

MULTI-BLADE FANS TYPE HP-4 & HP-6

DUMMY COPY
Diameter – 8.536m & 10m
8 Blades

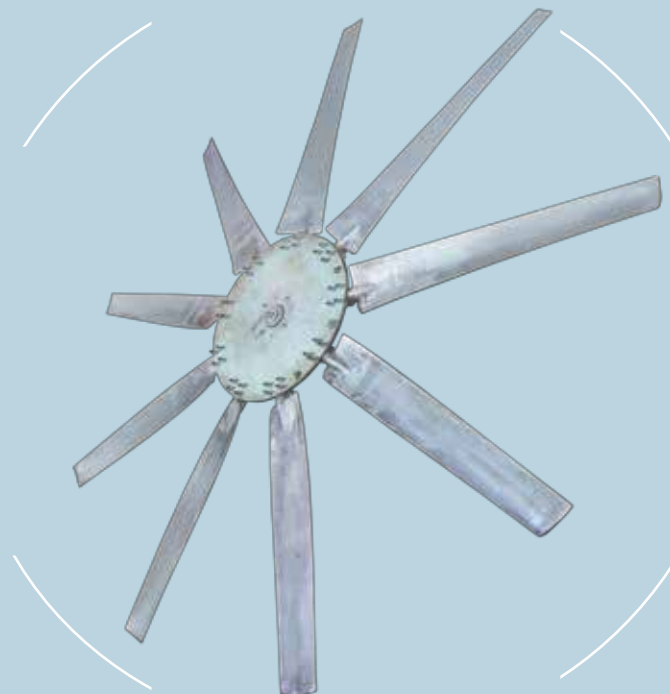


Your Full-Service
Cooling Technologies Company
www.paharpur.com

PRECISION-MANUFACTURED FAN BLADES

PAHARPUR LEADS

Each fan blade is factory balanced and precisely measured & matched with accompanying blades before shipping.



Paharpur designs and produces its own fan blades – these are factory **balanced, tested, measured and matched** to ensure stable operation, high reliability, longevity and operating economy in the rough conditions of the cooling tower.

Precision and uniformity in manufacturing helps significantly improve operating economy by giving better control over fan speed and power consumption

Precision manufacturing ensures reliable operation:

When it comes to fan efficiency, every millimetre matters – uniform blade-tip clearance, balancing, weight, width and pitch are of critical importance. Paharpur manufactures every blade specifically for every order to ensure uniformity among all fan blades supplied. This attention to detail and insistence on precision allows us to improve operating economy and ensure reliable performance.

Maximum customisation:

Paharpur has more than 00 fan diameters to choose from, under 00 fan types. Further, we can provide you with 00 types of fan hubs. This variety in material of construction, radius and design helps Paharpur provide the right combination for your

cooling tower – giving Paharpur a truly unmatched advantage while sizing your cooling tower. With maximum prospects for customisation, Paharpur can supply your with an industry-leading solution.

Corrosion resistance enhances service life:

Glass reinforced fibreglass construction ensures that the fan blade perform reliably over many years in the moist and turbulent conditions present in the cooling tower.

Statically balanced fans ensure dependability:

Every fan blade supplied is statically-balanced at Paharpur's facility to ensure uniform weight distribution – this helps ensure the integrity of your cooling tower, saves fan power and helps maintain the reliability of your cooling operation.

Variable-pitch provides control over power consumption:

Paharpur gives you control over your cooling tower's power consumption by providing variable pitch blades for all fans. Control power consumption with varying heat load and wet bulb temperatures.

