

DICHTOMATIK





Wherever you are – we are not far	3
Any seal. Any time.	4
Better than good	7
There's a piece of us in so much	9
There are no unknown standards for us	10
Exceptions are our forte	13
Material indication	14
Seals for static applications	16
Seals for rotating movements	18
Seals for translational movements	22
Compounds with approvals or conformity attestations	27
Locations	29



Wherever you are – we are not far

To ensure fast delivery all over the world, Dichtomatik has continued to extend its network of branch offices. There are currently 8 locations in Europe: in England, Sweden, the Netherlands, France, Austria, Hungary, Italy and the headquarters in Germany as well as locations in the USA, Canada, Middle and South America and Asian areas. Africa is taken care of from Hamburg.

The principle of establishing Dichtomatik companies locally has proved to be a great success. It means that Dichtomatik is close to its customers everywhere. The local warehouse concepts are designed in accordance with the specific demands of the markets in question and guarantee the fastest delivery possible.

Every single Dichtomatik team member conscientiously works towards living up to the claim of our slogan „Any seal. Any time.“ And the customer has our total attention, whether it is a standard order, finding a special seal or giving complex technical advice. We want to be the first choice for our customers.



Any seal. Any time.

Any seal. Any time.



DICHTOMATIK

Seal competence from one source

Dichtomatik is a specialist for technical seals; exclusively seals. Our main task is to supply our customers with the required seal as quickly as possible. Our extensive range – there are currently over 55,000 different types of seals in stock – is continuously being extended.

Customer-specific seal variations are continually being developed and this enhances our scope of performance. Our customer service staff is able to refer to and obtain approximately 115,000 of these seal variations specially produced for customers. In our main warehouse in Hamburg, we currently have 12 fully-automated high-bay systems in an area of 6.000 sq.m. In addition, the branch offices keep stocks which are geared to the specific demands of the local markets. Between the placement of an order and delivery of the goods lie only a small number of completely system supported procedures. As a result, up to 7,500 items are dispatched per working day in Europe alone.

Dichtomatik is continuously working on improvement, procedures are optimised and services extended. The best possible customer support with regard to speed, flexibility and technical application is guaranteed and makes Dichtomatik a popular partner

www.dichtomatik.de

Dichtomatik's internet pages allow a virtual view of our warehouse. You can call up the availability of standard seals as well as technical information on the seals, including materials descriptions and installation suggestions under www.dichtomatik.de. Using an individual password, you can look up prices and this enables you to make enquiries and place orders around the clock.





Quality

In 1995, Dichtomatik was certified in accordance with DIN ISO 9001 and since 2000 in accordance with the process-orientated version:2008. Our main suppliers are in possession of the ISO/TS16949 or QS 9000 qualifications so that we are able to supply products produced according to these guidelines. Samples according to the Association of German Automobile Manufacturers' norms, 8-D reports, documentation of cpk and ppk values, statistical process control (SPC), Error possibility and influence (FMEA), the production release process PPAP, the guaranteeing of ppm values, measuring means ability or registration in the IMDS data bank are not unknown to us.

The right production method for any requirement

Dichtomatik's worldwide connections to high-performance manufacturers give us the strength and flexibility which allow Dichtomatik to be able to select the most suitable production method for the particular requirement.

Compression processing, injection moulding, thermoplastic injection moulding, turning, lathing and punching are the principal production methods. Mould restricted dimensions of from approx. 1 – 1.400 mm diameter in metric and imperial measures are part of the standard production. CAD and FEM programmes constitute the interface between the development departments.

It's the mixture that counts

Finding the most suitable material for each specific application or modifying an existing one is part of Dichtomatik's standard expert advice. In addition, specific materials can be obtained for special demands. For example, using the most contemporary development procedures, a PU material for the hydraulics field was produced with distinctly improved characteristics with regard to pressure deformation remnants, hydrolysis resistance, wear resistance, extrusion resistance and installation characteristics.



