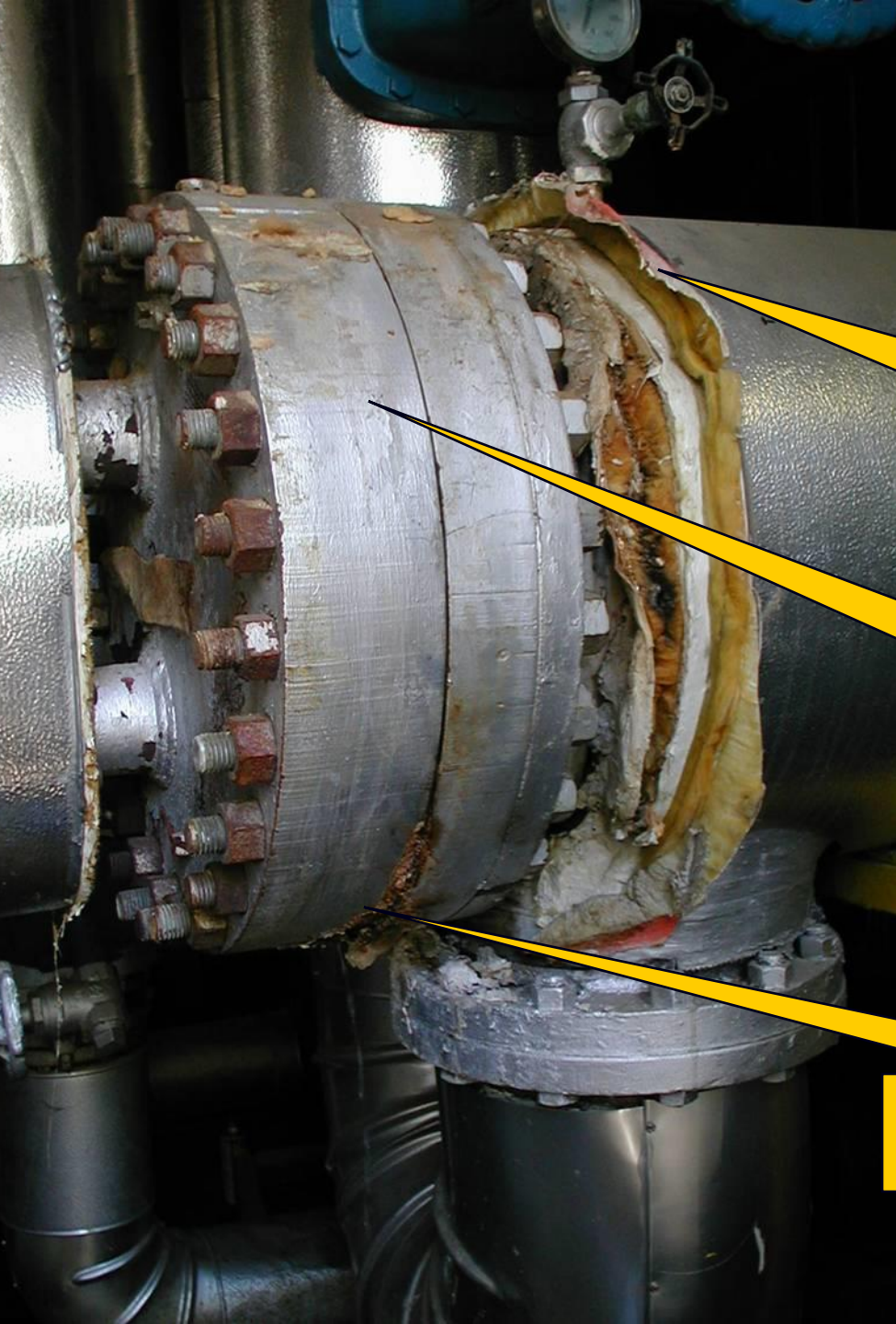


Thermal Management Solutions

Natural Gas
Fired Steam Loop Insulation





**Conventional Insulation
will “fail” over time.**

**Conventional Insulation is removed and
never replaced.**

**As a result complex surfaces
remain untreated.**

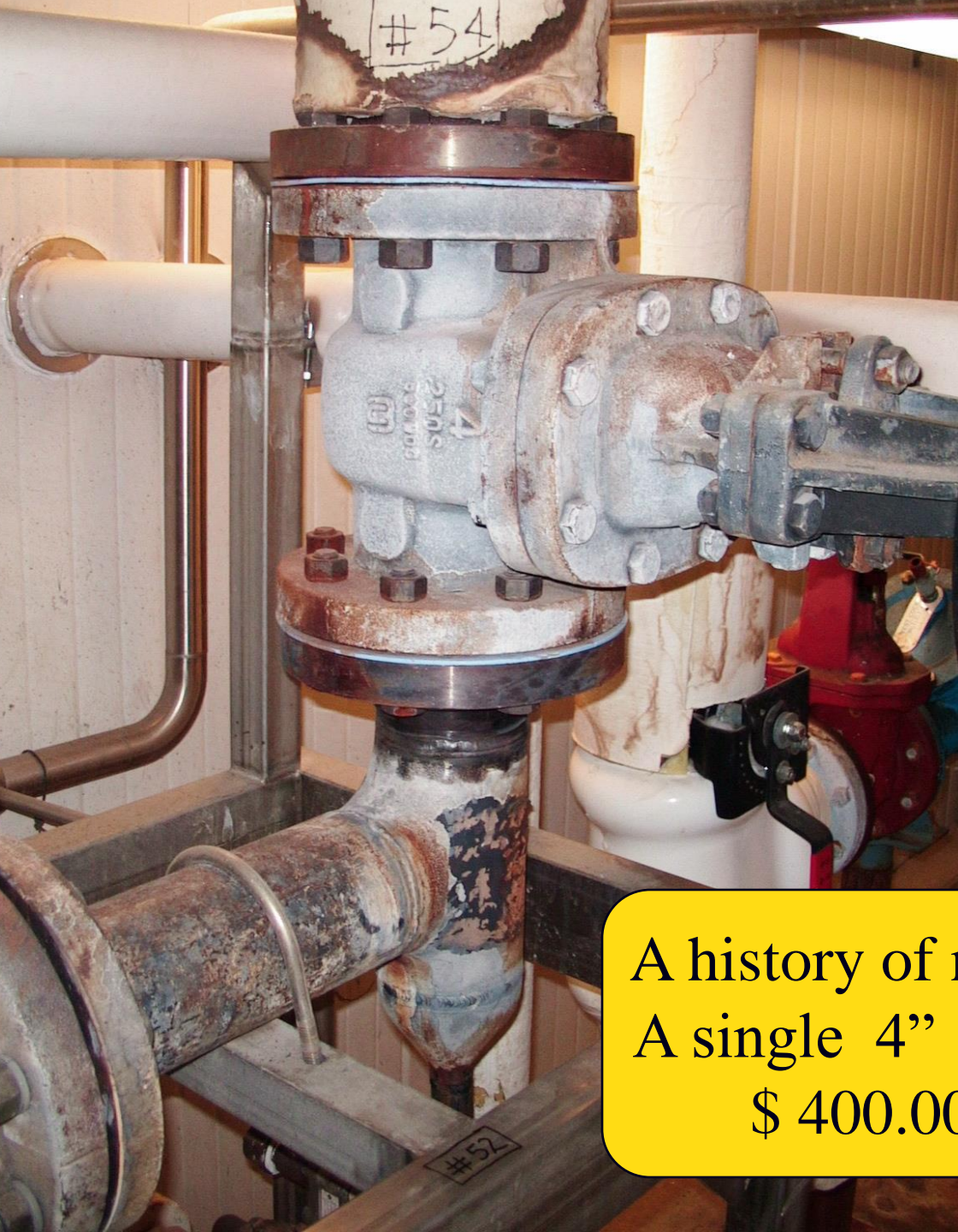
**Leaks, service or inspection
create problems for access.**

**Typical mechanical room pressure controls:
Valves & fittings left un-insulated.**





**We identify bare surface conditions;
steam valves, vessels, controls, fittings and
adjacent pipe.**



A history of neglect can be expensive.
A single 4" 150# Gate Valve can cost
\$ 400.00 to \$ 800.00 / Year !

Quick ROI Large Gas user

- ▶ 123 Steam Fittings (Sample Survey- Typical Fuel Cost)

- ▶ Blanket Insulation Cost w/Installation

After utility rebate \$ 54,578.32

- ▶ Annual Operating Cost - Bare \$ 50,706.21 / Year

- ▶ Savings = 280.11 lb Steam / HR (\$5.22/Hr & \$125.24/Day)

Annual Savings \$ 45,707.01

- ▶ Payback on Investment 1.2 years

- ▶ 15 Year Savings \$ 685,605.08

Energy Survey

The Opportunity Audit

- **Valve / Fitting count of “Bare” items.**
 - **“Laundry List” is created.**
 - **“Walk Through” of the system.**
- **Infrared Gun is used to obtain surface temperatures.**
 - **Survey includes all major “Hot Surfaces”.**
- **We can insulate many surfaces typically left untreated.**

