www.sealpilot.com

100%Asbestos-free
柏德环保密封
不含有害物质

HIGH PERFORMANCE MATERIALS

Gaskets & Washers AND COMPOSITE MATERIALS

高性能垫片和材料选型手册



SEALPilot® 柏德密封

整体密封解决方案制造商





Capabilities 加工能力

冲压 punching	模切 Die cut
分切 Slitting	复合 laminate
水切割	water jet cutting
丝网印刷	Screen printing
背胶	PSA Laminating

可根据客户要求提供各类成品加工服务






柏德密封
你的全方位密封系统合作伙伴

浙江柏德密封科技是一家业内领先的公司，致力于提供制造世界最佳密封解决方案的技术和服务。从 2006 发展至今，已拥有 5 项专利技术，3 处生产基地。多年来始终以卓越的品质和及时周到服务赢得全球客户的信赖和支持。

柏德密封已经为全球 600 多家企业提供完美的密封解决方案。我们高度关注产品及服务的质量、交付、价值和技术，持之以恒，毫不懈怠。

柏德密封的产品无石棉板，非石棉板和各种环保密封垫片，通过 UL，DVGW，SVGW，WRAS，SGS,CTI 等众多国际认证。

我们的优势：能根据客户不同的特定应用环境，以我们高分子材料化学和物理学的专长提供最佳的解决方案。
我们的能力：能为您提供长期稳定的高性能品质产品，保证您产品的可靠性。
我们的目标：尽可能为您提供性能稳定、持久耐用的产品前提下，满足客户对价格的要求。

Certification 认证

ISO9001 质量体系认证 | IATF16949 汽车行业认证 | ISO14001 环境认证 | 特种设备制造许可证
安全合规认证：MSDS, REACH, ROHS, WRAS, DVGW, SVGW, KTW 以及船级社认证和饮用水认证等



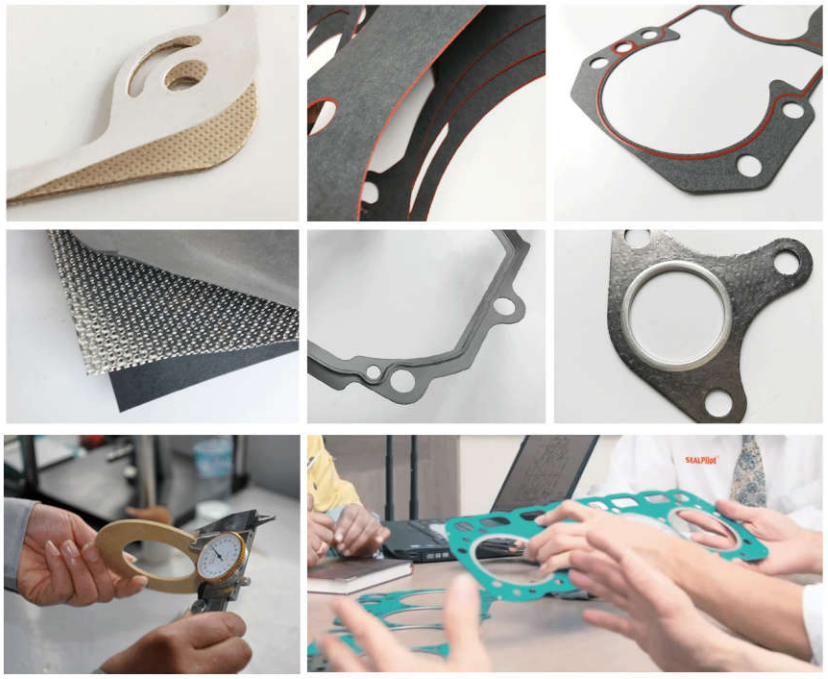








我们努力分析产品或过程中缺陷的真正根源，并制定适当和有效的遏制措施。这将推动柏德密封的流程走向卓越。



Materials 原材料

•无石棉材料	•Asbestos-free gasket
•软木及软木橡胶材料	•Cork & Cork rubber
•石墨及石墨复合材料	•Graphite gasket
•金属	•Metal gasket
•金属涂覆橡胶	•metal rubber gasket
•橡胶，发泡橡胶	•Rubber& Foam
•纤维纸材料	•Paper
•聚四氟乙烯材料	•PTFE
•毛毡材料	•Felt Gaskets
•电子绝缘材料	•Electrical Lnsulation
•其它或根据客户要求材料	•Others

Welcome to your system supplier for every aspect of seal gaskets

Our company was found in 2006， As a total sealing manufacturer, locates in Hangzhou city , zhejiang province , china. sealpilot® is a prominent supplier of industrial fluid sealing materials in the Asia Pacific Region.

sealpilot® has been focusing on the development of highly reliable sealing products that can be adapted to every industry, such as chemical, energy and other industries.

professional manufacturer engaged in the research, development, production, sale and service of sealing materials, cut gaskets, Metal Gaskets, Non-metallic Gaskets, Braided Packings, Compressed Gasket Sheets, Sealing Equipments, Insulation Products。

We would like to take this opportunity to introduce our wide product lineup of gasket products.

Sealpilot gaskets & seal solutions

- We say what we mean and mean what we say.
- We see things from our customers perspective.
- We are considerate of our employees and their families as well as our environment and the society

Around the seal gaskets we promise

- Excellent know-how for our challenging customers
- Best cost-benefit ratio
- Short reaction times and high product availability

We strive to analyze the real root cause of defects in our products or processes and to define adequate and effective containment actions. This drives sealpilot processes towards Excellence.

目 录

密封垫片的选型基准

★根据温度压力快速选型表----------1
★使用密封垫片的注意事项----------2
★柏德密封的服务和能力----------3

密封垫片

■非金属平面密封垫片

无石棉合成纤维橡胶压缩板----------4
BD8100/ BD8108/ BD8208

无石棉耐油纤维纸垫片----------5
BD-0670/BD-0330/BD-3092/BD-0792

防水耐油植物纤维纸垫片----------6
BD-8101/BD-8105

耐油石棉橡胶板/耐酸碱板----------7
BD150/BD250/BD400/BDHY300

耐油软木橡胶垫片----------8
剖切BD-8102/模压BD-8103

橡胶密封垫片----------9
丁腈橡胶/氯丁橡胶/氟橡胶/硅橡胶/夹布橡胶
BD5570系列

聚四氟乙烯垫片PTFE----------10-12
纯PTFE/软质PTFE/改性PTFE/夹层PTFE
BD7700系列

定制塑料垫圈----------13
PC/PE/PET/PP/PMMA/PP/PEEK等

耐高温绝缘垫片----------14-15
红钢纸垫/白钢纸垫/青壳纸垫/云母垫片
BD6600 系列

■半金属密封垫片

金属橡胶涂层垫片----------16
BD3825/BD4525

金属发泡垫片----------17
BD-1025/BD-1225系列

■半金属密封垫片

金属增强冲刺复合板----------18
BD8106 / BD8107系列

金属缠绕垫片----------19
石墨缠绕垫片/四氟缠绕垫片/金属缠绕垫
BD3300系列

金属包覆垫片----------20
换热器垫片/非石棉包覆垫/铜包垫片

■金属密封垫片

金属平面垫片----------21
齿形垫片/紫铜垫片/不锈钢垫片/铅垫片/镍合金

多边形金属环垫----------22
椭圆形垫片/八角垫片

带沟槽的金属垫片----------23

密封填料

石墨填料环----------24
膨胀石墨填料环/膨胀石墨线

盘根填料----------25
碳化纤维盘根/芳纶纤维盘根/纯四氟编织盘根

耐热耐高温纤维编织品

耐高温纤维纸垫片/涂橡胶织布密封垫------26
BD-0775玻璃纤维垫/D0776硅胶防护套管

BD-0771陶瓷纤维编织垫/BD0770陶瓷纤维垫
----------27

■泵用膜片

BD6500系列----------28

密封垫片与材料展示

全球密封材料仓储中心----------29
工程机械,压缩机, 发电机密封垫片-------30
汽车发动机修理包及密封垫片----------31

根据温度选择代表性产品 快速检索表

以下图示构成了一个粗略的指南。 有关服务范围等的详细信息，请参阅相关页面

一般通用用途：水，热水，海水，水蒸气，油，热油等设备接口密封

油型流体:原油、石脑油、液化石油气、酒精、乙二醇、乙烯、丙烯、丁二烯、液氨、苯酚、丙烯腈、丙酮等

Water-type fluids: Water, seawater, warm water, hot water, steam, superheated steam, etc

Oil-type fluids: Crude oil, naphtha, LPG, alcohol, ethylene glycol,ethylene, propylene, butadiene, liquid ammonia,phenol, acrylonitrile, acetone, B.T.X., etc

使用温度是多少?
What is the service temperature?

150℃ max	BD8101 耐油纤维纸	BD0670 耐油纸	BD5570 橡胶垫	BD8012 橡胶软木垫	P.5,6 P.8,9
200℃ max	BD250 非石棉垫片	BD3092 耐油纸垫	BD3825 金属涂胶		P.5,7,16,17
260℃ max	BD8108 无石棉垫片	BD7700 四氟垫片	BD5575 硅胶垫片	BD9900 盘根	P.4,9-12,25
300℃ max	BD8208 无石棉垫片	BD350 非石棉垫片	BD8106 金属复合垫		P.4,7,18
400℃ max	BD3500 金属包覆垫	BD3700 齿形复合垫			P.20, 23
450℃ max	BD3300 无石棉缠绕垫				P.19
500℃ max	BD3300 石墨缠绕垫	BD6600 石墨填料			P.19,24
800℃ max	BD0773 云母垫片	BD8106 高强石墨复合垫	BD1100 金属垫片	BD0775 玻璃纤维涂层	P.15,18 P.21,26
1000℃ max	BD0770 陶瓷纤维垫片				P.26,27

注意：

此根据温度快速检索表，仅作为密封材料选择的一种参考。根据您使用的机器、用途、实际的使用条件等，使用部位不同，所有性能，规格和应用参数都是相近并相互影响的，特别的应用在没对适用性作个别研究和评估之前不宜进行。本公司不对产品使用工况所有具体项目指标负责。对所有因使用或指导性指标而导致的损失，本公司将不承担任何责任和义务，所以建议您在实际使用的时候，先进行确认试验。

NOTE:1) When using at a pressure of 2 MPa or higher, it is recommended that you use a semi-metal or a metal gasket.

