

WeldWatch[®]-HD Camera and Weld Monitoring System



HD Ultra-Dynamic-Range™ Welding Camera & Software

Overview

The WeldWatch-HD 3x zoom color welding camera combined with the included WeldWatch Software creates the highest-performance, most automatic Weld Monitoring system.

Designed and built in the USA, the WeldWatch-HD camera reaches UDR levels thanks to our specially modified High Dynamic Range (HDR) log sensor which gives over 10x the range of a stock HDR sensor.

Combined with powerful digital signal processing, the hardware and software complements each other resulting in a quality and dynamic-range greater than any weld camera on the market.

All this is accomplished without special filters or optical tricks, allowing the arc to be anywhere – not just in the center.

Benefits

- See the arc, electrode, puddle and joint before, during and after the weld.
- Add a big-screen TV to show welding to a group
- View live or record industrial weld processes for real-time monitoring and quality control
- Record and review welds in the lab or for training



V3000-Z Color Zoom Video Camera

WeldWatch System Features

Camera

- Full Color USB-3
- Hi-Def Resolutions up to 1280 x 1024
- Filter-less 140 dB dynamic range (10,000,000:1) allows arc anywhere in the frame
- Built-in Lens with optical zoom
- Full 30 fps (frames-per-second) at 1280x800

Ready to Use

- Rugged aluminum case
- Ultra-bright LED for setup
- Replaceable spatter-shield
- No cooling required for room-temp operation
 - Optional air-cooled case for ambient temp. to 212° F (100° C)
- Self-powered over USB-3
- Compact 2" x 3" x 4.7" (50mm x 75 x 120)
- Lightweight 24 oz. (680 g)

WeldWatch[®] PC software (included with cameras)

- Low Latency Digital Image Processing
- Proprietary Expanded Log rendering
- Integrated Recording and Playback
- Rotate, flip the image
- Digital zoom 1x – 10x



WeldWatch Video of TIG on Aluminum

WeldWatch-HD Applications

Training:

- Use the camera to show live demos to the whole class on a big-screen TV.
- Add a new dimension to training with close-up and reverse views; provide “aha” learning.
- Record demos so students can review later, using slow-motion and pause.
- Record student welds so they can see which skills need practice.
- Save a video library of welds so you can quickly show students the good, the bad and the ugly.

Industry:

- Monitor weld or cladding machines
 - Away from smoke and danger
 - Improve ergonomics and safety
- Record weld processes for quality
- Develop and debug new weld procedures
- Produce high quality marketing videos



WeldWatch-HD Configured for Air-Cooling with Fittings and Air Hoses Attached

Technical Details

Built-in Lens

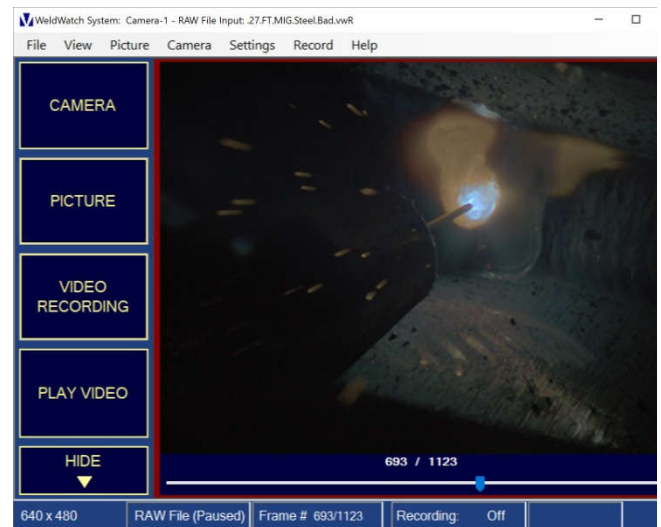
- 3x Zoom (12.6mm – 34.6mm)
- Focus distance to object 9” to 50”
- Field of View (Horiz.) 41° -wide, 12° -zoom
- Remote focus
- Automatic Iris, f /2.5

Recording

- Exclusive auto-record
 - Triggered by Arc-Light
 - Start record 2 sec before arc
 - Stop record 2 sec after arc
- AVI or MPEG video files for viewing or email
- Flexible playback: fast, slow, single step, forwards or backwards
- Also save high-quality stills

PC requirements:

- Intel I5 or I7 processor
- 4 GB RAM
- Windows 10 or 11
- Video outputs for PC monitor, projector or big-screen TV



WeldWatch Screen-Shot

For more information and sample weld videos, visit www.VisibleWelding.com