

# COMPANY GUIDE 2011



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With over 30 years of manufacturing experience, SportsArt Fitness has consistently raised the bar in the fitness industry and positioned itself as one of the most creative manufacturers of fitness equipment. SportsArt Fitness equipment is sold in over 80 countries worldwide. To meet the growing global demand for SportsArt Fitness products, we have established sales and design centers on three continents.

### **CORPORATE MISSION**

**To utilize innovation, unique design and manufacturing excellence to create products of exceptional quality and performance that will enhance our customers' health, wellness and lifestyle for years to come.**

### **COMPANY HISTORY**

Founded in 1977, SportsArt Fitness began building fitness products on an OEM (Original Equipment Manufacturer) basis. Throughout the '80s and early '90s, SportsArt Fitness was firmly established as a high quality OEM vendor, producing products for leading companies such as Precor, Schwinn, Universal and Tunturi among others.

Concurrent with our growth as an OEM supplier, SportsArt Fitness began marketing our own brand in many countries around the world. In the early 1990s a decision was made to focus directly on the SportsArt Fitness brand. Since then, SportsArt Fitness has emerged as the fastest growing manufacturer of specialty level fitness products. And we've introduced more new equipment models to the specialty fitness marketplace than any other fitness vendor.

### **MANUFACTURING PROCESSES**

SportsArt Fitness is the most vertically integrated manufacturer in the fitness industry. We retain control over every aspect of the design and assembly of our products so we can ensure a long lasting, perfectly integrated result. Because of SportsArt's commitment to vertical integration and state-of-the-art technology we are able to consistently design and manufacture quality equipment that meets, or exceeds, the needs of a constantly changing fitness industry.



540,000 SQ FT ZHUHAI, CHINA FACTORY



500,000 SQ FT TAINAN, TAIWAN FACTORY

# MANUFACTURING CERTIFICATION

## MANUFACTURING CERTIFICATION

SportsArt Fitness designs, engineers and manufactures over 80% of our parts and components to the TÜV and ISO 9001/9002 standard. We are the only fitness company that manufactures our own motors, electronics, and key components.

Other equipment “manufacturers” are actually a consortium of several different manufacturers’ off the shelf components. SportsArt Fitness uses all of its own components, ensuring perfect integration, thus allowing for the highest level of total quality control.



### WHAT IS TÜV CERTIFICATION?

TÜV certification involves rigorous testing of the applications for which the component is designed. It includes verification that the device satisfies the strictest European regulations for the industry in which the component was designed and ensures the component specifications are stated correctly.

### WHAT IS ISO 9001/9002?

ISO (International Organization for Standardization) is the world’s largest developer and publisher of International Standards.

Standards ensure desirable characteristics of products and services such as quality, environmental friendliness, safety, reliability, efficiency and interchangeability – and at an economical cost.



### PATENTS

SportsArt Fitness holds over 100 U.S. and international patents on our innovative products.

### SPORTSART FITNESS HAS BEEN AN INNOVATOR IN EVERY PRODUCT CATEGORY:

- Ellipticals – adjustable stride length, fingertip control, MyFlex™ pedal cushioning system
- Bikes – Step-through design, Comfort-Dri™ reclining seat back, infrared remote fingertip control, mesh seat back
- Treadmills – **ECO-POWR™** motor, advanced deck lubrication, MyFlex™ Adjustable Cushioning System™, FlowTec™ motor cooling and cleaning system
- XTrainer – step-through design, independent upper arm, bidirectional resistance, fingertip control on 270° rotational handles
- Strength – DirectDrive™ dual cam system incorporates two cams, preventing cable slack on dual function strength machines

# PRODUCT TESTING

## MECHANICAL AND HUMAN TESTING

SportsArt Fitness products undergo rigorous testing to ensure reliable performance. Machine testing investigates component life for continuous quality improvement. Human testing investigates safety and ergonomic issues in the design stage.

Throughout the process, from design to production, our products receive rigorous testing to the same international quality standards (ISO-9001/9002) used at Mercedes and BMW. At SportsArt Fitness, improvements are made continually to meet the changing expectations of our customers.



### ROBOTIC TREADMILL TEST

The SportsArt Fitness test lab has developed robotic treadmill testers. These units can duplicate the running motion and impact of up to a 350 lb. user. In this test, the robot is set at a 350 lb. user weight and runs at 5.5 mph (a very high impact, heavy foot plant speed). The units run 5 hours on, 1 hour off, around the clock. Key components such as deck, roller bearings and belt are tested for wear while the motor is tested for heat buildup and amp draw.

Component life must exceed 15,000 miles, roughly the equivalent of 10 miles per day for 4-1/2 years.