Energy Survey Services with Infrared Measurements

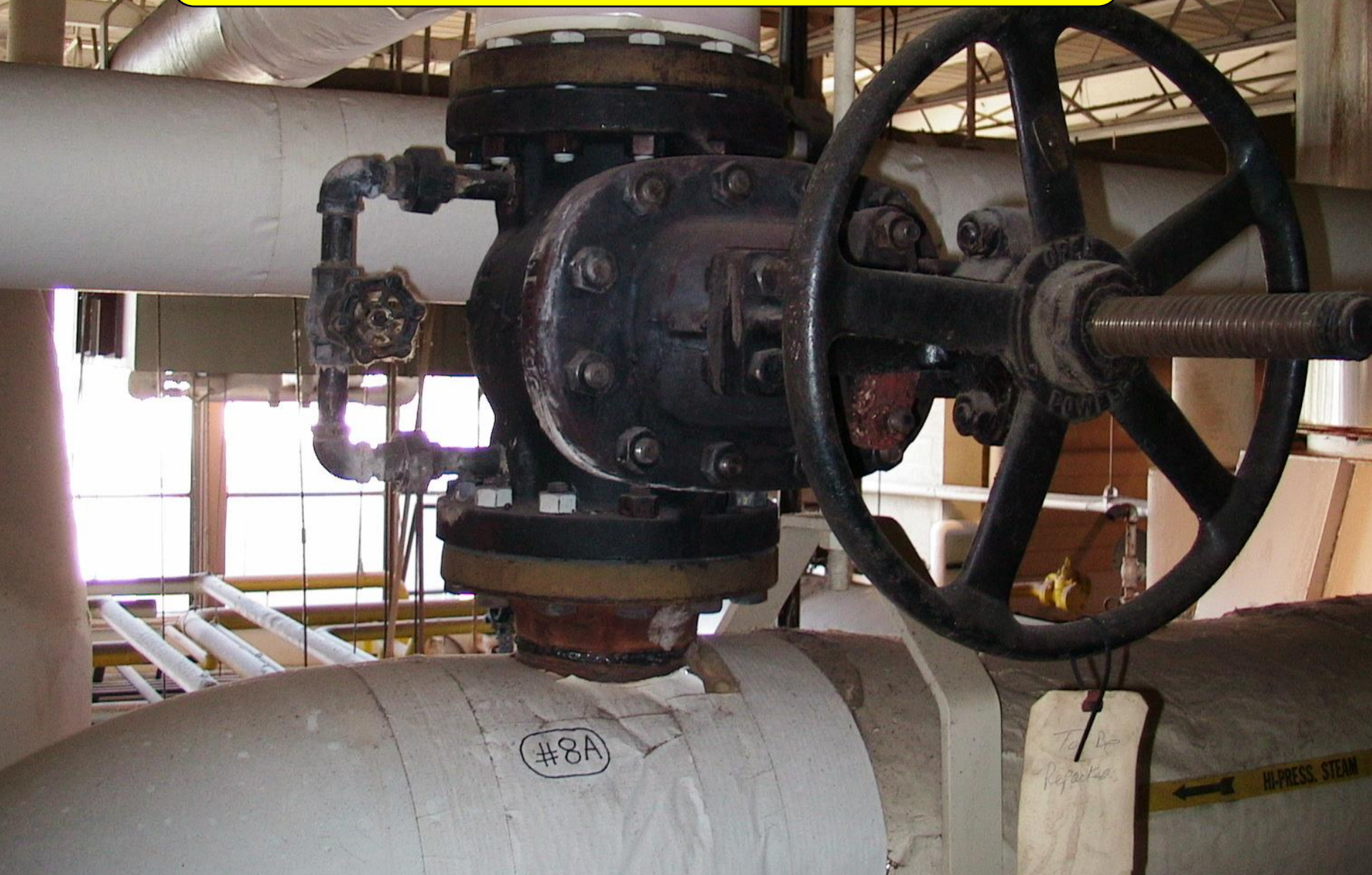
Before



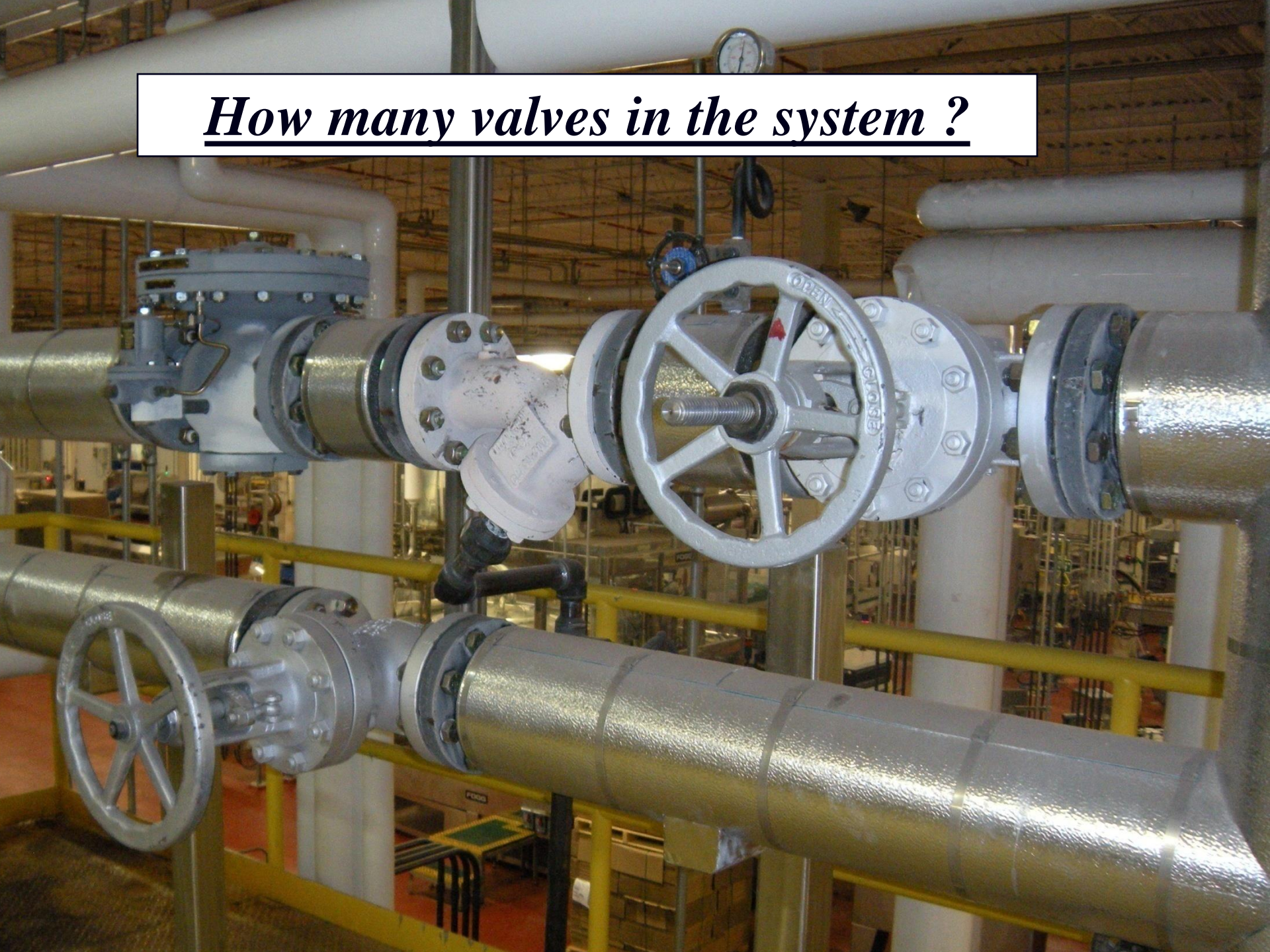
After



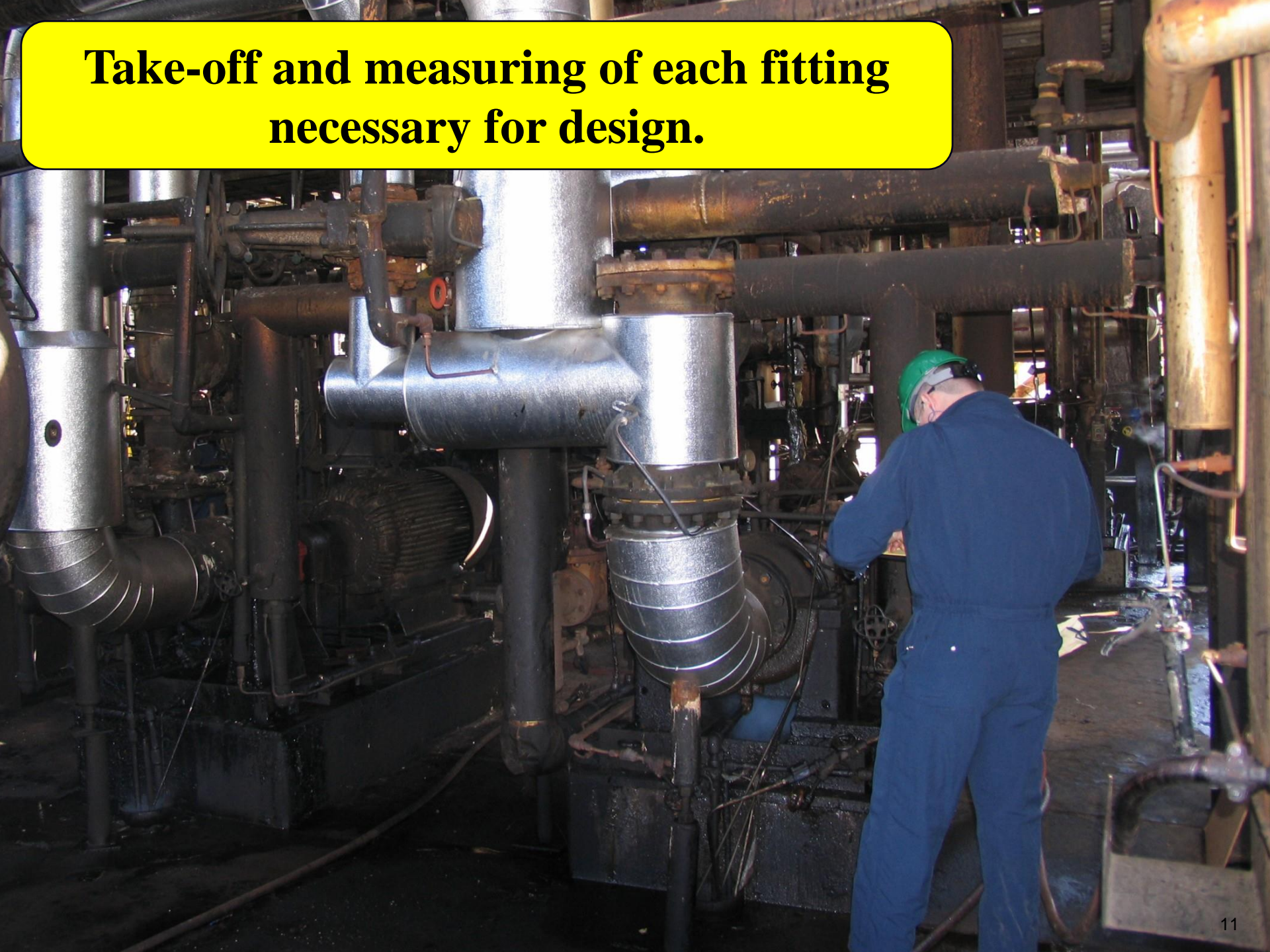
Each Location is scanned and logged



How many valves in the system ?



**Take-off and measuring of each fitting
necessary for design.**



