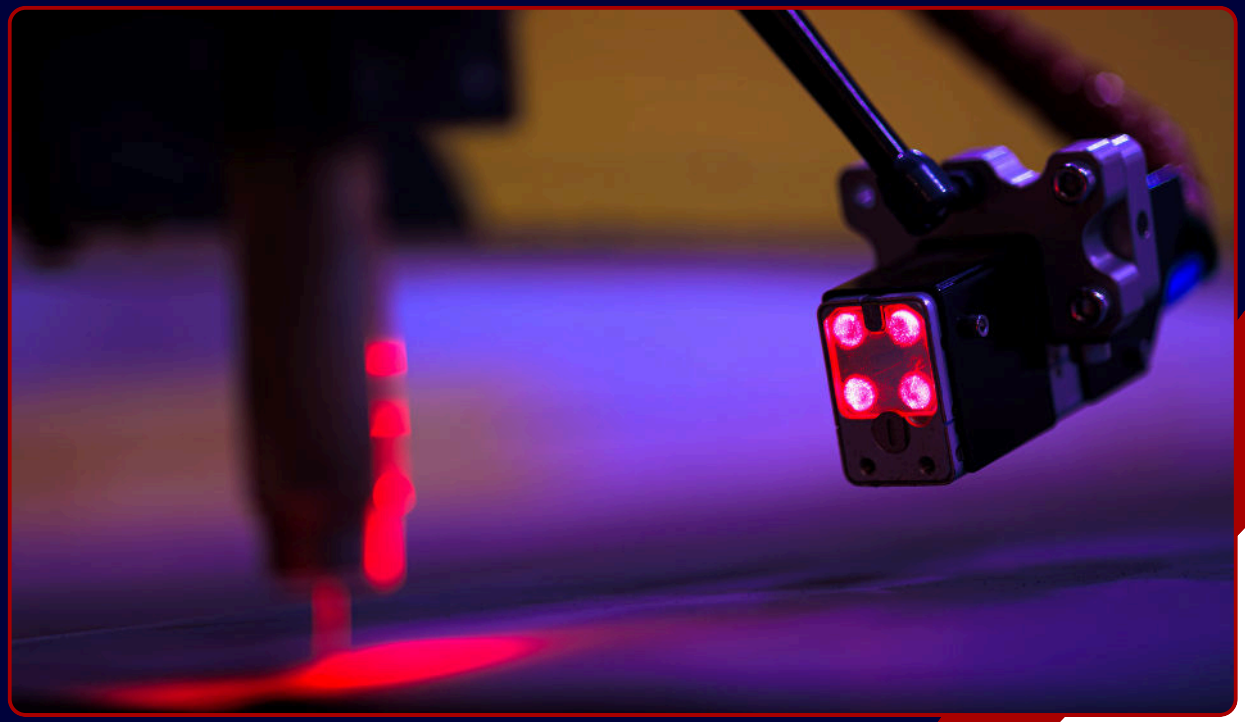
CAVITAR
VALUE IN SIGHT

Cavitar Welding Camera



FOR
DEMANDING WELDING
PROCESSES

CAVITAR

Cavitar Welding Camera

Value in Sight

SCAN ME

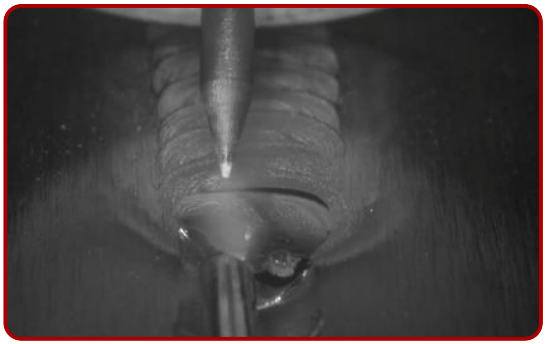
ArcLessVision revolutionizes welding visibility

See welding details for the first time.

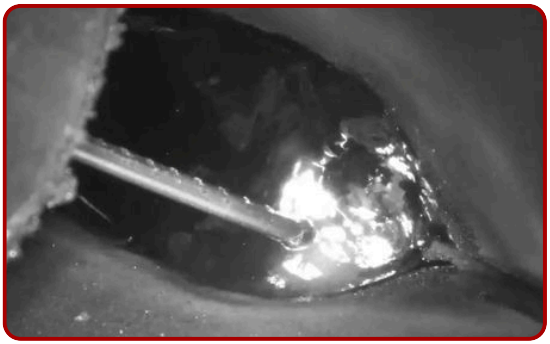
Analyze real-time data with precision.

