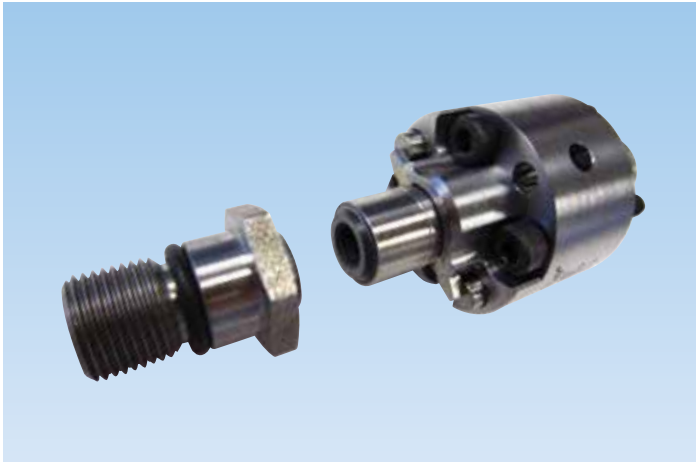


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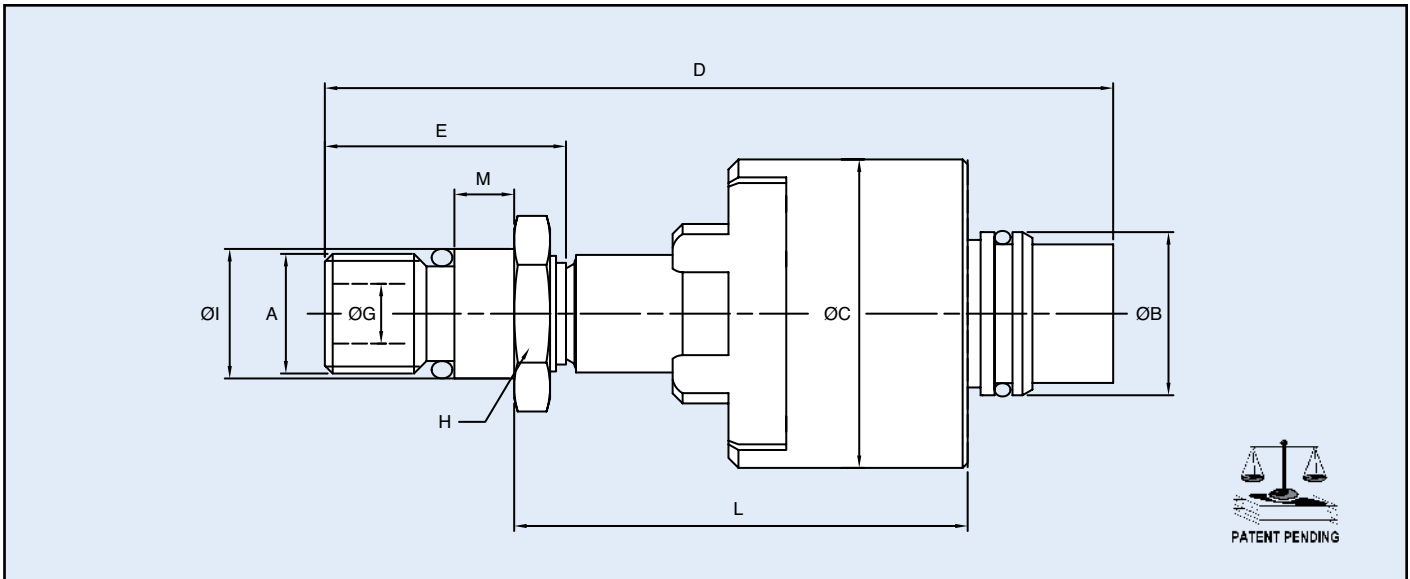
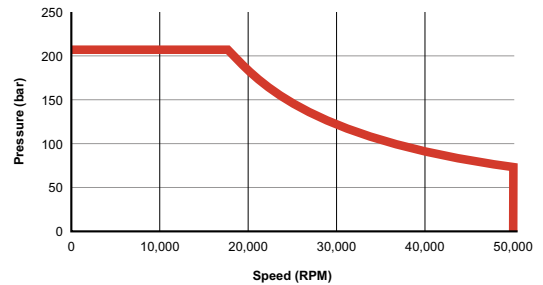
1159 Series Bearingless AutoSense™ "Long Stroke" Rotating Unions for Coolant and Air Service with CoolControl™ Technology



- Single passage for all media
- Patented AutoSense technology automatically changes between closed seals and controlled leakage operation in response to type of media
- Non-rotating element has "stroke" (axial movement) of up to 13.5 mm, to track drawbar movement even when the union is mounted on the clamping device
- CoolControl technology utilizes an air pilot to hold seals closed during axial drawbar movements, thus minimizing coolant leakage during tool change cycles
- 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

Operating Data

Media	Water-based Coolant MQL Air up to 10 bar (145 psi)	
Filtration	ISO 4406 Class 17/15/12, max. 60 micron	
Maximum Speed	50,000 min ⁻¹	50,000 rpm
Maximum Pressure	210 bar	3,045 psi
Maximum Flow	33 l/min (6 mm bore)	
Maximum Temperature	71°C	160°F



Ordering Number	B Supply Connection	C Overall Diameter	D Overall Length	L Mounting Distance	A Rotor Connection	E Rotor Length	G Bore Diameter	H Across Flats	I Pilot Diameter	M Pilot Length	Max Speed (rpm)
1159-024-105	16.4 mm Counterbore	31	52.9	28.5 / 24.0	M8 x 1 LH	22	4	17	8.995 / 8.991	3.5	50,000
1159-020-101	16.4 mm Counterbore	31	79.3	45.7 / 34.0	M12 x 1 RH	24.2	6	17	12.994 / 12.989	6	50,000
1159-135-103	16.4 mm Counterbore	31	86.1	52.5 / 39.0	M12 x 1.25 LH	24.2	6	17	12.994 / 12.989	6	50,000
1159-003-137	20.0 mm Counterbore	38.5	79	30.0 / 23.0	M12 x 1.25 LH	26.9	5	15	12.994 / 12.990	6	50,000