(2) A place, such as a heat exchanger or a tower or vessel, where there is no constraint on the inner diameter side and also the seating width is narrow,and where there is fear of a large core vortex gasket breaking up

用于更高要求工业用途：流体具有强烈腐蚀性等更广泛的要求，请咨询柏德密封工程师。0571-85562995

- The recommended gasket is a representative gasket for each fluid, temperature and pressure condition, and not all of the other usable gaskets are listed.
- There are cases where a recommended gasket and usable gasket are different; therefore, please contact us for more information. Sales01@sealpilot.com

使用密封垫片的注意事项

柏德密封产品手册中所记载的产品特性或选用案例，都是根据各产品性能具有代表性。
根据您使用的机器、用途、实际的使用条件等，使用部位不同，会有所差异，所以建议您在实际使用的时候，先进行确认试验。
另外，有关用于特殊用途的，请来电沟通商谈。电话0573-88229313，sales01@sealpilot.com

▲设计时候需要注意事项

1.在考虑螺栓根数量，粗细及密封垫片的尺寸时，应保证能向密封垫片施加足够的扭力，在决定法兰的结构和分配螺栓时，应使紧固面受压分布均匀。避免大跨度的密封面出现。
2.法兰表面精加工为Ra3.2-25左右。具体根据不同的密封材质决定。当精度达到Ra3.2-1.6μm时，可以使用压缩率较高的BD8107材质。
3.法兰表面的平面度和平行度应保证适合相应的垫片。
3.在负荷内压时，法兰的结构、材料、尺寸应保证其不会发生粒状变形。
4.综合比对压力负荷因素，尽量选择厚度较薄的材质。
5.设计中应避免让接头部分受到过大的热应力或反复弯曲应力。
6.在配管设计上，应将法兰排水或比例等设计为不会发生滞留的结构。
7.应避免使振动传递到接头部分。

▲安装之前应注意的事项

应提高法兰与配管间的直角度。
应校正法兰之间的相对轴向偏差。
检查一下法兰是否变形。
当仅更换已安装设备及配管接头部分的密封垫片时，应将接合面清洗干净，检查有无伤痕，如果有，应予以修补。
应去除法兰面的锈，修补凹处。
在安装前的保管中及进行安装作业时，应注意不要弄伤密封垫片。

▲保管时应注意的事项

请保管在无法接触到直射阳光及新鲜空气、臭氧的阴暗处。选择保管场所应避免高温、多湿、腐蚀性的环境，选择没有灰尘的清洁处。
如果将密封垫片挂在钉子上，可能会造成破损、永久变形，所以请尽量放在罐中或用聚乙烯袋包裹后再放纸箱里。
大尺寸的密封垫片，应用大的平板夹起后水平放置而不要卷起。

▲安装时应注意的事项

在清洁的作业现场安装，以避免在密封垫片与法兰之间夹入异物。
法兰螺栓分4-5次分别慢慢旋紧，最后应使所有的螺栓得到均匀的紧固。
紧固时注意不要过度紧固，导致压坏。
请注意尤其是在150LB以下的小口径、密封垫片宽度较窄时，密封垫片应力容易变得过大。
加载或再启动时，必须确认螺栓是否松动。
对已发生泄漏的密封垫片进行追加紧固后仍然无法阻止泄漏时，应更换新的密封垫片。
无石棉压缩板在超过100℃的环境下使用时，可能会加速材质的硬化，所以在使用时需要特别注意。不要在高温下追加紧固，请做好初期的紧固管理。另外，如果要增加紧固，请在素材没有显著硬化、加热运转24小时以内进行。

有关安全使用

为了能正确的使用产品，请遵守以下事项

请不要使用于推荐以外的使用目的。
在安装管道或机器的时候，请在参照各产品的注意事项以后再进行作业。
在进行加工的时候，请使用能有效切割的工具。
不建议产品的二次利用，请不要反复使用产品。
紧固面压为40Mpa左右。为确保紧固面压，不使用全面密封垫片，而是使用环形密封垫片。
保管时，为保护产品性能请在产品包装完好的情况下进行保管。

如需了解更多详情请致电：0573-88229313 或邮件 sales01@sealpilot.com

Note: The technical data stated has been determined with standard material under laboratory conditions. With the variety of installation and operating conditions no guarantee claim can be inferred regarding the behavior in a specific application. Specification are subject to revision as a result of up gradation activities under taken from time to time .

我们可以生产任何尺寸的密封零件，以及任何密封材料。我们提供以下服务和能力

原材料和产品设计

我们可以提供样品材料或零件，以帮助您设计和指定您的产品，以及计算不同解决方案的成本影响。如果您或您的客户需要，我们可以提供全面的材料认证和可追溯性。

标准管道垫圈

我们可以生产全系列的标准管道垫圈，用于饮用水，污水，石油或天然气；以及各种标准，中国（HG,GB/T）英国（BS EN），美国（ASME）或欧洲标准（EN，DIN，ISO），日本（JIS）。

特价和定制垫圈

我们的大多数垫圈是为客户指定要求和规格制造的，您可以提供样品，技术图纸或电子文件，我们先进的生产机器可以直接从您自己的技术图纸文件（例如 CAD 或 DXF 文件）输出制造垫片。

没有最低订单数量

我们没有最低订购数量。我们同样乐意履行一个专业部件的订单，我们会像对待成千上万件产品一样认真对待每一件产品。

中大批量生产

我们每年生产 3000 万个垫圈，并且能够进行中到大批量生产。我们可以提供最佳和最经济的方法来建议您生产所需的零件数量。

快速交付

我们拥有各种先进的专业生产设备，急单可以当天交付。

We can produce parts to any size, and in any seal material. We offer the following services and capabilities:

Prototyping

We can provide sample materials or parts to help you design and specify your product, as well as work out the cost implications of different solutions. We can provide full material certification and traceability should it be required by you or your customer.

Standard Pipe Gaskets

We can produce a full range of standard pipe gaskets for use with potable water, sewage, oil, or gas; and to English (BS EN), American (ASME), or European standards (EN, DIN, ISO). We hold dedicated tooling for the majority of flanges, and so our pipe gaskets can be produced relatively quickly and cost effectively. We can also manufacture any non-standard gasket that you might require, for any pipe or flange.

Specials & Bespoke Gaskets

The majority of our gaskets are made to our customers' requirements and specifications. We can manufacture from sample, technical drawing, or electronic file. Our production machinery can manufacture straight from your own technical drawing file (such as a CAD or DXF file).

No Minimum Order Quantity

We have no minimum order quantity. We are equally happy fulfilling an order for one specialist part as we are for thousands of gaskets.

Medium-Large Volume Production

We make two million gaskets a year, and are capable of medium to large volume production. We can advise on the best and most economical means by which to produce the volume of parts that you require.

无石棉板 合成纤维橡胶压缩板和垫片
CAF jointing sheets and seals

BD8100 / BD8108 / BD8208

sealpilot®高质量的垫片材料板，由芳纶，玻璃，有机，无机或碳纤维，NBR丁腈橡胶作为粘合剂和不同的填料组成。 具有不同化学，热和机械阻力的纤维垫片可以承受不同的载荷，即使是最苛刻的条件在sealpilot®产品系列的各种垫片中，您可以找到满足您需求的完美材料。

sealpilot®are high quality gasket material sheets, composed of aramid, glass, organic, inorganic or carbon fibers, NBR rubber as a binder and different fillers. Fiber gasket sheets with different chemical, thermal and mechanical resistance are made to endure at different loadings, even the most demanding conditions.

产品特点：

- ▲ 具有耐磨、耐蚀、不缩水、很多性能比天然橡胶优越
- ▲ 具有较高的强度，又具有较好的回弹性，同时具有超强的抗渗透性能。
- ▲ 适用的温度以及压力范围广、不含石棉

Product Features:

- ▲ High resistance to seating stress.
- ▲Low creep relaxation.
- ▲Wide range of operating temperatures and pressures.
- ▲Resistance to an extensive range of chemical products.



设计参考资料

产品型号 Sealpilot NO.	压力等级 Pressure	温度 Temperature	实用条件 Practical conditions
PNG8100	3MPa	Max 260℃	适用于低压接口垫片的空气、水、石油类油、中性盐水溶液
PNG8108	8MPa	Max 300℃	换热器管材，阀门，水，燃油，冷却液和空气
PNG8208	10MPa	Max 400℃	高温蒸汽机械，压缩空气

板材标准尺寸：（SIZE）

厚度 mm (Thickness)	长宽 mm (Width)
0.4，0.5，0.8，1.0，1.2，1.5，2.0，3.0，4.0，5.0-10.0 或根据要求生产	1500*1500 1500*3000 1500*4500 1270*1270

可根据要求提供其他尺寸和厚度。

可根据要求中间夹钢丝网或钢板。

表面处理：可根据要求提供可选的石墨或PTFE表面处理。

Other dimensions and thicknesses are available on request.

SURFACE TREATMENT:Optional graphite or PTFE finish on request.

▲Optional steel wire mesh or expanded steel insert on request.

环保耐油纸 无石棉耐油纤维纸垫片
Oil resistant fiber Paper gasket

BD-0670 / BD-0330 / BD3092 / BD-0792 抄取纸/乳胶板

柏德密封耐油纤维材料，中等性能的无石棉密封材料，材料具有优良的强度，质地较为柔软，蠕变性能适中，压缩率较大，耐油和耐燃料性能优异，密封性能较强，成型垫片及板材均可供应。

This is a fully cured reinforced cellulose fiber / nitrile butadiene gasket material with excellent crush resistance at high flange pressures. This material has superior sealing properties with fuel, oil and water. This material has a short duration maximum temperature limit of 230℃ (455F).Some common applications include automotive, small engine and compressor ,engine and transmission pan, water pump, and environmental sealing。



产品特点：

- ▲ 具有优越的耐水耐油性、密封性能良好
- ▲ 使用寿命长、耐介质范围广、可以加工成任意形状
- ▲ 价格便宜、拆卸、切割方便

设计参考资料

产品型号 Sealpilot NO.	产品名称 Description	抗张强度 Tensile Strength	温度 Temperature	实用条件 Practical conditions
BD-0330	通用耐油纤维纸垫片	4.5 MPa	Max 180℃	适合汽车、拖拉机、汽油机柴油机维修市场的经济型材料。
BD-3092	耐汽油纤维纸垫片	8.6 MPa	Max 200℃	小型汽油机油缸连接处、管道、齿轮、法兰
BD-0670	中档耐油纤维纸垫片	8.0 MPa	Max 200℃	汽油缸连接处、管道、齿轮、法兰
BD-0792	工业耐油纤维纸垫片	12.5 MPa	Max 230℃	航空燃油、石油基润滑油及冷气系统的密封

板材标准尺寸：（SIZE）

产品型号 Sealpilot NO.	厚度 mm (Thickness)	长宽 mm (Width)
BD-0330	0.22, 0.25, 0.4, 0.5, 0.8, 1.0, 1.2, 1.5 可预订厚度 根据要求生产	1280，1000 Roll / 整卷
BD-3092		
BD-0670		1050*1150
BD-0792		1000*1000 / roll

可根据要求提供其他尺寸和厚度。
可根据要求中间夹钢丝网或钢板。
表面处理：可根据要求提供可选的石墨或PTFE表面处理。
Other dimensions and thicknesses are available on request.
SURFACE TREATMENT:Optional graphite or PTFE finish on request.
▲Optional steel wire mesh or expanded steel insert on request.

