



# Submission Data Sheet

## CPC-3 CONSTANT PRESSURE CONTROLLER

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description**

The CPC-3 is a microprocessor-based control that can simultaneously control both draft and/or combustion air pressures. It typically controls the operation and speed of an Auto-Draft® Inducer and/or a Universal Blower to maintain draft or pressure set points. A third function provides for an interface with a motorized louver. The CPC-3 also serves as the safety interlock with associated burner controls.

**Features**

The CPC-3 has an 80 character vacuum florescent display that provides real-time system status and a soft touch keypad. All primary functions can be programmed via distinct buttons, eliminating scrolling through multiple screens. Included are four burner interlock terminal strips that can interface with millivolt, 24 Volt, 115 Volt or 230 Volt burner control circuits. The addition of up to three EXP-4E Expansion Modules allows up to 16 separate burners to be interlocked. LED status indicators on the face of the keypad show which interlocked burner is calling for heat and when the CPC-3 safety circuits approve burner operation. Additional LED's indicate venter limit(s) status and VFD operation and fault status. Correct venter rotation can be determined by display prompts and changed through a dip switch on the circuit board. Included quick connect cabling completes all control circuit connections between the CPC-3 and VFD. Features system fault diagnosis with date and time reference for easy troubleshooting. Built in alarm alerts building maintenance personnel if system faults. Alarm relay also allows interface with building management system.

**Programming Options**

Draft Pressure Set Point, Combustion Air Pressure Set Point, Pre and Post purge, Automatic or Manual operation. Combustion air modes of operation include "Open" room pressure or ducted "Sealed" pressure for sealed combustion burners.

**Operation**

Upon a call for heat from an interlocked burner the CPC-3 references the vent system draft and/or combustion air pressure as measured by the TD-Series Pressure Transducer(s) and activates the Variable Frequency Drive. The VFD quickly speeds up the inducer/blower until the vent system draft and/or combustion air set point is reached. When the set point is reached the CPC-3 completes the circuit to the interlocked appliance allowing the normal firing sequence to resume. Additional burner stages will create a momentary decrease in vent system pressures, causing the inducer/blower to speed up to maintain the set point. If sufficient natural draft and/or combustion air is present the CPC-3 will deactivate the inducer/blower until it is needed. The interlocked burners will be deactivated if the vent system draft set point cannot be maintained within 0.01" w.c. during predefined time limits based on combustion air or draft modes of operation.

**Material**

The housing is made from 18 gauge aluminized steel and is painted with an industrial powder coating. It has NEMA class 1 construction.

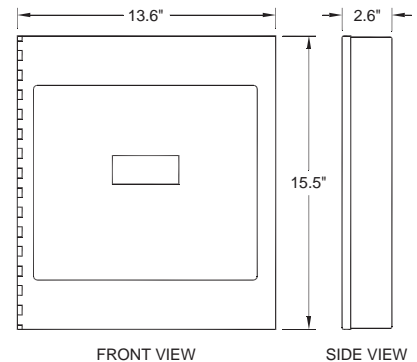
**Listings**

ETL Listed # 56826  
UL508 - Standard for industrial control equipment

CSA C22.2 No. 14-95 - Standard for industrial control equipment

**Warranty**

2 year warranty



**IMPORTANT: FOR "OPEN" COMBUSTION AIR APPLICATIONS WHERE THE CPC-3 IS CONTROLLING THE MECHANICAL ROOM PRESSURE.**  
The system will not maintain room pressure unless doors have sweeps and all obvious voids to spaces outside the mechanical room are sealed.

CPC-3 CONTROLLER	
Power Supply	115 / 208-230 / 50 - 60 Hz / 0.5 Amp
Control Signal	Drive: 2 each 0 - 10 VDC, 10 mA each Sensor: 5 each 0 - 10 VDC, 0.25 mA each 1 Digital Input 3.4 - 5.0 VDC, 24 mA max 1 Digital Output 3.4 - 5.0 VDC, 24 mA max
Sensor Supply	4 each 24 VDC, 420 mA total
Inducer Range of Operation	+0.15 to -0.60 In WC / +37 to -159 Pa
Combustion Air Range of Operation	Open System: +0.15 to -0.60 In WC / +37 to -159 Pa Sealed System: +0.10 to -0.10 In WC / +24 to -24 Pa
Pressure Tolerance	0.0002 In WC / 0.05 Pa
Operating Temperature	32° to 122° F / 0° to 50° C
Appliance / Pump / AUX Relays	General Purpose 20 A, 240 VAC Motor: 1 HP, 125 VAC 2 HP, 250 VAC
Alarm Relay	2 A, 125 VAC
Dimensions, H x W x D	15.5 x 13.6 x 2.6 in 394 x 345 x 66 mm
Weight	9.5 lbs / 4.3 kg



# Submittal Data Sheet

## VFD-SERIES VARIABLE FREQUENCY DRIVES

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

### Description

Tjernlund VFD-Series Drives from Yaskawa are pulse width modulated to generate an adjustable voltage to frequency three phase output for complete speed control of Tjernlund Auto-Draft® Series Commercial Ventilation and Draft Systems. All Drives are factory programmed for the Inducer or Blower they are controlling and specific mode of operation.

An Automatic-Variable Speed system includes a closed loop VFD, CPC-3 Constant Pressure Controller, TD-Series Pressure Transducer and an Auto-Draft® Inducer or Universal Blower. This system will automatically adjust the Inducer/Blower speed based on the pressure in the stack or room to always deliver perfect draft or combustion air. Closed loop VFD's include 10' quick connect cable to connect VFD and Inducer/Blower limit circuits to CPC-3.

An Adjustable-Fixed Speed system includes an an open loop VFD and an Auto-Draft® Inducer or Universal Blower. Inducer/Blower speed is manually adjusted by the installer with the VFD. Open loop VFD's include a Relay for easier interlock with the UC1 Universal Control.

### Construction

The housing is constructed from 18 gauge aluminized steel and is coated with an industrial powder coating. It has NEMA class 1 construction.

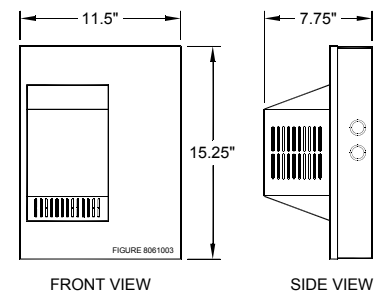
### Listings

UL, ULc and CE compliant.

Fan Model	VFD Model	Input Voltage (Note: All drives produce 3 phase output)	3 Phase HP      Amps
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MOTOR DRIVE (VFD)





# Submittal Data Sheet

## EXP-4E EXPANSION MODULE TD-SERIES PRESSURE TRANSDUCERS FFP-1 FIRE & FREEZE PROTECTION LIMIT IPS-1 INDOOR PRESSURE SENSOR

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

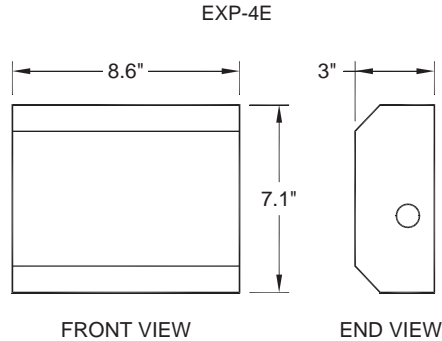
Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

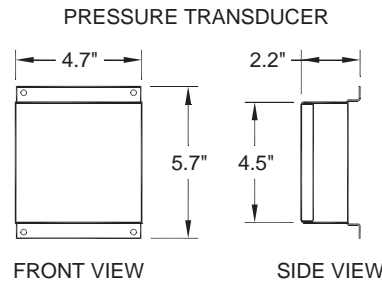
### EXP-4E Appliance Interlock Expansion Module Description

The EXP-4E Expansion Module allows up to four additional appliances to be interlocked with the CPC-3 Constant Pressure Controller. Three EXP-4E modules can be used with one CPC-3 for controlling up to sixteen appliances. It communicates with the CPC-3 via a plug in ribbon cable and has LED lights that provide the status of each appliance interlocked. Comes with a control box that has NEMA class 1 construction.



### TD-Series Pressure Transducers Description

The TD-Series pressure transducers measure draft pressure within the vent pipe or mechanical room 10 times a second. They communicate with the CPC-3 which modulates the VFD to increase or decrease the Inducer/Blower motor to maintain perfect draft or combustion air. Includes automatic recalibration to stop electronic set point drifting and is not position sensitive.

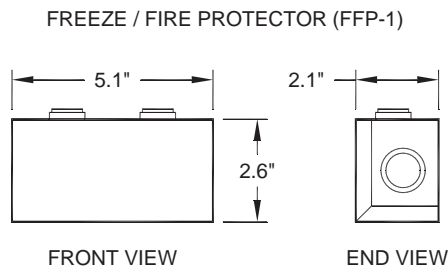


TD-2 (+0.15" to -0.60" w.c.) for draft or "Sealed" (ducted sealed combustion air) sensing.

TD-3 (+0.10" to -0.10" w.c.) for "Open" (room pressure) combustion air sensing.

### FFP-1 Fire & Freeze Protection Limit Description

The FFP-1 Fire and Freeze Protection Limit helps protect the boiler room from temperature extremes. It is used with Tjernlund Series Commercial Combustion Air Systems. The FFP-1 is designed to disrupt power to a combustion air supply blower in the event of a boiler room fire or an extended period where frigid outdoor air supply could cause pipes to freeze.

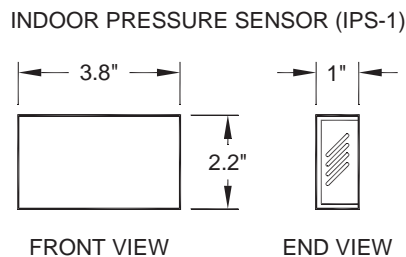


### **⚠ WARNING**

**Do not wire an FFP-1 into a flue gas exhaust system or interruption of the exhaust system may occur if boiler room temperature falls below Freeze Limit temperature setting.**

### IPS-1 Indoor Pressure Sensor Description

Decorative cover for indoor reference pressure probe for room pressure combustion air sensing. Includes sampling tube and fittings. For use with TD-Series pressure transducers.





# Submittal Data Sheet

## UC1 UNIVERSAL CONTROL MAC1E MULTIPLE APPLIANCE CONTROL MAC4E MULTIPLE APPLIANCE CONTROL WHKE MILLIVOLT INTERLOCK KIT

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

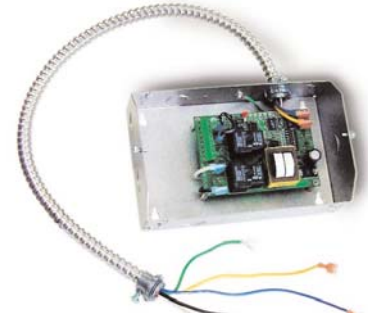
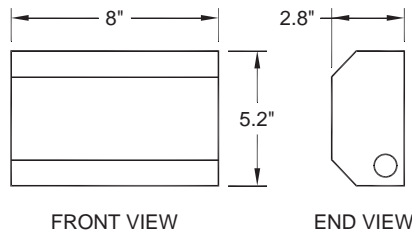
Date: \_\_\_\_\_

### UC1 Universal Control

#### Description

The UC1 Universal Control is compatible with virtually any burner control circuit. Used for Fixed Speed Inducers/Blowers or Adjustable-Fixed Speed applications with a VFD and variable speed Inducer/Blower. Features include: adjustable pre & post purge, LED status/diagnostic indicators, prover status monitoring. Increases safety and reduces burner lockouts. Easy multiple heater interlock with MAC-Series controls. Powered by 115 VAC. Not compatible with the CPC-2.

