

# Huynh Bang Company Corporate Presentation

Ho Chi Minh City, Vietnam  
March 2026

## I. Company Profile

1. Vision, Mission & Core Values
2. Facts & Figures
3. High-quality Products for Industrial Heat as well as Measurement & Automation Applications
4. Management & Team

## II. Solutions for various Applications

1. Industrial Heat (Burners, Flue Gas Analysers, Boilers, Oil Pumps and Spare Parts)
2. Measurement (Level, Switching, Pressure, Temperature, Liquid Analysis, Flow and Concentration)
3. Automation (Inventory System, Control, Recording, Automation Systems & Monitoring)

## III. Contribute to the Success of our Customers

## IV. Conclusion

# I. Company Profile

## 1. Vision, Mission & Core Values.



### Our Vision:

Contribute to Vietnam's industry growth by supplying **high-quality and efficient Industrial Equipment Made in Germany** and become and remain the **First-in-Mind Supplier**.



### Our Mission:

Combine strong technology with management, engineering and people skills as well as experience to provide **optimal solutions to our Customers** and continuously contribute to their success.



### Our Core Values:

- **Collaborate and Teamwork.** We actively communicate and share knowledge to achieve the best results.
- **Service-oriented.** We commit ourselves to Maintenance, Repair and Operations (MRO) and achieve high customer satisfaction through an outstanding after sales service.
- **Operational Excellence.** We are committed to the relentless pursuit of quality and maximize the efficiency and accuracy of all our business processes.
- **Results and Accountability.** We deliver measurable results and operate at the highest level of responsibility, integrity, honesty and respect.
- **Be curious.** We are continuous learners and do not accept things the way they are without understanding why.
- **Passionate & Pride.** We are passionate about what we do and proud of how we do it.
- **Inspire.** We inspire others by demonstrating excellence in everything we do and how we do it.

# I. Company Profile

## 2. Facts & Figures



**HUYNH BANG**

COMPANY

Founded in:

2003

Sphere of activity:

Supplier and Service Agent of Industrial Equipment **Made in Europe.**

Legal and administrative headquarters:

**Huynh Bang Engineering GmbH**

Walleitnerstraße 2  
82031 Grünwald  
München  
Germany



**Huynh Bang Company, Ltd.**

36 Street no. 2, Quarter 22,  
Binh Trung Ward,  
Ho Chi Minh City,  
Viet Nam

Employees:

2

18

Office space:

25 m<sup>2</sup>

174 m<sup>2</sup>

# I. Company Profile

3. High-quality Equipment for Industrial Heat and Measurement & Automation Applications.



Huynh Bang Company				
Sales				
Industrial Heat		Measurement & Automation		
Oil, Gas and Dual-fuel Burners		Level Measurement Point Level Detection and Pressure		Controller, Software Inventory System – Hosting Service
Flue Gas Analysis, Pressure & Gas/Leakage Detection		Temperature, Liquid Analysis, Pressure, Flow and Humidity		Controllers, Recorders, Automation Systems and Monitoring
Steam Boilers, Hot Water Boilers		Non-contact infrared Temperature		
Burner Supply Pumps, Feed Pumps & Delivery Aggregates		Flow Measurement		
		Mass Flow Meters & Controllers		
		Variable Area Flow Meter		
		Gas and Air Flow		
		Vessel Lights Sight Glasses Vessel Closures		Process & High Temperature Cameras, Particle Size Systems Software & Hardware

# I. Company Profile

4. Management understanding both Western and Vietnamese culture.



**Huỳnh Đăng Khoa**  
Managing Director

- Degree in Business Administration from Muenster University of Applied Sciences (Germany).
- Speaks fluent German, English and Vietnamese.
- Responsible for the operational leadership and the day-to-day business.



**Tôn Nữ Quỳnh Hương**  
Deputy Director

- Multi-cultural background having been educated in Vietnam, the United States and Australia.
- Degree in Management & Human Resource Management from Curtin University (Australia).
- Speaks fluent English and Vietnamese.
- Responsible for management of finance & accounting as well as human resources.

# I. Company Profile

4. Team working together and supporting each other to create value for Customers



**HUYNH BANG**

**COMPANY**



Sales Team



Technical Support

Finance, Accounting & Logistics



Service Team

# I. Company Profile

4. Team working together and supporting each other to create value for Customers.



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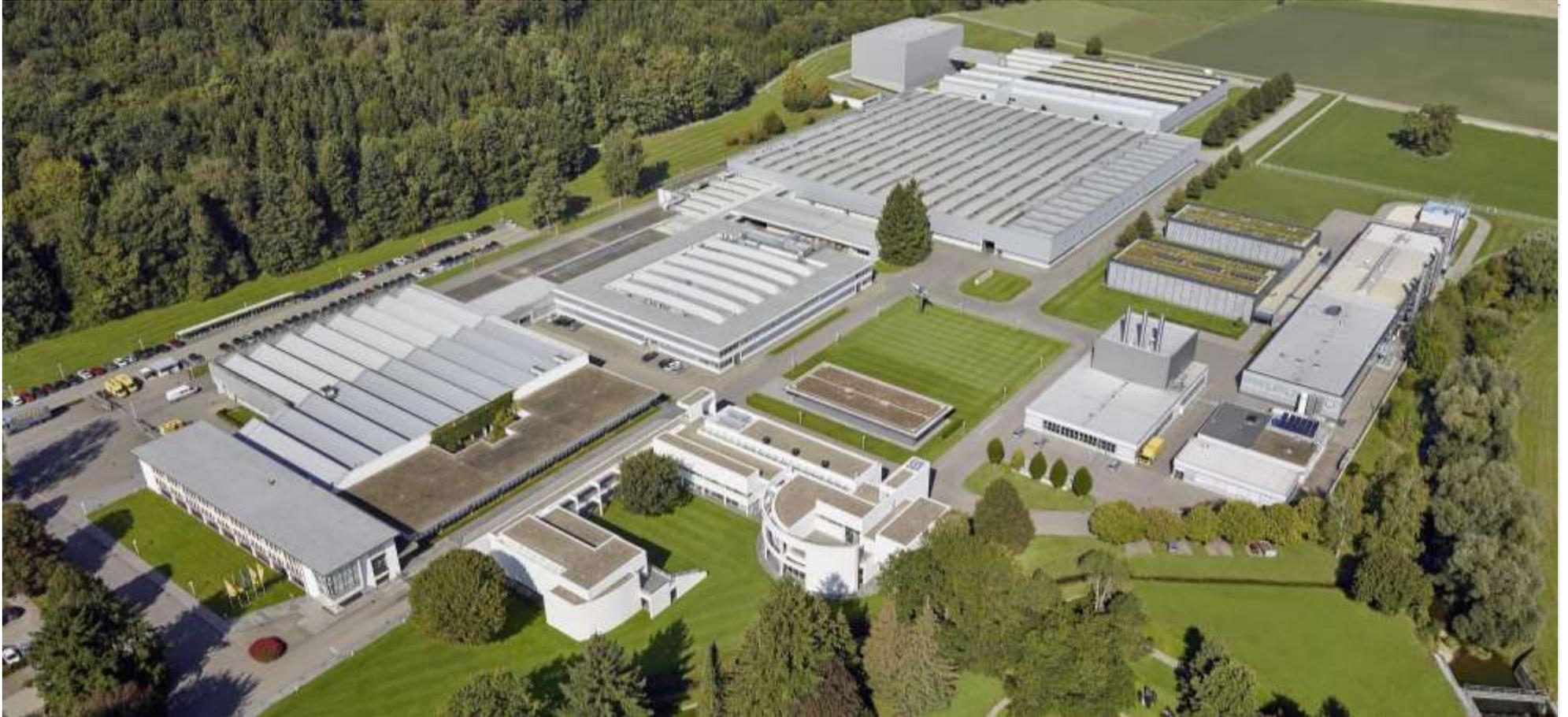


## II. Solutions for Industrial Heat Applications

### 1. Weishaupt Headquarters in Schwendi, Germany



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## II. Solutions for Industrial Heat Applications

1. Weishaupt oil, gas and dual-fuel burners.



–weishaupt–



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–weishaupt–  
**That's reliability.**

## II. Solutions for Industrial Heat Applications

### 1. Weishaupt – from low to high capacity ranges.

#### Oil, gas and dual-fuel burners

##### W range

- Exemplary efficiency
- Excellent emission levels
- Sophisticated technology
- Versatility: **4.5 - 700 kW**
- Long life



#### Oil-gas and dual-fuel burners

##### WM monarch® range

- Outstanding price-performance ratio
- Great versatility:  
**20 – 12.000 kW**
- User-friendly concept
- Spatially variable
- Easy installation



#### Oil, gas and dual-fuel burners

##### Special version ZMI – PLN – ULN

- Extended turndown range **ZMI** – Gas burner
- Extremely low NOx values **PLN – ULN**  
**4.5 kW – 11.000 kW**
- Excellent serviceability
- Long life



#### Oil, gas and dual-fuel burners

##### Burners with multiflam® technology

- Low NOx emissions
- Optimum combustion
- Safe and simple principle
- Great versatility:  
**700 - 23.000 kW**
- Digital combustion equipment
- Long life



#### Oil, gas and dual fuel burners

##### Industrial burners WK & WKmono

- Digital precision
- Minimal emissions
- Maximum economy
- Tremendous versatility:  
**70 - 32.000 kW**
- Convenient servicing
- Long life



## II. Solutions for Industrial Heat Applications

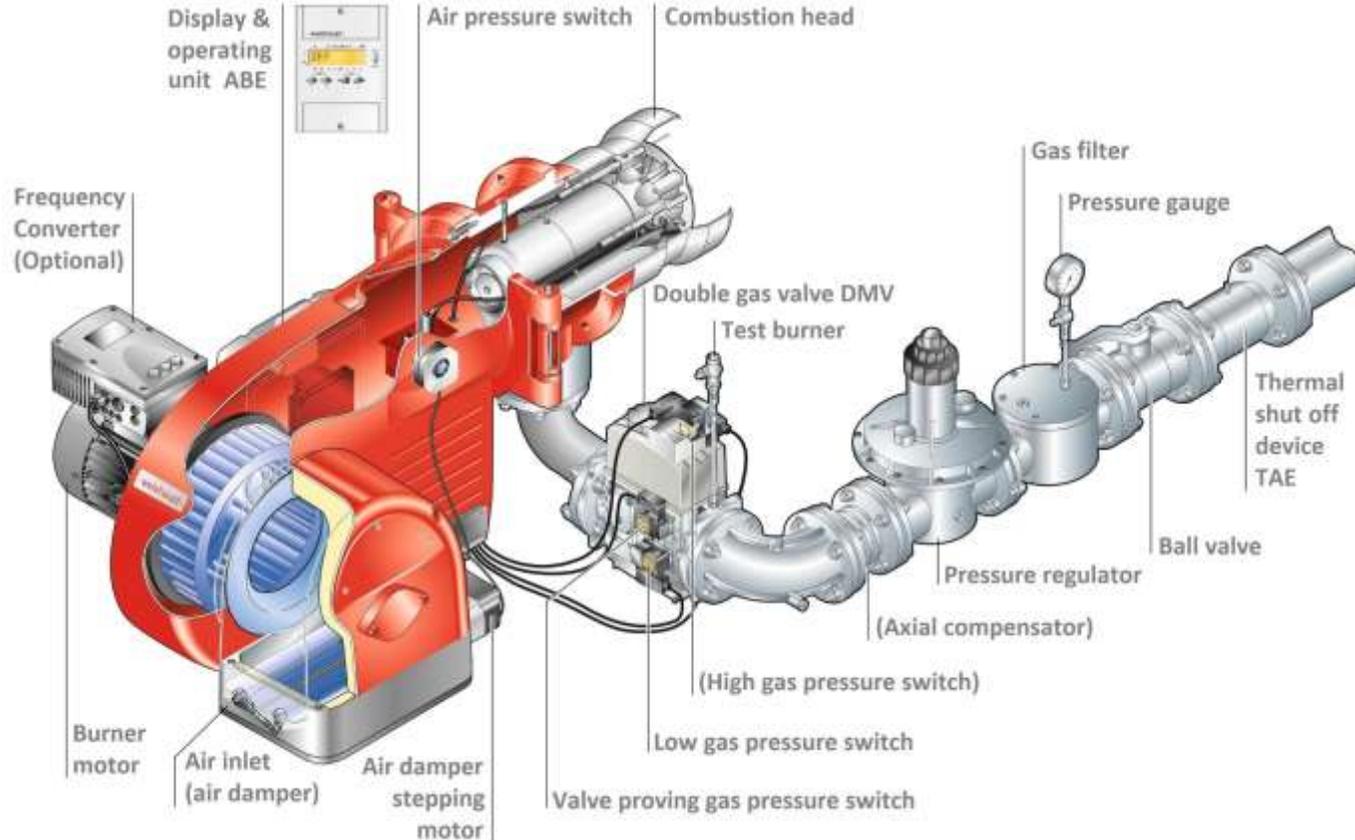
### 1. Weishaupt Gas Burner Monarch® WM-G10/20/30/50



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#### WM-G30 with flanged gas valve train DMV



[WM – gas burner CAD portal](#)

## II. Solutions for Industrial Heat Applications

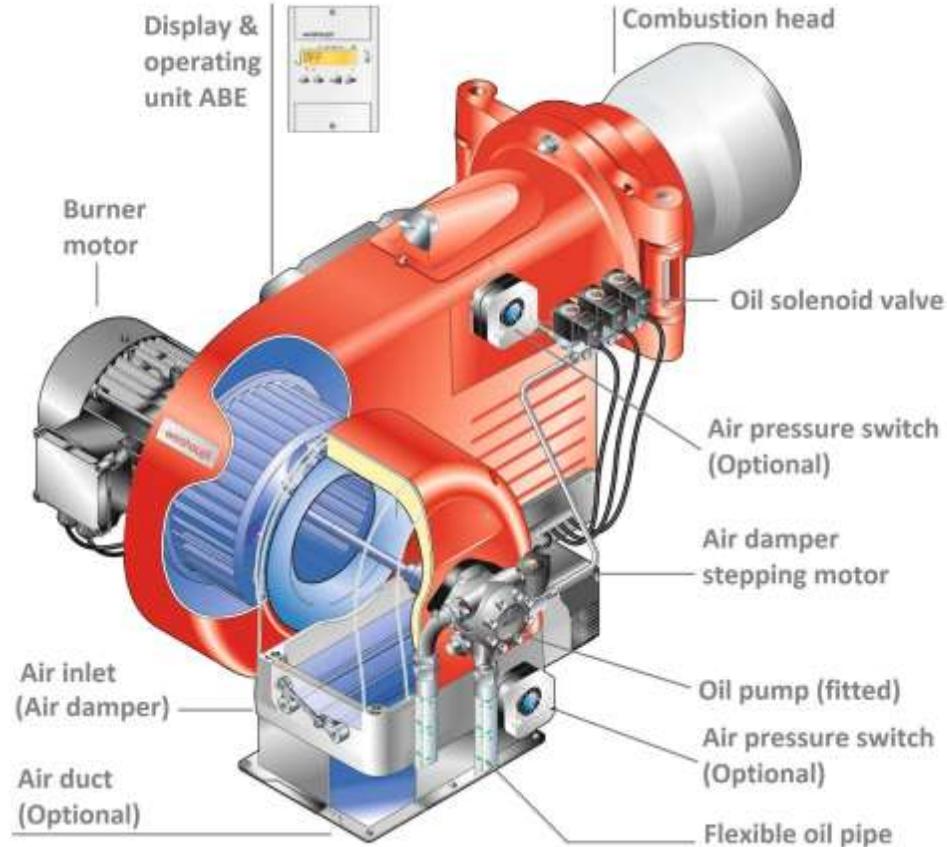
### 1. Weishaupt Oil Burner Monarch® WM-L10/20/30/50



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#### WM-L30 – Oil operation with components visible externally



[WM – oil burner  
CAD portal](#)

## II. Solutions for Industrial Heat Applications

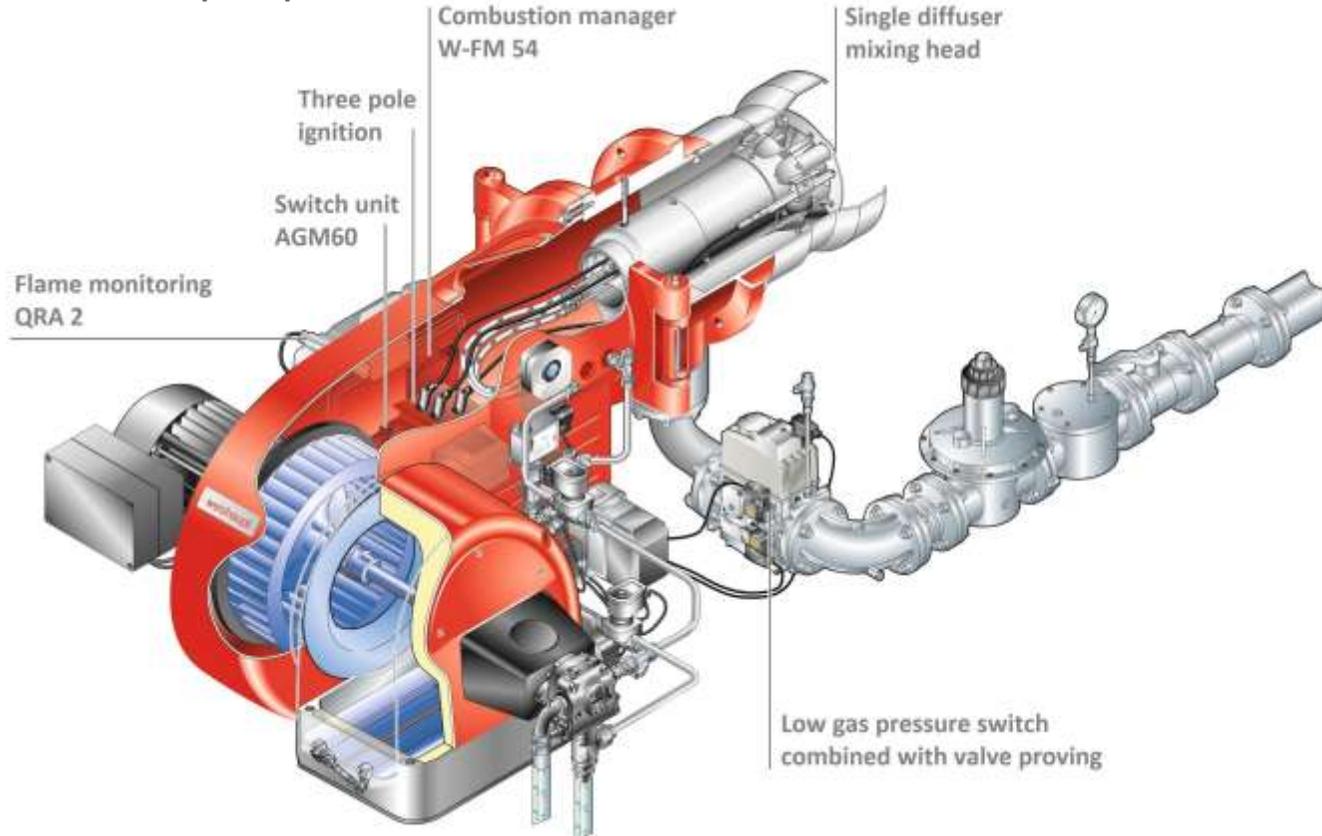
### 1. Weishaupt Dual Fuel Burner Monarch® WM-GL10/20/30/50



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#### WM-GL30 – Dual fuel burner with principle differences



[WM](#)

[Dual fuel burner](#)

[CAD portal](#)

## II. Solutions for Industrial Heat Applications



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1. Weishaupt: Many Applications in various Industries



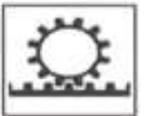
### Waste recycling

- Waste incineration
- Process incineration



### Wood industry

- Wood and veneer drying
- Chipboard production
- Wood chip firing



### Metal industry

- Smelter
- Paint drying
- Degreasing



## II. Solutions for Industrial Heat Applications

### 1. Weishaupt: Many Applications in various Industries



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#### **Agriculture**

- Grain, grass and green fodder drying
- Feed production



#### **Food industry**

- Deep frying
- Baking oven / travel ovens
- Coffee roasters
- Kilns



#### **Textile industry**

- Cloth and yarn drying
- Laundry



## II. Solutions for Industrial Heat Applications

1. Weishaupt: Many Applications in various Industries



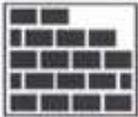
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### Transport

- Asphalt mixing plant



### Stone and soil

- Ceramics and glass industry
- Drying drums for sand & stone



## II. Solutions for Industrial Heat Applications

### 1. Weishaupt with Digital Burner Technology



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## II. Solutions for Industrial Heat Applications

### 1. Weishaupt with Digital Combustion Management W-FM (Weishaupt – Firing Management)



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#### Advantages of W-FM:

- High accuracy and optimal combustion figures
- Continually reproducible setting figures
- Easy handling, operating and fault history
- Integrated PID (Proportional–Integral–Derivative controller)
- Temperature / Pressure Controller
- Thermal shock protection
- Less spare parts
- Flexible communication possibilities and remote monitoring



# II. Solutions for Industrial Heat Applications

## 1. Weishaupt with Digital Combustion Management W-FM for precise Error Diagnosis



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**Fault History**

**Lockout Historie**

**Alarm act/deact**

1 Class: 00 Gas  
Code: A6 Phase: 12  
Diag: 51 Lod: 0.0  
Start No: 8

Pt 100  
sensor break  
on input X60:1/4

3 07.09.00 11.32  
C:15 D: 07 P: 60  
Start-No: 119  
Load: 10.0 Gas

Error Actuator  
Ratio Control

Alarm  
Curr : activated  
New : deactivated

Setpoint 240°C	Waiting for Start Release 21	Start Fan on 22	Setpoint 240°C
Act Value 54°C	F 0.0 A 0.1 0.0	F 0.0 A 0.3 0.0	Act Value 240°C
Fuel Gas			Load 68.8%
Standby 12			Flame 94.4%

1 Class: 00 Gas	No Gas Pressure	6 15.12.12 18:16	Internal Fault
Code:32 Phase:83	Valve monitoring	C:19 D:04 P:60	Actuator
Diag:00 Lod:0.0	Valve on Burner	Start No: 1761	
Start No: 1772	Side leaking	Load: 81.5 Gas	

32	-	Valve proving gas pressure switch has dropped out, contact closed, V2 or ignition gas valve leaking or V1 does not open.	▶ Check gas pressure switch ▶ Check double gas valve
19	01 ... 2F	Actuator error during comparison between potentiometer channel A and B	if several faults occur, the diagnosis codes are add up.
	01	Air actuator fault	▶ Set allowed Pot.diff to 15, see [ch. 6.13.3].
	02	Fuel actuator fault	▶ Check CAN Bus connection [ch. 5.1].
	04	Auxiliary actuator1 fault (Sliding sleeve)	Internal fault <sup>1)</sup>
	08	Auxiliary actuator2 fault	
	20	Auxiliary actuator3 fault	

### Gas direct ignition

The diagram shows the sequence of events during gas direct ignition. Key signals include: Pre-purge, Air stopping motor, Fuel valve ON, Ignition OFF, Ignition position, Flame signal, and various safety interlocks. The 'Standby' phase is circled in red, indicating the state where the system is ready for ignition.

