INSTALLATION MANUAL

STG7 P GAS FIRED ROTISSERIE OVEN

MODELS

Programmable controls	**STG7 P**
Gas types	**G20/25**

Model STG7 P Gas

- NOTICE -

This manual is prepared for the use of trained Service Technicians and should not be used by those not properly qualified. If you have attended a training for this product, you may be qualified to perform all the procedures in this manual.

This manual is not intended to be all encompassing. If you have not attended a training for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained technician.

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GENERAL TECHNICAL DATA

This manual covers the STG 7 P gas fired rotisserie ovens suitable for G 20/25 (natural gas).

• STG 7 – Oven with seven spits (28 to 35 chickens).

All of the information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing.

Note: *From dec 2008 on the gas pipe ends under the STG 7 instead of at the rear end. A knee piece and a 8 inch nipple (NPT to BSP thread) is delivered with the unit.*

TECHNICAL DATA U.S. STANDARD MODELS

Type	STG 7	
Power (W)	345	
Fuses needed with power connection 115 V, 1N ~50…60 Hz (1 phase with zero)	1x 15 A	
Standard plug from factory single pole	Nema 5-15	
Net weight	204 kg	450 Lbs
Gross weight	230 kg	507 Lbs
Height	1025 mm	40 1/4 "
Width	985 mm	38 3/4 "
Depth	850 mm	33 1/2 "

Tools

- Standard set of tools.
- Metric wrenches, sockets and hex socket key wrenches.
- VOM with AC current tester (any VOM with a sensitivity of at least 20,000 ohms per volt can be used).
- Temperature tester.
- Insulation value tester (Megger).
- Toxicity meter.
- Gas pressure meter.
- TL 84919 Field Service Grounding Kit.

INSTALLATION PROCEDURES

- Unpacking of the unit.
- Remove the pallet under the unit with the help of a fork lift.
- Put the unit on his location.
- Check if there is enough free space around the unit (see installation drawing).
- Check the electrical supply.
- Check gas pressure control valve
- Tethering of the unit.
- Load a program in the memory and make a test run on 482°F.
- Give instructions to the operator.

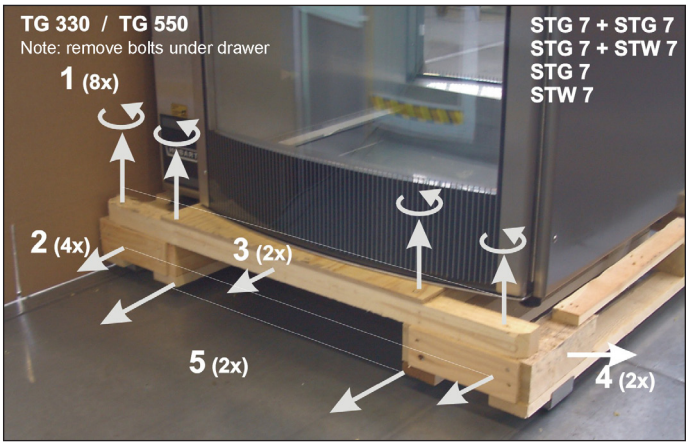
UNPACKING THE UNIT

Immediately after unpacking the oven, check for possible shipping damage. If the rotisserie is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

REMOVAL OF PALLET

The standard way to remove the rotisserie from a pallet is with a fork lift. See pictures. Open door and remove the drawer. Lift the unit from pallet and put the unit in its place.

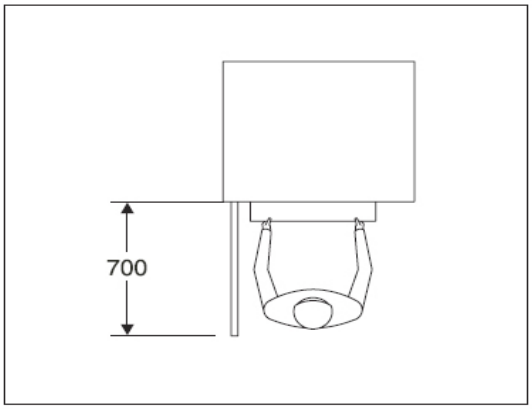
Another possibility is to disassemble the pallet. For the pallet of the STG 7 follow the procedure on the photo.



LOCATION

The rotisserie must be installed on a level surface. The installation location must allow adequate clearances for servicing and proper operation.

