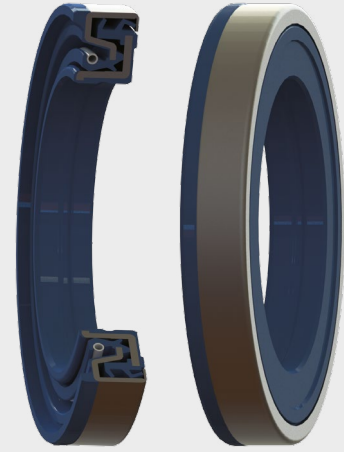


# CASSETTE SEALS UA16A



## DESCRIPTION

The UA16A profile is a cassette seal, where the sealing is through a 3-barrier labyrinth system. The upper part is static with the housing and the lower part is designed to operate in rotation with the shaft.

## ADVANTAGES

- High friction coefficient
- Better protection against fouling using a labyrinth system
- Reduced need for maintenance
- Easy to fit with low risk of seal deterioration

## APPLICATIONS

- Axles
- Pinions
- Hubs
- Construction
- Agriculture

## MATERIALS

### Rubber

- ACM 70 - 75 Shore A
- FKM 70 - 75 Shore A
- HNBR 70 - 75 Shore A
- NBR 70 - 75 Shore A

### Metal cage

- Steel - AISI 1010
- Stainless steel - AISI 304
- Stainless steel - AISI 316

### Spring

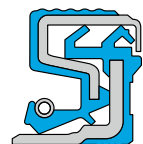
- Steel - AISI 1070 - 1090
- Stainless steel - AISI 316

## TECHNICAL DATA

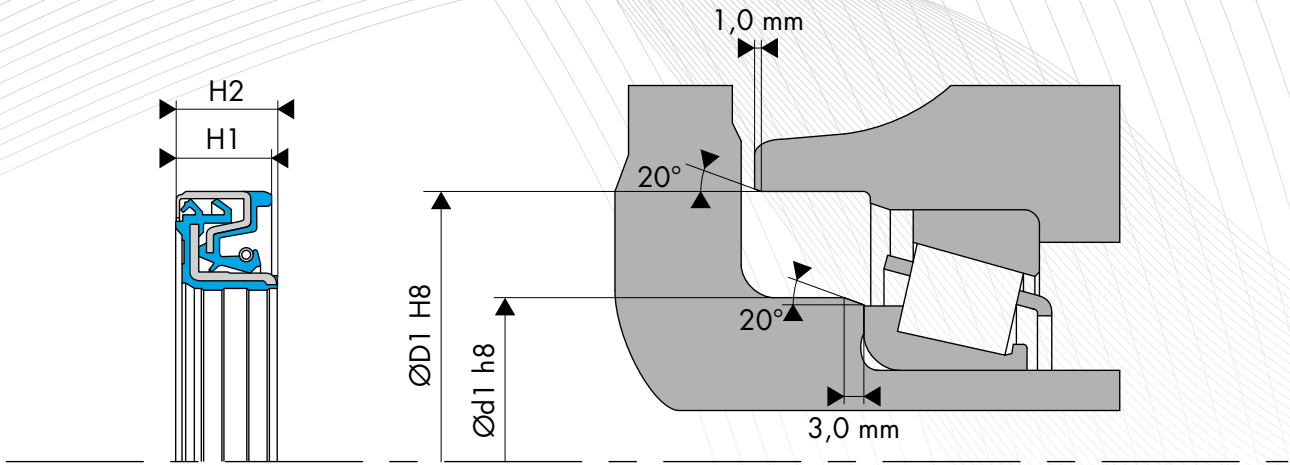
Technical data	NBR 70 - 75 Shore A	FKM 70 - 75 Shore A	ACM 70 - 75 Shore A	HNBR 70 - 75 Shore A
Temperature	-30°C / +80°C	-20°C/+100°C	-25°C/+90°C	-30°C/+90°C
Speed	4 m/s	6 m/s	5 m/s	5 m/s
Pressure	0.02 - 0.05 MPa	0.02 - 0.05 MPa	0.02 - 0.05 MPa	0.02 - 0.05 MPa
Level of pollution	High	High	High	High

The figures above indicate the maximum values and may not be cumulated. They may be developed, depending on the materials used.

## OTHER VERSION OF PROFILE



UA16A-V2



## DESIGN RECOMMENDATIONS

### Shaft hardness

$s \leq 4.0$ m/sec	45 HRC
$4.0 < s \leq 10.0$ m/s	55 HRC
$s > 10.0$ m/sec	60 HRC

### Shaft tolerance

$\text{Ø}d1 \leq 3.0$	-0.014 / 0
$3.0 < \text{Ø}d1 \leq 6.0$	-0.018 / 0
$6.0 < \text{Ø}d1 \leq 10.0$	-0.022 / 0
$10.0 < \text{Ø}d1 \leq 18.0$	-0.027 / 0
$18.0 < \text{Ø}d1 \leq 30.0$	-0.033 / 0
$30.0 < \text{Ø}d1 \leq 50.0$	-0.039 / 0
$50.0 < \text{Ø}d1 \leq 80.0$	-0.046 / 0
$80.0 < \text{Ø}d1 \leq 120.0$	-0.054 / 0
$120.0 < \text{Ø}d1 \leq 180.0$	-0.063 / 0
$180.0 < \text{Ø}d1 \leq 250.0$	-0.072 / 0
$250.0 < \text{Ø}d1 \leq 315.0$	-0.081 / 0
$315.0 < \text{Ø}d1 \leq 400.0$	-0.089 / 0
$400.0 < \text{Ø}d1 \leq 500.0$	-0.097 / 0