Features & Benefits

- ▶ Removable & Reusable (Truly Re-Usable).
- ▶ Allows quick access for frequent service & inspection.
- ▶ A “Self Contained” insulation system with integral fasteners.
 - ▶ Durable sewn design, rugged construction.
- ▶ Great R Value = 3.85 , 46% better than Calcium Silicate
 - ▶ Turnkey Service: ID through installation.
 - ▶ Includes identification tags for ease of install.
 - ▶ CAD / CNC produced for exact fit.
- ▶ 18 Month Warranty / Guaranty Fit / 15 Year Service Life.

Features

Correct Overlap

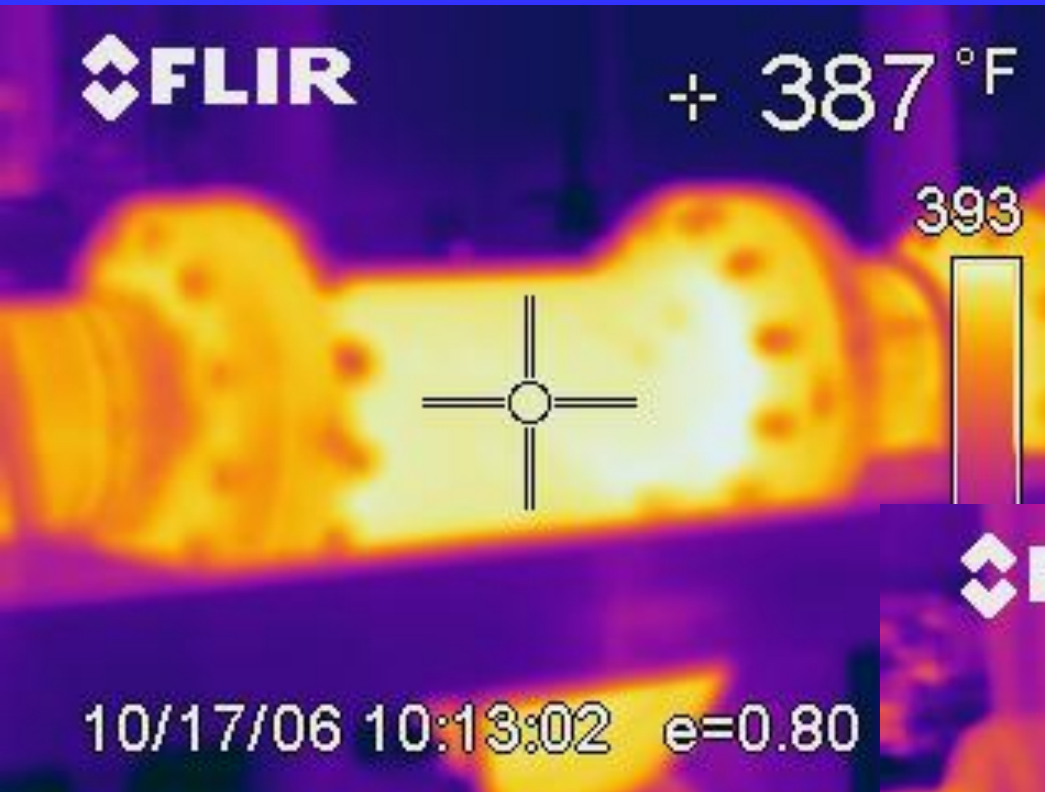
Correct match up around the valve bonnet, minimal gaps.