耐油纸垫 防水耐油植物纤维纸垫片
Waterproof oil resistant plant fiber paper pad

BD-8101 / BD8105 耐油纤维纸

该款耐油纸垫片通常为进口材质。主要是由经化学处理的植物纤维组成，遇水遇油膨润密封。不受油，水，酒精，空气，煤气，汽油等任何有溶解力的溶剂溶解。并可承受强大压力，耐压且坚韧。

产品特点：

- ▲ 具有优越的耐酸碱性、密封性能良好
- ▲ 使用寿命长、范围广、可以加工成任意形状
- ▲ 价格便宜、拆卸、切割方便

sealpilot-oil®,gasket paper is plant fibre, chemically treated to resist coal tar, oils, water, alcohol, grease, air, gas, gasoline and solvents of all kinds. Resists heavy pressure--Strong but Compressible.

sealpilot-oil®, gasket paper is used in oil applications, alcohol distilleries, shipyards, equipment makers and industrial plants for pump, pipe, tank, gear, the industrial, petroleum, petrochemical and automotive industries ,flange joints.



设计参考资料

产品型号 Sealpilot NO.	压缩率 Compressibility	回弹率 Recovery	实用条件 Practical conditions
BD-8101	25%-40%	40%	油、水、汽油缸的封闭处或连接处
BD-8105	25%-40%	40%	

板材标准尺寸：（SIZE）

厚度 mm (Thickness)	长宽 mm (Width)
0.3, 0.5, 0.8, 1.0, 1.5, 2.0 3.0 或根据要求生产	1000*1000 1000*2000 Roll 1米宽整卷

可根据要求提供其他尺寸和厚度。
可根据要求中间夹钢丝网或钢板。
表面处理：可根据要求提供可选的石墨或PTFE表面处理。
Other dimensions and thicknesses are available on request.
SURFACE TREATMENT:Optional graphite or PTFE finish on request.
▲Optional steel wire mesh or expanded steel insert on request.

非石棉板 耐油石棉橡胶板和垫片
Oil-resistant asbestos rubber sheet/ Gaskets

BD150 / BD250 / BD400 / BDHY300

石棉橡胶板是以石棉、耐油橡胶和配合剂为主要原料经辊压而成的。根据其配方，工艺，性能及用途不同，具有耐高温、耐高压、耐油类、不燃、弹性好性能好的密封材料。

The oil-resistant asbestos rubber sheet is a blend of compressed long asbestos fiber, oil-resistant synthetic rubber, heat-resistant filler. It is mainly for C1 ~ C5 hydrocarbons (gas and liquid), coke oven gas. Oil-resistant asbestos rubber sheet is manufactured in the form of sheets. The sheet can be cut into pads for its good mach inability.



设计参考资料

产品型号 Sealpilot NO.	压力等级 Pressure	温度 Temperature	实用条件 Practical conditions
BD150	1.5MPa	Max 150℃	炼油设备、管道及汽车、拖拉机、柴油机的输油管道结合处的密封
BD250	2.5MPa	Max 250℃，	炼油设备及管道法兰连接处的密封
BD400	4.0MPa	Max 400℃	热油、石油裂化、煤蒸馏设备及管道法兰连接处的密封
BDHY300	4.0MPa	Max 300℃	航空燃油、石油基润滑油及冷气系统的密封

板材标准尺寸：（SIZE）

厚度 mm (Thickness)	长宽 mm (Width)
0.4，0.5，0.8，1.0，1.2，1.5，2.0，3.0，4.0，5.0-10.0 或根据要求生产	1500*1500 1500*3000 1500*4500 1270*1270

可根据要求提供其他尺寸和厚度。
可根据要求中间夹钢丝网或钢板。
表面处理：可根据要求提供可选的石墨或PTFE表面处理。
Other dimensions and thicknesses are available on request.
SURFACE TREATMENT:Optional graphite or PTFE finish on request.
▲Optional steel wire mesh or expanded steel insert on request.

耐油软木 软木橡胶垫片 Cork Rubber Gaskets

BD-8102 / BD-8103

软木橡胶是由天然橡胶或合成橡胶与软木合成的硫化产物，是高分子材料中一种新型复合材料。根据其配方、工艺、性能及用途不同，主要有剖切BD-8103、模压BD-8105软木橡胶垫片、软木橡胶板的类型。

软木橡胶板的压缩性与橡胶的柔韧性特点使其成为优良的密封材料。

丁腈软木通常使用环境：

- 适合与汽油一起使用
- 适用于低螺栓装载法兰
- 适用于表面比较粗糙法兰

As a general rule, nitrile cork is:

- Good for use with petrol
- Good for low bolt loading flanges
- Good for poor quality flanges



Nitrile Bonded Cork
丁腈橡胶软木



Neoprene Cork
氯丁橡胶软木



Nitrile Bonded Cork
丁腈橡胶硫化软木

sealpilot-oil®Cork rubber sheet the compressibility of cork with the flexibility characteristics of rubber to make an excellent sealing material. All are available in rolls cut to your specifications for thickness and width.

Nitrile bonded cork has good oil resistance, is relatively cheap, and seal well at low flange pressures and temperatures of up to 125℃.

Cork materials are used in: sumps, crank case covers, inspection doors, valve covers, electrical transformers, electrical switchgear, and to seal general covers and lids.

设计参考资料

产品型号 Sealpilot NO.	颜色 color	温度 Temperature	实用条件 Practical conditions
BD-8102	本色	Max 125℃	炼油设备、管道及汽车、拖拉机、炼油设备、柴油机的输油管道结合处的密封以及缝纫机、变压器的密封
BD-8103	棕色	Max 125℃	
BD-8102S	黑色颗粒	Max 125℃	

板材标准尺寸：（SIZE）

厚度 mm (Thickness)	长宽 mm (Width)
1.0-20 或根据要求生产	630*930 1500*700 Roll 1米宽整卷

可根据要求提供其他尺寸和厚度。

Other dimensions and thicknesses are available on request.



BD5570系列丁腈橡胶/氯丁橡胶/氟橡胶/硅橡胶/夹布橡胶垫

橡胶密封垫片是根据其配方、工艺、性能及用途不同，主要材质有丁腈橡胶、丙烯橡胶、氯丁橡胶硅橡胶、氟橡胶等材料冲压加工成垫片。

Rubber is the most common type of gasket material, and so 'rubber gasket' can mean many different things. These gaskets include everything from standard pipe gaskets to oil gaskets, to midway gaskets; and in many different rubbers such as neoprene, EPDM, and Fluororubber。

产品特点：Product Features:

▲具有耐油，耐温，耐腐蚀性能优越
▲使用范围广如：矿业、石油、汽车、航空、化工、医疗、电力等
▲使用方便且价格经济

▲ Compatible for use with acids and alkalis
▲ Have good abrasion resistance
▲ Are available in various colors



设计参考资料

产品型号 Sealpilot NO.	材料名称 Description	温度 Temperature	压力等级 Pressure
BD-5571	丁腈橡胶（NBR）	-30-120℃	0.5-2.0 Mpa
BD-5572	氯丁橡胶(CR)	-30-120℃	
BD-5573	三元乙丙橡胶(EPDM)	-40-150℃	
BD-5575	硅橡胶(VMQ)	-60-260℃	
BD-5576	氟橡胶垫（KFM）	-30-200℃	
BD-5577	夹布橡胶	-60-200℃	

板材标准尺寸：（SIZE）

厚度 mm (Thickness)	尺寸 mm (MAX outer diameter)
1.0，1.2，1.5，2.0，3.0，4.0，5.0-10.0 或根据要求生产	最大外径1500mm

可根据要求提供其他尺寸和厚度。
可根据要求中间夹钢丝网或钢板。
表面处理：可根据要求提供可选的石墨或PTFE表面处理。
Other dimensions and thicknesses are available on request.
SURFACE TREATMENT:Optional graphite or PTFE finish on request.
▲Optional steel wire mesh or expanded steel insert on request.

四氟垫片 聚四氟乙烯垫片 PTFE Gaskets

BD7700系列 / 纯PTFE/软质PTFE/改性PTFE/夹层PTFE

聚四氟乙烯是由四氟乙烯经聚合而成的高分子化合物。根据其配方、工艺、性能及用途不同，主要材质有硬质纯PTFE、软质PTFE、改性PTFE、夹层PTFE等类别，它对大多数矿物和有机化学品（如酸，碱和溶剂）具有出色的耐受性，可在约260℃下使用。

PTFE gaskets improved performance over conventional PTFE, Reduced product loss and emissions. Excellent bolt torque retention, unique manufacturing process minimizes cold flow problems typical of skived and expanded PTFE Sheets. It has excellent resistance to most mineral and organic chemicals such as acids, bases, and solvents, and can be used up to approximately 260°C.

