

# Housings

Unit = .001 mm  
(.0001 in.)

## Tolerances of spherical inside diameter of housings

Nominal spherical inside diameter D1				Symbol H				Symbol J				Symbol K			
Over		Incl.		D1 m Deviations		D1 Deviations		D1 m Deviations		D1 Deviations		D1 m Deviations		D1 Deviations	
mm	in.	mm	in.	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
30	1.1811	50	1.9685	+25 (+10)	0	+30 (+12)	-5 (-2)	+14 (+6)	-11 (-4)	+19 (+7)	-16 (-6)	+7 (+3)	-18 (-7)	+12 (+5)	-23 (-9)
50	1.9685	80	3.1496	+30 (+12)	0	+38 (+14)	-6 (-2)	+18 (+7)	-12 (-5)	+24 (+9)	-18 (-7)	+9 (+4)	-21 (-8)	+15 (+6)	-27 (-11)
80	3.1496	120	4.7244	+35 (+14)	0	+42 (+17)	-7 (-3)	+22 (+9)	-13 (-5)	+29 (+11)	-20 (-8)	+10 (+4)	-25 (-10)	+17 (+7)	-32 (-13)
120	4.7244	180	7.0866	+40 (+16)	0	+48 (+19)	-8 (-3)	+26 (+10)	-14 (-6)	+34 (+13)	-22 (-9)	+12 (+5)	-28 (-11)	+20 (+8)	-36 (-14)
180	7.0866	250	9.8425	+46 (+18)	0	+55 (+22)	-9 (-4)	+80 (+12)	-16 (-6)	+39 (+15)	-25 (-10)	+13 (+5)	-33 (-13)	+22 (+9)	-42 (-17)
250	9.8425	315	12.4016	+52 (+20)	0	+62 (+24)	-10 (-4)	+36 (+14)	-16 (-6)	+46 (+18)	-26 (-10)	+16 (+6)	-36 (-14)	+26 (+10)	-46 (-18)

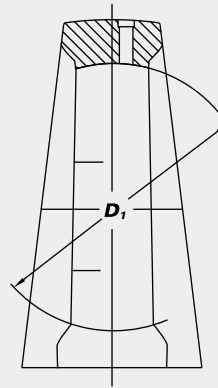
TECHNICAL INFORMATION

D1m is determined by the following equation:

$$D1m = \frac{D1max + D1min}{2}$$

Where D1max and D1min are maximum and minimum measurements of D1, respectively.

For practical purposes, bearing/housing fit is often expressed in terms of foot pounds of misalignment torque. **IPTCI** mounted units are typically machined to provide for a light interference fit. However, for special applications, **IPTCI** can provide clearance fit (H) or substantial interference fit (K).



## Materials of Housings

### Gray Iron

Cast in high strength gray iron, **IPTCI's** standard cast housings are among the most rigidly designed and heaviest available in the industry. This enables **IPTCI's** housings to withstand high vibration and shock loading.

### Ductile Iron

When extra strength is needed for extremely rugged applications, **IPTCI's** ductile iron is an excellent alternative. Ductile iron is approximately 2.5 times stronger (tensile) than gray iron and also offers the benefit of reduced flex memory. Some **IPTCI** standard housing styles are available from stock in ductile iron. All can be made upon request.

### Stainless Steel & Thermoplastic

See page 48 for complete details.