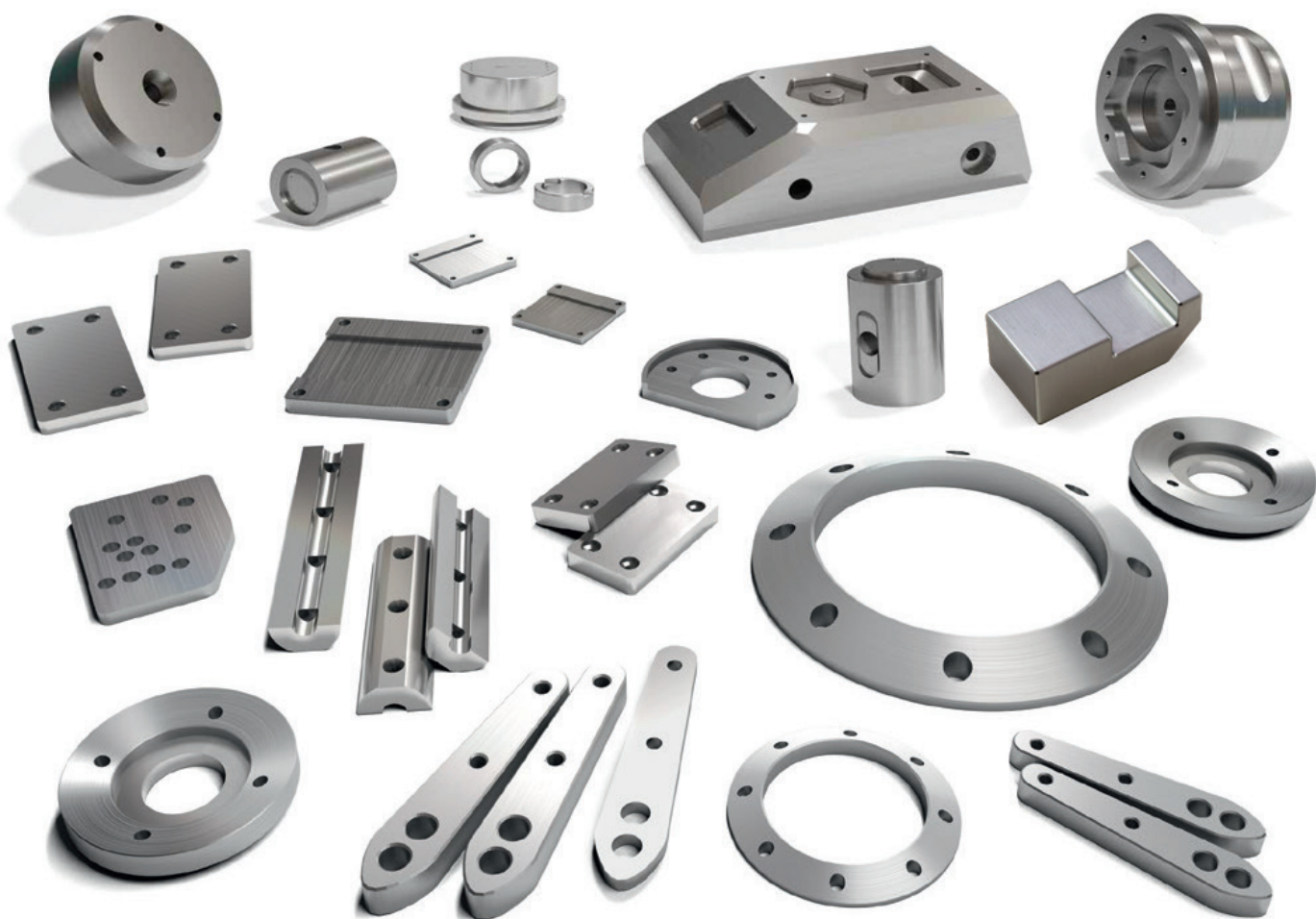




**ASTARAS**  
**Tungsten Heavy Alloys**



## Astaras, Inc.

Astaras, Inc., established in 2000, is the foremost leader in private label welding products in The Americas, including MIG guns and consumables, TIG torches and consumables, Gouging torches and Carbon electrodes, and Tungsten Electrodes. In addition to the welding business, Astaras grew to be a leading distributor of Tungsten Heavy Alloys. In 2025, Astaras took an important step in its growth by beginning production of Tungsten Heavy Alloys. The addition of a new, state-of-the-art manufacturing facility in Florida is essential in supporting key industries in the United States.

