

STATIC SEALS

BECA

740-749



DESCRIPTION

The BECA 740 is a symmetrical dynamic and static facial effect U-seal, made from PTFE (different filling options) with lips that are pre-stressed by a spring. Derived from the BECA 740 profile, the BECA 749 profile is made specially for food industry applications. The V-spring is replaced with a VMQ O'Ring.

ADVANTAGES

- Wide temperature range and excellent chemical resistance
- Low friction coefficient; no stick-slip effect
- Excellent abrasion resistance
- Good dimensional stability
- Non-toxic material

APPLICATIONS

- Food & Beverage
- Medical
- Pharmaceutical
- Static hydraulics

MATERIALS

- Profiled seal**
 - Bronze-filled PTFE
 - Carbon-filled PTFE
- V-Shaped spring**
 - Stainless steel

Other grades of materials are available. Please refer to the materials table on the next page.

TECHNICAL DATA

Temperature	-200°C / +260°C
Pressure	30 MPa
Speed	15 m/s
Media	Mineral hydraulic oils Fire-resistant liquids Biocompatible fluids Water Others (contact our experts)

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

SURFACE ROUGHNESS

Roughness	Hydrogen, helium, cryogenic gas, refrigerants	Low viscosity fluids (water, alcohols, natural gases, air)	High viscosity fluids (gear oils, dairy products, adhesives)
Ra	≤0.3 µm	≤0.6 µm	≤0.8 µm
Rz	≤2.2 µm	≤3.5 µm	≤5.0 µm
Rmax	≤3.5 µm	≤5.0 µm	≤6.5 µm

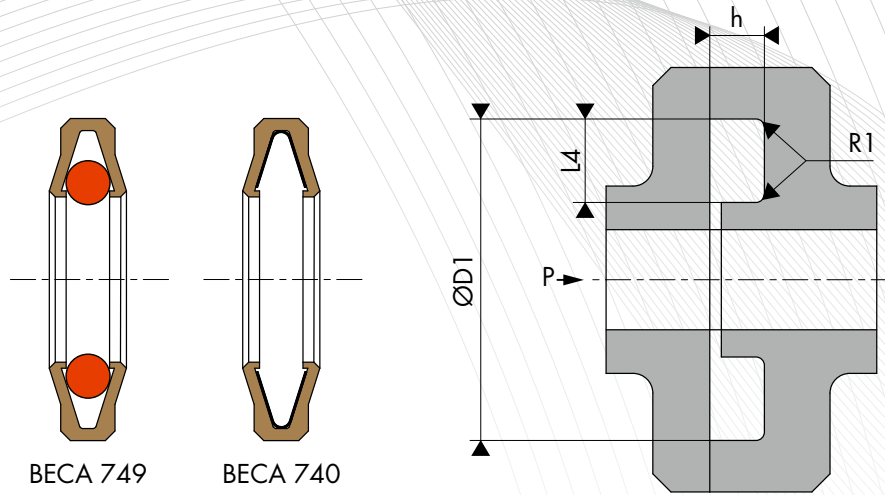
RADIUS

Groove depth h	Radius R1
1.45	0.40
2.25	0.40
3.10	0.60
4.70	0.80
6.10	0.80
9.50	0.80

