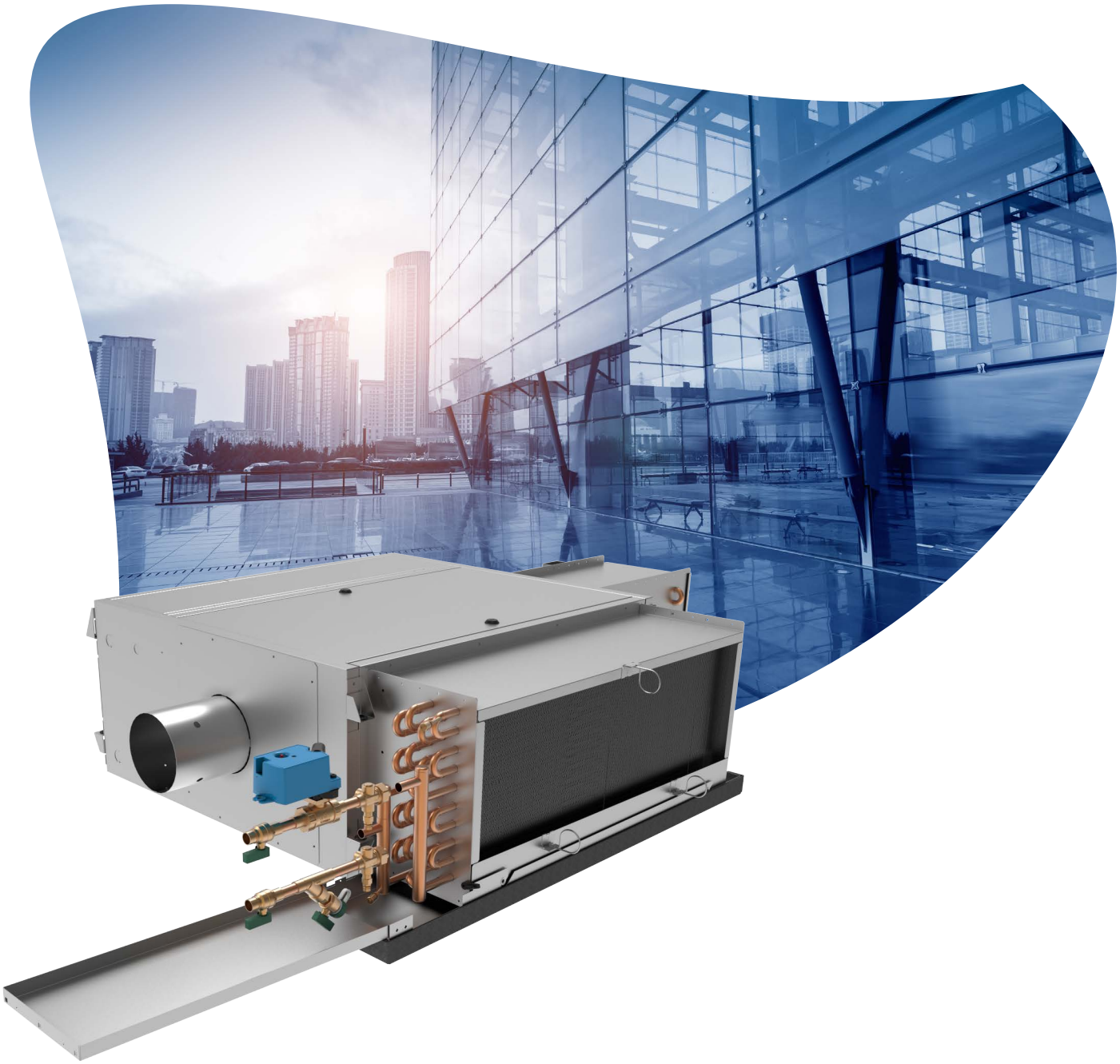
CRC Series Flow Fan-Powered, Sensible Cooling VAV Terminals



ENVIRO-TEC

CRC Fan-Powered, VAV Terminals: Quiet operation, sensible cooling

Owners

CRC terminals are specifically designed for quiet operation. They also offer improved space comfort and flexibility for a wide variety of heating, ventilating, and air-conditioning (HVAC) systems. This is critical in today's buildings where occupants are placing more emphasis on indoor acoustics.

Occupants benefit from a CRC design that minimizes sound levels that typically dominate the space sound level.

Superior flow-measuring allows control at lower minimum cubic-feet-per-minute (CFM) values, which reduces energy costs and sound levels while maintaining comfort in the occupied space.

Designers

Due to heightened interest in indoor air quality, many HVAC system designers are focusing on the effects of particulate contamination within a building's occupied space. Often, HVAC system noise is overlooked as a source of occupied-space contamination.

The CRC terminal is specifically designed to eliminate obtrusive fan noise from reaching the occupants, while providing constant air motion in the space.

The CRC terminal is manufactured and assembled with the FlowStar™ multi-axis, multi-point, center-averaging, airflow sensor. This sensor provides a signal to the controller enabling it to quietly and precisely measure airflow.

CRC terminals can be used in these types of applications:

- Series Fan, Sensible Cooling
- Series Fan, Sensible Cooling, Electric Heat
- Series Fan, Sensible Cooling, Hot Water Reheat

Model CRC-EH offers electric heat and model CRC-WC offers hot-water heat. Both come standard with an Electronically Commutated Motor (ECM) for the ultimate in efficiency.

Model CRC terminals are available with consignment controls (factory mount and wire controls provided by others).

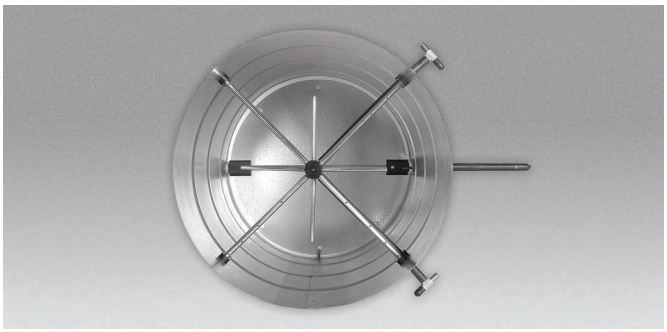
Contractors

All CRC terminals are thoroughly inspected during each step of the manufacturing process, including a comprehensive pre-shipment inspection, to assure the highest quality product available. Each unit is also run-tested, before leaving the factory, to ensure trouble-free start-up.

