

Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

Date: 10/3/2023

Return Request: 10/13/2023

Project: Regions HNTB

Supplier: Airetech

Manufacturer: IEC

Submittal: Fan Coil Unit

Submittal Number: 23 00 00-02

Drawing # and Installation: Plumbing Drawings

ARCHITECT

DLR Group
2525 McKinnon St. Suite 800
Dallas, TX 75067
214-747-2511

ENGINEER

Pettit & Pettit
201 East Markham, Suite 400
Little Rock, AR 72201
501-374-3731

GENERAL CONTRACTOR

Baldwin & Shell
1000 W. Capitol Ave.
Little Rock, AR 72201
501-374-8677

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

CSUSA PROJECT NO.

23-2014

chowell@comfortar.com



SUBMITTAL DATA

EQUIPMENT: IEC Fan Coil Unit

TAGS: FCU-1

PROJECT: HNTB

LOCATION: Little Rock, AR

ENGINEER:



CONTRACTOR:



DATE: 9/29/2023

SUBMITTED BY: Forrest Moseley
forrest@airetechcorp.com
0

PROJECT SUBMITTAL

9/29/2023



Project Name: HNTB - Regions Building
 Project Location:
 Created by: Forrest Moseley
 Printed Date: 9/29/2023 9:47 AM
 Selection Date: 4/14/2023 9:16 AM
 Last Revision: 9/29/2023 9:47 AM

INTERNATIONAL ENVIRONMENTAL CORPORATION
 5000 I-40 West Service Road
 Oklahoma City, OK 73128
 PH: 405-605-5000
 Quote #: QT164447-0

Unit Tag: Qty: 1 Model: CPY04 System: 2-Pipe Hydronic Cooling Only (Quick Ship Available)

Unit Data

Motor Type:	EC Motor, 3-Spd Pot Adj	Coil Hand:	LH
Motor HP:	0.170	Coil Tube Dia:	0.50 in
Motor FLA:	2.4 Amps	Coil Face Area:	1.35 ft^2
Motor Watts:	-	Cooling Coil Connection:	0.50 in
Unit MCA:	3.0 Amps	Heating Coil Connection:	0 in
Unit MFS:	15.0 Amps	Filter Size:	10 x 28 x 1 in
Unit Volt:	115/1/60	Filter Face Area:	1.940 ft^2
		Filter Type:	1" Pleated (MERV 8) Filter

Performance Data			Unit Configuration	CPY - with Plenum (Quick
Altitude:	0	Ft	Unit & Size-CPY Unit Size 04	
Air Flow Rate:	400	CFM	Coil-Standard 3 Row Coil (2 Pipe)	
ESP:	0.25	in WC	Coil Hand-Left Hand Coil	
Coil Face Velocity:	295	Ft/Min	CoilTestPressure-350 PSIG	
Cooling Performance			Coil Drains-None	
Fluid:	Water		Coil Option-Union Conn at Coil (2 Pipe) at 1/2"	
EAT DB/WB:	75.0 / 63.0	F	Motor-V2.0 Eco-tel Motor - 115/1/60	
LAT DB/WB:	57.3 / 55.1	F	ECM Seq-3 Discreet Speed, Pot Speed Adjust	
Total Capacity:	9348	BTUH	Arrangement-Rear Return/Front Supply	
Sensible Capacity:	7773	BTUH	Tstat-3 Speed Thermostat By Others	
EWT/LWT:	45.0 / 54.3	F	Cntrl Pkg-2 Pipe Cool Only (Eco-telligent)	
Fluid FLOW:	2.000	GPM	Cntrl Option-20 amp Serv Switch (Non Fused)	
Fluid P.D.:	10.8	Ft WC	Ctrl Option-Condensate Overflow Sw	
Rows / FPI / Circuits:	3 / 10 / 1		Primary Valve Package - 1/2"	
			Cntrl Vlv-2-Way Modulating Non-Spring Return (0-10VDC, 35 psi)	
			Flow Cntrl Vlv-Fixed 2.0 GPM at 1/2"	
			Isolation Vlv-2 Ball Vlvs at 1/2"	
			Vlv Option-PT Port (Coil Supply and Return)	
			Vlv Option-Y Strainer w/ Blowdown at 1/2"	
			Secondary Valve Package - None	
			Piping and Controls-Opposite Side Piping and Controls	
			Return Air-Ducted Return	
			Supply Air-Ducted Supply	
			Filter-1" Pleated (MERV 8) filter	
			Removable Drain Pan, Stainless Steel, External Insulation	
			Drain Pan-Furnish Only Drip Lip	
			Cabinet Ins-1/2" Standard Fiberglass	
			Packaging-Box and Palletize Units	

International Environmental Corporation (IEC) works continually to improve its products. As a result, the design and specifications of each product may be changed without notice and may not be as described herein. Please contact IEC for information regarding current design and product specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties but are merely IEC's opinion or commendation of its products. Manufacturer's standard limited warranty applies.

PROJECT SUBMITTAL

9/29/2023



Project Name: HNTB - Regions Building
Project Location:
Created by: Forrest Moseley
Printed Date: 9/29/2023 9:47 AM
Selection Date: 4/14/2023 9:16 AM
Last Revision: 9/29/2023 9:47 AM

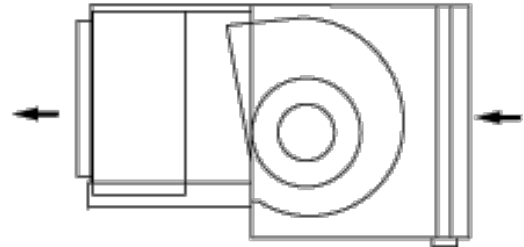
INTERNATIONAL ENVIRONMENTAL CORPORATION
5000 I-40 West Service Road
Oklahoma City, OK 73128
PH: 405-605-5000
Quote #: QT164447-0

Unit Tag: Qty: 1 Model: CPY04 System: 2-Pipe Hydronic Cooling Only (Quick Ship Available)

