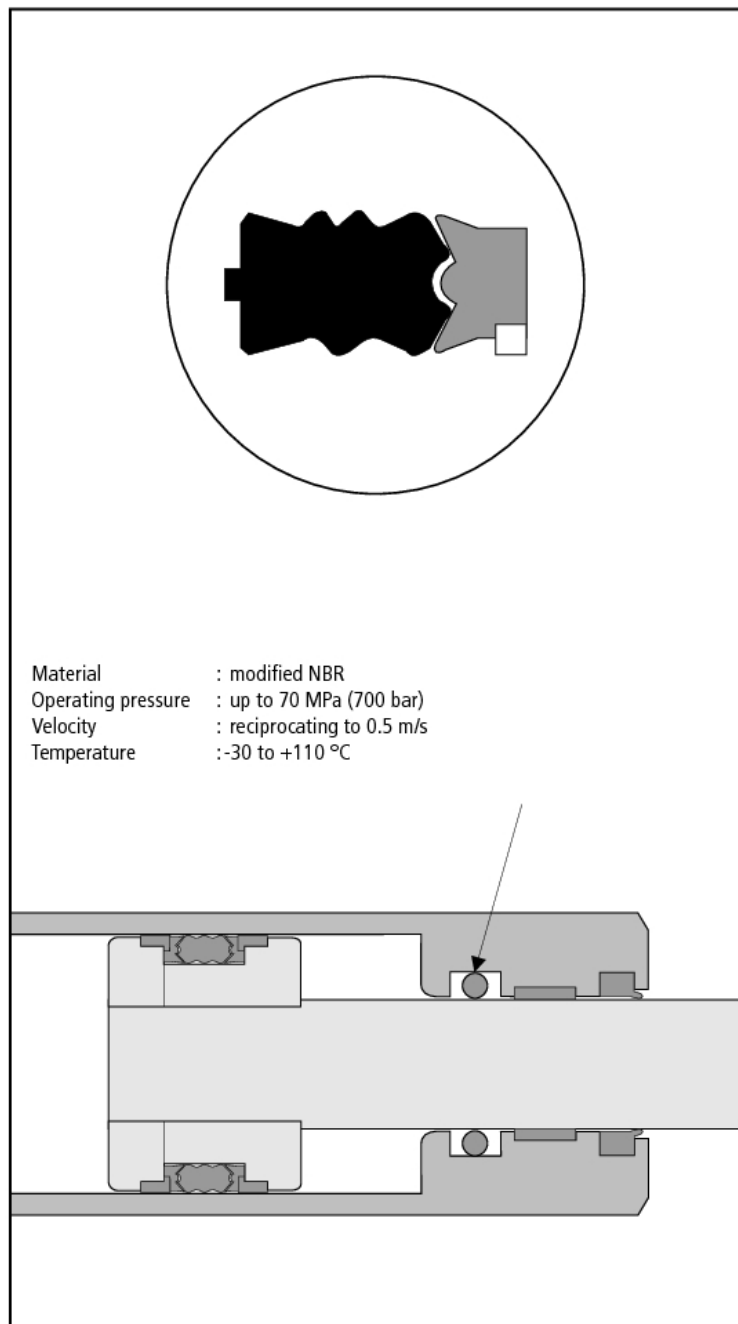
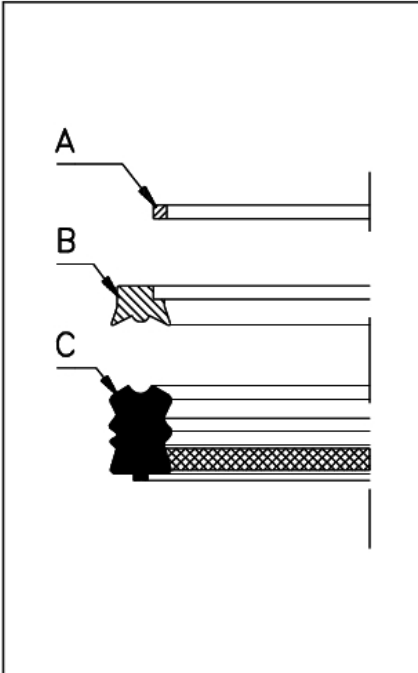


This type of rod seals as per HS 210 excels in most demanding applications such as mining or civil engineering machinery, and is practically a guarantee of operational safety in the most demanding conditions. HS 210 is the modern alternative to gland-seal sets..

