

## **UWC Energy Recovery Wheel Specifications**

### **Classic UWC**

The UWC wheel is optimized for pressure loss (larger flutes) to minimize fan energy while still providing a good total recovery efficiency. The rotor media is made of aluminum formed into a fluted, honeycomb matrix which is coated to prohibit corrosion. All surfaces are coated with a non-migrating zeolite desiccant composite designed to maximize latent recovery while reducing the transfer of airborne contaminants compared to silica gel or oxidized aluminum recovery wheels. The wheel media is a permanent component with an estimated 20 year life and not a "throw away" item. The component is compatible with all heating sources without damage and designed to accommodate operating conditions up to 180 F. The product is AHRI certified. The recovery media has been independently tested by a recognized laboratory to show compliance with UL-900 requirements with regard to smoke generation and combustibility.

### **Purge Sector**

Purge sector provided, designed to limit cross-contamination of the exhaust airstream concentration when operated under appropriate design conditions.

### **Rotor Seals**

The rotor is supplied with pre-adjusted low leakage hybrid brush seals to separate the two airstreams.

### **Rotor Support System**

The rotor media is re-enforced with an aluminum structural spoke system, extruded central hub and shaft sized to limit deflection and to ensure long-term structural integrity.

### **Unit Housing**

The rotor housing is designed to limit deflection of the rotor due to air pressure loss. The sheet metal panels are made of galvanized steel to prevent corrosion. The rotor is supported by two pillow block bearings which can be maintained or replaced without the removal of the rotor from its casing or the media from its spoke system.

### **Drive System**

The rotor is driven by a reinforced, industrial grade adjustable link belt system. An A/C gear motor is utilized for constant and variable speed applications.

### **SOLE AND EXCLUSIVE WARRANTY**

SEMCO warrants to Buyer that for a period of **eighteen** months from the date of shipment by SEMCO the goods to be delivered to Buyer will in all material respects be free from defects in material and workmanship when used in a proper and normal manner. Should any failure to conform to the above appear within eighteen months after the date of shipment by SEMCO (the "Limited Warranty Period"), SEMCO agrees upon prompt notification thereof during the Limited Warranty Period and confirmation to SEMCO's satisfaction that the goods have been stored, installed, operated and maintained properly and in accordance with standard industry practice, to correct the non-conformity at SEMCO's option either by repairing any defective part or parts or by making available at SEMCO's plant a repaired or replacement part.

## UWC Scope of Work:

<b>Project Name</b>	Brown County Jail
<b>Project Location</b>	Green Bay WI
<b>Mechanical Contractor</b>	
<b>SEMCO Representative</b>	Trane

<b>Unit Designation</b>	AHU-A1	<b>Date</b>	22-Mar-22
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### Unit Size and Options Selected

#### UWC-58

#### Classic UWC

SEMCO will provide a Fusion UWC energy recovery wheel with total enthalpy media, all aluminum spoke and rim assembly, aluminum hub assembly, bearings, carbon steel shaft, seals with retaining clips, perimeter drive belt, speed reduction system.

#### Constant Speed Wheel (Electrical Information Included)

Wheel is driven by constant speed 460V/3 Ph/60 Hz, 1/4 HP motor.

Nameplate Amps: 0.5

#### Wheel Arrangement

See Dimensions and Weights page for details

#### Wheel Control

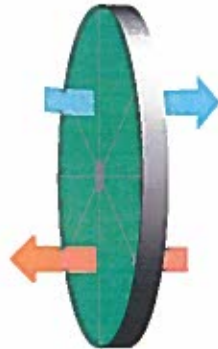
Wheel control by other than SEMCO.

**Recovery Wheel Performance Data: Cooling Season**

**Model: UWC-58**

**Outdoor Airstream**

Dry bulb (°F)	88.0
Wet bulb (°F)	74.0
Grains	104.4
Enthalpy (BTU/Lb)	37.5
Airflow (scfm)	8,272



**Supply Airstream**

Dry bulb (°F)	80.2
Wet bulb (°F)	67.5
Grains	81.1
Enthalpy (BTU/Lb)	31.9
Airflow (scfm)	8,000

**Exhaust Airstream**

Dry bulb (°F)	82.8
Wet bulb (°F)	69.3
Grains	85.8
Enthalpy (BTU/Lb)	33.3
Airflow (scfm)	8,272

**Return Airstream**

Dry bulb (°F)	75.0
Wet bulb (°F)	62.0
Grains	62.4
Enthalpy (BTU/Lb)	27.8
Relative Humidity	48%
Airflow (scfm)	8,000

Unit Effectiveness	0.59
Supply Sensible Efficiency	0.60
Supply Latent Efficiency	0.56
Minimum Cooling RER	75



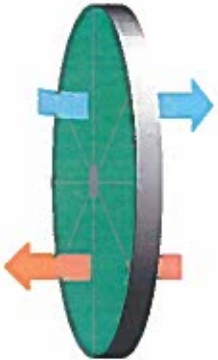
Supply Air Pressure Loss	0.65
Exhaust Air Pressure Loss	0.65
Purge Pressure Differential Used (in)	1.00

*AHRI Certified Rating Point (note 1)*

**Recovery Wheel Performance Data: Heating Season**

**Outdoor Airstream**

Dry bulb (°F)	-10.0
Wet bulb (°F)	-11.0
Grains	1.5
Enthalpy (BTU/Lb)	-2.2
Airflow (scfm)	8,272



**Supply Airstream**

Dry bulb (°F)	38.1
Wet bulb (°F)	30.5
Grains	12.8
Enthalpy (BTU/Lb)	11.1
Airflow (scfm)	8,000

**Exhaust Airstream**

Dry bulb (°F)	23.0
Wet bulb (°F)	19.8
Grains	9.9
Enthalpy (BTU/Lb)	7.0
Airflow (scfm)	8,272

**Return Airstream**

Dry bulb (°F)	70.0
Wet bulb (°F)	50.0
Grains	21.9
Enthalpy (BTU/Lb)	20.2
Relative Humidity	20%
Airflow (scfm)	8,000

Unit Effectiveness	0.60
Supply Sensible Efficiency	0.60
Supply Latent Efficiency	0.56
Minimum Heating RER	148



