

SECTION 114023 - KITCHEN HOODS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes commercial kitchen hoods.

1.3 SUBMITTALS

- A. Product Data: For the following:
 - 1. Standard hoods.
 - 2. Fire-suppression systems.
 - 3. Show plan view, elevation view, sections, roughing-in dimensions, service requirements, duct connection sizes, and attachments to other work.
 - 4. Show fire-protection cylinders, piping, actuation devices, and manual control devices.
 - 5. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 6. Wiring Diagrams: Power, signal, and control wiring.
- B. Welding certificates.
- C. Field quality-control test reports.

1.4 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.5 COORDINATION

- A. Coordinate equipment layout and installation with adjacent Work, including lighting fixtures, HVAC equipment, plumbing, and fire-suppression system components.

PART 2 - PRODUCTS

2.1 HOOD MATERIALS

- A. Hood shall be recirculating D1000-F Series by DENLAR Fire Protection (sold by HVAC Products, Inc), or approved equal.
- B. Unit shall be wall mounted so that the bottom of the mounting bracket sits 18” to 26” above the cook top – see architectural elevations.
- C. Unit shall be of stainless steel construction (#18 & #20 GA, polished 304) w/ no sharp edges and brushed finish.
- D. Unit shall have fire suppression system factory installed. Activation of the mechanical fire suppression system shall be by a fusible link. Wet chemical extinguishing agent: Low PH Amerex 660 (pressurized potassium citrate / potassium acetate mix).
- E. Unit shall be ETL listed, tested to UL300A standards, fan motor shall be permanently lubricated and meet UL507
- F. Unit shall include a fuel shut-off device for electric appliances, activated at suppression system discharge. Unit shall also automatically disconnect range element once a certain pre-set temperature is reached.
- G. Unit shall have multiple alarm contacts pre-installed (local, remote & trouble alarms) and an audible buzzer
- H. Lighting shall be by 60w shatter-proof bulb
- I. Provide Options:
 - 1. Manual pull station kit
 - 2. NSF Compliance
 - 3. NFPA 101 Compliance

2.2 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Examine roughing-in for piping systems to verify actual locations of piping connections before equipment installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

2.3 INSTALLATION

- A. Install hoods and associated services with clearances and access for maintaining, cleaning, and servicing hoods, filters/baffles, grease extractor, and fire-suppression systems according to manufacturer's written instructions and requirements of authorities having jurisdiction.
- B. Securely anchor and attach items and accessories with stainless-steel fasteners, unless otherwise indicated.
- C. Install hoods to operate free from vibration.

2.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections. Report results in writing.
- B. Perform tests and inspections.
 - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- C. Tests and Inspections:
 - 1. Test each equipment item for proper operation. Repair or replace equipment that is defective, including units that operate below required capacity or that operate with excessive noise or vibration.
 - 2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
 - 3. Test piping and components for leaks. Repair or replace leaking components.
 - 4. Perform hood performance tests required by authorities having jurisdiction.
 - 5. Perform fire-suppression system performance tests required by authorities having jurisdiction.
- D. Prepare test and inspection reports.

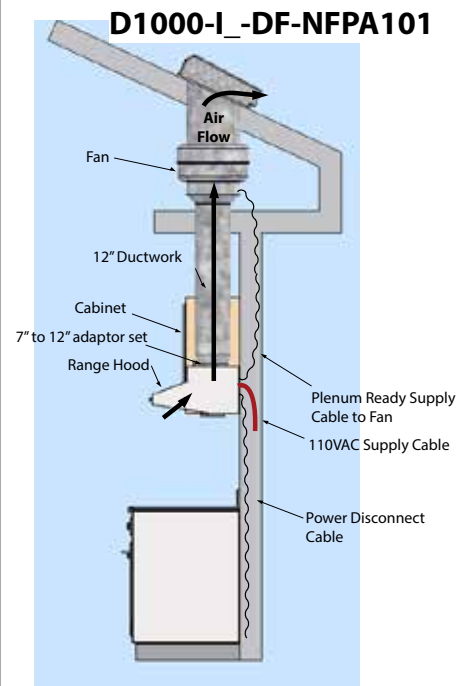
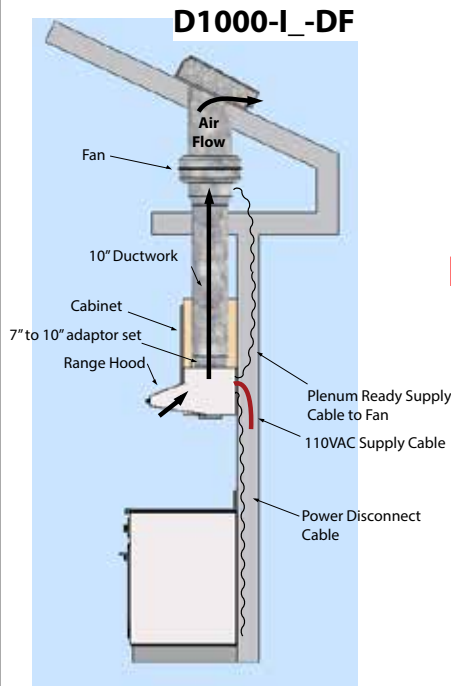
2.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain commercial kitchen hoods.

