

# Custom made seals and gaskets



Profile range

**CARSTEN HOLM A/S**  
SEALING SOLUTIONS



# SEALING SOLUTIONS

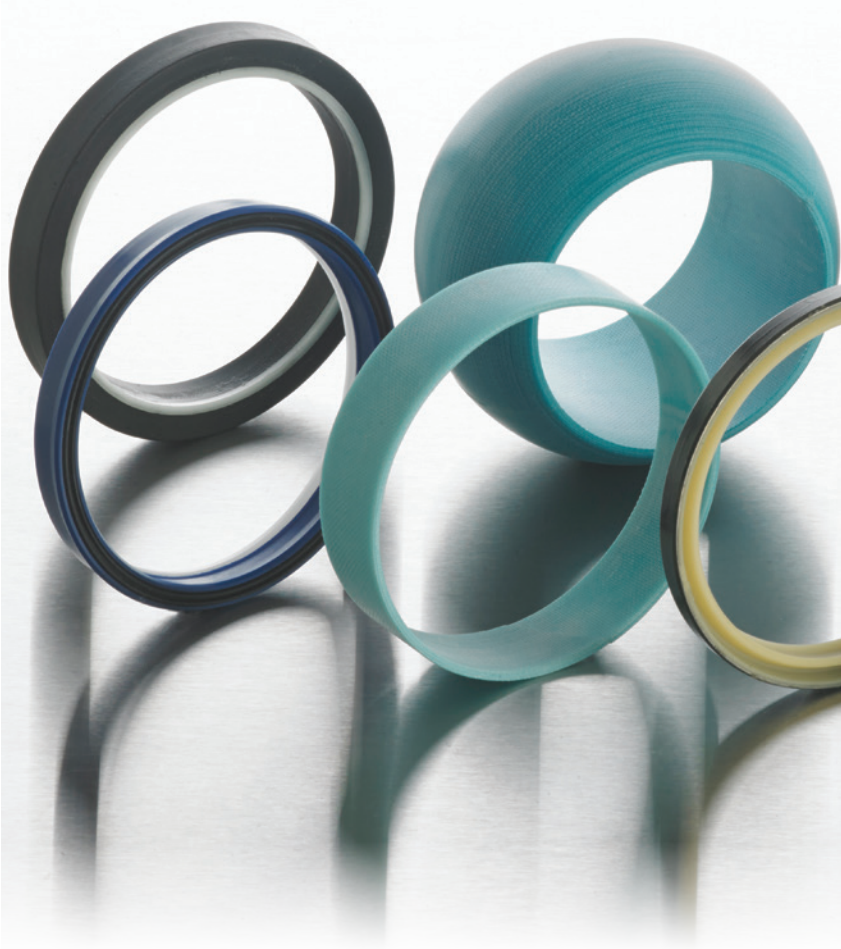
## FOR STANDARD AND SPECIAL APPLICATIONS

Carsten Holm A/S offers a huge variety of quality sealing solutions to the world's leading companies in a multitude of industries.

We also stock more than 100,000 items of standard seals and gaskets. Carsten Holm A/S develops and produces high-quality standard and custom-made gaskets and seals, using premium materials at our modern production facilities.

Carsten Holm A/S is a family-owned company founded in 1979. Over the years we have built up comprehensive expertise, which we are pleased to convert into long-term solutions for our customers.

Commitment, experience, flexibility and fast delivery are virtues that make Carsten Holm an attractive business partner.



**Introduction**

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# EXPERTISE AND EXPERIENCE

## ADD VALUE EVERY INCH OF THE WAY

As we are a well-established supplier of sealing solutions, our customers benefit from our experience and expertise. We provide standard and custom-made sealing solutions to meet our customers' demands - now and in the future.

We supply all types of gaskets and seals in any quantity for hydraulic, pneumatic, static and rotating applications.

Our range includes everything from standard NBR O-rings to complex multi-faceted food and drug certified PTFE seals.

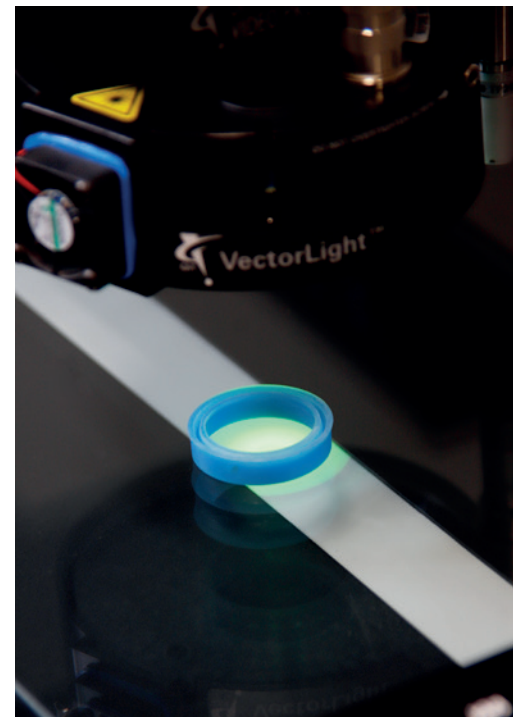
To meet almost any sealing challenge at very short notice, Carsten Holm A/S stocks a broad selection of raw materials. Our raw material stock include both standard and special compounds in sizes up to Ø580 mm. Custom-made seals in diameters up to 1,850 mm are available on request.

