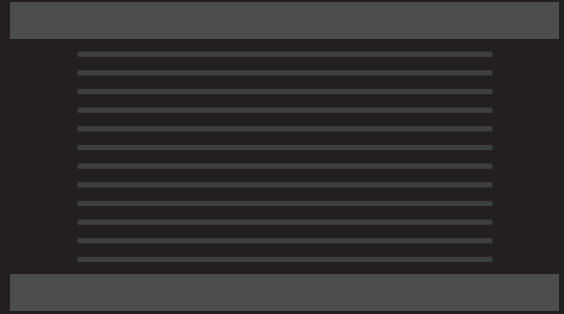




Praxair and TAFE thermal spray wires



Praxair Surface Technologies, Inc. and TAFE Incorporated offers a complete line of arc spray wires in its portfolio of thermal spray materials. Proud of our role in the emergence and growth of the arc spray process, we continue to develop and refine thermal spray wires of all types – solid or cored, soft or hard – to help you take full advantage of the **exceptional value** arc spray provides.

Whether your application calls for a reliable bond coat, dimensional restoration or resistance to wear and corrosion, Praxair and TAFE has a wire to **meet the challenge**. Understanding that “not all wires are alike”– in part because we optimize wires for **superior arc spray** coatings – we provide materials that perform every time. And we offer the complete “system”, including six hardware options, to start you on the way to **productive solutions**.

When you search for the right thermal spray wire, remember the company that built its reputation on arc spray technology: Praxair and TAFE. Let us work with you to continue to **develop and perfect** quality arc spray wires and coatings.

Phone: 1-603-223-2100
Fax: 1-603-225-4342
E-mail: psti-info@praxair.com



Quality thermal spray wires must be made to tight compositional tolerances, have the appropriate surface finish, and be spooled properly for consistent performance.

**Exceptional wires for
superior coatings**

superior

We recognize that high quality spray equipment without compatible, first-rate coating materials can lead to less than desirable coatings. For arc spray, only wires designed and produced for thermal spraying ensure trouble-free application and superior, consistent coatings.

All Praxair and TAFE wires are engineered and manufactured exclusively for the specialized needs of thermal spray. Strict specifications and production controls guarantee that each wire is manufactured to a precise metallurgical composition and free from defects such as slivers or contaminants. Care is taken to ensure that our wires have the proper physical properties for thermal spraying – tensile strength, hardness, and surface finish – and that they are properly spooled for reliable performance. Post manufacturing

testing and analysis assure that the targeted characteristics are achieved.

Praxair and TAFE wires are available in a number of packaging options. We offer several sizes of level-layer wound spools and larger dispensing containers for high volume applications.

An extensive inventory of wires, available in 25 or 30 pound spools as well as bulk pay-off packs, assures prompt delivery and reinforces our commitment to the growth and development of arc spray applications.



