PRODUCT DESCRIPTION

CASING
- All KFSS unit casing panels are constructed of 20 gage galvanized steel.
- Removable top and bottom access panels allow easy access to motor and blower assemblies.

INLET COLLARS
- All round 20 gage inlet collars accommodate standard spiral and flex duct sizes.
- All KFSS units are handing reversible, meaning units can be reoriented between left hand and right hand configurations with minimal impact on primary and discharge ductwork location.

OUTLET CONNECTIONS
- All outlet connections are rectangular and require a flanged duct connection.

DAMPER ASSEMBLY
- All units utilize a round volume control damper with a solid shaft that rotates in self lubricating Delrin® bearings.
- Damper blade incorporates a flexible gasket for tight airflow shutoff and operates over a full 90° rotation.
- The damper position is marked by an arrow embossment on the end of the damper shaft.

INDUCED AIR INLET ATTENUATOR
- Induced air sound attenuator is a available for reducing radiated sound.

INDUCED AIR INLET FILTER
- Induced air inlet filters are available, including construction throwaway, 1" MERV 8, or 2" MERV 13.

CASING LINERS
All liners are attached to the unit casing with both adhesive and weld pins to ensure long term durability (excludes Sterilwall, Perforated Doublewall, and Cellular). The standard liner option is 1" thick, 1 1/2 lb. dual density fiberglass insulation that meets UL 181 and NFPA 90A.
- **(Optional)** 1/2" Thick Insulation: 1/2" thick, 1 1/2 lb. dual density fiberglass insulation that meets UL 181 and NFPA 90A.
- **(Optional)** Cellular Insulation: 1/2" or 1" thick, 1 1/2 lb. density, smooth surface, polyolefin, closed-cell foam insulation for fiber free application. Cellular insulation meets UL 181 and NFPA 90A and does not support mold or bacteria growth.
- **(Optional)** Foil Encapsulated Insulation: Foil reinforced, wrapped edges, 1/2" or 1" thick, 1 1/2 lb. density fiberglass insulation that meets UL 181 and NFPA 90A.
- **(Optional)** Sterilwall Insulation: 1" thick, 1 1/2 lb. dual density fiberglass insulation, that meets UL 181 and NFPA 90A, enclosed between the unit casing and a non-perforated internal sheet metal cover extending over the fiberglass insulation, as well as covering the liner cut edges.
- **(Optional)** Perforated Doublewall Insulation: 1" thick, 1 1/2 lb. dual density fiberglass insulation that meets UL 181 and NFPA 90A, enclosed between the unit casing and a perforated internal sheet metal cover extending over the fiberglass insulation, as well as covering the liner cut edges.

AIRFLOW SENSOR
- All units are equipped with a factory installed inlet airflow sensor device.
- K4 LineaCross: A four-quadrant, multi-point, center averaging airflow sensor is standard.
- Balancing taps are provided to allow for easy airflow verification.

FAN MOTORS
- High efficiency ECM (electronically commutated motor) fan motor [120, 208/240, or 277 volt, 1-phase].
- Units equipped with [120, 208/240 or 277 volt, 1-phase] electric heat have fan motors wired with the same line voltage. Units with [208 volt, 3-phase, 3-wire] electric heat utilize [208/240 volt] fan motors. Units with [480 volt, 3-phase, 4-wire] heat are equipped with [277 volt, 1-phase] fan motors.
- A motor disconnect switch is available (not available if the unit is equipped with electric heat including the door locking disconnect option).
- Motor fusing is available.

FAN SPEED CONTROL
- All units include either a manual or remote adjustable speed controller. The manual adjustable speed controller features a digital display that alternates between the RPM of the motor and percentage of flow and can be set and adjusted in the field. The remote adjustable speed controller communicates with a DDC controller to remotely set and/or adjust the fan speed using either a 0-10 VDC or 2-10 VDC signal and provides a manual override capability to set and/or adjust the fan speed in the field.

CONTROLS
- Pneumatic or direct digital control types are available. Digital controls can be provided by others or Krueger for factory mounting. A "no control" unit is also available for field mounting of electronic controls.