For the ultimate in installation convenience, CRC terminals come equipped with integrated vibration isolating hanger brackets, for use with all-thread support rods, and are available with optional factory-provided and factory-installed valve packages.

Electronic controls and electrical components are located on the same side of the casing in a flippable enclosure with NEC bottom access, and additional side access for quick adjustment and troubleshooting.

The FlowStar™ sensor ensures accurate airflow measurement,



FlowStar™ multi-axis airflow sensor

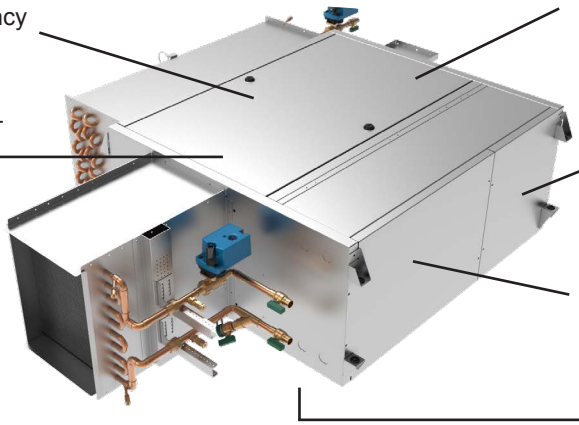
regardless of the installation conditions. A calibration label and wiring diagram are located on the terminal for quick reference during start-up.

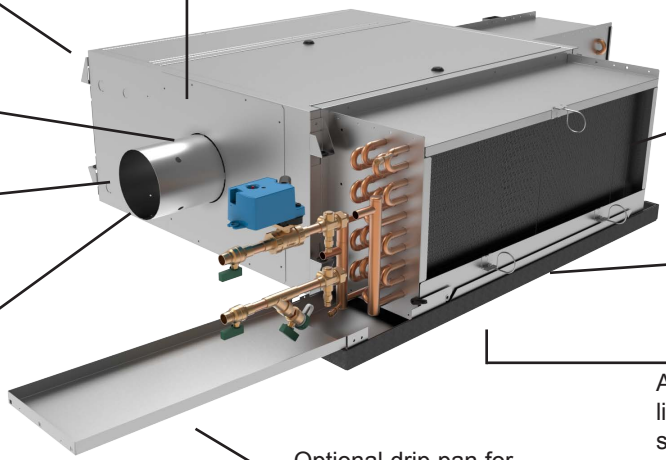
CRC terminals require no periodic maintenance other than optional filter replacement. If component replacement becomes necessary, the unit is designed to minimize field labor.

Top and bottom casing panels are easily removed via durable, low-profile quarter turn latches, providing easy access to the fan assembly, and motor electrical harnesses are easily accessible, allowing for quick motor and blower maintenance.

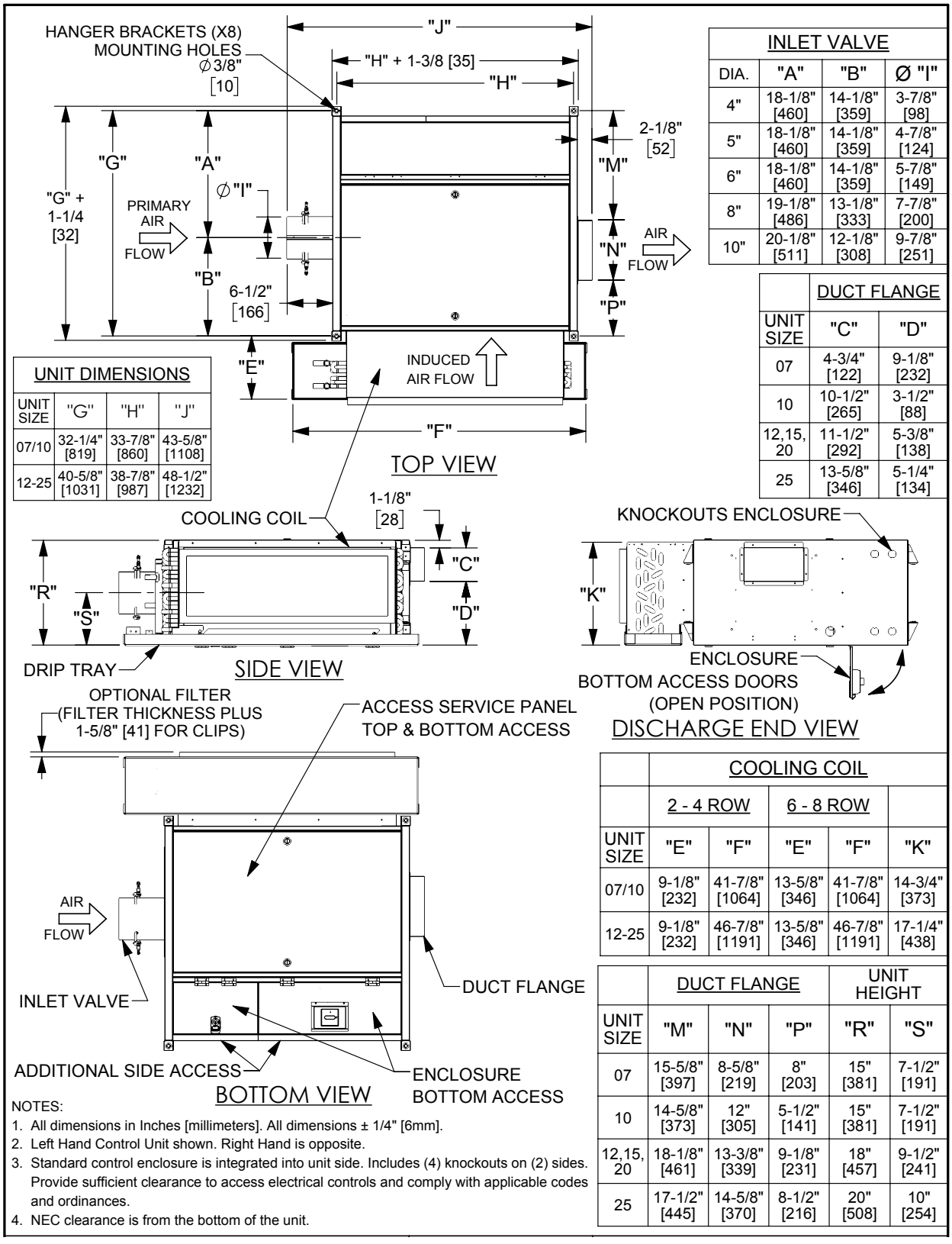
Model CRC Construction Features

The CRC terminal incorporates many unique features. Many of these **standard** features are expensive options for other manufacturers.





