

Ancillary Bearings

IRR

INNER RING RACES



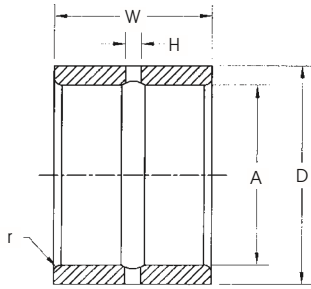
General Information

SMITH IRR Inner Ring Races are hardened and ground and are used as bushings or sleeves. Typical material is **52100 Bearing Steel**. They are complete with radial oil holes and an annular lubrication groove. Consult our Engineering Department for special configurations, sizes and materials.

Dimensional Data (inches)

| SMITH Bearing® Number | A Bore Diameter I.D. | | D Outside Diameter | | W Width +.000 -.005 | H Hole Diameter | r Max Fillet for Shaft |
|--------------------------|-------------------------|----------------------|-----------------------|----------------------|------------------------------|-----------------------|------------------------------------|
| | Nominal | Tolerance +0.0000 | Nominal | Tolerance +0.0000 | | | |
| IRR-3/8 | .3750 | -0.0004 | .6245 | -0.0004 | 1.010 | 3/32 | .025 |
| IRR-3/8-1 | .3750 | -0.0004 | .6245 | -0.0004 | .760 | 3/32 | .025 |
| IRR-7/16 | .4375 | -0.0004 | .6245 | -0.0004 | .760 | 3/32 | .025 |
| IRR-1/2-1 | .5000 | -0.0004 | .7493 | -0.0005 | 1.010 | 1/8 | .040 |
| IRR-1/2 | .5000 | -0.0004 | .7493 | -0.0005 | .760 | 1/8 | .040 |
| IRR-9/16 | .5625 | -0.0004 | .7493 | -0.0005 | .760 | 1/8 | .040 |
| IRR-5/8-1 | .6250 | -0.0004 | .8743 | -0.0005 | 1.010 | 1/8 | .040 |
| IRR-5/8 | .6250 | -0.0004 | .8743 | -0.0005 | .760 | 1/8 | .040 |
| IRR-11/16 | .6875 | -0.0004 | .8743 | -0.0005 | .760 | 1/8 | .040 |
| IRR-3/4 | .7500 | -0.0004 | .9993 | -0.0005 | 1.010 | 1/8 | .040 |
| IRR-3/4-3 | .7500 | -0.0004 | .9993 | -0.0005 | .760 | 1/8 | .040 |
| IRR-13/16 | .8125 | -0.0005 | .9993 | -0.0005 | 1.010 | 1/8 | .040 |
| IRR-13/16-2 | .8125 | -0.0005 | .9993 | -0.0005 | .760 | 1/8 | .040 |
| IRR-7/8-1 | .8750 | -0.0005 | 1.1241 | -0.0005 | 1.260 | 1/8 | .040 |
