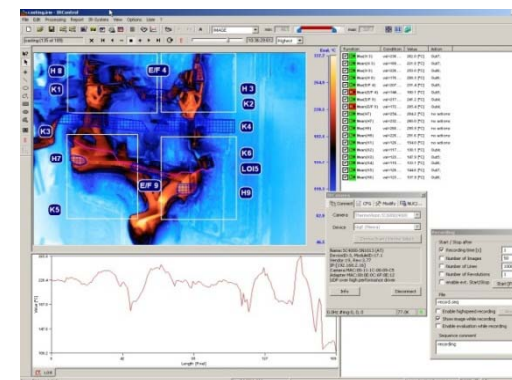
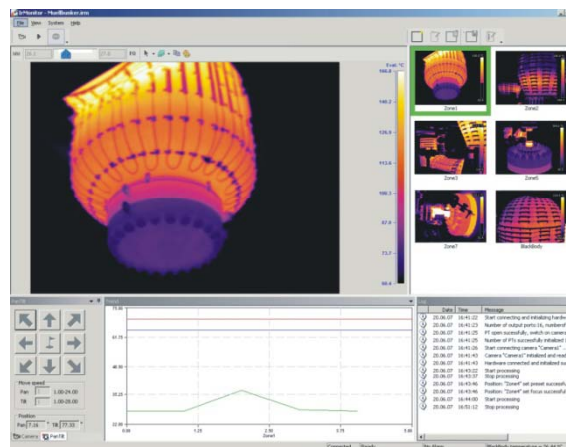


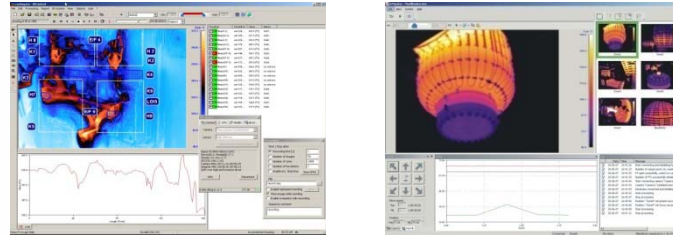
New Products for Automation and Surveillance



New Products for Automation and Surveillance

Approach so far:

1. **AT sells the software.**



The local integrator adds all other components and sets up the system.

Disadvantages: Few integrators are experienced to set up infrared imaging systems

Often very intensive after sales support from AT

2. **AT takes the whole project.**

Disadvantages: AT's resources are limited

Most customers prefer local integrators

High effort for travelling if the customer is in a foreign country

New Products for Automation and Surveillance

New Approach:

AT delivers turnkey systems.

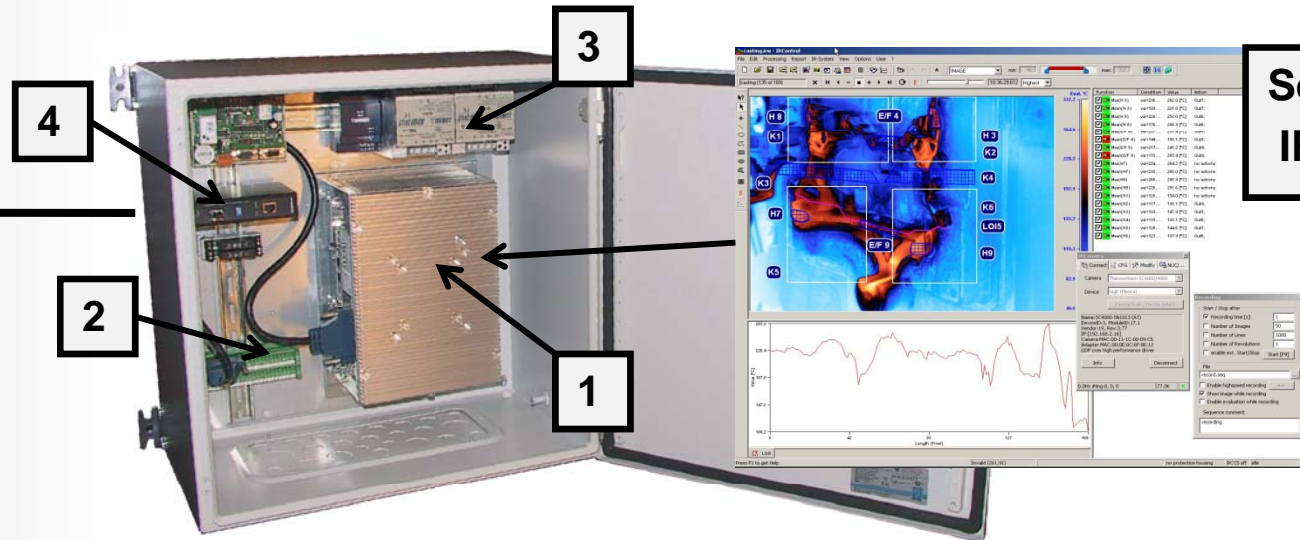
The local integrator installs the system and sets it up for the application.