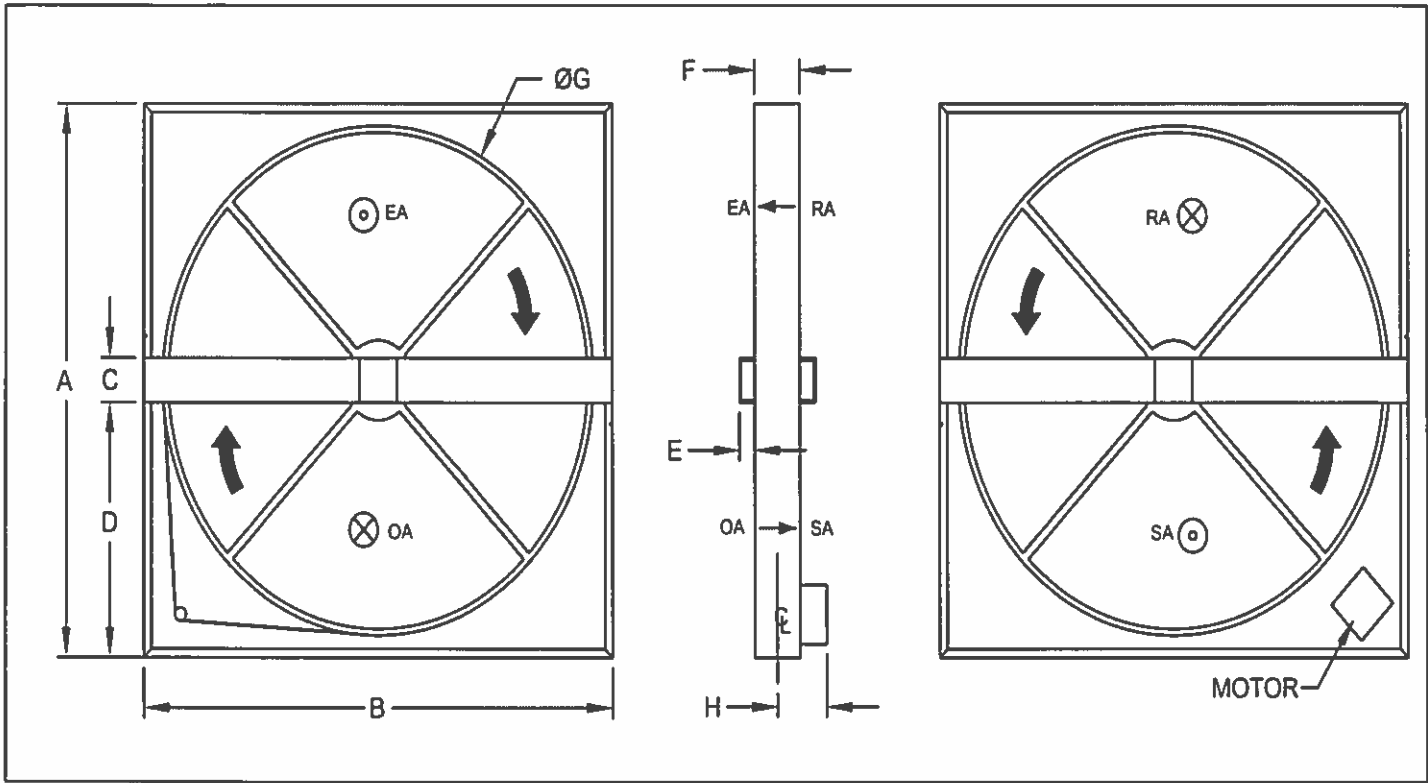
Supply Air Pressure Loss	0.58
Exhaust Air Pressure Loss	0.62
Purge Pressure Differential Used (in)	1.00

*AHRI Application Rating Point (note 2)*

**Note: Higher purge pressure will increase purge/seal leakage shown**

Dimensions and Weights

AHU-A1



Series	Wheel Depth	Dimensions (inches)								Weight (lb)
		A	B	C	D	E	F	G	H	
UWC-58	3.75	62.42	62.42	3.10	29.70	2.05	4.36	58.4	7.45	238

AIR FLOW SYMBOLS:

⊙	AIR OUT OF PAGE
⊗	AIR INTO PAGE
EA	EXHAUST AIR
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

**UWC Scope of Work:**

<b>Project Name</b>	Brown County Jail
<b>Project Location</b>	Green Bay WI
<b>Mechanical Contractor</b>	
<b>SEMCO Representative</b>	Trane

<b>Unit Designation</b>	AHU-A2	<b>Date</b>	22-Mar-22
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**Unit Size and Options Selected****UWC-58****Classic UWC**

SEMCO will provide a Fusion UWC energy recovery wheel with total enthalpy media, all aluminum spoke and rim assembly, aluminum hub assembly, bearings, carbon steel shaft, seals with retaining clips, perimeter drive belt, speed reduction system.

**Constant Speed Wheel (Electrical Information Included)**

Wheel is driven by constant speed 460V/3 Ph/60 Hz, 1/4 HP motor.

Nameplate Amps: 0.5

**Wheel Arrangement**

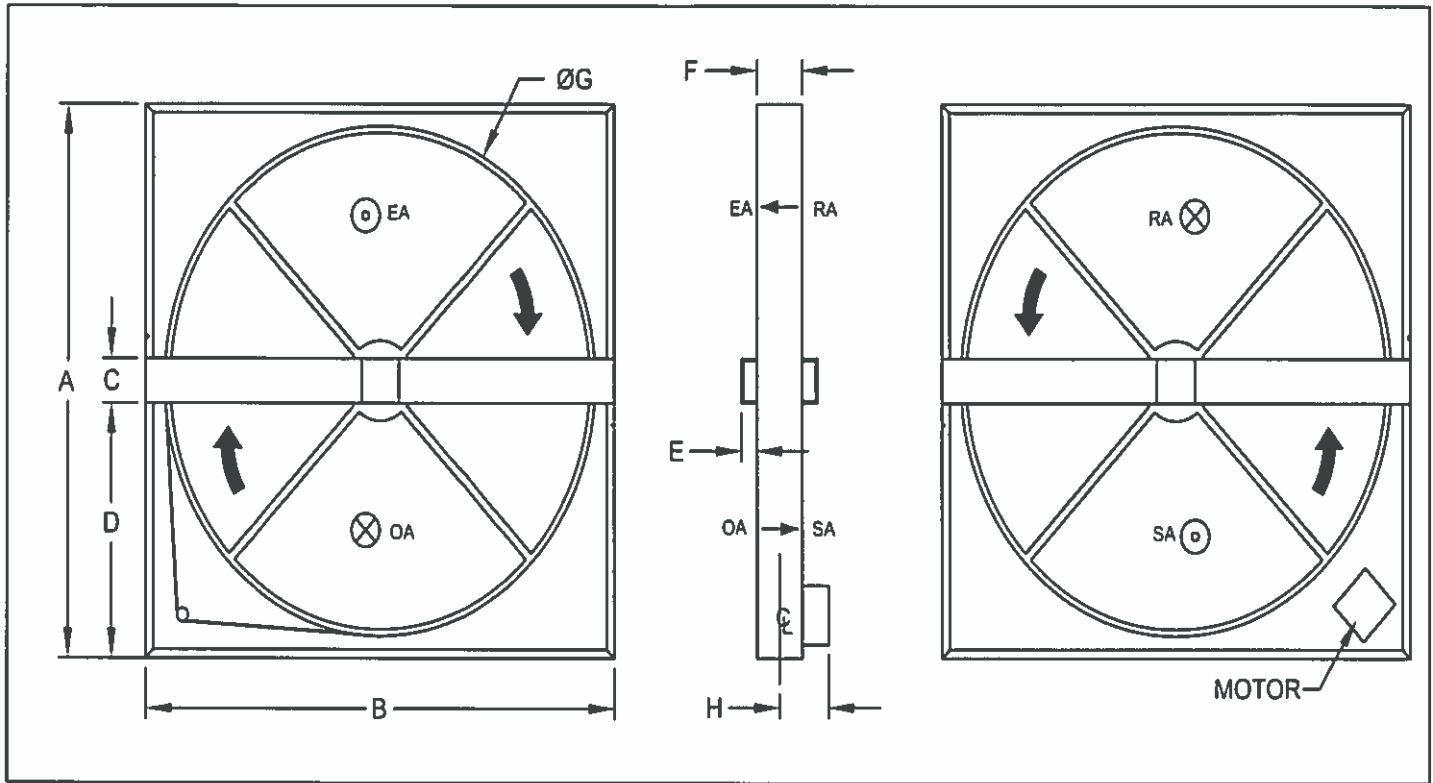
See Dimensions and Weights page for details

