

STEAMWISE

A quarterly publication by IDEKO, THE INDUSTRIAL ENGINEERING COMPANY

Issue 5 - Beirut, Jan. '2001

FULL STEAM AHEAD!

EDITORIAL

In this issue # 5, the first one in this year (and century), we have followed our traditional format for our Newsletter, but with a comfortable blend of both Technical and Commercial topics.

A purely Technical Newsletter will be "too dry" to read and that defeats our aim and purpose with our Customers, while a purely Sales Newsletter will be similar to trillion others, all carrying the regular "Sales Pitch", and lacking the impact that we are anticipating with our Readers. We look forward to the comments of our Readers to gauge our success in this endeavour.

We will be introducing a new section in future issues, dealing with specific topics and highlighting the present trends in the relevant industry.

*Elie Eid, (Eng.)
President*

OUR CHOSEN SUPPLIER: FIREYE Inc.

Our relationship with FIREYE goes back to 1977, when Eng. Elie Eid visited the Fireye premises then under the heading of E.C.A. (Electronics Corporation of America), in Cambridge, Massachusetts. Further, Eng. Eid attended FIREYE Training School in 1978, an intensive 3-day school covering FIREYE Controls. Hence, our relationship goes a long time back and Ideko has been agent for FIREYE on and off, since that period, when the Middle-East area was handled from the FIREYE U.S. Office and later from the Brussels Office. The Company belongs presently to the KIDDE INTERNATIONAL Group, with a Main Office in London and the M-E Regional Office in Dubai.



implemented to allow replacing either / or of the following components: Programmer, Amplifier, Controller and Display, a noteworthy improvement on the earlier models.

This particular Control is worthy of interest because of its continuous self-checking, non-volatile memory, sequencing, monitoring and annunciating features with simple messaging on the Display for status, faults and Alarm conditions in plain English.

From a purely Maintenance point of view, this new generation of Controls by FIREYE has been of great help to Boiler Technicians and Maintenance Engineers, since it pin-pointed the problem location, and saved valuable time in Control loops tracing and troubleshooting.

Needless to say, with the hundreds of Boilers equipped with FIREYE and operating in the M-E, we have reliable, practical, upgradable and flexible Burner Control units giving complete satisfaction to our Customers.

Finally and with the advent of the "linkageless" Technology, FIREYE has recently introduced the NEXUS, a comprehensive Flame Safeguard Relay and Burner Control System. See elsewhere in this issue a detailed description of the NEXUS system.

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The first

name in flame
fireye
monitoring and

combustion control



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THE ASME BOILER CODE (Cnt'd) - ORIGIN

Formulation , Implementation and Enhancement.

The third part of this article deals with the various organizations directly involved with the Boiler Code, their aims and activities.

a)Formulation - Boiler and Pressure Vessel ASME Committee.

This is the major organization involved in the formulation and up-grading of all the stipulations of the Code, approved by the Council of the ASME.

b) Implementation - National Board of Boilers and Pressure Vessels Inspectors.

The ASME does not "approve", "certify" or "endorse" any product. This is done by the "National Board" that inspects and certifies products in compliance with the Code by qualified Inspectors.

The Board is a non-profit organization.

The object of the organization is to promote uniform enforcement and uniform approval of Boiler and Pressure Vessel laws and rules, as well as their appurtenances, one standard stamp to be placed on all Boilers and Pressure Vessels constructed in accordance with the requirements of that code.

It will gather and compile data and statistics useful to the members in their enforcement work on such boiler laws and rules,

The Inspectors undergo an exam at the National Board. Only successful candidates are commissioned as Authorized Boiler Inspectors.

c) Enhancement - Uniform Boiler Laws Society.

The Uniform Boiler and Pressure Vessel Laws Society promotes the

adoption of proper and uniform laws and regulations in the various States.

This is a non-political, non-profit association. It was organized for the purpose of securing adoption of



uniform statutes in all states to eliminate contradictory regulations , costly confusion, etc...

