SRMZ Series

MULTIZONE PACKAGED UNITS

Spinnaker Industries Inc. offers packaged rooftop multizone units utilizing modulating D/X cooling and natural gas or electric heat. An on board microprocessor control maintains system settings for maximum efficiency.

- R410A refrigerant
- On-board microprocessor control
- Single point power connection
- Stainless steel drain pan
- Heavy gauge steel cabinet
- Exterior powder coat finish
- Natural gas , hot water or steam heating
- Multi-zone discharge head or dual duct arrangements
- FC DWDI belt drive supply fan
- Plenum style return fan
- TEFC premium efficiency motors
- Factory charge and run tested
- Internally insulated cabinet
- Hinged and gasketed access doors

STANDARD MODELS 17.5 TO 43 TONS OF COOLING

LARGER SIZES AVAILABLE

>> LET US DESIGN ONE FOR YOU

SPINNAKER INDUSTRIES INC.

Sept. 7,2017

"SRMZ"

ROOFTOP PACKAGED MULTIZONE UNITS

Self Contained Single Package Units
17.5 to 43 Ton Cooling Capacities

Packaged Rooftop Multizone shall be Spinnaker Industries Inc. Model Series SRMZ . Units shall be factory assembled, wired and tested prior to shipment. Units shall bear a QPS approval label.

The SRMZ system is a complete Heat / Cool single package assembly with solid state controls factory installed, and wired. All models are available with a choice of options including; gas, electric, hot water, or steam heat and chilled water cooling or self contained modulating DX cooling with a complete refrigerant R410A charge.

Units are available as heating only models or split system design. Air distribution is through a multiple zone damper head with solid state damper actuators or double duct with independent mixing dampers at each zone.

A heavy gauge steel Cliplock knockdown roof curb is available for new installations with down flow applications, a plenum curb is also available for those projects requiring horizontal supply / return configurations. A fully assembled and insulated roof curb adapter is available for installations on existing buildings if required.

The Solid State Electronic DDC onboard Control System provides unlimited flexibility in application and system design and un surpassed control of temperature and humidity.

SRMZ systems make it possible to specify an entire rooftop multizone packaged system from one manufacturing source. or new or retrofit exiting applications. The DX cooling system consists of independent refrigeration circuits utilizing fixed scroll compressors with modulating hot gas by pass technology affording the maximum in energy efficiency thru the cooling range. Independent condenser fans utilize TEFC high efficiency motors and are driven by Danfoss variable frequency drives.

TYPICAL MECHANICAL SPECIFICATION

CABINET

Unit construction to suit outdoor applications. All exterior cabinet screws shall be Clima-seal with bonded washer. Unit casing shall be minimum 18 gauge satin coat steel with weather resistant powder coat finish (Sky Grey). Units with bear metal or an air dried paint finish will not be accepted. All seams to be sealed with weather resistant caulking. All interior cabinet surfaces shall be lined with 1” thick, 3 lbs/cu ft density foil faced insulation, with seems foil taped. The floor shall be double skinned to protect the 2” thick, minimum 1.5 lbs/cu ft density insulation. The base shall be constructed with heavy gauge galvanized steel with integral supports. Perimeter base frame designed to be such that it overhangs when mounted on a roof curb. Access doors shall be double wall constructed internally insulated with 1” thick insulation. A minimum of 2 latch and hinge assemblies shall be provide for each door and shall be rated for ambient temperatures of –40° F. Each access door shall be provided with a continuous dual durometer extruded automotive style flexible seal rated to–40° F. Units with lift off access doors will not be accepted.

FANS

Supply fan shall be forward curved double width double inlet, universal framed with ball bearings. The return fan shall be a backward inclined plenum plug fan with an internal angle iron sub base. Fan drive shafts shall be polished with keyways for drive pulley mounting. Unit fans with machined flats on fan shafts for drive pulley mounting will not be accepted. Fans shall have ball bearings suitable for operation in ambient temperatures of –65 to 250°F with a minimum L10 life in excess of 100,000 hours at maximum cataloged operating speeds. Fan bearings shall be pillow block type with grease nipples. Variable pitch v-belt drives, of cast iron construction and adjustable motor mounts to be provided. Units with fans, motors, and drives that do not meet the above criteria will not be accepted.

MOTORS
Fan motors shall be TEFC ribbed aluminum frame type with ball bearings rated for continuous duty and have class F insulation. Motors shall be 2010 energy efficiency compliant .Variable pitch v-belt drives, of cast iron construction and adjustable motor mounts to be provided. Units with motors that do not meet the above criteria will not be accepted.

FILTERS
Return air and Fresh air streams shall be complete with 2" deep MERV 8 pleated filters mounted in permanent tracks. Filters shall slide out for replacement.

