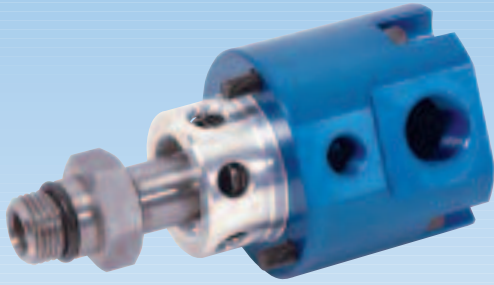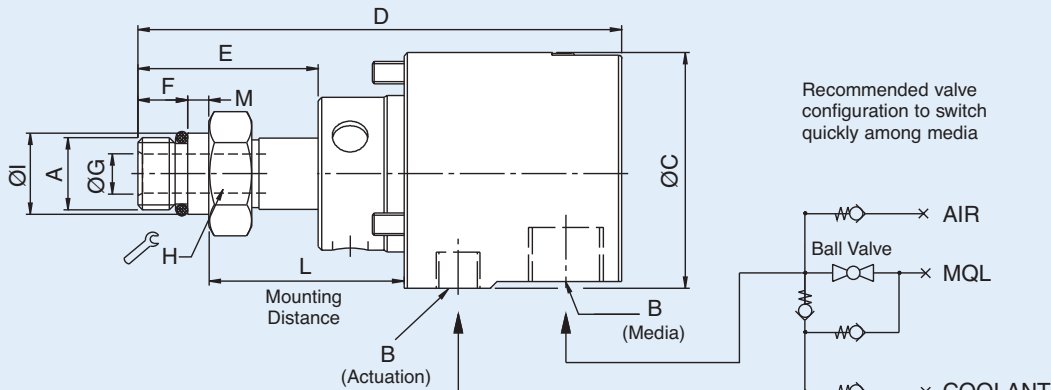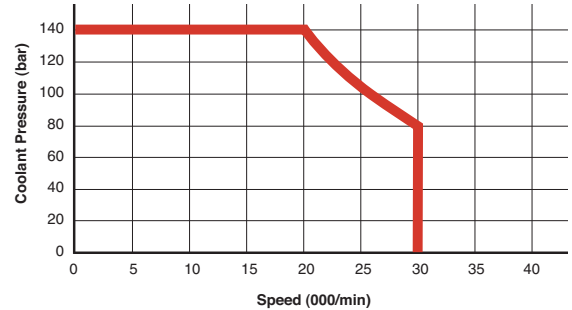# DEUBLIN

1139 Series Bearingless "All-Media" Rotating Unions for Coolant, MQL, and Air Service

- Single passage for all media
- Patented technology operates with closed seals for coolant, as a "pop-off" when pressure is removed, and as with a microscopic gap between the seals ("controlled leakage") with pressurized dry air
- Non-rotating element has a "stroke" (axial movement) of 0.7-3.0 mm, for reliable sealing even with thermal expansion of spindle and variations in drawbar position
- Full-flow design has no obstructions to trap chips or debris
- Balanced mechanical seals made from silicon carbide for long life even under difficult operating conditions
- Anodized aluminum housing resists corrosion

Operating Data

Media	Water-based Coolant MQL (oil mist) Air, dry or lubricated
Filtration	ISO 4406 Class 17/15/12, max. 60 micron
Maximum Speed	30,000 min^{-1} 30,000 rpm
Maximum Pressure	140 bar 2,030 psi Coolant 10 bar 145 psi MQL, Air
Maximum Flow	28 l/min 7.4 gpm
Maximum Temperature	71°C 160°F

Recommended valve configuration to switch quickly among media

Mounting Distance

B (Actuation)

B (Media)

AIR

Ball Valve

MQL

COOLANT

	Ordering Number	B Supply Connection[A]	C Overall Diameter	D Overall Length	L Mounting Distance	A Rotor Connection	E Rotor Length	F Thread Length	G Bore Diameter	H Across Flats	I Pilot Diameter	M Pilot Length
Axial Connection	1139-020-116	3/8" NPT Axial 1/8" NPT Radial	51	97	31.6 / 30.6	M16 x 1.5 LH	28	11	9	24	17.993 / 17.988	5
	1139-032-301	3/8" PT Axial 1/8" PT Radial	54	109	44.0 / 43.0	M16 x 1.5 LH	40	11	9	24	17.993 / 17.988	5
	1139-032-327	3/8" PT Axial 1/8" PT Radial	54	106	39.6 / 38.6	M12 x 1.25 LH	37	12	6	21	14.000 / 13.995	5
	1139-041-301	3/8" PT Axial 1/8" PT Radial	54	109	44.0 / 43.0	M16 x 1.5 LH	40	11	9	24	17.993 / 17.988	5
	1139-744-301	G 3/8" Axial G 1/8" Radial	54	101	44.0 / 43.0	M16 x 1.5 LH	40	11	9	24	17.993 / 17.988	5
Radial	1139-746-301	G 3/8" Radial G 1/8" Radial	54	108	44.0 / 43.0	M16 x 1.5 LH	40	11	9	24	17.993 / 17.988	5
	1139-746-327	G 3/8" Radial G 1/8" Radial	54	105	44.0 / 43.0	M12 x 1.25 LH	37	12	9	24	14.000 / 13.995	5

Note A: All 1139 series have a 1/8" radial connection for the actuation port.