**Wheel Control**

Wheel control by other than SEMCO.

Dimensions and Weights

AHU-A2



Series	Wheel Depth	Dimensions (inches)								Weight (lb)
		A	B	C	D	E	F	G	H	
UWC-58	3.75	62.42	62.42	3.10	29.70	2.05	4.36	58.4	7.45	238

NOTE - MOTOR TO BE LOCATED ON SUPPLY SIDE OF WHEEL. EXISTING MOTOR IS LOCATED IN OUTSIDE AIR SIDE WHICH IS NOT RECOMMENDED BY SEMCO. ELECTRICIAN TO RELOCATE WIRING/MOTOR TO SUPPLY SIDE OF WHEEL

AIR FLOW SYMBOLS:

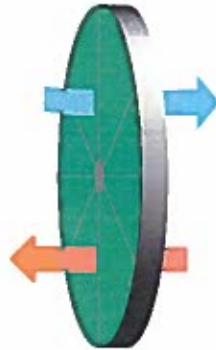
	AIR OUT OF PAGE
	AIR INTO PAGE
EA	EXHAUST AIR
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

**Recovery Wheel Performance Data: Cooling Season**

**Model: UWC-58**

**Outdoor Airstream**

Dry bulb (°F)	88.0
Wet bulb (°F)	74.0
Grains	104.4
Enthalpy (BTU/Lb)	37.5
Airflow (scfm)	8,272



**Supply Airstream**

Dry bulb (°F)	80.2
Wet bulb (°F)	67.5
Grains	81.1
Enthalpy (BTU/Lb)	31.9
Airflow (scfm)	8,000

**Exhaust Airstream**

Dry bulb (°F)	82.8
Wet bulb (°F)	69.3
Grains	85.8
Enthalpy (BTU/Lb)	33.3
Airflow (scfm)	8,272

**Return Airstream**

Dry bulb (°F)	75.0
Wet bulb (°F)	62.0
Grains	62.4
Enthalpy (BTU/Lb)	27.8
Relative Humidity	48%
Airflow (scfm)	8,000

Unit Effectiveness	0.59
Supply Sensible Efficiency	0.60
Supply Latent Efficiency	0.56
Minimum Cooling RER	75



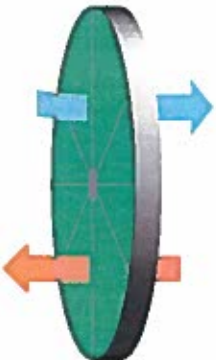
Supply Air Pressure Loss	0.65
Exhaust Air Pressure Loss	0.65
Purge Pressure Differential Used (in)	1.00

*AHRI Certified Rating Point (note 1)*

**Recovery Wheel Performance Data: Heating Season**

**Outdoor Airstream**

Dry bulb (°F)	-10.0
Wet bulb (°F)	-11.0
Grains	1.5
Enthalpy (BTU/Lb)	-2.2
Airflow (scfm)	8,272



**Supply Airstream**

Dry bulb (°F)	38.1
Wet bulb (°F)	30.5
Grains	12.8
Enthalpy (BTU/Lb)	11.1
Airflow (scfm)	8,000

**Exhaust Airstream**

Dry bulb (°F)	23.0
Wet bulb (°F)	19.8
Grains	9.9
Enthalpy (BTU/Lb)	7.0
Airflow (scfm)	8,272

**Return Airstream**

Dry bulb (°F)	70.0
Wet bulb (°F)	50.0
Grains	21.9
Enthalpy (BTU/Lb)	20.2
Relative Humidity	20%
Airflow (scfm)	8,000

Unit Effectiveness	0.60
Supply Sensible Efficiency	0.60
Supply Latent Efficiency	0.56
Minimum Heating RER	148



Supply Air Pressure Loss	0.58
Exhaust Air Pressure Loss	0.62
Purge Pressure Differential Used (in)	1.00

*AHRI Application Rating Point (note 2)*

**Note: Higher purge pressure will increase purge/seal leakage shown**

**UWC Scope of Work:**

<b>Project Name</b>	Brown County Jail
<b>Project Location</b>	Green Bay WI
<b>Mechanical Contractor</b>	
<b>SEMCO Representative</b>	Trane

<b>Unit Designation</b>	AHU-A3	<b>Date</b>	22-Mar-22
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**Unit Size and Options Selected**

**UWC-46**

**Classic UWC**

SEMCO will provide a Fusion UWC energy recovery wheel with total enthalpy media, all aluminum spoke and rim assembly, aluminum hub assembly, bearings, carbon steel shaft, seals with retaining clips, perimeter drive belt, speed reduction system.

**Constant Speed Wheel (Electrical Information Included)**

Wheel is driven by constant speed 460V/3 Ph/60 Hz, 1/4 HP motor.

Nameplate Amps: 0.5

**Wheel Arrangement**

See Dimensions and Weights page for details

**Wheel Control**

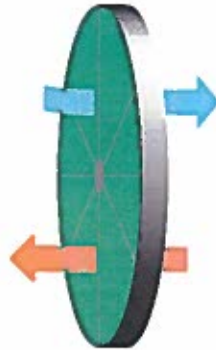
Wheel control by other than SEMCO.

