

● HUNCH AUTOMATION — ENGINEERED IN PAKISTAN

FUSION SYSTEM

BMS · MICRO MODULATION COMBUSTION CONTROL · O₂
TRIM

The most intelligent combustion control system available — delivering guaranteed fuel savings, ultra-fast payback, and total peace of mind.

 GET YOUR ROI ANALYSIS

↓ EXPLORE FEATURES

HUNCH AUTOMATION PRIVATE LIMITED · WWW.HUNCH.COM.PK

15%

FUEL SAVINGS

70%

ELECTRICITY SAVING

2-5

MONTH PAYBACK

10%

PRODUCTION BOOST

24/7

CLOUD MONITORING

THE CHALLENGE

IS YOUR BOILER BURNING MONEY?

Traditional combustion systems waste thousands of dollars every month. Here's what's costing you — right now.



WASTED FUEL

Manual burner control means excess air, poor combustion ratios, and up to 15% fuel burned for nothing.



SKY-HIGH ELECTRICITY BILLS

FD fans running at 100% when you need 50% — that's pure waste. Your motor bill can be cut by 70%.



UNSTABLE STEAM

Pressure swings disrupt production, damage equipment, and hurt product quality across your plant.



ZERO VISIBILITY

No data, no trends, no alarm history — you're flying blind with no way to diagnose or optimize.

MAINTENANCE

NIGHTMARES

Startup failures, flame trips, and water level incidents caused by poor sequence control and safety management.

ENVIRONMENTAL RISK

Excess CO₂ and NO_x emissions put you at regulatory risk and harm your corporate sustainability targets.

↓ THE SOLUTION ↓

THE FUSION ANSWER

ONE SYSTEM. TOTAL CONTROL.

FUSION replaces uncertainty with precision — monitoring every variable, optimizing every combustion step, and delivering guaranteed results from day one.

FUSION LIVE DASHBOARD

23/08 · 16:46:30

STEAM

PRESSURE PV

99 PSI

PRESSURE SV

100 PSI

STEAM FLOW

7,200 KG/H

O₂ % 3.6 %

STACK TEMP 144 °C

CO₂ % 4.5 %

COMBUSTION RATIOS

AIR % 81

GAS % 54

OUTPUT % 90

BURNER RUN ►

MODE AUTO

RUN

ALARM LOG

DATA LOG

TRENDS

**MICRO MODULATION CONTROL**

Up to 8 precision combustion steps automatically adjusted in real time — no operator intervention required. Smooth, stable steam at every load level.

**ZIRCONIA O₂ TRIM SYSTEM**

Industry-proven in-situ oxygen sensor continuously measures flue gas and trims air-fuel ratios to the perfect setpoint — conserving 5–15% extra fuel automatically.

**FULL BURNER MANAGEMENT SYSTEM**

14 safety interlocks, complete startup/purge sequencing, flame monitoring, auto/manual reset — your boiler runs safer than ever.

**CLOUD SCADA & REMOTE ACCESS**

Monitor and control your boiler from anywhere — PC, Android phone, or tablet. Full reporting, alarm history, and trend analysis at your fingertips.



PLUG & PLAY — INSTALLED IN DAYS

Field instrument installation in 2–3 days. Commissioning and handover in 1–2 days. No special training required. Works with any gas/oil burner.

GUARANTEED SAVINGS

PROVEN ENERGY CONSERVATION

These aren't projections — they're guaranteed minimums verified across hundreds of installations.



5–15%

FUEL ENERGY SAVED

Guaranteed 5% · Typically 7%+ on tuned burners · Up to 12% on untuned



25-70%

FD FAN ELECTRICITY SAVED

Guaranteed 25% · Typically 40% on new motors · Up to 60-70% on old motors



20-50%

FEED WATER PUMP POWER

Guaranteed 20% · Typically 30% on new pumps · Up to 50% on old motors

— RETURN ON INVESTMENT

YOUR MONEY BACK IN MONTHS

For a 10 TPH steam boiler, FUSION delivers thousands in savings every single month — paying for itself faster than any other automation investment you'll ever make.

D1

DAY 1-3: INSTALLATION

Field instruments, electrical cabling, and fittings completed with zero production downtime.

D4

DAY 4-5: COMMISSIONING

System tuning, load testing, operator handover. Savings begin immediately on day one of operation.

M2

MONTH 2: FULL PAYBACK*

At 75% average load, the entire system cost is recovered within 2 months through fuel and electricity savings.

