

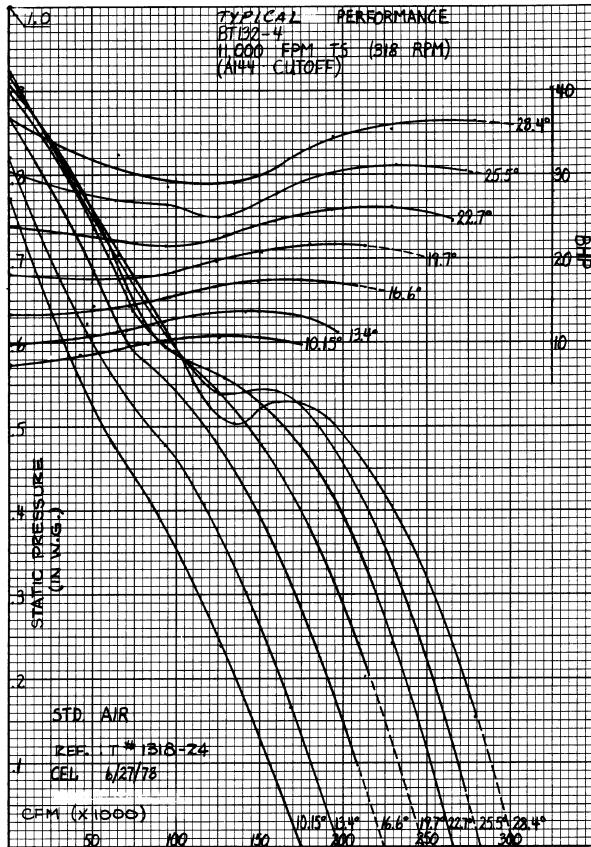
Construction Features:

- Airfoil Section** – Blades are alloy #319 aluminum, sand cast, ground to satin finish for balance.
- Sizes** – 72" - 144", 4-blade and 6-blade assemblies.
- Hub** – Cast aluminum with self-contained blade housing threaded to accept the blades. The 144" size fan has welded steel hub.
- Taper Lock Bushing** – Standard on all sizes.
- Manual Adjustments** – Blades have threaded shanks, which screw into threaded aluminum hub sockets. The blade angle can be easily effected by loosening the hub bolts at each blade socket and rotating blade. Angle change on 144" steel hub can be effected by loosening blade clamps at each blade and rotating blade.
- Balance** – Blades are statically balanced against a master. Hub is dynamically balanced.
- Maximum Tip Speed** – 15,000 FPM.

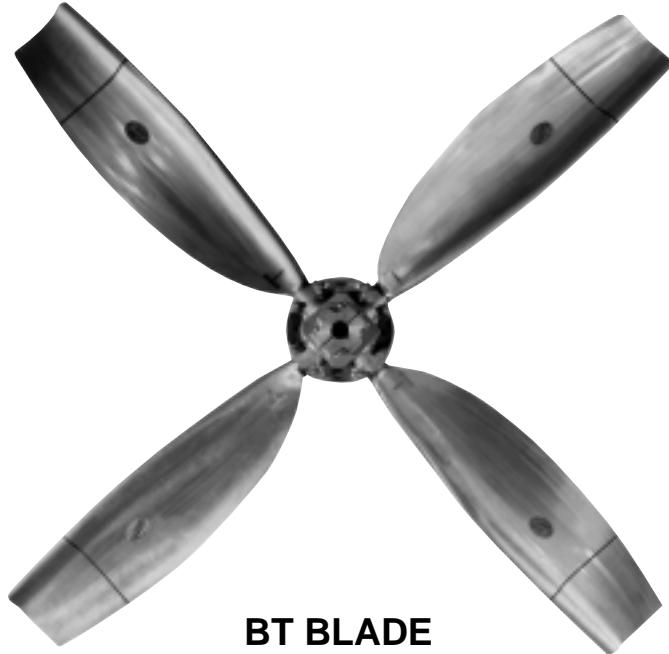
Performance:

- Air Flow** – Increased efficiency at higher pressure.
- Air Volume** – 50,000 to 400,000 CFM at free air.
- Static Pressure** – Efficient operation ranges from free air through 1.0" W.G.
- Fan Efficiency** – Hartzell Series 92 adjustable pitch fans can reach a maximum total efficiency of 75%. Average efficiency for design is 65%.
- Testing Method** – Fans are tested for sound and air ratings in Hartzell's Research and Development Center in accordance with industry standards.

