

Product Datasheet

Elastomer Rotary Seal Range

Pioneer Weston R21, an elastomer encapsulated Pioneer R4, favourable for rougher housing bores. Features an elastomeric seal geometry backed by nearly a century of continuous improvement.



Rubber OD
for Rough Bore | Low Viscosity Fluids

Configurable Options

Ribbed OD
for ease of installation

PWHydro Aid
Hydrodynamic aid to improve fluid transfer at high speeds*

Stainless Steel Components
Improve corrosion resistance

* Contact Pioneer Weston for advice

Max Diff. Pressure (bar)

0.5

Ingress Protection

R21 R23 PW SPECIAL



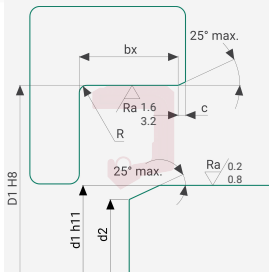
N1 (NBR)
N-70-18
-35°C and 110°C



H1 (HNBR)
H-80-40
-40°C and 180°C



F1 (FKM)
V-75-27
-20°C and 200°C



Shaft, d1	d1-d2
0-10	1.5
10-20	2.0
20-30	2.5
30-40	3.0
40-50	3.5
50-70	4.0
70-90	4.5
90-110	5.0
110-130	5.5
130-250	7.0
250-500	11.0

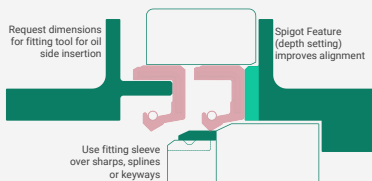
Dimensions in mm

Bore, D1	c	R
≤100	0.70 to 1.00	0.75 max.
>100	1.20 to 1.50	1.00 max.

Dimensions in mm

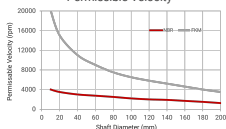
Shaft hardness 55-60HrC** (0.3 Depth)
Shaft ground finish with no lay
bx=seal width +0.3

**60HrC min for surface speed >10m/s



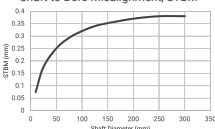
Application Criteria

Permissible Velocity



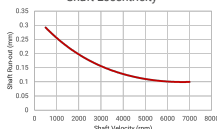
Approximate permissible velocity when provided with adequate lubrication, heat dissipation under no pressure.

Shaft to Bore Misalignment, STBM



Eccentricities (TLR) between bore and shaft centerline should be kept to minimum to prevent unilateral load. Approximate values shown.

Shaft Eccentricity



Locate seal close to bearing to reduce excessive eccentricity/ shaft run-out (TLR). Approximate values shown.

Pioneer Weston technical solutions available via global Rubix Sealing and Polymer divisions & our website.

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