Simmerring®

Standard range



Simmerring BAUX2, BAUSLX2

Standard type to DIN 3760, with rubber-covered O.D., with or without additional dust lip (SL) to protect against light to moderate levels of contamination. Available in various designs and materials.

Standard material: 72 NBR 902.

骨架油封BAUX2,BAUSLX2 根據DIN標準類型3760,與橡膠覆蓋的外徑,有或沒有附加的防塵唇(SL), 以防止輕度到中度污染。提供各種設計和材料。 標準材質:72 NBR 902。

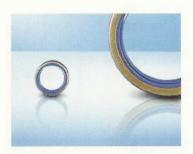


Simmerring BAUM, BAUMSL

Standard type to DIN 3760 with rubber-covered O.D. and sprung sealing lip made from 75 FKM 585 fluoroelastomer for high thermal stability and chemical resistance. Available with or without additional dust lip (SL) to protect against light to moderate levels of contamination.

骨架油封BAUM,BAUMSL 標準型為DIN 3760標準橡膠覆蓋外徑和彈簧密封唇由75 FKM氟彈性體585製成, 有著高度的熱穩定性和耐化學性。

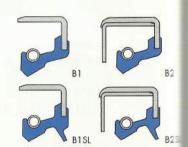
提供或不提供額外的防塵唇以防止輕度到中度污染。



Simmerring B1, B2, B1SL, B2SL

Standard designs with open (B1) or closed (B2) metallic O.D. for simple mounting. With optional dust lip (SL) to prevent contamination. Standard material: 72 NBR 902.

骨架油封B1,B2,B1SL,B2SL 標準設計的開放式(B1)或關閉(B2)金屬外徑提供簡單的安裝。 可選項的防塵唇(SL)以防止污染。 標準材質:72 NBR 902。





Simmerring BABSL (Classical Pressure Seal)

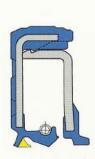
Pressure seal without additional backup ring, used for sealing pressurised media, e.g. in hydraulic pumps, hydraulic motors and hydrodynamic clutches. With additional dust lip (SL) to protect against contamination. Standard material: 72 NBR 902. For high thermal stability and chemical resistance: 75 FKM 595.

骨架油封BABSL(經典壓力密封)壓力密封無需額外的支撐環,用於密封有壓力的流體,如在液壓泵,液壓馬達和流體動力式離合器。附加的防塵唇(SL)以防止污染。 標準物質:72 NBR 902。用於高的熱穩定性和耐化學性:75 FKM 595。



Simmerring MSS 1 (Modular Sealing Solution)

The standard BA...U...SL Simmerring combined with an internal buffer seal with a sine-wave-shaped sealing lip, as a one-part solution, for example for use in drive technology. A tried and tested design with high resistance to dust and material abrasion in the oil cavity. Available in two material combinations as standard: NBR/FKM and FKM/FKM.



骨架油封MSS 1(模組化密封解決方案) 該標準BA ... U...S1骨架油封結合內部緩衝密封具正弦波形密封唇,作為一個部分解決方案,例如用 於驅動器技術的使用。一個久經考驗的設計,在油腔具高度的抗灰塵性與高材料耐磨性。



Simmerring MSC (Modular Sealing Component)

Axial buffer element for moderate to high contamination levels, available in NBR and FKM with sheet steel or stainless steel metal holder section. Can be used as a grease or dust seal.

骨架油封MSC (模組化密封部件) 軸向緩衝元件對中度到高污染情況提供NBR和FKM用鋼板或不 銹鋼金屬支架部分。可以用作潤滑用或防塵密封件。



Simmerring Cassette Seal

Complete unit consisting of a Simmerring and a captive wear sleeve. Rational system solution with integrated labyrinth for use in heavily contaminated environments. The built-in counterface meets the exacting requirements of a dynamic seal. For use mainly in agricultural and construction machinery.

骨架油封密封完整單元,由一個骨架油封和防磨套管。整體設 計在嚴重污染的環境中使用合理的系統解決方案。內置的對立面滿足動態密封的 嚴格要求。使用主要集中在農業和建築機械。



Simmerring Combi Seal

A combination seal consisting of at least two mounted elements, designed mainly for use in agricultural and construction machinery. The PU element in this system also provides effective sealing on slight axial movement.

骨架油封密封Combi 密封 組合密封包括至少兩個安裝元件,設計主要用於農業和建築機械的使用。 在這個系統中的PU元件還提供了輕微的軸向運動的有效的密封。



Simmerring Radiamatic® – R 35, R 36, R 37, R 58

Seal rings for flange bores in mills, large heavy machinery gearboxes and main drives of wind power generators. Application parameters: pressure: 2.5 MPa; temperature: -30/-10 to 100/180°C (depending on the material); speed: 0.5 m/s. Application examples: mills, ship-building, steel water construction.

骨架油封Radiamatic® - R 35, R 36, R 37, R 58密封圈用於法蘭孔中鋼廠 大型重型機械變速箱和風力發電機的主要驅動器。

應用參數:壓力:2.5 MPa ;溫度:-30 / -10℃~100/180°C (取決於材料);速度:0.5米/秒 應用實例:鋼廠,造船等。



Designed for extreme thermal and chemical stress, dry running, poor lubrication and where non-slip characteristics are required. Stainless steel metal casing. PTFE compound sealing lip: PTFE 10/F56101.

骨架油封B2PT專為極端的熱和化學應力,空轉,潤滑不良以及其他非滑動的特性等應用。 不銹鋼金屬外殼。聚四氟乙烯複合密封唇:PTFE 10 / F56101。







Simmerring®

Standard range



PTFE Simmerring - Radiamatic® HTS II

Low-friction, excellent sealing characteristics (CIP), easy to clean, leakage-free. Application parameters: Pressure: 0.6 MPa; temperature: -70 to 200°C; rotary speed: 18 m/s.

PTFE骨架油封Radiamatic®HTS II

低摩擦,優良的密封性能(CIP),易清潔,無洩露。

應用參數:壓力:0.6MPa;溫度:-70至200℃;旋轉速度:18米/秒。



PTFE Simmerring - Radiamatic® EWDR

Safe at simultaneous high pressure and high speed, low power dissipation, low leakage rate, simple installation. Application parameters: pressure: 3 MPa; temperature: -70 to 200°C; rotary speed: 20 m/s.

PTFE骨架油封 - Radiamatic®EWDR在同時高壓和高速操作下是安全的,低功耗,低洩漏率,安裝簡單。

應用參數:壓力:3 MPa;溫度:-70至200℃;旋轉速度:20米/秒。



GA and GSA type sealing caps

Elastomer-coated push-fit sealing caps for static sealing of apertures, e.g. on gears. The elastomer coating protects the seal from bores with rough surfaces, heat expansion and split casings. Standard material: NBR; other materials: FKM, ACM, AEM, etc.



GA和GSA式密封瓶蓋

彈性材料塗層推入式密封蓋用於孔或是縫隙的靜密封,

如:在齒輪。彈性體塗層提供的保護從孔的表面粗糙,熱膨脹到分裂套管密封。 標準材料:NBR;其他材料:FKM,ACM,AEM,等等。

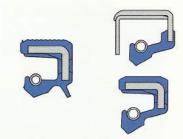
Special designs



Simmerring in special materials

Many of our standard Simmerring seal types are also available in special materials, such as FKM compounds for high thermal stability or ACM materials for large-volume applications.

骨架油封的特殊材料: 許多標準骨架油封密封件類型也提供特殊材料的選項,例如氟橡膠化合物FKM有著高的熱穩定性,ACM材料用於大體積的應用。





Dual material Simmerring seals

Where different requirements have to be met at the same time, the cost and performance of seals can be optimised economical and technical terms by combining different materials, for example an ACM O.D. and an FKM sealing lip. A third element, such as a PTFE dust lip, can be added for special applications.

雙材料骨架油封密封可以在同一時間滿足不同的要求,產品的C/P值相當高 (cost and performance成本與表現值),技術面來講藉由幾種不同材料的組合 例如一個ACM外徑搭配FKM密封唇,而第三個元件,像是四氟PTFE防塵唇, 可以添加用於特殊應用。



Simmerring AT, ATSL, ATD, ATDSL, BT, BTSL

Simmerring seals with PTFE-coated sealing lip for applications with poor lubrication, high pressure or high circumferential speeds. Optional dust lips to prevent contamination. ATD/ATDSL designs for components under pressure. Other designs available for customer-specific requirements.

骨架油封AT,ATSL,ATD、ATDSL,BT,BTSL骨架油封密封件塗PTFE的密护用於潤滑不良,高壓或高圓周速度的應用。可選項的防塵唇以防止污染。 ATD/ATDSL設計用於壓力下的組件。其他的設計則可按客戶的具體要求來設計





Simmerring BAPT

Simmerring with bonded PTFE sealing lip, with or without helix. Suitable for use as an alternative to elastomer seals and for some other applications where high thermal stability and resistance against aggressive mediums are required. Used primarily in engines as a crankshaft seal. Depending on requirements, the dust lip can be made from either

elastomer or fleece.

骨架油封BAPT骨架油封與嵌入的PTFE密封唇,帶或不帶螺旋。
適合用作替代彈性體密封件和其他一些應用在高導熱穩定和耐腐蝕性介質是必需的。
主要用於發動機的曲軸密封。根據需要,所述防塵唇可以從彈性體或羊毛製成。



Simmerring BDPT

Version with low-friction PTFE sealing lip for extreme thermal and chemical stress, dry running and insufficient lubrication. Additional static sealing through partly rubberised O.D.

骨架油封BDPT版本有著低摩擦聚四氟乙烯PTFE密封唇可耐極端的熱和化學應力,空轉和潤滑不足。附加靜密封通過部分塗膠外徑OD。



Simmerring®

Special designs



Simmerring B1BA

Simmerring with metal case. Higher retention force thanks to partial elastomer sleeve on the O.D. and the back face. Primarily for use in commercial vehicles and construction machines.

骨架油封B1 BA是有金屬為外殼的骨架油封。因為在外徑OD及背面採彈性體套管以保持高張力。

主要用於商用車輛和建築施工機械使用。





Simmerring MSS 7 (Modular Sealing Solution)

The standard BA...U...SL Simmerring combined with a rubber slip ring with axial dust lip as a one-part solution, for example for use in drive technology. A tried and tested design with high resistance to dust, water, external environmental influences and a counterface that is optimally matched to the shaft seal. Available as special-purpose solution in the materials NBR and FKM.

骨架油封MSS 7(模組化密封解決方案)標準BA ...U ...SL骨架油封結合橡膠滑環與軸向防塵唇作為一個完整的解決方案,例如用於驅動器技術的使用。一個久經考驗的設計具有很高的抗灰塵,水,外部環境的影響,而且是最佳匹配軸封一個對立面。提供材料選項有NBR和FKM作為專用解決方案。



Simmerring washing machine seal

High-performance seal for high durability levels at poor lubrication conditions, high temperatures, high circumferential speeds and high contamination levels.

Simmerring洗衣機骨架密封: 高性能密封在潤滑條件不好, 高溫, 高圓周速度運動和高污染環境提供高耐久性水平。





LR - slip ring for Simmerrings

Universal counter slip ring for Simmerrings. Cost-saving alternative to finishing new shafts or repairing worn running surfaces. Also available with rubber-coated I.D. Most versions have no flange.

在替代整理新的軸或修復磨損的運行表面提供節省成本的方法。 也有提供內徑的橡膠塗層,而大多數版本都沒有法蘭。





Simmerring PPS (Premium Pressure Seal)

Patented pressure-resistant, low-wear sealing lip profile for use in hydrostatic drives such as hydraulic motors and pumps, and hydrodynamic couplings. With additional dust lip against dirt ingress. Available in 75 FKM 595 for high thermal and chemical resistance.



骨架油封PPS(頂級壓力密封): 專利的耐壓,低磨損密封唇輪廓在靜液壓驅動器,例如液壓馬達和 泵和液力偶合器使用。與防止灰塵進入附加的防塵唇。 另有75 FKM 595材料應用於高耐熱和耐化學性。





Made from special materials, with a very short sealing lip and support of a metal reinforcement pulled down close to the shaft. The design comes with optional grease nipples. Primarily used at high pressures and moderate circumferential speeds in pressurised components, such as hydraulic motors and hydraulic pumps.



