

**EXPERT IN
SEALING SOLUTIONS**



CUSTOM MANUFACTURING

*Express delivery times of your custom parts
manufactured on drawings or models!*



A WIDE RANGE

ROTARY
HYDRAULIC
PNEUMATIC
ASEPTIC
MACHINED PARTS

EXPRESS DELIVERY

24/48H

TECHNICAL SUPPORT

ADVISES, HELPS AND
PROVIDES YOU TECHNICAL
ASSISTANCE!



SUMMARY

MATERIAL AND PROFILE

6

PROFILES

8

WIPERS

8

ROD SEALS

9

PISTON SEALS

12

STATIC AND ROTARY SEALS

14

GUIDING RINGS

16

TECHNICAL DATA OF PLASTICS

18



**SEAL MANUFACTURER
AND SUPPLIER**

FOR ALL INDUSTRIES

**EXPERT IN
SEALING PRODUCTS
FOR MORE THAN 25 YEARS**

SEAL France has specialised in the manufacture and marketing of standard sealing and custom-made products. SEAL France is present in France and abroad. Expertise and technical skills are our strength that we want to put at the service of our customers.

MARKET EXPERTISE

FOOD AND BEVERAGE



PHARMACEUTICAL



HYDRAULIC



PETROCHEMISTRY



AEROSPACE



ENERGY



5 RANGES

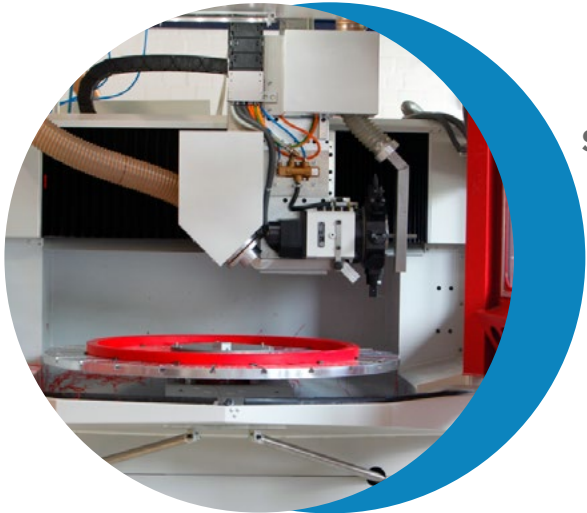
+ 70 000 REFERENCES

FOR ANY TYPE OF SEALING



MATERIAL AND PROFILE

Feel free to contact our technical support, we will be glad to help you to choose the profile and the material to suit your needs.



SEAL FRANCE provides you technical assistance for your seals from prototype to medium series, according to your specifications:

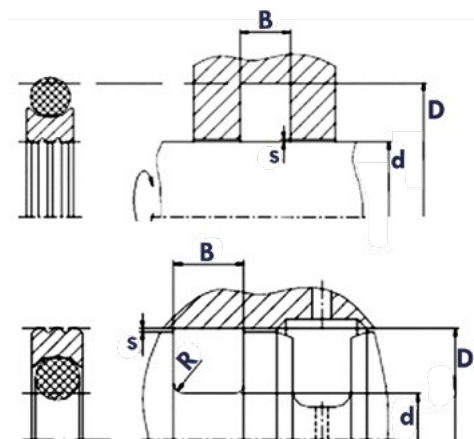
- › Adaptabilité selon vos dimensions et côtes de logement !
- › Dans les matières les plus variées, du standard aux matières homologuées, FDA, ACS, USP VI etc...

The information required to ensure suitable adaptability to your housing dimensions, are:

- › Outer housing dimensions (D)
- › Inner housing dimensions (d)
- › Height dimensions or groove width (B)
- › Piston diameter, rod diameter
- › Operating temperature (min and max)
- › Travel or rotation speed
- › Operating pressure
- › Fluids in contact
- › Particular conditionses



Please use our diagrams for your request mentioning all necessary information.



WIPERS

	PU	FKM	NBR	EPDM	SILICONE	PTFE	FILLED PTFE
LIP							
PROFILES	A1 → A15 except A13					A16 & A17	
SPEED (M/S)	→ 4 m/s					→ 4 m/s	

		POM	PA	PTFE	FILLED PTFE
CASE & A13	→ 1 m/s				
	→ 4 m/s				

For special application, it is possible to use other materials (PE, PEEK, HNBR...).

ROD AND PISTON SEALS

Profiles used in alternative linear motions.

	PU	FKM	NBR	EPDM	SILICONE	PTFE	FILLED PTFE
U							
PROFILES	All except →					S19, S19S, K19, K19S	
SPEED (M/S)	→ 0,5 m/s					→ 4 m/s	
PRESSURE (BAR)	→ 400	→ 160				→ 400	

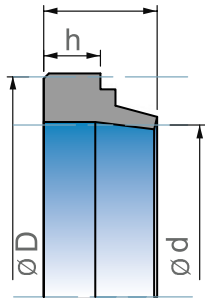
COMPOSITE SEALS

Elastomer O-ring or expander, PTFE or FILLED PTFE rings.

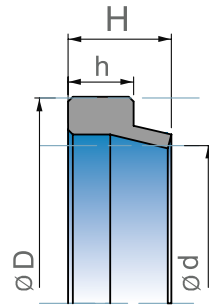
In some cases, the ring can be made in PU, PEEK, PA, POM...

