



KITCHEN VENTILATION PRODUCTS

VAN-PACKER FACTORY FABRICATED GREASE DUCT

MODEL GRZ AND GZ

PRODUCT ADVANTAGES

Once the entire grease duct system is assembled, it is a **listed system** which meets and exceeds the building occupant's safety standards in addition to the owner's standards and requirements. The use of a listed system reduces liability for the installing contractor and specifying engineer because of its higher standards over non-tested and field fabricated systems.

All **Van-Packer (V.P.)** grease duct products are tested, listed and labeled to UL 1978, Standard for Grease Duct. In addition, Models GZ and GRZ grease ducts are tested, listed and labeled to UL 2221, Tests of Fire Resistive Grease Duct Enclosure Assemblies. The requirements of these standards far exceed conditions encountered in the real world.

V.P. Fabricated grease duct meets or exceeds in meeting the standards of:

- ✚ The National Fire Prevention Association, NFPA 96
- ✚ The International Mechanical Code, IMC Section 5.06
- ✚ The Uniform Mechanical Code, Chapter 5, Part II
- ✚ The International Code Council, ICC AC101.2

According to the NFPA
Cooking Equipment—responsible for 57
percent of restaurant fires – Causing fires in
grease duct

V.P. Grease duct products have been tested, listed, and labeled by ETL, an independent third-party agency.

We are subject to random third party inspections of our manufacturing facility to assure the following:

- ✚ Strict adherence to all quality control procedures and standards during the listing process,
- ✚ Materials used meet the ASTM standards as specified in our listing and that we have traceable documentation for that material.
- ✚ All our manufacturing equipment is properly calibrated, properly set up with the correct accessories, tooling, and of the latest technology.
- ✚ Our experienced factory staff are trained and certified to meet and exceed all criteria of our listings.

PRODUCT ADVANTAGES

V.P. welding procedures are certified to AWS standards. Welded assemblies are routinely checked by our quality inspectors in accordance with AWS.

V.P. is so confident in the design and reliability of our grease duct, we offer an industry leading limited warranty for GZ round and GRZ rectangular factory-built grease duct.

Our rectangular ducts, GRZ (fire rated, zero clearance) is listed for a 6:1 ratio. This allows more flexibility for those tight quarters where grease duct typically runs.

V.P. EXCLUSIVE EASE OF ALIGNMENT FEATURE - When fire rated duct penetrates a fire rated partition (floor, ceiling or wall), other manufacturer's instructions require that the duct be centered in a precisely sized hole. Our firestop penetration design allows the space between the outside surface of the duct and the inside of the hole to vary from 1" to 4". GRZ grease ducts provide for a more flexible application, reducing labor cost, and exceeding UL 2221 standards.

V.P. "SPACE SAVING" FEATURE - Model GRZ fire rated, zero clearance grease duct saves space:

For example: An exhaust volume of 2,200 CFM, which will require a 10" X 20" rectangular duct or a 16" Ø round pipe. A 2-hour fire rating is also required (shaft wall thickness of at least 3 5/8") all around. The choices are as follows in *Figure 1*.

Figure 1

A.	Field built duct	10"X 20"	Outside of Chase	29 1/4" X 39 1/4"	1148 in²
B.	Round single wall duct	16" Ø	Outside of Chase	35 1/4" X 35 1/4"	1243 in²
C.	Round Fire Rated Duct (GZ)	16 Ø	Outside of Duct	22 1/4" X 22 1/4"	495 in²
D.	Rect. Fire Rated Duct (GRZ)	10" X 20"	Outside of Duct	16" X 26"	416 in²

SPACE SAVING ADVANTAGES

Model GRZ - ducts are commonly smaller and allow multiple ducts to be run in a common shaft with Minimal clearance space. In the above example, the duct was 11% smaller. *Figure 2* is a comparison between Non-rated duct and our Model GRZ having two ducts located in the common shaft. *Figure 3* Demonstrates the use of the Model GRZ with no shaft requirements, because the Model GRZ in itself is considered a fire rated enclosure, when firestops are used at the floor openings.

PRODUCT ADVANTAGES

Figure 2.