END OF SECTION 233813

The D1000

**Model: D1030-I_-DF
Spec & Submittal
Version 2.2**



	Width	Fan Type	Venting	CFM (at hood)	DUCT LENGTH (max)
D1030-F_	30"	INTERNAL	FRONT (recirc)	140 CFM	N/A
D1030-F_ (NFPA101)	30"	INTERNAL	FRONT (recirc)	500 CFM	N/A
D1030-R_	30"	INTERNAL	REAR EXPELLING	250 CFM	N/A
D1030-R_ (NFPA101)	30"	INTERNAL	REAR EXPELLING	500 CFM	N/A
D1030-I_-DF	30"	In-Line Duct Fan	Vertical Duct	470 CFM	35 FEET
D1030-I_-DF (NFPA101)	30"	In-Line Duct Fan	Vertical Duct	510 CFM	35 FEET
D1030-I_-WF	30"	Exterior Wall Fan	Vertical Duct	150 CFM	20 FEET
D1030-I_-WF (NFPA101)	30"	Exterior Wall Fan	Vertical Duct	550 CFM	20 FEET
D1036-F_	36"	INTERNAL	FRONT (recirc)	140 CFM	N/A
D1036-F_ (NFPA101)	36"	INTERNAL	FRONT (recirc)	500 CFM	N/A
D1036-R_	36"	INTERNAL	REAR EXPELLING	250 CFM	N/A
D1036-R_ (NFPA101)	36"	INTERNAL	REAR EXPELLING	500 CFM	N/A
D1036-I_-DF	36"	In-Line Duct Fan	Vertical Duct	470 CFM	35 FEET
D1036-I_-DF (NFPA101)	36"	In-Line Duct Fan	Vertical Duct	510 CFM	35 FEET
D1036-I_-WF	36"	Exterior Wall Fan	Vertical Duct	150 CFM	20 FEET
D1036-I_-WF (NFPA101)	36"	Exterior Wall Fan	Vertical Duct	550 CFM	20 FEET

Volts = 115 :: Hz = 60 :: Amps = 5 :: Light Bulb = 60A15/TF :: Elec. Cutoff = 50A-208VAC Relay :: Gas Cutoff = 110VAC Solenoid

Typical Specifications:

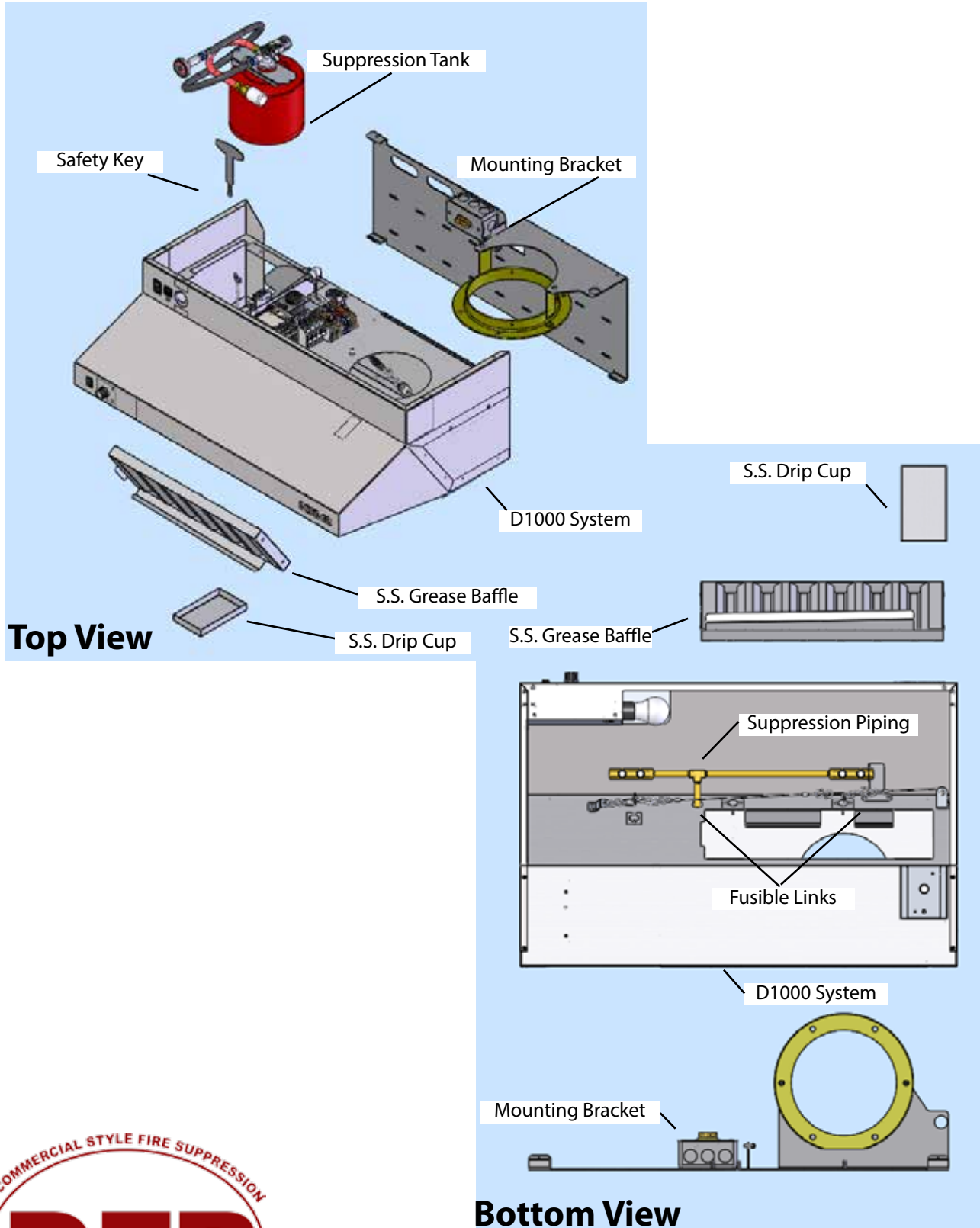
- Hood shall be D1000 Series by DENLAR Fire Protection
- Unit shall be wall mounted so that the bottom of the mounting bracket sits 24" to 30" above the cooktop
- Unit shall be of stainless steel construction (#18 & #20 GA, polished 304) w/ no sharp edges and brushed finish
- Unit shall have fire suppression system factory installed
- Activation of the mechanical fire suppression system shall be by 212 or 280 degree fusible link (30" vs 36")
- Wet chemical extinguishing agent: Low PH Amerex 660 (pressurized potassium citrate / potassium acetate mix)
- Unit shall have centrifugal fan with air delivery of 380 to 610 cfm, fan speed controller will be infinitely variable
- Unit shall be ETL listed, tested to UL300A standards, fan motor shall be permanently lubricated and meet UL507
- Unit shall include a fuel shut-off device for gas & electric appliances, activated at suppression system discharge
- Unit shall also automatically disconnect range element once a certain pre-set temperature is reached
- Unit shall have multiple alarm contacts pre-installed (local, remote & trouble alarms) and an audible buzzer
- Lighting shall be by 60w shatter-proof bulb

