

# "H" Series Class I & II Frame Blower

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## Product Specification Sheet Number: 305

### Notes:

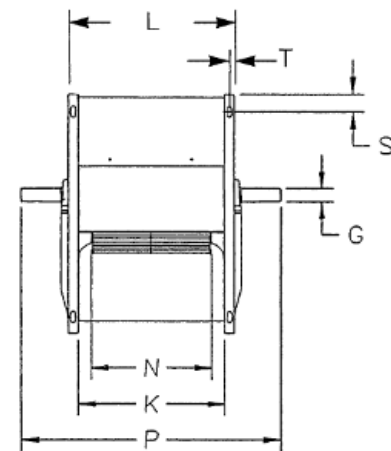
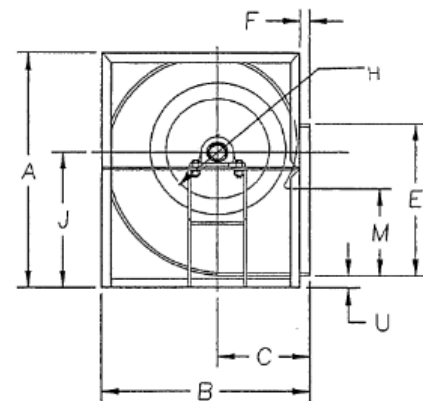
- Shaded areas indicate Lau preferred product. Selections in non-shaded areas and optional features may affect price and availability.
- Product weights may vary with bore size and hub style.
- Solid style hubs type hubs available for most diameters. (Ref. spec sheet #500)
- Clamplok style hubs are available for most diameters. (Ref. spec sheet #500)
- Dimensions shown are for reference only. For certified product dimensions contact Lau Engineering.
- Contact Lau for application assistance
- Outlet Velocity:

$$\text{FPM} = \frac{\text{CFM}}{\text{O. A.}}$$

- For wheel detail information see spec sheet #304.

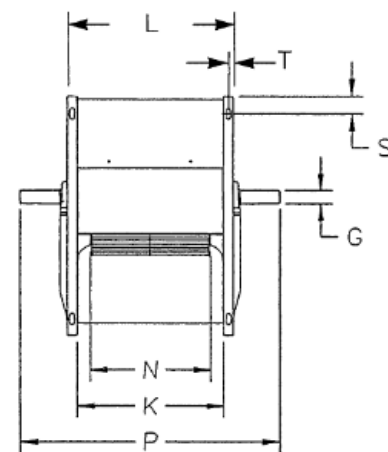
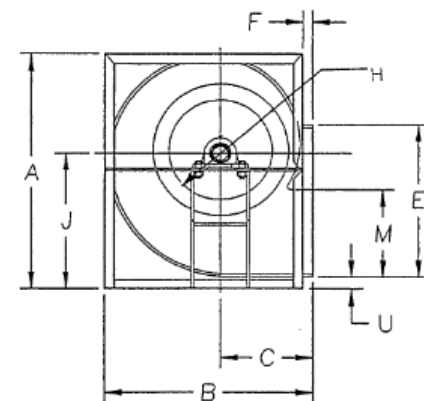
**DIMENSIONS IN INCHES – CLASS I**