For detailed information about available materials and technical specifications, please see pages 19-23.

### **Documented quality**

Quality is very important to us. We are a trustworthy partner. We use 3D optical calibration equipment to secure high-quality products and detailed documentation.

- Entrance and exit inspection
- Measuring reports
- Visual product control
- Reverse engineering
- Measuring of dimensions
- Measuring of tolerances
- Measuring of hardness


















# SEALING PROGRAM



**CARSTEN HOLM A/S**  
SEALING SOLUTIONS

# SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Hydraulic – piston   rod seals</b>							
PRS06	PU NBR FKM		•	•	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06A	PU NBR FKM		•	•	300 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06B	PU NBR FKM		•	•	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06C	PU NBR FKM		•	•	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06D	PU NBR FKM		•	•	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06E	PU NBR FKM		•	•	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS07	PU/NBR		•	•	400	-25/+100°C	0.5
PRS10SP	PU FKM POM		•	•	-	-30/+105°C -20/+210°C -60/+100°C	-
PRS10-12	PU/POM NBR/POM		•	•	500 250	-30/+100°C -25/+100°C	0.5
PRS13-15	PU/POM NBR/POM		•	•	500 250	-30/+100°C -25/+100°C	0.5
PRS18	PU/NBR		•	•	400	-25/+100°C	0.5
PRS19	PTFE/V-SPRING PTFE-FILLED/ V-SPRING		•	•	200 400	-200/+260°C	15
PRS19B	PTFE-VIRGIN/HELICOIL SPRING   PTFE-FILLED/ HELICOIL SPRING		•	•	200 400	-200/+260°C	5
PRS19C	PTFE-VIRGIN/HELICOIL SPRING   PTFE-FILLED/ HELICOIL SPRING		•	•	200 400	-200/+260°C	5
PRS19D	PTFE-VIRGIN/HELICOIL SPRING   PTFE-FILLED/ HELICOIL SPRING		•	•	200 400	-200/+260°C	5

\*\* For technical reasons POM should be used up to a maximum temperature of 80° C only. For higher temperature we recommend Aluminum/Steel.  
\*\*\* The maximum pressure allowance for dynamic and static application is dependent of the profile design.

Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Hydraulic – piston   rod seals</b>							
PRS22	PU/POM NBR/POM FKM/PTFE		●	●	400 160 160	-30/+100°C -25/+100°C -20/+210°C	0.5
PRS25-27	PTFE-VIRGIN PTFE-FILLED		●	●	100	-200/+260°C	1.5
PRS99	PU NBR FKM		●	●	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
<b>Hydraulic - rod seals</b>							
RS01	PU NBR FKM		●		400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
RS01A	PU NBR FKM		●		300 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
RS01B	PU NBR FKM		●		400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
RS01C	NBR FKM		●		160 160	-25/+100°C -20/+210°C	1
RS02	PU/POM NBR/POM FKM/PTFE		●		700 250 250	-30/+100°C -25/+100°C -20/+210°C	0.5
RS02A	PU/POM NBR/POM FKM/PTFE		●		700 250 250	-30/+100°C -25/+100°C -20/+210°C	0.5
RS02B	PU/PTFE		●		700	-30/+105°C	0.5
RS02C	PU/POM		●		400	-25/+100°C	5
RS03	PU/NBR		●		400	-25/+100°C	0.5
RS04	PU/NBR/POM		●		700	-25/+100°C	0.5
RS04A	PU/NBR/POM		●		700	-25/+100°C	0.5















