



NFRI Series

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Compensating Island Hood with Front Face Stainless Steel Perforated Panels

Provides coverage in island cooking equipment configuration with superior efficiency due to low exhaust flow rates. Hood can supply up to 90% make-up air through stainless steel perforated panels on the front face of the hood.



Offering A Fully Integrated Package, Pre-Engineered For Optimum Performance

ADVANTAGES

- ETL Listed for use over 400°F, 600°F and 700°F cooking surface temperatures, providing flexibility in designing kitchen ventilation systems.
- ETL Listed to Canadian safety standards, NSF Listed and built in accordance with NFPA 96.
- Compensating hood, supplying up to 90% make-up air through stainless steel perforated panels on the front face of the hood.
- Sturdy stainless steel construction.
- Factory pre-wired lighting to illuminate cooking surface.
- Stainless steel filters with optional high velocity cartridge filters (Models CNFRI or CDFRI).
- External make-up air can be introduced on only one side of hood to meet specific applications. (Model DFRI)
- Optional integral 3" air space to meet NFPA 96 requirements when the hood is against a limited combustible wall. Optional insulated 3" air space for combustible walls.
- Optional UL Listed light and fan control switches flush mounted and pre-wired through electrical chaseway.
- Optional ETL Listed exhaust fire damper (Model NFRI-100)

PERFORMANCE

Model	Cooking Surfaces	Max. Avg. Cooking Surface Temp (°F)	Min. Exhaust CFM/ft.	Max. Supply CFM/ft.
NFRI	Mesquite Grills, Charcoal Charbroilers, Gas Conveyor Charbroilers	700°F	475	380 (80%)
DFRI	Mesquite Grills, Charcoal Charbroilers, Gas Conveyor Charbroilers	700°F	475	190 (40%)
NFRI	Gas Charbroilers, Electric Charbroilers	600°F	422	338 (80%)
DFRI	Gas Charbroilers, Electric Charbroilers	600°F	422	169 (40%)
NFRI	Ovens, Steamers, Kettles, Open-Burner Ranges, Griddles, Fryers	400°F	346	312 (90%)
DFRI	Ovens, Steamers, Kettles, Open-Burner Ranges, Griddles, Fryers	400°F	346	156 (45%)

Recommended Duct Sizing:

- Exhaust: Based on 1600 FPM
- Supply: Based on 800 to 1200 FPM

FEATURES

- One piece V-Bank island hood.
- Fabricated of Type 430 stainless steel, #3 or #4 polish, on all exposed surfaces. Optional type 304 stainless steel available.
- Make-up air (up to 90%) is supplied through stainless steel perforated panels on the front face of the hood.
- To prevent condensation, 1" insulation with non-absorbent facing lines supply air plenum. Insulation is flame spread rated at less than 25' when tested in accordance with UL Std. 723.
- Supply air plenum contains perforated metal plates for even air distribution, constructed with internal angle iron framing for increased rigidity.
- Supply air risers on hood top contain combination ETL Listed fire/volume damper(s). The opposed blade volume damper is adjustable by means of a control mechanism located on the damper's side. Supply air can be balanced without adjusting the fan pulleys.
- Fitted with UL Classified, stainless steel filters, removable for cleaning. Optional high velocity cartridge filters available. (Models CNFRI or CDFRI)
- Sloped grease drain system with removable 1/2 pint cup for easy cleaning.
- Pre-punched hanging angles on each end of hood. Additional set provided for hoods longer than 12'.
- Fitted with UL Listed, pre-wired, incandescent light fixtures and plastic-coated glass globes to hold up to a standard 100 watt bulb. Recessed incandescent and recessed fluorescent lights optional.
- A built-in wiring chase provided for optimal positioning of electrical controls and outlets on the front face of the hood without penetrating capture area or requiring external chaseway.
- Optional integral 3" air space to meet NFPA 96 requirements when a side of the hood is against a limited combustible wall. Optional insulated 3" air space for combustible walls.
- Optional ETL Listed exhaust fire damper (Model NFRI-100).
- Model NFRI is ETL Listed for 400°F, 600°F and 700°F cooking surfaces (File 3054804-001 without exhaust damper; File 3054804-002 with exhaust damper), ETL Listed to Canadian safety standards, NSF Listed and built in accordance with NFPA Standard 96.