Model CRC (Sensible Cooling Coil, Cooling Only)



INLET VALVE			
DIA.	"A"	"B"	Ø "I"
4"	18-1/8" [460]	14-1/8" [359]	3-7/8" [98]
5"	18-1/8" [460]	14-1/8" [359]	4-7/8" [124]
6"	18-1/8" [460]	14-1/8" [359]	5-7/8" [149]
8"	19-1/8" [486]	13-1/8" [333]	7-7/8" [200]
10"	20-1/8" [511]	12-1/8" [308]	9-7/8" [251]

UNIT DIMENSIONS			
UNIT SIZE	"G"	"H"	"J"
07/10	32-1/4" [819]	33-7/8" [860]	43-5/8" [1108]
12-25	40-5/8" [1031]	38-7/8" [987]	48-1/2" [1232]

	DUCT FLANGE	
UNIT SIZE	"C"	"D"
07	4-3/4" [122]	9-1/8" [232]
10	10-1/2" [265]	3-1/2" [88]
12,15, 20	11-1/2" [292]	5-3/8" [138]
25	13-5/8" [346]	5-1/4" [134]

	COOLING COIL				
	2 - 4 ROW		6 - 8 ROW		
UNIT SIZE	"E"	"F"	"E"	"F"	"K"
07/10	9-1/8" [232]	41-7/8" [1064]	13-5/8" [346]	41-7/8" [1064]	14-3/4" [373]
12-25	9-1/8" [232]	46-7/8" [1191]	13-5/8" [346]	46-7/8" [1191]	17-1/4" [438]

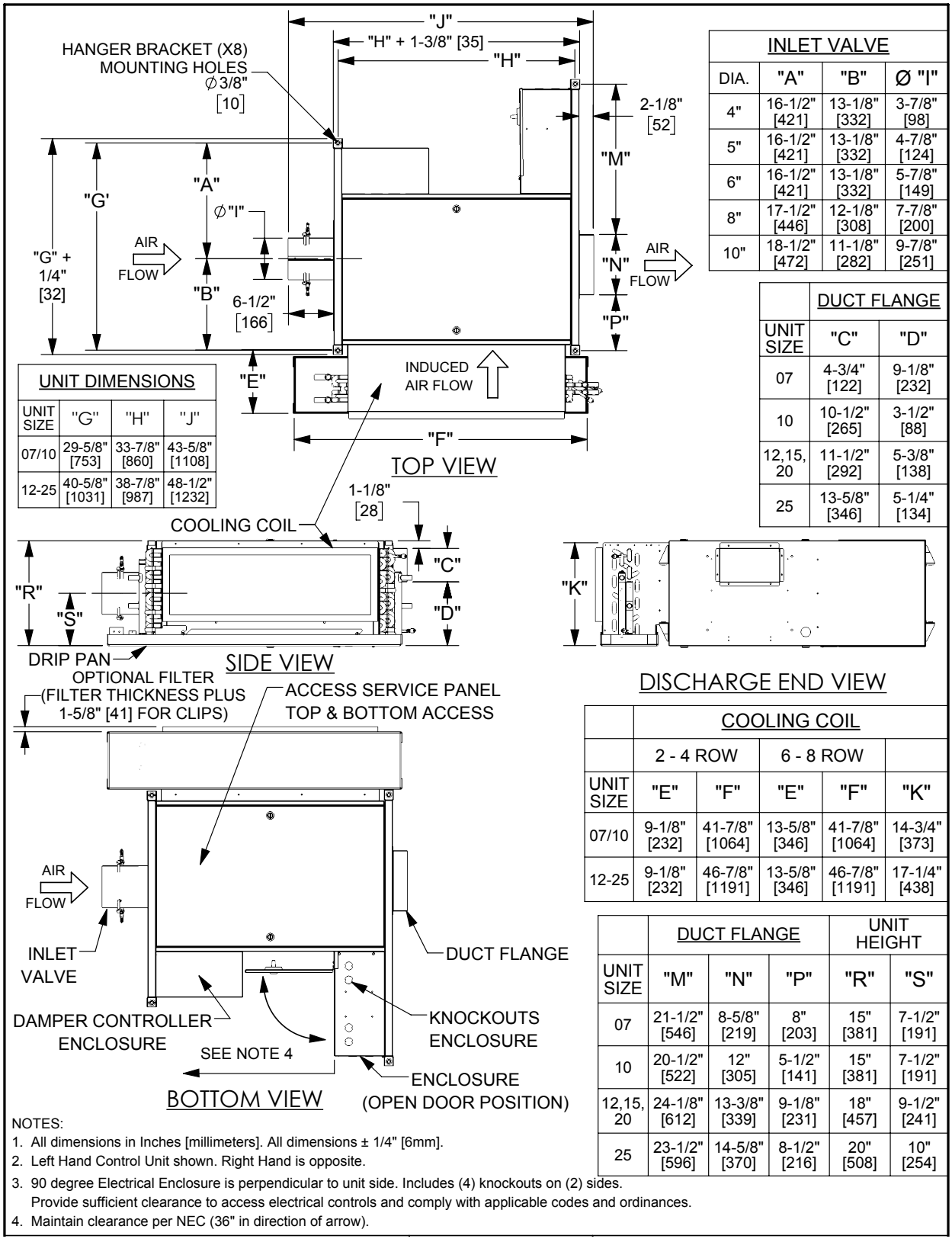
	DUCT FLANGE			UNIT HEIGHT	
UNIT SIZE	"M"	"N"	"P"	"R"	"S"
07	15-5/8" [397]	8-5/8" [219]	8" [203]	15" [381]	7-1/2" [191]
10	14-5/8" [373]	12" [305]	5-1/2" [141]	15" [381]	7-1/2" [191]
12,15, 20	18-1/8" [461]	13-3/8" [339]	9-1/8" [231]	18" [457]	9-1/2" [241]
25	17-1/2" [445]	14-5/8" [370]	8-1/2" [216]	20" [508]	10" [254]

NOTES:
1. All dimensions in Inches [millimeters]. All dimensions ± 1/4" [6mm].
2. Left Hand Control Unit shown. Right Hand is opposite.
3. Standard control enclosure is integrated into unit side. Includes (4) knockouts on (2) sides. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
4. NEC clearance is from the bottom of the unit.

