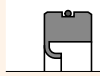
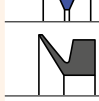
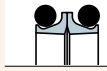
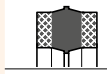
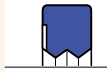
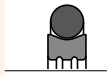
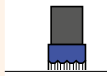
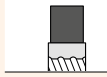
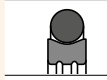
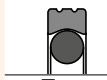
Technical data 990

Profile	Reference	Press. ≤ (MPa) ✱	Temp. (°C) ✱	Speed (m/s) ✱	Material	Dimensions (mm)	mm	inch	Page
8a Oil seals									
	**13A**	0,05	-30 +100	10	**NBR/ST/ST**	4 … 440	●	●	**996 - 1005**
	**13A...FPM**	0,05	-20 +200	10	**FPM/ST/ST**	4 … 440	●	●	**996 - 1005**
	**13AS**	0,05	-30 +100	10	**NBR/ST/ST**	6 … 440	●	●	**1006 - 1013**
	**13AS...FPM**	0,05	-20 +200	10	**FPM/ST/ST**	6 … 440	●	●	**1006 - 1013**
	**13ASP**	1	-30 +100	10	**NBR/ST/ST**	8 … 300	●	●	**1014 - 1017**
	**13ASP...FPM**	1	-20 +200	10	**FPM/ST/ST**	8 … 300	●	●	**1014 - 1017**
	**13G5**	0,05	-30 +100	10	**NBR/NBR-C/ST**	8 … 1110	●	●	**1018 - 1025**
	**13LM**	0,05	-30 +100	10	**NBR/ST/SS**	9”1/4 ... 45”		●	**1026 - 1027**
	**13APT**	0,05	-60 +200	30	**PTFE/MVQ/SS**	20 ... 150	●		**1028 - 1029**
	**13L1**	0,5	-30 +100	25	**PTFE/NBR**	20 ... 120	●		**1030 - 1031**
8b V-rings									
	**13GR**	-	-30 +100	20	**NBR/ST**	10 … 225	●		**1032 - 1033**
	**13GRB**	-	-30 +100	20	**NBR/ST**	15 … 100	●		**1034 - 1035**
	**13TFR**	-	-40 +100	10	**PU**	27,5 … 186	●		**1036 - 1037**
	**13VA**	-	-30 +100	10	**NBR**	2,7 … 2020	●	●	**1038 - 1041**
	**13VL**	-	-30 +100	10	**NBR**	105 … 2025	●	●	**1042 - 1045**
	**13VS**	-	-30 +100	10	**NBR**	4,5 … 210	●	●	**1046 - 1047**

✱ The pressure, temperature and speed of moving values in this catalogue are maximum values which can never be used simultaneously.

SEALTECH
Hydraulic Seals Technology

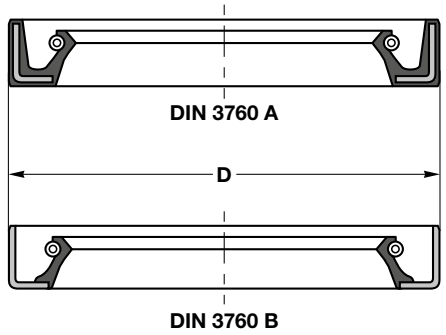
Profile	Reference	Press. ≤ (MPa) ✱	Temp. (°C) ✱	Speed (m/s) ✱	Material	Dimensions (mm)	mm	inch	Page
8c Face seals									
	**14MFO**	0,3 0,15	-30 +100	10 2	**CI/NBR HS/NBR**	38 … 667	●	●	**1048 - 1053**
8d Rotary seals									
	**13DB/R**	20	-30 +100	0,1	**NBR/NBR-C**	6 … 250	●		**1054 - 1055**
	**13DB/R.../NEI**	40	-30 +100	0,2	**NBR-C/NBR/POM**	65 … 140	●		**1056 - 1057**
	**13ROI**	35	-30 +90	0,1	**PU**	60 … 150	●		**1058 - 1059**
	**13R9**	30	-30 +100	2	**PTFE/NBR**	20 … 300	●	●	**1060 - 1061**
	**13R9K**	30	-30 +100	2	**PU/NBR**	20 … 300	●	●	**1060 - 1061**
	**41RS**	50	-30 +100	0,5	**WK060/NBR**		●		**1062 - 1063**
8e TSS rotary seals									
	**17TWVA**	-	-30 +100	10	**NBR**	5,5 … 430	●	●	**1064 - 1065**
	**17TG3**	30	-30 +100	2	**T10/NBR**	8 … 300	●	●	**1066 - 1067**
	**17TG4**	30	-30 +100	2	**T10/NBR**	20 … 300	●	●	**1068 - 1069**
	**17TVM**	15	-100 +260	2	**T40/SS**	30 … 120	●	●	**1070 - 1071**

✱ The pressure, temperature and speed of moving values in this catalogue are maximum values which can never be used simultaneously.

1 OIL SEALS OUTER DIAMETER

Table 990A

Outer diameter D (mm)	Outer diameter tolerances		Eccentricity (mm)
	DIN3760A DIN3761A (mm)	DIN3760B DIN3761B (mm)	
< 50	+ 0,3 + 0,15	+ 0,2 + 0,1	0,125
50 → 80	+ 0,35 + 0,2	+ 0,23 + 0,13	0,175
80 → 120	+ 0,35 + 0,2	+ 0,25 + 0,15	0,25
120 → 180	+ 0,45 + 0,25	+ 0,28 + 0,18	0,325
180 → 300	+ 0,45 + 0,25	+ 0,3 + 0,2	0,4
300 → 500	+ 0,55 + 0,3	+ 0,35 + 0,23	0,5
> 500	+ 0,65 + 0,4	+ 0,4 + 0,28	0,25% x **D**



The press fit allowance and the eccentricity of oil seals are given in **Table 990A**.

2 THE SHAFT FOR OIL SEALS

The shaft surface should have a hardness of minimum 55HRc on a depth of 0,3 mm. In case of heavy polluted environments and high speed (more than 4 m/s), a hardness of 55-60 HRc must be respected.

3 OIL SEALS INTERCHANGE TABLE

Table 990B

SEALTECH	13A	13AS	13ASP	13AOF	13B	13C	13CS
DIN	3760A 3761A	3760AS 3761AS			3760B 3761B	3760C 3761C	3760CS 3761CS
TSS	TRA	TRE	TRP TRQ.D	TRK	TRC	TRB	TRF
CHICAGO RAWHIDE					CRW1	CRWH1	CRWHA1
DICHTA	A	AS	AS-P	A-O	B	C	CS
GACO	A	FA		SA	ABI		
GOETZE	827N	827S	827SK	827NO	822N	824N	824S
KACO	DG	DGS	DGSP	SDE	DF	DFK	DFSK
NATIONAL	35	32			48	45	41
PAULSTRA	IE	IEL		IO	EE	EEP	
PIONEER WESTON	R21 WRM	R23 WRT		R26	R4 WR	R1 WRL	
SIMMERWERKE	A	ASL		AOF	B	C	CSL
SIMRIT-FREUDENBERG	BA	BASL	BABSL	BAOF	B1	B2	B2SL
STEFA	CB	CC	6CC-2CC	CD	BB	DB	DC

4 OIL SEALS AUTHORISED SPEED

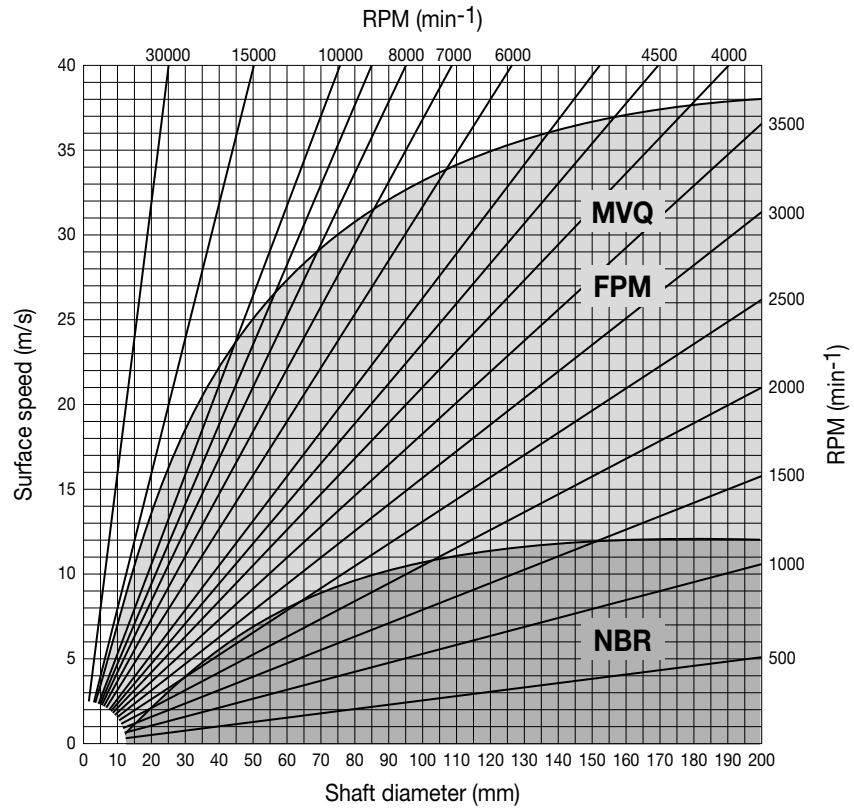
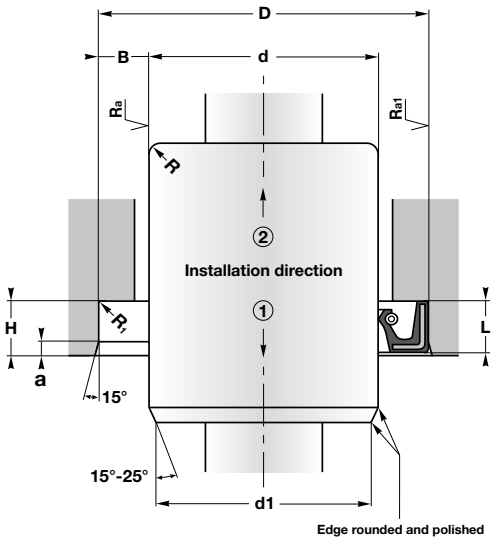


Fig. 991

The **Fig. 991** shows the permissible peripheral speed for seals made with NBR, FPM and MVQ. The values are only concerning the seals without dust lip.

5 OIL SEALS DESIGN INSTRUCTIONS



R_1 = 0,5 mm a = 0,15 L H = L + 0,3 mm

Fig. 992

• Surface roughness

The values of the surface roughness are specified in table here below.

• Chamfers and radii

Avoid machining of sharp corners.

With the table here below, you can find the right dimension for lead-in chamfers and radius.

Surface roughness (µm)

Parameter	**Ra**	Rz	R max
Shaft	**0,2 - 0,8**	1 - 4	< 6
Housing Metal cased	**0,8 - 3,2**	6,3 - 16	< 16
Housing Rubber covered	**1,6 - 6,3**	10 - 25	< 25

Chamfers and radii (mm)

d	**d1**	**R**
< 10	**d** - 1,5	2
10 - 20	**d** - 2	2
20 - 30	**d** - 2,5	3
30 - 40	**d** - 3	3
40 - 50	**d** - 3,5	4
50 - 70	**d** - 4	4
70 - 95	**d** - 4,5	5
95 - 130	**d** - 5,5	6
130 - 240	**d** - 7	8
240 - 500	**d** - 11	12

6 ROTARY SEALS DESIGN INSTRUCTIONS

• Assembly in open or closed housings

According to profile and cross section, the split grooves are required if the nominal diameter of the seal is less than **d min** (See table “Assembly in open or closed housings”).

• Surface roughness

The values of **Ra** and **Rt** are specified in table here below.

• Chamfers

You can find the right dimension for lead-in chamfers **a** and angle **α**.

• Radii

The values of the radii are specified in the table.

Assembly in open or closed housings

Profile	**d min.**	**L**	**Profile**	**d min.**	**L**
13DB/R	40	-	**13DB/R.../NEI**	60	-
13ROI	30	-	**13ROI.../A**	40	-
17TG30	12	2,2	**17TG40**	25	2,2
17TG31	18	3,2	**17TG41**	38	3,2
17TG32	33	4,2	**17TG42**	50	4,2
17TG33	60	6,3	**17TG43**	75	6,3

Surface roughness (µm)

Ra	**Rt**	**Ra1**	**Rt1**	**Ra2**	**Rt2**
0,05 - 0,2	0,63 - 2,5	< 1,6	< 10	< 3	< 16

Chamfers

Profile		**a** (mm)	α
13DB/R - 13DB/R.../NEI		**a** = 0,6 **B**	25°
13ROI - 13ROI.../A			
17TG30	**17TG40**	2	10-20°
17TG31	**17TG41**	2,5	
17TG32	**17TG42**	3,5	
17TG33	**17TG43**	5	
17TG34	**17TG44**	6,5	
17TG35	**17TG45**	7,5	

Radii (mm)

B	**R_1**	**R_2**	**R_3**	**R**
≤ 7,5	≤ 0,3	0,2	0,2	See pages 1061, 1067 and 1069
> 7,5	≤ 0,6	0,4		

Closed grooves Split grooves

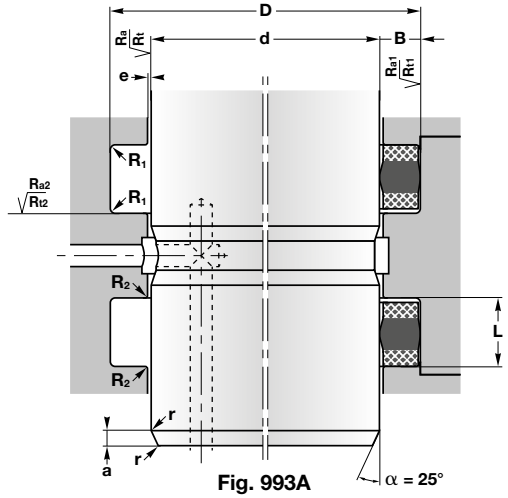


Fig. 993A

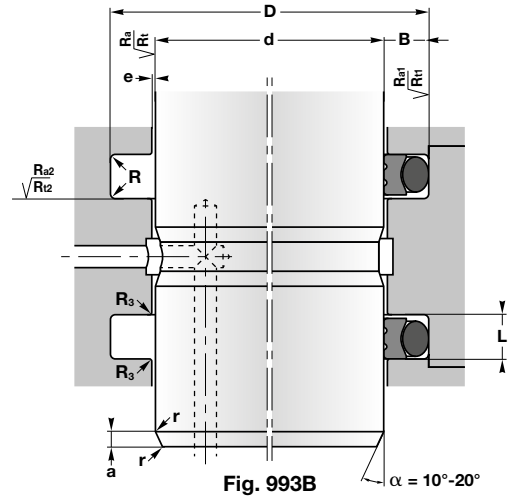


Fig. 993B

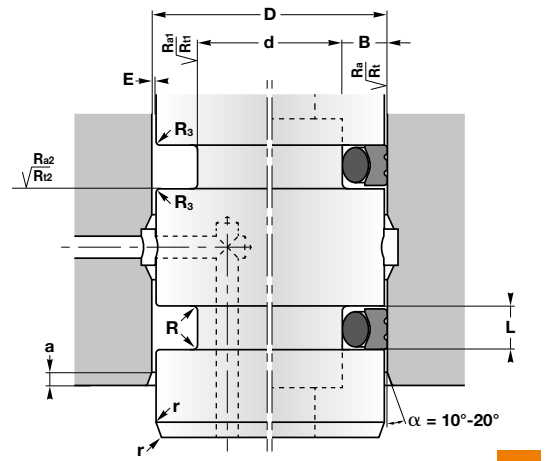


Fig. 993C

7 OIL SEALS INSTALLATION

• Assembly on the shaft

Direction ① (see **Fig. 994A**)
For oil seals, if the chamfer of the shaft is not sufficient, it is necessary to use a tool to avoid damaging the lips.

Assembly with a tool			
d (mm)	6 → 60	65 → 135	140 → 200
d1 (mm)	**d** - 3	**d** - 4	**d** - 5,5

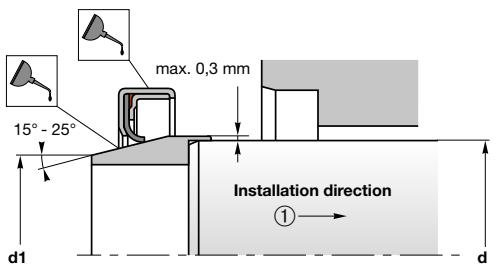


Fig. 994A

Direction ② (see **Fig. 994B**)
A radius is sufficient to mount the seal.

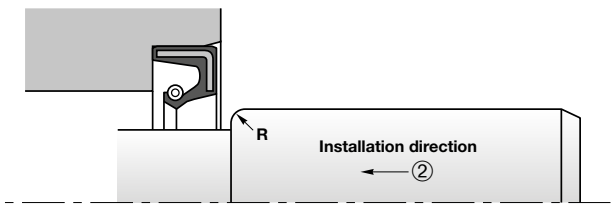


Fig. 994B

• Installation in the gland:

We advise to respect the five principles of assembly as shown (**Fig. 995A** to **Fig. 995E**).

Lubricate the oil seal (with grease or oil) to reduce the frictions during the assembly. It is essential to use a tool for the correct installation of the seal.

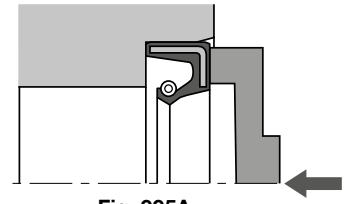


Fig. 995A

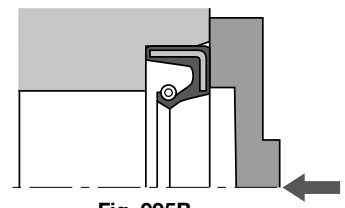


Fig. 995B

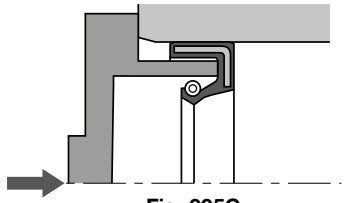


Fig. 995C

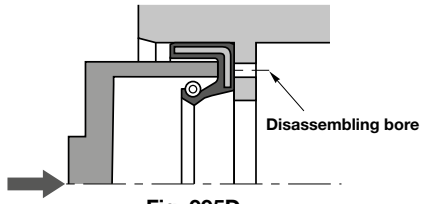


Fig. 995D

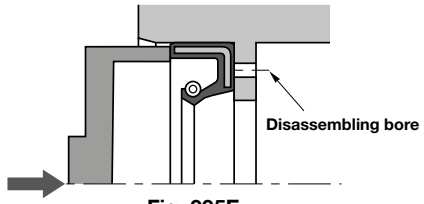
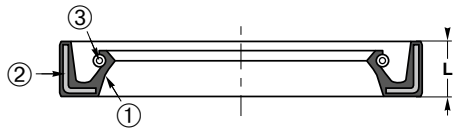
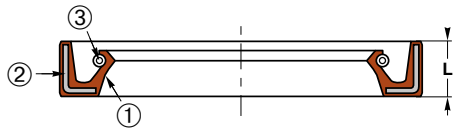


Fig. 995E



13A

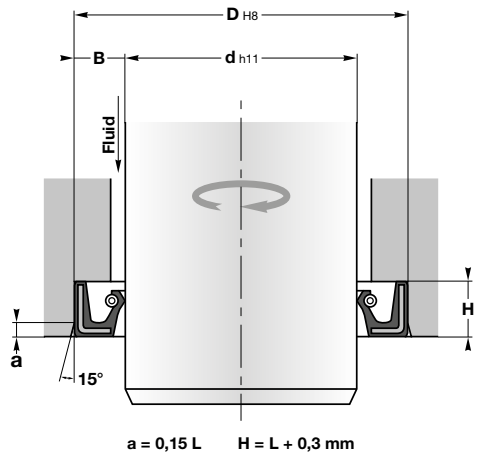


13A... FPM

Example of item code

13A 095 125 NBR/ST/SS

- 13A: Profile
- 095: Diameter **d** (mm)
- 125: Diameter **D** (mm)
- NBR/ST/SS: Materials ①/②/③



Machining of housings: see page 992

13A is a radial oil seal with completely rubber covered outer diameter and a spring-loaded sealing lip. This type is not recommended for use in heavily polluted applications.

Operating conditions see page 8

Pressure	≤ 0,05 MPa
Temperature	
13A	-30°C to 100°C
13A... FPM	-20°C to 200°C
Speed	3 to 10 m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal ①	NBR or FPM
Metal cage ②	ST
Spring ③	Standard: ST On demand: SS

Assembly see pages 994-995

In open groove

Advantages

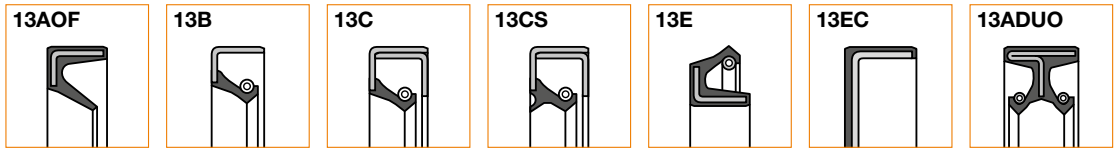
- Good static sealing
- Reduced risk of corrosion
- Higher bore roughness

Please contact us for applications approaching maximum values.

More information

On www.sealtech-business.be, click first on the reference and then on the material code to obtain the data sheet of the different materials.