IMPORTANT: Make sure you leave sufficient space around the rotisserie to easily remove or insert the rotor. If the base has (rotating) wheels, the floor on which it rests must be level.



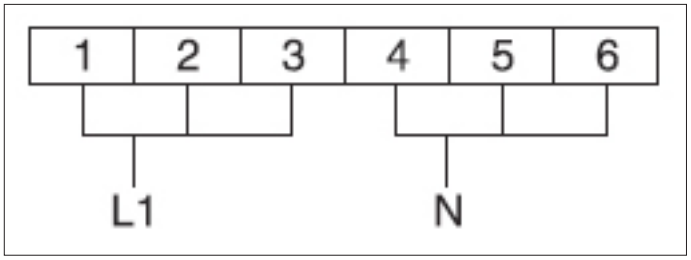
CONNECTING THE ROTISSERIE

ATTENTION: All external connections to the rotisserie must be made according to local, state and national regulations by skilled installers.

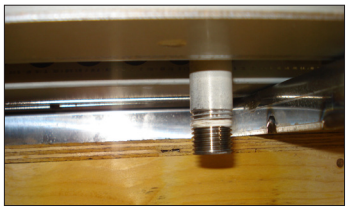
ELECTRICAL SUPPLY

Prior to installation, test the electrical service to assure that it agrees with the specifications on the machine data plate located on the right side panel near the controls. The connecting cable for the unit must be equipped with an approved plug connection. If use is to be made of a permanent connection, the connecting cable must be connected to a manual on/off switch that is installed near the unit in a clear visible manner.

For a 1-phase 208 V ~ circuit with neutral, the unit must be connected according to the figure below.



GAS CONNECTION



All gas supply connections and any pipe joint compound used must be resistant to the action of propane gases. Codes require a gas shutoff valve be installed in the gas line ahead of the oven.
The gas inlet is located on the bottom side, under the electric compartment. This connection is 1/2". Separate packed with the delivery you will find a knee with 1/2" inside thread and a tube 0f 6" length. On one side of the tube the connection is 1/2" and on the other side 1/2" with NPT thread (marked by a notch in the tube). With this knee and tube you can lead the gas connection to the main gas supply. Connect the rotisserie to the gasline after leveling. Gas supply line must be at least the equivalent of 1/2 " (12.7 mm) iron pipe. Make sure the pipes are clean and free of obstructions, dirt, and piping compound.

Note: After the piping has been checked for leaks, fully purge gas pipes to remove air. Disconnect the rotisserie from the gas supply piping system during any pressure testing on the gas supply piping system.

Note: Check all joints in the gas supply line for leaks prior to start up the rotisserie. Use a soap and water solution. Do not use an open flame.

GAS PRESSURE AND ORIFICES

Natural gas and Propane gas
The burner orifices are sized to deliver the nameplate input rating at a gas manifold pressure between 5" and 20" W.C. (water column) (13-50 mbar).

GAS INLET PRESSURE

The inlet pressure has to be according the table on the next page.

The pressure can be checked on the gas block with a pressure meter (see also gas block).