**Recovery Wheel Performance Data: Cooling Season**

**Model: UWC-46**

**Outdoor Airstream**

Dry bulb (°F)	88.0
Wet bulb (°F)	74.0
Grains	104.4
Enthalpy (BTU/Lb)	37.5
Airflow (scfm)	4,720



**Supply Airstream**

Dry bulb (°F)	80.1
Wet bulb (°F)	67.4
Grains	80.6
Enthalpy (BTU/Lb)	31.9
Airflow (scfm)	4,500

**Exhaust Airstream**

Dry bulb (°F)	82.9
Wet bulb (°F)	69.4
Grains	86.3
Enthalpy (BTU/Lb)	33.4
Airflow (scfm)	4,720

**Return Airstream**

Dry bulb (°F)	75.0
Wet bulb (°F)	62.0
Grains	62.4
Enthalpy (BTU/Lb)	27.8
Relative Humidity	48%
Airflow (scfm)	4,500

Unit Effectiveness	0.60
Supply Sensible Efficiency	0.61
Supply Latent Efficiency	0.57
Minimum Cooling RER	77



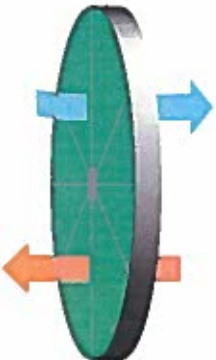
Supply Air Pressure Loss	0.62
Exhaust Air Pressure Loss	0.62
Purge Pressure Differential Used (in)	1.00

*AHRI Certified Rating Point (note 1)*

**Recovery Wheel Performance Data: Heating Season**

**Outdoor Airstream**

Dry bulb (°F)	-10.0
Wet bulb (°F)	-11.0
Grains	1.5
Enthalpy (BTU/Lb)	-2.2
Airflow (scfm)	4,720



**Supply Airstream**

Dry bulb (°F)	38.7
Wet bulb (°F)	30.9
Grains	13.1
Enthalpy (BTU/Lb)	11.3
Airflow (scfm)	4,500

**Exhaust Airstream**

Dry bulb (°F)	22.3
Wet bulb (°F)	19.3
Grains	9.8
Enthalpy (BTU/Lb)	6.9
Airflow (scfm)	4,720

**Return Airstream**

Dry bulb (°F)	70.0
Wet bulb (°F)	50.0
Grains	21.9
Enthalpy (BTU/Lb)	20.2
Relative Humidity	20%
Airflow (scfm)	4,500

Unit Effectiveness	0.61
Supply Sensible Efficiency	0.61
Supply Latent Efficiency	0.57
Minimum Heating RER	152



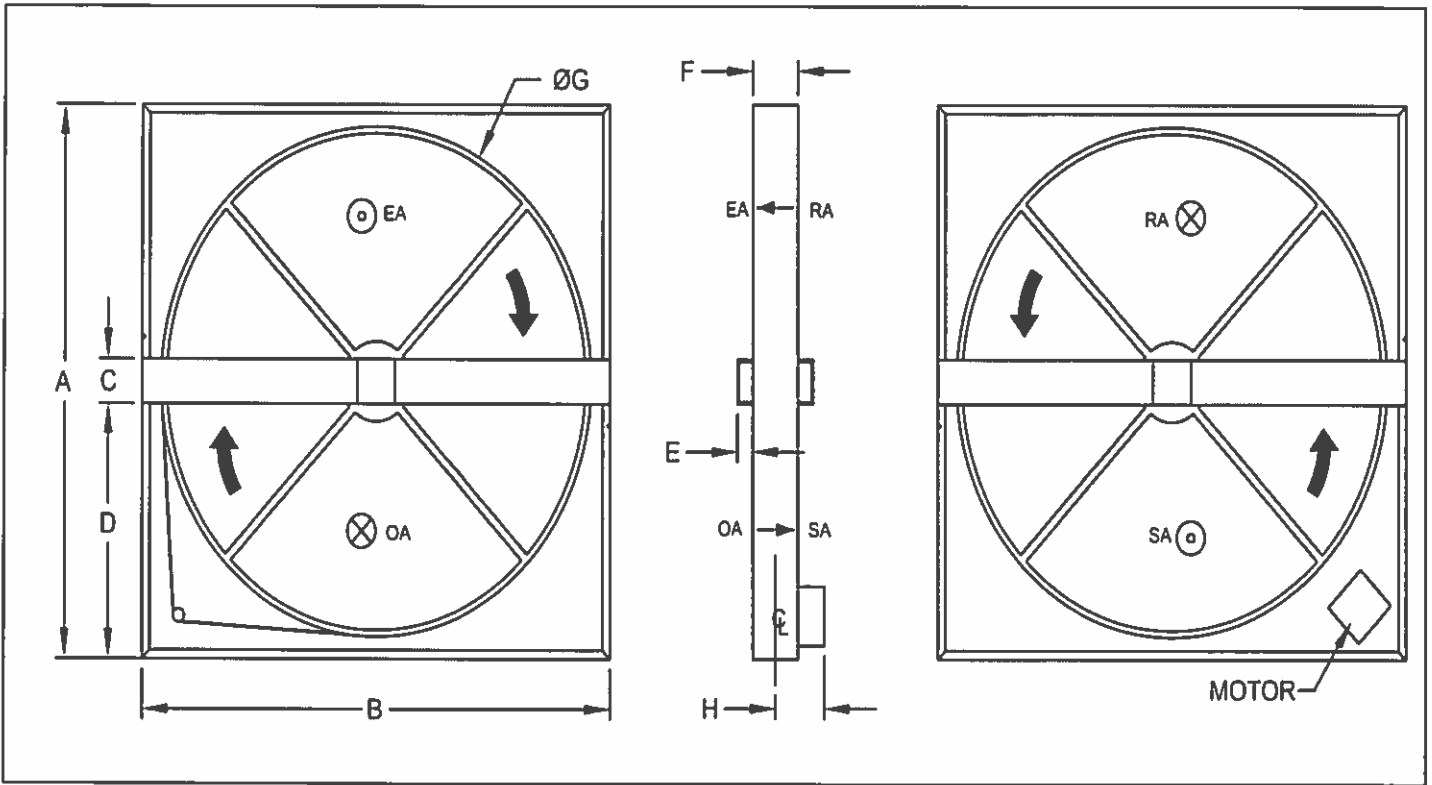
Supply Air Pressure Loss	0.56
Exhaust Air Pressure Loss	0.59
Purge Pressure Differential Used (in)	1.00

*AHRI Application Rating Point (note 2)*

**Note: Higher purge pressure will increase purge/seal leakage shown**

Dimensions and Weights

AHU-A3



Series	Wheel Depth	Dimensions (inches)								Weight (lb)
		A	B	C	D	E	F	G	H	
UWC-46	3.75	50.00	50.00	3.10	23.50	1.58	4.36	46.0	5.51	177

AIR FLOW SYMBOLS:

	AIR OUT OF PAGE
	AIR INTO PAGE
EA	EXHAUST AIR
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

## UWC Scope of Work:

<b>Project Name</b>	Brown County Jail
<b>Project Location</b>	Green Bay WI
<b>Mechanical Contractor</b>	
<b>SEMCO Representative</b>	Trane

<b>Unit Designation</b>	AHU-E1	<b>Date</b>	22-Mar-22
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### Unit Size and Options Selected

#### UWC-64

#### Classic UWC

SEMCO will provide a Fusion UWC energy recovery wheel with total enthalpy media, all aluminum spoke and rim assembly, aluminum hub assembly, bearings, carbon steel shaft, seals with retaining clips, perimeter drive belt, speed reduction system.