| Model   | A     | B     | C     | E     | F    | G    | H     | J     | K     | L     | M     | N     | P     | S    | T    | U    | O.A<br>Sq.Ft | Max<br>RPM | Max<br>HP | Unit<br>Weight | Brag.<br>Rate |
|---------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|--------------|------------|-----------|----------------|---------------|
| A20-15H | 38.00 | 32.75 | 14.44 | 24.75 | 1.50 | 1.44 | 16.25 | 22.53 | 19.75 | 22.75 | 15.00 | 15.69 | 32.25 | 2.50 | 0.75 | 2.00 | 3.34         | 1020       | 12        | 197            | 5759          |
| A20-18H | 38.00 | 32.75 | 14.44 | 24.75 | 1.50 | 1.44 | 16.25 | 22.53 | 22.75 | 25.75 | 15.00 | 18.69 | 35.35 | 2.50 | 0.75 | 2.00 | 3.88         | 1020       | 14        | 206            | 5759          |
| A20-20H | 38.00 | 32.75 | 14.44 | 24.75 | 1.50 | 1.44 | 16.25 | 22.53 | 24.75 | 27.25 | 15.00 | 20.69 | 37.35 | 2.50 | 0.75 | 2.00 | 4.20         | 1010       | 16        | 214            | 5759          |
| A22-15H | 41.50 | 35.75 | 15.69 | 27.25 | 1.50 | 1.44 | 18.06 | 24.59 | 20.25 | 23.35 | 16.75 | 15.81 | 32.75 | 2.50 | 0.75 | 2.00 | 3.78         | 920        | 14        | 219            | 5759          |
| A22-20H | 41.50 | 35.75 | 15.69 | 27.25 | 1.50 | 1.44 | 18.06 | 24.59 | 25.25 | 28.25 | 16.75 | 20.81 | 37.75 | 2.50 | 0.75 | 2.00 | 4.78         | 920        | 18        | 235            | 5759          |
| A22-22H | 41.50 | 35.75 | 15.69 | 27.25 | 1.50 | 1.44 | 18.06 | 24.59 | 27.25 | 30.25 | 16.75 | 22.81 | 39.75 | 2.50 | 0.75 | 2.00 | 5.10         | 930        | 20        | 244            | 5759          |
| A25-20H | 46.75 | 39.88 | 17.25 | 31.25 | 1.50 | 1.69 | 21.31 | 27.66 | 26.25 | 29.25 | 19.50 | 20.94 | 38.50 | 2.50 | 0.75 | 2.00 | 5.64         | 810        | 19        | 284            | 7891          |
| A25-22H | 46.75 | 39.88 | 17.25 | 31.25 | 1.50 | 1.69 | 21.31 | 27.66 | 28.25 | 31.25 | 19.50 | 22.94 | 40.50 | 2.50 | 0.75 | 2.00 | 6.17         | 790        | 20        | 292            | 7891          |
| A25-25H | 46.75 | 39.88 | 17.25 | 31.25 | 1.50 | 1.69 | 21.31 | 27.66 | 31.25 | 34.25 | 19.50 | 25.94 | 43.50 | 2.50 | 0.75 | 2.00 | 6.71         | 790        | 23        | 301            | 7891          |
| A27-20H | 51.50 | 44.19 | 19.12 | 34.25 | 1.50 | 1.69 | 23.94 | 30.28 | 26.75 | 29.75 | 21.88 | 20.94 | 44.75 | 2.50 | 0.75 | 2.00 | 6.29         | 710        | 20        | 356            | 7891          |
| A27-22H | 51.50 | 44.19 | 19.12 | 34.25 | 1.50 | 1.69 | 23.94 | 30.28 | 28.75 | 31.75 | 21.88 | 22.94 | 46.75 | 2.50 | 0.75 | 2.00 | 6.84         | 720        | 21        | 364            | 7891          |
| A27-25H | 51.50 | 44.19 | 19.12 | 34.25 | 1.50 | 1.69 | 23.94 | 30.28 | 31.75 | 34.75 | 21.88 | 25.94 | 49.75 | 2.50 | 0.75 | 2.00 | 7.55         | 710        | 23        | 377            | 7891          |
| A27-27H | 51.50 | 44.19 | 19.12 | 34.25 | 1.50 | 1.69 | 23.94 | 30.28 | 34.25 | 37.25 | 21.88 | 28.44 | 52.25 | 2.50 | 0.75 | 2.00 | 8.07         | 690        | 26        | 390            | 7891          |
| A30-22H | 55.50 | 47.38 | 20.31 | 36.75 | 1.50 | 1.69 | 26.38 | 32.59 | 28.75 | 31.75 | 23.75 | 22.94 | 46.25 | 2.50 | 0.75 | 2.00 | 7.26         | 660        | 23        | 396            | 7891          |
| A30-25H | 55.50 | 47.38 | 20.31 | 36.75 | 1.50 | 1.69 | 26.38 | 32.59 | 31.75 | 34.75 | 23.75 | 25.94 | 49.25 | 2.50 | 0.75 | 2.00 | 8.10         | 650        | 25        | 409            | 7891          |
| A30-27H | 55.50 | 47.38 | 20.31 | 36.75 | 1.50 | 1.69 | 26.38 | 32.59 | 34.25 | 37.25 | 23.75 | 28.44 | 51.75 | 2.50 | 0.75 | 2.00 | 8.66         | 640        | 27        | 421            | 7891          |
| A30-30H | 55.50 | 47.38 | 20.31 | 36.75 | 1.50 | 1.69 | 26.38 | 32.59 | 36.75 | 39.75 | 23.75 | 30.94 | 54.25 | 2.50 | 0.75 | 2.00 | 9.30         | 650        | 29        | 433            | 7891          |
| A33-27H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 29.38 | 34.25 | 34.25 | 38.25 | 25.62 | 28.50 | 51.75 | 2.50 | 1.00 | 2.00 | 10.21        | 580        | 33        | 557            | 9755          |
| A33-33H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 29.38 | 34.25 | 39.75 | 43.75 | 25.62 | 34.00 | 57.25 | 2.50 | 1.00 | 2.00 | 12.05        | 600        | 40        | 586            | 9755          |
| A36-27H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 32.00 | 34.25 | 34.25 | 38.25 | 25.62 | 29.00 | 51.75 | 2.50 | 1.00 | 2.00 | 10.21        | 550        | 33        | 574            | 9755          |
| A36-30H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 32.00 | 34.25 | 36.75 | 40.75 | 25.62 | 31.50 | 54.25 | 2.50 | 1.00 | 2.00 | 10.88        | 560        | 36        | 588            | 9755          |
| A36-36H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 32.00 | 34.25 | 42.75 | 46.75 | 25.62 | 37.50 | 60.25 | 2.50 | 1.00 | 2.00 | 12.80        | 560        | 43        | 622            | 9755          |



