



INSTALLATION AND MAINTENANCE INSTRUCTIONS FOR CANADA

TEMP/ GUARD®

650°C TEMP/GUARD CHIMNEY

SIZES 6" - 7" - 8"

300°C TEMP/GUARD CHIMNEY

SIZES 10" - 12" (L-VENT APPLICATIONS ONLY)



Listing No. MH 8251

Tested to

UL103 HT / ULC-S629 / ULC-S604 / ULC-S609

WARNING: A MAJOR CAUSE OF CHIMNEY RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIAL.* IT IS OF UTMOST IMPORTANCE THAT THIS CHIMNEY IS INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

WARNING: FOR SIZES 6", 7" & 8" CHIMNEY, MINIMUM CLEARANCE TO COMBUSTIBLE MATERIAL MUST BE TWO (2) INCHES AND INSTALLED WITH PROPER SHIELDS. FOR SIZES 10" AND 12" CHIMNEY, MINIMUM CLEARANCE TO COMBUSTIBLE MATERIAL MUST BE (2) INCHES. SHIELDS ARE NOT REQUIRED FOR OIL BURNING APPLIANCES.

*Combustible material is defined as material made of, or surfaced with, wood, compressed paper, plant fibers, plastic, or other material that will ignite and burn, whether flameproofed or not, or whether plastered or unplastered.

The Metal-Fab Temp/Guard Chimney is intended for use on any residential and building heating appliance burning gas, liquid or solid fuels such as fireplace stoves, furnaces, ranges, room heaters, or as defined in columns I and II, Table 2-2.1, NFPA 211. Contact Local Building or Fire Officials about restrictions and Installation Inspection in your area.

WARNING: Metal-Fab Temp/Guard Chimney is not designed for use on products that operate at continuous temperatures in excess of 650°C.

In order to achieve safe, optimum performance of the appliance, and service life of the chimney, the chimney should be sized correctly for the connected appliance. In general, the chimney flue should be the same size as the appliance fuel outlet. Occasionally very tall chimneys require downsizing and very short systems require an increase in size for proper functioning of the appliance. Installations should be done in accordance with the applicable installation code and appliance manufacturers instructions (eg. CSA-B149 for natural gas and propane appliances, CSA-B139 for fuel oil appliances, and CSA-B365 for solid-fuel fired appliances). Use a trained chimney technician to install the chimney.

Use only Metal-Fab Model Temp/Guard components. Failure to do so will void the certification and warranty of the product.

Keep these installation and operating instructions in a safe location for future reference.

OPERATIONAL PRECAUTIONS

• Formation of Creosote and Soot and the need for removal.

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to create creosote. The creosote vapors condense in the relatively cool chimney flue of the slow burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire. The chimney should be inspected at least once every two (2) months during the heating season to determine if a creosote or soot buildup has occurred. If significant layer of creosote or soot has accumulated (3mm or more), it should be removed to reduce the risk of chimney fire.

- Do not use fireplace for food grill. Grease from foods can collect in chimney causing fireplace to become a potential fire hazard.
- On airtight stoves, open dampers and let equipment burn hot for 15 to 20 minutes. This should be done every time fuel is added. This lessens the chance of creosote buildup.
- Some chemical chimney cleaners can be harmful to the chimney. These cause accelerated oxidation or corrosion. If chemical cleaners are used, they must be non-corrosive in nature. If brush is used, it must be of proper size with plastic bristles.

WOOD AND COAL STOVES

If you are planning to install a wood stove, we recommend that you:

1. Choose a stove that has a label of a recognized Testing Laboratory (such as WH, UL, ULC or CSA). The EPA approved, low emissions stoves are highly recommended.
2. Connect only one solid fuel burning appliance to a chimney. Do not connect an oil or gas burning appliance to a chimney venting a solid fuel burning appliance.
3. Never over fire your stove. If any part of the stove or stove pipe is glowing red, then you are over firing. Immediately close the stove's damper until system cools. The high temperatures caused by over firing can permanently damage the stove and stove pipe and may over-heat nearby combustible walls and furniture.
4. Install the stove and stove pipe as described in the Installation Instructions accompanying the stove. **BE CERTAIN TO MAINTAIN THE REQUIRED MINIMUM CLEARANCES TO COMBUSTIBLE CONSTRUCTION.**
5. Keep flue gases between 135°C and 246°C. This will maximize efficiency while minimizing condensation and creosote formation.
6. Do not burn sea driftwood. Salt is highly corrosive to all types of stainless steel. Do not burn treated lumber.

CHIMNEY FIRES

If you are having a chimney fire, follow these steps:

1. Close all heater doors and combustion air controls. For fireplaces, block the fireplace opening with a noncombustible material (such as a steel sheet).
2. Alert your family to the possible danger.
3. If you require assistance, alert your fire department.
4. If possible, use a dry chemical fire extinguisher, baking soda or sand to control the fire. Do not use water as it may cause a dangerous steam explosion.
5. Watch for smouldering or fire on combustibles next to stove, stove pipe and chimney. Check outside to ensure that sparks and hot embers coming out of the chimney are not igniting the roof.
6. Do not use the stove again until your chimney and stove pipe have been inspected by a qualified chimney sweep or Fire Department Inspector.

INSTALLATION NOTES

1. These instructions must be followed in all details. **WARNING:** Failure to do so may result in a hazardous installation.
2. Except for installation in single- and two-family dwellings, factory-built chimney assemblies which extend through any storey above that on which the connected appliance is located are to be provided with enclosures having a fire resistance rating equal to or greater than that of the floor of roof assemblies through which they pass.
3. The safe operation of a factory-built chimney assembly is based on the use of parts supplied by the manufacturer and the performance of the assembly may be affected if the combination of these parts is not used in actual building construction. Acceptance of the assembly is void if the installation instructions are not followed.

4. This chimney will provide optimum performance when installed within the heated space of a building. The consequences of installing the chimney outdoors, up the external wall of a building could result in:
 - a) Back-drafting during cold weather when the connected appliance is not operating;
 - b) Weak, unstable draft;
 - c) Increased creosote accumulation;
 - d) Increased potential for condensation of water vapor in the chimney flue;
 - and
 - e) Decreased efficiency of the connected appliance.
5. **WARNING:** Do not place any type of insulation or other materials in the required clearance spaces surrounding the chimney assembly, except where such insulation or materials from part of the assembly.
6. The authority having jurisdiction (such as municipal building department, fire department, fire prevention bureau, etc.) should be consulted before installation to determine the need to obtain a permit.

PAINT TOUCH-UP

- The flat-black paint used on painted parts may be touched up, as required, with Stove Bright® Product No. 1990.