High Quality Fabric Jacketing.

Durable Double Sewn Construction-No Raw Edges.

Integral Fasteners for easy install and removal

M&V Services with Thermographic Imaging.



Before

After



Safety First

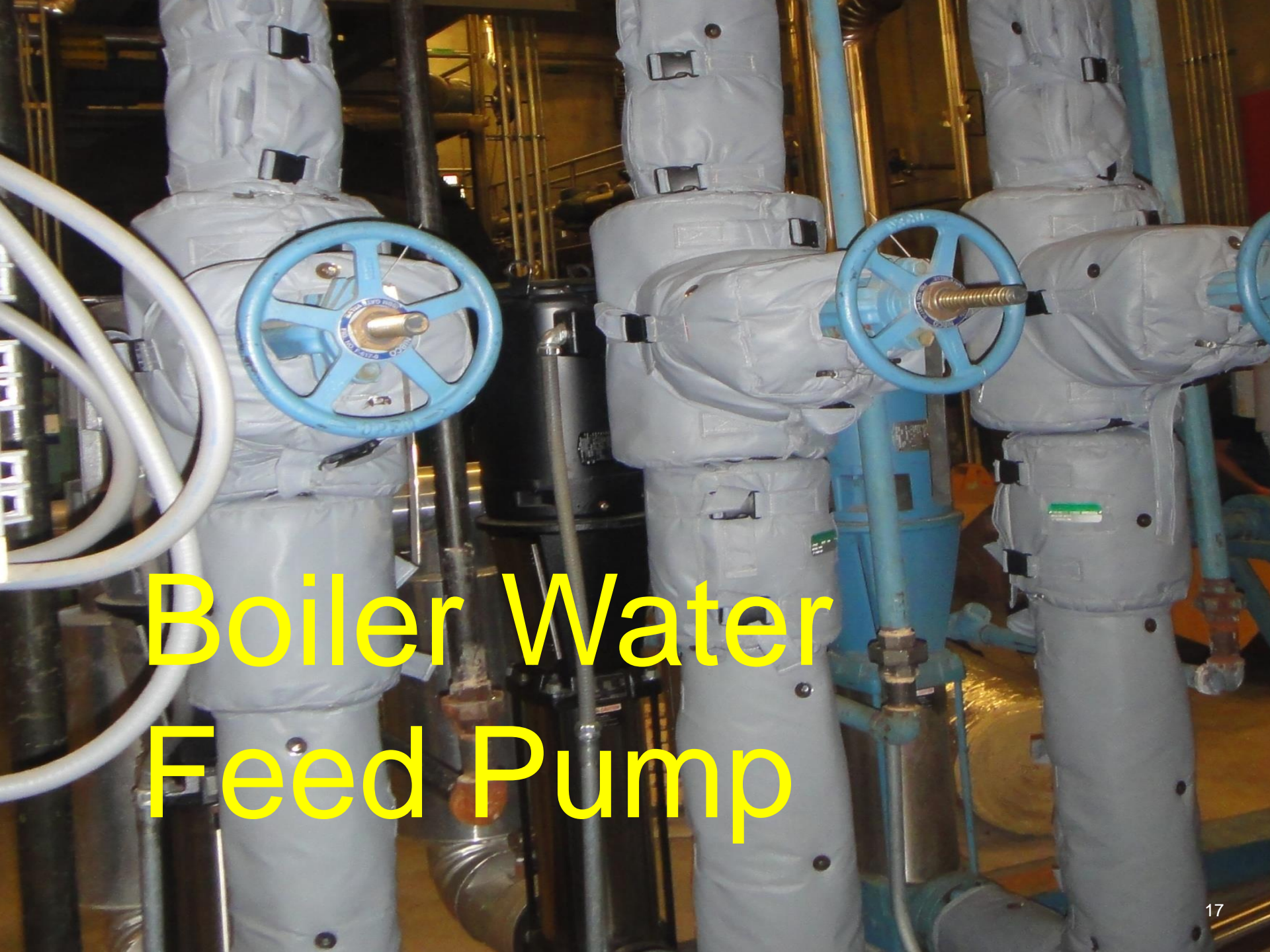
Typical Cold Face Surface Temperature After Install