CONTROLS AND ELECTRICAL
The Solid State Electronic DDC onboard Control System provides unlimited flexibility in application and system design and un surpassed control of temperature and humidity. Unit controls shall be mounted with in integral enclosure(s) with exterior hinged access doors enabling fan access doors to remain fully closed to maintain accurate fan performance during control and drive adjustments. The exterior hinged access door shall be the same construction as the unit access doors as described in " UNIT CONSTRUCTION ".Unit shall be provided with bottom or side power entry as required.

Unit controls shall include: fan motor / compressor fuses, contactors, and manual reset thermal overload, control transformer(s) with primary and secondary fusing. Unit wiring shall be color coded with a numbered terminal strip for low voltage wiring and field connections. Unit shall have single point power input terminals. Units without separate motor fusing and contactors will not be accepted

HOODS & DAMPERS
Unit shall be provided with a factory installed exhaust air discharge hood. Hood shall be constructed with minimum 18 gauge satin coat steel with the same finish as the unit. All flanges that meet the unit shall be sealed with caulking. Exhaust air damper shall be constructed of aluminum extrusion and be provide with a counterbalance system and galvanized steel screen.

WARRANTY
A parts only warranty is provided with each system for a period of one year from the date of shipment for vendor verified defective components . Refer to Spinnaker Limited Warranty for all details . An optional extended warranty is available .

ACCEPTANCE
Verify prior to bidding that the unit(s) meet the specified construction, scheduled performance and electrical characteristics. Units that do not meet the specified criteria will not be accepted.

ADDITIONAL ACCESSORIES

SPRING ISOLATION HEAD
The isolation head assembly will ship with the unit for installation prior to unit mounting. The isolation head assembly shall have 1" deflection open type spring isolators mounted within a full perimeter fully welded two piece frame constructed from minimum 18 gauge satin coat steel with baked enamel finish that matches unit finish, complete with a full perimeter dual durometer extruded flexible vinyl seal rated to –40 deg. F to allow movement and maintain a water resistant seal. Flex connectors shall factory installed in the duct openings of the isolation head.

Extended Compressor Warranty
An optional, four year extended compressor warranty is available at additional cost at the time of original purchase of the equipment only. This is limited one time replacement only warranty and obligates Spinnaker Industries Inc. to replace f.o.b. factory, a defective compressor of equal capacity free of charge. No responsibility is assumed by Spinnaker Industries Inc. for refrigerant, labor, or freight to and from the factory.

- **2” foam insulation (R12.4)**
- **Direct drive plenum fan(s)**
- **Chilled water coils**
- **Hot Water / Steam or Glycol heating coils**
- **Modulating Natural gas indirect fired heating with 409 or 304 stainless steel heat exchangers**
- **Modulating Electric heat with SCR control**
- **Modulating Hot Gas re heat**
- **Modulating Hot Gas by pass for capacity control**
- **Dirty filter pressure differential switches**
- **Variable frequency drives**
- **Water Cooled or Water Source Heat Pump Systems**
- **22 gauge inner cabinet liner**
- **Non-fused disconnect switch**
- **Custom designs and larger capacity systems are available**

Spinnaker Industries maintains a continuous improvement policy , therefore this information is subject to change without notice

Sept. 6, 2017

GENERAL DATA

Model	SRMZ-210
Nominal cooling (Tons)	17.5
Gross Cooling Capacity (BTUH) Modulating	210,000
Design CFM	7000
Compressor Type	Scroll (410A)
Number Used	2 (1- fixed) (1- modulating)
Evaporator Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Refrigerant Control	Electronic TX Valve
Condensor Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Evaporator Fan Type	Centrifugal, Forward Curved
Number Used	2
Drive	Adjustable V Belt
Diameter x Width (in)	15 x 15
Motor HP	5.0
Return Fan Type	Backward Inclined , Plenum
Number Used	1
Drive	Adjustable V Belt
Size	24
Motor HP	2.0
Condenser Fan Type	Propeller
Number Used	4
Diameter (in)	20
Drive	Direct Drive
Motor HP	0.5 @ 1160 RPM
Optional Heating Capacity	Natural Gas - Modulating 10:1 Turndown
Input - MBH	300-400-500
Output - MBH	240-320-400
Heat Exchanger	409 Stainless Steel
Filters	2" - MERV 13
Condensate Drain Connection Size (in)	1 1/4 FPT
Weight (lbs.)	
Operating	8400

(1) Cooling performance is rated at 95ºF ambient, 80ºF entering dry bulb, 67ºF entering wet bulb and CFM listed.
Gross capacity does not include the effect of fan motor heat