Typical Fan Performance Curve



Series 92 Aluminum Adjustable Pitch Fan Assembly



BT BLADE

Special Design Features:

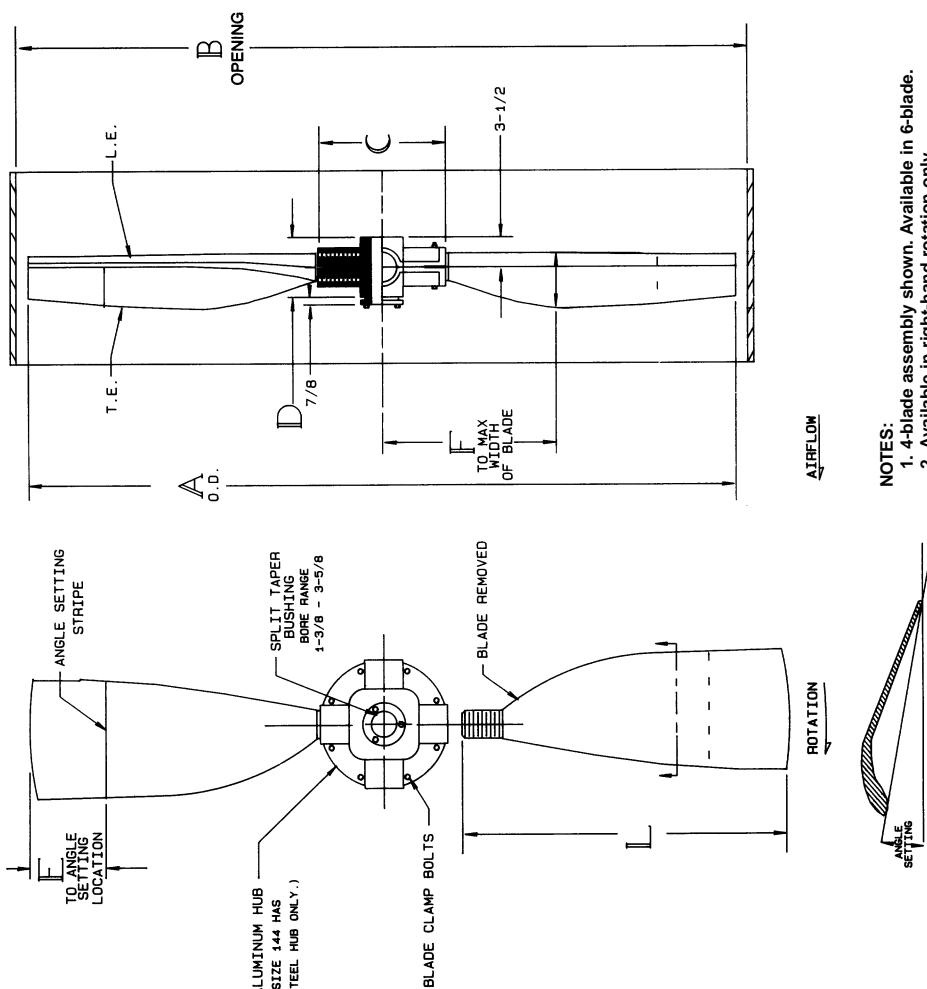
- Stable Performance** – Wide range in flow volume from medium to high blade angle settings.
- Standard Rotation** – All sizes are available in right-hand rotation only.
- Maximum Temperature** – 200°F. High temperature construction available – Maximum 350°F.
- Coatings** – Special coatings for application of Hartzell blades in corrosive atmospheres are available in a wide variety which include, but are not limited to, epoxy, bitumastic and inorganic zinc. Hard coat anodized blades are available for increased corrosion and abrasion resistance.
- Shipment** – Series 92 fans are shipped knocked down as standard.
- CONTACT YOUR LOCAL HARTZELL REPRESENTATIVE FOR ASSISTANCE. CALL 1-800-336-3267.**

