



NFR Series

Compensating Hood with Stainless Steel Perforated Panels

Captive-Aire's NFR hood provides excellent capture containment at low CFM and supplies make-up air via a front face discharge. This compensating hood can supply up to 90% make-up air through handsome stainless steel perforated panels on the front face of the hood. The perforated stainless steel panels promote slow discharge velocities. The hood performs at extremely low exhaust flow rates and can be used over cooking surface temperatures ranging from 450°F to 600°F.



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

ADVANTAGES

- Superior exhaust flow rates (A 4' Hood can operate at 150 CFM/ft or 600 total CFM.)
- Compensating hood, supplying up to 90% make-up air through stainless steel perforated panels on front face of the hood.
- ETL Listed for use over 450°F and 600°F cooking surface temperatures, provides flexibility in designing kitchen ventilation systems. ETL Listed to Canadian safety standards, NSF Listed and built in accordance with NFPA 96.
- Insulated front supply plenum eliminates condensation.
- Polished stainless steel on the interior and exterior of the front enhance aesthetics.
- Sturdy stainless steel construction.
- Factory pre-wired lighting to illuminate the cooking surface.
- Aluminum filters with optional stainless steel or high velocity cartridge filters on the CNFR model.
- Optional integral clearance to combustibles reduction system to meet NFPA 96 requirements.
- Optional UL Listed light and fan control switches flush mounted and pre-wired through electrical chaseway.
- Exceptional capture containment of cooking vapors. This is accomplished the "C-shaped design of the hood's capture area (see the drawing above).
- Optional ETL Listed exhaust fire damper on the NFR-100 model.

PERFORMANCE

Model	Configuration	Max. Avg. Cooking Surface Temp. (°F)	Min. Exhaust CFM/ft.	Suggested Supply CFM/ft.
NFR, NFR-100	Single Wall Hood	450°F - Ovens, Steamers, Kettles, Open-Burner Ranges, Griddles, Fryers	150	135 (90%)
NFR, NFR-100	2 Wall Hoods Back-to-Back in an Island Configuration	450°F - Ovens, Steamers, Kettles, Open-Burner Ranges, Griddles, Fryers	300	270 (90%)
NFR, NFR-100	Single Wall Hood	600°F - Gas Charbroilers, Electric Charbroilers	215	194 (90%)
NFR, NFR-100	2 Wall Hoods Back-to-Back in an Island Configuration	600°F - Gas Charbroilers, Electric Charbroilers	430	388 (90%)
CNFR, CNFR-100 (w/ High Velocity Cartridge Filters)	Single Wall Hood	600°F - Gas Charbroilers, Electric Charbroilers	200	160 (80%)
CNFR, CNFR-100 (w/ High Velocity Cartridge Filters)	2 Wall Hoods Back-to-Back in an Island Configuration	600°F - Gas Charbroilers, Electric Charbroilers	400	320 (80%)

Recommended Duct Sizing:

- Exhaust - Based on 1500 FPM
- Supply - Based on 800

FEATURES

- Available in single wall type or two piece back-to-back island configuration.
- Fabricated of Type 430 stainless steel, #3 or #4 polish, on all exposed surfaces. Optional type 304 stainless steel available.
- Insulated front increases rigidity and reduces condensation.
- Fitted with UL Classified, aluminum filters, removable for cleaning. Optional stainless steel and ETL Listed high velocity cartridge filters available. (Model CNFR)
- Grease drain system (1/8" per foot minimum slope) with removable pint cup for easy cleaning.
- Pre-punched hanging angles on each end of hood. Additional set provided for hoods longer than 12'.
- Optional integral clearance to combustible reduction system to meet NFPA 96 requirements.
- Up to 90% make-up air supplied through perforated stainless steel panel on the front face of the hood.
- 1" insulation with non-absorbant facing lines the make-up air plenum to prevent condensation. Insulation is flame spread rated at less than 25' when tested in accordance with UL Standard 723.
- Make-up air plenum contains perforated metal plates to evenly distribute make-up air across the length of the hood. Internal angle iron struts are used to provide a sturdy, robust structure.
- Make-up air risers on the hood's top contain a ETL Listed fire and volume dampers. The opposed blade volume damper is adjustable by means of a control mechanism located on the side of the riser. This allows for the adjustment of the make-up air without having to adjust fan pulleys.
- 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 ETL Listed exhaust fire damper (Model NFR-100).
- The NFR model is ETL Listed for 450°F and 600°F cooking surfaces (File 3054804-001 without exhaust damper; File 3054804-002 with exhaust damper), NSF Listed and built in accordance with NFPA Standard 96.

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)

Rear Make-Up Air Plenum: Provides make-up air for the kitchen, discharged below cooking equipment...welded...stainless steel exposed surfaces...unexposed surfaces made of aluminized metal...shipped separately, requiring field connection...insulated to prevent condensation...perforated diffuser plates for even air distribution. Provides required clearance from limited combustibles per NFPA 96 Standards.

Front Perforated Supply Plenum: Provides low velocity make-up air for the kitchen, discharged in front of the hood...welded...stainless steel...perforated diffuser plates for even air distribution...supply riser includes a volume damper for easy balancing.

Removable, ETL Listed, High Velocity Cartridge Filters: 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, 212F, 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.

Separate Exhaust and/or Make-Up Air 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 Unit: ETL Listed direct fired gas heated make-up air unit manufactured... 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 sizes available to meet almost any performance rating specification.

FULLY INTEGRATED PACKAGE

Captive-Aire sells this hood as a stand-alone appliance to be integrated into a kitchen ventilation application. Captive-Aire also provides this hood as part of a **FULLY INTEGRATED PACKAGE** designed by Captive-Aire and pre-engineered for **OPTIMUM PERFORMANCE**. The package consists of the hood, an integral ETL Listed utility cabinet, factory pre-wired ETL Listed electrical controls, and a factory pre-piped UL Listed fire suppression system. Other options include a ETL Listed exhaust damper, a ETL Listed exhaust fan, a ETL Listed non-tempered make-up air fan, and/or a ETL Listed direct-fired heated make-up air unit. Fire suppression systems include final hookup and inspection.

CERTIFICATIONS

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