

Our mission at US Draft Co. is to develop leading edge technology for the heating appliance and fireplace venting industries. With over 25 combined years of experience, our founders are determined to standardize the use of mechanical draft and draft control systems through quality and innovation. Utilizing the latest and most efficient technology available, US Draft Co. has developed a full line of mechanical draft inducers, variable volume flue dampers and related controllers. With revolutionary advances such as our EC-Flow™ technology and Truline™ fan construction, US Draft Co. is solving the venting challenges presented by the next generation of appliances. At US Draft Co., we understand the complex issues presented in modern day appliance venting and we are ready to assist you in your venting needs.

Project Report			Project Name: Your Project		Appliance Input Data				
City: Fort Worth			Project For:	Plan Input (PSI):	11.07	CO2% at Flue			
State: TX			Company:	Plan Input (PSI):	1.00	Appliance Input			
Model: 2K			Manufacturer:	Plan Input (PSI):	1.00	100			
Model Type:	Category:	Flue Type:	Manufacturer:	Plan Input (PSI):	1.00	100			
Combustion Input Information									
Total Duct Length:	15	15 Degree Elbow:	0	Total Vertical Length (ft):	0	15 Degree Elbow:			
90 Degree Tee:	0	30 Degree Elbow:	0	Total Horizontal Length:	0	90 Degree Elbow:			
45 Degree Tee:	0	45 Degree Elbow:	0	90 Degree Tee:	0	45 Degree Elbow:			
Lateral 45 Degree Tee:	0	90 Degree Elbow:	0	Stack Tee:	0	90 Degree Elbow:			
Reducer Range:	0 90 90	Reducer Range:	0 90 90	Inline Damper:	0	Reducer Range:			
Additional Pressure Loss:	0	Unit Type:	0	Backdraft Damper:	0 90 90	0 90 90			
Knocking Damper:	0	Combustion Air Requirement:	0	Termination Type:	0	Additional Resistance (PSI):			
Information for Adjustable Pressure:	0 90 90	Stacking Damper:	0	Additional Pressure Loss:	0	0			
Calculation Results									
Parameter	CFM	Velocity	Density	Total K Value	Pressure Loss	Draft	Total Pressure	Temperature	
Combustion Air Results									
User Selected:	Plan Input	0	296	0.845	0.073	1.3	0.796	94.6	70
Computer Selected:	Plan Input	0	296	0.845	0.073	1.3	0.796	94.6	70
Combustion Air Connector Results									
User Selected:	0	0	0.000	0.000	0.0	0.00	0.00	0.00	0.0
Exhaust Results									
User Selected:	Plan Input	0	314.096	0.852177	0.000	12.400	1.260	129.0	129.40
Plan Input:	0	317.083	0.853178	0.000	12.500	0.803	0.803	127.0	121.804
Computer Selected:	Plan Input	7.8	314.096	0.852165	0.000	12.22	0.407	0.902	124.24
Plan Input:	7.8	317.083	0.853166	0.000	12.34	0.205	0.603	121.012	120.012
Exhaust Connector Results									
User Selected:	Plan Input	0.000	0.000	0.000000	0.000	0.000	0.000	0.000	0.0
Plan Input:	0.000	0.000	0.000000	0.000	0.000	0.000	0.000	0.000	0.0
Computer Selected:	Plan Input	0.000	0.000	0.000000	0.000	0.000	0.000	0.000	0.0
Total Pressures									
User Selected:	1.471								
Computer Selected:	1.471								

US Draft Co. maintains a strong tie to American ingenuity and integrity. Our products are proudly made in the U.S.A. in our factory located along the West Fork of the Trinity River in Fort Worth, Texas.



US Draft Co.
 A Division of RM Manifold Group, Inc.
 220 S. Sylvania Avenue, Suite 207, Fort Worth, TX 76111
 Phone: 817-393-4029 Fax: 866-903-5771
www.usdraftco.com



Draft.
 Control.
 Solutions.

DRAFT CONTROL SYSTEM

The Draft Control System is designed to optimize the appliances' operating efficiencies by maintaining a constant pressure in the common manifold throughout the firing cycle. The Draft Control System employs a mechanical draft fan or damper-actuator with EC-Flow™ Technology a fully modulating, pressure-based VIC or mVIC control. Both the VIC and mVIC are programmable and designed to interlock with up to four appliances. The VIC is also designed to interface with the building management system via a Modbus gateway. Mechanical draft fans: CB, TRV, and T9F. Damper-actuator: OBD. Controls: VIC, mVIC, XB

SUPPLY AIR SYSTEM

The Supply Air System is designed to supply the proper amount of fresh air to a mechanical room or laundry room. Commonly overlooked, an insufficient supply of fresh air can cause fossil fuel-fired heating appliances as well as clothes dryer to operate improperly, potentially damaging the appliance. The Supply Air System utilizes EC-Flow™ Technology to maintain a field-determined room or duct pressure. The Supply Air System may interlock with up to eight appliances when used in conjunction with the XB expansion board. Supply fans: ISAB, ISAF, and WSAF. Controls: VIC, mVIC, ARB, and XB.