## II. Solutions for Industrial Heat Applications

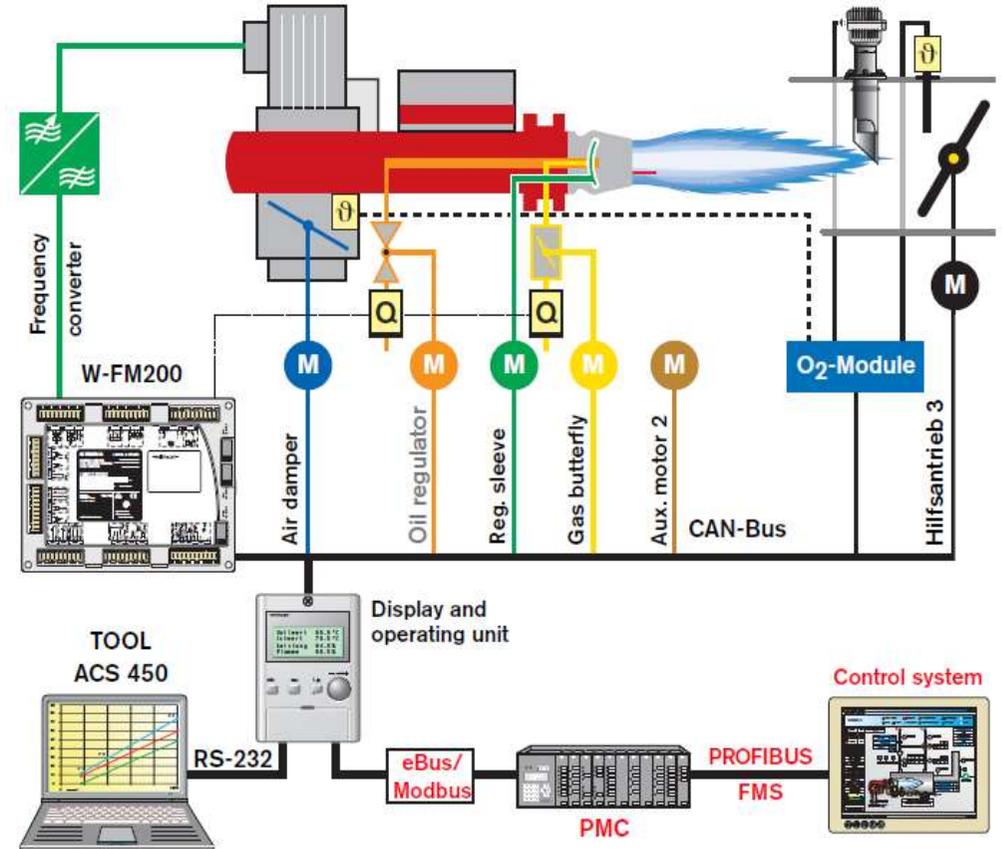
### 1. Weishaupt with Digital Combustion Management W-FM



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#### From basic to high-end Applications:

- Basic oil, gas & dual-fuel burner
- VSD (variable speed drive)
- O<sub>2</sub>-trim
- Remote control & data transfer via bus connection
- Flue gas recirculation
- Parallel operation, Simultaneous operation

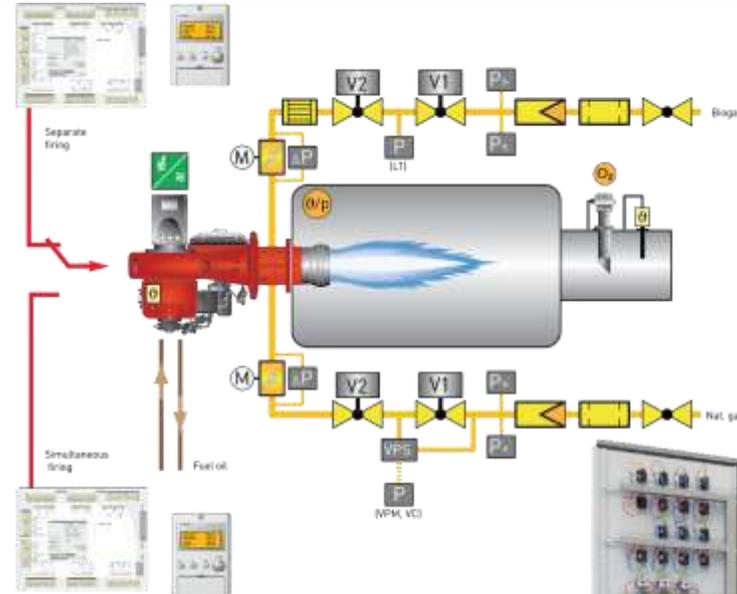


## II. Solutions for Industrial Heat Applications

### 1. Special Application: Simultaneous Combustion

#### The use of renewable fuels demands increasingly specialised solutions:

- Combustion of two or more fuels simultaneously.
- Executions with one or more combustion managers possible.
- “On-the fly” fuel changeover possible.
- Weishaupt has own in-house control panel design, production and testing department.
- Commissioning through experienced Weishaupt technician.



One of many solutions: Burner system with two W-FM 200 combustion managers for separate or simultaneous combustion.



Weishaupt control panel with two W-FM 200 combustion managers

## II. Solutions for Industrial Heat Applications

### 1. Weishaupt burners with excellent Turndown Ratios



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#### Burner Turndown affects Efficiency:

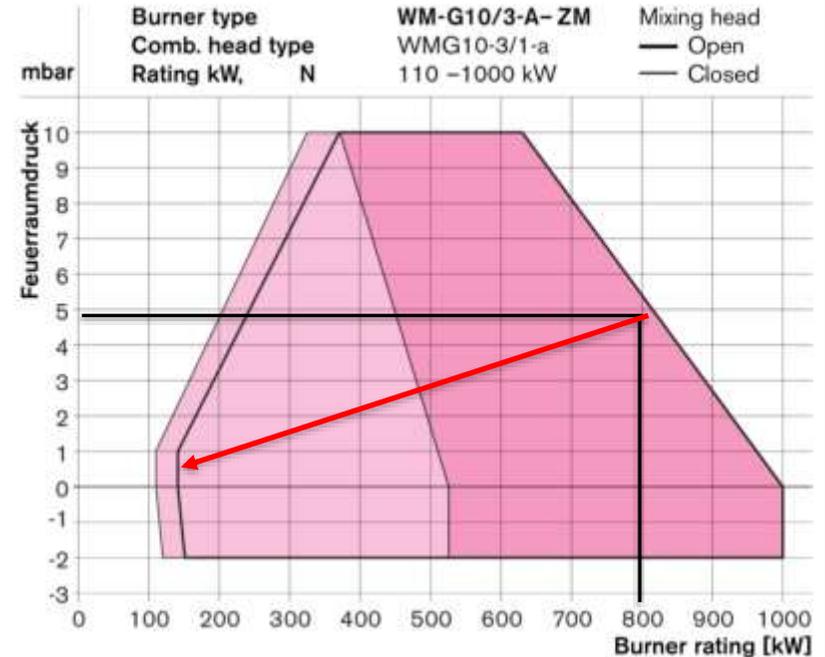
-  Burner turndown is important for fuel savings especially during mid- and low-load conditions.
-  Weishaupt gas burners have a turndown ratio of up to **1:10**. In practice, still many burners operate at 1:3 turndown.
-  Frequent boiler cycling also introduces thermal shock to the boiler tubes and refractory to shorten boiler life.

Name plate

-weishaupt-	Max Weishaupt GmbH D-99076 Schweinfurt, Germany www.weishaupt.de
CE 0085 02-0085 DC 0027	Burner type WM-G10/3-A - stainless Version ZM Distribution country DE Serial No. 9275019 Cat. 5/08/08 Year of manufacture 2009 Type of gas N Rating min. 110 kW max. 1000 kW Connection press. min. 15 mbar max. 900 mbar Fuel oil min. max. Ag/Th NOx-Cl. 5 Protection IP 54 Control voltage 230 V, 1-, 50/60 Hz 10 A gL Main voltage 400 V, 3-, 50 Hz AL PE 30 Hz Elec. rating 1.0 kW - (1111) - XRE
Made in Germany	



Capacity graph WM-G10/3 version ZM



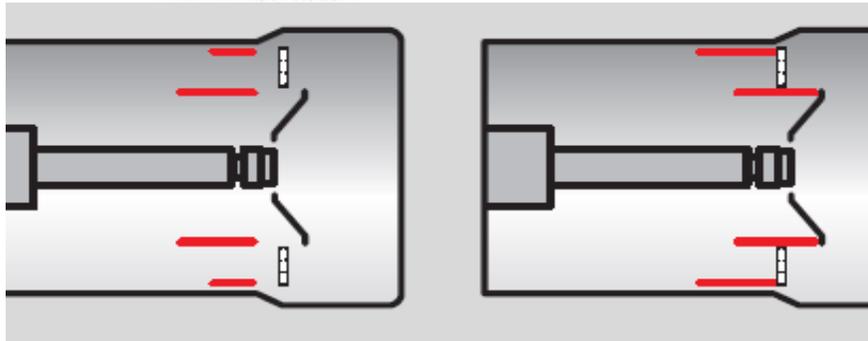
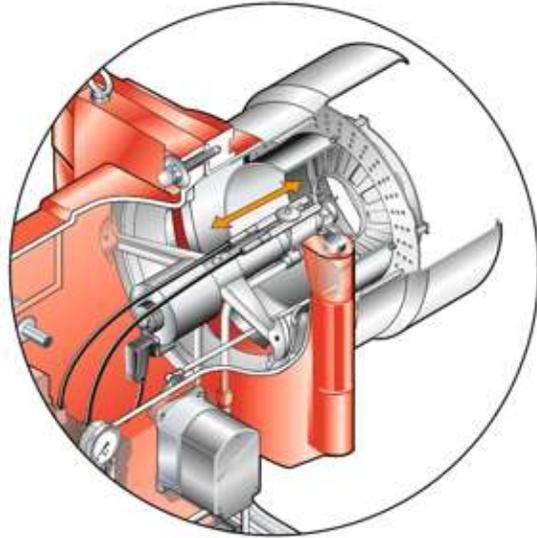
WM-G10/3 version ZM with turndown ratio of **1:8**  
Possible min capacity of almost **100 kW** at max capacity of **800 kW**

## II. Solutions for Industrial Heat Applications

### 1. Weishaupt burners with sophisticated Mixing Heads / Sliding Sleeves



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## II. Solutions for Industrial Heat Applications

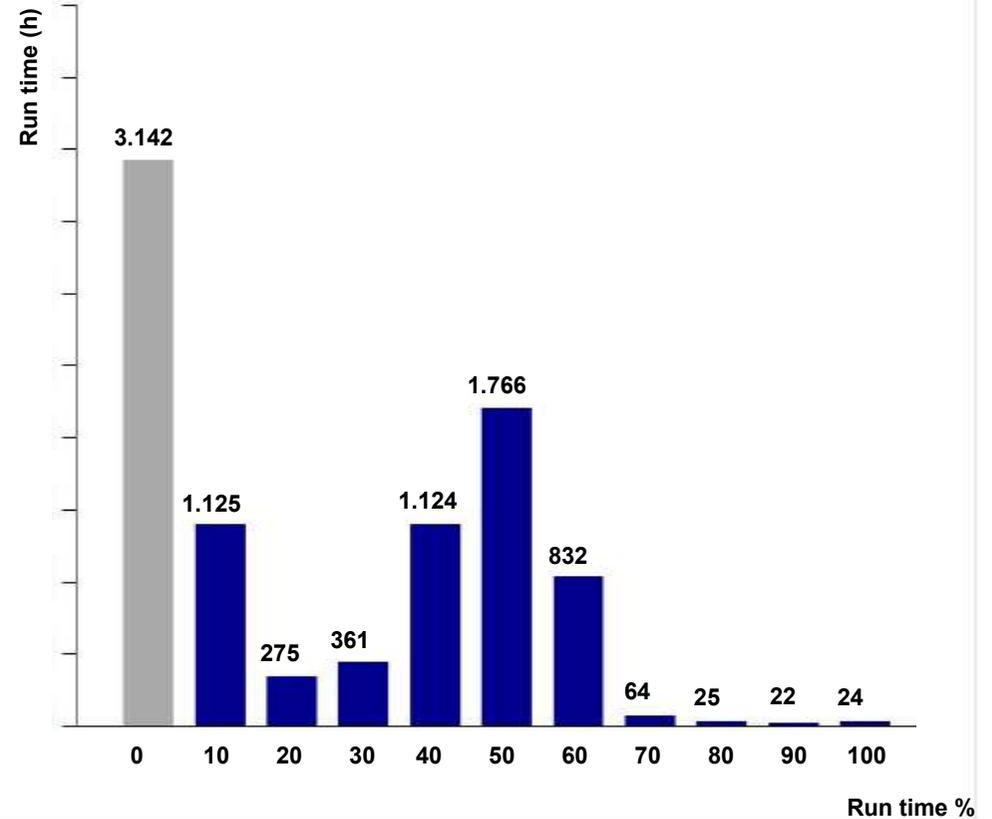


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### 1. Weishaupt Efficiency Calculator

#### Installation data

Boiler system	Steam (saturated steam)	
Steam output	10	t/h
Steam pressure	10	Bar
Saturated steam temperature	180	°C
Nominal load	6.556	kW
Minimum heat rating	950	kW
Boiler efficiency (nominal load)*	93	%
Standby heat output	40	kW
Standby heat output	-	%
Combustion chamber resistance	12	mbar
Flue gas side resistance	0	mbar
Installation elevation above sea level	100	m
Ambient temperature of plant	30	°C



\* The boiler efficiency refers to the calorific value.

# II. Solutions for Industrial Heat Applications

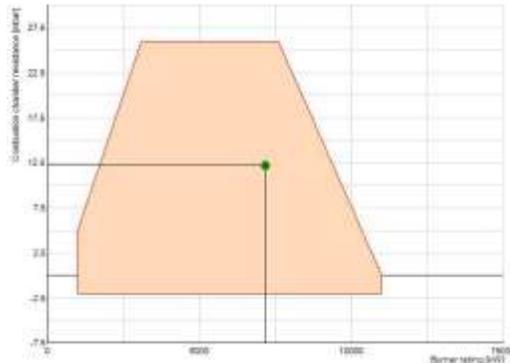


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## 1. Weishaupt Efficiency Calculator

### Burner data

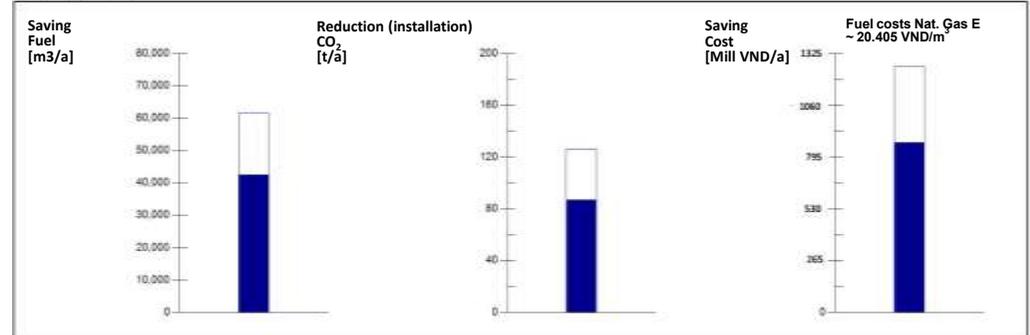
Burner type (new)	WM-G50/2-A ZM-NR		Burner type (old)		
Max. combustion capacity	11.000	kw	Max. combustion capacity	8.000	kw
Min. combustion capacity	1.000	kw	Min. combustion capacity	1.000	kw
Type of operation	Modulating		Type of operation	Modulating	
Fuel	Nat. Gas E	10.24 kWh/m <sup>3</sup>	Fuel	Nat. Gas E	10.24 kWh/m <sup>3</sup>
O <sub>2</sub> (Partial load)	4.0	Vol%	O <sub>2</sub> (Partial load)	6.0	Vol%
O <sub>2</sub> (Interm. load)	3.0	Vol%	O <sub>2</sub> (Interm. load)	5.5	Vol%
O <sub>2</sub> (Full load)	2.0	Vol%	O <sub>2</sub> (Full load)	4.5	Vol%
Motor rating	19	kw	Motor rating	18	kw



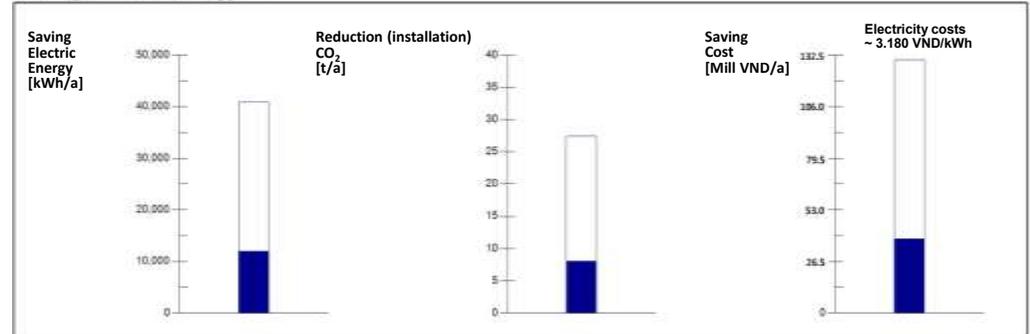
### Saving

Burner equipment	Modulating
Speed control	no
O <sub>2</sub> trim	no

### Saving Fuel



### Saving electric Energy



## II. Solutions for Industrial Heat Applications



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### 1. Weishaupt Efficiency Calculator

#### Burner and service costs

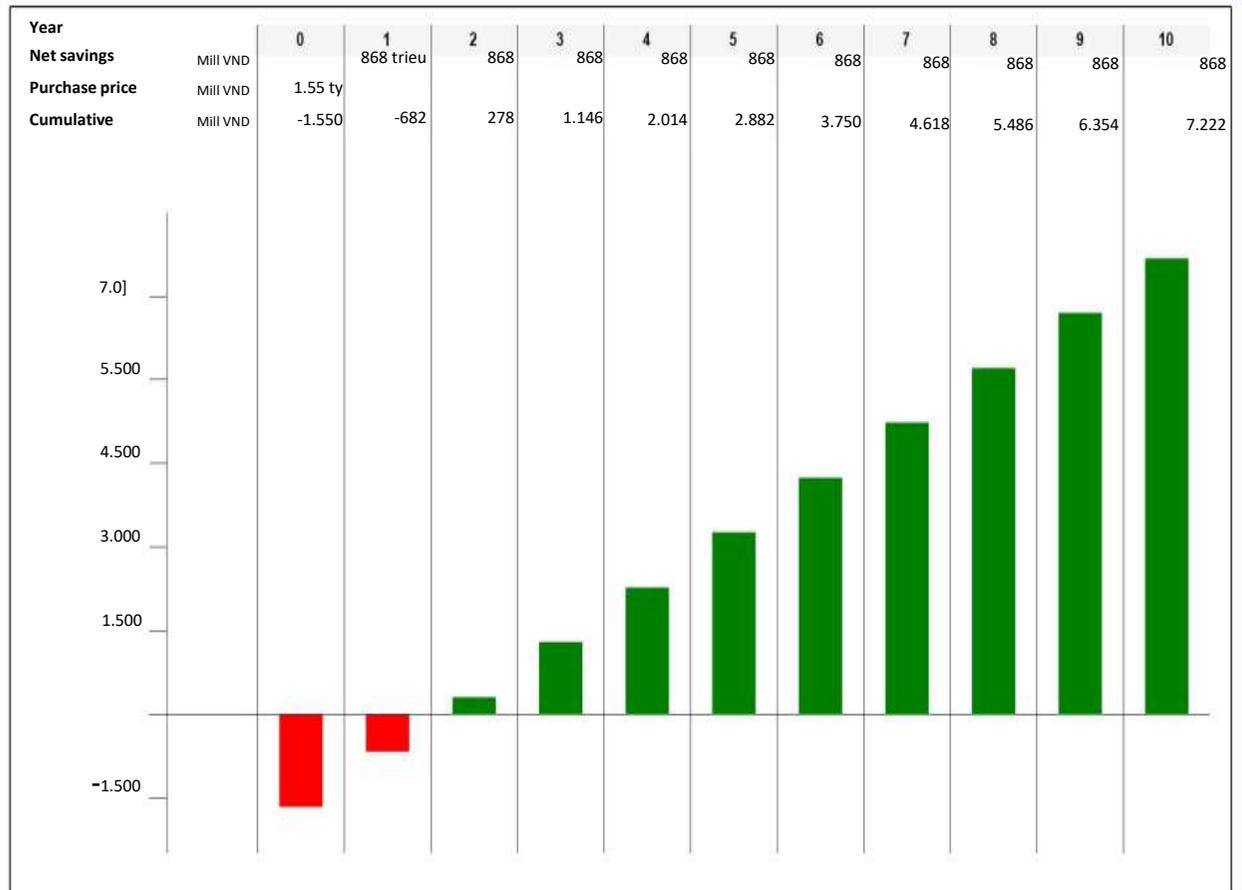
Costs burner	~ 1.100	Mill VND
Costs accessories	~ 400	Mill VND
Costs service	~ 40	Mill VND
Calculation period	10	Years

Payback period is 1.7 Years

Payback calculation:

In the payback calculation the annual nett savings are compared to the expenditure for the investment. If the cumulative annual nett savings exceed the expenditure for the investment, the payback time has been reached.

When calculating the annual nett savings the operating costs (fuel, electricity and service costs) of the burner in its standard execution are compared to the operating costs of the burner with the desired additional equipment. The resulting difference is the annual saving. The annual nett saving is determined by deducting the accrued interest back to the time of investment.