There's a piece of us in so much

Your problems are our challenge

Technical advice, design of installation chambers, design modifications and adaptation of standard seals to accommodate altered related conditions are some of the daily demands on our own applications engineers. As seal specialists of many years' standing, we are familiar with all questions regarding applications and materials and work closely with both customers and suppliers. Specific applications development and adaptation of design and materials are as much part of our scope of ability as is the supervision of new product lines right up to readiness for industrial production.

Application know-how

Dichtomatik has developed special applications know-how in particular fields. The long-standing close cooperation with manufacturers, for example, from the motive power technology branch has led to very specialised applications expertise which in turn, has triggered the development of a large number of Dichtomatik's own products.

There are no unknown standards for us

Static applications

The whole range of static seals – o-rings, cords, x-rings, cover seals, bonded seals, etc. – are available in any conceivable dimensions – metric, imperial and other international standards. The large number of materials fulfil all requirements and also have certification in accordance with DIN-DVGW, KTW, WRC, FDA, NSF, ACS..

Translational movements

Piston and rod seals, u-rings, wipers, guide strips and rings for hydraulics are available from stock in all the standard dimensions – in the materials: NBR, PTFE and PU, symmetric or asymmetric, with and without additional springs. Application specific changes of design or material can also be effected.

Function and life of a hydraulic and pneumatic cylinder are decisively dependent on the coordination of the seal element used. Our experience in combining seals, guides and wipers to form a system have a very positive effect on the service life.

Rotating movements

Standard design rotary shaft seals, with or without protective lips, in the materials: NBR, FPM are part of our range as are special designs with elastomer fully-coated metal bodies, double protective or sealing lips and reinforced sealing lips for higher pressures.

Non-mould production, largest diameters, modified materials (VMQ, EPDM, ACM etc.) and adaption to the required application are as much part of our production spectrum as v-rings, axial seals and rotary seals for rotating and swivelling movements.





Exceptions are our forte

Moulded parts to meet all requirements

Many years of experience in the development of seals make Dichtomatik a competent partner in finding customer-specific solutions. Demands for moulded parts made of elastomers and metal and elastomer combinations, or the combination of different materials to make up a sealing element, have become more and more important in recent years

Fit for you

The commitment of our staff, their motivation to perform, team spirit and compatability are the result of our stimulating working atmosphere. Team spirit is fostered by fitness rooms, our own football team, legendary parties and film evenings. We also have exceptional qualities when it comes to training staff. Our trainees have often received distinctions and we have also received many awards as an exemplary training company. We have even been able to offer all our trainees jobs on qualification.

Material indication



Short term ASTM D 1418

Polymer

Trade-names registered trademark®

Elastomers

NBR	Acrylonitrile-butadiene rubber	Perbunan, Buna N Polysar-Krynac
FKM	Fluoro rubber	Viton, Fluorel, Tecnoflon
EPDM	Ethylene propylene diene rubber	Buna AP, Keltan, Dutral
VMQ	Silicone rubber	Silopren
CR	Chloroprene rubber	Neoprene, Baypren
HNBR	Hydrogenated acrylonitrile-butadiene rubber	Therban, Zetpol
ACM	Acrylate rubber	Cyanacryl, Europrene AR, Noxtite PA, Nipol AR
AEM	Ethylen acrylate rubber	Vamac
FVMQ	Fluorosilicone rubber	Silastic
FFKM	Perfluoro rubber	Kalrez, Chemraz, Simriz
TFE/P	Tetrafluoroethylene-propylene rubber	Aflas, Fluoraz
SBR	Styrene-butadiene rubber	Buna Hüls, Buna SB, Europrene, Cariflex S, Solprene, Carom
ECO	Epichlorohydrin rubber	Epichlomer, Hydrin, Gechron
CSM	Chlorosulfonated polyethylene	Hypalon
AU, EU	Polyurethane	Urepan, Desmopan, Vulkollan, Adipren
LSR	Liquid Silicone Rubber	
NBR F	Rubber fabric materials	

Thermoplastic elastomers

TPU	Thermoplastic polyurethane	Irogran, Desmopan, Elastollan C
TPEE	Tetrafluoroethylene- propylene rubber	Hytrel