NOTES:
1. All dimensions are in inches [mm] with a tolerance of ±1/8" [3mm].

NOTE: Drawings are not to scale and are not for installation purposes. Refer to www.enviro-tec.com for more information.
All data and dimensions are subject to change without notice.

Model CRC (Sensible Cooling Coil, Cooling Only, 90° Enclosure)



INLET VALVE			
DIA.	"A"	"B"	Ø "I"
4"	16-1/2" [421]	13-1/8" [332]	3-7/8" [98]
5"	16-1/2" [421]	13-1/8" [332]	4-7/8" [124]
6"	16-1/2" [421]	13-1/8" [332]	5-7/8" [149]
8"	17-1/2" [446]	12-1/8" [308]	7-7/8" [200]
10"	18-1/2" [472]	11-1/8" [282]	9-7/8" [251]

UNIT DIMENSIONS			
UNIT SIZE	"G"	"H"	"J"
07/10	29-5/8" [753]	33-7/8" [860]	43-5/8" [1108]
12-25	40-5/8" [1031]	38-7/8" [987]	48-1/2" [1232]

	DUCT FLANGE	
UNIT SIZE	"C"	"D"
07	4-3/4" [122]	9-1/8" [232]
10	10-1/2" [265]	3-1/2" [88]
12,15, 20	11-1/2" [292]	5-3/8" [138]
25	13-5/8" [346]	5-1/4" [134]

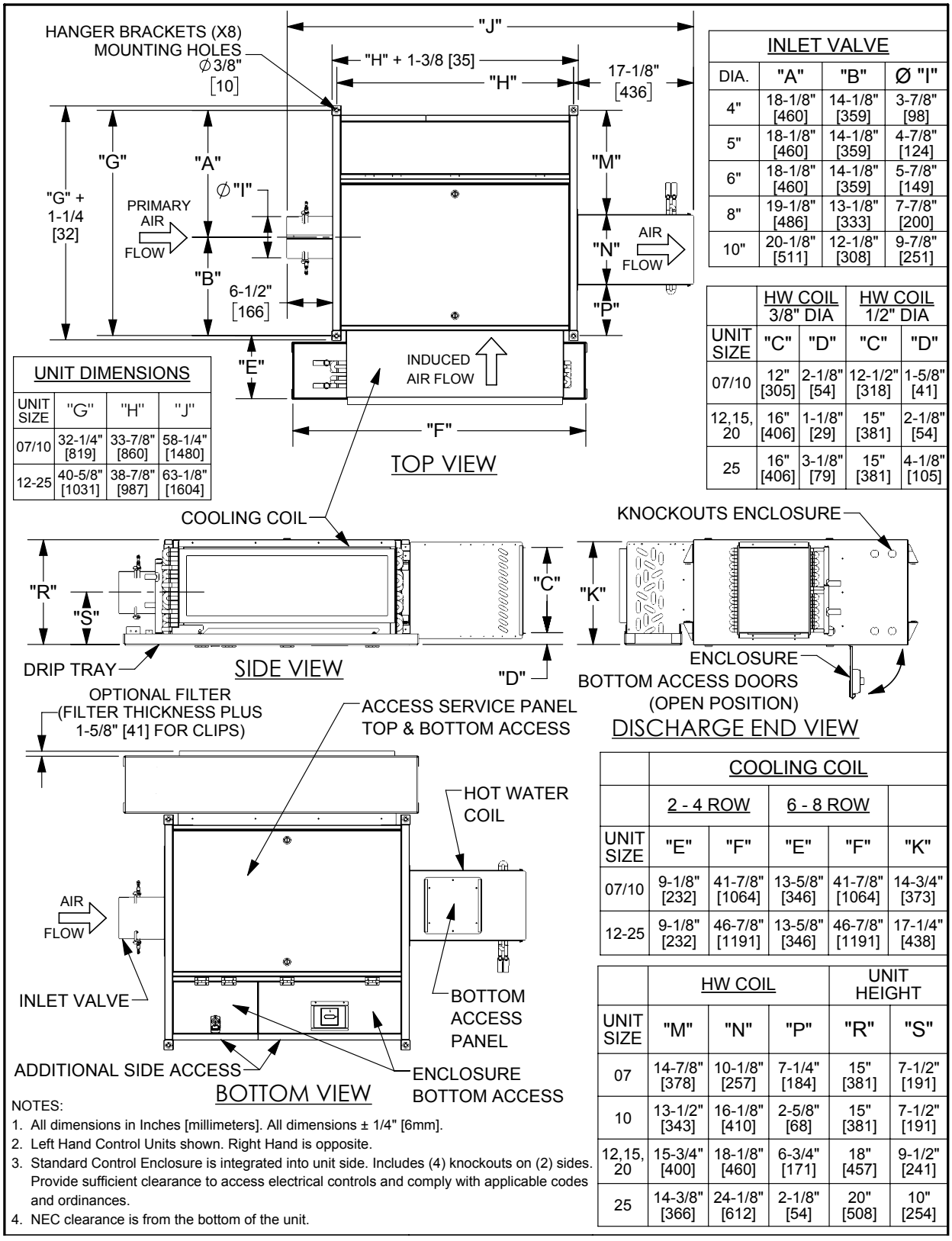
	COOLING COIL				
	2 - 4 ROW		6 - 8 ROW		
UNIT SIZE	"E"	"F"	"E"	"F"	"K"
07/10	9-1/8" [232]	41-7/8" [1064]	13-5/8" [346]	41-7/8" [1064]	14-3/4" [373]
12-25	9-1/8" [232]	46-7/8" [1191]	13-5/8" [346]	46-7/8" [1191]	17-1/4" [438]

	DUCT FLANGE			UNIT HEIGHT	
UNIT SIZE	"M"	"N"	"P"	"R"	"S"
07	21-1/2" [546]	8-5/8" [219]	8" [203]	15" [381]	7-1/2" [191]
10	20-1/2" [522]	12" [305]	5-1/2" [141]	15" [381]	7-1/2" [191]
12,15, 20	24-1/8" [612]	13-3/8" [339]	9-1/8" [231]	18" [457]	9-1/2" [241]
25	23-1/2" [596]	14-5/8" [370]	8-1/2" [216]	20" [508]	10" [254]

NOTES:
1. All dimensions in Inches [millimeters]. All dimensions ± 1/4" [6mm].
2. Left Hand Control Unit shown. Right Hand is opposite.
3. 90 degree Electrical Enclosure is perpendicular to unit side. Includes (4) knockouts on (2) sides. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
4. Maintain clearance per NEC (36" in direction of arrow).

