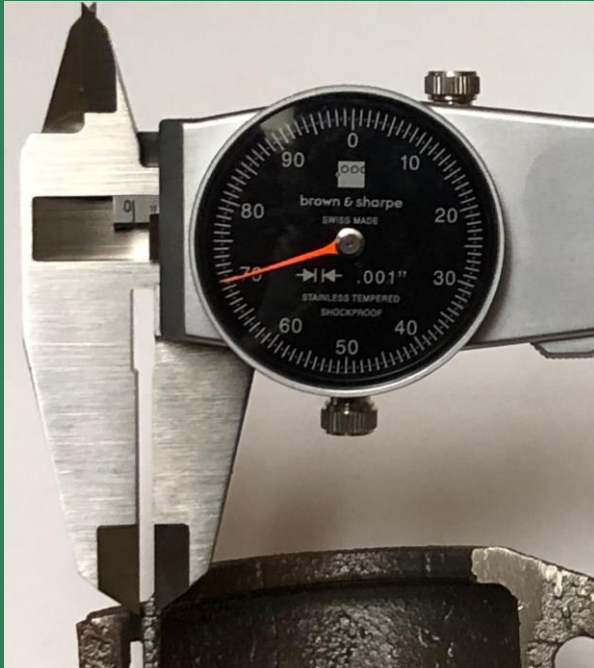




LIGHTWEIGHTING TECHNOLOGY OPTIONS



Need Cost Effective Lightweighting?

Ductile iron has superior specific strength compared to steel where it is 10% less dense and aluminum as it is 3 times stronger.

Skuld's Thin Walled Ductile Iron alloy has been used in production as thin as 1.5mm and research funded by the US Department of Energy has shown that down to 0.7mm is feasible with our alloying process.

Whether we use our lost foam casting method or our patent pending additive manufacturing process called AMEC, both are net or near net processes with up to 0.2% tolerance control which minimizes machining. Use with topology optimization for additional lightweighting.



Case Studies

The bridge plate shown above was for the railroad industry. The weight after redesign was only 35 pounds and had a 68% weight reduction.

The valve component shown at left was redesigned to only be 1.5mm thick in most locations. The new design reduced the weight from 1.36 kg to just 0.34 kg, a 75% weight reduction! More importantly the customer was able to achieve a cost savings of \$2.50 per part compared to the heavier design.

