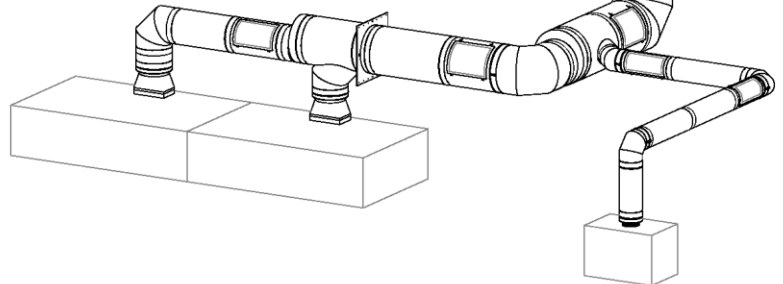
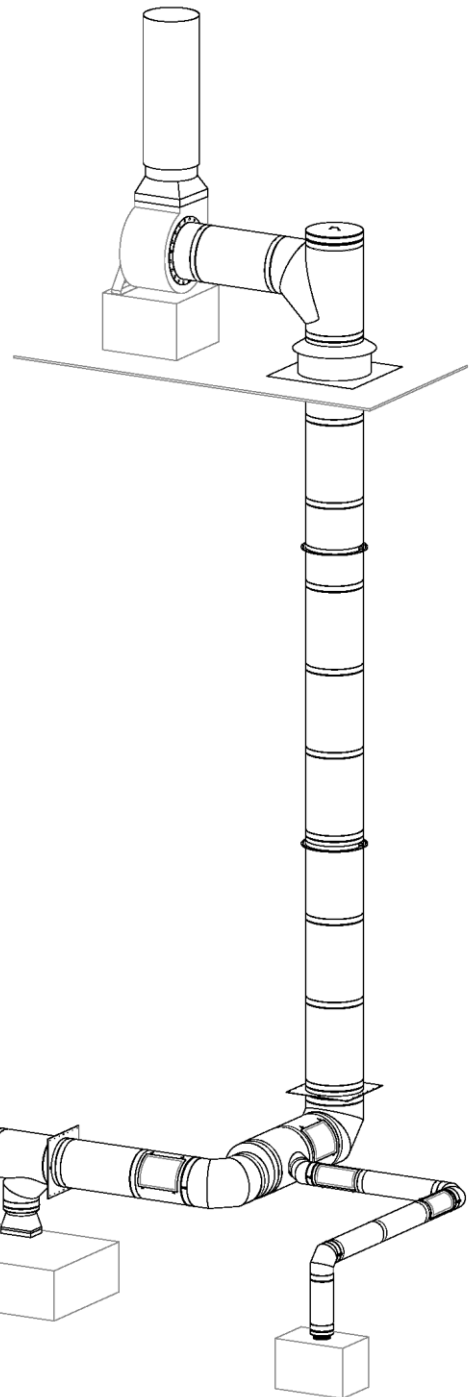


Ductwork System Brochure

Models:

- ☐ SW-NAKS Single Wall Conical
- ☐ DW-NAKS Double Wall Conical



INTRODUCTION

NAKS, Inc

Models SW-NAKS and DW-NAKS are factory built high pressure and high temperature exhaust systems for various type of appliances. Model SW-NAKS is Single Wall with Conical connections and Model DW-NAKS is Double Wall. DW-NAKS are Double Wall with Flanged connections. All Models may be intermixed in the same grease duct system.

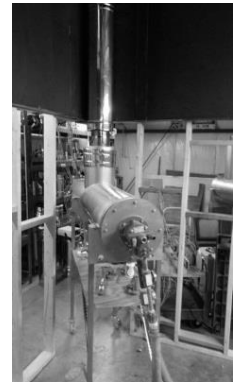
Research and Development

In North America, NAKS, Inc employs only Underwriters' Laboratories (UL) for testing, certifications, and listings to all applicable UL and ULC Standards.

All Stainless Steel Construction



The standard 444 stainless steel (EN 1.4521) inner wall is the new standard for high temperatures yet still corrosion resistant to flue gas condensation. 444 stainless steel provides a better higher temperature solution over austenitic 304 or 316 stainless steels due to lower expansion coefficient value, meaning no cracking from less expanding oxides. 444 stainless steel has very good resistance to pitting corrosion in chloride media, much better than 304 (EN 1.4301) and 316 (EN 1.4401) stainless steels, and even better than 316L (EN 1.4404) stainless steel. 444 stainless steel also has a higher minimum proof strength than 304 stainless steel in combination with lower work hardening behavior.



