

Super Hinge™ Spec-Data Document

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1. Product Name

■ SuperHinge™/QuickFit™ SuperHinge

2. Manufacturer

Omni Containment Systems, LLC
1501 Commerce Place
Elgin, Illinois 60123



3. Product Description

Both the patented SuperHinges and patented QuickFit SuperHinges provide access to rooftop upblast fans. Hinged upblast exhaust fans are required for commercial exhaust systems to be NFPA 96 compliant.

The SuperHinge QuickFit mounting system is patented and specific to the QF SuperHinge model. The SuperHinge Service Hold Open Retention System is patented and built into all variations of the SuperHinge Fan Hinge System.

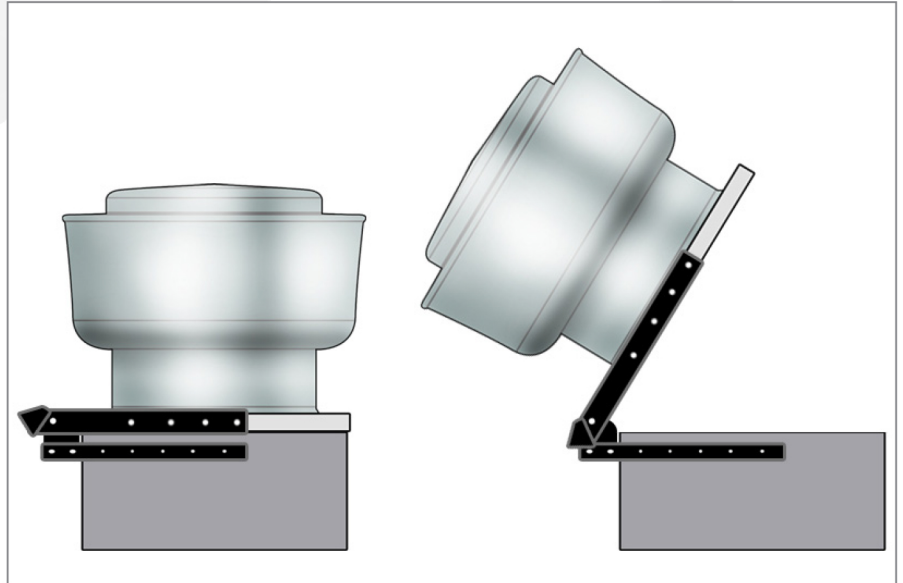
Designed to operate at temperatures of up to 2500 degrees F (1371 degrees C).

Composition and Materials

The SuperHinge/QuickFit SuperHinge framework is made of hot rolled steel and all fasteners and other support pieces are made of Grade 5 stainless steel. The expansion spacers are made of nylon 66.

Benefits

- Allows an exhaust fan system to be NFPA 96-compliant by providing two specific NFPA 96 requirements; providing all other components of the system are compliant and correctly installed:
 - Hinged commercial upblast exhaust fans are required for compliance
 - Service hold-open retainers are required



- **One-person operations:** the SuperHinge/QuickFit SuperHinge allows for single-person opening of an upblast fan
- **Creates a more stable foundation for fan opening:** by providing at least 60 percent coverage for the sides of the fan hinge assembly, the SuperHinge/QuickFit SuperHinge provides a more stable weight distribution during the fan opening
- **Creates a safer working environment:** the SuperHinge/QuickFit SuperHinge by design is safer than all other upblast fan hinges; by distributing weight over a larger area, the fan is safer to open; by having a built-in service hold-open retainer the hinge is self sufficient to remain open during use; by covering over 60 percent of the base foundation, the SuperHinge reinforces the actual foundation of the fan hinge assembly, reducing the opportunity of fan base failure
- **Creates a more secure seal and better airflow:** the SuperHinge/QuickFit SuperHinge by design allocates the weight of the fan during the opening process over 60 percent more area than traditional hinges; by distributing the weight, less flex of the fan foundation occurs during opening, which traditionally causes deformation of the fan seal and allows for air/grease leakage along all 360 degrees of the fan base; SuperHinge eliminates this deformation
- **Reinforces deformed fan seal:** by reinforcing the base of the fan, the SuperHinge can provide added life to a previously deformed fan by reinforcing the fan foundation across more than 60 percent of the area used to provide support during the fan opening process

Types and Sizes

- **Standard SuperHinge:** (18, 24, 30, 36, 42 and 48 inch sizes) has an L-bracket on the top support arm that helps to reinforce damaged upblast fans or support heavy fan weight distribution

