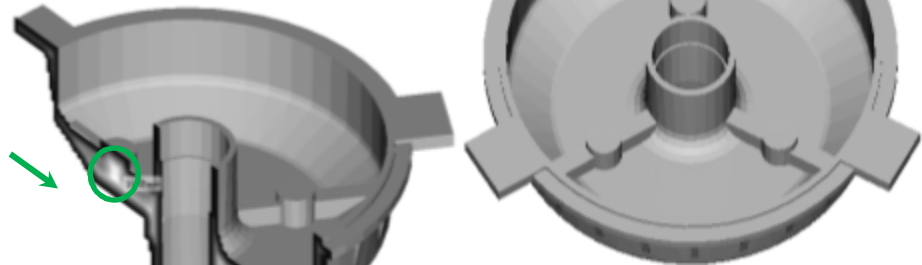


Brake Drum

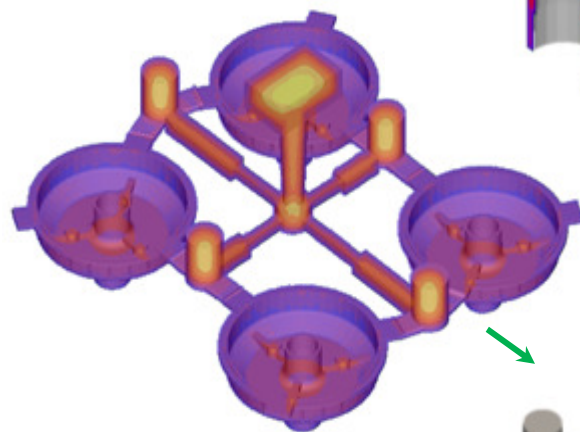
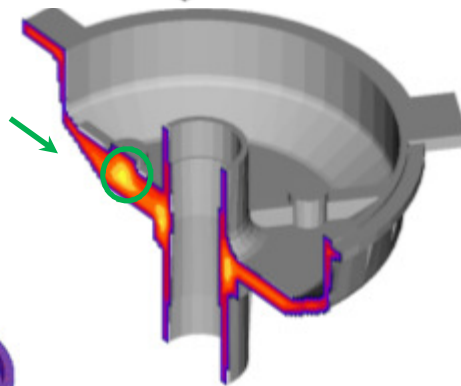
Cast Iron, Green Sand Casting

The Cast Iron brake drum of overall size 247 mm x 245 mm x 122 mm weighing 4 kg is produced in a ferrous foundry. There is a need to improve the casting quality and yield. →

Part and thickness analysis shows a circumferential L-junction along with boss sections of 20 mm thickness (inscribed sphere diameter). →



Preliminary solidification analysis shows hotspot region at the thickest section just below the three bosses on the arms. The methoding is revised with four castings in mold, with feeders of 70 mm height and 50 mm diameter. →



Solidification analysis of the new methods design shows there is directional solidification through the thickest region resulting in the uniform temperature profile. The yield is also increased to 77%. →