Unit Connections Configuration



FRONT



RIGHT

Supply: Supply Air Duct Collar
Return: Ducted Return

Coil Hand: LH
Electrical Box: RH

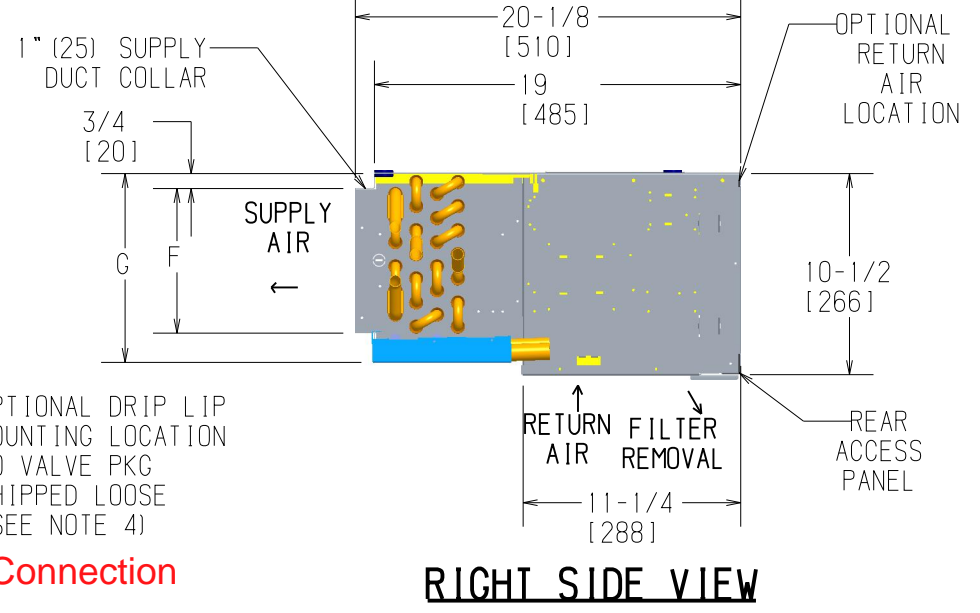
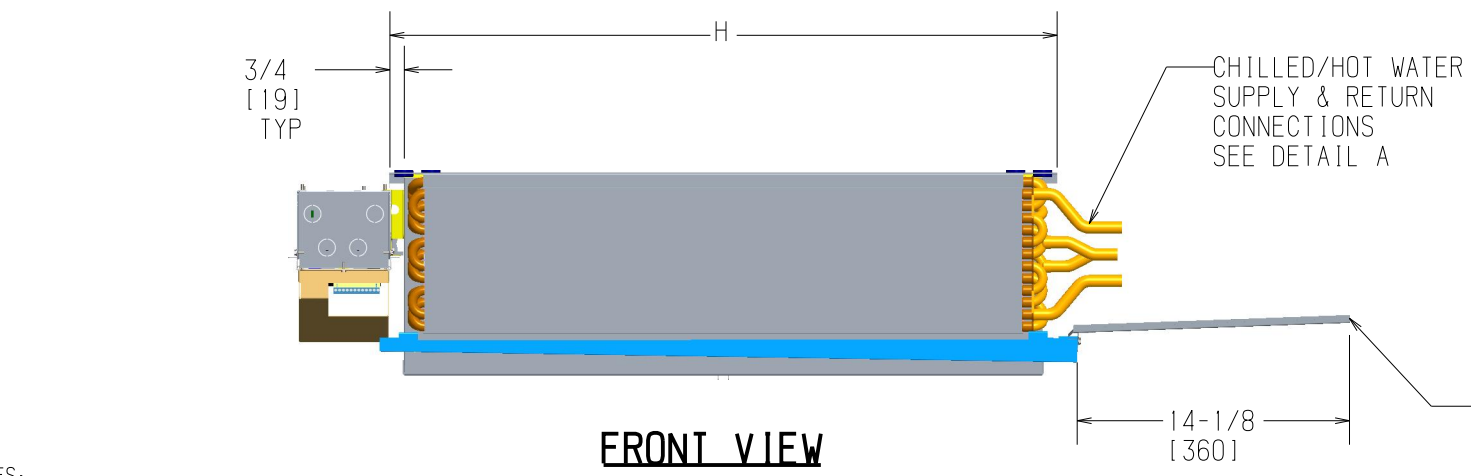
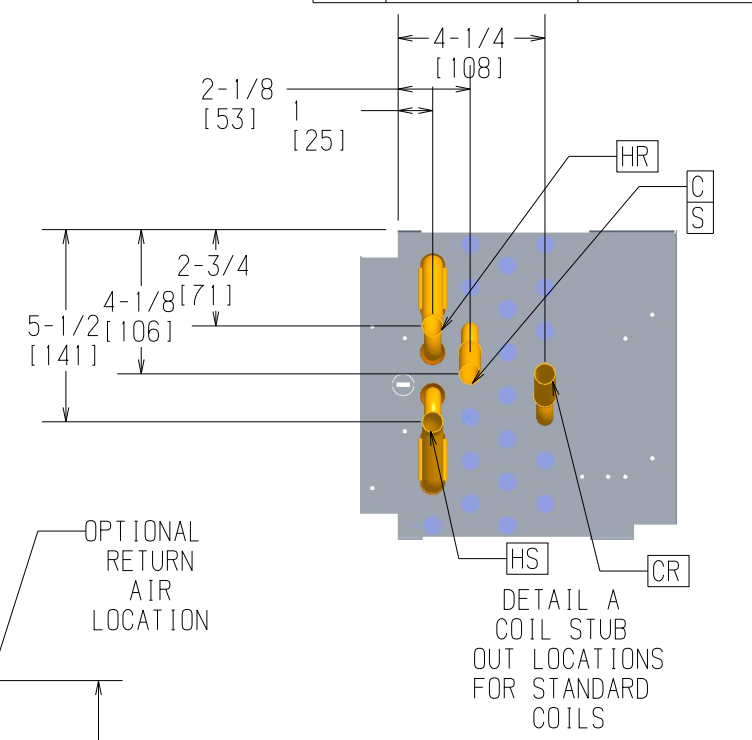
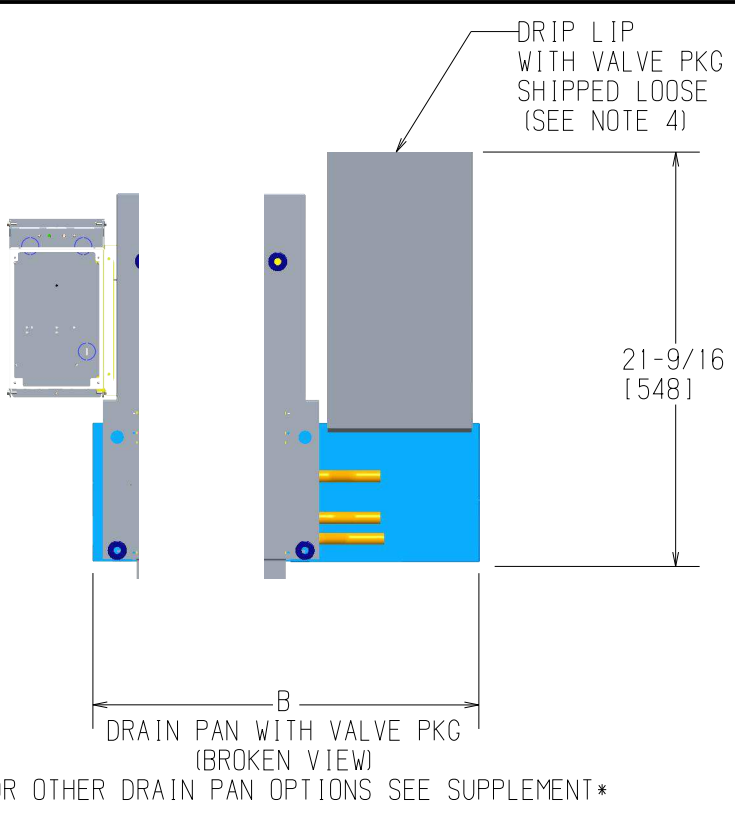
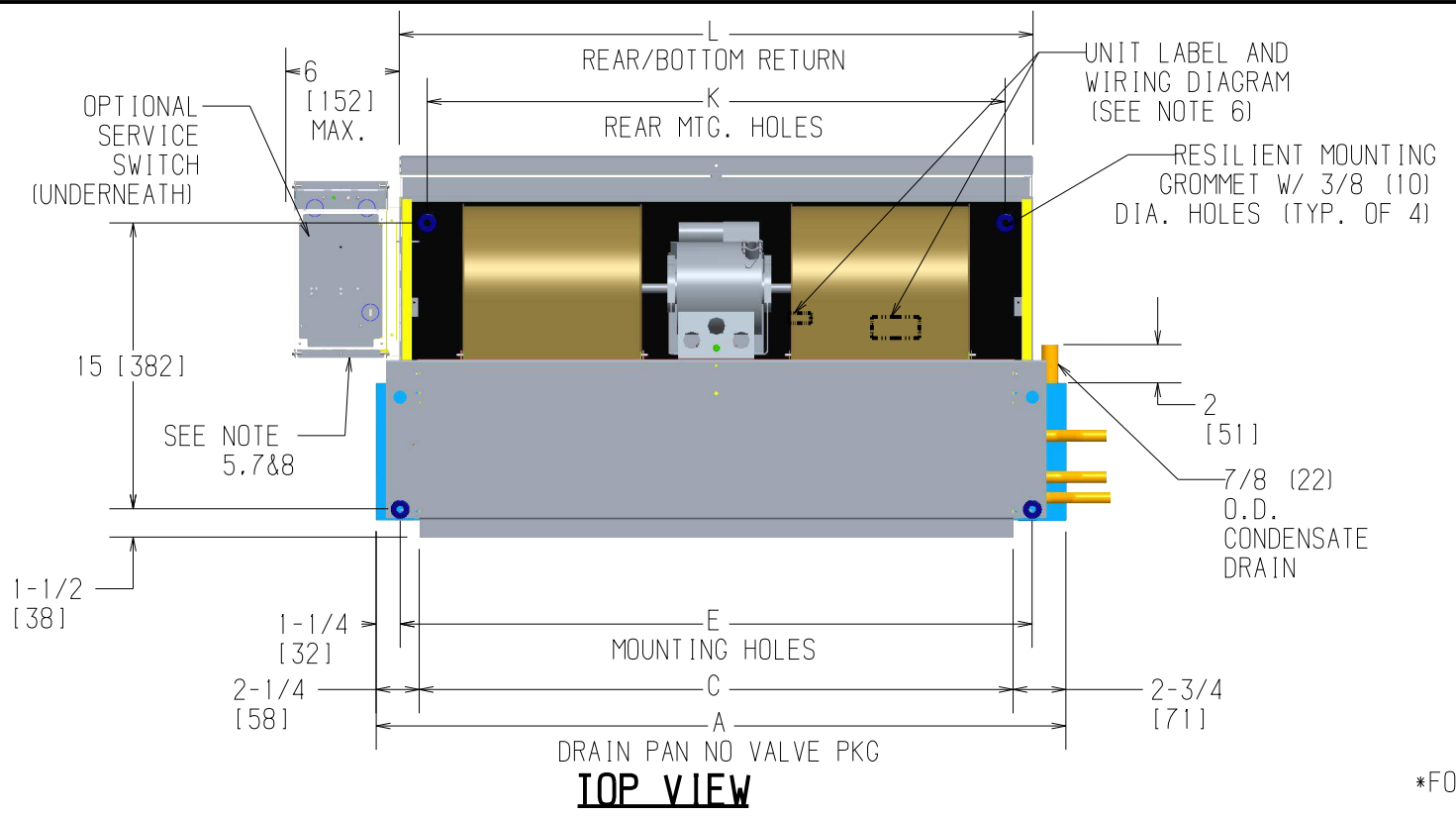
Unit Typical ISO View