NOTE: Drawings are not to scale and are not for installation purposes. Refer to www.enviro-tec.com for more information.
All data and dimensions are subject to change without notice.

Model CRC (Sensible Cooling Coil With Hot Water Reheat Coil)



INLET VALVE			
DIA.	"A"	"B"	Ø "I"
4"	18-1/8" [460]	14-1/8" [359]	3-7/8" [98]
5"	18-1/8" [460]	14-1/8" [359]	4-7/8" [124]
6"	18-1/8" [460]	14-1/8" [359]	5-7/8" [149]
8"	19-1/8" [486]	13-1/8" [333]	7-7/8" [200]
10"	20-1/8" [511]	12-1/8" [308]	9-7/8" [251]

UNIT DIMENSIONS			
UNIT SIZE	"G"	"H"	"J"
07/10	32-1/4" [819]	33-7/8" [860]	58-1/4" [1480]
12-25	40-5/8" [1031]	38-7/8" [987]	63-1/8" [1604]

	HW COIL 3/8" DIA		HW COIL 1/2" DIA	
UNIT SIZE	"C"	"D"	"C"	"D"
07/10	12" [305]	2-1/8" [54]	12-1/2" [318]	1-5/8" [41]
12,15, 20	16" [406]	1-1/8" [29]	15" [381]	2-1/8" [54]
25	16" [406]	3-1/8" [79]	15" [381]	4-1/8" [105]

	COOLING COIL				
	2 - 4 ROW		6 - 8 ROW		
UNIT SIZE	"E"	"F"	"E"	"F"	"K"
07/10	9-1/8" [232]	41-7/8" [1064]	13-5/8" [346]	41-7/8" [1064]	14-3/4" [373]
12-25	9-1/8" [232]	46-7/8" [1191]	13-5/8" [346]	46-7/8" [1191]	17-1/4" [438]

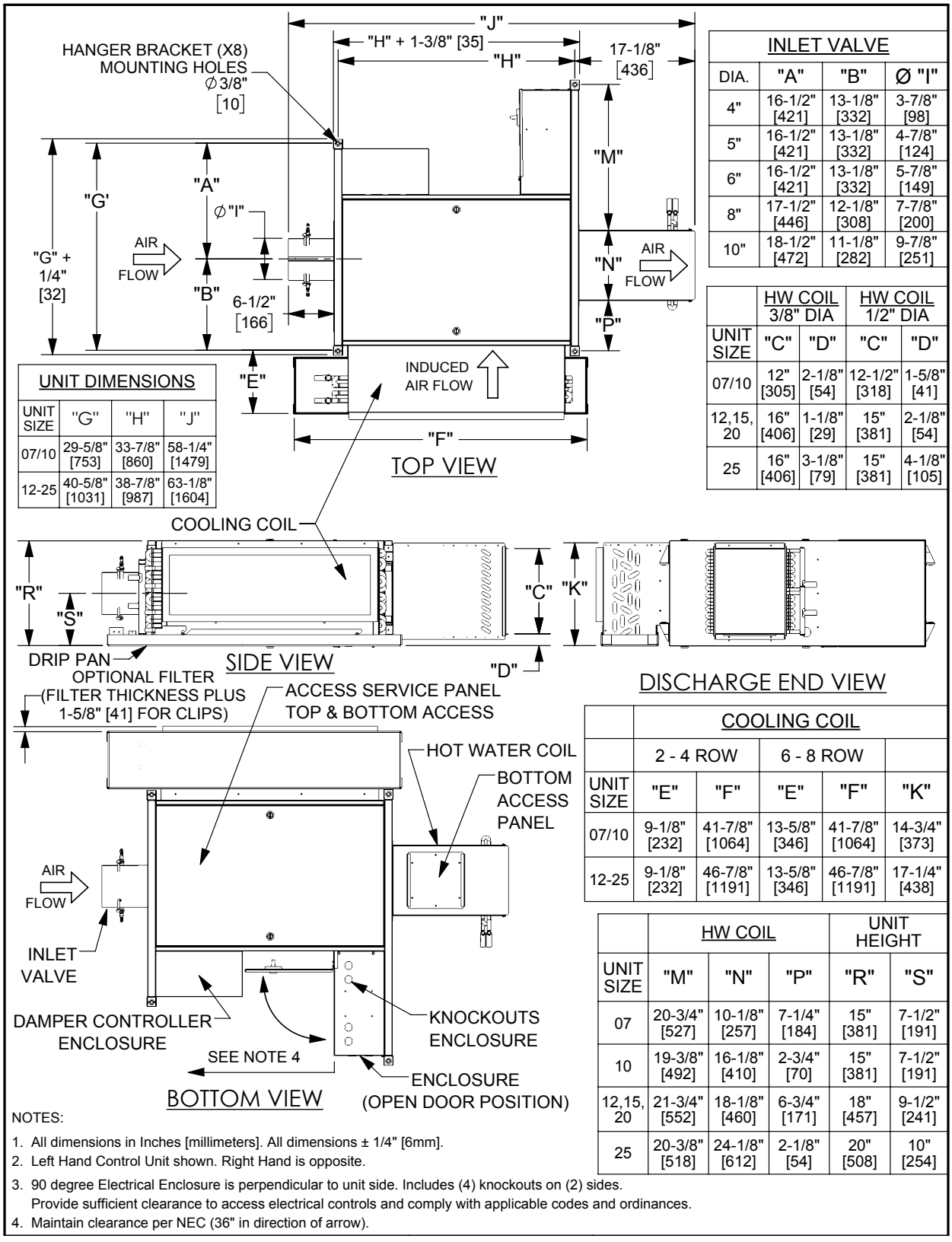
	HW COIL			UNIT HEIGHT	
UNIT SIZE	"M"	"N"	"P"	"R"	"S"
07	14-7/8" [378]	10-1/8" [257]	7-1/4" [184]	15" [381]	7-1/2" [191]
10	13-1/2" [343]	16-1/8" [410]	2-5/8" [68]	15" [381]	7-1/2" [191]
12,15, 20	15-3/4" [400]	18-1/8" [460]	6-3/4" [171]	18" [457]	9-1/2" [241]
25	14-3/8" [366]	24-1/8" [612]	2-1/8" [54]	20" [508]	10" [254]

NOTES:
1. All dimensions in Inches [millimeters]. All dimensions ± 1/4" [6mm].
2. Left Hand Control Units shown. Right Hand is opposite.
3. Standard Control Enclosure is integrated into unit side. Includes (4) knockouts on (2) sides. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
4. NEC clearance is from the bottom of the unit.