### Special Features:

- Three part composition designed for use in undivided assembly space inter-lockable 60 mm onwards
- Multi-lipped sealing faces on static and dynamic sides
- Oil film breaker on dynamic side
- Modified anti-wear special NBR mixture
- Special radial pre-stressing of sealing edges is also suitable to lower pressures
- Very good sealing effect in case of axial or radial vibrations and frequent pressure variation
- Lowest stick-slip behaviour even at the highest of pressures
- The entire seal is also available as "splits" to enable snapping around the rods.





### Thrust Ring (Part A)

Material: filledPOM

This anti extrusion ring from glass filled Polyacetal prevents split extrusion of the sealing element in the event of pressure surges.

### Support Ring (Part B)

Material: Polyester Elastomer

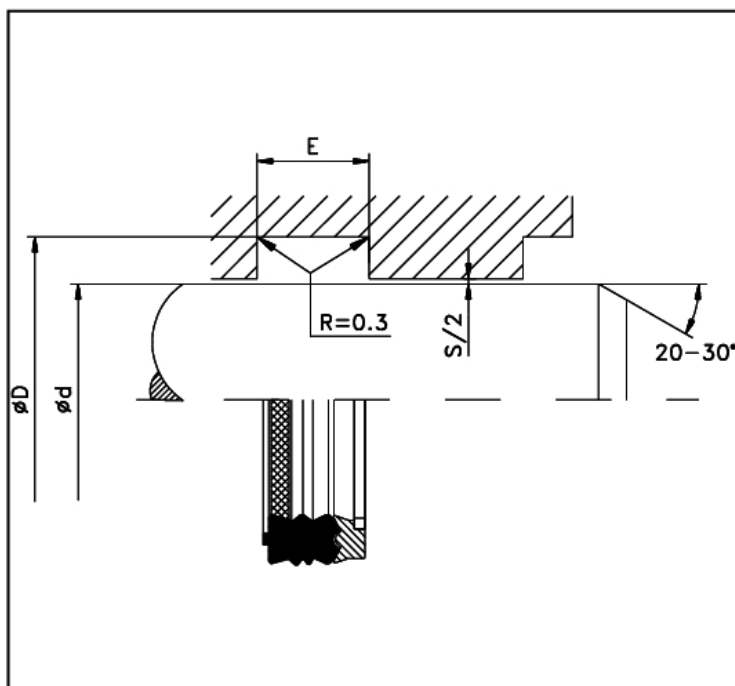
This support ring serves to absorb forces against the NBR sealing component. It causes uniform pressure distribution on the mounting flanks and its practical design works against split extrusion of the NBR sealing ring.

### Elastomer Sealing Component (Part C)

Material: modified NBR approx. 80° Shore A

This sturdy sealing element from high grade anti wear NBR excels due to low compression strain as well as high tensile strength. Optimal networking of molecular structure is achieved through the special manufacturing process for the sealing element. Sealing face geometry reduces the so called "sticking" of seal to the rod surface. Assembly is easy (from d=60 mm onward).

At high shear forces, hard fabric slide rings must be provided for safety. These can be fabricated in almost all sizes.



Limitations on Use	
Operating pressure :	up to 70 MPa (700 bar)
Velocity :	reciprocating to 0.5 m/s
Temperature :	-30 to +110 °C

Media for Use	
Mineral oil based hydraulic oils, flame resistant pressure media and emulsions (HFA, HFB, HFC), non-polluting pressure fluids (Bio Oils).	

