	✖	✖	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔
Sulphuric acid, about 70%	✖	✖	✖	✖	✖	✖	✔	✔	✔	●	✔	✔
Sulphuric acid, smoking (oleum)	✖	✖	✖	✖	✖	✖	✔	✔	✔	✖	✔	✔
Sulphurous acid	●	●	●	●	✖	✖	✔	✔	✔	✔	✔	✔
Tannic acid	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Tannin	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Tetrachloroethane	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Tetrafluoroboric acid, anhydrous	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Tetralin (Tetrahydronaphthalene)	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Toluene	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Tricalcium phosphate	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Trichloroethylene	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Trichlorotrifluoroethane (F113)	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Triethanolamine	●	●	●	●	-	-	✔	✔	✔	✔	✔	✔
Triethylaluminium	✖	✖	✖	✖	-	-	✔	✔	✔	✔	✔	✔
Triethylenetetramine	✖	✖	✖	✖	-	-	✔	✔	✔	✔	✔	✔
Trimethylpentane	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Trisodium phosphate	✖	✖	✖	✖	✔	✔	✔	✔	✔	✔	✔	✔
Turpentine	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Urea	●	●	●	●	✔	✔	✔	✔	✔	✔	✔	✔
Vinyl chloride	✖	✖	✖	✖	●	●	●	●	●	●	●	●

The above information in this document corresponds to the current state of our knowledge and is intended to inform about our products and their potential applications. It is therefore not intended to assure certain properties for a specific purpose. Any existing industrial property rights are to be taken into account.

Profile overview

FIBRE GASKETS

Drawing	Type	Part	Description
	OE	FLF	normal
	IE	FLF	with eyelet (inner edge)
	2IE	FLF	with eyelet (inner & outer edge)

GRAPHITE GASKETS

Drawing	Type	Part	Description
	OE	FLG	normal
	IE	FLG	with eyelet (inner edge)
	2IE	FLG	with eyelet (inner & outer edge)

PTFE GASKETS

Drawing	Type	Part	Description
	OE	FLP	normal

PLASTIC GASKETS

Drawing	Type	Part	Description
	OE	FLK	normal

ELASTOMER GASKETS

Drawing	Type	Part	Description
	OE	FLE	normal

KAMMPROFILE GASKET

Drawing	Type	Part	Description
	KV	KP	without locating rim
	KV9	KP	with machined locating rim
	KV9L	KP	with loose locating rim
	KV9S	KP	with locating rim and snap ring
	KVH	KP	with locating hook
	KB	KP	crowned, without locating rim
	KB9	KP	crowned, with machined locating rim
	KB9L	KP	crowned, with machined locating rim
	KB9S	KP	crowned, with locating rim and snap ring

SPIRAL WOUND GASKETS

Drawing	Type	Part	Description
	S	SW	without inner or outer ring
	SR	SW	with outer ring
	SI	SW	with inner ring
	SRI	SW	with inner or outer ring

KNH® GASKETS

Drawing	Type	Part	Description
	KNH®	KN	without locating rim
	KNH® Z	KN	with locating hook
	KNH® ZR	KN	with locating rim

CORRUGATED GASKET

Drawing	Type	Part	Description
	G2	WL	fully faced
	G2	WL	with eyelet (inner edge)
	G21	WL	part - faced
	G3	WL	cord facing

SOFT LAYER METAL GASKETS

Drawing	Type	Part	Description
	MRG	GB	Steel core/Graphite

PTFE ENVELOPES WITH INSERT

Drawing	Type	Part	Description
	ENV-R	PE	round envelope
	ENV-RD	PE	round envelope with diffusion barrier
	ENV-H	PE	U-envelope
	ENV-HD	PE	U-envelope with diffusion barrier
	ENV-V	PE	Y-envelope
	ENV-SS-R	PE	Corrugated ring/soft material/envelope
	ENV-SS-RD	PE	Corrugated ring/soft material/envelope with diffusion barrier
	ENV-KV-R	PE	Kammprofile/Envelope

RTJ GASKETS

Drawing	Type	Part	Description
	OV	RJ	Oval
	OC	RJ	Octagonal
	RX	RJ	RX
	BX	RJ	BX

LENS GASKETS

Drawing	Type	Part	Description
	M5	LS	Lens
	HL	LS	Half lens

WELD RING GASKET			
Drawing	**Type**	**Part**	**Description**
	S15	SR	Weld ring gasket
	S14	SR	Weld ring gasket
	S13	SR	Weld ring gasket
	S12	SR	Weld ring gasket
	S11	SR	Weld membrane gasket

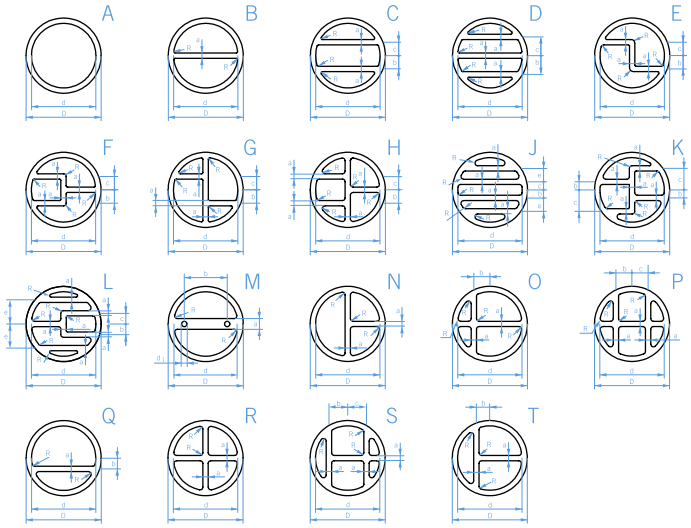
METAL RINGS			
Drawing	**Type**	**Part**	**Description**
	M1	MR	Flat
	M7	MR	Spherical
	M10	MR	Round
	K1	MR	Diamond Shape
	ER	MR	Ring inserts

BLANKING PLATES			
Drawing	**Type**	**Part**	**Description**
	Solid	SP	Solid blanking plate
	Hole	SP	Hole blanking plate
	Spectacle	SP	Spectacle blanking plate

METAL JACKETED GASKETS			
Drawing	**Type**	**Part**	**Description**
	Z9	MU	Flat, closed
	GG3	MU	Corrugated, closed
	Z3	MU	External, open
	Z13	MU	Top, open

RUBBER STEEL GASKETS / ELASTOMET			
Drawing	**Type**	**Part**	**Description**
	V	GS	Rubber steel gasket
	OR	GS	Rubber steel gasket with O-Ring
	ORK	GS	Rubber steel gasket with O-Ring
	CS	GS	Rubber Steel Gasket with inner sealing element
	SP	GS	Rubber steel gasket with lip
	PR	GS	Rubber Steel Gasket with locating ring
	KNU	GS	KNU gasket
	GL	GS	GL gasket

Machine and heat exchanger gaskets



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