TYPICAL INSTALLATIONS

1. The chimney is intended for use with solid, liquid or gas fuel appliances.

Allowable flue gas temperature:

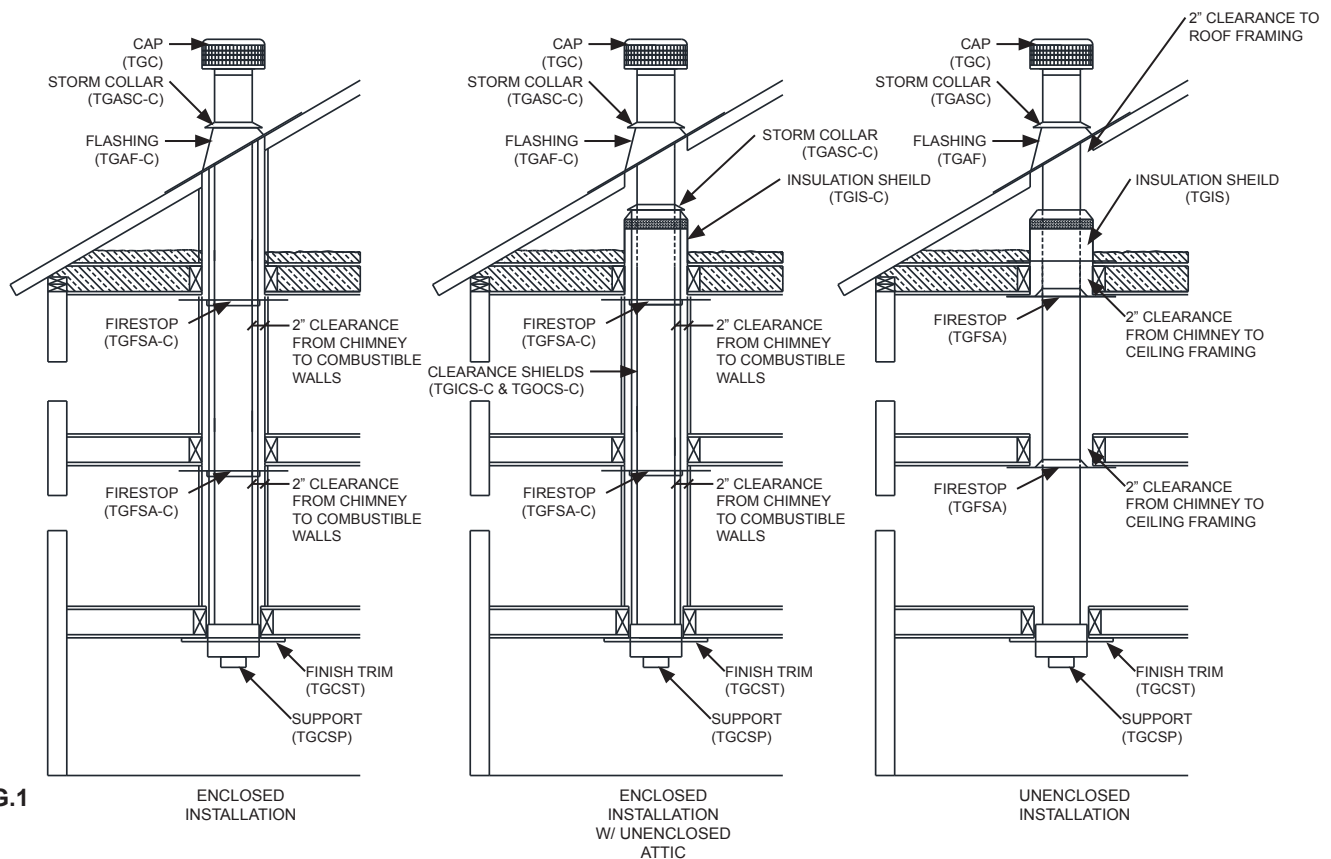
Maximum continuous 650°C (1200°F)

Brief forced firing 925°C (1700°F)

Tested to 1150°C (2100°F) - 30 minutes

2. For factory-built wood burning fireplaces, Clearance Shields are usually not required. Refer to fireplace manufacturer and follow fireplace installation instructions to confirm if chimney is approved for use without shields (See **FIG 1**).

3. On wood stove or coal stove application and in area where the chimney is completely enclosed, it's required to install Clearance Shields around the chimney. Clearance Shields are of a telescopic, slip fit design and are secured at each joint with hex sheet metal screws provided. Locate shields and secure at the (3) predrilled hole locations with #8 self tapping hex screws (provided) For venting of gas or oil burning appliances Clearance Shields are not required even where the chimney is enclosed.



INSTALLATION THROUGH FLAT CEILING(S)

1. From the appliance manufacturer's instructions, determine the correct flue diameter for the chimney, and proper location of the chimney.
2. Using framing lumber equal to ceiling joist size, frame ceiling opening as shown in FIG. 2 and TABLE 1.

TABLE 1

CHIMNEY FLUE DIAMETER					
	6"	7"	8"	10"	12"
A	12-7/16"	13-7/16"	14-7/16"	17"	19"
B	12-7/16"	13-7/16"	14-7/16"	17"	19"

NOTE: If possible, it is recommended that the chimney be located in such a manner as to not cut the ceiling joist. The chimney can be centered between joists on 16 inch centers in these areas.

3. As shown in FIG. 3, insert the Ceiling Support (TGCSP) from below until the flanged edges are firmly against the ceiling drywall. Secure into framing with eight (8) 8-penny nails inserted through the sides of the ceiling support. If the TGCSP was installed during construction and drywall now covers the flanged edges, install Metal-Fab's ceiling support trim kit (TGCST), as shown in FIG. 4.
4. If the chimney is an enclosed installation for a wood stove or coal burning appliance the clearance shields must be installed (TGICS-C & TGOCS-C). Begin by installing a TGICS-C around the Temp/Guard chimney and resting on the Temp/Guard Ceiling Support (See FIG. 3). The TGICS-C will center itself by the brackets attached to the shields. Continue installing the shields around the chimney for the full enclosed height. The clearance shields are telescoping components and will alternate between the inside clearance shield (TGICS-C) and outside clearance shield (TGOCS-C). The (TGICS-C and TGOCS-C) will be held together by (3) self tapping screws supplied with the shields. For offsets and tees use shields TGICS15L-C, TGICS30L-C and TGICST-C.
5. Single wall or double wall connector pipe may now be installed between the appliance and the ceiling support. (See FIG 3.)

If the area above the ceiling is an attic, go to step 7.

6. Proceed to the next ceiling. **If Metal-Fab Elbows are to be used because the chimney is to be offset, refer to "Installation of Elbows" section.** Directly above the Center of the flue in the ceiling support, mark the ceiling. A plumb bob is normally used to find the center. Cut an opening in the ceiling using FIG. 2 and Table 1.
7. Install Temp/Guard chimney sections starting at the TGCSP. Secure the sections by pushing together and twisting until stop-locked (See FIG. 5). Additional chimney sections may be added to maximum height of 60 feet. At each additional ceiling, a firestop (TGFSA for Unenclosed Installation) (TGFSA-C, For enclosed Installation using Clearance Shields) is required. Insert the TGFSA/TGFSA-C into the joist area prepared in step 5. Continue this process for each floor level until the area above the attic.

NOTE: When the chimney extends between floors, which can be occupied, the chimney must be enclosed to prevent contact. As previously noted, 2" clearance to combustibles for 6" - 12" diameters is to be maintained, except within the joist area controlled by the TGCSP.

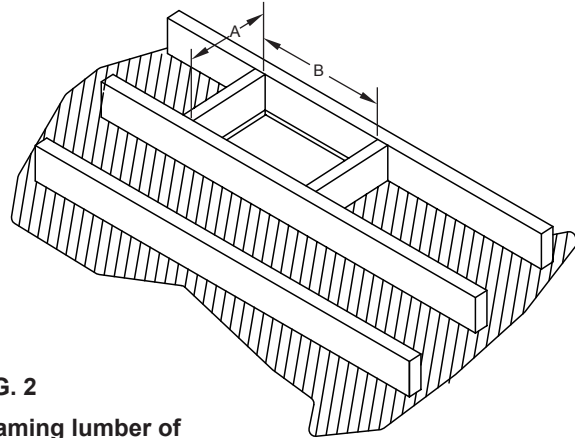


FIG. 2
Framing lumber of equal size to the joist should be used.