## II Solutions for Industrial Heat Applications



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1. Weishaupt. Commitment to Research & Development with own Test Boiler 32.000 kW



-weishaupt-

## II. Solutions for Industrial Heat Applications

### 1. Weishaupt W burner references in Vietnam



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WG40  
Hot water boiler



WG30  
Roaster



WG20  
Baking oven



WG40  
Thermal oil heater



WG20  
Ceramic kiln



WG40  
Powder Coating System



## II. Solutions for Industrial Heat Applications

### 1. Weishaupt WM monarch® burner references



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4 x WM-G10  
Coffee roaster



WM-G10  
Hot water boiler



WM-G10  
High pressure steam boiler



WM-G20  
Steam boiler



WM-GL30  
Thermal oil heater



WM-L50  
Hot gas generator



## II. Solutions for Industrial Heat Applications

### 1. Weishaupt WK burner references



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WKG50 – Steam boiler



WKGL50 – Air heater



WKGL70 – Thermal oil heater



WKGL50 – Fryer



WKGL50 – Thermal oil heater



WKGL70 – Thermal oil heater



## II. Solutions for Industrial Heat Applications

### 1. Typical Weishaupt burner installation support & supervision



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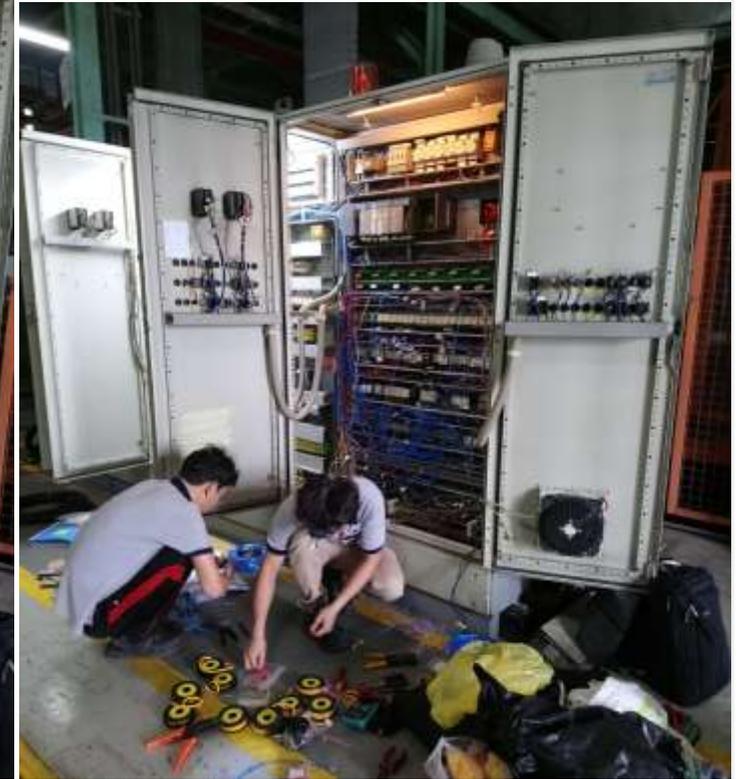
## II. Solutions for Industrial Heat Applications

### 1. Typical Weishaupt burner installation support & supervision



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## II. Solutions for Industrial Heat Applications

### 1. Weishaupt burner commissioning with end-user and often system integrator



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## II. Solutions for Industrial Heat Applications

1. Huynh Bang can also offer customer training for their burners.



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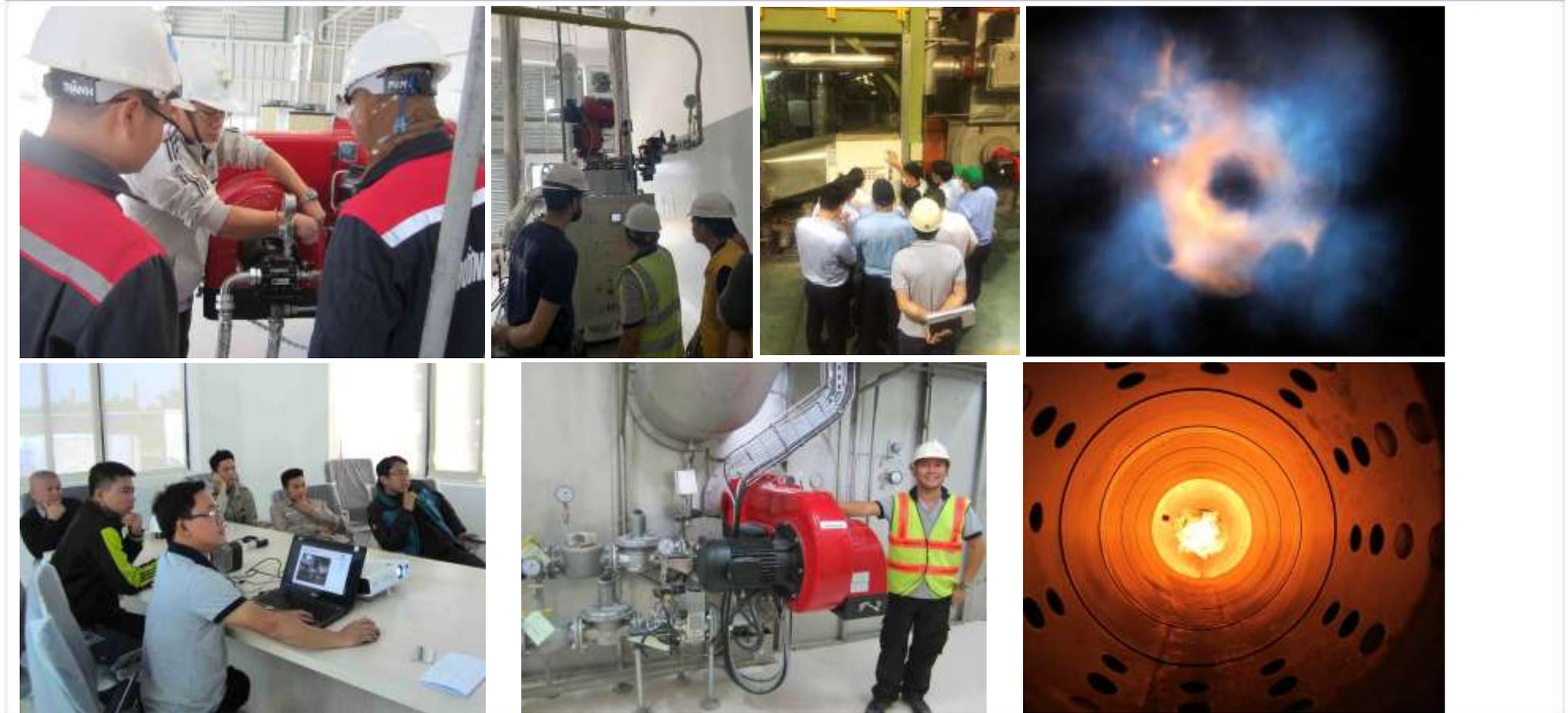


## II. Solutions for Industrial Heat Applications

1. Huynh Bang can also offer customer training for their burners.



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## II. Solutions for Industrial Heat Applications

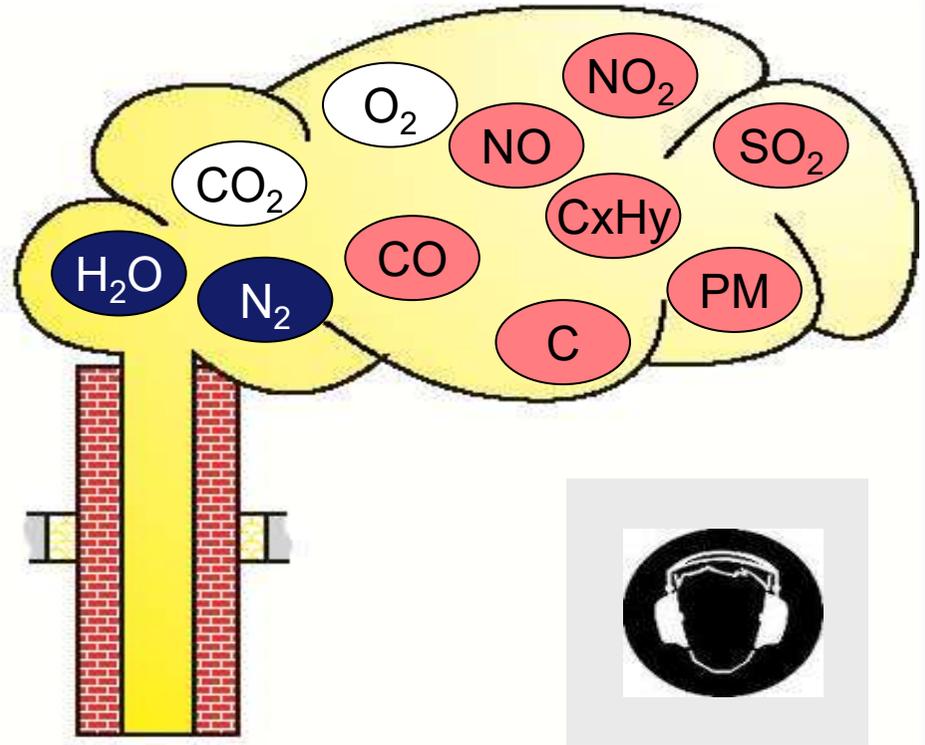
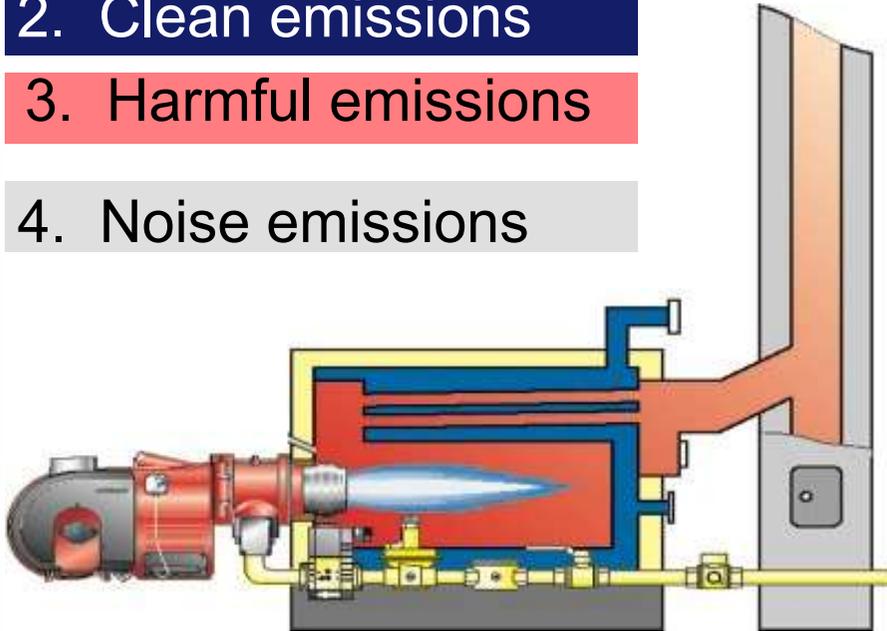
### 1. Overview Emissions

#### 1. Efficiency

#### 2. Clean emissions

#### 3. Harmful emissions

#### 4. Noise emissions



## II. Solutions for Industrial Heat Applications

### 1. Industrial Heat: Importance of optimal air and fuel ratio for high efficiency and low emissions

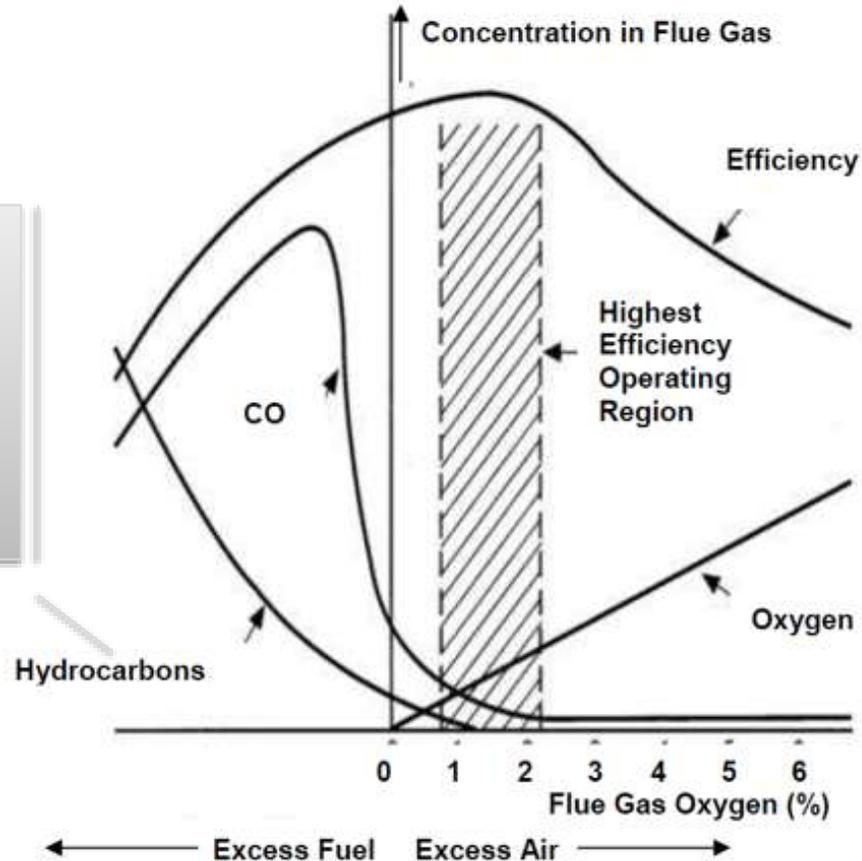


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Unburned fuel (carbon monoxide, hydrocarbon, etc.) and higher than required excess air levels result

- in poor performance,
- overall efficiency reduction
- and unnecessary spending.



Higher excess air means lower combustion efficiency.

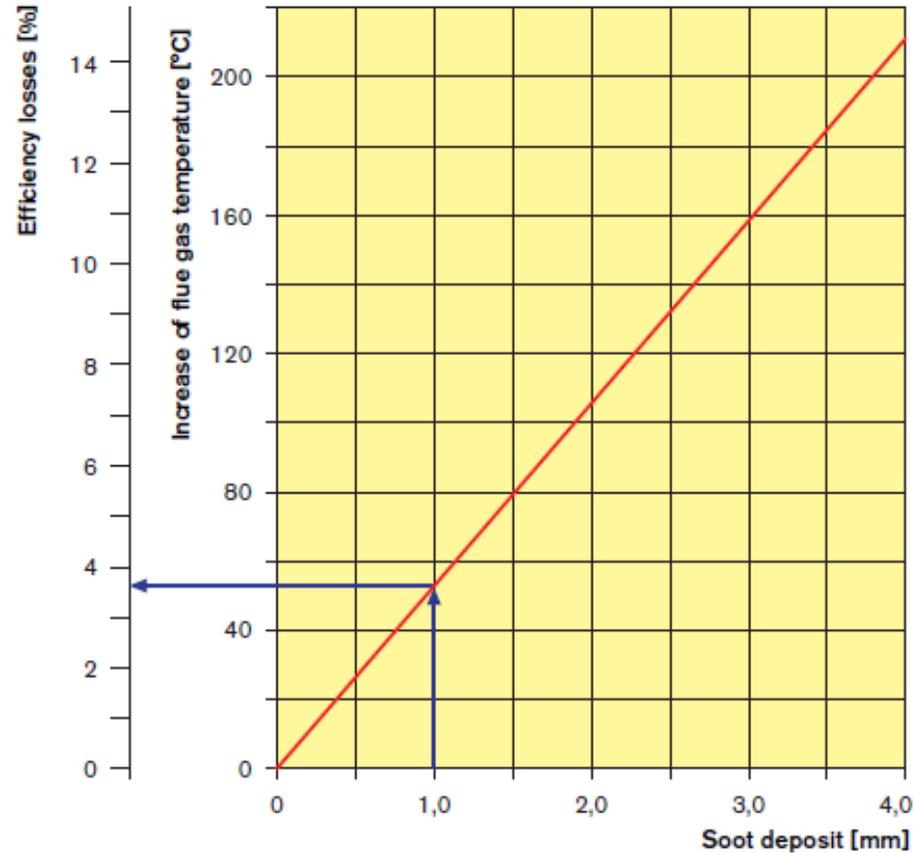
## II. Solutions for Industrial Heat Applications

### 1. Industrial Heat: Influence of Soot Deposit on Boiler Efficiency



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## II. Solutions for Industrial Heat Applications

2. ecom® Headquarters in Iserlohn, Germany



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## II. Solutions for Industrial Heat Applications

### 2. ecom Flue Gas Analyser Range



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## II. Solutions for Industrial Heat Applications

### 2. ecom: Variety of measured or calculated values for any kind of fuel



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-  **Measured values:**
- O<sub>2</sub> (0-21%)
  - CO (0-4.000 ppm)
  - Gas temperature (0 – 500 °C)
  - Ambient temperature (0 – 99 °C)
  - Pressure(± 100 mbar)
  - Differential pressure(± 100 mbar)
  - Internal air pressure sensor (300 – 1.100 mbar)
  - Internal flow measurement

-  **Options (electrochemical sensors):**
- NO (0 - 5.000 ppm)
  - NO<sub>2</sub> (0 - 1.000 ppm)
  - SO<sub>2</sub> (0 - 5.000 ppm)
  - CO extended (0 - 10.000 ppm)
  - CO% (0 - 63.000 ppm)
  - C<sub>x</sub>H<sub>y</sub> (0 – 4 vol% catalytic)
  - H<sub>2</sub> (0-2.000 ppm)
  - H<sub>2</sub>S (0-1.000 ppm)
  - NH<sub>3</sub> (0-1.000 ppm)
  - HCl (0-100 ppm)

-  **Options (infrared bench):**
- CO% (0 - 63.000 ppm)
  - CO<sub>2</sub> (0 - 20%)
  - C<sub>3</sub>H<sub>8</sub> (0 - 2.000 ppm)
  - CH<sub>4</sub> (0 - 30.000 ppm)
  - Differential temperature
  - Soot measurement

-  **Calculated values:**
- CO<sub>2</sub>
  - CO<sub>(undiluted)</sub>
  - Losses
  - Efficiency (0 – 120%)
  - NO<sub>x</sub>
  - mg/m<sup>3</sup>
  - mg/kWh
  - Excess air
  - Dew point
  - Adjustable O<sub>2</sub> ref.

#### COMPANY

-  **Fuel types:**
- Propane
  - Butane
  - Natural gas (L)
  - Natural gas (H)
  - Biogas
  - Biomass
  - Heavy oil
  - Light oil
  - Pellets
  - Wood
  - Coal
  - Gasoline

## II. Solutions for Industrial Heat Applications

### 2. ecom: From small handheld instruments to robust case instruments



HUYNH BANG



**ecom-B**  
small | handy | robust



**ecom-EN3**  
quick | compact | accurate



**ecom-J2KNpro EXPERT**  
robust | professional | flexible



**ecom-ST**  
stationary analyser | autonomous |  
quasi-continuous



**ecom-DP**  
flexible | accurate | performing



**ecom-**  
safe identification of  
leakages at gas pipes



**BW Clip O<sub>2</sub> / CO / H<sub>2</sub>S**  
Maintenance-free  
Single gas detector  
Android / iOS compatible

# II. Solutions for Industrial Heat Applications

## 2. ecom: Unique Selling Points ecom® Products



HUYNH BANG

 <b>EXTREMELY</b> precise		 <b>EXTREMELY</b> efficient		 <b>EXTREMELY</b> complete	
 <b>EXTREMELY</b> broad reach	 	 10 JAHRE GARANTIE YEARS GUARANTEE	 <b>EXTREMELY</b> safe		
 <b>EXTREMELY</b> cool			 <b>EXTREMELY</b> robust		 <b>EXTREMELY</b> lossless

# II. Solutions for Industrial Heat Applications

## 2. ecom – flue gas analysis results – pressure test results



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1	2	3	4
<p>***** * ECOM - EN2 * ***** Date: Time 20.05.16 11:37:14</p> <p>Gas analysis</p> <p>Fuel type Natural Gas</p> <p>T.Air 38 °C T.Gas 72 °C O2 3.5 % CO 57 PPM NO 60 PPM NOx 0 PPM SO2 9.5 % CO2 88.3 % Eff. 11.7 % Losses 1.23 % Exc. air 55 °C Dew Poi. 55 °C</p> <p>Huynh Bang Company Ltd. Room 505 Fideco Building 14 Thao Dien District 2 HCM City Viet Nam Tel: +84837449002 Fax: +84837449004 Email: info@huyhbang.com Web: www.huyhbang.com</p>	<p>***** * ECOM - EN2 * ***** Date: Time 20.05.16 11:43:09</p> <p>Gas analysis</p> <p>Fuel type Natural Gas</p> <p>T.Air 38 °C T.Gas 85 °C O2 3.8 % CO 48 PPM NO 48 PPM NOx 50 PPM SO2 9.5 % CO2 88.0 % Eff. 12.0 % Losses 1.22 % Exc. air 55 °C Dew Poi. 55 °C</p> <p>Huynh Bang Company Ltd. Room 505 Fideco Building 14 Thao Dien District 2 HCM City Viet Nam Tel: +84837449002 Fax: +84837449004 Email: info@huyhbang.com Web: www.huyhbang.com</p>	<p>***** * ECOM - EN2 * ***** Date: Time 20.05.16 11:42:04</p> <p>Gas analysis</p> <p>Fuel type Natural Gas</p> <p>T.Air 40 °C T.Gas 96 °C O2 3.6 % CO 0 PPM NO 46 PPM NOx 48 PPM SO2 9.7 PPM CO2 87.6 % Eff. 12.4 % Losses 1.21 % Exc. air 55 °C Dew Poi. 55 °C</p> <p>Huynh Bang Company Ltd. Room 505 Fideco Building 14 Thao Dien District 2 HCM City Viet Nam Tel: +84837449002 Fax: +84837449004 Email: info@huyhbang.com Web: www.huyhbang.com</p>	<p>***** * ECOM - EN2 * ***** Date: Time 20.05.16 11:43:00</p> <p>Gas analysis</p> <p>Fuel type Natural Gas</p> <p>T.Air 42 °C T.Gas 105 °C O2 3.3 % CO 0 PPM NO 47 PPM NOx 49 PPM SO2 9.9 % CO2 87.3 % Eff. 12.7 % Losses 1.19 % Exc. air 55 °C Dew Poi. 55 °C</p> <p>Huynh Bang Company Ltd. Room 505 Fideco Building 14 Thao Dien District 2 HCM City Viet Nam Tel: +84837449002 Fax: +84837449004 Email: info@huyhbang.com Web: www.huyhbang.com</p>



Flue gas analyzer display in operation

5	6	7	8	9
<p>***** * ECOM - EN2 * ***** Date: Time 20.05.16 11:44:28</p> <p>Gas analysis</p> <p>Fuel type Natural Gas</p> <p>T.Air 44 °C T.Gas 115 °C O2 3.1 % CO 0 PPM NO 49 PPM NOx 51 PPM SO2 9 PPM CO2 10.0 % Eff. 86.9 % Losses 13.1 % Exc. air 1.17 % Dew Poi. 55 °C</p> <p>Huynh Bang Company Ltd. Room 505 Fideco Building 14 Thao Dien District 2 HCM City Viet Nam Tel: +84837449002 Fax: +84837449004 Email: info@huyhbang.com Web: www.huyhbang.com</p>	<p>***** * ECOM - EN2 * ***** Date: Time 20.05.16 11:45:05</p> <p>Gas analysis</p> <p>Fuel type Natural Gas</p> <p>T.Air 45 °C T.Gas 122 °C O2 3.0 % CO 0 PPM NO 48 PPM NOx 50 PPM SO2 9 PPM CO2 10.8 % Eff. 86.7 % Losses 13.3 % Exc. air 1.12 % Dew Poi. 55 °C</p> <p>Huynh Bang Company Ltd. Room 505 Fideco Building 14 Thao Dien District 2 HCM City Viet Nam Tel: +84837449002 Fax: +84837449004 Email: info@huyhbang.com Web: www.huyhbang.com</p>	<p>***** * ECOM - EN2 * ***** Date: Time 20.05.16 11:45:47</p> <p>Gas analysis</p> <p>Fuel type Natural Gas</p> <p>T.Air 46 °C T.Gas 137 °C O2 2.8 % CO 0 PPM NO 49 PPM NOx 51 PPM SO2 9 PPM CO2 10.1 % Eff. 86.5 % Losses 13.5 % Exc. air 1.15 % Dew Poi. 55 °C</p> <p>Huynh Bang Company Ltd. Room 505 Fideco Building 14 Thao Dien District 2 HCM City Viet Nam Tel: +84837449002 Fax: +84837449004 Email: info@huyhbang.com Web: www.huyhbang.com</p>	<p>***** * ECOM - EN2 * ***** Date: Time 20.05.16 11:46:50</p> <p>Gas analysis</p> <p>Fuel type Natural Gas</p> <p>T.Air 51 °C T.Gas 140 °C O2 2.1 % CO 0 PPM NO 51 PPM NOx 54 PPM SO2 9 PPM CO2 10.5 % Eff. 86.3 % Losses 13.7 % Exc. air 1.11 % Dew Poi. 56 °C</p> <p>Huynh Bang Company Ltd. Room 505 Fideco Building 14 Thao Dien District 2 HCM City Viet Nam Tel: +84837449002 Fax: +84837449004 Email: info@huyhbang.com Web: www.huyhbang.com</p>	<p>***** * ECOM - EN2 * ***** Date: Time 20.05.16 11:51:11</p> <p>Gas analysis</p> <p>Fuel type Natural Gas</p> <p>T.Air 51 °C T.Gas 150 °C O2 2.0 % CO 0 PPM NO 51 PPM NOx 54 PPM SO2 9 PPM CO2 10.6 % Eff. 85.8 % Losses 14.2 % Exc. air 1.11 % Dew Poi. 56 °C</p> <p>Huynh Bang Company Ltd. Room 505 Fideco Building 14 Thao Dien District 2 HCM City Viet Nam Tel: +84837449002 Fax: +84837449004 Email: info@huyhbang.com Web: www.huyhbang.com</p>

Pressure Test results



## II. Solutions for Industrial Heat Applications

### 2. ecom flue gas analysers in the field



HUYNH BANG



## II. Solutions for Industrial Heat Applications

2. ecom proven use in the field.