Fan Performance Curves and Complete Sound Data are Available Upon Request

Principal Dimensions

Fan Size	72	84	96	108	120	132	144
A	72	84	96	108	120	132	144
B	73	85 $\frac{1}{4}$	97 $\frac{1}{4}$	109 $\frac{1}{4}$	121 $\frac{1}{4}$	133 $\frac{1}{4}$	146
C	11 $\frac{1}{2}$	15	15	15	15	25	25
D	7	7	7	7	7	4	4
E	6	At Tip	At Tip	6	12	18	19
F	24 $\frac{1}{8}$	37 $\frac{1}{8}$	37 $\frac{1}{8}$	37 $\frac{1}{8}$	37 $\frac{1}{8}$	32	32
L	33 $\frac{3}{16}$	38 $\frac{1}{2}$	44 $\frac{1}{2}$	50 $\frac{1}{2}$	56 $\frac{1}{2}$	62 $\frac{1}{2}$	63 $\frac{1}{2}$
Blade Patt.	998	1690	1691	1692	1693	1002	1897
Blade Wgt.	(4) 13	28	34	36	38	42	61
Hub Wgt.	(4) 28	53	53	53	53	165	165
Blade	30 $\frac{1}{4}$	54	54	54	54	186	186
Blade	108 $\frac{1}{4}$	222	258	270	282	306	552
Bolt	1 $\frac{1}{2}$ -13 x 4	1 $\frac{1}{2}$ -13 x 5					
Assy. Wgt.	(4) 80	165	189	197	205	221	409
WR ² Lb.	(4) 152	415	549	709	901	1109	2547
Ft. ²	(6) 218	611	813	1053	1341	1653	3789

Dimensions and specifications are subject to change.
Certified prints are available.



NOTES:
1. 4-blade assembly shown. Available in 6-blade.
2. Available in right-hand rotation only.

SAFETY ACCESSORIES, APPLICATION AND USE WARNING

The safe application and use of equipment supplied by Hartzell Fan, Inc. is the responsibility of the installer, the user, the owner, and the employer. Since the application and use of its equipment can vary greatly, Hartzell Fan, Inc. offers various product types, optional safety accessories, and sound performance data per laboratory tests. Hartzell Fan, Inc. sells its equipment with and without safety accessories, and accordingly, it can supply such safety accessories only upon receipt of an order. The need for safety accessories will frequently depend upon the type of system, fan location and operating procedures being employed. The proper protective safety accessories to meet company standards, local codes, and the requirements of the Occupational Safety and Health Act must be determined by the user since safety requirements vary depending on the location and use of the equipment. If applicable local conditions, standards, codes or OSHA rules require the addition of the safety accessories, the user should specify and obtain the required safety accessories from Hartzell Fan, Inc. and should not allow the operation of the equipment without them.

Owners, employers, users and installers should read "RECOMMENDED SAFETY PRACTICES FOR USERS AND INSTALLERS OF INDUSTRIAL AND COMMERCIAL FANS" published by the Air Movement Control Association, Inc., 30 West University Drive, Arlington Heights, Illinois 6004. A copy of this publication is enclosed with each fan shipped from Hartzell Fan, Inc., and is available upon request at Hartzell's office in Piqua, Ohio 45366.

Please contact Hartzell Fan, Inc. or your local Hartzell representative for more information on product types, safety accessories, and sound performance estimates. Remember, the selection of safety accessories and the safe application and use of equipment supplied by Hartzell Fan, Inc. is your responsibility.

Hartzell SERIES 92