Single-piece construction for high structural integrity:

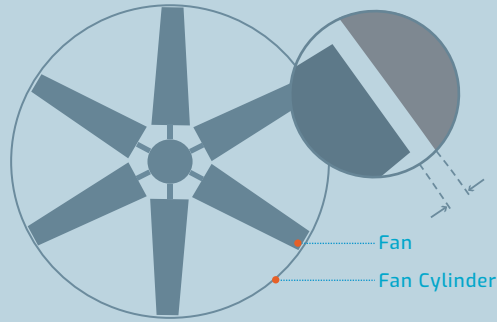
All Paharpur manufactured fan blades are made as single pieces; this helps maintain the structural integrity of the fan as joints can come under severe mechanical stress in rotating equipment. Single-piece construction means that you do not have to worry about the leading edge of the blade coming off during operation and cause damage to your equipment.

BLADE-TIP CLEARANCE

PRECISION MANUFACTURING ENSURES RELIABLE PERFORMANCE

UNIFORM BLADE-TIP-CLEARANCE

UNIFORM RADIUS OF ALL BLADES



MINIMUM BLADE-TIP CLEARANCE

The clearance between the blade-tip and cylinder is minimum for optimum utilisation of fan power.

Type H-3-8 fans of 84" and 96" diameters, with standard bores, are available for immediate shipment. Special assemblies of other diameters from 73" to 95" and/or with special bores are produced on order. The eight aluminium blades are of twisted and tapered air foil

design, precision cast in permanent moulds. The shank is machined with a safety shoulder and is protected with glass reinforced Versamid epoxy resins to prevent corrosion. Blade clamp is hot dip galvanized steel. Attachment hardware is stainless steel. The hub is a

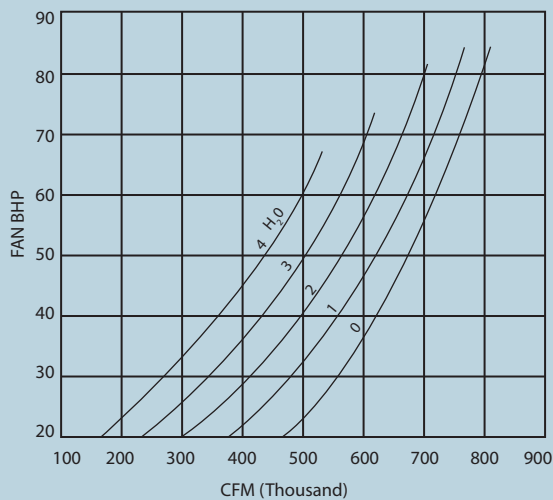
ductile iron casting, hot dip galvanized after fabrication. Hubs are machined with a groove to accept the blade shank safety shoulder to accurately position the blade radially. Hubs are webbed between spokes to prevent air recirculation. Balance weights, as required, are

Paharpur is constantly improving, perfecting and refining our thermal sizing to suit your need.

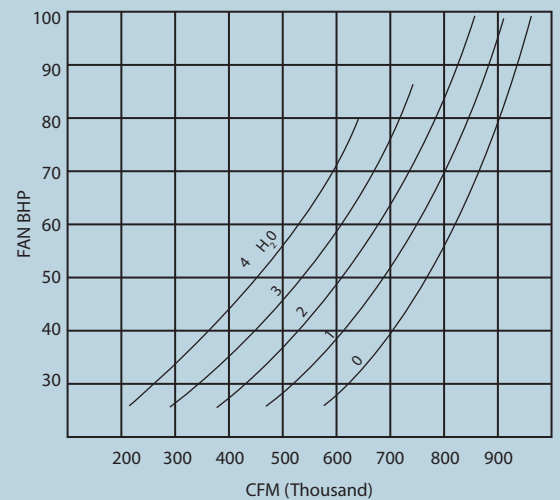
FAN PERFORMANCE DATA

The CFM shown is standard air : .075 lbs. per cubic foot equivalent to 70o dry air at sea level. Curves are based on model tests, simulating AMCA procedures. The test cylinder was eased inlet with close tip clearance. Tip clearance, fan cylinder and system characteristics can cause variation from the curve shown alongside.

