GRILLWORKS®

Architectural Series®

Installation & Use

The Grillworks Architectural Series brings dramatic live-fire capability to a hearth, restaurant line or enclosure of your own design. Rustic or modern, central to the space or part of a larger look, these grills allow maximum aesthetic flexibility along with unmatched grilling features.

In this guide you'll find recommendations for installation, preparation, operation and care of Grillworks Architectural grills. Be safe—install using licensed professionals and follow local codes regarding solid fuel installations and safety guidelines. And once you're ready to cook, please read every word here and ensure everyone working around the grill does too—rewarding results are dependent on a skilled and informed chef.

If you have any questions or comments about your grill do not hesitate to call or email us. We want to hear from you.

Best regards,

Benjamin Eisendrath
President & CEO

GRILLWORKS
orders@grillworks.com / (855) 434-3473

READ ALL INSTRUCTIONS BEFORE INSTALLING AND USING THIS APPLIANCE

Please read the entire manual before installing the Grillworks Architectural, and distribute to anyone involved in the installation. Failure to follow instructions may result in property damage, bodily injury or death. Contact your local building or fire officials about restrictions and installation inspections in your area.

IF THE GRILL IS IMPROPERLY INSTALLED A FIRE MAY RESULT. FOLLOW THE INSTALLATION MANUAL TO REDUCE RISK.

KEEP FLAMMABLE ITEMS CLEAR OF THE AREA AROUND THE GRILL: Do not store flammable liquids such as gasoline, kerosene or lighter fluids in the vicinity of the installation. Always keep the area around it free and clear of any and all combustible materials.

MAINTENANCE AND SERVICE SAFETY: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing, operating or servicing this appliance.

WARNING: Never use gasoline, kerosene, lighter fluid or similar accelerants to start or maintain a fire in your grill. Keep all such items well away from the grill when in use.

IMPORTANT: This grill must be installed, maintained, operated and serviced by authorized professionals.

A MAJOR CAUSE OF GRILL RELATED FIRES IS A FAILURE TO MAINTAIN REQUIRED CLEARANCES TO COMBUSTIBLE MATERIAL. IT IS CRITICAL THAT THIS GRILL BE INSTALLED IN ACCORDANCE WITH THESE INSTRUCTIONS.

USE SOLID FUEL ONLY—WOOD OR CHARCOAL—DO NOT USE PRODUCTS NOT SPECIFIED FOR THIS GRILL

SAVE THESE INSTRUCTIONS

CLEARANCES & PREPARATION

Full Chimney Installation

The Architectural grill's uprights also serve as its travel track, so should be installed with 2" clearance to the enclosure walls on models with rollers (Dual-crankwheel Architecturals) or a minimum of .5" for non-roller grills (Single- crankwheel Architecturals). The rear of the grill lift frame and cooking surface should have at least 1" of clearance to the rear wall of the enclosure, or in cases where the optional Fire Cage is present, 1" minimum to the cage (to allow easy grill surface travel—not a safety issue).

ALWAYS USE A PROFESSIONAL FOR CONSTRUCTION OF THE MASONRY ENCLOSURE. MASONRY FAILURE COULD CAUSE COSTLY DAMAGE, FIRE OR DEATH.

Only install the Architectural on a non-combustible base. A strong substrate such as concrete lined with industry-standard refractory firebrick is considered ideal. The base should be 30-36" above the floor for comfortable cooking operation. Walls should be constructed of similar noncombustible material, and of a thickness great enough to prevent excessive transmission of heat to the outside (the exact amount will vary both with ventilation and construction). Chefs often want workspace at the grill, so if dimensions allow you may set the grill up to 6-8" back from the front lip of the enclosure to provide a staging area.

Open Installations

This approach leaves the top of the grill exposed. This is usually done with side-crankwheel grills. There are two common types:

Cut Out: The grill stands in a three-sided cutout with the front OPEN (no wall). The cutout recess should be 10" deep for the best balance of heat containment and aesthetics. The same clearances to the walls and rear apply as to the full chimney installation type. The recess contains the fire/cooking heat so is a good choice for outdoor or residential projects.