Unit Tag

International Environmental Corporation (IEC) works continually to improve its products. As a result, the design and specifications of each product may be changed without notice and may not be as described herein. Please contact IEC for information regarding current design and product specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties but are merely IEC's opinion or commendation of its products. Manufacturer's standard limited warranty applies.

REVISION HISTORY		
REV	DATE	ECN
-	05/01/18	18-0608
A	05/21/20	20-0490
B	07/07/20	20-0643
C	03/11/21	21-0295
D	02/07/22	22-0104



- NOTES:**
1. RH SHOWN, LH OPPOSITE.
 2. ALL DIMENSIONS ARE +/- .25 (6). DRAWING NOT TO SCALE.
 3. PRODUCT SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
 4. DRIP LIP RECOMMENDED. PROVIDED WHEN VALVE PKG IS ORDERED.
 5. CONTROL BOX SIZE AND POSITION MAY VARY (CONSULT FACTORY)
 6. POSITION MAY VARY.
 7. SERVICE ACCESS IS LOCATED ON THE BOTTOM OF THE CONTROL BOX.
 8. KNOCKOUTS ON THE BOTTOM AND SIDE OF THE CONTROL BOX FOR INCOMING POWER CONNECTIONS
 9. TYPICAL SIZE 06 UNIT SHOWN WITH 1-MOTOR AND 2-BLWR - REFER TO TABLE FOR VARIATION.
 10. SEE VALVE PACKAGE SUPPLEMENTAL FOR PIPING TERMINATION.