优点：▲具有耐高温、耐低温、耐腐蚀、耐气候、高润滑、不粘附、无毒害
▲具有良好的机械韧性、最佳的老化寿命、不粘附任何物质
▲可以添加不同的填充剂

Product Features:

▲ Good for use with petrol & oils ▲ Good for use with acids and alkalis
▲ Good ozone resistance ▲ Good impermeability to gases

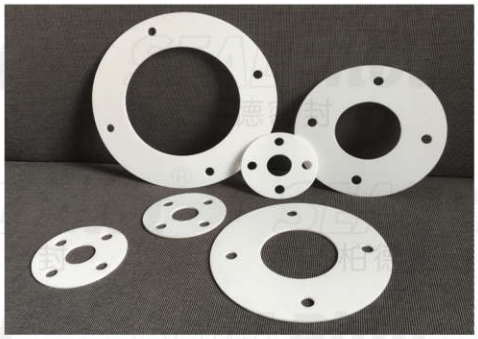
设计参考资料

产品型号 Sealpilot NO.	材料名称 Description	温度 Temperature	压力等级 Pressure
BD-7708	软性膨体四氟 (Expanded PTFE)	-260-260℃	5-10 Mpa
BD-7700	纯四氟 (Pure PTFE)	-75-250℃	
BD-7701	填充四氟 (Filled PTFE)	-230-260℃	
BD-7702	四氟包覆垫片 PTFE enveloped gaskets	-60-350℃	0.5-25 Mpa
BD-7703	单项膨体四氟带 joint sealant gaslet tape		

HIGH QUALITY MATERIALS FOR APPLICATIONS UNDER EXTREME CONDITIONS

纯四氟/ Virgin PTFE

Sealpilot ®BD-7700



板材标准尺寸：（SIZE）

厚度 mm (Thickness)	长宽 mm (Width)
1-30 或根据要求生产	1000*1000 1500*1500 或者根据要求

可根据要求提供其他尺寸和厚度。
Other dimensions and thicknesses are available on request.

柏德密封®BD-7700仅使用纯PTFE树脂制成。表面柔韧可折叠。它适用于钢制法兰以及需要高度可压缩垫圈的法兰。 还适用于密封不规则表面的法兰。不会表现出与普通PTFE相关的冷流问题或其他一些填充PTFE产品的硬度问题。它具有出色的密封性，易于切割，并在使用后不会与法兰粘连。

sealpilot®BD-7700 is made with only pure PTFE resins. It is suitable for use in steel flanges as well as flanges where a highly compressible gasket is required. BD-7088 is also suitable for sealing flanges with irregular surfaces. It will not exhibit the cold flow problems associated with virgin PTFE or the hardness problems of some other filled PTFE products. It has excellent sealability, cuts easily, and separates cleanly from flanges after use.

四氟垫片 膨体四氟乙烯垫片 PTFE Gaskets

Sealpilot ®BD-7708



厚度 mm (Thickness)	长宽 mm (Width)
1-30 或根据要求生产	1000*1000 1500*1500 或者根据要求

BD-7708膨胀聚四氟乙烯是一种完美的密封剂，用于密封玻璃和塑料法兰和压力容器。即使在极端条件下，材料也显示出非常低的压缩蠕变。大多数情况下，膨胀聚四氟乙烯用于石化，食品和制药工业，温度范围为-240°C至+ 270°C。

sealpilot®BD-7708 expanded PTFE is a perfect sealant for sealing glass and plastic flanges and pressure vessels. The materials show very low compressive creep even at extreme conditions. Most often, expanded PTFE is used in petrochemical, food and pharmaceutical industry in temperature range from -240°C to +270°C.

填充改性四氟垫片/ Filled PTFE

Sealpilot ®BD-7701



厚度 mm (Thickness)	长宽 mm (Width)
1-30 或根据要求生产	1000*1000 1500*1500 或者根据要求

可根据要求提供其他尺寸和厚度。

Other dimensions and thicknesses are available on request.

在大多数情况下，PTFE是广泛应用的理想选择。有时会添加额外的“填料”，例如石墨，碳，玻璃，青铜和其他材料，以增强改变性能用于特定应用的环境。一般而言，这些“填充改性PTFE”保持其原始的耐化学性和耐热性，同时还表现出改善的强度，稳定性或耐久性。

In most situations, PTFE is an ideal choice for a wide range of applications. There are occasions, however, when additional “fillers” such as graphite, carbon, glass, bronze, and other materials are added to enhance PTFE products for use in a specific application. Generally speaking, these “Filled PTFEs” maintain their original chemical and thermal resistance characteristics, while also exhibiting improved strength, stability, and/or durability.

填充物 Filler PTFE	颜色 Colour	拉伸强度 Tensile Strength	压缩率 Compressibility	回弹率 Rebound Ratio	特点 Attributes
玻璃填充 GLASS	蓝色 Blue	14	10	30	耐磨、提高硬度、降低热膨胀、降低载荷变形 Wear resistant, improved hardness, lower thermal expansion, lower deformation under load
石墨填充 GRAPHITE	黑色 Black	15	8	30	对软金属具有良好的耐磨性 Excellent wear properties against soft metals;high load carrying capability in high speed contact applications; chemically inert
硫酸钡 BARIUM SULFATE	白色 White	8	8	30	高导热系数;更好的抗蠕变性 High thermal conductivity; better creep resistance

■柏德密封可以根据客户要求，填充其他特殊的材料。

WE MENTION SOME OF THE FILLERS WE CURRENTLY HAVE IN OUR PRODUCTION LINE, BUT WE CAN PRODUCE PARTS WITH THE PTFE FILLER THAT THE CUSTOMER REQUIRES.

四氟垫片 四氟包覆垫片ped gaskets PTFE enveloped gaskets

Sealpilot ®BD-7702



柏德密封四氟包覆垫片，中间由无石棉等软性材料，波纹不锈钢或橡胶制成，然后用纯PTFE包裹。PTFE包覆垫圈用于需要极端耐化学性的法兰接头。垫片在不同的应用下具有良好的压力稳定性。

包覆垫圈可以提供多种形状和结构，但它取决于法兰的具体情况或客户要求。不同类型的芯的组合使得PTFE包封垫圈得到广泛应用。

外径最大为500mm的垫圈为一次成型，更大直径的垫圈可以焊接而成。 PTFE包覆垫圈的厚度通常为0.5mm，但也可以更厚。

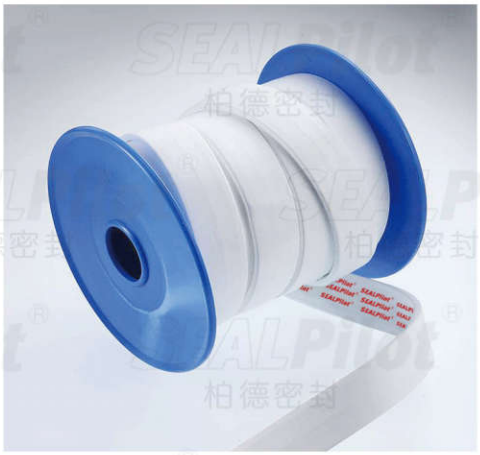
An insertion is made from a soft material, corrugated stainless steel or rubber and then enveloped with virgin PTFE. PTFE enveloped gaskets are used for flange joints where extreme chemical resistance is required. Gaskets have good pressure stability under different applications。

Gaskets could be supplied in several shapes and constructions, however it depends on the flange specifics or customer request. The combination of different types of cores makes PTFE enveloped gaskets widely applicable

Gaskets with external diameter of up to 500 mm are one piece construction, while gaskets with bigger diameters are welded. The thickness of PTFE enveloped gaskets is usually 0.5mm, but can be also thicker. Gaskets are available in different profiles and shapes。

膨体四氟带/ Virgin PTFE

Sealpilot ®BD-7703



膨胀聚四氟乙烯密封胶带和软线由未烧结的PTFE制成。除碱性材料外，PTFE可耐受所有化学产品和溶剂。它具有良好的耐高压性能和高热稳定性。膨胀聚四氟乙烯密封胶带可适用于食品应用。

PTFE is resistant to all chemical products and solvents with the exception of alkaline materials. It has good resistance to elevated pressures and has a high thermal stability. Expanded PTFE sealing tape is odourless and tasteless making it suitable for food applications and is WRC approved for use with potable water。

温度范围 Temperature range	-268° C (-450° F) up to +270° C (+518° F), short-term +315° C (+600° F); recommended temperature range: from -200° C (-328° F) to +150° C (302° F)
抗化学腐蚀性 Chemical Resistance	PH range from 0 to 14; full chemical resistance (except molten alkali metals and elemental fluorine)
压力阻力 Pressure resistance	vacuum up to 80bar (1160psi) depending on the installation situation

BD6700系列

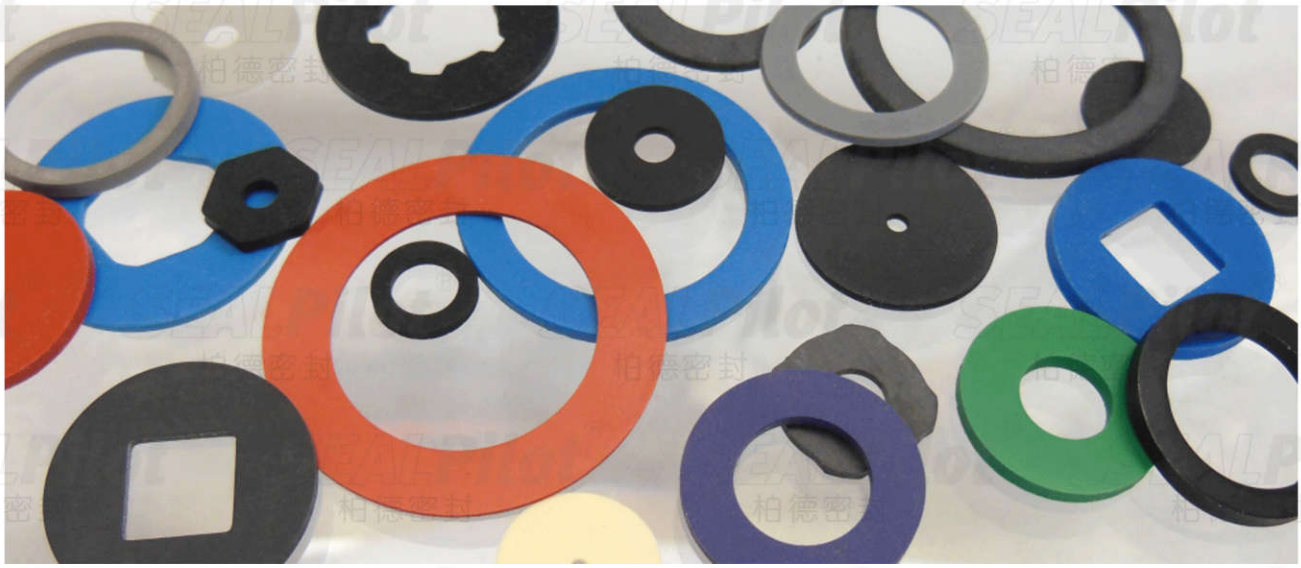
柏德密封®生产模切全系列塑料材料。塑料有各种厚度，硬度和颜色可供选择。它们可带或不带压敏粘合剂（PSA）背胶。