RAFTERS

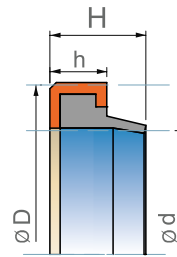
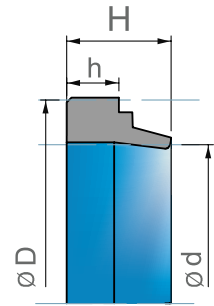
	PU	FKM	NBR	HNBR	EPDM	SILICONE	PTFE	FILLED PTFE
INTERMEDIATE ELEMENTS								
HEAD & FOOT	POM, PA, or PTFE						PTFE, POM or PA	
PROFILES	CHE5, CHN5 (can be used in rod or piston)						CHV5, CHR5	
SPEED (M/S)	→ 0,5 m/s						→ 4 m/s	
PRESSURE (BAR)	→ 400				→ 160			→ 400

A1

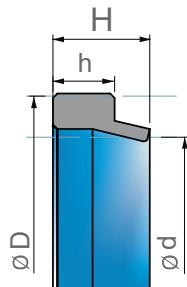
Without case

A2

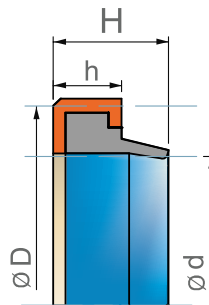
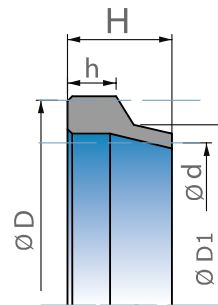
Without case

A3With case
 $\varnothing > 20 \text{ mm}$ **A4**

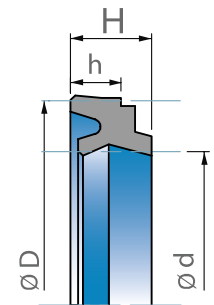
Without case

A5

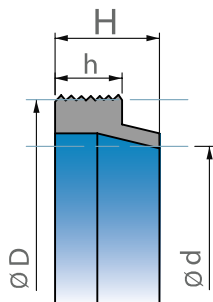
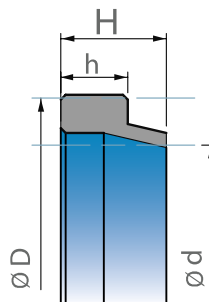
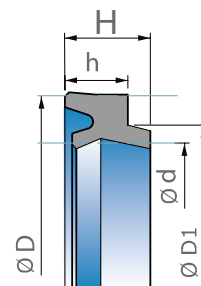
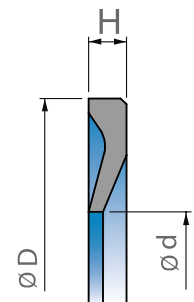
Without case

A6With case
 $\varnothing > 20 \text{ mm}$ **A7**

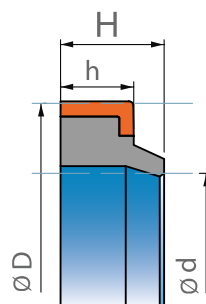
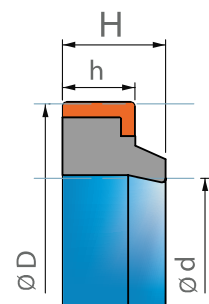
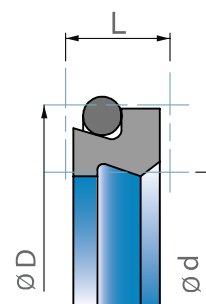
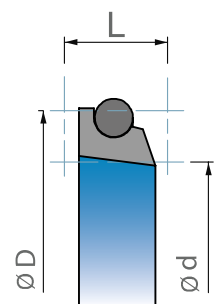
Without case

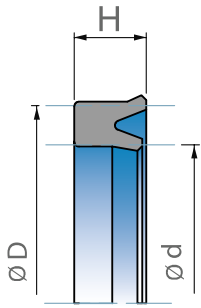
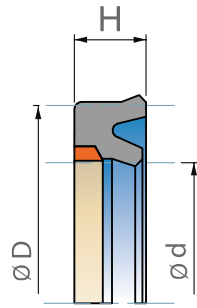
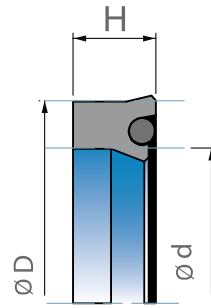
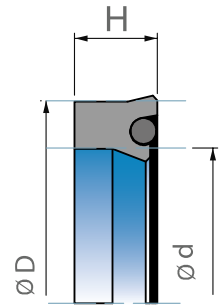
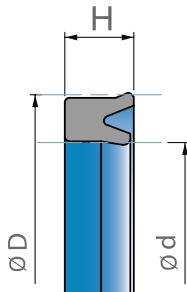
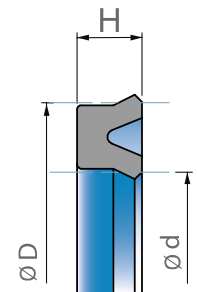
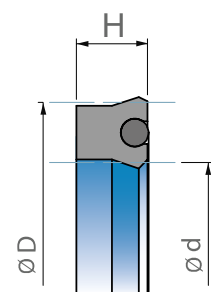
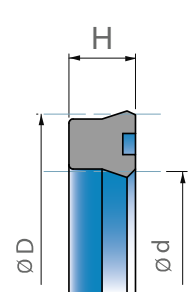
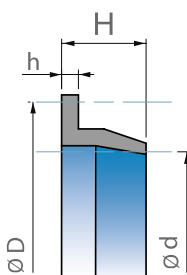
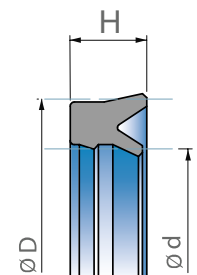
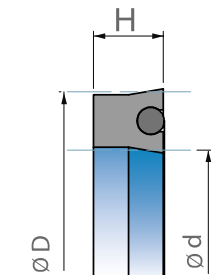
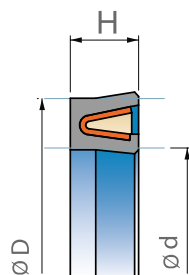
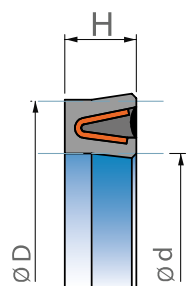
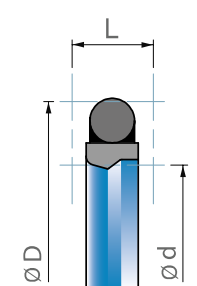
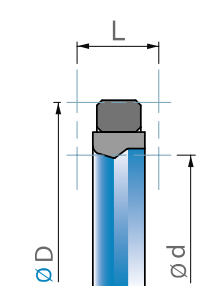
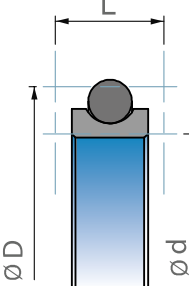
A8