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# SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Hydraulic - rod seals</b>							
<b>RS08</b>	PU NBR FKM		●		400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.3
<b>RS09</b>	PU-D57/NBR PTFE/NBR PTFE/FKM		●		600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
<b>RS09A</b>	PU-D57/NBR PTFE/NBR PTFE/FKM		●		600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
<b>RS09B</b>	PU-D57/NBR PTFE/NBR PTFE/FKM		●		600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
<b>RS10-12B</b>	PU/POM NBR/POM				500 250	-30/+100°C -25/+100°C	0.7
<b>RS91</b>	PU-D57/NBR PTFE/NBR PTFE/FKM		●		600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
<b>RS91B</b>	PU-D57/NBR PTFE/NBR PTFE/FKM		●		600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
<b>RS16</b>	NBR FKM		●		160 160	-25/+100°C -20/+210°C	0.5 0.5
<b>RS17</b>	PU NBR FKM		●		400 160 160	-30/+100°C -25/+100°C -20/+210°C	0.5
<b>RS17A</b>	PU/POM		●		700	-30/+100°C	0.5
<b>RS17B</b>	PU/NBR		●		400	-25/+100°C	0.5
<b>RS17C</b>	PU/NBR/POM		●		700	-25/+100°C	0.5
<b>RS17D</b>	PU NBR FKM		●		400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.3
<b>RS17E</b>	PU/POM		●		700	-30/+100°C	0.3
<b>RS19</b>	PTFE-VIRGIN/V-SPRING PTFE-FILLED/V-SPRING		●		200 400	-200/+260°C -200/+260°C	15

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Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Hydraulic - rod seals</b>							
RS19A	PTFE/V-SPRING		●		150	-200/+260°C	2
RS20	NBR/POM FKM/PTFE		●		700 700	-25/+100°C -20/+210°C	0.5 0.5
RS31-33	PU/POM		●		500	-30/+100°C	0.5
RS35	PU		●		400	-30/+105°C	0.4
RS35A	PU		●		400	-30/+105°C	0.5
R50	PU/NBR/POM		●		700	-25/+100°C	0.5
R50A	PU/NBR/POM		●		700	-25/+100°C	0.5
R51	PU/NBR		●		400	-25/+100°C	0.5
R52	PU/POM		●		700	-30/+100°C	0.5
R53	PU		●		400	-30/+100°C	0.5
<b>Hydraulic – piston seals</b>							
PS01	PU NBR FKM			●	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS01A	PU NBR FKM			●	300 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS01B	PU NBR FKM			●	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS01C	NBR FKM			●	160 160	-25/+100°C -20/+210°C	1
















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# SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Hydraulic – piston seals</b>							
PS02	PU/POM NBR/POM FKM/PTFE			●	700 250 250	-30/+100°C -25/+100°C -20/+210°C	0.5
PS02A	PU/POM NBR/POM FKM/PTFE			●	700 250 250	-30/+100°C -25/+100°C -20/+210°C	0.5
PS03	PU/NBR			●	400	-25/+100°C	0.5
PS04	PU/NBR/POM			●	700	-25/+100°C	0.5
PS08	PU-D57/NBR PTFE/NBR PTFE/FKM			●	600 600 600	-25/+100°C -20/+210°C	5 15 15
PS08A	PU/NBR PU-D57/NBR PTFE/NBR PTFE/FKM			●	250 400 400 400	-25/+100°C -20/+210°C	1 5 15 15
PS08B	PU-D57/NBR PTFE/NBR PTFE/FKM			●	600 600 600	-25/+100°C -20/+210°C	5 10 10
PS08C	PTFE/NBR PTFE/FKM			●	400 400	-25/+100°C -20/+210°C	2
PS08D	PTFE/NBR PTFE/FKM			●	400	-25/+100°C -20/+210°C	3
PS08E	PU-D57/NBR PTFE/NBR PTFE/FKM			●	600 600 600	-25/+100°C -20/+210°C	5 10 10
PS08F	PU-D57/NBR PU/NBR PTFE/FKM			●	400 250 250	-25/+100°C -20/+210°C	5 1 1
PS81	PU-D57/NBR PTFE/NBR PTFE/FKM			●	600 600 600	-25/+100°C -20/+210°C	5 10
PS81B	PU-D57/NBR PTFE/NBR PTFE/FKM			●	600 600 600	-25/+100°C -20/+210°C	5 10 10
PS81C	PU/NBR PU-D57/NBR PTFE/NBR			●	250 400 400	-25/+100°C	1 5 15
PS09	PU/NBR/POM			●	400	-25/+100°C	0.5