TABLE MATERIALS

Profiled seal					V-spring			Mating surface material
Standard code	ISO code	Material	Colour	Characteristics	Code	Type of material	Service temperature	
DP	P	Virgin PTFE	White	Resistance to chemical products Impermeability Dielectric Non-stick Low friction coefficient Food industry	I	X10 Cr Ni 18-8	-200°C/+260°C	Steel Stainless steel Chrome steel Aluminium Bronze Cast iron Treated surface
DC	C	PTFE + 25% Carbon	Grey	Improvements • Wear properties • Compression set	I	X10 Cr Ni 18-8	-200°C/+260°C	
CG	C	PTFE + 23% Carbon + 2% Graphite	Black	Good resistance to chemical products Thermal and electrical conductivity Anti-static High-performing in compression-based dynamic applications	I	X10 Cr Ni 18-8	-200°C/+260°C	
DV	V	PTFE + 25 % Glass	Blue	Improvements • Wear properties • Mechanical strength	I	X10 Cr Ni 18-8	-200°C/+260°C	Steel Chrome steel Cast iron
VM	M	PTFE + 15 % Glass + 5% MOS2	Grey	Slightly more abrasive, however, this is corrected by adding MOS2 Maintains its chemical and dielectric properties Well-suited to applications with rotational and simultaneous alternating movements	I	X10 Cr Ni 18-8	-200°C/+260°C	
DX	X	PTFE GL Blue + Glass + Metal oxides	Turquoise blue	Resistance to compression Resistance to wear Excellent chemical stability Good thermal conductivity	I	X10 Cr Ni 18-8	-200°C/+260°C	Steel Stainless steel Chrome steel Aluminium Bronze Cast iron Treated surface
DG	G	PTFE + 15% Graphite	Black	Improvements • Wear properties Reduced wear on metal parts Self-lubricating Thermal and electrical conductivity Low permeability Good friction coefficient Anti-static High performing in dynamic self-lubricating applications	I	X10 Cr Ni 18-8	-200°C/+260°C	
K1	K	PTFE + 10% Ekonol	Light brown	Improvements • Better abrasion resistance • Better dimensional stability at high temperatures	I	X10 Cr Ni 18-8	-200°C/+260°C	
K2	K	PTFE + 20% Ekonol	Light brown	Use up to +300°C Good friction coefficient and low permeability	I	X10 Cr Ni 18-8	-200°C/+260°C	Steel Chrome steel Cast iron
DB	B	PTFE + 60% Bronze	Dark brown	Improvements • Wear properties • Warping resistance and creep strength • Compression resistance	I	X10 Cr Ni 18-8	-200°C/+260°C	
B4	B	PTFE + 40% Bronze	Dark brown	Self-lubricating Electrical and thermal conductivity Does not alter the metal parts Reduced hold with certain chemical products Used for high-compression dynamic seals and has a low level of wear	I	X10 Cr Ni 18-8	-200°C/+260°C	Steel Stainless steel Chrome steel Aluminium Bronze Cast iron Treated surface
HG	HG	PE-UHMW	White or off-white	Excellent wear resistance on contact with water and air	I	X10 Cr Ni 18-8	-70°C/+80°C	

Other grades of materials are available depending on your specificities.



BECA 749

BECA 740

○ INSTALLATION DIMENSIONS - STANDARD SERIES

Series	Groove outside diameter ØD1 H10		Groove width L4 0/+0.15	Groove depth	
	Standard range	Extended range		h	Tol.
740.0*	12.0 - 34.9	12.0 - 40.0	2.40	1.45	+0.03
740.1	35.0 - 54.9	35.0 - 200.0	3.60	2.25	+0.05
740.2	35.0 - 54.9	35.0 - 400.0	4.80	3.10	+0.08
740.3	55.0 - 99.9	55.0 - 600.0	7.10	4.70	+0.10
740.4	100.0 - 599.9	100.0 - 600.0	9.50	6.10	+0.15

*Only BECA 740.0 profiles are fitted with an O'Ring instead of a V-spring.

○ INSTALLATION DIMENSIONS - ADDITIONAL SERIES

Series	Groove outside diameter ØD1 H10	Groove width L4 0/+0.15	Groove depth	
			h	Tol.
740.235	35.0 - 200.0	5.00	3.50	+0.08
740.240	35.0 - 200.0	5.00	4.00	+0.08
740.245	35.0 - 200.0	5.50	4.50	+0.08
740.350	35.0 - 200.0	5.50	5.00	+0.10
740.355	55.0 - 400.0	7.50	5.50	+0.10
740.460	55.0 - 400.0	8.00	6.00	+0.15
740.465	55.0 - 400.0	8.50	6.50	+0.15
740.470	55.0 - 400.0	8.50	7.00	+0.15
740.475	55.0 - 400.0	9.00	7.50	+0.15
740.480	100.0 - 600.0	11.00	8.00	+0.20
740.485	100.0 - 600.0	11.00	8.50	+0.20
740.490	100.0 - 600.0	11.00	9.00	+0.20
740.495	100.0 - 600.0	12.00	9.50	+0.20
740.4100	100.0 - 600.0	12.00	10.00	+0.25