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EAGLE ALLOY DIMENSIONAL TOLERANCE STANDARDS

The following are the normal tolerances that can be applied to as cast parts produced from each of the available processes. Any deviation from these guidelines will be considered on a case by case basis. Specific part geometry may require or allow an increase or decrease in tolerance from this standard. Subsequent operations (e.g. grinding, pressing, machining, etc.) may improve tolerances on specific dimensions. Tolerances based on experience and from STEEL CASTINGS HANDBOOK, Steel Founders Society of America.

| | <u>SHELL</u> | <u>ISO 8062 (REF)</u> | <u>AIRSET</u> | <u>ISO 8062 (REF)</u> |
|--------------------------------------|-------------------|-----------------------|-------------------|-----------------------|
| LINEAR DIMENSIONS - INCH (MM) | | | | |
| 0" to 6" INCL (0 to 152 INCL) | +/- 0.030" (0.75) | CT8 | +/- 0.063" (1.60) | CT10 |
| 6" to 12" INCL (152 to 305 INCL) | +/- 0.045" (1.15) | CT9 | +/- 0.094" (2.40) | CT11 |
| 12" to 18" INCL (305 to 457 INCL) | +/- 0.060" (1.50) | CT9 | +/- 0.125" (3.20) | CT11 |
| 18" to 24" INCL (457 to 610 INCL) | +/- 0.090" (2.30) | CT10 | +/- 0.188" (4.80) | CT12 |
| 24" to 30" INCL (610 to 762 INCL) | +/- 0.098" (2.50) | CT10 | +/- 0.251" (6.40) | CT12 |
| 30" to 36" INCL (762 to 914 INCL) | +/- 0.098" (2.50) | CT10 | +/- 0.314" (8.00) | CT12 |
| | | | | |
| ACROSS PARTING LINE-ADD to ABOVE | 0.010" (.25) | | 0.030" (.75) | |
| PATTERN to CORE DIMS-ADD to ABOVE | 0.010" (.25) | | 0.030" (.75) | |
| MISMATCH-COPE to DRAG | +/- 0.020" (.50) | | +/- 0.063" (1.60) | |
| GATE/RISER CONTACTS | +/- 0.063" (1.60) | | +/- 0.063" (1.60) | |
| RECOMMENDED MINIMUM RADIUS | 0.031" (0.75) | | 0.063" (1.60) | |
| | | | | |
| ANGULAR DIMENSIONS (DEGREES) | | | | |
| ALL ANGLES | | +/- 1 ° | | +/- 1 ° |

DO NOT PUT LOCATING POINTS ON PARTING LINE OR GATE/RISER CONTACTS.

SURFACE FINISHES

SHELL CAST SURFACE FINISH: 120 - 300 RMS

AIRSET CAST SURFACE FINISH: 300 - 560 RMS