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Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Hydraulic – piston seals</b>							
PS09A	PTFE/NBR/POM			●	400	-25/+100°C	1
PS10-12B	PU/POM NBR/POM			●	500 250	-30/+100°C -25/+100°C	0.7
PS16	PU NBR FKM			●	160 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS16A	PU NBR FKM			●	160 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS17	PU/POM NBR/POM FKM/PTFE			●	400 250 250	-25/+100°C -25/+100°C -20/+210°C	0.5
PS17A	PU/POM NBR/POM FKM/PTFE			●	400 250 250	-25/+100°C -25/+100°C -20/+210°C	0.5
PS17B	PU/POM NBR/POM FKM/PTFE			●	400 250 250	-25/+100°C -25/+100°C -20/+210°C	0.5
PS19	PTFE-VIRGIN/V-SPRING PTFE-FILLED/V-SPRING			●	200 400	-200/+260°C	15
PS19A	PTFE-VIRGIN/V-SPRING PTFE-FILLED/V-SPRING			●	200 400	-200/+260°C	2
PS20	NBR/POM FKM/PTFE			●	700 700	-25/+100°C -20/+210°C	0.5
PS23	PU/NBR/POM			●	400	-25/+100°C	0.5
PS35	PU			●	400	-30/+105°C	0.4
PS35A	PU			●	400	-30/+105°C	0.4
P50	PU/POM			●	400 DYNAMIC 1500 STATIC***	-30/+100°C	0.5 0.2
P50A	PU/POM			●	400 DYNAMIC 1500 STATIC***	-30/+100°C	0.5 0.2
















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# SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Hydraulic – piston seals</b>							
P51	PU/NBR/POM				400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P51A	PU/NBR/POM				400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P51G	PU/NBR/POM				400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P52	PU/POM				700 DYNAMIC 1500 STATIC***	-30/+100°C	0.5 0.2
P53	PU/NBR/POM				700 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P54	PU/NBR/POM				400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P54A	PU/NBR/POM				400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P55	PU/POM NBR/POM				700 DYNAMIC/ 1500 STATIC*** 400 DYNAMIC/ 1500 STATIC***	-25/+100°C	0.5 0.2
P58	PU				400	-30/+100°C	0.3
<b>Pneumatic - rod seals</b>							
RS05	PU NBR FKM				25	-30/+105°C -25/+100°C -20/+210°C	1
RS05A	PU NBR FKM				25	-30/+105°C -25/+100°C -20/+210°C	1
<b>Pneumatic – piston seals</b>							
PS05	PU NBR FKM				25	-30/+105°C -25/+100°C -20/+210°C	1
PS05A	PU NBR FKM				25	-30/+105°C -25/+100°C -20/+210°C	1

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Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Wipers</b>							
WR01	PU NBR				-	-30/+105°C -25/+100°C	4
WR01A	PU NBR				-	-30/+105°C -25/+100°C	4
WR02	PU NBR				-	-30/+105°C -25/+100°C	4
WR02A	PU NBR				-	-30/+105°C -25/+100°C	4
WR02B	PU NBR				-	-30/+105°C -25/+100°C	4
WR02C	PU NBR				-	-30/+105°C -25/+100°C	4
WR02D	PU PU-D57				-	-30/+105°C	4
WR03	PU/POM** NBR/POM**				-	-30/+105°C -25/+100°C	4
WR04	PU NBR				-	-30/+105°C -25/+100°C	4
WR07	POM PA PU-D57				-	-50/+80°C -50/+80°C -30/+105°C	1
WR08	POM PA PU-D57				-	-50/+80°C -50/+80°C -30/+105°C	1
WR11	PU NBR				-	-30/+105°C -25/+100°C	4
WR12	PU NBR				-	-30/+105°C -25/+100°C	4
WR13	PTFE/NBR PTFE/FKM				15	-25/+100°C -20/+210°C	10
WR13_E2	PTFE/NBR PTFE/FKM				15	-25/+100°C -20/+210°C	10

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# SEALING PROGRAM
















Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Wipers</b>							
WR14	PTFE/NBR PTFE/FKM				15	-25/+100°C -20/+210°C	10
WR15	PTFE/NBR PTFE/FKM				15	-25/+100°C -20/+210°C	10
WR16	PTFE/NBR PTFE/FKM				15	-25/+100°C -20/+210°C	10
WR17	PU NBR				-	-30/+105°C -25/+100°C	4
WR18	PU NBR				-	-30/+105°C -25/+100°C	4
W50	PU				-	-30/+105°C	2
W51	PU				-	-30/+105°C	2
W53	PU/POM**				-	-30/+100°C	2
W54	PU				-	-30/+105°C	2
<b>Static seals</b>							
FL01A	PU FKM EPDM				400 250 250	-30/+105°C -20/+210°C -50/+130°C	-
FL02B	PU FKM EPDM				400 250 250	-30/+105°C -20/+210°C -50/+130°C	-
FL03	PU NBR FKM				600 250 250	-30/+105°C -25/+100°C -20/+210°C	-
FL06	PTFE/HELICOIL SPRING PTFE-FILLED/HELICOIL SPRING				200 400	-60/+200°C	0.1
FL07	PTFE/HELICOIL SPRING PTFE-FILLED/HELICOIL SPRING				200 400	-60/+200°C	0.1

