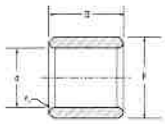
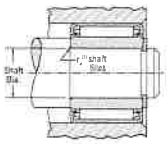
INNER RINGS FOR INCH SERIES DRAWN CUP BEARINGS

- Check for availability.
- Ideal choice when shaft is not practical to use as inner raceway.
- Provided in inch IR, IRA) nominal dimensions for use with inch series drawn cup bearings.
- Designed to meet established inch tolerances.
- Designed to be wider than matching drawn cup bearing.
- Maximum shaft fillet radius ($r_{s\,max}$) cannot exceed inner ring bore chamfer ($r_{s\,min}$) as shown.
- Optional centralized lubrication groove (bore) and thru-hole available – specify when ordering.
- Designed to provide a loose transition fit on the shaft and should be axially clamped against a shoulder.
- If a light transition fit must be used to keep the inner ring from rotating relative to the shaft, the inner ring O.D. must not exceed the raceway diameter for the matching drawn cup bearing after being mounted on the shaft.
- See tables for bearing raceway diameter dimensions.
- After mounting, if O.D. of inner ring exceeds required raceway diameter for matching bearing, ring should be ground to proper diameter while mounted on shaft.





Shaft Dia.	d		F		B		$r_{s\,min}$	Inner Ring Designation	Mounting Dimensions Transition Fit				Approx. Wt.
									Loose		Tight		
	Max.	Min.	Max.	Min.	Max.	Min.	Min.		Max.	Min.	Max.	Min.	
in	mm in	mm in	mm in	mm in	mm in	mm in	mm in		mm in	mm in	mm in	mm in	kg lbs
1 15/16	31.750 1.2500	31.737 1.2495	38.100 1.5000	38.087 1.4995	22.66 .7266	22.44 .7176	1.52 0.060	IRA-3D	31.743 1.2469	31.730 1.2492	31.753 1.2501	31.740 1.2496	0.085 0.190
1 15/16	34.925 1.3750	34.912 1.3745	41.275 1.6250	41.262 1.6245	22.53 .765	21.88 .751	1.52 0.060	IR-2220	34.917 1.3747	34.905 1.3742	34.928 1.3751	34.915 1.3746	0.094 0.208
2 1/16	36.513 1.4375	36.500 1.4370	44.450 1.7500	44.437 1.7495	25.78 1.015	25.53 1.005	1.52 0.060	IR-2216	36.505 1.4372	36.493 1.4367	36.515 1.4376	36.502 1.4371	0.100 0.220
	36.513 1.4375	36.500 1.4370	44.450 1.7500	44.437 1.7495	38.48 1.515	38.23 1.505	1.52 0.060	IR-2616	36.505 1.4372	36.493 1.4367	36.515 1.4376	36.502 1.4371	0.150 0.331
2 1/16	38.100 1.5000	38.087 1.4995	44.450 1.7500	44.437 1.7495	25.78 1.015	25.53 1.005	1.52 0.060	IR-2416	38.092 1.4997	38.080 1.4992	38.103 1.5001	38.090 1.4996	0.078 0.173
	38.100 1.5000	38.087 1.4995	44.450 1.7500	44.437 1.7495	38.48 1.515	38.23 1.505	1.52 0.060	IR-2424	38.092 1.4997	38.080 1.4992	38.103 1.5001	38.090 1.4996	0.122 0.270
2 3/16	42.863 1.6875	42.850 1.6870	53.188 2.0625	52.375 2.0620	38.48 1.515	38.23 1.505	1.52 0.060	IR-2624	42.855 1.6872	42.842 1.6867	42.866 1.6876	42.852 1.6871	0.214 0.468
2 1/16	44.450 1.7500	44.437 1.7495	53.188 2.0625	52.375 2.0620	38.48 1.515	38.23 1.505	1.52 0.060	IR-2824	44.442 1.7491	44.430 1.7492	44.453 1.7501	44.440 1.7496	0.188 0.298
2 15/16	46.038 1.8125	46.025 1.8120	53.188 2.0625	52.375 2.0620	25.78 1.015	25.53 1.005	1.52 0.060	IR-2816	46.030 1.8122	46.017 1.8117	46.040 1.8126	46.027 1.8121	0.097 0.214
	46.038 1.8125	46.025 1.8120	53.188 2.0625	52.375 2.0620	38.48 1.515	38.23 1.505	1.52 0.060	IR-2824	46.030 1.8122	46.017 1.8117	46.040 1.8126	46.027 1.8121	0.146 0.322
2 15/16	47.625 1.8750	47.612 1.8745	53.975 2.1250	53.962 2.1245	38.48 1.515	38.23 1.505	1.52 0.060	IR-2824	47.618 1.8747	47.605 1.8742	47.628 1.8751	47.615 1.8746	0.145 0.319
3 1/16	63.500 2.5000	63.487 2.4995	69.850 2.7500	69.837 2.7495	25.78 1.015	25.53 1.005	1.52 0.060	IR-3816	63.495 2.4998	63.477 2.4991	63.505 2.5002	63.487 2.4995	0.132 0.290

Bore and O.D. tolerance limits correspond to the single mean diameter (the arithmetical mean of the longest and shortest diameters in a single radial plane).

(1) $r_{s\,max}$ is equal to minimum inner ring bore chamfer ($r_{s\,min}$).

DRAWN CUP ROLLER CLUTCHES

Overview: Drawn cup needle roller clutches are similar to drawn cup needle roller bearings in design; however, they allow free rotation in only one direction while transmitting torque in the opposite direction. These designs use the same small radial section as drawn cup needle roller bearings and are offered as clutch-only units or as clutch and bearing assemblies.

- **Catalog range:** 3.175 mm – 35 mm (0.1250 in – 1.3780 in) bore.
- **Markets:** Office equipment, paper-towel dispensers, exercise equipment, appliances and two-speed gearboxes.
- **Features:** Compact, lightweight and operate directly on a hardened shaft.
- **Benefits:** Installation is easily accomplished with a simple press fit.