骨架油封BAHDSN用於高壓力

由特殊材料製成,具有金屬增強的支撐跟一個很短的密封唇拉下接近軸。該設計配有可選項的油嘴。主要用於在高壓和適中圓周速度在加壓部件,如液壓馬達和液壓泵。



Simmerring HLPS (High - Low Pressure Seal)

The new Simmerring for hydrostatic drives excels with its reliable sealing properties – especially at high pressures up to 20 MPa – and its low friction and power dissipation. The material used – HNBR – is extremely wear-resistant and thermally stable.

骨架油封HLPS(高 - 低壓力密封),用於靜液壓傳動的新型骨架油封擅長以其可 靠的密封性能 - 尤其是在高壓力可達20MPa - 和它的低摩擦和功耗。 所用的材料 - HNBR — 是非常耐磨和熱穩定。



Large diameter Simmerrings

For use in roller bearings, mills, the paper and steel industries, and large gear systems, large diameter, closed Simmerring seals are available in five different designs. The standard materials are NBR and FKM.

大直徑的骨架油封對於滾子軸承,軋機,造紙和鋼鐵等行業, 以及大型齒輪系統,大口徑的使用,封閉骨架油封密封件有五種不同的設 標準的材料是NBR和FKM。

Standard range Hydraulics Rod seals



U-ring NI 300

Polyurethane U-ring with asymmetrical profile, set back inner lip and additional protective and sealing bead on the inner diameter. The NI 300 provides additional protection against dirt ingress.

Application parameters: pressure: 40 MPa; temperature: -30 to 110°C; speed: 0.5 m/s.

Example applications: earth-moving machinery, support

cylinders, presses.

聚氨酯U形環有非對稱外形,根據內徑尺寸置放內唇和附加的保護和密封珠。NI 300提供了額外的防塵保護。應用參數:壓力:40 MPa ; 溫 度:-30至110℃;速度:0.5米/秒。應用實例:推土機械,船舶液壓,支撐缸,沖床。



U-ring T 20

Asymmetric U-ring with shortened inner lip for sealing piston rods. T 20 is suitable as a secondary seal in sealing systems. Application parameters: pressure: 40 MPa; temperature: -40 to 110°C; speed: 0.5 m/s. Example applications: earth-moving machinery, floor conveyors, HGV loading cranes, loading platforms, agricultural machinery, presses, injection moulding machines, marine Hydraulics, support cylinders and

不對稱的U型環在活塞桿有較短的內唇。 **1200是短點件為在密對**系統的二次密封。應用參數:壓力:40 MPa;溫度:-40~110℃;速度:0.5米/秒。應用實例:推土機械,地板輸送機,重型貨車裝載起重機,裝卸平台,農業機械,沖床,射出成型機,船舶液壓,支撑缸和標準氣缸。 **LF 300**



Polyurethane U-ring with asymmetrical profile and special grooving on the dynamic sealing side. The LF 300 is lowfriction and allows smooth movement.

Application parameters: pressure: 32 MPa; temperature: -30 to 110°C; speed: 0.6 m/s. Example applications: mobile Hydraulics, injection moulding machines.



聚氨酯U型環在動密封側有非對稱外形和特殊開槽。該LF 300是低摩擦,並允許平滑移動。應用參數:壓力:32 MPa ; 溫度:-30至110℃; 速度:0.6米/秒。應用舉例:移動液壓,射出成型機。



U-ring TM 20

Rod seal for hydraulic cylinders for use in heavy machinery. Made from wear-resistant polyurethane allows its use under high operating stress.

Application parameters: pressure: 40 MPa; temperature: -40 to 110°C; speed: 0.5 m/s. Example applications: presses, injection moulding machines.



U型圈TM20

用於重型機械液壓缸桿的密封。由耐磨聚氨酯製成,允許其在高工作壓力的使用。應用參數:壓力:40 MPa; 溫度:-40~110℃; 速度:0.5米/秒。 應用實例:沖床,射出成型機等。



Compact seal KI 320

Polyurethane compact seal with built-in backup ring, additional support and sealing edge, elements for axial mounting in the installation area and press-fit O.D. Reliable function even at high pressures and large gap widths. The additional sealing edge prevents dirt ingress. Application parameters: pressure: 50 MPa;

temperature: -30 to 110°C; speed; 0.5 m/s. Application

条實型密封KI320 examples: heavy earth-moving machinery, telescopic 聚氨酯密封紮實內建的支撐環,額外的支撐和密封邊,提供在安裝區塊的軸向安裝和壓接外徑的元件,即使在高壓力或大間隙寬度其性能可靠。加強的密封邊防止灰塵進入。應用參數:壓力℃50MPa;溫度:-30至110℃;速度; 0.5米/秒。應用舉例:重型推土機械,伸縮紅。





Syprim - SM

Two-part sealing set for use as a primary rod seal in combination with a U-ring (e.g. T 20) within a sealing system. Application parameters: pressure: 40 MPa; temperature: -40 to 110 °C; speed: 0.5 m/s. Example applications: earth-moving equipment, conveyors, agricultural machinery, injection moulding machines, marine Hydraulics, standard cylinders.



Syprim SM含兩個部分的密封套件用於密封系統內主桿密封與具有U形環(例如T 20)的組合。

應用參數:壓力:40MPa;溫度:-40~110℃;速度:0.5米/秒。

應用實例:推土設備,輸送機,農業機械,射出成型機,船舶液壓,標準氣缸。



Compact seal KI 310

Polyurethane compact seal with symmetric profile and pressfit O.D. The KI is especially suitable for installation areas with limited radial space. Compared to the U-rings, the KI 310 allows a greater surface roughness in the groove base. Application parameters: pressure: 40 MPa; temperature: –30 to 110°C; speed: 0.5 m/s. Application examples: conveyors, telescopic cylinders, steering cylinders, agricultural machinery.



緊湊型密封KI 310聚氨酯密封緊湊對稱分佈和壓接外徑 KI是特別適用於有限徑向空間的安裝區域。相較於U形環,KI 310允許在槽底部有更大的表面粗糙度。應用參數:壓力:40MPa ;溫度:-30至110℃; 速度:0.5米/秒。應用實例:輸送機,伸縮油缸,轉向油缸,農業機械等。



Omegat - OMS-MR

OMS-MR consists of a profile ring with an ISC O-Ring as a buffer element. The sealing set is generally used within a sealing system. Application parameters: pressure: 40 MPa; temperature: -30/-10 to 100/200°C (depending on material); speed: 5 m/s. Example applications: earth-moving equipment, conveyors, HGV lifting cranes, agricultural machinery, manipulators, presses, injection moulding machinery, marine Hydraulics, support and standard cylinders.



R由一個輪廓環含ISC O型環作為緩衝元件。密封套件用於一般的密封系統內。應用參數:壓力:40 MPa; 取決於材料);速度:5米/秒。應用實例:推土設備,輸送機,重型貨車起重吊車,農業機械,機械手臂,

麼,標準氣缸。



Omegat - OMS-S

Two-part sealing set; OMS-S is specially designed for larger diameters. Application parameters: pressure: 40 MPa; temperature: -30 to 100°C; speed: 5 m/s.

Example applications: conveyors, manipulators, presses, injection moulding machinery, marine Hydraulics, support and standard cylinders.



Omegat - OMS-S含兩個部分的密封套; OMS-S是專門設計用於更大的直徑。應用參數:壓力:40MPa ;溫度:-30至100℃;速度:5米/秒。 應用實例:輸送機,機械手臂,沖床,射出成型機械,船用液壓,支撐與標準氣缸。



U-ring T 24

U-ring with asymmetrical profile, set-back inner lip, additional protection and sealing edge and press fit on O.D. Simple rod seal, specially designed for telescopic cylinders and housings with narrow radius.

Application parameters: pressure: 40 MPa; temperature: -30 to 100 °C; speed: 0.5 m/s.



Standard range Hydraulics Rod seals



Compact seal TFMI

Two-part compact seal (bi-directional) for lightweight applications, consisting of a profile ring and an ISC O-Ring. For confined spaces and low friction. For new designs, we recommend more modern ranges, such as OMS-MR. Application parameters: pressure: 16 MPa;

temperature: -50 to 200°C (depending on ISC O-Ring material); speed: 2 m/s.

兩個元件組成的緊湊密封(雙向)應用於較輕的負荷,涵蓋一個輪廓環和ISC O型環。 用於密閉空間和低摩擦的環境。對於新的設計,我們推薦更現代的範圍,如OMS-MR。應用參數:壓力:16 MPa; 溫度:-50°C \sim 200°C (取決於ISC 0型環材料);速度:2*/秒。



Compact seal KI 520

Elastomer compact seal with second sealing edge on the dynamic and static sealing face, fabric reinforcement on the dynamic sealing face and backup ring as gap seal element. Application parameters: pressure: 50 MPa; temperature: –30 to 100 °C; speed 0.5 m/s.

For new designs, we recommend more modern ranges, such as KI 320

緊湊型密封KI 520 such as KI 320. 彈性體緊湊密封在動態與靜密封面有第二密封邊,在織物加固動態密封面和備份環作為間隙密封件。 應用參數:壓力:50 MPa;溫度:-30至100°C;速度0.5米/秒。 對於新的設計,我們建議更現代的範圍,如KI 320。



U-rings NI 150, NI 250, NI 400

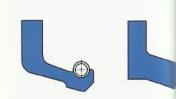
Single-directional elastomer U-rings with asymmetrical sealing lip profile. NI 250/400 with backup ring as gap seal element, NA 400 with fabric reinforcement on the dynamic sealing side.

Application parameters: pressure: 40 MPa; temperature: -30 to 100 °C; speed 0.5 m/s. For new designs, we recommend the modern ranges



Hat packing H with or without spring

Simple lip seals, sometimes sprung. For secondary applications and replacement part requirements. For new designs, we recommend the more modern ranges. Pressure 1 MPa; temperature: -30 to 100 °C; speed: 0.5 m/s.



帽狀包裝的H有或沒有彈簧

簡單的唇形密封用於二次應用和更換部件的需求。對於新的設計,我們建議更現代的範圍。 壓力1 MPa;溫度:-30至100°C;速度:0.5米/秒。



U-ring set T 23

Rugged, two-part U-ring set with shortened inner lip and active backup for sealing piston rods, especially at high pressures. Example applications: heavy earth-moving equipment, scrap claws, support cylinders. For new designs, we recommend the KI 320 range. Application parameters: pressure: 50 MPa;

temperature: -40 to 110°C; speed: 0.5 m/s.



堅固 ,由兩部分組成U型圈鑲有縮短的內唇和經常性的支援密封活塞桿。應用實例:重型堆土設備 ,油壓爪 ,支撐缸。 對於新的設計中,我們建議採用KI 320範圍。應用參數:壓力:50 MPa;溫度:-40~110℃; 速度:0.5米/秒。



雪佛龍密封座 - ES ESV

多重零件的密封座用於密封活塞環,由一個壓環,密封環和支撐環組成。可安裝於可調和不可調節的密封腔室。 應用實例:鋼鐵行業,壓力機,油壓爪,船用液壓,鋼鐵水利工程,棒成型系統。

應用參數:壓力:40 MPa; 溫度:-30/- 15~100/140°C(取決於材料),速度:0.5米/秒。

緊湊型密封 - S8

替代U型圈T 20用於低起升速度。應用參數:溫度:-15至140 C:速度為0.2米/秒。



Chevron seal seats - ES ESV

Multi-part seal sets for sealing piston rings, consisting of one pressure ring, sealing rings and a backup ring. The seal sets can be installed into adjustable and non-adjustable sealing chambers. Example applications: iron and steel industry, presses, scrap claws, marine Hydraulics, steel hydraulic engineering, rod moulding systems. Application parameters: pressure: 40 MPa;

temperature: -30/-15 to 100/140°C (depending on the material), speed: 0.5 m/s.



Compact seal - 5 8

Alternative to U-ring T 20 for low lifting speeds. Application parameters: Pressure: MPa; temperature: -15 to 140°C; speed: 0.2 m/s.



