

# The Next Generation of LaserStar Workstations



### Multiple Viewing Systems



### Custom Color Options



- Soft Beam™ Profile Enhancement Resonator Technology (Optional)

### Digital Messaging Display



- Oversize Character Parameter Display
- Automatic Energy Save Mode
- Integrated Preventative Maintenance Alerts
- Multi-Language System Display
- Pre-Programmed Application Parameters

**Large Viewing Window**  
22.5 square inches - 145 square/cm

### Interior Chamber Design



- Soft Light Fluorescent
- Dual Inert Gas Delivery System
- Dual Operating Logic

**110V Supply Circuit or 208-240V Supply Circuit**

**Rich Chrome Accents**



### Tri-Door Chamber Design



- Side Door Entry (12" x 6.75" / 30,5cm x 17cm)
- Front Door Entry (9" x 6.25" / 22,85cm x 15,85cm)
- Chamber Capacity (1,113 cubic inches - 2,826 cubic/cm)

**Ergonomically Designed Forearm Entry Ports**

### Automation Opportunities



- Integrated Motion Systems
- Multi-Depth Chamber Inserts

**Side Entry Service Panels**  
(Provides "easy access" to maintenance tasks)

**Remote Access Modem Online Technical Solutions**

**Worldwide Safety Certification**  
(FDA(CDRH), UL, CSA, CE)

**MADE IN THE USA**

**52X-7000 Series LaserStar Workstation**

<b>System Platform</b>	Pedestal
<b>Welding Chamber Safety Certification</b>	Class I
<b>LaserStar Lasing System</b>	Class 4
<b>Wavelength</b>	1,064µm
<b>Output Pulse Energy</b>	
7002 Series LaserStar Workstation	0,5 - 100 Joules
7003 Series LaserStar Workstation	0,5 - 120 Joules
<b>Maximum Peak Power</b>	
7002 Series LaserStar Workstation	8.0kW
7003 Series LaserStar Workstation	10 kW
<b>Internal Power Supply</b>	400 Volt
<b>Power Supply Configuration</b>	
7002 Series LaserStar Workstation	SPS Series
7003 Series LaserStar Workstation	HPPS Series
<b>Average Power</b>	50 Watts
<b>Pulse Length</b>	0,5 - 20 Milli-seconds
★ <b>Pulse Frequency</b>	0,5 - 20 Hz / 30Hz*
<b>Burst (Count) Mode</b>	1 - 25 pulses
<b>Beam Diameter</b>	0,20mm - 2,00mm
<b>Cooling System</b>	Internal Water-To-Air
<b>Cooling Capacity-Run Time</b>	24 hour / Continuous
<b>Supply Circuit</b>	120V (+/-10%), 50/60Hz 15 Amp, Single Phase**
	208V (+/-5%) or 230V (+/-10%), 50/60Hz, 20 Amp, Single Phase
<b>Binocular Microscope (3 versions)</b>	15x (optional 25x, 40x)
<b>EZ-VIEW (Cobra) Scope<sup>1</sup></b>	Worldwide Exclusive
<b>EVS Flat Screen Viewing System</b>	Yes
<b>Chamber Illumination System</b>	Flourescent & Halogen
★ <b>Soft Touch Resonator™ Technology</b>	Optional
★ <b>Pulse Performance Profile Technology<sup>2</sup></b>	Exclusive Integrated Software
★ <b>Automatic Power Save Mode</b>	Exclusive Integrated Software
<b>Parameter Adjustment Features</b>	External Keypad Internal Chamber Joysticks
<b>Programming Memory</b>	80 text cells
<b>Language Display Options<sup>3</sup></b>	English, German, French, Italian Spanish, Turkish, Japanese
<b>Program Application Settings</b>	Yes
<b>Preventative Maintenance Alert Software</b>	Yes
<b>Remote Access / On-Line Technical Solutions</b>	Integrated Modem
<b>User "Direct Connect" Software</b>	Yes - Series II
<b>Motorized Beam Expander</b>	1,5x Focusing Lens (optional 3x)
<b>Shield Gas Supply</b>	Integrated "Soft Flow" Nozzle
★ <b>Inert Gas Welding Chamber Adjust Valve</b>	Dual - Integrated
<b>Welding Chamber Dimensions</b>	13.3"L x 13.6"W x 7.5"H 337mm x 346mm x 178mm
<b>Pedestal WorkStation "Footprint" Dimensions</b>	37.5"L x 15.8"W x 44"H 952mm x 401mm x 1117mm
<b>Weight (Unpackaged)</b>	200 lbs / 90 Kg
<b>Warranty Coverage (Parts &amp; Labor)</b>	
7002	2 Years (upgradeable)
7003	3 Years
<b>Laser Safety Certification Compliance</b>	FDA(CDRH), UL, CSA, CE
<b>Country of Origin (Parts &amp; Assembly)</b>	Made In USA

<sup>1</sup> The EZ-VIEW™/Cobra projection microscope is a product "Exclusive" only to LaserStar. No other laser welding supplier can offer this feature. <sup>2</sup> Pulse Performance Profile Technology™ (P<sup>3</sup>) is an imbedded software feature to shape the wave profile for each laser pulse discharge. <sup>3</sup> Additional languages available upon request. English language is default software.  
\* 30Hz available with EVS Flat Screen Viewing Systems. \*\* Only available on the 7002 Series.

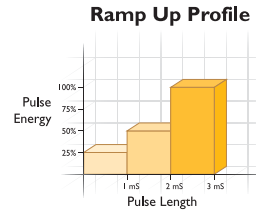
**Crafford-LaserStar Technologies**

**World Headquarters** • One Industrial Court, P.O. Box 15155, Riverside, RI 02915 USA • Tel: 401-438-1500 • Fax: 401-434-7260 • Email: ri.sales@laserstar.net  
**TX LaserStar Center** • 13600 Ranch Road 12, Suite C, Wimberley, TX 78676 USA • Tel: 512-847-1657 • Fax 512-847-3919 • Email: tx.sales@laserstar.net  
**CA LaserStar Center** • 510 West Sixth Street, Suite 1030, Los Angeles, CA 90014 USA • Tel: 213-612-0622 • Fax: 213-612-0623 • Email: ca.sales@laserstar.net

© 2005 Crafford-LaserStar Technologies. All rights reserved. LaserStar®, Pulse Performance Profile Technology® and Soft Touch Resonator Technology™ are registered trademarks of Crafford-LaserStar Technologies. In the interest of technological progress, we reserve the right to technical changes without notice.



Profiling a LaserStar® pulse is simply selecting the percentage of pulse energy that is released for each one milli-second (1mS) section. Each individual section is defined at 25%, 50%, 75%, or 100% of total pulse energy output. To benefit from pulse profiling, a minimum of a three milli-second (3mS) pulse duration must be employed to achieve noticeable results.



Normally, a Basic Profile is quite adequate when welding standard ferrous alloys without plating. However, when welding applications with reflective, very dissimilar, or contaminated materials, pulse profiling may have a measurable effect on quality and consistency.

To determine if Pulse Performance Profile Technology will benefit your applications, one must first become familiar with the parameter selection process of your LaserStar micro-welding product.

Second, one must be sure to understand what each Pulse Profile change means in terms of pulse energy output and the impact on the material.

After trying various Pulse Profiles, do not be concerned if the best profile for your application seems to be the Basic Profile - at least you will know that you have optimized the energy output.