GAS TECHNICAL DATA

		GAS-TECHNICAL DATA STG 7-GAS	PAGE 1 / 1
Date 01-02-2009			

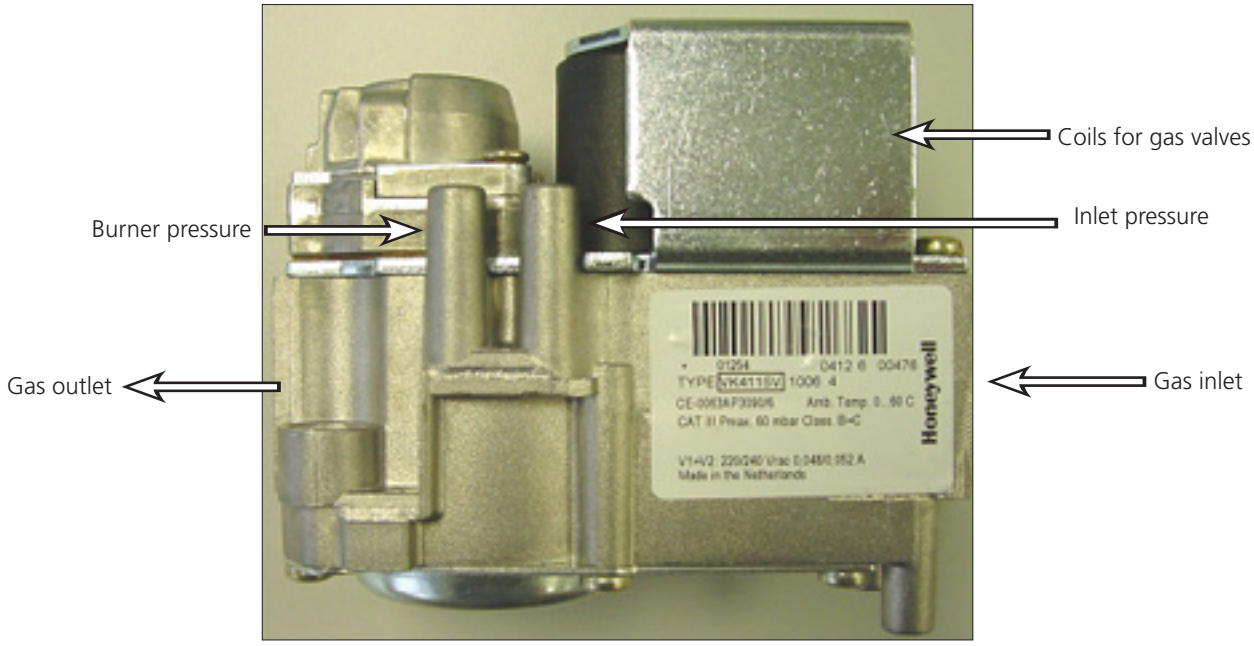
Gas type	Inlet pressure inch wc	Inlet pressure mbar	min pressure (Qn -Hi) inch wc	min pressure (Qn -Hi) mbar	Consumption cfm	Consumption m^3/h
G20	8	20	6	14.5	0.89 cfm	1.51 m^3/h
G25	10	25	6	14.5	1.01 cfm	1.71 m^3/h
G31	20	50	6	14.5	0.32 cfm	0.55 m^3/h

GAS CONSUMPTION

G 20 (natural gas)	0,89 cfm (1.51 m3/h)
G 25 (natural gas)	1.01 cfm (1.71 m3/h)
G 31 (Propane)	0.32 cfm (0.55 m3/h)
Orifice for G 20/25	3/16 " (4.2 mm)
Air inlet for G 20/25	11/16 " (18.1 mm)

GAS BLOCK HONEYWELL TYPE VK4115V

Gas inlet: Inlet of gas after gas pressure control valve (max. 24 "H2O).
Gas outlet: Outlet of gas into gas mixture blower.
Coils: 2 Coils for the gas valves.
Inlet pressure: Measuring tube for gas after reduction valve. In order to measure loosen the screw on inside of tube.
Outlet or burner pressure: Measuring tube of gas going into gas mixture blower. In order to measure loosen the screw on inside of tube.
You can use this measuring point also to check if the gas valves are opening.



FLUE GAS ANALYSER

With the flue gas analyser you can measure the exhaust gas on the rotisserie for toxicity.
With the use of a Testo 330-1LL you get the following measurements:

Testo 330-1LL			
V1.21		01297080	
100035026		G 20	
06.04.2007		12:42:13	
Fuel:		Natural gas	
O2 ref.:		3.0%	
CO2 max:		11.7%	
5.2	%	Oxigen	
8.8	%	CO2	
1.33		Lambda	
5	ppm	CO	
0.01		GI	
26.7	%	qR	
73		efficiency	
130	°F	dew point	54°C
713	°F	Exhaust gas temp.	378°C
74	°F	Ambient temp.	23°C

The 2 most important values are the CO2 percentage and the exhaust gas temperature.
CO2% G 20/25 between 8.8 - 9.2%
Exhaust gas between 698 - 788 °F (370 - 420 °C)