### INCLINE FATIGUE LOAD TEST

In this test, commercial treadmills are outfitted with 600 lbs. of weight (in the form of steel plates). The units are inclined to maximum and brought back down to zero in 60-second intervals, 1,440 times per day. The lift motor must function flawlessly a minimum 130,000 cycles – again with a 600 lb. load!



### TIRE BOUNCE TEST

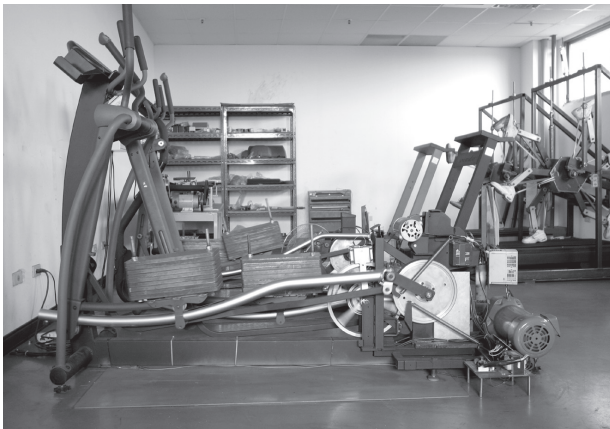
This wheel/hydraulic robot drops with the force of 300 lbs. 1,800 times per hour (43,200 per 24 hour period!). Home units are tested for up to 3 months (almost 4,000,000 impacts). The test makes sure the deck will withstand that type of abuse and that the motor management system will still operate perfectly after significant abuse.

# PRODUCT TESTING



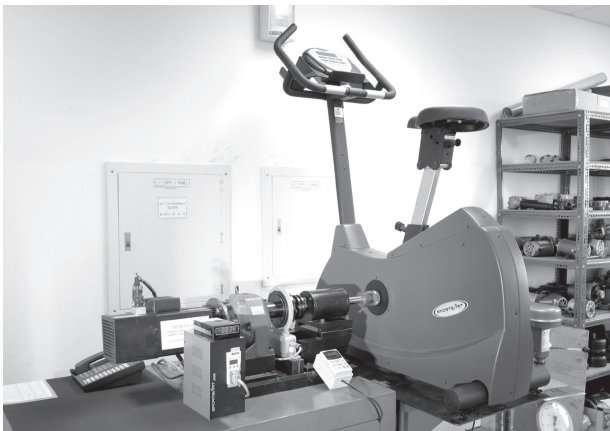
## ELLIPTICAL LOAD TESTING

In these shots, a number of ellipticals are being tested. Each footplate is loaded with 220 lbs. (440 lbs. total!) and the machine is run for 24 hours per day at 37 spm/rpm, maximum resistance.



## ELLIPTICAL LOAD TESTING

These particular units have been going for 97 straight days, which at 24 hours per day equals 2,328 hours. If the products were being used 6 hours per day, this would equate to well over a year. After 97 days every key component – rollers, stride adjust mechanism, bearings, drive pulley, etc. – were still within spec and operating perfectly.



## RESISTANCE TEST

SportsArt Fitness' testing lab is indeed impressive with every category of product tested extensively and in a variety of ways. In this commercial bike test the axle turns at 50 rpm at maximum resistance level for 1,000,000 revolutions. The primary purpose is to measure consistency of resistance and watts. Secondary purposes include verifying the consistency of the magnet mechanism as well as making sure there are no component failures.



## BIOMECHANICAL TESTING

No product is made without consideration of the human being that uses it. This picture shows ergonomic/physiology testing on the SportsArt S770 Pinnacle Trainer.

The S770 Pinnacle Trainer study concluded that all motions in the exercise were safe on joints and that the unit provides beneficial training effects that can't be attained on other equipment.

## ELECTRICAL TESTING

**SportsArt Fitness performs a variety of electrical tests to ensure our products meet the highest standards for safety and compliance.**

**Some of our advanced electrical testing includes:**

- **Frame Ground Impedance Test:**  
Integrity of welds can be measured via electronic resistance. Bad welds show or have high resistance. Good welds have low resistance. In this test, resistance is measured from the ground connector to a far screw hole, checking the integrity of welds throughout the product. SportsArt Fitness products meet the standard.
- **Current Leakage Test:**  
The current leakage test ensures that leakage falls well below acceptable thresholds. SportsArt Fitness products pass each test.
- **Electric Fast Transient Test:**  
Circuits must be designed to withstand electrical interference. In this test, pulses of power are applied to the machine. The product must not freeze up, crash, or otherwise malfunction. In all tests, product operations carried on normally despite the application of current. SportsArt Fitness products pass on all accounts.
- **Electrostatic Discharge Test:**  
Static electricity is naturally generated and can damage electronics. In electrostatic discharge tests, static electricity is discharged via a special test gun directly to metal parts and to the air around components. The product must not freeze up, crash, or otherwise malfunction. In all tests, SportsArt Fitness product operations carry on normally despite the application of static electricity.
- **High Voltage Current Leakage (Isolation) Test:**  
This test sends high voltage through the product as a test of component isolation. If isolated poorly, there is high current leakage. If isolated well, there is low current leakage. SportsArt Fitness passed the applicable standard in this category.