On request:



For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

d	D	L	Reference
4	16	4	**13A 004016**
5	19	6,35	**13A 005019**
6	13	4,5	**13A 006013**
	14	6	**13A 006014**
	16	7	**13A 006016/1**
	19	6,35	**13A 006019**
	22	7	**13A 006022**
7	16	7	**13A 007016**
	22	7	**13A 007022/1**
8	16	7	**13A 008016**
	17	7	**13A 008017**
	18	5	**13A 008018**
	22	7	**13A 008022**
	26	6	**13A 008026**
	30	7	**13A 008030**
9	22	7	**13A 009022**
	26	7	**13A 009026**
10	18	5	**13A 010018/1**
	19	7	**13A 010019**
	22	7	**13A 010022**
	26	7	**13A 010026**
	30	8	**13A 010030**
11	17	4	**13A 011017**
	22	7	**13A 011022**
	30	7	**13A 011030**
12	19	5	**13A 012019**
	22	5	**13A 012022**
	22	7	**13A 012022/1**
12	22	4	**13A 012022/2**
	24	4,5	**13A 012024**
	24	7	**13A 012024/1**
	25	6	**13A 012025**
	26	6	**13A 012026**
	26	8	**13A 012026/1**
	28	7	**13A 012028**
	30	7	**13A 012030**
	32	7	**13A 012032**
	32	5	**13A 012032/1**

d	D	L	Reference
12,7	25,4	6,35	**13A 012025/1**
13	25	7	**13A 013025**
	26	5	**13A 013026**
	26	7	**13A 013026/1**
	28	7	**13A 013028**
14	22	4	**13A 014022**
	24	7	**13A 014024**
	26	7	**13A 014026**
	28	7	**13A 014028**
	30	7	**13A 014030**
15	24	5	**13A 015024**
	24	7	**13A 015024/1**
	26	7	**13A 015026/1**
	27	7	**13A 015027**
	28	7	**13A 015028**
	30	4,5	**13A 015030**
	30	10	**13A 015030/2**
	30	7	**13A 015030/3**
	32	7	**13A 015032**
	32	9	**13A 015032/1**
	35	7	**13A 015035**
	35	10	**13A 015035/1**
	37	7	**13A 015037**
	40	10	**13A 015040**
	42	7	**13A 015042**
	42	10	**13A 015042/1**
	50	7	**13A 015050**
16	24	4	**13A 016024**
	24	7	**13A 016024/1**
	24	5	**13A 016024/2**
	26	7	**13A 016026**
	28	7	**13A 016028**
	30	5	**13A 016030**
	30	7	**13A 016030/1**
	32	9	**13A 016032**
	32	10	**13A 016032/1**
	35	7	**13A 016035**
	40	10	**13A 016040**

13A seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

SEALTECH Hydraulic Seals Technology

d	D	L	Reference
17	24	7	**13A 017024**
	25	4	**13A 017025**
	28	7	**13A 017028**
	30	7	**13A 017030**
	32	5	**13A 017032**
	32	7	**13A 017032/1**
17	35	8	**13A 017035**
	35	7	**13A 017035/1**
	35	10	**13A 017035/2**
	40	7	**13A 017040**
	40	10	**13A 017040/1**
	47	7	**13A 017047**
17,46	28,57	6,35	**13A 017028/1**
17,5	31	6	**13A 017031**
18	28	4	**13A 018028**
	28	6	**13A 018028/1**
	28	7	**13A 018028/2**
	30	7	**13A 018030**
	30	6	**13A 018030/1**
	32	7	**13A 018032**
18	32	8	**13A 018032/1**
	35	8	**13A 018035**
	40	7	**13A 018040**
19	27	6	**13A 019027**
	32	7	**13A 019032**
	35	6	**13A 019035**
	35	10	**13A 019035/1**
	47	10	**13A 019047**
20	28	6	**13A 020028**
	28	7	**13A 020028/1**
	28	4	**13A 020028/2**
	30	5	**13A 020030**
	30	7	**13A 020030/1**
	30	6	**13A 020030/2**
	32	7	**13A 020032**
	35	5	**13A 020035**
	35	10	**13A 020035/1**
	35	7	**13A 020035/2**
	37	8	**13A 020037**
	38	7	**13A 020038**

d	D	L	Reference
20	40	6	**13A 020040**
	40	8	**13A 020040/1**
	40	10	**13A 020040/2**
	40	7	**13A 020040/3**
	42	7	**13A 020042**
	42	10	**13A 020042/1**
	47	7	**13A 020047**
	47	10	**13A 020047/2**
	52	7	**13A 020052**
	52	10	**13A 020052/1**
22	32	7	**13A 022032**
	35	7	**13A 022035**
	35	10	**13A 022035/1**
	37	7	**13A 022037/1**
	38	6	**13A 022038**
	40	8	**13A 022040**
	40	10	**13A 022040/1**
	45	7	**13A 022045**
	47	10	**13A 022047**
22,7	47	7	**13A 022047/1**
23	38	7	**13A 023038**
	47	10	**13A 023047**
24	40	7	**13A 024040**
	40	10	**13A 024040/1**
	42	8	**13A 024042**
	47	7	**13A 024047**
	50	10	**13A 024050**
	52	10	**13A 024052**
24,9	45	6,5	**13A 024045**
25	32	6	**13A 025032**
	35	7	**13A 025035/1**
	35	6	**13A 025035/3**
	37	5	**13A 025037**
	37	7	**13A 025037/1**
	38	7	**13A 025038**
	40	5	**13A 025040**
	40	7	**13A 025040/1**
	40	8	**13A 025040/2**

d	D	L	Reference
25	40	10	**13A 025040/3**
	42	6	**13A 025042**
	42	7	**13A 025042/1**
	42	8,5	**13A 025042/2**
	42	10	**13A 025042/3**
	45	7	**13A 025045**
	45	10	**13A 025045/2**
	46	7	**13A 025046**
	47	7	**13A 025047**
	47	10	**13A 025047/1**
	50	10	**13A 025050**
	52	7	**13A 025052**
	52	10	**13A 025052/1**
	52	8	**13A 025052/2**
26	35	7	**13A 026035**
	37	6	**13A 026037**
	47	7	**13A 026047**
27	37	7	**13A 027037**
	41	10	**13A 027041**
	42	10	**13A 027042**
	47	7	**13A 027047**
	50	10	**13A 027050**
28	38	6	**13A 028038**
	38	7	**13A 028038/1**
	40	7	**13A 028040**
	42	7	**13A 028042**
	42	10	**13A 028042/1**
	43	10	**13A 028043**
	47	7	**13A 028047**
	47	10	**13A 028047/1**
	50	7	**13A 028050**
28	52	6	**13A 028052**
	52	7	**13A 028052/1**
	52	10	**13A 028052/2**
29	45	9,52	**13A 029045**
30	40	7	**13A 030040**
	42	7	**13A 030042**
	42	8	**13A 030042/1**

d	D	L	Reference
30	43	8	**13A 030043**
	44	10	**13A 030044**
	45	5	**13A 030045**
	45	8	**13A 030045/1**
	45	10	**13A 030045/2**
	47	6	**13A 030047**
	47	10	**13A 030047/1**
	47	7	**13A 030047/2**
	48	8	**13A 030048**
	50	5	**13A 030050**
	50	7	**13A 030050/1**
	50	8	**13A 030050/2**
	50	10	**13A 030050/3**
	50	8,5	**13A 030050/5**
	52	7	**13A 030052**
	52	10	**13A 030052/1**
	55	7	**13A 030055**
	55	10	**13A 030055/1**
	56	10	**13A 030056**
	56	12	**13A 030056/1**
	62	7	**13A 030062**
	62	10	**13A 030062/1**
	72	10	**13A 030072**
31	47	7	**13A 031047**
	52	7	**13A 031052**
32	40	7	**13A 032040**
	42	7	**13A 032042**
	44	7	**13A 032044**
	45	7	**13A 032045**
	47	7	**13A 032047**
	47	10	**13A 032047/1**
	50	8	**13A 032050**
	50	10	**13A 032050/1**
	52	5	**13A 032052**
	52	7	**13A 032052/1**
	52	10	**13A 032052/2**
	52	10	**13A 032052/2 FPM ***
	55	10	**13A 032055**
	56	10	**13A 032056**
	62	6	**13A 032062**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13A seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

SEALTECH Hydraulic Seals Technology

d	D	L	Reference
32	62	10	**13A 032062/1**
	62	10	**13A 032062/1 FPM ***
	62	10	**13A 035062/1 FPM ***
33	50	8	**13A 033050/1**
34	46	10	**13A 034046**
	46	8	**13A 034046/1**
	47	7	**13A 034047**
	50	10	**13A 034050**
	52	8	**13A 034052**
	52	10	**13A 034052/1**
	62	10	**13A 034062**
34,9	52,4	12,7	**13A 034052/2**
35	45	6	**13A 035045/1**
	45	7	**13A 035045/2**
	47	7	**13A 035047**
	47	10	**13A 035047/1**
	48	8	**13A 035048**
	50	7	**13A 035050**
	50	10	**13A 035050/1**
	50	8	**13A 035050/2**
	52	7	**13A 035052**
	52	10	**13A 035052/1**
	52	8	**13A 035052/2**
	55	7	**13A 035055**
	55	10	**13A 035055/1**
	56	10	**13A 035056**
	58	10	**13A 035058**
	60	10	**13A 035060**
	60	12	**13A 035060/1**
	62	7	**13A 035062**
	62	10	**13A 035062/1**
	65	10	**13A 035065**
	68	10	**13A 035068**
	72	10	**13A 035072**
	72	7	**13A 035072/1**
	80	10	**13A 035080/1**
	80	12	**13A 035080/2**
	80	13	**13A 035080/3**

d	D	L	Reference
35,8	68	10	**13A 035068/1**
36	47	7	**13A 036047**
	50	7	**13A 036050**
	50	10	**13A 036050/1**
	52	7	**13A 036052**
	52	12	**13A 036052/1**
	54	7,5	**13A 036054**
	56	10	**13A 036056**
	58	10	**13A 036058**
	62	7	**13A 036062**
	62	10	**13A 036062/1**
	68	10	**13A 036068**
37	62	8	**13A 037062**
38	50	7	**13A 038050/1**
	50	8	**13A 038050/2**
	51,8	8	**13A 038051**
	52	7	**13A 038052**
	52	10	**13A 038052/1**
	52	8	**13A 038052/2**
	54	10	**13A 038054**
	55	7	**13A 038055**
	55	10	**13A 038055/1**
	56	7	**13A 038056**
	56	10	**13A 038056/1**
	56	12	**13A 038056/2**
	60	10	**13A 038060**
	62	10	**13A 038062**
	64	8	**13A 038064**
	70	12	**13A 038070/1**
	72	10	**13A 038072**
40	50	8	**13A 040050**
	52	7	**13A 040052**
	55	7	**13A 040055**
	55	10	**13A 040055/1**
	55	8	**13A 040055/2**
	56	8	**13A 040056**
	56	10	**13A 040056/1**
	57,1	10	**13A 040057**
	58	10	**13A 040058**

d	D	L	Reference
40	60	7	**13A 040060**
	60	10	**13A 040060/1**
	60	12	**13A 040060/2**
	62	10	**13A 040062/1**
	62	7	**13A 040062/2**
	62	5	**13A 040062/3**
	65	10	**13A 040065**
	68	10	**13A 040068**
	70	10	**13A 040070**
	72	10	**13A 040072**
	72	12	**13A 040072/1**
	72	7	**13A 040072/2**
	80	10	**13A 040080**
	80	13	**13A 040080/1**
	90	12	**13A 040090**
	90	10	**13A 040090/1 ***
41,28	53,37	6,35	**13A 041054**
	60,33	6,35	**13A 041060/1**
42	55	7	**13A 042055**
	56	7	**13A 042056**
	57	7	**13A 042057**
42	58	10	**13A 042058**
	60	10	**13A 042060**
	62	8	**13A 042062**
	62	10	**13A 042062/1**
	65	10	**13A 042065**
	70	10	**13A 042070**
	72	10	**13A 042072**
	80	10	**13A 042080**
43	60	10	**13A 043060**
	80	10	**13A 043080**
44	60	10	**13A 044060**
	65	10	**13A 044065**
	72	10	**13A 044072**
45	55	7	**13A 045055**
	60	5	**13A 045060**
	60	7	**13A 045060/1**
	60	10	**13A 045060/2**
	60	8	**13A 045060/3**
	62	7	**13A 045062**

d	D	L	Reference
45	62	8	**13A 045062/1**
	62	10	**13A 045062/2**
	65	8	**13A 045065**
	65	10	**13A 045065/1**
	65	12	**13A 045065/2**
	66	10	**13A 045066**
	68	10	**13A 045068**
	70	10	**13A 045070**
	72	8	**13A 045072**
	72	10	**13A 045072/1**
	72	12	**13A 045072/2**
	75	10	**13A 045075**
	80	10	**13A 045080**
	80	13	**13A 045080/1**
	85	12	**13A 045085**
	85	10	**13A 045085/1**
	100	10	**13A 045100**
46	65	10	**13A 046065**
47,62	73,03	6,35	**13A 047073**
48	62	8	**13A 048062**
	62	10	**13A 048062/1**
	62	7	**13A 048062/2**
	65	10	**13A 048065**
	66	10	**13A 048066**
	68	10	**13A 048068**
48	68	12	**13A 048068/1**
	70	10	**13A 048070**
	72	8	**13A 048072**
	72	10	**13A 048072/1**
	80	10	**13A 048080**
	85	10	**13A 048085**
	90	10	**13A 048090**
49	65	10	**13A 049065**
50	62	10	**13A 050062**
	62	7	**13A 050062/1**
	65	8	**13A 050065**
	65	10	**13A 050065/1**
	68	8	**13A 050068**
	68	10	**13A 050068/1**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13A seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

SEALTECH
Hydraulic Seals Technology

d	D	L	Reference
50	70	10	**13A 050070**
	72	7	**13A 050072**
	72	10	**13A 050072/1**
	72	12	**13A 050072/2**
	72	8	**13A 050072/3**
	75	12	**13A 050075**
	78	10	**13A 050078**
	80	8	**13A 050080**
	80	10	**13A 050080/1**
	80	13	**13A 050080/2**
	85	10	**13A 050085**
	90	10	**13A 050090**
	90	12	**13A 050090/1**
50,8	76,2	12,7	**13A 050076**
52	68	8	**13A 052068**
	69	10	**13A 052069**
	72	10	**13A 052072**
52	75	10	**13A 052075**
	75	12	**13A 052075/1**
	80	10	**13A 052080**
	85	10	**13A 052085**
	85	8	**13A 052085/1**
53	68	10	**13A 053068**
53,97	73,02	9,52	**13A 054073**
54	72	10	**13A 054072**
	76,2	12,7	**13A 054076**
55	68	8	**13A 055068**
	70	8	**13A 055070**
	70	10	**13A 055070/1**
	72	8	**13A 055072**
	72	10	**13A 055072/1**
	73,1	10	**13A 055073**
	75	10	**13A 055075**
	75	12	**13A 055075/1**
	76	10	**13A 055076**
	78	8	**13A 055078**
	78	10	**13A 055078/1**
	80	8	**13A 055080**

d	D	L	Reference
55	80	10	**13A 055080/1**
	80	10	**13A 055080/1 FPM ***
	80	12	**13A 055080/2**
	85	10	**13A 055085**
	85	8	**13A 055085/1 ***
	90	10	**13A 055090**
	90	8	**13A 055090/1 ***
	100	10	**13A 055100**
56	72	10	**13A 056072**
57	79,5	9,5	**13A 057079**
	85	13	**13A 057085**
57,15	76,2	9,52	**13A 057076**
58	72	8	**13A 058072**
	75	10	**13A 058075**
	80	8	**13A 058080**
58	80	10	**13A 058080/1**
	85	10	**13A 058085**
	90	10	**13A 058090**
	90	13	**13A 058090/2 ***
60	72	8	**13A 060072**
	75	8	**13A 060075**
	80	8	**13A 060080**
	80	10	**13A 060080/1**
	80	12	**13A 060080/2**
	80	7	**13A 060080/3**
60	82	12	**13A 060082**
	85	8	**13A 060085**
	85	10	**13A 060085/1**
	85	12	**13A 060085/2**
	90	10	**13A 060090**
	90	13	**13A 060090/1**
	95	10	**13A 060095**
	100	10	**13A 060100**
	100	13	**13A 060100/1**
	110	10	**13A 060110**
	110	13	**13A 060110/1**

d	D	L	Reference
62	76	10	**13A 062076**
	80	10	**13A 062080**
	85	10	**13A 062085/1**
	85	13	**13A 062085/2**
	88	8	**13A 062088**
	90	10	**13A 062090**
	90	13	**13A 062090/1**
	100	10	**13A 062100**
	100	12	**13A 062100/1**
63	88	10	**13A 063088**
64	80	8	**13A 064080**
65	80	8	**13A 065080**
	80	10	**13A 065080/1**
	85	10	**13A 065085**
	90	10	**13A 065090**
	90	12	**13A 065090/1**
	95	10	**13A 065095**
65	100	10	**13A 065100**
	100	13	**13A 065100/1**
	110	10	**13A 065110**
68	80	8	**13A 068080**
	85	10	**13A 068085**
	90	10	**13A 068090**
	95	10	**13A 068095**
	95	13	**13A 068095/1**
	100	10	**13A 068100**
	100	13	**13A 068100/1**
70	85	7	**13A 070085**
	85	10	**13A 070085/1**
	85	8	**13A 070085/2**
70	90	10	**13A 070090**
	90	10	**13A 070090 FPM**
	90	12	**13A 070090/1**
	92	13	**13A 070092**
	95	10	**13A 070095**
	95	13	**13A 070095/1**
	100	10	**13A 070100**
	100	12	**13A 070100/1**
	110	12	**13A 070110**

d	D	L	Reference
70	110	13	**13A 070110/1**
	110	10	**13A 070110/2**
	120	13	**13A 070120**
72	90	10	**13A 072090**
	100	10	**13A 072100**
	110	12	**13A 072110**
	130	12	**13A 072130**
73	90	10	**13A 073090**
75	90	8	**13A 075090**
	90	10	**13A 075090/1**
	95	10	**13A 075095**
	95	10	**13A 075095 FPM ***
	95	12	**13A 075095/1**
	100	10	**13A 075100**
	105	12	**13A 075105**
	110	12	**13A 075110**
	120	12	**13A 075120/1**
76,2	95,25	12,7	**13A 076095/1**
78	95,5	12,7	**13A 078095**
	100	10	**13A 078100**
	115	10	**13A 078115**
80	95	8	**13A 080095**
	100	10	**13A 080100**
	100	13	**13A 080100/1**
	105	12	**13A 080105/1**
	110	10	**13A 080110**
	110	12	**13A 080110/1**
	115	12	**13A 080115**
	120	13	**13A 080120**
	125	12	**13A 080125**
	130	13	**13A 080130**
	140	12	**13A 080140**
	150,5	13	**13A 080150**
82	105	12	**13A 082105**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available : **FPM**, **HNBR**, **TNBR**, **EPDM**...

13A seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability : **www.sealtech-business.be**

d	D	L	Reference
85	100	9	**13A 085100/1**
	105	10	**13A 085105**
	105	13	**13A 085105/1**
	110	12	**13A 085110**
	110	13	**13A 085110/1**
	115	13	**13A 085115**
	120	13	**13A 085120**
88	110	12	**13A 088110**
	120	12	**13A 088120**
	126	12	**13A 088126**
	140	13	**13A 088140**
90	110	10	**13A 090110**
	110	12	**13A 090110/1**
	110	12	**13A 090110/1 FPM ***
	110	13	**13A 090110/2**
	115	12	**13A 090115**
	120	12	**13A 090120**
	125	14	**13A 090125**
	130	12	**13A 090130**
	140	13	**13A 090140**
92	120	13	**13A 092120**
95	115	12	**13A 095115**
	120	12	**13A 095120**
	120	12	**13A 095120 MVQ ***
95	125	12	**13A 095125**
	125	12	**13A 095125 FPM ***
	125	12	**13A 095125 NBR/ST/SS**
	130	12	**13A 095130**
98	125	13	**13A 098125**
100	120	12	**13A 100120/1**
	120	13	**13A 100120/2**
	125	12	**13A 100125/1**
	130	12	**13A 100130**
	140	13	**13A 100140**
	150	13	**13A 100150**
104	125	10	**13A 104125**

d	D	L	Reference
105	130	12	**13A 105130/1**
	135	14	**13A 105135**
	140	13	**13A 105140**
107,95	127	12,7	**13A 107127**
110	130	12	**13A 110130**
	135	12	**13A 110135**
	140	12	**13A 110140**
	150	13	**13A 110150**
112	140	13	**13A 112140**
114	140	13	**13A 114140**
115	135	10	**13A 115135**
	140	12	**13A 115140**
	140	13	**13A 115140/1 FPM**
	160	15	**13A 115160**
	180,5	13	**13A 115180**
120	140	13	**13A 120140**
	140	10	**13A 120140/2**
	150	12	**13A 120150**
	150	15	**13A 120150/1**
	160	13	**13A 120160**
125	150	12	**13A 125150**
	150	12	**13A 125150 FPM ***
	150	15	**13A 125150/1**
	160	12	**13A 125160**
130	160	12	**13A 130160**
	160	15	**13A 130160/1**
	170	12	**13A 130170**
132	160	12	**13A 132160**
135	160	12	**13A 135160**
	160	15	**13A 135160/1**
	160	13	**13A 135160/2 ***
	165	12	**13A 135165**
	170	12	**13A 135170**
	170	12	**13A 135170 MVQ ***
	170	15	**13A 135170/1**

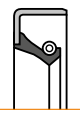
d	D	L	Reference
138	160	13	**13A 138160**
140	160	13	**13A 140160**
	160	13	**13A 140160/1 ***
	165	15	**13A 140165/1**
	170	12	**13A 140170**
	170	15	**13A 140170/1**
	170	15	**13A 140170/1 FPM ***
140	180	12	**13A 140180**
144	160	12	**13A 144160**
145	170	15	**13A 145170**
	180	14	**13A 145180**
150	168	12	**13A 150168**
	170	12	**13A 150170**
	180	12	**13A 150180**
	180	15	**13A 150180/1**
160	185	10	**13A 160185**
	190	15	**13A 160190**
	190	13	**13A 160190/1 ***
165	200	15	**13A 165200**
170	200	12	**13A 170200**
	200	15	**13A 170200/1**
	200	15	**13A 170200/1 FPM**
175	200	15	**13A 175200**
	210	16	**13A 175210 ***
180	200	15	**13A 180200**
	210	15	**13A 180210**
	210	15	**13A 180210 FPM ***
	220	15	**13A 180220**

d	D	L	Reference
185	210	13	**13A 185210**
	215	15	**13A 185215**
190	220	16	**13A 190220**
	220	15	**13A 190220/1**
195	230	17	**13A 195230 ***
200	225	15	**13A 200225**
	230	15	**13A 200230**
	240	15	**13A 200240**
210	240	15	**13A 210240**
	240	15	**13A 210240**
220	250	15	**13A 220250**
	250	15	**13A 220250 MVQ ***
	260	15	**13A 220260**
230	260	15	**13A 230260**
	270	15	**13A 230270**
240	270	15	**13A 240270**
250	280	15	**13A 250280**
260	290	15	**13A 260290**
	300	20	**13A 260300**
275	320	15	**13A 275320**
280	310	15	**13A 280310**
	320	20	**13A 280320/1**
300	340	18	**13A 300340**
340	372	(13C)	**13A 340372**
	380	18	**13A 340380**
360	400	20	**13A 360400**
440	480	20	**13A 440480**

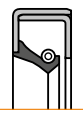
On request:

13AOF

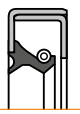
13B



13C

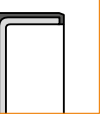


13CS

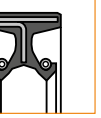


13E

13EC



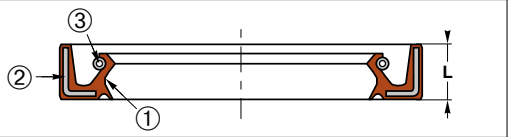
13ADUO



For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13A seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

13AS

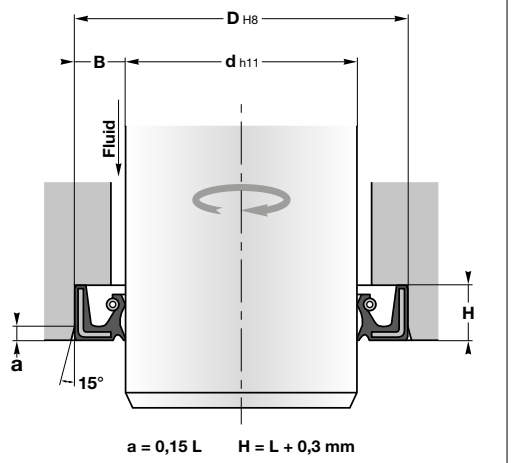


13AS...FPM

Example of item code

13AS 085 110 FPM/ST/SS

- 13AS: Profile
- 085: Diameter **d** (mm)
- 110: Diameter **D** (mm)
- FPM/ST/SS: Materials ①/②/③



Machining of housings: see page 992

13AS is a radial oil seal with completely rubber covered outer diameter, spring-loaded sealing lip and an additional dust lip which prevent the introduction of dust and dirt from the outside.

Operating conditions see page 8

Pressure	≤ 0,05 MPa
Temperature	
13AS	-30°C to 100°C
13AS... FPM	-20°C to 200°C
Speed	3 to 10 m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal ①	NBR or FPM
Metal cage ②	ST
Spring ③	Standard: ST On demand: SS

Assembly see pages 994-995

In open groove

Advantages

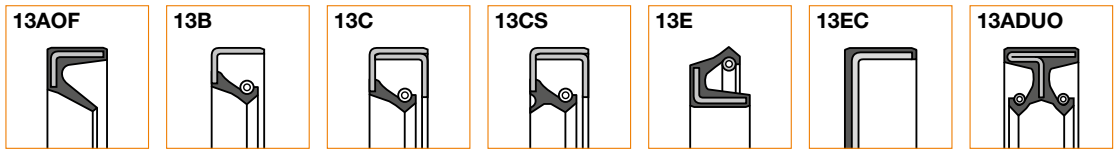
- Good static sealing
- Reduced risk of corrosion
- Higher bore roughness
- Additional dust lip

Please contact us for applications approaching maximum values.

