

Utah Advanced Composites Industry

INDUSTRY PROFILE

09



Source: ATK

Utah Advanced Composites Industry

UTAH ADVANCED COMPOSITES INDUSTRY OVERVIEW ¹

Utah has one of the highest concentrations of advanced composites companies in the world. Through the years, Utah has developed a complete infrastructure supporting the advanced composites industry, including raw materials, engineering capability, an excellent workforce, manufacturing capability, sales experts, machine design, manufacturing support and general support. The future of the composites industry looks bright for Utah as government and industry demand continues to grow. Utah companies have always been highly innovative in their view of composites. Tremendous breakthroughs in the advanced composites industry have and continue to occur here. Both companies and higher educational institutions are dedicated to the growth and development of this industry.

UTAH ADVANCED COMPOSITES STRENGTHS

Strong Historical Base

- The state of Utah has a 50-year history in the development and manufacturing of advanced composite materials.
- Hexcel, one of the three largest carbon fiber manufacturers in the nation, is located in Magna, Utah.
- The state has one of the highest concentrations of advanced composites companies in the nation.

Young, Highly Educated and Experienced Workforce ²

- 6 colleges and universities across the state offer specialized programs in the composites field.
- Utah is 1st in the nation for its population growth rate of 2.5%.
- Utah is the youngest state in the nation with a median age of 29.0.

Key Rankings & Headlines

- Utah ranks 1st in the nation as a lead investor in technology. ³
- Utah ranks 1st as the most tech-savvy state in the nation for its progress in digital government. ⁴
- Utah ranks 8th nationwide for its state technology and science overall index. The state ranks 1st in technology concentration and dynamism. ⁵

UTAH ADVANCED COMPOSITES INDUSTRY HISTORY ⁶

In the 1950's, Hercules Powder Company began investigating improved solid propellant rockets and developed some of the first rocket propellant for early rocket engines. Thiokol entered the industry shortly after and began manufacturing aerospace components from composite materials. Fiberglass and resins quickly became the necessary building blocks for workable, flyable systems. As the industry developed, Hercules and Thiokol discovered a new manufacturing method termed "filament winding." From these two pioneers in the composites industry, several small companies emerged in Utah.

¹ Source: Rocky Mountain Composites, BYU

² Source: U.S. Census Bureau

³ Source: CDW-G, State & Local Technology Investment Curve, 2008 data

⁴ Source: Center for Digital Government, Digital States Survey, 2008 rankings

⁵ Source: Milken Institute, State Science & Technology Index, 2008 rankings

⁶ Source: Rocky Mountain Composites, BYU

Hercules went on to develop the first facility in Utah to produce carbon fiber. This site is now one of the three largest manufacturers of carbon fiber in the U.S. By the 1970's, Utah was leading the world in both carbon fiber manufacturing and using carbon fiber for rocket motors and other aerospace parts. Innovative start-up companies opened locations in Utah to take advantage of the statewide knowledgeable workforce. Soon, other entrepreneurs saw the potential for making filament winding machinery and equipment and the industry continued to grow.

UTAH ADVANCED COMPOSITES INDUSTRY DENSITY



Source: InfoUSA, EDCUtah

RECENT NEWS & ANNOUNCEMENTS

- As part of West Valley City’s creation of the Southwest EDA, a 400+-acre parcel industrial park, Hexcel Corporation plans to expand into the new park and will create an expected 7,600 new jobs and \$1.1 billion in capital investment over the next 15 years. The new manufacturing facility will allow Hexcel to remain the largest manufacturer of high performance carbon fiber in the U.S. and will serve as a catalyst for continued growth in the advanced composites and aerospace industries in the state. ⁷
- Delta 7 Sports, headquartered in Payson, will remain in its current location and expand its existing facility, incorporating newly designed automated manufacturing systems for its newly developed bike frames. In 2007, Delta7 Sports created a new bike frame using advanced composites IsoTruss technology developed by a professor at Brigham Young University. Originally hand-weaving the advanced composite materials into a 3-D lattice structure, Delta7 received new funding from Advanced Composite Solutions, its parent company, to develop an automated manufacturing process, thereby lowering its manufacturing costs and decreasing the product’s sale price to customers. ⁸
- Duncan Aviation announced its expansion plans in late 2008. The company will construct a new 320,000-square-foot aircraft maintenance facility at the Provo Municipal Airport. The expansion will create a \$58 million capital investment and will provide 657 new full-time positions with salaries paying 150% of Utah County’s median wage. ⁹
- Jet Aviation, one of the world’s leading business aviation services companies, is expanding into the Kemp Ogden Airport Gateway Center. The 70,000-square-foot expansion will allow the company to provide aircraft maintenance and refurbishment, charter services and operate its aircraft sales division. The project will generate an expected \$28.9 million in capital investment and will employ 902 people in the area. ¹⁰
- During the last round of military base closures, the Base Realignment and Closure (BRAC) Commission considered the serious economic impact of closing Hill AFB and decided against it. Other than being the state’s second largest employer, Hill AFB operations result in a national economic impact of \$2.02 billion with \$1.2 billion of that total benefiting Utah’s own economy. ¹¹