Unit is configured for LH Piping Connection (Opposite of above drawing)

Unit Model	Dimensions - Inches (Millimeters)										Quantity/Unit	
	A	B	C	E	F	G	H	K	L	BLWR	MOTOR	
CPY 02	21-1/4 (540)	28-1/2 (724)	16 (406)	18-1/4 (464)	6-1/4 (159)	8-3/4 (222)	19-3/4 (502)	15-3/8 (391)	18-1/4 (464)	1	1	
CPY 03	25-1/4 (641)	32-1/2 (826)	20 (508)	22-1/4 (565)	6-1/4 (159)	8-3/4 (222)	23-3/4 (603)	19-3/8 (493)	22-1/4 (565)	1	1	
CPY 04	31-1/4 (794)	38-1/2 (978)	26 (660)	28-1/4 (718)	6-1/4 (159)	8-3/4 (222)	29-3/4 (756)	25-3/8 (654)	28-1/4 (718)	2	1	
CPY 06	36-1/4 (921)	43-1/2 (1105)	31 (787)	33-1/4 (845)	7-1/2 (191)	10 (254)	34-3/4 (883)	30-3/8 (772)	33-1/4 (845)	2	1	
CPY 08	43-1/4 (1099)	50-1/2 (1283)	38 (965)	40-1/4 (1022)	7-1/2 (191)	10 (254)	41-3/4 (1060)	37-3/8 (950)	40-1/4 (1022)	2	1	
CPY 10	57-1/4 (1454)	64-1/2 (1638)	52 (1321)	54-1/4 (1378)	7-1/2 (191)	10 (254)	55-3/4 (1416)	51-3/8 (1306)	54-1/4 (1378)	4	2	
CPY 12	65-1/4 (1657)	72-1/2 (1842)	60 (1524)	62-1/4 (1581)	7-1/2 (191)	10 (254)	63-3/4 (1619)	59-3/8 (1509)	62-1/4 (1581)	4	2	

TITLE
CPY HORIZONTAL HIDEAWAY W/PLENUM

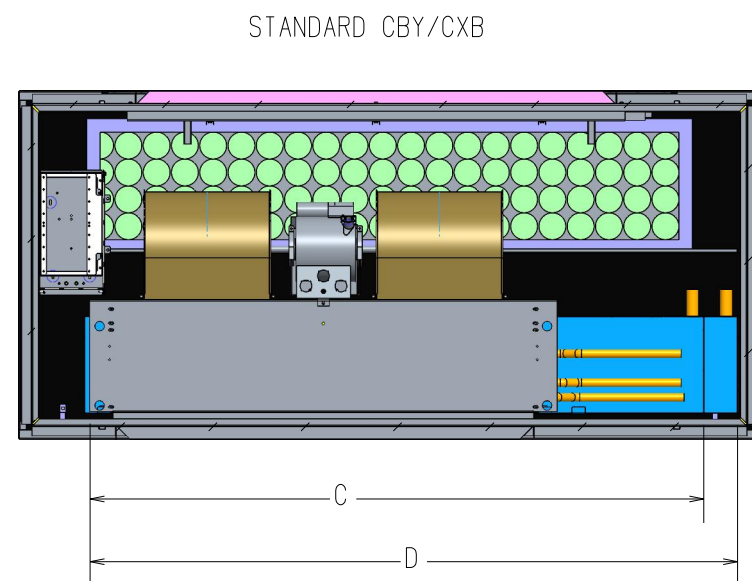
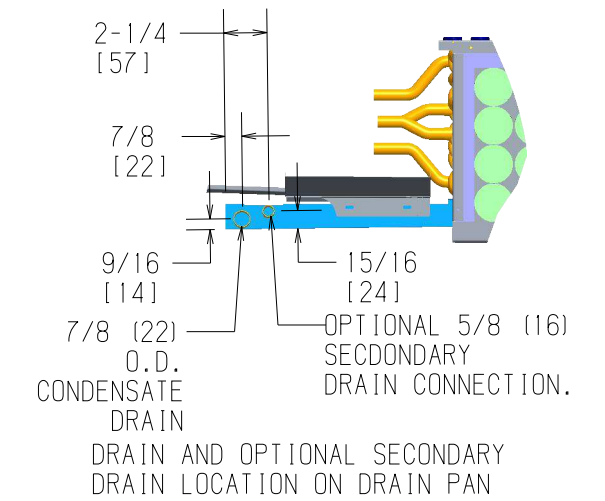
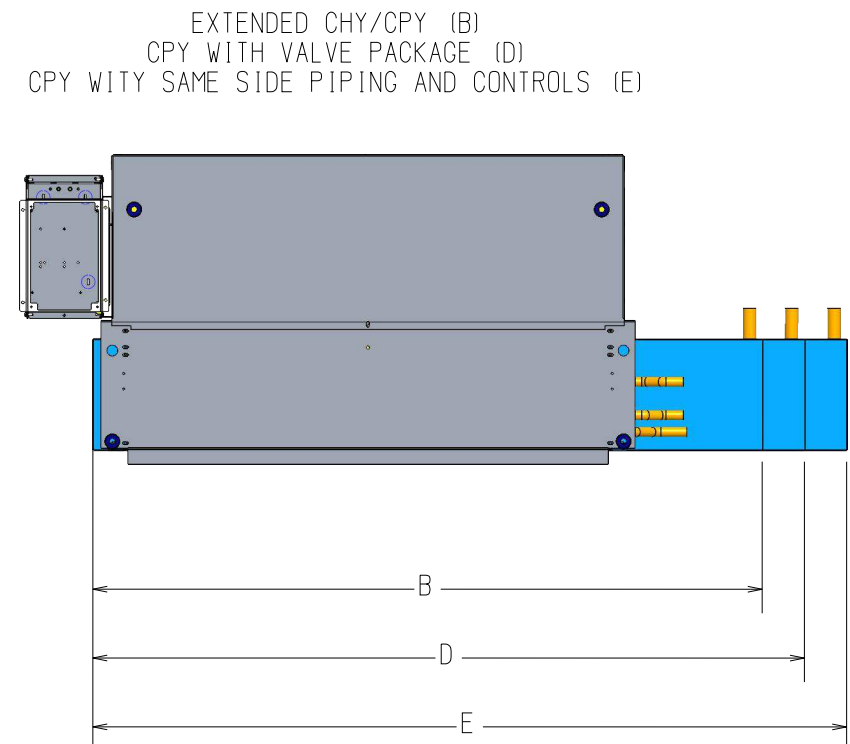
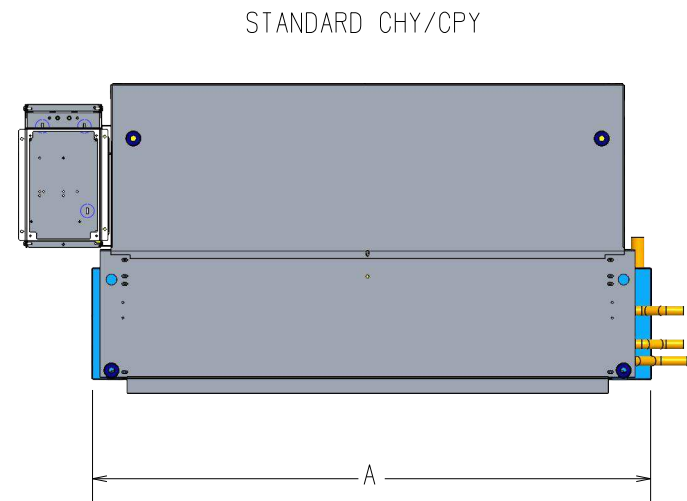
DWG NO
1100-90041391