**DIMENSIONS IN INCHES – CLASS II**

| Model   | A     | B     | C     | E     | F    | G    | H     | J     | K     | L     | M     | N     | P     | S    | T    | U    | O.A<br>Sq.Ft | Max<br>RPM | Max<br>HP | Unit<br>Weight | Brag.<br>Rate |
|---------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|--------------|------------|-----------|----------------|---------------|
| A20-15H | 38.00 | 32.75 | 14.44 | 24.75 | 1.50 | 1.44 | 16.25 | 22.53 | 19.75 | 22.75 | 15.00 | 15.69 | 32.25 | 2.50 | 0.75 | 2.00 | 3.34         | 1300       | 25        | 231            | 7891          |
| A20-18H | 38.00 | 32.75 | 14.44 | 24.75 | 1.50 | 1.44 | 16.25 | 22.53 | 22.75 | 25.75 | 15.00 | 18.69 | 35.35 | 2.50 | 0.75 | 2.00 | 3.88         | 1303       | 30        | 231            | 7891          |
| A20-20H | 38.00 | 32.75 | 14.44 | 24.75 | 1.50 | 1.44 | 16.25 | 22.53 | 24.75 | 27.25 | 15.00 | 20.69 | 37.25 | 2.50 | 0.75 | 2.00 | 4.20         | 1281       | 30        | 239            | 7891          |
| A22-15H | 41.50 | 35.75 | 15.69 | 27.25 | 1.50 | 1.44 | 18.06 | 24.59 | 20.25 | 23.35 | 16.75 | 15.81 | 32.75 | 2.50 | 0.75 | 2.00 | 3.78         | 1166       | 25        | 265            | 9755          |
| A22-20H | 41.50 | 35.75 | 15.69 | 27.25 | 1.50 | 1.44 | 18.06 | 24.59 | 25.25 | 28.25 | 16.75 | 20.81 | 37.75 | 2.50 | 0.75 | 2.00 | 4.78         | 1172       | 35        | 284            | 9755          |
| A22-22H | 41.50 | 35.75 | 15.69 | 27.25 | 1.50 | 1.44 | 18.06 | 24.59 | 27.25 | 30.25 | 16.75 | 22.81 | 39.75 | 2.50 | 0.75 | 2.00 | 5.10         | 1178       | 40        | 294            | 9755          |
| A25-20H | 46.75 | 39.88 | 17.25 | 31.25 | 1.50 | 1.69 | 21.31 | 27.66 | 26.25 | 29.25 | 19.50 | 20.94 | 40.25 | 2.50 | 0.75 | 2.00 | 5.64         | 1032       | 40        | 344            | 11791         |
| A25-22H | 46.75 | 39.88 | 17.25 | 31.25 | 1.50 | 1.69 | 21.31 | 27.66 | 28.25 | 31.25 | 19.50 | 22.94 | 42.50 | 2.50 | 0.75 | 2.00 | 6.17         | 1013       | 40        | 354            | 11791         |
| A25-25H | 46.75 | 39.88 | 17.25 | 31.25 | 1.50 | 1.69 | 21.31 | 27.66 | 31.25 | 34.25 | 19.50 | 25.94 | 45.50 | 2.50 | 0.75 | 2.00 | 6.71         | 1011       | 50        | 366            | 11791         |
| A27-20H | 51.50 | 44.19 | 19.12 | 34.25 | 1.50 | 1.69 | 23.94 | 30.28 | 26.75 | 29.75 | 21.88 | 20.94 | 46.75 | 2.50 | 0.75 | 2.00 | 6.29         | 912        | 40        | 403            | 11791         |