LEGS / CASTORS

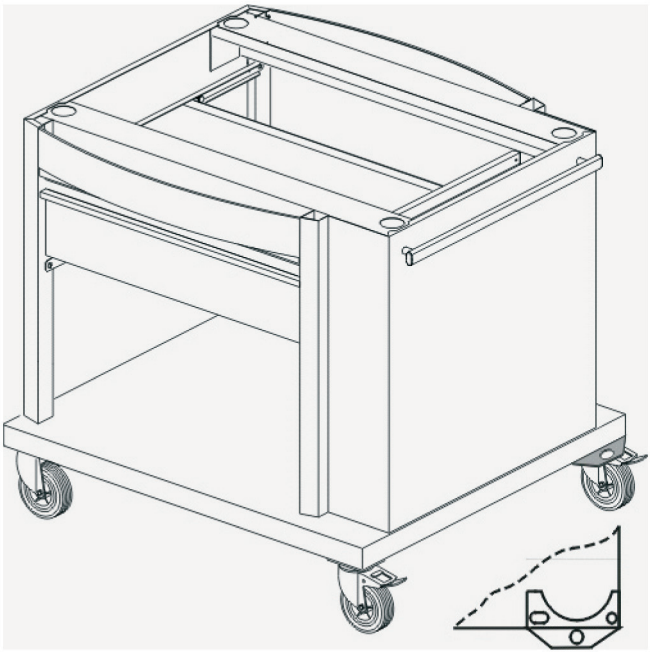
Each rotisserie is furnished on 2 ” legs. A caster-equipped stand with convenient storage drawer is available. The rotisserie is mounted on top of the stand.

TETHERING OF THE UNIT

(For units with fixed wiring or placed on bases with castors)

Warning: Safety standards require that, when this appliance is properly connected to the electrical power supply using flexible conduit, adequate means be provided to limit movement of the appliance without depending on or transmitting stress to the electrical conduit. **This means that, as part of the installation, the base or bottom unit of stacked models must be secured to the building structure (typically either wall or floor) to limit the movement of the appliance and, thus, helping to prevent damage to the conduit during cleaning, maintenance and service operations.**

A tether bracket, as shown on the drawing below, is provided with the base or stacking kit. Based on the routing of the flexible conduit, the bracket must be installed along with the caster to one corner of the base using the hardware provided. The remaining open hole in the center of the tether bracket is to be used to secure one end of the tether (locally supplied chain, cable, etc.). The other end of the tether is to be secured to an anchoring point in the building structure. Note: Length of tether must be shorter than the flexible conduit to make sure that during appliance movement, no stress is transmitted to the conduit.



Warning: Following installation, check to confirm that, when the appliance is moved to the limits of the tether in each direction, no stress is transmitted to the electrical conduit.

EXTRACTION OF THE ROTISSERIE

Ventilation requirements will vary with each installation and must comply with applicable portions of NFPA Standard #96 and with state and local codes.

Considerations to be kept in mind include :

- Flue connections should never be made directly to the oven.
- The rotisserie should be located under a hood which has adequate connection to an exhaust duct and extends 8" beyond the oven sides.
- Clearance above the rotisserie flue should be adequate for the products to escape so that there is no interference with the heat circulation in the oven. Refer to ANSI/NFPA 96, " Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations" (latest edition). The STG 7 produces about 350 cf water vapor per cycle. When placing the rotisserie under an extraction hood you have to consider the following guide lines:

- The minimum capacity of the extraction hood has to be 600 cfm
- The extraction hood has to extend minimum by 8" on all sides of the rotisserie
- The extraction hood has to have a free hight, above the rotisserie, of a minimum of 16"
- The rotisserie has to be accessible for service purposes

TEST RUN

The rotisserie must be burned in to release any odours that might result from heating the new oven surfaces. Operate the rotisserie at maximum temperature setting of 482°F for 30 minutes. Smoke with an unplaesant odour will normally be given off during this burn-in period.

INSTRUCTIONS FOR OPERATORS

After installation of the rotisserie, the operator of the unit has to be instructed.
The instruction has to cover the following subjects:

- Programming and options.
- Working of the unit.
- Free space of unit for cooling of drive motor and blowers.
- Run through the user manual.
- Refer to the storyboard, training guide and laminated sheet with pre-programmed programs (only for Wall-mart).
- Periodical maintenance:
  - o Cleaning of fan plate every month.
  - o Cleaning of fans on blower every month.
- How to react for information or service calls.

MAINTENANCE

The customer should have the gas rotisserie periodically checked by a skilled technician according local, state or national regulations.

First remove the right side panel according the service manual.