Model	SRMZ-196
Nominal cooling (Tons)	16.3
Gross Cooling Capacity (BTUH) Modulating	196,000
Design CFM	6520
Compressor Type	Scroll (410A)
Number Used	2 (1- fixed) (1- modulating)
Evaporator Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Refrigerant Control	Electronic TX Valve
Condensor Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Evaporator Fan Type	Centrifugal, Forward Curved
Number Used	2
Drive	Adjustable V Belt
Diameter x Width (in)	15 x 15
Motor HP	5.0
Return Fan Type	Backward Inclined , Plenum
Number Used	1
Drive	Adjustable V Belt
Size	24
Motor HP	2.0
Condenser Fan Type	Propeller
Number Used	4
Diameter (in)	18
Drive	Direct Drive
Motor HP	0.5 @ 1160 RPM
Optional Heating Capacity	Natural Gas - Modulating 10:1 Turndown
Input - MBH	300-400-500
Output - MBH	240-320-400
Heat Exchanger	409 Stainless Steel
Filters	2" - MERV 13
Condensate Drain Connection Size (in)	1 1/4 FPT
Weight (lbs.)	
Operating	8000

(1) Cooling performance is rated at 95ºF ambient, 80ºF entering dry bulb, 67ºF entering wet bulb and CFM listed.
Gross capacity does not include the effect of fan motor heat

GENERAL DATA

Model	SRMZ-278
Nominal cooling (Tons)	23.1
Gross Cooling Capacity (BTUH) Modulating	278,000
Design CFM	9240
Compressor Type	Scroll (410A)
Number Used	2 (1- fixed) (1- modulating)
Evaporator Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Refrigerant Control	Electronic TX Valve
Condensor Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Evaporator Fan Type	Centrifugal, Forward Curved
Number Used	2
Drive	Adjustable V Belt
Diameter x Width (in)	18 x 13
Motor HP	7.5
Return Fan Type	Backward Inclined , Plenum
Number Used	1
Drive	Adjustable V Belt
Size	24
Motor HP	3.0
Condenser Fan Type	Propeller
Number Used	4
Diameter (in)	24
Drive	Direct Drive
Motor HP	0.75 @ 1160 RPM
Optional Heating Capacity	Natural Gas - Modulating 10:1 Turndown
Input - MBH	300-400-500
Output - MBH	240-320-400
Heat Exchanger	409 Stainless Steel
Filters	2" - MERV 13
Condensate Drain Connection Size (in)	1 1/4 FPT
Weight (lbs.)	
Operating	9000

(1) Cooling performance is rated at 95ºF ambient, 80ºF entering dry bulb, 67ºF entering wet bulb and CFM listed.
Gross capacity does not include the effect of fan motor heat

Model	SRMZ-304
Nominal cooling (Tons)	25.3
Gross Cooling Capacity (BTUH) Modulating	304,000
Design CFM	10120
Compressor Type	Scroll (410A)
Number Used	2 (1- fixed) (1- modulating)
Evaporator Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Refrigerant Control	Electronic TX Valve
Condensor Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Evaporator Fan Type	Centrifugal, Forward Curved
Number Used	2
Drive	Adjustable V Belt
Diameter x Width (in)	18 x 13
Motor HP	7.5
Return Fan Type	Backward Inclined , Plenum
Number Used	1
Drive	Adjustable V Belt
Size	24
Motor HP	5.0
Condenser Fan Type	Propeller
Number Used	4
Diameter (in)	24
Drive	Direct Drive
Motor HP	1.0 @ 1160 RPM
Optional Heating Capacity	Natural Gas - Modulating 10:1 Turndown
Input - MBH	300-400-500-700
Output - MBH	240-320-400-560
Heat Exchanger	409 Stainless Steel
Filters	2" - MERV 13
Condensate Drain Connection Size (in)	1 1/4 FPT
Weight (lbs.)	
Operating	9000

(1) Cooling performance is rated at 95ºF ambient, 80ºF entering dry bulb, 67ºF entering wet bulb and CFM listed.
Gross capacity does not include the effect of fan motor heat

GENERAL DATA

Model	SRMZ-338
Nominal cooling (Tons)	28.2
Gross Cooling Capacity (BTUH) Modulating	338,000
Design CFM	11250
Compressor Type	Scroll (410A)
Number Used	2 (1- fixed) (1- modulating)
Evaporator Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Refrigerant Control	Electronic TX Valve
Condensor Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Evaporator Fan Type	Centrifugal, Forward Curved
Number Used	2
Drive	Adjustable V Belt
Diameter x Width (in)	18 x 18
Motor HP	15.0
Return Fan Type	Backward Inclined , Plenum
Number Used	1
Drive	Adjustable V Belt
Size	30
Motor HP	5.0
Condenser Fan Type	Propeller
Number Used	4
Diameter (in)	24
Drive	Direct Drive
Motor HP	1.0 @ 1160 RPM
Optional Heating Capacity	Natural Gas - Modulating 10:1 Turndown
Input - MBH	300-400-500-700
Output - MBH	240-320-400-560
Heat Exchanger	409 Stainless Steel
Filters	2" - MERV 13
Condensate Drain Connection Size (in)	1 1/4 FPT
Weight	
Operating	9250