More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

On request:



For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

SEALTECH Hydraulic Seals Technology

d	D	L	Reference
6	22	7	**13AS 006022**
8	16	7	**13AS 008016**
10	20	7	**13AS 010020**
	22	7	**13AS 010022**
12	23	7	**13AS 012023**
	24	7	**13AS 012024**
12,7	25,4	5,2	**13AS 012025**
	22,22	6,35	**13AS 013022/1**
	25,4	6,35	**13AS 013025**
	28,57	6,35	**13AS 013029**
	34,92	6,35	**13AS 013035**
13	22	7	**13AS 013022**
14	28	7	**13AS 014028**
15,87	28,57	6,35	**13AS 016029**
	31,75	6,35	**13AS 016032**
	34,92	6,35	**13AS 016035**
17	28	7	**13AS 017028**
	30	7	**13AS 017030**
	30	7	**13AS 017030 FPM**
	35	8	**13AS 017035**
18	28	7	**13AS 018028**
	30	7	**13AS 018030/2**
19,05	25,4	6,35	**13AS 019025**
	28,57	6,35	**13AS 019029**
	31,75	6,35	**13AS 019032**
	33,34	6,35	**13AS 019033**
	34,92	6,35	**13AS 019035**
	38,1	4,76	**13AS 019038**
	41,27	9,52	**13AS 019041**
20	30	7	**13AS 020030**
	32	7	**13AS 020032**
	34	10	**13AS 020034**
	35	7	**13AS 020035**
	38	15	**13AS 020038**
	40	6	**13AS 020040**

d	D	L	Reference
20	40	7	**13AS 020040/1**
	42	7	**13AS 020042**
	45	7	**13AS 020045**
	47	7	**13AS 020047**
	52	10	**13AS 020052**
21	40	7	**13AS 021040**
22	32	7	**13AS 022032**
	35	7	**13AS 022035/1**
	40	8	**13AS 022040**
	40	11	**13AS 022040/1**
22,22	34,92	6,35	**13AS 022035/2**
	38,1	6,35	**13AS 022038**
	41,27	9,52	**13AS 022041**
	42,86	9,52	**13AS 022043**
	47,62	9,52	**13AS 022048**
24	35	7	**13AS 024035**
25	32	6	**13AS 025032**
	35	7	**13AS 025035**
	35	7	**13AS 025035 FPM**
	35	8,5	**13AS 025035/1**
	37	7	**13AS 025037**
	38	7	**13AS 025038**
25	40	7	**13AS 025040**
	42	7	**13AS 025042/1**
	42	10	**13AS 025042/2**
	45	10	**13AS 025045**
	47	7	**13AS 025047**
	50	10	**13AS 025050**
	52	8	**13AS 025052**
	52	10	**13AS 025052/1**
	62	10	**13AS 025062**
25,4	31,75	6,35	**13AS 025032/1**
	34,92	6,35	**13AS 025035/2**
	36,51	6,35	**13AS 025037/1**
	38,1	6,35	**13AS 025038/1**
	41,27	6,35	**13AS 025041**
	44,45	9,52	**13AS 025044**

13AS seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

SEALTECH Hydraulic Seals Technology

d	D	L	Reference
25,4	44,45	6,35	**13AS 025044/1**
	44,45	7,94	**13AS 025044/2**
	47,62	6,35	**13AS 025048**
	50,8	6,35	**13AS 025051**
	50,8	9,52	**13AS 025051/1**
26	35	7	**13AS 026035**
	52	10	**13AS 026052**
27	37	7	**13AS 027037**
	40	7	**13AS 027040**
28	38	7	**13AS 028038/2**
	47	7	**13AS 028047**
28,5	50,65	6,35	**13AS 028050**
28,57	34,92	4,76	**13AS 029035**
	38,1	6,35	**13AS 029038**
	41,27	6,35	**13AS 029041**
	42,86	6,35	**13AS 029043**
	44,45	6,35	**13AS 029044**
	47,62	9,52	**13AS 029048**
	50,8	6,35	**13AS 029051**
	53,97	7,94	**13AS 029054**
	57,15	9,52	**13AS 029057**
	61,91	7,94	**13AS 029062**
29	40	8	**13AS 029040**
30	40	7	**13AS 030040**
	42	8	**13AS 030042**
	47	7	**13AS 030047**
	47	10	**13AS 030047/1**
	50	7	**13AS 030050**
	52	7	**13AS 030052**
30	52	10	**13AS 030052/1**
	53,5	10	**13AS 030053**
	55	7	**13AS 030055**
	55	10	**13AS 030055/1**
	62	7	**13AS 030062**
	62	10	**13AS 030062/1**
	72	10	**13AS 030072**

d	D	L	Reference
31,75	44,45	6,35	**13AS 031044/1**
	41,27	6,35	**13AS 032041**
	42,86	6,35	**13AS 032043**
	46,43	9,52	**13AS 032046/1**
	47,62	11,11	**13AS 032048**
	50,8	6,35	**13AS 032051**
	53,97	7,94	**13AS 032054**
	55,56	9,52	**13AS 032056**
	57,15	9,52	**13AS 032057**
	63,5	9,52	**13AS 032063**
	72,23	9,52	**13AS 032072**
32	42	7	**13AS 032042**
	44	8	**13AS 032044**
	46	7	**13AS 032046**
	52	10	**13AS 032052**
33	50	10	**13AS 033050**
	50	6	**13AS 033050/1**
	52	6	**13AS 033052**
34	52	10	**13AS 034052**
	54	12,5	**13AS 034054**
	72	10	**13AS 034072**
34,92	47,62	7,94	**13AS 035048**
	49,21	9,53	**13AS 035049**
	50,8	7,94	**13AS 035051**
	52,39	7,94	**13AS 035052/4**
	53,97	6,35	**13AS 035054**
	57,15	7,94	**13AS 035057**
34,92	60,32	7,94	**13AS 035060/1**
	63,5	9,52	**13AS 035063**
	72,23	9,52	**13AS 035072/2**
35	45	7	**13AS 035045**
	47	7	**13AS 035047/1**
	50	7	**13AS 035050**
	50	10	**13AS 035050/1**
	52	8	**13AS 035052/1**
	52	10	**13AS 035052/2**
35	52	7	**13AS 035052/3**
	55	9	**13AS 035055**
	56	10	**13AS 035056**

d	D	L	Reference
35	60	10	**13AS 035060**
	62	8	**13AS 035062**
	62	10	**13AS 035062/1**
	62	12	**13AS 035062/2**
	72	10	**13AS 035072**
	72	12	**13AS 035072/1**
	80	10	**13AS 035080**
36,51	50,8	7,94	**13AS 037051**
	52,39	7,94	**13AS 037052**
	57,15	9,52	**13AS 037057**
	63,5	12,7	**13AS 037064**
	69,85	7,94	**13AS 037070**
38	50	10	**13AS 038050**
	54	10	**13AS 038054**
	62	10	**13AS 038062**
38,1	50,8	6,35	**13AS 038051**
	52,39	7,94	**13AS 038052**
	57,15	7,94	**13AS 038057**
	57,15	7,94	**13AS 038057 FPM**
	60,32	9,52	**13AS 038060**
38,1	63,5	9,52	**13AS 038063**
	66,67	9,52	**13AS 038067**
	69,85	9,52	**13AS 038070**
40	52	7	**13AS 040052**
	55	7	**13AS 040055**
	55	10	**13AS 040055/1**
40	55	8	**13AS 040055/2**
	60	10	**13AS 040060**
	60	7	**13AS 040060/1**
	62	7	**13AS 040062**
	62	10	**13AS 040062/1**
	65	10	**13AS 040065**
	67	7	**13AS 040067 FPM**
	68	10	**13AS 040068**
	72	7	**13AS 040072**
	72	10	**13AS 040072/1**
	80	10	**13AS 040080**
	80	12	**13AS 040080/1**
	90	10	**13AS 040090**

d	D	L	Reference
41,27	53,97	9,53	**13AS 041054**
	57,15	6,35	**13AS 041057**
	60,32	9,52	**13AS 041060**
	61,91	12,7	**13AS 041062**
	63,5	6,35	**13AS 041063**
	65,09	9,52	**13AS 041065**
	66,67	9,52	**13AS 041067**
	76,2	6,35	**13AS 041076**
42	62	7	**13AS 042062**
	62	10	**13AS 042062/1**
44	62	10	**13AS 044062**
	72	10	**13AS 044072**
44,45	57,15	6,35	**13AS 044057**
	58,74	6,35	**13AS 044059**
	60,32	9,52	**13AS 044060**
	61,91	7,94	**13AS 044062/1**
	63,5	6,35	**13AS 044063/1**
	66,67	9,52	**13AS 044067**
44,45	69,85	9,52	**13AS 044070**
	73,02	9,52	**13AS 044073**
	76,2	9,52	**13AS 044076**
45	55	8	**13AS 045055**
	58	7	**13AS 045058**
	60	7	**13AS 045060**
	62	7	**13AS 045062**
	62	7	**13AS 045062 FPM**
	62	10	**13AS 045062/1**
45	65	10	**13AS 045065**
	68	10	**13AS 045068**
	72	10	**13AS 045072/1**
	72	8	**13AS 045072/2**
	75	10	**13AS 045075**
	80	10	**13AS 045080**
	85	10	**13AS 045085**
	90	10	**13AS 045090**
46	60	7	**13AS 046060**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13AS seals with diameters between 20 and 1500 mm can be manufactured within short delivery time. For prices and availability: **www.sealtech-business.be**

SEALTECH Hydraulic Seals Technology

d	D	L	Reference
47,62	63,5	9,52	**13AS 048063**
	66,67	9,52	**13AS 048067**
	69,85	7,93	**13AS 048070**
	69,85	9,52	**13AS 048070/1**
	73,02	9,52	**13AS 048073**
	76,2	9,52	**13AS 048076**
	82,55	12,7	**13AS 048083**
48	62	8	**13AS 048062**
	62	10	**13AS 048062/1**
	68	12	**13AS 048068**
	72	12	**13AS 048072**
50	65	8	**13AS 050065**
	68	10	**13AS 050068**
	70	10	**13AS 050070**
	70	12	**13AS 050070/1**
	72	7	**13AS 050072 FPM**
	72	7	**13AS 050072 NBR/ST/SS**
	72	10	**13AS 050072/2**
	72	12	**13AS 050072/1**
	75	8	**13AS 050075 ***
	80	8	**13AS 050080**
	80	10	**13AS 050080/1**
	80	13	**13AS 050080/2**
50	80	13	**13AS 050080/2 FPM ***
	90	10	**13AS 050090**
50,8	76,2	9,52	**13AS 050076**
	63,5	6,35	**13AS 051063**
	66,67	9,52	**13AS 051067**
50,8	69,85	9,52	**13AS 051070**
	73,02	9,52	**13AS 051073**
	73,02	12,7	**13AS 051073/1**
52	68	7	**13AS 052068**
	72	8	**13AS 052072**
	85	12	**13AS 052085**
	85	10	**13AS 052085/1**
53,97	73,02	9,52	**13AS 054073**
	76,2	9,52	**13AS 054076**
	79,37	9,52	**13AS 054079**

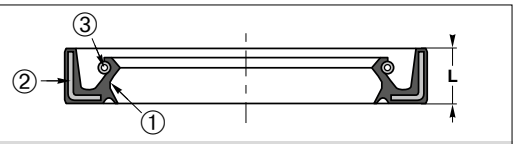
d	D	L	Reference
53,97	80,96	9,52	**13AS 054081**
	82,55	9,52	**13AS 054083**
	85,72	9,52	**13AS 054086**
55	70	10	**13AS 055070/1**
	72	8	**13AS 055072**
	72	10	**13AS 055072/1**
	75	10	**13AS 055075**
	80	10	**13AS 055080**
	85	10	**13AS 055085**
	90	10	**13AS 055090**
	100	10	**13AS 055100**
57,15	69,85	9,52	**13AS 057070**
	76,2	12,7	**13AS 057076**
	82,55	6,35	**13AS 057083**
	85,72	12,7	**13AS 057086**
	88,9	12,7	**13AS 057089**
58	80	10	**13AS 058080**
	92	10	**13AS 058092**
60	75	8	**13AS 060075 NBR/ST/SS**
	80	8	**13AS 060080**
	80	10	**13AS 060080/1**
	80	13	**13AS 060080/2**
	82	12	**13AS 060082/1**
	85	10	**13AS 060085**
	90	8	**13AS 060090**
	90	10	**13AS 060090/1**
	95	10	**13AS 060095**
60	100	10	**13AS 060100**
	110	7	**13AS 060110**
	110	13	**13AS 060110/1**
60,3	79,5	9,52	**13AS 060079**
60,32	73,02	7,94	**13AS 060073**
	76,2	9,52	**13AS 060076**
	82,55	9,52	**13AS 060082/2**
	85,72	9,52	**13AS 060086**
	88,9	12,7	**13AS 060089**
62	90	13	**13AS 062090**

d	D	L	Reference
63,5	76,2	7,92	**13AS 063076**
	82,55	9,52	**13AS 063082**
	88,9	9,52	**13AS 063089**
	90,09	12,7	**13AS 063090**
	95,27	12,7	**13AS 063095**
65	85	10	**13AS 065085**
	90	10	**13AS 065090**
	95	10	**13AS 065095**
	100	12	**13AS 065100**
	110	10	**13AS 065110**
	120	10	**13AS 065120**
66,67	88,9	12,7	**13AS 067089**
	92,07	9,52	**13AS 067092**
	93,66	12,7	**13AS 067094**
	95,25	12,7	**13AS 067095**
	101,6	12,7	**13AS 067102**
68	90	10	**13AS 068090**
69,85	88,9	9,52	**13AS 070089**
	95,25	9,52	**13AS 070095**
	98,42	12,7	**13AS 070098**
70	85	8	**13AS 070085**
	90	10	**13AS 070090/1**
	100	10	**13AS 070100**
	110	10	**13AS 070110**
	110	12	**13AS 070110/1**
72	95	12	**13AS 072095**
73,02	88,9	7,94	**13AS 073089**
	92,07	9,52	**13AS 073092**
	95,25	9,52	**13AS 073095**
	98,42	12,7	**13AS 073098**
	101,6	12,7	**13AS 073102**
75	95	10	**13AS 075095**
	100	10	**13AS 075100**
	100	13	**13AS 075100/1**
	110	13	**13AS 075110**
	120	10	**13AS 075120**
76,2	101,6	9,52	**13AS 076102**
	107,95	12,7	**13AS 076108**
	114,3	12,7	**13AS 076114**

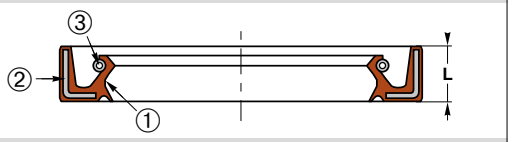
d	D	L	Reference
80	100	10	**13AS 080100**
	110	12	**13AS 080110**
	120	13	**13AS 080120**
82,55	101,6	12,7	**13AS 083102**
	107,95	12,7	**13AS 083108**
	114,3	12,7	**13AS 083114**
	117,47	12,7	**13AS 083117**
	120,65	9,53	**13AS 083121**
85	110	12	**13AS 085110**
	110	13	**13AS 085110/1 ***
	130	12	**13AS 085130**
85,72	107,95	12,7	**13AS 086108**
	111,12	12,7	**13AS 086111**
	117,47	12,7	**13AS 086117**
88,9	101,6	7,94	**13AS 089102**
	104,77	12,7	**13AS 089105**
	114,3	9,52	**13AS 089114**
	120,65	12,7	**13AS 089121**
90	110	12	**13AS 090110**
	120	12	**13AS 090120**
92,07	111,12	11,11	**13AS 092111**
	117,47	12,7	**13AS 092117**
	127	12,7	**13AS 092127**
	120	12	**13AS 095120**
	110	12	**13AS 095110**
95,25	114,3	12,7	**13AS 095114**
	120,65	12,7	**13AS 095121**
	127	12,7	**13AS 095127**
98	125	13	**13AS 098125**
100	120	10	**13AS 100120**
	120	12	**13AS 100120/1**
	125	13	**13AS 100125**
101,6	127	12,7	**13AS 101127**
	130,17	12,7	**13AS 101130**
	127	11,11	**13AS 102127**
	133,35	12,7	**13AS 102133**
	139,7	12,7	**13AS 102140**
105	130	13	**13AS 105130**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13AS seals with diameters between 20 and 1500 mm can be manufactured within short delivery time. For prices and availability: **www.sealtech-business.be**



13AS

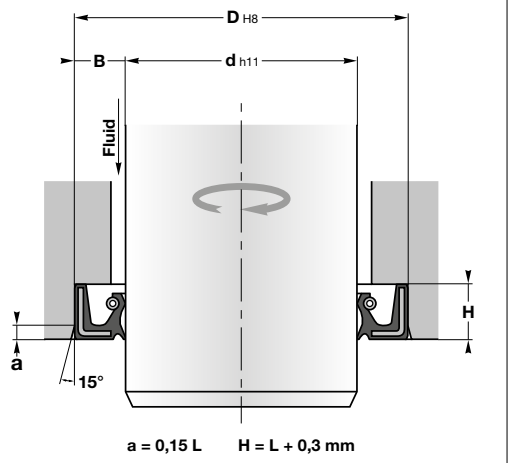


13AS...FPM

Example of item code

13AS 085 110 FPM/ST/SS

- 13AS: Profile
- 085: Diameter **d** (mm)
- 110: Diameter **D** (mm)
- FPM/ST/SS: Materials ①/②/③



Machining of housings: see page 992

The **13AS** is a radial oil seal with completely rubber covered outer diameter, spring-loaded sealing lip and an additional dust lip which prevent the introduction of dust and dirt from the outside.

Operating conditions see page 8

Pressure	≤ 0,05 MPa
Temperature	
13AS	-30°C to 100°C
13AS... FPM	-20°C to 200°C
Speed	3 to 10 m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal ①	NBR or FPM
Metal cage ②	ST
Spring ③	Standard: ST On demand: SS

Assembly see pages 994-995

In open groove

Advantages

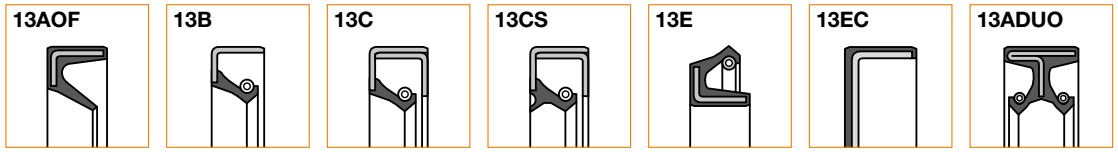
- Good static sealing
- Reduced risk of corrosion
- Higher bore roughness
- Additional dust lip

Please contact us for applications approaching maximum values.

More information

On www.sealtech-business.be, click first on the reference and then on the material code to obtain the data sheet of the different materials.

On request:

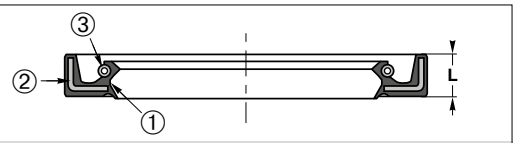


For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

d	D	L	Reference
107,95	133,35	12,7	**13AS 108133**
	139,7	12,7	**13AS 108140**
	152,4	14,28	**13AS 108152**
110	130	13	**13AS 110130**
	140	12	**13AS 110140**
114,3	139,7	12,7	**13AS 114140**
	152,4	12,7	**13AS 114152**
	155,57	14,29	**13AS 114156**
115	140	12	**13AS 115140**
	150	12	**13AS 115150**
120	140	13	**13AS 120140**
	150	12	**13AS 120150**
	150	15	**13AS 120150/1**
120,65	146,05	12,7	**13AS 121146**
	152,4	14,28	**13AS 121152**
	158,67	12,7	**13AS 121159**
125	150	12	**13AS 125150**
	160	15	**13AS 125160**
127	146,05	12,7	**13AS 127146**
	152,4	12,7	**13AS 127152**
	165,1	12,7	**13AS 127165**
130	160	12	**13AS 130160**
	170	12	**13AS 130170**
130,17	155,57	12,7	**13AS 130156**
	158,75	12,7	**13AS 130159**
133,35	158,75	12,7	**13AS 133159**
	165,1	12,7	**13AS 133165**
139,7	165,1	12,7	**13AS 140165**
140	160	13	**13AS 140160**
	170	14	**13AS 140170**
	170	12	**13AS 140170/1**
	180	15	**13AS 140180**
150	180	15	**13AS 150180**
152,4	177,8	12,7	**13AS 152178**
	190,5	12,7	**13AS 152191**
160	190	15	**13AS 160190**
170	200	15	**13AS 170200**
190	215	15	**13AS 190215**
	220	15	**13AS 190220**
200	230	15	**13AS 200230 FPM**
220	250	15	**13AS 220250**
265	290	16	**13AS 265290**
440	480	20	**13AS 440480 ***

d	D	L	Reference
133,35	158,75	12,7	**13AS 133159**
	165,1	12,7	**13AS 133165**
140	160	13	**13AS 140160**
139,7	165,1	12,7	**13AS 140165**
140	170	14	**13AS 140170**
	170	12	**13AS 140170/1**
	180	15	**13AS 140180**
150	180	15	**13AS 150180**
152,4	177,8	12,7	**13AS 152178**
	190,5	12,7	**13AS 152191**
160	190	15	**13AS 160190**
170	200	15	**13AS 170200**
190	215	15	**13AS 190215**
	220	15	**13AS 190220**
200	230	15	**13AS 200230 FPM**
220	250	15	**13AS 220250**
265	290	16	**13AS 265290**
440	480	20	**13AS 440480 ***

13AS seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



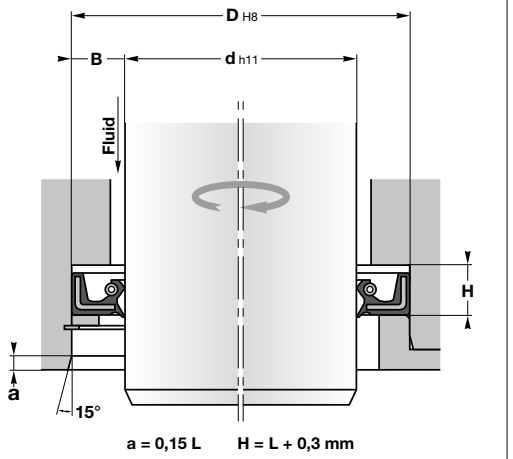
13ASP

13ASP... FPM

Example of item code

13ASP 095 120 FPM/ST/SS

- 13ASP: Profile
- 095: Diameter **d** (mm)
- 120: Diameter **D** (mm)
- FPM/ST/SS: Materials ①/②/③



a = 0,15 L H = L + 0,3 mm

Machining of housings: see page 992

13ASP is a radial oil seal with completely rubber covered outer diameter and a short flexible spring-loaded sealing lip. This type of seal is designed for pressures up to 1 MPa. The additional dust lip protects the system against moderate to medium dust and dirt ingress from the outside.

It is preferably used in conjunction with a retainer (e.g. circlip, shoulder, etc) to avoid a "pop-out" of the seal.

Operating conditions see page 8

Pressure	≤ 1 MPa
Temperature	
13ASP	-30°C to 100°C
13ASP... FPM	-20°C to 200°C
Speed	3 to 10 m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal ①	NBR or FPM
Metal cage ②	ST
Spring ③	Standard: ST On demand: SS

Assembly see pages 994-995

In open groove

Advantages

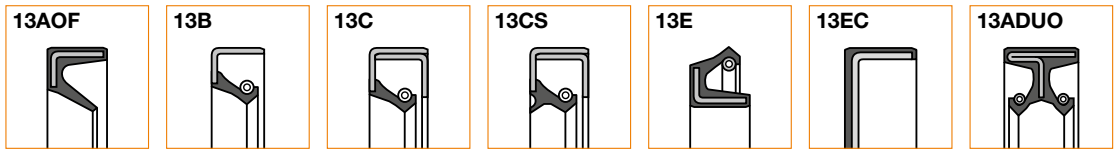
- Good static sealing
- Reduced risk of corrosion
- Higher bore roughness
- Additional dust lip
- Up to 1 MPa at low peripheral speed

Please contact us for applications approaching maximum values.