最常用的材料包括：

柏德密封使用定制塑料垫片材料，通过模切，冲压，冲孔，激光切割和水射流切割零件。

无论什么形状都可以轻松制作，并快速交货。

■ABS	ABS	■聚碳酸酯	Polycarbonate
■缩醛（聚甲醛）	Acetal	■塑胶垫片（可选颜色）	Plastic Shim Stock (Color Coded)
■醋酸盐	Acetate	■聚丙烯	Polypropylene
■麦拉片，聚酯薄膜	Mylar® Polyester Film	■PEEK	Peek
■PTFE	PTFE	■PETG	PETG
■尼龙	Nylon	■PVC	PVC
■低密度聚乙烯	Low Density Polyethylene (LDPE)	■超高分子量聚乙烯	(UHMW)
■高密度聚乙烯	High Density Polyethylene (HDPE)	■乙烯基（刚性和柔性	Vinyl (Rigid & Flexible)
■高抗冲聚苯乙烯	High Impact Polystyrene		
■聚酰胺薄膜	Polymide Film		



sealpilot®maintains a full line of plastic materials. Plastics are available in a broad range of thicknesses, hardness and colors. They are available with or without pressure sensitive adhesive (PSA) backing. The most common materials used include:

sealpilot®fabricates die cut, stamped, punched, laser cut and water jet cut parts using Custom Plastic Gaskets

BD6600系列 红钢纸垫/白钢纸垫/青稞纸垫/云母纸垫/MNM,DMD系列

耐高温绝缘垫片是由特种材料制成。根据其配方、工艺、性能及用途不同，主要有耐高温垫圈、绝缘板等类别。我们制造电绝缘体，如：垫圈，密封圈，垫片，条带和定制设计的复杂形状。电绝缘材料有多种厚度，硬度，密度和颜色可供选择。大多数绝缘材料可带或不带压敏粘合剂（PSA）背衬。

We fabricate electrical insulators, such as; gaskets, seals, washers, strips, and custom designed intricate shapes. Electrical insulation materials are available in a broad range of thicknesses, hardness, densities and colors. Most insulating materials are available with or without pressure sensitive adhesive (PSA) backing。



BD-6601 青稞纸/青壳纸 Fish paper

青壳纸非常耐用，通常用于电绝缘。通常模切以创建用于特定电气应用的独特组件。它经常用于电气设备和外壳。它具有110°C的机械电气绝缘等级和115°C的电气额定值。

Fish paper is extremely durable and commonly used for electrical insulation. It is typically die cut to create unique components for specific electrical applications. It is frequently used in electrical devices and enclosures. It has an electrical insulation Class 110°C mechanical and Class 115°C electrical rating。



BD-6602红钢纸快巴纸/软钢纸 Vulcanized Fiber

红钢纸纤维张力接近铝，但重量只有铝的一半，具有很强的介质张力，柔韧性，精细的机械特性和其他特殊功能。它擅长抗油和抗腐蚀，可以制造我们的电机转子摩擦片，绝缘垫片，插头，零件和防护等级。

ashers and gaskets die cut from vulcanized fiber have excellent tear strength, good abrasion resistance and outstanding dielectric properties. Steel fibre tension is near to aluminium but only half of aluminium in weight and owns strong media tension, flexibility,fine machinery feature and other special features. It is good at anti-oil and anti- erosion, which can manufacture us electric machinery rotor mol-ars, insulation gaskets, plugs, parts and protective levels。

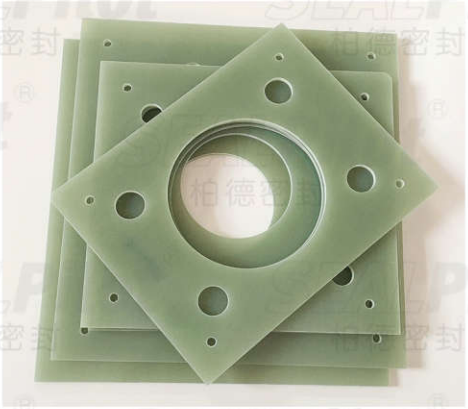


BD-6603绝缘纸，槽楔绝缘材料NHN Polyimide Film Gaskets

聚酰亚胺薄膜垫片F级DMD、DM、NMN、NHN、6520、6630A、6640、6650其在宽的温度范围内提供的电，热，化学和机械性能的独特组合。它可以在428°F到464°F的温度下连续工作，间歇在752°F。它擅长绝缘体并具有耐高温性。

is a polyimide film which offers a unique combination of electrical, thermal, chemical and mechanical properties over a wide temperature range. It can function at 428°F to 464°F for continuous service, and intermittent at 752°F. It excels as an insulator and exhibits high-temperature resistance。

BD6600系列 环氧树脂/ 酚醛树脂/云母板系列



BD-6605环氧树脂玻璃布层压板/ glassfiber cloth laminated sheet

该产品具有高机械和电介质特性。它可以用作电机和设备中的绝缘结构部件。它也可用于潮湿环境和变压器油中。

This product exhibits high mechanical and dielectrical properties. It can be used as insulating construction parts in electrical machines and apparatus. It can also be used in a humid environment and in transformer oil。



BD-6606云母板/ glassfiber cloth laminated sheet

根据客户的规格/图纸，云母冲压和加工成不同的尺寸，厚度和形状。云母垫圈可承受130°C至1000°C的温度。

Mica gasket material is exceptional in it resistance to high heat。Mica washers, spacers and seats can be punched, stamped and machined to different sizes, thicknesses and shapes all according to the customer's specifications/drawings. Mica washers can withstand temperatures ranging from 130°C to 1000°C。



BD-6607 酚醛树脂产品/Phenolics

酚醛树脂是由浸渍有酚醛树脂粘合剂的细织棉布制成的加强层压板。精细编织纤维具有良好的机械性能，尺寸稳定性和加工部件的更好的光洁度。

Phenolics are a fabricated reinforced laminate produced from a fine weave cotton cloth impregnated with a phenolic resin binder. The fine weave linen yields good mechanical properties, dimensional stability and a better finish for machined。

BD-3825/4525金属涂胶垫片

金属涂层垫片是指以金属为涂层材料，用热喷涂法制备的覆盖层。根据其配方、工艺、性能及用途不同，主要有金属涂胶垫片，金属发泡垫片等类型。

■橡胶涂层金属垫圈金属可以使用：钢,不锈钢,铝。

■涂层橡胶可以选择双面涂层，或者单面涂层：丁腈橡胶（NBR），氟橡胶(FKM)，二硫化钼MoS2。

橡胶涂层金属垫圈的特点

▲在较低的夹紧负载下增强密封。

▲多种橡胶涂层选项，可提高对不规则凸缘表面的贴合性。

▲当需要考虑负载分布时，橡胶涂层金属可以容易地压印以产生最佳密封。

▲橡胶涂层金属是尺寸稳定的解决方案，可提供良好的负载保持力和可靠性。

应用包括

汽车变速器 | 半封闭压缩机 | 进气口 | 水泵 | 机油滤清器适配器 | 机油冷却器
前盖和其他二级发动机密封 | 刹车消音片 | 以及用于小型发动机和压缩机应用的头垫片



Coated metal gaskets is a mechanical seal which fills the space between two or more mating surfaces, generally to prevent leakage from or into the joined objects while under compression.

Rubber Coated Metal

■Low carbon and stainless steel carriers in a variety of hardness formulas and coating options

■Single and multiple layers

■Applications include automotive transmission, semi-hermetic compressor, air intake, water pump, oil filter adapter, oil cooler, front cover and other secondary engine sealing. Head gaskets for small engine and compressor applications

Features of Rubber Coated Metal Gaskets

▲Enhanced sealing at lower clamp loads.

▲Multiple rubber coating options providing for increased conformability to irregular flange surfaces.

▲Rubber coated metals can be easily embossed to create optimum sealing when load distribution is a concern.

▲Rubber coated metal is a dimensionally stable solution that provides for good load retention and reliability.

BD-1025 金属+丁腈橡胶（NBR）发泡

与金属表面涂橡胶相同的特性，具有更高的一致性，可以更好地符合粗糙的密封表面和更低的夹紧载荷。经过特殊工艺处理的表面橡胶，颗粒均匀，并拥有良好的弹性。

- ■橡胶涂层金属垫圈金属可以使用：碳钢, 不锈钢, 铝。
- ■涂层橡胶可以选择双面涂层，或者单面涂层：丁腈橡胶（NBR），氟橡胶(FKM)。

应用包括

发动机缸头的密封 | 半封闭压缩机 | 缝纫机 | 水泵 | 以及用于小型发动机和压缩机的缸头垫片

Metal sheet +Nitrile Butadiene Rubber (NBR) Foamet

Same characteristics of NBR, with the added benefit of higher conformance to rough sealing surfaces and lower clamp loads.

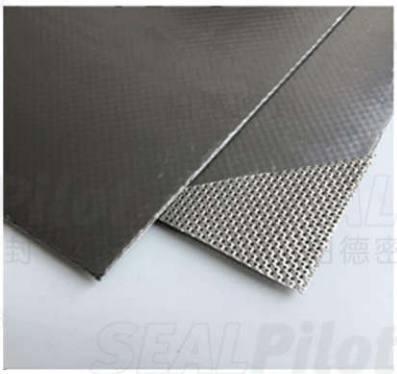


Features of Rubber Coated Metal Gaskets

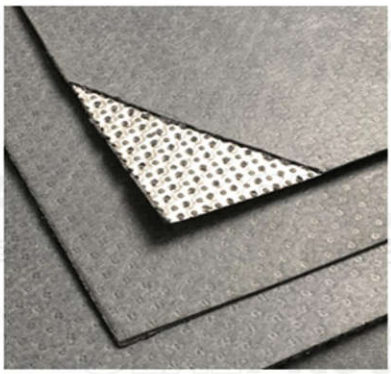
- ▲Enhanced sealing at lower clamp loads.
- ▲Multiple rubber coating options providing for increased conformability to irregular flange surfaces.
- ▲Rubber coated metals can be easily embossed to create optimum sealing when load distribution is a concern.
- ▲Rubber coated metal is a dimensionally stable solution that provides for good load retention and reliability.