- Advantages:**
- The integrator gets turnkey plug-and-play solutions. He does not need a high level of experience.
 - The systems are completely tested by AT
 - Installation and setup can be performed in shortest times
 - The hardware components are standardized. The integrator always gets the same hardware platform for automation as well as for surveillance.
 - The systems are completely designed for industrial use with maximum reliability (fanless, very high MTBF, fail-safe)
 - The components are available worldwide in shortest times

IRControl Automation



Camera A320, A325



Control Enclosure

(1) High performance Embedded-PC with software IRControl

High MTBF (40.000h), fanless design, CompactFlash-Disk

(2) Digital I/O

8 In / 8 Out, opto-decoupled, 24V industrial standard

(3) Power supplies

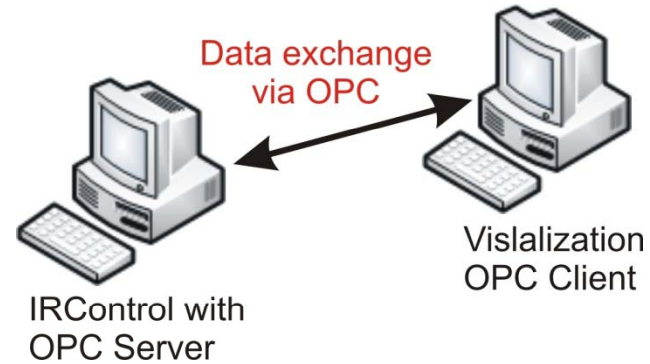
For computer, digital I/O, camera. High MTBF, fanless

(4) Ethernet-to-Fiber Converter (Option !)