HUYNH BANG

ecom-EN2



ecom-EN2



ecom-UNO  
Pressure measurement



ecom-LSG



Pressure test on gas valve train



## II. Solutions for Industrial Heat Applications

2. ecom instruments critical for burner commissioning and troubleshooting



HUYNH BANG

**ecom-EN3**



**ecom-EN2**



**ecom-LSG**



## II. Solutions for Industrial Heat Applications

### 3. Bosch Industrial Boilers located in Gunzenhausen (Germany)



HUYNH BANG



## II. Solutions for Industrial Heat Applications

### 3. Bosch Industrial Boilers



HUYNH BANG



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Approx. **1400**  
customer-specific  
industrial boiler systems  
per year

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Approx. **700** associates  
at Bosch Industrial in  
Germany and Austria

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Delivery in more than  
**140** countries worldwide

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# II. Solutions for Industrial Heat Applications

## 3. Bosch Industrial Boilers Portfolio



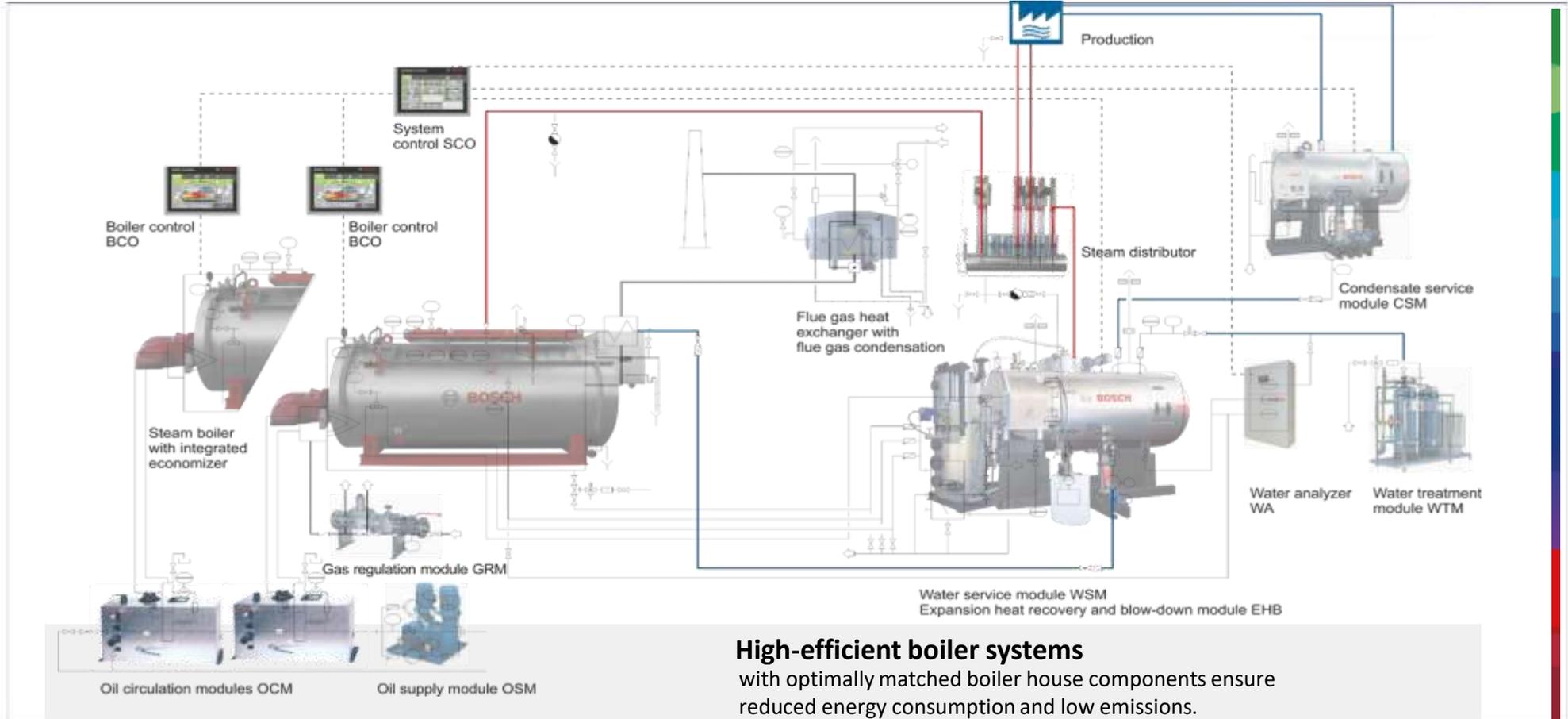
	Industrial boilers	Efficiency	Components	Controls																								
Heating / Hot water	 <table border="1"> <tr> <th></th> <th>UT-L</th> <th>UT-M</th> <th>UT-H</th> <th>UT-HZ</th> </tr> <tr> <td>Output</td> <td>&lt;1-25 MW</td> <td>&lt;1-19 MW</td> <td>&lt;1-18 MW</td> <td>13-38 MW</td> </tr> <tr> <td>T<sub>max</sub></td> <td>120 °C</td> <td>190 °C</td> <td>225 °C</td> <td>225 °C</td> </tr> <tr> <td>P<sub>max</sub></td> <td>16 bar</td> <td>16 bar</td> <td>30 bar</td> <td>30 bar</td> </tr> </table> 		UT-L	UT-M	UT-H	UT-HZ	Output	<1-25 MW	<1-19 MW	<1-18 MW	13-38 MW	T <sub>max</sub>	120 °C	190 °C	225 °C	225 °C	P <sub>max</sub>	16 bar	16 bar	30 bar	30 bar	<p><b>Waste heat recovery boilers</b> for steam / hot water</p> <p>Waste heat recovery steam boiler</p> <p>3-pass boiler without burner</p> <p>4-pass boiler with burner</p>	<p><b>Hydraulics</b> e.g. pump modules</p> <p><b>Modules for:</b> Water</p> <p>Condensate</p> <p>Steam</p> <p>Fuel</p>	<p><b>Intelligent control technology:</b> Boiler controls and boiler system controls Efficiency assistant and remote access</p>				
		UT-L	UT-M	UT-H	UT-HZ																							
Output	<1-25 MW	<1-19 MW	<1-18 MW	13-38 MW																								
T <sub>max</sub>	120 °C	190 °C	225 °C	225 °C																								
P <sub>max</sub>	16 bar	16 bar	30 bar	30 bar																								
Steam / Process heat	 <table border="1"> <tr> <th></th> <th>U-MB</th> <th>CSB</th> <th>ELSB</th> <th>UL-S(X)</th> <th>ZFR(-X)</th> </tr> <tr> <td>Output</td> <td>0.2-2 t/h</td> <td>0.3-4.8 t/h</td> <td>0.3-5.2 t/h</td> <td>0.3-7.5 t/h</td> <td>1.2-28 t/h</td> </tr> <tr> <td>T<sub>max</sub></td> <td>204 °C</td> <td>110 °C</td> <td>204 °C</td> <td>220 °C</td> <td>300 °C</td> </tr> <tr> <td>P<sub>max</sub></td> <td>6 bar</td> <td>0.5 bar</td> <td>16 bar</td> <td>24 bar</td> <td>30 bar</td> </tr> </table> 		U-MB	CSB	ELSB	UL-S(X)	ZFR(-X)	Output	0.2-2 t/h	0.3-4.8 t/h	0.3-5.2 t/h	0.3-7.5 t/h	1.2-28 t/h	T <sub>max</sub>	204 °C	110 °C	204 °C	220 °C	300 °C	P <sub>max</sub>	6 bar	0.5 bar	16 bar	24 bar	30 bar	<p><b>Energy efficiency</b> Recovery &amp; utilisation</p>	<p>+2%</p> <p>+12%</p>	<p><b>Modernisation and service</b></p> <p><b>24/7 service worldwide</b> From commissioning and maintenance to expert training</p> <p><b>Upgrade of existing plants</b> Project planning &amp; modular system technology</p>
	U-MB	CSB	ELSB	UL-S(X)	ZFR(-X)																							
Output	0.2-2 t/h	0.3-4.8 t/h	0.3-5.2 t/h	0.3-7.5 t/h	1.2-28 t/h																							
T <sub>max</sub>	204 °C	110 °C	204 °C	220 °C	300 °C																							
P <sub>max</sub>	6 bar	0.5 bar	16 bar	24 bar	30 bar																							

## II. Solutions for Industrial Heat Applications

### 3. Bosch high-efficient Boiler Systems



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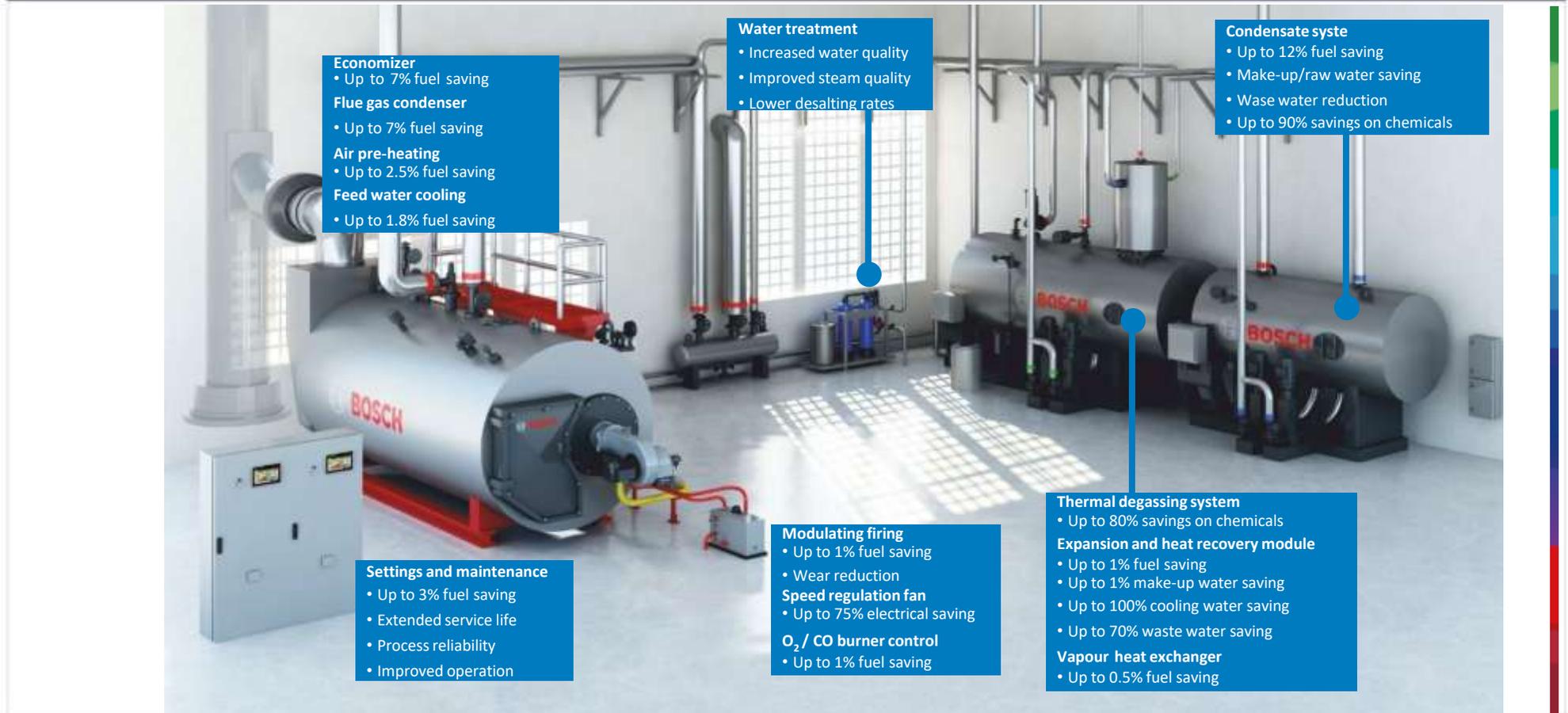


## II. Solutions for Industrial Heat Applications

### 3. Bosch boiler house components, efficiency components and controls



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## II. Solutions for Industrial Heat Applications

### 3. Bosch universal steam boiler type UL-S



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COMPANY



## Universal steam boiler UL-S / UL-SX

The UL-S is a highly efficient steam boiler with a three-pass design for 1,250 to 28,000 kg/h of steam at up to 30 bar.

With impressively low emissions and its ability to be converted for biofuels or hydrogen, the UL-S is designed to be future-proof.

## II. Solutions for Industrial Heat Applications

### 3. Bosch Steam Boiler UL-S: Benefits at a glance



- Very high efficiency in all output ratings for low running costs and emissions
- Complete system with customer-specific equipment
- Future-proof technology with options for hydrogen, biogas and bio-oil
- Extremely well proven design “Made in Germany”, highly durable and easy to maintain
- Consistent steam quality for reliable supply
- Custom designs available for heat recovery boilers, hybrid or superheated steam
- Smart boiler control and seamless system integration with digital assistants

#### Technical data of the type UL-S / UL-SX

Heat transfer medium	High-pressure saturated steam / superheated steam
Design	3-pass single-flame tube/smoke tube technology
Output	1,250 – 28,000 / 2,600 – 28,000 kg/h
Safety pressure	Up to 30 bar
Max. temperature	235 / 300 °C
Fuel	Oil, gas, multi-fuel firing, biogas, bio-oil, hydrogen, special fuels

## II. Solutions for Industrial Heat Applications

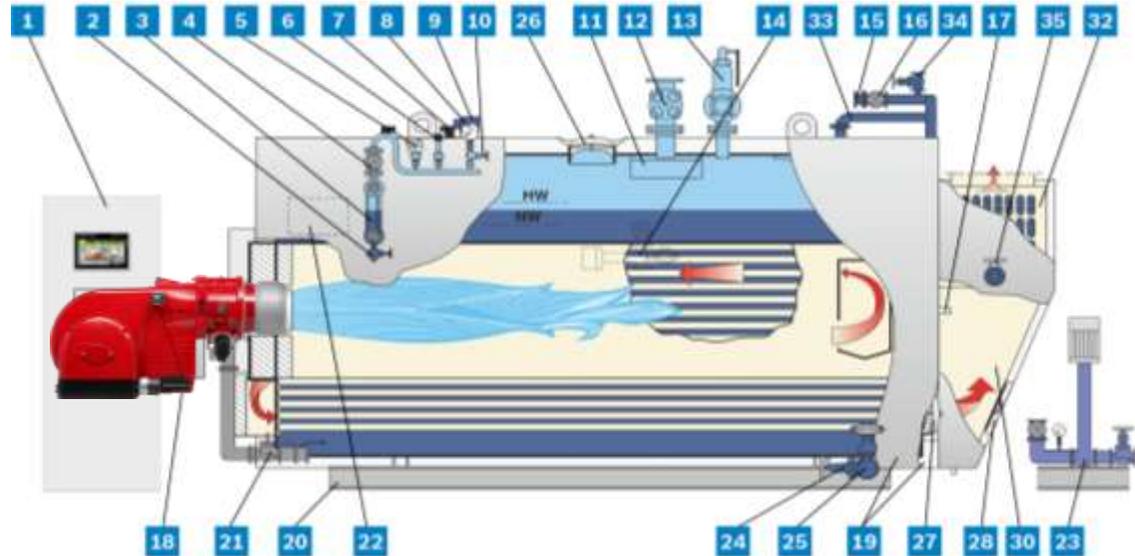
### 3. Bosch Steam Boiler equipment for UL-S



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#### Legend:

- 1 - Control cabinet with boiler control BCO (compact control CSC for outputs up to 4,000 kg/h as an alternative)
- 2 - Blow-off tap
- 3 - Reflective water level indicator
- 4 - Manostat tube shut-off valve, maintenance-free
- 5 - Pressure limiter
- 6 - Pressure transducer (4-20 mA)
- 7 - Low-level limiter electrode
- 8 - Pressure gauge
- 9 - Level transducer (4-20 mA)
- 10 - Pressure gauge shut-off valve with testing
- 11 - Steam dryer
- 12 - Steam removal valve
- 13 - Full-lift safety valve
- 14 - Fully automatic conductivity measurement and desalting
- 15 - Feed water non-return valve
- 16 - Feed water shut-off valve, maintenance-free
- 17 - Sight hole
- 18 - Burner**
- 19 - Insulation with protective shell
- 20 - Base frame
- 21 - Gas regulation module (gas valve train)
- 22 - Terminal box
- 23 - Pump module



- 24 - Drain shut-off valve, maintenance-free
- 25 - Quick shut-off blow-down valve
- 26 - Inspection opening, steam side
- 27 - Inspection opening, water side
- 28 - Inspection opening, flue gas side
- 30 - Flue gas collection chamber
- 32 - Flue gas heat exchanger ECO
- 33 - Connection piping ECO/boiler
- 34 - Vent shut-off valve ECO
- 35 - Drain shut-off valve ECO (draining)

# II. Solutions for Industrial Heat Applications

## 3. Bosch Quality Manufacturing – Four Points



**HUYNH BANG**



**Precision in ideal position**

**Boilers up to 120 t** can be rotated safely and manufactured in ideal position



**Use of welding robots for highest precision**

No tool-change related positioning errors

Fully automatic tube measurement / LiB sensor technology



**Less weld seams increase quality**

Specialised production equipment for metal plates up to 3.5 m width



**Certified experts**

Our nearly 200 boiler welders have more than 1,000 welding exam qualifications

**Quality control**

by X-ray in every production line (3 plants)