UC1 UNIVERSAL CONTROL

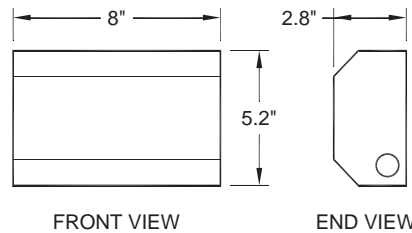


### MAC1E Multiple Appliance Control

#### Description

The MAC1E is used in conjunction with the UC1 Universal Control to interlock one additional 24 VAC, 115 VAC or millivolt controlled appliance. Millivolt appliances require a WHKE kit. Powered by and communicates with the UC1 through a factory wired whip. It activates the Inducer/Blower through its connections to the UC1, and in turn relies on the UC1 Fan Prover safety circuit (P1 & P2) to allow its interlocked appliance to operate. Any pre/post-purge settings on the UC1 will be defaulted to the MAC1E.

MAC1E

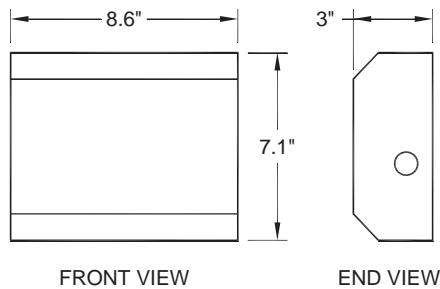


### MAC4E Multiple Appliance Control

#### Description

The MAC4E is used in conjunction with the UC1 Universal Control to interlock up to four additional 24 VAC, 115 VAC or millivolt controlled appliances. Millivolt appliances require a WHKE kit. Powered by and communicates with the UC1 through a factory wired whip. It activates the Inducer/Blower through its connections to the UC1 and in turn relies on the UC1 Fan Prover safety circuit (P1 & P2) to allow its interlocked appliances to operate. Any pre/post-purge settings on the UC1 will be defaulted to the MAC4E.

MAC4E



### WHKE Millivolt Interlock Kit

#### Description

For use with the UC1 Universal Control, MAC1E or MAC4E auxiliary controls to interlock millivolt heaters. The WHKE gas pressure switch actuates the venter through the A - B Dry contacts of UC1, MAC1E or MAC4E. The Linear Limit switch disables the heater in the event of a venting malfunction. Includes JA1 thermocouple junction adapter.





# Submittal Data Sheet

## RMK-8, 10, 12 ROOF MOUNT KITS WMK-8, 10, 12 WALL MOUNT KITS ABD-SERIES BAFFLES

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

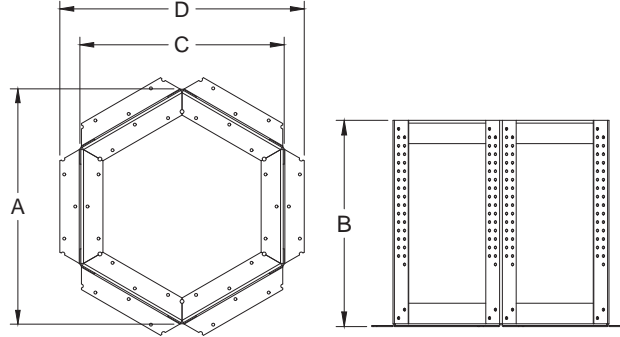
### RMK Series Roof Mounting Kits

Constructed out of 5052 Aluminum.

Adjustable from 9" to 24" in height.

RMK SERIES ROOF MOUNT KIT DIMENSIONS (ALL DIMENSIONS ARE IN INCHES)				
	A	B	C	D
RMK-8	18.25	24.38 *	15.75	21.00
RMK-10	24.63	24.38 *	21.25	26.50
RMK-12	30.00	24.38 *	25.25	30.50

\* HEIGHT ADJUSTABLE DOWN TO 9.00

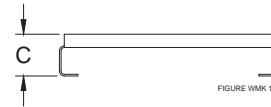
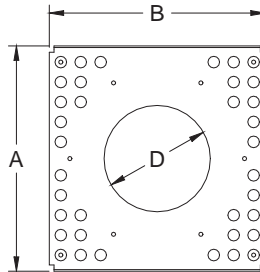


### WMK Series Wall Mounting Kits

Constructed out of 5052 Aluminum.

ETL Recognized for zero clearance termination on combustible walls.

WMK SERIES WALL MOUNT KIT DIMENSIONS (ALL DIMENSIONS ARE IN INCHES)				
	A	B	C	D
WMK-8	17.00	16.25	3.25	8.00
WMK-10	24.00	23.25	3.38	10.00
WMK-12	29.00	28.38	3.25	12.00



### ABD Series Baffles

Equalizes draft of multiple appliances on a common manifold.

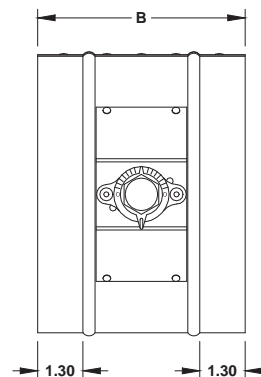
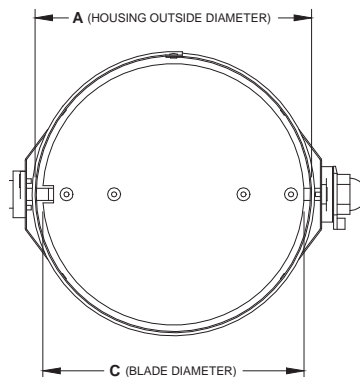
Heavy duty 304 stainless steel construction.

Adjustable for precise flue outlet draft.

Tamper proof locking mechanism.

BAFFLE DIMENSIONS (ALL DIMENSIONS ARE IN INCHES)			
	A	B	C
ABD-4	4	6.00	3.55
ABD-5	5	6.00	4.55
ABD-6	6	6.00	5.55
ABD-7	7	6.00 *	6.55
ABD-8	8	6.00 *	7.55
ABD-9	9	6.00 *	8.55
ABD-10	10	6.00 *	9.55
ABD-12	12	6.00 *	11.55
ABD-14	14	6.00 *	13.55

MADE TO FIT INSIDE STANDARD DIAMETER PIPE.  
\* FULLY OPEN BLADE EXTENDS PAST HOUSING.





# Submittal Data Sheet

## CB-SERIES COLLECTOR BOXES FOR VSAD & FSAD INDUCERS

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

The CB-Series Collector Boxes are used when multiple Auto-Draft® VSAD or FSAD Inducers are needed on one stack.

**Materials:**

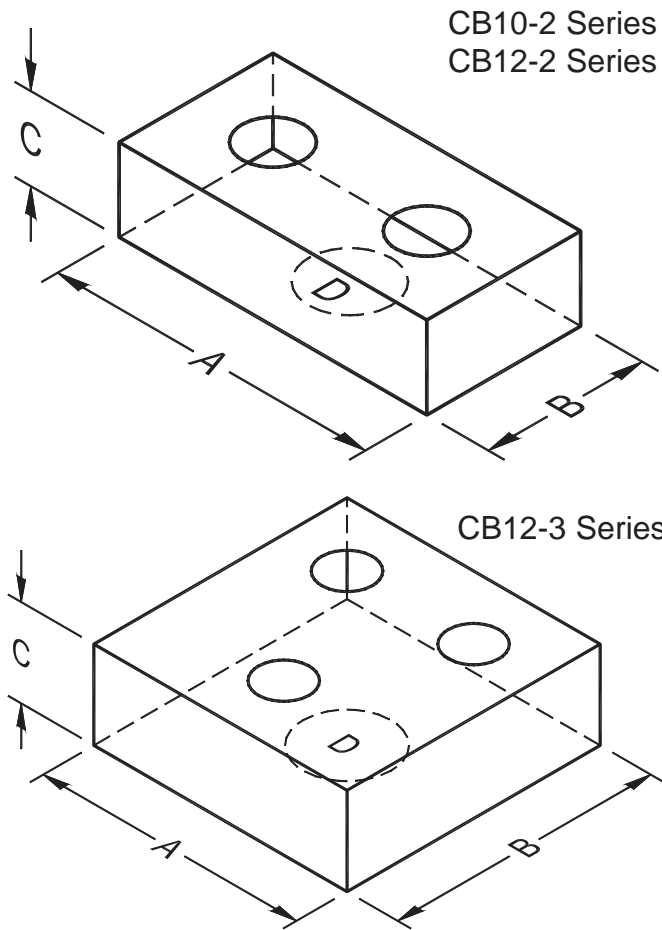
The CB Series Collector Boxes are made from 304 Stainless Steel. Each corner has an 8" long steel leg so the Collector Box is not sitting directly on the roof.

**Installation Notes:**

Top surface of the Collector Box must be level when installed. Stainless steel mounting hardware is strongly recommended for its strength and corrosion resistance. Ensure proper bracing and mounting methods are utilized to properly support the combined weight of the Auto-Draft® Inducers and Collector Box.

**Dimensions**

Model Number	A	B	C	D
CB10-2-12	52"	26"	12"	12"
CB10-2-14	52"	26"	14"	14"
CB10-2-16	52"	26"	16"	16"
CB10-2-18	52"	26"	18"	18"
CB10-2-20	52"	26"	20"	20"
CB10-2-22	52"	26"	22"	22"
CB10-2-24	52"	26"	24"	24"
CB10-2-26	52"	26"	26"	26"
CB10-2-28	52"	26"	28"	28"
CB10-2-30	52"	26"	30"	30"
CB12-2-12	64"	32"	12"	12"
CB12-2-14	64"	32"	14"	14"
CB12-2-16	64"	32"	16"	16"
CB12-2-17	64"	32"	16"	17"
CB12-2-18	64"	32"	18"	18"
CB12-2-20	64"	32"	20"	20"
CB12-2-22	64"	32"	22"	22"
CB12-2-24	64"	32"	24"	24"
CB12-2-26	64"	32"	26"	26"
CB12-2-28	64"	32"	28"	28"
CB12-2-30	64"	32"	30"	30"
CB12-2-32	64"	32"	32"	32"
CB12-2-34	64"	32"	34"	34"
CB12-2-36	64"	32"	36"	36"
CB12-3-16	64"	64"	16"	16"
CB12-3-18	64"	64"	18"	18"
CB12-3-20	64"	64"	20"	20"
CB12-3-22	64"	64"	22"	22"
CB12-3-24	64"	64"	24"	24"
CB12-3-26	64"	64"	26"	26"
CB12-3-28	64"	64"	28"	28"
CB12-3-30	64"	64"	30"	30"
CB12-3-32	64"	64"	32"	32"
CB12-3-34	64"	64"	34"	34"
CB12-3-36	64"	64"	36"	36"



**Model Naming Example:**

CB12-3-36

12" Auto-Draft Inlet  
3 Auto-Draft Inducers  
36" inlet pipe



# Submittal Data Sheet

## FSAD8-115 AUTO-DRAFT® INDUCER

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

Exterior mount fixed speed mechanical draft inducer is ETL Listed for vertical and sidewall venting. Assures a negative pressure throughout the entire vent system. Features integral stainless steel handles and hinged housing with removable hinge pin for ease of installation and service. Integral tilt switch stops fan operation if housing is opened. Includes motor winding and compartment Limit Switches and PSA-1 Fan Proving switch.