DRAWINGS

- [Single NFRI Hood Section View](#)
- [Download NFRI Isometric Drawing](#)

ADDITIONAL INFORMATION

- [Operation & Maintenance Manual](#)
- [Written Specification](#)

OPTIONS

UTILITY CABINET: ETL Listed for integral side mount on the Captive-Aire Systems ventilation hood...fabricated of same material as hood...the cabinet can house factory pre-piped UL Listed fire suppression system* and ETL Listed, pre-wired electrical controls...pre-wire package* contains light switches, lighted fan control switches and internal factory wiring and components (starters, relays, etc.) to reduce field wiring requirements. ETL tests confirm temperatures do not exceed 120°F inside the cabinet during fire condition. (120°F is the maximum allowed storage temperature for the UL Listed fire suppression system and the ETL Listed Industrial control panel.) (*Dimensional restrictions may apply)

REMOVABLE ETL LISTED HIGH-VELOCITY CARTRIDGE FILTER: Constructed of stainless steel...uses centrifugal force to remove grease and other particulates...National Institute of Standards and Technology methodology used by an independent agency to evaluate performance...tests indicate 95 percent extraction efficiency.

ENCLOSURE PANELS: Constructed of stainless steel...mounting channel factory-welded to hood for field installation of panels over 11" high...under 11", factory-welded and integrally installed into hood front ends...sized to extend from hood top to ceiling, enclosing pipe and hanging parts.

END PANELS: Should be used to maximize hood performance and eliminate the effects of cross drafts in kitchen...units constructed of stainless steel and sized according to hood width and cooking equipment. Exposed edges hemmed for safety and rigidity.

EXHAUST FIRE DAMPER: ETL Listed...installed in exhaust collar...activated by a UL Listed, 212°F, 10-lb. minimum rated fusible link.

ROOF TOP PACKAGE: Combination ETL Listed exhaust/supply air unit with factory prewired and mounted motors, trunkline and curb vented on exhaust side. Various models perform up to 14,000 CFM exhaust and up to 3 inches static pressure...weatherproofed...galvanized construction... washable mesh filters...exhaust/supply air fans share common roof penetration...internal wiring drops directly through curb, requiring no pitch pockets...exhaust outlets/air intakes spaced to conform to code regulations...automatic reset/thermal overload protection on all single phase motors and on three phase motors if pre-wire assembly is included in package...standard single-point power connections...UL 705, 762 Listed exhaust fans rated for high grease applications...optional backdraft dampers - for supply fans.

SEPARATE FANS: ETL Listed single exhaust fans and supply-air fans and curbs available...same features, construction methods and performance ratings as roof top package above.

HEATED MAKE-UP AIR: ETL Listed direct fired gas heated make-up air unit manufactured by Captive-Aire...ETL Listed for natural gas and propane...design integrates the blower and burner into a single package... heavy duty, weather resistant, galvanized steel construction...units available in Roof Top Package or as a stand alone heated make-up air module...several models available to meet almost any performance rating specification.

FULLY INTEGRATED PACKAGE

Captive-Aire Systems offers a FULLY INTEGRATED PACKAGE, pre-engineered for OPTIMUM PERFORMANCE. The "package" consists of the hood and options to include an integral ETL Listed utility cabinet (as pictured), containing factory pre-wired, ETL Listed electrical controls and a factory pre-piped UL Listed fire suppression system. Other options include ETL Listed exhaust damper, ETL Listed exhaust/supply air fans in a "combination" Roof Top Package or sold separately, and ETL Listed direct-fired heated make-up air units. Fire suppression systems include final hookup and inspection.

CERTIFICATIONS

Models NFRI are ETL Listed under file number 3054804-001 and complies with UL710 Standards and ULC710 Standards.