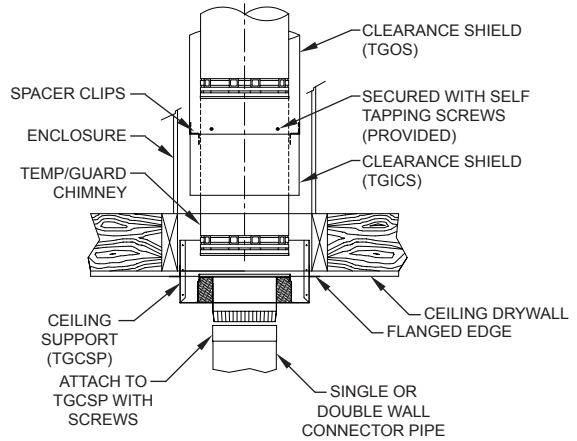


FIG. 3

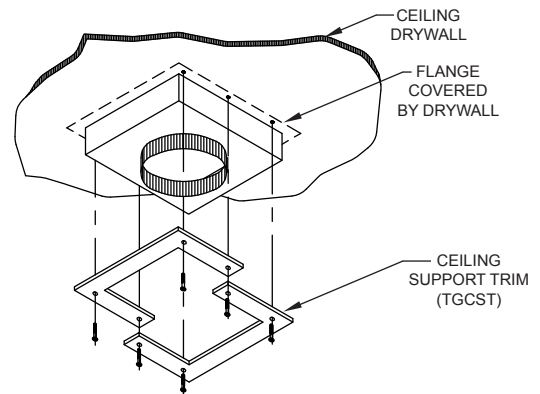


FIG. 4

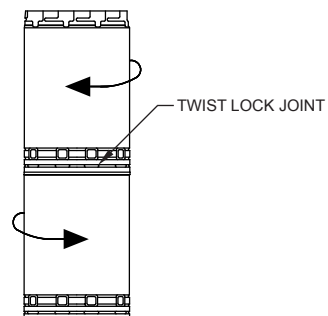


FIG. 5

8. The first chimney section through the joist area into attic is to be approximately two (2) feet. If the pipe sections in the levels below and in the attic are not enclosed an insulation shield (TGIS) must be installed. The vertical height of the attic insulation shield above attic construction material should accommodate the amount of insulation as required by the national building code. Lower insulation shield (TGIS) over TG pipe until the flange is resting on the joist. Secure the (TGIS) in place by nailing the flange to the joists. (See **FIG. 6**). If the pipe sections in the levels below the attic are enclosed and the attic is unenclosed an insulation shield (TGIS-C) must be installed. The clearance shields (TGICS-C & TGOCS-C) must extend through the joist area and insulation shield (TGIS-C). The clearance shields (TGICS-C & TGOCS-C) will terminate above the insulation shield (TGIS-C) and a storm collar (TGASC-C) must be used to close the gap between the TG chimney and clearance shields preventing insulation and debris to fall between them (See **FIG. 6A** and **FIG. 6b**). If the pipe sections are enclosed through the attic, no insulation shield is required. The clearance shields will need to extend up through the flashing.
9. Continue the chimney to the roof. See "Flashing Installation" and "Termination" sections.

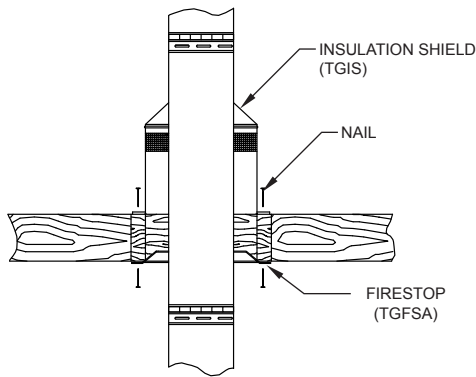


FIG. 6: CHIMNEY IS ENCLOSED BELOW THE ATTIC

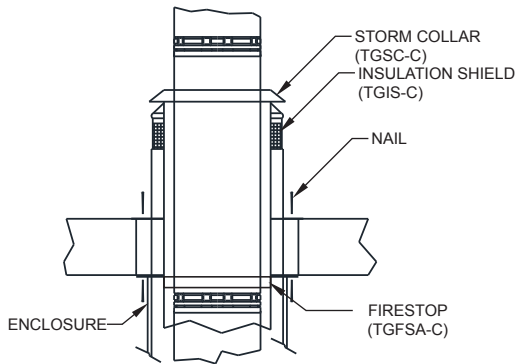


FIG. 6a: CHIMNEY IS ENCLOSED BELOW THE ATTIC AND ATTIC IS UNENCLOSED

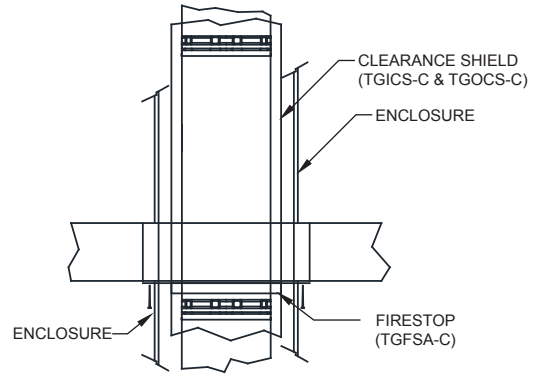


FIG. 6b: CHIMNEY IS ENCLOSED BELOW THE ATTIC AND ENCLOSED IN THE ATTIC

INSTALLATION THROUGH SIDE WALL

1. Locate the area where the chimney section is to penetrate the vertical wall. Cut and frame an opening so that the flue is centered between the vertical wall studs on 6", 7", 8", 10" and 12" systems. Frame opening per **FIG. 7** and **TABLE 2**.

TABLE 2

CHIMNEY FLUE DIAMETER					
	6"	7"	8"	10"	12"
A	12-7/16"	13-7/16"	14-7/16"	17"	19"
B	13"	14"	15"	17"	19"

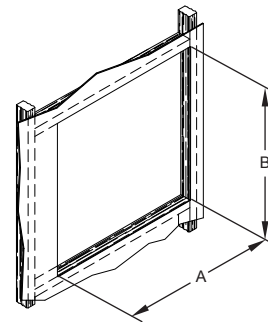
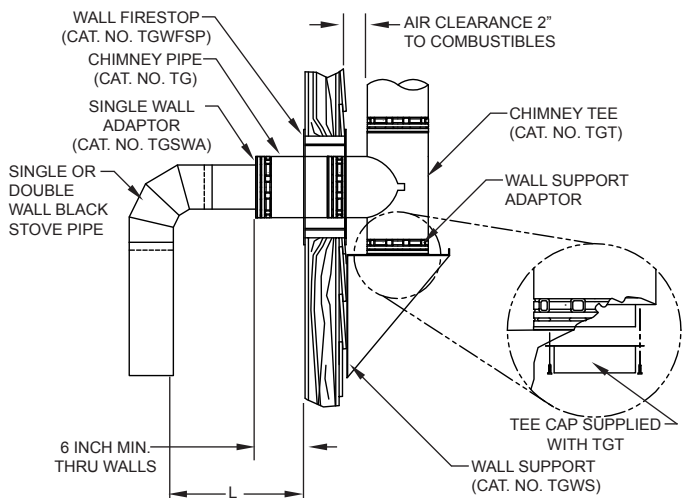


FIG. 7

2. A wall firestop (TGWFS-P) must be installed in framed opening from the outside. Push remaining half through opening from inside until plate is flush. Use four (4) #10 x 2 1/2" wood screws to attach to opening. (See **FIG. 8**).
3. Remove wall support adaptor from TGWS box and attach adaptor to bottom of tee by inserting into bottom of tee and rotating to lock.
4. Insert the side tap of the tee into the opening in the wall firestop.



L=18" FOR SINGLE WALL BLACK STOVE PIPE
L=6" FOR DOUBLE WALL BLACK STOVE PIPE

FIG. 8

5. Assemble right and left gusset to support plate using hardware provided.
6. Attach wall support plate to wall support adaptor using 4 clamps provided. Do not tighten. (See FIG. 8a).