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Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Static seals</b>							
<b>FL08</b>	PTFE/HELICOIL SPRING PTFE-FILLED/HELICOIL SPRING				200 400	-60/+200°C	0.1
<b>OR</b>	PU NBR FKM				600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
<b>ORH</b>	PU NBR FKM				600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
<b>ORV</b>	PU NBR FKM				600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
<b>QR01</b>	PU NBR FKM				600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
<b>QR02</b>	PU NBR FKM				600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
<b>SS01</b>	PU NBR FKM				600 250 250	-30/+105°C -25/+100°C -20/+210°C	-
<b>Back-up rings</b>							
<b>BUR08</b>	PU POM PTFE				-	-30/+105°C -60/+100°C -200/+260°C	-
<b>BUR09</b>	PU POM PTFE				-	-30/+105°C -60/+100°C -200/+260°C	-
<b>BUR10</b>	PU POM PTFE				-	-30/+105°C -60/+100°C -200/+260°C	-
<b>BUR11</b>	PU POM PTFE				-	-30/+105°C -60/+100°C -200/+260°C	-
<b>BUR12</b>	PU POM PTFE				-	-30/+105°C -60/+100°C -200/+260°C	-
<b>BUR13</b>	PU POM PTFE				-	-30/+105°C -60/+100°C -200/+260°C	-

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Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Rotary seals</b>							
<b>OS01</b>	PU/POM** NBR/POM** FKM/PTFE				0.5	-30/+100°C	5
					0.5	-25/+100°C	10
					0.5	-20/+210°C	15
<b>OS01A</b>	PU/POM** NBR/POM** FKM/PTFE				0.5	-30/+100°C	5
					0.5	-25/+100°C	10
					0.5	-20/+210°C	15
<b>OS02</b>	PU/POM** NBR/POM** FKM/PTFE				0.5	-30/+100°C	5
					0.5	-25/+100°C	10
					0.5	-20/+210°C	15
<b>OS02A</b>	PU/POM** NBR/POM** FKM/PTFE				0.5	-30/+100°C	5
					0.5	-25/+100°C	10
					0.5	-20/+210°C	15
<b>OS03</b>	PU NBR FKM				0.5	-30/+100°C	5
					0.5	-25/+100°C	10
					0.5	-20/+210°C	15
<b>OS03A</b>	PU NBR FKM				0.5	-30/+100°C	5
					0.5	-25/+100°C	10
					0.5	-20/+210°C	15
<b>OS08</b>	PU NBR FKM				-	-30/+105°C	5
					-	-25/+100°C	10
					-	-20/+210°C	10
<b>OS08A</b>	PU NBR FKM				-	-30/+105°C	5
					-	-25/+100°C	10
					-	-20/+210°C	10
<b>R03</b>	PU/POM NBR/POM FKM/PTFE				400	-30/+100°C	0.2
					250	-25/+100°C	0.2
					250	-20/+210°C	0.2
<b>R04</b>	PU NBR FKM				160	-30/+100°C	0.2
					100	-25/+100°C	0.2
					100	-20/+210°C	0.2
<b>R04A</b>	PU NBR FKM				160	-30/+105°C	0.2
					100	-25/+100°C	0.2
					100	-20/+210°C	0.2
<b>R05</b>	PU NBR FKM				160	-30/+105°C	0.2
					100	-25/+100°C	0.2
					100	-20/+210°C	0.2
<b>R05A</b>	PU NBR FKM				160	-30/+105°C	0.2
					100	-25/+100°C	0.2
					100	-20/+210°C	0.2
<b>VR06</b>	NBR FKM				-	-25/+100°C	25
					-	-20/+210°C	25
<b>VR07</b>	NBR FKM				-	-25/+100°C	25
					-	-20/+210°C	25

\*\* For technical reasons POM should be used up to a maximum temperature of 80° C only. For higher temperature we recommend Aluminum/Steel.  
\*\*\* The maximum pressure allowance for dynamic and static application is dependent of the profile design.

Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Rotary seals</b>							
<b>R08</b>	PTFE/NBR PTFE/FKM				350 350	-25/+100°C -20/+210°C	0.4 0.4
<b>R08D</b>	PTFE/NBR PTFE/FKM				350 350	-25/+100°C -20/+210°C	0.4 0.4
<b>R09</b>	PTFE/NBR PTFE/FKM				350 350	-25/+100°C -20/+210°C	0.4 0.4
<b>R09A</b>	PTFE/NBR PTFE/FKM				350 350	-25/+100°C -20/+210°C	0.4 0.4
<b>R10</b>	PTFE/NBR PTFE/FKM				350 350	-25/+100°C -20/+210°C	0.4 0.4
<b>R10A</b>	PTFE/NBR PTFE/FKM				350 350	-25/+100°C -20/+210°C	0.4 0.4
<b>R11</b>	PTFE/NBR PTFE/FKM				350 350	-25/+100°C -20/+210°C	0.4 0.4
<b>R11D</b>	PTFE/NBR PTFE/FKM				350 350	-25/+100°C -20/+210°C	0.4 0.4
<b>RS19A</b>	PTFE/V-SPRING				150	-200/+260°C	2
<b>PS19A</b>	PTFE/V-SPRING				150	-200/+260°C	2
<b>Guide Rings</b>							
<b>BWR01</b>	POM PTFE POLYESTER-FABRIC				-	-60/+100°C -200/+260°C -40/+130°C	4
<b>BWR01A</b>	POM PTFE				-	-60/+100°C -200/+260°C	4
<b>BWR03</b>	POM PTFE				-	-60/+100°C -200/+260°C	4
<b>BWR04</b>	POM PTFE				-	-60/+100°C -200/+260°C	4

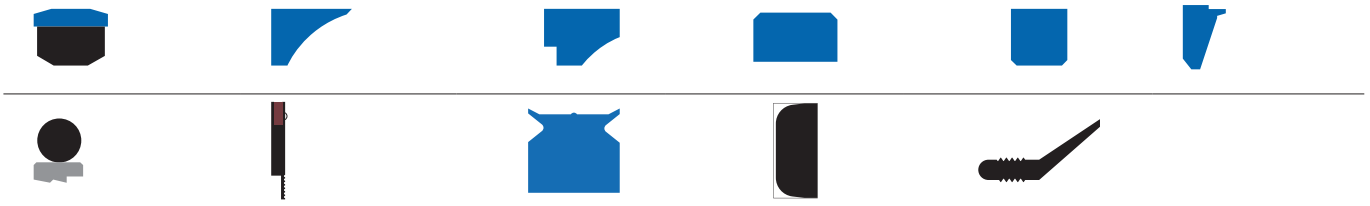
\*\* For technical reasons POM should be used up to a maximum temperature of 80° C only. For higher temperature we recommend Aluminum/Steel.

\*\*\* The maximum pressure allowance for dynamic and static application is dependent of the profile design.

# SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Pressure bar	Temperature range °C	Sliding speed (m/sec)
<b>Guide Rings</b>							
BWR05	POM PTFE				-	-60/+100°C -200/+260°C	4
BWR06	POM PTFE				-	-60/+100°C -200/+260°C	4
BWR07	POM PTFE				-	-60/+100°C -200/+260°C	4
BWR08	POM PTFE				-	-60/+100°C -200/+260°C	4
BWR09	-				-	-	-
BWR01-P	POM PTFE				-	-60/+100°C -200/+260°C	4
BWR01-R	POM PTFE				-	-60/+100°C -200/+260°C	4

## Customized seals



The above data are maximum values and cannot be combined. Data provided are based on standard tests under laboratory conditions and given as a guide only. Carsten Holm A/S accepts no liability for typographical errors, or for any damage or injury resulting from use of the products.

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 \*\*\* The maximum pressure allowance for dynamic and static application is dependent of the profile design.



## MATERIALS

**CARSTEN HOLM A/S**  
SEALING SOLUTIONS

# MATERIALS

Material List	Material	Colour	Hardness At 20°C	Temperature Range °C	Main Application
<b>Polyurethane</b>					
CH U500-R95	PU	Red	Shore A 95 ± 2	-30/+125°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oil, HFA and HFB fluids, water, sea water, diluted acids and leaches Improved thermal and chemical resistance, excellent wear resistance and low friction Applicable for contact with foodstuff
CH U510-G88	PU	Green	Shore A 90 ± 2	-30/+115°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water, diluted acids and leaches Application for pneumatic and low pressure
CH U520-OR95-HT	PU	Orange	Shore A 96 ± 2	-30/+135°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water, diluted acids and leaches Application at elevated temperature
CH U530-B95-LT	PU	Light Blue	Shore A 95 ± 2	-50/+105°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water Applications for low temperature
CH U540-VI95-CR	PU	Violet	Shore A 95 ± 2	-30/+115°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water Improved chemical resistance, suitable for CIP processes Applicable for contact with foodstuff
CH U550-GM95	PU	Dark red	Shore A 95 ± 2	-30/+125°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water Improved wear and friction properties for water hydraulics and heavy duty Applications with insufficient lubrication
CH U570-D57	PU	Blue	Shore D 57 ± 3	-30/+125°C	Back-up rings, guide rings with preload element Mineral oils, HFA, HFB fluids, water, sea water High pressure and extrusion resistance
CH U580-D57-G	PU	Grey	Shore D 57 ± 3	-30/+125°C	Back-up rings or composite seals with preload element Mineral oils, HFA, HFB fluids, water, sea water High pressure and extrusion resistance Improved wear and friction properties
CH U203-B95	PU	Blue	Shore A 95 ± 2	-30/+105°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water Applicable for contact with foodstuff
CH70 D	PU	Beige	Shore D 70 ± 3	-20/+100°C	Back-up rings, High pressure seals
<b>NBR</b>					
CH107-B85	NBR	Black	Shore A 85 ± 5	-25/+100°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water
CH109-B85	NBR	Black	Shore A 95 ± 5	-25/+100°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water
CH111-W85	NBR FDA	White	Shore A 85 ± 5	-22/+100°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water Applications for contact with foodstuff
CH T-NBR	NBR	Black	Shore A 80 ± 5	-50/+110°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water Applications at low temperature

