



# foundry capabilities

state-of-the-art 170,000 square feet steel and alloy foundry

### investment casting

- weights from 1oz to 50lb
- castings up to 2' x 2' x 2'

# air set/no-bake sand casting

- weights from 2lb to 5,000lb
- castings up to 45" x 50" x 30"

# tooling & design

- on-site Investment and no-bake tooling production
- in-house tooling design
- casting process mold filling and solidification modeling

# melt & pouring

- melting capacity: 40 tons daily
- metallurgical lab: optical emission spectrometer, c/s and n/o analysis, microstructure analysis
- chemistry control for optimizing corrosion resistance and mechanical properties
- mechanical properties testing: tensile, hardness, impact toughness
- traceable heats

### cleaning & finishing

 automated and manual blast, cutting, grinding, and welding

### heat treatment

- vacuum heat treatment furnaces with liquid nitrogen quench
- processes: solution annealing, normalizing, quench and temper

## quality

- ISO 9001 certified
- CE/PED certified
- continuous process improvement practices
- real time x-ray
- certification of alloy chemistry and mechanical properties (MTR)



# "Apollo" advantage

- American manufacturing and steel production\*
- competitive delivery times
- factory responsiveness
- high quality material made from certified ingot
- high alloy materials readily available
- 5-year warranty\*
- same top-works design for 3-piece, flanged, and top entry valves
- "buy american act" compliant





# alloys available

WCB carbon steel
LCC carbon steel
CF8M stainless steel
CF3M stainless steel
alloy 20
duplex | super duplex
hastelloy®
nickel
monel®
bronze | lead free bronze
85-5-5 bronze