Thermoplastics

PTFE	Polytetrafluorethylene	Teflon, Hostaflon
FEP	Fluorinated ethylene-propylene	Neoflon
PA	Polyamide	Nylon, Durethan, Ultramid
POM	Polyoxymethylene (Polyacetal)	Hostaform C, Delrin, Ultrform
PEEK	Polyetheretherketone	Victrax
HG	Hard fabric materials Phenolic resin + synthetic fibre fabric	Ferrozell, Pertinax



Short term SAE - code	Material	Trade-names
Steel		
1008	carbon steel	1.0204/1.0330
1070	gathier spring steel	1.1231/1.0603
304	stainless steel	1.4301 (V2A)
316	stainless steel	1.4401/1.4436
316Ti	stainless steel	1.4571/1.4573 (V4A)
316L	stainless steel	1.4404/1.4435



O-Rings



Description	Product	Mat.	Hardn. Sh-A	Cross-linked	Colour	Speci-fication	max. Pressure MPa(bar)	Temp. range °C
OR NBR 70	OR	NBR	70		black			-30/+100
OR NBR 80	OR	NBR	80		black			-30/+100
OR NBR 90	OR	NBR	90		black			-30/+100
OR FKM 75	OR	FKM	75		green			-15/+200
OR FKM 80	OR	FKM	80		black			-15/+200
OR EPDM 70	OR	EPDM	70	Sulfur	black			-45/+130
OR VMQ 70	OR	VMQ	70		red-brown			-55/+200
OR HNBR 70	OR	HNBR	70		black			-30/+150
OR NBR 70	OR	NBR	70		black	BiB*		-30/+100

Standard dimensions from min. 0.73 mm D_i up to max. 700 mm D_i • Special dimensions up to max. 2500 mm D_i
 *BiB = Bag in Bag Packing

Cord



Description	Product	Mat.	Hardn. Sh-A	Cross-linked	Colour	Tolerance	max. Pressure MPa(bar)	Temp. range °C
RS NBR 70	RS	NBR	70		black	E1		-30/+100
RS FKM 75	RS	FKM	75		black	E1		-15/+200
RS EPDM 70	RS	EPDM	70	Perox.	black	E1		-50/+150
RS VMQ 70	RS	VMQ	60		red	E2		-55/+200

Standard dimensions from min. ø 1.5 mm up to max. ø 30 mm • Special dimensions up to max. ø 40 mm



X-Rings



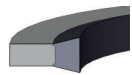
Description	Product	Mat.	Hardn. Sh-A	Cross-linked	Colour	Model	Speci- fication	max. Pressure MPa(bar)	Temp. range °C
XR NBR 70	XR	NBR	70		black				-30/+100



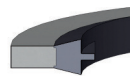
XR FKM 70	XR	FKM	70		black				-15/+200
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Standard dimensions from min. 1.78 mm D_i up to max. 660 mm D_i

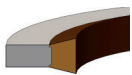
Bonded seals



US NBR	US	NBR	70		black	RS		25(250)	-30/+100
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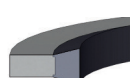
USS NBR	US	NBR	70		black	RS	S	25(250)	-30/+100
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US FKM	US	FKM	70		brown	RS		25(250)	-15/+200
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USS FKM	US	FKM	70		brown	RS	S	25(250)	-15/+200
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US NBR	US	NBR	70		black	RN		25(250)	-30/+100
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USS NBR	US	NBR	70		black	RN	S	25(250)	-30/+100
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USS FKM	US	FKM	70		brown	RN	S	25(250)	-15/+200
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Standard dimensions from min. 3.05 mm D_i up to max. 90 mm D_i • Special dimensions up to max. 350 mm D_i

Back-up-rings



STU	STU	NBR	90		black				-30/+100
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Profile rings acc. to DIN 3869