REV
D

DRAWN J. FUSON	DATE 2/13/20	APPROVED S. STOTTS	DATE 2/13/20
--------------------------	------------------------	------------------------------	------------------------

REVISION HISTORY		
REV	DATE	ECN
-	05/01/18	18-0608
A	02/14/21	21-0131

Unit Model	Dimensions - Inches (Millimeters)				
	A	B	C	D	E
	STANDARD CHY/CPY	EXTENDED CHY/CPY (+7.25")	STANDARD CBY	STANDARD CXB (+10") STANDARD CPY W/VLV PKG	CPY SAME SIDE PIPING/CNTRL W/VLV PKG (+12.75")
C** 02	21 1/4 (540)	28 1/2 (724)	30 1/2 (775)	31 1/4 (794)	34 (864)
C** 03	25 1/4 (641)	32 1/2 (826)	30 1/2 (775)	35 1/4 (895)	38 (965)
C** 04	31 1/4 (794)	38 1/2 (826)	36 1/2 (927)	41 1/4 (1048)	44 (1118)
C** 06	36 1/4 (921)	43 1/2 (1105)	48 1/2 (1232)	46 1/4 (1175)	49 (1245)
C** 08	43 1/4 (1099)	50 1/2 (1283)	48 1/2 (1232)	53 1/4 (1353)	56 (1422)
C** 10	57-1/4 (1454)	64 1/2 (1638)	70 1/2 (1790)	67 1/4 (1708)	70 (1778)
C** 12	65-1/4 (1657)	72 1/2 (1842)	70 1/2 (1790)	75 1/4 (1911)	78 (1981)