Standard Options*:

- MPK - Manual Pull Station Kit
- NSF - Upgrade to Natl. Sanitation Foundation Compliance
- ADA - Handicapped Accessible Control Box
- CLBX - THE CLOCKBOX (Key-lock, Range Element Timer)
- NFPA101 - Upgrade to NFPA Life Safety Code Compliance
- *Custom Powdercoat Finishes Are Available



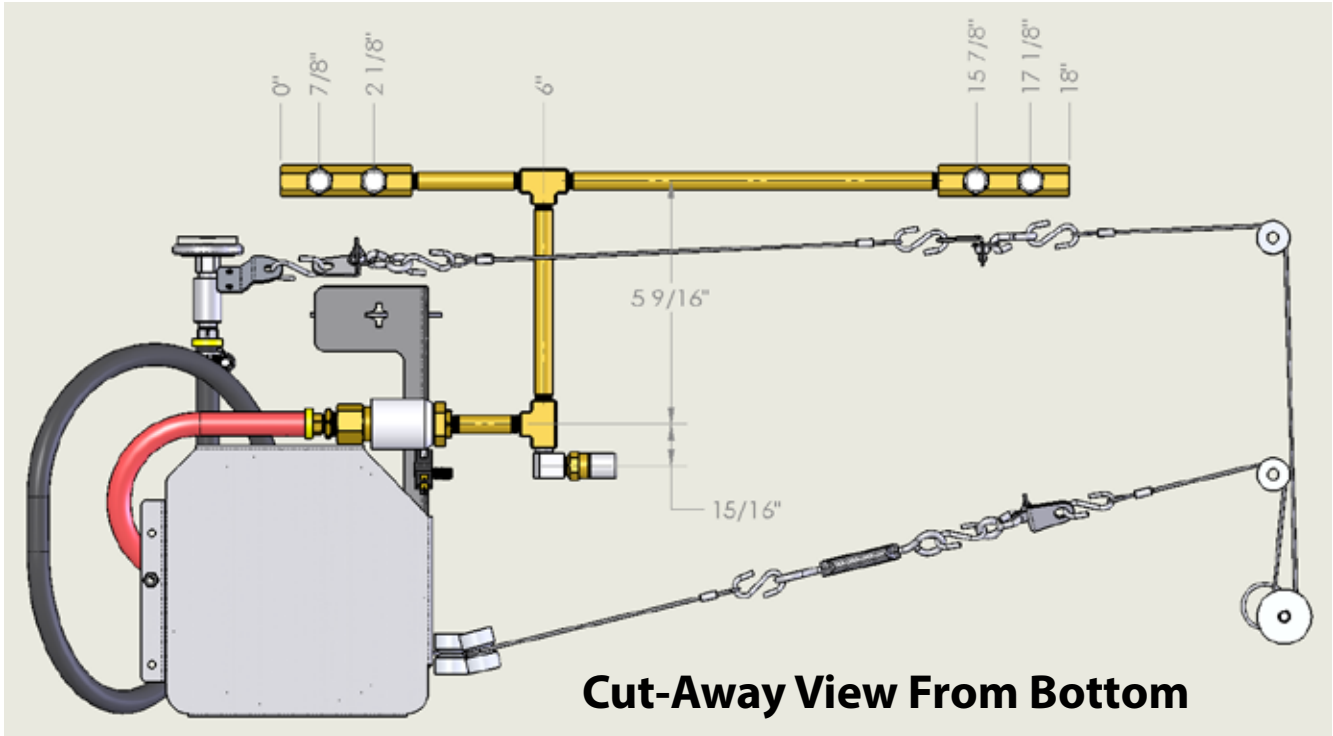
System Anatomy :: D1030-I_-DF



The D1000

Model: D1030-I_-DF
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Version 2.2