**Housing Construction:**

Venter housing is constructed of 5/32" Type 5052 aluminum and coated with bronze toned, high-temperature, corrosion resistant Ryton® PPS which offers the broadest resistance to chemicals of any advanced engineered plastic.

**Impeller Construction:**

Backward inclined Impeller is constructed of Type 304 stainless steel and computer balanced.

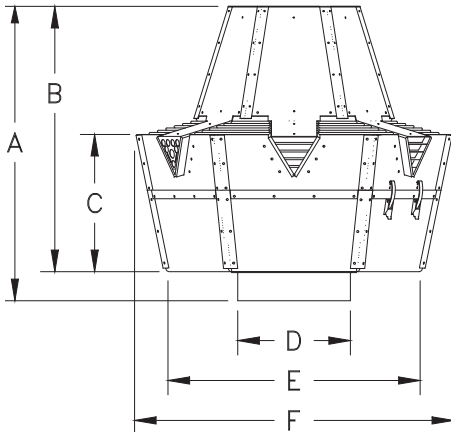
**Motor:**

Split phase, 115 VAC, 60 Hz, permanently lubricated, sealed ball bearing. Fixed speed 1725 RPM.

Incorporates patented thermally actuated motor cooling system for extended motor life.

**Temperature Rating:**

U.S. 500° F  
Canada 575° F / 300° C



**Listings:**

ETL # 56826  
UL 378 - Draft Equipment / Variable Speed  
CSA-CAN3-B255-M81 / CSA-B140-M87



**Warranty:**

2 year mechanical  
10 year corrosion

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- PSA-1 Fan Proving Switch
- Mounting Plate
- Inlet Collar

**Optional Equipment:**

- RMK or WMK Series ETL approved Roof / Wall Mount kits
- ABD-Series Stainless Steel Adjustable Balancing Dampers 4-10", 12" & 14" models

**Optional Controls:**

- UC1 Universal Control
- MAC1E, MAC4E Multiple Appliance Control (Requires UC1)
- WHKE Millivolt Interlock Kit (Requires UC1)

MODEL	FSAD8-115		
Fan Type	Centrifugal Impeller		
Voltage	VAC	115	
RPM	1725		
Amps	A	5.0	
Power Rating	hp	1/4	
	kW	0.19	
Weight	lbs	47	
	kgs	21.32	
Dimensions	A	in	22
		mm	559
	B	in	19 3/4
		mm	500
	C	in	9
		mm	228
D	in	7 7/8	
	mm	200	
E	in	15	
	mm	381	
F	in	18 3/4	
	mm	475	
Motor Soft Start Required	No		
Variable Speed Motor	No		



# Submittal Data Sheet

## FSAD10-115 AUTO-DRAFT® INDUCER

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

Exterior mount fixed speed mechanical draft inducer is ETL Listed for vertical and sidewall venting. Assures a negative pressure throughout the entire vent system. Features integral stainless steel handles and hinged housing with removable hinge pin for ease of installation and service. Integral tilt switch stops fan operation if housing is opened. Includes motor winding and compartment Limit Switches and PSA-1 Fan Proving switch.

**Housing Construction:**

Venter housing is constructed of 5/32" Type 5052 aluminum and coated with bronze toned, high-temperature, corrosion resistant Ryton® PPS which offers the broadest resistance to chemicals of any advanced engineered plastic.

**Impeller Construction:**

Backward inclined Impeller is constructed of Type 304 stainless steel and computer balanced.

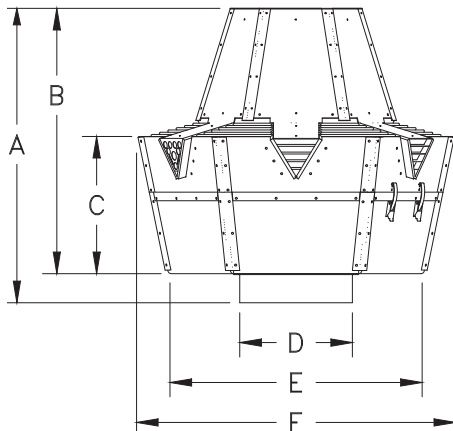
**Motor:**

Split phase, 115 VAC, 60 Hz, permanently lubricated, sealed ball bearing. Fixed speed 1725 RPM.

Incorporates patented thermally actuated motor cooling system for extended motor life.

**Temperature Rating:**

U.S. 500° F  
Canada 575° F / 300° C



**Listings:**

ETL # 56826  
UL 378 - Draft Equipment / Variable Speed  
CSA-CAN3-B255-M81 / CSA-B140-M87



**Warranty:**

2 year mechanical  
10 year corrosion

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- PSA-1 Fan Proving Switch
- Mounting Plate
- Inlet Collar

**Optional Equipment:**

- RMK or WMK Series ETL approved Roof / Wall Mount kits
- ABD-Series Stainless Steel Adjustable Balancing Dampers 4-10", 12" & 14" models

**Optional Controls:**

- UC1 Universal Control
- MAC1E, MAC4E Multiple Appliance Control (Requires UC1)
- WHKE Millivolt Interlock Kit (Requires UC1)

MODEL		FSAD10-115	
Fan Type		Centrifugal Impeller	
Voltage	VAC	115	
RPM		1725	
Amps	A	7.2	
Power Rating	hp	1/2	
	kW	0.37	
Weight	lbs	97	
	kgs	43.99	
Dimensions	A	in	25
		mm	635
	B	in	23
		mm	585
	C	in	11 1/8
		mm	283
D	in	9 7/8	
	mm	251	
E	in	20	
	mm	508	
F	in	24 3/4	
	mm	629	
Motor Soft Start Required		No	
Variable Speed Motor		No	



# Submittal Data Sheet

## FSAD12-230 AUTO-DRAFT® INDUCER

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

Exterior mount fixed speed mechanical draft inducer is ETL Listed for vertical and sidewall venting. Assures a negative pressure throughout the entire vent system. Features integral stainless steel handles and hinged housing with removable hinge pin for ease of installation and service. Integral tilt switch stops fan operation if housing is opened. Includes motor winding and compartment Limit Switches and PSA-1 Fan Proving switch.

**Housing Construction:**

Venter housing is constructed of 3/16" Type 5052 aluminum and coated with bronze toned, high-temperature, corrosion resistant Ryton® PPS which offers the broadest resistance to chemicals of any advanced engineered plastic.

**Impeller Construction:**

Backward inclined Impeller is constructed of Type 304 stainless steel and computer balanced.

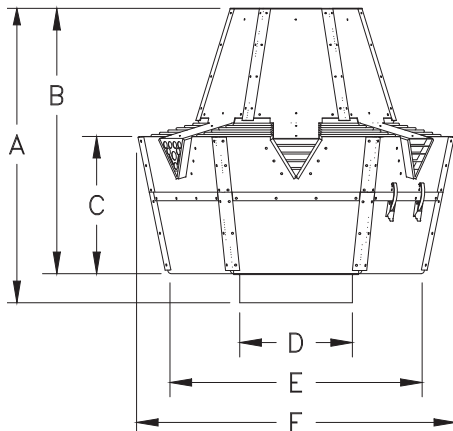
**Motor:**

Split phase, 230 VAC, 60 Hz, permanently lubricated, sealed ball bearing. Fixed speed 1725 RPM.

Incorporates patented thermally actuated motor cooling system for extended motor life.

**Temperature Rating:**

U.S. 500° F  
Canada 575° F / 300° C



**Listings:**

ETL # 56826  
UL 378 - Draft Equipment / Variable Speed  
CSA-CAN3-B255-M81 / CSA-B140-M87



**Warranty:**

2 year mechanical  
10 year corrosion

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- PSA-1 Fan Proving Switch
- Mounting Plate
- Inlet Collar

**Optional Equipment:**

- RMK or WMK Series ETL approved Roof / Wall Mount kits
- ABD-Series Stainless Steel Adjustable Balancing Dampers 4-10", 12" & 14" models

**Optional Controls:**

- UC1 Universal Control
- MAC1E, MAC4E Multiple Appliance Control (Requires UC1)
- WHKE Millivolt Interlock Kit (Requires UC1)

MODEL	FSAD12-230	
Fan Type		Centrifugal Impeller
Voltage	VAC	208-230
RPM		1725
Amps	A	9.3
Power Rating	hp	1 1/2
	kW	1.12
Weight	lbs	138
	kgs	62.59
Dimensions	<b>A</b>	in 28 3/4
		mm 730
	<b>B</b>	in 26 1/2
		mm 674
	<b>C</b>	in 13 5/8
		mm 348
<b>D</b>	in 11 7/8	
	mm 302	
<b>E</b>	in 26 3/16	
	mm 665	
<b>F</b>	in 31 3/4	
	mm 806	
Motor Soft Start Required		No
Variable Speed Motor		No



# Submittal Data Sheet

## VSAD8-230, VSAD8-460A AUTO-DRAFT® INDUCERS

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

Exterior mount variable speed mechanical draft inducer is ETL Listed for vertical and sidewall venting. Assures a negative pressure throughout the entire vent system. Features integral stainless steel handles and hinged housing with removable hinge pin for ease of installation and service. Integral tilt switch stops fan operation if housing is opened. Includes motor winding and compartment Limit Switches and PSA-1 Fan Proving switch.

**Housing Construction:**

Venter housing is constructed of 1/8" Type 5052 aluminum and coated with bronze toned, high-temperature, corrosion resistant Ryton® PPS which offers the broadest resistance to chemicals of any advanced engineered plastic.

**Impeller Construction:**

Backward inclined Impeller is constructed of Type 304 stainless steel and computer balanced.

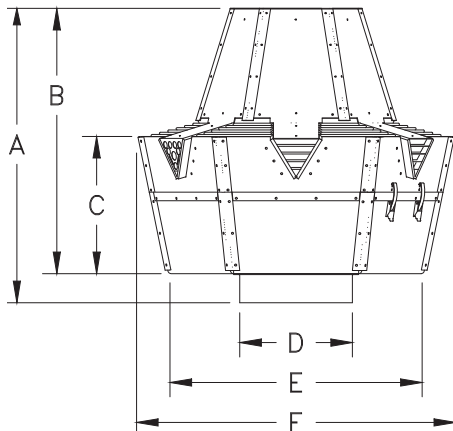
**Motor:**

Three phase, 208-230/460 VAC, permanently lubricated, sealed ball bearing. Variable speed.

Incorporates patented thermally actuated motor cooling system for extended motor life.