## ABICOR GROUP®

As of February, 2024, Astaras, Inc is a member of the ABICOR GROUP, which also includes IBG Industrie-Beteiligungs-Gesellschaft mbH & Co KG companies ABICOR BINZEL, Thermacut, HERR Industry System, PT Photonic Tools, Cantesco and Weldstone.



## IBG Group



The IBG group consists of more than 2,500 employees in 75 subsidiaries spread across 50 countries worldwide and can now look back on a hundred years of company history. In addition to IBG Industrie-Beteiligungs-Gesellschaft mbH & Co. KG as the parent company, the Cologne-based holding company comprises a large number of affiliated companies that represent the globally oriented operating activities. In the field of cutting and welding technology, these are leading companies such as the ABICOR BINZEL group, the Thermacut group, and Astaras, which offer a broad and innovative product range for all welding and cutting production processes, both for manual and automated welding and cutting.

## Industries

Our products are specially created for multiple different industries and a variety of applications.



Aerospace



Defense



Medical



Oil



Gas



Machines



Automotive



Electronics



Measuring



Sports

## American Business Focus

In comparison to other suppliers, while we have the support of a broad network of global affiliated companies and technical experts, Astaras has the advantage of operating manufacturing facilities in the United States. We are DFARS compliant, guaranteeing you the best possible Made-in-America product and service quality. Astaras also focuses on our core values in everyday business. This includes treating not only the environment respectfully, but most importantly, respectful and ethical dealings with our clients.



Florida-Based  
Production



Idea to  
Reality



Reliable  
Quality



Professional  
Consulting



Ethics



Environment

## What is DFARS?

The Defense Federal Acquisition Regulation Supplement (DFARS) is a set of regulations aimed at prioritizing the security of organizations and their customers. The primary purpose of DFARS is to protect the confidentiality of Controlled Unclassified Information (CUI)— and regulations apply to all U.S. Department of Defense contractors.

## Tungsten Alloy Advantages

- Cost Effective**  
Lowest Cost of Alloys >17 g/cc
- Non-Toxic & Stable**  
High Performance without Safety Tradeoffs
- High Rigidity**  
50% Stiffer Than Steel
- Machinable & Tough**  
~30 HRC Hardness