More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

On request:



For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

d	D	L	H	Reference
8	22	6	6,5	**13ASP 008022**
	22	6	6,5	**13ASP 008022 FPM**
10	22	6	6,5	**13ASP 010022**
	22	6	6,5	**13ASP 010022 FPM**
11	22	7	7,5	**13ASP 011022**
12	22	6	6,5	**13ASP 012022**
	22	6	6,5	**13ASP 012022 FPM**
	22	7	7,5	**13ASP 012022/1**
	24	6	6,5	**13ASP 012024**
	24	6	6,5	**13ASP 012024 FPM**
	32	7	7,5	**13ASP 012032**
14	24	7	7,5	**13ASP 014024**
15	25	6	6,5	**13ASP 015025**
	25	6	6,5	**13ASP 015025 FPM**
	30	7	7,5	**13ASP 015030**
	32	7	7,5	**13ASP 015032**
	35	6	6,5	**13ASP 015035**
	35	6	6,5	**13ASP 015035 FPM**
16	26	7	7,5	**13ASP 016026**
17	30	6	6,5	**13ASP 017030**
	30	6	6,5	**13ASP 017030 FPM**
	35	7	7,5	**13ASP 017035**
	40	7	7,5	**13ASP 017040**
17,46	28,57	6,35	7	**13ASP 017028**
	28,57	6,35	7	**13ASP 017028 FPM**
18	30	6	6,5	**13ASP 018030**
	30	6	6,5	**13ASP 018030 FPM**
	30	7	7,5	**13ASP 018030/1**
	32	6	6,5	**13ASP 018032**
	35	6	6,5	**13ASP 018035/1**
	35	6	6,5	**13ASP 018035/1 FPM**
19,05	31,75	6,35	6,8	**13ASP 019032**
20	30	7	7,5	**13ASP 020030/1**
	32	7	7,5	**13ASP 020032/1**
	35	7	7,5	**13ASP 020035**
	35	6	6,5	**13ASP 020035/1**
	35	6	6,5	**13ASP 020035/1 FPM**
	40	7	7,5	**13ASP 020040 FPM**
20	32	6	6,5	**13ASP 022032 FPM**
	35	6	6,5	**13ASP 022035**
	35	6	6,5	**13ASP 022035 FPM**

d	D	L	H	Reference
24	40	7	7,5	**13ASP 024040/1**
25	35	6	6,5	**13ASP 025035**
	35	6	6,5	**13ASP 025035 FPM**
	36	6	6,5	**13ASP 025036/1**
	37	6	6,5	**13ASP 025037**
	40	7	7,5	**13ASP 025040**
	40	7	7,5	**13ASP 025040 FPM**
	42	6	6,5	**13ASP 025042**
	42	6	6,5	**13ASP 025042 FPM**
	47	6	6,5	**13ASP 025047**
	47	6	6,5	**13ASP 025047 FPM**
26	40	6	6,5	**13ASP 026040 FPM**
28	40	8	8,5	**13ASP 028040**
	40	6	6,5	**13ASP 028040/1**
	40	6	6,5	**13ASP 028040/1 FPM**
	40	7	7,5	**13ASP 028040/2**
	40	9	9,5	**13ASP 028040/3**
	42	6	6,5	**13ASP 028042**
30	42	6	6,5	**13ASP 030042**
	42	6	6,5	**13ASP 030042 FPM**
	42	7	7,5	**13ASP 030042/1**
	52	7	7,5	**13ASP 030052**
	55	7	7,5	**13ASP 030055**
31,75	44,45	6,35	6,8	**13ASP 031044**
32	44	8	9,5	**13ASP 032044/1**
	47	6	6,5	**13ASP 032047**
	47	6	6,5	**13ASP 032047 FPM**
	52	6	6,5	**13ASP 032052**
	58	10	10,5	**13ASP 032058**
35	47	7	7,5	**13ASP 035047**
	47	6	6,5	**13ASP 035047/1**
	47	6	6,5	**13ASP 035047/1 FPM**
	50	7	7,5	**13ASP 035050**
	52	6	6,5	**13ASP 035052**
	52	6	6,5	**13ASP 035052 FPM**
38	50	6	6,5	**13ASP 038050**
38,1	57,15	7,93	9,12	**13ASP 038057**
40	52	7	7,5	**13ASP 040052**
	55	6	6,5	**13ASP 040055**
	55	6	6,5	**13ASP 040055 FPM**

13ASP seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

d	D	L	H	Reference
40	58	8	8,5	**13ASP 040058**
	62	7	7,5	**13ASP 040062**
	62	6	6,5	**13ASP 040062/1**
	62	6	6,5	**13ASP 040062/1 FPM**
42	62	7	7,5	**13ASP 042062**
	62	7	7,5	**13ASP 042062 FPM**
45	58	7	7,5	**13ASP 045058/1**
	62	7	7,5	**13ASP 045062**
	62	7	7,5	**13ASP 045062 FPM**
	65	7	7,5	**13ASP 045065 FPM**
	65	8	8,5	**13ASP 045065/1**
47	62	7	7,5	**13ASP 047062**
50	65	7	7,5	**13ASP 050065**
	65	7	7,5	**13ASP 050065 FPM**
	65	8	8,5	**13ASP 050065/1**
	68	8	8,5	**13ASP 050068**
	68	7	7,5	**13ASP 050068/1**
	68	7	7,5	**13ASP 050068/1 FPM**
	70	10	11	**13ASP 050070**
	72	7	7,5	**13ASP 050072**
	72	7	7,5	**13ASP 050072 FPM**
55	70	8	8,5	**13ASP 055070**
	70	7	7,5	**13ASP 055070/1**
	72	8	8,5	**13ASP 055072**
	72	7	7,5	**13ASP 055072/1**
	72	7	7,5	**13ASP 055072/1 FPM**
	75	7	7,5	**13ASP 055075**
	75	7	7,5	**13ASP 055075 FPM**
60	72	7	7,5	**13ASP 060072**
	75	7	7,5	**13ASP 060075**
	75	8	9	**13ASP 060075/1**
	75	10	10,5	**13ASP 060075/2 FPM**
	80	7	7,5	**13ASP 060080**
	80	7	7,5	**13ASP 060080 FPM**
	85	8	8,5	**13ASP 060085**
62	85	7	7,5	**13ASP 062085**
	85	7	7,5	**13ASP 062085 FPM**
65	78	8	8,5	**13ASP 065078**
	85	7	7,5	**13ASP 065085**
	90	7	7,5	**13ASP 065090**
	90	7	7,5	**13ASP 065090 FPM**

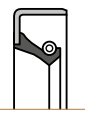
d	D	L	H	Reference
70	82	7	7,5	**13ASP 070082**
	90	10	10,5	**13ASP 070090**
	90	7	7,5	**13ASP 070090/1**
75	95	10	10,5	**13ASP 075095**
	95	7	7,5	**13ASP 075095/1**
	95	7	7,5	**13ASP 075095/1 FPM**
80	100	7	7,5	**13ASP 080100**
	100	7	7,5	**13ASP 080100 FPM**
	100	7	7,5	**13ASP 080100 FPM**
85	105	7	7,5	**13ASP 085105**
	110	8	9	**13ASP 085110**
	110	8	9	**13ASP 085110 FPM**
	120	8	8,5	**13ASP 085120**
	120	8	8,5	**13ASP 085120 FPM**
90	110	12	12,5	**13ASP 090110**
	110	7	8	**13ASP 090110/1**
	110	7	8	**13ASP 090110/1 FPM**
	115	10	11	**13ASP 090115 FPM**
95	120	12	12,5	**13ASP 095120**
	120	12	12,5	**13ASP 095120 FPM**
100	120	7,5	8,5	**13ASP 100120**
	120	7,5	8,5	**13ASP 100120 FPM**
105	130	11,5	12	**13ASP 105130**
	130	7,5	8	**13ASP 105130/1**
	130	7,5	8	**13ASP 105130/1 FPM**

d	D	L	H	Reference
110	130	11	12,5	**13ASP 110130**
	130	12	13	**13ASP 110130/1 FPM**
	150	8	8,5	**13ASP 110150**
120	140	7,5	8,5	**13ASP 120140**
	140	7,5	8,5	**13ASP 120140 FPM**
	150	12	12,5	**13ASP 120150**
	150	10	10,5	**13ASP 120150/1**
	150	10	10,5	**13ASP 120150/1 FPM**
130	150	7	7,5	**13ASP 130150**
140	160	10	11	**13ASP 140160**
	170	15	16	**13ASP 140170**
	170	15	16	**13ASP 140170 FPM**
150	180	8	8,5	**13ASP 150180**
160	185	8,5	9,5	**13ASP 160185**
	200	10	10,5	**13ASP 160200**
	200	10	10,5	**13ASP 160200 FPM**
180	210	8,5	9,5	**13ASP 180210**
	210	8,5	9,5	**13ASP 180210 FPM**
200	230	13	14,5	**13ASP 200230**
240	270	8	8,5	**13ASP 240270**
	270	8	8,5	**13ASP 240270/1 FPM**
260	280	10	10,5	**13ASP 260280**
	280	10	10,5	**13ASP 260280 FPM**
300	340	19	20	**13ASP 300340**

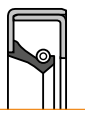
On request:

13AOF

13B

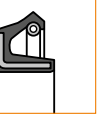


13C

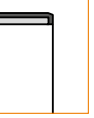


13CS

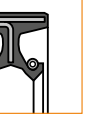
13E



13EC

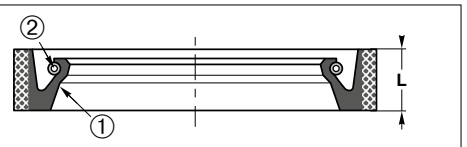


13ADUO

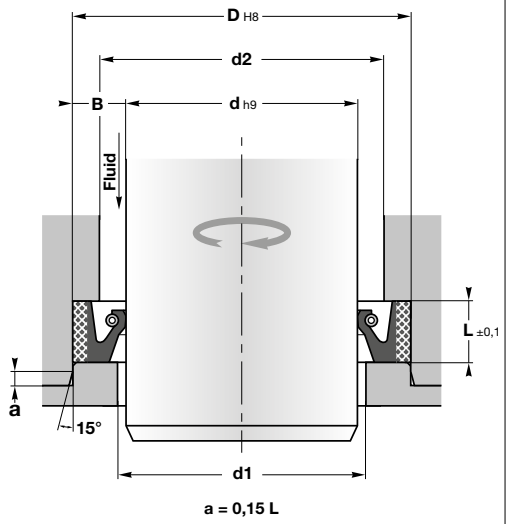


For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13ASP seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13G5

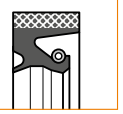


Machining of housings: see page 992

d	d1	d2
< 100	**d** + 4	**d** + **B**
100 - 250	**d** + 8	
250 - 400	**d** + 12	
400 - 600	**d** + 14	
> 600	**d** + 16	

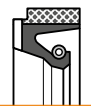
On request:

13G5S



13G6

13G7



13G5 contains no metal parts excepted the spring. Instead of the metal insert, a fabric reinforced elastomer is molded into the body of the seal.

The standard sealing lip is in NBR.

Operating conditions	**see page 8**
Pressure	≤ 0,05 MPa
Temperature	-30°C to 100°C
Speed	3 to 10 m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials	**see pages 10-19**
Seal	NBR / NBR-C
Spring ②	ST

Assembly	**see pages 994-995**
In open groove	

Advantages

- Easy assembly
- Reduced risk of corrosion
- Higher bore roughness

Please contact us for applications approaching maximum values.

More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

d	D	L	Reference
8	22	7	**13G5 008022**
10	25	7	**13G5 010025**
25	40	8	**13G5 025040**
30	55	12	**13G5 030055**
35	52	8	**13G5 035052**
45	60	10	**13G5 045060**
	62	8	**13G5 045062**
	70	11	**13G5 045070**
50	65	8	**13G5 050065**
	70	10	**13G5 050070**
	75	11	**13G5 050075**
55,6	76,2	12,7	**13G5 055076**
60	80	10	**13G5 060080**
65	90	11	**13G5 065090**
	90	12,5	**13G5 065090/1**
	95	16	**13G5 065095**
	100	12	**13G5 065100**
70	102	12,5	**13G5 070102**
73	88,9	7,9	**13G5 073088**
74	90	10	**13G5 074090**
75	95	12,5	**13G5 075095**
	97	12,5	**13G5 075097**
76,2	95,2	9,5	**13G5 076095**
80	100	10	**13G5 080100**
	100	12	**13G5 080100/1**
	105	12,2	**13G5 080105**
	115	12	**13G5 080115**
82,5	114,3	12,7	**13G5 082114**
85	110	12	**13G5 085110**
	117	12,5	**13G5 085117**
88,9	114,3	12,7	**13G5 088114**

d	D	L	Reference
90	110	12	**13G5 090110**
	110	13	**13G5 090110/1**
	115	12,2	**13G5 090115**
	115,4	9,5	**13G5 090115/1**
	122	12,5	**13G5 090122**
92,1	117,5	12,7	**13G5 092117**
93	127	13	**13G5 093127**
95	127	12,5	**13G5 095127**
98,4	123,8	12,7	**13G5 098123**
98,5	123,9	10	**13G5 098123/1**
100	120	8	**13G5 100120**
	120	13	**13G5 100120/1**
	125	12,5	**13G5 100125**
	127	11	**13G5 100127**
	130	15	**13G5 100130**
	132	12,5	**13G5 100132**
	135	16	**13G5 100135**
	140	16	**13G5 100140**
101,6	127	10	**13G5 101127**
	127	12,7	**13G5 101127/1**
	130,2	12,7	**13G5 101130**
105	130	15,3	**13G5 105130**
	145	16	**13G5 105145**
107,9	133,3	12,7	**13G5 107133**
110	130	9	**13G5 110130**
	130	12	**13G5 110130/1**
	140	13	**13G5 110140**
114	140	13	**13G5 114140**
114,3	139,7	12,7	**13G5 114139**
115	140	12	**13G5 115140**
	140	15	**13G5 115140/1**
	160	16	**13G5 115160**
120	140	12	**13G5 120140**
	147	12	**13G5 120147**
	150	13	**13G5 120150**
	150	14	**13G5 120150/1**

13G5 seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

SEALTECH Hydraulic Seals Technology

d	D	L	Reference
125	155	12,2	**13G5 125155**
	160	12	**13G5 125160**
125,4	157,2	12,7	**13G5 125157**
127	146	9,5	**13G5 127146**
	158,8	15,9	**13G5 127158**
	165,1	15,9	**13G5 127165**
130	160	15	**13G5 130160**
	160	16	**13G5 130160/1**
	165	18	**13G5 130165**
	170	16	**13G5 130170**
130,1	161,9	12,7	**13G5 130161**
131,8	163,5	15,9	**13G5 131163**
133,3	171,4	15,9	**13G5 133171**
135	160	15	**13G5 135160**
140	155	10	**13G5 140155**
	170	14	**13G5 140170**
	170	16	**13G5 140170/1**
	180	16	**13G5 140180**
145	165	10	**13G5 145165**
	167	12	**13G5 145167**
	175	15	**13G5 145175**
146	171,4	12,7	**13G5 146171**
	177,8	15,9	**13G5 146177**
150	180	13	**13G5 150180**
	180	15	**13G5 150180/1**
	190	16	**13G5 150190**
150,8	182,6	12,7	**13G5 150182**
152,4	190,5	15,9	**13G5 152190**
155	195	16	**13G5 155195**
160	185	10	**13G5 160185**
	190	15	**13G5 160190**
	198,1	12,7	**13G5 160198**
	200	16	**13G5 160200**
165	190	13	**13G5 165190**
	190	15	**13G5 165190/1**
	195	15	**13G5 165195**

d	D	L	Reference
165,1	190,5	14,3	**13G5 165190**
168,3	206,4	17,5	**13G5 168206**
170	200	15	**13G5 170200**
	205	16	**13G5 170205**
	210	16	**13G5 170210**
171,4	209,5	15,9	**13G5 171209**
175	205	15	**13G5 175205**
177,8	222,2	19	**13G5 177222**
180	205,4	10,2	**13G5 180205**
	205,4	12,7	**13G5 180205/1**
	210	12	**13G5 180210**
	218,1	15,9	**13G5 180218**
	220	16	**13G5 180220**
184	224	15,5	**13G5 184224**
184,2	212,7	19	**13G5 184212**
185	216,8	15,9	**13G5 185216**
	225	12	**13G5 185225**
189	251	13	**13G5 189251**
190	210	14	**13G5 190210**
	220	13	**13G5 190220**
	220	16	**13G5 190220/1**
190	230	16	**13G5 190230**
	245	24,5	**13G5 190245**
190,5	215,9	15,9	**13G5 190215**
195	235	16	**13G5 195235**
196	235	16	**13G5 196235**
196,7	222,3	16,4	**13G5 196222**
197,1	230,1	16	**13G5 197230**
200	235	18	**13G5 200235**
	238,1	19	**13G5 200238**
	240	16	**13G5 200240**
203,2	241,3	19	**13G5 203241**

d	D	L	Reference
209,5	241,3	12,7	**13G5 209241**
	247,6	15,9	**13G5 209247**
	260,3	19	**13G5 209260**
	260,3	25,4	**13G5 209260**
210	240	12	**13G5 210240**
	245	18,2	**13G5 210245**
	249	22	**13G5 210249**
	250	16	**13G5 210250**
215,9	241,3	12,7	**13G5 215241**
	254	15,9	**13G5 215254**
218	250	16	**13G5 218250**
220	250	15	**13G5 220250**
	256	22	**13G5 220256**
	260	16	**13G5 220260**
	260	20	**13G5 220260/1**
	260	22	**13G5 220260/2**
	270	16	**13G5 220270**
226	276	22	**13G5 226276**
230	260	15,7	**13G5 230260**
	270	16	**13G5 230270**
	270	22	**13G5 230270/1**
	280	15	**13G5 230280**
235	266,7	15,9	**13G5 235266**
236	261	12,5	**13G5 236261**
240	270	15	**13G5 240270**
	275	16	**13G5 240275**
	275	18	**13G5 240275/1**
	280	16	**13G5 240280**
	280	18	**13G5 240280/1**
241,3	266,7	12,7	**13G5 241266**
	279,4	17,4	**13G5 241279**
244,5	269,9	12,7	**13G5 244269**
247,6	292,1	19	**13G5 247292**
247,7	285,8	19	**13G5 247285**
249	292,1	16	**13G5 249292**

d	D	L	Reference
250	280	16	**13G5 250280**
	285	18	**13G5 250285**
	290	16	**13G5 250290**
	300	20	**13G5 250300**
254	271,5	9,5	**13G5 254271**
	294	20	**13G5 254294**
260	290	16	**13G5 260290**
	298,1	19	**13G5 260298**
	300	20	**13G5 260300**
	304	20	**13G5 260304**
260,4	298,5	19	**13G5 260298**
265	290	16	**13G5 265290**
	315	18	**13G5 265315**
266,7	317,5	25,4	**13G5 266317**
270	295	10,5	**13G5 270295**
	300	15	**13G5 270300**
	310	20	**13G5 270310**
	314	20	**13G5 270314**
272	304	16,5	**13G5 272304**
273	323,8	14,3	**13G5 273323**
275	315	18	**13G5 275315**
	320	15	**13G5 275320**
280	320	16	**13G5 280320**
	320	20	**13G5 280320/1**
	324	20	**13G5 280324**
282,1	336,5	19	**13G5 282336**
286,4	330,2	19	**13G5 286330**
290	330	20	**13G5 290330**
	334	20	**13G5 290334**
	340,8	20,6	**13G5 290340**
292,1	342,9	23	**13G5 292342**
298,5	349,3	22,2	**13G5 298349**
300	335	18	**13G5 300335**
	340	16	**13G5 300340**
	340	20	**13G5 300340/1**
	344	20	**13G5 300344**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13G5 seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

d	D	L	Reference
304,8	355,6	19	**13G5 304355**
310	350	18	**13G5 310350**
	350	20	**13G5 310350/1**
311	345	18	**13G5 311345**
311,2	349,3	19	**13G5 311349**
315	355	16	**13G5 315355**
	360	16	**13G5 315360**
317	350	19	**13G5 317350**
317,5	339,7	14,3	**13G5 317339**
	361,9	19	**13G5 317361**
	368,3	25,4	**13G5 317368**
320	358	19	**13G5 320358**
	360	18	**13G5 320360**
	364	20	**13G5 320364**
323,9	368,3	19	**13G5 323368**
330	370	20	**13G5 330370**
	374	19	**13G5 330374**
340	372	18	**13G5 340372**
	380	20	**13G5 340380**
	384	20	**13G5 340384**
342,9	387,3	19	**13G5 342387**
343	394	19	**13G5 343394**
350	390	20	**13G5 350390**
	394	20	**13G5 350394**
	400	25	**13G5 350400**
360	390	18	**13G5 360390**
	404	20	**13G5 360404**
361,9	400	19	**13G5 361400**
362	406	19,5	**13G5 362406**
370	410	20	**13G5 370410**
	414	20	**13G5 370414**
	414	25	**13G5 370414/1**
375	415	20	**13G5 375415**

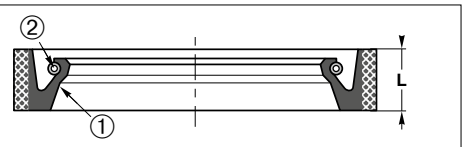
d	D	L	Reference
380	410	14	**13G5 380410**
	420	20	**13G5 380420**
	424	20	**13G5 380424**
390	434	20	**13G5 390434**
	450	25	**13G5 390450**
393,7	438,1	19	**13G5 393438**
	444,5	23,6	**13G5 393444**
395	430	18	**13G5 395430**
	432	20	**13G5 395432**
400	440	18	**13G5 400440**
	440	20	**13G5 400440/1**
	444	20	**13G5 400444**
	460	30	**13G5 400460**
405	445	20	**13G5 405445**
406,4	450,8	19	**13G5 406450**
	457,2	20,6	**13G5 406457**
	457,2	22,2	**13G5 406457**
410	460	22	**13G5 410460**
	460	25	**13G5 410460/1**
415	453,1	19	**13G5 415453**
420	460	20	**13G5 420460**
	470	25	**13G5 420470**
430	480	22	**13G5 430480**
431,8	457,2	12,7	**13G5 431457**
	482,6	20,6	**13G5 431482**
435	485	22	**13G5 435485**
440	490	22	**13G5 440490**
445	485	20	**13G5 445485**
	495	22	**13G5 445495**
448	480	15	**13G5 448480**
450	500	22	**13G5 450500**
	500	25	**13G5 450500/1**
456	500	20	**13G5 456500**
460	500	20	**13G5 460500**
	510	22	**13G5 460510**
	510	25	**13G5 460510/1**

d	D	L	Reference
470	510	18	**13G5 470510**
	520	22	**13G5 470520**
	520	25	**13G5 470520/1**
480	520	18	**13G5 480520**
	530	22	**13G5 480530**
485	535	22	**13G5 485535**
493	543	26	**13G5 493543**
495	540	25	**13G5 495540**
500	540	20	**13G5 500540**
	544	20	**13G5 500544**
	550	22	**13G5 500550**
508	558,8	22,2	**13G5 508558**
520	570	22	**13G5 520570**
	570,8	20,6	**13G5 520570**
520,7	571,5	22,2	**13G5 520571**
530	555	12,5	**13G5 530555**
	580	22	**13G5 530580**
	580	25	**13G5 530580/1**
533,4	588,8	19	**13G5 533588**
540	580	18	**13G5 540580**
	590	22	**13G5 540590**
550	600	22	**13G5 550600**
	600	25	**13G5 550600/1**
560	600	17,2	**13G5 560600**
	604	20	**13G5 560604**
	610	22	**13G5 560610**
570	620	22	**13G5 570620**
	620	25	**13G5 570620/1**
585	625	20	**13G5 585625**
587,4	638,2	20,6	**13G5 587638**
590	640	22	**13G5 590640**
600	640	20	**13G5 600640**
	650	22	**13G5 600650**
	650	25	**13G5 600650/1**

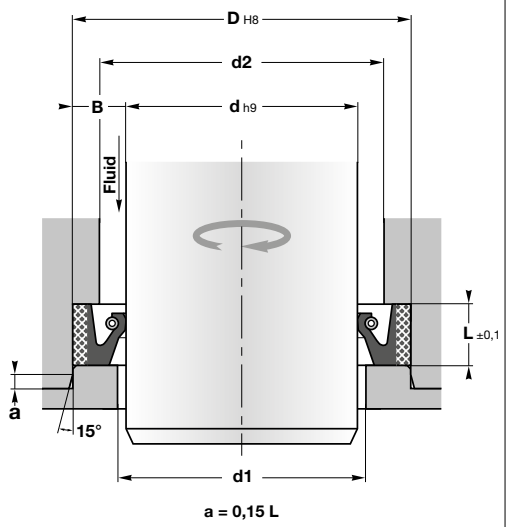
d	D	L	Reference
609,6	660,4	22,2	**13G5 609660**
620	670	22	**13G5 620670**
625	670	20	**13G5 625670**
630	680,8	19	**13G5 630680**
635	695	25	**13G5 635695**
640	690	22	**13G5 640690**
650	690	18	**13G5 650690**
	700	22	**13G5 650700**
	714	25	**13G5 650714**
657	711	20	**13G5 657711**
660	700	18	**13G5 660700**
	704	20	**13G5 660704**
670	734	25	**13G5 670734**
680	730	20	**13G5 680730**
	744	25	**13G5 680744**
685	725	20	**13G5 685725**
700	760	30	**13G5 700760**
	764	25	**13G5 700764**
710	760	25	**13G5 710760**
	760	25,5	**13G5 710760/1**
730	794	25	**13G5 730794**
735	799	25	**13G5 735799**
740	780	20	**13G5 740780**
750	810	30	**13G5 750810**
760	800	20	**13G5 760800**
	820	25	**13G5 760820**
776	820	20	**13G5 776820**
780	820	18	**13G5 780820**
	830	25	**13G5 780830**
	844	25	**13G5 780844**
790	845	25	**13G5 790845**
800	864	25	**13G5 800864**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13G5 seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13G5



Machining of housings: see page 992

d	d1	d2
< 100	**d** + 4	**d** + **B**
100 - 250	**d** + 8	
250 - 400	**d** + 12	
400 - 600	**d** + 14	
> 600	**d** + 16	

13G5 contains no metal parts excepted the spring. Instead of the metal insert, a fabric reinforced elastomer is molded into the body of the seal.