BD8105/BD8106/BD8107金属+石墨+非石棉 复合垫片

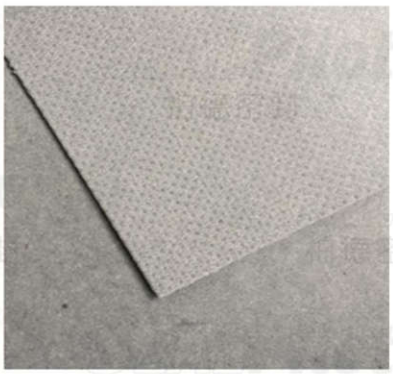
无石棉,柔性石墨，中间夹0.2-0.3金属钢板，用于加强产品性能的三明治结构。
可提供双面石棉，非石棉，石墨，中间用钢丝网、碳钢箔、铝箔、SS304、SS316、等金属加固。



金属+石墨垫片

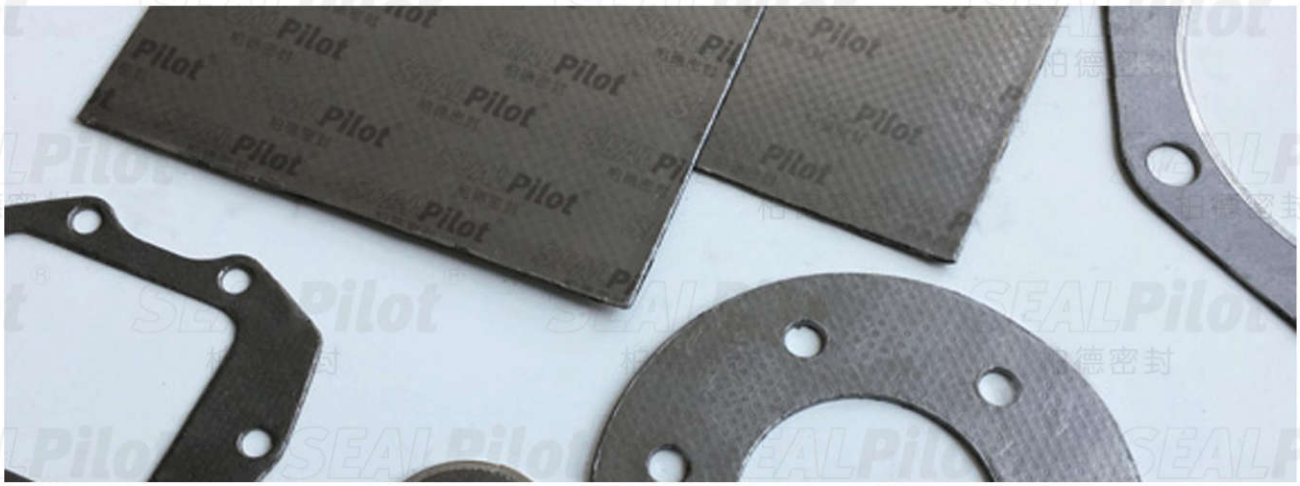


金属+非石棉+石墨垫片



金属+非石棉

Asbestos Free，Flexible Graphite Composite gasketasbestos Free，Flexible Graphite ， inserted with 0.01" metal steel foil for additional structure.
offers laminated gaskets that are reinforced with wire mesh, carbon steel foil, aluminum foil, SS304,SS316,nickel alloy.



柔性石墨由矿物石墨制成，含碳量在95%至99%之间。碳的百分比越高，石墨表现出的弹性越大。所有柔性石墨垫圈都具有出色的耐腐蚀性化学品，高温和高压性能。它们还具有优异的导热性和牢固密封的能力。石墨垫圈还具有良好的耐磨性、耐高温、耐腐蚀性能。

Flexible Graphite, Standard Grades

BD-8105 FLEXIBLE GRAPHITE

A pure flexible, homogenous graphite laminated sheet with chemical and physical properties similar to non-laminated flexible graphite.

BD-8106 FLEXIBLE GRAPHITE

It is flexible graphite inserted with a 0.002" 304/316 Stainless Steel sheet. It has excellent chemical resistance and a temperature limit of 1600°F.

BD-8107 FLEXIBLE GRAPHITE

Flexible graphite inserted with 0.01"carbon steel foil for additional structure. The aluminum insert has a temperature limit of 900°F.

板材标准尺寸：（SIZE）

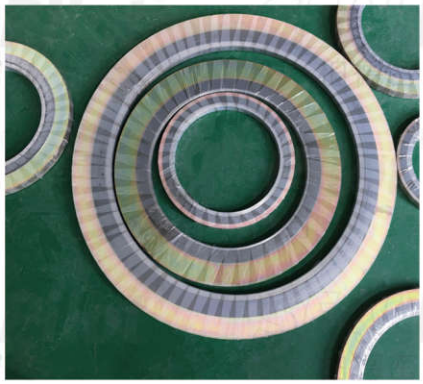
厚度 mm (Thickness)	尺寸 mm (Width)
1.0，1.2，1.5，2.0，3.0，4.0，或根据要求生产	1000*1000 1500*1500

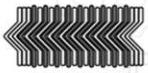
可根据要求提供其他尺寸和厚度。
Other dimensions and thicknesses are available on request.

BD-3300系列 石墨缠绕垫片/四氟缠绕垫片/金属缠绕垫片

缠绕垫片采用优质SUS304、SUS316（“V”形或“W”形）金属带及其它合金材料与石墨、石棉、聚四氟乙烯、无石棉等软性材料相互交替重叠螺旋缠绕而成。根据其配方、工艺、性能及用途不同，主要有石墨缠绕垫片、四氟缠绕垫片等种类。

柏德缠绕垫片是精密设计的解决方案，适用于法兰接头，热交换器，锅炉手孔，检修孔和其他高温、高压应用，几乎可以抵抗所有已知的腐蚀性和有毒元素。



BD1707-A
基本型


BD1707-IR
带内环型

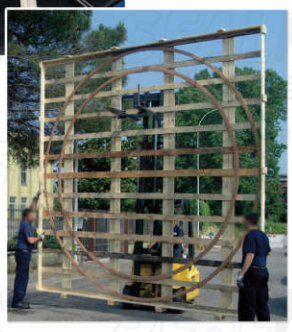

BD1707-CG
带外环型


BD1707-CGI
带内外环型

Spiral Wound Gaskets (SWG) are made with an alternating combination of a preformed engineered metal strip and a more compressible filler material which creates an excellent seal when compressed. The engineered shape of the metal strip acts as a spring under load, resulting in a very resilient seal under varying conditions.
The Sealpilot® spiral wound gasket is the precision-engineered solution for flanged joints, heat exchangers, boiler handholes, manholes, and other high-temperature, high-pressure applications—providing resistance to virtually every known corrosive and toxic element.

钢带材质 Hoop material	填充料材质 Filler material	内，外环材质 Inner， Outer Ring material
SUS304，316	无石棉带 Asbestos-Free	冷轧碳钢板或SUS304，316 carbon steel sheet or SUS 304，316ect as spectied sheet
	膨胀石墨带 Expanded graphite	
	聚四氟乙烯带 PTEE	





我们可以生产全系列的标准管道垫圈，用于饮用水，污水，石油或天然气；以及各种标准，中国（HG,GB/T）英国（BS EN），美国（ASME）或欧洲标准（EN，DIN，ISO），日本（JIS），以及根据您的技术要求制作特定尺寸的垫片。

We can produce a full range of standard pipe gaskets for use with potable water, sewage, oil, or gas; and to English (BS EN), American (ASME), or European standards (EN, DIN, ISO). We hold dedicated tooling for the majority of flanges, and so our pipe gaskets can be produced relatively quickly and cost effectively. We can also manufacture any non-standard gasket that you might require, for any pipe or flange.

BD-3500系列换热器垫片/非石棉包覆垫

金属包覆垫片系指内部用非金属材料(柔性石墨、石棉橡胶板、陶瓷纤维等），外部用特定的冷作工艺包覆金属薄板的复合型垫片。

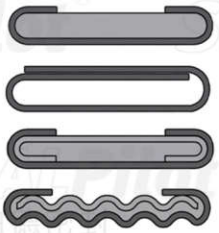
金属护套垫圈特别适用于密封热交换器，燃气管，铸铁法兰和高压釜等的平坦表面。金属护套垫圈有多种类型可供选择，以满足最苛刻的应用要求。

金属护套垫圈有多种类型可供选择，以满足最苛刻的应用要求。

■内部填料 - 惰性有机化合物，膨胀石墨，PTFE，陶瓷纤维。

■表面金属 - 软铁，低碳钢，不锈钢，镍合金，铝，黄铜，铜，钛。

- 换热器。
- 锅炉和烟道。
- 高压灭菌器和其他压力容器。
- 煤气总管。
- 泵。
- 阀帽。
- 涉及高温和干热的环境。





Description

Gaskets with a soft pliable core, surrounded by a metal jacket that totally or partially encloses the filler material. Pass partition bars can be incorporated, either integrally or welded into the gasket. Jacket may be corrugated.

Materials

- Fillers - inert organic compounds, expanded graphite, PTFE, ceramic fibre.
- Jackets - soft iron, low carbon steels, stainless steels, nickel alloys, aluminium, brass, copper, titanium.

Typical applications

- Heat exchangers.
- Autoclaves and other pressure vessels.
- Pumps.
- Duties involving high temperature and dry heat.
- Boilers and flues.
- Gas mains.
- Valve bonnets.

BD1100 紫铜垫片/不锈钢垫片/铅垫片/铝垫片/齿型垫片

金属平垫片由整体金属经机加工制成，用于压力容器、塔、槽、阀盖等部位的密封。根据工艺、性能及用途不同，主要有齿型垫片、紫铜垫片、不锈钢垫片种类.

材料的选择将始终取决于您的项目和规格。由于使用了大量材料，我们将始终根据您的零件规格进行调整：

- 软钢
- 纯铁（ARMCO）
- 不锈钢（304L，316L ...）
- 青铜
- 黄铜

- Soft steel
- Pure iron (ARMCO)
- Stainless steel (304L, 316L...)
- Bronze
- Brass



Flat metal gaskets are sealing elements very often used in chemical and petrol-chemical refineries, with installations, measure and control equipment, heat engines, etc. Usually, they are manufactured from soft metals in standard sizes according customers' specifications or to norms, such as: ANSI, DIN, BS and API. The gaskets' profile can come in various shapes: round, square, oval, or other complex forms. The cutting is being done by using of water jet machines.