The outer jacket is always made of stainless steel. Type 304 stainless steel with a bright annealed finish is standard. All accessories (including support plates and angle rings) are also made of stainless steel. This means there is no cross contamination in the factory from carbon steel cutting/welding. NAKS cleans all external welds to assure the customer clearly sees the quality standard we are setting.

Best Insulation

NAKS, Inc uses the new Superwool® Plus fiber blanket by Thermal Ceramics (Augusta, Georgia), which has improved handling strength and enhanced thermal properties. Superwool® Plus blanket is manufactured from pure raw materials using a new manufacturing technology. In addition to enhanced thermal properties, large nuisance dust particles have been effectively eliminated making the product soft to the touch and less irritating during use. Superwool® Plus blanket contains neither binder nor lubricant and does not emit any fumes or smell during the first high temperature firing.

NAKS, Inc compresses a 1½" blanket into a 1¼" area delivering better clearances and skin temperatures than other loose fitting blanket insulated pipes. This also eliminates any chance of insulation settling during shipment and storage. See the installation clearance example using the same pipe I.D. as compared to other manufacturers. For example, NAKS, Inc Model DW-NAKS clearly is the industry leader in the smallest required footprint.

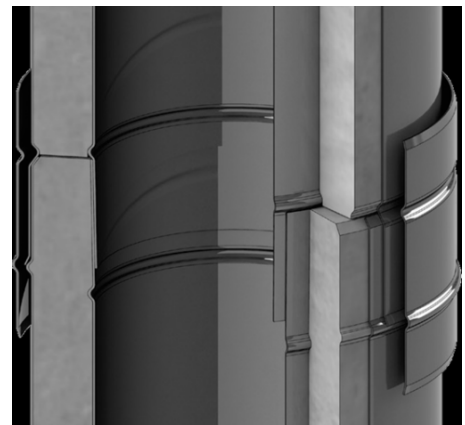


Largest Joint Connection Surface Area / Easiest Install

Models SW-NAKS and DW-NAKS incorporate a steel to steel conical joint and clamp system for quick and easy assembly in the field. A NAKS supplied high temperature ceramic lubricating and assembly paste is applied on the conical joint to assure the best steel to steel connection; and it is then tapped into place creating a gas-tight and liquid-tight seal.

The double wall Model DW-NAKS is insulated with 1¼" thick compressed fiber insulation which allows the inner and outer pipes to stay aligned, without the use of additional clips or brackets. On other designs, clips or brackets act as a thermal bridge from the inner wall to outer jacket, so with no additional thermal bridge at the joint means there are no hot spots at pipe and fitting connections

Models SW-NAKS and DW-NAKS incorporate a 1" steel overlap with added vee band for easiest assembly on the market. These are the only flanged system with continuous overlapping inner, as the flange is added to the outside of the inner pipe. The overlapping inner also protects the silicone seal against condensate and high-pressure washings in commercial kitchen exhaust.



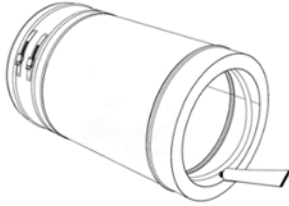
TECHNICAL SPECIFICATIONS

KL Conical Joint Assembly

Models DW-NAKS (SW-NAKS single wall is similar) joint system is designed for a quick and easy installation that is completely pressure tight. Follow Steps 1 through 3 for general pipe and fittings assembly.

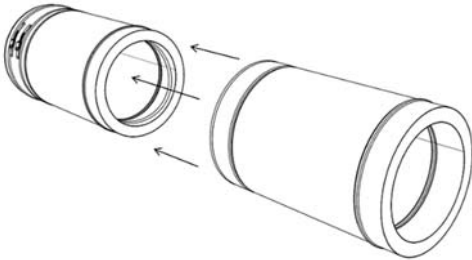
Step 1

Clean the inner side of the female end and the outer side of the male end of each pipe. Apply the KL Paste to the female end.



Step 2

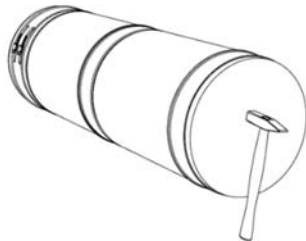
Use your hands to center both pipes in alignment. Connect both pipes and press them together as much as possible by hand.