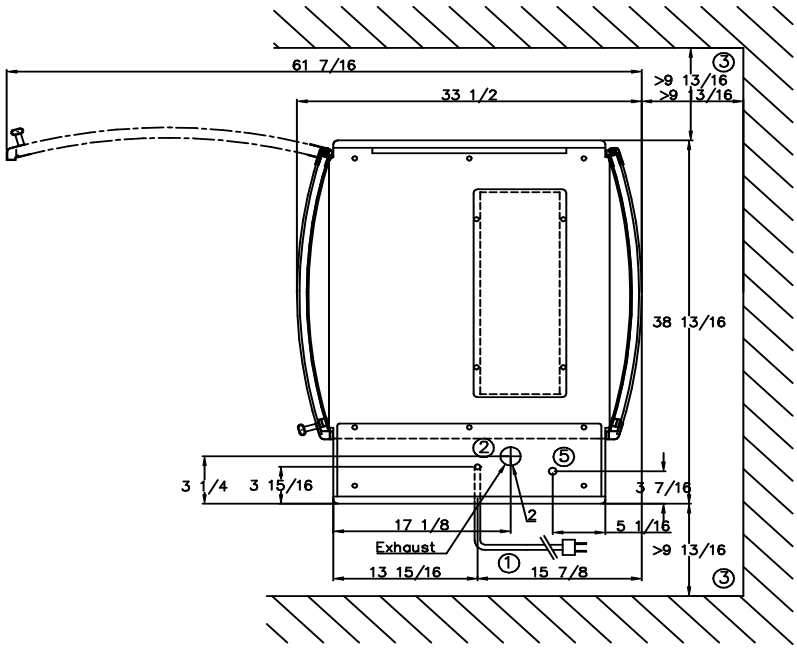
- Check for gas leaks and/or bad connections of the gas supply inside and outside.
- Check the gas burner.
- Check the inlet pressure and re-adjust if necessary. For the correct value, see table page 8.
- Measure the exhaust gas with a flue gas analyzer, see page 10.
- Check the electrical supply.