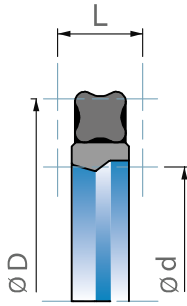
With flange

A9Without case
US standard**A10**Without case
US standard**A11**Without case
Double lip**A13**

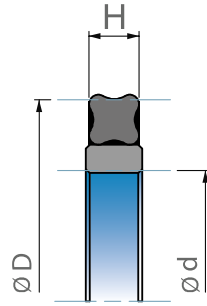
Wiper ring

A14Same as A3
 $\varnothing < 20 \text{ mm}$ **A15**Same as A6
 $\varnothing < 20 \text{ mm}$ **A16**Double lip
+ O-ring**A17**Single lip
+ O-ring

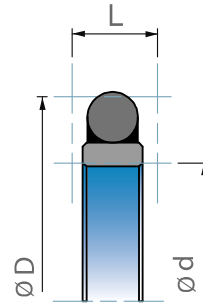
S1**Asymmetric****S2****Asymmetric + BAE****S3****Asymmetric + O-ring****S4****Asymmetric
+ BAE + O-ring****S5****Asymmetric****S6****Symmetric****S7****Symmetric + O-ring****S8****Compact****S16****Cap****S17****Double sealing lips****S18****Symmetric + O-ring****S19****Stainless steel spring****S19S****Stainless steel spring
+ silicone****S9****Single acting
O-ring expander****S9E****Single acting
Square expander****RT****Double acting
O-ring expander**

S9X

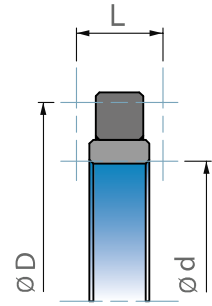
Single acting
JT4 expander

S90X

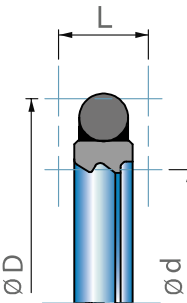
Double acting
JT4 expander

S90

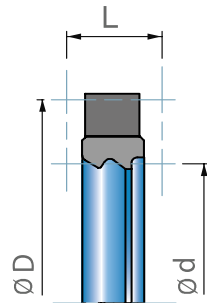
Double acting
O-ring expander

S90E

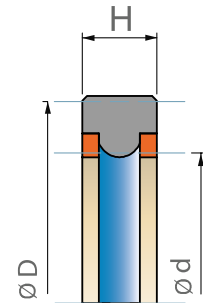
Double acting
Square expander

S92

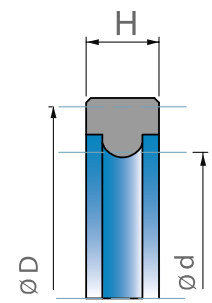
Single acting
Double lip

S92E

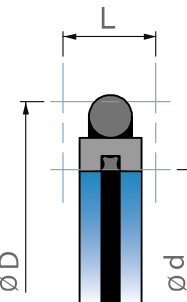
Single acting
Double lip

S20

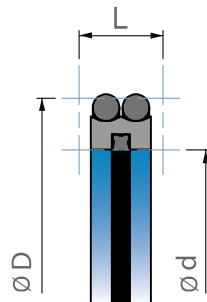
T Seal + BAE

S20S

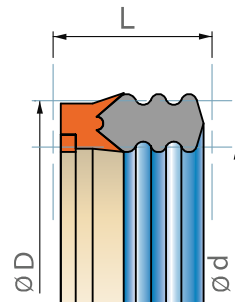
T Seal

S44

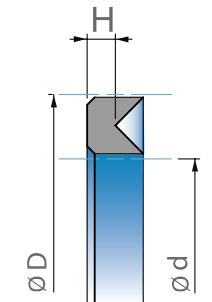
Double acting
+ O-ring expander + JT4

S45

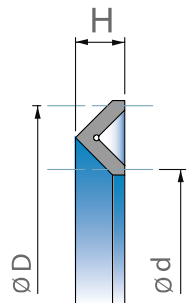
Double acting + JT4
+ 2 O-rings expanders