Step 3

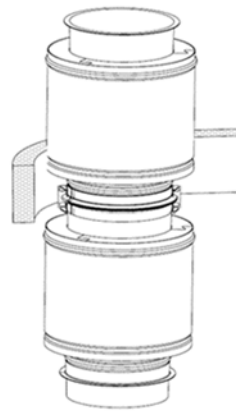
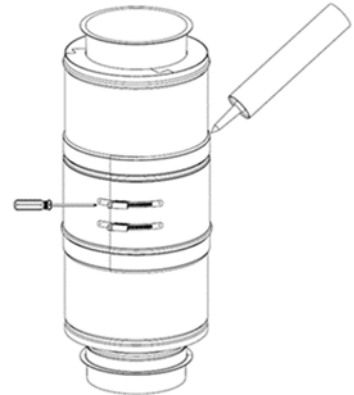
Use the wood plate (supplied with shipment) and place it on the end of the assembly.

Tap 2-3 times. Make sure to press both inner and outer pipes together; the inner should not be more than 1/8" longer than the outer pipe once the male/female conical ends are engaged.



Step 2:

Wrap the joint insulation around the V-Band

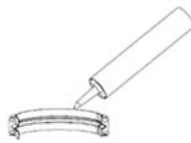


Step 3:

Position the Locking Band in place. Tighten the Locking Band hardware. Caulk the top of the Locking Band on exterior installations.

FL Flanged Joint Assembly

Model DW-NAKS joint system is designed to be the easiest installation on the market. Follow Steps 1 through 3 for general pipe and fittings assembly.



Step 1:

Apply sealant to flange surface. Join flanges together. Apply sealant to the inner groove of the V-Band. Position V-Band around the flanges and tighten.

Technical Data Sheet

Single Wall Grease Duct Exhaust

SW-NAKS

Product Line

SW-NAKS – Single Wall Conical Joining Pipe & Fittings



Applications

- Stainless steel duct for connecting cooking appliances and grease hoods to the outdoors under negative or positive pressure.
- True replacement for field welded black steel. SW-NAKS taps together without the need for welding or in field fabrication.



Purpose

- Factory built eliminates welding in the field.
- Assurance of finest quality and reliability.
- Quick and easy inspections.

UL Listings (and ULC)

- UL-1978 Standard, Grease Duct (ULC-S662 Standard for Factory-Built Grease Ducts)

Materials

- Made of special austenitic high-grade ASTM 304 stainless steel
 - 3" through 18" = 0.025" thick
 - 20" through 36" = 0.035" thick
- All supports and accessories are ASTM 304 stainless steel.

Connection / Installation Details

- Conical 2.2" overlapping joint.
- Requires tapping to fully engage.
- Use KL-Paste, a ceramic and mineral oil based manufacturing paste, to help facilitate an easy engagement.
- Does not use silicone or sealant to make the high pressure seal.

Features

- Factory CAD designs for installation ease.
- Cut length available for maximum field flexibility.
- All-stainless with 25-year warranty.
- Leak proof conical high pressure joints.
- Smooth flow and known resistance for perfected factory pressure calculations.
- Field insulate as required for reduced or zero clearance.