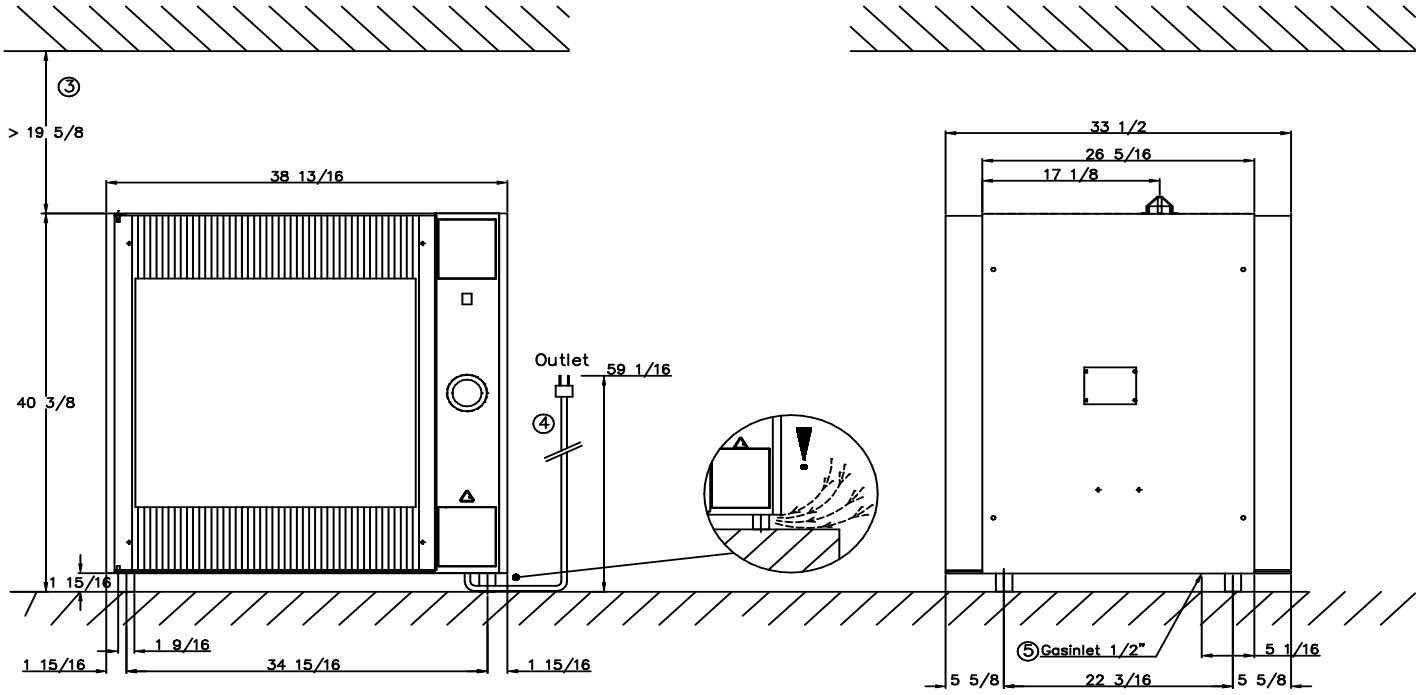
INSTALLATION DRAWINGS

Description belonging to the lables on the drawings

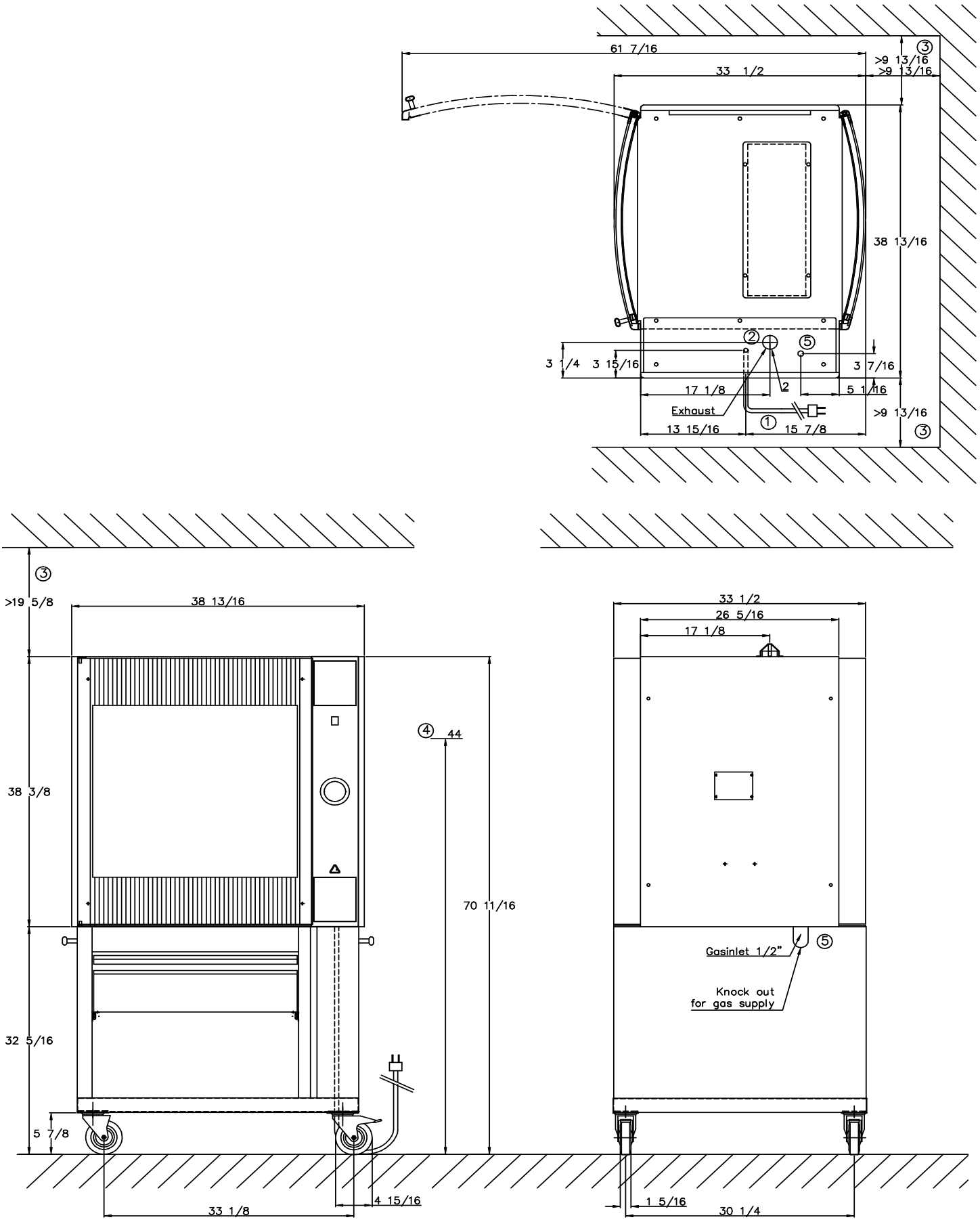
Label	Description
1	Power cable, length 70" *
2	Exhaust opening
3	Space between a rotisserie and a wall or ceiling
4	Location for socket
5	Gas connection

*) length is measured from the point where the cables coms out of the unit





Placing and connecting the STG 7



Placing and connecting the STG 7 on base

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