Make confident decisions instantly.

TIG



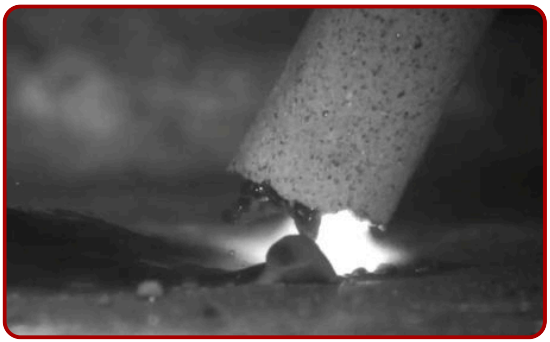
MIG/MAG



TIP TIG



STICK



Cavitar Welding Camera

Product Line



Cavitar Welding Camera	Page
C300 Series Most compact	5
C400 Series (IP64) & C401 Series (IP68) Compact & robust IP64 / IP68	7
C500 Series High magnification	11
Accessories Extending the capabilities	14

Cavitar Welding Camera

Industry Benefits

- Fast Error Detection
- Faster Set-up Time
- Robust For 24/7 Use
- Remote Operation



- AI/Cloud Integration
- Improved Ergonomics
- Automation Integration
- No Toxic Fumes
- Quality Documentation
- Welder Eye Safety

Cavitar Welding Camera

Industries Served

Cavitar Welding Camera supports modern welding environments where visibility, automation, safety and process control are critical. From manual welding to robotic and data-driven production, clear visualization helps operators, engineers and manufacturers improve quality, efficiency and decision-making.



- Shipbuilding & Offshore
- Defence Manufacturing
- Aerospace & Aviation
- Nuclear & Energy
- Automotive & Robotics
- Heavy Industry & Machinery
- Research & Advanced Manufacturing
- Rail & Transportation