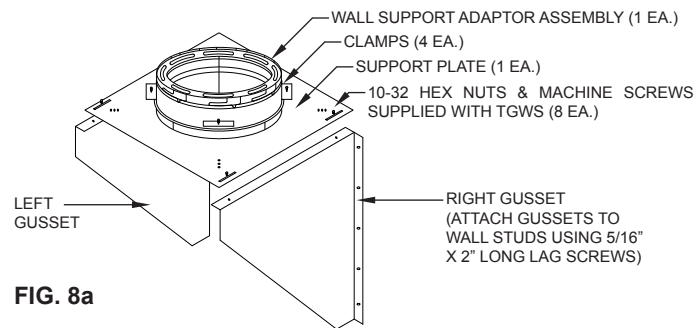


FIG. 8a

7. Align wall support with wall and secure to wall studs using 5/16" x 2" lag screws (not provided). **DO NOT SECURE TO SIDING.** For masonry walls, use 5/16" x 2" masonry lag bolts.
8. Install tee cap to bottom of wall support adaptor with a minimum of two (2) #10 x 1/2" sheet metal screws.
9. Position tee and adapter on wall support to maintain 2" clearance to combustibles. TIGHTEN CLAMPS.
10. Slip a trim sleeve joint cover (TGTS) over the male end of TG pipe that is to reach through the wall firestop to the tee. Attach single wall adaptor (TGPSWA) to the female end of TG pipe and slip TGTS flush to the end of TGPSWA. (See FIG. 9a and 9b.)

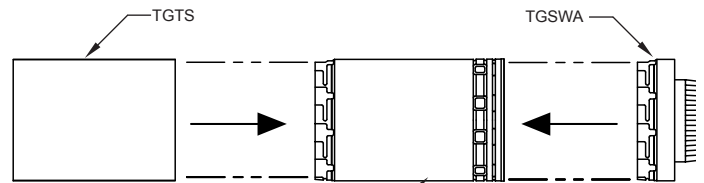


FIG. 9a

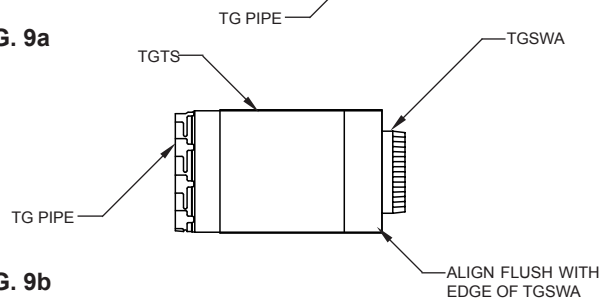
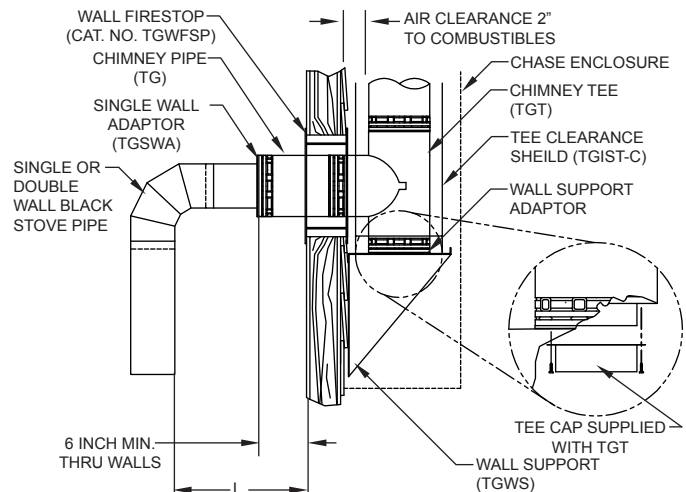


FIG. 9b

11. Slide Metal-Fab chimney pipe into top of tee. Align male and female ends. Push down on pipe sections and turn clockwise to lock. Additional chimney sections are added and locked to a MAXIMUM OF 60 FEET. As sections are added, it will be necessary to secure them to the outside wall with bands (TGWB) at eight-foot intervals and 2" from combustibles. Wall bands (TGWB) are secured to the chimney by placing band around the chimney and tightening clamping bolt. The assembly is anchored to the wall studs (not the siding) with 5/8" x 2" lag bolts. To complete the chimney installation, see "Flashing Installation" and "Termination" sections.
12. For wood or coal stove applications where the tee and wall support are enclosed in a chase, clearance shields must be used. Place a 6" long outside clearance shield (TGOCS6-C) around the base of the tee. Slide the tee clearance shield (TGICST-C) over the tee and tap and into the 6" long clearance shield at the base of the tee. Secure the two shields together with the self tapping machine screws supplied with the clearance shields (See FIG. 10). Continue with the clearance shields up through the flashing alternating between the TGICS-C and TGOCS-C and securing with the self tapping sheet metal screws (See FIG. 10a).



L=18" FOR SINGLE WALL BLACK STOVE PIPE
L=6" FOR DOUBLE WALL BLACK STOVE PIPE

FIG. 10

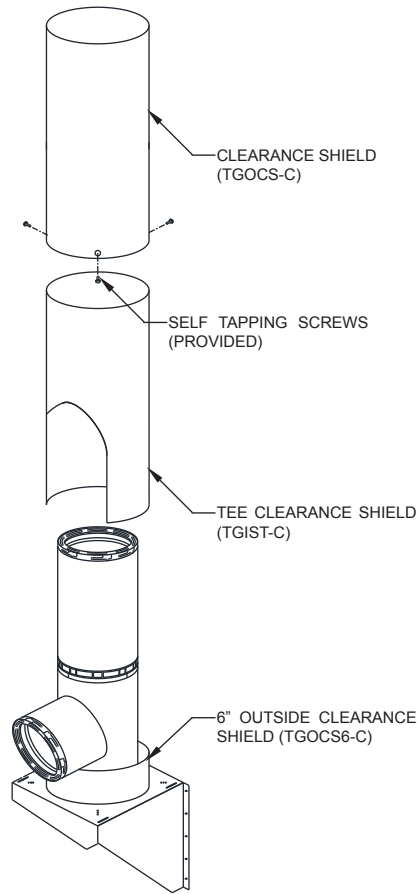


FIG. 10a

INSTALLATION THROUGH HIGH PITCH OR CHALET CEILING USING TGRS

1. Follow instructions in this section for installations that penetrate a sloped (chalet style) ceiling as shown in FIG. 11.

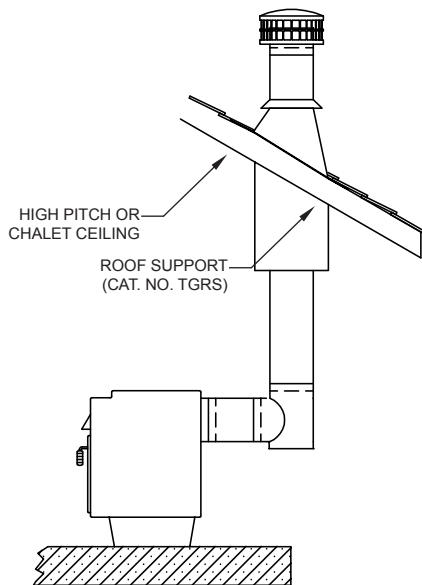


FIG. 11

2. From the appliance manufacturer's instructions, determine the correct flue diameter for the chimney and proper location of the chimney.
3. Using framing lumber equal to ceiling joist size, frame opening as shown in FIG. 12. Framing that is perpendicular to the roof joists must also be vertically mounted so that support can be installed vertically.