IRControl Automation Options



Camera Enclosure



OPC-Server

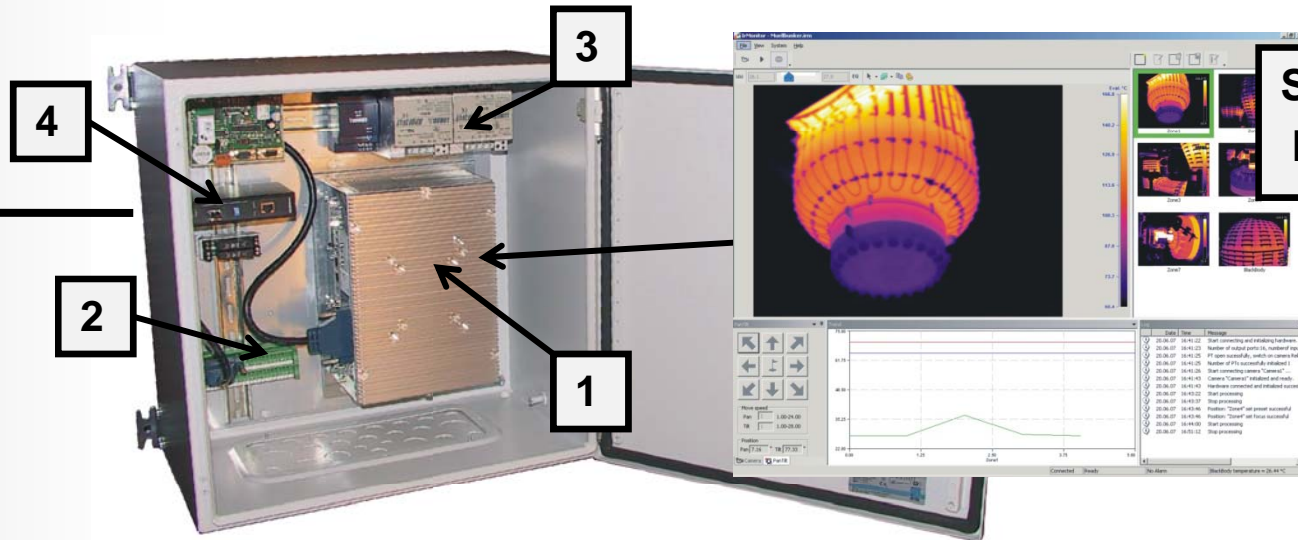


Display for the front door of the control enclosure

IrMonitor Surveillance Standard



Camera A320, A325



Software
IrMonitor

Control Enclosure

- (1) **High performance Embedded-PC with software IRControl**

High MTBF (40.000h), fanless design, CompactFlash-Disk

- (2) **Digital I/O**

8 In / 8 Out, opto-decoupled, 24V industrial standard

- (3) **Power supplies**

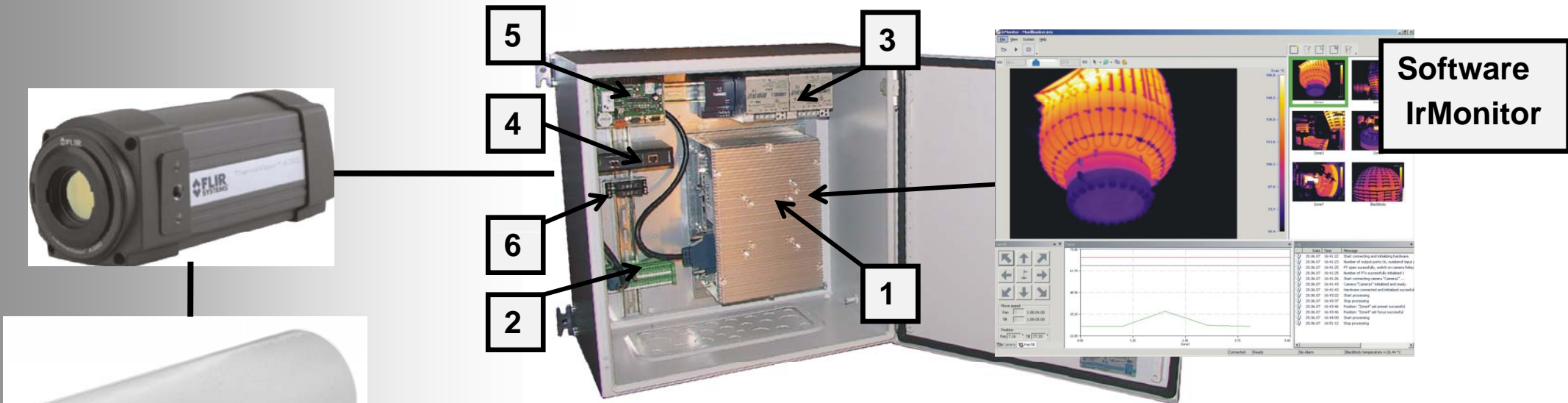
For computer, digital I/O, camera. High MTBF, fanless