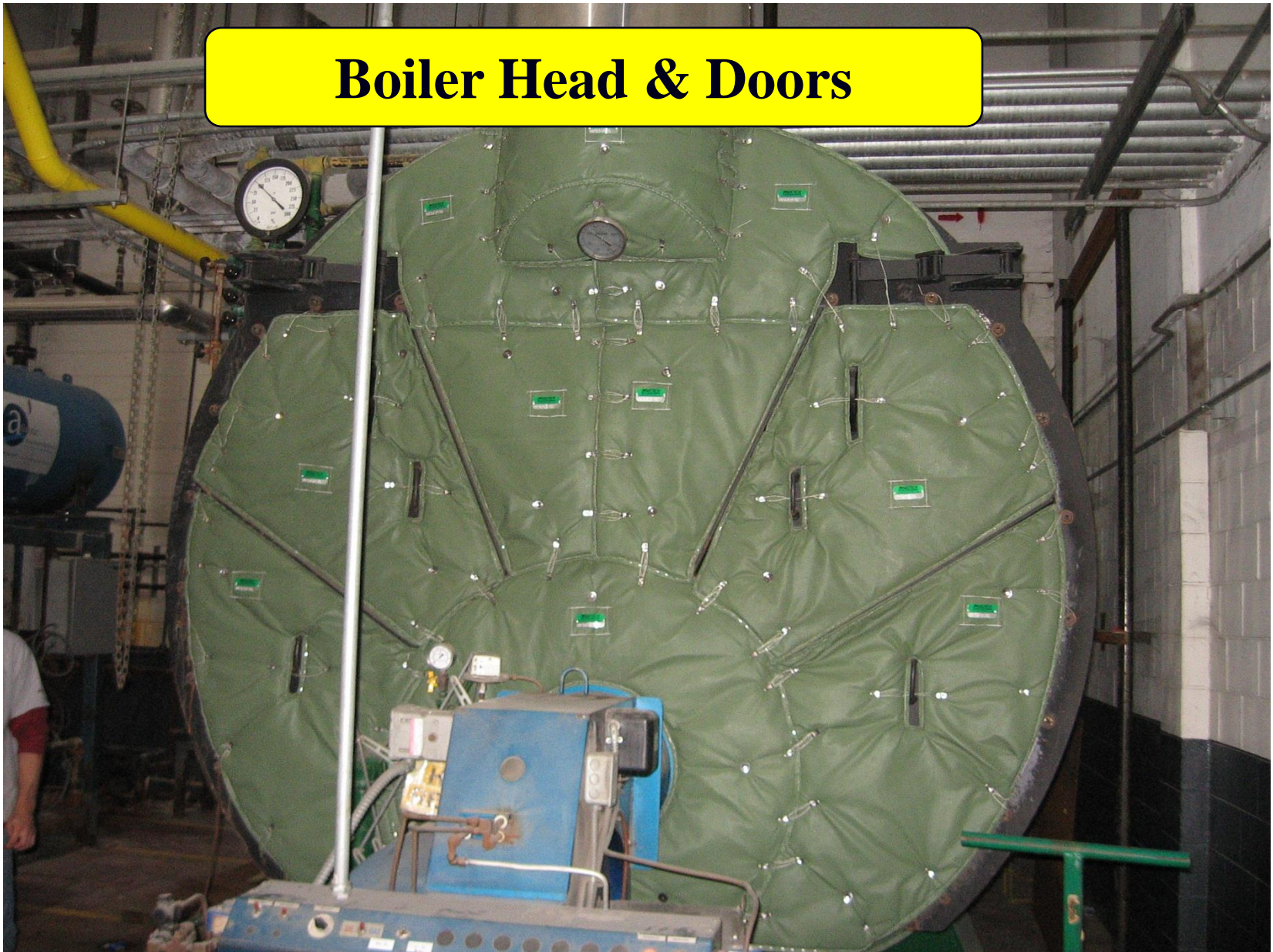
EXAMPLES OF APPLICATIONS!