**Temperature Rating:**

U.S. 500° F  
Canada 575° F / 300° C



**Listings:**

ETL # 56826  
UL 378 - Draft Equipment / Variable Speed  
CSA-CAN3-B255-M81 / CSA-B140-M87



**Warranty:**

2 year mechanical  
10 year corrosion

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- PSA-1 Fan Proving Switch
- Mounting Plate
- Inlet Collar

**Optional Equipment:**

- RMK or WMK Series ETL approved Roof / Wall Mount kits
- ABD-Series Stainless Steel Adjustable Balancing Dampers 4-10", 12" & 14" models

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- EXP-4E Expansion Module
- VFD-Series Variable Frequency Drives
- TD-2 Pressure Transducer

MODEL		VSAD8-230	VSAD8-460A
Fan Type		Centrifugal Impeller	Centrifugal Impeller
Voltage	VAC	3x208-230	3x460
RPM		2440	2440
Amps	A	1.5	.75
Power Rating	hp	1/3	1/3
	kW	0.25	0.25
Weight	lbs	48	48
	kgs	21.77	21.77
Dimensions	<b>A</b>	in	22
		mm	559
	<b>B</b>	in	19 3/4
		mm	500
	<b>C</b>	in	9
		mm	228
<b>D</b>	in	7 7/8	
	mm	200	
<b>E</b>	in	15	
	mm	381	
<b>F</b>	in	18 3/4	
	mm	475	
Motor Soft Start Required		Yes (1)	Yes (1)
Variable Speed Motor		Yes with VFD	Yes with VFD

(1) Must use a Tjernlund VFD which includes Soft Start.



# Submittal Data Sheet

## VSAD10-230, VSAD10-460A AUTO-DRAFT® INDUCERS

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

Exterior mount variable speed mechanical draft inducer is ETL Listed for vertical and sidewall venting. Assures a negative pressure throughout the entire vent system. Features integral stainless steel handles and hinged housing with removable hinge pin for ease of installation and service. Integral tilt switch stops fan operation if housing is opened. Includes motor winding and compartment Limit Switches and PSA-1 Fan Proving switch.

**Housing Construction:**

Venter housing is constructed of 5/32" Type 5052 aluminum and coated with bronze toned, high-temperature, corrosion resistant Ryton® PPS which offers the broadest resistance to chemicals of any advanced engineered plastic.

**Impeller Construction:**

Backward inclined Impeller is constructed of Type 304 stainless steel and computer balanced.

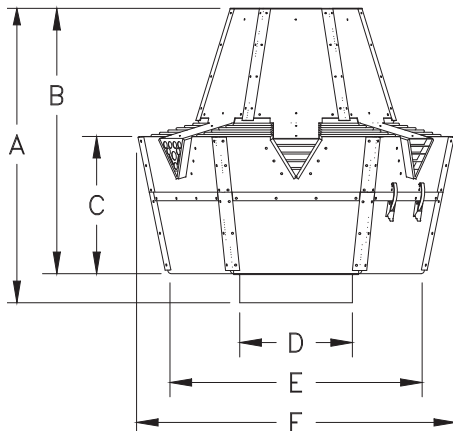
**Motor:**

Three phase, 208-230/460 VAC, permanently lubricated, sealed ball bearing. Variable speed.

Incorporates patented thermally actuated motor cooling system for extended motor life.

**Temperature Rating:**

U.S. 500° F  
Canada 575° F / 300° C



**Listings:**

ETL # 56826  
UL 378 - Draft Equipment / Variable Speed  
CSA-CAN3-B255-M81 / CSA-B140-M87



**Warranty:**

2 year mechanical  
10 year corrosion

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- PSA-1 Fan Proving Switch
- Mounting Plate
- Inlet Collar

**Optional Equipment:**

- RMK or WMK Series ETL approved Roof / Wall Mount kits
- ABD-Series Stainless Steel Adjustable Balancing Dampers 4-10", 12" & 14" models

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- EXP-4E Expansion Module
- VFD-Series Variable Frequency Drives
- TD-2 Pressure Transducer

MODEL		VSAD10-230	VSAD10-460A	
Fan Type		Centrifugal Impeller	Centrifugal Impeller	
Voltage	VAC	3x208-230	3x460	
RPM		2300	2300	
Amps	A	3.4	1.7	
Power Rating	hp	1	1	
	kW	0.75	0.75	
Weight	lbs	101	101	
	kgs	45.80	45.80	
Dimensions	A	in	25	25
		mm	635	635
	B	in	23	23
		mm	585	585
	C	in	11 1/8	11 1/8
		mm	283	283
D	in	9 7/8	9 7/8	
	mm	251	251	
E	in	20	20	
	mm	508	508	
F	in	24 3/4	24 3/4	
	mm	629	629	
Motor Soft Start Required		Yes (1)	Yes (1)	
Variable Speed Motor		Yes with VFD	Yes with VFD	

(1) Must use a Tjernlund VFD which includes Soft Start.



# Submittal Data Sheet

## VSAD12-230, VSAD12-460A AUTO-DRAFT® INDUCERS

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

Exterior mount variable speed mechanical draft inducer is ETL Listed for vertical and sidewall venting. Assures a negative pressure throughout the entire vent system. Features integral stainless steel handles and hinged housing with removable hinge pin for ease of installation and service. Integral tilt switch stops fan operation if housing is opened. Includes motor winding and compartment Limit Switches and PSA-1 Fan Proving switch.

**Housing Construction:**

Venter housing is constructed of 5/32" Type 5052 aluminum and coated with bronze toned, high-temperature, corrosion resistant Ryton® PPS which offers the broadest resistance to chemicals of any advanced engineered plastic.

**Impeller Construction:**

Backward inclined Impeller is constructed of Type 304 stainless steel and computer balanced.

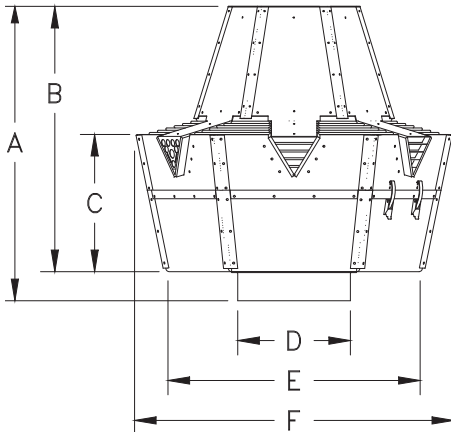
**Motor:**

Three phase, 208-230/460 VAC, permanently lubricated, sealed ball bearing. Variable speed.

Incorporates patented thermally actuated motor cooling system for extended motor life.

**Temperature Rating:**

U.S. 500° F  
Canada 575° F / 300° C



**Listings:**

ETL # 56826  
UL 378 - Draft Equipment / Variable Speed  
CSA-CAN3-B255-M81 / CSA-B140-M87



**Warranty:**

2 year mechanical  
10 year corrosion

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- PSA-1 Fan Proving Switch
- Mounting Plate
- Inlet Collar

**Optional Equipment:**

- RMK or WMK Series ETL approved Roof / Wall Mount kits
- ABD-Series Stainless Steel Adjustable Balancing Dampers 4-10", 12" & 14" models

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- EXP-4E Expansion Module
- VFD-Series Variable Frequency Drives
- TD-2 Pressure Transducer

MODEL		VSAD12-230	VSAD12-460A
Fan Type		Centrifugal Impeller	Centrifugal Impeller
Voltage	VAC	3x208-230	3x460
RPM		2070	2070
Amps	A	6.2	3.1
Power Rating	hp	2	2
	kW	1.49	1.49
Weight	lbs	140	140
	kgs	63.49	63.49
Dimensions	<b>A</b>	in 28 3/4	28 3/4
		mm 730	730
	<b>B</b>	in 26 1/2	26 1/2
		mm 674	674
	<b>C</b>	in 13 5/8	13 5/8
		mm 348	348
	<b>D</b>	in 11 7/8	11 7/8
		mm 302	302
	<b>E</b>	in 26 3/16	26 3/16
		mm 665	665
	<b>F</b>	in 31 3/4	31 3/4
		mm 806	806
Motor Soft Start Required		Yes (1)	Yes (1)
Variable Speed Motor		Yes with VFD	Yes with VFD

(1) Must use a Tjernlund VFD which includes Soft Start.



# Submittal Data Sheet

## VSRI14 ROUND INLINE FAN

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

VSRI-Series Variable Speed Round Inline Fans are suitable for providing combustion air or ventilation.

Use with the CPC-3 Constant Pressure Controller, closed-loop VFD, and TD-Series Pressure Transducer for an automatic-variable speed system which will modulate to always deliver the perfect amount of combustion air or ventilation. For an adjustable-fixed speed system, use an open-loop VFD to manually adjust the speed of the VSRI.

**Housing Construction:**

Continuously welded, heavy-gauge, corrosion resistant, enamel coated steel housing.

**Impeller Construction:**

Non-overloading, aluminum impeller that is statically and dynamically balanced.

**Motor:**

Three phase, 1/2 HP, 208-230/460 VAC, TEFC, E-PLUS 3, Inverter Duty Rated.

**Standard Equipment:**

- 4" x 4" weatherproof junction box
- PSA-1 Fan Proving Switch
- FFP-1 Fire and Freeze Protection Limit

**Optional Equipment:**

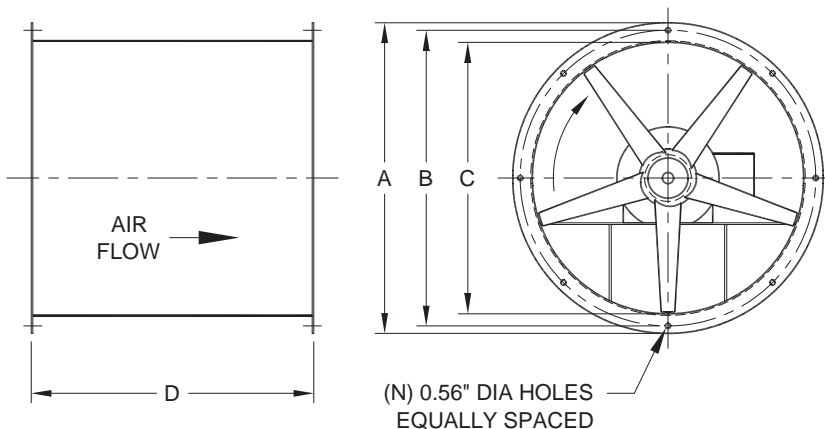
- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor Decorative Cover Fitting
- TD-Series Pressure Transducer
- VFD-Series Variable Frequency Drive

**Listings:**

UL 705 - Power Venters

**Temperature Rating:**

120° F / 49° C



VSRI14	
Fan Type	Tubeaxial
Voltage	3x230 / 3x460
Amps	2.1 / 0.95
RPM	1750
Power Rating	1/2 HP
Weight	33 Lbs
Dimension A	16.88"
Dimension B	15.88"
Dimension C	14.25"
Dimension D	19"
Mounting Holes (N)	(8) 0.56"



## Submittal Data Sheet VSRI16 ROUND INLINE FAN

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

VSRI-Series Variable Speed Round Inline Fans are suitable for providing combustion air or ventilation.