PRR 3869 NBR	PRR	NBR	85		black	3869			-30/+100
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PRR 3869 FKM	PRR	FKM	80		green	3869			-15/+200
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PRR 3869 EPDM	PRR	EPDM	80	perox.	violet	3869			-50/+150
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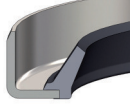
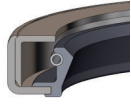
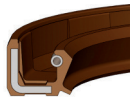
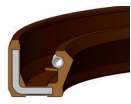


Cassette seals



Description	Design	Model	Profile- No.	WS	Hardn. Sh-A	Colour	Metal		max. Speed m/s	Temp.- range °C
C				NBR FKM	70 80	black brown				

Rotary- shaft seals

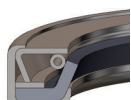
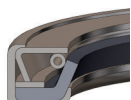
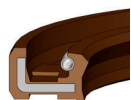
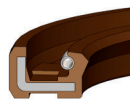
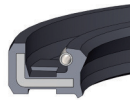
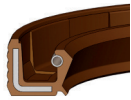
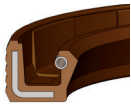


Description	Product	Design	Model	Profile- No.	Mat.	Hardn. Sh-A	Colour	Speci- fication	max. Speed m/s	Temp.- range °C
WA	W	A			NBR	70	black		12	-40/+100
WAS	W	A	S		NBR	70	black		12	-40/+100
WA FKM	W	A			FKM	80	brown	VU	35	-30/+200
WAS FKM	W	A	S		FKM	80	brown	VU	35	-30/+200
WB	W	B			NBR	70	black		12	-40/+100
WBS	W	B	S		NBR	70	black		12	-40/+100
WC	W	C			NBR	70	black		12	-40/+100
WCS	W	C	S		NBR	70	black		12	-40/+100
WAO	W	A	O		NBR	70	black		6	-40/+100
WAOK	W	A	OK		NBR	70	green		6	-40/+100
WBO	W	B	O		NBR	70	black		6	-40/+100
WAK	W	A	K		NBR	70	black		12	-40/+100
WAG	W	A	G		NBR	70	black		12	-40/+100

Standard dimensions from min. 4 mm D_i up to max. 650 mm D_a • Special dimensions up to max. 1100 mm D_a



Rotary shaft seals

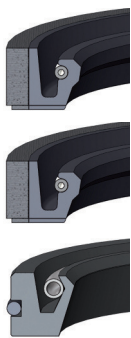


Description	Product	Design	Model	Profile- No.	Mat.	Hardn. Sh-A	Colour	max. Speed m/s	Temp.- range °C
WAK FKM	W	A	K		FKM	80	brown	35	-30/+200
WAG FKM	W	A	G		FKM	80	brown	35	-30/+200
WAY	W	A	Y		NBR	80	black	12	-40/+100
WASY	W	A	SY		NBR	80	blue	12	-40/+100
WAY FKM	W	A	Y		FKM	80	brown	35	-30/+170
WASY FKM	W	A	SY		FKM	80	brown	35	-30/+170
WAX	W	A	X		NBR	70	black	10	-40/+100
WAD	W	A	D		NBR	70	black	6	-40/+100
WBD	W	B	D		NBR	70	black	6	-40/+100
WCP 20	W	CP		20	PTFE		gray	40	-90/+250
WCL	W	C	L		NBR	75	black	12	-40/+100
WCL FKM	W	C	L		FKM	75	black	15	-30/+200
WE 05	W	E		05	NBR	80	black	20	-30/+100
WE 05 FKM	W	E		05	FKM	80	black	25	-20/+180
WE 06	W	E		06	NBR	80	black	20	-30/+100
WE 06 FKM	W	E		06	FKM	80	black	25	-20/+180

Standard dimensions from min. 4 mm D_i up to max. 650 mm D_a • Special dimensions up to max. 1100 mm D_a