Technical Data Sheet

Single Wall Grease Duct Exhaust

SW-NAKS

Product Line

SW-NAKS – Single Wall Conical Joining Pipe & Fittings



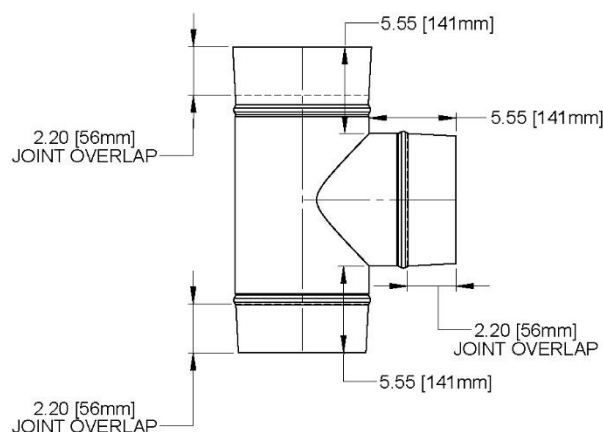
Product Specifications

SW-NAKS – Single Wall Conical Joining Pipe & Fittings

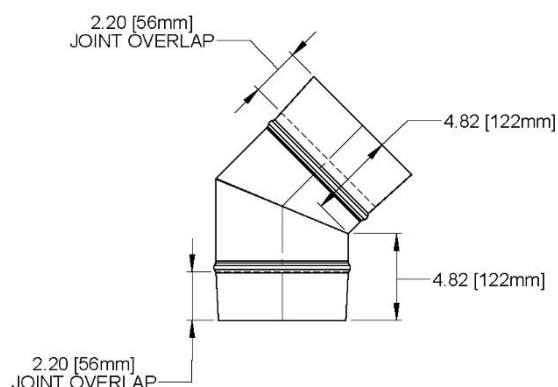
Diameters	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, & 36
Available Lengths	6", 9", 12", 18", 24", 30", 36", 42", & 48" (or any fixed length between)
Available Fittings	Any elbow or tee, over 80 catalog fittings per each diameter
Available Accessories	All-stainless supports, guides, hangers, adapters – over 25 accessories per each diameter

Controlling Dimensions

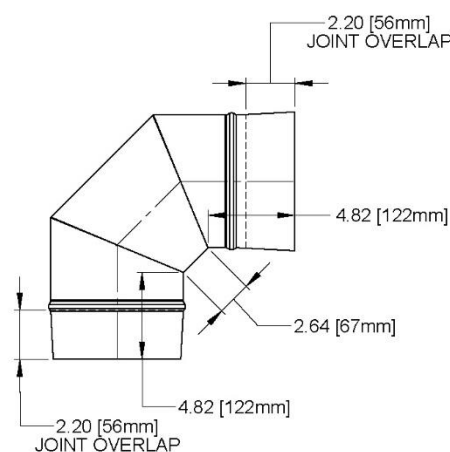
Shows the minimum (and standard) inside gore dimensions for fittings. Use these dimensions when ordering any special or custom part. Jeremias encourages custom built items to provide the best solutions to our customers.



90° TEE



45° ELBOW



90° ELBOW

Technical Data Sheet

Double Walled-Zero Fire Rated Grease Duct

DW-NAKS

Product Line

DW-NAKS UL-2221 Zero Clearance & Fire Rated Grease Duct



Purpose

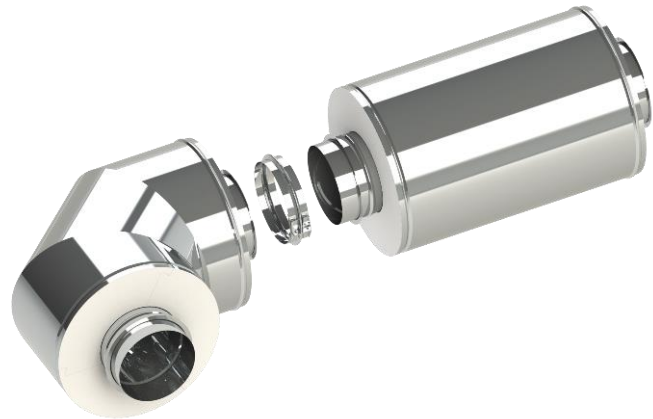
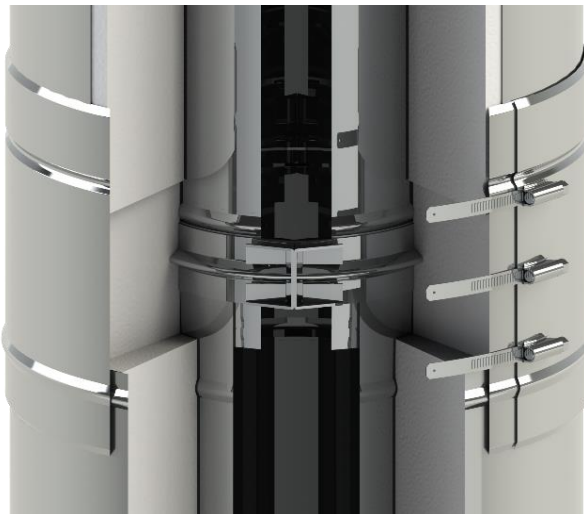
- Provides 2-hour fire rated shaft and zero clearance duct assembly.
- Factory built eliminates welding in the field.
- Factory-Built assurance of finest quality and reliability.
- Factory insulated allows for single trade installation.

