





TWO-HOUR FIRE RATED ZERO CLEARANCE RECTANGULAR GREASE DUCT

TESTING, CLASSIFICATION, AND APPLICATIONS

Model GRZ has been tested in accordance with the procedures and methods as set forth by UL 2221 / ULC S144 (*Tests for Fire Resistive Grease Duct Enclosure Assemblies*) and UL 1978 / ULC S662 (*Standard for Grease Ducts*). Through penetration firestops have been tested in accordance with ASTM E814 and ULC S115. Model GRZ is classified for a maximum 2-hour fire resistance rating and may be installed at zero clearance to combustibles. This rating qualifies the insulation and outer shell wall as an alternate to a specified hourly rated fire resistive shaft enclosure. Model GRZ grease ducts are suitable for the removal of smoke and grease laden vapors from commercial, industrial, institutional, and similar cooking applications. This grease duct is suitable for interior and exterior installations.

LISTING AND CODE COMPLIANCE

Model GRZ grease ducts are listed by Intertek file VPC/FMF 120-03 as a "two-hour fire rated, zero clearance grease duct enclosure assembly" and as "Grease Ducts for Restaurant Cooking Appliances" when installed in accordance with local and national code requirements and our installation instructions.

WARRANTY

Standard and extended warranties are available. Specific terms and conditions apply, contact factory for additional information.

MATERIALS

Liners (inner walls) are constructed from 20 gauge (0.035") materials. Shells (outer walls), where all sides are 36" or less, are constructed from 24 gauge (0.025") materials and, where any sides are over 36", are constructed from 20 gauge (0.035") materials.

Standard liner materials are type 430 S.S., type 304 S.S. and type 316 S.S. Standard shell materials are aluminized steel, type 430 S.S., type 304 S.S., and type 316 S.S. Consult the factory for availability of additional material types and thicknesses.

Ceramic fiber insulation in a 3" annular space.

PART IDENTIFICATION

For Model GRZ, all part numbers have the letters "GRZ" as a prefix, followed by the duct size (liner width X height), the part description code, special qualifier code (if applicable), a liner material code and a shell material code.

Part description codes are typically three characters and are either alpha or alpha numeric. Qualifier codes are most often used to designate section lengths, tee projection sizes, or the large end size of increasers.

Examples of part numbers with their associated description and part number breakdown are shown below:

GRZ20X10STR30CL

Refers to a Model GRZ 20"x10", straight section, 30" long constructed with a 430 S.S. liner and an aluminized steel shell.

- **GRZ** = Model GRZ Product Code
- **20X10** = Section Size (width x height)
- **STR** = Part Code (Straight Section)
- **30** = Qualifier Code (30" Long)
- **C** = Liner Material Code (Type 430 S.S.)
- L = Shell Material Code (Aluminized Steel)

LINER MATERIAL CODES

| $\mathbf{A} = \mathbf{T}$ | /pe 304 S.S. |
|---------------------------|--------------|
|---------------------------|--------------|

- **B** = Type 316 S.S.
- **C** = Type 430 S.S.

GRZ36X3690T36X18CC

Refers to a Model GRZ 36"x36" bodied 90° tee section with a 36"x18" projection constructed with a 430 S.S. liner and a 430 S.S. shell.

- **GRZ** = Model GRZ Product Code
- **36X36** = Tee Body Size (liner width x height)
- **90T** = Part Code (90° Tee Section)
- **36X18** = Qualifier Code (Tee Projection Size)
 - **C** = Liner Material Code (Type 430 S.S.)
 - **C** = Shell Material Code (Type 430 S.S.)