The Uniform Boiler and Pressure vessel Laws Society holds that uniformity can best be secured and the interests of the user and the public best protected by placing the formulation and the interpretation of such requirements in the hands of an impartial body such as the ASME Boiler and Pressure vessel Committee.

d)Summary

The ASME Boiler and Pressure vessel Committee formulates what are considered safe rules for the building of Boilers and Pressure vessels. The Uniform Boiler and Pressure Vessel Laws Society promotes the adoption of proper and uniform laws and regulations in the various states. The National Board of Boiler and Pressure Vessel Inspectors, promotes the uniform administration and enforcement of those rules.

York-Shipley, as a Manufacturer of Boilers and unfired Pressure Vessels is a member of the uniform Boiler and Pressure Vessels Laws Society.

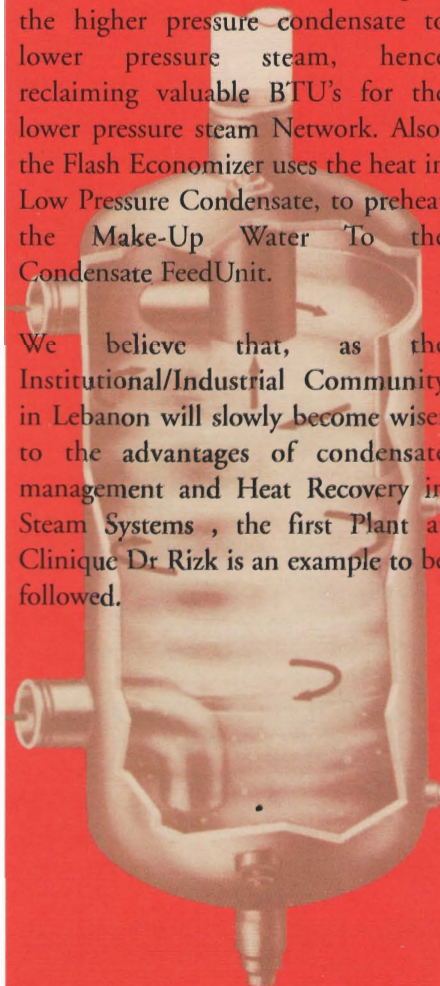


CONDENSATE MANAGEMENT, A de-PENN-dable Solution

Rehabilitation of the Steam Plantroom at Clinique Dr Rizk, Achrafieh, is practically completed. Designed by IDEKO Sarl, the new system incorporates state-of-the-art techniques of Condensate management, flashing and Heat Recovery for a complete Energy Saving Solution.

Supplied by PENN Separator, (U.S.A) the Flash Separator, and Flash Economizer vessels allow flashing of the higher pressure condensate to lower pressure steam, hence reclaiming valuable BTU's for the lower pressure steam Network. Also, the Flash Economizer uses the heat in Low Pressure Condensate, to preheat the Make-Up Water To the Condensate Feed Unit.

We believe that, as the Institutional/Industrial Community in Lebanon will slowly become wiser to the advantages of condensate management and Heat Recovery in Steam Systems , the first Plant at Clinique Dr Rizk is an example to be followed.



NEXUS INTEGRATED BURNER CONTROL SYSTEM

The FIREYE NEXUS integrated controller is a microprocessor based Flame Safeguard and Combustion Controller built into one compact, configurable unit.

As a Flame Safeguard Controller, the NEXUS provides burner sequencing, safe start check, low fire start position, main trial for ignition, main flame supervision, monitoring and post purge. Flame is monitored through scanners and amplification circuits using UV, UV-self check or Infrared detection. Also, ten users defined auxiliary inputs provide supervision of critical parameters.

As a Combustion Controller, the NEXUS has four outputs used to precisely position up to four servo motors used to set optimum fuel air ratio for the Burner along the selected modulation curve. Up to four separate profiles are available, two for each fuel.

Based on the value of a sensed process variable (i.e Steam pressure or Water

temperature), the NEXUS will drive the air and fuel controls simultaneously along the programmed fuel curve to provide the required optimum firing rate. Up to 24

fuel savings.