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Material List	Material	Colour	Hardness At 20°C	Temperature Range °C	Main Application
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## H-NBR

CH112-B85	H-NBR	Black	Shore A 85 ± 5	-25/+150°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids at high temperature Aliphatic hydrocarbons, dilute acids and bases
CH900-B85-RGD	H-NBR RGD	Black	Shore A 85 ± 5	-20/+150°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids at high temperature Aliphatic hydrocarbons, dilute acids and bases RGD (ED) optimized for use in Oil & Gas Industry Meets the Norsok M-710 requirements
CH901-B85-RGD	H-NBR RGD LT	Black	Shore A 85 ± 5	-40/+150°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids at high temperature Aliphatic hydrocarbons, dilute acids and bases RGD (ED) optimized for low temperature use in Oil & Gas Industry Meets the Norsok M-710 requirements

## FKM

CH109-BR85	FKM	Brown	Shore A 85 ± 5	-20/+210°C	Lip seals, wiper rings, vee packings, oil seals at high speed and other seal elements Mineral oils, HFD fluids at high temperature Very resistant to almost all common chemicals and phosphates and chlorinated hydrocarbons, crude and sour gas
CH110-BR85	FKM FDA	Brown	Shore A 85 ± 5	-20/+210°C	Mineral oils, HFD fluids at high temperature Very resistant to almost all common chemicals and phosphates and chlorinated hydrocarbons, crude and sour gas Applicable for contact with foodstuff
CH111-B85	FKM	Black	Shore A 85 ± 5	-25/+210°C	Lip seals, wiper rings, vee packings, oil seals at high speed and other seal elements Mineral oils, HFD fluids at high temperature Very resistant to almost all common chemicals and phosphates and chlorinated hydrocarbons, crude and sour gas
CH800-B85-RGD	FKM RGD	Black	Shore A 85 ± 5	-30/+210°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFD fluids at high temperature Very resistant to almost all common chemicals and phosphates and chlorinated hydrocarbons, crude and sour gas RGD (ED) optimized for use in Oil & Gas Industry Meets the Norsok M-710 requirements

## EPDM

CHE131-B85	EPDM	Black	Shore A 85 ± 5	-50/+130°C	Lip seals, vee packings and other seal elements Hot water and steam, ozone, dilute acids and alkaline solutions EPDM is NOT resistant to mineral oil
CHE132-W85	EPDM FDA	White	Shore A 85 ± 3	-50/+100°C	Lip seals, vee packings and other seal elements Hot water and steam, ozone, dilute acids and alkaline solutions EPDM is NOT resistant to mineral oil Application for contact with foodstuff
CHE133-W270	EPDM UBA	Black	Shore A 85 ± 5	-45/+100°C	Lip seals, vee packings and other seal elements Hot water and steam, ozone, dilute acids and alkaline solutions EPDM is NOT resistant to mineral oil Application for use in drinking water