S700

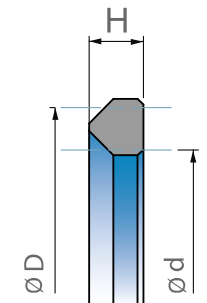
Single acting
Resistant up to 700 bar

S12

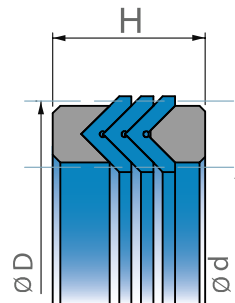
Foot for CHE5
POM, PA or PTFE

S11

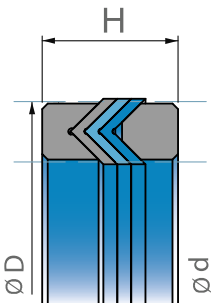
V for CHE5
PU or elastomers

S10

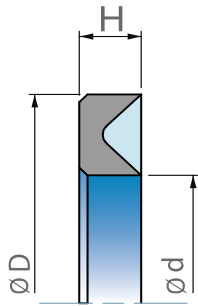
Head for CHE5
POM, PA or PTFE

CHE5

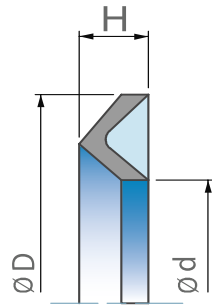
Rafters 90°

CHN5

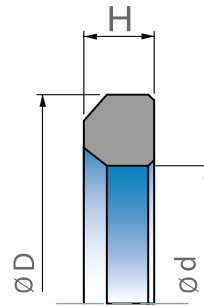
Rafters 60°

S27

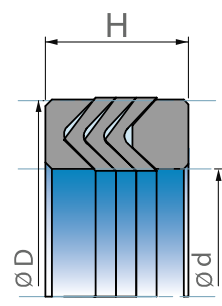
Foot for CHV5
POM, PA or PTFE

S26

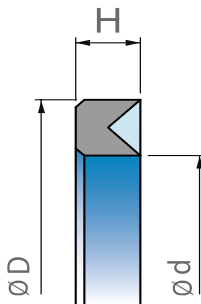
V for CHV5
PU or elastomers

S25

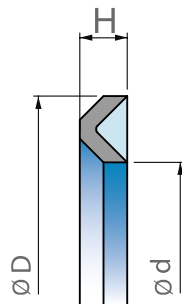
Head for CHV5
POM, PA or PTFE

CHV5

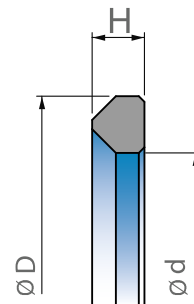
RAFTERS 90°

S31

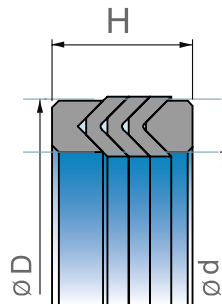
Foot for CHR5
POM, PA or PTFE

S30

V for CHR5
PU or elastomers

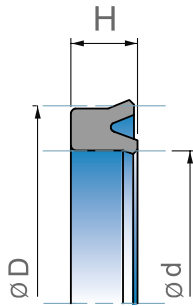
S29

Head for CHR5
POM, PA or PTFE

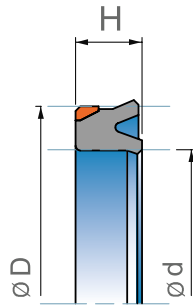
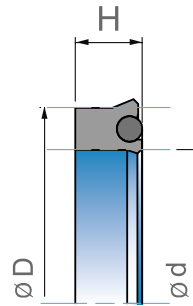
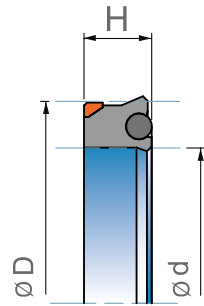
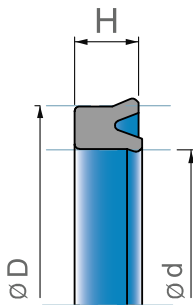
CHR5