緊湊型密封SIMKO 300

兩個元件的緊湊型密封(雙向)用聚氨酯輪廓環和長方形的彈性接觸壓力的元件組成。 優點:高靜態和動態密封的表現,低摩擦,無沾黏滑動。接觸壓力元件用作抗旋轉裝置。 特別缺口防止竄出。應用參數:壓力:40 MPa; 溫度:-30至100℃;速度:0.5米/秒。 應用實例:堆土機,輸送機,農業機械等。

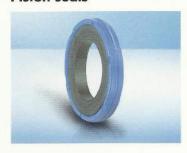
Omegat - OMK-MR, OMK-E 兩件式密封套用於密封雙重作用(OMK-MR)和單作用(OMK-E)

活塞,由一個輪廓環與ISC O型環作為緩衝元件。

應用實例:機器人,HGV裝載起重機,液壓控制裝備,沖壓機,壓力機械,塑膠射出設備和農業機械,標準氣缸。

應用參數:壓力:40 MPa; 溫度:-30 / -10到100/200℃(取決於材料),速度:5米/秒。

Standard range Hydraulics Piston seals



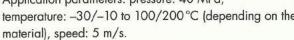
Compact seal Simko 300

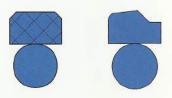
Two-part compact seal (bidirectional) with polyurethane profile ring and a rectangular elastomer contact pressure element. Benefits: high static and dynamic sealing performance, low friction and no stick-slip. Contact pressure element acts as anti-rotation device. Special notches prevent blow-by. Application parameters: pressure: 40 MPa; temperature: -30 to 100 °C; speed: 0.5 m/s. Application examples: earth-moving machines, conveyors, agricultural machinery.





Two piece seal set for sealing dual action (OMK-MR) and single action (OMK-E) pistons, consisting of a profile ring with an ISC O-Ring as the buffer element. Example applications: manipulators, HGV loading cranes, hydraulic control equipment, presses, pressure machinery, injection moulding equipment and agricultural machinery, standard cylinders. Application parameters: pressure: 40 MPa; temperature: -30/-10 to 100/200°C (depending on the





Standard range Hydraulics Piston seals



Omegat - OMK-S

Two piece seal set for sealing dual action pistons, OMK-S is specially designed for relatively large dimensions. Example applications: presses, injection moulding equipment, mills, steel hydraulic engineering.

Application parameters: pressure: 40 MPa; temperature: -300 to +100°C; speed: 5 m/s.

Omegat - OMK-S

兩片密封密封雙作用活塞設置,OMK-S是專為比較大的尺寸。 應用實例:沖床,塑膠射出設備,綱廠,綱水利工程。

應用實例:沖床,塑膠射出設備,鋼廠,鋼水利工程。 應用參數:壓力:40 MPa;溫度:-300~+ 100°C;速度:5米/秒。



Omegat - OMK-ES

Two-part seal seat for sealing pistons, consisting of a PTFE piston ring and a rubber profile ring as the buffer element. The Omegat OMK-ES should be used in single action pistons. This range is especially designed for larger diameters and heavy-duty hydraulic applications. Example applications: presses, injection-moulding machines, mills, steel hydraulic engineering. Application parameters: pressure: 40 MPa; temperature: -30 to 100°C; speed: 5 m/s.

兩部分的密封座用於密封活塞,它由一個聚四氟乙烯活塞環和橡膠輪廓環作為緩衝元件。所述Omegat OMK-ES應在單動作用的活塞被使用。 這個範圍控別是對於蘇士直徑光和重刑遊厭確用而認計。應用實例:油床,塑膠財出機,劃繩,細水利工程。

06

這個範圍特別是對於較大直徑米和重型液壓應用而設計。應用實例:沖床,塑膠射出機,軋鋼,鋼水利工程。 **U-ring NA 3等**男參數:壓力:40 MPa;溫度:-30至100℃;速度:5米/秒。

Unidirectional polyurethane U-ring with asymmetrical profile, set-back outer lip and press fit on ID. Very good static and dynamic seal. Example applications: earthmoving equipment, support cylinders, presses.

Pressure: 40 MPa; temperature: –30 to 100 °C; speed: 0.5 m/s.



單向聚氨酯U型圈與不對稱的外形,置回外唇壓入內徑。非常良好的靜態和動態密封。 應用實例:推土設備,支撐缸,壓力機。壓力:40 MPa; 溫度:-30至100℃;速度:0.5米/秒。



U-ring TM 21

Piston seal for hydraulic cylinders used in heavy machinery. The wear-resistant material means that it can also be used under high operating stress. Example applications: injection moulding machines, presses, large cylinders. Application parameters: pressure: 40 MPa;

temperature: -40 to 110°C; speed: 0.5 m/s.



活塞密封件用於重型機械用液壓缸。耐磨材料意味著它可以在較高的工作壓力使用。

應用實例:塑膠射出機,沖床,大型汽缸。

應用參數:壓力:40 MPa; 溫度:-40~110℃;速度:0.5米/秒。



U-ring T 18

Two-piece U-ring ring with active backup ring for sealing single action and 'back-to-back' dual action pistons.

Example applications: earth-moving equipment, marine Hydraulics, steel hydraulic engineering, support cylinders. Application parameters: pressure: 40 MPa; temperature: -40 to 110°C; speed: 0.5 m/s.



U型圈T 18

兩件式U型環有著活動備份環密封單動作用和"背對背"雙重作用活塞。

應用實例:推土設備,船用液壓,鋼鐵水利工程,支撐缸。 應用条約: 壓力: 40 MPa: 温度: -40~110℃:速度: 0.5米/利



Compact seal L 43

Five-piece compact seal for sealing dual-action pistons. Example applications: earth-moving equipment, agricultural machinery, standard cylinders.

Application parameters: pressure: 40 MPa; temperature: -30 to +100°C; speed: 0.5 m/s.

緊湊型密封L43

五件式緊湊型密封密封雙動活塞。應用實例:推土設備,農業機

械,標準氣缸。應用參數:壓力:40 MPa; 溫度:-30至+100℃; 速度:0.5米/秒。



Compact seal L 27

Four-part seal set with active backup rings for sealing dualaction pistons. This seal can bridge large gaps. Example applications: earth-moving equipment, injection moulding machinery, presses.

Application parameters: pressure: 50 MPa; temperature: -30 to +100°C; speed: 1.5 m/s.

緊湊型密封L27

四個部分的密封設置活動備份環密封雙動活塞。該密封可以彌合較大差距。

應用實例:推土設備,塑膠成型機,印刷機。

應用參數:壓力:50 MPa; 溫度:-30至+100℃;速度:1.5米/秒。



Compact seal Simko 320

Three-piece compact seal (bi-directional), consisting of fabric-reinforced elastomer sealing element and two guide backup rings made from highly wear-resistant polyamide.

Pressure: 40 MPa; temperature: -30 to +100°C;

speed: 0.5 m/s.

緊湊型密封SIMKO320

三件式緊湊密封(雙向),由纖維增強的彈性體密封元件和由高耐磨的聚酰胺製成兩個導向支撐環 。壓力:40 MPa; 溫度:-30至+100℃;速度:0.5米/秒。



Compact seal TFMA

Two-piece compact seal (bi-directional) for lightweight applications, consisting of a profile ring with an ISC O-Ring as the buffer element. For confined spaces and low friction. For new designs, we recommend more modern ranges, such as OMK-MR. Pressure: 16 MPa;

temperature: -50 to 200°C (depending on ISC O-Ring

material), speed 2 m/s. 緊湊型密封TFMA

爾代式緊急 (雙向)於輕量級應用,它由一個有ISC O形圈的輪廓環作為緩衝元件用於密閉空間和低摩擦。 爾件式緊湊密封(雙向)於輕量級應用,它由一個有ISC O形圈的輪廓環作為緩衝元件用於密閉空間和低摩擦。 對於新的設計,我們建議更現代的範圍,如OMK-MR。 壓力:16 MPa;溫度:−50℃~200℃(取決於ISC O形圈材料),速度2米/秒。



Compact seal T 19

Three-piece compact seal for dual-action pistons. Example applications: agricultural machinery, standard cylinders. Application parameters: pressure: 21 MPa;

temperature: -40 to 110°C; speed: 1.5 m/s.

緊湊型T19

三片緊湊密封雙動活塞。應用實例:農業機械,標準氣缸。 應用參數:壓力:21 MPa; 溫度:-40~110℃;速度:1.5米/秒。







Standard range Hydraulics Piston seals



U-rings NA150, NA 250, NA400簡單的彈性U型環與不對稱唇 輪廓。 NA250/400與備份環作為間隙密封件,NA400有織物強 化於動態密封邊。對於新的設計,我們建議現代的範圍,如 NA300和T18.

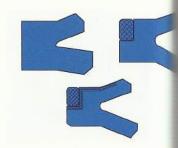
應用參數:壓力:40 MPa;溫度:-30至100℃;速度0.5米/秒。

U-rings NA 150, NA 250, NA 400



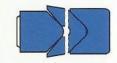
Simple elastomer U-rings with asymmetrical sealing lip profile. NA 250/400 with backup ring as gap seal element, NA 400 with fabric reinforcement on the dynamic sealing side. For new designs, we recommend the modern ranges, e.g. NA 300 and T 18.

Application parameters: pressure: 40 MPa; temperature: -30 to 100°C; speed 0.5 m/s.



Chevron seal seats - EK, EKV

Multi-part seal sets for sealing single action and 'back-toback' dual action pistons Example applications: iron and steel industry, presses, scrap claws, marine Hydraulics, steel hydraulic engineering. Application parameters: pressure: 40 MPa; temperature: -30/-15 to 100/140°C (depending on the material), speed: 0.5 m/s.



雪佛龍密封座 - EK, EKV複合密封套密封單作用和"背對背"的雙動活塞。 示範應用:鋼鐵行業,壓力機,液壓爪子,船用液壓,鋼鐵水利工程。

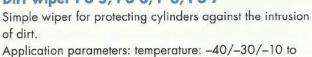
應用參數:壓力:40 MPa;溫度:-30/-15~100/140°C(取決於材料),速度:0.5米/利

Standard range Hydraulics Wipers



灰塵刮環 PU5, PU6, P6, PU7簡單刮環保護氣缸免受灰塵的侵入。 應用參數:溫度:-40/- 30/-10~110/100/200℃(取決於材料),速度:2米/秒。 所有的應用領域。

Dirt wiper PU 5, PU 6, P 6, PU 7



110/100/200°C (depending on the material), speed: 2 m/s. All areas of application.



刮環AUAS/ AUASR 聚氨酯刮環採用金屬外殼,突出的防塵圈唇有鋒利的穿孔密封邊緣。 非常良好的刮除效果,堅固的密封座,刮環和密封件之間沒有壓力積聚。

應用實例:推土設備,輸送機,支撐缸,農業機械等。 應用參數:溫度:-30~110℃;速度:2.0米/秒。





Polyurethane dirt wiper with metal casing, prominent wiper lip; with sharp, perforated sealing edge. Very good wiping effect, firm seat in housing, no pressure build-up between the wiper and the seal. Example applications: earth-moving equipment, conveyors, support cylinders, agricultural machinery.

Application parameters: Temperature: -30 to 110°C; speed: 2.0 m/s.







Dirt wiper for use in hydraulic cylinders, provides a high level of security against the intrusion of dirt and water. Also as protection and sealing element for pivot bearings. Application parameters: Temperature: -30 to 100°C (in mineral greases).



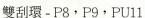
刮環AUPS

灰塵擦拭在液壓缸使用,提供了對灰塵和水的侵入高安全級別的保障。另外,作為支點軸承的保護和密封。 應用參數:溫度:-30至100℃(在礦物潤滑脂)。



Double wiper - P 8, P 9, PU 11

Double wiper for protecting cylinders against the intrusion of dirt and to improve the overall seal. Application parameters: temperature: -40/-30 to 110/100°C (depending on the material), speed: 1 m/s. All areas of application.



雙刮環用於保護氣缸免受灰塵的侵入,並改善整體的密封。 應用參數:溫度:-40/-30到100/110°C(取決於材料),速度:1米/秒。 所有的應用領域。



Double wiper - PT 1, PT 2

Quick-assembly double wiper with optimum wiping performance thanks to double ISC O-Ring support. Application parameters: temperature: -30/-10 to 100/200°C (depending on the material), speed: 5 m/s In heavy machinery, offers extreme security against dust.





雙刮環®PT1,PT2

快速裝配雙刮環具有最佳刮除效果源自 ISC 0型環的支撐。 應用參數:溫度:-30/-10至100/200°C [取決於材料),速度:5米/秒。 在重型機械方面提供極致的安全性,防止灰塵。



Wiper AS and ASOB

Elastomer dirt wiper for lightweight applications. AS with additional metal casing, projecting wiper lip. For new designs, we recommend more modern ranges. Application parameters: temperature: -30 to 100°C; speed: 2.0 m/s.