Cavitar Welding Camera

C300 Series

Most compact



C300

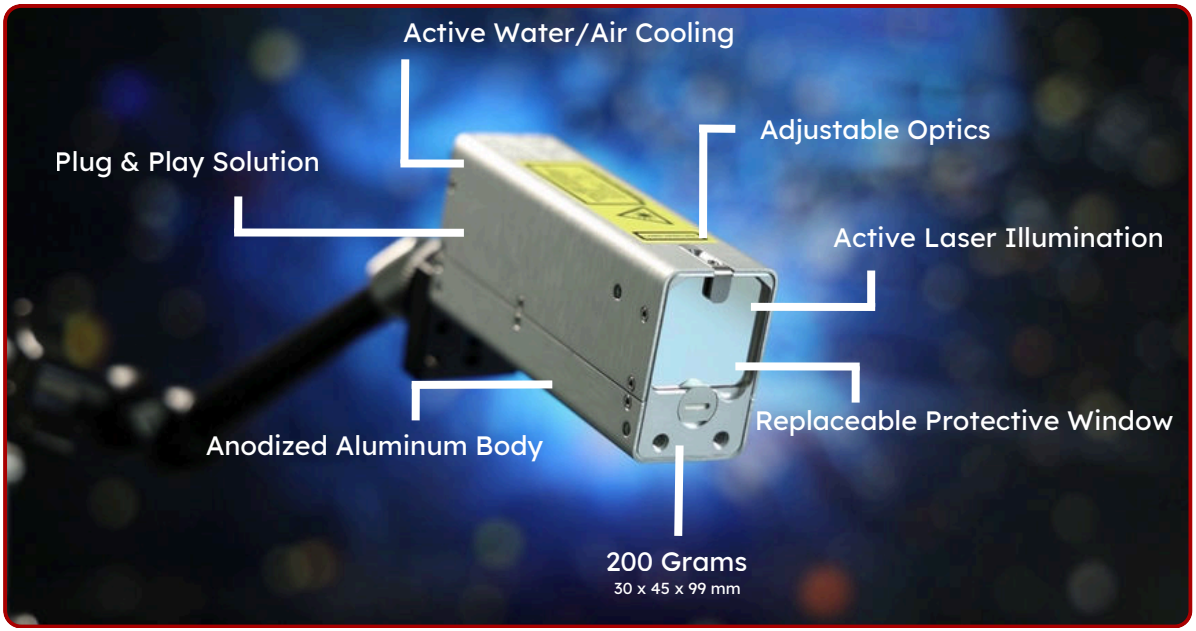
GigE, 1.5 Mpxl @ 70 fps

C330

GigE, 0.4 Mpxl @ 300 fps, up to 430 fps @ 2x2 binning

C350

USB3, 1.5 Mpxl @ 200 fps, up to 500 fps @ 2x2 binning



Main features	C300	C330	C350
	Most compact	**Fast GigE**	**Fast USB3**
	Baumer electronics & SDK	Baumer electronics & SDK	Baumer electronics & SDK
	Adjustable working distance	Adjustable working distance	Adjustable working distance
Camera interface	GigE	GigE	USB3
Connectors	M12 GigE, M8 power	M12 GigE, M8 power	Micro-B USB3, M8 power
Sensor resolution (pixel)	1440x1080	720x540	1440x1080
Max frame rate full resolution (fps)	70	300	200
Max frame rate @ 2x2 binning (fps)	100	430	500
Working distance, WD (mm)	150…300	150…300	150…300
Field of view (mm x mm) vs WD (mm)	28x21@150 40x30@200 62x47@300	28x21@150 40x30@200 62x47@300	28x21@150 40x30@200 62x47@300
Illumination	650nm laser, class 3R	650nm laser, class 3R	650nm laser, class 3R
Size (WxHxL, mm x mm x mm) *1	30x45x99	30x45x99	30x45x99
Weight (g)	200	200	200
Operating ambient temperature (°C)	10…300 (with cooling and insulation, non-condensing)	10…300 (with cooling and insulation, non-condensing)	10…300 (with cooling and insulation, non-condensing)
Cooling options	passive or active (air/liquid circulation)	passive or active (air/liquid circulation)	passive or active (air/liquid circulation)

*1 excluding connectors

Cavitar Welding Camera

C400 Series (IP64)