Open Hearth: The grill is mounted on a larger flat hearth, without any recess below the grill. This type of installation is common in restaurant applications as the ventilation is controlled (no wind) and it allows the chefs to use the whole hearth for staging, direct coal searing or other improvised cooking. The fire is commonly moved around to control what area of the grill is hottest, and most grilling will likely be performed with the surface very close to the coals as heat dissipates rapidly without containing walls.

THIS GRILL MUST BE INSTALLED BY A QUALIFIED PROFESSIONAL. THE ENTIRE AREA OVER THE GRILL MUST BE NONCOMBUSTIBLE EXTENDING 48" IN ALL DIRECTIONS. ANY FAÇADE OR CLADDING MATERIALS MUST ALSO BE NON-COMBUSTIBLE. IN A PROFESSIONAL SETTING THE GRILL MUST BE INSTALLED UNDER AN APPROVED TYPE 1 NFPA 96 OR NFPA 96 EQUIVALENT SOLID FUEL HOOD SYSTEM.

ALERT: Installation, operation and servicing of this appliance can expose you to ceramic dust.

ALWAYS WEAR PROTECTIVE EYEWEAR AND RESPIRATORY PROTECTION AS A PRECAUTION AGAINST INHALATION OR EYE INJURY. HAND PROTECTION IS ALSO RECOMMENDED AGAINST POSSIBLE SHARP EDGES.

PLEASE READ THIS ENTIRE MANUAL BEFORE YOU INSTALL THE ARCHITECTURAL GRILL. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY OR EVEN DEATH. CONTACT YOUR LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS IN YOUR AREA.

VENTING

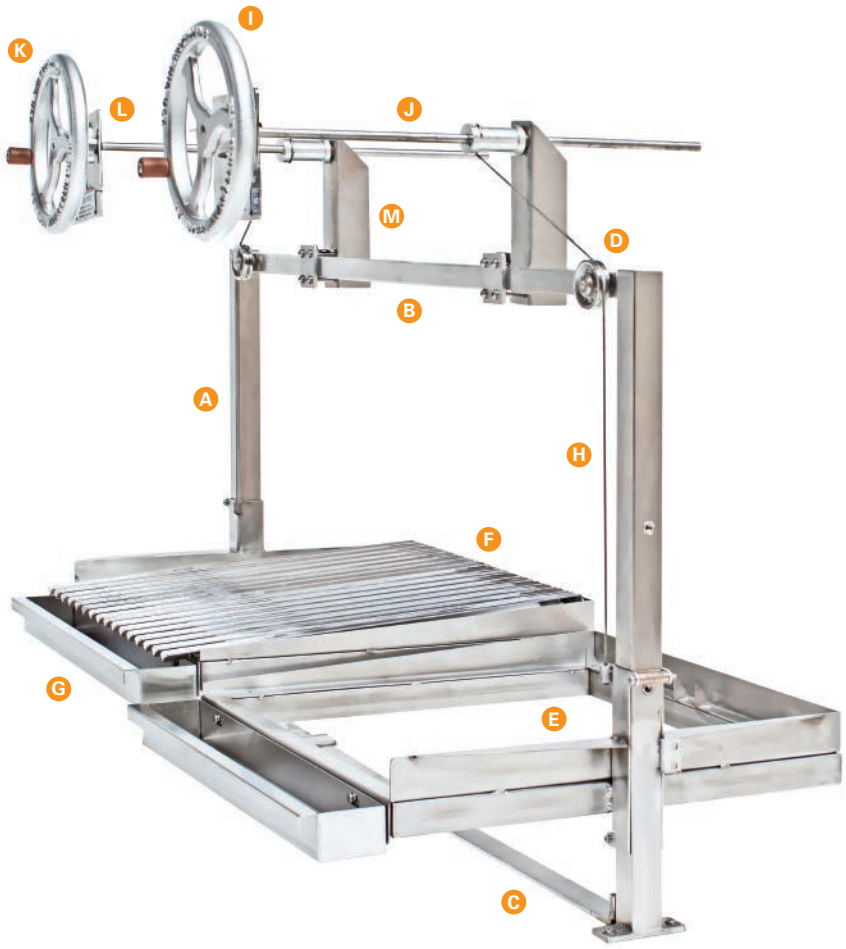
In a professional setting the hood and ductwork used over the Architectural grill must be approved for solid fuel and installed in accordance to all relevant local and national code requirements for solid fuel appliances. A SOLID FUEL NFPA 96 COMPLIANT HOOD IS REQUIRED FOR USE OF THIS GRILL.

