





# SPECIALTY METAL SOLUTIONS FOR CRITICAL APPLICATIONS

FOIL • STRIP • TUBES • POWDER • WIRE

















- AEROSPACE
- ALTERNATIVE ENERGY SOURCES
- AUTOMOTIVE AND MARINE COMPONENTS
- COATINGS
- ELECTRONIC COMPONENTS
- HIGH PERFORMANCE
- INSTRUMENTATION AND MEASUREMENT
- MEDICAL AND SURGICAL
- NUCLEAR AND POWER
- OIL AND GAS
- POWDER INJECTION
- PRECISION COMPONENTS

# **AMETEK Specialty Metal Products**

AMETEK Specialty Metal Products is a global leader in the production of metal powders, master alloys, clad metals, specialty wire products, metal strip, engineered shaped components, thermal management products, foil, tubes and precision strip.

# Hamilton Precision Metals AMETEK Wallingford Fine Tubes Superior Tube Reading Alloys Eighty Four

#### **OUR ALLOYS**

#### **HAMILTON PRECISION METALS** (Foil & Strip)

STAINLESS STEEL: 301, 302, 304, 304L, 316, 316L, 316 LS, 410, 420, 430, 17-4PH, 17-7PH

NICKEL: 200, 201, 270, 625, Hastelloy C276, Havar, Inconel 600, Monel 400, MP35N, Precision C, X-750

TITANIUM: CP Ti (Grade 1,2,4), Grade 9

SPECIALTY: Constantan, Evanohm R, L-605, 715, Manganin, Moly Permalloy, NiCr80/20, NiFe, Tantalum

#### **AMETEK WALLINGFORD** (Strip, Wire & Shaped Components)

NICKEL: 200, 201, 270, NiFe 36, 42, 48, 52, NiW, NiCr alloys (80/20, 70/30, 65/35)

**TITANIUM:** Ti Gr 5 ELI (Grade 23)

SPECIALTY: AlSiC, CoFe, CoNiFe, Ductile Co, F-15 alloy, High Purity Iron, MoCu, Pfinodal CuNiSn, WCu

#### FINE TUBES AND SUPERIOR TUBE (Precision Tubing)

STAINLESS STEEL: 303SE, 304, 304L, 310, 316, 316L, 316LN, 316LVM, 316TI, 317L, 321, 347, 35NLT, 6Mo, 904L,

15-5PH, 16-6 PH, 17-4PH, 17-7PH, 21-6-9, 42-6, 446, FV607, Nitronic 50™, Duplex S31803,

Super Duplex (\$32750 and \$32760)

NICKEL: 36% Ni-Fe, 42% Ni-Fe, 59, 75, 188, 200, 201, 211, 263, 29-17 (Kovar), Monel 400, 600, 625,

690, 718, 800-H-HT, 825, C22, C276, C902, HX, K-500, L-605, MP35N™, Waspaloy™, X750

TITANIUM: Ti CP (Grade 1 and Grade 2), Ti 3Al-2.5V (Grade 9), Ti 6Al-4V (Grade 5), Ti 6Al-4V ELI (Grade 23), Ti A-40

**ZIRCONIUM:** Zircaloy 2, Zircaloy 4

#### **READING ALLOYS** (Gas Atomized Powders, HDH Powders & Master Alloys)

TITANIUM POWDERS: CP Ti, Ti 6AI-4V (Grade 5), Ti 6AI-4V ELI, Ti 6/4 Hydride, Ti Hydride, Ti Sponge

MASTER ALLOYS: Al-V, Al-Mo, Al-Cr, Ti17, Al-Nb, Ni-Nb

SPECIALTY POWDERS: 304L, 316L, Al-Co, Al-Cr, Al-Cu, Al-Fe-P, Al-Mo, Al-Nb, Al-Si, Al-V, AMEKOTE 40, AMEKOTE 60,

BNi-2, BNi-5, BNi-7, CODEP, Fe-Nb, Mg-Ni, Mo-Ni, Mo-Ti, Ni-Nb, Si-Ti, V-Ni

#### **AMETEK EIGHTY FOUR** (Water Atomized Powders & Clad Metals)

**300 SERIES STAINLESS STEEL:** 303L, 304L, 310L, 316L, 317L, 327L, 716L, HP Ultra 303L, HP Ultra 304L, HP Ultra 316L

**400 SERIES STAINLESS STEEL:** 409L, 410L, 430L, 431, 434L, 434CB, 446L **NICKEL HARDFACING ALLOYS:** 80/20 Ni-Cr, PF20, PF30, PF40, PF50, PF60, Ni/Al

**SPECIALTY ALLOYS:** 17-4 PH, 36NiFe, 70/30 FeCr, 304/CS, Alcor 5, Alcor 7, C22, C276, DP-1, Magnaply™,

Molyperm, NiAl, NiClad, Nickel 200, NiCr, PC1017, PI600, PM400, PN200, SS/Al/SS,

T10, T-15, T100, T400, Tool Steels

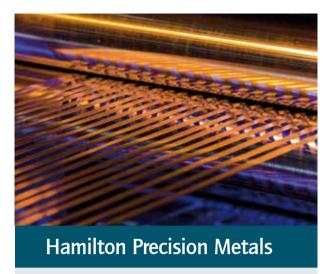
OTHER ALLOYS AVAILABLE ON REQUEST.

#### **ABOUT AMETEK**

AMETEK, Inc. is a leading global manufacturer of electronic instruments and electromechanical devices with 2015 sales of \$4.0 hillion.