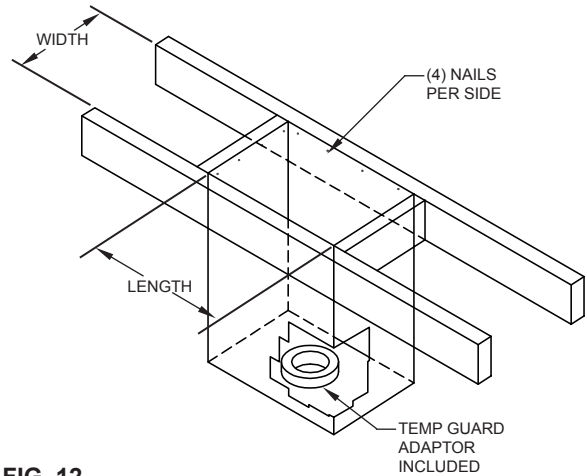
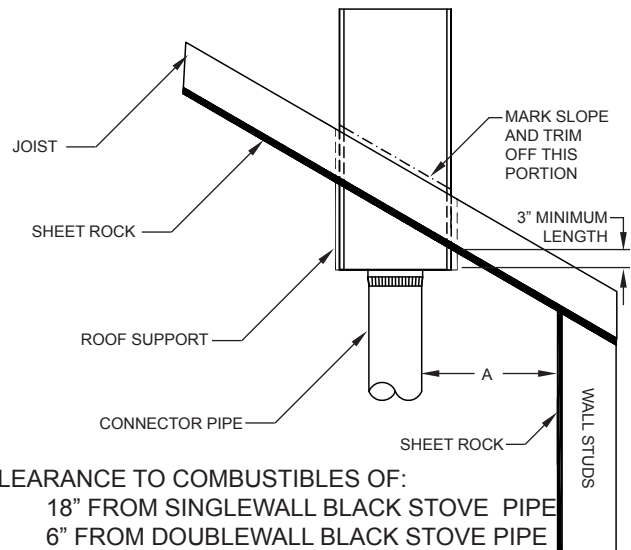


FIG. 12

Opening dimensions will vary based on roof pitch (slope). Framed openings should be approximately $\frac{1}{4}$ " larger than support. The TGRS dimensions are:

	LENGTH		WIDTH	HEIGHT
6" TGRS	12-7/16"	X	12-7/16"	29"
7" TGRS	13-7/16"	X	13-7/16"	29"
8" TGRS	14-7/16"	X	14-7/16"	29"
10" TGRS	16-7/16"	X	16-7/16"	29"
12" TGRS	18-7/16"	X	18-7/16"	29"

4. Insert TGRS into framed opening so that the TGRS extends a MINIMUM of three (3) inches below the finished ceiling on the lower side of the installation.
5. With TGRS properly located, mark roof slope on the roof support (See FIG. 13.), Remove from opening and trim off excess metal.
6. Reinsert TGRS and secure in position using a minimum 1" roofing nail, four (4) each per side.
7. The TGRS contains an integral starter collar for TG chimney. Attach first section of pipe to TGRS.
8. Continue pipe through the roof. See "Flashing Installation" and "Termination" sections.



A=CLEARANCE TO COMBUSTIBLES OF:
 18" FROM SINGLEWALL BLACK STOVE PIPE
 6" FROM DOUBLEWALL BLACK STOVE PIPE

7 FIG. 13

INSTALLATION THROUGH HIGH PITCH OR CHALET CEILING USING TGAS

1. From the appliance manufacturer's instructions, determine the correct flue diameter for the chimney and proper location of the chimney.
2. Using framing lumber equal to ceiling joist size, frame opening providing a minimum 2" clearance from the chimney outer wall casing to combustibles. Opening dimensions will vary based on roof pitch (slope). See FIG. 14 for typical installation without clearance shields.

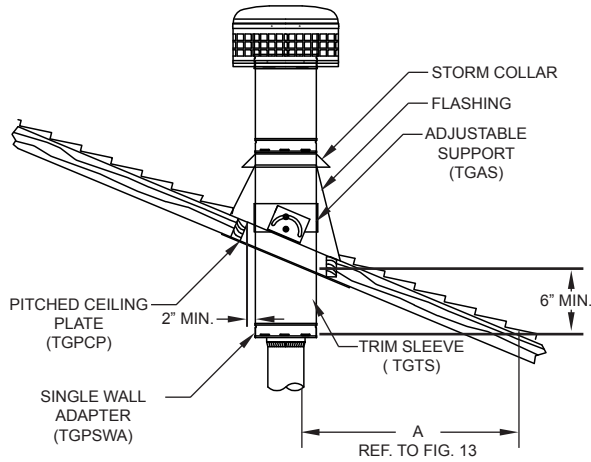


FIG. 14

For wood or coal stove applications where the Temp/Guard Chimney passes through a high pitch or chalet ceiling, a clearance ceiling shield kit (TGCSK-C) must be used (See FIG. 14a). Insert TGOCS-C into framed opening and mark slope of roof and slope of ceiling. Remove from opening and trim off excess metal from roof side and ceiling side. Locate the (3) Z shaped spacer clips by centering the chimney through the framed area and marking the location within the ceiling and roof cavity. Attach (3) Z shaped spacer clips to the Temp/Guard Chimney casing evenly spaced around the circumference with the self tapping screws that are provided. The Z shaped spacer clips will center the TGOCS-C on the Temp/Guard Chimney and rest on the Pitch Ceiling Plate.

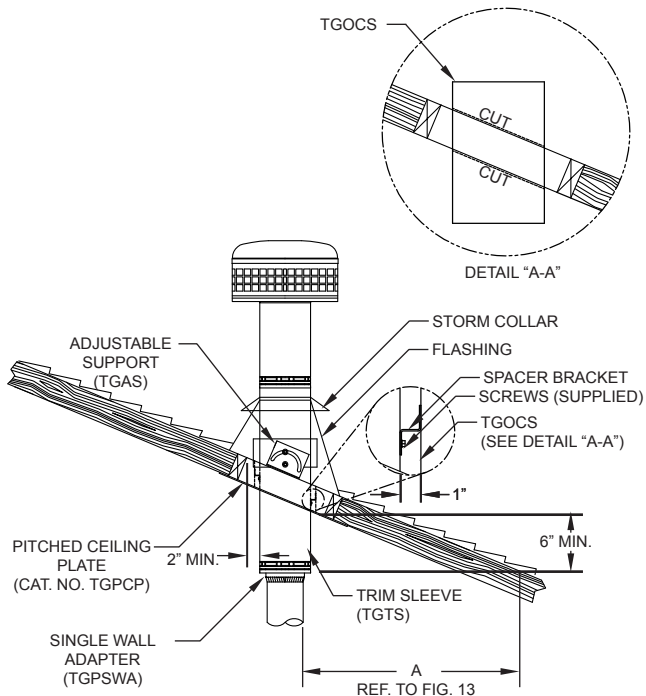


FIG. 14a

3. Assemble TGAS as shown in FIG 15. Tighten nuts finger tight only.

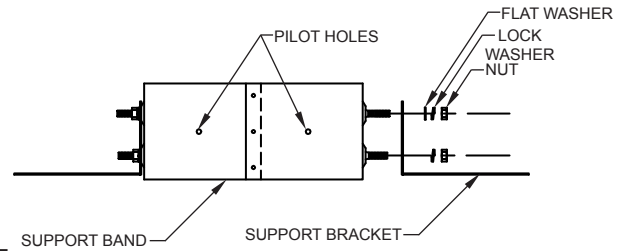


FIG. 15

4. Locate the TGAS over the framed opening in the roof. Nail the brackets to the framing using a minimum of two (2) #8 nails per bracket.
5. Slip a trim sleeve joint cover (TGTS) over the end of the TG pipe that is to go through the support and protrude into the house. Attach a single adaptor (TGPSWA) to the female end of the TG pipe and slip TGTS flush to the end of the TGPSWA.
6. From below, slide TG chimney pipe section through the opening and through the support band. Drill 1/8" holes into the exterior casing of the TG pipe at each pilot hole in the support band. **DO NOT PENETRATE FLUE.** Secure the support band to the chimney using sheet metal screws provided with the TGAS assembly.
7. Adjust the pipe section so that it stands vertically through the roof. TIGHTEN all nuts to secure the pipe in the vertical position.
8. The interior opening in the ceiling may be trimmed with a TGPCP. Select the appropriately shaped trim plate for your ceiling pitch (slope). Slide the trim plate over the opening and secure to the ceiling. Determine ceiling pitch as shown in FIG. 16.