刮環AS和ASOB

橡膠刮環於輕型的應用。 AS有額外的金屬外殼,突出的刮環唇緣。 對於新的設計,我們建議更現代的範圍。

應用參數:溫度:-30至100℃;速度:2.0米/秒。



Wiper AUASOB

Quality polyurethane dirt wiper with support on back face, no metal reinforcement. For slight and moderate mobile Hydraulics and for standard cylinders.

Material: T 94 AU 925.



高品質的聚氨酯灰塵刮環在背面有支撐,無須金屬加固。 用於輕中度的移動液壓和標準氣缸。 材質:T94 AU925。



Standard range Hydraulics Guides



Guide bush Guivex SBK, KBK

Convex hard fabric guide bush for Hydraulics, with optimum stress distribution. Application parameters: temperature: -50 to 120°C; speed: 5 m/s.

導套Guivex SBK, KBK 凸硬面布料液壓導套,有最佳應力分佈。 應用參數:溫度:-50至120℃;速度:5米/秒。



Hard fabric guide bush - SB, KB

Guide bushes for piston rods (SB) and pistons (KB) under heavy stress. Application parameters: temperature: -50 to 120°C; speed: 5 m/s.

硬布導套 - SB, KB 在活塞桿(SB)和活塞(KB)的導向襯套於高壓操作。 應用參數:溫度: -50至120℃;速度: 5米/秒。



Thermoplastic guide rings FRI/FRA

Guide rings for piston rods (FRI) and pistons (FRA) under moderate stress.

熱塑性導向環FRI/ FRA 活塞桿(FRI)和活塞(FRA)的導向環用於適度的壓力。



Guide strip FB

Material for producing piston guides (FBA) and piston rod guides (FBI). Made from bronze-filled PTFE (for steel cylinders) PTFE 40/177024, or carbon-filled PTFE (for light and non-ferrous metal cylinders) PTFE 25/177025. Available by the meter from the warehouse, or cut to a specific length on request.

導向帶FB

材料用於生產活塞導桿(FBA)和活塞導桿(FBI)。 從青銅填充 PTFE(鋼汽缸)PTFE 40/177024,或碳填充PTFE(輕 及非鐵金屬汽缸)的PTFE 25/177025。 庫存有依每米長度計算的供應,或切成特定長度的要求。

Standard range Hydraulics Seals for reciprocating applications



Rotomatic - M 15, M 16

Dual-action sealing sets for reciprocating movements in hydraulic systems. Example applications: grabbers, excavators, rotary transmissions. Application parameters: pressure: 40 MPa; temperature: -30/-10 to 100/200°C (depending on the material), speed: 0.5 m/s.





Rotomatic - M15, M16

在液壓系統中往復運動產生雙向密封的作動。應用實例:挖掘機,旋轉傳輸。 應用參數:壓力:40 MPa;溫度:-30/-10到100/200℃(取決於材料),速度:0.5米/秒。



Rotomatic - M 17, M 19, M 33

Dual-action sealing sets for reciprocating movements in hydraulic systems Example applications: grabbers, excavators, rotary transmissions. Application parameters: pressure: 20/40 MPa; temperature (depending on the material): -30 to 80 °C (depending on the material), speed: 0.1/0.2 m/s (depending on the material).







Rotomatic - M17, M19, M33

雙向密封作用往復運動的液壓系統應用實例:挖掘機,旋轉傳輸。

應用參數:壓力:20/40 MPa;溫度(取決於材料):-30~80℃(取決於材料),速度:0.1/0.2米/秒(取決於材料)。

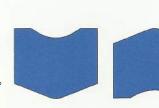
Standard range Hydraulics Static seals



Cover Seal - PU 82, PU 83

Alternative to ISC O-Rings for high pressure peaks. Can be used without backup rings.

蓋子密封 - PU82, PU83 可供的選項的ISC O型環對高壓力峰值可以不使用備份環。



Special designs: Hydraulics



Endless profiles for hydraulic seals

Moulded or extruded endless U-ring profile. Material for the production of simple static or dynamic seals, especially for larger sizes. On request, we can also provide finished batch-vulcanised sealing rings made from such profiles.

綑狀的液壓密封型材

模子或擠壓出無盡的長條狀U形圈輪廓。材料為生產應用在簡單的靜態 或動態密封件,特別是對於較大尺寸。根據要求,我們還可以利用此型狀提供 經硫磺及高溫處理的批次成品。



Forseal DUO pistons

Complete, dual-action hydraulic pistons for fluid engineering in the food industries. Made from filled PTFE with stainless steel spring elements. Low friction and no stick-slip. Application parameters: Working pressure: up to 30 MPa; temperature range: -150 to 200°C.

Forseal DUO活塞

完整的,雙向活動液壓活塞在食品工業流體工程。 由填充聚四氟乙烯志誠並搭配不銹鋼彈簧元件。低摩擦,沒有沾黏。 應用參數:工作壓力:高達30MPa;溫度範圍:-150℃~200℃。



Cup packing T with/without spring

Single-action lip seals, sometimes sprung. For secondary applications and as replacement parts. We recommend more modern components for new designs. Application parameters: pressure: 1 MPa; temperature: -30 to 100°C; speed: 0.5 m/s.

杯狀包裝的T,有或是沒有彈簧

單動唇密封。可作為替換用的輔助功能。我們建議更現代的零件用於新設計。 應用參數:壓力:1MPa;溫度:-30至100℃;速度:0.5米/秒。



Complete piston TDUO H

Complete, dual-action piston with steel body and bonded sprung sealing lips. For secondary applications and as replacement parts in lightweight hydraulic applications. Application parameters: pressure: max. 6.3 MPa; temperature: -30 to 100 °C; speed: 0.5 m/s.

完整的活塞TDUO H

完整的,雙向活動活塞與鋼體和彈簧密封唇。 在輕型液壓應用中可做為更換件的二次應用。

應用參數:壓力最大 6.3 MPa;溫度:-30至100℃;速度:0.5米/秒。



U-rings N 1 and N 100

Rod seals or piston seals with symmetrical sealing lip profiles, primarily as replacement parts for old Hydraulics systems. Material: NBR, or T 94 AU 925 for more exacting requirements. For new designs, we recommend more modern components, such as NI 300 or T 20.

U型圈N 1和N 100

桿密封件或活塞密封件具有對稱的密封唇型材,主要作為替代部分舊液壓系統。材料: NBR,或T 94 AU 925 用於更嚴格要求。對於新的設計,我們建議更現代的成分,如NI 300或T 20。



PTFE piston rings

Low-friction, hard-wearing PTFE rings with rectangular cross-section. Some models with notches for pressure activation of contact pressure element (such as O-Ring). Applications include hydraulic power steering systems. Rings with various groove geometries are used mainly in automatic gearboxes as an alternative to metal piston rings. Materials: special compounds with special-purpose filler materials for high tribological loads.

PTFE活塞環

低摩擦,耐磨損的PTFE環具有矩形的橫截面。一些型號帶有凹槽的壓力元件接觸作動的壓力 (如0型環)。應用包括液壓助力轉向系統。環與各種凹槽的幾何形狀主要用於自動變速箱作為 替代金屬活塞環。材料:用專用填充材料高負荷摩擦的特殊化合物。



PTFE Forseal FOI, FOA

Single-acting U-ring-like PTFE compound piston or rod seal with a metal spring as static pre-tension element. Extreme media and temperature resistance, good dry running properties and low static and dynamic friction coefficients. Suitable for O-Ring grooves (ARP568, MIL-P5514). Special versions for other groove dimensions available. Application parameters: max. operating pressure: 30 MPa;

temperature range: -150 to +220 °C.

PTFE Forseal F01 FOA

單動U型圈狀PTFE複合活塞或活塞桿密封件用金屬彈簧當成靜態預張力的元素。極端的流體和耐溫性,良好的乾運轉性能和低靜態和動態摩擦係數。適用於0型環的凹槽(ARP568 MIL-P5514 特別版本有提供其他溝槽尺寸。應用參數:最大工作壓力:30MPa;溫度範圍:-150至+220°C。



U-rings made from PTFE

Matched spring force at low spring displacement. Force distributed across several edges; can be used for dynamic and static applications. Application parameters: pressure: 45 MPa (dyn.)/120 MPa (stat.); temperature: -200 to 200 °C; speed: 10 m/s.

U型環PTFE制

在低排量匹配的彈簧力。力量分佈在多個邊緣;可用於動態和靜態應用。 應用參數:壓力:45 MPa(動態)/ 120 MPa 静態)。溫度:-200°C~200°C;速度:10米/秒。



PTFE chevron seals

For rod and piston seals, high pressures, high temperatures, wear-resistant, for adjustable seal housings, no spring, high media resistance. Application parameters: pressure: 70 MPa; temperature: -200 to 260°C; speed: 1.2 m/s.

雪佛龍聚四氟乙烯密封(PTFE chevron seals) 用於連桿和活塞密封件,耐高壓,高溫,耐磨損, 可調密封外殼,無彈簧,耐高流體化學性。

應用參數:壓力:70 MPa;溫度:-200°C~260°C;速度:1.2米/秒。

Special designs: Hydraulics



PTFE bronze guide strip - SF, KF

Guide strips for piston rods (SF) and pistons (KF) under light stress. Application parameters: temperature: -50 to 200°C; speed: 5 m/s.

聚四氟乙烯(PTFE)青銅導向帶 - SF,KF 導向帶在輕壓力下用於活塞桿(SF)和活塞(KF)。 應用參數:溫度: $-50\sim200$ °C:速度:5*/秒



Simrit installation tool for rod seals

Indispensable tool for easy snap-fitting of U-rings and compact seals. Different pin sizes and variable distance between pins depending on seal diameter and profile cross-section allow damage-free installation of seals ranging from 30 mm to 110 mm Ø.

Simrit在活塞桿密封件的安裝工具 不可缺少的工具,便於卡扣U型圈和密封緊湊的。不同梢(pin)的尺寸以及各個梢之間 有不同的距離,根據密封件的直徑和型材截面允許無損傷安裝密封件從30毫米到110毫米 的針腳之間的距離變化。

Standard range Pneumatics Piston seals



U-rings NAP 300 and NAP 310

Piston seals made from wear-resistant polyurethane with asymmetric profile and special pneumatic sealing edges. The compact static sealing lip guarantees a secure seating in the groove base. Material: 80 AU 941 and 80 AU 20994. The NAP 300 series is suitable for installation in confined spaces.



活塞密封由耐磨聚氨酯製成不對稱的輪廓和特殊氣動密封邊。緊湊的靜密封唇保證在凹槽底部的安全基座。

材質:80 AU 941和80 AU 20994.而NAP 300系列是適合安裝在密閉空間內。



U-ring NAPN

Piston seals with asymmetric profile. Very good seal and low friction levels because of special pneumatic sealing edges. Material: 72 NBR 708 and 80 NBR 709.



活塞密封件有非對稱分佈。非常良好的密封和低摩擦的水平全因為特殊的氣動密封邊。 材質:72NBR 708和80 709 NBR。



Complete piston TDUO P

Ready to fit, dual-action complete piston with integrated guide. Simple to fit to the piston rod, without additional sealing elements. The version with radial ventilation channels allows pressure to be transferred safely to the ends. Material: 72 NBR 708, body MuSt to DIN 1624.



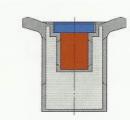
完整的活塞TDUO P

準備迎合在雙作動活塞完整崁入的引導。簡單適合於活塞桿,而無需額外的密封元件。 該版本的徑向通風通道允許壓力被安全地轉移到末端。 材質:72 NBR708,本體必須符合DIN1624。



Complete piston TDUO PM

Ready to fit, dual-action complete piston with integrated magnet to enable precision positioning. Simple to fit to the piston rod, without additional sealing elements. The version with radial ventilation channels allows pressure to be transferred safely to the ends. Material 72 NBR 708.



完整的活塞TDUO PM

準備迎合,雙作用活塞崁入的磁鐵使精確定位。簡單適合於活塞桿,而無需額外的密封元件。該版本的徑向通風通道允許壓力被安全地轉移到末端。 材料72 NBR708。



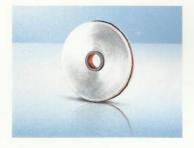
Complete piston NADUOP

Ready to fit, dual-action complete piston with steel body, bonded buffers and sealing lips with special pneumatic edges. Radial ventilation channels allows pressure to be transferred safely to the ends. Material: 72 NBR 708.