#### Constant Speed Wheel (Electrical Information Included)

Wheel is driven by constant speed 460V/3 Ph/60 Hz, 1/4 HP motor.

Nameplate Amps: 0.5

#### Wheel Arrangement

See Dimensions and Weights page for details

#### Wheel Control

Wheel control by other than SEMCO.

AHU-E1

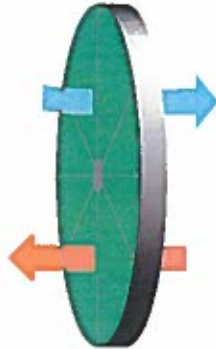
Version FG SEMCO\_UWC\_UWCH\_CROSS 4 Select V02092022.1 - (copyright 2022 SEMCO LLC)

Recovery Wheel Performance Data: Cooling Season

Model: UWC-64

Outdoor Airstream

Dry bulb (°F)	88.0
Wet bulb (°F)	74.0
Grains	104.4
Enthalpy (BTU/Lb)	37.5
Airflow (scfm)	8,308



Supply Airstream

Dry bulb (°F)	79.8
Wet bulb (°F)	67.0
Grains	79.2
Enthalpy (BTU/Lb)	31.5
Airflow (scfm)	8,000

Exhaust Airstream

Dry bulb (°F)	83.2
Wet bulb (°F)	69.7
Grains	87.7
Enthalpy (BTU/Lb)	33.7
Airflow (scfm)	8,308

Return Airstream

Dry bulb (°F)	75.0
Wet bulb (°F)	62.0
Grains	62.4
Enthalpy (BTU/Lb)	27.8
Relative Humidity	48%
Airflow (scfm)	8,000

Unit Effectiveness	0.62
Supply Sensible Efficiency	0.63
Supply Latent Efficiency	0.60
Minimum Cooling RER	99



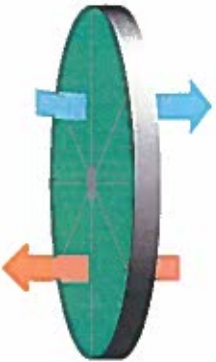
Supply Air Pressure Loss	0.51
Exhaust Air Pressure Loss	0.51
Purge Pressure Differential Used (in)	1.00

AHRI Certified Rating Point (note 1)

Recovery Wheel Performance Data: Heating Season

Outdoor Airstream

Dry bulb (°F)	-10.0
Wet bulb (°F)	-11.0
Grains	1.5
Enthalpy (BTU/Lb)	-2.2
Airflow (scfm)	8,308



Supply Airstream

Dry bulb (°F)	40.5
Wet bulb (°F)	32.2
Grains	13.8
Enthalpy (BTU/Lb)	11.9
Airflow (scfm)	8,000

Exhaust Airstream

Dry bulb (°F)	20.2
Wet bulb (°F)	17.5
Grains	9.2
Enthalpy (BTU/Lb)	6.3
Airflow (scfm)	8,308

Return Airstream

Dry bulb (°F)	70.0
Wet bulb (°F)	50.0
Grains	21.9
Enthalpy (BTU/Lb)	20.2
Relative Humidity	20%
Airflow (scfm)	8,000

Unit Effectiveness	0.63
Supply Sensible Efficiency	0.63
Supply Latent Efficiency	0.60
Minimum Heating RER	195



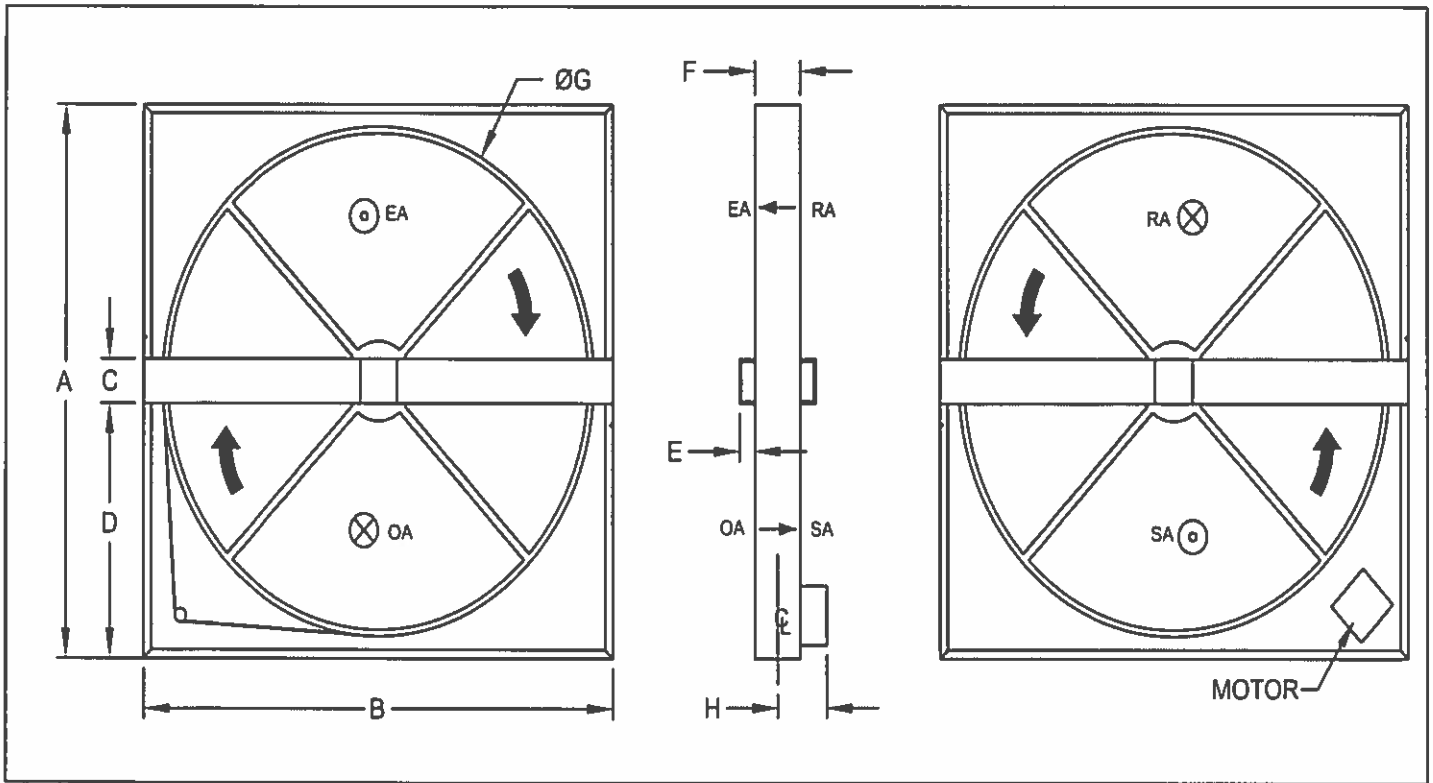
Supply Air Pressure Loss	0.46
Exhaust Air Pressure Loss	0.49
Purge Pressure Differential Used (in)	1.00

