



ProTech Labyrinth Design

ProTech™ Bearing Isolators WD Profile

WD — Wash Down Motor Design (Meets IP69k)

Retain: Grease and oil splash
(operating oil level in cavity between seal and bearing must be below inboard oil drain-back port of seal)

Exclude: Heavy water spray and dry contaminants from bearing cavity

Equipment: Small disposable motors and equipment for food processing industry; economical seal for 140 and 180 frame motors and other high volume OEM equipment requiring wash down protection where cost to upgrade the seal has been a deterrent.

Technical Data

Total Eccentricity: 0.020" (0.51 mm)

Shaft Speed: Up to 3,000 fpm
(15 m/s)¹

Pressure: 0 psi/bar

Temperature Range: -40 to 250 °F
(-40 to 121 °C)

Axial Movement: 0.020" (0.51 mm)
Special designs up to 0.070" (1.78 mm)

Shaft/Bore: Tolerances: ± .002"
(± .05 mm) Special designs available

Seal Material

Standard: Proprietary PTFE

Optional: Food grade, Anti microbial,
FDA 3A

O-Ring Material

Standard: FKM

Optional: NBR, FDA silicone, EPDM,
Aflas®

Table 8-21. WD Mounting and Lubrication

Mounting		Lubrication		
	Position	Grease	Oil	Dry
Horizontal	Y	Y	N	Y
Vertical Up	Y	Y	N	Y
Vertical Down	Y	Y	N	Y

Dimensions — WD Profile

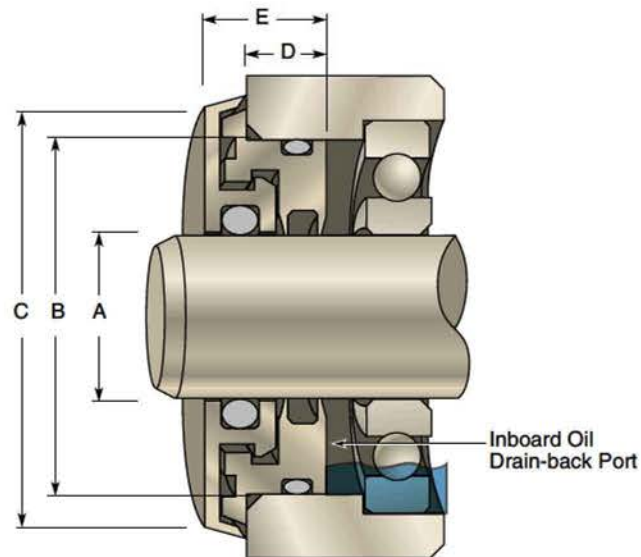


Table 8-22. WDE Standard Dimensions — Inch/Fractional

Type	"A" Shaft Diameter Range Inch	"B" Bore Diameter Range Is Shaft Diameter "A" + Min-Max	"C" Flange Diameter = "B" +	"D" In Bore Depth	"E" Overall Seal Width
WDE	0.492 – 1.575	0.551 – 1.575	0.269 ²	0.248	0.373
WDE	1.576 – 2.362	0.669 – 1.575	0.269 ²	0.248	0.373
WDE	2.363 – 3.150	0.787 – 1.575	0.269 ²	0.287	0.412
WDE	3.151 – 5.118	0.866 – 1.575	0.269	0.287	0.412
WDE	5.119 – 10.000 ³	0.945 – 1.575	0.269	0.287	0.412

Table 8-23. WDM Standard Dimensions — Metric

Type	"A" Shaft Diameter Range Metric	"B" Bore Diameter Range Is Shaft Diameter "A" + Min-Max	"C" Flange Diameter = "B" +	"D" In Bore Depth	"E" Overall Seal Width
WDM	12.5 – 40.0	14.0 – 40.0	6.8 ²	6.3	9.5
WDM	40.1 – 60.0	17.0 – 40.0	6.8 ²	6.3	9.5
WDM	60.1 – 80.0	20.0 – 40.0	6.8 ²	7.3	10.5
WDM	80.1 – 130.0	22.0 – 40.0	6.8	7.3	10.5
WDM	130.1 – 254.0 ³	24.0 – 40.0	6.8	7.3	10.5

¹ Contact factory for speeds over 3,000 fpm (15 m/s).

² May be larger for small cross-sections. Consult factory for dimensions.

³ Contact factory for requirements outside of standard dimensions listed above.
Note: Cross-Section = (Bore – Shaft) / 2