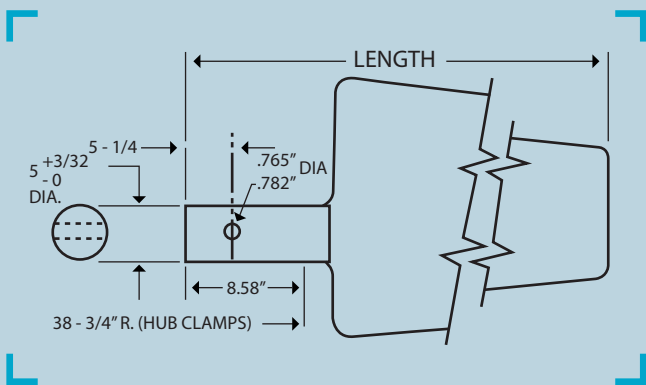
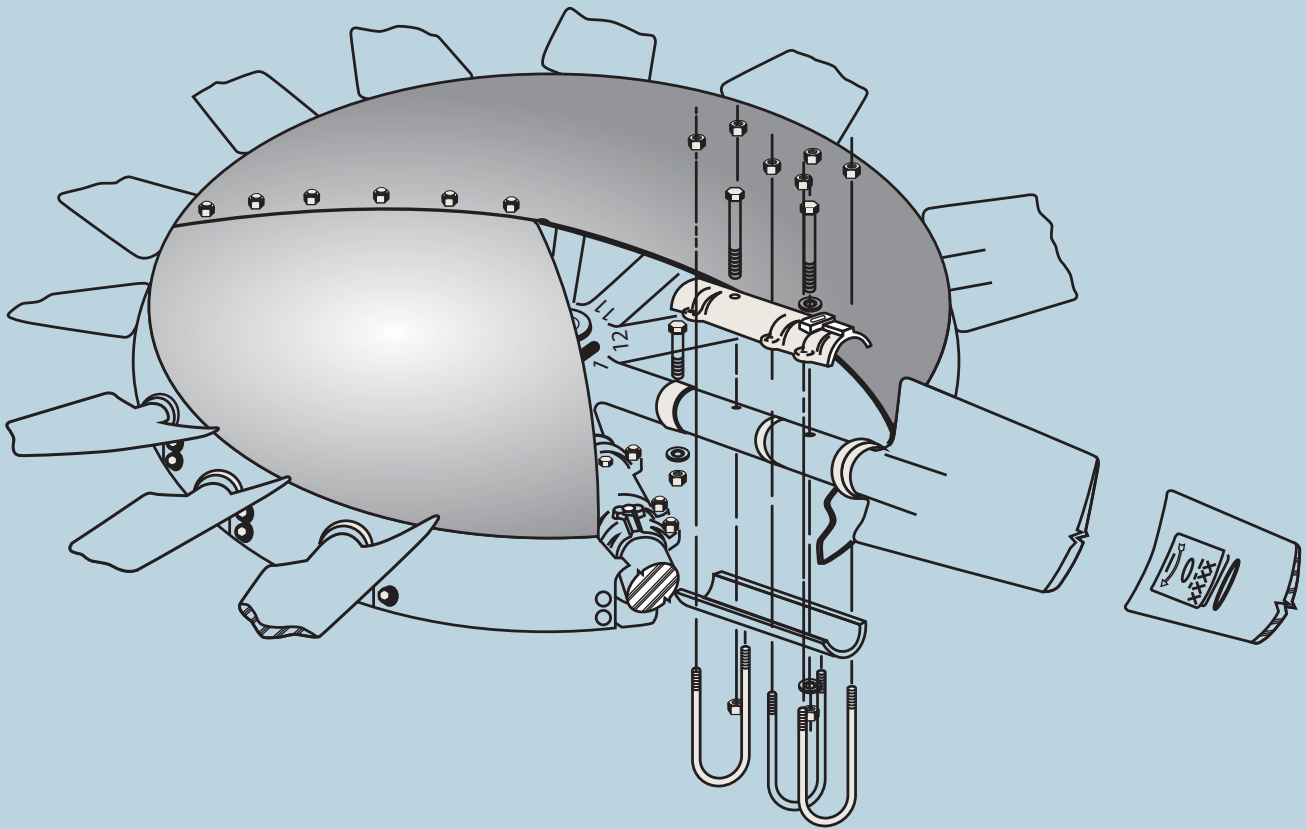
240" DIAMETER FAN
8 BLADES