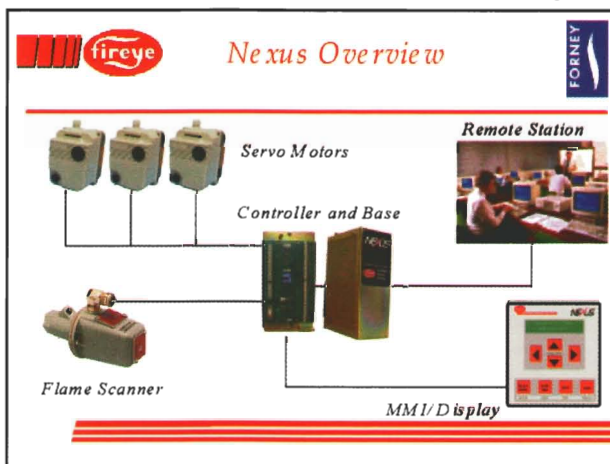
The NX550 Display allows commissioning and access to current status of the system through its tactile membrane keypad. The

multi-function keys provides the commissioning engineer with the ability to browse through the various Ratio Modes, Option Select Menu, and Trim Burner for optimal efficiency.

It further allows the boiler Operator access to the Auto/Manual selector, Motor Data (servo Positions) and other operational parameters such as system sequence position, valve

proving sequence status, gas pressure, Flame signal, Modulation Rate and Setpoint, etc...

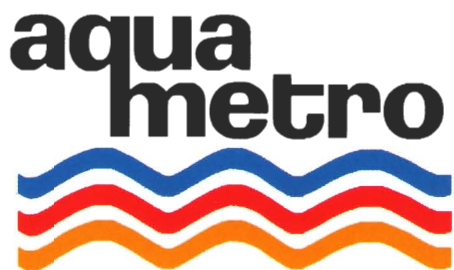
Finally, all information obtained through the local display interface can be accessed remotely via dedicated Windows Software or a PROFIBUS interface.



positions can be programmed to set the curve.

Since air and fuel are controlled by independent servo-motors, maximum efficiency can be obtained throughout the modulation range, providing significant

A COMPLETE LINE OF METERS BY AQUAMETRO



As a complement to IDEKO's Boiler-Burner-Controls line, a long overdue Meters line has been added recently. IDEKO is offering now AQUAMETRO products, a complete line of Water and Oil meters, BTU Meters, Totalizers and Flow Measurement Systems.

The accuracy of AQUAMETRO Swiss-made products is a definite solution to Flow Measurement Applications. AQUAMETRO Meters offer Wheel-Type or digital Type reading with pulse output, capable to be interfaced with BMS System via Inductive or Reed

Pulsers, or by MBUS Protocol.

Btu-meter application, includes individual BTU-measurement stations, with Central Totalizers, allowing quick and efficient reporting of Flow and Energy Consumptions.

Please feel free to contact us for your next application in Flow and Heat Energy measurements.



ANNOUNCEMENT

IDEKO is proud to announce that effective Jan.2001, we will have the ability to perform complete

COMBUSTION EMISSIONS TESTING

for Boilers, Generators, Furnaces, Ovens, Incinerators, etc...

These Tests include :

- O₂, CO, NO, SO₂ measurement
- CO₂, NO_x and SO_x calculations
- Draft and Temperature measurement
- Efficiency, Stack Loss, Excess Air readings.

Please call us for a quote for performing these Tests on the combustion equipment at your facility.



MAJOR PROJECTS

Lebanon

The GEFINOR ROTANA HOTEL (Main Contractor : ABCO) has been equipped early this year with a Complete Steam Plantroom and Network to feed the Hotel Laundry, all by our Principals: York-Shipley,



The Gefinor Rotana Hotel, equipped with a 60 HP Y-S Boiler.