As with all solid fuel cooking equipment and ductwork, regular cleaning and inspection is critical to prevent fire risk. Typically this cleaning and inspection should occur AT LEAST monthly, but check with local fire authorities to determine frequency.

A fire suppression system (ANSUL) is required for the Architectural grill in a commercial environment. Refer to local and national requirements to determine the system required for your installation of this grill, but commercial installations generally follow the UL 2162 listing standard.

Commercial built-in hearth installations using our grills can be confirmed and labelled UL 2162 compliant by scheduling an inspection with a third-party testing service. Some locales ask for this, some do not. Check with your local authorities.

If the Architectural is being installed in a residential (non-commercial) setting, you must comply with codes and guidelines governing the requirements for your flue, venting and suppression. USE A PROFESSIONAL HEARTH BUILDER AND VENTILATION SPECIALIST. Fireplaces and chimneys that are used for cooking will need to be cleaned MUCH MORE OFTEN to avoid the danger of chimney fire. KEEP AN EXTINGUISHER NEARBY AT ALL TIMES.



FRAME

- **A** uprights with floor mounting pads
- **B** horizontal main tube with wall mounting tabs
- **C** lower mounting strap (removed after installation)
- **D** lift pulleys—fastened to the main tube

CARRIAGE

- **E** lift frame (guided by the uprights—carries the grilling surfaces and drip pans)
- **F** grilling surfaces
- **G** drip pans

LIFT SYSTEM

- **H** cable system
- **I** crankwheel and starwheel
- **J** axle
- **K** lift system mount (plate with rear bearing tube/axle pass-through)
- **L** crank lever
- **M** rear support bracket

Dual Architectural shown

FORWARD CRANKWHEEL(S)

Note: in most cases the grill will come fully assembled in a crate, so these detailed instructions are provided in the event the grill must be significantly disassembled for installation.

Frame Installation

1: Position the frame into the structure as desired. Leave at least .5" of clearance to the walls on single- wheel Architecturals, 2" on Dual Architecturals for roller travel and access. The entire grill should be within the dimensions of the enclosure's base, WITH basting pans attached.

2: Verify that the uprights (A) are vertical with a level.

3: Fasten upright mounting pads (A) using an industry accepted fastening method, and make sure you anchor THROUGH the fire brick to a stronger substrate—firebrick is brittle and not a good structural element.

4: Fasten the upper corner tabs on the grill uprights to the enclosure walls, using a spacer if necessary. Make sure to penetrate through any firebrick to the underlying structure for stability.

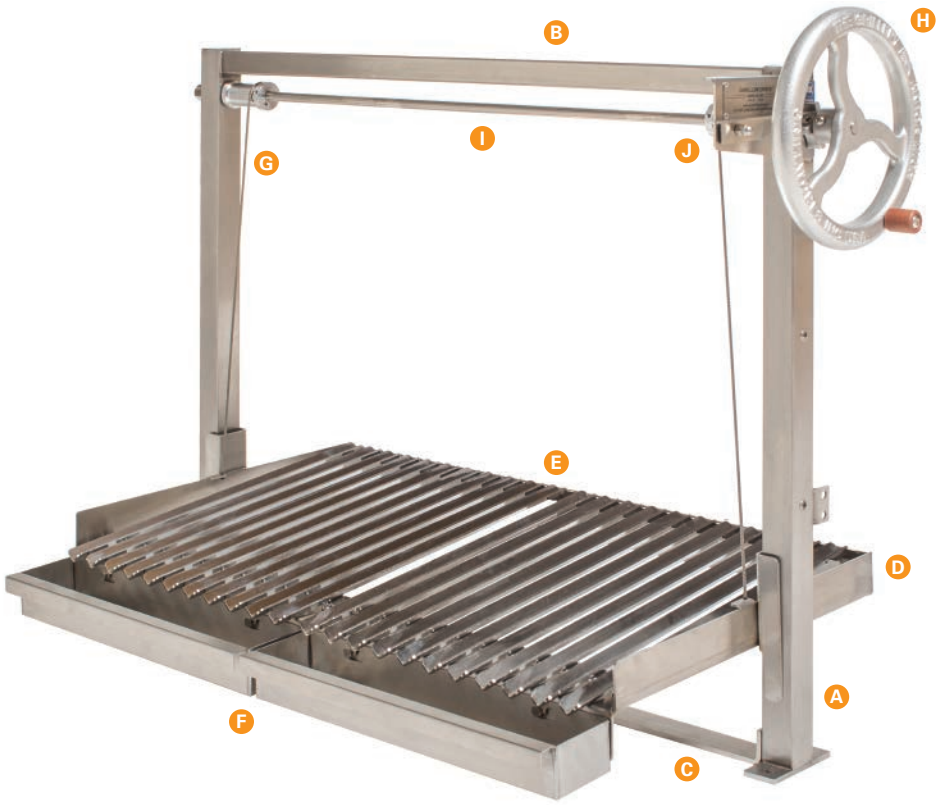
A Forward-Crankwheel installations require wheel support. Masonry (axles pass through, wheels on the front), a length of broad steel (shown) or a simple stainless tube are all good choices. Each install is different—the support is selected and provided by the customer.