The choice of the material will always depend on your project and your specifications. We will always adapt it to the specifications of your parts thanks to a large choice of materials used

椭圆形垫片/八角垫片

由锻造及热处理和机械加工制成，是一种应用于油及气体的管法兰，压力容器，高速接合面，高温高压阀盖等的金属密封垫片，尤其压力、温度有波动的场合，仍能保持较好的密封性，根据其材料、工艺、性能及用途不同，主要有椭圆形垫片、八角垫片等种类。

根据客户规格制造的特殊金属垫圈。

材料选用

- 标准：软铁、低碳钢、合金钢F5和410；不锈钢304、304L、316、316L、321和347。
- 非标准：高镍合金、超级合金钢和其他不锈钢等级。
- 橡胶涂层环接头垫圈-软铁金属环接头垫圈涂有丁腈橡胶，用于测试井口组件和阀门,环可以重复使用，不会损坏法兰槽。



Metal gaskets are designed to withstand extreme temperatures, pressures and chemical exposure. Available in standard and custom configurations, these rugged metal gaskets are made of a wide range of materials to accommodate all types of process applications.

The gaskets are set in trapezoid groove flanges. Ring joint gaskets are separated into two types, R oval and octogonal, Type BX with 23° slant and RX with 23° slant and bore.

Ring-Joint-Gaskets as per EN 12560-5, API- and ASME – standards are mainly used for piping installations in refineries.

Prime Features:

R type (oval and octagonal) solid sections to fit standard ring joint flanges with trapezoidal grooves.Types RX and BX with complex beveled edge sections for wellhead pressures above 700 bar.Split Gaskets - Used where an API flange is to be joined with low pressure ANSI Flange where a spiral wound gasket is used.

Special metal gasket made to customer specifications.

Materials:

Standard: Soft iron, low carbon steel, alloy steels F5 and 410; stainless steels 304, 304L, 316, 316L, 321 and 347.

Non-standard: high nickel alloys, super alloy steels and other stainless grades.

BD3700 符合DIN / EN / ANSI标准

在高压力和温度下，齿形复合垫圈是在极端工作条件下密封法兰连接的理想选择。它们结合了软材料垫圈的良好适应性和金属垫圈的高稳定性。

带槽衬垫是金属圆垫片，其轮廓为45° 沟槽。异形密封表面覆盖有软层材料，例如石墨，纤维材料或PTFE箔。工作温度从-200°C到+ 1000°C。这样，密封件可以可靠地承受高达400bar的压力。



At the highest pressures and temperatures, kammprofile gaskets are ideal for sealing flange connections under extreme operating conditions. They combine the good adaptability of soft material gaskets with the high stability of metal gaskets。

The grooved gasket is a metal disc which is profiled with 45° furrows. The profiled sealing surface is covered with soft layer material such as graphite, fibre material or PTFE foil. The working temperatures extend from -200° C up to +1000° C In this way the seal can reliably withstand pressures of up to 400 bar。



sealpilot®齿形垫圈表面具有柔软的材料层，可用于榫槽面法兰法兰系统(TG)或内、外法兰系统。

sealpilot®Kammprofile gasket with soft material layer for use with tongue and groove flange systems (TG) or male and female flange systems.



具有柔软材料层和定心环的齿形复合垫圈，适用于光滑法兰和凹凸法兰

sealpilot®Kammprofile gasket with soft material layer and centering ring for use with smooth flanges and flanges with raised face.

BD6600 优质的石墨成型环

由石墨带压制而成，无任何填充剂和粘接剂，纯度大于98%。填料环标准截面为方形也可加工成楔形或V形适用于高压部位。石墨填料环适合酸碱和溶剂等强腐蚀性介质且不污染介质；也用于高压阀门，柱塞泵，搅拌器等介质不能被污染的场所如食品、医药、造纸、化纤等行业。

产品特点：

▲ 具有耐磨性强、超强的耐磨性、自润滑性、较高强度、较好的耐化学性能

▲ 无任何外加填充剂或粘接剂，尺寸精确，能经受剧烈交变的温度和压力，是密封的理想填料、密度可根据用户要求定做。

▲ 耐用、密封性能可靠、耐腐蚀与不老化性



Graphite moulded rings with outstanding qualities.

sealpilot® graphite moulded rings are high-efficiency, moulded graphite sealing rings, produced to precise density and size. They are manufactured from expanded high purity flexible graphite foil with a corrosion inhibitor. They do not contain binders, elastomers or fillers.

It offers excellent sealing capabilities such as thermal stability, self-lubrication, corrosion resistance, without being brittle and aging etc., under extreme conditions conditions with a longer life and less maintenance.

We offer Graphite Molded Packing Rings. It is available in forms like endless, 2 halves oblique cuts & single oblique cu.

Features:

Made by compressing spirally wrapped graphite tapes

High purity of graphite with low chloride, sulphur, fluoride, ash content etc, with no binders

Self lubricating packing with extremely low friction characteristics.

BD9900 高品质编织盘根板系列



碳化纤维编织盘根/Carbonized Fiber Packing

碳化纤维编织盘根是有腈纶纤维预氧化后编织而成的盘根，表面用聚四氟乙烯乳液和润滑剂处理而成。温度250℃。

Carbonized fiber packing is a braided packing made of carbonized poly acrylonitrile fiber and finished with PTFE dispersion and lubricant.Temperature 250℃。



碳化纤维编织盘根Kevlar Fiber Braided Packing

芳纶纤维编织盘根是由杜邦Kevlar纤维、经浸渍聚四氟乙烯乳液等润滑剂处理再编织成方形截面而成。由于Kevlar纤维其强度和模量有钢丝之强度，这种盘根与其它各种编织盘根相比、能承担更高的介质压力、它可和其它种类半根分隔安装或作为端面环、即可组成各种不同特性的盘根组。

Kevlar fiber braided packing is made of Du Pont`s Kevlar yarn impregnated with PTFE dispersion and processed with lubricant, braided into square cross section. As the strength and module of Kevlar is as high as the steel-like strength. So this packing combined with other kinds of braided packing, they can resist more serve media and higher pressure. It can be installed separately or as end rings with other kinds of packing to combine different characteristic into packing set.



碳化纤维编织盘根/Pure PTFE Fiber Braided Packing

纯四氟编织盘根是由聚四氟乙烯线制成的编织盘根、不浸渍任何聚四氟乙烯乳液和油脂类，并具有密封高速转轴性能和附加的耐高温剂、被建议用于化工、食品、药品等不允许有污染的操作场合、也可用于除了可溶性碱金属以外所有化学介质的密封。

Pure PTFE fiber braided packing is a braided packing made of PTFE yarn without soaking any PTFE dispersion and lubrication but with greatly enhanced ability to seal high speed shafts with addition of inactive and heat-resisting agents. It is recommended for chemical engineering, foodstuff,pharmaceutic where contamination is not allowed. Also it can be applied to seal all chemicals except molten alkali metals.



BD0775 耐高温纤维编织系列



玻璃纤维布 / fiberglass textile

这种纺织品提供高温编织布。在切割时可以避免空气中粉尘颗粒，特殊的无绒处理是产品标准特征。这种材料有PTFE，氯丁橡胶或有机硅涂层。有现货供应全卷，零件卷和薄板。
温度 1000° F / 538℃。
玻璃纤维是惰性的，不受阳光，真菌或细菌的影响。
玻璃纤维布对大多数化学品的侵蚀具有很强的抵抗力。

This textile provides a high temperature woven cloth. A special lint free treatment restricting airborne particles while cutting is a standard feature. This material is available with PTFE, Neoprene or Silicone coatings.Full rolls, part rolls, and sheets are available from stock。
Temperature 1000°F/538°C。
Being inert, fiberglass is unaffected by sunlight, fungus or bacteria。
Fiberglass cloth is highly resistant to attack by most chemicals。



有机硅涂层玻璃纤维防火套/硅钛防火布

隔热防火套管由致密的玻璃纤维玻璃纤维制成，带有厚厚的自熄性高温硅橡胶涂层，可防止软管，电缆和线束因暴露在极热，明火和熔化的飞溅中而受损。
它还提供高度的绝缘值，保护热，冷或低温管线，管道和管道免受热或冷损失，提供节能和耐磨性。

■内套：玻璃纤维　　■涂层材料：硅胶
■工作温度：-50°C - 260°C　　■易燃性：VW-1
■电压：7.0KV

Silicone Coated Fiberglass Fire Sleeve

Heat shielding fire sleeve is fabricated from a dense E-glass fiberglass with a thick coating of self-extinguishing high temperature silicone rubber which is engineered to protect hoses, cables and wire harness from damage due to exposure to extreme heat, open flame and molten splash.
It also provides a high degree of insulation value, protecting hot, cold or cryogenic lines, pipes and tubing from heat or cold loss, providing energy savings and abrasion resistance.

■Inner Sleeve: Fiberglass　　■Coating Material: Silicone
■Operating Temp: -50°C - 260°C　　■Flammability: VW-1　　■Voltage: 7.0KV

BD0770 耐高温纤维编织系列



陶瓷纤维布/带 Ceramic fiber tapes

陶瓷纤维的胶带所使用的陶瓷纤维纱的质量产生并用金属丝股线或金属丝的玻璃纤维增强。它具有增强性，柔韧性，可以获得各种厚度，尺寸和密度。陶瓷纤维带完全由在低温下焚烧的粘合剂材料制成，并且不影响隔热性能。

特点：

- ■导热系数低
- ■优异的抗热冲击性
- ■出色的热稳定性
- ■优异的拉伸强度
- ■不含石棉
- ■耐化学腐蚀
- ■耐温最高1260°C

Ceramic fiber tapes are manufactured using high quality ceramic fiber yarn and are reinforced with filaments of fiberglass yarn or wire. It is reinforced, flexible and can be obtained in a wide variety of thicknesses, dimensions and densities. The ceramic fiber tape is made entirely of binder material incinerated at low temperatures and which does not affect the thermal insulation properties.