- (4) **Ethernet-to-Fiber Converter (Option !)**



Camera Enclosure

IrMonitor Surveillance PT

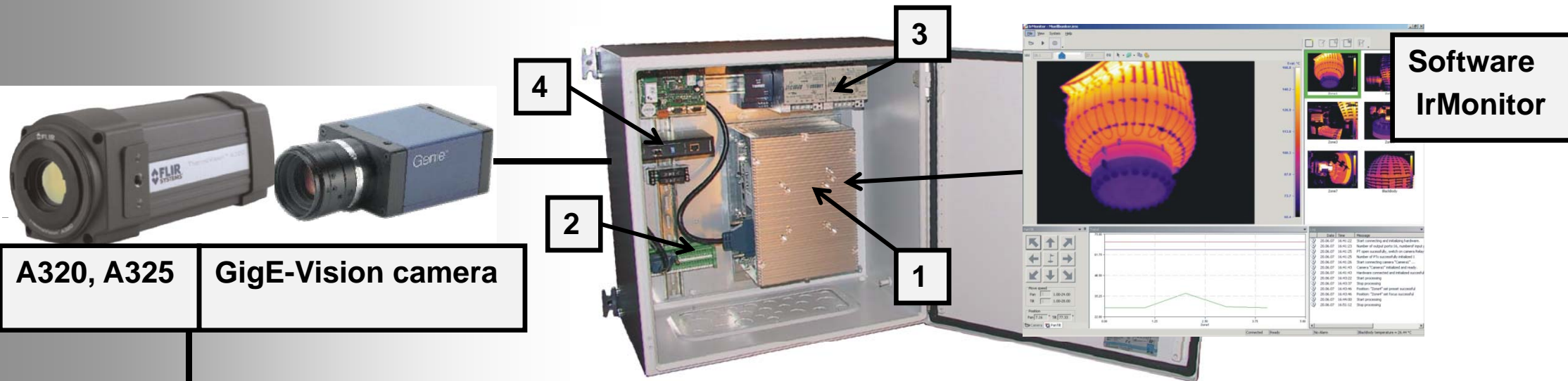


Control Enclosure

- (1) High performance Embedded-PC with software IrMonitor
- (2) Digital I/O
8 In / 8 Out, opto-decoupled, 24V industrial standard
- (3) Power supplies
For computer, digital I/O, camera. High MTBF, fanless
- (4) Ethernet-to-Fiber Converter (Option !)
- (5) Telemetry unit for PT-head
- (6) Relays for wiper and washer (Option !)

PT-
Head

IrMonitor Surveillance DualView



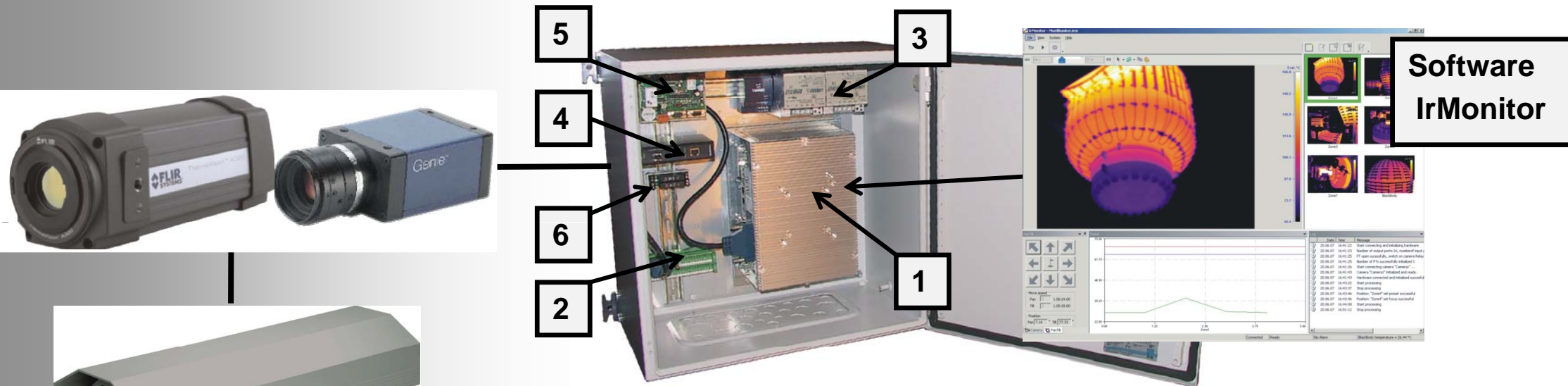
A320, A325 **GigE-Vision camera**



Camera Enclosure

- Control Enclosure**
- (1) High performance Embedded-PC with software IRControl**
High MTBF (40.000h), fanless design, CompactFlash-Disk
 - (2) Digital I/O**
8 In / 8 Out, opto-decoupled, 24V industrial standard
 - (3) Power supplies**
For computer, digital I/O, cameras. High MTBF, fanless
 - (4) Ethernet-to-Fiber Converter (Option !)**