Lift System Installation

1: Mount the rear support bracket (M) on the horizontal main tube (B) so that the axle (J) will be lined up with either the axle hole in your masonry or the support element you've selected for the lift system mount (usually 2" tube or angled stainless). Dual Architecturals will need two such mount points.

2: Remove the axle-mounted cable barrels (J) by loosening their set screws, sliding them off, then inserting the bare axle through your hole from the outside (if through masonry) and replacing the barrels (make sure the set screws penetrate their mounting holes). The crank lever must be positioned to the left of the star wheel/crankwheel (I) so it can catch the star's teeth at each height.

3: The lift system plate (K) must be level as you face it. Drill through the plate at the bottom corners and anchor at those points with appropriate masonry screws or anchors.



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- **E** grilling surfaces
- **F** drip pans

LIFT SYSTEM

- **G** cable system
- **H** crankwheel and star wheel
- **I** axle
- **J** crank lever

SIDE CRANKWHEEL(S)

Frame Installation

1: With the lift frame (D) on both uprights, stand the frame assembly (1) in the installation space positioned as desired. Place the grill surfaces (E) on the lift frames and attach the basting pans (F) to their tabs on the frames. *The fully assembled grill should be fully within the structure with no overhang to the floor.*

2: Gauge adequate clearance for the assembled lift frame (D, E) to move freely, leaving at least 1" of space between the rear of the grilling surfaces and the masonry. Mounting tabs on the upright tops should be fixed to walls to increase stability.

3: Loosely fasten the base pads (A) and the mounting tabs (B) to the floor and walls. Unbolt and remove the cross strap (C). Verify that the uprights are vertical. Bolt through to structural material under the firebrick—firebrick does not bear weight well.

4: [ENCLOSED INSTALL ONLY] The crankwheel (H), mounting plate and star wheel will be loose from the frame so they can be placed on the outside of the enclosure with the axle (I) passing through. Install the plate's back sleeve into the hole in the structure. Slide the axle (I) through and into both uprights, loosely threading the right and left cable barrels onto it between the uprights. Note the hole or flat on the axle at each end and tighten the barrel hex screws to that point.

5: [ENCLOSED INSTALL ONLY] Affix the crankwheel (H), tightening it so the neck bolt passes through the hole in the axle. Position the mounting plate on the outside wall such that the crank lever (J) engages the star wheel (H) from above. Drill holes into the lower plate corners to fix it to the masonry.

Lift System Installation

1: Ensure the lift frame (D) is engaged to both uprights.

2: Check that the cable barrels—that the cables wrap on—(G), are tight to the axle (I)

3: Place the grill surfaces and drip pans, hold the crankwheel (H) then depress the crank lever (J) and turn the crankwheel counterclockwise to lower the lift frame down to the base. Crank it back up to check even travel. If the lift frame is not level the cables may be adjusted by loosening them from the barrels with a hex tool.