完整的活塞NADUOP

準備迎合,雙作用活塞崁入鋼體,結合緩衝區和密封唇具有獨特的氣動邊緣徑向風道使得壓力被安全地轉移到末端。 材質:72 NBR708。



Complete piston Pneuko G

Ready to fit, dual-action complete piston with very low installation height. Non-ferrous metal body, snap-on seal and integrated guide. Simple to fit to the piston rod, without additional sealing elements. Seal material: 72 NBR 708.



準備迎合,雙作用活塞完全以非常低的高度安裝。非鐵金屬本體,卡入式密封和完整指引。 簡單以適合於活塞桿,而無需額外的密封元件。 密封材料:NBR72708。



Compact seal KDN

Component of Pneuko G Dual-action piston seal with grooves on the back face for pressure activation. The compact design allows easy assembly pistons. The rounded sealing profile and the flexible middle section effect a good seal with low friction levels and the maintenance of an effective film of lubrication. Material: 72 NBR 708.



緊湊型密封KDN

Pneuko G雙作用活塞密封件與背面的壓力活化槽的組成部分。緊湊的設計便於裝配活塞。 該圓形密封輪廓與撓性中間部分作用具有低摩擦水平良好的密封和便於維護的有效潤滑膜。

Standard range Pneumatics Piston seals



Airzet - PR, PK

Dual-action compact seal (PR for rods, PK for pistons) with grooves on the back face for pressure activation (PK only) Material: 80 NBR 245001.



Airzet - PR , PK

雙作動緊湊密封(PR用於活塞桿,PK用於活塞)具有凹槽的背面為受壓力端(只有PK)材料:80 NBR 245001。





Pneuko M 210

Ready-to-fit, dual-acting complete piston with built-in magnet for precise positioning. Simple mounting on the piston rod without additional sealing elements.

Material: 75 FKM 181327.

Pneuko M210

馬上可安裝,雙重作動的完整活塞與內置磁鐵進行精確定位。 簡單安裝在活塞桿上不需要額外的密封元件。材質:75 FKM181327。



Pneuko M 310

Ready-to-fit, dual-acting complete piston with built-in magnet for precise positioning. Simple mounting on the piston rod without additional sealing elements.

Material: 80 AU 21000.

Pneuko M310

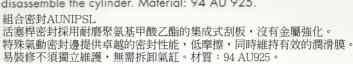
馬上可安裝,雙重作動的完整活塞與內置磁鐵進行精確定位。 簡單安裝在活塞桿上不需要額外的密封元件。材質:80 AU21000。

Standard range Pneumatics Rod and damper seals



Combination seal AUNIPSL

Rod seal with integrated wiper of wear-resistant polyurethane, without metal reinforcement. Special pneumatic sealing edges provide excellent sealing capabilities with low friction while maintaining an effective lubrication film. Easy fitting without separate maintainer and no need to disassemble the cylinder. Material: 94 AU 925.





Combination seals NIPSL 300 (PU), NIPSL 310 (PU), NIPSL 200 (NBR), NIPSL 210 (FKM)

Non-metal-reinforced combined seal/wiper element with special pneumatic sealing edges for small cylinders. Combination seal for confined spaces. Material: highly pressure-resistant polyurethane, 80 AU 924, 80 AU 20991, 80 NBR 4005 and 75 FKM 181327.



組合密封NIPSL300(PU),NIPSL310(PU),NIPSL200(NBR),NIPSL210(FKM) 非金屬增強具有獨特的氣動密封邊的小圓柱組合密封/擦拭器元件。 在密閉空間內的組合密封。材質:高耐壓聚氨酯,AU809248020991 AU,80 NBR4005和75 FKM181327。



Combination seal NIPSL

Metal-reinforced rod seal with integrated wiper. Special pneumatic sealing edges provide excellent sealing capabilities with low friction. Material: 72 NBR 708. Can be fitted from the outside without disassembling the cylinder.



組合密封NIPSL

金屬強化活塞桿密封配有集成刮水器。特殊氣動密封邊提供卓越的密封性能,低摩擦。 材料:72NBR708。可以從外部嵌合不用拆卸缸。



Combination seal NIPSL SF

Non-metal-reinforced combined seal/wiper element for miniature Pneumatics. Special pneumatic sealing edges provide excellent sealing capabilities with low friction, while maintaining an effective lubrication film.

Material: 90 NBR 108.



組合密封NIPSL SF

非金屬增強組合密封/擦拭器元件用於微型氣動。

特殊氣動密封邊提供卓越的密封性能,低摩擦,同時維持有效的潤滑膜。材質:90 NBR108。



Rod damper seal DIP

Damper seal with integrated check valve function with axial seal, integral bumpers and overflow channels. Constant reliable damping thanks to self-centring design.

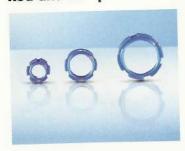
Material: 90 NBR 108.



阻尼器密封崁入逆止閥具軸向密封,整體防撞和溢出渠道。 由於有自己定位的設計讓阻尼得以可靠。材質:90 NBR108。



Standard range Pneumatics Rod and damper seals



Rod damper seal AUDIP

Damper seal of wear-resistant, high-performance polyurethane. With integrated check valve function with axial seal, integral bumpers and overflow channels. Constant reliable damping thanks to self-centring design. Material: 94 AU 925 and 90 AU 924.

活塞桿減震密封AUDIP 耐磨,高性能的聚氨基甲酸乙酯的阻尼器密封。 崁入逆止閥作軸向密封,完整的防撞與溢流渠道設計。 可靠的阻尼得益於自我定位的設計。 材質:94 AU925和90924 AU。





Wiper AUASOB

High-quality, wear-resistant wiper in non-metal-reinforced polyurethane with support beads on heel side. Simple snap fitting. Material: 94 AU 925.



高品質,耐磨刮板在非金屬增強聚氨酯與側面支撐珠作簡單的扣合。 材質:94 AU925。



Wiper ASOB

NBR rod wiper without metal reinforcement for lightweight applications in standard pneumatic cylinders. Easy snap fitting. Material: 90 NBR 101.

刮板ASOB

NBR活塞桿刮板無金屬加固輕量級應用在標準氣壓缸。輕鬆扣合。 材質:90 NBR101。



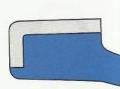
Wiper AS

Metal-reinforced rod wiper. Requires no complicated retention grooves; simple snap fitting.

Material: 90 NBR 101.



金屬增強活塞桿刮板。不需要複雜的保持槽;簡單的扣合。 材質:90 NBR101。



Standard range Pneumatics Guides



Guide ring EKF

Made from high-performance polyamide compound for use as piston guide in standard pneumatic cylinders. Easy snap fitting.





Guide strip FB

Base stock for manufacturing piston guides (FBA) and rod guides (FBI). Material: bronze-filled PTFE compound PTFE 40/177024 for steel cylinders and carbon-filled PTFE compound PTFE 25/177025 for non-ferrous metal cylinders. Available from stock by the metre or cut to size.

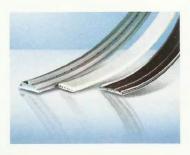


Special designs: Pneumatics



U-rings for special-purpose cylinders

Oval U-rings for use, for example, in pneumatic flat cylinders. U-rings with rectangular profile for standard pneumatic cylinders with rectangular piston rods. Made from wear-resistant polyurethane.



PU profiles for rodless pneumatic cylinders

Precision profiles made from quality polyurethane with integrated reinforcement wire. For belt and slot cylinders used in Pneumatics, e.g. for transferring power from the drive piston to the work slot, as a drawing and cover strip or as a sealing strip to prevent air loss from inside. PU profiles reduce wear and noise.

Special designs: Pneumatics



Sealing components for miniature Pneumatics

Precision-made miniature components for use in pneumatic miniature cylinders. Designs and geometry conform to Simrit's standard range of pneumatic seals, U-rings, complete pistons, combination wiper seals and damper seals in both standard and special materials. Special designs for valve engineering.

Standard range Packings



Ramilon

Ramilon is made from ramie, an extremely stable natural fibre, which does not rot and is approved for food use. Example applications: centrifugal pumps, refiners, mills, plunger pumps, stem tubes. Application parameters: centrifugal pumps: pressure: 4 MPa; temperature: -30 °C to 120 °C; speed: 12.5 m/s; plunger pumps: pressure: 100 MPa (installation with end rings); temperature: -30 to 120 °C; speed 2 m/s (installation with end rings); pH-value: 5 to 11.



Arostat

Arostat is made from extremely fine, wear-resistant aramide yarn. A high level of PTFE impregnation safely seals the creep paths in the fabric and permanently and means that Arostat can be used almost universally in instrumentation panels. Example applications: instrument panels, container flanges (as a flat strip). Application parameters: instrumentation panels: pressure: 20 MPa; temperature: -50°C to 250°C; pH-value: 1 to 13.



Arolan II

Arolan II is made from extremely wear-resistant aramide yarn. Its high resistance to wear and the range of thermal and chemical conditions in which it can be used mean that Arolan II is used as a universal packing in some industry sectors. Example applications: centrifugal pumps, refiners, mills, instrumentation panels. Application parameters: centrifugal pumps: pressure: 2.5 MPa; temperature: -50°C to 280°C; speed: 26 m/s; instrument panels: pressure: 10 MPa; temperature: -50 to 280°C; pH-value: 1 to 13.



Arochem S

Arochem S is made from extremely low-friction, thermostable PTFE graphite compound yarn. They protect the shaft and enable short periods of dry running without causing damage. The wear-resistant aramide yarns on the edges prevent creeping into the sealing gap. Example applications: centrifugal pumps, refiners, mills, defibrillators, plunger pumps. Application parameters: centrifugal pumps: pressure: 2.5 MPa; temperature: -50 °C to 280 °C; speed: 25 m/s; plunger pumps: pressure: 25 MPa (installation with end rings); temperature: -50 to 280 °C; speed 2 m/s; pH-value: 1 to 13.



Unistat

Unistat is made from graphite-filled PTFE yarn. Pressure-resistant and heat-conductive, its chemical resistance and good sealing effect make the packing particularly suitable for use in the chemicals industry. Example applications: instrumentation panels, control valves, plunger pumps. Application parameters: plunger pumps: pressure: 80 MPa (installation with end rings); temperature: –200 to 280 °C; speed 2 m/s; instrumentation panels: pressure: 25 MPa; temperature: –200 to 280 °C; pH-value: 0 to 14.



Unichem

Unichem is a highly flexible PTFE compression packing for shaft seals. It is impregnated with PTFE a dispersion and has a highly temperature-resistant silicone running-in lubricant. The packing is plastic, resistant to creep and volumetrically stable. Example applications: centrifugal pumps, container flanges (as a flat strip). Application parameters: plunger pumps: pressure: 1.5 MPa; temperature: –100 to 250 °C; speed 8 m/s; pH-value: 0 to 14.



Unival

Unival is made from graphite-filled, oiled PTFE yarn. The special structure of the yarn optimises the benefits of the material (low thermal expansion and excellent heat conductivity). Example applications: centrifugal pumps, mixers, driers, instrumentation panels. Application parameters: plunger pumps: pressure: 2.5 MPa; temperature: -100 to 280 °C; speed 20 m/s; instrumentation panels: pressure: 25 MPa (installation with end rings); temperature: -100 to 280 °C; pH-value: 0 to 14.



Alchem

Alchem is made from pure, impregnated PTFE yarn. The material is very tightly woven, so the packing is only slightly compressible. Alchem is characterised by its low setting characteristics and high form-stability. Example applications: instrumentation panels, spin pumps, plunger pumps, driers. Application parameters: plunger pumps: pressure: 50 MPa (installation with end rings); temperature: –200 to 280°C; speed 2 m/s; instrumentation panels: pressure: 25 MPa; temperature: –200 to 280°C; pH-value: 0 to 14.

Standard range Packings



Grafiflex®

Grafiflex is characterised by its high resistance levels to chemicals and temperature, as well as its extremely effective sealing capabilities and long-term elasticity. Irrespective of the temperature cycle, the material does not exhibit cold flow, shrinkage or ageing. Example applications: instrumentation panels. Application parameters: pressure: 100 MPa; temperature: -200 to 550 °C (most media and air), -200° to 700 °C (steam), -200 to 2500 °C (inert gas); pH-value: 0 to 14.



Grafiflex® cover seals

Grafiflex cover seals are supplied as pre-pressed rings and have proven effective in self-sealing covers, e.g. in large instrumentation panels and high-pressure drinking water warmers. Example applications: instrumentation panels. Application parameters: pressure: 100 MPa; temperature: -200 to 550 °C (most media and air), -200 to 700 °C (steam), -200 to 2500 °C (inert gas); pH-value: 0 to 14.