∞

ONGOING: PURE PROFIT

Every month after payback is guaranteed savings – year after year, for the life of your boiler.

- ✓ Up to \$5,400/month fuel savings (10 TPH case)
- ✓ Up to \$450/month electricity savings
- ✓ 10% improvement in production throughput
- ✓ Reduced maintenance and unplanned shutdowns

2-5

MONTH PAYBACK

At **50% average load**, payback is within 3-5 months.

At **75% average load**, payback is within **2 months**.

No other automation investment on the market returns capital this fast.

MONTHLY FUEL SAVING

\$5,400

MONTHLY ELEC. SAVING

\$450

COMBINED MONTHLY

\$5,850

*Based on 10 TPH steam boiler case study at 70% load



"FUSION is not just an automation system — it's a **profit machine**. Guaranteed fuel savings, rock-solid safety, and complete visibility over your combustion operation.
Every boiler deserves FUSION."

— HUNCH AUTOMATION ENGINEERING TEAM · LAHORE, PAKISTAN

FULL FEATURE SET

EVERYTHING YOU NEED. **NOTHING** EXTRA.

A complete, pre-engineered package. No hidden costs, no extra modules, no complexity.



MICRO MODULATION

Up to 8-step precision combustion control curves, customizable per site and load demand.



O₂ TRIM SYSTEM

In-situ zirconia probe with auto-purging and self-heating — the most reliable O₂ technology available.



BURNER MANAGEMENT

14 safety interlocks, purge sequence, pilot/main flame control, LFH mode, auto/manual reset.



WATER LEVEL CONTROL

PID-controlled dual-pump feedwater system with VFD integration. Superior steam dryness guaranteed.



DUAL FUEL CONTROL

Seamless gas and HFO oil switching, oil temperature control, VFD-driven oil pump — no oil control valve needed.



FLOW METERING

Steam, water, gas, and oil flow metering with totalizers, compensation, and square-root extraction built in.



GRAPHS & TRENDS

Real-time and historical trending of all critical parameters with time-stamped data logging to USB.



ALARM HISTORY

Complete time-stamped alarm log with acknowledgment – diagnose trips instantly, reduce downtime to zero.



CLOUD SCADA

PC (Windows) and Android smartphone/tablet remote monitoring and control – from anywhere in the world.



WI-FI ENABLED

Wireless remote access built in. No additional infrastructure or networking expertise required.



COLOR TFT HMI

7" color touchscreen standard. Upgrade to 10" HMI or 15" Panel PC. Intuitive – no training needed.



PLUG & PLAY

Pre-wired, powder-coated panel delivered ready to connect. Commissioned and running in under 5 days.

APPLICATIONS

ADAPTS TO ANY SYSTEM

FUSION is engineered to integrate with virtually any industrial combustion system – without modification.



OIL/GAS FIRED BURNERS



STEAM GENERATORS



FIRE TUBE BOILERS



WATER TUBE BOILERS



THERMAL OIL HEATERS



ABSORPTION CHILLERS



COAL FIRED BOILERS



MULTI-FUEL BOILERS



KILNS & FURNACES



DUCT BURNERS

WHAT YOU RECEIVE

COMPLETE PACKAGE. ZERO GAPS.

Every component engineered, selected, and pre-tested by HUNCH — delivered as one complete system.



CONTROL & DISPLAY PANEL

- › High speed, high density PLC
- › Color 7" TFT touch screen HMI



FIELD INSTRUMENTS

- › Stack & feed water temperature sensors
- › Steam pressure transmitter

- › Digital & Analog I/O modules
- › 24V DC power supply
- › Isolating & flame relays
- › VFD for FD Fan & feed water pump
- › Power & control breakers

- › Water level transmitter
- › UV flame sensor
- › O₂ zirconia probe with heater
- › Air purge fittings for probe self-cleaning
- › Modulation motor for gas/oil valve



OPTIONAL UPGRADES

- › 10" or 15" Panel PC HMI upgrade
- › High-density PLC up to 256 I/O
- › Cloud SCADA remote monitoring
- › Dual fuel (gas + HFO oil) system
- › Exceptional PID control module
- › TCP/IP networking (vs RS485)
- › 14-bit resolution ADC upgrade

— READY TO ACT?

**STOP BURNING
MONEY. START
SAVING TODAY.**

Every day without FUSION is money lost. Contact our engineering team now for a free ROI analysis tailored to your boiler and fuel consumption.



REQUEST FREE ROI ANALYSIS



CALL US NOW

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