NOTES:
1. All dimensions are in inches [mm] with a tolerance of ±1/8" [3mm].

NOTE: Drawings are not to scale and are not for installation purposes. Refer to www.enviro-tec.com for more information.
All data and dimensions are subject to change without notice.

Model CRC (Sensible Cooling Coil With Hot Water Reheat Coil, 90° Enclosure)



INLET VALVE			
DIA.	"A"	"B"	Ø "I"
4"	16-1/2" [421]	13-1/8" [332]	3-7/8" [98]
5"	16-1/2" [421]	13-1/8" [332]	4-7/8" [124]
6"	16-1/2" [421]	13-1/8" [332]	5-7/8" [149]
8"	17-1/2" [446]	12-1/8" [308]	7-7/8" [200]
10"	18-1/2" [472]	11-1/8" [282]	9-7/8" [251]

UNIT DIMENSIONS			
UNIT SIZE	"G"	"H"	"J"
07/10	29-5/8" [753]	33-7/8" [860]	58-1/4" [1479]
12-25	40-5/8" [1031]	38-7/8" [987]	63-1/8" [1604]

	HW COIL 3/8" DIA		HW COIL 1/2" DIA	
UNIT SIZE	"C"	"D"	"C"	"D"
07/10	12" [305]	2-1/8" [54]	12-1/2" [318]	1-5/8" [41]
12,15, 20	16" [406]	1-1/8" [29]	15" [381]	2-1/8" [54]
25	16" [406]	3-1/8" [79]	15" [381]	4-1/8" [105]

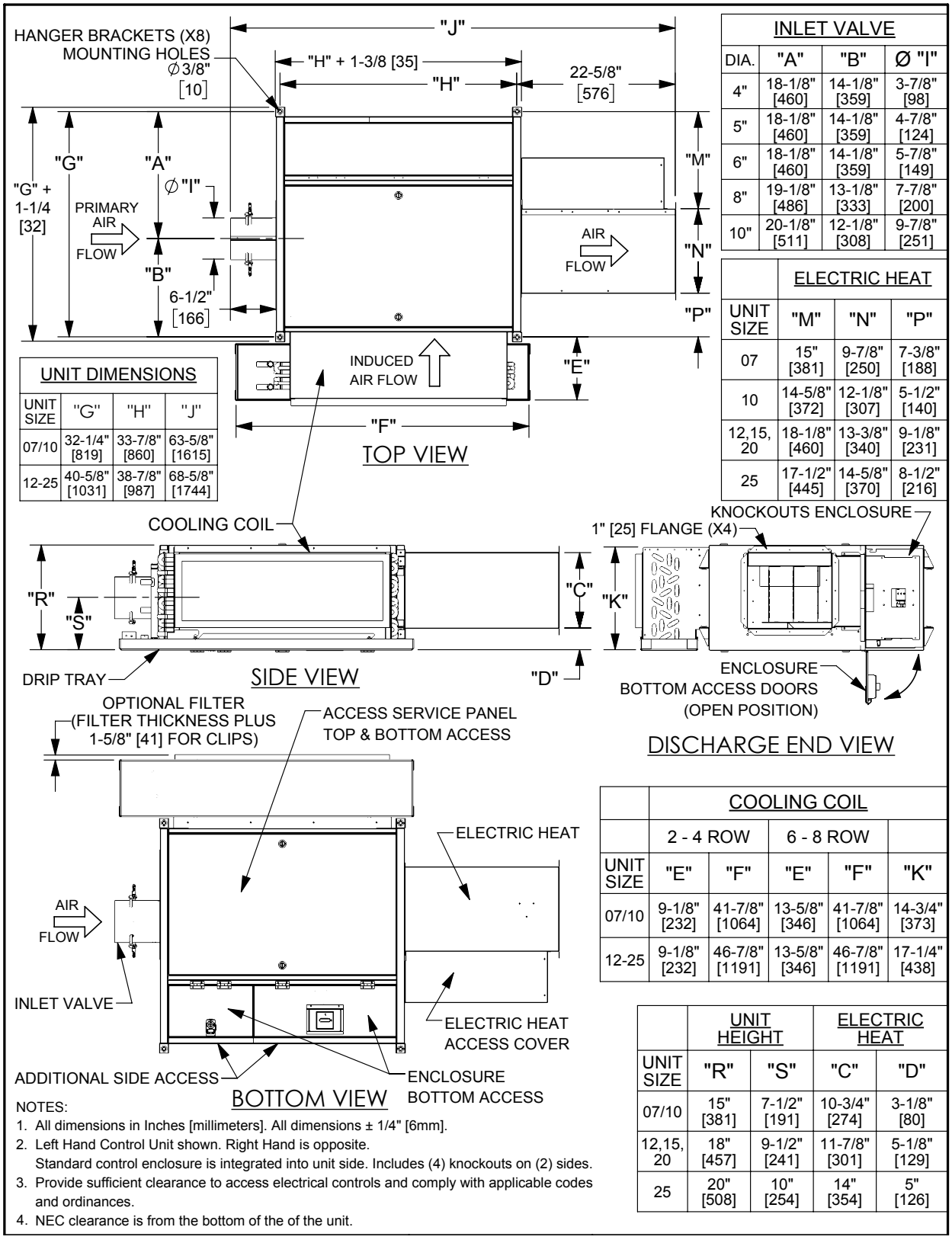
	COOLING COIL				
	2 - 4 ROW		6 - 8 ROW		
UNIT SIZE	"E"	"F"	"E"	"F"	"K"
07/10	9-1/8" [232]	41-7/8" [1064]	13-5/8" [346]	41-7/8" [1064]	14-3/4" [373]
12-25	9-1/8" [232]	46-7/8" [1191]	13-5/8" [346]	46-7/8" [1191]	17-1/4" [438]

	HW COIL			UNIT HEIGHT	
UNIT SIZE	"M"	"N"	"P"	"R"	"S"
07	20-3/4" [527]	10-1/8" [257]	7-1/4" [184]	15" [381]	7-1/2" [191]
10	19-3/8" [492]	16-1/8" [410]	2-3/4" [70]	15" [381]	7-1/2" [191]
12,15, 20	21-3/4" [552]	18-1/8" [460]	6-3/4" [171]	18" [457]	9-1/2" [241]
25	20-3/8" [518]	24-1/8" [612]	2-1/8" [54]	20" [508]	10" [254]

NOTES:

1. All dimensions in Inches [millimeters]. All dimensions ± 1/4" [6mm].
2. Left Hand Control Unit shown. Right Hand is opposite.
3. 90 degree Electrical Enclosure is perpendicular to unit side. Includes (4) knockouts on (2) sides. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
4. Maintain clearance per NEC (36" in direction of arrow).