IrMonitor Surveillance DualView PT



Control Enclosure

- (1) High performance Embedded-PC with software IrMonitor
- (2) Digital I/O
8 In / 8 Out, opto-decoupled, 24V industrial standard
- (3) Power supplies
For computer, digital I/O, camera. High MTBF, fanless
- (4) Ethernet-to-Fiber Converter (Option !)
- (5) Telemetry unit for PT-head
- (6) Relays for wiper and washer (Option !)

PT-
Head

IrMonitor Surveillance Options

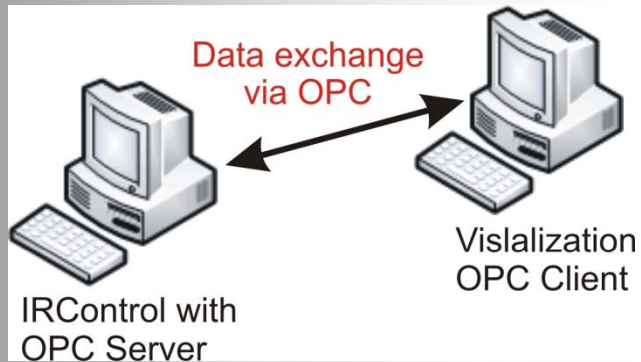


**Stainless steel enclosures
Ex-proof enclosures**



Wiper and washer for Enclosure

IrMonitor Surveillance Options



Servers for Remote Access:

- OPC-Server
- AXIS Server with MPEG4 and alarm via TCP/IP
- MPEG4 Server
- Customer-specific data exchange, e.g. telegram server for ArcelorMittal plants



KVM Extenders for direct access



**Wireless LAN,
Ethernet-to-Fibre Converters**



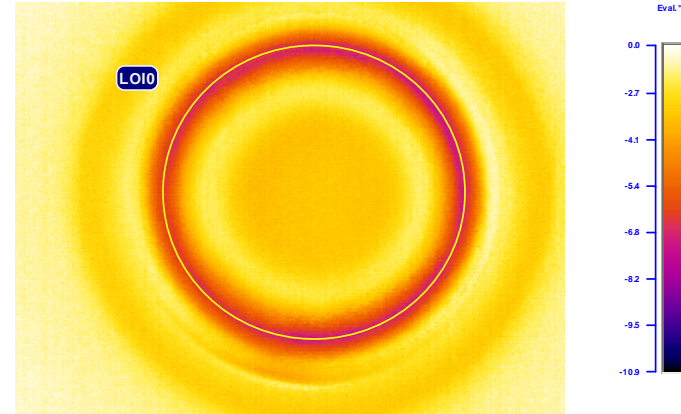
**Display for the front door of
the control enclosure**