(1) Cooling performance is rated at 95ºF ambient, 80ºF entering dry bulb, 67ºF entering wet bulb and CFM listed.
Gross capacity does not include the effect of fan motor heat

Model	SRMZ-406
Nominal cooling (Tons)	33.8
Gross Cooling Capacity (BTUH) Modulating	406,000
Design CFM	13520
Compressor Type	Scroll (410A)
Number Used	3 (2- fixed) (1- modulating)
Evaporator Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Refrigerant Control	Electronic TX Valve
Condensor Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Evaporator Fan Type	Centrifugal, Forward Curved
Number Used	2
Drive	Adjustable V Belt
Diameter x Width (in)	18 x 18
Motor HP	15.0
Return Fan Type	Backward Inclined , Plenum
Number Used	1
Drive	Adjustable V Belt
Size	33
Motor HP	5.0
Condenser Fan Type	Propeller
Number Used	4
Diameter (in)	24
Drive	Direct Drive
Motor HP	1.0 @ 1160 RPM
Optional Heating Capacity	Natural Gas - Modulating 10:1 Turndown
Input - MBH	400-500-700
Output - MBH	320-400-560
Heat Exchanger	409 Stainless Steel
Filters	2" - MERV 13
Condensate Drain Connection Size (in)	1 1/4 FPT
Weight (lbs.)	
Operating	10100

(1) Cooling performance is rated at 95ºF ambient, 80ºF entering dry bulb, 67ºF entering wet bulb and CFM listed.
Gross capacity does not include the effect of fan motor heat

GENERAL DATA

Model	SRMZ-518
Nominal cooling (Tons)	43
Gross Cooling Capacity (BTUH) Modulating	520,000
Design CFM	17000
Compressor Type	Scroll (410A)
Number Used	2 (1- fixed) (1- modulating)
Evaporator Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Refrigerant Control	Electronic TX Valve
Condensor Air Coil-Type	Enhanced Copper Tubes, Enhanced Aluminum Fins
Evaporator Fan Type	Centrifugal, Forward Curved
Number Used	2
Drive	Adjustable V Belt
Diameter x Width (in)	20 x 18
Motor HP	15.0
Return Fan Type	Backward Inclined , Plenum
Number Used	1
Drive	Adjustable V Belt
Size	33
Motor HP	7.5
Condenser Fan Type	Propeller
Number Used	6
Diameter (in)	24
Drive	Direct Drive
Motor HP	1.0 @ 1160 RPM
Optional Heating Capacity	Natural Gas - Modulating 10:1 Turndown
Input - MBH	400-500-700
Output - MBH	320-400-560
Heat Exchanger	409 Stainless Steel
Filters	2" - MERV 13
Condensate Drain Connection Size (in)	1 1/4 FPT
Weight	
Operating	10225

(1) Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb and CFM listed.
Gross capacity does not include the effect of fan motor heat

PRODUCT NOMENCLATURE

MODEL # **SRMZ** **196** **NG** **MBH / KW** **B32** **O** **10**

PRODUCT TYPE

SRMZ= PACKAGED ROOFTOP MULTIZONE

NOMINAL COOLING CAPACITY

196= 196000 BTUH (16.3 Tons)
210= 210000 BTUH (17.5 Tons)
278= 278000 BTUH (13.1 Tons)
304= 304000 BTUH (25.3 Tons)
338= 338000 BTUH (28.2 Tons)
406= 406000 BTUH (33.8 Tons)
518= 518000 BTUH (43.0 Tons)