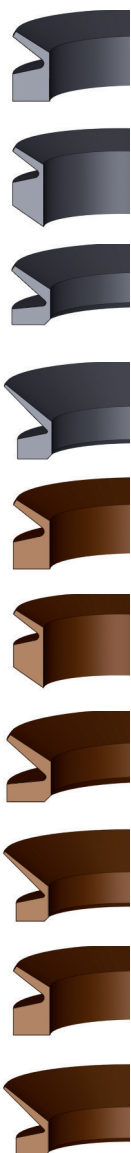
Rotary shaft seals



Description	Product	Design	Model	Profile- No.	Mat.	Hardn. Sh-A	Colour	max. Speed m/s	Temp.- range °C
WE 07	W	E		07	NBR	80	black	20	-30/+100
WE 07 FKM	W	E		07	FKM	80	black	25	-20/+180
WEPO	W	E	PO		PTFE		black	15	-20/+200

Standard dimensions from min. 4 mm D_i up to max. 650 mm D_a • Special dimensions up to max. 1100 mm D_a

V-Rings

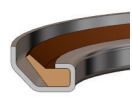
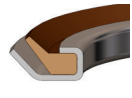
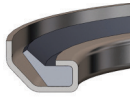
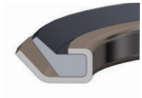


Description	Product	Design	WS	Hardn. Sh-A	Colour	Mat.- Performance	max. Speed m/s	Temp.- range °C
VA	V	A	NBR	60	black	OZB	8	-40/+100
VS	V	S	NBR	60	black	OZB	8	-40/+100
VL	V	L	NBR	60	black	OZB	8	-40/+100
VE	V	E	NBR	60	black	OZB	8	-40/+100
VA FKM	V	A	FKM	60	brown		6,5	-20/+200
VS FKM	V	S	FKM	60	brown		6,5	-20/+200
VL FKM	V	L	FKM	60	brown		6,5	-20/+200
VE FKM	V	E	FKM	60	brown		6,5	-20/+200
VA FKM 70	V	A	FKM	70	brown		6,5	-20/+200
VE FKM 70	V	E	FKM	70	brown		6,5	-20/+200

Standard dimensions from min. 3 mm D_i up to max. 2000 mm D_a • Special dimensions up to max. 7000 mm D_a



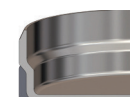
Axial seals



Description	Product	Profile No.	Mat. No.	Hardn. Sh-A	Colour	Metal	max. Speed m/s	Temp.-range °C
VRM 01	VRM	01	NBR	70	black	GS	12	-40/+100
VRM 02	VRM	02	NBR	70	black	GS	12	-40/+100
VRM 01 FKM	VRM	01	FKM	70	brown	GS	12	-30/+180
VRM 02 FKM	VRM	02	FKM	70	brown	GS	12	-30/+180

Standard dimensions up to max. 215 mm D_a • Special dimensions up to max. 280 mm D_a

Cover seals



Description	Product	Profile No.	Mat. No.	Hardn. Sh-A	Colour	Metal	max. Pressure MPa (bar)	Temp.-range °C
VER 01	VER	01	NBR	70	black	GS	0,5	-30/+100
VER 02	VER	02	NBR	70	black	GS	0,5	-30/+100
VER 03	VER	03	NBR	70	black	GS	0,5	-30/+100
VER 01 FKM	VER	01	FKM	70	brown	GS	0,5	-20/+200
VER 02 FKM	VER	02	FKM	70	brown	GS	0,5	-20/+200
VER 03 FKM	VER	03	FKM	70	brown	GS	0,5	-20/+200

Standard dimensions up to max. 230 mm D_a • Special dimensions up to max. 350 mm D_a

Shaft repair sleeves

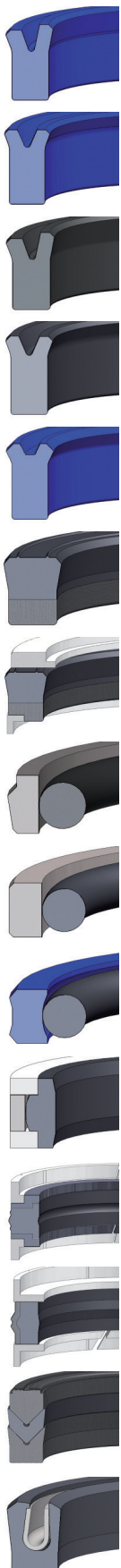


Description	Product	Design	Metal	Surface	Assemb-ling aid	Packaging
WSH R	WSH	R	NG 304	lead-free	CARB08	PACK