Metal and alloy wires

Wire Name	Material	Diameter	Coverage (/ft ² /0.001") (/m ² /100 μm)	Spray Rate (/h/100 A)	Approved Specs	Application Data
AI-1800	Nickel Aluminum Molybdenum	1/16" (1.6 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg		<ul style="list-style-type: none"> Bond Coat Oxidation, Shock and Abrasion Resistance
Alcro	Iron Chrome Aluminum	1/16" (1.6 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg		<ul style="list-style-type: none"> Good for Buildup Excellent Wear Resistance
01A	Aluminum 12% Silicon	1/16" (1.6 mm)	0.3 oz 0.3 kg	6 lbs 2.8 kg	MIL-W-6712C PWA 36935 (PWA 271-35 Rev. D) GE B50TF92S2 CL A DDMR33-027	<ul style="list-style-type: none"> Dimensional Restoration Aircraft Approved
01P	Aluminum 1100	11 gauge (2.3 mm) 1/8" (3.2 mm)	0.3 oz 0.3 kg	6 lbs 2.8 kg	MIL-W-6712C	<ul style="list-style-type: none"> Corrosion Protection
01S	Aluminum 6% Silicon	1/16" (1.6 mm)	0.3 oz 0.3 kg	6 lbs 2.8 kg	MIL-W-6712C FP5045 Type VIII	<ul style="list-style-type: none"> Dimensional Restoration Aircraft Approved
01T	Aluminum	1/16" (1.6 mm) 1/8" (3.2 mm)	0.3 oz 0.3 kg	6 lbs 2.8 kg	MIL-W-6712C PWA 1320F DMR33-012 FP5045 Type VI GE Manual # 70-49-40 (Alternate to 70-49-01)	<ul style="list-style-type: none"> Corrosion Protection Electrical Conductivity Aircraft Approved
02A	Zinc Aluminum	2 mm 11 gauge (2.3 mm) 1/8" (3.2 mm) 3/16" (4.8 mm)	0.8 oz 1.0 kg	21 lbs 9.5 kg		<ul style="list-style-type: none"> Corrosion Protection
02T	Zinc Tin	2 mm	0.9 oz 1.1 kg	45 lbs 20.4 kg		<ul style="list-style-type: none"> Capacitors: Solderable Coating
02W	Pure Tin	2 mm	0.9 oz 1.1 kg	50 lbs 22.7 kg	MIL-W-6712C	<ul style="list-style-type: none"> Sputtering Targets Electrical Contacts EMI/RFI Shielding
02Z	Zinc	1/16" (1.6 mm) 2 mm 1/8" (3.2 mm) 3/16" (4.8 mm)	0.9 oz 1.1 kg	21 lbs 9.5 kg	MIL-W-6712C	<ul style="list-style-type: none"> Corrosion EMI/RFI Shielding Electrical Conductivity
04T	Babbitt	1/16" (1.6 mm) 2 mm 11 gauge (2.3 mm) 1/8" (3.2 mm)	0.9 oz 1.1 kg	50 lbs 22.7 kg	MIL-W-6712C	<ul style="list-style-type: none"> Bearing Reclamation Capacitors
05T	Copper	1/16" (1.6 mm) 1/8" (3.2 mm)	0.9 oz 1.1 kg	11 lbs 5.0 kg	MIL-W-6712C DOD Spec. MIL-R-19631 (ships)	<ul style="list-style-type: none"> Electric Conductivity Copper Reclamation Decorative Coatings
06C	Nickel Chrome	1/16" (1.6 mm)	0.8 oz 1.0 kg	11 lbs 5.0 kg	PWA 1317D MSSR 9507/27 DMR33-079	<ul style="list-style-type: none"> Oxidation Resistance Aircraft Approved
06T	Nickel	1/16" (1.6 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg	MIL-W-6712C	<ul style="list-style-type: none"> Corrosion Protection at High Temperatures
10T	Aluminum Bronze	1/16" (1.6 mm) 1/8" (3.2 mm)	0.9 oz 1.1 kg	9 lbs 4.1 kg	GE B50TF161 (70-49-52)	<ul style="list-style-type: none"> Bond Coat Reclamation Cavitation Aircraft Approved
11T	Aluminum Bronze Nickel	1/16" (1.6 mm)	0.9 oz 1.1 kg	9 lbs 4.1 kg		<ul style="list-style-type: none"> Cavitation Reclamation of Sliding Components Corrosion Protection
12T	Brass	1/16" (1.6 mm)	0.9 oz 1.1 kg	9 lbs 4.1 kg	MIL-W-6712C	<ul style="list-style-type: none"> Use Where Tobin Bronze is Required Pump Impellers Bronze Castings
13T	Molybdenum	1/16" (1.6 mm) 1/8" (3.2 mm)	1.1 oz 1.3 kg	10 lbs 4.5 kg	PWA 36913 (PWA 271-13 Rev. D) MSSR 9507/19 FP5045 Type I	<ul style="list-style-type: none"> Galling and Scuffing Resistance Aircraft Approved
14T	Titanium	1/16" (1.6 mm)	0.4 oz 0.5 kg	3 lbs 1.4 kg	ASTM B348/Grade 1 ASTM F67-89/Grade 1	<ul style="list-style-type: none"> Medical Implants

