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**Partie 1      General**

**1.1            RELATED REQUIREMENTS**

- .1      General conditions and Supplementary general conditions are effective to this section
- .2      Section 23 05 00 – Common Work Results for HVAC
- .3      Section 23 05 49.01 – Seismic Protection Systems
- .4      Section 23 34 00 – HVAC Fans

**1.2            REFERENCES**

- .1      Definitions:
  - .1          Certified Ratings: catalogued or published ratings obtained from tests carried out by manufacturer or independent testing agency designated by manufacturer and signifying adherence to codes and standards.
- .2      Reference Standards:
  - .1          CSA Group
  - .2          National Fire Protection Association (NFPA)
    - .1              NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.
  - .3          Underwriter's Laboratories of Canada (ULC)

**1.3            ACTION AND INFORMATIONAL SUBMITTALS**

- .1      Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2      Product Data:
  - .1          Submit manufacturer's instructions, printed product literature and data sheets for kitchen hood, grease filter, and grease extractor, and include product characteristics, performance criteria, physical size, finish and limitations.
- .3      Shop Drawings:
  - .1          Submit drawings stamped and signed by professional engineer registered or licensed in Quebec, Canada.

**1.4            DELIVERY, STORAGE AND HANDLING**

- .1      Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements with manufacturer's written instructions.
- .2      Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3      Storage and Handling Requirements:
  - .1          Store materials indoors, dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

- .2 Store and protect kitchen hoods from nicks, scratches, and blemishes.
- .3 Replace defective or damaged materials with new.

## **Partie 2 Products**

### **2.1 WASH DOWN GREASE EXTRACTOR TYPE**

- .1 General construction
  - .1 Canopy wall-mounted 760 mm commercial hood furnished with sectional grease extractor installed in a single casing.
  - .2 Completely made of 430 stainless steel 18 MSG metal sheet with a #4 finish on exposed surfaces.
  - .3 Stainless steel grease extractors, removable for easy cleaning and adjustable in order to minimize energy consumption. Suction flow over each kitchen equipment can be adjusted without compromising grease extraction performance.
  - .4 Extractor casing includes one or more stainless steel grease recovery bucket.
  - .5 75 mm backplate for securing clearance to semi-combustible materials
  - .6 Incandescent lamp, 100 watts each, 120V-1-60, water vapor tight, CSA certified.
  - .7 Hood is ULC listed and constructed according to NFPA 96.
  - .8 Covering: Clearance between hood and suspended ceiling is sealed with stainless steel panels with similar finishes to the hood.(supplied by contractor if needed)
- .2 Fire suppression system
  - .1 General description:
    - .1 The assembly included but is not limited to extinguishing liquid tank with PH below 9, mounted in a stainless steel casing, sprinklers, activation mechanism, and weak link detector.
    - .2 Distribution hoses, sprinklers and fittings located under the hood are chrome plated.
    - .3 Fire suppression system has a five (5) years guarantee and must meet ULC-1254.6.
    - .4 All drillings through the hood must be made using sealing rings and gaskets ULC certified.
    - .5 Operation and maintenance instructions must be both in english and French (documentation and control panel interface).
  - .2 Procedures :
    - .1 Fire detection is given by manual push button located near the hood or by detector fuse failure located in the hood plenum
    - .2 In case of fire, make-up air is shut down and exhaust is maintained while the fire extinguishing system is operating..
    - .3 Gas main valve and electric kitchen equipment contactors are shut down.

- .4 Two dry contacts are available for building fire alarm system and hood control panel
- .3 Detection et Alarms
  - .1 Detection : Thermo-fused located in the hood plenum.
  - .2 Alarm : To building fire alarm system.
  - .3 Manual push button : 1, mounted on nearby wall,
  - .4 Gas shut down : solenoid valve, 51mm diameter max., Installed at 3200 mm min. from the floor.
  - .5 Electrical shut down : magnetic contactor furnished and installed by electrical contractor
- .4 To be supplied with one (1) portable extinguisher « K » type.
- .3 Control Panel
  - .1 CSA listed, made of painted 16 MSG steel sheet, polyester finished.
  - .2 To be mounted or recessed on the wall.
  - .3 Control panel has the capability of managing start-shut off of hood exhauster, make-up fan, and hood lighting through dry contacts.
  - .4 Fully capable of implementing control sequence as required by NFPA 96.
  - .5 Prewire panel includes fuses, contactors and microprocessor.
  - .6 Hood Failure : dry contact to building management system.
  - .7 Solenoid gas valve relay.
  - .8 Cooking equipment magnetic contactor relay.
  - .9 Dry contact to each VFD exhaust fans.
  - .10 Panel interface includes :
    - .1 3 positions selector for ventilation mode.
      - .1 3 positions switch for make-up and exhaust fan mode « manual », « OFF » et « auto »
      - .2 « Auto » mode can be programmed from the building management system.
      - .3 Lighting is interlock with exhaust fan operation.
      - .4 Two dry contact overrides are provided to shut-off/start the system.
    - .2 Upon fire alarm activation :
      - .1 Exhaust fan stay in continuous operation.
      - .2 Make-up air shut-off

- .3 Hood lighting is shut-off
- .4 Cooking equipment electrical supply is shut-off through contactor dry contact.
- .5 Solenoid gas valve is shut-off through dry contact.
- .6 « Cooking appliance OFF » LED signal ON
- .7 « Fire » LED signal ON

.4 Capacity and performance

I.D.	Length	Width	Flow	Pressure	lamps	Fire Suppression
	mm	mm	L/s	Pa	Qty	Points/ Liters
HO1-302-B00	4350	1725	1180	300	4	11/11
HO1-301-C01	4600	1500	1130	300	4	16/16
HO2-301-C01	4900	2000	1345	300	5	

**2.2 METAL SHEET DUCTING**

- .1 Metal sheet ducting made from 16 gage carbon steel or 18 gage stainless steel according to NFPA 96.
- .2 All joints must be continuously water tight welded on their external side or using any other certified methodology describes by NFPA 96.

**Partie 3 Execution**

**3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for kitchen hood installation in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate.
  - .2 Inform Consultant of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Consultant.
- .2 Start-up test : After installation is done, manufacturer must test the complete operation of the hood including all alarms and fire signals and responses. Contractor responsible of the building fire alarm must be present and assist in the testing.

**3.2 INSTALLATION**

- .1 Installation must comply with NFPA 96 and NFPA 13.
- .2 Install hoods in accordance with manufacturer instructions.

- .3 Install hood at 2000 mm from floor, 75 mm from semi-combustibles materials, 457 mm from combustibles materials. Hood must extend 300mm from the front of the cooking equipment and 150mm from the sides.
- .4 Install access doors in ducts at 3.7 m (12 ft) spacing and transition according to NFPA 96 in order to provide access for cleaning.

Install and test relays to solenoid valve and magnetic contactor.

### **3.3 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

**FIN DE LA SECTION**