Applications

- Stainless steel and factory insulated zero clearance and fire rated duct assembly for Kitchen Ventilation Systems
- Eliminates the need for fire dampers in Kitchen venting applications.

UL Listings (and ULC)

- UL-2221 Standard, Fire Resistive Grease Duct Enclosure Assemblies
- UL-1978 Standard, Grease Duct (ULC-S662 Standard for Factory-Built Grease Ducts)
- 90" W.C. Pressure Listing for all Applications



Materials

- Inner liner made of high-grade ASTM stainless steel.
 - 5" through 36" = 0.035" thick
- 3.25" thick compressed ceramic fiber insulation
- Outer jacket made of ASTM stainless steel
 - 5" through 24" = 0.025" thick
 - 26" through 36" = 0.035" thick
- All supports and accessories are ASTM stainless steel

Connection / Installation Details

- Inner connection is a 1.25" overlapping joint with added 1/2" rolled flange and vee band connection.
- Supplied sealant is used in the vee band to make seal.
- Blanket insulation and outer band completes the joint assembly.

Features

- Extremely rugged made in all-stainless with 25-year warranty.
- Leak proof high-pressure joints.
- Cut length available for maximum field flexibility.
- Smooth flow and known resistance for perfected factory pressure calculations.
- Zero clearance and 2-hour fire rated so it eliminates the requirements for an additional fire rated shaft.

Double Walled-Zero Fire Rated Grease Duct

DW-NAKS

Product Line

DW-NAKS UL-2221 Zero Clearance & Fire Rated Grease Duct



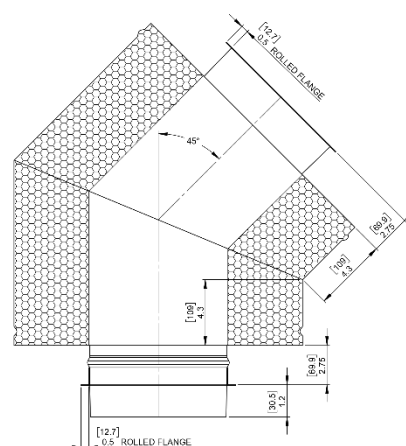
Product Specifications

DW-NAKS – Zero Clearance & Fire Rated Special Gas Vent

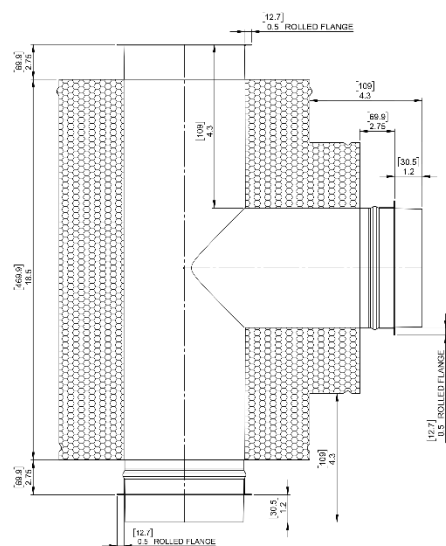
Diameters	5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, & 36
Available Lengths	9", 12", 18", 24", 30", 36", 42", & 48" (or any fixed length between) *Maximum Length for 18" and above is 36"
Available Fittings	Any elbow or tee, over 80 catalog fittings per diameter
Available Accessories	All-stainless supports, guides, hangers, and adapters – over 25 accessories per diameter

Controlling Dimensions

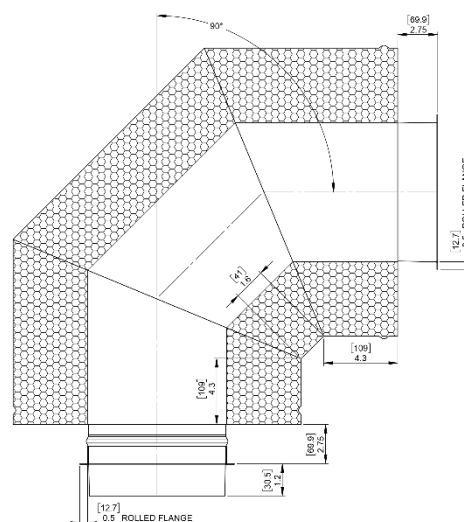
Shown are the minimum (and standard) inside gore dimensions for fittings. Use these dimensions when ordering any special or custom part. NAKS encourages custom built items to provide the best solutions to our customers.