The standard sealing lip is in NBR.

Operating conditions see page 8

Pressure	≤ 0,05 MPa
Temperature	-30°C to 100°C
Speed	3 to 10 m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal	NBR / NBR-C
Spring ②	ST

Assembly see pages 994-995

In open groove

Advantages

Easy assembly
Reduced risk of corrosion
Higher bore roughness

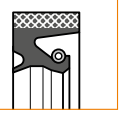
Please contact us for applications approaching maximum values.

More information

On www.sealtech-business.be, click first on the reference and then on the material code to obtain the data sheet of the different materials.

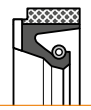
On request:

13G5S



13G6

13G7



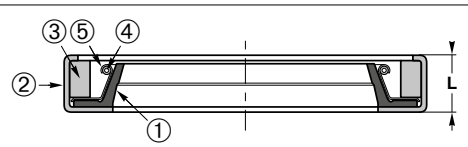
For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

SEALTECH
Hydraulic Seals Technology

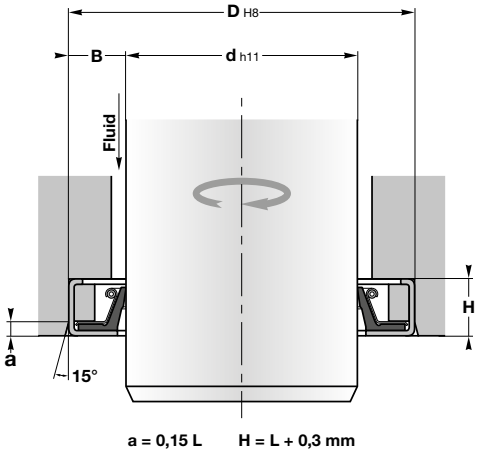
d	D	L	Reference
820	870	22	**13G5 820870**
	884	25	**13G5 820884**
838,2	901,7	22,2	**13G5 838901**
840	880	20	**13G5 840880**
850	910	30	**13G5 850910**
854	918	25	**13G5 854918**
860	900	18	**13G5 860900**
870	920,8	20	**13G5 870920**
875	939	25	**13G5 875939**
876,3	927,1	22,2	**13G5 876927**

d	D	L	Reference
889	952,5	22,2	**13G5 889952**
890	940	25	**13G5 890940**
900	960	30	**13G5 900960**
	964	25	**13G5 900964**
920	984	25	**13G5 920984**
950	1000	22	**13G5 9501000**
	1000	30	**13G5 9501000/1**
971,6	1016	20,6	**13G5 9711016**
1000	1050	25	**13G5 10001050**
1090	1140	25	**13G5 10901140**
1110	1150	20	**13G5 11101150**
	1174	25	**13G5 11101174**

13G5 seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13LM



Machining of housings: see page 992

13LM has been specially developed for severe operating conditions with large misalignments and high speeds where rigidity and strength are necessary. The oil seal can absorb misalignment up to 5 mm (radial up to 2,5 mm). The sealing lip is in NBR and vulcanised onto the metal casing. A groove on the external diameter allows the operator to center the oil seal in the housing bore, easing the assembly.

This profile is only available for large diameters, from 180 mm I.D. up to 2000 mm O.D.

Operating conditions	**see page 8**
Pressure	≤ 0,05 MPa
Temperature	-30°C to 100°C
Speed	3 to 10 m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials	**see pages 10-19**
Seal ①	NBR
Metal cage ②	ST
Ring ③	SS
Spring ④	ST
Spring retainer ⑤	SS

Assembly	**see pages 994-995**
In open groove	

Advantages

Good radial stiffness and stability

For large diameters up to 2000 mm O.D.

Please contact us for applications approaching maximum values.

More information

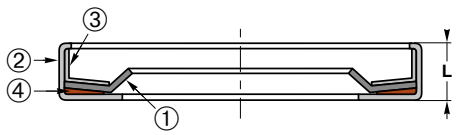
On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

d	D	L	Reference
234,95	273,05	17,45	**13LM 09251075**
254	292,1	17,45	**13LM 10001150**
257,17	295,27	17,45	**13LM 10121162**
266,7	304,8	17,45	**13LM 10501200**
288,92	339,72	20,62	**13LM 11371337**
292,1	330,2	17,45	**13LM 11501300**
	342,9	20,62	**13LM 11501350**
304,8	342,9	17,45	**13LM 12001350**
311,15	349,25	17,45	**13LM 12251375**
317,5	355,6	17,45	**13LM 12501400**
330,2	368,3	17,45	**13LM 13001450**
374,65	419,1	17,45	**13LM 14751650**
381	419,1	17,45	**13LM 15001650**
387,35	425,45	17,45	**13LM 15251675**
457,2	508	22,22	**13LM 18002000**
466,72	504,82	17,45	**13LM 18371987**
482,6	520,7	19,05	**13LM 19002050**
488,95	527,05	19,05	**13LM 19252075**
508	552,45	19,05	**13LM 20002175**
520,7	558,8	19,05	**13LM 20502200**
	571,5	22,22	**13LM 20502250**

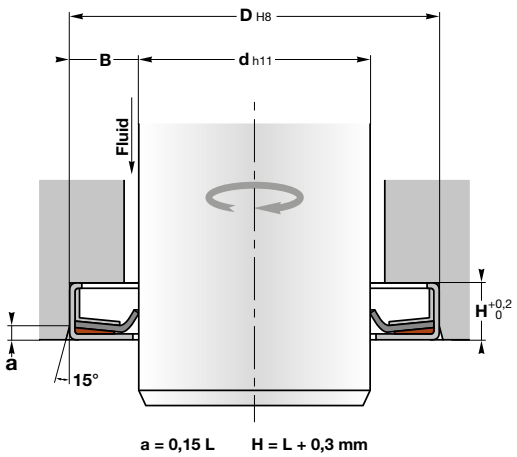
d	D	L	Reference
527,05	577,85	22,22	**13LM 20752275**
533,4	584,2	22,22	**13LM 21002300**
558,8	609,6	22,22	**13LM 22002400**
577,85	628,65	22,22	**13LM 22752475**
622,3	673,1	22,22	**13LM 24502650**
635	673,1	19,05	**13LM 25002650**
663,57	714,37	22,22	**13LM 26122812**
692,15	742,95	22,22	**13LM 27252925**
698,5	749,3	22,22	**13LM 27502950**
723,9	774,7	22,22	**13LM 28503050**
730,25	781,05	22,22	**13LM 28753075**
736,6	787,4	22,22	**13LM 29003100**
749,3	800,1	22,22	**13LM 29503150**
762	812,8	22,22	**13LM 30003200**
	825,5	22,22	**13LM 30003250**
787,4	838,2	22,22	**13LM 31003300**
793,75	844,55	19,05	**13LM 31253325**
837	889	22,22	**13LM 32953500**
838,2	876,3	19,05	**13LM 33003450**
	889	22,22	**13LM 33003500**
876,3	927,1	22,22	**13LM 34503650**
898,52	949,32	22,22	**13LM 35373737**
927,1	977,9	22,22	**13LM 36503850**
965,2	1016	22,22	**13LM 38004000**
1117,6	1181,1	22,22	**13LM 44004650**
1143	1184,27	25,4	**13LM 45004662**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13LM seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13APT



Machining of housings: see page 992

13APT is used in special range of applications generally in mechanical engineering and in the chemical industry. The sealing lip is made of carbon-filled PTFE which has good resistance to high temperatures and chemicals, but also outstanding friction behaviour and stick-slip free running. The silicone part assures the static sealing.

Operating conditions see page 8

Pressure	≤ 0,05 MPa
Temperature	-60°C to 200°C
Speed	≤ 30 m/s
Fluids	Mineral oils, HFA, HFB, HFC, HFD
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal ①	Carbon filled PTFE
Casing ②	SS
Inner casing ③	SS
Static seal ④	MVQ

Assembly see pages 994-995

In open groove

Advantages

Good resistance to chemicals
Stick-slip free
For high temperatures
For dry running and insufficient lubrication

Please contact us for applications approaching maximum values.

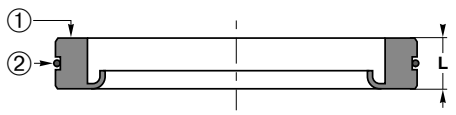
More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

d	D	L	Reference
20	35	7	**13APT 020035**
22	35	7	**13APT 022035**
28	40	7	**13APT 028040**
30	47	7	**13APT 030047**
32	55	8	**13APT 032055**
35	55	8	**13APT 035055**
40	55	8	**13APT 040055**
	62	8	**13APT 040062**
42	55	8	**13APT 042055**
45	65	10	**13APT 045065**
48	65	8	**13APT 048065**
50	65	10	**13APT 050065**
	68	8	**13APT 050068**
	70	10	**13APT 050070**
55	72	8	**13APT 055072**
	80	8	**13APT 055080**
60	75	8	**13APT 060075**
	80	10	**13APT 060080**
65	85	10	**13APT 065085**
70	90	10	**13APT 070090**
75	95	10	**13APT 075095**
80	100	10	**13APT 080100**
90	110	10	**13APT 090110**
100	130	12	**13APT 100130**
110	140	12	**13APT 110140**
120	150	12	**13APT 120150**
150	180	15	**13APT 150180**

13APT seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

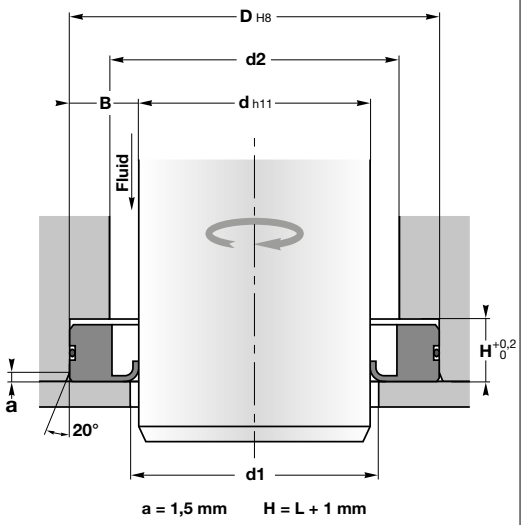


13L1

Example of item code

13L1 030 047 - PT30/4470

Profile | d (mm) | D (mm) | Materials ①/②



Machining of housings: see page 992

d	d1	d2
≤ 90	**d** + 2	**d** + 4
> 90	**d** + 3	**d** + 6

13L1 profile is used in special range of applications generally in mechanical engineering and in the chemical industry. The sealing lip is made of carbon-filled PTFE which has good resistance to high temperatures and chemicals, but also outstanding friction behaviour and stick-slip free running. The NBR part assures the static sealing.

Operating conditions

see page 8

Pressure	≤ 0,5 MPa
Temperature	-30°C to 100°C
Speed for lubricated conditions	≤ 25 m/s
Fluids	Mineral oils, HFA, HFB, HFC, HFD
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials

see pages 10-19

Seal ①	Carbon-graphite filled PTFE
Static seal ②	NBR

Assembly

see pages 994-995

In open groove for diameters < 300 mm

Advantages

Good resistance to chemicals

Stick-slip free

For high temperatures and larger diameters up to 2000 mm, we recommend profile **13L2** with a steel insert

By changing directions of rotation and for shaft eccentricity, we recommend profile **13L6** with a steel insert and a spring

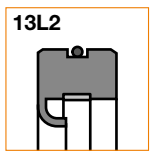
For dry running and insufficient lubrication

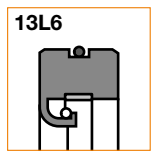
Please contact us for applications approaching maximum values.

More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

On request:





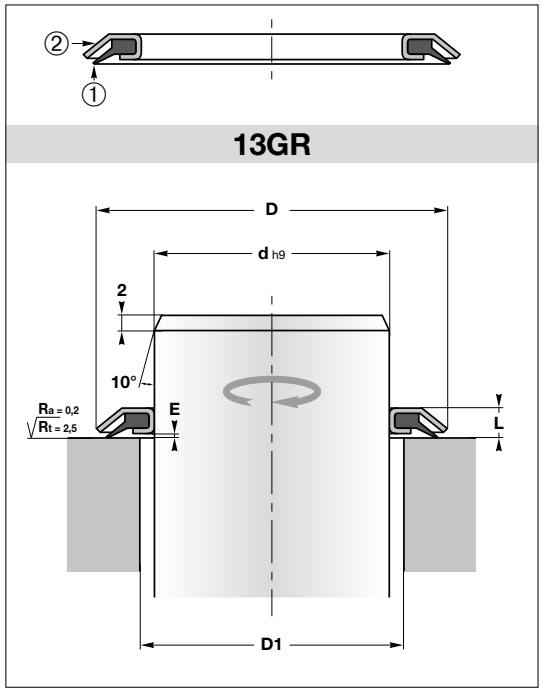
For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

SEALTECH
Hydraulic Seals Technology

d	D	L	Reference
20	35	7	**13L1 020035-PT30/4470**
22	35	7	**13L1 022035-PT30/4470**
28	40	7	**13L1 028040-PT30/4470**
30	47	7	**13L1 030047-PT30/4470**
32	55	8	**13L1 032055-PT30/4470**
35	55	8	**13L1 035055-PT30/4470**
40	55	8	**13L1 040055-PT30/4470**
42	55	8	**13L1 042055-PT30/4470**
45	65	10	**13L1 045065-PT30/4470**
48	65	8	**13L1 048065-PT30/4470**
50	65	10	**13L1 050065-PT30/4470**

d	D	L	Reference
55	72	8	**13L1 055072-PT30/4470**
60	75	8	**13L1 060075-PT30/4470**
65	85	10	**13L1 065085-PT30/4470**
70	90	10	**13L1 070090-PT30/4470**
75	95	10	**13L1 075095-PT30/4470**
80	100	10	**13L1 080100-PT30/4470**
90	110	10	**13L1 090110-PT30/4470**
100	130	12	**13L1 100130-PT30/4470**
110	140	12	**13L1 110140-PT30/4470**
120	150	12	**13L1 120150-PT30/4470**

13L1 seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13GR is made of two parts, an elastomeric sealing element and a metal case. It has to be fixed to the shaft at a predetermined distance (E) from the sealing surface. This type of seals is primarily used as a seal against foreign matter, liquid splatter and grease. The metal case is protecting the seal from solids and excludes other contaminants by centrifusion.

Operating conditions	**see page 8**
Pressure	none
Temperature	-30°C to 100°C
Speed	≤ 20 m/s
Fluids	none

Materials	**see pages 10-19**
Seal ①	NBR
Casing ②	ST

Assembly

Profile 13GR must be pressed on the shaft

Advantages

Good protection against moderate to medium dust and dirt ingress
Low axial forces, low power loss
Compact seal
Absorption of certain shaft misalignment
Easy assembly

Please contact us for applications approaching maximum values.

More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

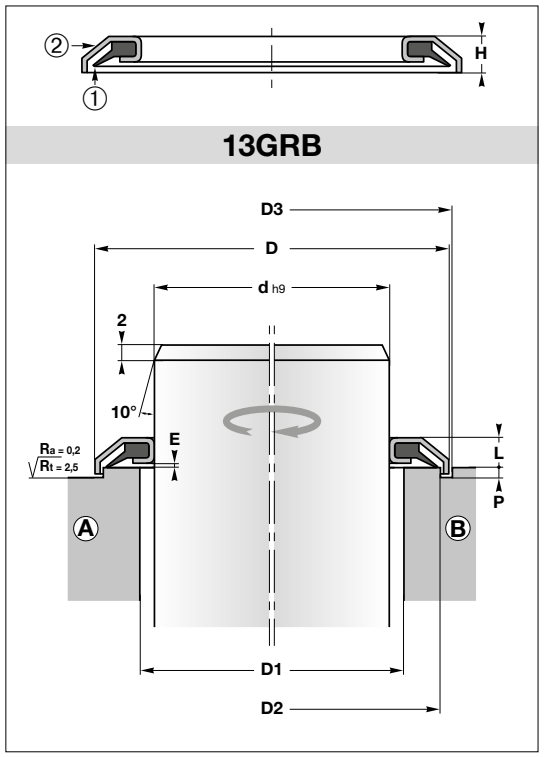
SEALTECH
Hydraulic Seals Technology

d	D	L	E	D1	Reference
10	24	3,5	1	15	**13GR 10**
11	26	3,5	1	16	**13GR 11**
12	26	3,5	1	17	**13GR 12**
14	30	4	1	20	**13GR 14**
15	30	3	1	21	**13GR 15**
	30	4	1	21	**13GR 15/1**
16	32	4	1	23	**13GR 16**
17	32	4	1	23	**13GR 17**
18	33	4	1	24	**13GR 18**
20	35	4	1	26	**13GR 20**
22	40	4	1	28	**13GR 22**
24	40	4	1	30	**13GR 24**
25	40	3	1	31	**13GR 25**
	40	4	1	31	**13GR 25/1**
	42	7	1	31	**13GR 25/2**
26	40	4	1	32	**13GR 26**
28	43	4	1	34	**13GR 28**
30	47	4,5	1	37	**13GR 30**
32	49	4,5	1	39	**13GR 32**
35	52	4,5	1	42	**13GR 35**
38	55	4,5	1	45	**13GR 38**
40	57	4,5	1	47	**13GR 40**
41	57	4,5	1	48	**13GR 41**
42	59	4,5	1	49	**13GR 42**

d	D	L	E	D1	Reference
45	62	4,5	1	52	**13GR 45**
48	64	4	1	55	**13GR 48**
	65	4,5	1	55	**13GR 48/1**
50	70	5,5	1	58	**13GR 50**
52	72	5,5	1	60	**13GR 52**
55	75	5,5	1	63	**13GR 55**
58	78	5,5	1	66	**13GR 58**
60	80	5,5	1	68	**13GR 60**
62	82	5,5	1	70	**13GR 62**
65	85	5,5	1	73	**13GR 65**
68	88	5,5	1	76	**13GR 68**
70	90	5,5	1	78	**13GR 70**
72	92	5,5	1	80	**13GR 72**
75	95	5,5	1	83	**13GR 75**
78	98	5,5	1	86	**13GR 78**
80	100	5,5	1	88	**13GR 80**
85	105	5,5	1	93	**13GR 85**
90	110	5,5	1	98	**13GR 90**
95	115	5,5	1	103	**13GR 95**
100	120	5,5	1	108	**13GR 100**
105	125	5,5	1	113	**13GR 105**
135	159	5,5	1	145	**13GR 135**
225	250	5,5	1	235	**13GR 225**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13GR seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13GRB is made of two parts, an elastomeric sealing element and a metal case. It has to be fixed to the shaft at a predetermined distance (E) from the sealing surface. This type of seals is primarily used as a seal against foreign matter, liquid splatter and grease.

An additional feature is the shape of the metal shell which allows a very effective protection of the seal from solids even by heavy duty applications.

Operating conditions see page 8

Pressure	none
Temperature	-30°C to 100°C
Speed	≤ 20 m/s
Fluids	none

Materials see pages 10-19

Seal ①	NBR
Casing ②	ST

Assembly

Profile 13GRB must be pressed on the shaft

Advantages

Very good protection against moderate to medium dust and dirt ingress

Low axial forces, low power loss

Compact seal

Absorption of certain shaft misalignment

Easy assembly

Please contact us for applications approaching maximum values.

More information

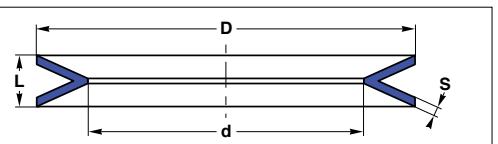
On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

SEALTECH
Hydraulic Seals Technology

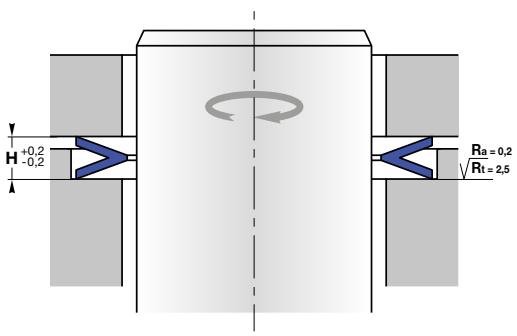
d	D	L	E	H	P	D1	D2	D3	Reference
15	32	4	1	6	3	21	29	34	**13GRB 15**
17	34	4	1	6	3	23	31	36	**13GRB 17**
20	37	4	1	6	3	26	34	39	**13GRB 20**
25	42	4	1	6	3	31	39	44	**13GRB 25**
30	48	4,5	1	6,5	3	37	45	50	**13GRB 30**
35	51,5	4,5	1	6,5	3	42	50	55	**13GRB 35**
35	53	4,5	1	6,5	3	42	50	55	**13GRB 35/1**
40	58	4,5	1	6,5	3	47	55	60	**13GRB 40**
45	63	4,5	1	6,5	3	52	60	65	**13GRB 45**
50	72	5,5	1	7,5	3	58	68,5	74	**13GRB 50**
55	77	5,5	1	7,5	3	63	73,5	79	**13GRB 55**
60	82	5,5	1	7,5	3	68	78,5	84	**13GRB 60**
65	87	5,5	1	7,5	3	73	83,5	89	**13GRB 65**
70	92	5,5	1	7,5	3	78	88,5	94	**13GRB 70**
75	97	5,5	1	7,5	3	83	93,5	99	**13GRB 75**
80	102	5,5	1	7,5	3	88	98,5	104	**13GRB 80**
85	107	5,5	1	7,5	3	93	103,5	109	**13GRB 85**
90	112	5,5	1	7,5	3	98	108,5	114	**13GRB 90**
95	117	5,5	1	7,5	3	103	113,5	119	**13GRB 95**
100	122	5,5	1	7,5	3	108	118,5	124	**13GRB 100**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13GRB seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13TFR



The function of the **13TFR** is to prevent the introduction of dust, dirt, mud and foreign matter into the system to protect the internal components. The sealing lips are axial compressed which produce a very effective protection and extend the service life of the components.