Integrated Fire Suppression System



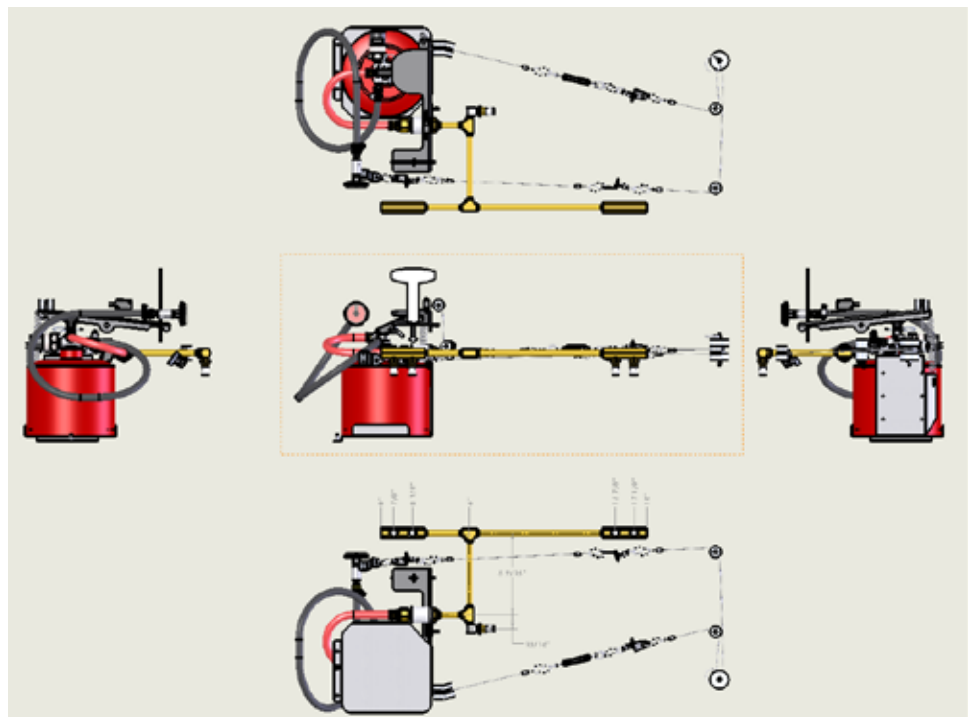
Cut-Away View From Bottom

Nozzle Type:
40 degree Conical Spray

Number of Nozzles:
4 protecting the appliance
1 located in the plenum

Chemical Agent:
AMEREX 660
-low PH wet chemical

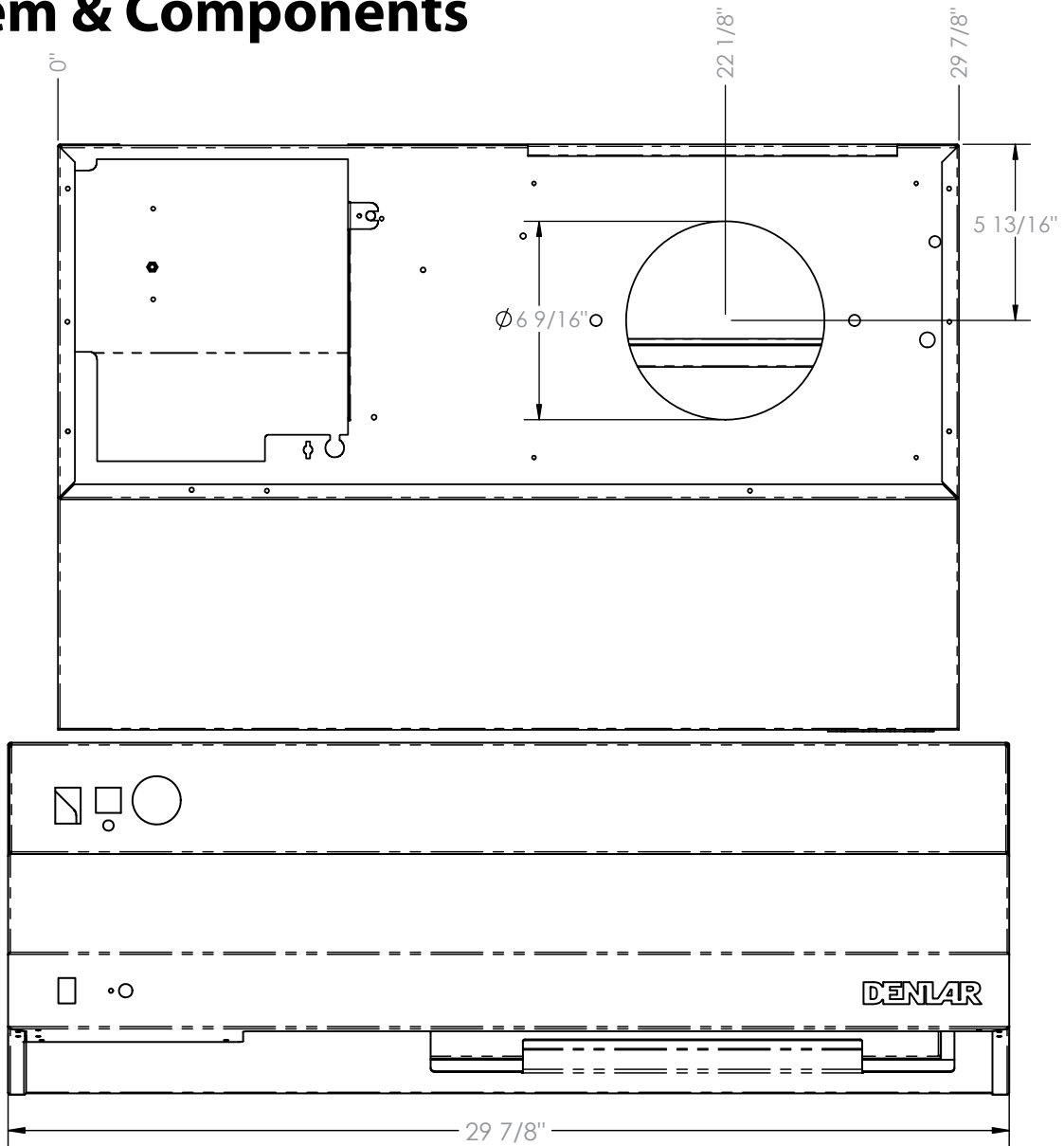
Bottle Volume:
approx. 1.5 liters