Application Examples

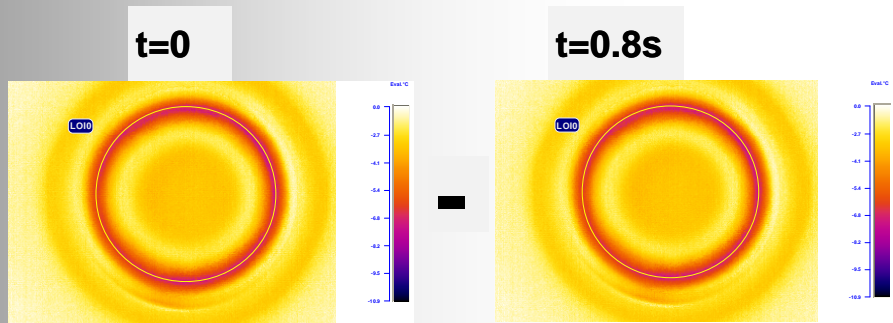
Inspection of heat sealed joints



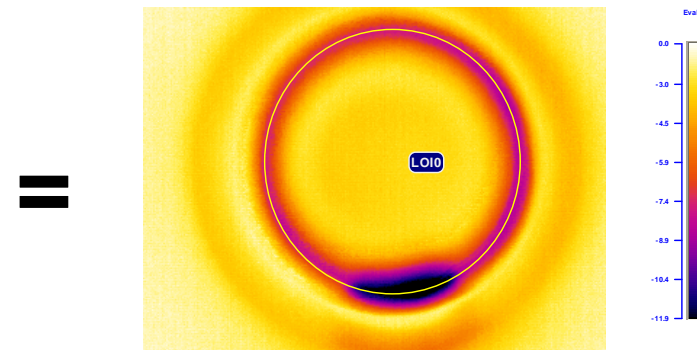
Part with heat-sealed filter



IR image of a part with a defect in the sealed seam



Difference image evaluation



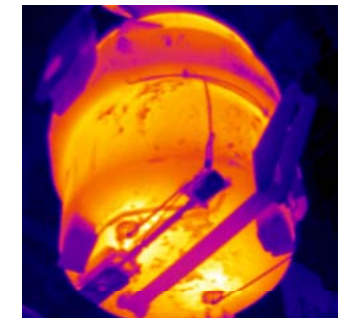
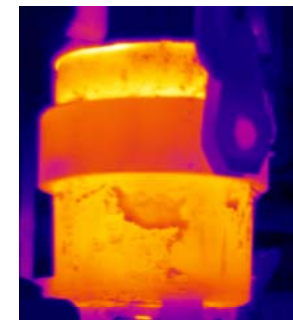
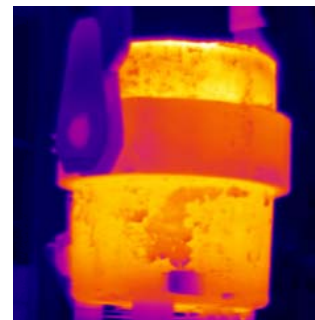
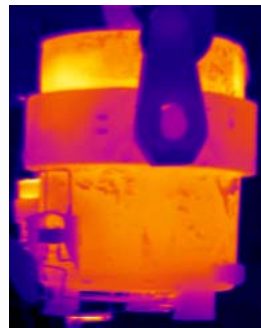
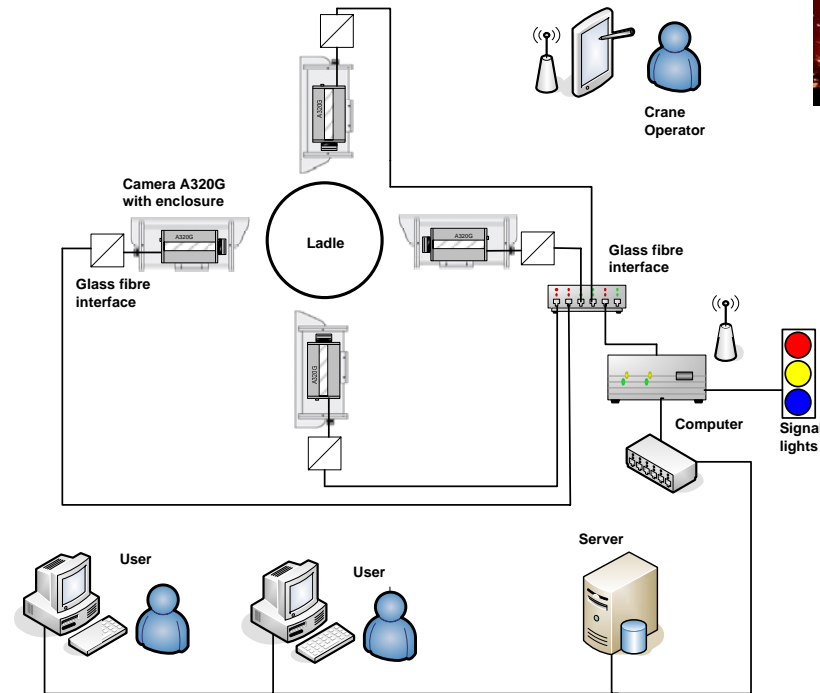
Difference image of a sealed seam with a defect