Model CRC (Sensible Cooling Coil With Electric Heat)



INLET VALVE

DIA.	"A"	"B"	Ø "I"
4"	18-1/8" [460]	14-1/8" [359]	3-7/8" [98]
5"	18-1/8" [460]	14-1/8" [359]	4-7/8" [124]
6"	18-1/8" [460]	14-1/8" [359]	5-7/8" [149]
8"	19-1/8" [486]	13-1/8" [333]	7-7/8" [200]
10"	20-1/8" [511]	12-1/8" [308]	9-7/8" [251]

UNIT DIMENSIONS

UNIT SIZE	"G"	"H"	"J"
07/10	32-1/4" [819]	33-7/8" [860]	63-5/8" [1615]
12-25	40-5/8" [1031]	38-7/8" [987]	68-5/8" [1744]

ELECTRIC HEAT

UNIT SIZE	"M"	"N"	"P"
07	15" [381]	9-7/8" [250]	7-3/8" [188]
10	14-5/8" [372]	12-1/8" [307]	5-1/2" [140]
12,15, 20	18-1/8" [460]	13-3/8" [340]	9-1/8" [231]
25	17-1/2" [445]	14-5/8" [370]	8-1/2" [216]

COOLING COIL

UNIT SIZE	2 - 4 ROW "E"	2 - 4 ROW "F"	6 - 8 ROW "E"	6 - 8 ROW "F"	"K"
07/10	9-1/8" [232]	41-7/8" [1064]	13-5/8" [346]	41-7/8" [1064]	14-3/4" [373]
12-25	9-1/8" [232]	46-7/8" [1191]	13-5/8" [346]	46-7/8" [1191]	17-1/4" [438]

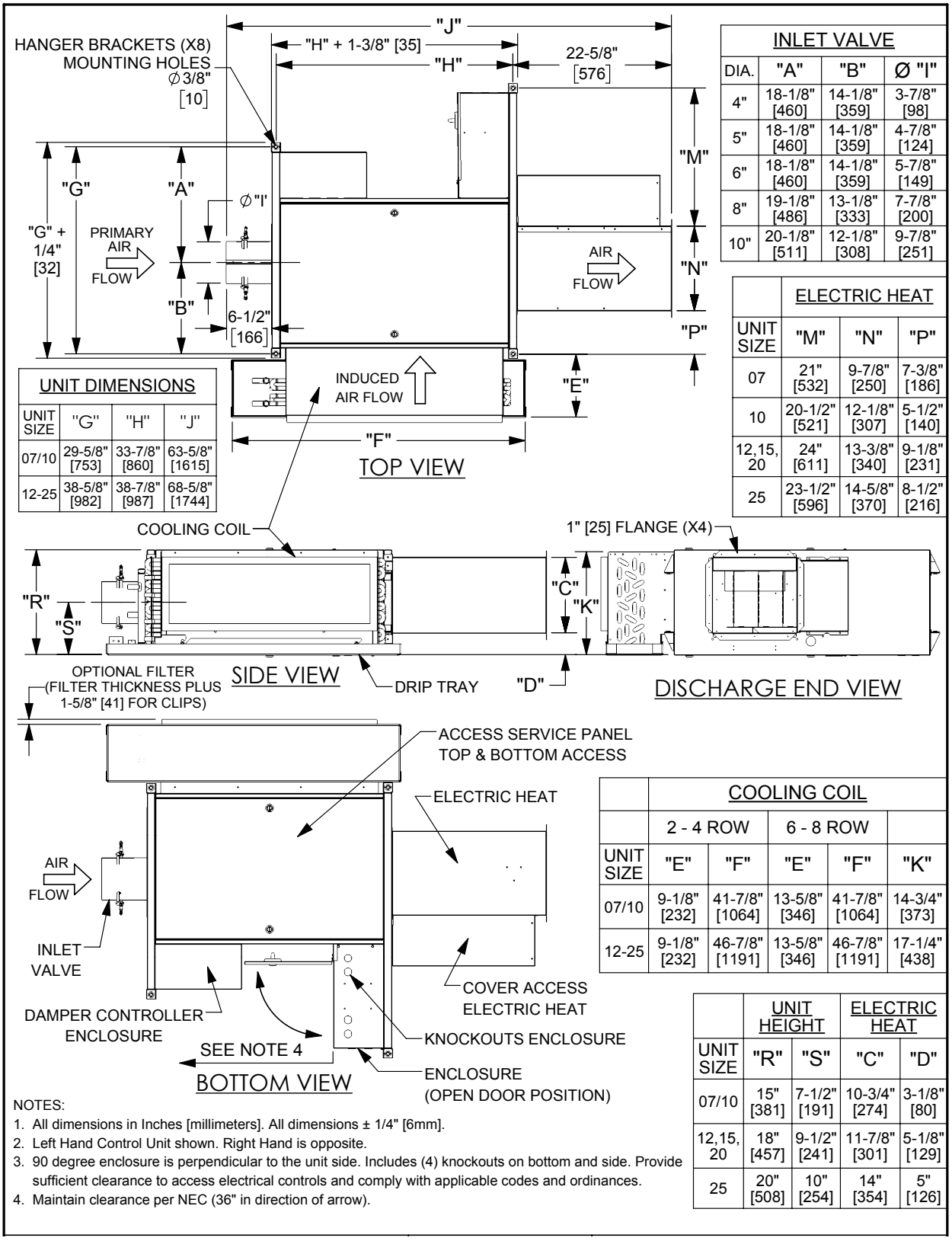
UNIT SIZE	UNIT HEIGHT "R"	UNIT HEIGHT "S"	ELECTRIC HEAT "C"	ELECTRIC HEAT "D"
07/10	15" [381]	7-1/2" [191]	10-3/4" [274]	3-1/8" [80]
12,15, 20	18" [457]	9-1/2" [241]	11-7/8" [301]	5-1/8" [129]
25	20" [508]	10" [254]	14" [354]	5" [126]

NOTES:
1. All dimensions in Inches [millimeters]. All dimensions ± 1/4" [6mm].
2. Left Hand Control Unit shown. Right Hand is opposite.
   Standard control enclosure is integrated into unit side. Includes (4) knockouts on (2) sides.
3. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
4. NEC clearance is from the bottom of the of the unit.