Around 25,000 developed films per year



## II. Solutions for Measurement & Automation Applications

### 1. VEGA Headquarters in Schiltach, Germany



HUYNH BANG



THIS IS HOW IT  
LOOKS AT **VEGA**



Headquarters in *Schiltach*,  
Germany

1,150  Employees  
in Schiltach

 60  
Trainees

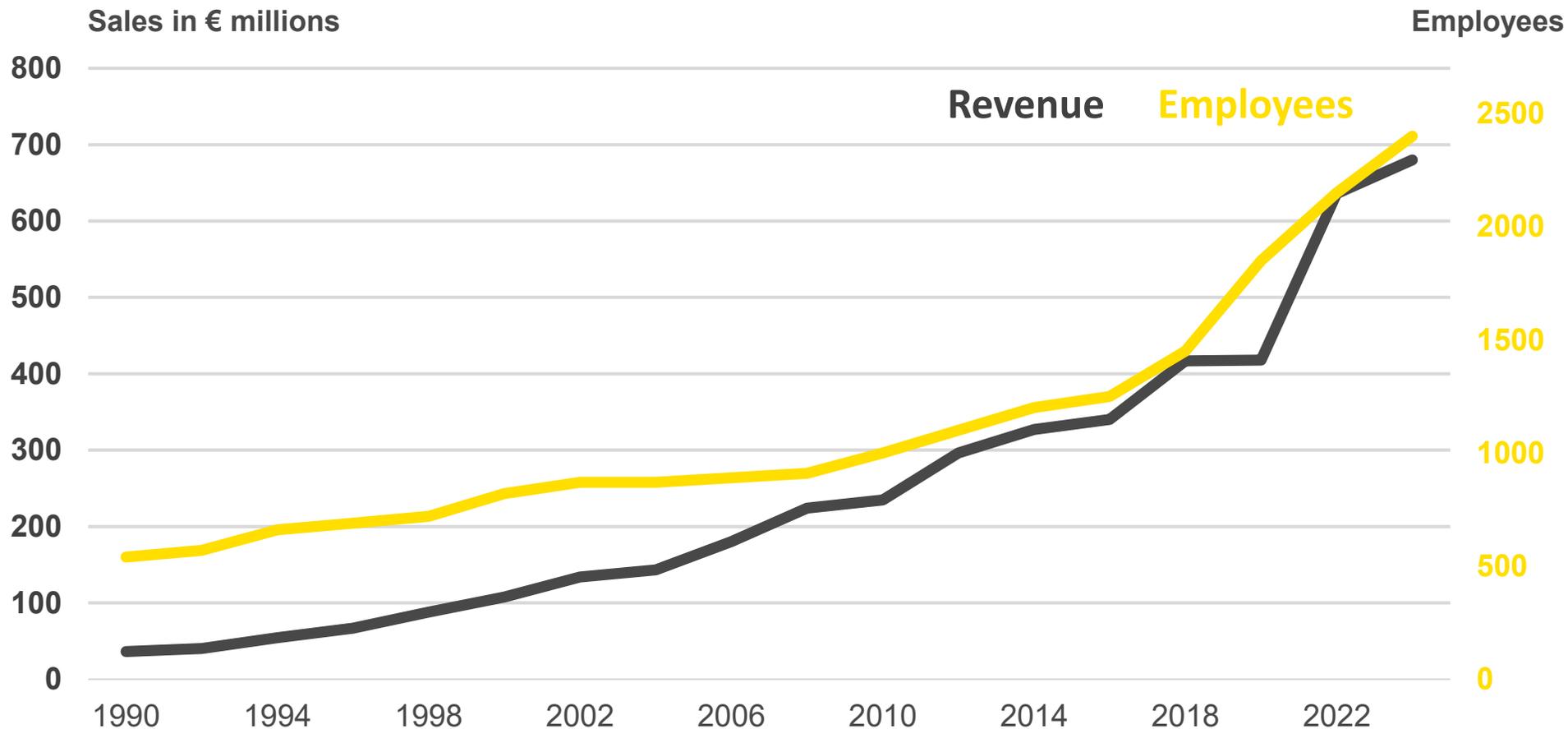
WORLDWIDE  2,400 EMPLOYEES

supfina

*grieshaber*  
PRECISION

**VEGA**

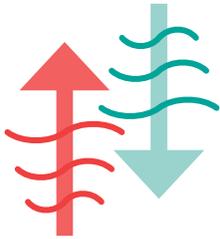
# Focussed on long-term development



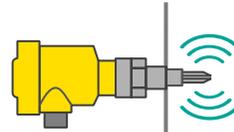


# Product portfolio

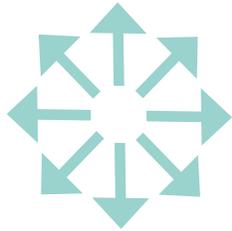
# We produce measurement



Level measurement



Level detection

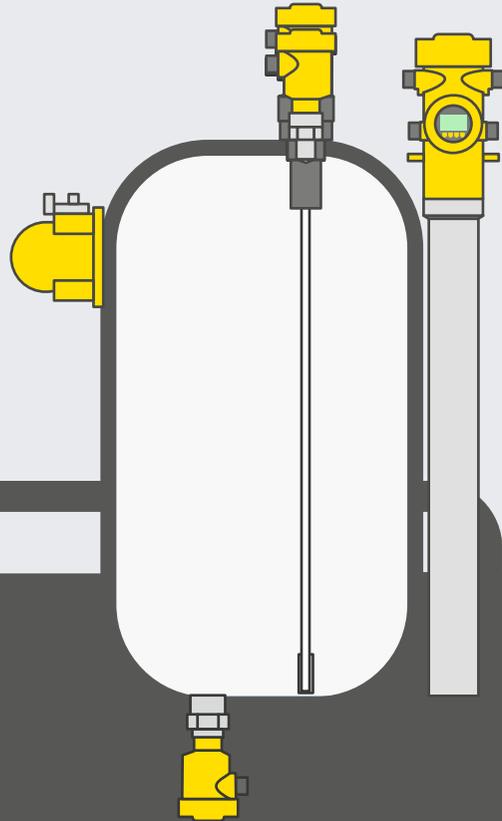


Pressure measurement



Control units & communication

# Continuous level measurement



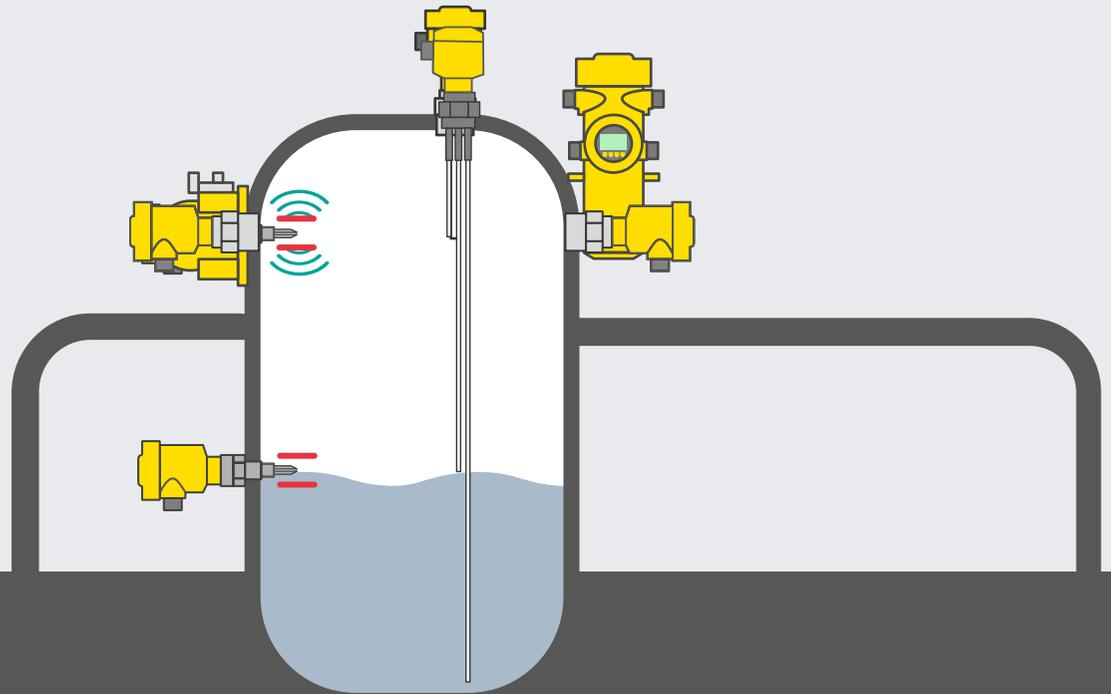
## THE MEASUREMENT METHODS

- Radar
- Guided Radar
- Capacitive
- Radiometric
- Hydrostatic
- Ultrasonic

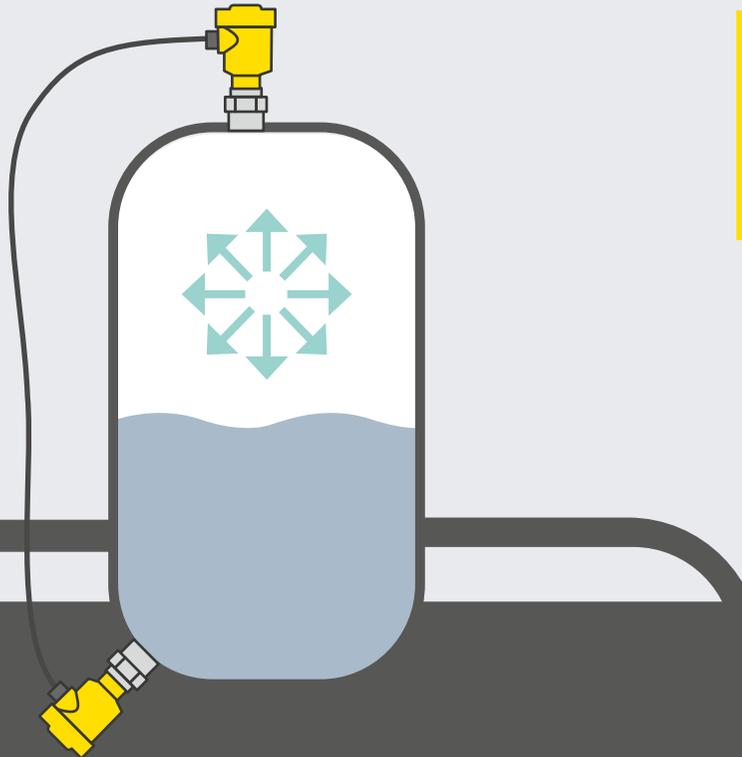
# Safe level detection

## THE MEASUREMENT METHODS

- Vibration
- Conductive
- Capacitive
- Radar
- Radiometric



# Universal pressure measurement

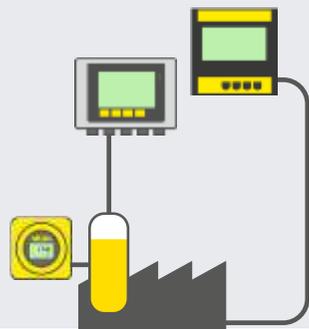


## THE MEASUREMENT METHODS

- Process pressure
- Hydrostatic
- Differential pressure

# Smart communication

- VEGAMET / VEGASCAN
- VEGATOR / VEGATRENN
- VEGADIS
- 4...20 mA / HART / Profibus PA / Foundation Fieldbus
- Ethernet
- Bluetooth
- NB-IoT / LoRa
- VEGA Inventory System





**Industrial sectors**

## II. Solutions for Measurement & Automation Applications



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1. VEGA can provide measuring instruments perfectly adapted to the conditions of any application.



Water & wastewater



Energy



Chemical



Ore mining & metal extraction



Building materials



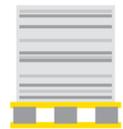
Food industry



Oil & gas offshore



Petrochemical



Paper



Shipbuilding



Pharmaceutical industry



Environment & recycling



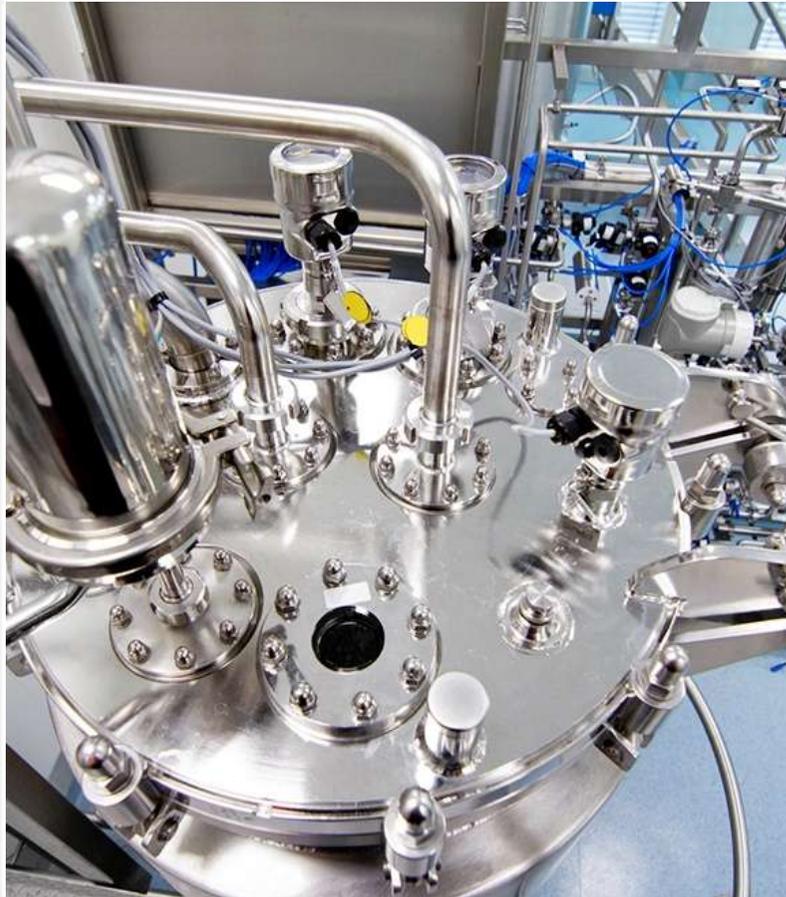
## II. Solutions for Measurement & Automation Applications

### 1. VEGA in Food & Beverage Industry - Hygienically flawless



**HUYNH BANG**

COMPANY



Hygienic right from the start

- Expertly designed
- Perfect cleanability
- Standardised hygienic adapters

Reliable processes – consistent product quality

- EC 1935/2004, FDA, EHEDG, 3A compliant



GB Standards



## II. Solutions for Measurement & Automation Applications



HUYNH BANG

### 1. VEGA for the strictest requirements

#### Wear and maintenance free

- Despite extreme influence from cold, heat and wind

#### Robust housing and sensor technology

- Resistant to seawater, abrasive bulk solids, etc.



## II. Solutions for Measurement & Automation Applications

1. VEGA - Absolutely reliable under changing conditions.



HUYNH BANG

COMPANY



Diverse media properties

- Corrosive or creep-prone, high or low viscosity
- Adhesive or volatile, cryogenic or boiling

Reliable measurement data

- The focus is on the safety of the staff as well as the plant, even in 24-hour operation

## II. Solutions for Measurement & Automation Applications

### 1. VEGA references in Vietnam



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## II. Solutions for Measurement & Automation Applications



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### 1. VEGA references in Vietnam



**VEGA**

## II. Solutions for Measurement & Automation Applications

### 1. VEGA references in Vietnam



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## II. Solutions for Measurement & Automation Applications

### 1. VEGA references in Vietnam



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## II. Solutions for Measurement & Automation Applications

### 1. VEGA references in Vietnam



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## II. Solutions for Measurement & Automation Applications

### 1. VEGA references in Vietnam



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## II. Solutions for Measurement & Automation Applications

### 1. VEGA references in Vietnam



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## II. Solutions for Measurement & Automation Applications

### 1. VEGA references in Vietnam



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## II. Solutions for Measurement & Automation Applications

### 2. JUMO Headquarters in Fulda, Germany



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# II. Solutions for Measurement & Automation Applications

## 2. JUMO Sensor Solutions - Precision in Measurement



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Temperature



Liquid analysis



Pressure



Level



Flow



Humidity



# II. Solutions for Measurement & Automation Applications

## 2. JUMO Automation Solutions



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Control



Recording



Automation



Monitoring



## II. Solutions for Measurement & Automation Applications

### 2. JUMO references



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## II. Solutions for Measurement & Automation Applications

### 2. JUMO references



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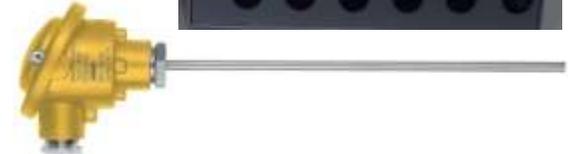


# II. Solutions for Measurement & Automation Applications

## 2. JUMO references



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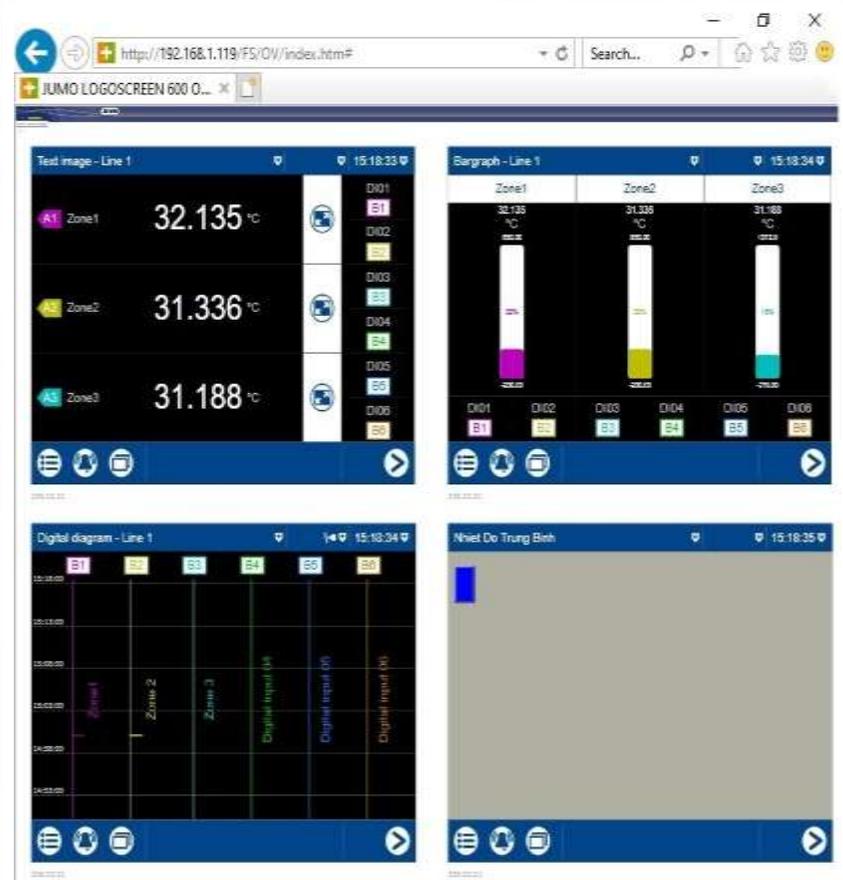


# II. Solutions for Measurement & Automation Applications

## 2. JUMO references



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## II. Solutions for Measurement & Automation Applications



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### 2. JUMO references



## II. Solutions for Measurement & Automation Applications

### 3. Optris: Non-contact infrared Temperature Measurement



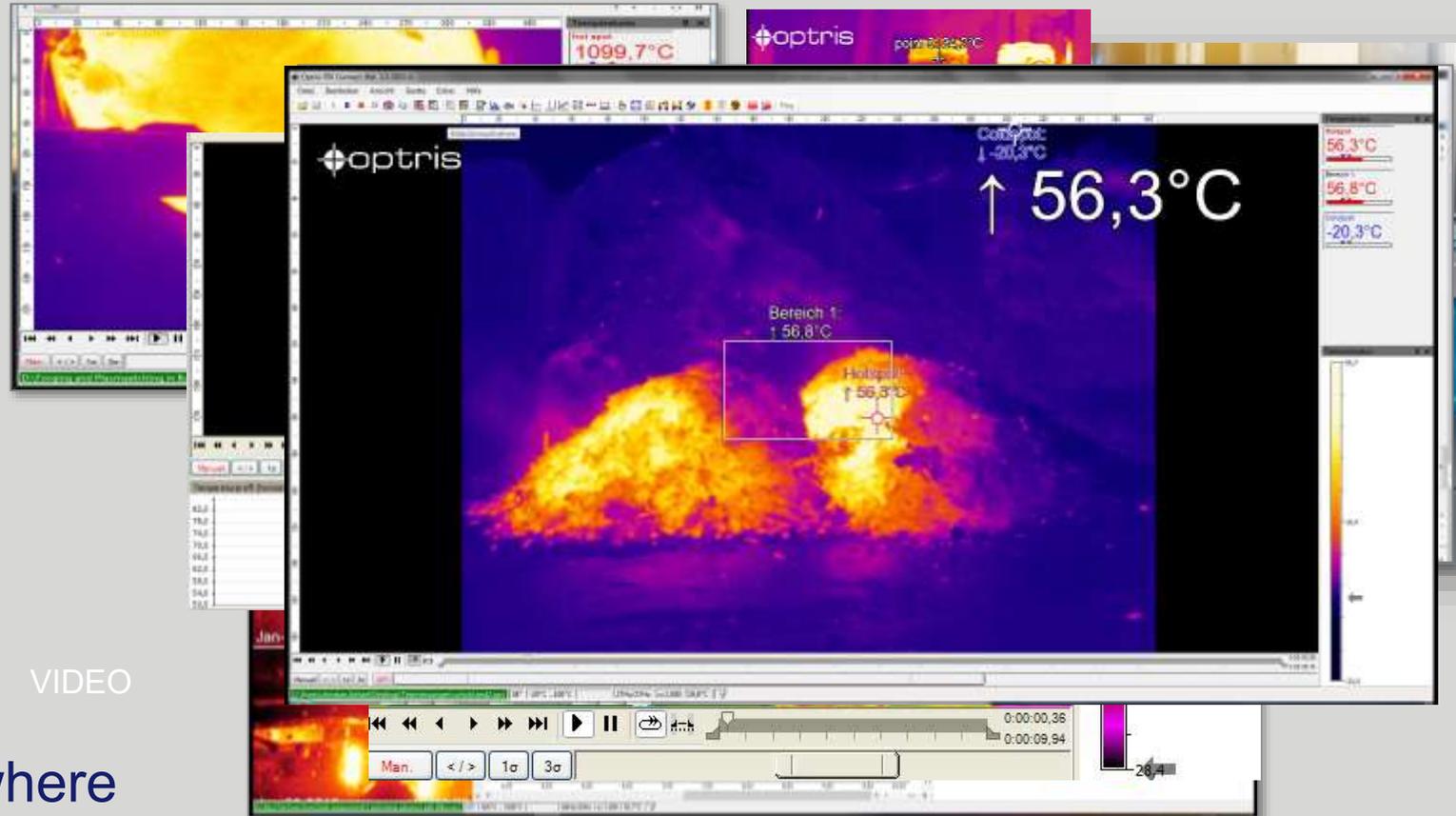
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# Fields of application

## WHEN TEMPERATURE MATTERS

- Metal
- Plastic
- Glass
  
- Electronics
- Food
- Pharmacy
- Safety
- ...
- Almost everywhere



VIDEO

# Fields of application

## PROCESS OPTIMIZATION VIA TEMPERATURE MONITORING



### Metal industry

Our non-contact measuring sensors are now indispensable in the production and processing of metal.



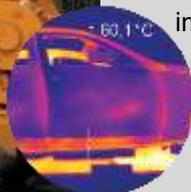
### Glass industry

Our glass thermometers and IR cameras are optimally suited to non-contact temperature measurement of glass surfaces and use innovative double lasers to indicate the exact measurement spot.



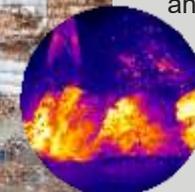
### Automotive industry

In order to guarantee flawless product quality, Optris provides efficient solutions for process temperature monitoring and optimization using infrared thermometers and thermal imaging cameras.



### Safety

Early fire detection with infrared cameras and infrared thermometers is an important protective measure in the industry designed to avert irreparable damage in industrial plants and buildings. Hence surfaces can be observed 24/7 and protective measures can automatically be introduced via process technology.



# Fields of application

## PROCESS OPTIMIZATION VIA TEMPERATURE MONITORING



### Semiconductor industry

Continuous monitoring and process optimization is vital in the solar and semiconductor industry.



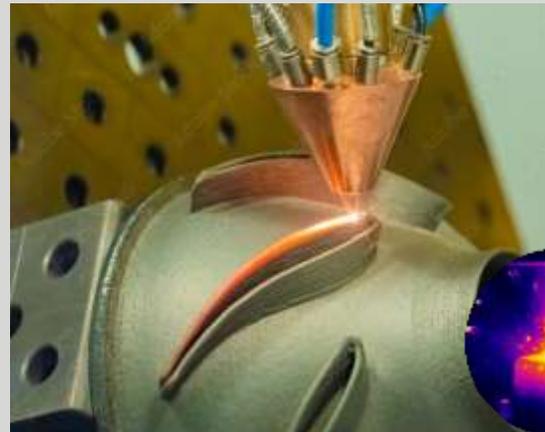
### Plastics industry

Optris has the perfect solutions for non-contact measurement of temperatures in the injection molding process, in PET bottle manufacturing or for thermoforming films.



### Medical/ biological science

Our infrared thermometers and thermal imaging cameras are used by both the manufacturers of medical devices and medical professionals themselves.



### 3D Printing & Additive Manufacturing

Monitoring and temperature regulation during each process phase of 3D printing and additive manufacturing is crucial for production of high-quality parts. If the temperature is controlled throughout, welding defects can be prevented and failures avoided. This allows corrections to be made to welding parameters during the process.

