DENSALLOY™

U.S. MADE TUNGSTEN HEAVY ALLOYS

DENSE. DURABLE. DEPENDABLE.

The DENSALLOY™ Advantage in Aerospace Counterweights

In a world obsessed with lighter and faster, dense materials still hold a critical role. DENSALLOY™ tungsten heavy alloys redefine what's possible when size, balance, and durability matter most. From flight control to impact mitigation, our alloys bring unmatched density and versatility into the aerospace weight engineering frontier.

The Challenge of Mass Property Engineering

Design and materials engineers continually push the limits—seeking smaller, lighter, and stronger solutions. But when compact mass is the goal, density becomes king. Enter tungsten: the go-to metal for advanced counterweight solutions.

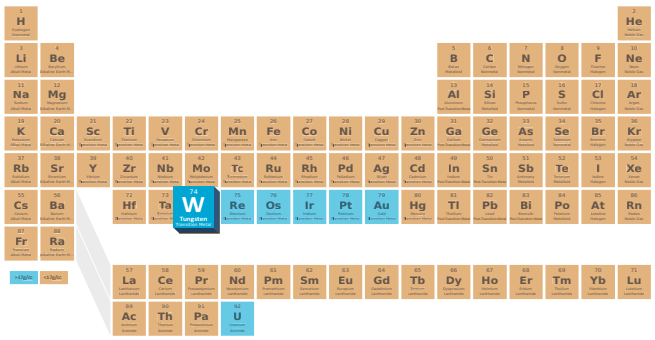
Why Tungsten? Why DENSALLOY™?

- Superior Density: Up to 18.9 g/cc — more than twice that of steel.
- Non-toxic & Stable: Unlike depleted uranium, DENSALLOY™ offers high performance without safety tradeoffs.
- High Rigidity: ~50% stiffer than steel — ideal for vibrational control.
- Machinable & Tough: ~30 HRC hardness; ductility can exceed 35% elongation.
- Custom Shapes & Sizes: From sintered blanks to fully machined parts.

Think small. Think dense. Think DENSALLOY™. When gravity is your tool, we deliver the edge.

GRAVIMETRIC DENSITY COMPARISON	
Element / Alloy	Density (g/cc)
7075 Aluminum	2.81
Ti-6Al-4V	4.43
Most Steels	~7.9
Cu	8.96
Lead [0-10 wt.% Sb]	11.35 -10.59
Standard DENSALLOY™	17.0 -18.5
DU	18.9 -19.1
W, Au	19.3

For elements having 50% greater density than Pb (17 g/cc), the choices are very limited:



PURPOSE-BUILT FOR THE HEAVIEST DEMANDS

From counterweights to kinetic energy penetrators, we engineer mass with mission-critical precision

Application Areas for DENSALLOY™ WHAs

- Counterweights for CG (center of gravity) optimization
- Gyroscope rotors & vibration-damping weights
- Hypervelocity impact shielding
- High density kinetic energy munitions
- Acoustic and vibrational tuning devices
- Aerospace bucking bars
- Impactor masses for kinetic delivery

Manufacturing & Customization

- Manufactured in a Florida-based U.S. AS9100D-certified facility
- Custom alloying options available
- Delivered as sintered blanks, near-net shapes, or precision-machined parts
- Engineering consultation included for integration into your systems

Wherever aerospace mass balance matters — DENSALLOY™ is the answer.

ASTARAS
Tungsten Heavy Alloys

Astaras Tungsten Heavy Alloys
11625 54th St. N.
Clearwater, FL
Jim Brown
Senior Sales Representative for Tungsten Heavy Alloys
jim.brown@astaras.com
(O) (727) 202-7772 (C) (727) 295-6989

ABICOR® GROUP

WWW.DENSALLOYUSA.COM

MADE IN AMERICA