Standard dimensions up to max. 210 mm D_a • Special dimensions up to max. 1000 mm D_a



Piston seals

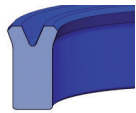


Description	Product group	Design	Profile No.	Specification	Model	Mat.	Hardn. Sh-A	max. Speed m/s	max. Pressure MPa(bar)	Temp.-range °C
KNA 28	K	NA	28	E		TPU	95	0,5	40(400)	-40/+100
KN 25	K	N	25	E		TPU	95	0,5	30(300)	-40/+100
KNA 23	K	NA	23	E		NBR	90	0,5	16(160)	-30/+100
KN 21	K	N	21	E		NBR	90	0,5	16(160)	-30/+100
KN 36	K	N	36	E		TPU	95	0,5	40(400)	-40/+100
KN 05	K	N	05	E		NBR	80	0,5	20(200)	-30/+100
KNA 16	K	NA	16	E	STFAH	NBR	80	0,5	50(500)	-30/+100
KPOR 31	K	POR	31	E		PTFE		15	40(400)	-30/+100
KPOR 30	K	POR	30	Z		PTFE		15	40(400)	-30/+100
KPUOR 70	K	PUOR	70	Z		TPU	95	0,5	25(250)	-30/+100
KK 71	K	K	71	Z	STA	PTFE		1,5	40(400)	-30/+100
KK 03	K	K	03	Z	STFA	NBR	80	0,5	40(400)	-30/+100
KK 22	K	K	22	Z	STFA	NBR F	90	0,5	40(400)	-30/+100
KDS 01	K	DS	01	E	1/O	NBR F	90	0,5	40(400)	-30/+100
KNA 44	K	NA	44	E		PTFE		15	35(350)	-150/+250

Standard dimensions from min. 7.5 mm D_G up to max. ca. 300 mm D_G • Special dimensions up to max. 1200 mm D_G



Rod seals



Description	Product group	Design	Profile No.	Speci- fication	Model	WS	Hardn. Sh-A	max. Speed m/s	max. Pressure MPa(bar)	Temp.- range °C
SN 25	S	N	25	E		TPU	95	0,5	30(300)	-40/+100
SNI 30	S	NI	30	E		TPU	95	0,5	40(400)	-40/+100
SNI 39	S	NI	39	E	ZL	TPU	95	0,5	40(400)	-40/+100
SN 21	S	N	21	E		NBR	90	0,5	16(160)	-30/+100
SNI 24	S	NI	24	E		NBR	90	0,5	16(160)	-30/+100
SN 05	S	N	05	E		NBR	80	0,5	20(200)	-30/+100
SNI 07	S	NI	07	E	STI	NBR	80	0,5	40(400)	-30/+100
SN 36	S	N	36	E		TPU	95	0,5	40(400)	-40/+100
SNI 72	S	NI	72	E	STI	TPU	90	0,5	40(400)	-30/+100
SPOR 31	S	POR	31	E		PTFE		15	40(400)	-30/+100
SPOR 30	S	POR	30	Z		PTFE		15	40(400)	-30/+100
SDS 01 3/2	S	DS	01	E	3/2	NBR F NBR	90 90	0,5	40(400)	-30/+100
SDS 01 1/0	S	DS	01	E	1/0	NBR F	90	0,5	40(400)	-30/+100
SDR 01	S	DR	01	E		NBR NBR F	90 90	0,5 0,5	- -	-30/+100 -30/+100
SNI 43	S	NI	43	E		PTFE		15	35(350)	-150/+250

Standard dimensions from min. 3 mm D_i up to max. ca. 650 mm D_i • Special dimensions up to max. 1200 mm D_i