HOT WATER HEAT
- The hot water coil is factory mounted to the unit discharge.
- 1, 2, 3, or 4-row coils are constructed of 10 or 12 aluminum fins per inch. Left-hand or right- hand coil connections are available. The coil tubing is water leakage tested to 400 PSIG.
- Water coil access door option is available to provide upstream coil access for cleaning coil fins.
- Vent and drain option is available.

PRODUCT DESCRIPTION (CONTINUED)

ELECTRIC HEAT

- Heaters are ETL listed and are constructed of 20 gage galvanized steel.
- Available combinations are [120, 208/240, 277 volt, 1-phase], [208/240 volt, 3-phase, 3-wire], and [480 volt, 3-phase, 4-wire]. See fan motor description for electric heat/fan motor combinations.
- Standard heaters are equipped with automatic reset thermal cutout, magnetic contactors, airflow proving switch, and 80/20 Ni-Cr heating elements.
- Electric heater options include a fused or non-fused door interlocking disconnect switch, fuse-block, manual reset cutout, and dust tight enclosure construction.
- AC solid state relays offer silent operation for staged electric heat.
- LineaHeat solid state electronic proportional control of electric heat is available with or without leaving air temperature control. See Krueger's Terminal Unit Engineering section for additional information.

CONTROL TRANSFORMERS

- Units include a factory supplied, mounted and wired control transformer (24V), mounted inside the control enclosure for electronic control applications.

LABELS

- Label information adhered to each unit includes model name, unit size, configuration code, airflow (CFM), balancing chart, tagging data, electrical ratings, and all required agency listings.

PACKAGING

- Units are palletized. Each pallet of units is banded and stretch wrapped with cellophane.

DAMPER LEAKAGE

INLET SIZE	1.5" WG	3.0" WG	6.0" WG
	CFM	CFM	CFM
6	4	5	7
8	4	5	7
10	4	5	7
12	4	5	7
14	4	6	8
16	5	7	9

NOTES: Damper leakage is measured with the damper fully closed using an actuator. A precision low flow orifice is used upstream of the unit to measure the leakage rate as a function of the measured upstream static pressure. Leakage testing conducted in accordance with ASHRAE 130-2008.

UNIT CAPACITIES

UNIT SIZE	INLET SIZE	PRIMARY AIRFLOW		FAN AIRFLOW		MOTOR HP	MOTOR AMPS		
		MAX	MIN	MAX	MIN		120V	208/240V	277V
3	6	515	52 or 0	949	317	1/3	5	3.3	2.6
	8	920	92 or 0						
	10	949	143 or 0						
4	8	920	92 or 0	1305	205	1/2	7.7	5	4.1
	10	1305	143 or 0						
	12	1305	206 or 0						
5	8	920	92 or 0	1700	591	3/4	9.9	7.9	5.5
	10	1430	143 or 0						
	12	1700	206 or 0						
	14	1700	281 or 0						
6	10	1430	143 or 0	2195	210	1	12.8	10.5	6.9
	12	2060	206 or 0						
	14	2195	281 or 0						
	16	2195	367 or 0						
7	10	1430	143 or 0	3870	684	(2) 3/4	N/A	15.8	11
	12	2060	206 or 0						
	14	2800	281 or 0						
	16	3660	367 or 0						

NOTES: KFSS maximum primary airflow (CFM) is based on 1.00" WG differential pressure signal from inlet airflow sensor until the value reaches maximum fan CFM for that unit size. A properly balanced KFSS unit will be set so the maximum primary CFM is never greater than the fan CFM. Minimum recommended airflow (CFM) is based on 0.01" WG differential pressure of the inlet airflow sensor, or 0 CFM. 0.03" WG is equal to 15%–20% of the nominal flow rating of the terminal. Less than 15%-20% may result in greater than +/-5% control of box flow. Maximum/minimum fan airflow (CFM) is based on 0.25" WG external downstream static pressure. Fan performance shown above is for a cooling only and no filter unit. Adding reheat coils and MERV 8 or MERV 13 filter will affect fan performance. See pages B2-26 and B2-27 and Krueger selection software for complete fan curves.