Use with the CPC-3 Constant Pressure Controller, closed-loop VFD, and TD-Series Pressure Transducer for an automatic-variable speed system which will modulate to always deliver the perfect amount of combustion air or ventilation. For an adjustable-fixed speed system, use an open-loop VFD to manually adjust the speed of the VSRI.

**Housing Construction:**

Continuously welded, heavy-gauge, corrosion resistant, enamel coated steel housing.

**Impeller Construction:**

Non-overloading, aluminum impeller that is statically and dynamically balanced.

**Motor:**

Three phase, ¾ HP, 208-230/460 VAC, TEFC, E-PLUS 3, Inverter Duty Rated.

**Standard Equipment:**

- 4" x 4" weatherproof junction box
- PSA-1 Fan Proving Switch
- FFP-1 Fire and Freeze Protection Limit

**Optional Equipment:**

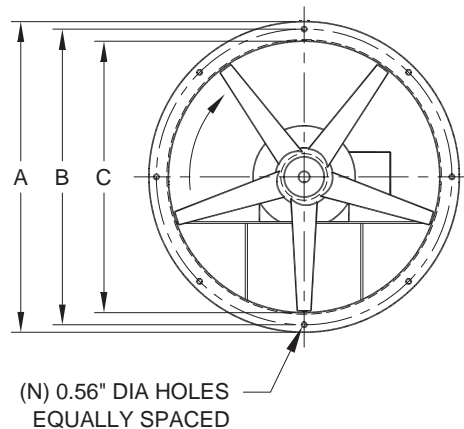
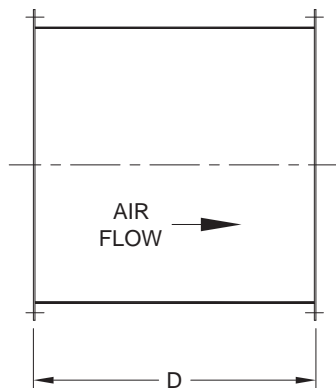
- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor Decorative Cover Fitting
- TD-Series Pressure Transducer
- VFD-Series Variable Frequency Drive

**Listings:**

UL 705 - Power Venters

**Temperature Rating:**

120° F / 49° C



<b>VSRI16</b>	
Fan Type	Tubeaxial
Voltage	3x230 / 3x460
Amps	3.21 / 1.45
RPM	1750
Power Rating	3/4 HP
Weight	53 Lbs
Dimension A	19.63"
Dimension B	17.88"
Dimension C	16.13"
Dimension D	19"
Mounting Holes (N)	(8) 0.56"



## Submittal Data Sheet VSRI18 ROUND INLINE FAN

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

VSRI-Series Variable Speed Round Inline Fans are suitable for providing combustion air or ventilation.

Use with the CPC-3 Constant Pressure Controller, closed-loop VFD, and TD-Series Pressure Transducer for an automatic-variable speed system which will modulate to always deliver the perfect amount of combustion air or ventilation. For an adjustable-fixed speed system, use an open-loop VFD to manually adjust the speed of the VSRI.

**Housing Construction:**

Continuously welded, heavy-gauge, corrosion resistant, enamel coated steel housing.

**Impeller Construction:**

Non-overloading, aluminum impeller that is statically and dynamically balanced.

**Motor:**

Three phase, 1 HP, 208-230/460 VAC, TEFC, E-PLUS 3, Inverter Duty Rated.

**Standard Equipment:**

- 4" x 4" weatherproof junction box
- PSA-1 Fan Proving Switch
- FFP-1 Fire and Freeze Protection Limit

**Optional Equipment:**

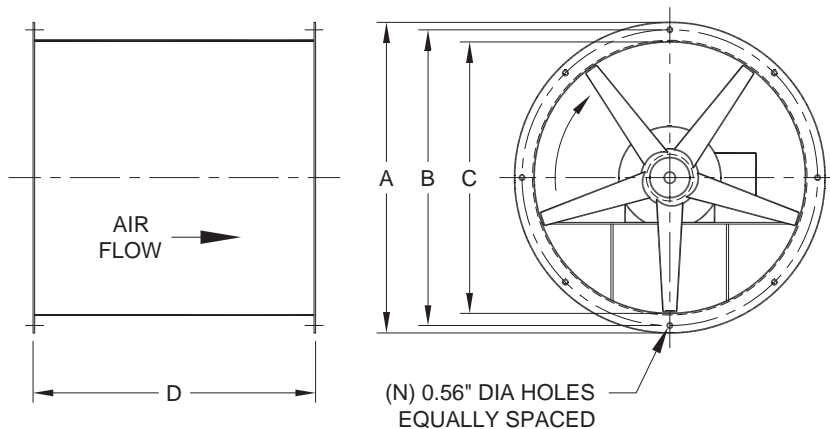
- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor Decorative Cover Fitting
- TD-Series Pressure Transducer
- VFD-Series Variable Frequency Drive

**Listings:**

UL 705 - Power Venters

**Temperature Rating:**

120° F / 49° C



VSRI18	
Fan Type	Tubeaxial
Voltage	3x230 / 3x460
Amps	3.5 / 1.7
RPM	1750
Power Rating	1 HP
Weight	60 Lbs
Dimension A	21.75"
Dimension B	19.88"
Dimension C	18.25"
Dimension D	19"
Mounting Holes (N)	(8) 0.56"



## Submittal Data Sheet

# VSRI21 ROUND INLINE FAN

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

VSRI-Series Variable Speed Round Inline Fans are suitable for providing combustion air or ventilation.

Use with the CPC-3 Constant Pressure Controller, closed-loop VFD, and TD-Series Pressure Transducer for an automatic-variable speed system which will modulate to always deliver the perfect amount of combustion air or ventilation. For an adjustable-fixed speed system, use an open-loop VFD to manually adjust the speed of the VSRI.

**Housing Construction:**

Continuously welded, heavy-gauge, corrosion resistant, enamel coated steel housing.

**Impeller Construction:**

Non-overloading, aluminum impeller that is statically and dynamically balanced.

**Motor:**

Three phase, 1½ HP, 208-230/460 VAC, TEFC, E-PLUS 3, Inverter Duty Rated.

**Standard Equipment:**

- 4" x 4" weatherproof junction box
- PSA-1 Fan Proving Switch
- FFP-1 Fire and Freeze Protection Limit

**Optional Equipment:**

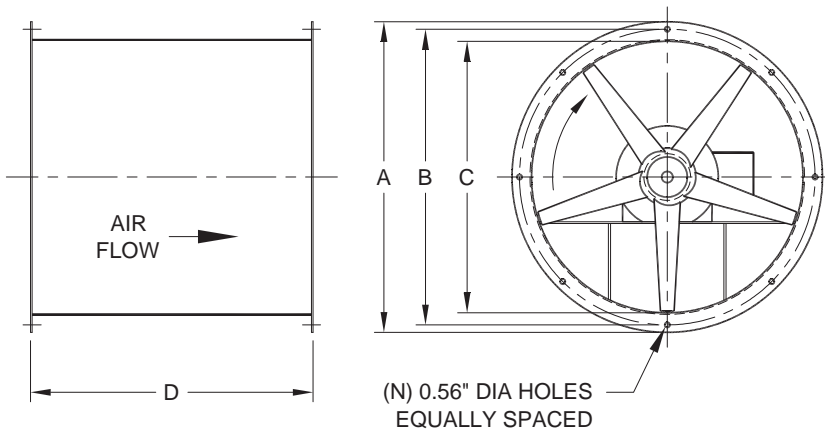
- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor Decorative Cover Fitting
- TD-Series Pressure Transducer
- VFD-Series Variable Frequency Drive

**Listings:**

UL 705 - Power Venters

**Temperature Rating:**

120° F / 49° C



VSRI21	
Fan Type	Tubeaxial
Voltage	3x230 / 3x460
Amps	4.59 / 2.08
RPM	1750
Power Rating	1½ HP
Weight	85 Lbs
Dimension A	24.75"
Dimension B	22.88"
Dimension C	21.25"
Dimension D	21"
Mounting Holes (N)	(8) 0.56"



## Submittal Data Sheet

# VSRI24 ROUND INLINE FAN

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

VSRI-Series Variable Speed Round Inline Fans are suitable for providing combustion air or ventilation.

Use with the CPC-3 Constant Pressure Controller, closed-loop VFD, and TD-Series Pressure Transducer for an automatic-variable speed system which will modulate to always deliver the perfect amount of combustion air or ventilation. For an adjustable-fixed speed system, use an open-loop VFD to manually adjust the speed of the VSRI.

**Housing Construction:**

Continuously welded, heavy-gauge, corrosion resistant, enamel coated steel housing.

**Impeller Construction:**

Non-overloading, aluminum impeller that is statically and dynamically balanced.

**Motor:**

Three phase, 3 HP, 208-230/460 VAC, TEFC, E-PLUS 3, Inverter Duty Rated.

**Standard Equipment:**

- 4" x 4" weatherproof junction box
- PSA-1 Fan Proving Switch
- FFP-1 Fire and Freeze Protection Limit

**Optional Equipment:**

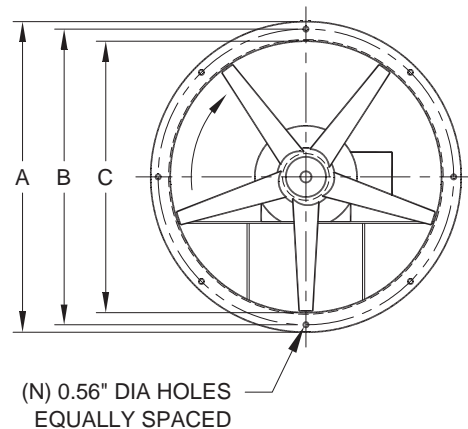
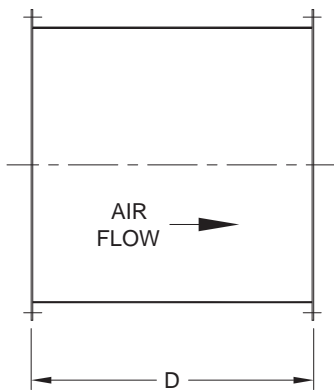
- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor Decorative Cover Fitting
- TD-Series Pressure Transducer
- VFD-Series Variable Frequency Drive

**Listings:**

UL 705 - Power Venters

**Temperature Rating:**

120° F / 49° C



<b>VSRI24</b>	
Fan Type	Tubeaxial
Voltage	3x230 / 3x460
Amps	8.6 / 3.89
RPM	1750
Power Rating	3 HP
Weight	118 Lbs
Dimension A	27.75"
Dimension B	25.88"
Dimension C	24.25"
Dimension D	21"
Mounting Holes (N)	(8) 0.56"



## Submittal Data Sheet

# VSRI30 ROUND INLINE FAN

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

VSRI-Series Variable Speed Round Inline Fans are suitable for providing combustion air or ventilation.

Use with the CPC-3 Constant Pressure Controller, closed-loop VFD, and TD-Series Pressure Transducer for an automatic-variable speed system which will modulate to always deliver the perfect amount of combustion air or ventilation. For an adjustable-fixed speed system, use an open-loop VFD to manually adjust the speed of the VSRI.

**Housing Construction:**

Continuously welded, heavy-gauge, corrosion resistant, enamel coated steel housing.

**Impeller Construction:**

Non-overloading, aluminum impeller that is statically and dynamically balanced.