| A27-22H | 51.50 | 44.19 | 19.12 | 34.25 | 1.50 | 1.69 | 23.94 | 30.28 | 28.75 | 31.75 | 21.88 | 22.94 | 48.75 | 2.50 | 0.75 | 2.00 | 6.84         | 919        | 50        | 413            | 11791         |
| A27-25H | 51.50 | 44.19 | 19.12 | 34.25 | 1.50 | 1.69 | 23.94 | 30.28 | 31.75 | 34.75 | 21.88 | 25.94 | 51.75 | 2.50 | 0.75 | 2.00 | 7.55         | 910        | 50        | 428            | 11791         |
| A27-27H | 51.50 | 44.19 | 19.12 | 34.25 | 1.50 | 1.69 | 23.94 | 30.28 | 34.25 | 37.25 | 21.88 | 28.44 | 54.25 | 2.50 | 0.75 | 2.00 | 8.07         | 910        | 50        | 442            | 11791         |
| A30-22H | 55.50 | 47.38 | 20.31 | 36.75 | 1.50 | 1.69 | 26.38 | 32.59 | 28.75 | 31.75 | 23.75 | 22.94 | 48.25 | 2.50 | 0.75 | 2.00 | 7.26         | 846        | 50        | 481            | 13995         |
| A30-25H | 55.50 | 47.38 | 20.31 | 36.75 | 1.50 | 1.69 | 26.38 | 32.59 | 31.75 | 34.75 | 23.75 | 25.94 | 51.25 | 2.50 | 0.75 | 2.00 | 8.10         | 839        | 60        | 498            | 13995         |
| A30-27H | 55.50 | 47.38 | 20.31 | 36.75 | 1.50 | 1.69 | 26.38 | 32.59 | 34.25 | 37.25 | 23.75 | 28.44 | 53.75 | 2.50 | 0.75 | 2.00 | 8.66         | 831        | 60        | 512            | 13995         |
| A30-30H | 55.50 | 47.38 | 20.31 | 36.75 | 1.50 | 1.69 | 26.38 | 32.59 | 36.75 | 39.75 | 23.75 | 30.94 | 56.25 | 2.50 | 0.75 | 2.00 | 9.30         | 835        | 60        | 526            | 13995         |
| A33-27H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 29.38 | 34.25 | 34.25 | 38.25 | 25.62 | 28.50 | 53.75 | 2.50 | 1.00 | 2.00 | 10.21        | 761        | 75        | 621            | 13995         |
| A33-33H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 29.38 | 34.25 | 39.75 | 43.75 | 25.62 | 34.00 | 59.25 | 2.50 | 1.00 | 2.00 | 12.05        | 763        | 100       | 653            | 13995         |
| A36-27H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 32.00 | 34.25 | 34.25 | 38.25 | 25.62 | 29.00 | 53.75 | 2.50 | 1.00 | 2.00 | 10.21        | 721        | 75        | 638            | 13995         |
| A36-30H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 32.00 | 34.25 | 36.75 | 40.75 | 25.62 | 31.50 | 56.25 | 2.50 | 1.00 | 2.00 | 10.88        | 712        | 75        | 651            | 13995         |
| A36-36H | 59.75 | 53.75 | 24.59 | 42.94 | 1.50 | 2.19 | 32.00 | 34.25 | 42.75 | 46.75 | 25.62 | 37.50 | 62.25 | 2.50 | 1.00 | 2.00 | 12.80        | 715        | 100       | 691            | 13995         |