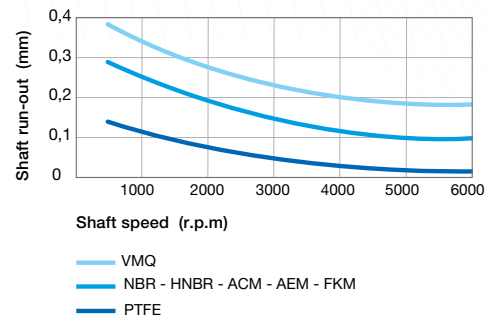
### Housing tolerance

$3.0 < \text{Ø}D1 \leq 6.0$	0 / +0.018
$6.0 < \text{Ø}D1 \leq 10.0$	0 / +0.022
$10.0 < \text{Ø}D1 \leq 18.0$	0 / +0.027
$18.0 < \text{Ø}D1 \leq 30.0$	0 / +0.033
$30.0 < \text{Ø}D1 \leq 50.0$	0 / +0.039
$50.0 < \text{Ø}D1 \leq 80.0$	0 / +0.046
$80.0 < \text{Ø}D1 \leq 120.0$	0 / +0.054
$120.0 < \text{Ø}D1 \leq 180.0$	0 / +0.063
$180.0 < \text{Ø}D1 \leq 250.0$	0 / +0.072
$250.0 < \text{Ø}D1 \leq 315.0$	0 / +0.081
$315.0 < \text{Ø}D1 \leq 400.0$	0 / +0.089
$400.0 < \text{Ø}D1 \leq 500.0$	0 / +0.097
$500.0 < \text{Ø}D1 \leq 630.0$	0 / +0.110

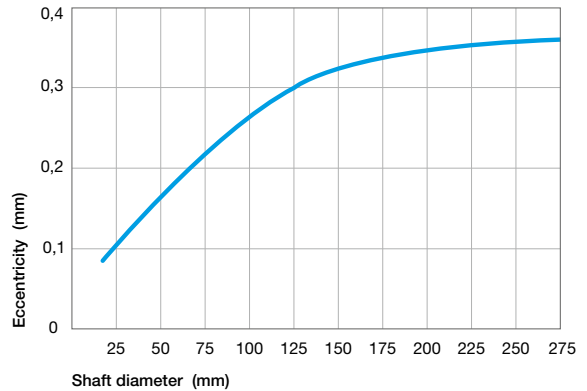
### Surface roughness

Ra	0.8 to 3.2 $\mu\text{m}$
Rmax	10.0 to 16.0 $\mu\text{m}$

### Shaft run out



### Eccentricity



### Axial movement

The cassette seals can tolerate axial movements greater than +/- 0.1 mm. However, this can lead to premature wear in the system.

### Chamfers and radius

Shaft	20° (+/-5°) x 3 mm
Housing	20° (+/-5°) x 1 mm

## ○ DIMENSIONS

UA16A 25 x 52 x 12 x 13.5	25.00	52.00	12.00	13.50
UA16A 35 x 60 x 13 x 14.5	35.00	60.00	13.00	14.50
UA16A 35 x 65 x 14.5 x 16	35.00	65.00	14.50	16.00
UA16A 45 x 70 x 14 x 17	45.00	70.00	14.00	17.00
UA16A 48 x 75 x 14 x 17	48.00	75.00	14.00	17.00
UA16A 56 x 80 x 13 x 14.5	56.00	80.00	13.00	14.50
UA16A 60 x 84 x 13 x 14.5	60.00	84.00	13.00	14.50
UA16A 60 x 90 x 13.5 x 15	60.00	90.00	13.50	15.00
UA16A 65 x 90 x 13 x 14.5	65.00	90.00	13.00	14.50
UA16A 76 x 101 x 12 x 13.5	76.00	101.00	12.00	13.50
UA16A 85 x 110 x 13 x 14.5	85.00	110.00	13.00	14.50
UA16A 85 x 140 x 15 x 17	85.00	140.00	15.00	17.00
UA16A 110 x 140 x 13.5 x 15	110.00	140.00	13.50	15.00
UA16A 120 x 150 x 14 x 15.5	120.00	150.00	14.00	15.50
UA16A 127 x 160 x 15.5 x 17.5	127.00	160.00	15.50	17.50
UA16A 130 x 160 x 14.5 x 16	130.00	160.00	14.50	16.00
UA16A 140 x 170 x 14.5 x 16	140.00	170.00	14.50	16.00
UA16A 145 x 175 x 14.5 x 16	145.00	175.00	14.50	16.00
UA16A 150 x 180 x 14.5 x 16	150.00	180.00	14.50	16.00
UA16A 155 x 195 x 16.5 x 18	155.00	195.00	16.50	18.00
UA16A 165 x 195 x 16.5 x 18	165.00	195.00	16.50	18.00
UA16A 170 x 200 x 15 x 16	170.00	200.00	15.00	16.00
UA16A 178 x 208 x 16 x 18	178.00	208.00	16.00	18.00
UA16A 190 x 220 x 16 x 18	190.00	220.00	16.00	18.00
UA16A 210 x 240 x 16 x 18	210.00	240.00	16.00	18.00
UA16A 220 x 265 x 19 x 21	220.00	265.00	19.00	21.00