1 H Hydrogen 1.008	2 He Helium 4.003																
3 Li Lithium 6.941	4 Be Beryllium 9.012											5 B Boron 10.811	6 C Carbon 12.011	7 N Nitrogen 14.007	8 O Oxygen 15.999	9 F Fluorine 18.998	10 Ne Neon 20.180
11 Na Sodium 22.990	12 Mg Magnesium 24.305											13 Al Aluminum 26.982	14 Si Silicon 28.086	15 P Phosphorus 30.974	16 S Sulfur 32.065	17 Cl Chlorine 35.453	18 Ar Argon 39.948
19 K Potassium 39.098	20 Ca Calcium 40.078	21 Sc Scandium 44.956	22 Ti Titanium 47.88	23 V Vanadium 50.942	24 Cr Chromium 52.004	25 Mn Manganese 54.938	26 Fe Iron 55.845	27 Co Cobalt 58.933	28 Ni Nickel 58.693	29 Cu Copper 63.546	30 Zn Zinc 65.38	31 Ga Gallium 69.723	32 Ge Germanium 72.630	33 As Arsenic 74.922	34 Se Selenium 78.96	35 Br Bromine 79.904	36 Kr Krypton 83.80
37 Rb Rubidium 85.468	38 Sr Strontium 87.62	39 Y Yttrium 88.906	40 Zr Zirconium 91.224	41 Nb Niobium 92.906	42 Mo Molybdenum 95.94	43 Tc Technetium 98.906	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.906	46 Pd Palladium 106.36	47 Ag Silver 107.868	48 Cd Cadmium 112.411	49 In Indium 114.818	50 Sn Tin 118.710	51 Sb Antimony 121.757	52 Te Tellurium 127.6	53 I Iodine 126.905	54 Xe Xenon 131.29
55 Cs Cesium 132.905	56 Ba Barium 137.327	72 Hf Hafnium 178.49	73 Ta Tantalum 180.948	74 W Tungsten 183.84	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.222	78 Pt Platinum 195.084	79 Au Gold 196.967	80 Hg Mercury 200.59	81 Tl Thallium 204.383	82 Pb Lead 207.2	83 Bi Bismuth 208.980	84 Po Polonium 209	85 At Astatine 210	86 Rn Radon 222	
87 Fr Francium 223	88 Ra Radium 226																
		89 La Lanthanum 138.905	90 Ce Cerium 140.12	91 Pr Praseodymium 140.908	92 Nd Neodymium 144.24	93 Pm Promethium 144.913	94 Sm Samarium 150.36	95 Eu Europium 151.964	96 Gd Gadolinium 157.25	97 Tb Terbium 158.925	98 Dy Dysprosium 162.50	99 Ho Holmium 164.930	100 Er Erbium 167.259	101 Tm Thulium 168.930	102 Yb Ytterbium 173.054	103 Lu Lutetium 174.967	
		88 Ac Actinium 227	90 Th Thorium 232.038	91 Pa Protactinium 231.036	92 U Uranium 238.029												

## Characteristics

A tungsten heavy alloy is a mixture of tungsten and one or more other metals, such as nickel, iron, copper, cobalt, or molybdenum. These are engineered materials designed to enhance or tailor specific properties of pure tungsten. The outstanding characteristics of tungsten and molybdenum are high density, strength and stiffness even under the highest temperatures.



Density



Thermal Strength



Mechanical Strength



Shielding



Thermal Conductivity



Electrical Conductivity

## Products

# DENSALLOY™

U.S. MADE TUNGSTEN HEAVY ALLOYS

DENSALLOY™ is an American-made brand which represents a product group comprising of tungsten heavy alloys.

Due to the high melting point of tungsten, DENSALLOY™ Products are produced by a powder metallurgy process. In these alloys, many of the outstanding characteristics of tungsten remain. That is the reason why these materials are very high in density. The high density is often directly applied like in vibration dampening weights or counter balance weights.

In shielding applications, the density is indirectly used due to its high absorption cross-section. DENSALLOY™ tungsten heavy alloys are also very corrosion and temperature resistant and offer at the same time good electrical and thermal conductivity.

These properties are particularly used in high temperature applications

The high stiffness is the reason why DENSALLOY™ tungsten heavy alloys are also used to dampen vibrations in precision tool holders.

## DENSALLOY™ Tungsten Heavy Alloy Materials

### Magnetic

- DENSALLOY™ 170F
- DENSALLOY™ 175F
- DENSALLOY™ 180F
- DENSALLOY™ 185F

### Non-Magnetic (*very low magnetic permeability*)

- DENSALLOY™ 170L
- DENSALLOY™ 175L
- DENSALLOY™ 180L

## DENSALLOY™ Products

- Counterbalance weights for crank shafts
- Aerospace components
- Tool holders
- Medical components
- Shielding parts for measuring devices
- Engine parts

Astaras Tungsten Heavy Alloys  
11625 54<sup>th</sup> 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



[WWW.DENSALLOYUSA.COM](http://WWW.DENSALLOYUSA.COM)



MADE IN AMERICA