ALL INSTALLATIONS SHOULD BE PERFORMED BY A PROFESSIONAL MASON OR HEARTH BUILDER.

GETTING STARTED

In order to produce the most consistent results and get the most out of the flexible design of the Architectural, you'll need a good fire. There are two approaches to starting that fire.

Conventional Ignition
The Architectural is lit by starting the cooking fire on the hearth under the cooking surfaces. Using paper, kindling and smaller pieces of wood, build the fire directly on the masonry hearth (raise the surfaces up and out of the way for easier access). You may use natural starters here too, like "Fat Wood" or other wood starter bricks. Wait until they've burned away before you do any cooking! Charcoal chimneys (found in many hardware stores) are also a good way to build a coal bed, and are very useful in a restaurant environment where a large coal bed is desirable.

PROFESSIONAL TIP: It is recommended that the grill be lit at least one hour before cooking to ensure the grill's fire box and brick have come up to uniform temperature for service.

Fire Cage Ignition
The Grillworks Architectural can be equipped with a rear or side-mounted fire cage. This cage is based on the South American "brasero" which is a basket used to burn whole pieces of wood down to charcoal. Load the fire cage with paper, kindling and smaller pieces of wood— in that order from the bottom—and LOOSELY to ensure good air flow. Natural starters can be used here too. Place a few more pieces of wood and/or chunk charcoal underneath the cage. This fuel will be ignited by the coals that will begin falling to the hearth through the bottom of the cage once it is going. Light the cage from the bottom and feed it larger pieces of wood as the fire progresses. The combination of coals produced by the cage and the coals and wood ignited underneath will fuel the enclosure's fire bed. Rake the coals under the cooking surfaces when you're ready to cook.

WARNING: THE FIRE CAGE PRODUCES A POWERFUL VERTICAL BURN. MAINTAIN A SMALL FIRE TO REDUCE THE POTENTIAL FOR EMBER ESCAPE, CHIMNEY FIRE OR ANSUL ACTIVATION.

WOOD VS CHARCOAL

Both wood and charcoal are instrumental in running a successful cooking fire in the Architectural.

Charcoal, being dry and burning slowly over a long period, is a reliable source of heat, but will not add much in the way of flavor to what is being cooked over it.

Well seasoned (10-15% moisture content) wood will burn relatively quickly and produce a moderate amount of flavorful smoke. You should consider the whole wood you burn to be the "seasoning" heat. The moisture left inside it is what will carry the unique flavor of that wood type to the food and ultimately your meal. In a restaurant setting, balancing the use of both high-quality chunk charcoal for heat with a smaller amount of excellent whole wood is often the most economical and practical approach to getting the best of both heat and flavor worlds. Consumption levels for both fuels can vary widely as these grills allow openair flow. The operator can control this to a degree by using more or less charcoal, building smaller fires, or lighting only a single grilling station when less cooking area is needed.

THE ARCHITECTURAL LIFT SYSTEM

All Architecturals have crankwheel-controlled lift frames, carrying two to four grill surface sections. The wheels raise and lower the grilling frames through a wide vertical range over the fire to control cooking temperature.

Every grill comes with our signature juice-catching V-Channel(r) surfaces, and additional accessory surfaces are available for specialty uses. Note: the V-Channel surfaces are tilted at a gentle 4 degrees to allow juices to drain into the basting pans. If a flat surface is desired (for instance to place a pot), fold-out the leveling "feet" underneath the front of each section.

In order for the cables that lift the frames to wrap on their barrels correctly the grill surfaces should be in place when the wheel is operated. Turn the crank wheel clockwise to raise the life frame. To lower it, hold the wheel and depress the crank lever, then lower the frame gently. Release the lever at the desired height.

DO NOT FORCE THE WHEEL BACKWARD WITHOUT RELEASING THE LEVER.

COOKING ZONES

Air flow in an installed Architectural comes in from the front and naturally flows toward the back of the enclosure, then up. This creates three distinct heat zones on the grilling surfaces, front to back. The difference in surface temperature just a few inches forward or back can be dramatic.

Note: because the operator has a very large height range available for the cooking surfaces, temperatures can be controlled through a near-infinite range.