NOTES:
1. All dimensions are in inches [mm] with a tolerance of ±1/8" [3mm].

NOTE: Drawings are not to scale and are not for installation purposes. Refer to www.enviro-tec.com for more information.
All data and dimensions are subject to change without notice.

Model CRC (Sensible Cooling Coil With Electric Heat, 90° Enclosure)



INLET VALVE			
DIA.	"A"	"B"	Ø "I"
4"	18-1/8" [460]	14-1/8" [359]	3-7/8" [98]
5"	18-1/8" [460]	14-1/8" [359]	4-7/8" [124]
6"	18-1/8" [460]	14-1/8" [359]	5-7/8" [149]
8"	19-1/8" [486]	13-1/8" [333]	7-7/8" [200]
10"	20-1/8" [511]	12-1/8" [308]	9-7/8" [251]

UNIT DIMENSIONS			
UNIT SIZE	"G"	"H"	"J"
07/10	29-5/8" [753]	33-7/8" [860]	63-5/8" [1615]
12-25	38-5/8" [982]	38-7/8" [987]	68-5/8" [1744]

	ELECTRIC HEAT		
UNIT SIZE	"M"	"N"	"P"
07	21" [532]	9-7/8" [250]	7-3/8" [186]
10	20-1/2" [521]	12-1/8" [307]	5-1/2" [140]
12,15, 20	24" [611]	13-3/8" [340]	9-1/8" [231]
25	23-1/2" [596]	14-5/8" [370]	8-1/2" [216]

	COOLING COIL				
	2 - 4 ROW		6 - 8 ROW		
UNIT SIZE	"E"	"F"	"E"	"F"	"K"
07/10	9-1/8" [232]	41-7/8" [1064]	13-5/8" [346]	41-7/8" [1064]	14-3/4" [373]
12-25	9-1/8" [232]	46-7/8" [1191]	13-5/8" [346]	46-7/8" [1191]	17-1/4" [438]

	UNIT HEIGHT		ELECTRIC HEAT	
UNIT SIZE	"R"	"S"	"C"	"D"
07/10	15" [381]	7-1/2" [191]	10-3/4" [274]	3-1/8" [80]
12,15, 20	18" [457]	9-1/2" [241]	11-7/8" [301]	5-1/8" [129]
25	20" [508]	10" [254]	14" [354]	5" [126]

NOTES:
1. All dimensions in Inches [millimeters]. All dimensions ± 1/4" [6mm].
2. Left Hand Control Unit shown. Right Hand is opposite.
3. 90 degree enclosure is perpendicular to the unit side. Includes (4) knockouts on bottom and side. Provide sufficient clearance to access electrical controls and comply with applicable codes and ordinances.
4. Maintain clearance per NEC (36" in direction of arrow).

NOTE: Drawings are not to scale and are not for installation purposes. Refer to www.enviro-tec.com for more information.
All data and dimensions are subject to change without notice.

CRC Terminal Features

STANDARD FEATURES

Construction
- Tested in accordance with AHRI 880
- 20 gauge galvanized steel casing and valve
- 1/2" dual density fiberglass insulation
- Full metal nosing for 1/2" and 1" insulation
- Top and bottom access panels with durable latches
- Removable motor/blower assembly
- Integrated hanger brackets with vibration isolating grommets
- Dual-layer perforated metal diffuser

Fan Assembly
- Forward curved, dynamically balanced, direct drive, galvanized fan wheel
- 120, 208-230, and 277 volt single-phase EC motors
- Solo or Sync motor control technology
- Constant Torque or Constant Airflow Operation
- Thermally protected motor
- Vibration isolation motor mounts
- Single point wiring

Primary Air Valve
- Embossed rigidity rings
- Low thermal conductance damper shaft
- Position indicator on end of damper shaft
- Mechanical stops for open and closed position
- FlowStar™ center averaging airflow sensor
- Balancing tees and plenum rated sensor tubing

Sensible Cooling Coils
- Coils are designed, manufactured, and tested by ENVIRO-TEC
- AHRI 410 certified and labeled
- 2, 3, 4, 6, and 8 row coils with 5/8" headers
- Tested at a minimum of 450 PSIG under water and rated at 450 PSIG working pressure at 200°F
- Left or right hand connections

Drip Pans
- Single wall, galvanized steel, externally insulated with 1/8" closed cell foam
- Tool-free removal

Electrical
- cETL listed for safety compliance
- Flippable integrated electrical/controls enclosure with NEC bottom access and additional side access
- NEMA 1 certified enclosure

Electric Heat
- ETL assembly-listed for UL 1995 safety compliance
- Removable electric heat assembly
- Automatic reset primary and back-up secondary thermal limits
- Single point power connection
- Fusing per NEC

OPTIONAL FEATURES

Construction
- 1/2" foil-faced fiberglass or closed cell foam insulation
- 1" dual density fiberglass, foil-faced fiberglass, or closed-cell foam insulation
- 1" double wall construction with 20 gauge liner
- 1" and 2" throwaway or pleated filters
- 1" and 2" tool-free filter clips
- 90-degree flippable control enclosure, NEMA 1 certified

Fan Assembly
- 480 volt three-phase EC motor

Electrical
- Full unit disconnect switch
- Inline motor fusing
- Primary and secondary transformer fusing
- Moisture sensor or float switch

Hot Water Coils
- Coils are designed, manufactured, and tested by ENVIRO-TEC
- AHRI 410 certified and labeled
- 1, 2, 3, 4 row coils with 5/8" headers
- Tested at a minimum of 450 PSIG under water and rated at 450 PSIG working pressure at 200°F
- Left or right hand connections

Electric Heat
- Staged or Proportional with SSR
- Fused or non-fused door interlocking disconnect switches

Piping Packages
- Factory-provided and factory-mounted
- 1/2" 2-way and 3-way, normally closed, two position electric motorized valves
- 24VAC floating point modulating control valves
- 0-10VDC proportional control valves
- Isolation ball valves with memory stop
- Fixed (FC) and adjustable (PICV) flow control devices
- Y-Strainers, P/T ports, 18" flexible hose

Controls
- Consignment controls (factory mount and wire controls provided by others)

PUBL-9840 (0921) New Release

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