IEC
International Environmental Controls

TITLE
DRAIN PAN SUPPLEMENT

DWG NO
1100-90041825

DRAWN
J. FUSON

DATE
2/13/20

APPROVED
S. STOTTS

REV
A

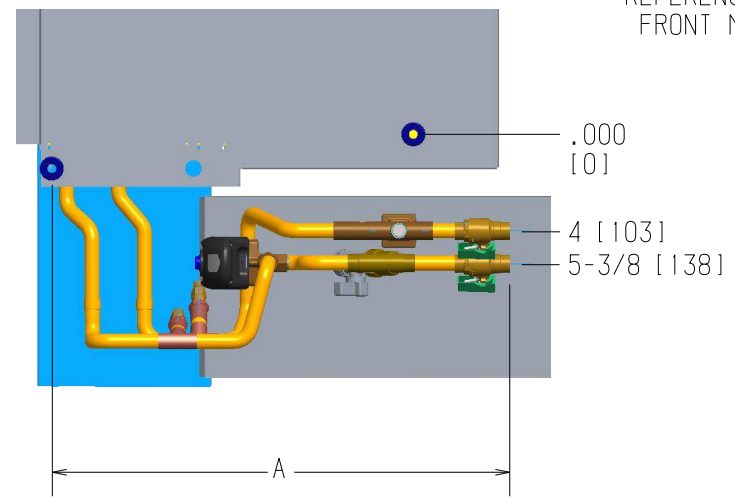
DATE
2/13/20

REVISION HISTORY		
REV	DATE	ECN
-	05/01/18	18-0608
A	01/20/22	22-0054

2 PIPE HEATING/COOLING

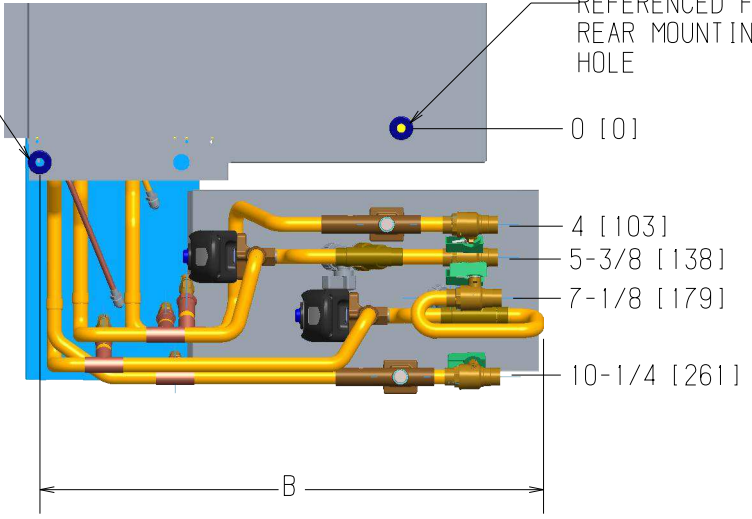
4 PIPE HEATING/COOLING

STANDARD VALVE PACKAGE

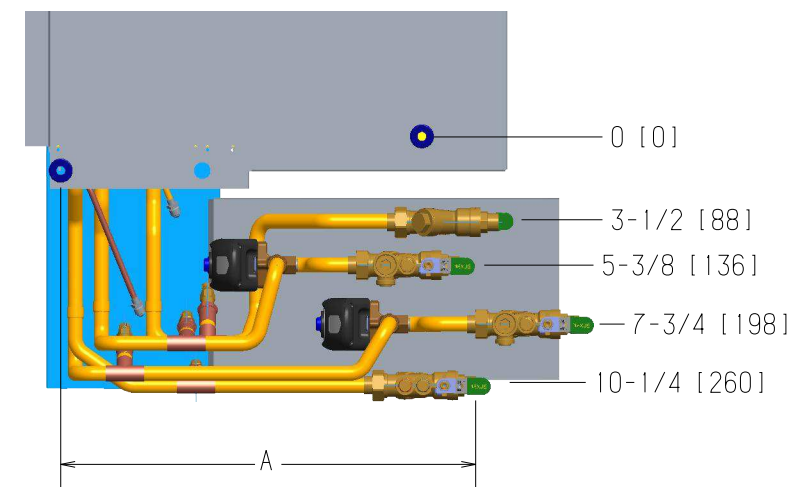
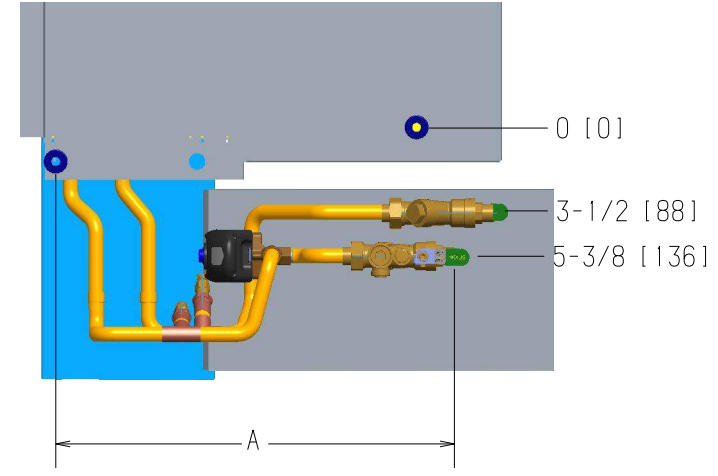


REFERENCED FROM FRONT MOUNTING HOLE

REFERENCED FROM REAR MOUNTING HOLE



COMBO VALVE PACKAGE



PARTIAL TOP VIEW OF CP/HP UNITS

DIMENSIONS - INCHES AND (MILLIMETERS)		
	A	B
NO COMBO VALVES		
3 WAY TACO/ERIE COOL	19 1/8 (486)	
3 WAY TACO/ERIE HEAT	19 1/4 (489)	21 1/8 (537)
3 WAY MODULATING COOL	19 1/8 (486)	
3 WAY MODULATING HEAT	19 1/4 (489)	21 9/16 (548)
2 WAY TACO/ERIE COOL	19 1/8 (486)	
2 WAY TACO/ERIE HEAT	19 1/4 (489)	21 1/8 (537)
2 WAY MODULATING COOL	19 1/8 (486)	
2 WAY MODULATING HEAT	21 1/8 (537)	21 9/16 (548)
COMBO VALVES		
SUPPLY/RETURN		
3 WAY TACO/ERIE COOL	17 5/16 (440) / 19 1/4 (489)	NA COMBO VLV CONNECTION DOES NOT EXCEED DISTANCE "A"
3 WAY TACO/ERIE HEAT	20 7/8 (530) / 19 1/4 (489)	
3 WAY MODULATING COOL	19 1/8 (486) / 18 1/16 (459)	
3 WAY MODULATING HEAT	20 7/8 (530) / 20 7/8 (530)	
2 WAY TACO/ERIE COOL	18 1/4 (464) / 16 5/8 (422)	
2 WAY TACO/ERIE HEAT	21 5/8 (549) / 17 3/8 (441)	
2 WAY MODULATING COOL	19 3/16 (487) / 16 5/8 (422)	
2 WAY MODULATING HEAT	19 7/16 (494) / 18 13/16 (477)	

NOTES:

1. ALL DIMENSIONS ARE ± 1/4" (6.3 MM)
2. TACO VALVES SHOWN FOR REFERENCE ONLY
3. COMPONENT LOCATION AND ACCESS MAY VARY



<p>TITLE VALVE PACKAGE SUPPLEMENT C*Y</p>			
<p>DWG NO 1100-90041802</p>			<p>REV A</p>
<p>DRAWN J. FUSON</p>	<p>DATE 03/19/20</p>	<p>APPROVED S. STOTTS</p>	<p>DATE 03/19/20</p>

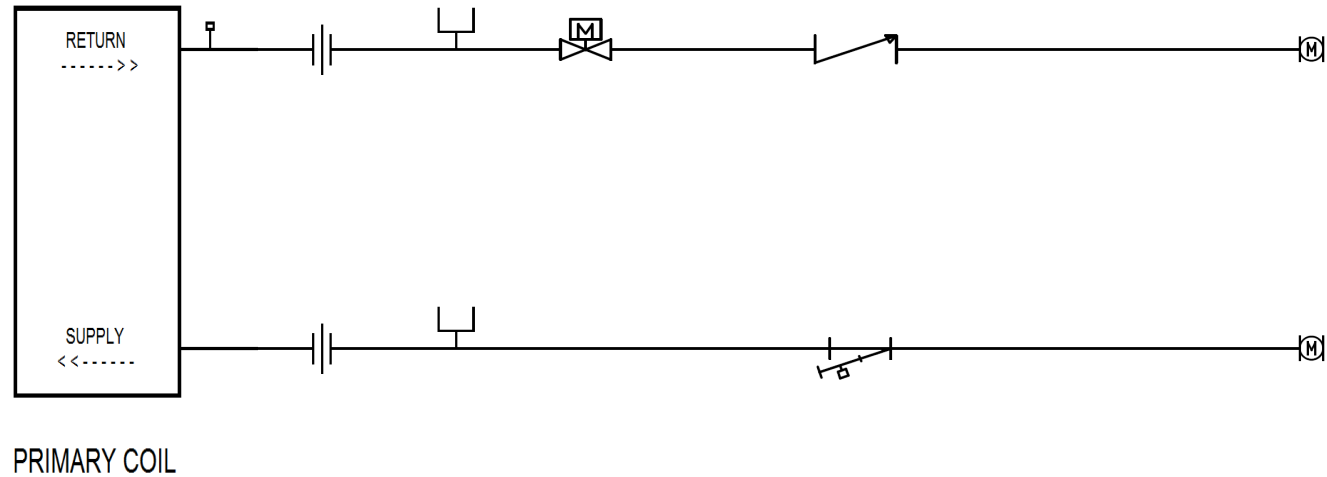
EntityID;EntityRev: QT164447;0

Applies to Lines: 1

Project: HNTB - Regions Building

Date Generated: 9/29/2023 9:47 AM

LEGEND	
	PIPE
	AIR VENT
	UNION
	SWAGE
	PT PORT
	PETE'S PLUG
	2-WAY MOTORIZED VALVE
	3-WAY MOTORIZED VALVE
	BALANCE VALVE
	CIRCUIT SETTER
	FIXED FLOW VALVE
	STRAINER
	STRAINER W/BLOWDOWN
	AQUISTAT
	CHANGE OVER
	THREADED ADAPTER
	BALL VALVE
	BALL VALVE ON THE RISER
	HOSEKIT
	COMBINATION SUPPLY
	COMBINATION RETURN
	SUREFLOW PUMP