Rafters 60°

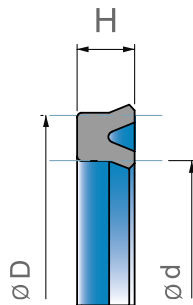


K1

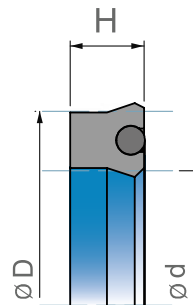
Asymmetric

K2Asymmetric
+ BAE**K3**Asymmetric
+ O-ring**K4**Asymmetric
+ O-ring + BAE**K5**

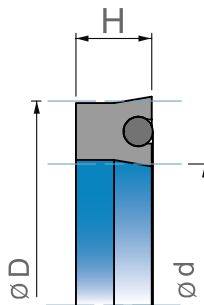
Asymmetric

K6

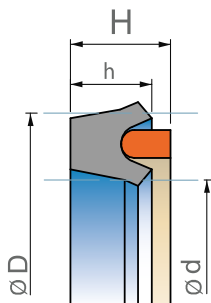
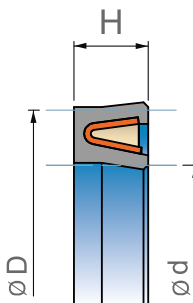
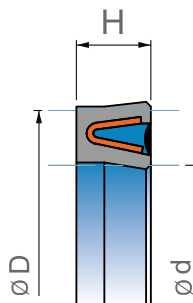
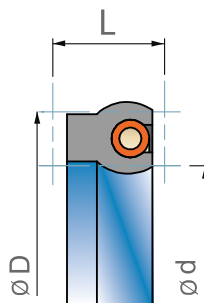
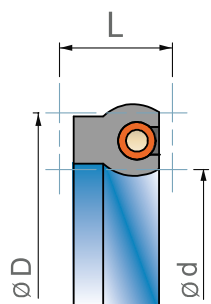
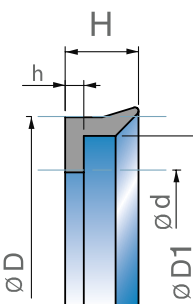
Symmetric

K7

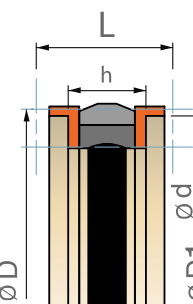
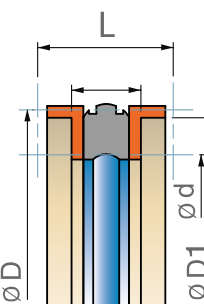
Symmetric + O-ring

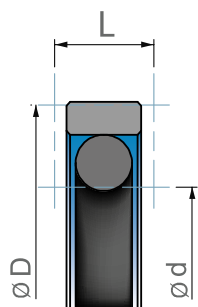
K18

Symmetric + O-ring

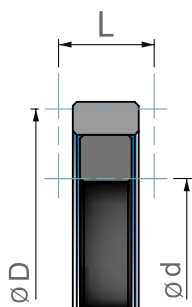
K22Symmetric
+ limiter**K19**Stainless steel
spring**K19S**Stainless steel
spring + silicone**K30**Round stainless
steel spring
(Also exists in rod)**K30S**Round stainless steel
spring + silicone
(Also exists in rod)**K16**

Plate

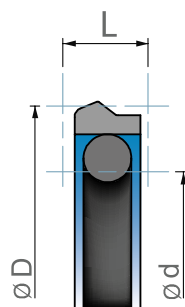
K9**K17**

K8

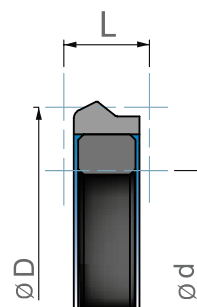
**Double acting
O-ring expander**

K8E

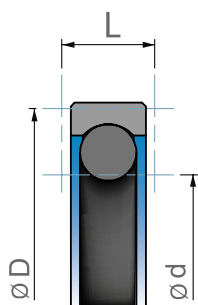
**Double acting
Square expander**

K8O

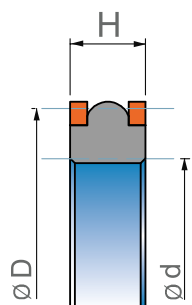
**Single acting
O-ring expander**

K8OE

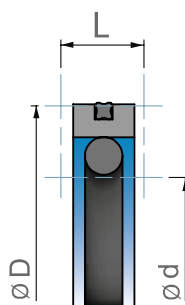
**Single acting
Square expander**

RP

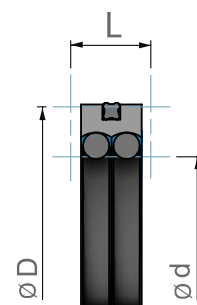
**Double acting
reduce spaces**

K20

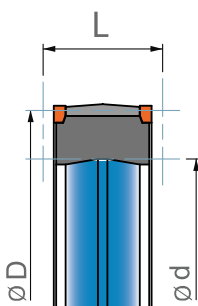
T Seal + BAE

K24

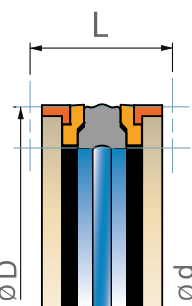
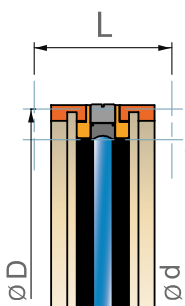
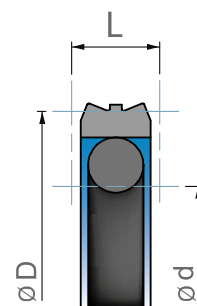
**Double acting
+ O-ring expander + JT4**

K25

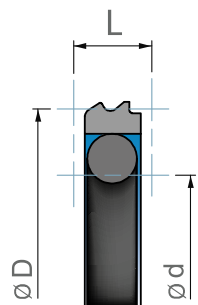
**Double acting + JT4
+ 2 O-rings expanders**

K23

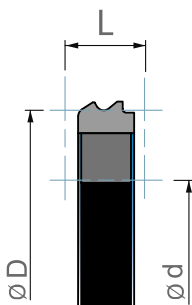
**Round stainless steel
spring + silicone
(Also exists in rod)**