Metal and alloy wires

wires

Wire Name	Material	Diameter	Coverage (/ft ² /0.001") (/m ² /100 µm)	Spray Rate (/h/100 A)	Approved Specs	Application Data
16T	Silicon Bronze	1/16" (1.6 mm)	0.9 oz 1.1 kg	9 lbs 4.1 kg		<ul style="list-style-type: none"> • Cosmetic Repairs • Decorative Coatings • Automotive Approved
30S	Silver Copper Zinc	1/16" (1.6 mm)	1.0 oz 1.2 kg	12 lbs 5.4 kg	GEB20A4 (chemistry only) GE Manual # 70-49-44 FAA RDE#00-630	<ul style="list-style-type: none"> • Stationary Seals in Aircraft Engines • Good Rub Wear Characteristics
30T	Low Carbon Steel	1/16" (1.6 mm)	0.9 oz 1.1 kg	10 lbs 4.5 kg	MIL-W-6712C	<ul style="list-style-type: none"> • Dimensional Restoration of Mismachined and Worn Parts
38T	High Carbon Steel (0.80 C)	1/16" (1.6 mm)	0.9 oz 1.1 kg	10 lbs 4.5 kg	MIL-W-6712C	<ul style="list-style-type: none"> • Reclamation • Wear and Erosion Resistance • ID Fans
39T	High Carbon Steel (1.0 C)	1/16" (1.6 mm)	0.9 oz 1.1 kg	10 lbs 4.5 kg		<ul style="list-style-type: none"> • Excellent Wear Resistance • Harder than 38T
45CT®	Nickel Chrome Titanium	1/16" (1.6 mm)	0.9 oz 1.1 kg	11 lbs 5.0 kg		<ul style="list-style-type: none"> • Protection Against High Temperature Sulfidation
55T	18/5 Stainless	1/16" (1.6 mm) 1/8" (3.2 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg	MIL-W-6712C FP5045 Type IV	<ul style="list-style-type: none"> • Low Carbon • Low Shrinkage • Good Machinability • Aircraft Approved
58T	Copper Nickel Indium	1/16" (1.6 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg	GE B50TF72 CL A (70-49-05)	<ul style="list-style-type: none"> • Fretting Resistance • Dense, Low Oxide Coatings • Aircraft Approved
60T	420 Stainless Steel	1/16" (1.6 mm) 11 gauge (2.3 mm) 1/8" (3.2 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg	MIL-W-6712C OMAT#3/45D FP5045 Type V	<ul style="list-style-type: none"> • Reclamation • Low Shrinkage Allows Thick Buildups • Good Wear Resistance • Aircraft Approved
61T	430 Stainless Steel	1/16" (1.6 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg	MIL-W-6712C	<ul style="list-style-type: none"> • Slightly More Machinable and Better Corrosion Resistance than 60T
70T	Nickel Copper	1/16" (1.6 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg	MIL-W-6712B	<ul style="list-style-type: none"> • Marine Corrosion Protection • Print Rolls
71T	Nickel Chrome Molybdenum	1/16" (1.6 mm)	0.8 oz 1.0 kg	11 lbs 5.0 kg		<ul style="list-style-type: none"> • Prohibits Caustic Corrosion • Paper Mill Digesters
75B®	BondArc® Nickel 5% Aluminum	1/16" (1.6 mm)	0.9 oz 1.1 kg	10 lbs 4.5 kg	PWA 36937 (PWA 271-37 Rev D) GE Manual # 70-49-38 (Alternate to 70-49-10) OMAT#3/229 DMR33-011 FP5045 Type XV BF Goodrich Ltr 1623	<ul style="list-style-type: none"> • Bond Coat • Aircraft Approved • Oxidation /Abrasion Resistance at High Temperatures
77T	Alloy C-276 type: Nickel Chrome Molybdenum	1/16" (1.6 mm)	0.9 oz 1.1 kg	11 lbs 5.0 kg		<ul style="list-style-type: none"> • Acidic and Hot Gas Corrosion Resistance
78T	Alloy 718 type: Nickel Chrome Molybdenum	1/16" (1.6 mm)	0.8 oz 1.0 kg	11 lbs 5.0 kg	GE Manual # 70-49-45 FAA#000-637	<ul style="list-style-type: none"> • Aircraft Engine Dimensional Restoration • Acidic and Hot Gas Corrosion Resistance
79B	Nickel 20% Aluminum	1/16" (1.6 mm)	0.9 oz 1.1 kg	10 lbs 4.5 kg	OMAT#3/90A	<ul style="list-style-type: none"> • High Temperature Oxidation and Abrasion Resistance • Aircraft Approved
80T	18/8 Stainless Steel	1/16" (1.6 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg	MIL-W-6712C	<ul style="list-style-type: none"> • Corrosion Protection • Dimensional Restoration • Print Rolls
85T	316 Stainless Steel	1/16" (1.6 mm)	0.8 oz 1.0 kg	10 lbs 4.5 kg	MIL-W-6712B	<ul style="list-style-type: none"> • Corrosion Protection • Dimensional Restoration
88T	300 Series Stainless	1/16" (1.6 mm)	0.8 oz 1.0 kg	9.5 lbs 4.3 kg		<ul style="list-style-type: none"> • Corrosion Protection • Dimensional Restoration • Print Rolls
204M	KirkSITE type	1/16" (1.6 mm) 2 mm	0.8 oz 1.0 kg	22 lbs 10 kg	Proprietary Alloy	<ul style="list-style-type: none"> • Used to Create Metal Faced Tooling

