

Now In Production

JUNE 2006

New Utrecht High School, Brooklyn, NY

Three (3) Custom new **GREEN** single-zone units with DX cooling, air cooled condensing sections and natural gas heating sections. Total unit EER 10.3

Representative : Martin Sternberg & Associates, P.O BOX 178 , Cross River, NY 105518
Martin Sternberg ; P 914-763-5095 ; F 914-763-6540 ; sternbergassoc@optonline.net

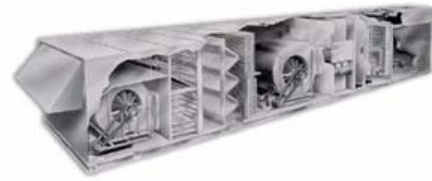
New York City School Construction Authority (**NYCSCA**) engineers have been working with Seasons-4 engineers since 2003. One of the main NYCSCA engineering goals were to comply with the **LEED** requirements for their building HVAC systems.



The cooling sections consist of HCFC- free R-410A refrigerant with three (3) scroll compressors piped to 3 independent intertwined DX coils with 3 hot gas reheat coils.



Some of the features include outside air flow monitoring stations, airfoil SWSI plenum supply and return air blowers, premium efficiency motors and VFDS, tubular type gas burners with SS heat exchangers, and supply and return smoker dampers.



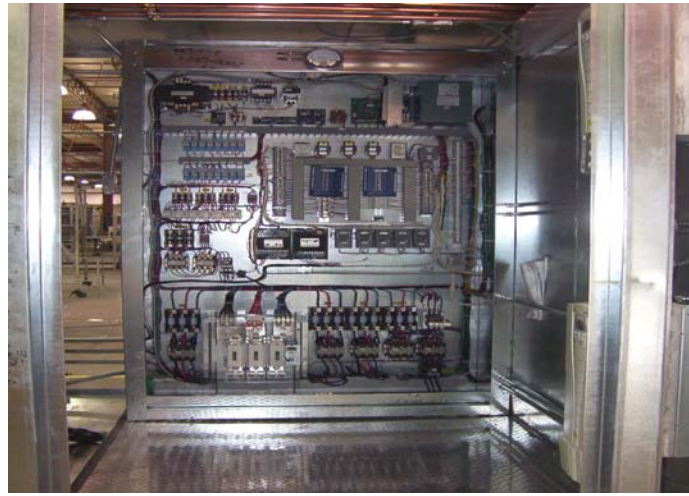
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The units include a state-of-the-art walk-in service vestibule with aluminum tread-plate floor and electric heater. The units are also provided with an **Acoustical Package** which includes, low RPM condenser fans, perforated liners in supply, return and discharge sections, sound louvers on condenser coils, and sound attenuators on condenser fans.



High efficiency filters, DDC controls, and lights are additional features provided. The unit casing is Kynar painted aluminum panels. All units are fully run- tested and shipped to the jobsite.

ENGINEERING SPECIFICATIONS

JOB NAME NEW UTRECHT H. S.
LOCATION BROOKLYN, NY
DATE PREPARED Revised: 06/17/08
SEASONS-4 REFERENCE # 9830-02
UNIT MODEL # 3SJK46-0513-TN6.0-15SE
UNIT DESIGNATION RTU-2
SYSTEM VOLTAGE 208/3/60

DESIGN DATA

TOTAL COOLING CAPACITY (BTUH)	612,260
SENSIBLE CAPACITY (BTUH)	431,580
TOTAL AIRFLOW (CFM)	15,000
OUTDOOR AIR (CFM)	4,600 - 15,000
ESTIMATED REFRIGERANT CHARGE (LBS. R410A)	150

COMPRESSOR SECTION

COMPRESSOR:

TYPE	COPELAND SCROLL
NUMBER/HORSEPOWER	3/15.0
STAGES OF CAPACITY	3

AIR COOLED CONDENSER SECTION

CONDENSER COIL:

COIL FACE AREA/ROWS/FPI	110.0/6/10
DESIGN AMBIENT TEMPERATURE (FDB):	95.0

CONDENSER FANS:

TYPE	PROPELLER
DIA/RPM	30/850
QTY/HP	6/1.0

COOLING COIL SECTION

FACE AREA (SQ-FT)	29.2
ROWS/FPI	8/10
COIL CIRCUITS (NUMBER)	3
TOTAL CAPACITY (BTUH)	612,260
SENSIBLE CAPACITY (BTUH)	431,580
ENTERING AIR TEMP (FDB/FWB)	79.9/66.5
COIL LEAVING AIR TEMP (FDB/FWB)	53.7/52.9
CONDITIONED AIR (CFM)	15,000

HOT GAS REHEAT COIL (AVAILABLE FOR DEHUMIDIFICATION)

FACE AREA (SQ-FT)	22.8
ROWS/FPI	1/6
COIL CIRCUITS (NUMBER)	3
REHEAT CAPACITY (BTUH)	186,464
CONDITIONED AIR (CFM)	15,000

SUPPLY AIR BLOWER SECTION

TYPE	AF SWSI PLENUM
NUMBER/SIZE	1/30"

ENGINEERING SPECIFICATIONS

AIRFLOW (CFM)	15,000
TOTAL STATIC PRESSURE (TSP) IN WC	5.50
EXTERNAL STATIC (ESP) IN WC	2.50
DESIGN FAN SPEED (RPM)	1,461
FAN BHP (INCLUDING DRIVE LOSSES)	18.0
MOTOR HP	20.0
MOTOR DRIVE	ADJUSTABLE SHEAVE

RETURN AIR BLOWER SECTION

TYPE	AF SWSI PLENUM
NUMBER/SIZE	1/27"
AIRFLOW (CFM)	13,900
TOTAL STATIC PRESSURE (TSP) IN WC	1.50
EXTERNAL STATIC (ESP) IN WC	1.00
DESIGN FAN SPEED (RPM)	1,337
FAN BHP (INCLUDING DRIVE LOSSES)	6.5
MOTOR HP	7.5
MOTOR DRIVE	ADJUSTABLE SHEAVE

PRE-FILTER SECTION

TYPE	2" PLEATED
NUMBER/SIZE	9/24x24
TOTAL FACE AREA (SQ-FT)	36.0
FACE VELOCITY (FPM)	417

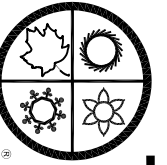
FINAL FILTER SECTION

TYPE	12" CARTRIDGE FILTERS, 90-95% EFFICIENCY
NUMBER/SIZE	9/24x24
TOTAL FACE AREA (SQ-FT)	36.0
FACE VELOCITY (FPM)	417

AUXILIARY GAS HEAT SECTION

TYPE	NATURAL GAS; TUBULAR DUCT FURNACE
INPUT CAPACITY (BTUH)	600,000
OUTPUT CAPACITY (BTUH)	480,000
CONDITIONED AIR (CFM)	15,000
CONDITIONED AIR TR (F)	30
STAGING	MODULATING
GAS CONNECTION SIZE (MPT)	1"
MIN GAS PRESSURE (IN-WC)	7"
MAX GAS PRESSURE (IN-WC)	14"