CLOTHES DRYER EXHAUST SYSTEM

The Clothes Dryer Exhaust System exhausts residential and/or commercial clothes dryers. Clothes dryer exhaust is one of the most difficult exhaust systems to design in a building due to lint-laden air and lack of buoyancy. The Clothes Dryer Exhaust System utilizes EC-Flow™ Technology to maintain a slight negative pressure in the exhaust manifold or shaft (for multi-story applications). The Clothes Dryer Exhaust System simulates that clothes dryers are individually exhausted by easing the back pressure in the common duct or riser and, in turn, allowing the dryer to operate more efficiently, lowering the drying time of the clothes. Properly designed and installed, the Clothes Dryer Exhaust System will reduce the owner's energy costs, saving money, while safely exhausting the connected clothes dryers. Exhaust fan: T9F. Controls: VIC, mVIC, ARB, and XB.

FIXED SPEED CONTROL

The Fixed Speed Control is designed to operate a mechanical draft fan at a fixed volume. The Fixed Speed Control utilizes the ARB draft control to interlock the fan with the appliance and sequence the system properly. The Fixed Speed Control is simple to install and can greatly increase the vent lengths of the installed heating equipment. Mechanical draft fans: CB, TRV, and T9F. Controls: XB.

HEARTH EXHAUST SYSTEM

Design to properly draft a wood- or gas-burning fireplace, the Hearth Exhaust System consists of the mechanical draft fan and the Universal Fan Control (UFC). With today's tighter construction, fireplaces cannot vent naturally due to the lack of make-up air. The use of mechanical draft also ensures that the fireplace's chimney does not become a supply duct for the home or building's exhaust or ventilation systems. Utilizing patent pending technology, the UFC takes advantage of the high efficiency synchronous motor to control the draft on the fireplace. The UFC can determine if the motor has failed and activates a visual and audible signal in case of fan failure as required by NFPA 211 and IMC. Chimney fans: CB, TRV, and T9F. TRV and T9F are suitable for listed gas-burning fireplaces only.



CB – TERMINATION CHIMNEY FAN

- Listed and conforms to UL standard 378 Type 1 & 2 and UL standard 705
- Upblast design to exhaust the flue gas away from the building
- Vertical or sidewall mounting
- Variable speed direct drive
- High efficiency electronically commutated motor
- FH model rated up to 1000°F continuous operation



TRV – INLINE DRAFT INDUCER

- Listed and conforms to UL standard 378 Type 1 and UL standard 705
- Patent pending Truline™ design for easy straight inline installation
- Rated for indoor or outdoor use
- Variable speed direct drive
- High efficiency electronically commutated motor
- Rated up to 575°F continuous operation

T9F – TRUE 90° DRAFT INDUCER

- Listed and conforms to UL standard 378 Type 1 and UL standard 705
- Patent pending Truline™ design, fits in place of an elbow without an offset
- Rated for indoor or outdoor use

OBD – OPPOSED BLADE DAMPER

- Multi-blade opposed blade damper
- Available in 304 stainless steel or 316 stainless steel
- Rated for indoor or outdoor use

ISAB/ISAF – INLINE SUPPLY FAN

- Truline™ inline construction
- Backward curved motorized impeller
- Variable speed electronically commutated motor

WSAF – WALL MOUNT SUPPLY AIR FAN

- Designed to mount indoors on the wall
- Premium efficiency axial motorized impeller
- Variable speed electronically commutated motor

VIC – CONSTANT PRESSURE CONTROL

- Designed with EC-Flow™ technology
- Maintains a constant pressure for increased efficiency and proper operation
- Bi-directional pressure transducer for precise operation

mVIC – CONSTANT PRESSURE CONTROL

- Designed with EC-Flow™ technology
- Maintains a constant pressure for increased efficiency and proper operation
- Bi-directional pressure transducer for precise operation

ARB – FIXED SPEED CONTROL

- Designed to operate a fan and damper
- Maintains a constant volume for proper appliance operation
- 24VDC supply for optional equipment

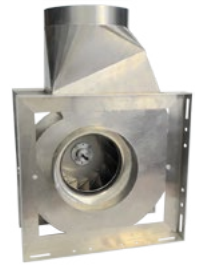
UFC – UNIVERSAL FAN CONTROL

- Designed for heating appliances and wood or gas fireplaces
- Integrated motor fault detection
- Damper relay for fireplaces

CGM – CARBON MONOXIDE SENSOR

- Designed to interlock with gas heating appliances
- Replaceable CO Sensor
- Interlocks up to two appliances

- Variable speed direct drive
- Premium efficiency motor
- Rated up to 600°F continuous operation



- Fully modulating programmable actuator
- Modbus communication
- Rated up to 500°F standard operation, 750°F high temperature option



- ISAF models include 1" fiber insulation for quiet operation
- Rated up to 140°F standard operation



- Optional back draft damper
- Listed and conforms to UL standard 705



- Interlocks up to four appliances
- Large visual display with keypad
- Listed to UL508

- Interlocks up to two appliances
- Integrated display with keypad
- NEMA 4 enclosure
- Listed to UL508



- Interlocks two appliances
- NEMA 4 enclosure
- Listed to UL508



- Interlocks one appliance
- Slide indicator for fan speed
- NEMA 1 enclosure



- Integrated display with keypad
- NEMA 1 enclosure