## ■ Infrared cameras



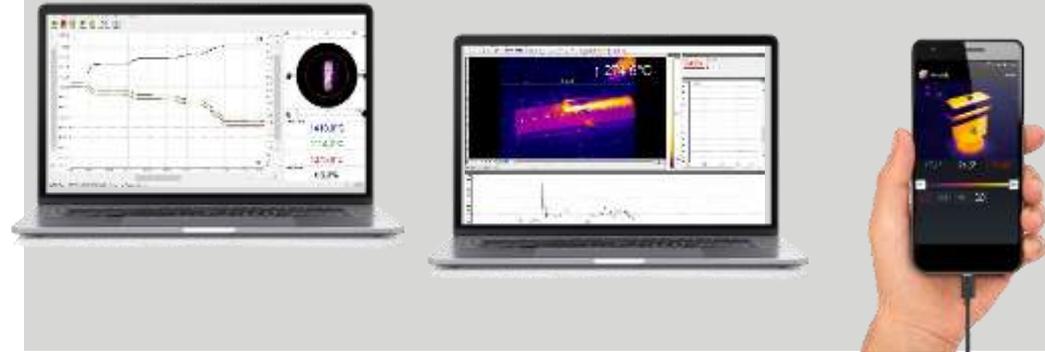
## ■ Infrared thermometers



## ■ Accessories



## ■ Software/ Apps

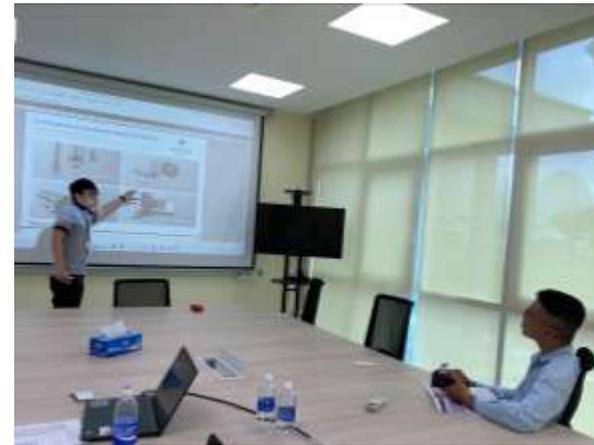


## II. Solutions for Measurement & Automation Applications

### 3. Optris: Non-contact infrared Temperature Measurement



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## II. Solutions for Measurement & Automation Applications



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### 3. Optris: Non-contact infrared Temperature Measurement

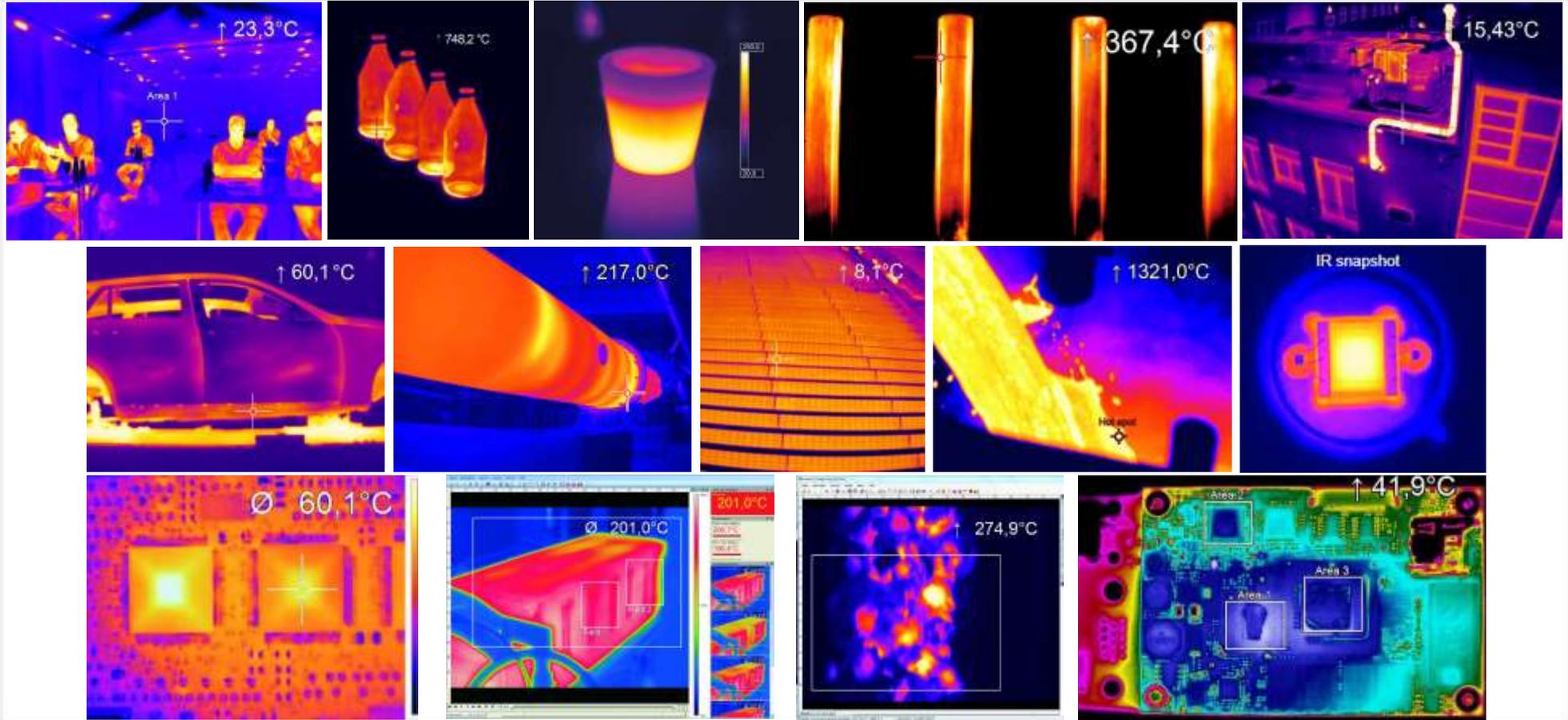


## II. Solutions for Measurement & Automation Applications



HUYNH BANG

### 3. Optris thermal images



## II. Solutions for Measurement & Automation Applications

### 4. KEM Headquarters in Karlsfeld and Factory in Bad Kötzing, Germany



**HUYNH BANG**

COMPANY



## II. Solutions for Measurement & Automation Applications



**HUYNH BANG**

4. KEM specializes in TRICOR mass flow meters and mechanical meters incl. transmitters and amplifiers

**COMPANY**



### TRICOR Coriolis Mass Flow Meters | TCM Series

The TCM CLASSIC Series of Coriolis Mass Flow Meters meets general industrial requirements with out-of-the-box ease of use



### Gear Flow Meters | ZHM

For lubricating and non-lubricating liquids



### Turbine Flow Meters | HM

Measure continuous and discontinuous flow rates



### Helical Flow Meters | SRZ

For high-viscosity and abrasive media



**made  
in  
Germany**

**TRICOR Coriolis Evaluation Electronics**



**Pickups and amplifiers**



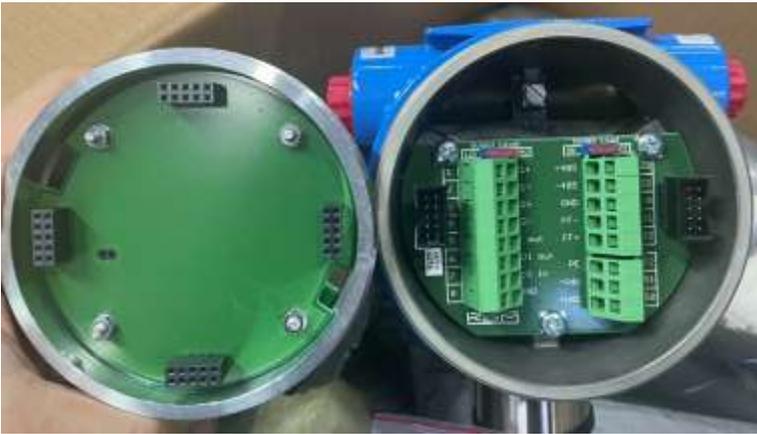
**Evaluation Electronics**

# II. Solutions for Measurement & Automation Applications

## 4. KEM references



HUYNH BANG



made in Germany



## II. Solutions for Measurement & Automation Applications



HUYNH BANG

### 4. KEM references



## II. Solutions for Measurement & Automation Applications

### 4. KEM references



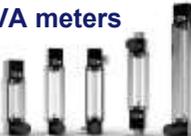
HUYNH BANG



# II. Solutions for Measurement & Automation Applications

5. Vögtlin Instruments GmbH – Gas flow technology – Headquarter in Muttenz - Switzerland



Vögtlin Product Family's			Representative Applications		COMPANY																																																			
<b>Smart MFM/MFC</b> 	<b>Compact MFM</b> 	<b>Pin AA</b> 	<b>Life Science</b> Bio industry Vial manufacturing		 <table border="1"> <thead> <tr> <th colspan="4">Gas type</th> </tr> </thead> <tbody> <tr> <td>Air</td> <td>Air</td> <td>D<sub>2</sub></td> <td>Deuterium</td> </tr> <tr> <td>N<sub>2</sub></td> <td>Nitrogen</td> <td>C<sub>2</sub>H<sub>6</sub></td> <td>Ethane</td> </tr> <tr> <td>Ar</td> <td>Argon</td> <td>C<sub>2</sub>H<sub>4</sub></td> <td>Ethene, Ethylene</td> </tr> <tr> <td>He</td> <td>Helium</td> <td>C<sub>2</sub>F<sub>6</sub></td> <td>Hexafluoromethane, Freon 116</td> </tr> <tr> <td>CO<sub>2</sub></td> <td>Carbon dioxide</td> <td>CHClF<sub>2</sub></td> <td>Chlorodifluoromethane, Freon-22</td> </tr> <tr> <td>CO</td> <td>Carbon monoxide</td> <td>Kr</td> <td>Krypton</td> </tr> <tr> <td>CH<sub>4</sub></td> <td>Methane</td> <td>N<sub>2</sub>O</td> <td>Nitrous oxide</td> </tr> <tr> <td>C<sub>3</sub>H<sub>8</sub></td> <td>Propane</td> <td>Ne</td> <td>Neon</td> </tr> <tr> <td>H<sub>2</sub></td> <td>Hydrogen</td> <td>C<sub>3</sub>H<sub>6</sub></td> <td>Propene, propylene</td> </tr> <tr> <td>C<sub>4</sub>H<sub>6</sub></td> <td>1,3-Butadiene</td> <td>SF<sub>6</sub></td> <td>Sulfur hexafluoride</td> </tr> <tr> <td>C<sub>4</sub>H<sub>10</sub></td> <td>Butane</td> <td>CF<sub>4</sub></td> <td>Tetrafluoromethane, Freon-14</td> </tr> </tbody> </table>				Gas type				Air	Air	D <sub>2</sub>	Deuterium	N <sub>2</sub>	Nitrogen	C <sub>2</sub> H <sub>6</sub>	Ethane	Ar	Argon	C <sub>2</sub> H <sub>4</sub>	Ethene, Ethylene	He	Helium	C <sub>2</sub> F <sub>6</sub>	Hexafluoromethane, Freon 116	CO <sub>2</sub>	Carbon dioxide	CHClF <sub>2</sub>	Chlorodifluoromethane, Freon-22	CO	Carbon monoxide	Kr	Krypton	CH <sub>4</sub>	Methane	N <sub>2</sub> O	Nitrous oxide	C <sub>3</sub> H <sub>8</sub>	Propane	Ne	Neon	H <sub>2</sub>	Hydrogen	C <sub>3</sub> H <sub>6</sub>	Propene, propylene	C <sub>4</sub> H <sub>6</sub>	1,3-Butadiene	SF <sub>6</sub>	Sulfur hexafluoride	C <sub>4</sub> H <sub>10</sub>	Butane	CF <sub>4</sub>	Tetrafluoromethane, Freon-14
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<b>Industrial MFM/MFC Ex / IP67</b> 	<b>Hi Flow – DP d-flux</b> 		<b>Industrial/Production</b> Automotive welding/soldering Light bulb manufacturing																																																					
			<b>Surface treatment</b> Vapour deposition parts Flat glass treatment																																																					
			<b>R&amp;D/Analytical</b> Analytical equipment Car emission testing																																																					
			<b>Testing</b> Leak test Flow verification																																																					
			<b>Material</b> Heat treatment ovens Semiconductor grey market																																																					
			<b>Food/Beverage</b> Ice cream manufacturing Beer manufacturing																																																					
			<b>Energy/Power</b> Consumption Fuel cell development																																																					
			<b>Semi-conductor</b> Wafer manufacturing and handling, Lithography, Testing																																																					
			<b>General</b> Fiberglass manufacturing Water Purification																																																					
<b>Smarttrak MFM/MFC</b> 	<b>OEM Solutions</b> 																																																							
<b>VA meters</b> 	<b>Precision Needle Valves</b> 																																																							

# II. Solutions for Measurement & Automation Applications

5. Vögtlin Instruments GmbH – connecting cable, accessories & phone app.



HUYNH BANG



The new Vögtlin Connect App

Bluetooth readable / adjustable variables	Read	Write
Create & edit profiles (set of settings)	YES	YES
Flow range & dynamic range	YES	YES
Filter settings	YES	YES
Alarms and warnings	YES	YES
Analog in/output configuration	YES	YES
Function of push button*	YES	YES
Read current values	YES	
Show Graphs	YES	
Totalizer (read, select, reset)	YES	YES
Node / slave address setting	YES	YES
I/O for external valve on / off	YES	YES
Restart device		YES
Password protection of unit	YES	YES
Factory reset		YES
PID and valve parameters	YES	YES



GET VÖGTLIN CONNECT ON  
**Google Play**



# II. Solutions for Measurement & Automation Applications

## 5. Vögtlin Instruments GmbH - Applications



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Permeability measurements of concrete



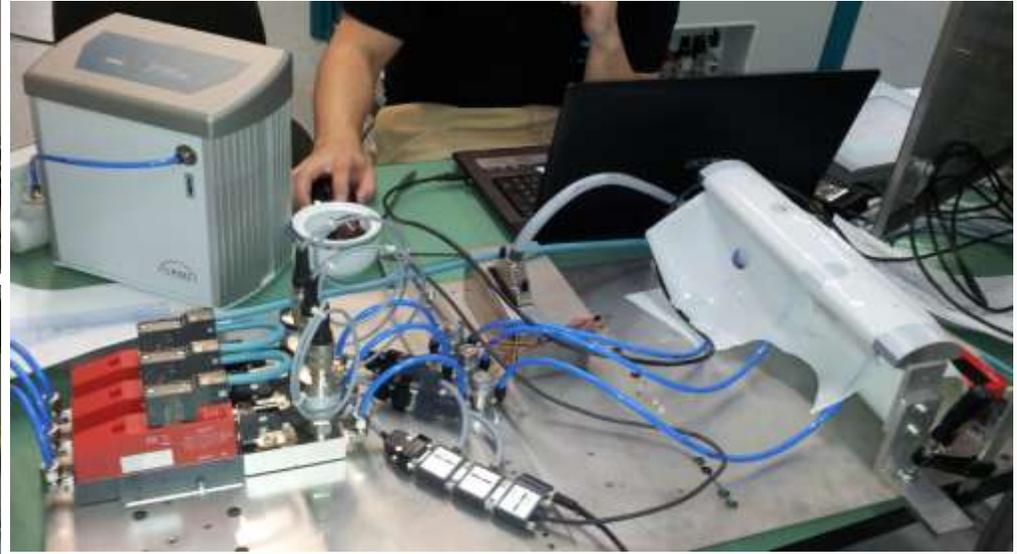
Permeability test of membranes



Test on valves of coffee packaging



Calibration device for reviewing test leaks



# II. Solutions for Measurement & Automation Applications

## 5. Vögtlin Instruments GmbH - Applications



HUYNH BANG

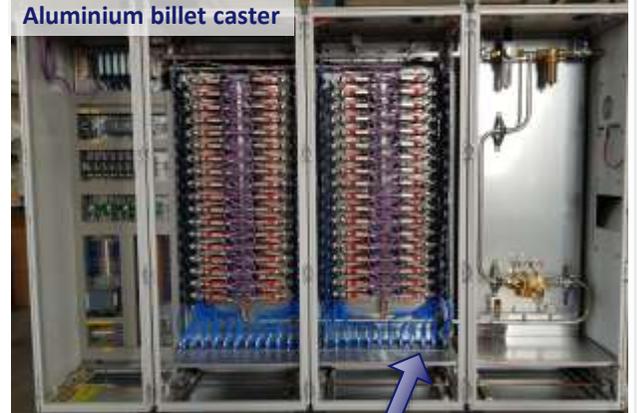
Inline gas mixer



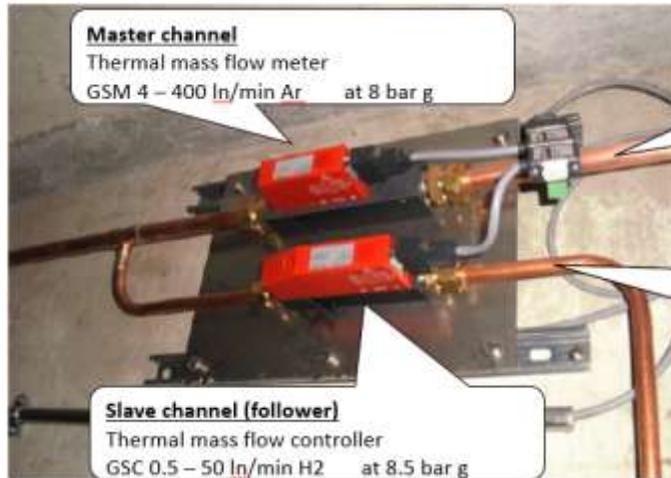
Mixing block GZB / GRB



Aluminium billet caster



**Master channel**  
Thermal mass flow meter  
GSM 4 – 400 l/min Ar at 8 bar g



Flame control for burners



Aluminium billet caster



## II. Solutions for Measurement & Automation Applications

6. Meister Variable Area Flow Meters located in Wiesen, Germany.



HUYNH BANG



- Founded in Germany in 1984
- 100% family owned
- >1 million installations globally
- 40 global distributors

Online Virtual Reality Tour [here](#)



- In-house technology center
- Fully automatic multi-viscosity oil test benches
- Customized calibrations
- Oil- / water- / gas test capabilities



- Variable Area Flowmeters
- No power supply needed
- For all installation angles
- 0.005 l/min – 333 l/min flow range
- Suitable until 160 °C and 350 bar
- Various output signal options

Youtube video [here](#)





- Digital signal output via IO-Link
- Temperature- and pressure signal processing from external analog sensors
- Fast and simple wiring
- 2-way and EMC-proof communication
- Remote sensor monitoring

Youtube video [here](#)





- 3D printed flowmeters and other components
- Maximum customization opportunities
- Plastic type material
- Quick prototyping

Youtube video [here](#)





- 3D printing with stainless steel
- Weight reduction
- Maximum design freedom

Youtube video [here](#)



Ihre Vorteile auf einen Blick

- Designfreiheit
- Gewichtreduzierung
- Materialersparnis
- Maßgeschneidert ab Losgröße 1



VERTEILERSYSTEM V001



# advantages of using Meister flowmeters



# INDUSTRIAL FLOW

Your Partner for Industrial Flow Measurement



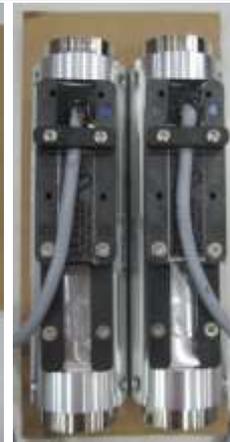
## II. Solutions for Measurement & Automation Applications

### 6. Meister Variable Area Flow Meters



**HUYNH BANG**

COMPANY



# II. Solutions for Measurement & Automation Applications

## 6. Meister Variable Area Flow Meters



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COMPANY



## II. Solutions for Measurement & Automation Applications

### 7. SCHMIDT® Flow Sensors – Simply a question of better measurement



HUYNH BANG



#### SCHMIDT®- Flow sensors measure:



Flow velocity



Mass flow



Flow volume and flow rate (Sm<sup>3</sup>/h, Nm<sup>3</sup>/h)



Temperature



## II. Solutions for Measurement & Automation Applications

### 7. SCHMIDT® Flow Sensors – Simply a question of better measurement



HUYNH BANG

COMPANY



#### For pressurized air use

- Consumption Measurement
- Leakage detection
- Compressor control
- Energy - Contracting



#### For all kinds of industrial processes

- Industrial burners and kilns
- Drying processes
- Supply and exhaust air control
- Exhaust of dusty air and gases
- Volume flow control
- Mass flow control



## II. Solutions for Measurement & Automation Applications

### 7. SCHMIDT® Flow Sensors – Simply a question of better measurement



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COMPANY



#### For Cleanrooms in

-  Pharmaceutical Industry
-  Food Industry
-  Semiconductor Industry

#### For the Application in

-  Laminar-flow monitoring
-  Room-overflow monitoring
-  Filter monitoring



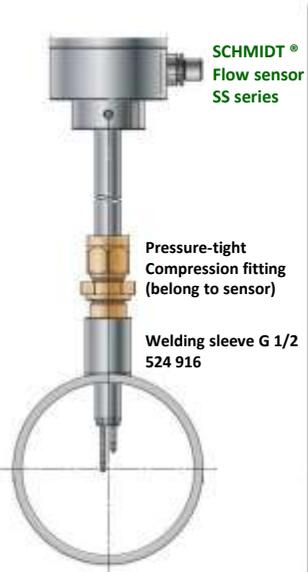
# II. Solutions for Measurement & Automation Applications

## 7. SCHMIDT Technology – Mounting variations



**HUYNH BANG**

**COMPANY**

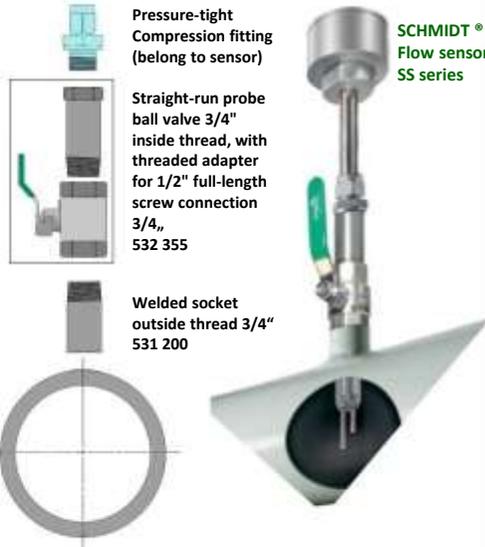


SCHMIDT®  
Flow sensor  
SS series

Pressure-tight  
Compression fitting  
(belong to sensor)

Welding sleeve G 1/2  
524 916

Variation #1 –  
Direct mounting



Pressure-tight  
Compression fitting  
(belong to sensor)

Straight-run probe  
ball valve 3/4"  
inside thread, with  
threaded adapter  
for 1/2" full-length  
screw connection  
3/4,"  
532 355