AHRI Application Rating Point (note 2)

Note: Higher purge pressure will increase purge/seal leakage shown

Dimensions and Weights

AHU-E1



Series	Wheel Depth	Dimensions (inches)								Weight (lb)
		A	B	C	D	E	F	G	H	
UWC-64	3.75	68.00	68.00	5.00	31.50	2.05	6.07	64.0	7.45	247

AIR FLOW SYMBOLS:

⊙	AIR OUT OF PAGE
⊗	AIR INTO PAGE
EA	EXHAUST AIR
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

**UWC Scope of Work:**

<b>Project Name</b>	Brown County Jail
<b>Project Location</b>	Green Bay WI
<b>Mechanical Contractor</b>	
<b>SEMCO Representative</b>	Trane

<b>Unit Designation</b>	AHU-E2	<b>Date</b>	22-Mar-22
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**Unit Size and Options Selected**

**UWC-58**

**Classic UWC**

SEMCO will provide a Fusion UWC energy recovery wheel with total enthalpy media, all aluminum spoke and rim assembly, aluminum hub assembly, bearings, carbon steel shaft, seals with retaining clips, perimeter drive belt, speed reduction system.

**Constant Speed Wheel (Electrical Information Included)**

Wheel is driven by constant speed 460V/3 Ph/60 Hz, 1/4 HP motor.

Nameplate Amps: 0.5

**Wheel Arrangement**

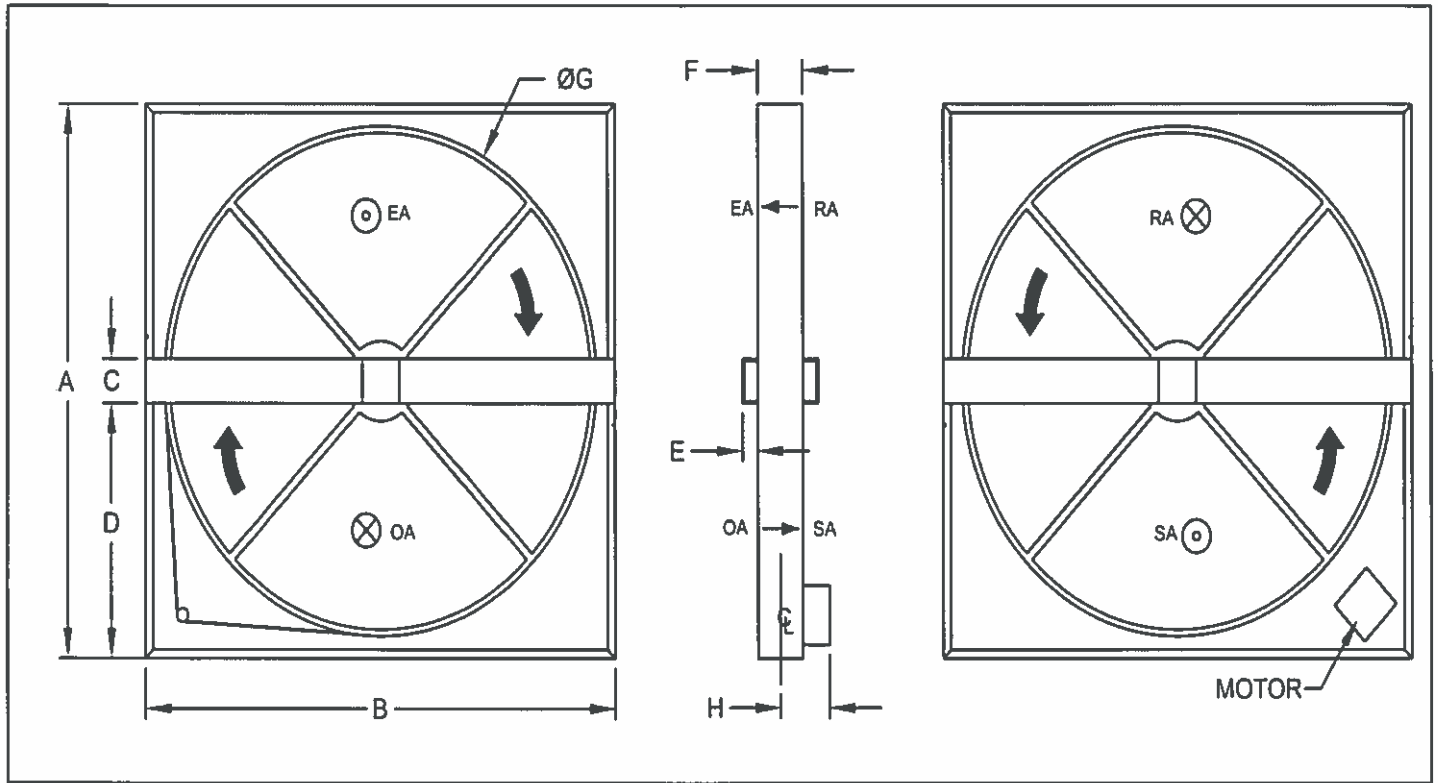
See Dimensions and Weights page for details

**Wheel Control**

Wheel control by other than SEMCO.

Dimensions and Weights

AHU-E2



Series	Wheel Depth	Dimensions (inches)								Weight (lb)
		A	B	C	D	E	F	G	H	
UWC-58	3.75	62.42	62.42	3.10	29.70	2.05	4.36	58.4	7.45	238

NOTE - MOTOR TO BE LOCATED ON SUPPLY AIR SIDE OF WHEEL. EXISTING MOTOR IS LOCATED IN OUTSIDE AIR SIDE WHICH IS NOT RECOMMENDED BY SEMCO. ELECTRICIAN TO RELOCATE WIRING/MOTOR TO SUPPLY SIDE OF WHEEL

AIR FLOW SYMBOLS:

	AIR OUT OF PAGE
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**UWC Scope of Work:**

<b>Project Name</b>	Brown County Jail
<b>Project Location</b>	Green Bay WI
<b>Mechanical Contractor</b>	
<b>SEMCO Representative</b>	Trane

<b>Unit Designation</b>	AHU-E3	<b>Date</b>	22-Mar-22
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**Unit Size and Options Selected**

**UWC-58**

**Classic UWC**

SEMCO will provide a Fusion UWC energy recovery wheel with total enthalpy media, all aluminum spoke and rim assembly, aluminum hub assembly, bearings, carbon steel shaft, seals with retaining clips, perimeter drive belt, speed reduction system.

**Constant Speed Wheel (Electrical Information Included)**

Wheel is driven by constant speed 460V/3 Ph/60 Hz, 1/4 HP motor.

Nameplate Amps: 0.5

**Wheel Arrangement**

See Dimensions and Weights page for details

**Wheel Control**

Wheel control by other than SEMCO.