SHELL MATERIAL CODES

- **A** = Type 304 S.S.
- **B** = Type 316 S.S.
- **C** = Type 430 S.S.
- L = Aluminized Steel

CAPACITY AND WEIGHTS* (Common Sizes)

| Approx CFM | Size | | Weight | Approx | Size | | Weight | Approx | Size | | Weight | |
|---------------|-------|--------|--------|--------|------|-------|--------|--------|-------|-------|--------|--------|
| | Width | Height | Lbs/FT | | CFM | Width | Height | Lbs/FT | CFM | Width | Height | Lbs/FT |
| 700 | 6" | 10" | 23.1 | | 3800 | 34" | 10" | 52.3 | 7600 | 38" | 18" | 69.6 |
| 900 | 8" | 10" | 25.1 | | 4000 | 36" | 10" | 54.4 | 8000 | 40" | 18" | 71.8 |
| 1100 | 10" | 10" | 27.2 | | 4200 | 38" | 10" | 60.7 | 8400 | 42" | 18" | 74.0 |
| 1300 | 12" | 10" | 29.3 | | 4400 | 40" | 10" | 62.9 | 8900 | 40" | 20" | 74.0 |
| 1600 | 14" | 10" | 31.4 | | 4700 | 30" | 14" | 52.3 | 9300 | 42" | 20" | 76.2 |
| 1800 | 16" | 10" | 33.5 | | 5000 | 32" | 14" | 54.4 | 9800 | 44" | 20" | 78.5 |
| 2000 | 18" | 10" | 35.6 | | 5300 | 34" | 14" | 56.5 | 10300 | 42" | 22" | 78.5 |
| 2200 | 20" | 10" | 37.7 | | 5600 | 36" | 14" | 58.6 | 10800 | 44" | 22" | 80.7 |
| 2400 | 22" | 10" | 39.8 | | 5900 | 38" | 14" | 65.1 | 11200 | 46" | 22" | 82.9 |
| 2700 | 24" | 10" | 41.9 | | 6200 | 40" | 14" | 67.3 | 11700 | 48" | 22" | 85.2 |
| 2900 | 26" | 10" | 44.0 | | 6400 | 36" | 16" | 60.7 | 12300 | 46" | 24" | 85.2 |
| 3100 | 28" | 10" | 46.1 | | 6800 | 38" | 16" | 67.3 | 12800 | 48" | 24" | 87.4 |
| 3300 | 30" | 10" | 48.1 | | 7100 | 40" | 16" | 69.6 | 13300 | 46" | 26" | 87.4 |
| 3600 | 32" | 10" | 50.2 | | 7500 | 42" | 16" | 71.8 | 14400 | 48" | 27" | 90.7 |

* Capacity (CFM) is approximate, based on a velocity of 1600 Ft/Min. Additional sizes not shown above are available. Sizes range from 6"x6" to 48"x27". Contact factory for additional information. Weights are approximate assembled weight per foot.

PARTS

Model GRZ catalogued parts include straight duct sections in standard (18", 30" and 42") or custom lengths; 15°, 30° and 45° elbows; 45° and 90° tees; pant-legs and wyes; fan and hood adapters; supports, including vertical support plates and guides, horizontal hangers and wall brackets; floor and wall through penetration firestop assemblies; nozzle attachment fittings; access doors and panels; rectangular to round fittings and attachments. Consult factory for non-catalogued parts.

INSTALLATION CONSIDERATIONS

Each part of the grease duct system must be assembled and installed correctly. Improper installation of or lack of required parts may result in the improper function of the grease duct system. Installation must be made in accordance with local and national code requirements and our installation instructions (Doc. No. VP0050). Refer to NFPA 96 (*Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*) and additional standards as required. Consult authorities having jurisdiction to determine the need to obtain any required permits.

The grease duct layout should be carefully planned to allow adequate space for assembly, installation of supports, connection of support framing, access for cleanouts, accommodate standard fitting dimensions, rough openings for penetrations, etc. Do not assume all equipment producing smoke or grease laden vapors within a facility can be exhausted with a single grease duct system. Before multiple hoods, collectors, etc. are manifolded together verify compatibility of the equipment, vapors being vented, fan requirements, etc. with their respective providers. Consult a grease duct design professional as required.

SALES, SERVICE AND MANUFACTURING

Van-Packer welcomes the opportunity to assist you with your commercial kitchen ventilation needs. We are a one-stop shop, offering complete engineered kitchen ventilation systems including grease duct, hoods, exhaust fans, make-up air systems, ecology units and demand control systems. Contact the technical service department for assistance with quotations, sketches or submittal drawings, kitchen ventilation system design, and much more. For more information, please call or visit our website www.vpstack.com.

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