K50**K60****K70**

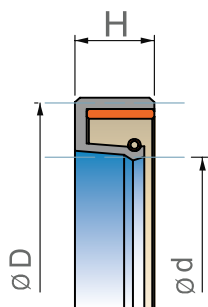
Double acting

K82

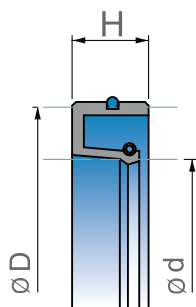
Single acting / Double lip

K82E

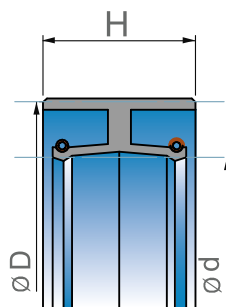
Single acting / Double lip

R1

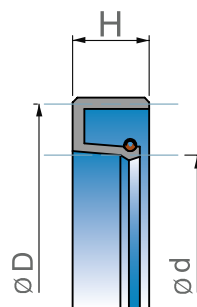
Simple lip
+ reinforcement

R1P

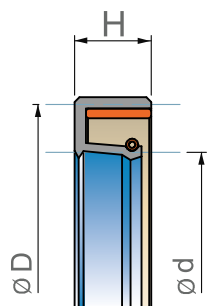
Simple lip + O-ring

R11P

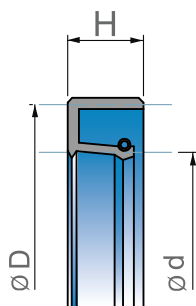
Double acting
lip

R1JT

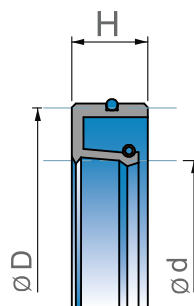
Single lip
+ O-ring

R2

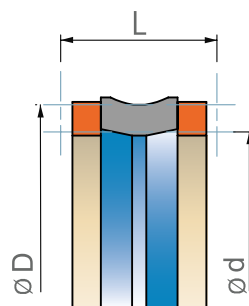
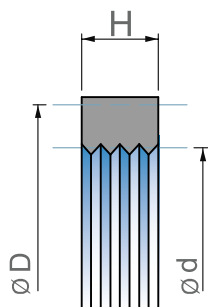
Double lip +
reinforcement

R2P

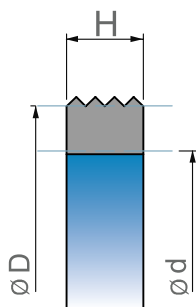
Double lip

R2JT

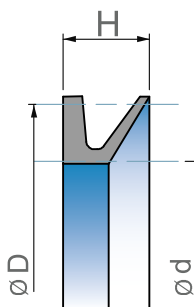
Double lip
+ O-ring

R3**R4**

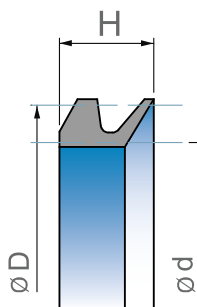
Internal sealing

R5

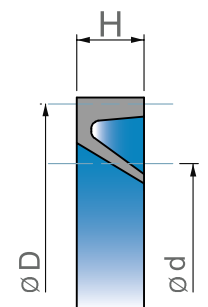
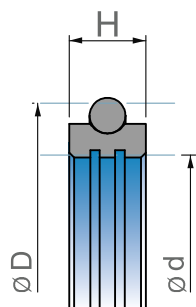
External sealing

R6

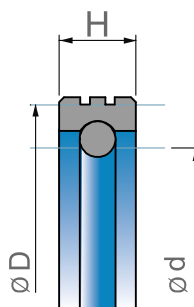
V-ring Type A

R7

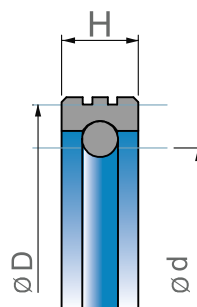
V-ring Type S

R8**CST**

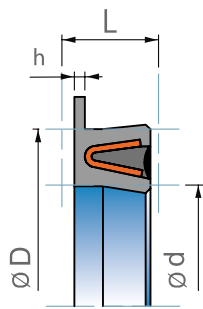
Double acting
Rod

CSP

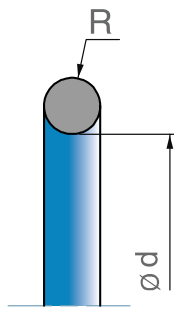
Double acting
Piston

VR5/7

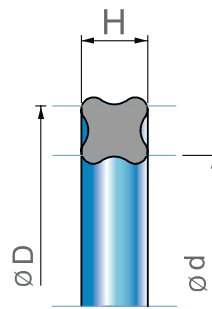
Stainless steel
spring

VAR5/7

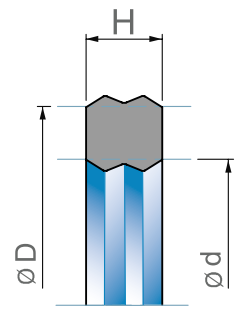
**Stainless steel
spring + silicone**

RO

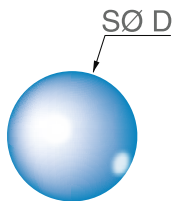
O-ring

JT4

JT4

XS

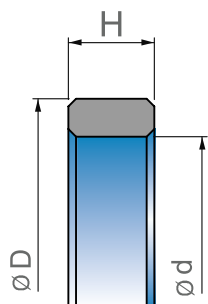
**Static seal
500 bars**

XB

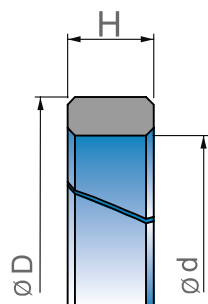
**Standard Bil $\varnothing < 50$
More than 50, consult us.**

Speed and maximum pressure cannot be used at the same time.

