

# beldam lascar seals limited

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## beldam lascarflex gaskets

### Introduction

The present range of **beldam lascarflex gaskets** is the result of many years of development to produce a rugged reliable gasket capable of service in the adverse conditions encountered in modern industrial installations. A continuing programme of work ensures that **beldam lascarflex gaskets** will remain in the forefront of performance value by the progressive adoption of new materials and manufacturing techniques.

**beldam lascarflex gaskets** are available from stock to suit the most frequently used flange tables.

### Applications

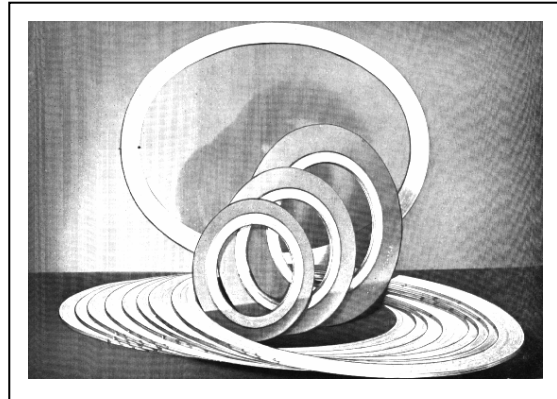
The construction of **beldam lascarflex gaskets** provides a seal of great mechanical strength with an extremely high safety factor capable of accepting a substantial degree of distortion in the flange faces without loss of efficiency. The resilience inherent in the design ensures that the gasket will accept the fluctuating movements associated with the thermal expansion and contraction of pipe systems and renders this type of seal eminently suitable for applications involving vibration.

**beldam lascarflex gaskets** have been widely accepted throughout the world as an efficient and reliable means of sealing joints in applications involving particularly arduous conditions and where safety is of the paramount importance.

These gaskets have been successfully used on high pressure steam and feed water lines, for sealing boiler caps manhole and handhole covers and for joints in pressure vessels. They are also highly efficient as seal joints in high pressure high temperature gas lines hot air ducting and engine exhaust systems. Their inherent resistance to pressure and temperature extremes makes them eminently suitable for valve bonnets and gas turbine installations. Although these gaskets have been developed to meet the demand for a jointing medium resistant to the highest pressures and temperatures, **beldam lascarflex gaskets** are perfectly suited to applications involving vacuum conditions and sub zero temperatures.

### Construction

**beldam lascarflex gaskets** are manufactured from alternate layers of pre-formed strip and resilient filler material spirally wound under precisely and automatically controlled conditions to



form a flat seal of the required dimensions.

Before winding, the metal strip is pre-formed to special 'W' and 'V' designs which have been specially developed to minimise the effect of stresses imposed under compression and to enhance the resiliency of the gasket.

Construction permits a wide selection of alternative materials to meet any operating conditions while the detailed construction can be controlled to provide gaskets capable of effectively sealing in any standard bolting assembly.

### Shapes available

**beldam lascarflex gaskets** are supplied in circular, rectangular or oval shapes in sizes to fit British, American and German standard flange tables and any standard size of boiler handhole, manhole or tube cap. Other forms can be manufactured providing the shape is consistent with the fundamental method of manufacture.

### Thickness

Standard **beldam lascarflex gaskets** are manufactured in a thickness of .175" in a wide range of sizes up to a maximum inside diameter of 60". Gaskets 1/4" thick are available, if required, up to 72". Smaller sizes are available .125" thick.

### Guide Rings

To facilitate assembly operations **beldam lascarflex gaskets** can be supplied fitted with 1/16" guide rings, enabling the gasket to be aligned within the bolt circle. Where assembly conditions are difficult 1/8" thick guide rings can be supplied to facilitate the even tightening of standard .175" thick gaskets.

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## Internal Rings

For specially arduous and critical applications, **beldam lascarflex gaskets** can be supplied with an internal ring designed to obviate any possibility of the inner part of the gasket suffering from erosion by the medium passing through the flange connection.

## Material Selection

**beldam lascarflex gaskets** have achieved a high reputation for efficiency and durability in service. Nevertheless it is axiomatic that careful attention must be given to the selection of the various materials used in relation to the operating conditions and the nature of the medium involved.

## Metal Strip

Standard **beldam lascarflex gaskets** are manufactured from specially selected 18/8 Stabilised Austenitic Stainless Steel strip which conforms to the following material specifications:- BS 1501 - 821 Ti, EN 58b, AISI - 321,

### Alternative materials available are:-

BS 1501 - 845 Grade B, EN 58j, AISI - 316, EN 58j Ti, Monel, Inconel 600, AISI - 310, Hastelloy B.

## Filler Material

The following asbestos free filler materials are available:- Ceramic Paper, Compressed Fibre, Graphite or PTFE. Unless otherwise requested, we will always quote for Graphite Filler as our preferred choice for best performance at all temperatures.

## Guide Rings and Internal Rings

Standard	Mild Steel
Alternative	Stainless Steel

## General Fitting Instructions

**beldam lascarflex gaskets** can be easily and quickly fitted or replaced and require the minimum of time and labour. Before fitting these gaskets for the first time, it is essential that the flange faces or the gasket seating be thoroughly cleaned to remove all traces of gasket material which may have become bonded to the surface by reason of heat or pressure. This requirement does not arise on subsequent occasions since **beldam lascarflex gaskets** do not normally need to be coated with sealing compound to effect an efficient seal. When fitting **beldam lascarflex gaskets**, three points are of great importance:-

(a) The gasket must be located centrally within the flange joint face area.

(b) The full gasket must be gripped between the flange jointing faces and on no account should the gasket be allowed to project into the pipe bore.

(c) The securing bolts must be progressively tightened up to ensure uniform tightening of the gasket and flange assembly. If these precautions are not observed the variable stresses which will be

imposed on the gasket may impair the sealing efficiency of the joint.

**beldam lascarflex gaskets** are designed to give efficient sealing under the designed bolt loads imposed by the appropriate flange tables. Recommended maximum compression values are:-

.125" gasket	.025" compression
.175" gasket	.040" compression
.250" gasket	.065" compression

## Ordering

**beldam lascarflex gaskets** are manufactured in a wide range of materials and with varying densities and ratios between filler material and metal strip. In order that the most effective type of gasket may be supplied, therefore, it is necessary that adequate information should be given to enable the correct materials and method of construction to be employed in manufacture.

In all cases, the nature of the medium to be sealed, the operating pressure and temperature and the type of flange employed should be stated.

For standard British, American and German flanges it is only necessary to indicate in addition to the pipe bore the appropriate Standard Flange Table. If non-standard flanges are used, however, customers are requested to state the flange dimensions, pipe bore, number of bolts with their diameters, positions and pitch circle diameter.

In such cases a template of the flange is of the greatest assistance and in the case of non-circular flanges is essential.

When ordering **beldam lascarflex gaskets** for boiler manhole and handhole doors and tube caps, the boilermakers name should be stated together with the dimensions of the flanges. Again it is of the greatest assistance if a template or dimensional sketch of the application is made available.

## Flange Surface Finish

For the majority of applications a standard finish having serrations approximately .015" in depth will be found to be perfectly satisfactory. In the case of high pressure joints and in applications involving shock loading, however, a finish of a maximum depth of .005" is advisable.

In applications involving dry gases under arduous conditions, it is recommended that the sealing surfaces should be smooth machine finished to ensure optimum efficiency in service.