

File MH47432
Project 09CA56448

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REPORT

on

Exhaust Hoods Without Exhaust Dampers

J C Enterprises
Norwalk, CA

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DESCRIPTION

PRODUCT COVERED:

USL - The products covered by this Report are exhaust hoods without exhaust dampers, identified as Model **Hoodini 1.0 (DKBHS 1.0)**, and **Hoodini 2.0 (DKBHS 2.0)** for use with specific restaurant cooking appliances.

ENGINEERING CONSIDERATIONS (Not For Field Representative's Use):

USL, indicated investigation to United States requirements in accordance with UL710, Sixth Edition, Dated September 13, 2012.

GENERAL CHARACTER:

These exhaust hoods without exhaust dampers and having a telescoping exhaust collar are intended principally for use over specific type cooking equipment. The adjustable, telescoping feature permits the hood to be placed directly over cooking appliance at the required clearance between the bottom edge of the hood and cooking surface for Korean barbecue style cooking. The assemblies are factory-built units.

ASSEMBLY FOR SHIPMENT:

Each hood/collar assembly shall be prepared for shipment in a manner to avoid injury during transit. Each shipment shall include hood/collar, complete grease filter, link systems, and installation instructions (See Illustration 15 and 18 with spring balancer mechanism). The 12 in. dia hood and grease filter may be packaged separately but shipped with the hood assembly.

MARKING:

A metal plate or a UL Recognized Marking and Labeling System (PGDQ2) supplied by J C Enterprises, suitable for attachment to stainless steel, indoor or outdoors to high humidity, or occasional exposure to water, rated 150°C (302°F) maximum temperature exposure, shall be attached to the front or inside of each hood assembly and includes the following information: The Listing Marking of Underwriters Laboratories Inc.

1. Manufacturer's name and model designation.
2. The following statements:
 - A. Hood with an adjustable duct collar, not fixed into a permanent position at the time of installation, shall be permanently marked where visible to the user with the following or equivalent: "Caution: Position hood assembly at 10 in. while cooking." The marking shall be in a minimum 1/4 inch high letters on a contrasting background.

For use only with J C Enterprises Models DKBS-1G or DKBS-RGC cooking appliances, maximum 12,500 BTU,

- B. maximum cooking surface 14 in. dia. or 10.75 in. wide x 16 in. long.
- C. Maximum Surface Temperature Setting 700 °F
- * D. Minimum Total Design Exhaust airflow, **200** cfm (Total 1613 fpm).
- E. Hood shall be centered over center of cooking appliance.

Also refer ILL.19 for more details for model Hoodini.

INSTALLATION INSTRUCTIONS

Installation instructions as shown by Illustration 15 are provided with each assembly and shall contain the following statements:

- A. The inner/outer collar shall overlap a minimum of 10 in. when the hood is adjusted to 10 in. clearance to cooking surface.
- B. The mechanical stop shall prevent separation of the duct collar and maintain the 10 in. clearance of hood bottom to cooking surface when installed as intended.

*

CONSTRUCTION DETAILS:

General assembly views for Model Hoodini 1.0 are as shown below.

ILL. NO.	DESCRIPTION
A	Support to hold lower pipe
1	Cross Section of Hood Assembly
2	Access Door Cylinder Assembly
3	Outer Collar (outer pipe)
4	Inner Collar (inner pipe)
5	Hood
6	Inner Filter
7	Outer Filter
8	Filter Flange Bottom
9	Filter Flange Top
10	Filter Assembly
11	Grease Cup
12	Handle
12A	Handle (Alternate)
13	Handle Rod
13A	Handle Rod (Alternate)
14	Access Door
14A	Access Door Piano Hinge
15	Installation Instructions
16	New Exhaust Collar Holding mechanism- Rope, Cleat, Rope, & Rope Block
17	Alternate - Exhaust Collar Holding mechanism, steel wire, SPRING BALANCER, model MCT-602-B
18	Installation Instructions- with spring balancer
19	Marking label

The Outer/Inner Collar assemblies are constructed in various lengths to accommodate varying ceiling heights but must have a minimum 10 in. overlap when assembled. See Illustration 1.

Suppliers are to provide and certify material Specification Sheets for each casing provided.

Casing

The casing shall be constructed of stainless steel.

Stainless steel shall be either Type 302, 304, 430 or 439 and shall be 18 gauge, 0.050 nominal thickness (0.041-in. minimum.)