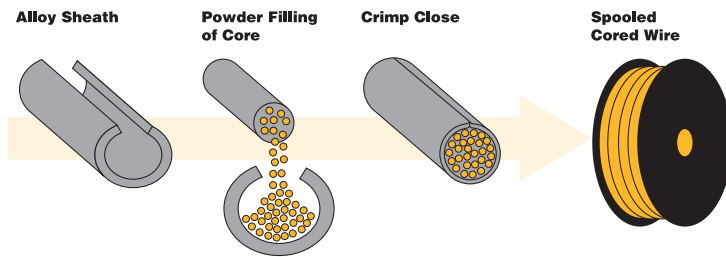
Cored wires

Wire Name	Material	Diameter	Coverage (/ft ² /0.001") (/m ² /100 μm)	Spray Rate (/h/100 A)	Approved Specs	Application Data
35 MXC®	Iron-based High Carbon Alloy	1/16" (1.6 mm)	0.8 oz 1.0 kg	8.5 lbs 3.9 kg		<ul style="list-style-type: none"> • Traction and Anti-Skid Coatings • Wear Resistance
37 MXC	Iron Chrome Carbon	1/16" (1.6 mm)	1.0 oz 1.2 kg	8 lbs 3.6 kg		<ul style="list-style-type: none"> • High Hardness • Excellent Wear Resistance
73 MXC	Nickel Chrome Aluminum	1/16" (1.6 mm)	0.8 oz 1.0 kg	8.5 lbs 3.9 kg	PWA 36947 (PWA 271-47 Rev D) MSSR 9507/14 GE Manual # 70-49-39 (Alternate to 70-49-21)	<ul style="list-style-type: none"> • Oxidation and Corrosion Resistance • Aircraft Approved
74 MXC	Nickel Aluminum Molybdenum	1/16" (1.6 mm)	0.8 oz 1.0 kg	8.5 lbs 3.9 kg	MSSR 9507/35 GE B50TF166 FP5045	<ul style="list-style-type: none"> • Medium Hardness for Bearing Wear Applications • Particle Erosion Resistance • Aircraft Approved
76 MXC	Nickel Chrome Aluminum Yttrium	1/16" (1.6 mm)	0.8 oz 1.0 kg	7 lbs 3.2 kg	GE B50TF296	<ul style="list-style-type: none"> • Bond Coat to Ceramics • Oxidation and Heat Resistance • Aircraft Approved
90 MXC	Nickel Chrome Iron	1/16" (1.6 mm)	1.0 oz 1.2 kg	7 lbs 3.2 kg		<ul style="list-style-type: none"> • Corrosion and Wear Protection
95 MXC	Iron Chrome Boron	1/16" (1.6 mm)	1.0 oz 1.2 kg	8 lbs 3.6 kg		<ul style="list-style-type: none"> • Corrosion and Wear Protection • ID Fans • Boiler Tubes
96 MXC	Iron Nickel Chrome	1/16" (1.6 mm)	1.0 oz 1.2 kg	7.5 lbs 3.4 kg		<ul style="list-style-type: none"> • High Temperature Corrosion Protection • Abrasion Resistance
97 MXC	Nickel Chrome Tungsten Carbide Iron	1/16" (1.6 mm)	1.0 oz 1.2 kg	6.5 lbs 3.0 kg		<ul style="list-style-type: none"> • Abrasion and Wear Resistance
98 MXC	Nickel Chrome Iron	1/16" (1.6 mm)	1.0 oz 1.2 kg	8 lbs 3.6 kg		<ul style="list-style-type: none"> • Corrosion and Wear Protection
106 MXC	Cobalt Nickel Chrome Tungsten	1/16" (1.6 mm)	0.9 oz 1.1 kg	6.5 lbs 3.0 kg		<ul style="list-style-type: none"> • Abrasion and Fretting Resistance in High Temperature Environments
444 MXC	Nickel Chrome Aluminum Molybdenum	1/16" (1.6 mm)	0.8 oz 1.0 kg	8.5 lbs 3.9 kg		<ul style="list-style-type: none"> • Wear and Corrosion Resistance • Dimensional Restoration of Bearing Areas

Cored wire advantages

Praxair and TAFE is the thermal spray leader in the development and manufacture of cored wires. Advanced materials engineering allows compositions that cannot be drawn as solid wires to be produced by enclosing powders in a metallic sheath.