UNIT WEIGHT (LBS)	17,500
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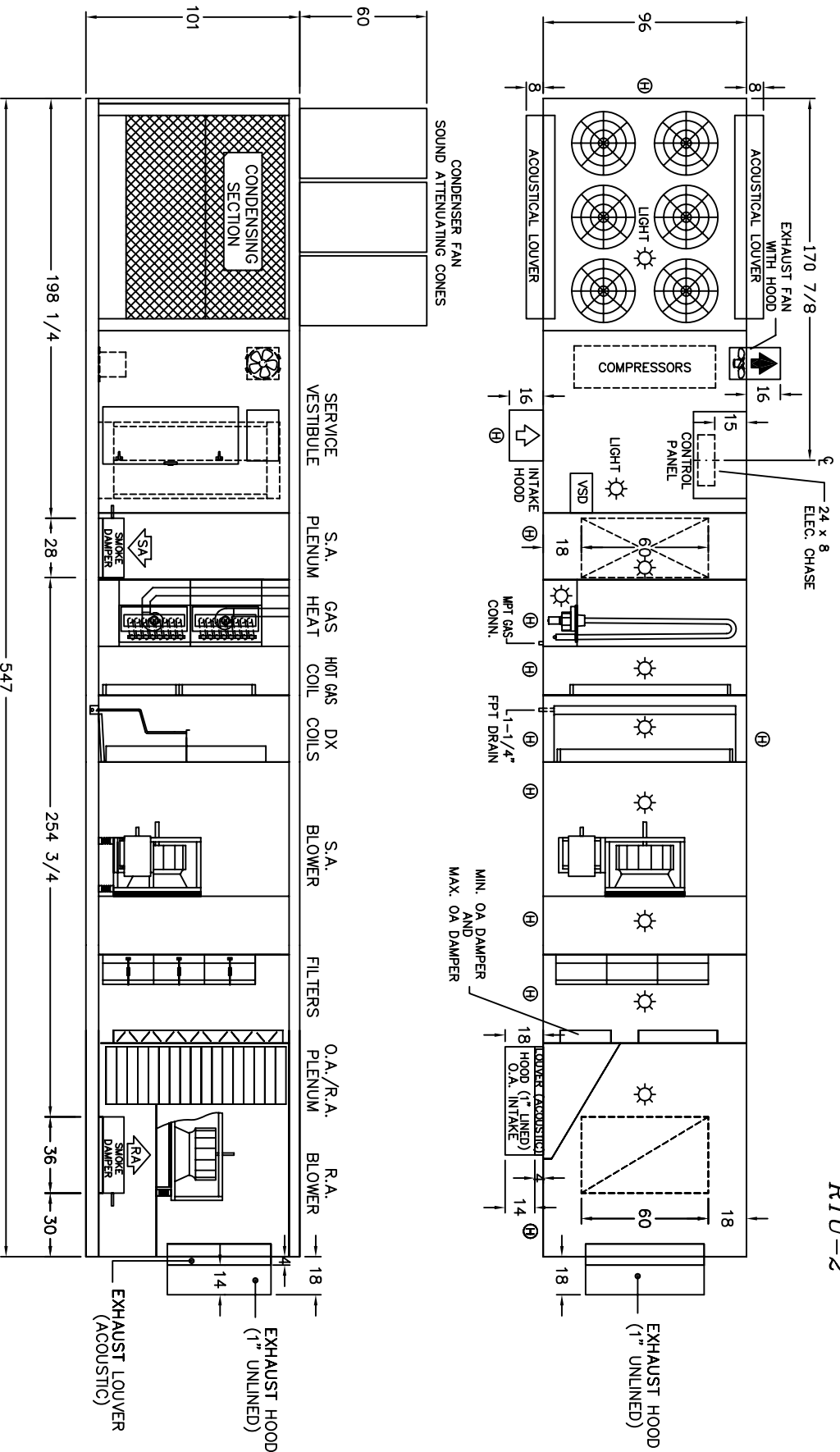


SEASONS 4

ENGINEERING AND MANUFACTURING HVAC EQUIPMENT SINCE 1971

DIMENSIONAL DATA

NEW UTRECHT H. S.
BROOKLYN, NY
RTU-2



- Ⓜ HINGED ACCESS DOOR
- Ⓝ SCREW-ON ACCESS DOOR
- Ⓛ LIFT-OFF ACCESS DOOR

• ACOUSTICAL PACKAGE INCLUDES:
 • PERFORATED METAL (GALVANIZED) LINER IN S.A. & R.A. BLOWER SECTION, SIDE PANELS AND DOORS
 • VINYL JACKETED ACOUSTICAL WRAP FOR EACH COMPRESSOR, CONDENSER FAN SOUND ATTENUATOR
 • CONES, ACOUSTICAL OA & EA LOUVERS, LINED OA HOODS AND UNLINED EA HOODS
 • THE CONDENSER CONES, HOODS AND LOUVERS ARE TO BE FIELD INSTALLED

NOTE: O.A./E.A. LOUVERS/HOODS, FURNACE VENT CAPS, ETC. MAY REQUIRE FIELD INSTALLATION
 4500 INDUSTRIAL ACCESS ROAD • DOUGLASVILLE, GEORGIA 30134-3949 • 770/489-0716 • FAX 770/489-2938

REV. 3: 06/10/2008 SPP
 REV. 2: 04/10/2008 SPP
 REV. 1: 04/03/2008 SPP
 07/09/2007 SPP 9830DD02SP