



Steak, hamburgers, fish, poultry, seafood and chops all look and taste great when broiled.

Broiling uses direct heat for short periods of time, bringing fats and sugars to the surface, caramelizing foods and creating unique flavors and visual markings. Natural gas broilers offer:

- **Fast preheat and cook times**
- **Precise heat control**
- **Energy savings**

Hot, delicious food fast

There are three categories of broilers: overfired, underfired and conveyor broilers.

Broilers use either radiant or infrared burners to spread heat to food. Radiants are located between the burners and cooking grid, protecting burners from drippings and flare-ups. They also provide smoke for the flavor. Many materials can be used to radiate the heat such as stainless steel, natural lava rock, ceramic stones or rods and cast iron.

Infrared cooking uses special ceramic tiles for the radiant, allowing for a much higher temperature directly at the flame, approximately 1600 F. This provides for fast preheat times, as quick as 90 seconds; faster searing, which helps food hold in natural juices; and overall faster cooking, which saves energy and keeps foods hotter longer.

In most broilers, product is cooked one side at a time, however, conveyor units cook both sides simultaneously.

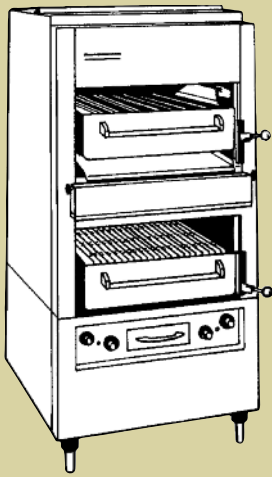
Overfired broilers

In an overfired broiler, heat from natural gas-fired ceramic infrared burners or burners with metal radiants, radiate the heat downward onto a grid where the food is placed. Types include upright broilers, salamanders and cheesemelters.

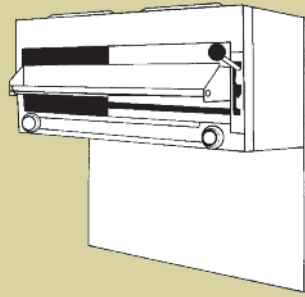
Upright broilers

Upright broilers are generally found in fine restaurants where steaks and seafood are served. These broilers offer high production with low energy use and the cooking grid retains heat, giving food cosmetic markings. For flexibility, the grid can be raised or lowered, according to the type of food being cooked and the degree of doneness needed, e.g., steaks can be prepared rare or well-done. The grids can also be rolled in or out for easy loading and unloading. These units come

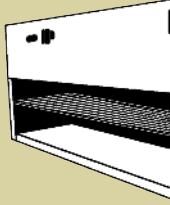
Overfired upright broiler



Salamander broiler



Cheesemelters



in either single or double broiler cavity designs. The single broiler is usually set at eye level. The base can be an open or closed cabinet, a standard oven or a convection oven.

Some manufacturers use power blowers to speed cooking and have special filters for the smoke and grease produced during cooking. Warming ovens are another option, located above the broiler and are heated by the broiler flue gases.

Salamander broilers

These broilers are not for high-volume production but are good if your space is limited and/or your production need for broiled foods is small. Salamanders are simply a smaller version of an upright, overfired broiler and are usually mounted over a range but can also be wall-mounted.

Salamander broilers come with either infrared or radiant burners and the cooking grid can be raised or lowered as well as rolled in and out. They are excellent for browning individual servings, broiling a small amount of meat or seafood and melting cheese.

Cheesemelters

Cheesemelters do several small but important jobs, such as final heating, reheating or finishing off a food item. They melt cheese for soup, toast bread, heat plated food, brown or crisp items as well as finish off meringues. They are not designed to broil foods, as the energy input is much lower than on the other types of broilers.

Usually mounted on a wall or a back riser above a range, cheesemelters are compact and have a simple design. Most use infrared burners which radiate down to the product being prepared. Some models come with two or three grid positions and sizes vary from 24" to 72" wide. They are generally made with lighter materials than other broilers.

Underfired charbroilers

These underfired broilers use either radiant or infrared burners that radiate heat upward to stationary cooking grids. The grid produces cosmetic markings or sear markings for greater visual appeal. While the product cooks, the melting fat drips on the briquettes or radiants and burns, giving food the charred flavor and aroma associated with charbroiling. Grease drawers catch the excess fat.