Compact and robust

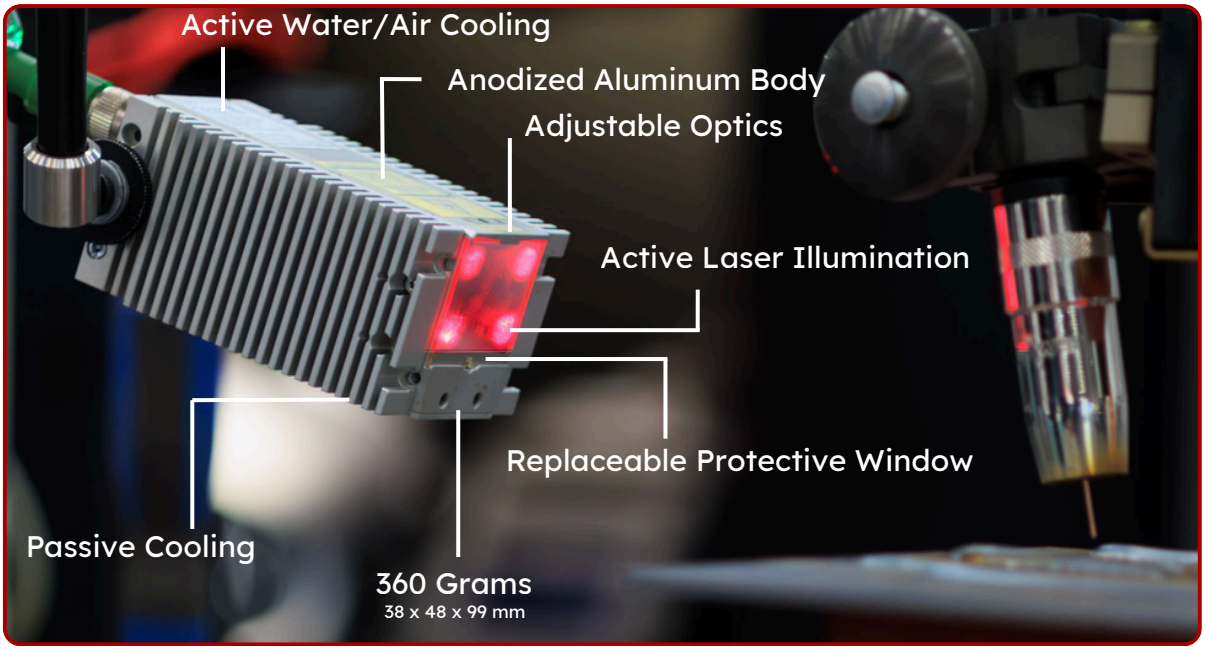


C400

GigE, 1.5 Mpxl @ 70 fps, IP64

C430

GigE, 0.4 Mpxl @ 300 fps, up to 430 fps @ 2x2 binning, IP64



Main features	C400	C430
	Compact & Robust	**Fast GigE Version**
	Baumer electronics & SDK	Baumer electronics & SDK
	Adjustable working distance	Adjustable working distance
Camera interface	GigE	GigE
Connectors	M12 GigE, M12 power	M12 GigE, M12 power
Sensor resolution (pixel)	1440x1080	720x540
Max frame rate full resolution (fps)	70	300
Max frame rate @ 2x2 binning (fps)	100	430
Working distance, WD (mm)	150…300	150…300
Field of view (mm x mm) @ WD (mm)	28x21@150 40x30@200 62x47@300	28x21@150 40x30@200 62x47@300
Illumination	650nm laser, class 3R	650nm laser, class 3R
Size (WxHxL, mm x mm x mm) *1	38x48x99	38x48x99
Weight (g)	350	350
Ambient temperature (°C)	10…300 (with cooling and insulation, non-condensing)	10…300 (with cooling and insulation, non-condensing)
Cooling options	passive or active (air/liquid circulation)	passive or active (air/liquid circulation)

*1 excluding connectors

Cavitar Welding Camera

C401 Series (IP68)

Most Robust



C401

GigE, 1.5 Mpxl @ 70 fps, IP68

C431

GigE, 0.4 Mpxl @ 300 fps, up to 430 fps @ 2x2 binning, IP68



Main features	C401	C431
	Most Robust - IP68	**Fast GigE Version**
	Baumer electronics & SDK	Baumer electronics & SDK
	Fixed working distance	Fixed working distance
Connectors	Lemo connectors	Lemo connectors
Sensor resolution (pixel)	1440x1080	720x540
Max frame rate full resolution (fps)	70	300
Max frame rate @ 2x2 binning (fps)	100	430
Working distance, WD (mm)	150…300	150…300
Field of view (mm x mm) @ WD (mm)	28x21@150 40x30@200 62x47@300	28x21@150 40x30@200 62x47@300
Camera interface	GigE	GigE
Illumination	650nm laser, class 3R	650nm laser, class 3R
Size (WxHxL, mm x mm x mm) *1	41x51x107	41x51x107
Weight (g)	415	415
Ambient temperature (°C)	10…300 (with cooling and insulation, non-condensing)	10…300 (with cooling and insulation, non-condensing)
Cooling options	passive or active (air/liquid circulation)	passive or active (air/liquid circulation)