**Motor:**

Three phase, 5 HP, 208-230/460 VAC, TEFC, E-PLUS 3, Inverter Duty Rated.

**Standard Equipment:**

- 4" x 4" weatherproof junction box
- PSA-1 Fan Proving Switch
- FFP-1 Fire and Freeze Protection Limit

**Optional Equipment:**

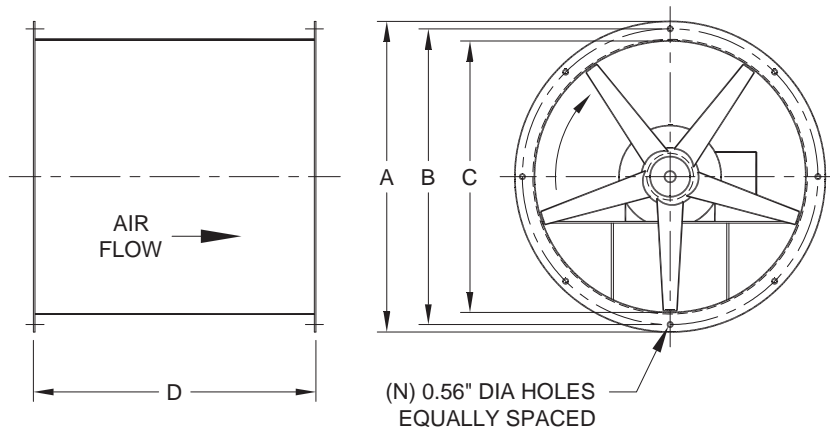
- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor Decorative Cover Fitting
- TD-Series Pressure Transducer
- VFD-Series Variable Frequency Drive

**Listings:**

UL 705 - Power Venters

**Temperature Rating:**

120° F / 49° C



VSRI30	
Fan Type	Tubeaxial
Voltage	3x230 / 3x460
Amps	13.71 / 6.2
RPM	1750
Power Rating	5 HP
Weight	170 Lbs
Dimension A	33.88"
Dimension B	32.00"
Dimension C	30.38"
Dimension D	26"
Mounting Holes (N)	(8) 0.56"



# Submittal Data Sheet

## VSRI36 ROUND IN-LINE FAN

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

VSRI-Series Variable Speed Round In-line Fans are suitable for providing combustion air or ventilation.

Use with the CPC-3 Constant Pressure Controller, closed-loop VFD, and TD-Series Pressure Transducer for an automatic-variable speed system which will modulate to always deliver the perfect amount of combustion air or ventilation. For an adjustable-fixed speed system, use an open-loop VFD to manually adjust the speed of the VSRI.

**Housing Construction:**

Continuously welded, heavy-gauge, corrosion resistant, enamel coated steel housing.

**Impeller Construction:**

Non-overloading, aluminum impeller that is statically and dynamically balanced.

**Motor:**

Three phase, 10 HP, 208-230/460 VAC, TEFC, E-PLUS 3, Inverter Duty Rated.

**Standard Equipment:**

- 4" x 4" weatherproof junction box
- PSA-1 Fan Proving Switch
- FFP-1 Fire and Freeze Protection Limit

**Optional Equipment:**

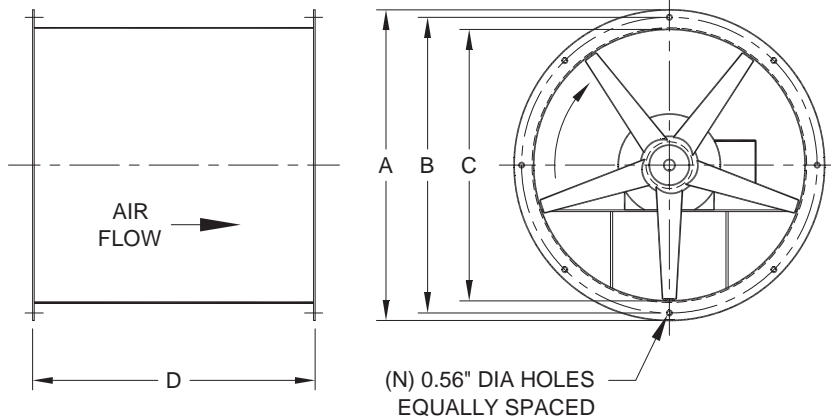
- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor Decorative Cover Fitting
- TD-Series Pressure Transducer
- VFD-Series Variable Frequency Drive

**Listings:**

UL 705 - Power Venters

**Temperature Rating:**

120° F / 49° C



<b>VSRI36</b>	
Fan Type	Tubeaxial
Voltage	3x230 / 3x460
Amps	25.88 / 11.7
RPM	1750
Power Rating	10 HP
Weight	257 Lbs
Dimension A	40.50"
Dimension B	38.38"
Dimension C	36.50"
Dimension D	27"
Mounting Holes (N)	(16) 0.56"



# Submittal Data Sheet

## VSub8 Variable Speed Universal Blower

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

The VSub8 Variable Speed Universal Blower is suitable for providing combustion air or sidewall or vertically venting heating appliances, dryers and ovens. Suitable for use on condensing equipment. Can be installed indoors or outdoors.

Use with the CPC-3 Constant Pressure Controller, Closed Loop VFD and TD-Series Pressure Transducer for an Automatic-Variable Speed system which will modulate to always deliver the perfect amount of draft or combustion air. For an Adjustable-Fixed Speed system, use an Open Loop VFD to manually adjust speed of the VSub.

**Housing Construction:**

Constructed of 14-gauge, Type 316L stainless steel with continuous welds. The blower outlet rotates 180° for installation flexibility. The motor chassis slides away from the housing on polyethylene guides for easy motor and impeller access.

**Impeller:**

Backward inclined, Type 304 stainless steel, Class 1 impeller is both dynamically and statically balanced with permanently attached balancing weights.

**Motor:**

Three phase, 1/3 HP, 208-230/460 VAC, TEFC, EPACT High Efficiency Rated, arctic-duty, thermal overload protected, permanently lubricated and sealed ball bearing.

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- Square to round vent pipe adapter
- PSA-1 Fan Proving Switch
- FFP-1 Freeze and Fire Protection Limit (FFP-1 For combustion air applications only!)
- Condensate drain kit

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor decorative cover, fittings
- TD-2 Pressure Transducer (+0.15" to -0.60" w.c.) For draft or "Sealed" (ducted sealed combustion air) sensing
- TD-3 Pressure Transducer (+0.10" to -0.10" w.c.) For "Open" (room pressure) combustion air sensing
- VFD-Series Variable Frequency Drives

**Temperature Rating:**

U.S. and Canada 575°F / 300°C

**Listings:**

ETL # 56826  
 UL 378 - Draft Equipment / Variable Speed  
 UL 705 - Power Ventilators  
 CSA-CAN3-B255-M81\*



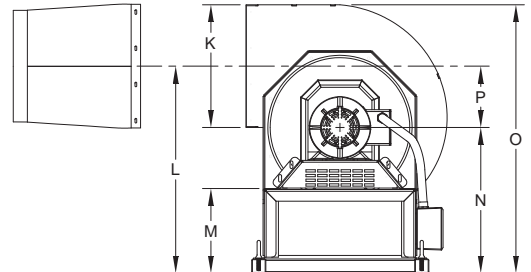
\*Not Listed for use on condensing equipment in Canada.

**Warranty:**

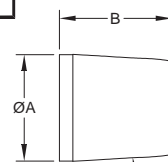
2 year mechanical

Model VSub8		208-230 Volt	460 Volt
Power	hp	1/3	1/3
Amps	A	1.5 - 1.6	.8
Voltage	VAC	3x208-230	3x460
Weight		118 Lbs. / 54 Kgs.	

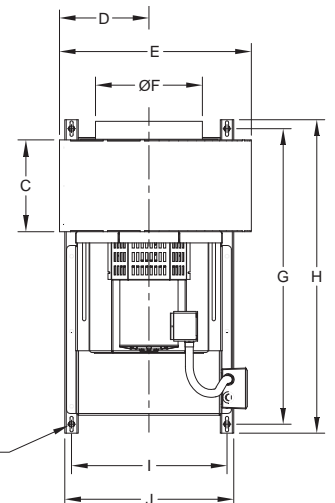
	VSub8
A	7 7/8"
B	10"
C	5 1/4"
D	7 5/8"
E	16 1/2"
F	7 15/16"
G	28 1/2"
H	30 1/2"
I	14 9/16"
J	16 1/16"
K	10 1/8"
L	19"
M	8 3/8"
N	13 3/4"
O	24"
P	5 1/8"



END VIEW



INCLUDED SQUARE TO ROUND ADAPTER



TOP VIEW

MOUNTING LOCATION (4)



# Submittal Data Sheet

## VSUB12 Variable Speed Universal Blower

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

The VSUB12 Variable Speed Universal Blower is suitable for providing combustion air or sidewall or vertically venting non-condensing (condensing applications require model VSUB12R with Ryton® coated impeller) heating appliances, dryers and ovens. Can be installed indoors or outdoors.

Use with the CPC-3 Constant Pressure Controller, Closed Loop VFD and TD-Series Pressure Transducer for an Automatic-Variable Speed system which will modulate to always deliver the perfect amount of draft or combustion air. For an Adjustable-Fixed Speed system, use an Open Loop VFD to manually adjust speed of the VSUB.

**Housing Construction:**

Constructed of 14-gauge, Type 316L stainless steel with continuous welds. The blower outlet rotates 180° for installation flexibility. The motor chassis slides away from the housing on polyethylene guides for easy motor and impeller access.

**Impeller:**

Backward inclined, high temperature coated, Class 1 impeller is both dynamically and statically balanced with permanently attached balancing weights.

**Motor:**

Three phase, 1 HP, 208-230/460 VAC, TEFC, EPACT High Efficiency Rated, arctic-duty, thermal overload protected, permanently lubricated and sealed ball bearing.

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- Square to round vent pipe adapter
- PSA-1 Fan Proving Switch
- FFP-1 Freeze and Fire Protection Limit (FFP-1 For combustion air applications only!)
- Condensate drain kit

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor decorative cover, fittings
- TD-2 Pressure Transducer (+0.15" to -0.60" w.c.)  
For draft or "Sealed" (ducted sealed combustion air) sensing
- TD-3 Pressure Transducer (+0.10" to -0.10" w.c.)  
For "Open" (room pressure) combustion air sensing
- VFD-Series Variable Frequency Drives

**Temperature Rating:**

U.S. and Canada 575°F / 300°C

**Listings:**

ETL # 56826  
 UL 378 - Draft Equipment / Variable Speed  
 UL 705 - Power Ventilators  
 CSA-CAN3-B255-M81

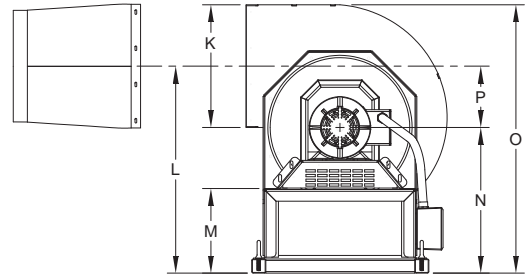


**Warranty:**

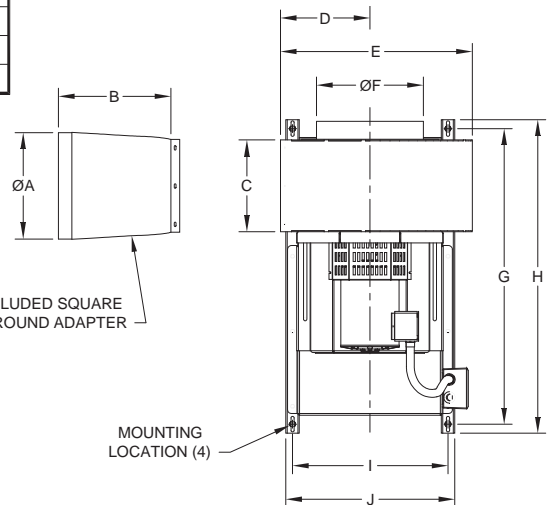
2 year mechanical

Model VSUB12	208-230 Volt	460 Volt
Power hp	1	1
Amps A	3.2 - 3.0	1.5
Voltage VAC	3x208-230	3x460
Weight	205 Lbs. / 93 Kgs.	