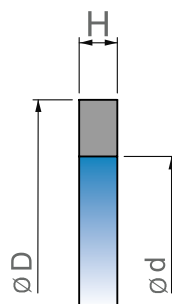


F1

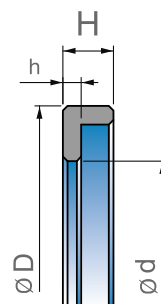
With chamfers

F1C

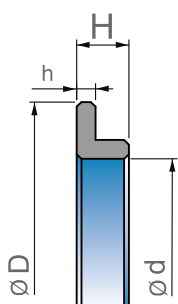
Split with chamfers

F2

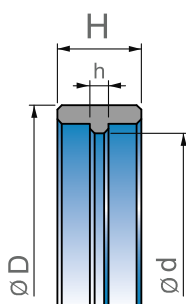
Sharp angles

F3

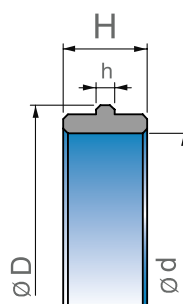
Type L

F4

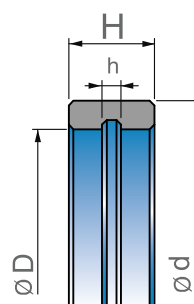
Type L

F5

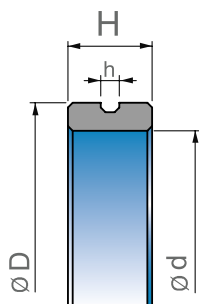
Type T

F6

Type T

F7

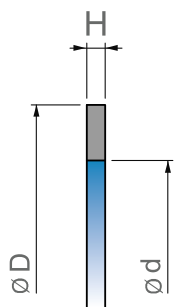
Type U

F8

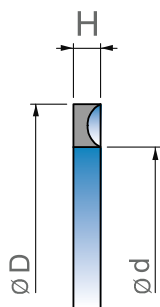
Type U



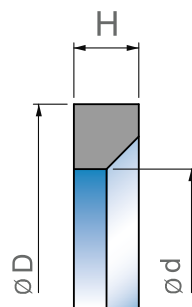
ST8

*Can be split*

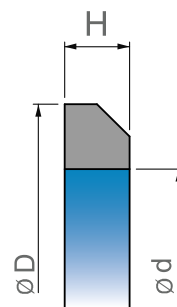
ST9

*Can be split*

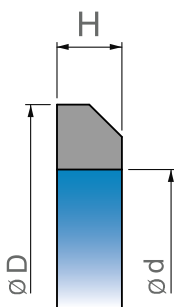
ST10



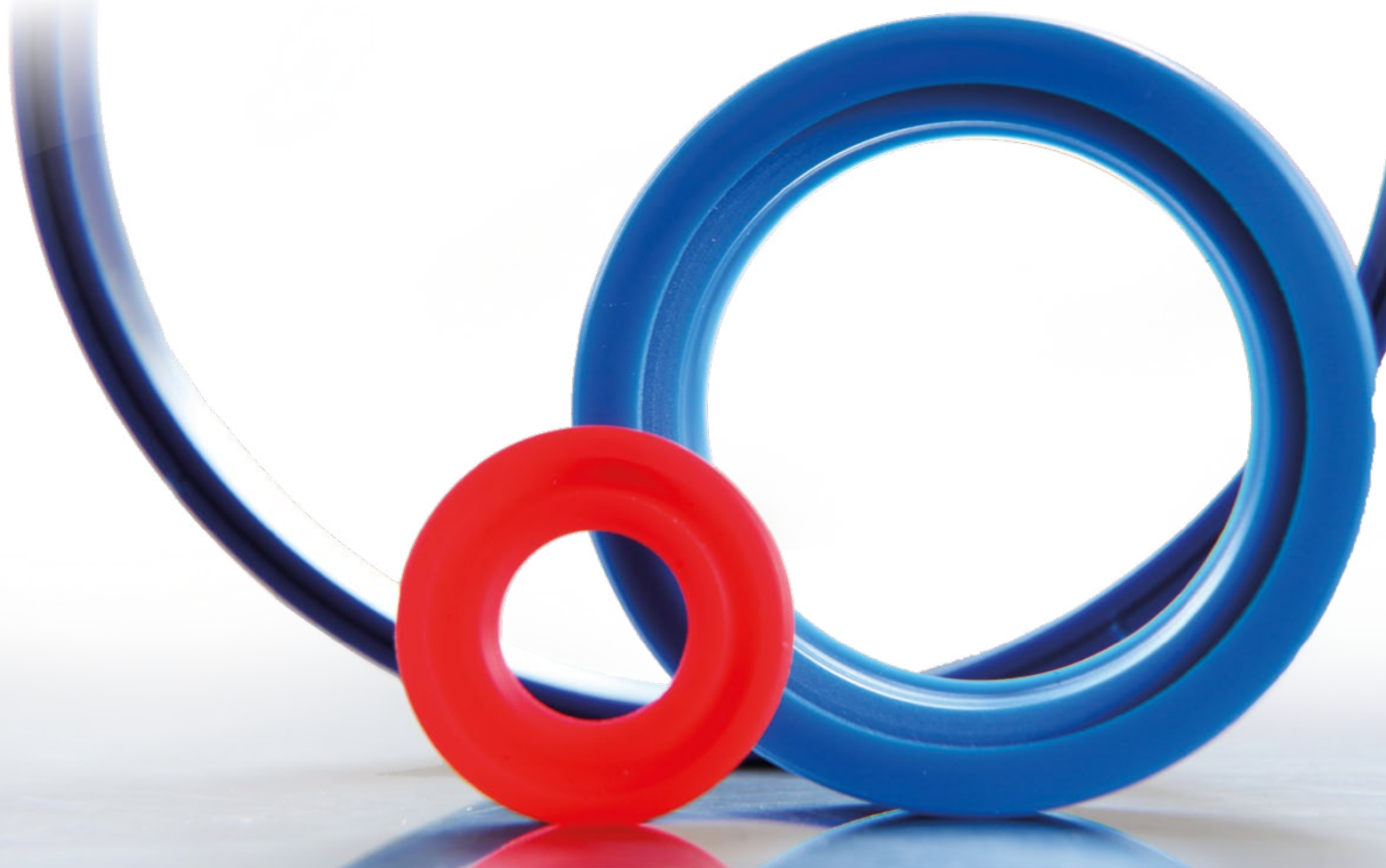
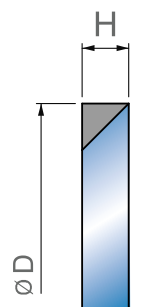
ST11