*1 excluding connectors

Cavitar Welding Camera

C500 Series

High Magnification



C500

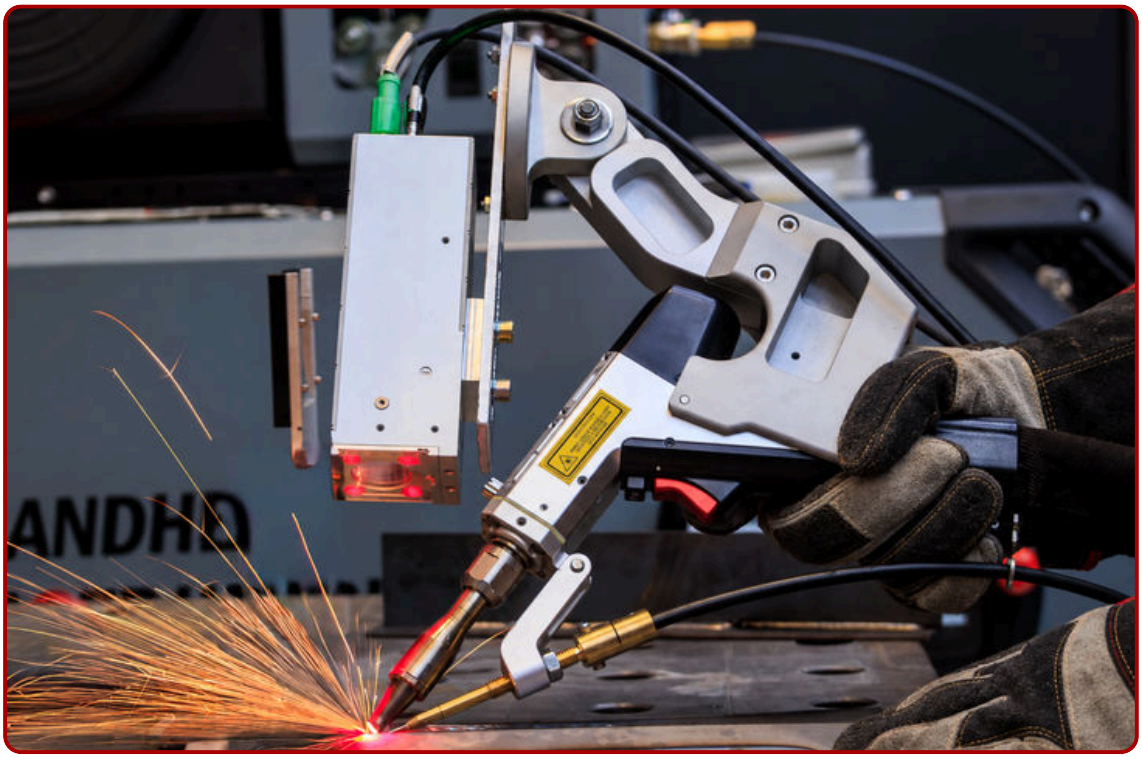
GigE, 1.5 Mpxl @ 70 fps

C530

GigE, 0.4 Mpxl @ 300 fps, up to 430 fps @ 2x2 binning

C550

USB3, 1.5 Mpxl @ 200 fps, up to 500 fps @ 2x2 binning



Main features	C500	C530	C550
	High Magnification	**Fast GigE**	**Fast USB3**
	Baumer electronics & SDK	Baumer electronics & SDK	Hikrobot electronics & SDK
	Adjustable working distance	Adjustable working distance	Adjustable working distance
Camera interface	GigE	GigE	USB3
Connectors	M12 GigE, M12 power	M12 GigE, M12 power	M12 GigE, M12 power
Sensor resolution (pixel)	1440x1080	720x540	1440x1080
Max frame rate full resolution (fps)	70	300	200
Max frame rate @ 2x2 binning (fps)	100	430	500
Working distance, WD (mm)	120…300	120…300	120…300
Field of view (mm x mm) @ WD (mm)	10x8@120 14x11@150 30x22@300	10x8@120 14x11@150 30x22@300	10x8@120 14x11@150 30x22@300
Illumination	650nm laser, class 3R	650nm laser, class 3R	650nm laser, class 3R
Size (WxHxL, mm x mm x mm) *1	47x53x158	47x53x158	47x53x158
Weight (g)	750	750	750
Ambient temperature (°C)	10…300 (with cooling and insulation, non-condensing)	10…300 (with cooling and insulation, non-condensing)	10…300 (with cooling and insulation, non-condensing)
Cooling options	passive or active (air/liquid circulation)	passive or active (air/liquid circulation)	passive or active (air/liquid circulation)

*1 excluding connectors

Value In Sight



See through the arc with #ArcLessVision

- High-quality visualization of welding processes in real-time
- Clear view with all details without disturbing process light
- Reveals the details of the welding process core at once (e.g. melt pool, keyhole, defects)



Better quality control through real-time view

- Detection of problems and defects early in the process
- Alignment of the welding torch to the gap, observe melt pool behavior, see the filler material, etc.
- Process documentation for quality assurance



Save time and resources -Less scrap and higher yield

- Early defect detection for immediate process corrections
- Savings in materials, time and work
- Improved manufacturing repeatability and traceability
- Savings in process set-up and problem-solving time
- Minimized downtime or lost production time

Designed, Engineered and Manufactured in Finland

Cavitar Welding Camera

Accessories

Sync Unit

Heatsink Plates for passive cooling

Robotic Cables

90° View Camera Adapter

Temprature Warning Unit (TWU)