External seams of access door cylinder (See Illustrations 2 and 14)/inner collar (inner pipe) (See Illustration 4) shall have a liquid-tight continuous weld.

Exhaust Duct Collar

The hood assemblies are constructed with a single exhaust duct collar centered in the 12 in. dia. hood (See Illustration 5). The outer exhaust collar size is 3.50 in. OD (See Illustration 3) and the inner collar (See Illustration 4) size is 3.375 in. OD.

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The exhaust collar shall conform to the material requirements as outlined under "CASING", and is secured to the hood with by means of twist lock connection mechanism.

*The inner/outer collar shall overlap a minimum of **10** in. when the hood is adjusted to 10 in. clearance to cooking surface.

The mechanical stop shall be provided to prevent separation of the duct collar.

Access Door Cylinder

The access door cylinder size is 5.00 O.D. (See Illustration 2) and is welded to the inner collar with a continuous weld.

Grease Filters

Each unit is to be equipped with a stainless steel grease filter, consisting of an inner and outer component with a top and bottom cape, manufactured and supplied by JC Enterprises Co. See Illustrations 6 through 10.

Access Door

The access door is made up of the following components:

Access Door - 6.7 by 4.3 in. See ILL. 14 for details.

Door Piano Hinge - 1 in. wide. See ILL. 14A for details.

Cement Sealant -Rutland, Ruthland Fire Clay Company - Applied 1/8 to 1/4 in. wide by approximately 1/8_to 1/4 in. thick to inner surface at center and along outer edge of door. The two lines of cement are trowelled across entire inner surface.

Door Seal Material - Kaowool 2000 Grade 1/8" thick or Kaowool 500 Grade 3 mm, glued with silicone spray and cut to fit length and width of access door. Affixed to cement sealant and compressed to Access Door inner surface.

Counterbalance Cable

The 1/16 dia. zinc-plated galvanized steel counterbalance cable shall meet the following specifications:

Construction -	7x7 Strand Core
Formation -	Preformed and Unlubricated
Dia., in. -	1/16
Lengths, ft -	25, 50, 100, 300, 500
Breaking Strength, lbs -	480
Fed Specification -	RR-W-410
Approximate Bend Radius in. -	1-5/16

Alternate Exhaust Collar Holding mechanism: See ILL.16 for all details

Rope: 4 mm Dinghy Control Line 500 lbs

ClamCleave: Model Junior ClamCleave-for 1/8 in. to 1/4 in. rope dia. attached with two welded studs on exhaust collar with nut.

Rope Block: Total Two, mfg by HARKEN, Part # 233, model Micro Block, cheek, 200lbs, bottom one attached with two welded stud, and top one attached with one welded stud.

ROPE STOP : Rope Stop held by the pressed in magnet.

Alternate Exhaust Collar Holding mechanism: See ILL.17 for all details

Steel with vinyl coated wire: 2 mm dia. 1000 mm long on each side.

SPRING BALANCER: mfg by ShanDong Finer Lifting Tools Co. LTD, model MCT-602-B. max. 3 kg on each side- total two used for supporting telescoping tubing.

Stud on Outer tube (lower collar): Total two- #10 WELD STUD WITH FLAT WASHER AND HEX NUT WITH LOCK WASHER(BOTH SIDES)

Stud on upper collar-- Total two- 1/4-20 WELD STUD, HEX NUT

Grease Cup - Stainless steel, 1.5 in. deep by 3.78 dia as shown in Illustration 11.

Counter Balance Assembly: mfg. name Pullman, Model: 8A- (steel tape as rope)
Handle and Handle Rod Assembly -

For handle and handle rod specifics, see Illustrations 12 and 13 or for alternate handle and handle rod, see Illustrations 12A and 13A.

Model Hoodini 2.0:

Figure 1 shows Hoodini 2.0 (Front side)

Exhaust collar: Stainless steel either Type 302, 304, 430 or 439 and 18 gauge, 0.050 nominal thickness (0.041-in. minimum.) and secured to the top of the hood with liquid tight weld joint.

Filter Box: Stainless steel either Type 302, 304, 430 or 439 and 18 gauge, 0.050 nominal thickness (0.041-in. minimum.)- Liquid tight weld joint. Size: 7.5 inch by 7.5 inch by 12 inch high. This box consists of one Filter, Grease collection cup, Grease access door. Refer ILL.23 for location and details.