Features:

- ■Low thermal conductivity
- ■Excellent resistance to thermal shock
- ■Excellent thermal stability
- ■Excellent tensile strength
- ■Does not contain asbestos
- ■Resistance to chemical corrosion Operating Temp Max: 1260°C



陶瓷纤维纸 / Ceramic Fiber Paper

柏德密封的陶瓷纤维纸用于解决各种与热有关的问题，并具有出色的化学稳定性，可抵抗大多数腐蚀性物质的侵蚀。

陶瓷纤维纸具有重量轻，结构均匀和低导热性，是高温绝缘，耐化学腐蚀和抗热冲击的完美解决方案。陶瓷纤维纸可用于各种类型的耐火材料和密封应用。

该材料可用于温度为1000°F（538°C）至2600°F（1425°C）的应用。

sealpilot®Ceramic Fiber Papers are used to solve a wide variety of heat-related problems and exhibit excellent chemical stability, resisting attack from most corrosive agents.

Ceramic Fiber Paper features lightweight, structure uniformity and low thermal conductivity, which serve as a perfect solution for high temperature insulation, chemical corrosion resistance and thermal shock resistance. Ceramic Fiber Paper can be used in various types of refractory and sealing applications.

This material can be used for applications with temperatures from 1000°F (538°C) to 2600°F (1425°C).

BD6500系列

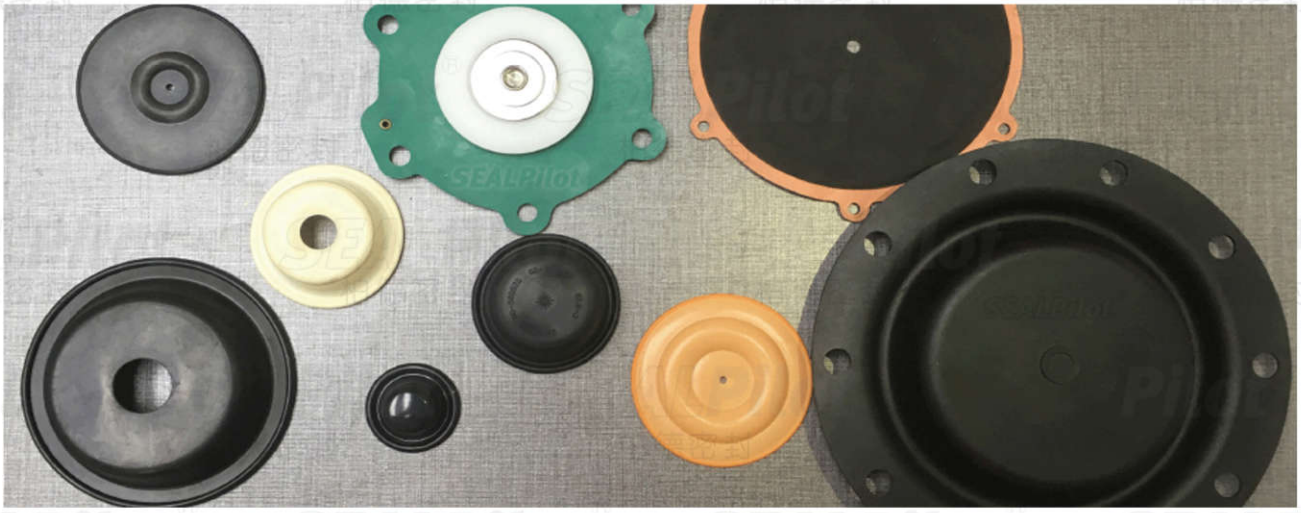
柏德密封®提供为特定行业应用而设计和设计的各种定制模压织物增强橡胶隔膜，包括气动执行机构、泵和控制阀。我们在垫片制造行业的多年经验证明，某些应用要求橡胶弹性体层必须非常灵活和坚韧，以承受长寿命的反复弯曲。要求每一个定制的成型橡胶隔膜都能够承受强制性的工作温度，并且能够抵抗任何可能接触到的化学品、液体或气体。

橡胶隔膜行业应用

橡胶膜片和织纤维增强橡胶隔膜对于工业泵和阀门行业的设备和系统的运行至关重要。柏德密封在隔膜应用的工程和制造解决方案方面经验丰富，包括：泵，气动隔膜泵，高压隔膜泵，隔膜压力表，隔膜真空泵，隔膜空气压缩机，隔膜燃油泵，隔膜计量泵，执行器，气动执行器，热执行器，和控制阀。

提供各种橡胶材料

天然橡胶（NR，IR）| 丁腈橡胶（NBR）| 氟硅氧烷（FVMQ）| 乙烯丙烯（EPDM）| 氟橡胶（FKM）
有机硅（VMQ）| 氯丁橡胶（CR）



sealpilot® provides a variety of custom molded fabric reinforced rubber diaphragms designed and engineered for specific industry applications, including pneumatic actuators, pumps and control valves. Our years of experience in the gasket manufacturing industry has proven that certain applications demand that a rubber elastomer layer must be very flexible and tough in order to withstand repeated flexing over a long lifetime. It is required that each and every custom molded rubber diaphragm be able to handle mandatory operating temperatures and also be resistant to any chemicals, fluids or gases it may come in contact with.

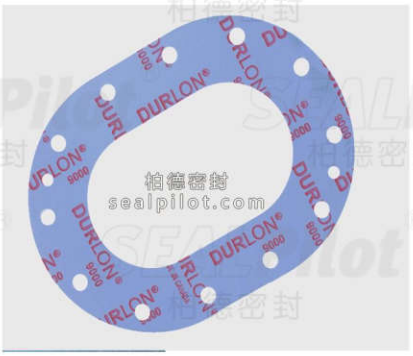
Rubber Diaphragm Industry Applications

Rubber diaphragms and fabric reinforced rubber diaphragms are critical to the operation of equipment and systems in the industrial, automotive, aerospace, oil, gas, medical instrumentation, and pump and valve industries. If a dependable and accurate response to a hydraulic or pneumatic pressure change is needed then almost certainly a diaphragm seal is required. sealpilot is experienced in engineering and manufacturing solutions for diaphragm applications including: pumps, pneumatic diaphragm pumps, high pressure diaphragm pumps, diaphragm pressure gauges, diaphragm vacuum pumps, diaphragm air compressors, diaphragm fuel pumps, diaphragm metering pumps, actuators, pneumatic actuators, thermal actuators, wax actuators, and control valves.

SEALPilot® 柏德密封 全球密封材料仓储中心

柏德密封熟悉全球同类密封产品的性能和应用。
完善的产品组合和庞大的资料库，几乎涵盖任何一种密封材料。
与全球各大密封品牌保持密切的合作，使得柏德垫片原材料物性相当稳定，产品品质可控。
独立的配方设计能力让柏德密封更大程度的满足客户实际工况需求。

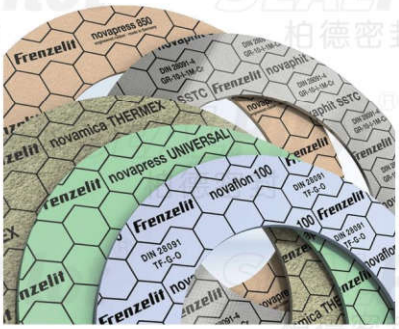




















柏德密封
常年库存
全球各品牌
密封材料

高精度高效率的垫片加工服务

柏德密封不但可以提供美标、日标、美标、欧标、国标的标准垫片，
更可以为您定做从 1 件到 10 万件的特殊产品。



压缩机垫
Refrigeration compressors



各种接口密封垫
Sealing gasket for interface



工程机械修理包
construction machinery Gaskets



发电机密封垫片
Generators Gaskets



各种管道接口垫片
Pipe gasket



电机垫片
Motor gaskets



车门，玻璃门夹锁扣垫片
Door hinge gaskets



油酊暖气片垫片
radiator gaskets

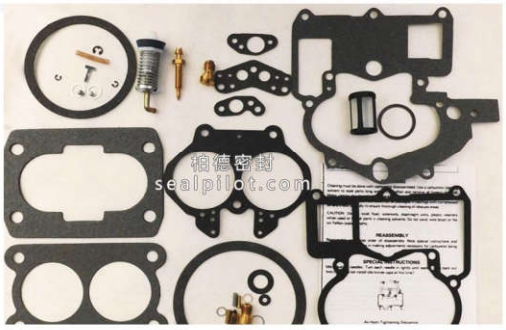
柏德密封不仅生产各种高质量密封材料，
更可为客户提供独特的加工协同服务，
从而为客户节约成本和时间。



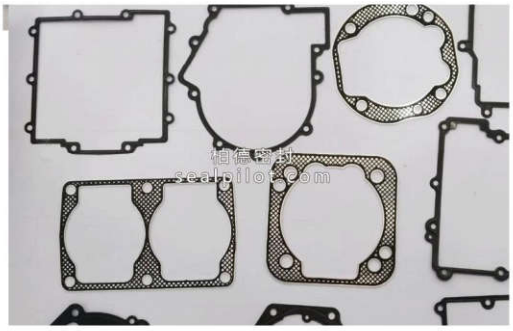
发动机垫片汽缸垫片
Cylinder Head Gasket



缸头垫片
manifold gaskets



化油器垫片
Carburetor gasket



汽车，摩托车修理包
Motorcycle gaskets



变速箱阀板垫片
Valve plate gasket



不锈钢排气管垫片
Exhaust Manifold Gasket



消音器垫片
Silencer gaskets



排放系统封装垫片
Emission Control Mounting Mats

SEALPilot®

Gaskets & seal solutions

定制生产	全球交付	各种材料和厚度
Bespoke Manufacturing	Worldwide Delivery	Various Gauges/Thicknesses

www.sealpilot.com



杭州工厂

Hang Zhou factory

Address: No 18,Bei sha Xi Road
Yuhang Economic Development Zone Hangzhou
TEL：+86-0571-85562995
E-mail : sales01@sealpilot.com



嘉兴工厂

Jia Xing factory

Address: 1336 Hangfu Road, Chongfu Town
Tongxiang, Jiaxing City, Zhejiang Province
TEL：+86-0573-88229313
E-mail : sales01@sealpilot.com

2019. 5 产品目录记载内容：2019 年 5 月

由于产品功能的提升或其他原因，该产品目录的内容可能在未做报告的情况下发生变更，请于承知。另外，该产品目录中所记载数据仅可用作参考，任何情况下不能作为保证产品功能之数据。
China sealpilot® reserves the right to change technical specificationt in this catalogue without notice. The data contained within this catalogue can only be taken as a guide.