| IRR-7/8 | .8750 | -0.0005 | 1.1241 | -0.0005 | 1.010 | 1/8 | .040 |
| IRR-15/16-1 | .9375 | -0.0005 | 1.1241 | -0.0005 | 1.260 | 1/8 | .040 |
| IRR-15/16 | .9375 | -0.0005 | 1.1241 | -0.0005 | 1.010 | 1/8 | .040 |
| IRR-1-2 | 1.0000 | -0.0005 | 1.2491 | -0.0006 | 1.260 | 1/8 | .040 |
| IRR-1 | 1.0000 | -0.0005 | 1.2491 | -0.0006 | 1.010 | 1/8 | .040 |
| IRR-1 1/16 | 1.0625 | -0.0005 | 1.3741 | -0.0006 | 1.260 | 1/8 | .040 |
| IRR-1 1/8-2 | 1.1250 | -0.0005 | 1.3741 | -0.0006 | 1.260 | 1/8 | .040 |
| IRR-1 1/8 | 1.1250 | -0.0005 | 1.3741 | -0.0006 | 1.010 | 1/8 | .040 |
| IRR-1 3/16 | 1.1875 | -0.0005 | 1.4990 | -0.0006 | 1.260 | 1/8 | .060 |
| IRR-1 1/4 | 1.2500 | -0.0005 | 1.4990 | -0.0006 | 1.260 | 1/8 | .060 |
| IRR-1 1/4-4 | 1.2500 | -0.0005 | 1.4990 | -0.0006 | 1.010 | 1/8 | .060 |
| IRR-1 5/16 | 1.3125 | -0.0005 | 1.6240 | -0.0006 | 1.260 | 1/8 | .060 |
| IRR-1 5/16-1 | 1.3125 | -0.0005 | 1.6240 | -0.0006 | 1.010 | 1/8 | .060 |
| IRR-1 3/8-2 | 1.3750 | -0.0005 | 1.7490 | -0.0006 | 1.260 | 1/8 | .060 |
| IRR-1 3/8 | 1.3750 | -0.0005 | 1.6240 | -0.0006 | 1.260 | 1/8 | .060 |
| IRR-1 7/16 | 1.4375 | -0.0005 | 1.7490 | -0.0006 | 1.260 | 1/8 | .060 |
| IRR-1 1/2 | 1.5000 | -0.0005 | 1.7490 | -0.0006 | 1.260 | 1/8 | .060 |
| IRR-1 1/2-1 | 1.5000 | -0.0005 | 1.7490 | -0.0006 | 1.010 | 1/8 | .060 |
| IRR-1 9/16-1 | 1.5625 | -0.0005 | 1.9989 | -0.0007 | 1.260 | 1/8 | .060 |
| IRR-1 9/16 | 1.5625 | -0.0005 | 1.8740 | -0.0006 | 1.260 | 1/8 | .060 |
| IRR-1 5/8 | 1.6250 | -0.0005 | 1.9989 | -0.0007 | 1.260 | 1/8 | .060 |
| IRR-1 5/8-3 | 1.6250 | -0.0005 | 1.9364 | -0.0007 | 1.260 | 1/8 | .060 |
| IRR-1 5/8-1 | 1.6250 | -0.0005 | 1.9989 | -0.0007 | 1.010 | 1/8 | .060 |
| IRR-1 11/16 | 1.6875 | -0.0005 | 1.9989 | -0.0007 | 1.260 | 1/8 | .060 |
| IRR-1 3/4 | 1.7500 | -0.0005 | 2.2489 | -0.0007 | 1.760 | 3/16 | .060 |