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# MATERIALS

Material List	Material	Colour	Hardness At 20°C	Temperature Range °C	Main Application
<b>Silicone</b>					
CH102-R85	VMQ FDA	Red	Shore A 85 ± 5	-55/+210°C	Flange seals, gaskets and other static seals Mineral oils, HFA, HFB, HFC, HFD fluids, ozone Not recommended for dynamic applications Application for contact with foodstuff
CH103-BL85	VMQ FDA	Blue	Shore A 85 ± 3	-55/+180°C	Flange seals, gaskets and other static seals Mineral oils, HFA, HFB, HFC, HFD fluids, ozone Not recommended for dynamic applications Application for contact with foodstuff
<b>Aflas</b>					
CH101-B85	AFLAS	Black	Shore A 85 ± 5	-15/+210°C	Lip seals, vee packings and other seal elements Mineral oils, HFA, HFB, HFC, HFD fluids Hot water and steam, ozone, dilute acids and alkaline solutions, sour oil and gas, amines
<b>PTFE</b>					
CH400	PTFE VIRGIN	White	Shore D 50-55	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals and fluids except molten alkaline metals Application for contact with foodstuff
CH416	PTFE WITH 40% BRONZE	Brown	Shore D 60-65	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals and fluids except molten alkaline metals Filled with 40% bronze for improved wear, pressure and extrusion resistance
CH458	PTFE WITH 60% BRONZE	Brown	Shore D 65-70	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals Filled with 60% bronze for improved wear, pressure and extrusion resistance
CH477	PTFE WITH 10% CARBON FIBER	Brown	Shore D 65-70	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals Filled with 10% carbon fibre for improved wear, pressure and extrusion resistance
CH479	PTFE WITH 10 % LCP	Beige	Shore D 55	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Extremely good chemical resistance Particularly suitable for operating against aluminium, stainless steel, bronze and polymeric substrates Very low friction coefficient Application for contact with foodstuff
CH453	PTFE WITH 25% CARBON GRAPHITE	Black	Shore D 62-67	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals Suitable for wet operating conditions and for contact with corrosive agents
CH455	PTFE WITH 35% CARBON GRAPHITE	Black	Shore D 62-67	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals Suitable for wet operating conditions and for contact with corrosive agents
CH412	PTFE WITH 15% GRAPHITE	Black	Shore D 55-60	-200/+260°C	Composite seals with elastomer preload elements, springloaded seals, back-up and guide rings Resistant to almost all common chemicals High resistance to deformation, extremely low coefficient of friction
CH418	PTFE WITH 15% GLASS FIBER	Grey	Shore D 55-60	-200/+260°C	Composite seals with elastomer preload elements, springloaded seals, back-up and guide rings Resistant to almost all common chemicals and fluids except molten alkaline metals Glass fiber reinforced for improved wear and extrusion resistance

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Material List	Material	Colour	Hardness At 20°C	Temperature Range °C	Main Application
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PTFE

CH440	PTFE WITH PIGMENT TURQUOISE	Turquoise	Shore D 55	-200/+260°C	Composite seals with elastomer preload elements, springloaded seals, back-up and guide rings Very good sliding properties, low friction
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Plastic\*

CH101-WE	POM	White	-	-60/+100°C	Back-up and guide rings, machined parts with tight tolerances Mineral oils, HFA, HFB, HFC fluids Minor absorption of water, applicable for contact with foodstuff
CHA112	PA	Natural	-	-40/+90°C	Back-up and guide rings, machined parts Mineral oils, acids and dilute alkaline solutions Application for contact with foodstuff
CH100-CN	PEEK	Natural	Shore D 90	-50/+250°C	Composite seals with elastomer preload elements, back-up and guide rings, high precision parts Excellent wear, friction and extrusion properties Resistant to almost all common chemicals Application for contact with foodstuff
CH PE-UHMW	PEHD 1000	White	Shore D 60	-150/+90°C	Back-up and guide rings, machined parts with tight tolerances, mineral oil

Composite

CH1210	COTTON FABRIC-REINFORCED PHENOLIC COMPOSITE	Brown	105 HRM	-40/+130°C	Composite seals, Bushes and Spherical Bearings Good mechanical strength and chemical resistance
CH1220	SYNTHETIC FIBRE-REINFORCED POLYESTER COMPOSITE WITH FRICTION MODIFIER	Grey	98 HRM	-40/+120°C	Composite seals, Bushes and Spherical Bearings High wear resistance Self-lubricating and non magnetic
CH1240	SYNTHETIC FIBRE-REINFORCED POLYESTER COMPOSITE WITH PTFE MICRO-POWDER ADDITIONS	Turquoise	98 HRM	-40/+120°C	Composite seals, Bushes and Spherical Bearings Low coefficient of friction and non magnetic Low water uptake
CH1320	WOVEN ARAMID FABRIC-REINFORCED PHENOLIC COMPOSITE WITH GRAPHITE ADDITIONS	Black	115 HRM	-40/+200°C	Composite seals, Bushes and Spherical Bearings Suitable for high temperature applications and excellent impact resistance

\* Note: We can also produce seals in other plastics, including PI, PAI, PEI, etc.

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## INTERNATIONAL TRACK RECORD

Over the years, Carsten Holm A/S has developed and supplied standard and customised sealing solutions for industrial applications across the world. We know our market well and strive constantly to improve so that we can continue to meet changing customer needs. We have a solid background of experience with sealing applications in the following industries.



- Marine and Offshore
- Wind Power
- Pharmaceutical
- Food and Beverage
- Machinery
- Mining
- Transport
- Agriculture
- Construction
- Precision equipment

We are always ready to assist you in supplying the best possible sealing solution for your company. Please do not hesitate to contact us.

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