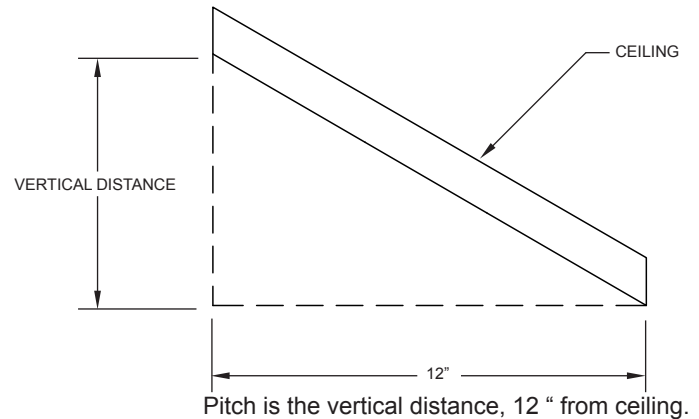


FIG. 16

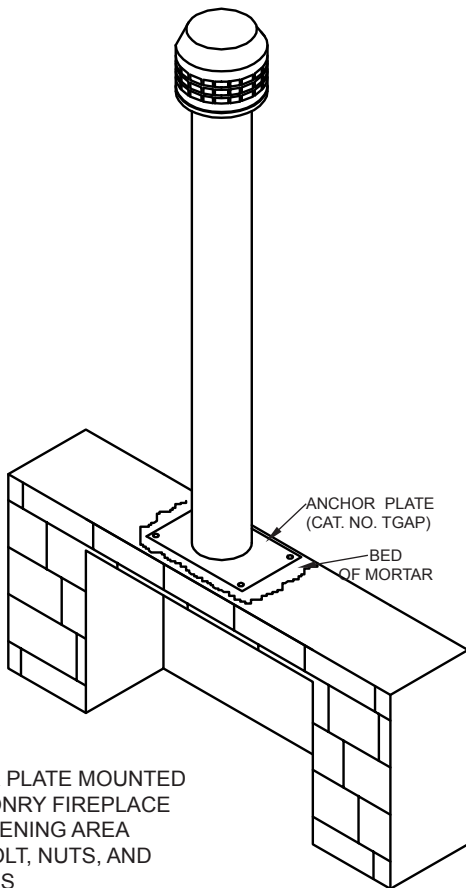
Example: In a 6/12 pitch, the vertical distance is six (6) inches.

9. **WARNING:** Use only Single Wall or Double Wall Black Stove Pipe below the ceiling line as shown in FIG. 14 and 14a. Use of additional TG pipe as a connector is prohibited.

MASONRY FIREPLACE CHIMNEY, AND CHIMNEY EXTENSION

An anchor plate (TGAP) is used to attach Metal-Fab 1150°C (2100°F) or 925°C (1700°F) Chimney to a masonry fireplace or chimney. Maximum support height of 60 ft.

1. Where the transition is to be made, apply a bed of mortar approximately 3/4 inches deep and approximately one (1) inch larger than the anchor plate (See FIG. 17). See TG Chimney Catalog for anchor plate dimensions.
2. Insert four (4) 1/4-20 x 2" anchor bolts, head down into the mortar bed. J-style anchor bolts are preferred. An alternate method would be to allow the mortar bed to cure. Then, drill four (4) holes, matching the holes in the anchor plate and insert four (4) each 1/4-20 metal anchors. The anchor plate would then be attached by four (4) each 1/4-20 bolts.
3. Before the mortar sets, place the anchor plate over the bolts and press down into the mortar. Loosely secure using a washer and nut on each bolt.
4. Use a level to check the installation, assuring that the TG chimney connection (TGAP) is level.



NOTE:
ANCHOR PLATE MOUNTED AT MASONRY FIREPLACE FLUE OPENING AREA WITH, BOLT, NUTS, AND WASHERS

FIG. 17

5. When the mortar has set up, tighten the nuts onto the bolts. Proceed to stack Metal-Fab chimney pipe (TG) on the anchor plate. If the chimney pipe (TG) is enclosed with combustible materials, proper clearance shields must be installed (See FIG. 18).

NOTE: Existing masonry flues may be extended with TG pipe by using an anchor plate, following steps 1 through 5 above, provided that:

- a) The existing masonry chimney is structurally sound, and;
- b) The flue extension is properly sized so that the appliance attached to the flue drafts properly.

NOTE: The TG flue size for a height less than 15 feet should be at least 1/8 the area of the fireplace opening. The TG flue size for a height over 15 feet should be at least 1/10 the area of the fireplace opening. (For sizing of TG flue, See Metal-Fab literature L1372.)

EXAMPLE: A fireplace opening of 20" x 24" has an area of (480 in²) with a chimney height less than 15 feet, the effective area is 1/8 x (480 in²) = 60 in². Closest flue diameter size = 8".

With a chimney height over 15 Feet, the effective area is 1/10 x (480 in²)=48 in². closest flue diameter size = 8".

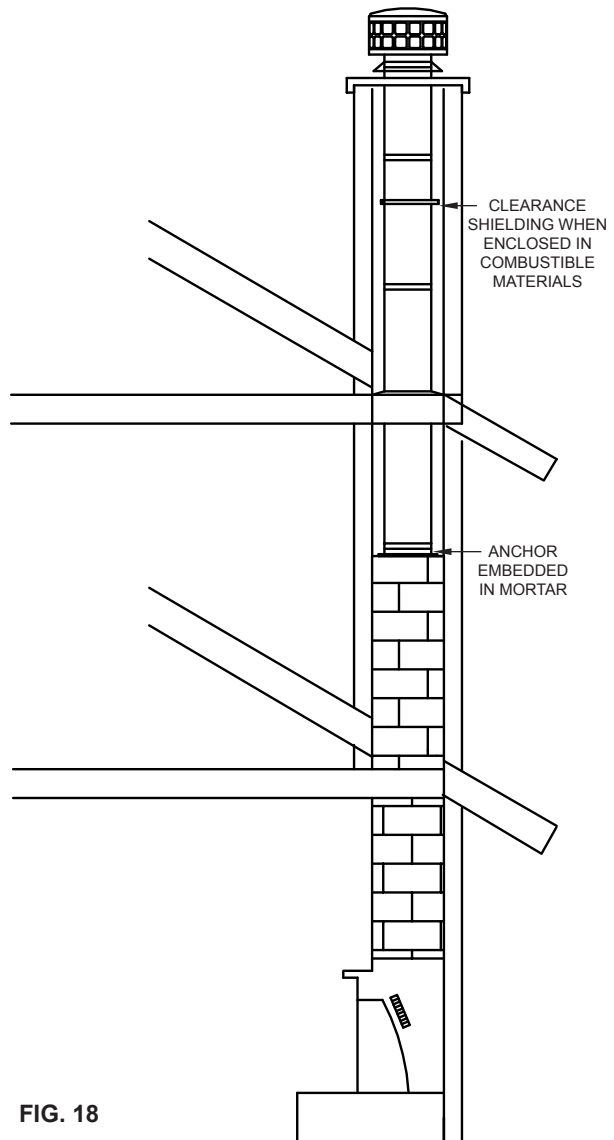


FIG. 18

ELBOW INSTALLATION

1. Metal-Fab provides a 15° (TGA15) and 30° (TGA30) Elbow to allow chimneys to avoid framing member or roof peaks. A maximum of 30° from the vertical is allowed, and a total of four elbows (two pair) for each chimney installation. Maintain 2" clearance to combustibles from chimney outer casing.
2. Attach the elbow to the chimney pipe or other support part and twist to lock. Using the offset chart, add chimney sections between elbows. A support band (TGSB) is required at the upper elbow of the pair to support the load, as shown in FIG. 20. Attach the upper elbow to bring chimney back to vertical.