Carbosteam®

Highly flexible carbon yarn is the basis material for this high-temperature packing for sealing instrumentation panels. Carbosteam has excellent chemical and thermal resistance. The packing has excellent anti-extrusion and wiping characteristics. Example applications: instrumentation panels.

Application parameters: pressure: 30 MPa;

temperature: -30 to 400°C (most media and air), -30 to 550°C (steam).



G-Spezial S 6565

G-Spezial S is made from highly temperature-resistant, flexible graphite braids. This pressure-resistant braided packing has the same excellent sealing capabilities as the pure graphite rings made from strip material. G-Spezial S has the advantage of being useable for repair and servicing work. This compression packing is used mainly for armatures and pump applications. It is resistant to hot water, steam, gasses, oil, acids and alkalis. With most media, its application parameters are an operating pressure of 450 bar and a temperature of -200 to +450 °C. It is resistant to steam up to +550 °C.



G-Spezial

G-Spezial is made exclusively from highly temperature-resistant, flexible graphite braids stabilised with a thin Iconel thread in the middle. This braided packing is highly temperature-resistant and has the same excellent sealing capabilities as the pure graphite rings made from strip material. Example applications: instrumentation panels. Application parameters: pressure: 45 MPa; temperature: –200 to 450 °C (most media and air), –200 to 550 °C (steam).



Uniflex

Uniflex is made from flexible specialist yarns with a high carbon content and uses an innovative PTFE graphite impregnation method. The packing is characterised by the fact that the impregnation remains in the woven compound, even at high temperatures and throughout the life of the packing. This means that Uniflex can be used in conjunction with dry running, although there are limitations. Application: centrifugal pumps. Application parameters: pressure: 2.5 MPa; temperature: -50 to 280°C, speed: 25 m/s; pH value: 1 to 13.



Kombilon

Kombilon is made from an extremely conductive, elastic DIAPLEX® combination weave of carbon and PTFE yarns. The packing is impregnated with a brightly-coloured, bonded PTFE compound and running-in lubricant. Example applications: centrifugal pumps, mixers. Application parameters: plunger pumps: pressure: 2.5 MPa; temperature: –100 to 280°C; speed 20 m/s; pH-value: 0 to 14.



Univerdit®

Univerdit is made from an extruded, fibre oriented PTFE compound and is extremely compact. Its high chemical resistant and volumetric stability are its key characteristics. Generally, Univerdit must be fitted with anti-extrusion rings. Example applications: centrifugal pumps, mixers, instrumentation panels, control valves.

Application parameters: plunger pumps: pressure: 2.5 MPa (installation with end rings); temperature: -30 to 250°C; speed 6 m/s; instrumentation panels: pressure: 16 MPa (installation with end rings); temperature: -30 to 250°C.

Accessories Packings



Packing cutter

The Merkel universal packing cutter was developed to enable packing to be cut from the roll at the point of use. The cutter can be used to cut packing exactly to size for the appropriate application.



Packing extractor

Merkel packing extractors have been specially developed to remove compression packaging quickly and gently. The helix-shaped point has a screw thread which allows it to penetrate all types of yarn and braided Packings effortlessly. The powerful, flexible shaft can even reach compression Packings that are difficult to access.

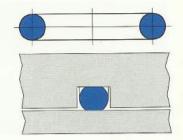
ISC O-Ring

Standard range



ISC O-Rings

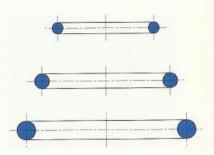
Static – or, under certain conditions, dynamic – seals for all industry sectors. ISC O-Rings are available in all standard sizes and in various materials and material hardnesses. Depending on the operating pressure, gap width and material hardness, ISC O-Rings are fitted with backup rings to prevent gap extrusion.





ISC O-Rings in special sizes and materials

Beside the standard sizes and materials available from stock, Simrit provides numerous special dimensions and material combinations, for example standard- and custom-sized silicone, polyurethane and PTFE ISC O-Rings (see also Simriz).





ISC O-Rings and special form O-Rings made of Simriz®

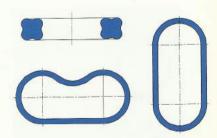
ISC O-Rings made from Simriz® have similar chemical and temperature resistance values as those made from PTFE (heat-resistant to +300°C), but – unlike PTFE rings – are elastic. In addition, they exhibit low gas permeation at heat and vacuum and have a lifespan several times that of ISC O-Rings made from conventional elastomers. Simriz® ISC O-Rings are available in standard sizes at short notice.





Special-purpose ISC O-Rings

ISC O-Rings developed for special applications. Used for sealing stationary machine components against liquid and gaseous media. Under some circumstances can also be used as dynamic sealing elements for axial, rotating and oscillating movement. Made from standard materials for a wide range of applications.



ISC O-Ring

Standard range



Encapsulated ISC O-Rings

With their FKM or silicone elastomer core, these sheathed O-Rings are ideally suited as static seals. The FEP or PFA coating protects the elastic core from almost all chemical, thermal and mechanical influences. Especially outstanding are its chemical resistance properties. Excellent thermal stability from 60 to +260°C.



Coated ISC O-Rings

Optimisation of surface properties of ISC O-Rings through coating with powders, special-purpose grease, emulsions or paints. The base elastomer and an independent surface treatment ensure optimum range of properties and allow efficient fitting and reliable sealing function. Coated ISC O-Rings from Simrit solve installation and application problems such as stick-slip and assembly damage.



Cord and cord O-Rings

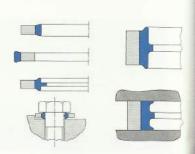
Extruded O-Ring profiles, available by the metre in all standard diameters, for use as the base material for the manufacture of batch vulcanised cord O-Rings. For undemanding applications, mainly in larger sizes.





Usit rings in special shapes and made from special materials

In addition to the standard Simrit range of Usit rings for static sealing of, for example, screw fittings and flange connections, we can also supply special shapes for specific applications, e.g. designs with elastomer-coated side edges, with wedge-shaped sealing beading or with centring stop on the inner diameter. The shape is determined by the function to be fulfilled.





Backup rings and spiral backup rings in special designs

Depending on gap width, operating pressure and material hardness, O-rings are fitted with backup rings against gap extrusion. Beside our standard range, we also supply backup rings in special materials and in special sizes.

Meillor Flat and Frame Seals

Standard range Meillor



Gaskets for housings and flange connections made from NBR-coated sheet metals

Sheet thickness 10 to 100 µm per side. Cold band or stainless steel substrates of thickness 0.1 to 1 mm. The sealing properties are determined by the bead geometry and the choice of substrate material. The surface coating depends on and compensates for the roughness. Example applications: Pneumatic and hydraulic control blocks, pipe flanges in compressor applications, camshaft adjusters.



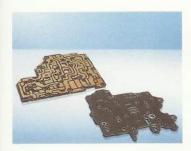
Gaskets for housings and flange connections with foamed NBR

Two types are available, with local and with full coating. Can be used without beading. The structure of the micro-encapsulated foam prevents cross-leakage from occurring. Layer thicknesses from 100 to 500 µm per side are possible. Applications: 0 to 100 °C for flange connections and covers in hydraulic and pneumatic installations such as water pumps.



Fibrous and cork gaskets

Composite fibre and cork gaskets are pressed from sheets and can, depending on their function, be reinforced through screen printing. Available in about 50 different materials of various thicknesses. Application range: 0 to 100 °C for flange connections and covers in hydraulic and pneumatic installations such as water pumps.



Separating plates

Separating plates isolate pressurised areas from each other. With complete or localised coating. Sheet thicknesses up to 1 mm with full-area coating and up to 1.5 mm with local coating. Example application: HGV automatic gearboxes.



Gaskets with filter insert

Made from composite fibre materials with a plastic or metal filter with a mesh width of 10 to 60 µm. For gearboxes replaced during maintenance work.

Meillor Flat and Frame Seals

Standard range Meillor



High-temperature gaskets for 300 to 900°C

Coated and uncoated copper and graphite sheet metal gaskets. Example applications: Exhaust gas recirculation systems and exhaust systems.



Cylinder head gaskets

Single- and multi-layered for sealing between cylinder head and block. With complete or localised coating. Example applications: Lawnmower engines, stationary large industrial and marine diesel engines.



Flat seals - Flex-O-Form® P

High compressibility, good resilience, high levels of chemical and thermal resistance, flexible, anti-adhesive, electrically conductive.

Application parameters: pressure: 5 MPa; temperature: -200 to 260°C.



Flat seals - Flex-O-Form® S

Very good sealing properties, formable, very resilient, high levels of chemical and thermal resistance, good pressure-resistance, anti-adhesive. Application parameters: pressure: 7 MPa; temperature: -200 to 260 °C.



Flat seal strip - Flex-O-Dit

Can be used universally, good plastic formability, highly flexible, high levels of chemical and thermal resistance. Application parameters: pressure: 20 MPa; temperature: -240 to 260 °C.

Standard range Hufa®



Seal rings to DIN 7603, form A (solid)

Metallic flat seals for static sealing of screws and pipe connections, fittings and instrumentation. These seal rings are available in various materials, such as copper, aluminium, brass, VA, nickel, titanium and surface-treated (Sn, Zn) non-metals: plastics and soft, multilayer and sheet materials.



Seal rings to DIN 7603, form D

Metallic flat seals for static sealing of screws and pipe connections.



Seal rings to DIN 7603, form C (filler seals)

Metal-coated seals with soft material insert for static sealing of screws and screw connections. These seals are available in different materials, such as copper, aluminium, galvanized soft iron, and stainless steel (VA).



Hufa aluminium seal ring sets Form A to DIN 7603 in plastic tray with transparent cover

540 off in 30 different sizes from 4 to 33 mm 1500 off in 12 different sizes from 10 to 42 mm 3000 off in 12 different sizes from 4 to 22 mm



Hufa filler seal ring sets Form C to DIN 7603 in plastic tray with transparent cover

500 off in 29 different sizes from 6 to 33 mm 1500 off in 12 different sizes from 10 to 42 mm 2000 off in 11 different sizes from 6 to 24 mm

Meillor Flat and Frame Seals

Standard range Hufa®



Set of Hufa copper seals

Form A to DIN 7603 in plastic tray with transparent cover
540 off in 30 different sizes from 4 to 33 mm
1500 off in 12 different sizes from 10 to 42 mm
3000 off in 12 different sizes from 4 to 22 mm



Set of Hufa copper seals
Form A to DIN 7603 in metal case
1310 off in 18 different sizes from 6 to 32 mm



Set of Hufa vulcanised fibre seals

Form A to DIN 7603 in plastic tray with transparent cover
540 off in 30 different sizes from 4 to 33 mm
1500 off in 12 different sizes from 10 to 42 mm
3000 off in 12 different sizes from 4 to 22 mm

Special designs: Hufa®



Hufa gaskets (solid) Special-purpose types

Beside the DIN 7603 standard seals, we can make all types of metallic tailored seals to customer drawings in various materials such as copper, aluminium, galvanized soft iron, and stainless steel (VA).



Hufa filler seal rings, form C

Beside the DIN 7603 standard seals, we can make all types of metallic tailored seals to customer drawings in various materials.



Hufa seals to DIN 2690, 2691, 2692 and 16258

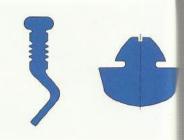
and Special designs: comb-profiled, diamond and round versions. These custom seal rings are available in various materials, such as copper, iron, stainless steel (VA), aluminium and brass.

Special designs: Elastomer Composite Parts and Precision Mouldings



Elastomer profiles

Extruded, continuous profiles, glued joints. Application examples: Live rings of wind turbines, rotary tubular kilns, tunnel drilling machines, large covers and locks, loading hatches; customer-specific profiles for range of functions, operating parameters, media and durability requirements.





Pneumatically actuated grippers and suction caps

Moulded parts designed for automatic handling systems. Sensitive grippers for handling extremely delicate goods, adhesive strainers for smooth and air-tight gripping surfaces and vacuum strainers for workpieces with rough and porous surfaces. In addition to a standardised product range, we provide a large number of types and designs for specific applications, available with or without ball valve.



Customer-specific designs: Elastomer Composite Parts and Precision Mouldings



Silicone connectors

Mouldings, used mostly as insulating housings for electronic components.







Silicone rubber mouldings

Seals, mouldings and Diaphragms are available in solid and liquid silicone rubber. Available in high quality silicone compounds according to customer-specifications.