This rotary seal is made of polyurethane, which increases the wear resistance and extends the service life. This material also ensures excellent dry running properties.

Operating conditions see page 8

Pressure	none
Temperature	-40°C to 100°C
Speed	3 to 10 m/s
Fluids	Mineral oils, water emulsions

Materials see pages 10-19

Seal	PU10

Assembly

Profile 13TFR must be compressed in its groove respecting the dimension H

Advantages

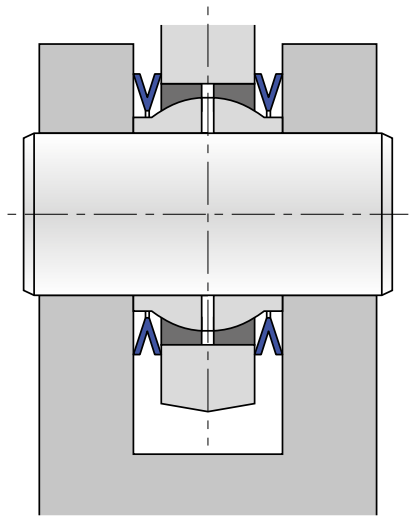
Easy assembly
Extended service life
Excellent abrasion resistance
Compensation of angular swing movements (up to 2°)

Please contact us for applications approaching maximum values.

More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the material.

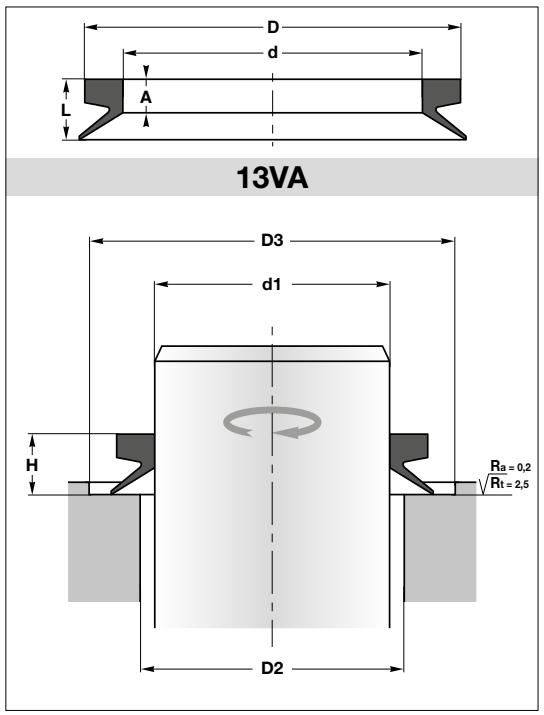
Example of application



D	d	L	H	S	Reference
27,5	22,5	4	2	0,75	**13TFR 27.5**
32	26	4	2	0,75	**13TFR 32**
38,5	31	4,5	2	0,75	**13TFR 38.5**
43	36	5	2	0,75	**13TFR 43**
51	42	6	2,5	0,8	**13TFR 51**
57,5	47,5	7	3,5	1	**13TFR 57.5**
59	50,5	5	2	1	**13TFR 59**
64	54	7	3,5	1	**13TFR 64**
71	59	7	3,5	1	**13TFR 71**
74	61,5	8	3,5	1	**13TFR 74**
80	65	7	3,5	1	**13TFR 80**
86	71	9	4	1	**13TFR 86**
86	70	9	4	1	**13TFR 86/1**
88,8	70	8	3,5	1,2	**13TFR 88.8**
95	85	6	2,5	1	**13TFR 95**
100	82	9	4,5	1,25	**13TFR 100**
105	90	9	4,5	1,25	**13TFR 105**
112	96	10	5	1,5	**13TFR 112**
121	103	12	5	1,5	**13TFR 121**
142	116	16,5	7,5	1,5	**13TFR 142**
152	127	16,5	7,5	1,5	**13TFR 152**
162	137	16,5	7,5	1,5	**13TFR 162**
186	160	16	7,5	2	**13TFR 186**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13TFR seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13VA is an all-rubber face seal. The profile A is the most common. It works as a front seal and is the perfect solution to prevent the introduction of dust, dirt or water into the system. It can also be used as a secondary seal to protect the primary seal.

The V-ring is **self-retaining** on the shaft. The sealing lip is flexible and applies a low contact pressure against the counter face, sufficient to maintain the sealing function.

Operating conditions see page 8

Pressure	none
Temperature	-30°C to 100°C
Speed	≤ 10 m/s
Media	watersplash, sand, dust, abrasive particles...

Materials see pages 10-19

Seal	NBR

Assembly

V-ring has to be stretched regularly around the shaft

Advantages

Easy assembly
Low axial forces, low power loss
Compact seal

Please contact us for applications approaching maximum values.

More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the material.

d1	d	D	A	L	D2 max	D3 min	H	Reference
2,7-3,5	2,5	5,5	2,1	3	**d1** + 1	**d1** + 4	2,5 +/-0,3	**13VA 003**
4,5-5,5	4	8	2,4	3,7	**d1** + 1	**d1** + 6	3,0 +/-0,4	**13VA 005**
8,0-9,5	7	11	2,4	3,7	**d1** + 1	**d1** + 6	3,0 +/-0,4	**13VA 008**
9,5-11,5	9	15	3,4	5,5	**d1** + 1	**d1** + 9	4,5 +/-0,6	**13VA 010**
11,5-12,5	10,5	16,5	3,4	5,5	**d1** + 1	**d1** + 9	4,5 +/-0,6	**13VA 012**
12,5-13,5	11,7	17,7	3,4	5,5	**d1** + 1	**d1** + 9	4,5 +/-0,6	**13VA 013**
13,5-15,5	12,5	18,5	3,4	5,5	**d1** + 1	**d1** + 9	4,5 +/-0,6	**13VA 014**
15,5-17,0	14	20	3,4	5,5	**d1** + 1	**d1** + 9	4,5 +/-0,6	**13VA 016**
17,5-19	16	22	3,4	5,5	**d1** + 1	**d1** + 9	4,5 +/-0,6	**13VA 018**
19-21	18	26	4,7	7,5	**d1** + 2	**d1** + 12	6,0 +/-0,8	**13VA 020**
21-24	20	28	4,7	7,5	**d1** + 2	**d1** + 12	6,0 +/-0,8	**13VA 022**
24-27	22	30	4,7	7,5	**d1** + 2	**d1** + 12	6,0 +/-0,8	**13VA 025**
27-29	25	33	4,7	7,5	**d1** + 2	**d1** + 12	6,0 +/-0,8	**13VA 028**
29-31	27	35	4,7	7,5	**d1** + 2	**d1** + 12	6,0 +/-0,8	**13VA 030**
31-33	29	37	4,7	7,5	**d1** + 2	**d1** + 12	6,0 +/-0,8	**13VA 032**
33-36	31	39	4,7	7,5	**d1** + 2	**d1** + 12	6,0 +/-0,8	**13VA 035**
36-38	34	42	4,7	7,5	**d1** + 2	**d1** + 12	6,0 +/-0,8	**13VA 038**
38-43	36	46	5,5	9	**d1** + 2	**d1** + 15	7,0 +/-1,0	**13VA 040**
43-48	40	50	5,5	9	**d1** + 2	**d1** + 15	7,0 +/-1,0	**13VA 045**
48-53	45	55	5,5	9	**d1** + 2	**d1** + 15	7,0 +/-1,0	**13VA 050**
53-58	49	59	5,5	9	**d1** + 2	**d1** + 15	7,0 +/-1,0	**13VA 055**
58-63	54	64	5,5	9	**d1** + 2	**d1** + 15	7,0 +/-1,0	**13VA 060**
63-68	58	68	5,5	9	**d1** + 2	**d1** + 15	7,0 +/-1,0	**13VA 065**
68-73	63	75	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	**13VA 070**
73-78	67	79	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	**13VA 075**
78-83	72	84	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	**13VA 080**
83-88	76	88	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	**13VA 085**
88-93	81	93	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	**13VA 090**
93-98	85	97	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	**13VA 095**
98-105	90	102	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	**13VA 100**
105-115	99	113	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	**13VA 110**
115-125	108	122	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	**13VA 120**
125-135	117	131	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	**13VA 130**
135-145	126	140	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	**13VA 140**
145-155	135	149	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	**13VA 150**
155-165	144	160	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	**13VA 160**
165-175	153	169	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	**13VA 170**
175-185	162	178	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	**13VA 180**
185-195	171	187	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	**13VA 190**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

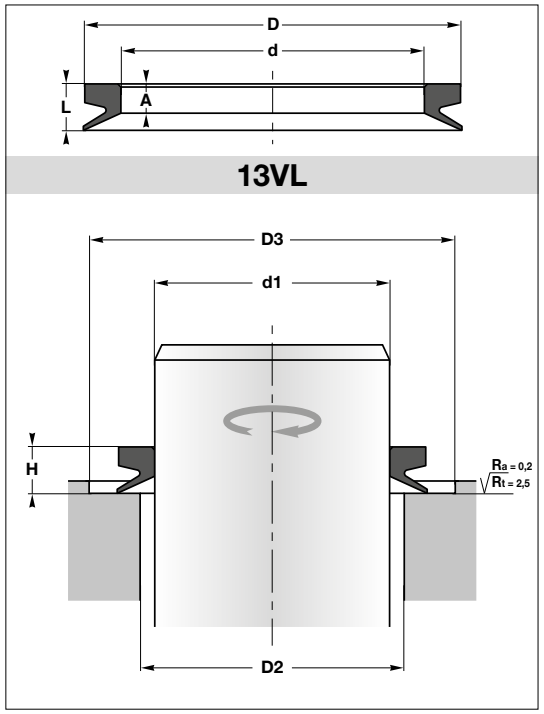
13VA seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

d1	d	D	A	L	D2 max	D3 min	H	Reference
195-210	180	196	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	**13VA 199**
190-210	180	210	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 200**
210-235	198	228	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 220**
235-265	225	255	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 250**
265-290	247	277	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 275**
290-310	270	300	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 300**
310-335	292	322	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 325**
335-365	315	345	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 350**
365-390	337	367	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 375**
390-430	360	390	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 400**
430-480	405	435	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 450**
480-530	450	480	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 500**
530-580	495	525	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 550**
580-630	540	570	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 600**
630-665	600	630	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 650**
665-705	630	660	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 700**
705-745	670	700	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 725**
745-785	705	735	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 750**
785-830	745	775	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 800**
830-875	785	815	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 850**
875-920	825	855	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 900**
920-965	865	895	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 950**
965-1015	910	940	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1000**
1015-1065	955	985	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1050**
1065-1115	1000	1030	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1100**
1115-1165	1045	1075	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1150**
1165-1215	1090	1120	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1200**
1215-1270	1135	1165	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1250**
1270-1320	1180	1210	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1300**
1320-1370	1225	1255	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1350**
1370-1420	1270	1300	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1400**
1420-1470	1315	1345	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1450**
1470-1520	1360	1390	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1500**
1520-1570	1405	1435	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1550**
1570-1620	1450	1480	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1600**
1620-1670	1495	1525	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1650**
1670-1720	1540	1570	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1700**
1720-1770	1585	1615	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1750**
1770-1820	1630	1660	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1800**

d1	d	D	A	L	D2 max	D3 min	H	Reference
1820-1870	1675	1705	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1850**
1870-1920	1720	1750	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1900**
1920-1970	1765	1795	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 1950**
1970-2020	1810	1840	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	**13VA 2000**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13VA seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13VL is an all-rubber face seal. It works as a front seal and is the perfect solution to prevent the introduction of dust, dirt or water into the system. It can also be used as a secondary seal to protect the primary seal.

The V-ring is **self-retaining** on the shaft. The sealing lip is flexible and applies a low contact pressure against the counter face, sufficient to maintain the sealing function. The profile L has a narrow axial cross section suitable for compact arrangements.

Operating conditions see page 8

Pressure	none
Temperature	-30°C to 100°C
Speed	≤ 10 m/s
Media	watersplash, sand, dust, abrasive particles...

Materials see pages 10-19

Seal	NBR

Assembly

V-ring has to be stretched regularly around the shaft

Advantages

Easy assembly
Low axial forces, low power loss
Compact seal

Please contact us for applications approaching maximum values.

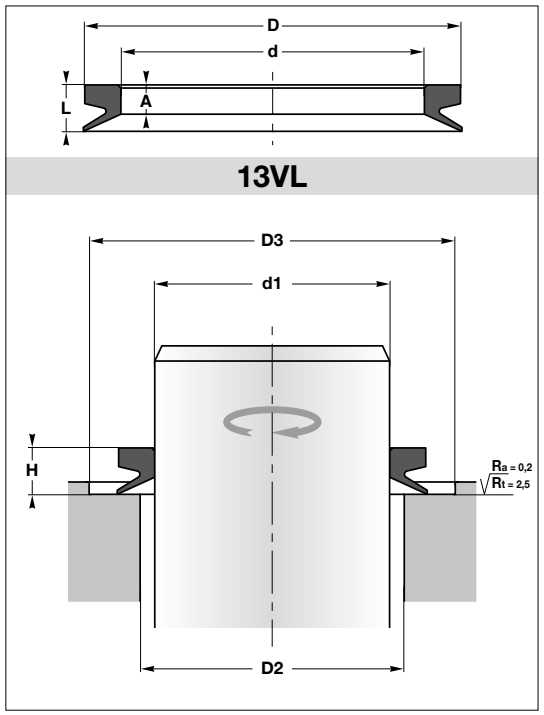
More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the material.

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

d1	d	D	A	L	D2 max	D3 min	H	Reference
105-115	99	112	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 110**
115-125	108	121	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 120**
125-135	117	130	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 130**
135-145	126	139	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 140**
145-155	135	148	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 150**
155-165	144	157	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 160**
165-175	153	166	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 170**
175-185	162	175	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 180**
185-195	171	184	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 190**
195-210	182	195	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 200**
210-233	198	211	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 220**
233-260	225	238	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 250**
260-285	247	260	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 275**
285-310	270	283	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 300**
310-335	292	305	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 325**
335-365	315	328	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 350**
365-385	337	350	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 375**
385-410	360	373	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 400**
410-440	382	395	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 425**
440-475	405	418	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 450**
475-510	450	463	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 500**
510-540	472	485	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 525**
540-575	495	508	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 550**
575-625	540	553	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 600**
625-675	600	613	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 650**
675-710	630	643	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 700**
710-740	670	683	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 725**
740-775	705	718	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 750**
775-825	745	758	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 800**
825-875	785	798	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 850**
875-925	825	838	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 900**
925-975	865	878	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 950**
975-1025	910	923	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1000**
1035-1075	955	968	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1050**
1075-1125	1000	1013	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1100**
1125-1175	1045	1058	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1150**
1175-1225	1090	1103	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1200**
1225-1275	1135	1148	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1250**
1275-1325	1180	1193	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1300**

13VL seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13VL is an all-rubber face seal. It works as a front seal and is the perfect solution to prevent the introduction of dust, dirt or water into the system. It can also be used as a secondary seal to protect the primary seal.

The V-ring is **self-retaining** on the shaft. The sealing lip is flexible and applies a low contact pressure against the counter face, sufficient to maintain the sealing function. The profile L has a narrow axial cross section suitable for compact arrangements.

Operating conditions see page 8

Pressure	none
Temperature	-30°C to 100°C
Speed	≤ 10 m/s
Media	watersplash, sand, dust, abrasive particles...

Materials see pages 10-19

Seal	NBR

Assembly

V-ring has to be stretched regularly around the shaft

Advantages

Easy assembly
Low axial forces, low power loss
Compact seal

Please contact us for applications approaching maximum values.

More information

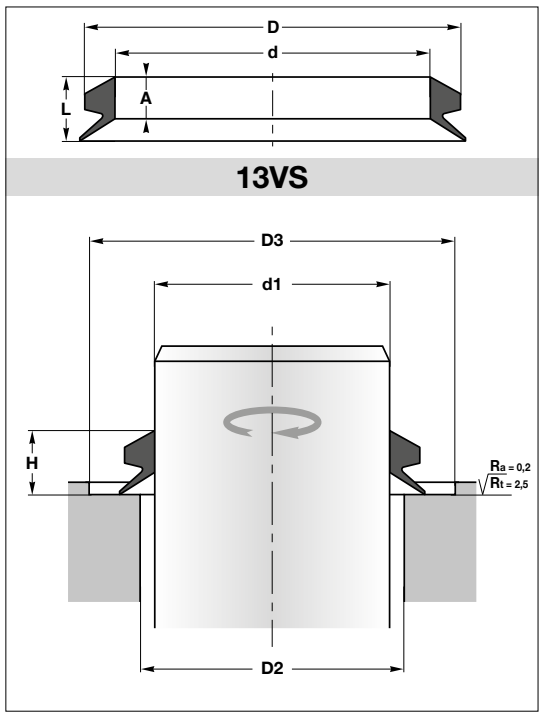
On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the material.

SEALTECH
Hydraulic Seals Technology

d1	d	D	A	L	D2 max	D3 min	H	Reference
1325-1375	1225	1238	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1350**
1375-1425	1270	1283	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1400**
1425-1475	1315	1328	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1450**
1475-1525	1360	1373	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1500**
1525-1575	1405	1418	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1550**
1575-1625	1450	1463	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1600**
1625-1675	1495	1508	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1650**
1675-1725	1540	1553	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1700**
1725-1775	1585	1598	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1750**
1775-1825	1630	1643	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1800**
1825-1875	1675	1688	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1850**
1875-1925	1720	1733	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1900**
1925-1975	1765	1778	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 1950**
1975-2025	1810	1823	6	10,5	**d1** + 5	**d1** + 20	8+/-1,5	**13VL 2000**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available : **FPM**, **HNBR**, **TNBR**, **EPDM**...

13VL seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability : **www.sealtech-business.be**



13VS is an all-rubber face seal. It works as a front seal and is the perfect solution to prevent the introduction of dust, dirt or water into the system. It can also be used as a secondary seal to protect the primary seal.

The V-ring is **self-retaining** on the shaft. The sealing lip is flexible and applies a low contact pressure against the counter face, sufficient to maintain the sealing function. The profile S has a wider cross section for a better hold.

Operating conditions see page 8

Pressure	none
Temperature	-30°C to 100°C
Speed	≤ 10 m/s
Media	watersplash, sand, dust, abrasive particles...

Materials see pages 10-19

Seal	NBR

Assembly

V-ring has to be stretched regularly around the shaft

Advantages

Easy assembly
Low axial forces
Larger crosse section for a better hold

Please contact us for applications approaching maximum values.

More information

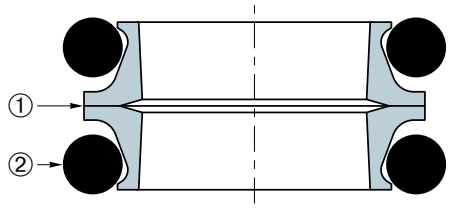
On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the material.

SEALTECH
Hydraulic Seals Technology

d1	d	D	A	L	D2 max	D3 min	H	Reference
4,5-5,5	4	8	3,9	5,2	6	1	4,5+/-0,4	**13VS 005**
5,5-6,5	5	9	3,9	5,2	6	1	4,5+/-0,4	**13VS 006**
6,5-8,0	6	10	3,9	5,2	6	1	4,5+/-0,4	**13VS 007**
8,0-9,5	7	11	3,9	3,7	6	1	4,5+/-0,4	**13VS 008**
9,5-11,5	9	15	5,6	7,7	9	1	6,7+/-0,6	**13VS 010**
11,5-13,5	10,5	16,5	5,6	7,7	9	1	6,7+/-0,6	**13VS 012**
13,5-15,5	12,5	18,5	5,6	7,7	9	1	6,7+/-0,6	**13VS 014**
15,5-17,5	14	20	5,6	7,7	9	1	6,7+/-0,6	**13VS 016**
17,5-19	16	22	5,6	7,7	9	1	6,7+/-0,6	**13VS 018**
19-21	18	26	7,9	10,5	12	2	9,0+/-0,8	**13VS 020**
21-24	20	28	7,9	10,5	12	2	9,0+/-0,8	**13VS 022**
24-27	22	30	7,9	10,5	12	2	9,0+/-0,8	**13VS 025**
27-29	25	33	7,9	10,5	12	2	9,0+/-0,8	**13VS 028**
29-31	27	35	7,9	10,5	12	2	9,0+/-0,8	**13VS 030**
31-33	29	37	7,9	10,5	12	2	9,0+/-0,8	**13VS 032**
33-36	31	39	7,9	10,5	12	2	9,0+/-0,8	**13VS 035**
36-38	34	42	7,9	10,5	12	2	9,0+/-0,8	**13VS 038**
38-43	36	46	9,5	13	15	2	11,0+/-1,0	**13VS 040**
43-48	40	50	9,5	13	15	2	11,0+/-1,0	**13VS 045**
48-53	45	55	9,5	13	15	2	11,0+/-1,0	**13VS 050**
53-58	49	59	9,5	13	15	2	11,0+/-1,0	**13VS 055**
58-63	54	64	9,5	13	15	2	11,0+/-1,0	**13VS 060**
63-68	58	68	9,5	13	15	2	11,0+/-1,0	**13VS 065**
68-73	63	75	11,3	15,5	18	3	13,5+/-1,2	**13VS 070**
73-78	67	79	11,3	15,5	18	3	13,5+/-1,2	**13VS 075**
78-83	72	84	11,3	15,5	18	3	13,5+/-1,2	**13VS 080**
83-88	76	88	11,3	15,5	18	3	13,5+/-1,2	**13VS 085**
88-93	81	93	11,3	15,5	18	3	13,5+/-1,2	**13VS 090**
93-98	85	97	11,3	15,5	18	3	13,5+/-1,2	**13VS 095**
98-105	90	102	11,3	15,5	18	3	13,5+/-1,2	**13VS 100**
105-115	99	113	13,1	18	21	4	15,5+/-1,5	**13VS 110**
115-125	108	122	13,1	18	21	4	15,5+/-1,5	**13VS 120**
125-135	117	131	13,1	18	21	4	15,5+/-1,5	**13VS 130**
135-145	126	140	13,1	18	21	4	15,5+/-1,5	**13VS 140**
145-155	135	149	13,1	18	21	4	15,5+/-1,5	**13VS 150**
155-165	144	160	15	20,5	24	4	18,0+/-1,8	**13VS 160**
165-175	153	169	15	20,5	24	4	18,0+/-1,8	**13VS 170**
175-185	162	178	15	20,5	24	4	18,0+/-1,8	**13VS 180**
185-195	171	187	15	20,5	24	4	18,0+/-1,8	**13VS 190**
195-210	180	196	15	20,5	24	4	18,0+/-1,8	**13VS 199**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13VS seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

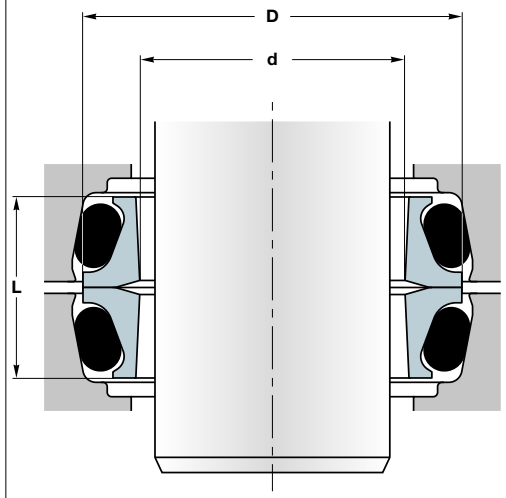


14MFO

Example of item code

14MFO | 195 | CI/MVQ | 60

Profile | D (mm) | Materials ①/② | Hardness Sh A ②



Machining of housings: on request

14MFO are predominantly used for sealing the bearings in construction machinery or production plants operating under extreme arduous conditions and subject to severe wear.