**AHU-E3**

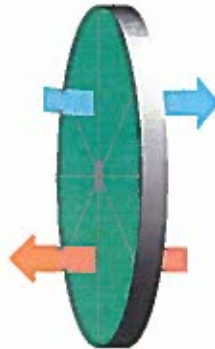
Version FG SEMCO\_UWC\_UWCH\_CROSS 4 Select V02092022.1 - (copyright 2022 SEMCO LLC)

**Recovery Wheel Performance Data: Cooling Season**

**Model: UWC-58**

**Outdoor Airstream**

Dry bulb (°F)	88.0
Wet bulb (°F)	74.0
Grains	104.4
Enthalpy (BTU/Lb)	37.5
Airflow (scfm)	8,272



**Supply Airstream**

Dry bulb (°F)	80.2
Wet bulb (°F)	67.5
Grains	81.1
Enthalpy (BTU/Lb)	31.9
Airflow (scfm)	8,000

**Exhaust Airstream**

Dry bulb (°F)	82.8
Wet bulb (°F)	69.3
Grains	85.8
Enthalpy (BTU/Lb)	33.3
Airflow (scfm)	8,272

**Return Airstream**

Dry bulb (°F)	75.0
Wet bulb (°F)	62.0
Grains	62.4
Enthalpy (BTU/Lb)	27.8
Relative Humidity	48%
Airflow (scfm)	8,000

Unit Effectiveness	0.59
Supply Sensible Efficiency	0.60
Supply Latent Efficiency	0.56
Minimum Cooling RER	75



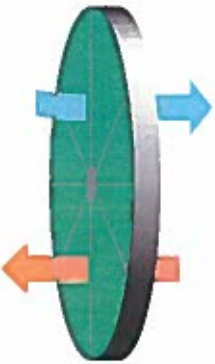
Supply Air Pressure Loss	0.65
Exhaust Air Pressure Loss	0.65
Purge Pressure Differential Used (in)	1.00

*AHRI Certified Rating Point (note 1)*

**Recovery Wheel Performance Data: Heating Season**

**Outdoor Airstream**

Dry bulb (°F)	-10.0
Wet bulb (°F)	-11.0
Grains	1.5
Enthalpy (BTU/Lb)	-2.2
Airflow (scfm)	8,272



**Supply Airstream**

Dry bulb (°F)	38.1
Wet bulb (°F)	30.5
Grains	12.8
Enthalpy (BTU/Lb)	11.1
Airflow (scfm)	8,000

**Exhaust Airstream**

Dry bulb (°F)	23.0
Wet bulb (°F)	19.8
Grains	9.9
Enthalpy (BTU/Lb)	7.0
Airflow (scfm)	8,272

**Return Airstream**

Dry bulb (°F)	70.0
Wet bulb (°F)	50.0
Grains	21.9
Enthalpy (BTU/Lb)	20.2
Relative Humidity	20%
Airflow (scfm)	8,000

Unit Effectiveness	0.60
Supply Sensible Efficiency	0.60
Supply Latent Efficiency	0.56
Minimum Heating RER	148



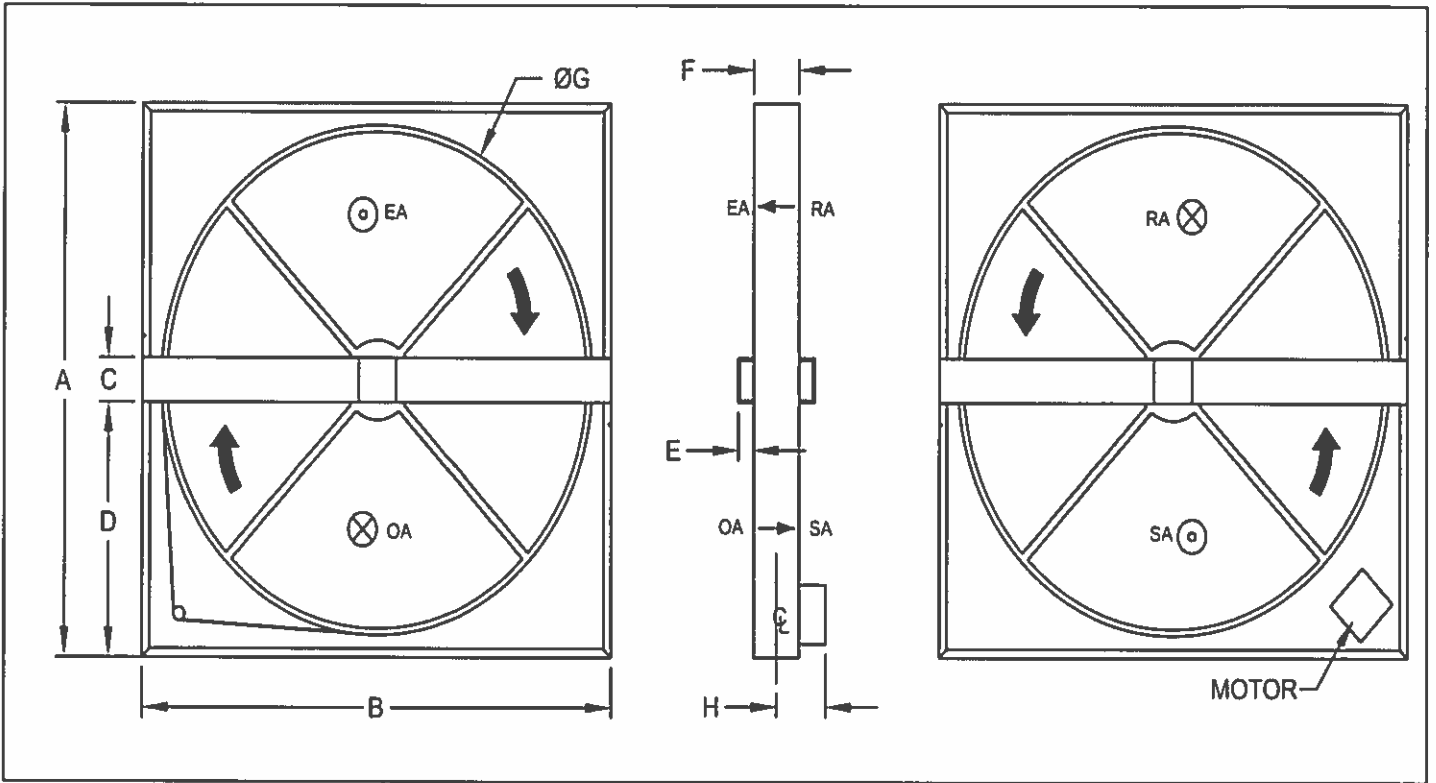
Supply Air Pressure Loss	0.58
Exhaust Air Pressure Loss	0.62
Purge Pressure Differential Used (in)	1.00