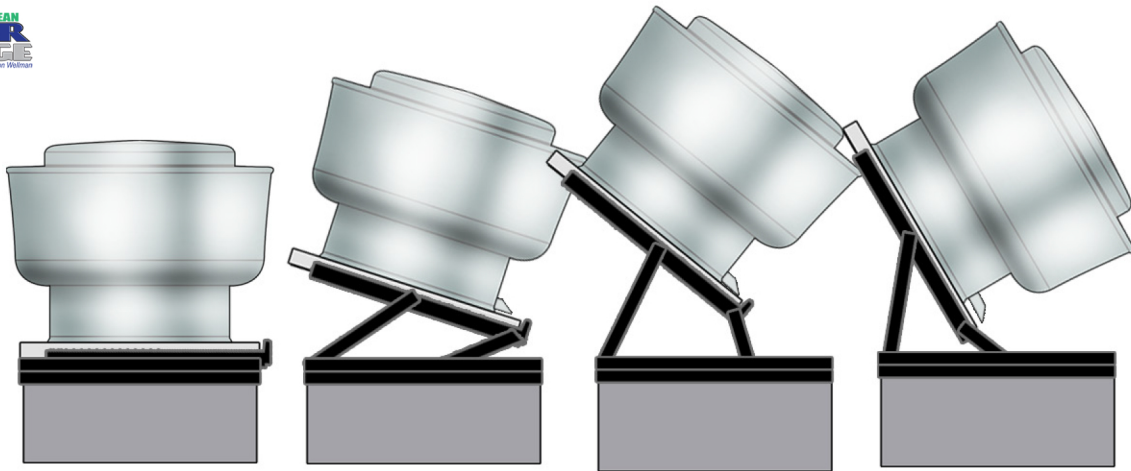
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- **QuickFit SuperHinge:** (12, 18, 24, 30, 36 and 42 inch sizes) has a tab based upper arm mounting system that allows for users to install this version while fan is still running and also allows for single user installations (may be limited due to weight or damage to upblast fan foundation)
- **EZ Clean SuperHinge:** (12–18 inch, 19–28 inch and 29–36 inch sizes) utilizes the QuickFit mounting system and allows for the fan to be opened in such a way that all liquid used to clean the fan during opening is distributed down into the fan base opening, keeping all residual cleaning fluid and dirty materials off the rooftop
- **Econo-SuperHinge:** (10 inch) designed for smaller upblast fans with a total weight of less than 25 pounds, also utilizes the QuickFit Mounting System, and a Service Hold Open Retainer

Colors, Finishes

Powdercoated black is the standard color. Other colors available for special application and require a minimum manufacture of 100 total sets.

Accessories/Options

Chain Kit: provides safety from opening too far. This is an add-on to all hinges less than 30 inches and standard for all hinges 30 inches or greater.

Swivel Application: provides for special mounting of hinges on miss-matched fan applications.

Off-Set Kit: provides for expansion of the foundation of the fan hinge for fans with special mounting requirements.

Upgraded Service Hold-Open Retention Pins: added pins to aid in use of Service Hold-Open Retention System.

Product Limitations

The SuperHinge and QuickFit SuperHinge only have limitations imposed by previous damage to the upblast fan. Use of the SuperHinge/QuickFit SuperHinge should be reviewed using

the manufacturer supplied *Print-n-Fit* document that identifies specific measurements that identify the proper sizing and application of the appropriate SuperHinge/QuickFit SuperHinge.

4. Technical Data

SuperHinge and QuickFit SuperHinge may contribute to the NFPA 96 compliance of a rooftop exhaust fan system. The NFPA 96 standard requires a hinged fan, among other requirements, to be NFPA 96-compliant.

5. Installation

Preparatory work

Completion of the *Print-n-Fit* specification document.

Pre-Installation

Make sure there are no obstructions that will be in the way of the mounting area on the fan or duct such as electric boxes, conduits, brackets, etc. Check to be sure that the power supply conduit is in good condition and has adequate length for the fan to be tilted.

Basic Installation

Please follow manufacturer's specific instructions. Below are general installation instruction. Typical, sidewall, reduced base and mismatched: www.omnicontainment.com/print-n-fit.

1. Turn off the power supply at breaker box. Set The Super Hinge with the curb rests on the same side as the fan spout directly below the fan base with the adjustable mounting bracket (AMB) directly lined up with the edge of the **fan base** on the **spout** side.
2. Once proper alignment has been achieved, slide the quick fit upper arm onto the fan base.
Using the supplied $\frac{5}{16}$ bolts tighten each bolt until it just starts to pinch the fan base.
Save tightening them completely until final step of the install, as both sides **must** be mounted exactly as the other.



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3. Position adjustable mounting bracket as high as it can go without breaking contact seal between the fan base and curb. Make sure that the adjustable mounting bracket is level, then attach it to the curb using the provided self-tapping screws.
 - Determine that fan is making complete contact seal with top of duct AND is square and aligned perfectly
 - Repeat Steps 1–3 for other side.
 - Once complete, tighten all Quick fit upper arm bolts on both sides of fan, making sure each side is mounted exactly as the other.
4. Slowly lift fan through the illustrated tilting motion to insure there is no binding or miscalculation with both sides being installed **exactly** the same as the other. When fan hinge properly moves through the sequence check and re-tighten all fasteners. During the transition, utilize two hands to transition, at the highest point on the fan.

NOTE: never put hands between any of the hinge parts, doing so may result in serious injury, including loss of limb.

6. Availability and Cost

Availability

Standard sizes are always in stock. Please contact manufacturer for lead times on custom engineered models.

Cost

Please contact manufacturer regarding pricing.

7. Warranty

Warranted for the life of the fan if properly sized to 60% of fan base as specified by manufacturer's *Print-n-Fit* document.

8. Maintenance

No maintenance is required.

9. Technical Services

Contact Omni Containment System at 847-468-1772 or email support@omnicontainment.com.

10. Filing Systems

- CMD
- Additional product information is available from the manufacturer upon request ↪

48 inch



36 inch



30 inch



24 inch



18 inch