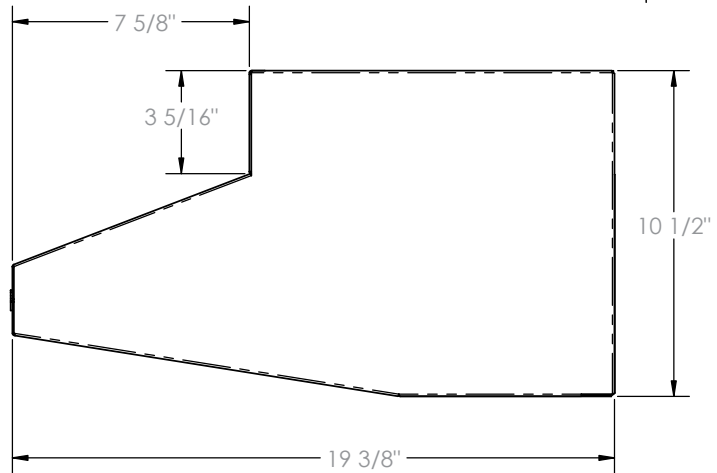
The D1000

Model: D1030-I_-DF
Spec & Submittal
Version 2.2

System & Components

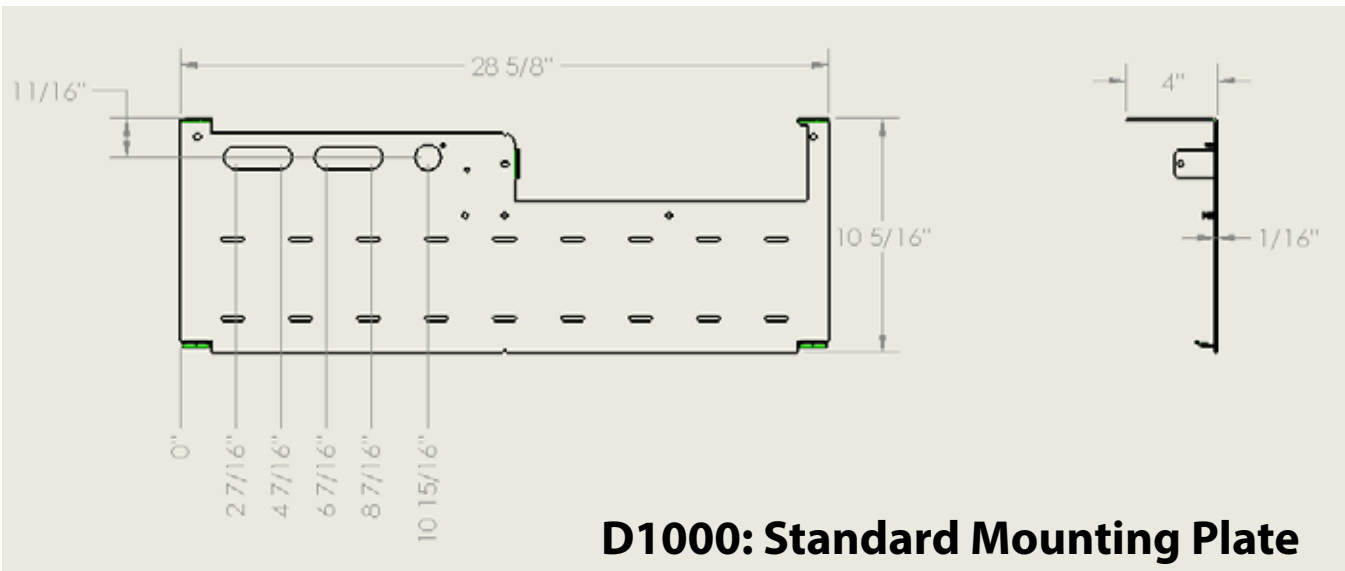


D1030: Outer Shell

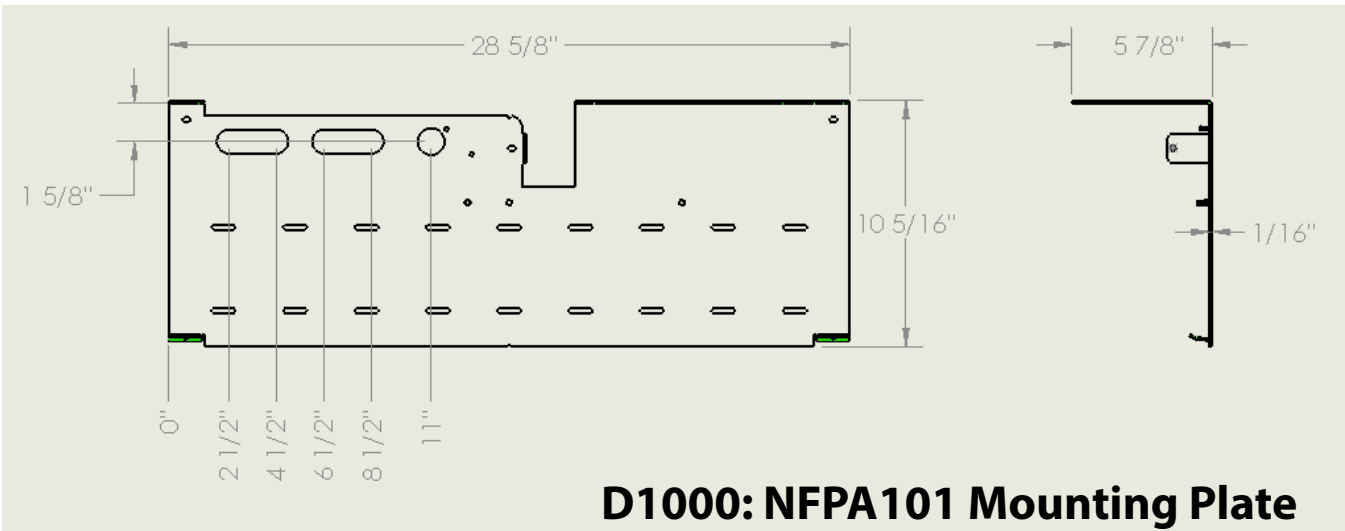


The D1000

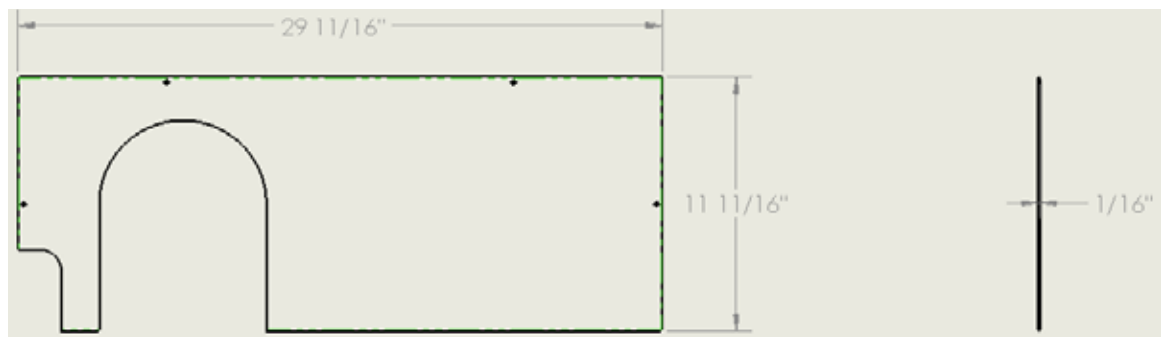
**Model: D1030-I_-DF
Spec & Submittal
Version 2.2**