	VSUB12
A	11 7/8"
B	12 1/2"
C	9 5/8"
D	10 1/8"
E	21 7/16"
F	11 15/16"
G	33"
H	35"
I	17 3/8"
J	18 7/8"
K	13 1/4"
L	21 13/16"
M	8 7/8"
N	15 7/16"
O	28 7/16"
P	6 5/16"



END VIEW



TOP VIEW



# Submittal Data Sheet

## VSUB12R Variable Speed Universal Blower

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

VSUBR Series Variable Speed Universal Blowers (with Ryton® coated impellers) are suitable for providing combustion air or sidewall or vertically venting heating appliances, dryers and ovens. Suitable for use on condensing equipment. Can be installed indoors or outdoors.

Use with the CPC-3 Constant Pressure Controller, Closed Loop VFD and TD-Series Pressure Transducer for an Automatic-Variable Speed system which will modulate to always deliver the perfect amount of draft or combustion air. For an Adjustable-Fixed Speed system, use an Open Loop VFD to manually adjust speed of the VSUB.

**Housing Construction:**

Constructed of 14-gauge, Type 316L stainless steel with continuous welds. The blower outlet rotates 180° for installation flexibility. The motor chassis slides away from the housing on polyethylene guides for easy motor and impeller access.

**Impeller:**

Backward inclined, Ryton® coated for superior corrosion resistance, Class 1 impeller is both dynamically and statically balanced with permanently attached balancing weights.

**Motor:**

Three phase, 1 HP, 208-230/460 VAC, TEFC, EPACT High Efficiency Rated, arctic-duty, thermal overload protected, permanently lubricated and sealed ball bearing.

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- Square to round vent pipe adapter
- PSA-1 Fan Proving Switch
- FFP-1 Freeze and Fire Protection Limit (FFP-1 For combustion air applications only!)
- Condensate drain kit

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor decorative cover, fittings
- TD-2 Pressure Transducer (+0.15" to -0.60" w.c.)  
For draft or "Sealed" (ducted sealed combustion air) sensing
- TD-3 Pressure Transducer (+0.10" to -0.10" w.c.)  
For "Open" (room pressure) combustion air sensing
- VFD-Series Variable Frequency Drives

**Temperature Rating:**

U.S. and Canada 575°F / 300°C

**Listings:**

ETL # 56826  
 UL 378 - Draft Equipment / Variable Speed  
 UL 705 - Power Ventilators  
 CSA-CAN3-B255-M81\*



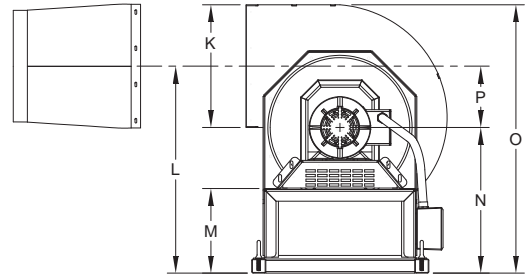
\*Not Listed for use on condensing equipment in Canada.

**Warranty:**

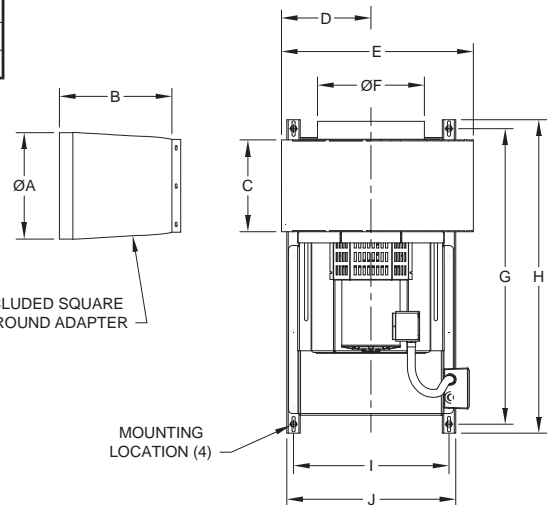
2 year mechanical

Model	VSUB12R	208-230 Volt	460 Volt
Power	hp	1	1
Amps	A	3.2 - 3.0	1.5
Voltage	VAC	3x208-230	3x460
Weight		205 Lbs. / 93 Kgs.	

	VSUB12R
A	11 7/8"
B	12 1/2"
C	9 5/8"
D	10 1/8"
E	21 7/16"
F	11 15/16"
G	33"
H	35"
I	17 3/8"
J	18 7/8"
K	13 1/4"
L	21 13/16"
M	8 7/8"
N	15 7/16"
O	28 7/16"
P	6 5/16"



END VIEW



TOP VIEW

INCLUDED SQUARE TO ROUND ADAPTER

MOUNTING LOCATION (4)



# Submittal Data Sheet

## VSUB16 Variable Speed Universal Blower

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

The VSUB16 Variable Speed Universal Blower is suitable for providing combustion air or sidewall or vertically venting non-condensing (condensing applications require model VSUB16R with Ryton® coated impeller) heating appliances, dryers and ovens. Can be installed indoors or outdoors.

Use with the CPC-3 Constant Pressure Controller, Closed Loop VFD and TD-Series Pressure Transducer for an Automatic-Variable Speed system which will modulate to always deliver the perfect amount of draft or combustion air. For an Adjustable-Fixed Speed system, use an Open Loop VFD to manually adjust speed of the VSUB.

**Housing Construction:**

Constructed of 14-gauge, Type 316L stainless steel with continuous welds. The blower outlet rotates 180° for installation flexibility. The motor chassis slides away from the housing on polyethylene guides for easy motor and impeller access.

**Impeller:**

Backward inclined, high temperature coated, Class 1 impeller is both dynamically and statically balanced with permanently attached balancing weights.

**Motor:**

Three phase, 2 HP, 208-230/460 VAC, TEFC, EPACT High Efficiency Rated, arctic-duty, thermal overload protected, permanently lubricated and sealed ball bearing.

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- Square to round vent pipe adapter
- PSA-1 Fan Proving Switch
- FFP-1 Freeze and Fire Protection Limit (FFP-1 For combustion air applications only!)
- Condensate drain kit

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor decorative cover, fittings
- TD-2 Pressure Transducer (+0.15" to -0.60" w.c.)  
For draft or "Sealed" (ducted sealed combustion air) sensing
- TD-3 Pressure Transducer (+0.10" to -0.10" w.c.)  
For "Open" (room pressure) combustion air sensing
- VFD-Series Variable Frequency Drives

**Temperature Rating:**

U.S. and Canada 575°F / 300°C

**Listings:**

ETL # 56826  
 UL 378 - Draft Equipment / Variable Speed  
 UL 705 - Power Ventilators  
 CSA-CAN3-B255-M81

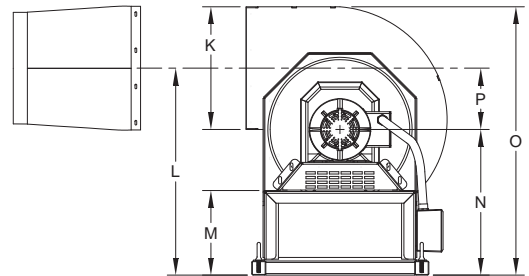


**Warranty:**

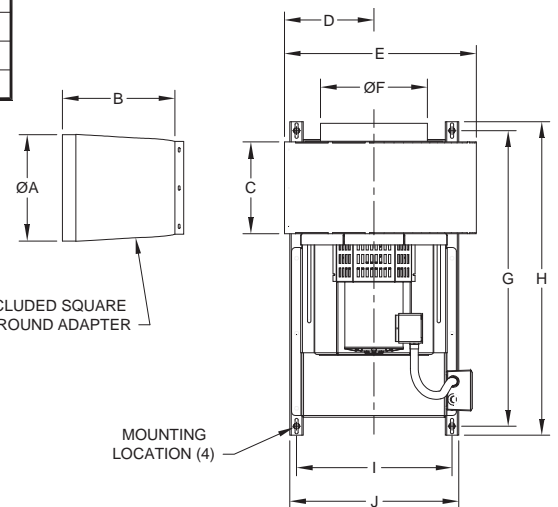
2 year mechanical

Model VSUB16		208-230 Volt	460 Volt
Power	hp	2	2
Amps	A	6.0 - 5.6	2.8
Voltage	VAC	3x208-230	3x460
Weight		285 Lbs. / 129 Kgs.	

	VSUB16
A	15 7/8"
B	14"
C	11 15/16"
D	13 5/16"
E	27 1/2"
F	15 7/8"
G	41 11/16"
H	43 11/16"
I	23 1/4"
J	24 3/4"
K	16"
L	26 13/16"
M	11 3/4"
N	18 7/8"
O	34 13/16"
P	7 15/16"



END VIEW



TOP VIEW



# Submittal Data Sheet

## VSUB16R Variable Speed Universal Blower

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

The VSUBR Series Variable Speed Universal Blowers (with Ryton® coated impellers) are suitable for providing combustion air or sidewall or vertically venting heating appliances, dryers and ovens. Suitable for use on condensing equipment. Can be installed indoors or outdoors.

Use with the CPC-3 Constant Pressure Controller, Closed Loop VFD and TD-Series Pressure Transducer for an Automatic-Variable Speed system which will modulate to always deliver the perfect amount of draft or combustion air. For an Adjustable-Fixed Speed system, use an Open Loop VFD to manually adjust speed of the VSUB.

**Housing Construction:**

Constructed of 14-gauge, Type 316L stainless steel with continuous welds. The blower outlet rotates 180° for installation flexibility. The motor chassis slides away from the housing on polyethylene guides for easy motor and impeller access.

**Impeller:**

Backward inclined, Ryton® PPS coated for superior corrosion resistance, Class 1 impeller is both dynamically and statically balanced with permanently attached balancing weights.

**Motor:**

Three phase, 2 HP, 208-230/460 VAC, TEFC, EPACT High Efficiency Rated, arctic-duty, thermal overload protected, permanently lubricated and sealed ball bearing.