Ancillary Bearings



IRR

INNER RING RACES

(continued)

Dimensional Data (inches)

| SMITH Bearing® Number | A Bore Diameter I.D. | | D Outside Diameter | | W Width +0.000 -0.005 | H Hole Diameter | r Max Fillet for Shaft |
|--------------------------------------|-------------------------|----------------------|-----------------------|----------------------|--------------------------------|-----------------------|------------------------------------|
| | Nominal | Tolerance +0.0000 | Nominal | Tolerance +0.0000 | | | |
| IRR-1 ³ / ₄ -2 | 1.7500 | -0.0005 | 2.2489 | -0.0007 | 1.510 | 3/16 | .060 |
| IRR-1 ⁷ / ₈ | 1.8750 | -0.0005 | 2.2489 | -0.0007 | 1.760 | 3/16 | .060 |
| IRR-1 ⁵ / ₁₆ | 1.9375 | -0.0005 | 2.4989 | -0.0007 | 1.760 | 3/16 | .080 |
| IRR-2 | 2.0000 | -0.0005 | 2.4989 | -0.0007 | 1.760 | 3/16 | .080 |
| IRR-2-1 | 2.0000 | -0.0005 | 2.4989 | -0.0007 | 1.510 | 3/16 | .080 |
| IRR-2 ¹ / ₈ | 2.1250 | -0.0006 | 2.4989 | -0.0007 | 1.760 | 3/16 | .080 |
| IRR-2 ³ / ₁₆ | 2.1875 | -0.0006 | 2.7489 | -0.0007 | 1.760 | 3/16 | .080 |
| IRR-2 ¹ / ₄ | 2.2500 | -0.0006 | 2.7489 | -0.0007 | 1.760 | 3/16 | .080 |
| IRR-2 ¹ / ₄ -1 | 2.2500 | -0.0006 | 2.7489 | -0.0007 | 1.510 | 3/16 | .080 |
| IRR-2 ³ / ₈ | 2.3750 | -0.0006 | 2.9989 | -0.0007 | 1.760 | 3/16 | .080 |
| IRR-2 ⁷ / ₁₆ | 2.4375 | -0.0006 | 2.9989 | -0.0007 | 1.760 | 3/16 | .080 |
| IRR-2 ¹ / ₂ | 2.2500 | -0.0006 | 2.9989 | -0.0007 | 1.760 | 3/16 | .080 |
| IRR-2 ¹ / ₂ -1 | 2.2500 | -0.0006 | 2.9989 | -0.0007 | 1.510 | 3/16 | .080 |
| IRR-2 ⁵ / ₈ | 2.6250 | -0.0006 | 3.2487 | -0.0009 | 1.760 | 3/16 | .080 |
| IRR-2 ³ / ₄ | 2.7500 | -0.0006 | 3.2487 | -0.0009 | 1.760 | 3/16 | .080 |
| IRR-2 ⁷ / ₈ | 2.8750 | -0.0006 | 3.4987 | -0.0009 | 2.010 | 1/4 | .080 |
| IRR-2 ¹⁵ / ₁₆ | 2.9375 | -0.0006 | 3.4987 | -0.0009 | 2.010 | 1/4 | .080 |
| IRR-3 | 3.0000 | -0.0006 | 3.4987 | -0.0009 | 2.010 | 1/4 | .080 |
| IRR-3-1 | 3.0000 | -0.0006 | 3.4987 | -0.0009 | 1.760 | 1/4 | .080 |
| IRR-3 ¹ / ₈ | 3.1250 | -0.0006 | 3.7487 | -0.0009 | 2.010 | 1/4 | .100 |
| IRR-3 ¹ / ₄ | 3.2500 | -0.0006 | 3.7487 | -0.0009 | 2.010 | 1/4 | .100 |
| IRR-3 ³ / ₈ | 3.3750 | -0.0008 | 3.9985 | -0.0009 | 2.010 | 1/4 | .100 |
| IRR-3 ¹ / ₂ | 3.5000 | -0.0008 | 3.9985 | -0.0009 | 2.010 | 1/4 | .100 |
| IRR-3 ⁵ / ₈ | 3.6250 | -0.0008 | 4.2485 | -0.0009 | 2.010 | 1/4 | .100 |
| IRR-3 ³ / ₄ | 3.7500 | -0.0008 | 4.2485 | -0.0009 | 2.010 | 1/4 | .100 |
| IRR-3 ⁷ / ₈ | 3.8750 | -0.0008 | 4.4985 | -0.0009 | 2.260 | 1/4 | .100 |
| IRR-4 | 4.0000 | -0.0008 | 4.9985 | -0.0010 | 2.260 | 1/4 | .100 |
| IRR-4 ¹ / ₄ | 4.2500 | -0.0008 | 4.9985 | -0.0010 | 2.260 | 1/4 | .100 |
| IRR-4 ¹ / ₂ | 4.5000 | -0.0008 | 5.4985 | -0.0010 | 3.015 | 1/4 | .100 |
| IRR-4 ¹ / ₂ -1 | 4.5000 | -0.0008 | 5.4985 | -0.0010 | 2.515 | 1/4 | .100 |
| IRR-5 | 5.0000 | -0.0010 | 5.9983 | -0.0010 | 3.015 | 5/16 | .120 |
| IRR-5-1 | 5.0000 | -0.0010 | 5.9983 | -0.0010 | 2.515 | 5/16 | .120 |
| IRR-5 ¹ / ₂ | 5.5000 | -0.0010 | 6.4983 | -0.0010 | 3.015 | 5/16 | .120 |
| IRR-5 ¹ / ₂ -1 | 5.5000 | -0.0010 | 6.4983 | -0.0010 | 2.515 | 5/16 | .120 |
| IRR-6 | 6.0000 | -0.0010 | 7.2481 | -0.0012 | 3.015 | 5/16 | .120 |
| IRR-6 ¹ / ₂ | 6.5000 | -0.0010 | 7.7481 | -0.0012 | 3.015 | 5/16 | .120 |
| IRR-7 | 7.0000 | -0.0010 | 8.2481 | -0.0012 | 3.015 | 5/16 | .120 |
| IRR-7 ¹ / ₂ | 7.5000 | -0.0012 | 8.7480 | -0.0012 | 3.015 | 5/16 | .160 |
| IRR-8 | 8.0000 | -0.0012 | 9.2480 | -0.0012 | 3.015 | 5/16 | .160 |