Application of cored wire technology has resulted in arc spray coatings replacing plasma coatings for many aircraft engine repairs and industrial wear applications.



Arc spray equipment options

Praxair and TAFE's complete family of Arc Spray Systems offers something for everyone. Whether your applications demand high productivity in a controlled work cell or occasional repairs performed by a well-trained operator, our line of push, pull or push/pull twin-wire arc systems has a gun that meets your performance and budget requirements.



8830

Is an established, heavy-duty unit using an air motor drive to pull the wire to the gun. The 8830 produces outstanding arc spray coatings with virtually any type of wire: hard, soft, solid or cored.



8835

Is a machine-mount version of the 8830, using a D.C. electric drive to pull the wire to the gun. Engineered for repeatability, the 8835 is renowned for reliability and robust performance.



8850MHU

Is a hand-held or machine-mounted pusher unit. Designed for maximum mobility, this "unbundled" system allows the central console and wire drive cart to be separated from the power supply.



BP400

Utilizes pusher technology for easier hand-held operation. The BP-400 features a lightweight gun and is a proven performer, producing consistent coatings every day in shops around the world.



8860

Is designed for on-site spraying of corrosion control coatings. The 8860 offers hand-held or machine-mount spraying and is designed to use large diameter wires such as 1/8" or 3/16".



9000

Is a push/pull unit designed for automated spraying yet offers the hand spraying option. The 9000 is widely utilized in shops that overhaul gas turbine engines due to its unsurpassed coating quality and repeatability.



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Coverage values and Spray Rates are estimates and are subject to variation based on operating conditions and system parameters.

Thermal spray coatings produced by wire-based processes require the use of a sealer to be effective in corrosive environments.

The information contained herein is offered for use by technically qualified personnel at their discretion and risk without warranty of any kind.

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TAFAs Incorporated is a Praxair Surface Technologies company.

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