264" DIAMETER FAN
8 BLADES



Fibre Glass Nacelle Hub Cover and Blade Seal



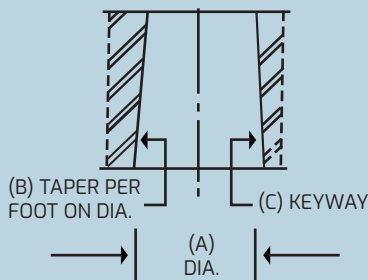
Width and thickness of standard blades for this fan decrease from inboard end to tip of blade as follows:

| FAN DIA. | APPROX WIDTH | | MAXIMUM THICKNESS | |
|----------|--------------|--------|-------------------|----------|
| | MAX. | MIN. | INBOARD | OUTBOARD |
| 240" | 15 1/2" | 9 3/4" | 1 3/8" | 11/16" |
| 264" | 15 1/2" | 9 5/8" | 1 3/8" | 11/16" |



Your Full-Service
Cooling Technologies Company
www.paharpur.com

STANDARD CROSS SECTION SHOWING HUB, HUB COVER AND BLADE DIMENSIONS

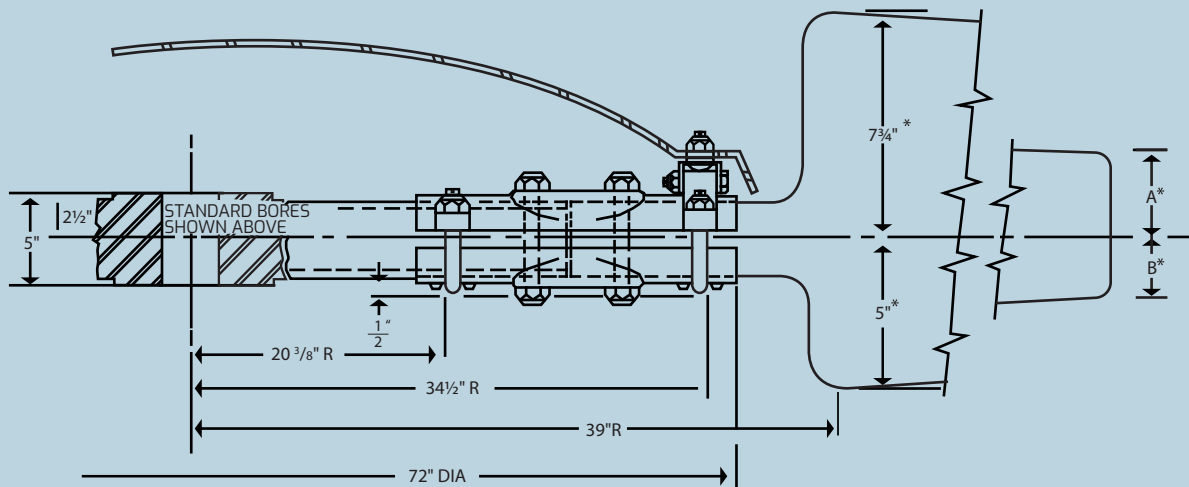


| STANDARD HUBS | | |
|----------------|----------------|-----------|
| A | B | C |
| DIA. | TAPER | KEYWAY |
| 4.537 4.541 | .500 .502 | 1/2 x 1 |
| 3.705 3.710 | 1.750 1.752 | 3/8 x 3/4 |
| 4.412 4.422 | 3.500 3.502 | 1/2 x 1 |