HEATING TYPE

NG= MODULATING NATURAL GAS
ELT= MODULATING ELECTRIC HEAT
HW= HOT WATER
STM= STEAM

HEATING CAPACITY

MBH= INPUT FOR NAUTURAL GAS
MBH= ACTUAL HEATING REQUIREMENT FOR ELECTRIC,HOT WATER OR STEAM

B= 410A REFRIGERANT/ NUMBER= VOLTAGE

B32= 208-230/3/60
B34= 460/3/60
B35= 575/3/60

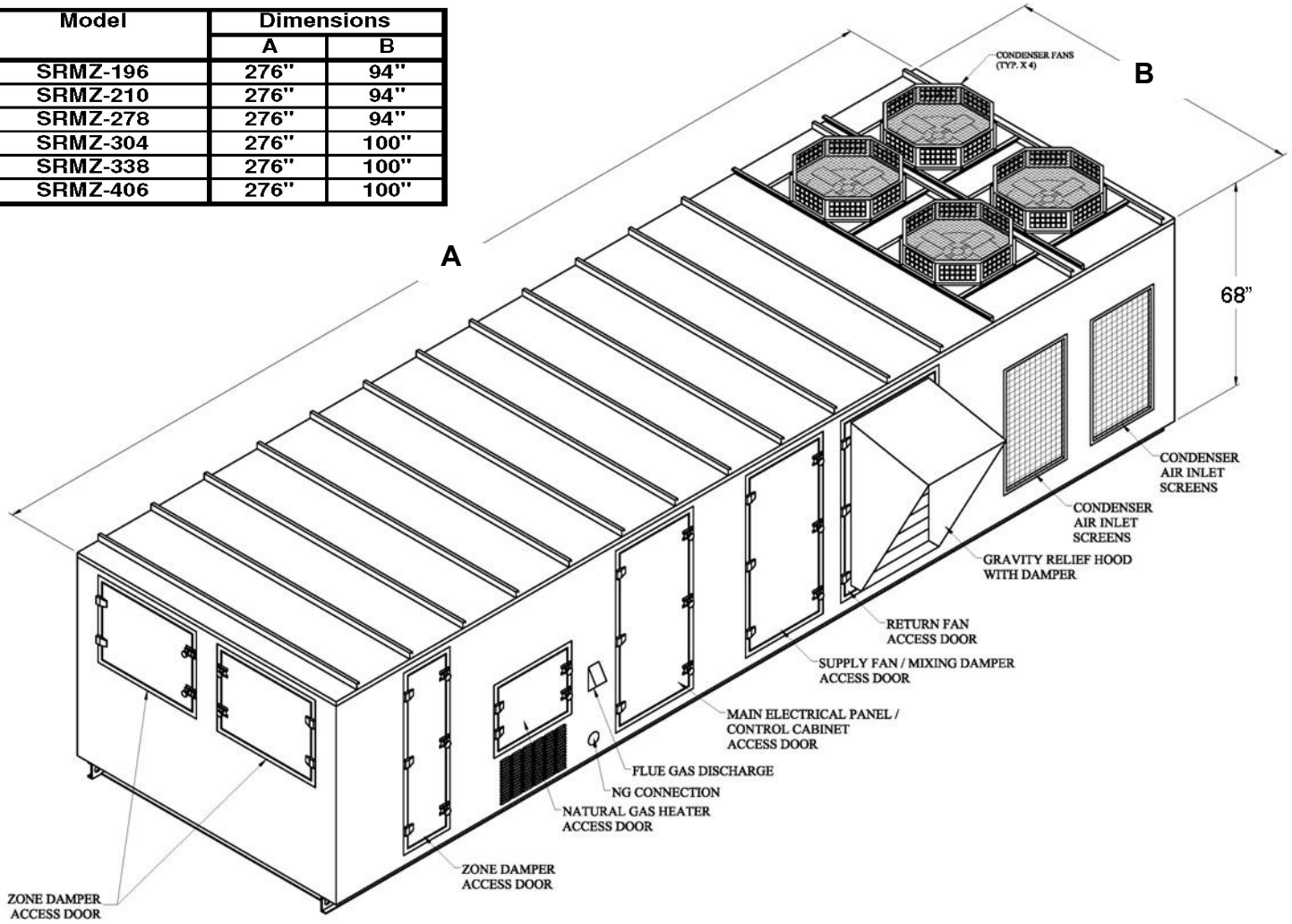
PRODUCT VARIANT

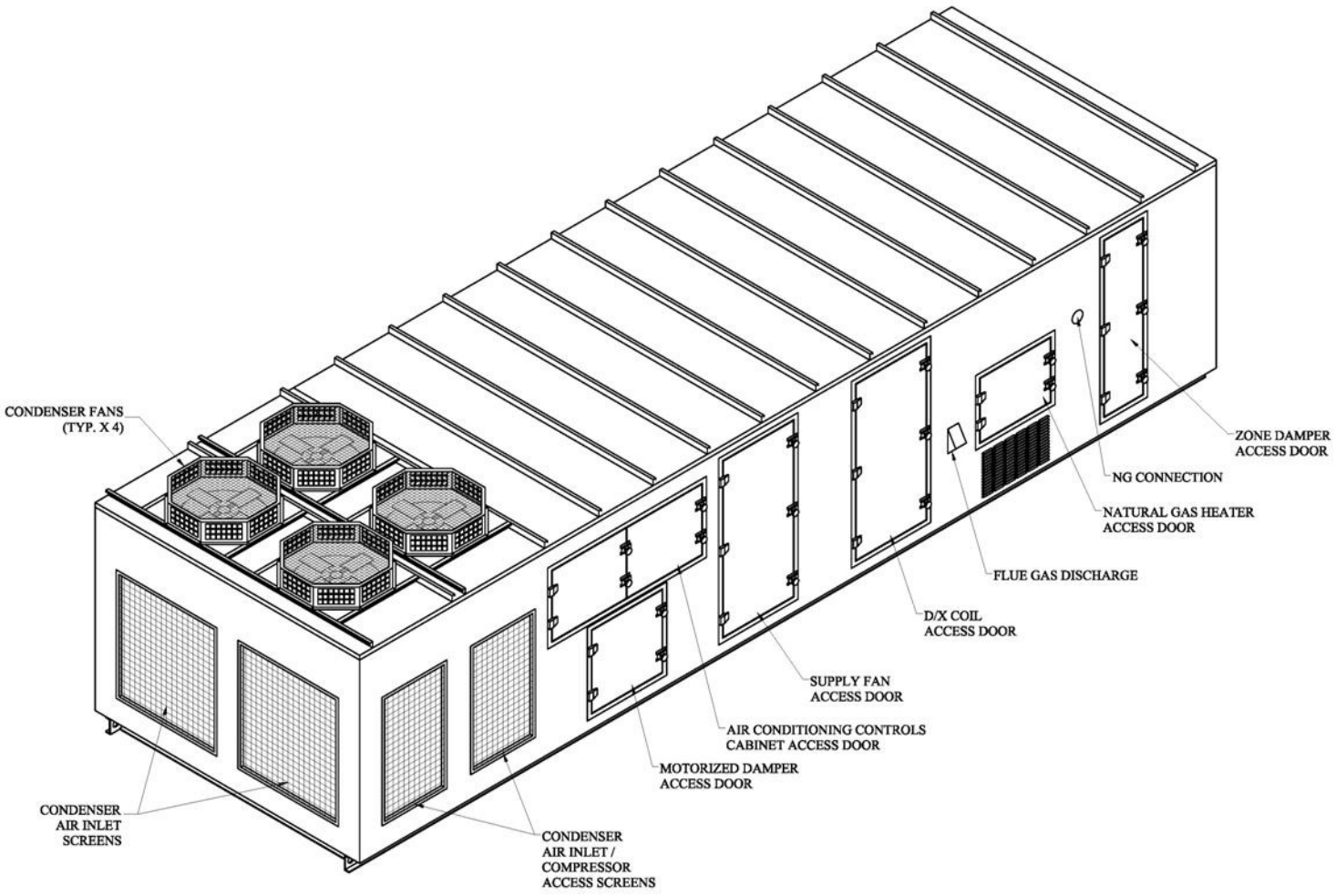
O= ACCESSORIES

APPLICATION