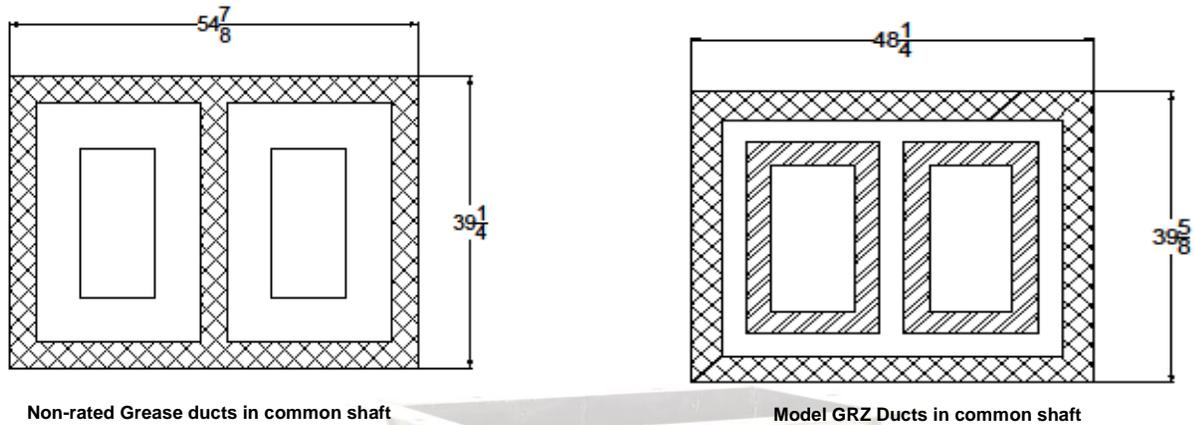
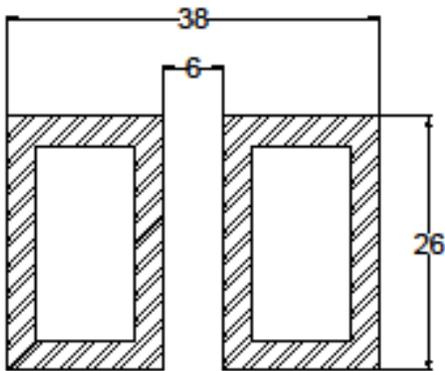


Figure3.



Model GRZ duct side by side

An even greater impact can be obtained if the ducts are fire-stopped at each floor and not enclosed. In figure 3, a 36.5% reduction versus the same area required by the non-rated ducts sized at 36 x 26 inch foot print

In many circumstances, wrapped, welded, carbon steel duct, may sag and deform during a grease fire due to the intense heat that is produced in a grease fire. A wrapped duct often has no reinforcement when built, so in a fire can collapse, as shown in the photo. Our unique integral design keeps our duct Model GRZ from collapsing, even when exposed to temperatures of 2000 Degrees. Under ETL's rigorous testing, it was rare for the duct to even slightly deform, and far exceeded UL 2221 acceptance criteria.



PRODUCT ADVANTAGES

V.P. EXCLUSIVE FEATURE SPECIFICATION- Model GZ round grease duct systems has a significant reduced slope.

In general, and accordance with National Codes and Standards, grease duct must be installed with a slope of ¼ inch per 1 foot of horizontal run if the length of the run is 75 feet or less. If the length of the run exceeds 75 feet, the duct must be installed at a slope of 1 inch per foot. At 75 feet of horizontal, the required rise is over 1.5 feet. If the run is lengthened to 76 feet, the required rise is 76" – over 6 feet! This results in most horizontal runs being installed using the expensive and maintenance intensive "Rise and Fan Pattern" method, where the duct alternately rises and drops along its length. Our GRZ rectangular duct also meets the above slope requirements.

V.P. Fabricated round grease duct Model GZ slope requirements are exclusive to V.P. and apply as follows:

- ✦ For runs of 75 feet or less the required slope is 1/16" per foot, so that the required rise for a 75 foot run is 4.75 Inches.
- ✦ For runs that exceed 75 feet the 1/16" slope can be used with some additional exceptions (refer to installation manual).

The Model GZ and GRZ stainless steel liner, leads to less grease deposition vs carbon steel because it does not corrode, it stays smooth. The stainless steel liner is also easier to clean than carbon steel, which results in a cleaner duct, decreasing chances of a grease fire.

Only a single inspection is typically required at installation by the Authority Having Jurisdiction of Model GZ and GRZ grease duct compared to 2 or 3 for site-built duct w/ fire wrap.

Other benefits of V. P. Models GZ and GRZ grease duct are:

- ✦ Support component capabilities are known. Components are physically tested and UL listed to assure they will carry the load of the duct. Weights and intervals are shown in the approved installation instructions making support design easy.
- ✦ Access door locations are designed in accordance with code requirements and coordinated with the installer. - Access doors are installed at the factory, so there is no need for the installer to cut and fit doors in the field, saving time and money.
- ✦ Factory built, insulated grease duct includes a hard surface (steel) outer shell that protects the insulation from damage. The outer shell also holds the insulation in place, unlike field applied wraps, which can droop over time, reducing or eliminating the duct's fire rating.

The **Van Packer Company** has been solely dedicated to venting systems since 1944.

An ESOP employee driven company that delivers innovative designs and instills in our motto:

"Product-Technology-Service" An everyday reality.

We will provide prompt and cheerful response to our customer's

Inquiries and recognize that as we serve our customers, we serve ourselves