Mechanical face seals are proven in general machine engineering for gearboxes, mixers, stirrers, wind-driven power stations and other applications with similar conditions or where maintenance-free lifetime time sealing is expected.

Operating conditions

see page 8

Pressure

cast iron (CI)	≤ 0,3 MPa
hardened steel (HS)	≤ 0,15 MPa

Temperature

NBR	-30°C to 100°C
HNBR	-30°C to 150°C
MVQ	-50°C to 200°C
FPM	-20°C to 200°C

Speed

cast iron with oil lubrication	≤ 10 m/s
hardened steel with oil lubrication	≤ 2 m/s

Materials

see pages 10-19

Seal ①	Cast iron (CI), hardened steel (HS)
Energising element ②	NBR, HNBR, MVQ, FPM from different hardnesses

Assembly

Install in the grooves

Advantages

- Simple, reliable design
- High sealing effect against dirt, dust, water and abrasive media from the outside and against oil and grease from the inside
- Self-centering to compensate for shaft eccentricity or misalignment
- Maintenance-free
- Easy to assemble
- Cost-effective
- Long service life

Please contact us for applications approaching maximum values.

More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

d	D	L	O-ring	Goetze® reference	Reference (without materials code)
38	51	20	41 x 6	H-50	**14MFO 51**
	51	20	40 x 6,7	H-50A1	**14MFO 51/6,7**
45	58	21	48 x 6,1	H-021	**14MFO 58**
46	59	20	47,5 x 6,5	H-01	**14MFO 59**
48	62,15	25	50 x 7,5	H-019	**14MFO 62**
55,5	70	22	58 x 7,5	H-32	**14MFO 70**
	70	22	58 x 8	H-32A1	**14MFO 70/8**
60,2	73	20	60 x 6,5	H-57	**14MFO 73**
63	80,5	26	66 x 8	H-53	**14MFO 80/5**
63,5	82,4	32	66 x 9,5	H-02	**14MFO 82**
64	78	25	66 x 8,2	H-020	**14MFO 78**
67	80	20	68,5 x 6,5	H-01A1	**14MFO 80**
67,5	86,5	31,8	71 x 9,5	H-03	**14MFO 85/5**
68	89	24	75 x 8	H-05	**14MFO 89**
71	84	20	72,5 x 6,5	H-02A1	**14MFO 84**
71,5	91	29	75 x 9	H-04A1	**14MFO 91**
73	92	32	75,7 x 9,5	H-04	**14MFO 92**
77,5	88,5	15	78 x 4,3	H-113	**14MFO**
79	100	30	85 x 9,5	H-003	**14MFO 100**
79,5	92,5	20	81 x 6,5	H-45	**14MFO 92,5**
80	100	29	83 x 9	H-016	**14MFO 100/80**
81	98	28	82 x 8	H-039	**14MFO 98**
83	102	28	87 x 8,5	H-07	**14MFO 102**
88	108	24	93 x 8	H-05A2	**14MFO 108**
90,5	104,5	26	93 x 6,3	H-05A3	**14MFO 104,5**
	109,5	32	93,2 x 9,5	H-06	**14MFO 109,5**
95	111	24	99 x 7,7	H-08A5	**14MFO 111**
99	120	28	105 x 8,5	H-08A3	**14MFO 120**
100	119	32	102,8 x 9,5	H-08	**14MFO 119**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

14MFO seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

d	D	L	O-ring	Goetze® reference	Reference (without materials code)
103	117	20	105 x 6,5	H-45A1	**14MF0 117**
104	125	28	110 x 8,5	H-08A2	**14MF0 125**
107	125	24	110 x 8,5	H-08A4	**14MF0 125/24**
	125	24	110 x 7,7	H-08A9	**14MF0 125/7,7**
110	128	32	113 x 9,2	H-017	**14MF0 128**
114,5	129	21	117 x 7	H-16A8	**14MF0 129**
117	140	29	124 x 8,7	H-09A2	**14MF0 140**
118,5	139,5	28	124 x 8,5	H-52	**14MF0 139,5**
120	138	32	122,5 x 8,4	H-09	**14MF0 138**
	138	32	124,3 x 9	H-09A3	**14MF0 138/9**
	139	31,8	123,5 x 9,5	H-09A1	**14MF0 139**
	142	38	122 x 11,3	H-022	**14MF0 142**
125	144	31,8	128,5 x 9,5	H-11	**14MF0 144**
127	140,7	25	130 x 6	H-12A6	**14MF0 140,7**
	141	29	130 x 6	H-12	**14MF0 141**
	141	29	130 x 8,3	H-12A3	**14MF0 141/8,3**
	141	29	124,3 x 9	H-12A5	**14MF0 141/9**
	146	32	130 x 9,5	H-10	**14MF0 146**
	146	31	130 x 9,5	H-10A1	**14MF0 146/31**
135,5	154,5	28	139 x 8,3	H-12A2	**14MF0 154,5**
143	156,6	25	143 x 6,5	HN0-149	**14MF0 156,6**
	157	27	145 x 6,3	H-14	**14MF0 157**
	160	27	145,7 x 8,3	H-13	**14MF0 160**
146	172	38	147 x 12,7	H-18	**14MF0 172**
150	167	28	153,8 x 8,5	H-15	**14MF0 167**
	172	40	151 x 11,2	H-023	**14MF0 172/40**
153	171,5	28	157 x 8,3	H-15A3	**14MF0 171,5**
154	168	27	158 x 6	H-16	**14MF0 168.2**
	168	27	150 x 6,5	H-16A4	**14MF0 168/6,5**
	169	22	158,1 x 7	H-16A3	**14MF0 169**
	169	22	158,1 x 7	H-16A9	**14MF0 169/9,2**
	170	21	158,1 x 7	H-16A1	**14MF0 170**
	173,5	32	155 x 9,65	H-17	**14MF0 173,5**
155	168	27	158 x 6	H-16A5	**14MF0 168/155**

d	D	L	O-ring	Goetze® reference	Reference (without materials code)
163	191,5	38	166 x 12,7	H-20	**14MF0 191,5**
164	189	30	170 x 9,5	H-55	**14MF0 189**
165	180,5	27	170 x 7	H-17A3	**14MF0 180,5**
	181	27	170 x 7	H-17A7	**14MF0 181**
171,3	185,3	20	172 x 6	H-140	**14MF0 185,3**
172	194,4	31,8	175 x 9,5	H-124	**14MF0 194,4**
176	195	28	182 x 8,3	H-47	**14MF0 195**
177	200	30	184 x 9,5	H-21	**14MF0 200**
	200	30	184 x 9,5	H-21A3	**14MF0 200/00**
178	199	32	184 x 9,5	H-56	**14MF0 199**
	205	38	178 x 12,7	HN0	**150 14MF0**
182	210,5	38	185 x 12,5	H-22	**14MF0 210,5**
191	210	28	190 x 8,5	H-22A2	**14MF0 210**
192	209	30	190 x 9,5	H-94	**14MF0 209**
195	216,5	31,8	198 x 9,5	H-22A1	**14MF0 216,5**
200	228,5	38	205,5 x 13	H-25	**14MF0 228,5**
205	227	30	210 x 9,5	H-23	**14MF0 227**
	227	30	210 x 10	H-23A2	**14MF0 227/10**
208,7	222,8	26	208 x 6,2	H-81	**14MF0 222,8**
	222,8	26	208 x 6,2	H-81	**14MF0 223**
216	237	30	218 x 9,5	H-93	**14MF0 237**
220	239,5	31,8	224 x 9,5	H-24A3	**14MF0 239,5**
	241,4	25	226 x 7,7	H-109	**14MF0 241,4**
223	251,5	38	226 x 12,7	H-24	**14MF0 251,5**
238	261	31,8	245 x 9,58	H-40	**14MF0 261**
240	262,8	38	243 x 13	H-41	**14MF0 262,8**
242	262,8	38	243 x 13	H-41A1	**14MF0 263/242**
250	270	300	250 x 9,5	H-130	**14MF0 270**
252	280,5	38	255 x 12,7	H-62	**14MF0 280,5**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available : **FPM**, **HNBR**, **TNBR**, **EPDM**...

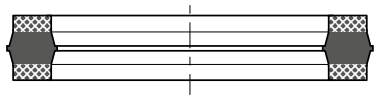
14MFO seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability : **www.sealtech-business.be**

d	D	L	O-ring	Goetze® reference	Reference (without materials code)
265	293	38	268 x 12,7	H-26	**14MFO 293**
275	303	38	278 x 12,7	H-26A1	**14MFO 303**
300	324,65	38	305 x 12,7	H-27	**14MFO 324,6**
	325	38	305 x 12,7	H-27A4	**14MFO 325**
	328	38	300 x 12,7	H-042	**14MFO 328**
	328	38	300 x 12,7	H-042	**14MFO 328**
318	341	38	315 x 12,7	H-28	**14MFO 341**
	346	38	315 x 12,7	H-28A4	**14MFO 346**
	346	40	320 x 12,7	H-28A6	**14MFO 346/40**
350	375	38	355 x 12,7	H-30	**14MFO 375**
355	375	38	355 x 12,7	H-30A1	**14MFO 375/355**
366	394,4	38	359,5 x 12,7	H-60	**14MFO 394,4**
	394,4	40	359,5 x 12,7	H-60A2	**14MFO 394,4/40**
370	398	38	370 x 12,7	H-60A3	**14MFO 398**
388	415	38	385 x 12,7	H-70	**14MFO 415**
	416,2	38	385 x 12,7	H-70A1	**14MFO 416,2**
430	457	38	420 x 12,7	H-61	**14MFO 457**
	459,2	38	420 x 12,7	H-61A4	**14MFO 459,2**
450	480	50	454 x 16	H-65A1	**14MFO 480**
465	495	43,6	460 x 12,7	H-65A2	**14MFO 495**
	497,2	43,6	460 x 12,7	H-65A5	**14MFO 497,2**
470	500	50	474 x 16	H-65	**14MFO 500**
505	533,4	43,6	493 x 12,7	H-74	**14MFO 533**
	535,8	43,6	493 x 12,7	H-74A2	**14MFO 535,8**
530	560	50	530 x 16	H-89	**14MFO 560**
538	566,8	43,6	535 x 12,7	H-146	**14MFO 566,8**
559	590	50	560 x 16	H-82	**14MFO 590**
576	608	43,6	582 x 12,7	H-83	**14MFO 608**
581,5	608	43,6	582 x 12,7	H-83A2	**14MFO 608/581**
591	623	50	595 x 16	H-76	**14MFO 623**
596	628	50	595 x 16	H-90	**14MFO 628**

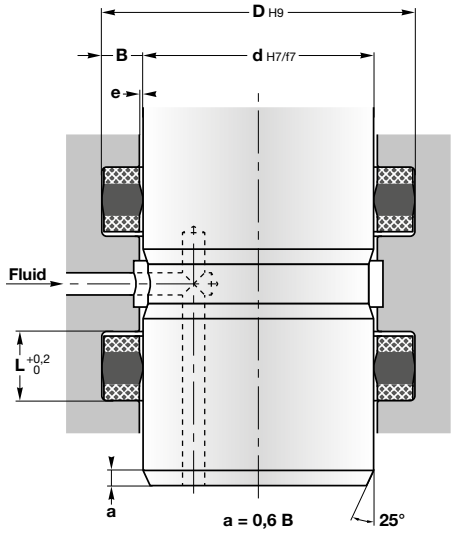
d	D	L	O-ring	Goetze® reference	Reference (without materials code)
660	695	53	660 x 16	H-75	**14MFO 695**
667	700	43,6	660 x 12,7	H-75A2	**14MFO 700/43,6**
667	700	50	660 x 12,7	H-75A3	**14MFO 700**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

14MFO seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



13DB/R



Machining of housings: see page 993

Pressure (MPa)	e (mm)
15	≤ 0,2
20	≤ 0,1

13DB/R is a single-piece seal consisting of an elastomeric sealing element in the middle and two fabric reinforced bases on the side.

Due to the radial pre-load an excellent sealing performance will be achieved even at low pressures.

The fabric reinforced bases prevents the seal from extrusion.

Operating conditions see page 8

Pressure	≤ 20 MPa
Temperature	-30°C to 100°C
Speed	≤ 0,1 m/s
pv value	≤ 2,5 MPa.m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal: NBR / NBR-C

Assembly

In open or closed groove

Advantages

- Efficient sealing even at low pressure
- Double acting
- Simple and economical solution

Please contact us for applications approaching maximum values.

More information

On www.sealtech-business.be, click first on the reference and then on the material code to obtain the data sheet of the material.

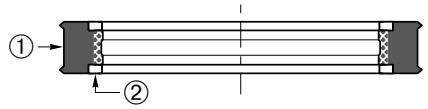
d	D	L	Reference
6	14	6,5	13DB/R 055023
10	18	6,5	13DB/R 070039
12	20	6,5	13DB/R 078047
15	23	7	13DB/R 090059
16	24	6,5	13DB/R 094062
20	28	6,5	13DB/R 110078
22	30	6,5	13DB/R 118086
25	35	8	13DB/R 137098
28	38	8	13DB/R 149110
26	40	10	13DB/R 157102
30	40	8	13DB/R 157118
32	42	8	13DB/R 165125
35	45	8	13DB/R 177137
36	46	8	13DB/R 181141
40	52	8	13DB/R 204157
42	54	8	13DB/R 212165
45	57	8	13DB/R 224177
50	62	8	13DB/R 244196
55	67	8	13DB/R 263216
65	71,6	6,7	13DB/R 281255
60	75	11	13DB/R 295236

d	D	L	Reference
60	76	9	13DB/R 299236
65	80	11	13DB/R 314255
70	85	11	13DB/R 334275
75	90	11	13DB/R 354295
80	95	11	13DB/R 374314
85	100	11	13DB/R 393334
90	110	13	13DB/R 433354
100	120	13	13DB/R 472393
110	130	13	13DB/R 511433
115	135	13	13DB/R 531452
125	145	13	13DB/R 570492
140	160	13	13DB/R 629551
150	175	16	13DB/R 688590
160	185	16	13DB/R 728629
180	205	16	13DB/R 807708
200	225	16	13DB/R 886787
225	255	19	13DB/R 1003885
250	270	16	13DB/R 1062984

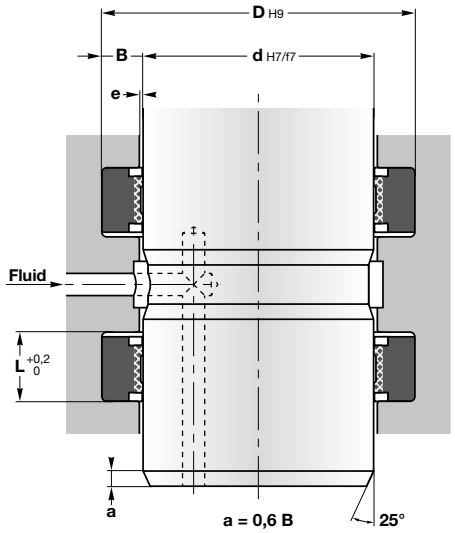
For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13DB/R seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

Fabric reinforced double acting rotary seal with anti-extrusion rings



13DB/R.../NEI



Machining of housings: see page 993

Pressure (MPa)	e (mm)
16	≤ 0,4
25	≤ 0,2
40	≤ 0,1

13DB/R.../NEI is a three pieces seal set consisting of an elastomer component with fabric reinforcement on the running surface and two anti-extrusion rings.

The static seal is achieved by two external seal edges.

Operating conditions see page 8

Pressure	≤ 40 MPa
Temperature	-30°C to 100°C
Speed	≤ 0,2 m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal ①	NBR-C / NBR
Anti-extrusion rings ②	POM

Assembly

In open or closed groove

Advantages

Efficient sealing even at low pressure
Double acting
Good static sealing
Simple, convenient and compact construction

Please contact us for applications approaching maximum values.

More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

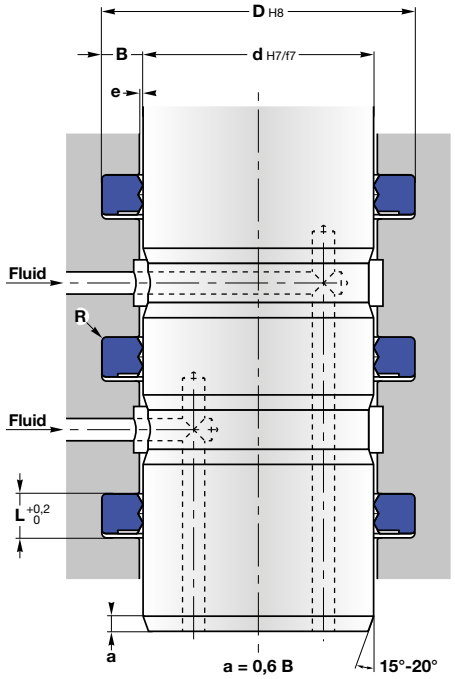
SEALTECH
Hydraulic Seals Technology

d	D	L	Reference
65	77	7	**13DB/R 303255/NEI**
89	106	9,5	**13DB/R 417350/NEI**
90	108	10	**13DB/R 425354/NEI**
90	110	12	**13DB/R 433354/NEI**
95	112	11	**13DB/R 441374/NEI**
109	129	11	**13DB/R 507429/NEI**
110	130	11	**13DB/R 511433/1/NEI**
125	145	13	**13DB/R 570492/NEI**
130	145	11	**13DB/R 570511/NEI**
130	150	11	**13DB/R 590511/NEI**
140	170	13	**13DB/R 669551/NEI**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13DB/R seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

13ROI



Machining of housings: see page 993

Pressure (MPa)	e (mm)
5	≤ 0,5
15	≤ 0,4
25	≤ 0,3
35	≤ 0,2

13ROI is a space-saving rotary seal. The seal is manufactured with a predefined interference fit on the outside diameter, which enables a stable fit in the housing and a good static sealing function. The dynamic seal is achieved by two internal seal edges.

Where extrusion gap are larger than those specified or for higher pressure conditions the serie **13ROI.../A** with two incorporated anti-extrusion rings shall be selected. The seal is produced in polyurethane, which increases the wear resistance and extends the service life.

Operating conditions see page 8

Pressure	≤ 35 MPa
Temperature	-30°C to 90°C
Speed	≤ 0,1 m/s
Fluids	Mineral oils
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal: PU

Assembly

In closed housings

Advantages

- Good static sealing
- Easy assembly without tools
- Compact design
- High abrasion resistance
- Long service life

Please contact us for applications approaching maximum values.

More information

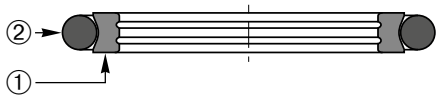
On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

SEALTECH
Hydraulic Seals Technology

d	D	L	Reference
60	70	5	**13ROI 60**
70	80	5	**13ROI 70**
80	90	5	**13ROI 80**
90	100	5	**13ROI 90**
95	105	5	**13ROI 95**
100	110	5	**13ROI 100**
105	115	5	**13ROI 105**
110	120	5	**13ROI 110**
115	125	5	**13ROI 115**
120	130	5	**13ROI 120**
125	135	5	**13ROI 125**
130	140	5	**13ROI 130**
150	160	5	**13ROI 150**

13ROI seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

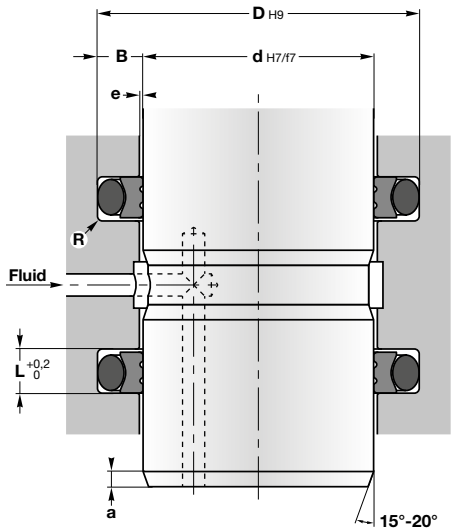


13R9

Example of item code

13R9 - P 0900 PT30/4470

Profile | Range | Diameter (mm x 10) | Materials ①/②



Machining of housings: see page 993

13R9 is a double-acting rotary seal. The pressure can come from one or from both sides. This profile is composed of a PTFE ring and is activated by an O-ring for use under high pressures and at low sliding speed. The profile ring is designed with notches to provide activation of the energising O-ring, these ensure direct pressure loading of the seal under all operating conditions.

The contact surface of the PTFE ring is designed with one or two grooves, which form a lubricant reservoir for better sliding properties. These increase also the seal efficiency by increasing the specific surface load pressure against the sliding surface.

The PTFE has also an **excellent chemical resistance**, which enables by changing the O-ring material the use with different type of oils.

Operating conditions — see page 8

Pressure	≤ 30 MPa
Temperature	-30°C to 100°C
Speed	≤ 2 m/s
pv value	≤ 2,5 MPa.m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials — see pages 10-19

Dynamic seal ①	PT30
Static seal ②	NBR 70 Sh A

Assembly — see page 56

In closed housings

Advantages

- Low friction
- Stick-slip free
- Compact simple groove design
- High abrasion resistance and dimensional stability
- High chemical compatibility with the right O-ring
- Large temperature range -45°C up to 200°C with the right O-ring

Please contact us for applications approaching maximum values.

More information

On www.sealtech-business.be, click first on the reference and then on the material code to obtain the data sheet of the different materials.