Access Door on Filter box: Door Piano Hinge: 1 in. wide. See ILL. 23 for details. Hinged on one side, with two locking mechanism on other side- to remove filter and Grease collection cup. See ILL.23. This Access door consist of gasket on inside surface to proper seal of the door during operation. The gasket mfg. by Kaowool 2000 Grade 1/8 inch thick or Kaowool 500 Grade 3 mm, glued with silicone spray and cut to fit length and width of access door. Affixed with cement sealant and compressed to Access Door inner surface- similar to current model Hoodini 1.0. Refer ILL.23 for Access door.

Grease Filters: manufactured and supplied by JC Enterprises Co. Baffle type, metal, Size 7 inch by 8 inch by 1 inch thick . refer ILL.23 for location **and ILL.26 for dimensions and constructions.**

Alternate - Similar to above construction, dimensions and metal materials mfg. By Smith Filter.

Grease Collection cup: Made from Stainless steel either Type 302, 304, 430 or 439 and 18 gauge, 0.050 nominal thickness (0.041-in. minimum.) Size: 2 inch by 2 inch by 2.5 inch. Refer ILL.23 for size, and location.

Tubing: The inner/outer tubing (collar) overlap minimum of 10 in. when the hood adjusted to 6 in. clearance to cooking surface. Inner tube and outer similar to model Hoodini 1.0.

Grease Bowl: Refer ILL.22 for dimensions, and refer ILL.21 for location on the unit.

Grease Collection cup attached at the end of the tube: Refer Ill.23 for location and size.

The mechanical stop provided to prevent separation of the duct collar.

Inner/Outer Tubing: made from Stainless steel either Type 302, 304, 430 or 439 and 18 gauge, 0.050 nominal thickness (0.041-in. minimum.). The inner/outer tubing (collar) overlap minimum of 10 in. when the hood adjusted to 6 in. clearance to cooking surface. Inner tube and outer similar to model Hoodini 1.0. The outer (lower) pipe has pulley rope connection as per ILL.22. Also has steel rod as an extra support. The lower tube has bowl shape at the end to capture maximum smoke and grease laden vapor- this bowl has lip inside to capture any remaining grease dripping after operation. This grease

collector has twist lock to remove any grease from that area and attach again after emptying.

Holding mechanism of Lower part of the Hood Tubing:

Counterbalance Cable

The 1/16 dia. zinc-plated galvanized steel counterbalance cable shall meet the following specifications:

Construction -	7x7 Strand Core
Formation -	Preformed and Unlubricated
Dia., in. -	1/16
Lengths, ft -	25, 50, 100, 300, 500
Breaking Strength, lbs -	480
Fed Specification -	RR-W-410
Approximate Bend Radius in. -	1-5/16

Alternate Exhaust Collar Holding mechanism: See ILL.16 for all details

Rope: 4 mm Dinghy Control Line 500 lbs

ClamCleave: Model Junior ClamCleave-for 1/8 in. to 1/4 in. rope dia. attached with two welded studs on exhaust collar with nut.

Rope Block: Total Two, mfg by HARKEN, Part # 233, model Micro Block, cheek, 200lbs, bottom one attached with two welded stud, and top one attached with one welded stud.

ROPE STOP : Rope Stop held by the pressed in magnet.

Alternate Exhaust Collar Holding mechanism: See ILL.17 for all details

Steel with vinyl coated wire: 2 mm dia. 1000 mm long on each side.

SPRING BALANCER: mfg by ShanDong Finer Lifting Tools Co. LTD, model MCT-602-B. max. 3 kg on each side- total two used for supporting telescoping tubing.

Alternate Spring Balancer: mfg. by ShanDong Finer Lifting Tools Co. LTD, model MCT-603-B. 5 kg. rating.

Stud on Outer tube (lower collar): Total two- #10 WELD STUD WITH FLAT WASHER AND HEX NUT WITH LOCK WASHER(BOTH SIDES)

Stud on upper collar-- Total two- 1/4-20 WELD STUD, HEX NUT

*For handle and handle rod specifics, see Illustrations 12 and 13 or for alternate handle and handle rod, see Illustrations 12A and 13A.

General assembly views for Model Hoodini 2.0 as per shown below,

Fig.	Model Hoodini 2.0
1	Hood top box with filter
2	Hood bottom section
ILL. NO.	DESCRIPTION
20	Hoodini 2.0 Installation manual
21	Hoodini 2.0 marking label
22	Drawings- dimensions, parts Hoodini 2.0
23	Hood Box details
24	Grease Bowl plus Collector (Cup)
25	Sliding pipe with support