

VAN-PACKER IS PLEASED TO INTRODUCE MODEL GZ, ROUND, FIRE-RATED GREASE DUCT.

LISTINGS

Van-Packer's Model GZ round grease duct system has been tested, passed, listed and labeled by Intertek to Underwriters Laboratories test standard 1978 and Underwriters Laboratories of Canada S144 Standard for Safety for Grease Ducts.

Van-Packer's Model GZ is a round grease duct system that has successfully been tested, passed, listed and labeled to Underwriters Laboratories test standard 2221 and Underwriters Laboratories of Canada S662 Standard for Safety for Tests of Fire Resistive Grease Duct Enclosure Assemblies.

Furthermore; this product complies with the following standards:

ASTM E 814, ULC-S115 Standard Test Method for Fire Tests of Penetration Firestop Systems.

ICC-ES AC101.2 Acceptance Criteria for Grease Duct Enclosure Assemblies, Segmented Grease Duct Systems.

So, what does all this mean?

First, UL 1978 means that this duct is suitable for the removal of smoke and grease laden vapors from commercial, industrial, institutional, and similar cooking applications. When the continuous operating temperatures are 500° Fahrenheit or 260° Celsius, or less. Intermittent allowable temperatures are 2000° Fahrenheit or 1093° Celsius, or less.

Second, Model GZ construction is such that it qualifies and doubles as the fire rated enclosure which is required in NFPA 96, whenever the duct penetrates a fire-rated wall, floor, and ceiling or when it is run in a concealed space. This product is considered and carries the listing that allows it to be the built-in enclosure rating of two hours.

Third, Model GZ may be installed at zero inches of clearance to combustibles, except where it is completely enclosed in non-ventilated, combustible construction.

SIZES AND MATERIALS OF CONSTRUCTION

Model GZ is available as round duct in sizes from 6" I.D. to 36" I.D. (Inside Diameter). 6" I.D. to 10" I.D. is available in 1" increments and 10" I.D. to 36" I.D. is available in 2" increments.

Inner liners (duct I.D.) are constructed of 20 gauge thick Type 304, 316 or 430 stainless steel.

Outer shells (duct O.D.) ranging from 12" to 26" are constructed of 24 gauge thick materials, and outer shells (duct O.D.) ranging from 28" to 42" are constructed of 20 gauge thick materials. Standard shell materials are aluminized steel with optional Type 304, 316, or 430 stainless steel.

INSTALLATION

Joint assembly for Model GZ sections is simple and quick. First, using acetone or automotive brake cleaner, wipe the mating surfaces of the inner liner flanges to assure that there is no mill oil or dirt to prevent the sealant from adhering to the flange. Next, run a bead of sealant (roughly $\frac{1}{8}$ to $\frac{1}{4}$ inch in diameter) onto the face of one of the liner flanges, and into the grooves of each Vee band half. Butt the flanged ends of the components to be joined. Place the Vee band halves around the joined component liner flanges. With the provided fasteners and appropriate tools, draw the Vee band halves together. Intermittently tap the Vee band to ensure the Vee band is properly seated. Wipe smooth any excess sealant on the inside of the assembled duct.

When the system has passed inspection by the authority having jurisdiction, using the insulation strips provided, make 3 wraps around the joints finishing with a 2 inch overlap on the outside layer. The insulation must completely fill the void between the adjacent parts. Finally, complete the grease duct enclosure by placing the draw band around the joint, overlapping the shell ends of the assembled components and securing it with the supplied fasteners. When the duct is located where moisture will be present or where the duct is exposed to the elements, we recommend applying sealant between the draw bands and the duct shell prior to assembly. The extra sealant is furnished by others.

CODES

There are a few issues that must be addressed to assure that the installation of Model GZ grease duct meets code requirements.

First, it is acceptable to connect more than one hood to the duct system, but the hoods must be either in the same room or in adjacent rooms and all on the same floor. The duct between hoods cannot penetrate partitions that are fire rated. Note that when a grease duct serves a solid fuel fired appliance, it cannot be interconnected to grease ducts serving other appliances, in accordance with the International Mechanical Code.

Second, the duct must be sloped in accordance with its listing(s). For Model GZ the slope required is not less than 1/16 unit in 12 units of horizontal run if the length of the run is 75 feet or less. This slope may also be used for horizontal grease ducts where the duct length exceeds 75 feet under two conditions: (1) For ducts sloped continually in the same direction (e.g., all uphill from a hood or reservoir), additional grease drainage points not exceeding 75 feet spacing are required, and (2) For ducts that are stagger sloped (e.g., uphill to a peak point then downhill to a valley point), the distance between a valley point and peak point shall not exceed 75 feet and every valley must allow for grease drainage (i.e., a hood or reservoir). When grease ducts are not sloped as described above, and the ducts exceed 75 feet in horizontal length the ducts are to be installed at a slope not less than 3/16 unit in 12 units of horizontal toward the hood or toward a grease reservoir. AHJ approval must be obtained for these alternate methods.

Third, for horizontal runs where personnel entry is not possible, cleanouts are required at intervals not greater than 12 feet and not more than 10 feet from a change of direction more than 45°. For vertical installations passing through floor(s) above that on which the hood is located, a cleanout is required on each floor or at intervals of 12 feet, whichever is less.

COMPONENTS

A typical GZ grease duct installation consists of several different components, including straight duct, elbows, tees, wyes, cleanout sections, fan and hood adapter pieces, nozzle sections (for the attachment of wash down or fire suppression components), terminations, supports, guides, braces, brackets, and through penetration firestops. Installation details for these components may be found in our installation instructions, but the through penetration firestops deserve particular notice. Most manufacturer's firestops are designed so that the duct must be centered in the hole for installation. However, the GZ through penetration firestop may be installed in a non-centered hole with clearance as little as 1 inch on one side and as much as 4 inches on the other or anywhere in between.

BENEFITS OF USING MODEL GZ

There are several benefits to the use of Model GZ grease duct in your project.

1. **Safety** — Model GZ grease duct is a fully listed and labeled system tested to the stringent requirements of UL, ASTM and the ICC. In order to pass these tests, the product must exhibit the ability to contain internal fire and withstand an external fire under conditions that exceed those found in the real world. It must also prove that it is structurally sound in regular use and during a fire, again under conditions that exceed real world applications.
2. **Quality** — People's moods are affected by the things going on around them and in turn the quality of the work they perform is affected by those moods. Thus, we

utilize automatic production equipment wherever possible. Additionally, we are subject to unannounced inspection by our listing agency. In order to maintain our listings (and therefore stay in business) it is critical that we follow our fabrication and Quality Assurance procedures as tested and approved. This is an area where factory pre-fabricated, modular ducts excel over field fabricated products. Production line equipment rarely make errors.

3. Reliability –
 - a. The materials we purchase to fabricate our products are certified to meet ASTM specifications and those certifications are maintained on file by Van-Packer.
 - b. Our shipping schedules are designed to meet your needs. Van-Packer takes pride in meeting or exceeding our scheduled ship dates.
 - c. Our production, customer service and technical personnel are carefully trained and highly skilled to provide the highest level of quality and service.
4. Confidence – Most importantly, we give you confidence that the grease duct system you design and install will be safe and in service for many years to come, but should you have issues or concerns, we will be there to help.

Safety, Quality, Reliability and Confidence – why would you accept anything less?