Magnetic inductors and magnetic cores

Bonded parts made from magnetising metal with bonded elastomer, for sealing and damping in magnetic valves and precision mouldings for inductor mounting. Optimisation of nozzle geometry using FEM calculation. Precision mouldings and springs mounted on the carrier body. All conventional elastomers are used as materials. Coatings available on request from the customer.





Valve body, axial seal

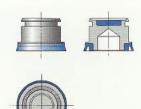
Elastomer or elastomer bonded component with metal (machined, punched or cast) or plastic (injection moulded) body with opening and closing function in the valve. Can be produced in almost any material combination, depending on the intended application. A cost-effective, reliable and durable bonded component.





Valve body, multifunctional

Elastomer bonded component with metal (machined, punched or cast) or plastic (injection moulded) body and elastomer matched to application. Elastomer and body are mechanically or chemically bonded to each other. Functions: sealing, damping, guiding, centring, positioning. Large scope of layout possibilities through use of plastic carrier parts. Cost-effective through reduced number of components. Reliable operation and long service life.





Plug and seal elements

Used for connecting two housings and as media conduit, for example for water, oil and air. Advantages through reduced number of parts; easy installation; no setting loss for hose connectors; acoustic and mechanical uncoupling of devices; cardanic effect if rubber contact area is sufficient, i.e. axis/bore offset can be bridged.





High precision mouldings

Precision mouldings for use as sealing and damping elements. Custom designs and high material quality. Simriz® und butyl are ideal materials for resistance to media and gas-tightness.





Customer-specific designs: Elastomer Composite Parts and Precision Mouldings



Decoupling elements

Elastomer-metal components for vibration and sound damping, elastic suspension and sealing of metallic components such as oil pan fittings, motor block cylinder head covers and injection valve fittings.







Micro components

Small and miniature bonded elastomer components and precision mouldings, developed on a customer-specific basis. Available in almost any material combination to suit the intended application. Multifunctional properties - such as sealing, damping, guiding, and magnetic control - through combination of different elastomer and substrate materials. Computercontrolled tool configuration achieves high precision and maintains extremely narrow tolerances.











Cover gasket (plastic elastomer compound)

Construction: bodies made from thermoplastics or duroplastics. Cost-effective solution for complex shapes, compared to complicated machining of metal. Applications: cover seals with multiple screw fitting options or various valve functions. Cost-optimised production by either the 2K process or conventional methods.







Sealing sheets/rubberised sealing sheets

Join several sealing points, which are often unrelated, to one another. Can be used, for example, as a flange connection for hydraulic and pneumatic control blocks. Reduces the number of individual components, and therefore the work involved. Fixture holders are no longer required, and individual components cannot be mixed up when the system is serviced or repaired.

Pressure: up to 40 MPa. Materials: NBR, EPDM, VMQ, HNBR. Retainer: aluminium, steel, Ms.







Drive elements

Function: reducing the irregularity of drives to ensure a smooth, even concentricity. The elastomer section, which is mostly 80 NR or NHBR, functions as an elastic spring and damper. Functional design using FEM calculation.





Intake branches

Design: bonded elastomer component consisting of a metallic carrier sheet to ensure secure fitting to and sealing of the cylinder head and a rubber pipe section with optimised flow cross-sections to enable efficient air intake.







Thermal spacer rings/reaction rings

Function: compensation for differing thermal expansion in aluminium casing and steel shaft when using roller ball bearings. Target group: bearing manufacturers. Materials: FKM and HNBR. Benefit: knowledge of thermal expansion properties and gap extrusion.





Parts pressed from rolls and sheets

Punched components made from sheet material without machining. With double-sided adhesive tape for fixing during or after fitting.





Elastomer bored, pressed and punched flat seals

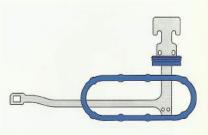
We can supply bored or pressed flat Packings and flat Packings cut from a tube, with or without ground surfaces, made from all suitable Simrit standard and special-purpose elastomers. Advantage: little or no investment in tools, material know-how.





Seal with sensor, connector and flexible circuit-board

Flexible printed circuit board in an elastomer seal. Circuit board and elastomer can be made from a variety of materials depending on the intended application. A unique sealing solution incorporating sensing of physical values of the medium, built-in cabling and an external connector. The small number of components reduces acquisition, testing, warehousing, handling and installation costs.



Customer-specific designs: Elastomer Composite Parts and Precision Mouldings



Modules

Assembly of modules around bonded elastomer components and precision mouldings. We can supply assembled, multi-part sealing kits (modules) with integrated elastomer and elastomer composite components.









Elastomer/PTFE composite as pressed parts

Produced as rolls or sheets of composite materials which can be pressed or drilled out. Function: the rubber ensures elastic initial tension and static seal, while the PTFE reduces the friction on the dynamic sealing side.







Seals for butterfly valves

Moulded profiles for use in butterfly valves for the food and water industries. The main materials used are FDA-, BGA- and NWC-approved elastomer compounds based on VMQ, EPDM, FKM and NBR.



PTFE inlet nozzle

Reduces noise, avoids steam surges, distributes media evenly in containers, has a high resistance to materials and temperatures. Application parameters: pressure: 1 MPa; temperature: 180°C.



PTFE isostatic linings

For instrumentation panels and pipe sections. Application examples: pumps, valves. Material: PTFE.



Liquid seal (IPG)

The example shown here is a clamping bearing for a combine harvester, consisting of a plastic sleeve with built-in wiper and a special-purpose liquid seal. The complex seal geometry is made through application by robot without machining. Benefits: low tooling costs, good seal adherence on component, simplified fitting, no tool corrections required, only the programmed contour changes.



Cable sleeves

Moulded PTFE components made using the pressure sintering process. For insulating cables, for example in sensors. Low dielectric coefficient and high specific volume resistance. Temperature range: -150 to +220°C.



Mechanical composite parts

PTFE seal elements, such as piston rings with contact element, are factory-assembled and -calibrated for example on a piston. Benefit: Fewer production stages through readily assembled components.



Lip seals

Embossed lip seals with memory effect. Initial sealing effect, lower friction and lower contact pressure, than seals with contact elements. Wide range of applications.



Seal rings with and without support

Special-purpose PTFE seals with elastomer element or metal spring to maintain contact pressure at various temperature ranges. Supplements the standard ranges of hydraulic seals. Materials: special compounds with special-purpose filler materials for high tribological loads. Temperature range depends on elastomer used.

Customer-specific designs: Elastomer Composite Parts and Precision Mouldings



Guide elements

Guide elements with rectangular cross-section, machined or continuous strip. Lengths available for any piston or rod diameter. Due to their thermal expansion, guide elements usually have a tangentially cut joint. Special versions with a step cut joint are available.

Standard range Bellows



Bellows with single convolute

Protective elements for shaft joints primarily performing angular movements. Axial movement is limited. Single convolute bellows prevent loss of lubricant while excluding contaminants. Materials: CR and NBR.





Multiple convolute bellows

Protective elements available in various geometrical designs for sealing axially moving rods and machine parts against dirt, dust and environmental factors. We have more than 250 different sizes and shapes available from stock.

Material: preferably CR and NBR.

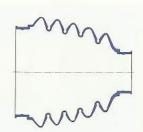


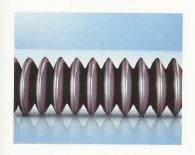
Special designs: Bellows



Bellows in special materials

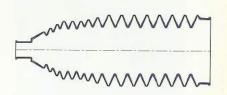
In addition to the large number of standard sizes available from stock, various special materials – such as VMQ, FKM, EPDM, HBR and SBR – are used for the manufacture of bellows for specific operating conditions.





Steering bellows

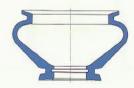
Multi convolute bellows of various shapes to protect steering rods in agricultural and construction machinery. Materials: primarily TPE, but sometimes CR.





Dust caps

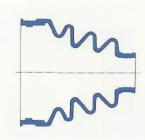
Dust protection caps in the form of single convolute bellows, mainly used for ball joints in steering rod systems and chassis. CR is used as material.





Joint shaft bellows

Mouldings, also known as axle Packings, for use on drive shafts, for example on front or rear wheel drive systems on construction machines, commercial vehicles and in vehicle construction in general. Drive shaft bellows ensure the continuous lubrication of the joint and a long-lasting seal against grease and the intrusion of dirt. Material based on CR and TPE.





PTFE bellows

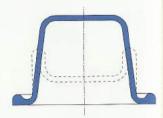
Highly flexible, highly expandable; can be fitted in confined spaces. Stable sides, good flexibility, adequate length extension reserves. Application parameters: pressure 0.025 MPa – 0.6 MPa; temperature: –120 to 200°C.

Standard range Diaphragms



Long-stroke rolling Diaphragms BFA

Thin-walled elastomer Diaphragms with fabric reinforcements. For hydraulically or pneumatically operated controlled and pressure switches, measuring instruments and indicators. Material 50 NBR 253 with polyester fibre.





Diaphragms for air brake systems

Fabric-reinforced moulded Diaphragms in standardised geometrical moulded design for use in air cylinders for pneumatic brake systems. Depending on the level of the braking force to be transferred and the stroke length, they are divided into three design ranges for different types of cylinders: diaphragm cylinders, diaphragm spring-loaded cylinders and diaphragm tristop cylinders. The Diaphragms operated in the same way for all three cylinder types.



Standard range Sheets and Coated Fabrics



Sheets, rolls and rubber fabrics

Base material for producing flat (pressed or drilled)
Packings and mouldings for all industry sectors. Sheets and
rolls are available in many Simrit elastomers and in various
thicknesses and sizes, with and without fabric reinforcement
or PTFE coating.



Coated Fabrics

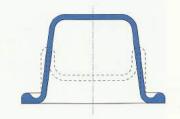
Base material for the manufacture of flat, cup or convoluted Diaphragms and flat Packings. Simrit-coated fabrics are made from a special materials which is coated on both sides with elastomers such as NBR, CR, EPDM or FKM. Our standard range includes thicknesses from 0.15 to 1.10 mm and is available from stock by the metre or cut to size.

Customer-specific designs: Diaphragms



Long stroke rolling Diaphragms BFAO (no fabric reinforcement)

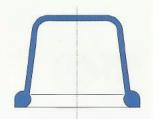
In addition to the standard BFA range with fabric reinforcement described above, we also supply long stroke rolling Diaphragms without reinforcement in a number of materials. Example uses: as dividing diaphragm in pressure balance containers and in control Diaphragms.





Long stroke rolling Diaphragms BFC

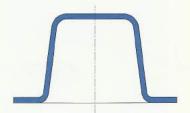
Long stroke rolling diaphragm with round retaining bead for limited available O.D. space. Available in a number of standard materials, with or without fabric reinforcement.





Long stroke rolling Diaphragms BFB

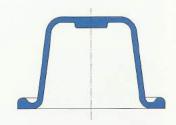
Long stroke rolling diaphragm with flat retaining flange for deep housings. Available in a number of standard materials, with or without fabric reinforcement.





Long stroke rolling Diaphragms BFX

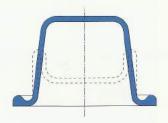
Long stroke rolling diaphragm available in special application-specific designs, including various flange designs, bead shapes, with or without a hole on the inside of the lid and with special radius dimensions. The BFX rolling Diaphragms are available in standard materials, with or without fabric reinforcement.





Long stroke rolling Diaphragms in high grade special materials

In addition to the standard material NBR, all types of rolling Diaphragms are available in special materials. Depending on the application and the operating conditions, there is a choice between high grade NBR materials or materials based on EPDM, CR, FKM, VMQ, FVMQ, IIR, ECO or others on request. For further details, please consult your Simrit sales adviser.

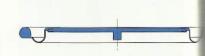


Customer-specific designs: Diaphragms



Diaphragms for gas pressure controllers

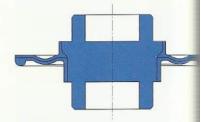
High-quality moulded Diaphragms with or without fabric reinforcement and or bonded valve seats for gas pressure controllers, suitable for both high and low pressure applications. Materials: primarily special NBR rubbers, EPDM and VMQ with DVGW approval.





Diaphragms for pressure switches

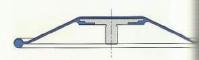
Sensitive Diaphragms for water level control in washing machines, dishwashers, coffee machines, heating systems, and pneumatic systems. Pressure control function up to 0.5 bar with thin, fabric-free membrane as the transfer element on electrical switch contacts. Material: NBR, NR, EPDM or – for special applications – VMQ.





