

# STACK FAN



# ADVANCED DIRECT DRIVE PLENUM FANS











#### NO APPLICATION IS TOO BIG OR TOO SMALL.

For over 80 years, Lau has earned a reputation for delivering innovative, high-efficiency air-moving products that exceed customer, aftermarket and OEM HVAC industry requirements.

#### www.LauFan.com

937 476 6500

#### Lau

4509 Springfield Street Dayton, Ohio 45431

## STACK FAN

A Stack Fan is a direct drive plenum fan with the flexibility to be used singularly or in parallel so you can construct a multiple fan system to meet the exact performance criteria for your application.

#### **APPLICATIONS**

#### **Systems**

- High performance VAV systems
- Air Handlers
- Rooftop units
- · General supply and return exhaust
- Telecom data centers
- Clean rooms

#### **Commercial Facilities**

- Hospitals & healthcare facilities
- Universities & schools
- Commercial facilities

#### THE STACK FAN ADVANTAGE

Fan redundancy, ensuring the system continues to perform, even with a fan in the array shut off.

Stackable, individual units allow flexibility to meet any design criteria.

Direct drive premium NEMA motor eliminates bearings, belts, and pulleys, reducing maintenance costs significantly.

Motor base optimization eliminates wasteful, costly materials not necessary.

Eliminates all resonance conditions.

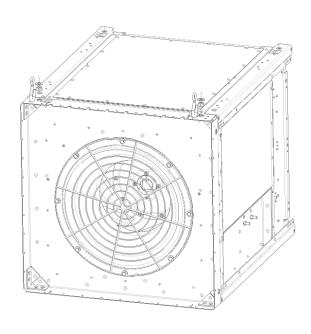
Lau's proprietary balance process improves on currently accepted AMCA specifications by considering the effects of the rotating mass's on the unit as well as the whole, not just the wheel.

Size offerings available for replacement through a standard door opening.

Sound panels enclose the fan and motor to reduce attenuation levels.



### STACK FAN FEATURES





#### ROBOTICALLY WELDED ALUMINUM AIRFOIL WHEEL

Wheels available in 9-blade, 12-blade configurations. Available in wheel widths of 80%, 100% & 120%



## GALVANIZED STEEL FRAME AND BASE

Assembled with high strength fasteners



## INDUSTRY BEST VIBRATION PERFORMANCE

Assembly balanced to G6.3



#### **EASY TO INSTALL**

Integrated lifting points

#### MORE STACK FAN FEATURES

- Available sizes: 10" through 40"
- 9 or 12 blade, aluminum airfoil wheel
- G90 mechanically fastened frame
- Performance: up to 10 in-wg and 76% efficiency



#### LOW MAINTENANCE

Less time, lower costs. No belts, bearings or sheaves & fewer filter replacements.



#### RELIABILITY PERFORMANCE

Fans designed to perform consistently throughout the entire speed range—no resonant conditions in the operating range.

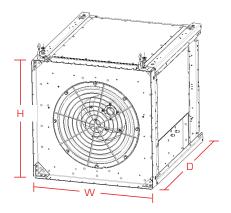


#### SIMPLE, STACKABLE APPLICATION

Simplified application of multiple fans. Multi-fan arrangements reduce airway length and create uniform coil coverage.



## STACK FAN SPECIFICATIONS



\*Cabinet dimension only. Overall length including motor will vary based on motor type, size, and manufacturer.

\*\*Recommended max stacked cubes based on max hp. Higher stacks are possible with smaller hp – contact Lau engineering

STACK FAN DIMENSIONAL DATA					
WHEEL SIZE	HOUSING DIMENSIONS			MAX	MAX MOTOR
	WIDTH (W)	HEIGHT (H)	DEPTH (D)*	STACKED CUBES**	FRAME SIZE
10	20.03	18.79	24.56	4	184T
12	22.66	20.89	25.81	4	184T
13	24.53	22.4	28.06	4	213T
15	26.78	24.2	30.63	3	215T
16	29.03	25.75	35.31	3	254T
18	30.41	30.00	36.77	3	256T
20	33.75	34.00	37.85	3	284T
22	37.41	37.10	39.19	2	284T
25	41.43	41.00	40.57	2	284T
27	44.88	44.88	39.76	2	286T
30	49.25	49.25	44.56	2	326T
33	53.75	53.75	46.91	2	326T
36	59.38	59.38	50.52	2	405T
40	64.75	64.75	51.85	1	405T

#### STACK FAN OPTIONS

#### **PIEZOMETER**

A system for measuring pressure consisting of a pressure taps installed on the inlet cone

#### SHAFT GROUNDING KIT

Diverts stray voltage spikes to ground, extending motor bearing life

#### SPECIAL MOTORS

Lau can install most NEMA rated motors.

#### **INLET DAMPER**

Controls the air-flow to each fan or array

#### **INLET SCREEN**

A safety feature for the intake of the fan

#### **CLOTH WRAP**

Recommended for the cleanroom applications to help reduce in-stream particles

#### OUTLET GUARD

A safety feature for the outlet area insuring no hand penetration into moving parts



## **STACK FAN**

Stack Fan arrays offer maximum performance, reliability and efficiency. The advantages of a proven design multiplied to achieve synergy and security.

#### SMALLER CABINET FOOTPRINT

Stackable, individual units that allow flexibility to meet any design criteria. The Stack Fan unit design is compact and configurable.

#### REDUCED ECOLOGICAL FOOTPRINT

Lau's experienced design engineers and technicians utilize state of the art engineering and laboratory facilities to provide solutions to help meet the needs of the present without compromising the ability of future generations to meet their own needs.

In addition, Lau products are produced in multiple factory locations which ensures optimized logistics and freight cost savings.

#### REDUNDANCY / RELIABLE

Stack Fan's redundancy ensures that the system continues performing, even with a fan in the array shut off

#### REDUCE MAINTENANCE COSTS

The Stack Fan direct drive plenum NEMA motor eliminates bearings, belts and pulleys, thus reducing maintenance costs significantly. Also, motor base optimization eliminates wasteful and costly materials not necessary.



## MOVING AIR FOR OVER 80 YEARS

Lau leads the industry as the largest manufacturer of air-moving components and fan systems in North America for the heating, ventilation, air conditioning and refrigeration industries.

#### **PRECISION**

Each wheel is robotically welded to ensure the best quality and consistency.

#### **CUTTING EDGE TECHNOLOGY**

Our manufacturing facilities are equipped with the latest fabrication equipment.

#### A BALANCED APPROACH

Lau uses state of the art balancing systems which allow us to offer precision balancing grades.

#### PROVEN RESULTS

Lau manufacturing is a foundation of our production philosophies resulting in measurable efficiency in every product.

#### **CERTIFIED PERFORMANCE**

Lau is certified under the ISO9001/2008 standard of performance and we pride ourselves on continuous measurable improvements and accountability.

#### **EFFICIENT SOLUTIONS**

Fans are produced in multiple factory locations which ensures optimized logistics and freight cost savings.



**OUR EXPERTISE, YOUR AIR-MOVING SOLUTION** 

## STACK FAN

For more information visit LauFan.com. Call 937-476-6500