NOTES:

1. THIS DOCUMENT IS FOR REFERENCE ONLY AND NOT AN AS BUILT DRAWING.
2. VALVE PACKAGE MAY BE FIELD OR FACTORY INSTALLED.
3. SOME COMPONENTS MAY BE PRESENT IN ANOTHER ASSEMBLY AND SHOWN FOR CLARIFICATION ONLY.
4. AIR VENTS AND OPTIONAL COIL DRAIN (WHEN SPECIFIED) MOUNTED ON COIL.

	INTERNATIONAL ENVIRONMENTAL
	TITLE
VALVE PACKAGE LAYOUT	

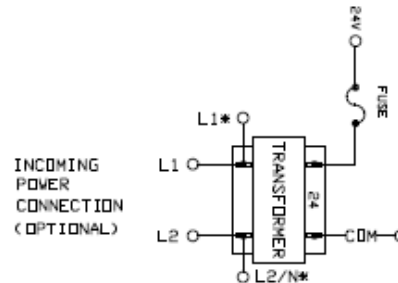
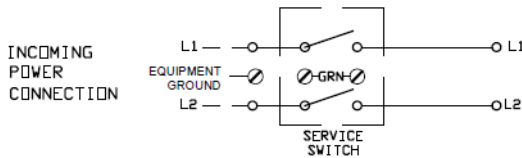
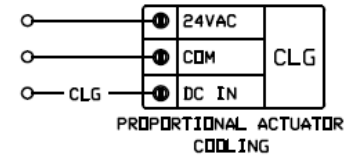
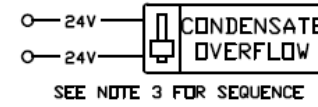
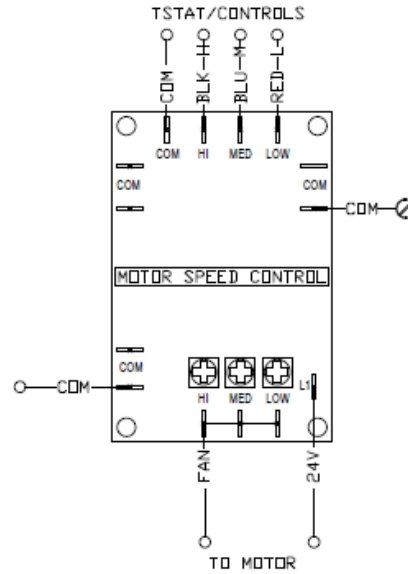
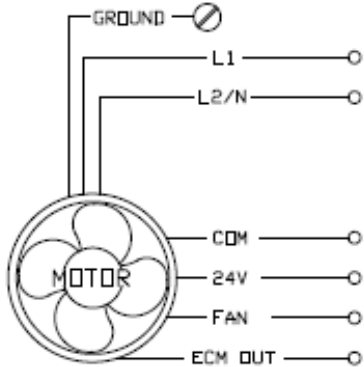
EntityID;EntityRev: QT164447;0

Applies to Lines: 1

Project: HNTB - Regions Building

Date Generated: 9/29/2023 9:47 AM

Tstat by Others



- NOTES:
1. PRODUCT SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
 2. NOT AS BUILT DRAWING, CONTACT FACTORY FOR ACTUAL WIRING CONFIGURATION.
 3. CONDENSATE OVERFLOW SWITCH TO INTERRUPT 24V POWER TO UNIT UNLESS SPECIFIED OTHERWISE.

	INTERNATIONAL ENVIRONMENTAL
	TITLE ELECTRICAL SUBMITTAL 2 PIPE CLG ONLY



1/2", 3/4" Ball Valve, Sweat

Valve Information	
Manufacturer	Nexus
Type, Model	Ultra NX, NXS-0XXS
Customer Furnished	No
IEC Furnished	Yes
Factory Packaged for Field Mounting	Yes

Materials		Dimensions – see drawing above	
Body, End Pieces	Hot Forged Brass ASTM, 600 WOG, 325°F	B (in)	2.3 (1/2") 3.0 (3/4")
Handle & Nut	Aluminum	E (in)	1.5 (1/2") 1.7 (3/4")
Ball	Chrome Plated Brass	F (in)	1.6 (1/2") 1.6 (3/4")
Ball Seals	Teflon	Ball I.D.	0.5 (1/2") 0.8 (3/4")
Shaft Seals	Dual Viton/ EPDM O-Rings	Cv	17 (1/2") 40 (3/4")
Memory Stop	Stainless Steel	WT (lbs)	0.3 (1/2") 0.6 (3/4")
Size	1/2", 3/4"		
Sweat	Yes		
Threaded	No		

International Environmental Corporation (IEC) © works continually to improve its products. As a result, the design and specifications of each product may be changed without notice and may not be as described herein. Please contact IEC for information regarding current design and product specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties but are merely IEC's opinion or commendation of its products. Manufacturer's standard limited warranty applies.



1/2", 3/4" Union

Valve Information	
Manufacturer	Nibco
Type, Model	733, B255400 (1/2") B255500 (3/4")
Customer Furnished	No
IEC Furnished	Yes
Factory Installed	Yes



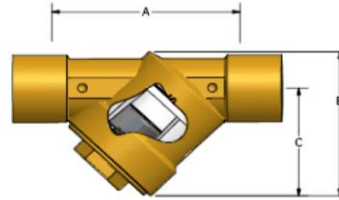
Materials		Specifications	
Tube & Pipe Fitting	Cast Copper	Outside Diameter (in)	2-5/8"
		Temp. Range (F)	-20° - 400°
		Max Pressure	336 psi @ 100°F
		Weight (lbs)	0.306
Pipe Fitting Connection Type	C x C		
Size	1/2", 3/4"		
Sweat	Yes		
Threaded	No		

International Environmental Corporation (IEC) © works continually to improve its products. As a result, the design and specifications of each product may be changed without notice and may not be as described herein. Please contact IEC for information regarding current design and product specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties but are merely IEC's opinion or commendation of its products. Manufacturer's standard limited warranty applies.