Pump and compressor Diaphragms

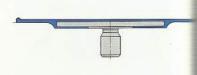
Moulded Diaphragms for use in single and double action diaphragm pumps (with or without fabric reinforcement) and in diaphragm compressors. Materials used are NBR, CR, EPDM and FKM, sometimes with reinforcing metal or plastic components.





Pump and metering Diaphragms

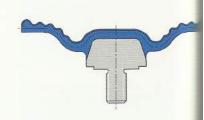
Moulded Diaphragms for use in directly controlled diaphragm and metering pumps used in exhaust, laboratory and water technologies. Complicated multi-layer composite diaphragm in NBR, OR, FPDM, VMQ and FKM with fabric reinforcement on bonded PTFE protection foil or Simriz® protective coating.

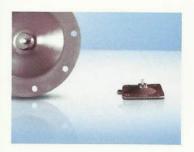




Diaphragms in compound materials

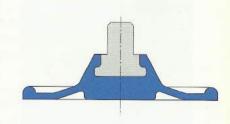
Custom Diaphragms with FEM-optimised, geometry and a multi-layered structure. Elastomer/fabric with PTFE coating and in some cases bonded metal components or Simriz® coating.





Diaphragms for shut-off valves

Various designs of moulded Diaphragms for shut-off valves, made from NBR, CR, EPDM, VMQ and FKM, some with fabric reinforcement, bonded metal components and PTFE or Simriz® coating.





Diaphragms for magnetic valves and pressure regulating valves

For use in servo-, positive-action- or pressure-regulated diaphragm governors with electromagnetic control. Also used for pressure reducers in pipe systems. Advantage: diaphragm functions simultaneously as separator element and valve seal. Materials: NBR or EPDM; also FKM and VMQ for specific applications. For sealing liquids such as water, juice, liquid gases and aggressive media.





Actuating and regulating Diaphragms

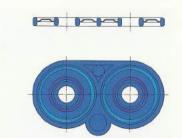
Moulded Diaphragms of up to 1000 mm diameter for actuating and regulating fittings in plants and pipeline construction. The material used depends on the pressure and medium: NBR, HNBR, EPDM, CR, VMQ or FKM, and special materials where applicable. With or without fabric reinforcement.





PU Diaphragms for pneumatic valves

Thin-walled, small precision Diaphragms made from dynamic, highly resistant polyurethane for use in regulation and switch fittings. Used in standard and special-purpose pneumatic systems.





Diaphragms made from rubberised fabrics

Diaphragms made from rubberised fabrics for use in industrial control units, fittings, automotive controllers and pumps. Dished M1 Diaphragms represent a cost-effective alternative to moulded Diaphragms. Rubberised fabrics: NBR, HNBR, CR, EPDM, ECO and FKM, with polyesterand polyamide-based supporting fabrics.



Customer-specific designs: Diaphragms



Accumulator Diaphragms for industrial Hydraulics

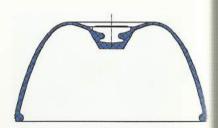
For use, for example, in pressure accumulators for supply systems and other industrial applications. For difficult applications in pressurised pipe systems. Material: NBR with low permeation levels, HNBR, ECO, IIR, AU, DPDM. Our experience in the field of material combinations with low nitrogen permeation ensures the long-term reliability of these Diaphragms.

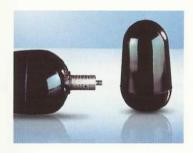




Accumulator Diaphragms

Diaphragms made from NBR, HNBR, ECO, IIR, EPDM and other materials with extremely low gas permeation and high flexibility at low temperatures for use in accumulators within hydraulic systems (e.g. industrial Hydraulics).





Accumulator bladders

Complete bladders, pressed or injection moulded and part-assembled. Special, high-diffusion compounds based on NBR, EOC, IIR, EPDM and FKM.





Diaphragms

Rolling Diaphragms, return flow Diaphragms made partly from oil-resistant liquid silicone rubbers, with outstanding temperature stability (up to 250°C) and low-temperature flexibility (down to -50°C). Applications of these tailored Diaphragms include sanitary engineering and other pneumatic applications.

Customer-specific designs: Lederer Liquid Silicone Rubber Products



Cord seals and enclosure seals

The main reasons for making cord seals and enclosure seals from liquid silicone rubber (LSR) are the cost-efficient production and good weather-resistance and ageing properties of all LSR types. A hardness from 10 to 80 Shore can be selected.



Two-component composites

With the self-adhering liquid silicone rubber (LSR) types, we provide a single-source supply of cost-effective yet high-grade composite products. Mechanical connections may become unnecessary or are supported through the composite's cohesion.



Seals and mouldings for domestic appliances and public health and medical engineering

In applications in which moulded components come into direct contact with water, two main criteria speak for the use of liquid silicone rubber (LSR): reduced scaling or easier removal of scale from the seal, and the approval of these materials by the KTW, WRAS, BGW and the FDA. LSR mouldings are therefore suitable not only for use in sanitary and domestic appliances but also in the food industry and for medical applications. Selected materials can also be used for composites.



Seals and mouldings for microelectronics, electronics and electrical engineering

Because of their good electrical insulation and mechanical continuous load bearing capability, and light resistance, mouldings are used in light conductor and microswitch applications as well as in medium- and high-voltage systems. Versatile application of liquid silicone rubber (LSR) mouldings for sealing switches and plugs. Because of their flexible colouring possibilities and production accuracy and repeatability, they are an ideal choice for these applications.

Integral Accumulator

Standard range



Diaphragm hydraulic accumulator (standard range)

Rated volume: 0.075 to 5 litres; rated pressure 40 to 500 bar; operating temperature: -15 °C to 80 °C (standard diaphragm material) or -40 °C to +120 °C (special diaphragm materials). The casing seal seam on the sealed hydraulic accumulator is an electron beam seal without any additional materials. The low heat addition ensures a weight-optimised design and makes it possible to arrange the membrane close to this seam. Depending on the liquid used and the operating conditions, the accumulator is available with a variety of membrane materials. It also comes with a service connection on the gas side as standard. Applications: volume accumulator, pulsation damping, shock pressure damping.



Diaphragm hydraulic accumulator – screw fitting version (standard range)

Rated volume: 1.5 and 2.0 litres Rated pressure: 100 to 330 bar



Diaphragm hydraulic accumulator - stainless steel version

Rated volume: 0.75 litres Rated pressure: 160 bar



Piston accumulator for mobile use

Rated volume: 16 cm³ to 5 litres Rated pressure: 50 to 250 bar

These accumulators are user-optimised for high pressure conditions.



Special designs hydraulic accumulator

For mobile use, hermetically sealed on the gas side, user-optimised design.



Hydraulic accumulator with hydraulic block and integrated hydraulic valves

For mobile use, user-optimised design.



NG6 accumulator load valve

2/2-way valve with 2 pilot control valves. The upper and lower switching pressures can be adjusted separately. Once the upper switching pressure has been reached, the hydraulic pump is switched to unpressurised circulation and only connected again when the lower switching point is reached. This means that, for example, hydraulic systems which require large oil volumes over only a short period of time can be operated with a small hydraulic pump and a hydraulic accumulator, which saves energy.



Hydropneumatic front axle suspension

Combined use of hydro-accumulators and control blocks for hydropneumatic front axle suspensions on agricultural machinery. The control block adjusts the system's damping characteristics to the actual load. Continuous ride level control with longest possible spring travel at any load. Load-dependent spring action and level control speed ensure ideal suspension characteristics at all times, even at sudden load changes. Benefits: enhanced safety, raised performance, higher vehicle speed, full traction at all operating conditions, vehicle stabilisation and longer component service life.



Hydropneumatic cabin suspension

Valve block for use as ride level control in conjunction with hydropneumatic cabin suspensions and other simple suspension systems. Operator comfort is achieved through adjustment of the settings to each individual situation with short up- and down-control times. The cylinder-accumulator combination is also optimised for load conditions and comfort. This suspension system fulfils the increasingly strict legal requirements for comfortable, healthy workplaces, increased machine operating times and enhanced operating safety.

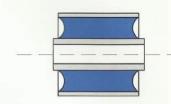
Vibration Control

Standard range



Ultra bushings

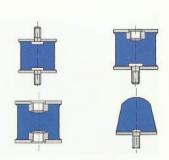
Ultra bushings are designed for damping and isolating radial and axial vibrations. They are used as maintenance-free joints to balance torsional and cardianic forces. Their durability relies on the double-sided bonding of the pretensioned elastomer.





Round mounts and buffers

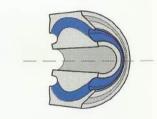
Round mounts and buffers are designed for damping and isolating vibrations. They also act as shock absorbers and compensate for stress or manufacturing differences between connected components. Freudenberg round mounts differ from many other products of this kind in having an integrated rubber contour which reduces the high edge strain on the rubber when there is radial deflection, which increases the durability of the component.





Spherical mounts

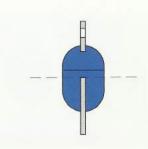
Construction elements in which an inner sphere and outer cup are tightly connected by a bonded pretensioned elastomer layer. Ideal for use in maintenance-free joints that can be torsionally stressed on all sides. Applications include steering arms, clutches and drive elements in commercial vehicles.





Instrument mounts

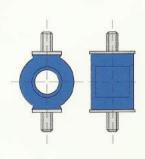
Suitable for vibration control of electronic components, measuring instruments and precision machinery. Instrument mounts protect sensitive components against shocks from outside in mobile equipment.





O-shaped mounts

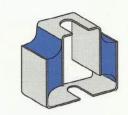
Because of their relatively soft spring characteristics, o-shaped mounts are also known as low-frequency mounts. Low-shock mounting for instruments and electric or electronic components and fixing of lightweight assemblies and precision machinery.





Double U mounts

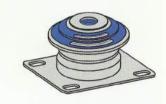
For vibration control and shock damping, with the advantage that the different levels of stiffness allows adjustment to the motor forces in three different directions. For soundproof mounting of instruments and engine units and for balancing tolerances and thermal expansion.





Conical mounts

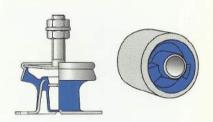
Conical mounts are elastic connection elements which are used in various forms – especially in the automotive industry – to mount fittings and engines. They also damp vertical vibrations, provide soundproofing and can at the same time compensate for large horizontal forces. Applications include commercial vehicle construction and shipbuilding, and wind power stations.





Hydro mounts and hydro bushings

Hydro mounts and hydro bushings are elastomer springs with integral hydraulic damping. These components enable supercritical mounting with high damping levels, without any significant impact on soundproofing. Areas of application include engine mounts in commercial vehicles and boats, and vehicle assemblies, especially driver cabins.





V mounts

V mounts can be used in various fields of vibration control and sound damping. For mounting internal combustion engines, electric motors, pumps, compressors and machine tools. V mounts with threaded connection and tear-off lock are suitable for mounting motor units and assemblies on commercial vehicles. Some V mounts are used as ship engine mounts and have a type approval from the Lloyds Register of Shipping.





M mounts

Non-anchored mounting for heavy power units. Allows levelling of the mounted machine, efficient vibration control and environmental protection through noise reduction. M mounts are easy to fit and facilitate the moving of heavy machines as they do not need foundations and are height-adjustable.



Vibration Control

Shandard range



Machine mounts

For vibration control and sound damping. Significant reduction of vibration level in the base or casing of heavy machines and compressors when mounted. The combined strain of pressure and shearing loaded onto the fitted flat mounts guarantees durability and good vibration control, even at low interference frequencies.





Flat mounts

Depending on the assembly level and the level of vibration control required, flat mounts can be pressurised, sheared or both. Here, too, the integral rubber contour provides outstanding durability. Flat mounts are used in machines, engines and assembly units in machine and vehicle construction.





Tapered mounts

Tapered mounts for light-, medium- and heavy-weight engines for mobile and stationary machinery. The natural rubber mixture of the engine mount can withstand high temperatures. The applications of this engine mount range from agricultural and construction machinery to mounting generators of wind power and marine generators.



Mo bearings

Benefits: Mo bearings consist of two factory-assembled sections, one made from rubber and the other from rubber and metal. During mounting, a pressure disk is applied to the rubber part between the rubber and the mount. The rubber-metal part can be screwed directly onto the assembly to be insulated. Applications: Mounting internal combustion engines, electric motors, pumps, compressors and coolers as well as motor vehicle and marine exhaust systems.