The zones illustrated below are based on grill surfaces positioned 4-8" above a wood/coal bed. For precise readings on surface temperature we recommend the use of an infrared gun-type thermometer.

L Low Heat Zone

M Medium Heat Zone

S Searing Zone

Low Heat Zone
The front of the grilling surfaces, closest to the operator, are the warm zone. Under normal cooking circumstances, with the grill fired and running, this area comprising the first six inches of grill surface will be 200-300 degrees Fahrenheit.

Medium Heat Zone
The center of the grill surface, the six inches positioned more completely over the bulk of the fire bed will range from 300-600 degrees Fahrenheit.

Searing Zone
The rear six inches of the grilling surfaces, closest to the rear wall of the grill and to the fire cage, will be the hottest area, nearest the rear wall. At 4-8" over the fire, this area will produce very high heat, usually ranging from 600-900 degrees.

Surface Cooling
Once a grill surface is raised further from the fire, for example to rest an item, it will cool quickly. Remember this when lowering it again for high heat—the stainless will need a couple minutes to come back up to searing temperatures.

Basting Pans
Each grill surface empties into a removable basting pan attached to the front of the lift frame via a keyhole system. The V-Channel standard surfaces capture oils and juices to reduce flaring and to deliver them to the chef for use in sauces or to baste back onto the food for added flavor!

CLEAN UP

The Architectural's grill surfaces and basting pans all lift off for cleaning. They are 304 stainless steel and can be washed by hand or in a commercial dishwasher. If using a dishwasher, the grill surfaces should be re-oiled (seasoned) again before cooking as they will be dry after going through the machine.

Ashes should be swept into a fire-safe container when cooking is done. Cooling with water is not recommended as it will cause more mess than allowing the dry embers to burn out naturally. Sudden cooling could also damage your masonry. WAIT UNTIL THE GRILL HAS COOLED BEFORE EMPTYING ASHES. EMBERS MAY STILL BE IN THE ASH—THE CONTAINER MUST BE FIRE PROOF TO PREVENT RISK OF FIRE.

Excess grease or ash buildup around the grill's moving parts and external surfaces should be wiped off once the grill has cooled.

The lift pulleys on Dual Architecturals should be checked, and cleaned to prevent ash build-up. Oil may be applied occasionally to ensure smooth motion.

MAINTENANCE & CARE

The Grillworks Architectural's body is constructed entirely in 304 stainless steel. The frames on Architectural models are 1.25"-1.5" square tube, in 11 to 16 gauge, depending on model. Custom units sometimes use different diameters. The crankwheel is cast aluminum, which stays cool for operation.

The Architectural's cooking system is designed for maximum motion and flexibility. All moving parts, especially the lift systems, need to be checked for free motion BEFORE EVERY USE. Ash and other normal side-products of cooking and fire can build up on the tracks the lift system travels on and can impede motion if left uncleaned.

BEFORE EVERY USE check that the carriage is free to move. It is recommended that the rollers on Dual Architecturals be lightly lubed with cooking oil before use to ensure they roll smoothly.

BEFORE EVERY USE check the hex screws in the barrels that pick up the cables to ensure they are tight and seated correctly. Do the same with the set screws in the star wheel (the toothed gear behind the crankwheel that holds the grill at height). Also inspect or clear the rollers that travel up and down the tracks to ensure they can turn freely.

BEFORE EVERY USE inspect the lift cables for any wear, and make sure they are seated correctly in the pulleys and wrapping correctly on the barrels. If they are wrapping unevenly simply lower the surfaces to the lowest point and raise them back up, this will straighten the wrap on the barrels. IF THERE IS ANY DAMAGE TO A CABLE REPLACE IT IMMEDIATELY. The cables loosen via hex key from the barrels and can be quickly swapped WHEN THE GRILL IS NOT IN USE.

All of our grills come with spare cables, we can always provide more. DO NOT USE OTHER CABLES THAN THOSE PROVIDED BY GRILLWORKS.

All professional Grillworks products are
NSF listed and approved for use in food service.

KEEP THESE INSTRUCTIONS!

Grillworks grills are custom made and continuously evolving.
Please check with us for possible supplements to these instructions
or for help with installation or use. **orders@grillworks.com**

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