Welded socket  
outside thread 3/4"  
531 200

Variation #2 –  
Mounting on ball valve



SCHMIDT®  
Flow sensor  
SS series

Probe ball valve xxx "  
Inside thread,  
connection to flow  
sensor: 1/2" inside  
thread incl. plug and  
chain  
1" – 530 940  
1 1/4" – 530 941  
1 1/2" – 530 942  
2" – 530 943

SCHMIDT®  
Flow sensor  
SS series

Variation #3 –  
Mounting into probe ball valve



Connecting cable, 8 pole, length 5m,  
with coupler socket and open cable  
524 921



SCHMIDT® LED display MD 10.015:  
in wall-mounted housing to show the volume  
flow and flow velocity, 85...230V AC and sensor  
supply with additional sum function and second  
measuring input  
527 330

Connecting cable, LED display &  
pipe assembly kit



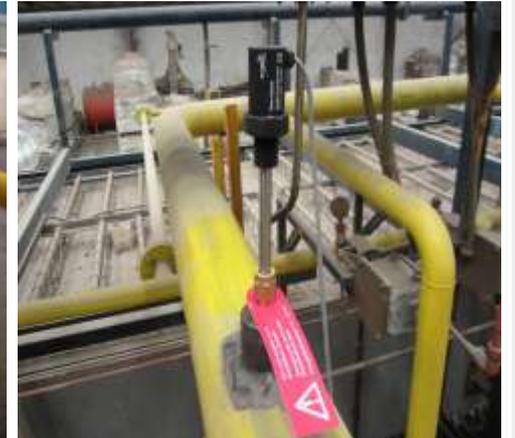
Assembly kit for pipe assembly,  
suitable for MD 10.010 / 10.015,  
including pipe clamps and collar for  
adjustment to the pipe diameter  
531 394

## II. Solutions for Measurement & Automation Applications

### 7. SCHMIDT Technology references



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## II. Solutions for Measurement & Automation Applications

### 9. CANTY Process Technology – „Eyes in the Process“



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**COMPANY**



J.M. Canty, USA  
6100 Donner Road  
Buffalo, NY 14094  
Phone: (716) 625-4227  
Fax: (716) 625 - 4228

Email: [sales@jmcanty.com](mailto:sales@jmcanty.com)

J.M. Canty, LTD  
Ballycoolin Business Park  
Blanchardstown  
Dublin 15, Ireland  
Phone: +353 (01) 882-9621  
Fax: +353 (01) 882-9622

Email: [sales.ie@jmcanty.com](mailto:sales.ie@jmcanty.com)

## II. Solutions for Measurement & Automation Applications

### 9. CANTY High Temperature Camera Systems



**HUYNH BANG**

COMPANY

#### UltraTemp Camera

Process Temp: **1370°C**  
NO LENS COOLING REQUIRED  
NO RETRACTION SYSTEM REQUIRED  
12", 24" or 36" Insertion



#### ExtremeTemp Camera

Process Temp: **1650°C**  
LIMITED LENS COOLING REQUIRED  
NO RETRACTION SYSTEM REQUIRED  
12", 24" or 36" Insertion

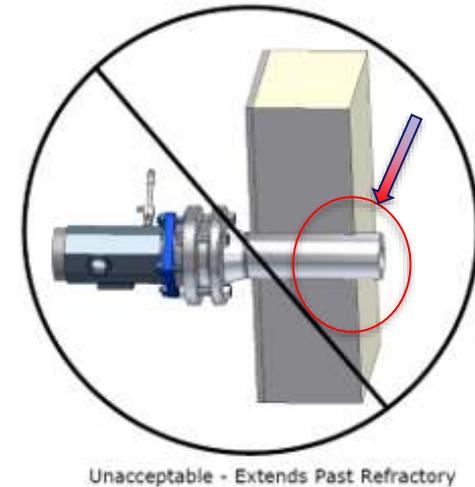
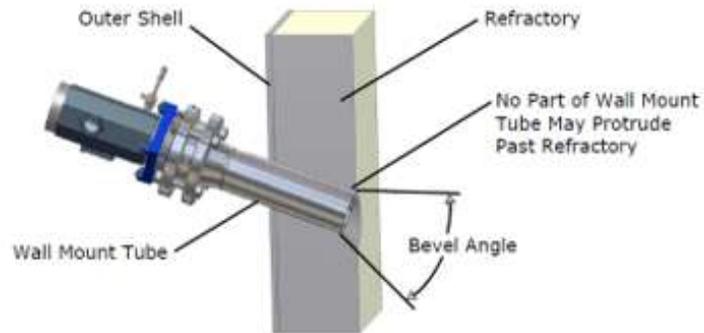
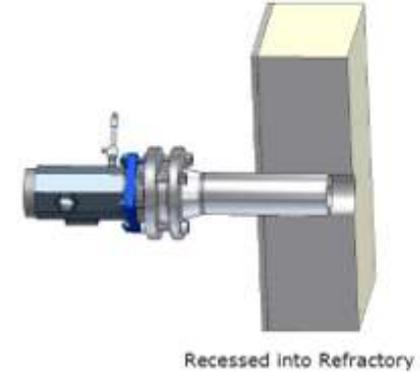
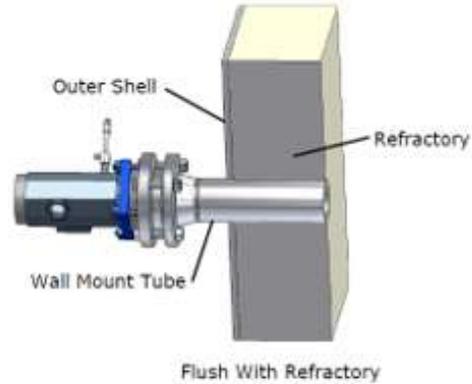


## II. Solutions for Measurement & Automation Applications

### 9. CANTY High Temperature Camera Systems



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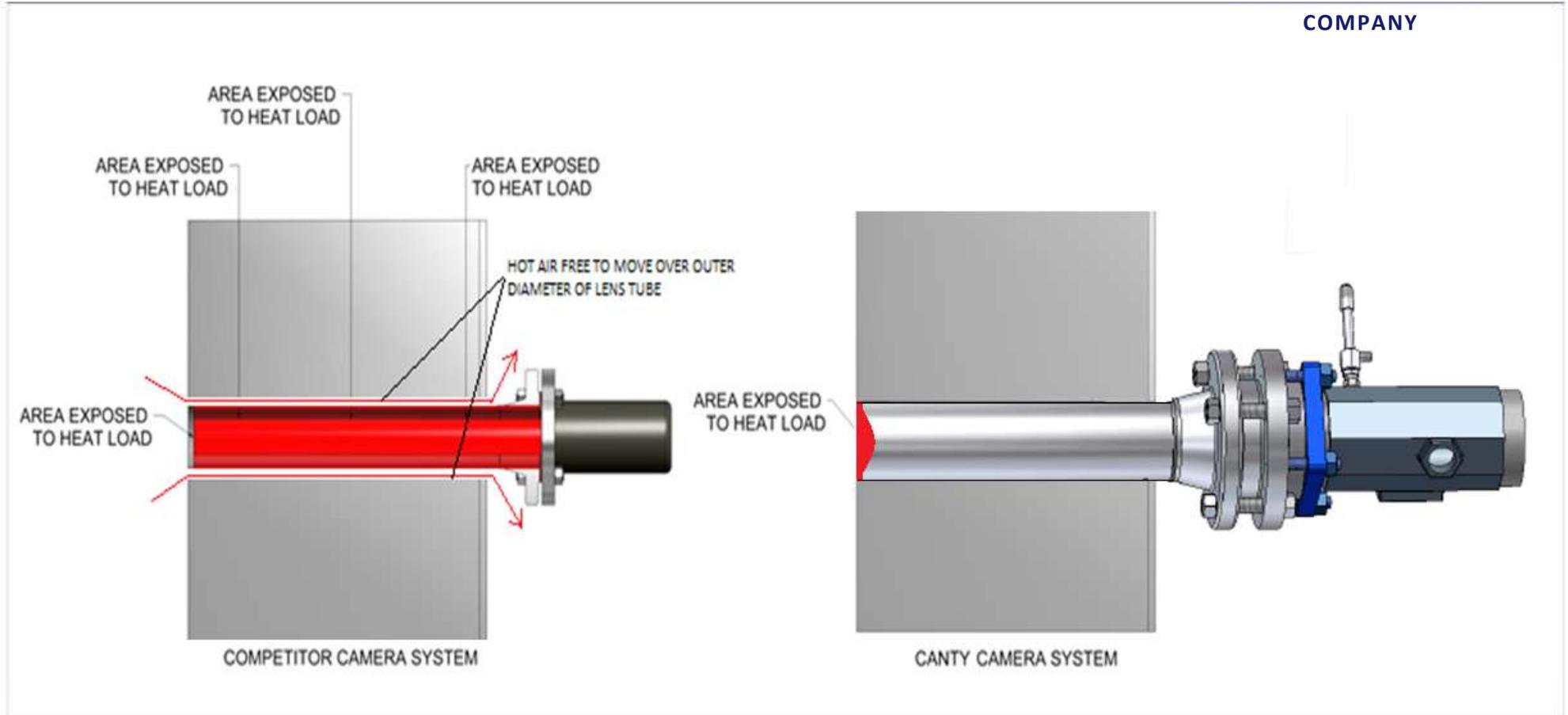
## II. Solutions for Measurement & Automation Applications

### 9. CANTY High Temperature Camera Systems



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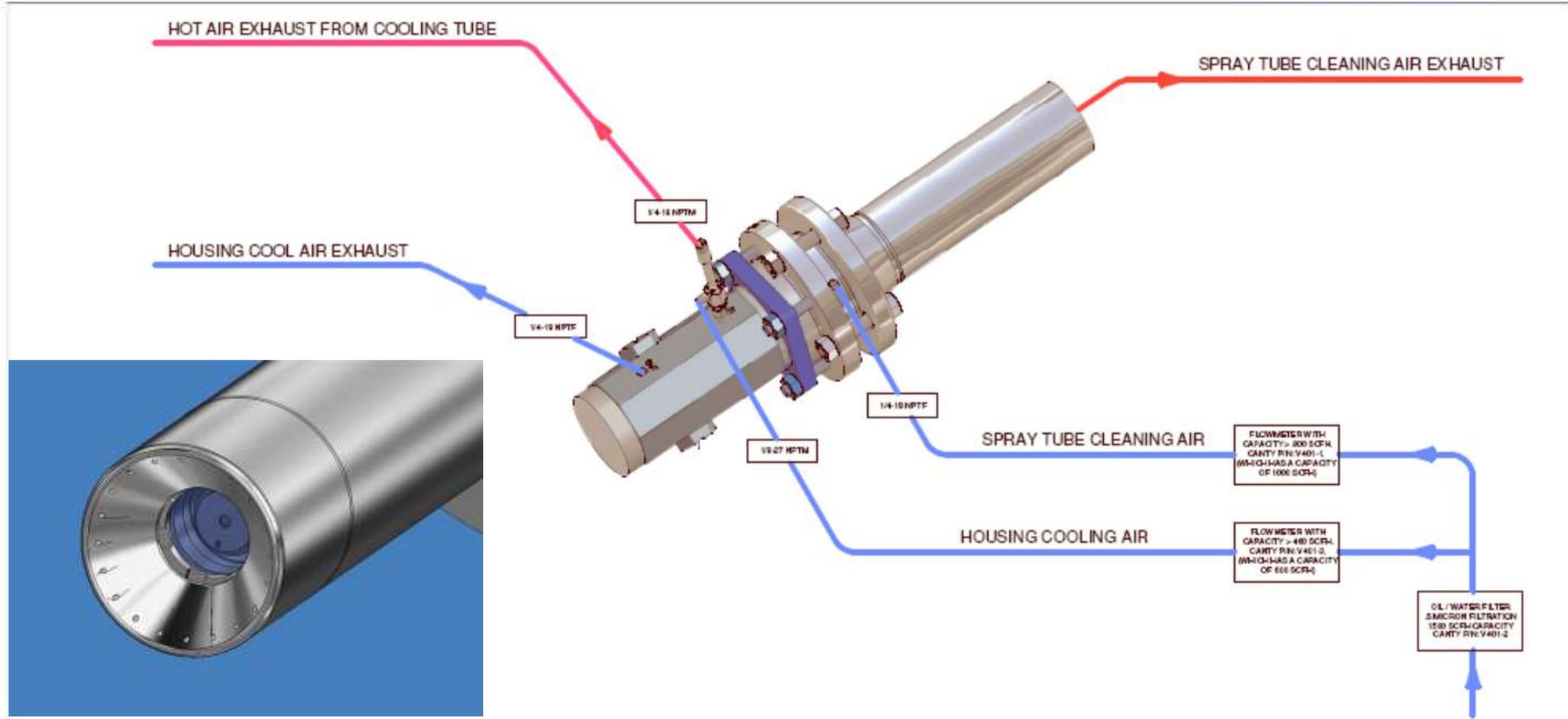


## II. Solutions for Measurement & Automation Applications

### 9. CANTY High Temperature Camera Cleaning / Cooling Air Layout



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## II. Solutions for Measurement & Automation Applications

### 9. CANTY High Temperature Camera Systems



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## II. Solutions for Measurement & Automation Applications

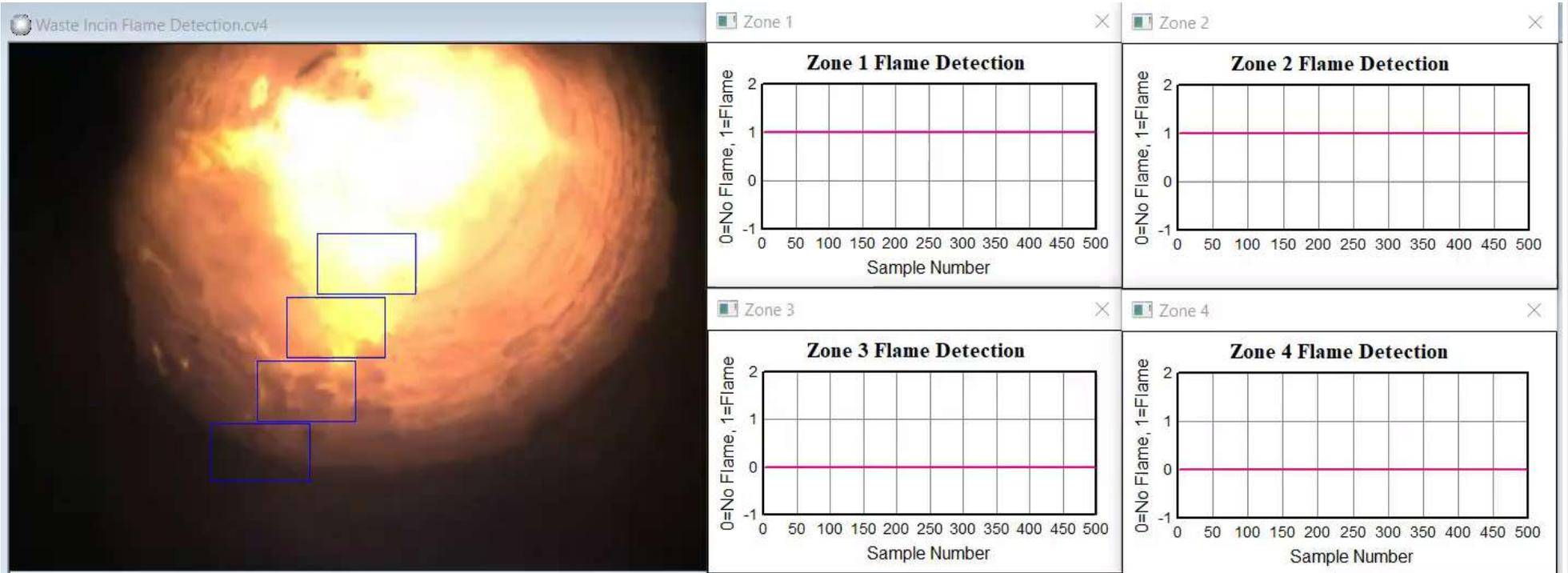
### 9. CANTY High Temperature Camera Flame Detection



HUYNH BANG

COMPANY

Video - flame detection in waste incinerator



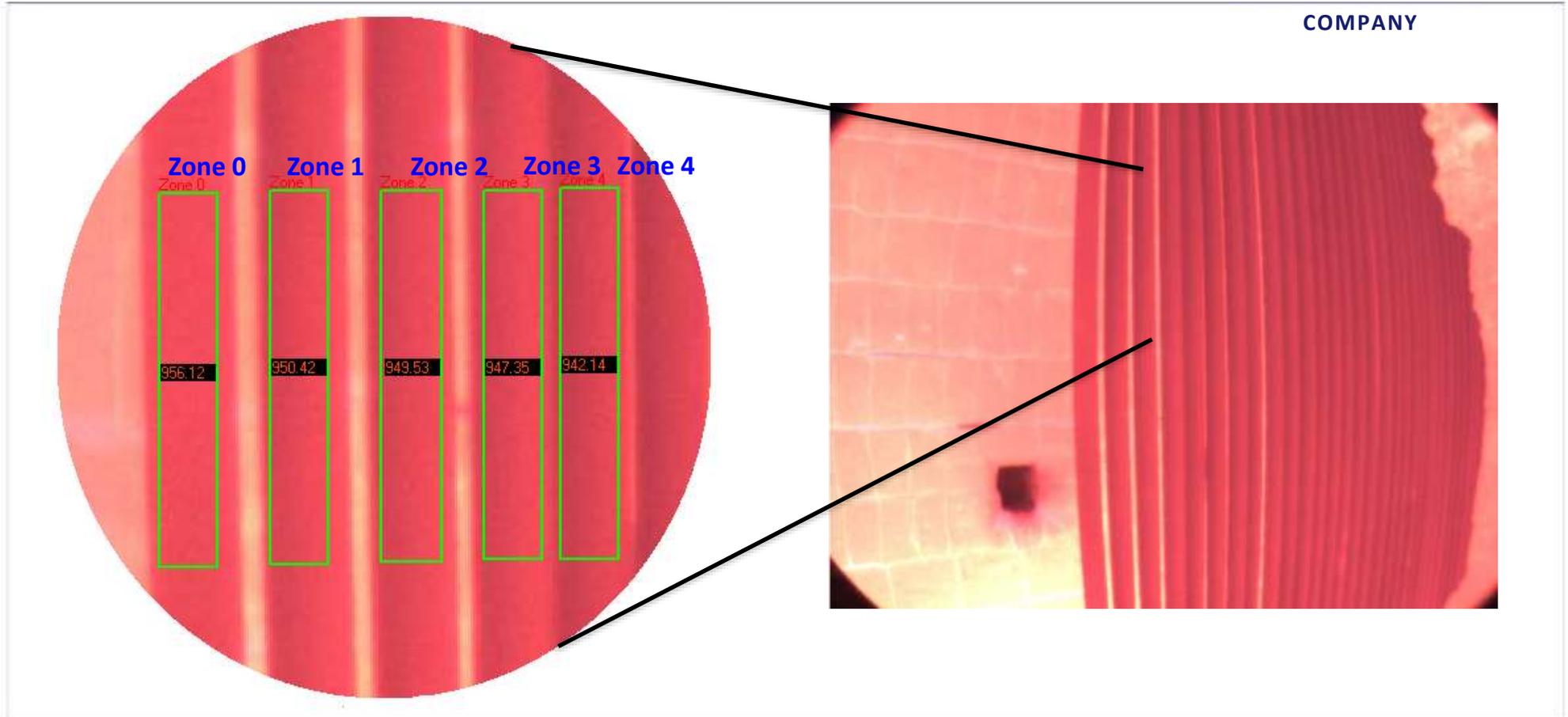
## II. Solutions for Measurement & Automation Applications

### 9. CANTY High Temperature Camera for Cracking Furnace – Tube Metal Temperature



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COMPANY



## II. Solutions for Measurement & Automation Applications

### 9. CANTY Equipment for Dry Particle Size & Shape



HUYNH BANG



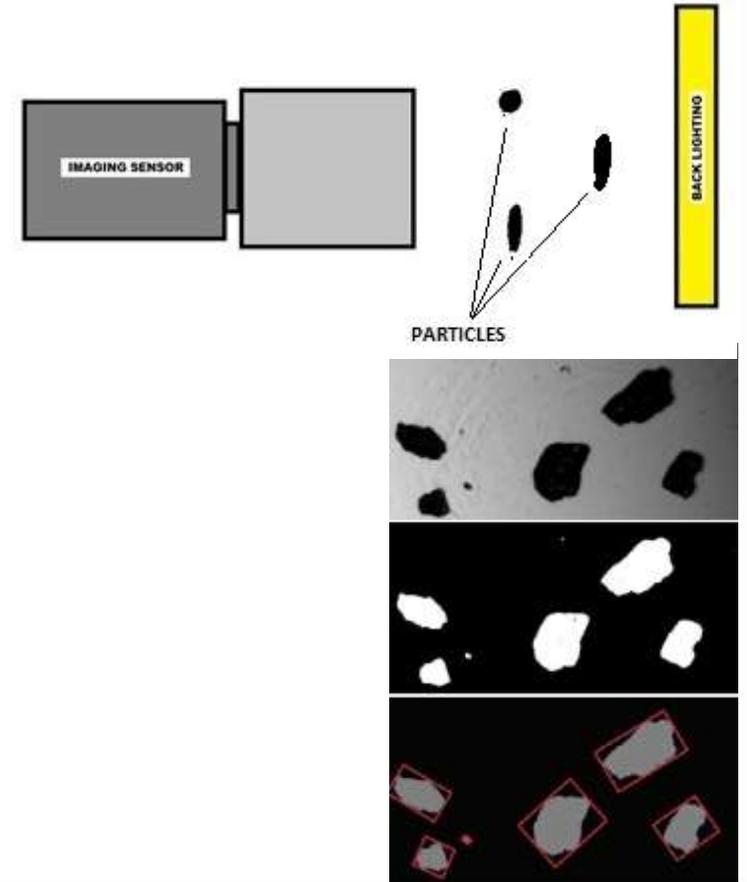
## II. Solutions for Measurement & Automation Applications

### 9. CANTY Vision Based Particle Size Analysis – Fundamental Principle

JM Canty's vision based technique works on the basic principle of presenting the product between micro / macroscopic optics and a high intensity light source (back lighting)

The captured images are then sent to CantyVision Software for analysis, where the particulate is measured under a number of size and shape parameters.... Major axis, minor axis, circularity, aspect ratio....