HUB COVER AND BLADE DIMENSIONS

| FAN DIA. | A* | B* |
|----------|--------|--------|
| 240" | 3-1/8" | 1-5/8" |
| 264" | 3" | 1-1/2" |

*Dimensions of blade above and below fan centre line at maximum pitch of 510 on pitching boss.



| DIA. | NO. OF BLADES | BLADE LENGTH | MAX. RPM | MAX. TIP SPEED FPM | MAX. STR. BORE | APPROX. WT. EACH BLADE | APPROX. WT. HUB | APPROX. TOTAL WT. | RADIAL TIP CLEARANCE | |
|------|---------------|--------------|----------|--------------------|----------------|------------------------|-----------------|-------------------|----------------------|--------|
| | | | | | | | | | MIN.* | MAX. |
| 240" | 8 | 92.81" | 201 | 12,630 | 4 3/16" | 93 LBS. | 575 LBS. | 1445 LBS. | 1/2" | 1 1/8" |
| 264" | 8 | 104.81" | 201 | 13,900 | 4" | 98 LBS. | 575 LBS. | 1485 LBS. | 1/2" | 1 1/4" |

Speed Range to Avoid : 240", 130 to 146 RPM. • 264", 137 to 153 RPM.

*Minimum clearance at tip of trailing edge.

PAHARPUR LEADS

PAHARPUR COOLING TOWERS LTD.

Paharpur House
8/1/B Diamond Harbour Road
Kolkata 700027, India
Ph : +91 33 4013 3000
Fax : +91 33 4013 3499
pctccu@paharpur.com



Your Full-Service
Cooling Technologies Company
www.paharpur.com



INDIAN SALES OFFICES

CHENNAI

2G, Vishwapriya Apartment –
3rd floor, Kasthuribhai Nagar,
1st Cross Street, Adyar
Chennai 600020
Ph : +91-44-2490 0275
+91-44-2490 3109
Fax : +91-44-2490 3117
E-Mail : pctmaa@paharpur.com

BENGALURU

Paharpur House
41 Cunningham Road Cross
Bangalore 560052
Ph : +91-80-2226 5566-7
+91-80-2234 1911
Fax : +91-80-2225 3999
E-Mail : pctblr@paharpur.com

HYDERABAD

3rd Floor, "The Grand"
6-3-1090/B/4, Raj Bhavan Road
Somajiguda
Hyderabad 500082
Ph : +91-40-2331 7081-3
Fax : +91-40-2331 7081
E-Mail : pcthyd@paharpur.com

MUMBAI

506 Navkar Chambers, 5th Floor
'B'Wing, Andheri-Kurla Road
Andheri (East)
Mumbai 400059
Phone : +91-22-4043 2432
+91-22-2859 5924-26
Fax : +91-22-2851 4913
E-Mail : pctbom@paharpur.com

NEW DELHI

806 Ashoka Estate
24 Barakhamba Road
New Delhi 110001
Ph : +91-11-2335 7846-50
+91-11-2331 0826
Fax : +91-11-2335 7851
E-Mail : pctdel@paharpur.com

VADODARA

Plot No. 132 KV-I
Manjusar-Savli GIDC
Ta. : Savli, Dist. : Vadodara 391775
Gujarat
Ph : +91-2667- 264331-32
Fax : +91-2667-264333
E-Mail : pctbdq@paharpur.com

INTERNATIONAL SALES OFFICES

Lugano, Switzerland
Izmir, Turkey
Beijing, China
Seoul, South Korea
Denver / Bridgewater/
Overland Park, USA

Brussels, Belgium
Stabio, Switzerland
Varese, Italy
Madrid, Spain
Lagos, Nigeria
Mexico City, Mexico

An ISO 9001:2015,
ISO 14001:2015 &
OSHAS 18001:2007
certified company

www.paharpur.com

PAHARPUR LEADS

Disclaimer:

Paharpur's policy of continued improvement may necessitate data to be changed without notice. For the latest information, please contact Paharpur.