D1000: Standard Mounting Plate



D1000: NFPA101 Mounting Plate



***D1030TC: 30" Top Cover for 1 unit**

* Indicates OPTIONAL component



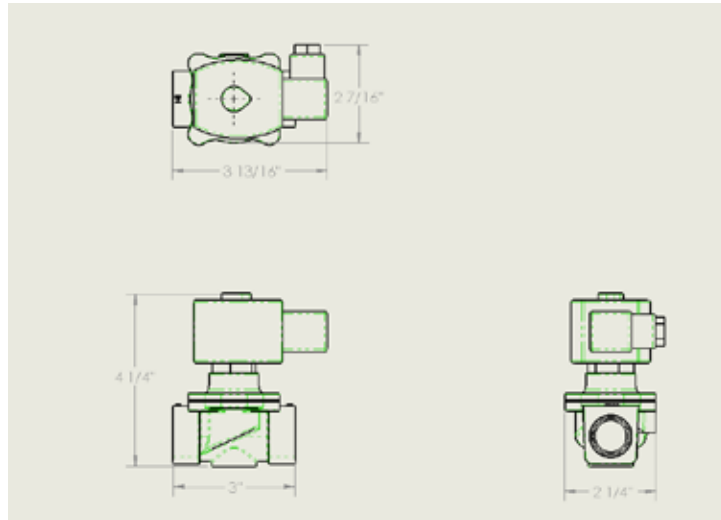
The D1000

**Model: D1030-I_-DF
Spec & Submittal
Version 2.2**

D1000-G: Controlled GAS Solenoid Valve

Included:

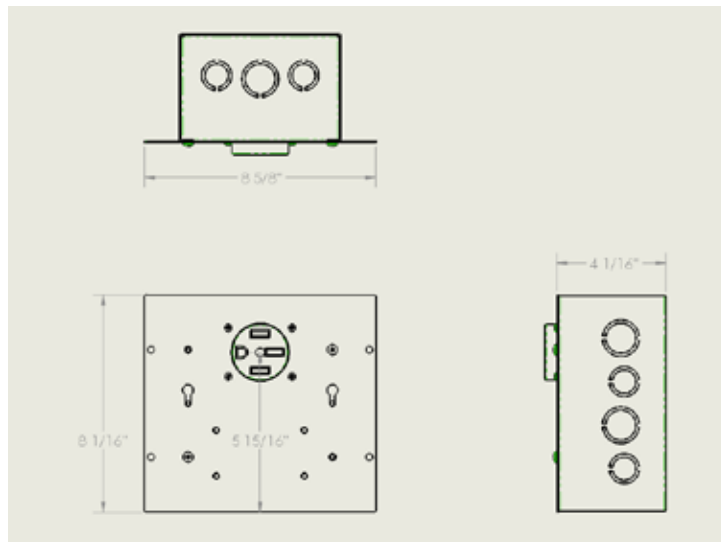
6 ft shielded control wire
-plug & play connection



D1000-E: Electric Range Element Disconnect

Included:

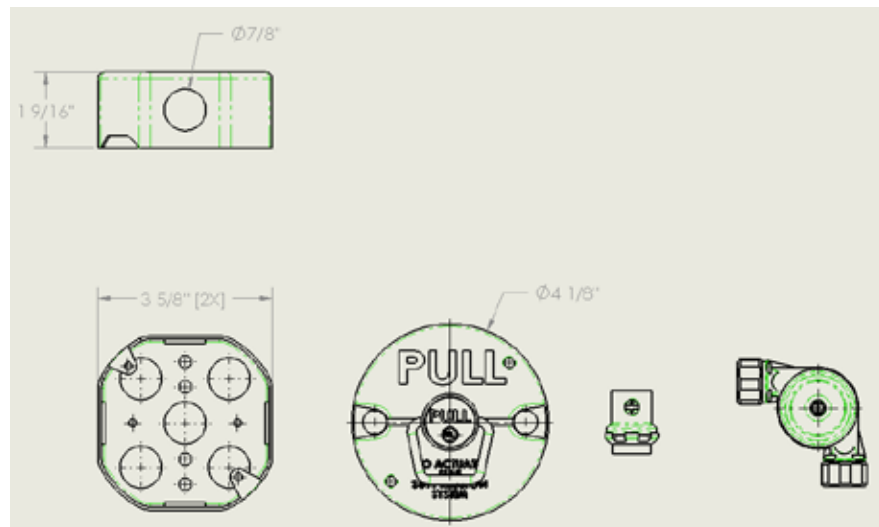
6 ft shielded control wire
-plug & play connection



*D1000-MPK: Manual Pull Station Kit

Included:

18 ft braided metal rope
3 corner pulley's



* Indicates OPTIONAL component



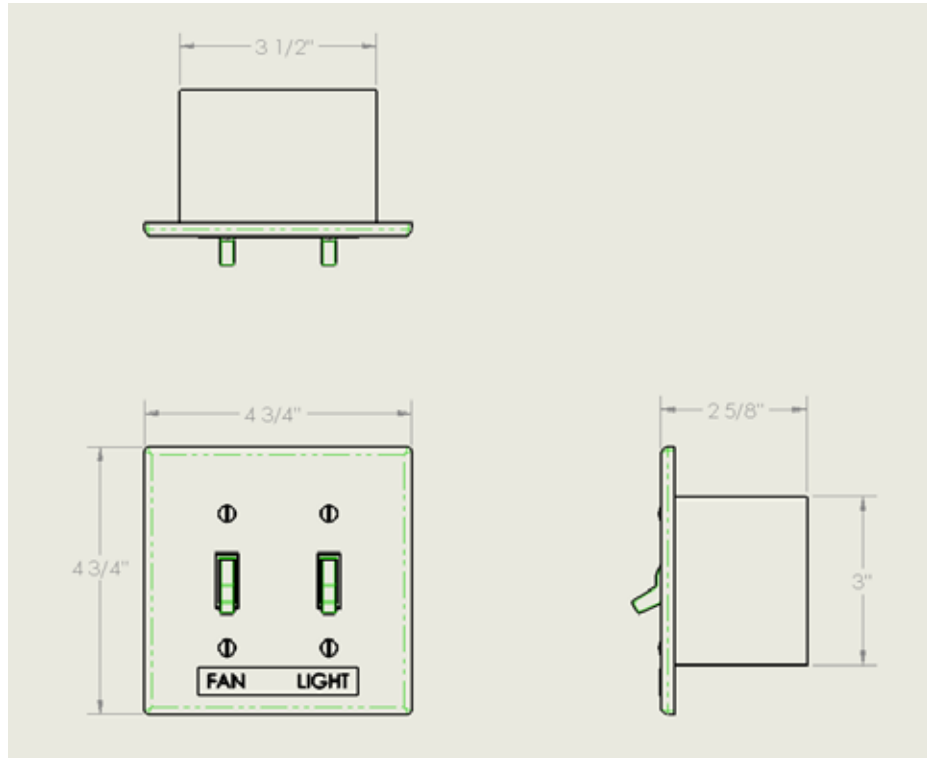
The D1000

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***D1000-ADA:
Handicapped
Accessible
Control Box**