## **"H" SERIES CLASS I & II FRAME BLOWER SELECTION:**

There are a number of factors that need to be considered for specification of the proper "H" Series Class I & II Blower for your application. The following procedures outline the factors that need to be considered in the selection process.

### **PERFORMANCE:**

Using the multispeed catalog or ELEMENT selection software performance curves for the "A" Series Class I & II Frame Blower, select the diameter and width that provide the performance required. The selection should be made in the efficient operating range shown on the curves. From the curves determine the speed and brake horsepower required for the application. Also, note whether the performance falls within the Class I or Class II limits shown on the curve. In no case should the point of operation exceed the maximum RPM and/or maximum horsepower of the component shown in the table below. The brake horsepower shown on the performance curves does not include drive losses. Add the drive loss to the brake horsepower required by the blower to determine the motor horsepower required.

### **BEARING LIFE:**

The bearings provided on Lau "H" Series Class I and Class II blowers are Self-aligning pillow block with cast iron bearing housings. The anticipated bearing life can be estimated for a given blower model by first determining the load on the bearings. These loads are based on specific application criteria (i.e.: blower speed and horsepower). Other factors which have an impact on bearing load are blower component shaft weight, wheel weight, blower pulley weight, relative position of these components and the angle through which the estimated belt pull is acting on the drive bearing.

Using the appropriate equation and guidelines of the Anti-Friction Bearing Manufacturer's Association (A.F.B.M.A.) and the determined bearing loading an estimate of the bearing life ( $L_{10}$  or  $L_{50}$ ) can be obtained.

### **ACCESSORIES:**

Various discharge and motor mounting arrangements are possible using the optional housing supports and motor mounting brackets shown below. Accessory maximum H.P. limits must not be exceeded. (Spec Sheet #600).

### **TEMPERATURE:**

The Blower air inlet temperature should not exceed 82°C (180°F). Contact Lau regarding operation at higher temperatures.

### **FEATURES:**

#### **BALANCE:**

Lau "H" Series Class I & II Blowers are statically and dynamically balanced in accordance with 2011 ARI Guideline G and ANSI S2.19

#### **FINISH:**

Lau's "H" Series Class I & II Blowers are finished with medium grey enamel paint. Contact Lau for other finishes.

**ADJUSTABLE MOTOR BASE:**

See "Special Products and Accessories" (Spec. Sheet #600) of catalog for information on adjustable motor base.

**ASSISTANCE:**

Please feel free to contact Lau for assistance in selecting "H" Series Class I & II Blowers.