Bob Mulvey 617-504-9859



Boiler Water Feed Pump

Boiler Head & Doors





Boiler Room

Main Steam Stop
Valve & Gate
Valve

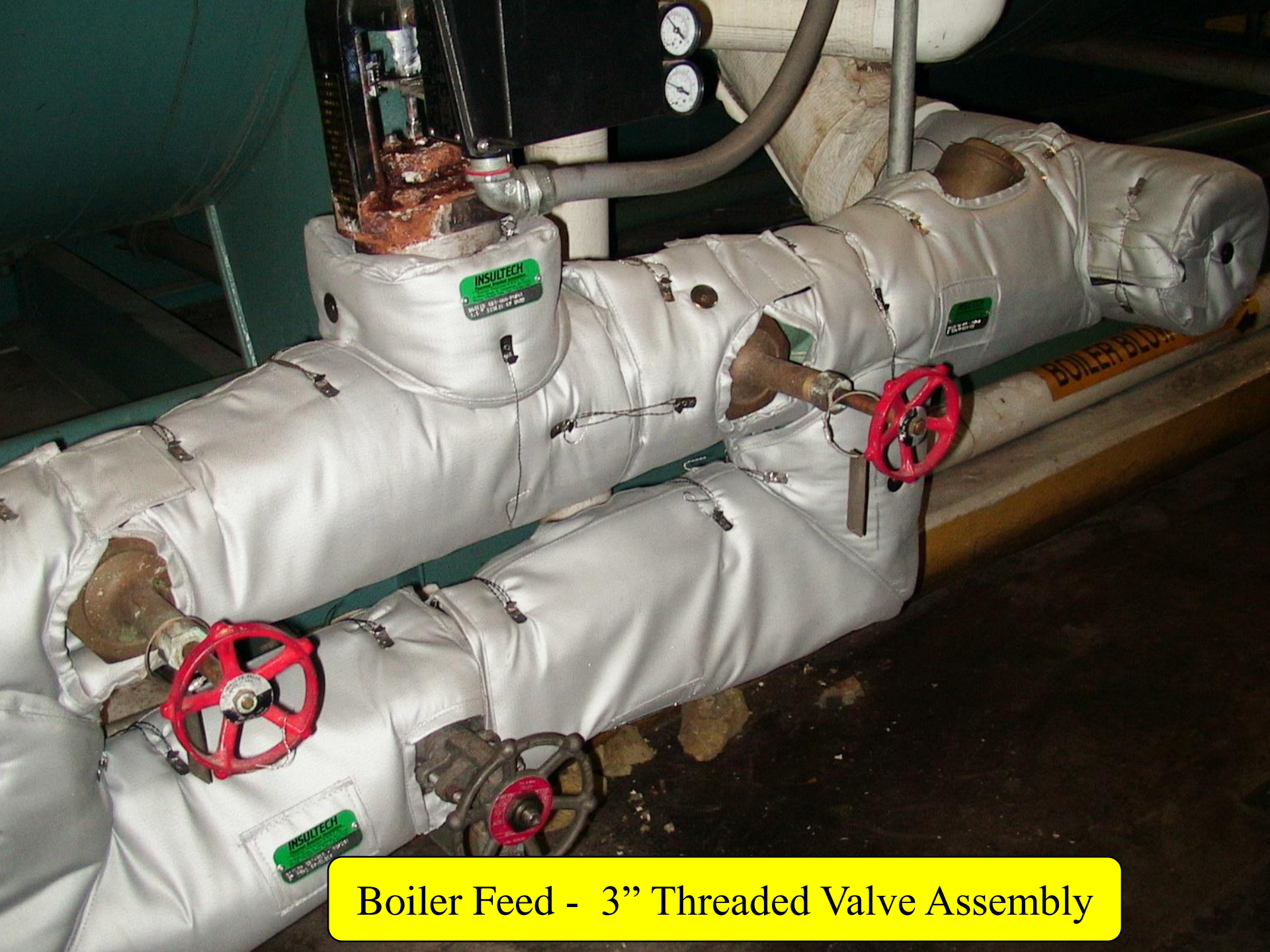
Design: LT450TT

1 ½" Thick

Fastener:

SS Wiretwists

Velcro Flaps



Boiler Feed - 3" Threaded Valve Assembly

Instantaneous Hot Water Heat Exchanger Heads





**Condensate Pump
Installed within “Minutes”**

Pressure Reducing Valve & Threaded Unions



Steam Condensate Pumps



PRESSURE REDUCING STATION

\$2,300.00 annual Savings