Included:

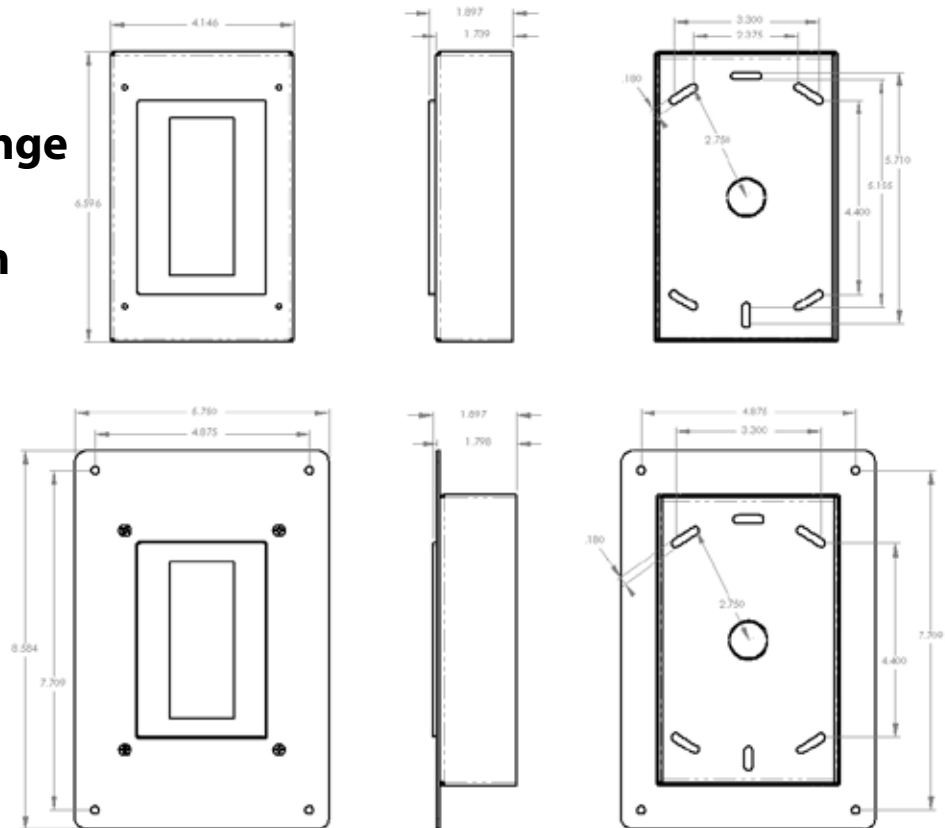
8ft shielded control wire
-plug & play connection



***D1000-CLBX:
CLOCKBOX II Range
Element Timer /
Lock-Out System**

Included:

20ft shielded control wire
-plug & play connection

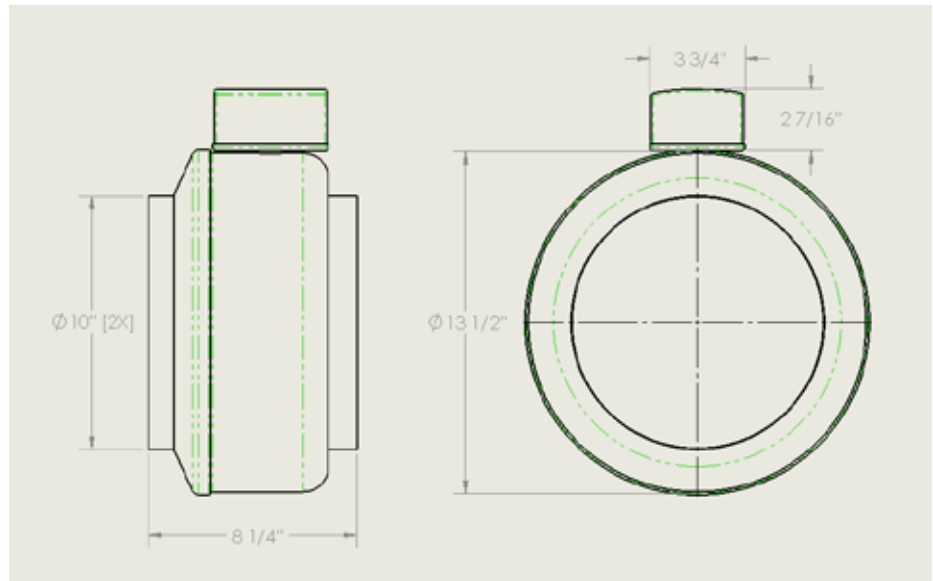


* Indicates OPTIONAL component

D1000-DF: Standard In-Line Exhaust Fan

Included:

25ft plenum rated wire
-plug & play connection



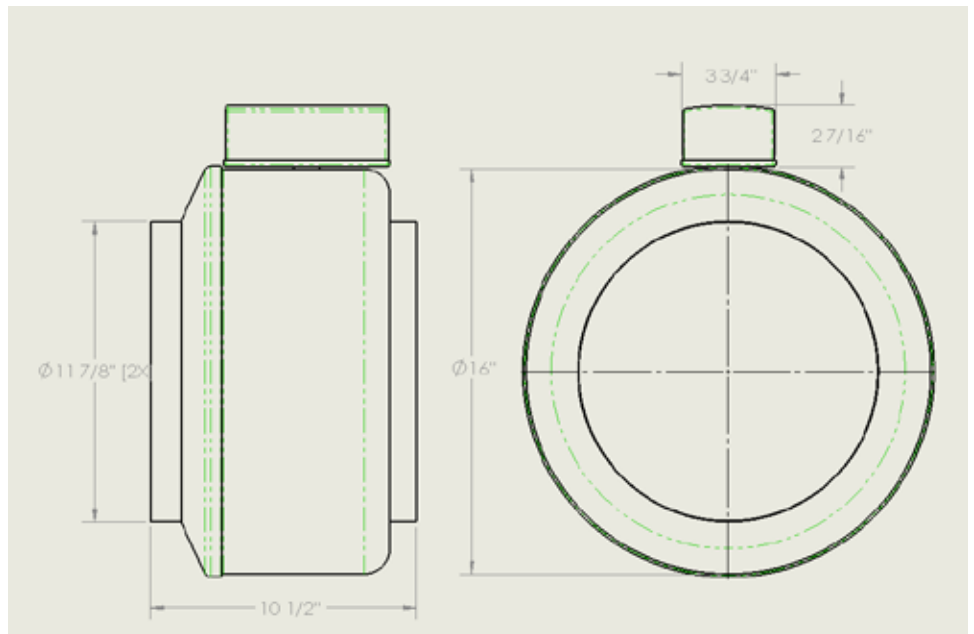
NFPA101 Calibration :: D1030-I_-DF-NFPA101

The NFPA101 Upgrade to the DENLAR D1000 is intended to offer total compliance to a 2012 Amendment to The NFPA Life Safety Code section 18.3.2.5.3. The “NFPA101” calibration packages the following options into one simple upgrade: +500cfm of Air Delivery, a Manual Pull Station Kit and The CLOCKBOX.

D1000-DF: NFPA101 In-Line Exhaust Fan

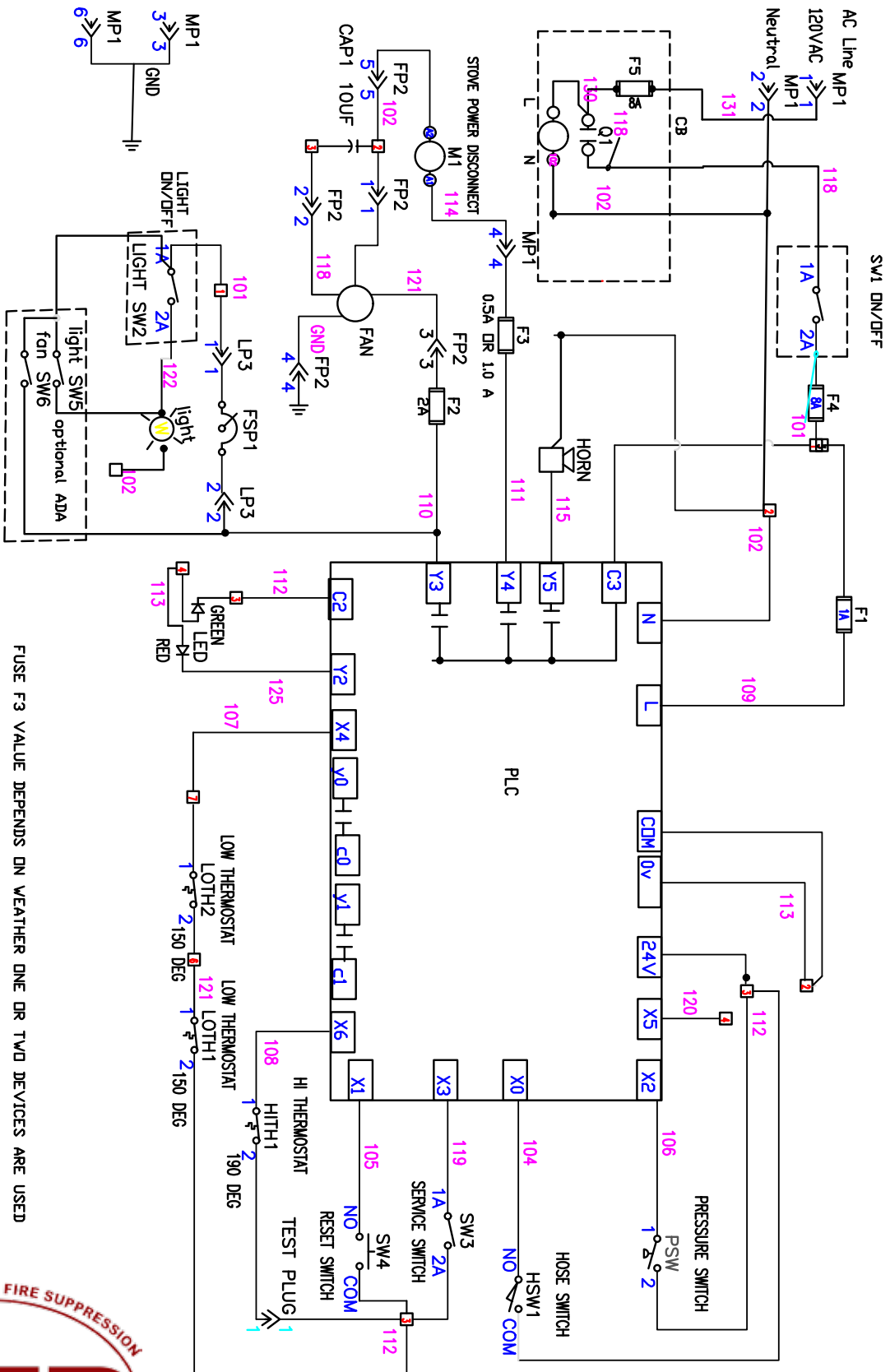
Included:

25ft plenum rated wire
-plug & play connection



The D1000

Model: D1030-I_-DF
Spec & Submittal
Version 2.2



FUSE F3 VALUE DEPENDS ON WEATHER ONE OR TWO DEVICES ARE USED

D1000 Electrical Diagram - Complete Schematic