DD= DUAL DUCT
10Z= NUMBER OF ZONES

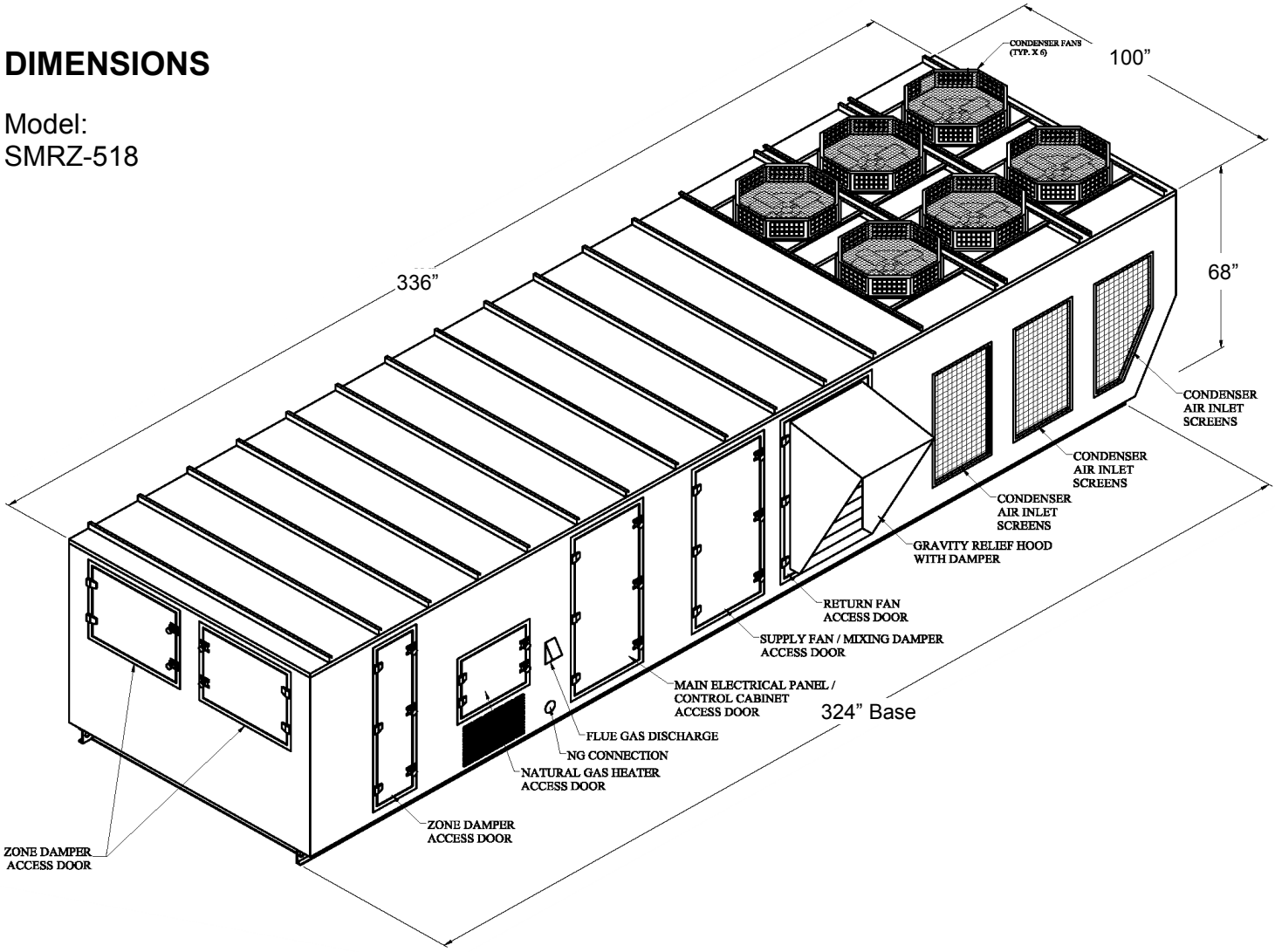
Model	Dimensions	
	A	B
SRMZ-196	276"	94"
SRMZ-210	276"	94"
SRMZ-278	276"	94"
SRMZ-304	276"	100"
SRMZ-338	276"	100"
SRMZ-406	276"	100"