INTERCHANGE TABLES

IRR Inner Ring Races

INTERCHANGE Inner Ring Races

| SMITH® | McGill | RBC | Torrington | INA |
|-------------|----------|-----------|------------|-----------|
| IRR-3/8-1 | MI-6-N | | IR-061012 | PI-061012 |
| IRR-3/8 | MI-6 | | | |
| IRR-7/16 | MI-7-N | | | |
| IRR-1/2 | MI-8-N | IR-7153 | IR-081212 | PI-081212 |
| IRR-1/2-1 | MI-8 | IR-7154 | IR-081216 | PI-081216 |
| IRR-9/16 | MI-9-N | IR-7153-C | | |
| IRR-5/8 | MI-10-N | IR-7173 | IR-101412 | PI-101412 |
| IRR-5/8-1 | MI-10 | IR-7174 | IR-101416 | PI-101416 |
| IRR-11/16 | MI-11-N | IR-7173-C | IR-111412 | |
| IRR-3/4-3 | MI-12-N | IR-7193 | IR-121612 | PI-121612 |
| IRR-3/4 | MI-12 | IR-7194 | IR-121616 | PI-121616 |
| IRR-13/16-2 | MI-13-N | | | |
| IRR-13/16 | MI-13 | IR-7194-C | IR-131616 | |
| IRR-7/8 | MI-14-N | IR-7214 | IR-141816 | PI-141816 |
| IRR-7/8-1 | MI-14 | IR-7215 | IR-141820 | PI-141820 |
| IRR-15/16 | MI-15-N | | IR-151816 | |
| IRR-15/16-1 | MI-15 | IR-7215-C | IR-151820 | |
| IRR-1 | MI-16-N | IR-7234 | IR-162016 | PI-162016 |
| IRR-1-2 | MI-16 | IR-7235 | IR-162020 | PI-162020 |
| IRR-11/16 | MI-17 | IR-7255-D | | |
| IRR-11/8-2 | MI-18-N | IR-7254 | IR-182216 | PI-182216 |
| IRR-11/8 | MI-18 | IR-7255 | IR-182220 | PI-182220 |
| IRR-13/16 | MI-19 | IR-7275 | IR-192420 | |
| IRR-11/4-4 | MI-20-N | | IR-202416 | PI-202416 |
| IRR-11/4 | MI-20 | IR-7275-C | IR-202420 | PI-202420 |
| IRR-15/16-1 | MI-21-N | IR-7294 | IR-212616 | PI-212616 |
| IRR-15/16 | MI-21 | IR-7295 | IR-212620 | |
| IRR-13/8 | MI-22-4S | IR-7295-C | IR-222620 | PI-222620 |
| IRR-13/8-2 | MI-22 | | IR-222820 | |
| IRR-17/16 | MI-23 | IR-7315 | IR-232820 | PI-232820 |
| IRR-11/2-1 | MI-24-N | | IR-242816 | PI-242816 |
| IRR-11/2 | MI-24 | IR-7315-C | IR-242820 | PI-242820 |
| IRR-19/16 | MI-25-4S | IR-7335 | IR-253020 | PI-253020 |
| IRR-19/16-1 | MI-25 | | IR-253220 | |
| IRR-15/8-3 | MI-26-2S | IR-7345 | | |
| IRR-15/8-1 | MI-26-N | | | |
| IRR-15/8 | MI-26 | IR-7355-D | IR-263220 | |
| IRR-111/16 | MI-27 | IR-7355 | IR-273220 | PI-273220 |
| IRR-13/4-2 | MI-28-N | IR 8406 | IR-283624 | PI-283264 |
| IRR-13/4 | MI-28 | IR 8407 | IR-283628 | PI-283628 |