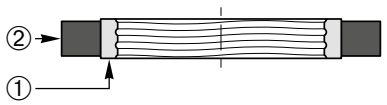
SEALTECH
Hydraulic Seals Technology

d	D	L	Reference
20	27,5	3,2	13R9 0200-PT30/4470
22	29,5	3,2	13R9 0220-PT30/4470
25	32,5	3,2	13R9 0250-PT30/4470
28	35,5	3,2	13R9 0280-PT30/4470
30	37,5	3,2	13R9 0300-PT30/4470
32	39,5	3,2	13R9 0320-PT30/4470
36	43,5	3,2	13R9 0360-PT30/4470
40	51	4,2	13R9 0400-PT30/4470
45	56	4,2	13R9 0450-PT30/4470
50	61	4,2	13R9 0500-PT30/4470
55	66	4,2	13R9 0550-PT30/4470
56	67	4,2	13R9 0560-PT30/4470
60	71	4,2	13R9 0600-PT30/4470
63	74	4,2	13R9 0630-PT30/4470
65	76	4,2	13R9 0650-PT30/4470
70	81	4,2	13R9 0700-PT30/4470
75	86	4,2	13R9 0750-PT30/4470
80	91	4,2	13R9 0800-PT30/4470
85	96	4,2	13R9 0850-PT30/4470
90	101	4,2	13R9 0900-PT30/4470
	105,5	6,3	13R9-P 0900-PT30/4470
95	106	4,2	13R9 0950-PT30/4470
100	111	4,2	13R9 1000-PT30/4470
	115,5	6,3	13R9-P 1000-PT30/4470
105	120,5	6,3	13R9-P 1050-PT30/4470
110	121	4,2	13R9 1100-PT30/4470
	125,5	6,3	13R9-P 1100-PT30/4470
125	136	4,2	13R9 1250-PT30/4470
	140,5	6,3	13R9-P 1250-PT30/4470
130	145,5	6,3	13R9-P 1300-PT30/4470
140	151	4,2	13R9 1400-PT30/4470
	155,5	6,3	13R9-P 1400-PT30/4470
145	160,5	6,3	13R9-P 1450-PT30/4470
150	161	4,2	13R9 1500-PT30/4470
	165,5	6,3	13R9-P 1500-PT30/4470
160	171	4,2	13R9 1600-PT30/4470
	175,5	6,3	13R9-P 1600-PT30/4470
170	185,5	6,3	13R9-P 1700-PT30/4470
180	191	4,2	13R9 1800-PT30/4470
	195,5	6,3	13R9-P 1800-PT30/4470
200	215,5	6,3	13R9 2000-PT30/4470
	221	8,1	13R9-P 2000-PT30/4470
220	235,5	6,3	13R9 2200-PT30/4470
250	265,5	6,3	13R9 2500-PT30/4470
280	301	8,1	13R9 2800-PT30/4470
300	321	8,1	13R9 3000-PT30/4470

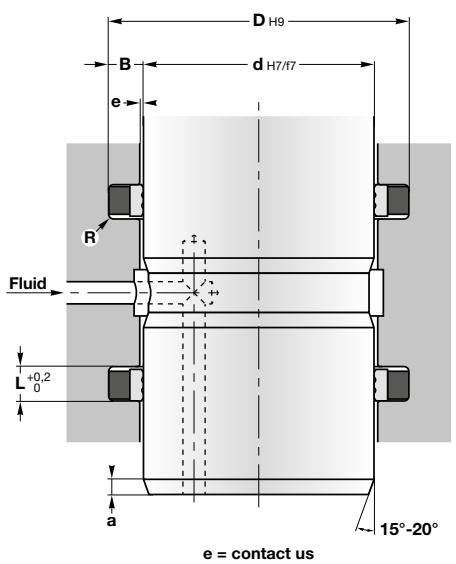
d (mm) 13R9 Standard range	d (mm) 13R9-P Heavy range	L (mm)	D (mm)	R (mm)	a (mm)	e max (mm) 10 MPa	e max (mm) 20 MPa	e max (mm) > 20 MPa	O-ring	Number of grooves in the sealing surface
6→18,9		2,2	**d** + 4,9	0,4	2	0,15	0,1	H8/f7	1,78	0
19→37,9	6→18,9	3,2	**d** + 7,5	0,6	2,5	0,2	0,15		2,62	1
38→199,9	19→37,9	4,2	**d** + 11	1	3,5	0,25	0,2		3,53	1
200→255,9	38→199,9	6,3	**d** + 15,5	1,3	5	0,3	0,25		5,34	2
256→649,9	200→255,9	8,1	**d** + 21	1,8	6,5	0,3	0,25		7	2
650→999,9	256→649,9	9,5	**d** + 28	2,5	7,5	0,45	0,3		8,4	2

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

13R9 seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**



41RS



e = contact us

Machining of housings: see page 993

41RS is a combination of a high-strength thermoplastic slide ring with particularly stable thermic properties and an elastomer expander ring. A special contact surface geometry at the inner diameter of the slide ring with an altering pitch optimates the lubrication of the seal. In both friction resistance and wear, this seal is superior to comparable systems. The prestressing element has a rectangular crosssection and avoids, in contrast to O-rings, possible pumping inside the fitting area. Moreover it guarantees a higher density. Even at high pressures, back-up rings for the avoidance of extrusion are not necessary owing to the special slide ring compound. At the same time, it is possible to take maximum advantage of the diameter play between rotor and stator without any functional impairment. This seal can also be used as a final exterior sealing.

Operating conditions	**see page 8**
Pressure	≤ 50 MPa
Temperature	-30°C to 100°C
Speed	≤ 0,5 m/s
pv value	P × v ≤ 40 for L = 4,1 to 4,2 P × v ≤ 70 for L = 6 to 6,3
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials	**see pages 10-19**
Dynamic seal ①	PK natur / W5071
Static seal ②	NBR 70 Sh A / N3571

Assembly **see page 54**

In closed housings

Suitable for grooves conforming to DIN ISO 7425

Advantages

Low friction

Stick-slip free

Compact simple groove design

High abrasion resistance and dimensional stability

High chemical compatibility with the right O-ring

Large temperature range -45°C up to 200°C with the right O-ring

Please contact us for applications approaching maximum values.

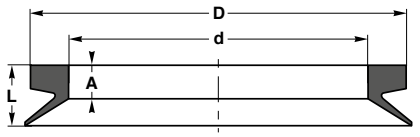
More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

d	D	L	Reference
45	51,6	4,1	**41RS- 45 0045 00716**
50	61	4,1	**41RS- 50 0050 00716**
55	61,6	4,1	**41RS- 55 0055 00716**
60	71	4,1	**41RS- 60 0060 00716**
80	91	4,1	**41RS- 80 0080 00716**
95	110,5	6,3	**41RS- 95 0095 00716**
100	111	4,1	**41RS- 100 0100 00716**
105	120,4	6,2	**41RS- 105 0105 00716**
110	121	4,2	**41RS- 110 0110 00716**
124	139,2	6,1	**41RS- 124 0124 00716**
125	135,4	5,1	**41RS- 125 0125 00716**
130	140	6	**41RS- 130 0130 00716**
145	160	6,2	**41RS- 145 0145 00716**
160	171,7	5,7	**41RS- 160 0160 00716**
170	185,2	6,2	**41RS- 170 0170 00716**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

41RS seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

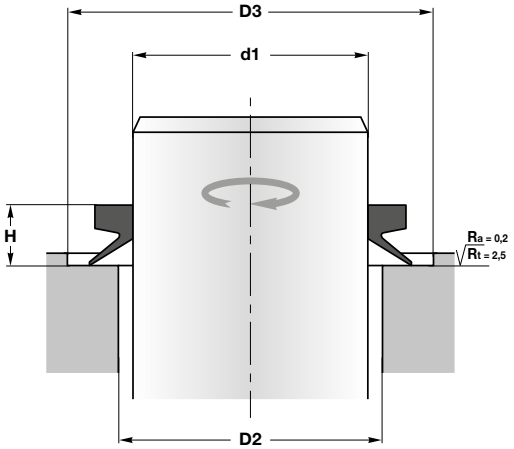


17TWVA

Example of item code

17TWVA 01500 - N6T5C

Profile | Diameter **d1** (mm x 10) | Material



17TWVA is a unique all-rubber face seal for rotary shafts. The V-ring is the perfect seal to prevent the ingress of dirt, dust, water or combinations of these media while positively retaining grease.

It can be also used as a secondary seal to protect primary seals that do not perform well in hostile environments. The profile A is the most common and available from 5,5 to 430 mm, inclusive.

The V-ring is normally stretched and mounted directly on the shaft. The sealing lip is flexible and applies only a relatively light contact pressure against the counter-face and yet is still sufficient to maintain sealing function.

Operating conditions

see page 8

Pressure	none
Temperature	-30°C to 100°C
Speed	≤ 10 m/s
Medium	water splash, sand, dust, abrasive particles

Materials

see pages 10-19

Seal: NBR

Assembly

V-ring has to be stretched regularly around the shaft

Advantages

Easy assembly
Low axial forces, low power loss
Compact seal

Please contact us for applications approaching maximum values.

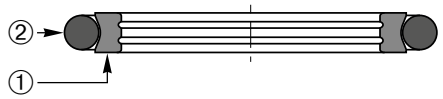
More information

On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the material.

d1	d	D	A	L	D2 max	D3 min	H	Forsheda® reference	Friction	Reference
5,5-6,5	5	9	2,4	3,7	**d1** + 1	**d1** + 6	3,0 +/-0,4	V-6A	Standard	**17TWVA00060-N6T50**
38-43	36	46	5,5	9	**d1** + 2	**d1** + 15	7,0 +/-1,0	V-40A	Standard	**17TWVA00400-N6T50**
48-53	45	55	5,5	9	**d1** + 2	**d1** + 15	7,0 +/-1,0	V-50A	Standard	**17TWVA00500-N6T50**
58-63	54	64	5,5	9	**d1** + 2	**d1** + 15	7,0 +/-1,0	V-60A	Standard	**17TWVA00600-N6T50**
68-73	63	75	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	V-70A	Standard	**17TWVA00700-N6T50**
78-83	72	84	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	V-80A	Standard	**17TWVA00800-N6T50**
88-93	81	93	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	V-90A	Standard	**17TWVA00900-N6T50**
98-105	90	102	6,8	11	**d1** + 3	**d1** + 18	9,0 +/-1,2	V-100A	Standard	**17TWVA01000-N6T50**
105-115	99	113	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	V-110A	Standard	**17TWVA01100-N6T50**
115-125	108	122	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	V-120A	Low friction	**17TWVA01200-N6T5C**
125-135	117	131	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	V-130A	Low friction	**17TWVA01300-N6T5C**
135-145	126	140	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	V-140A	Low friction	**17TWVA01400-N6T5C**
145-155	135	149	7,9	12,8	**d1** + 4	**d1** + 21	10,5 +/-1,5	V-150A	Low friction	**17TWVA01500-N6T5C**
155-165	144	160	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	V-160A	Low friction	**17TWVA01600-N6T5C**
165-175	153	169	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	V-170A	Low friction	**17TWVA01700-N6T5C**
175-185	162	178	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	V-180A	Standard	**17TWVA01800-N6T50**
185-195	171	187	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	V-190A	Standard	**17TWVA01900-N6T50**
195-210	180	196	9	14,5	**d1** + 4	**d1** + 24	12,0 +/-1,8	V-199A	Low friction	**17TWVA01990-N6T5C**
190-210	180	210	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	V-200A	Standard	**17TWVA02000-N6T50**
210-235	198	228	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	V-220A	Standard	**17TWVA02200-N6T50**
235-265	225	255	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	V-250A	Standard	**17TWVA02500-N6T50**
290-310	270	300	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	V-300A	Standard	**17TWVA03000-N6T50**
390-430	360	390	14,3	25	**d1** + 10	**d1** + 45	20 +/-4,0	V-400A	Standard	**17TWVA04000-N6T50**

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

17TWVA seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

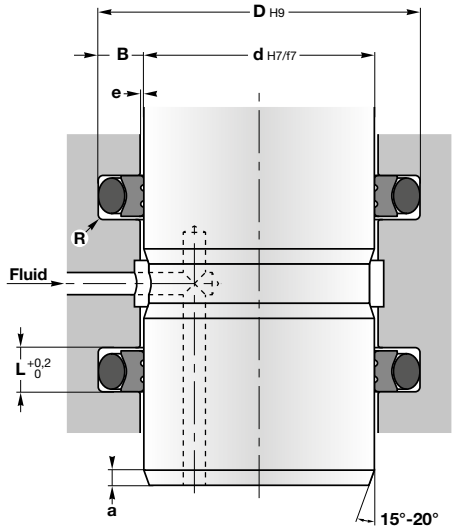


17TG3

Example of item code

17TG 32 0 0450 - T10N

Profile | Range | Type | Diameter d (mm x 10) | Materials ①/②



Machining of housings: see page 993

The Turcon Roto Glyd Ring **17TG3** is double-acting and can be exposed to pressure from one, or from both sides. It consists of a seal ring of Turcon material and is activated by an O-ring as an elastic energising element. The contact surface pressure of the seal ring is specially designed for use under high pressures and at low sliding speeds. Depending on the profile cross-section of the seal, the contact surface has one or two continous machined grooves.

These have the following functions:
- Improved seal efficiency by increasing the specific surface load pressure against the sealed surface
- Formation of **lubricant reservoir** and reduction in friction.
- In order to improve the pressure activation of the O-ring, the Roto Glyd Ring has **notched end faces** as standard. The rear face which holds the O-ring has a concave form. This increases the contact surface and shall prevent the seal from turning with the rotating surface.

Operating conditions see page 8

Pressure	≤ 30 MPa
Temperature	-30°C to 100°C
Speed	≤ 2 m/s
pv value	≤ 2,5 MPa.m/s
Fluids	Mineral oils, water emulsions
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Dynamic seal ①	T10
Static seal ②	NBR 70 Sh A

Assembly see page 56

In closed housings

Advantages

Low friction
Stick-slip free starting, no sticking
High abrasion resistance and dimensional stability
Simple groove design, small groove dimensions
Lubricant reservoir

Please contact us for applications approaching maximum values.

More information

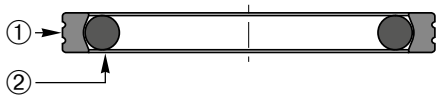
On www.sealtech-business.be, click first on the reference and then on the material code to obtain the data sheet of the different materials.

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

d	D	L	Reference
8	12,9	2,2	**17TG3000080-T10N**
10	14,9	2,2	**17TG3000100-T10N**
12	16,9	2,2	**17TG3000120-T10N**
16	20,9	2,2	**17TG3000160-T10N**
18	22,9	2,2	**17TG3000180-T10N**
20	27,5	3,2	**17TG3100200-T10N**
22	29,5	3,2	**17TG3100220-T10N**
25	32,5	3,2	**17TG3100250-T10N**
28	35,5	3,2	**17TG3100280-T10N**
30	37,5	3,2	**17TG3100300-T10N**
32	39,5	3,2	**17TG3100320-T10N**
36	43,5	3,2	**17TG3100360-T10N**
40	51	4,2	**17TG3200400-T10N**
40	51	4,2	**17TG3200400-T40N**
45	56	4,2	**17TG3200450-T10N**
50	61	4,2	**17TG3200500-T10N**
55	66	4,2	**17TG3200550-T10N**
56	67	4,2	**17TG3200560-T10N**
60	71	4,2	**17TG3200600-T10N**
63	74	4,2	**17TG3200630-T10N**
65	76	4,2	**17TG3200650-T10N**
70	81	4,2	**17TG3200700-T10N**
75	86	4,2	**17TG3200750-T10N**
80	91	4,2	**17TG3200800-T10N**
90	101	4,2	**17TG3200900-T10N**
100	111	4,2	**17TG3201000-T10N**
110	121	4,2	**17TG3201100-T10N**
125	136	4,2	**17TG3201250-T10N**
125	136	4,2	**17TG3201250-T40N**
140	151	4,2	**17TG3201400-T10N**
150	161	4,2	**17TG3201500-T10N**
160	171	4,2	**17TG3201600-T10N**
180	191	4,2	**17TG3201800-T10N**
200	215,5	6,3	**17TG3302000-T10N**
220	235,5	6,3	**17TG3302200-T10N**
250	265,5	6,3	**17TG3302500-T10N**
280	301	8,1	**17TG3402800-T40N**
300	321	8,1	**17TG3403000-T10N**

Serie N°	d (mm) Standard range	d (mm) Extended range	L (mm)	D (mm)	R (mm)	a (mm)	e max (mm) 10 MPa	e max (mm) 20 MPa	e max (mm) > 20 MPa	O-ring	Number of grooves in the sealing surface
17TG30	6→18,9	6→130	2,2	**d** + 4,9	0,4	2	0,15	0,1	H8/f7	1,78	0
17TG31	19→37,9	10→245	3,2	**d** + 7,5	0,6	2,5	0,2	0,15		2,62	1
17TG32	38→199,9	19→455	4,2	**d** + 11	1	3,5	0,25	0,2		3,53	1
17TG33	200→255,9	38→655	6,3	**d** + 15,5	1,3	5	0,3	0,25		5,34	2
17TG34	256→649,9	120→655	8,1	**d** + 21	1,8	6,5	0,3	0,25		7	2
17TG35	650→999,9	650→999,9	9,5	**d** + 28	2,5	7,5	0,45	0,3		8,4	2

17TG3 seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

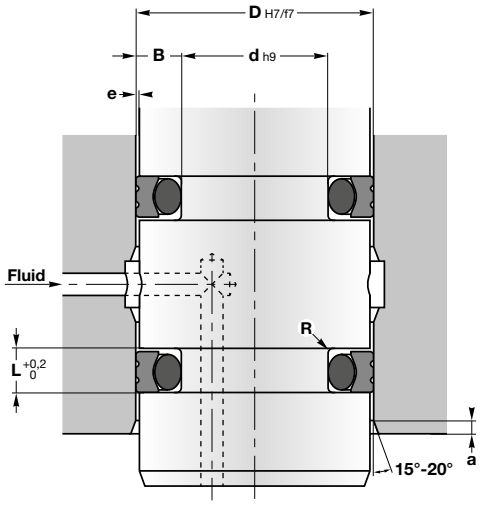


17TG4

Example of item code

17TG 42 0 1250 - T10N

Profile | Type (Range) | Diameter D (mm x 10) | Materials ①/②



Machining of housings: see page 993

The Turcon Roto Glyd Ring **17TG4** is double-acting and can be exposed to pressure from one, or from both sides. It consists of a seal ring of Turcon material and is activated by an O-ring as an elastic energising element. The contact surface pressure of the seal ring is specially designed for use under high pressures and at low sliding speeds. Depending on the profile cross-section of the seal, the contact surface has one or two continous machined grooves.

These have the following functions:
- Improved seal efficiency by increasing the specific surface load pressure against the sealed surface
- Formation of **lubricant reservoir** and reduction in friction.
- In order to improve the pressure activation of the O-ring, the Roto Glyd Ring has **notched end faces** as standard. The rear face which holds the O-ring has a concave form. This increases the contact surface and shall prevent the seal from turning with the rotating surface.

Operating conditions see page 8

Pressure	≤ 30 MPa
Temperature	-30°C to 100°C
Speed	≤ 2 m/s
pv value	≤ 2,5 MPa.m/s
Fluids	Mineral oils, water emulsions

Materials see pages 10-19

Dynamic seal ①	T10
Static seal ②	NBR 70 Sh A

Assembly see page 57-58

In closed housings

Advantages

Low friction
Stick-slip free starting, no sticking
High abrasion resistance and dimensional stability
Simple groove design, small groove dimensions
Lubricant reservoir

Please contact us for applications approaching maximum values.

More information

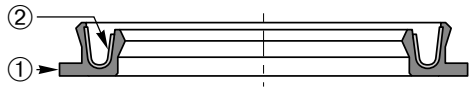
On **www.sealtech-business.be**, click first on the reference and then on the material code to obtain the data sheet of the different materials.

D	d	L	Reference
20	15,1	2,2	**17TG4000200-T10N**
25	20,1	2,2	**17TG4000250-T10N**
40	32,5	3,2	**17TG4100400-T10N**
50	42,5	3,2	**17TG4100500-T10N**
63	55,5	3,2	**17TG4100630-T10N**
80	69	4,2	**17TG4200800-T10N**
100	89	4,2	**17TG4201000-T10N**
120	109	4,2	**17TG4201200-T40N**
125	114	4,2	**17TG4201250-T10N**
160	144,5	6,3	**17TG4301600-T10N**
200	184,5	6,3	**17TG4302000-T10N**
250	234,5	6,3	**17TG4302500-T10N**
300	279	8,1	**17TG4403000-T10N**

Serie N°	D (mm) Standard range	D (mm) Extended range	L (mm)	d (mm)	R (mm)	a (mm)	e max (mm) 10 MPa	e max (mm) 20 MPa	e max (mm) > 20 MPa	O-ring	Number of grooves in the sealing surface
17TG40	8→39,9	8→135	2,2	**D** - 4,9	0,4	2	0,15	0,1	H8/f7	1,78	0
17TG41	40→79,9	14→250	3,2	**D** - 7,5	0,6	2,5	0,2	0,15		2,62	1
17TG42	80→132,9	22→460	4,2	**D** - 11	1	3,5	0,25	0,2		3,53	1
17TG43	133→329,9	40→675	6,3	**D** - 15,5	1,3	5	0,3	0,25		5,34	2
17TG44	330→669,9	133→690	8,1	**D** - 21	1,8	6,5	0,3	0,25		7	2
17TG45	670→999,9	670→999,9	9,5	**D** - 28	2,5	7,5	0,45	0,3		8,4	2

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

17TG4 seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**

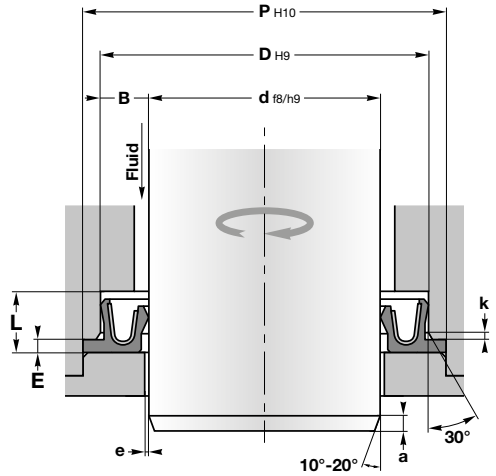


17TVM

Example of item code

17TVM 3 0 0600 - T40S

Profile | Type: Range | Diameter: d (mm x 10) | Materials ①/②



Machining of housings: see pages 993

The Turcon Roto Variseal **17TVM** is a single-acting seal consisting of a U-shaped seal jacket and a V-shaped corrosion resistant metal spring.

The characteristic of the Roto Variseal is the flanged heel, which prevents the seal from rotating by clamping in the groove and the short and heavy dynamic lip offering reduced friction, long service life and a good scraping effect in highly viscous media.

At low and zero pressure, the metal spring provides the **primary sealing force**. As the system pressure increases, the main sealing force is achieved by the system pressure and ensures a tight seal from zero to high pressure.

Operating conditions see page 8

Pressure	≤ 15 MPa
Temperature	-100°C to 260°C
Speed	≤ 2 m/s
pv value	≤ 5 MPa.m/s
Fluids	Mineral oils, HFA, HFB, HFC, HFD
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials see pages 10-19

Seal ①	T40
Spring ②	SS (AISI 301)

Assembly

In open housings

Advantages

- Low friction
- Stick-slip free
- Protects against mechanical torsion
- Remains tight in groove even when subject to oscillating or helical movements
- High abrasion resistance
- Excellent chemical and temperature resistance
- Good scraping ability

Please contact us for applications approaching maximum values.

More information

On www.sealtech-business.be, click first on the reference and then on the material code to obtain the data sheet of the different materials.

d	D	P	L	E	Reference
30	37	42,5	4,8	1,35	**17TVM200300-T24S**
40	50,5	57,5	7,1	1,8	**17TVM300400-T24S**
40	50,5	57,5	7,1	1,8	**17TVM300400-T40S**
50	60,5	67,5	7,1	1,8	**17TVM300500-T40S**
60	70,5	77,5	7,1	1,8	**17TVM300600-T40S**
120	130,5	137,5	7,1	1,8	**17TVM301200-T40S**

Serie N°	d (mm) Standard range	d (mm) Extended range	D (mm)	P (mm)	$L_{min.}$ (mm)	E (mm)	R (mm)	k (mm)	a (mm)	e max (mm) 2 MPa	e max (mm) 10 MPa	e max (mm) 15 MPa
17TVM1	5→19,9	20→200	**d** + 5	**d** + 9	3,6	$0,85^{\ 0}_{-0,1}$	0,3	0,8	4,5	0,25	0,15	0,1
17TVM2	20→39,9	10→400	**d** + 7	**d** + 12,5	4,8	$1,35^{\ 0}_{-0,15}$	0,4	1,1	5	0,35	0,2	0,15
17TVM3	40→399,9	20→700	**d** + 10,5	**d** + 17,5	7,1	$1,8^{\ 0}_{-0,2}$	0,5	1,4	8	0,5	0,25	0,2
17TVM4	400→999,9	35→999,9	**d** + 14	**d** + 22	9,5	$2,8^{\ 0}_{-0,2}$	0,5	1,6	12	0,6	0,3	0,25

For special requirements (fluid, temperature, pressure, speed...) or applications approaching maximum values, please contact us. Other materials available: **FPM**, **HNBR**, **TNBR**, **EPDM**...

17TVM seals with diameters between 20 and 1500 mm can be manufactured within short delivery time.
For prices and availability: **www.sealtech-business.be**