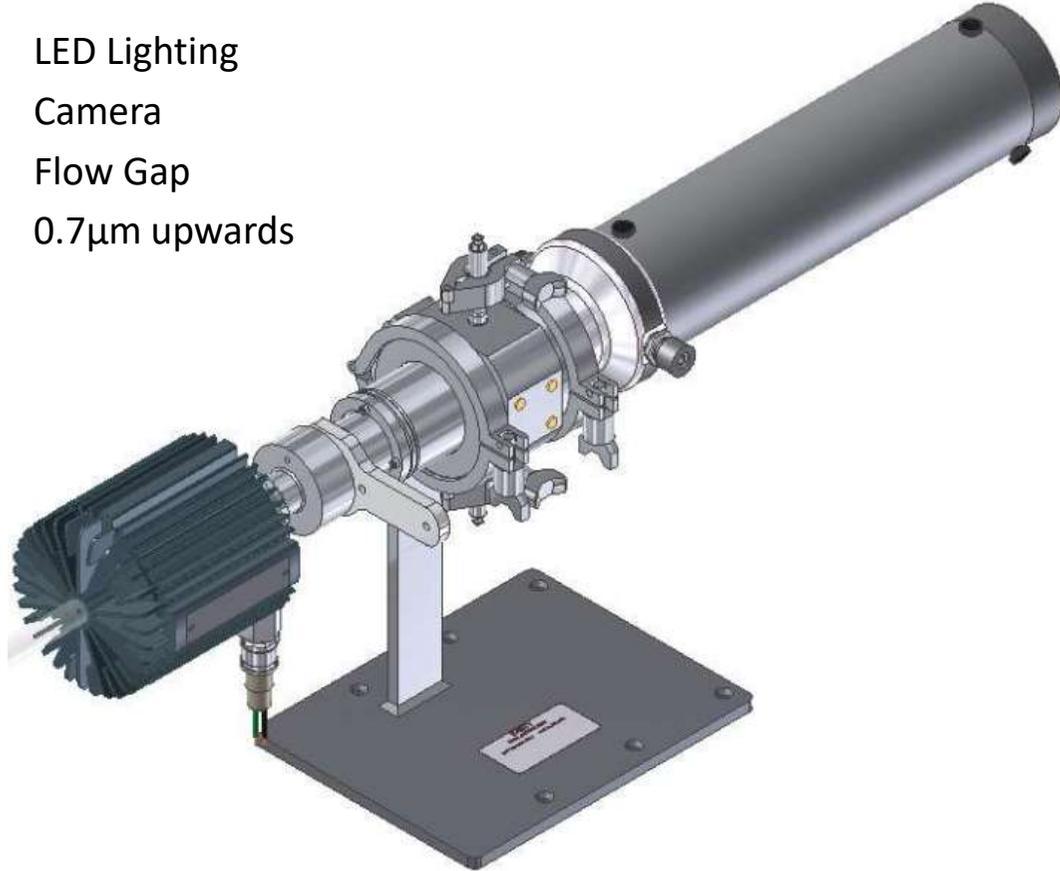
Systems available for Liquids Slurries and Dry Solids



## II. Solutions for Measurement & Automation Applications

### 9. CANTY Vision Based Particle Size Analysis – Offline / Lab System

- LED Lighting
- Camera
- Flow Gap
- 0.7 $\mu\text{m}$  upwards



HUYNH BANG



## II. Solutions for Measurement & Automation Applications

### 9. CANTY Vision Based Particle Size Analysis for Liquid Slurry Particle Size and Shape - Inline System

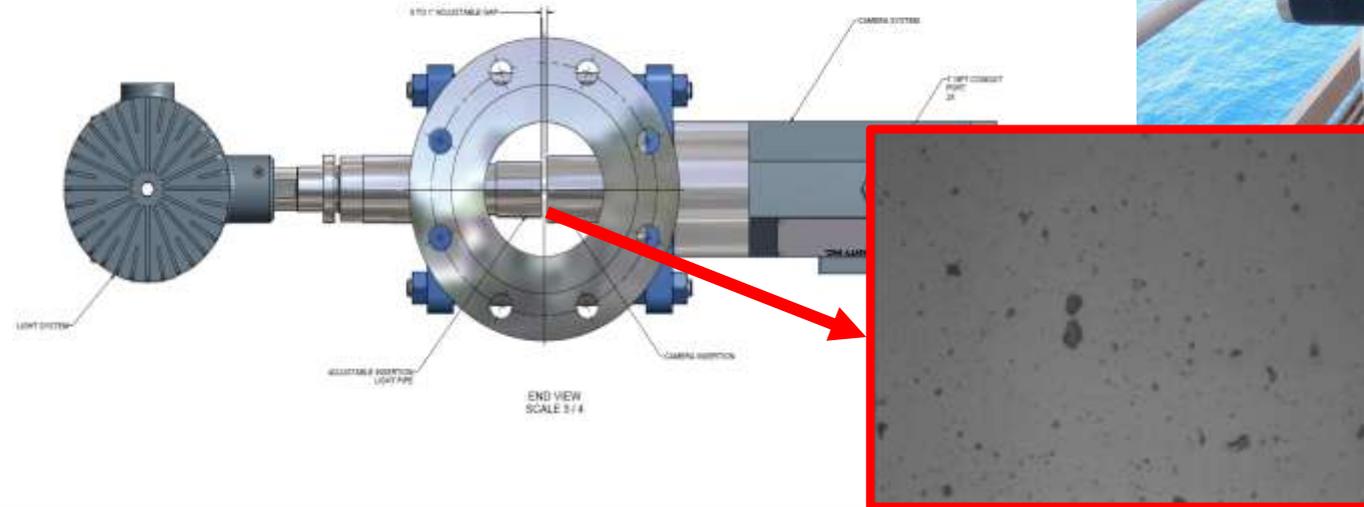
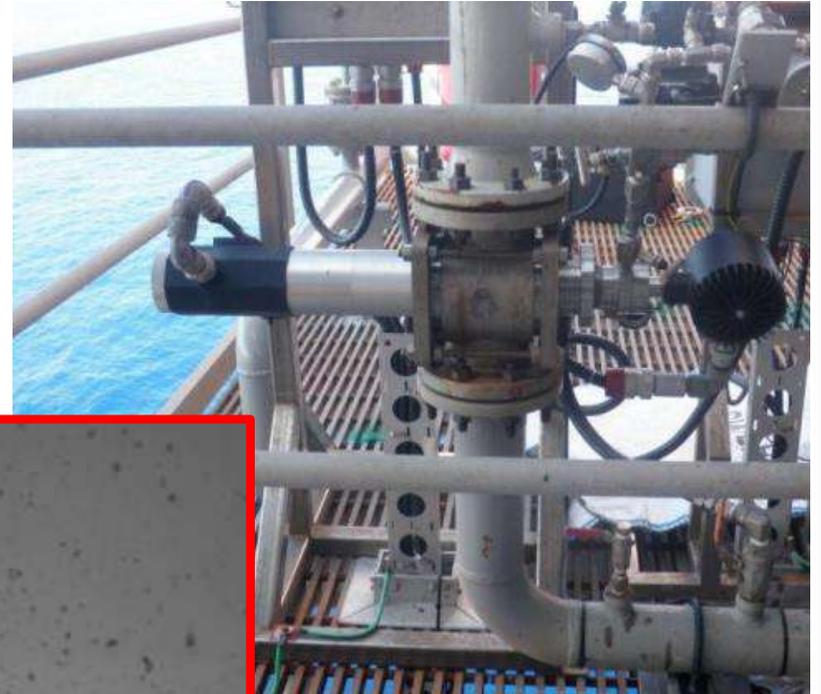


HUYNH BANG

COMPANY

Inflow Inline System - Mounts directly in pipeline as a spool piece and fluids flows through it

- LED Lighting
- Camera
- Flow Gap
- 0.7 $\mu$ m Upwards



## II. Solutions for Measurement & Automation Applications

### 9. CANTY Solid Sizer LAB



**HUYNH BANG**

COMPANY

Video –  
Solid sizer in LAB



## II. Solutions for Measurement & Automation Applications



HUYNH BANG

### 9. CANTY Solid Sizer LAB

Video –Solid sizer in LAB



# II. Solutions for Measurement & Automation Applications

## 9. CANTY Particle Sizing Systems



HUYNH BANG

The screenshot displays the CANTY software interface for particle analysis. On the left is a camera view showing a grid of particles. The top right contains two histograms: 'Particle Volume Distribution 1' (blue bars) and 'Particle Population Distribution 2' (red bars). The bottom right features a detailed data table with the following columns: MEAN, MAX, MIN, MEDIAN, MODE, and STDEV. The bottom of the interface shows summary statistics: Total Count: 364, Total Area: 10326.3, Total Volume: 39121, PPM: 20.9818, and PPM: 4769.8.

	MEAN	MAX	MIN	MEDIAN	MODE	STDEV
MINOR DIAMETER	5.076	16.400	1.560	3.770	NaN	3.341
MAJOR DIAMETER	6.536	37.960	1.560	4.940	NaN	5.971
ASPECT RATIO	1.296	3.625	1.000	1.321	NaN	0.325
BOUNDING RECT WIDTH	3.863	16.400	1.560	4.420	NaN	4.319
BOUNDING RECT HEIGHT	5.952	37.960	1.560	4.420	NaN	4.882
BOUNDING RECT DIAGONAL	8.520	51.477	2.206	6.547	NaN	6.570
PERIMETER	19.849	115.347	5.195	14.581	NaN	15.959
CONVEX HULL PERIMETER	16.314	114.300	3.120	12.014	NaN	13.852
HOLEY PERIMETER	NaN	0.000	0.000	NaN	NaN	NaN
MAX FERET DIAMETER	7.396	36.247	2.206	5.719	NaN	5.291
EQUIVALENT ELLIPSE MAJOR AXIS	7.830	45.748	1.708	5.520	NaN	6.816
EQUIVALENT ELLIPSE MINOR AXIS	4.000	34.432	1.393	5.185	NaN	2.720
EQUIVALENT ELLIPSE MAJOR AXIS (FERET)	4.651	16.645	1.404	3.554	NaN	3.497
EQUIVALENT RECT LONG SIDE	5.982	42.749	1.299	3.754	NaN	6.098
EQUIVALENT RECT SHORT SIDE	3.943	28.857	1.299	3.884	NaN	2.317
EQUIVALENT RECT DIAGONAL	7.412	43.374	1.837	5.177	NaN	6.488
EQUIVALENT RECT SHORT SIDE (FERET)	5.953	28.783	1.103	2.791	NaN	2.747
AVERAGE HORIZ. SEGMENT LENGTH	2.946	15.015	0.811	1.982	NaN	1.533
AVERAGE VERT. SEGMENT LENGTH	3.185	15.015	0.811	1.488	NaN	1.575
HYDRAULIC RADIUS	1.211	0.112	0.446	0.859	NaN	0.830
WADDELL DISK DIAMETER	5.461	36.582	1.760	4.240	NaN	3.876
AREA	35.147	3551.945	2.634	14.126	NaN	66.418
HOLEY AREA	NaN	0.000	0.000	NaN	NaN	NaN

## II. Solutions for Measurement & Automation Applications

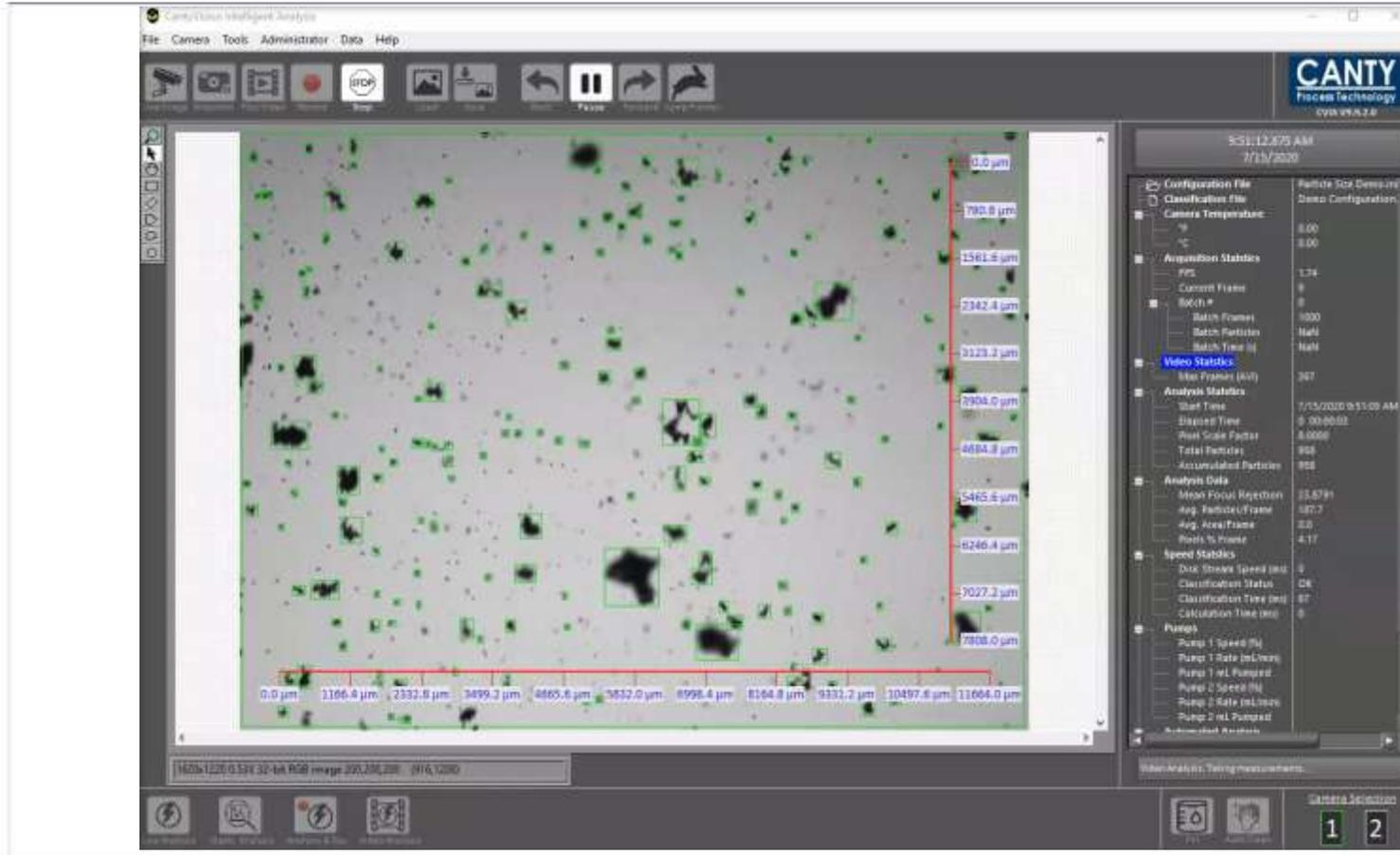
### 9. CANTY Particle Sizing Systems



HUYNH BANG

COMPANY

Video –  
Particle Sizing Systems  
on CANTY Vision software



# II. Solutions for Measurement & Automation Applications

## 9. CANTY Particle Sizing Systems



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The screenshot displays the CarryVision Intelligent Analysis software interface. The main window shows a particle image with various measurement tools and a summary data panel on the right. The summary data panel includes two graphs: Particle Population Distribution 1 (yellow bars) and Particle Volumetric Distribution 2 (pink bars). Below the graphs is a detailed data table with columns for parameters, Mean, Max, Min, Median, and various Dv values.

	MEAN	MAX	MIN	MEDIAN		
MAJOR DIAMETER	167.906	2120.000	56.000	120.000	Dv05	176.000
ASPECT RATIO	1.296	3.573	1.000	1.219	Dv10	240.000
BOUNDING RECT WIDTH	145.966	2120.000	32.000	104.000	Dv20	368.000
BOUNDING RECT HEIGHT	153.713	2024.000	32.000	112.000	Dv30	528.000
BOUNDING RECT DIAGONAL	214.581	2907.975	73.756	152.840	Dv40	688.000
PERIMETER	500.928	8137.189	163.038	348.188	Dv50	816.000
CONVEX HULL PERIMETER	437.432	6290.222	93.295	303.528	Dv60	1040.000
HOLES' PERIMETER	NaN	0.000	0.000	NaN	Dv70	1312.000
MAX FERET DIAMETER	186.538	2334.988	64.498	134.104	Dv80	1464.000
EQUIVALENT ELLIPSE MAJOR AXIS	201.349	3593.860	53.042	136.538	Dv90	1636.000
EQUIVALENT ELLIPSE MINOR AXIS	97.199	1071.355	54.461	76.271	Dv96	2024.000
EQUIVALENT ELLIPSE MINOR AXIS (FERET)	117.022	1537.602	36.628	86.647	Dv100	2024.000
EQUIVALENT RECT LONG SIDE	151.028	3496.721	40.760	91.715	Dn05	48.000
EQUIVALENT RECT SHORT SIDE	99.436	1201.344	29.418	77.648	Dn10	56.000
EQUIVALENT RECT DIAGONAL	185.458	3548.176	57.643	124.528	Dn20	56.000
EQUIVALENT RECT SHORT SIDE (FERET)	91.909	1207.630	28.768	68.052	Dn30	72.000
AVERAGE HORIZ. SEGMENT LENGTH	770.668	10430.182	221.091	593.920	Dn40	80.000
AVERAGE VERT. SEGMENT LENGTH	825.137	8967.477	230.400	649.343	Dn50	96.000
HYDRAULIC RADIUS	30.166	342.838	11.376	23.224	Dn60	112.000
					Dn70	136.000

Summary Data: Particle Class: SOLIDS, Graph 1: Population Distribution, Graph 2: Volumetric Distribution

Total Count: 3503, Total Area: 3.19600E+7, Total Volume: 4.62305E+11, PPM: 5.00603E+6, PPMI: 174.305

# III. Contribute to the Success of our Customers

Typical Customers from wide variety of Industries. HBC has more than one way to approach Customers. **HUYNH BANG**

<ul style="list-style-type: none"> <li><b>Agriculture</b> <ul style="list-style-type: none"> <li>DAWU</li> <li>mimosaTEK</li> <li>Rynan</li> <li>Tây Ninh Tapioca</li> <li>Vietnam Tapioca</li> </ul> </li> <li><b>Boiler Industry</b> <ul style="list-style-type: none"> <li>Hong Nhut</li> <li>IMECO Boiler</li> <li>Martech Boiler</li> <li>Vietnam Boiler</li> </ul> </li> <li><b>Breweries</b> <ul style="list-style-type: none"> <li>Carlsberg</li> <li>HABECO</li> <li>Heineken</li> <li>SABECO</li> <li>Vietnam Brewery</li> </ul> </li> <li><b>Car Manufacturing</b> <ul style="list-style-type: none"> <li>Ford</li> <li>Mercedes-Benz</li> <li>Thaco</li> <li>Toyota</li> <li>VinFast</li> </ul> </li> <li><b>Ceramic Industry</b> <ul style="list-style-type: none"> <li>Caesar Sanitary Wares</li> <li>Frit hue</li> <li>Minh Long I</li> <li>TOTO Vietnam</li> </ul> </li> <li><b>Cement Industry</b> <ul style="list-style-type: none"> <li>Insee (Siam City Cement)</li> <li>Duyen Ha Cement</li> <li>Ha Tien 1</li> <li>Nghi Son Cement</li> <li>Saint Gobain</li> <li>Song Thao Cement</li> </ul> </li> <li><b>Chemical Industry</b> <ul style="list-style-type: none"> <li>Ba Con Co</li> <li>Ca Mau Fertilizer</li> <li>Dow</li> <li>Henkel</li> <li>LG Vina Chemical</li> <li>Phu My Fertilizer</li> <li>Procter &amp; Gamble</li> <li>Southern Basic Chemical</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>Electronics &amp; Semiconductor</b> <ul style="list-style-type: none"> <li>First Solar</li> <li>Hydra</li> <li>Samsung</li> <li>SEI Electronic Components</li> </ul> </li> <li><b>Food &amp; Beverage</b> <ul style="list-style-type: none"> <li>Ajinomoto</li> <li>Andros</li> <li>Dalatmilk</li> <li>Café Outspan</li> <li>Coca Cola</li> <li>C.P. Cooperation</li> <li>Friesland Campina</li> <li>iLD Coffee</li> <li>Nestle</li> <li>Orion</li> <li>Pepsi</li> <li>Perfetti van Melle</li> <li>Phuong Vy</li> <li>Tata Coffee</li> <li>TH Milk</li> <li>THP Group</li> <li>Trung Nguyen Coffee</li> <li>URC</li> <li>Vedan</li> <li>Vinamilk</li> <li>Vissan</li> </ul> </li> <li><b>Industrial Wood</b> <ul style="list-style-type: none"> <li>May Forestry</li> <li>MDF Quang Tri</li> <li>Scancom</li> <li>Vina Eco Board</li> <li>VRG Dongwah MDF</li> </ul> </li> <li><b>Oil &amp; Gas</b> <ul style="list-style-type: none"> <li>Linde Gas</li> <li>Long Son Petrochemicals</li> <li>Nghi Son Refinery and Petrochemical</li> <li>Petro Vietnam</li> <li>Premier Oil</li> <li>Total</li> <li>Rosneft</li> <li>Puma Energy</li> <li>Saigon Petro</li> <li>VietsovPetro</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>Paper, Packaging &amp; Printing</b> <ul style="list-style-type: none"> <li>An Hoa Paper</li> <li>Cheng Loong</li> <li>Crown Packaging</li> <li>SCG Paper / Vina Kraft Paper</li> <li>Vidon</li> <li>Wattens Delfort Group</li> </ul> </li> <li><b>Pharmaceutical</b> <ul style="list-style-type: none"> <li>B. Braun</li> <li>PYMEPHARCO</li> <li>Tien Tuan Pharmaceutical Machinery</li> <li>Suheung</li> <li>Nanogen</li> <li>Nipro Pharma</li> </ul> </li> <li><b>Power Plants</b> <ul style="list-style-type: none"> <li>Phu My 3 Power Plant</li> <li>Nhiệt điện Phả Lại</li> <li>Nhiệt điện Quảng Ninh</li> </ul> </li> <li><b>Steel Industry</b> <ul style="list-style-type: none"> <li>Formosa Ha Tinh</li> <li>Hoa Phat Steel</li> <li>Posco</li> <li>Ton Dong A</li> <li>TVP Steel</li> </ul> </li> <li><b>Shipbuilding &amp; Marine</b> <ul style="list-style-type: none"> <li>Austal</li> <li>HADUCO</li> <li>Kristian Gehrhard Jepsen</li> <li>PV Shipyard</li> <li>Triyards</li> </ul> </li> <li><b>Textile &amp; Garment</b> <ul style="list-style-type: none"> <li>Concord Textile</li> <li>Formosa Taffeta</li> <li>Hyosung</li> <li>Nien Hsing Textile</li> <li>Polytex Far Eastern</li> </ul> </li> </ul>
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## IV. Conclusion

Huynh Bang is a reliable and competent Partner.



### Huynh Bang is your partner for a Market Entry in Vietnam:

- Product knowledge in the areas of Industrial Heat, Measurement and Automation
- Market knowledge for industrial Equipment for more than 21 years

### Huynh Bang is a reliable and competent Partner:

- Engineering and Management knowledge from Germany
- Commitment to MRO

### Huynh Bang can offer the whole Package:

- Technical consultation on design, sizing, selection and installation
- On-site delivery, logistics and custom clearance procedures
- Customer specific installation and commissioning
- On-site troubleshooting and service
- Spare parts consulting

# Thank you for your attention.

Any questions? Please feel free to contact us.



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## HUYNH BANG

### INDUSTRIAL HEAT

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infrared measurements

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meister

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instruments

**SCHMIDT**  
Technology

**CANTY**  
PROCESS TECHNOLOGY