45° ELBOW



90° TEE

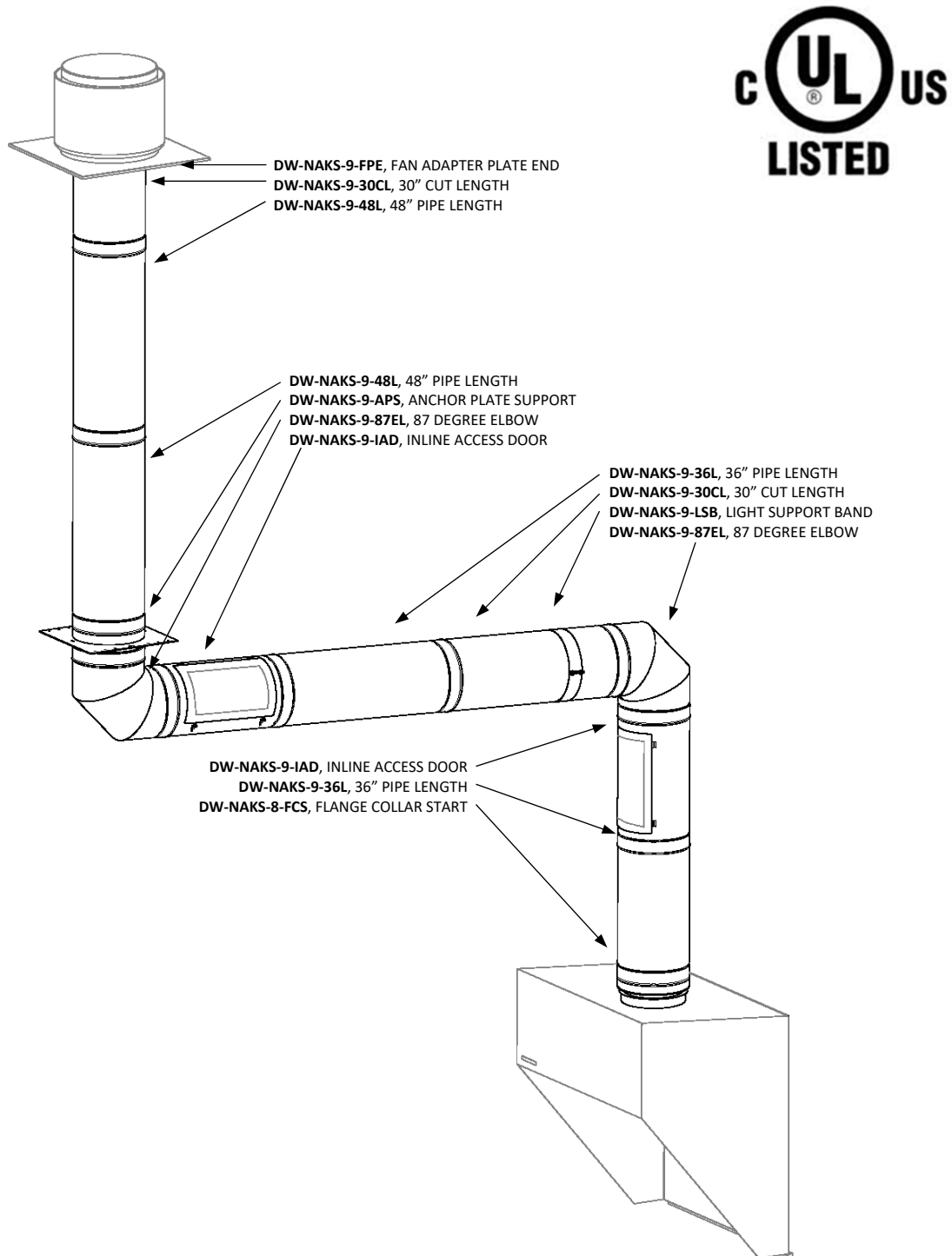


90° ELBOW

SAMPLE SYSTEMS

STAND-ALONE RESTAURANT EXHAUST

9" I.D. Grease Duct from Wall Mounted Type I Hood



SAMPLE SYSTEMS

COMMERCIAL GREASE DUCT

2X 14", INTO 20", 1X 8", INTO COMMON 24" GREASE DUCT