Surface Finish		
Surfaces	Rz	Ra
Faces	2,0 $\mu$ m	0,3 $\mu$ m
Groove root	4,0 $\mu$ m	0,8 $\mu$ m
Groove flanks	8,0 $\mu$ m	1,8 $\mu$ m

Diameter Clearance	
Max. Diameter Clearance S [mm]	Max. Pressure [bar]
0,30	250
0,25	400
0,20	500
0,10	700

d f8/h9	D H10	E +0,2	Part N°
15,00	27,00	20,00	HS210 0150-01-100
18,00	30,00	22,50	HS210 0180-01-100
20,00	33,00	20,00	HS210 0200-01-100
22,00	35,00	20,00	HS210 0220-01-100
25,00	37,00	22,50	HS210 0250-01-100
25,00	38,00	20,00	HS210 0250-02-100
28,00	41,00	20,00	HS210 0280-01-100
30,00	43,00	20,00	HS210 0300-01-100
32,00	47,00	22,50	HS210 0320-01-100
35,00	45,00	25,50	HS210 0350-01-100
35,00	47,00	22,50	HS210 0350-02-100
35,00	50,00	22,50	HS210 0350-03-100
36,00	51,00	22,50	HS210 0360-01-100
40,00	50,00	17,50	HS210 0400-01-100
40,00	52,00	22,50	HS210 0400-02-100
40,00	55,00	22,60	HS210 0400-03-100
40,00	60,00	30,00	HS210 0400-04-100
45,00	60,00	22,50	HS210 0450-01-100
45,00	65,00	28,00	HS210 0450-02-100
50,00	63,00	20,00	HS210 0500-01-100
50,00	65,00	22,50	HS210 0500-02-100
50,00	65,00	24,50	HS210 0500-03-100
50,00	70,00	30,00	HS210 0500-04-100
50,00	70,00	31,90	HS210 0500-05-100
55,00	70,00	22,50	HS210 0550-01-100
55,00	70,00	25,00	HS210 0550-02-100
55,00	75,00	30,00	HS210 0550-03-100
55,00	75,00	32,00	HS210 0550-04-100
56,00	71,00	25,00	HS210 0560-01-100
60,00	75,00	22,50	HS210 0600-01-100
60,00	75,00	25,00	HS210 0600-02-100
60,00	77,00	27,00	HS210 0600-03-100

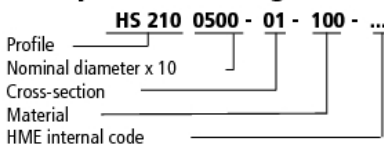
d f8/h9	D H10	E +0,2	Part N°
60,00	80,00	32,00	HS210 0600-04-100
60,00	80,00	34,90	HS210 0600-05-100
63,00	78,00	22,50	HS210 0630-01-100
63,00	83,00	27,00	HS210 0630-02-100
63,00	83,00	29,00	HS210 0630-03-100
63,00	83,00	30,00	HS210 0630-04-100
65,00	85,00	29,00	HS210 0650-01-100
70,00	85,00	22,50	HS210 0700-01-100
70,00	85,00	25,00	HS210 0700-02-100
70,00	90,00	30,00	HS210 0700-03-100
70,00	90,00	31,90	HS210 0700-04-100
75,00	95,00	28,00	HS210 0750-01-100
75,00	95,00	30,00	HS210 0750-02-100
76,50	96,50	32,50	HS210 0765-01-100
80,00	95,00	22,50	HS210 0800-01-100
80,00	100,00	30,00	HS210 0800-02-100
85,00	100,00	22,50	HS210 0850-01-100
85,00	105,00	30,00	HS210 0850-02-100
90,00	105,00	22,50	HS210 0900-01-100
90,00	105,00	25,00	HS210 0900-02-100
90,00	105,00	33,50	HS210 0900-03-100
90,00	110,00	30,00	HS210 0900-04-100
90,00	110,00	32,50	HS210 0900-05-100
95,00	110,00	22,50	HS210 0950-01-100
95,00	115,00	28,00	HS210 0950-02-100
100,00	114,30	24,20	HS210 1000-01-100
100,00	120,00	30,00	HS210 1000-02-100
105,00	118,00	25,00	HS210 1050-01-100
105,00	120,00	34,00	HS210 1050-02-100
105,00	125,00	30,00	HS210 1050-03-100
110,00	125,00	22,50	HS210 1100-01-100
110,00	130,00	32,50	HS210 1100-02-100