*AHRI Application Rating Point (note 2)*

**Note: Higher purge pressure will increase purge/seal leakage shown**

Dimensions and Weights

AHU-E3



Series	Wheel Depth	Dimensions (inches)								Weight (lb)
		A	B	C	D	E	F	G	H	
UWC-58	3.75	62.42	62.42	3.10	29.70	2.05	4.36	58.4	7.45	238

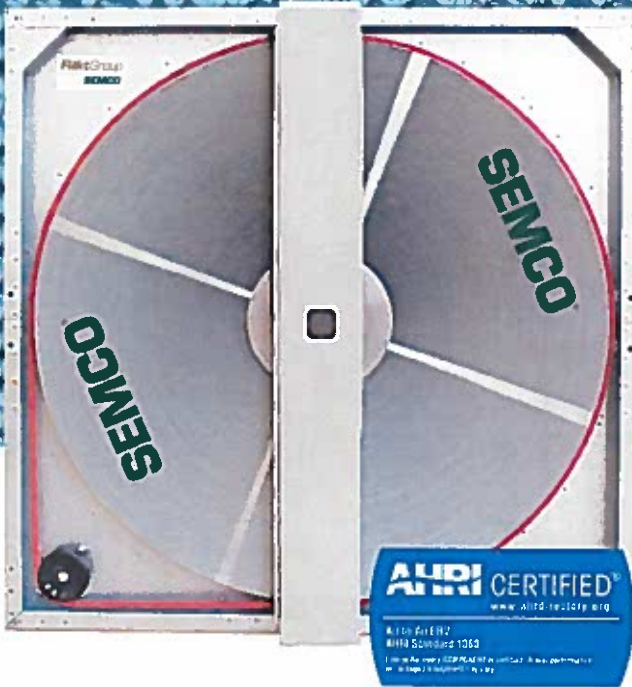
AIR FLOW SYMBOLS:

	AIR OUT OF PAGE
	AIR INTO PAGE
EA	EXHAUST AIR
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

INDOOR AIR QUALITY

ENERGY RECOVERY

**FläktGroup**  
**SEMCO**



## UNITARY WHEEL CASSETTE FEATURES & BENEFITS

Upgrade your existing plastic, disposable wheel application in your energy recovery unit (ERU), with the best Unitary Wheel Cassettes (UWC) in the industry. Fläktgroup SEMCO cassettes can be used to replace wheels found in AADN®, GREENHECK®, Carrier Corporation®, CLIMATEMASTER®, LENNOX®, and McQuay International® ERU systems. SEMCO offers two different cassette options, the Classic Cassette and the Cross Cassette. Both lines of cassettes, recover more sensible and latent energy more effectively than any competitive offerings. The newly expanded SEMCO UWC line, now offers a larger variety of sizes in both the Classic Cassette and Cross Cassette lines.

### KEY BENEFITS

#### SUPERIOR PERFORMANCE

Highest latent and sensible heat transfer efficiency certified media.

#### COMPACT DESIGN

Most compact design in the industry given any specific face velocity and efficiency.\*

\*Based on industry standard 400-900 feet per minute

#### AHRI CERTIFIED

Independently tested in accordance with ASHRAE 84 and verified to assure the equipment will perform accurately and consistently.

#### MONEY SAVING

Fast adsorption of moisture, giving a high latent efficiency even at high air flow rates.

#### EXCEEDS SMOKE AND FLAME SPREAD SAFETY RATINGS

The UWC line is independently certified to pass NFPA 90A requirements for flame spread and smoke generation based upon ASTM E84 fire test method.

#### CORROSION RESISTANCE

The ceramic coating on the rotor gives extremely high corrosion protection.

#### UNIQUE FLUTE DESIGN

Generating the highest possible heat transfer characteristics fan size, while simultaneously reducing pressure loss parameters, resulting in a reduction of brake horsepower used and fan size.

#### NON-OXIDIZED COATED MEDIA

The media is made from aluminum which features a dense layer of corrosion resistant desiccant. This extends the life of the aluminum media substrate and enhances its structural integrity, perimeter and face contact seals to minimize air leakage and wheel bypass.

#### LOW LEAKAGE SEALS

The UWC line is supplied with hybrid brush/barrier, perimeter and face contact seals to minimize air leakage and wheel bypass, forming the ideal sealing surface.

#### LIGHT WEIGHT MEDIA SUPPORT

The media support members (hub, spokes and rims) are aluminum extrusions. This combines strength with precision.

#### EASE OF INSTALLATION

The UWC is designed to be a slide in replacement for the stacked plate, dimpled plastic wheels in most applications and can be easily installed in just a few minutes.

#### LIFETIME PERFORMANCE

The UWC is designed and built to provide long and reliable operation for the life of the equipment it's installed in, minimizing maintenance, labor and replacement costs. DLL performance software for integration into the selection software of OEM customers.

## EFFORTLESS INSTALLATION



TIME ELAPSED ON INSTALLATION =  
**26 SECONDS**

## KEY FEATURES

- Industry's highest recovery performance (AHRI Certified) and Recovery Efficiency Ratios (RER)
- 100-150 mm deep transfer media
- Reduced contaminant carry-over compared to silica gel based energy wheels
- Structural sheet metal with tubular bearing support
- Structural aluminum media spoke system with extruded aluminum inner hub
- Comprehensive variable speed wheel motor (optional)



## SEMCO CONVERSION CHART

Classic Cassette Series	AirXChange®	Cross Cassette 4 Series	NovelAire® 4"	Cross Cassette 6 Series	NovelAire® 6"
UWC-25	ERC-25	UWC-254	ECW-244	UWC-466	ECW-486
UWC-30	ERC-30	UWC-304	ECW-324	UWC-526	ECW-546
UWC-36	ERC-36	UWC-364	ECW-364	UWC-586	ECW-606
UWC-41	ERC-41	UWC-414	ECW-424	UWC-686	ECW-666
UWC-46	ERC-46	UWC-464	ECW-484	UWC-746	ECW-726
UWC-52	ERC-52	UWC-524	ECW-544	UWC-786	ECW-786
UWC-58	ERC-58	UWC-584	ECW-604	UWC-846	ECW-846
UWC-64	ERC-64	UWC-684	ECW-664	UWC-906	ECW-906
UWC-68	ERC-68	UWC-744	ECW-784	UWC-966	ECW-966
UWC-74	ERC-74	UWC-784	UWC-784	UWC-1026	ECW-1026
UWC-78	ERC-81	UWC-844	ECW-844	UWC-1086	ECW-1086
UWC-84	ERC-88	N/A	N/A	N/A	N/A

## EXCELLENCE IN SOLUTIONS

FläktGroup SEMCO delivers smart, energy-efficient, air-quality solutions to support every building application. We offer our customers innovative technologies, high-quality products and outstanding performance supported by more than fifty years of accumulated industry experience. The broadest offering on the market and a strong market presence in 65 countries worldwide guarantees that we are always by your side, ready to deliver: Excellence in Solutions.

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