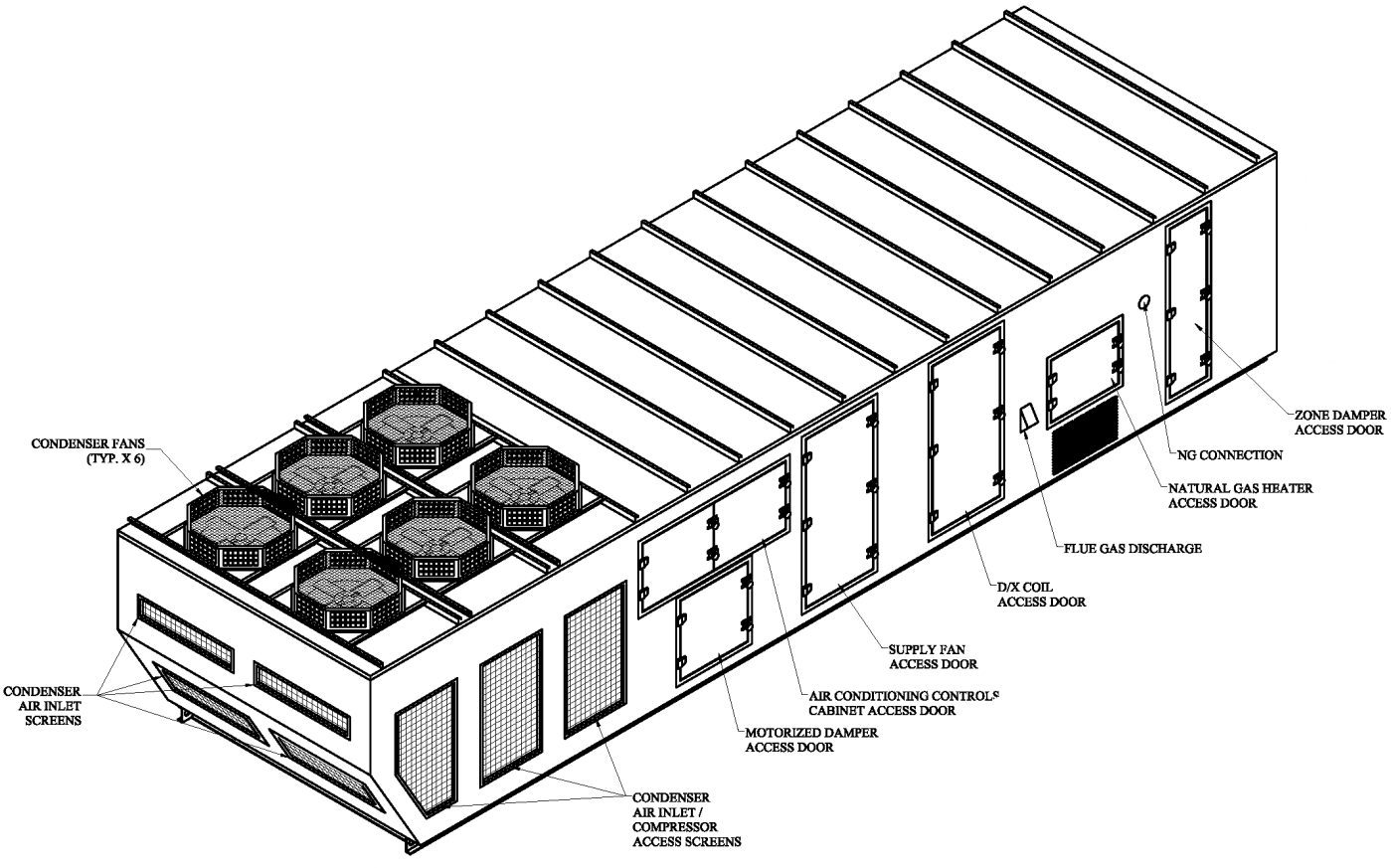




DIMENSIONS

Model:
SMRZ-518





LIMITED WARRANTY

COVERAGE AND TERMS

SRMZ Model Series units, and all related accessories as manufactured by Spinnaker Industries, are warranted to the original buyer to be free from defects in materials or workmanship provided that these units and accessories have been installed and maintained in accordance with instructions and operated under normal conditions. Spinnaker Industries sole obligation under this Limited Warranty is to repair or replace, at its opinion, free of charge to the customer (except as provided below), FOB factory, any part determined by Spinnaker Industries (in its sole discretion) to be defective. Warranty terms, from original ship date are as follows:

- All components (excluding filters and fan belts) ……. I year from date of shipment
- Stainless Steel Heat Exchanger (s) ……. 10 years from date of shipment (pro rated as follows)

Year 1 ……. customer pays 0 % of list price
Year 2 ……. customer pays 10% of list price
Year 3 ……. customer pays 20% of list price
Year 4 ……. customer pays 30% of list price
Year 5 ……. customer pays 40% of list price
Year 6 ……. customer pays 50% of list price
Year 7 ……. customer pays 60% of list price
Year 8 ……. customer pays 70% of list price
Year 9 ……. customer pays 80% of list price
Year 10 …….customer pays 90% of list price

EXCLUSIONS

Spinnaker Industries Limited Warranty does not cover defects, reduced performance, or failure caused, directly or indirectly, by improper installation, abuse, misuse, misapplication, improper maintenance, lack of maintenance, negligence, accident, or normal deterioration, including wear and tear. This Limited Warranty shall not apply to items that require replacement due to normal wear i.e. fan drive belts, filters, etc., or to failures, defects, or reduced performance resulting, directly or indirectly, from use of its products exposed to corrosive gasses or liquids. **Warranty claims that are not supported with a copy of the original start up report will not be considered**.

Spinnaker Industries Limited Warranty does not include costs for transportation (including, without limitation, freight and return freight charges, costs, and insurance), costs for removal or re-installation of parts or equipment, cranes and hoisting, premiums for overtime, labor for performing repairs or replacement made in the field, roofing contractors or any other sub trades. Spinnaker Industries is not responsible for damages occurring during transport of any product to or from its facilities.

RETURN PROCEDURE

To return defective parts under these warranty terms, please contact Spinnaker Industries at 1-800-932-6210 to confirm the ship to address. The serial number located on the rating label of the unit must be provided so that the original ship date of the unit can be verified. All defective parts must be authorized for return and shipped pre-paid to Spinnaker Industries for inspection. A purchase order must be received prior to shipment of repaired or replacement parts. Repaired or replacement parts will be invoiced and shipped collect FOB Factory. A credit will be issued only if the defective parts are deemed the responsibility of Spinnaker Industries. Spinnaker Industries is not responsible for any damage or loss occurring during shipment to or from Spinnaker Industries.

THE OBLIGATION AND LIABILITY OF Spinnaker Industries UNDER THIS LIMITED WARRANTY DOES NOT INCLUDE LOSSES, DIRECT OR INDIRECT, FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THIS LIMITED WARRANTY IS PROVIDED EXCLUSIVELY TO THE ORIGINAL BUYER OF PRODUCTS AND MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.