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- Square to round vent pipe adapter
- PSA-1 Fan Proving Switch
- FFP-1 Freeze and Fire Protection Limit (FFP-1 For combustion air applications only!)
- Condensate drain kit

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor decorative cover, fittings
- TD-2 Pressure Transducer (+0.15" to -0.60" w.c.)  
For draft or "Sealed" (ducted sealed combustion air) sensing
- TD-3 Pressure Transducer (+0.10" to -0.10" w.c.)  
For "Open" (room pressure) combustion air sensing
- VFD-Series Variable Frequency Drives

**Temperature Rating:**

U.S. and Canada 575°F / 300°C

**Listings:**

ETL # 56826  
 UL 378 - Draft Equipment / Variable Speed  
 UL 705 - Power Ventilators  
 CSA-CAN3-B255-M81\*



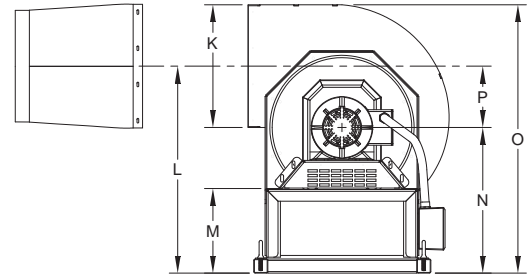
\*Not Listed for use on condensing equipment in Canada.

**Warranty:**

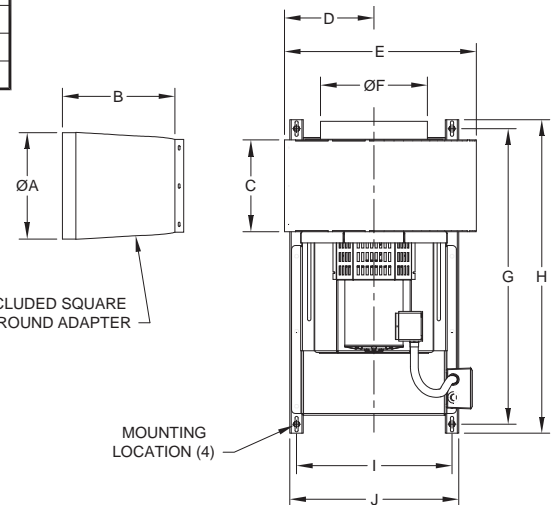
2 year mechanical

Model VSUB16R	208-230 Volt	460 Volt
Power hp	2	2
Amps A	6.0 - 5.6	2.8
Voltage VAC	3x208-230	3x460
Weight	285 Lbs. / 129 Kgs.	

	VSUB16R
A	15 7/8"
B	14"
C	11 15/16"
D	13 5/16"
E	27 1/2"
F	15 7/8"
G	41 11/16"
H	43 11/16"
I	23 1/4"
J	24 3/4"
K	16"
L	26 13/16"
M	11 3/4"
N	18 7/8"
O	34 13/16"
P	7 15/16"



END VIEW



TOP VIEW



# Submittal Data Sheet

## VSub20 Variable Speed Universal Blower

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

The VSub20 Variable Speed Universal Blower is suitable for providing combustion air or sidewall or vertically venting non-condensing (condensing applications require model VSub20R with Ryton® coated impeller) heating appliances, dryers and ovens. Can be installed indoors or outdoors.

Use with the CPC-3 Constant Pressure Controller, Closed Loop VFD and TD-Series Pressure Transducer for an Automatic-Variable Speed system which will modulate to always deliver the perfect amount of draft or combustion air. For an Adjustable-Fixed Speed system, use an Open Loop VFD to manually adjust speed of the VSub.

**Housing Construction:**

Constructed of 14-gauge, Type 316L stainless steel with continuous welds. The blower outlet rotates 180° for installation flexibility. The motor chassis slides away from the housing on polyethylene guides for easy motor and impeller access.

**Impeller:**

Backward inclined, high temperature coated, Class 1 impeller is both dynamically and statically balanced with permanently attached balancing weights.

**Motor:**

Three phase, 3 HP, 208-230/460 VAC, TEFC, EPACT High Efficiency Rated, arctic-duty, thermal overload protected, permanently lubricated and sealed ball bearing.

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- Square to round vent pipe adapter
- PSA-1 Fan Proving Switch
- FFP-1 Freeze and Fire Protection Limit (FFP-1 For combustion air applications only!)
- Condensate drain kit

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor decorative cover, fittings
- TD-2 Pressure Transducer (+0.15" to -0.60" w.c.)  
For draft or "Sealed" (ducted sealed combustion air) sensing
- TD-3 Pressure Transducer (+0.10" to -0.10" w.c.)  
For "Open" (room pressure) combustion air sensing
- VFD-Series Variable Frequency Drives

**Temperature Rating:**

U.S. and Canada 575°F / 300°C

**Listings:**

ETL # 56826  
 UL 378 - Draft Equipment / Variable Speed  
 UL 705 - Power Ventilators  
 CSA-CAN3-B255-M81

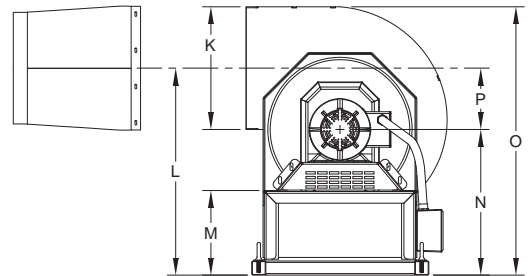


**Warranty:**

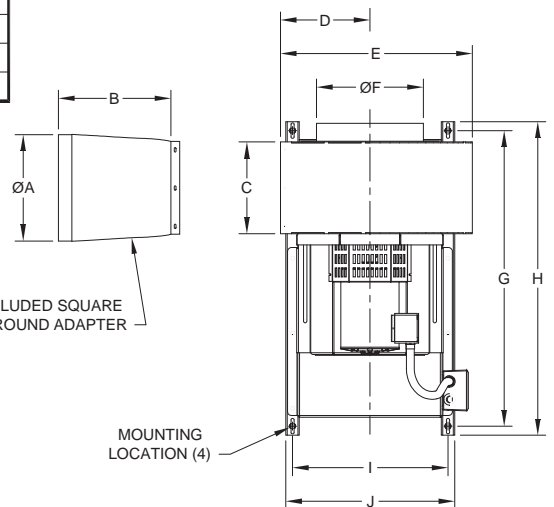
2 year mechanical

Model VSub20	208-230 Volt	460 Volt
Power hp	3	3
Amps A	8.8 - 8.2	4.1
Voltage VAC	3x208-230	3x460
Weight	370 Lbs. / 168 Kgs.	

	VSub20
A	19 7/8"
B	14"
C	14 7/16"
D	15 1/8"
E	32 11/16"
F	19 11/16"
G	45 3/16"
H	47 3/16"
I	26 7/16"
J	27 15/16"
K	20 1/8"
L	33 1/2"
M	15 3/8"
N	23 7/16"
O	43 1/2"
P	10"



END VIEW



TOP VIEW



# Submittal Data Sheet

## VSUB20R Variable Speed Universal Blower

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description:**

VSUBR Series Variable Speed Universal Blowers (with Ryton® coated impellers) are suitable for providing combustion air or sidewall or vertically venting heating appliances, dryers and ovens. Suitable for use on condensing equipment. Can be installed indoors or outdoors.

Use with the CPC-3 Constant Pressure Controller, Closed Loop VFD and TD-Series Pressure Transducer for an Automatic-Variable Speed system which will modulate to always deliver the perfect amount of draft or combustion air. For an Adjustable-Fixed Speed system, use an Open Loop VFD to manually adjust speed of the VSUB.

**Housing Construction:**

Constructed of 14-gauge, Type 316L stainless steel with continuous welds. The blower outlet rotates 180° for installation flexibility. The motor chassis slides away from the housing on polyethylene guides for easy motor and impeller access.

**Impeller:**

Backward inclined, Ryton® PPS coated for superior corrosion resistance, Class 1 impeller is both dynamically and statically balanced with permanently attached balancing weights.

**Motor:**

Three phase, 3 HP, 208-230/460 VAC, TEFC, EPACT High Efficiency Rated, arctic-duty, thermal overload protected, permanently lubricated and sealed ball bearing.

**Standard Equipment:**

- 4" x 4" weatherproof junction box with 4' conduit
- Square to round vent pipe adapter
- PSA-1 Fan Proving Switch
- FFP-1 Freeze and Fire Protection Limit (FFP-1 For combustion air applications only!)
- Condensate drain kit

**Optional Controls:**

- CPC-3 Constant Pressure Controller
- IPS-1 Indoor Pressure Sensor decorative cover, fittings
- TD-2 Pressure Transducer (+0.15" to -0.60" w.c.)  
For draft or "Sealed" (ducted sealed combustion air) sensing
- TD-3 Pressure Transducer (+0.10" to -0.10" w.c.)  
For "Open" (room pressure) combustion air sensing
- VFD-Series Variable Frequency Drives

**Temperature Rating:**

U.S. and Canada 575°F / 300°C

**Listings:**

ETL # 56826  
 UL 378 - Draft Equipment / Variable Speed  
 UL 705 - Power Ventilators  
 CSA-CAN3-B255-M81\*



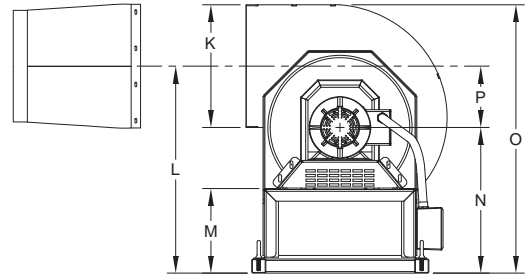
\*Not Listed for use on condensing equipment in Canada.

**Warranty:**

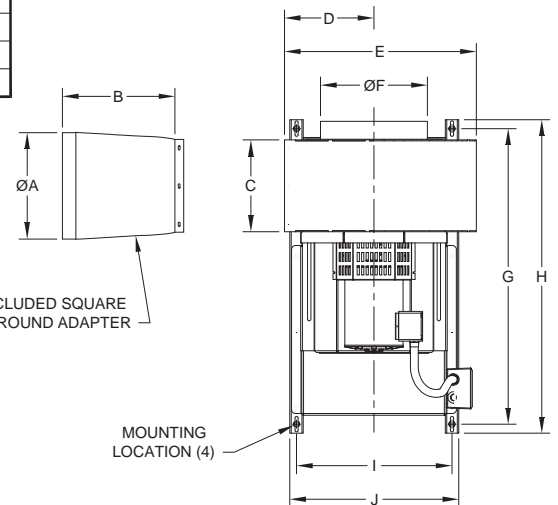
2 year mechanical

Model VSUB20R	208-230 Volt	460 Volt
Power hp	3	3
Amps A	8.8 - 8.2	4.1
Voltage VAC	3x208-230	3x460
Weight	370 Lbs. / 168 Kgs.	

	VSUB20R
A	19 7/8"
B	14"
C	14 7/16"
D	15 1/8"
E	32 11/16"
F	19 11/16"
G	45 3/16"
H	47 3/16"
I	26 7/16"
J	27 15/16"
K	20 1/8"
L	33 1/2"
M	15 3/8"
N	23 7/16"
O	43 1/2"
P	10"



END VIEW



TOP VIEW