LABOR

Approximately 77% of Utah’s total labor pool resides in the Salt Lake, Ogden-Clearfield and Provo-Orem metropolitan statistical areas, known as the Wasatch Front. As of September 2008, Utah’s overall employment in the advanced composites industry comprised 8.4% of the state’s total nonagricultural employment. This equates to roughly 1,057 employees in the advanced composites industry in Utah. ¹²

Wage Data

The following table lists typical advanced composites manufacturing positions and the corresponding mean wage for each location listed.

Title / Position (SOC Code)	State of Utah	National Comparison	Utah as a % of Nation
General & Operations Managers (11-1021)	\$87,320	\$103,780	84.1%

⁷ Source: EDCUtah

⁸ Source: Delta7 Sports

⁹ Source: EDCUtah

¹⁰ Source: EDCUtah

¹¹ Source: Hill AFB

¹² Source: Utah Department of Workforce Services, September 2008 data

Managers of Production / Operating Workers (51-1011)	\$49,880	\$51,740	96.4%
Industrial Machinery Mechanics (49-9041)	\$43,620	\$44,020	99.1%
Team Assemblers (51-2092)	\$24,960	\$26,470	94.3%

Source: Utah Department of Workforce Services, Bureau of Labor Statistics

Colleges / Universities / UCAT Specialized Programs

- Utah State University (USU) offers graduate programs in mechanical and aerospace engineering with select courses focusing on composite structures and materials.
- University of Utah (U of U) offers degrees in mechanical engineering and aerospace studies, which focus on composite materials.
- Salt Lake Community College (SLCC) recently added a new study in its aerospace department for communications and avionics.
- Westminster College's (WC) flight school is gaining ground and getting recognition across the U.S.
- Brigham Young University (BYU) offers various degrees in engineering as well as an advanced composite manufacturing and engineering center dedicated to promoting and understanding advanced materials.
- The Utah College of Applied Technology (UCAT) is a new concept in applied technology education. Consisting of ten Utah applied technology college (ATC) campuses, UCAT provides opportunities for high quality statewide open-entry, open-exit, competency-based education. The campuses serve both high school and adult students.

Graduates in Aerospace & Aviation

Institution Name	Location	Enrollment	Aerospace Graduates
Salt Lake Community College	Salt Lake City	29,886	5
Utah State University	Logan	23,925	15
Westminster College (private)	Salt Lake City	2,887	19
TOTAL	Utah	56,698	39

Source: Utah State Board of Regents, 2007-08 data

BUSINESS INCENTIVES & BUSINESS FINANCING

Please contact EDCUtah for business incentive and/or business financing information. (See contact information at the end of this document.)

UTAH ADVANCED COMPOSITES INDUSTRY COMPANIES

Rank	Organization Name & Address	Contact Information	# of Employees	Brief Description*
1	Hill Air Force Base 7981 Georgia Street Hill AFB, Utah 84056	John Primbs (801) 777-5201	Over 10,000	An Air Force Material Command base providing logistics and engineering management, including composites.
2	ATK P.O. Box 160433 Clearfield, Utah 84016	Mike Blair Manager (801) 775-1722	5,000 to 9,999	Designs and manufactures advanced weapon and space system equipment.