IMI Cash Valve and Metalurgica. Two York-Shipley Steam Boilers of 60 HP each, with Auxiliary Equipment have also been supplied as a Primary Heating source at the CROWN PLAZA HOTEL in Hamra (TAJ TOWER Project, Main Contractor : NASSAR TRADING & CONSTRUCTION).

In CLINIQUE DR. RIZK, complete re-design of the Steam Distribution Network with Condensate Management using Flash Steam Recovery techniques, has been designed and implemented.

The BRISTOL Hotel has been supplied with 2 Hot Water Storage Heaters by Precision Boilers L.L.C. These are copper-coated units of 800 G. each, Steam heated.

A new Heat Exchanger by Adamson Global Technologies has been supplied to WARNER-LAMBERT S.A.L., along with Thermoregulators (Steam Control Package and Trim) by Powers Process Controls.

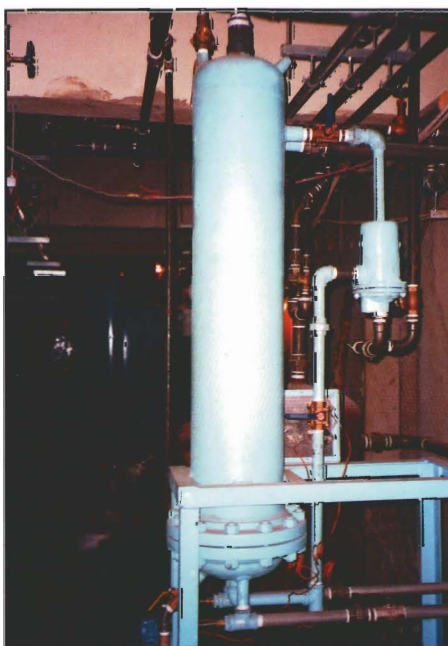
Oman

NATIONAL PHARMACEUTICALS and AL-SEEB CATERING CENTER in Muscat-Oman have been equipped with One Boiler of 150 HP and 2 Boilers of 80 HP, Hi-Pressure Steam, respectively with Auxiliary Plantroom Equipment, all supplied by York-Shipley.

Kuwait

UNITED PAPER INDUSTRIES have been supplied with a 1000 HP Boiler, Hi-Pressure Steam, by York-Shipley, along with Deaerator, Surge Tank, Water Softener, Chemical Feeder, Blo-down Separator, Sample Cooler and Auto Blo-Down System. This is one of the largest operating Firtube Boilers in the Middle-East. The selection and sizing of the whole equipment package was drawn by IDEKO s.a.r.l.

CARPETS INDUSTRY has also been equipped with one York-Shipley Steam Boiler of 300 HP for process, under erection presently.



The PENN Flash Economizer at Clinique Dr. Rizk.

WEBSTER BURNERS

Ideko is pleased to announce its new association with WEBSTER ENGINEERING, Manufacturers of the successful WEBSTER Oil and Gas Burners. We feel that a reliable Burner line is a necessary add-on to our line of representation, in view to offer our patrons a complete solution, in the field of Steam and Hot Water Boilers, Burners and Controls. This is why we have approached Messrs WEBSTER ENGINEERING, and had them join the IDEKO family for the Middle-East.

WEBSTER ENGINEERING offer a great variety of Oil and Gas Burners, constantly developed and redesigned to meet latest safety and efficiency requirements. From the small SpitFire Gas Burner, to the large Register Burners, WEBSTER line is supplied complete, and includes all combinations of Firing sequences, Ignition and Pilot arrangements, etc...

The two latest Innovations, the "never-fail" Purline Ignition System, and the Posi-Control Linkageless Control system are definite proof that with WEBSTER, Burners will constantly be up to your and our expectations.

On behalf of all Consultants, Customers, and Boiler-Burner End-Users in the area, we wish to welcome WEBSTER in the Middle-East!

WEBSTER

...FOR WE BELIEVE THAT
CUSTOMER'S SATISFACTION
IS A PRIORITY...
WE HAVE LAUNCHED OUR
COMBINED RESOURCES
FULL STEAM AHEAD!