d f8/h9	D H10	E +0,2	Part N°
115,00	130,00	22,50	HS210 1150-01-100
115,00	130,00	30,00	HS210 1150-02-100
118,00	133,00	22,50	HS210 1180-01-100
120,00	135,00	22,50	HS210 1200-01-100
120,00	140,00	30,00	HS210 1200-02-100
125,00	140,00	22,50	HS210 1250-01-100
125,00	145,00	29,60	HS210 1250-02-100
127,00	142,00	22,50	HS210 1270-01-100
130,00	150,00	28,00	HS210 1300-01-100
132,00	144,00	20,00	HS210 1320-01-100
135,00	150,00	22,50	HS210 1350-01-100
135,00	155,00	28,00	HS210 1350-02-100
140,00	155,00	22,50	HS210 1400-01-100
140,00	160,00	22,50	HS210 1400-02-100
140,00	160,00	28,00	HS210 1400-03-100
140,00	160,00	30,00	HS210 1400-04-100
145,00	165,00	22,50	HS210 1450-01-100
150,00	165,00	22,50	HS210 1500-01-100
150,00	170,00	28,00	HS210 1500-02-100
152,00	167,00	22,50	HS210 1520-01-100
155,00	175,00	22,50	HS210 1550-01-100
155,00	175,00	28,00	HS210 1550-02-100
158,50	180,00	28,00	HS210 1585-01-100
160,00	180,00	28,00	HS210 1600-01-100
160,00	180,00	30,00	HS210 1600-02-100
165,00	185,00	30,00	HS210 1650-01-100
170,00	185,00	22,50	HS210 1700-01-100
170,00	195,00	35,00	HS210 1700-02-100
175,00	195,00	22,50	HS210 1750-01-100
175,00	195,00	30,00	HS210 1750-02-100
175,00	200,00	35,00	HS210 1750-03-100
177,00	192,00	22,50	HS210 1770-01-100
180,00	195,00	22,50	HS210 1800-01-100

d f8/h9	D H10	E +0,2	Part N°
180,00	205,00	35,00	HS210 1800-02-100
185,00	200,00	22,50	HS210 1850-01-100
185,00	210,00	35,00	HS210 1850-02-100
187,00	202,00	22,50	HS210 1870-01-100
190,00	215,00	35,00	HS210 1900-01-100
192,00	210,00	22,50	HS210 1920-01-100
195,00	210,00	22,50	HS210 1950-01-100
200,00	215,00	22,50	HS210 2000-01-100
200,00	225,00	35,00	HS210 2000-02-100
207,00	225,00	22,50	HS210 2070-01-100
210,00	230,00	22,50	HS210 2100-01-100
212,00	230,00	22,50	HS210 2120-01-100
220,00	240,00	22,50	HS210 2200-01-100
220,00	245,00	35,00	HS210 2200-02-100
225,00	240,00	22,50	HS210 2250-01-100
225,00	250,00	35,00	HS210 2250-02-100
227,00	242,00	22,50	HS210 2270-01-100
230,00	250,00	22,50	HS210 2300-01-100
230,00	255,00	35,00	HS210 2300-02-100
235,00	255,00	22,50	HS210 2350-01-100
240,00	260,00	28,00	HS210 2400-01-100
240,00	265,00	35,00	HS210 2400-02-100
250,00	275,00	35,00	HS210 2500-01-100
260,00	280,00	22,50	HS210 2600-01-100
265,00	290,00	35,00	HS210 2650-01-100
275,00	300,00	35,00	HS210 2750-01-100
280,00	305,00	35,00	HS210 2800-01-100
283,00	303,00	22,50	HS210 2830-01-100
288,00	308,00	22,50	HS210 2880-01-100
300,00	325,00	35,00	HS210 3000-01-100
335,00	360,00	35,00	HS210 3350-01-100

These sizes also available in FPM.  
Further sizes/measurements and imperial sizes available on request.

### Example for ordering Rod Seal:



### Material Key:

**Sealing Part**  
100 - NBR  
120 - FPM

Issue  
01 05

**WARNING:** Limits of application stated herein are standard values. They could be individually transgressed with due consideration to respective service conditions. In the event of a large duty cycle, pulsating operation and other complex operational conditions, simultaneous transgression of these values is not recommended. Due to a large variety of service conditions that may arise in course of actual use, the company does not take responsibility of or guarantee the functional accuracy of the individual components. Rights for changes are reserved.