Application Examples

Steel Ladle Inspection



- Ladle inspection with four A - cameras
- Running 7 / 24h
- Refractory repair only when necessary
- Saves time and money
- Increased Safety

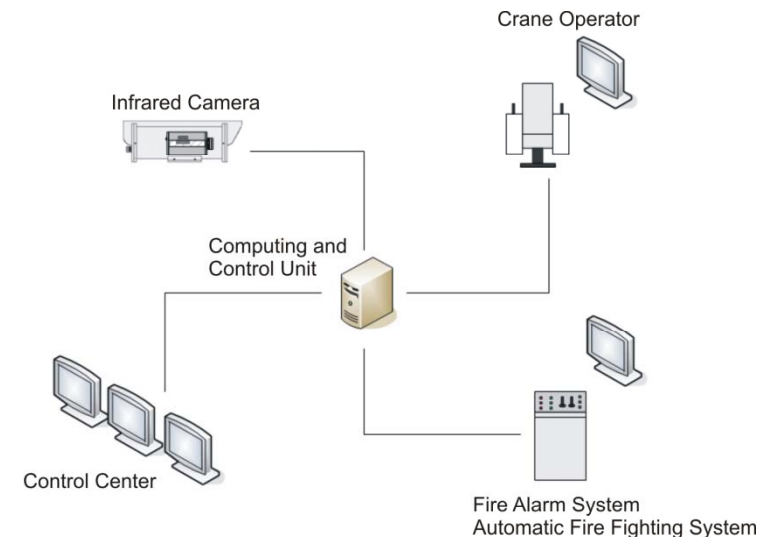


Application Examples

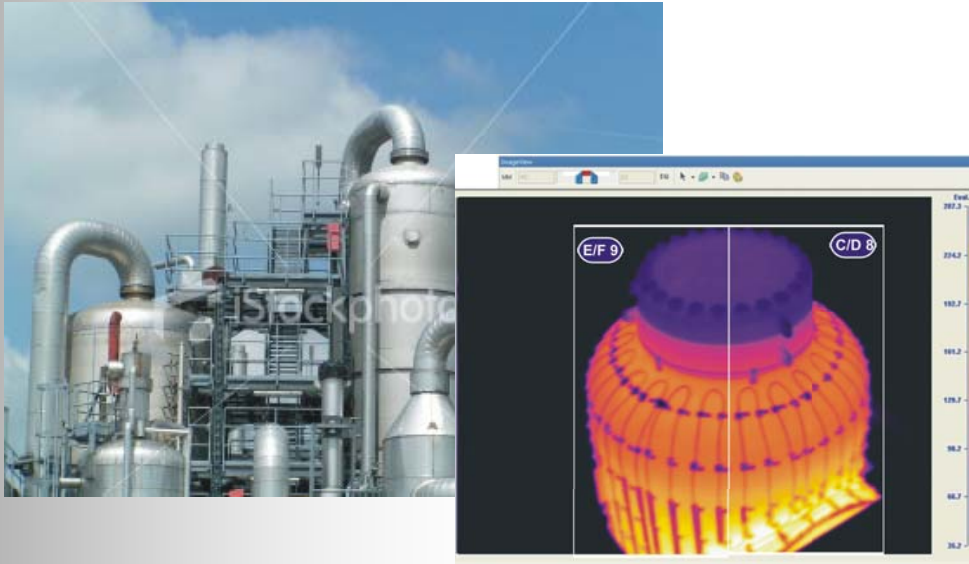
Monitoring of Waste Bunkers and Storage Areas



- Automated Detection of open fires and pockets of embers
- One Camera + PT per storage area
- User defined monitoring zones
- Fail safe design



Application Examples



Critical Vessel Monitoring



Automated Monitoring of Flares

Application Examples



Leakage Detection in Petrochemistry

Fire Detection in Tunnels and Mines