Offset combinations: See Table 3 and illustration, FIG. 19.

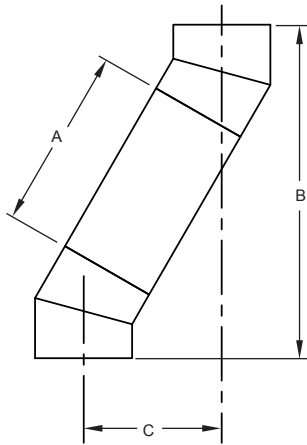


FIG. 19

TABLE 3

6", 7", 8", 10" AND 12" DIAMETER OFFSET TABLE					
A		15° Angle		30° Angle	
Length	No. Pcs.	B	C	B	C
0	0	18-7/16"	2-1/4"	20-3/16"	5"
6"	1	22-13/16"	3-3/8"	24-1/16"	7-1/4"
12"	1	28-5/8"	4-15/16"	29-1/4"	10-1/4"
18"	1	34-3/8"	6-1/2"	34-7/16"	13-1/4"
24"	1	40-3/16"	8-1/16"	39-5/8"	16-1/4"
30"	2	44-1/2"	9-1/4"	43-1/2"	18-1/2"
36"	1	51-3/4"	11-3/16"	50-1/16"	22-1/4"
42"	2	56-1/8"	12-3/8"	53-15/16"	24-1/2"
48"*	1	63-3/8"	14-1/4"	60-7/16"	28-1/4"
54"*	2	67-3/4"	15-7/16"	64-3/8"	30-1/2"
60"*	2	73-1/2"	17"	69-1/2"	33-1/2"
66"*	2	79-11/16"	18-1/2"	74-3/4"	36-1/2"
72"*	2	85-1/2"	20-1/16"	79-15/16"	39-1/2"
78"*	3	89-7/16"	21-1/4"	83-13/16"	41-3/4"
84"*	2	96-11/16"	23-3/16"	90-5/16"	45-1/2"
90"*	3	102-3/8"	24-3/8"	94-3/16"	47-1/2"
96"*	2	108-1/4"	26-5/16"	100-11/16"	51-1/2"

* 48" LENGTHS NOT AVAILABLE FOR 10" AND 12" DIAMETERS.

3. For wood or coal stove applications where the Temp/Guard Chimney uses 15° or 30° elbows and is enclosed clearance shields must be used. Use combinations of the inside and outside clearance shields to telescope the components together securing in place with the self tapping screws provided. The elbow shields (TGICS15L-C and TGICS30L-C are inside shields and must utilize outside shields on each end of the elbows (See FIG. 21). Each floor level must use a firestop/ support (TGFSA or TGFSA-C when using shields). Continue attaching the Temp/Guard chimney and clearance shielding through the flashing.

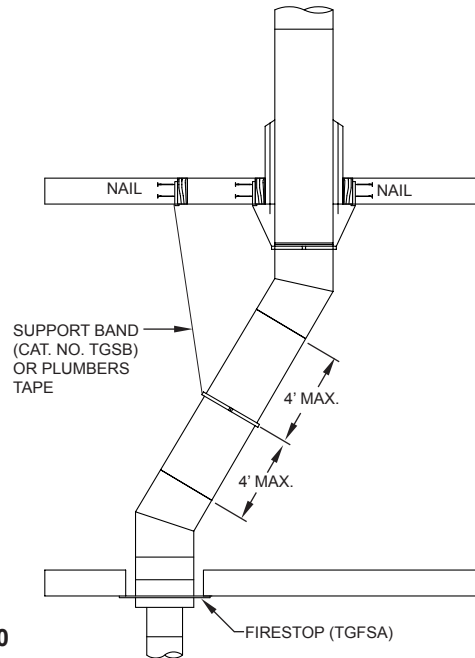


FIG. 20

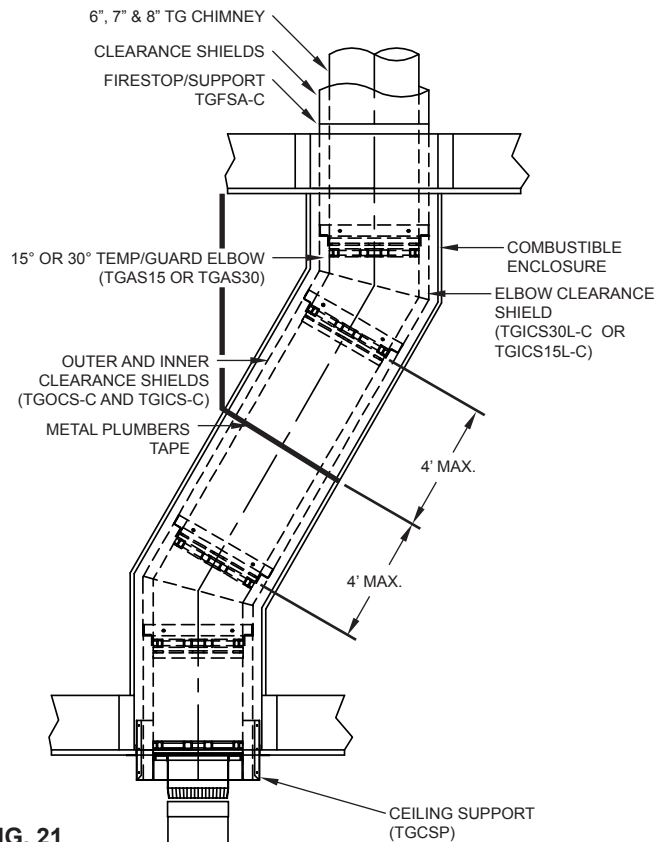


FIG. 21

FLASHING INSTALLATION

1. Continue the TG chimney to the roof. Cut the roof opening, centered over the chimney. A 2 inch airspace around the chimney is required as it penetrates the roof. The size of hole in the roof will vary depending on the roof pitch. Install the next TG chimney section through the roof (See FIG. 22).

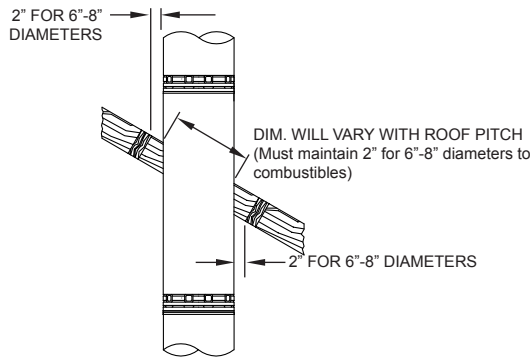


FIG. 22

NOTE: If your roof is already shingled, be sure to slide the upper edge of flashing under the shingles to prevent leakage.