3	Boeing Company 1215 North 2200 West Salt Lake City, Utah 84116	Dave Carbon Manager (801) 537-6400	500 to 999	Manufactures commercial aircraft, aircraft equipment and integrated defense systems.
4	Moog Aircraft Group 2268 South 3270 West Salt Lake City, Utah 84119	Steve Rusk Manager (801) 973-4300	500 to 999	Manufactures high-performance military and commercial aircraft control systems and space vehicles.
5	Parker-Hannifin Corporation 1425 West 2675 North Ogden, Utah 84404	Guy Martin Manager (801) 786-3000	500 to 999	Manufactures aircraft motion control systems and related components.
6	Hexcel Corporation 7200 West 5400 South Salt Lake City, Utah 84118	Debbie Wilkerson Marketing Manager (801) 252-3400	250 to 499	Manufactures the nation's largest amount of carbon fiber and fiberglass electronic materials and products.
7	Northrop Grumman 888 South 2000 East Clearfield, Utah 84015	John Clay President (801) 525-3300	250 to 499	Designs and manufactures military aircraft, defense systems and military aero structures.
8	Peterson, Inc. 1527 North 2000 West Ogden, Utah 84404	John Ballantye Chief Executive Officer (801) 732-2000	250 to 499	Manufactures guided missile components and space vehicles.
9	Barnes Aerospace 1483 West 2550 South Ogden, Utah 84401	Steve Moore President (801) 621-8960	100 to 249	Manufactures components for the compressor, combustor and turbine sections of jet engines.
10	Kitco, Inc. 1625 Mountain Springs Parkway Springville, Utah 84663	Brent Wood Owner (801) 489-3627	100 to 249	Manufactures and distributes military aircraft and ship parts.
11	Klune Industries 1800 North 300 West Spanish Fork, Utah 84660	Bob Ballantyne Manager (801) 798-7401	100 to 249	Manufactures assembled components for the military and commercial aerospace sectors.
12	Metalcraft Technologies, Inc. 498 North 2774 West Cedar City, Utah 84721	David Grant President (435) 586-3871	100 to 249	Manufactures a broad range of precision machined components for the aerospace industry.
13	Triumph Gear Systems 6125 Silver Creek Drive Park City, Utah 84060	Steve Rusk President (435) 649-1900	100 to 249	Manufactures and engineers high-quality components and systems for aerospace and actuation applications.
14	Williams International 3450 Sam Williams Drive Ogden, Utah 84401	(801) 395-6500	100 to 249	Develops and manufactures small gas turbine engine technology.
15	Advanced Composites, Inc. 2575 South 3270 West Salt Lake City, Utah 84119	Randall Philpot President (801) 467-1204	50 to 99	Produces composite structures emphasizing high-performance composite tubing through filament winding.
16	Aerospace Engineering & Support 1307 West 2550 South Ogden, Utah 84401	Stan Florence Owner (801) 394-9565	50 to 99	Designs, develops, manufactures, tests and evaluates aircraft parts, systems and equipment.
17	Ceramatec 2425 South 900 West Salt Lake City, Utah 84119	Ashok Joshi President (801) 972-2455	50 to 99	Focuses on R&D in advanced materials and electrochemistry.
18	Groen Brothers Aviation, Inc. 2640 California Avenue Salt Lake City, Utah 84104	David Groen Chief Executive Officer (801) 973-0177	50 to 99	Develops high performance gyroplanes and gyrodynes using advanced composite materials.
19	ITT / EDO Fiberscience 506 Billy Mitchell Road Salt Lake City, Utah 84116	Michael Therson Manager (801) 537-1800	50 to 99	Manufactures and designs lightweight advanced fiber-reinforced composite products.
20	Gold Tip, Inc. 368 South Gold Tip Drive Orem, Utah 84058	Tom Donat Vice President Operations (801) 229-1666	50 to 99	Manufactures carbon graphite equipment for archers and bow hunters.
21	MacLean Quality Composites 3392 West 8800 South West Jordan, Utah	Tom Sorensen Vice President (801) 565-8003	50 to 99	Designs, engineers and fabricates advanced composite products.
22	Zoltek Corporation 3653 South 500 West Salt Lake City, Utah 84115	Rolf Johns Vice President (801) 261-3082	50 to 99	Manufactures carbon fiber and advanced composite prepregs for individual / recreational applications.

*SIC Codes: 2875-02, 3463, 3721, 3724, 3728, 3761, 3764, 3769, 3949

Source: InfoUSA

FOR ADDITIONAL INFORMATION

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