1/2", 3/4" AutoFlow Fixed Flow Control

Valve Information	
Manufacturer	Hays
Type	2517
Customer Furnished	No
IEC Furnished	Yes
Factory Packaged for Field Mounting	Yes



Materials		Dimensions	
Body	Brass	A (in.)	2.04 (1/2") 2.36 (3/4")
O-Rings	EPDM	B (in.)	2.12 (1/2") 2.11 (3/4")
Diaphragm	EPDM	C (in.)	1.58 (1/2", 3/4")
Orifice	Polyphenylsulfone		
End Cap	Brass		
Size	1/2", 3/4"		
Connection	Female Sweat		
Flow Range	0.50-5.00 GPM		
Pressure Differential	2-80 PSID up to 5.00GPM		
Operating Temperature	32°F – 225°F		
Operating Pressure	600 PSIG		

International Environmental Corporation (IEC) © works continually to improve its products. As a result, the design and specifications of each product may be changed without notice and may not be as described herein. Please contact IEC for information regarding current design and product specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties but are merely IEC's opinion or commendation of its products. Manufacturer's standard limited warranty applies.



1/4" MNPT P-T Ports

Valve Information	
Manufacturer	Nexus
Type	PT-025
Customer Furnished	No
IEC Furnished	Yes
Factory Packaged for Field Mounting	Yes

CAP w/ O'RING AVAILABLE IN GREEN, RED or NO O'Ring (CONSULT FACTORY)

Materials		Dimensions – See image above	
Body	DZR Brass	A (in)	1.45
Cap	DZR Brass	B (in)	1/4" MNPT
Plug Seal	Nordel		
Thread Sealant	Loctite 516	Weight (lbs.)	0.06
Size	1/2", 3/4"	Max Operating Pressure (psig)	1000
Sweat	Yes	Max Operating Temperature (°F)	325
Threaded	No (Final Assy will be sweat connection)		

International Environmental Corporation (IEC) © works continually to improve its products. As a result, the design and specifications of each product may be changed without notice and may not be as described herein. Please contact IEC for information regarding current design and product specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties but are merely IEC's opinion or commendation of its products. Manufacturer's standard limited warranty applies.

Erie 2-Way Proportional Control Valve, 35psi



Valve Information	
Manufacturer	Schneider Electric Erie
Type	VM Series 3-Wire Proportional
Customer Furnished	No
IEC Furnished	Yes
Factory Packaged for Field Mounting	Yes
Factory Mounted	On Select Models Only



Valve Body		Motor Actuator	
Model	VM2X1XP	Model	AP33A000
Ports	2-Way	Voltage	24 Only
CV	See table on page 2	Normally Closed	No
Valve Size	1/2", 3/4"	Normally Open	No
Sweat	Yes	Spring Return	No
Threaded	No	Powered Return	Yes
Union	No	2-Position	No
Fittings Included	N/A	Modulating	Yes
Material		3-Wire Floating	No
Valve body	Forged brass	0-10 VDC	Yes
Stem	Nickel-plated/chrome-plated brass	4-20 mA	Yes
Seat	Brass	Material	
Plug/paddle	High temperature Thermoplastic/rubber	Actuator	High temperature plastic

Critical Information	
Max Working Pressure	400 PSIG
Temperature Range	32 to 200 °F Fluid @ 125 °F Ambient
Glycol	Up to 50%
Water Treatment	Required
Power Consumption	1.0 VA
Open/Close Time	150 Seconds
Total Weight (Valve & Actuator)(lbs)	1.90

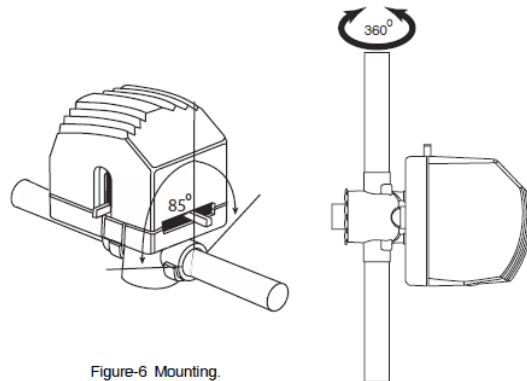


Figure-6 Mounting.

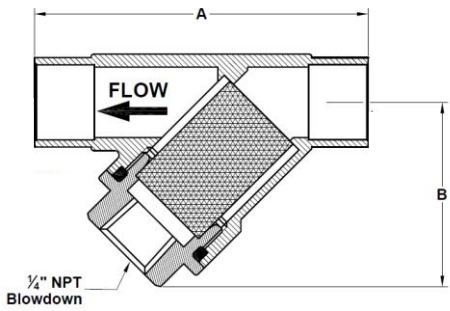
Flow Coefficient & Max Close-Off Differential Pressure		
Valve size (in.)	Flow Coefficient	Maximum Close-Off DP, PSI
1/2	1.0	50
1/2	2.0	50
3/4		
1/2	4.0	35
3/4		

Revision History			
REV	Date	ECN	Description
-	08/30/21	21-1076	Initial Release
A	08/25/22	22-0832	Model Part Number Update



1/2", 3/4" Y-Strainer with Blowdown

Valve Information	
Manufacturer	Nexus
Type	Ultra YSS™
Customer Furnished	No
IEC Furnished	Yes
Factory Packaged for Field Mounting	Yes



Materials		Dimensions	
Body	Forged Brass ASTMB283	A(in)	2.80 (1/2") 3.82" (3/4")
Cap Seal	Viton / EPDM O-Ring	B(in)	1.80 (1/2") 2.50 (3/4")
Filter Screen	20 Mesh 304 Stainless Steel	Weight (lbs.)	0.32 (1/2") 0.70 (3/4")
Strainer Cap	Forged Brass ASTM B283	Filter Area (sq. in.)	2.70 (1/2") 7.40 (3/4")
O-Ring Seals	600 WOG, 325F		
Blowdown	Y	Cv¹	5.5 (1/2") 9.0 (3/4")
Size	1/2", 3/4"		
Sweat	Yes		
Threaded	No		

International Environmental Corporation (IEC) © works continually to improve its products. As a result, the design and specifications of each product may be changed without notice and may not be as described herein. Please contact IEC for information regarding current design and product specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties but are merely IEC's opinion or commendation of its products. Manufacturer's standard limited warranty applies.