(Continued)

| SMITH® | McGill | RBC | Torrington | INA |
|------------|---------|------------|-------------|-----------|
| IRR-17/8 | MI-30 | IR-8407-C1 | | |
| IRR-15/16 | MI-31 | IR-8447 | IR-314028 | |
| IRR-2-1 | MI-32-N | IR-8446-C | IR-324024 | PI-324024 |
| IRR-2 | MI-32 | IR-8447-C | IR-324028 | |
| IRR-21/8 | MI-34 | IR-8447-C1 | | |
| IRR-23/16 | MI-35 | IR-8447 | IR-354428 | |
| IRR-21/4-1 | MI-36-N | IR-8476-C | IR-364424 | PI-364424 |
| IRR-21/4 | MI-36 | IR-8477-C | IR-364428 | |
| IRR-23/8 | MI-38 | IR-8517 | IR-384828 | |
| IRR-27/16 | MI-39 | | | |
| IRR-21/2-1 | MI-40-N | IR-8516-C | IR-404824 | PI-404824 |
| IRR-21/2 | MI-40 | IR-8517-C | IR-404828 | |
| IRR-25/8 | MI-42 | IR-9567-D | | |
| IRR-23/4 | MI-44 | IR-9567 | IR-445228 | IR-445228 |
| IRR-27/8 | MI-46 | | | |
| IRR-215/16 | MI-47 | IR-9608 | IR-475632 | |
| IRR-3-1 | MI-48-N | | | |
| IRR-3 | MI-48 | IR-9608-C | IR-485632 | PI-485632 |
| IRR-31/8 | MI-50 | IR-9648 | IR-506032 | |
| IRR-31/4 | MI-52 | IR-9648-C | IR-526032 | |
| IRR-33/8 | MI-54 | IR-9688 | IR-546432 | |
| IRR-31/2 | MI-56 | IR-9688-C | IR-566432 | |
| IRR-35/8 | MI-58 | IR-9728-C | | |
| IRR-33/4 | MI-60 | IR-9728-C1 | IR-606832 | |
| IRR-37/8 | MI-62 | IR-6769-C | | |
| IRR-4 | MI-64 | IR-6849 | IR-648036 | |
| IRR-41/4 | MI-68 | IR-6849-C | IR-688036 | |
| IRR-41/2-1 | MI-72-N | IR-6918 | IR-728840 | |
| IRR-41/2 | MI-72 | IR-6919 | IR-728848 | |
| IRR-5-1 | MI-80-N | IR-6925 | IR-809640 | |
| IRR-5 | MI-80 | IR-6926 | IR-809648 | |
| IRR-51/2-1 | MI-88-N | IR-6935 | IR-8810440 | |
| IRR-51/2 | MI-88 | IR-6936 | IR-8810448 | |
| IRR-6 | MI-96 | IR-2326 | IR-9611648 | |
| IRR-61/2 | MI-104 | IR-2426 | IR-10412448 | |
| IRR-7 | MI-112 | IR-2526 | IR-11213248 | |
| IRR-71/2 | MI-120 | IR-2626 | IR-12014048 | |
| IRR-8 | MI-128 | IR-2726 | IR-12814848 | |