# GLOSSARY OF TERMS

**ActivZone™** - This feature, found on many SAF products, illustrates which muscle groups are being worked during various phases of training.

**Adjustable Stride** - SAF was the first company in the entire fitness industry to offer adjustable stride length, dual-action ellipticals.

**CardioAdvisor™** - This unique feature illustrates target heart rates for weight loss and cardio training, along with real time actual heart rate.

**ComfortDri™** - Always an innovator, SAF brought great lumbar support and comfort with our adjustable seat backs to our recumbent cycles. ComfortDri™ is an open air seat back that allows cooling air to your back while not collecting and holding sweat against you.

**DirectDrive™** - SportsArt Dual Function strength series is the only line in this category to feature DirectDrive™ dual cam biomechanics, providing unparalleled ergonomics all the way through the motion. This system prevents the slack or “dead” spot at the start of the exercise.

**ECO-POWR™** - An acronym for Extreme Conservation and Output, **ECO-POWR™** is a maintenance free, self-regulating, brushless drive system that delivers 5.0 hp of performance while using up to 32% less electricity than industry standard AC and DC motors. This motor has a lifetime warranty.

**FlowTec™** - a cooling system that moves air through the inside of the motor and gently blows it back over the heat sync enclosed motor. It is also a cleaning system that picks up 80% of the particulates that get deposited under the hood of all treadmills.

**HyperGlide™** - SAF belts are impregnated with a HyperGlide™ lubricate. As the belt wears, the HyperGlide™ leaches out to lubricate as needed. SAF recommends annual additional HyperGlide™ lubrication to prolong the life of your belt.

**MyFlex™** - A high performance engineered elastomer that possesses the combined properties of rubber and engineered thermoplastics. The result is a unique ability to deliver a proportional cushioning effect, regardless of user weight, while delivering a lifetime warranty.

**MyFlex Plus™** - This second-generation cushioning system employs the same advanced composite material used in traditional MyFlex™ cushions, but with a new shape that improves shock absorption by 30%! MyFlex Plus™ delivers the same proportional cushioning effect, regardless of user weight, and is backed by a lifetime warranty.

**SDS™ Shock Dissipation System** - Designed to absorb the heel strike impact.

**Shift-on-the-fly** - Many SAF products feature the ability to shift from one program to the next while training – with no need to restart or input new data.

**Step-through Design** - All SAF recumbent cycles and XTrainers feature step-through access. This allows virtually all users, even deconditioned or older users, the ability to easily get on the product.

**Touch-N-Go™ Programs** - Only SAF gives multiple program choices that allow users to simply push a button and begin working out – no set-up or data entry required.

**Vari-Stride™** - A unique elliptical program that varies stride length throughout the workout, allowing users to target multiple muscle groups for maximum training results.

**ZoneTrainer™** - A custom heart rate program that lets the user choose a specific heart rate training target. Once chosen, the machine will adjust (speed, incline, or resistance, depending on the unit) to keep training at the desired heart rate.

**CUSTOMER SUPPORT TOOLS:**

- The SportsArt Fitness tech support team is available via phone (866.709.1750) and e-mail (service@sportsartamerica.com) Monday-Friday from 6:30am-4pm PST. Our team is on-call to help service techs in the field, answer customer questions and provide product technical support.
- SportsArt Fitness currently has a network of over 800 experienced fitness service professionals in the field that we can call upon to service equipment. In addition, many of our service techs have completed a SportsArt Fitness certification class.
- [www.sportsartamerica.com \(http://www.sportsartamerica.com/saf/customer\\_service/support.asp\)](http://www.sportsartamerica.com/saf/customer_service/support.asp) gives 24-hour access to our comprehensive service website tools including parts lists, order forms, warranty information, repair manuals, tech tips and exploded-view drawings of our equipment.

**TECHNICAL TRAINING PROGRAM:**

SportsArt Fitness welcomes service technicians, dealers, and club managers to our four-day product repair training program.

Overview of program:

- Learn to troubleshoot, diagnose and repair SportsArt Fitness products
- Training includes theory and hands-on sessions
- Graduates become service providers for their area and receive:
  - Official certification
  - Discounts on parts
  - Comprehensive training manual
- For reservations call training instructor Craig Arriza at (866) 709-1750 x117 one month prior to the class. A \$200 deposit is required, which will be returned to you upon completion of the course.