3. Install a bead of caulk around the pipe at the top edge of the storm collar. Wrap the storm collar around the pipe and imbed the edge in the caulk to prevent leakage around the pipe (See FIG. 23).
4. Continue to install pipe sections until proper termination height is reached. See termination section.
5. For wood or coal stove applications where the attic or levels below the roof are enclosed the clearance shields must be used (See FIG. 24). Continue installing the Temp/Guard pipe sections until the proper termination height is reached. Continue the clearance shields up through the flashing and terminate at the top edge of the flashing. The storm collar will cover the openings between the Temp/Guard chimney, shielding and flashing.

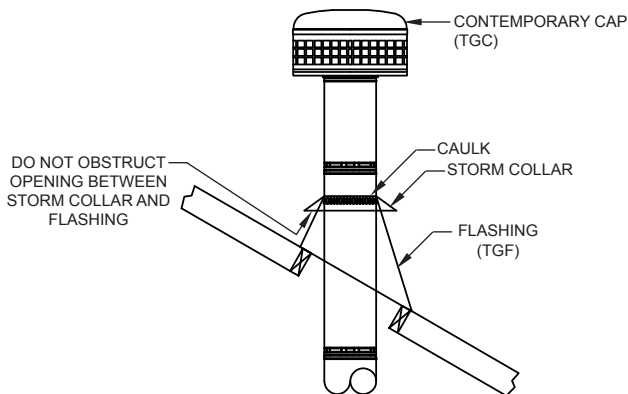


FIG. 23

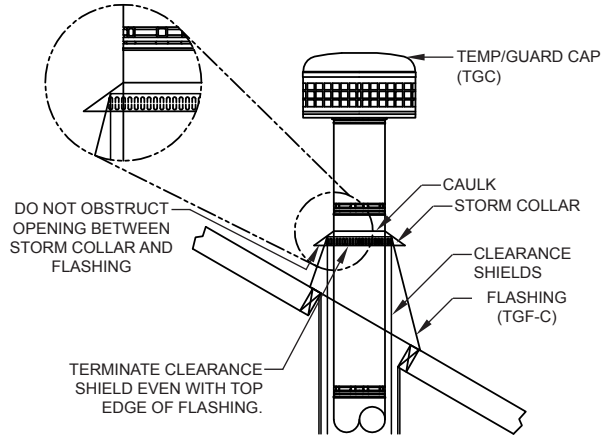


FIG. 24

TERMINATION

Major building codes specify a minimum chimney height above the roof top. These specifications are summarized in what is known as the "Ten Foot Rule". This rule states:

If the horizontal distance from the side of the chimney to the peak of the roof is 10 feet or less, the top of the chimney must be at least 2 feet above the peak of the roof, but never less than 3 feet in overall height above the highest point where it passes through the roof (FIG. 25 on Page 12).

If the horizontal distance from the side of the chimney to the peak of the roof is more than 10 feet, a chimney height reference point is established on the surface of the roof a distance of 10 feet from the side of the chimney in a horizontal plane. The top of the chimney must be at least 2 feet above this reference point, but never less than 3 feet in height above the highest point where it passes through the roof (FIG. 26 on Page 12).

These chimney heights are necessary in the interest of safety and do not ensure smoke free operation. Trees, buildings, adjoining roof lines, adverse wind conditions, etc., may create need for a taller chimney should smoking occur.

Additional support is required above the roof if the chimney height exceeds four (4) feet.

Select the proper support for your application, using either a roof brace (FIG. 27 on Page 12) or a support band with guy wires (FIG. 28 on Page 12).

TG ROOF BRACE INSTALLATION

1. Form the attachment band around the chimney, and clamp in place at the desired height using bolt and nut provided.
2. Loosely attach the support legs to the bolts on the attachment band using hardware provided.
3. Position the support legs as shown in FIG. 28 on Page 12. The length of the support legs can be adjusted by loosening the bolt on the leg clamp.
4. Secure legs to roof using screws provided. Seal screw holes to prevent roof leaks.
5. Tighten all hardware.

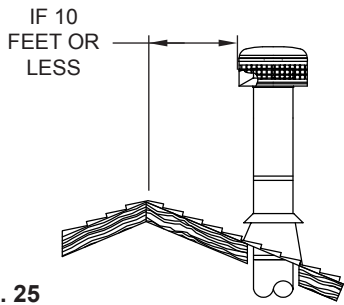
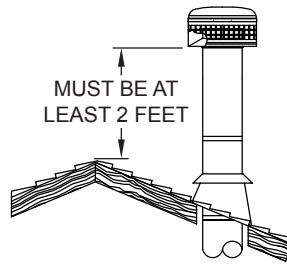


FIG. 25

THEN



BUT

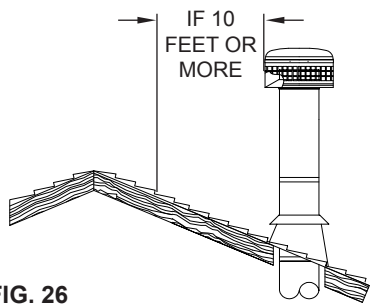
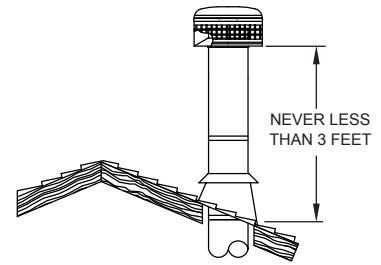
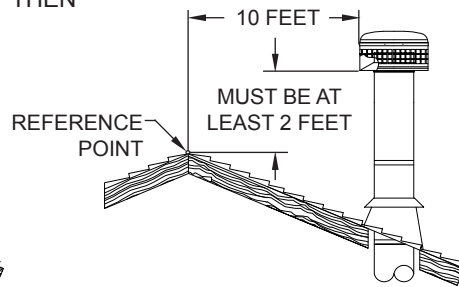


FIG. 26

THEN



BUT

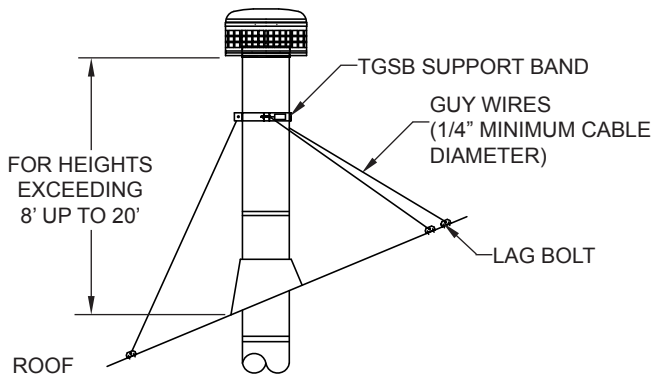
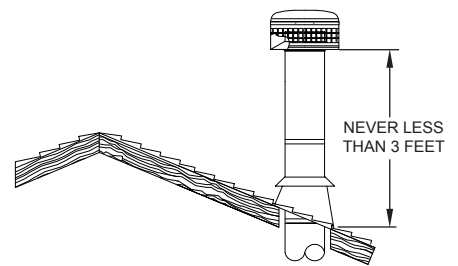


FIG. 27

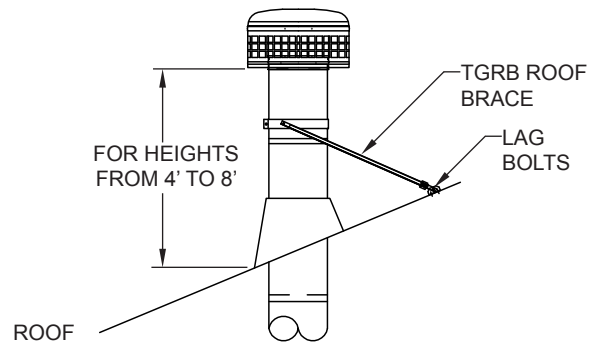


FIG. 28



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