Units are usually between 36" to 48" wide but can range from 18" to 72" wide. Units are either counter models or floor models. Some manufactures offer a pull-out rack under the burners for heating buns, melting cheese and broiling light items, such as fish. Various types and sizes of grids and grates are also available.

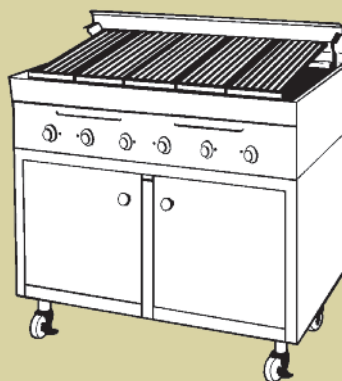
Conveyor broilers

Conveyor broilers deliver consistent, high-volume, automated food preparation. They offer control, speed, labor savings and lower operating costs due to programmable controls. Found in fast food chains, schools, theme parks and sports stadiums, these broilers are capable of simultaneously cooking the top and bottom of food products. They use either radiant burners or infrared burners and one to four metal conveyor belts. Each belt's speed is individually regulated to produce the best results. For example, hamburgers could be on one belt with faster cooking times than chicken breasts on another belt. Food is placed directly on the conveyor with no turning, minimizing handling.

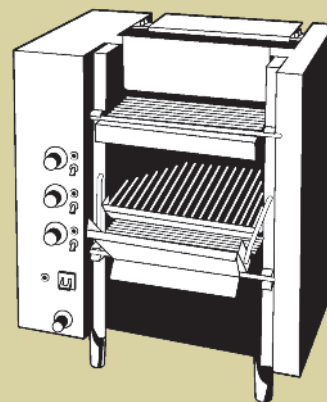
Cheesemelter



Charbroiler



Conveyor broiler



Conveyor broilers are available as flow-through models, which are loaded at one end and unloaded at the other, or return flow models, which are loaded and unloaded from the same side.

For added efficiency and convenience, conveyor broilers come with various types of electronic digital controls which allow products to have pre-set temperatures and times programmed in. Bun and bread toasters are also a great convenience.

Tips for best results

- Natural gas broilers preheat quickly so for energy-savings, turn the flame low between broiling jobs. Turn off the broiler during slow periods or for multiple burner broilers, turn off unneeded burners.
- The flame should be clear with a distinct inner cone. If not, check for clogged orifices and clear. For adjustments in proper air and gas mixture or excessive smoking, call your service agent.

Care of a broiler

To maintain operating efficiency and extend the life of your broiler:

- Follow manufacturer's recommendations for caring for and maintaining your broiler.
- Empty grease pan and thoroughly wash and dry daily. Some grease pans may fit through the dish machines.
- Remove grids and scrub in a pot sink with a soft wire brush in detergent and water.
- Some grids can be turned over for self-cleaning. Turn the burners on high and burn off residue caused by cooking.
- Wash drip shields and broiler exterior with detergent and hot water. For stainless steel finish, rinse well with a solution of 1/4 cup vinegar to 1 quart water to cut grease and then dry.
- To reduce the possibility of flare-ups, clean spilled food from burner ports with a stiff wire brush. Also, turn over lava rock or briquettes that have build-up and burn off to clean.
- Scrape the inside panels of the salamander or cheesemelter with a long-handled scraper and wipe with a coarse cloth soaked in detergent and hot water. Do not use abrasives or caustics.
- Wipe exterior of unit with a cloth dampened in detergent and hot water. Wipe off with fresh hot water.

Rebates lower start-up costs

Rebates make the purchase of efficient, natural gas equipment even more affordable. Call us at the phone number listed below for details.

For more information

To receive additional information or to schedule free training on broilers and other natural gas equipment, call **612-321-5470 (1-800-234-5800, ext. 5470)**. For your convenience, training sessions can be held in our Foodservice Learning Center or your facility.

CenterPoint Energy
Foodservice Learning Center
612-321-5470
(1-800-234-5800, ext. 5470)
700 West Linden Ave.
Minneapolis, MN 55403

CenterPointEnergy.com/foodservice



Always There.®