ST12



ST13

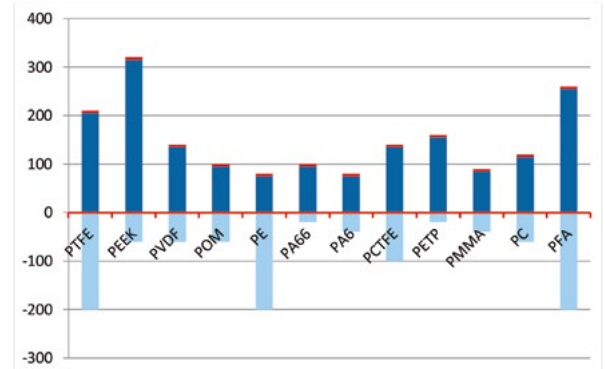
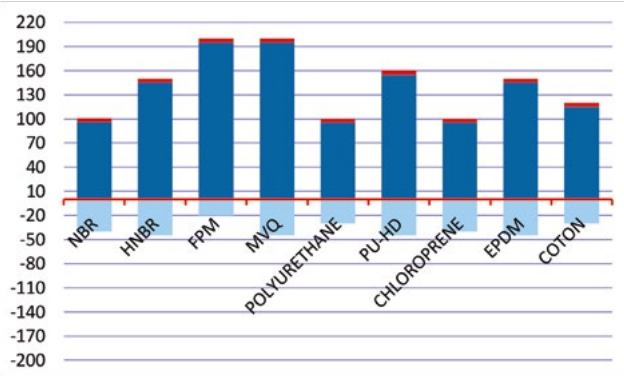


Material	Abbreviation	Name	Density	Temperature range in C°		Coefficient of thermal expansion 10(-5) X C°-1	Classification UL 94	Tensile strength N/mm2	Flexural strength N/mm2	Hardness shore Rockwell	Coefficient of friction (COF)
Polyamide 6	PA6	NYLON® 6/ERTALON 6 SA®	1,14	-40	85	9	HB	60	55	D74	0,25 - 0,50
Polyamide 6/6	PA6/6	NYLON® 6/ERTALON 6 SA®	1,14	-30	95	7	HB	70	60	D80	0,25 - 0,50
Cast Polyamide	PA6/6	Cast NYLON®	1,15	-30	105	8	HB	65	60	D80	0,25 - 0,50
Glass filled Polyamide	PA6/6 GF 30	Glass filled NYLON®	1,40	-20	120	3	HB	150	200	D75	0,30 - 0,50
Oil filled Polyamide	PA6 + Oil	Oil Filled NYLON®	1,35	-20	105	8	HB	70	80	M82	0,15 - 0,25
Polyamide 12	PA12	RILSAN®	1,06	-50	70	9	V2	40	50	D74	0,25
Polyacetal	POM C	DELFIN®	1,42	-50	115	8	HB	70	110	D74	0,25
Polyvinyl Chloride	PVC		1,45	-20	60	8	-	50	80	D78	0,25 - 0,50
Polyethylene	PEHD		0,94	-50	80	18	HB	24	-	D60	0,20
Polyethylene 500	PEHD 500		0,94	-100	80	18	HB	28	40	D66	0,15
Polyethylene 1000	PEHD 1000		0,95	-260	90	18	HB	22	27	D62	0,12
Polyethylene 6000	PEHD 6000	CESTIDUR®	0,93	-269	90	18	HB	-	-	D62	0,12
Polyethylene Terephthalate	PETP		1,38	-20	115	7	HB	75	120	D84	0,20
Polypropylene Copolymer	PPC		0,92	-10	100	11	HB	31	40	D70	0,30
Polytetrafluorethylene	PTFE	TEFLON®	2,10	-200	200	12	VO	35	160	D50	0,10
Polyetherethercethone	PEEK		1,31	-60	250	5	VO	92	170	D86	0,30
Copolymere Perfluoroalkoxyethylene *	PFA										

Non exhaustive list, these are guide values and could not engage the responsibility of Seal France.

ELASTOMER OPERATING TEMPERATURE

PLASTIC OPERATING TEMPERATURE



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 +33 (0)4 68 52 91 91

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