AMETEK has over 15,000 employees at more than 150 manufacturing locations around the world. Supporting those operations are more than 100 sales and service locations across the United States and in 30 other countries around the world.





# Precision Strip, Foil and Ultra-Thin Foil

Hamilton Precision Metals rolls metal strip and foil in a large variety of alloys to the tightest tolerances and thinnest gauges in the industry.

Thickness down to 1.5 microns (.000060")

- Titanium CP (Grade 1,2,4) and Alloyed (Grade 9)
- Stainless and Heat Resisting Steels Standard & Special Grades (17-4PH, 17-7PH)
- Nickel and High Nickel Alloys: Havar, Hastelloy C-276, MP35N, Pure Nickel, Precision C
- Precision Resistor Alloys: Constantan, Evanohm, Manganin, HPM 80/20, HPM600
- Controlled Expansion Alloys: NiFe 36,42,52, Rodar/Sealvar
- And many others including L-605, Moly Permalloy, Tantalum





# **AMETEK Wallingford**

# High Purity Strip and Wire

Located in Wallingford, Connecticut, AMETEK Specialty Metals Products is a pioneer in specialty metal products with more than 50 years of experience and numerous patents in technically advanced metallurgical materials.

- Metal Strip (Nickel, Nickel Iron, Nickel Tungsten, Nickel Chrome, Ductile Cobalt, High Purity Iron)
- Pfinodal (CuNi15Sn8) Strip, Bars, Rods, Components
- Controlled Expansion Alloys
- Machine-Finished Parts
- Powder Metallurgy Wire
- Thermal Management Materials (Moly Copper, Tungsten Copper & AlSiC)









# **Fine Tubes**

# Precision Engineered Metal Tubing

Fine Tubes is a leading manufacturer of high specification tubing with a reputation for creative innovations and product excellence. We work closely with our customers on solving technical challenges for the most demanding applications and industries.

- Precision Metal Tubing in Specialty Grades of Stainless Steel, Duplex Stainless Steel, Nickel and Titanium
- · Seamless, Welded and Welded & Drawn
- Round, Rectangular, Square, Oval and Elliptical Profiles
- Seamless tubes from less than 1mm (0.04") up to 50.8mm (2") OD
- Welded, welded & drawn tubes up to 38.1mm (1 1/2") OD
- Wall thicknesses from less than 0.05mm (0.002 in) up to 3.8mm (0.150 in)
- Straight lengths up to 20m (65.6ft) and coiled tubes with orbital joints up to 10,000m (33,000 ft) long





# **Superior Tube**

# Small Diameter Precision Tubing

Superior Tube is a global leader in the manufacture of precision thin wall tubing. From aerospace to power stations, oil and gas extraction and medical devices, our products are used in a wide range of demanding applications.

- Precision Metal Tubing in Specialty Grades of Stainless Steel, Nickel, Titanium and Zirconium
- Seamless, Rolled and Welded & Drawn
- Profiles and cross section shapes to suit any requirement
- Both seamless and welded products come both as straight lengths or coils
- Seamless and welded drawn tubes from under 0.010" (1/4 mm) up to 1.5" (38.1 mm) OD
- Finished wall thicknesses down to less than 0.002" (0.05 mm) up to 0.150" (3.8 mm)
- Straight lengths of tubing up to 45ft (14m) long and coiled tubes up to 3,200ft (975m) in length



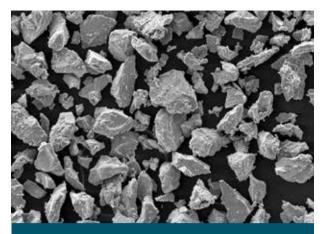
# Markets we serve

Our materials are used in a variety of applications, including automotive, aerospace, micro-electronics, appliance, oil & gas, nuclear, telecommunications, marine, medical and general industrial.









# **Reading Alloys**

# Titanium Powders, Gas Atomized Powders and Master Alloys

Reading Alloys is known for its superior expertise in aluminothermic smelting, induction melting, vacuum sintering, and metal powder production. We are leading suppliers for applications where ultimate quality is critical. Our high-purity alloys are manufactured in accordance with a certified ISO 9001/AS 9100 quality management system and tested by a Nadcap accredited analytical laboratory.

- Advanced coating alloys Al/Cr, Al/Co, CODEP
- Thermal Spray/Medical Powders Ti Sponge, CP Ti, Ti 6Al-4V
- Powder Injection Molding (PIM) Powders CP Ti
- Sputtering Target Powders CP Ti
- Master Alloys for Aerospace
- Master Alloys for Superalloys
- Gas Atomized Brazing Powders
- Gas Atomized Thermal Spray Powders



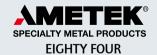


# **AMETEK Eighty Four**

# Water Atomized Powders, Stainless Steel Flake and Clad Materials

A global leader in the design, development and production of atomized, high technology metal powders and clad bonded metal products. Recognized as a premier manufacturer for applications where ultimate quality is critical our specialty products are manufactured in accordance with a certified ISO 9001: 2000 status.

- Stainless Steel Powders for P/M and MIM
- Nickel and Cobalt Alloy Powders for Thermal Spray
- Tool Steel Powders
- Stainless Powders for Paint and PTFE
- Ametip Polyester Filtration Powders
- Custom and Proprietary Powders
- Clad Metals (Induction Cookware, Petrochemical Plants)











#### SPECIALTY METAL SOLUTIONS FOR CRITICAL APPLICATIONS



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