Robust Protective Window Holders



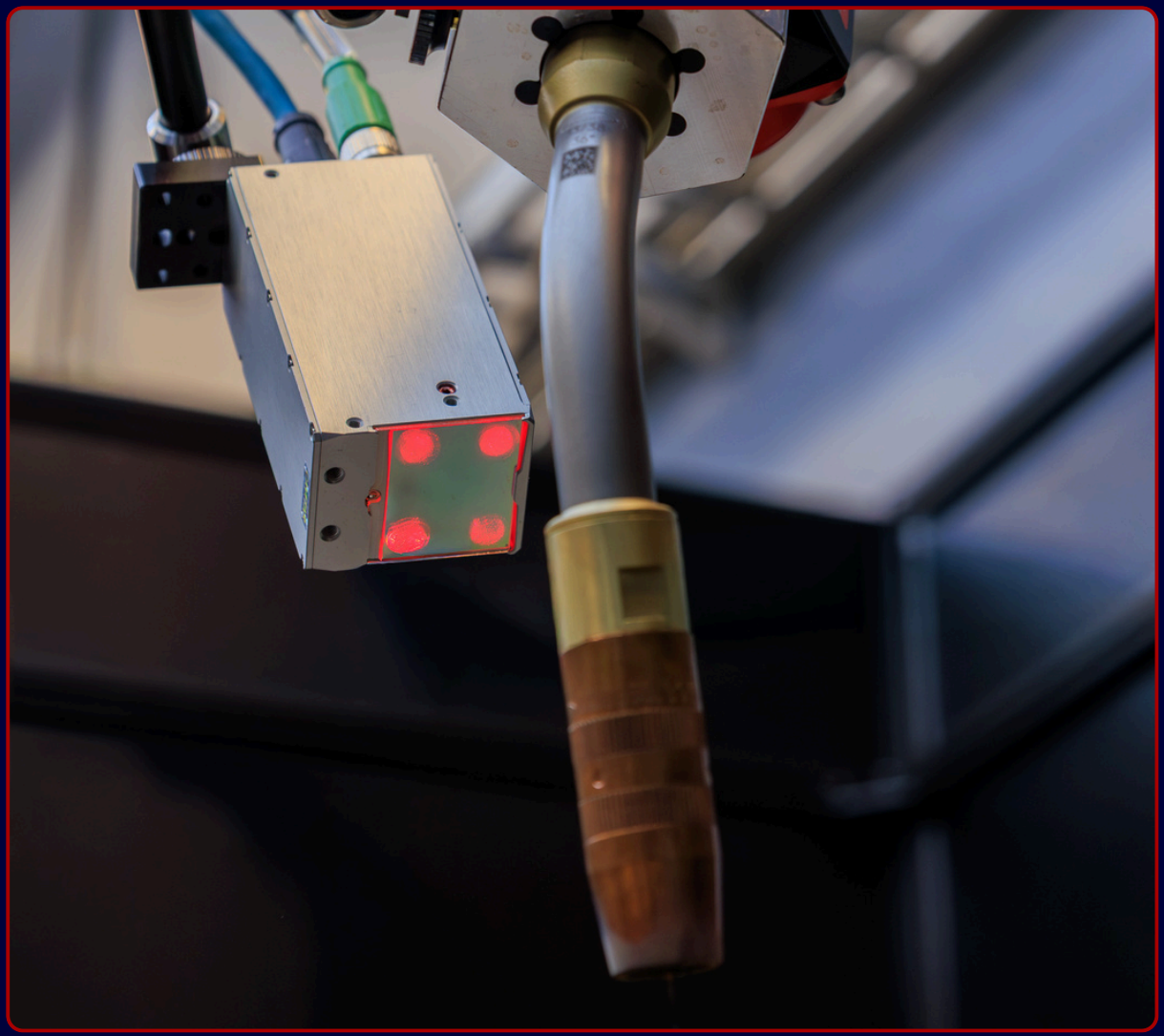
Cavitar Welding Camera

Education Benefits

- Realistic Theory Learning
- Instant Defect Spotting
- Targeted Focus Area
- Recorded Evaluations/Exams



- Weld Fusion Details
- Improved Teacher Techniques
- Shared Live View
- No Toxic Fumes
- No UV Radiation
- Welder Eye Safety



CAVITAR

VALUE IN SIGHT

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