



■ CAPABILITY PROFILE · MANUFACTURING & QUALITY · AUGUST 2026

Manufacturing & Quality — inside the JEE plant, design through despatch.

Custom-engineered centrifugal fans & blowers, made to order and tested in-house — design, fabrication, paint, balance, performance test and despatch under one ISO 9001:2015 system.

15,000+

FANS COMMISSIONED

45,000+ sq.ft

BUILT-UP AREA

6

WELDING STATIONS

200 HP

VFD TEST RIG



Two MIDC works units — one integrated flow

Ahilyanagar 2 units

MIDC, MAHARASHTRA

PLOTS B-20/2 & N-7

45,000+ sq.ft Since 2011

BUILT-UP WORKS AREA

PURPOSE-BUILT FAN PLANT

Everything under one roof

Design office, stores, plate cutting, rolling & forming, six welding bays, machining, blast & paint, balancing, performance test and despatch — on one campus.

Made to order

Each fan engineered and computed to your stated duty point, then fabricated, balanced and tested before it leaves the floor.

One quality system

A single ISO 9001:2015 system governs both units — same WPS, same inspection discipline, same traceability, end to end.

Integrated process flow: receiving → stores → cutting → rolling & forming → welding → machining → blast & paint → dynamic balancing → performance test → despatch.

From plate to scroll — CNC-controlled

CNC fiber laser

Sheet and plate cut on a CNC fiber laser — up to 20 mm 20 mm mild steel and 12 mm stainless. Clean edges, edges, tight nesting, repeatable profiles.

3-roll plate rolling

Three-roll plate rolling forms scrolls, cones and casings casings to fixed radii using dedicated templates and and formers.

Press brake & shear

Press brake with an assorted V-die set for flanges and brackets; mechanical shear for thin-plate straight cuts.

CNC fiber laser cutting

20 mm max MS · 12 mm max SS · CNC-nested for material yield.

3-roll plate rolling

Scrolls, cones and casing sections rolled to fixed radius with templates.

Press brake — V-die set

Flanges, gussets and bracketry formed to drawing on an assorted die set.

Mechanical shear

Straight thin-plate cuts; gas cutting reserved for heavy sections.

■ WELDING

Six stations, qualified to code

- Six welding stations — SMAW, GMAW, FCAW and GTAW processes.
- Welders qualified to ASME IX / ISO 9606-1; re-tested annually.
- WPS / PQR maintained per joint type and material before production.
- 100% visual + dye-penetrant (DP) on every critical weld.
- Welder stamp on each weld — full traceability to the operator.
- Acceptance to ISO 5817 Level B on critical joints.



PROCESSES

SMAW

GMAW

FCAW

GTAW

MATERIALS QUALIFIED

CS

SS 304/316/L

Hardox

Cor-ten

Measured at every stage

Sa 2½ blast

ABRASIVE BLAST

Surface profile prepared to Sa 2½ in a dedicated blast booth, separate from fabrication.

Epoxy zinc primer

PRIMER · 60–80 M

Zinc-rich epoxy primer for corrosion protection; DFT verified before build coat.

Epoxy build coat

MID · 100–150 M

Epoxy build coat for film thickness and barrier, applied in a ventilated booth.

PU / acrylic top

TOP · 50–75 M

PU or acrylic finish coat; customer-specific specific RAL / Munsell shade on request.

DFT (dry film thickness) measured at every stage — minimum 5 readings per m². Each despatched fan carries a painting certificate recording the system and measured DFTs.

Every wheel balanced and reported

ISO 21940

BALANCE STANDARD

G6.3

INDUSTRIAL GRADE

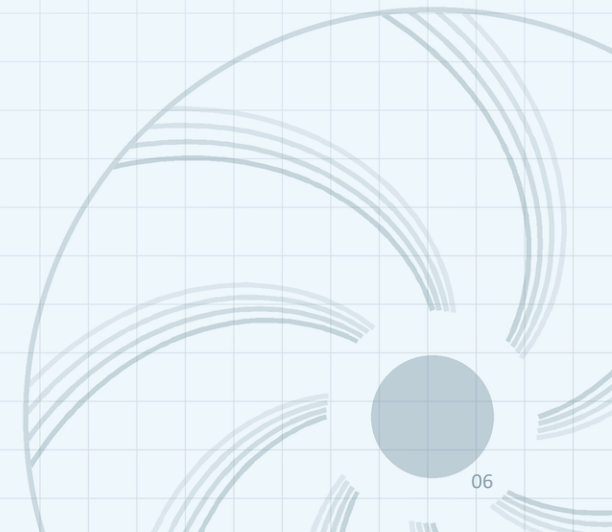
G2.5

ON REQUEST (PRECISION)

1,500 mm

MAX WHEEL DIAMETER

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- Vertical and horizontal dynamic balancing machines; single- and two-plane balancing.
 - Standard balance grade ISO 21940 G6.3; G2.5 precision grade available on request.
 - Rotors up to 1,500 kg and 1,500 mm impeller diameter accommodated on the machines.
 - Trim weights welded on by a qualified welder — never glued or bolted.
 - Balance report with machine printout filed for every wheel; result stamped on the impeller.
 - Balancing machines calibrated annually.



Caught in-process, traced to source

DP — dye penetrant

Surface-breaking flaw detection on critical welds; in-welds; in-house kit, every critical joint.

MPI — magnetic particle

Ferrous weld and casting inspection where the QAP calls for it.

UT — ultrasonic

Volumetric weld and thickness checks via in-house capability and approved partners.

RT — radiography

Radiographic testing on critical joints through approved approved partner labs.

Inward inspection

Every receipt checked — MTC verified against BOM; dimensional check on critical lots.

Material traceability

Tag from receipt through cutting, welding and assembly; nameplate carries the lot reference.

DP and MPI run in-house on every applicable critical weld; UT and RT are delivered through a mix of in-house capability and approved partner labs, per the project quality plan. Material history is reconstructable from despatch back to the mill certificate.

Tested to method, on a 200 HP rig

- 200 HP VFD-driven rig — variable speed across the operating range.
- Tested to the AMCA 210 / IS 4894 method in our own lab.
- Flow by orifice / venturi / pitot; static pressure by transducer.
- Five points per test — maps the curve, not just the duty point.
- Computerised Performance Test Report issued for every fan.
- Customer / third-party (TPI) witness testing welcome (FAT).



200 HP VFD test rig — five-point performance run

Method note: performance is tested to the AMCA 210 / IS 4894 method in our own lab. Jitamitra is not an AMCA member and the fans are not AMCA-certified — the test rig and procedure follow the published method; fans rated above the rig's 200 HP are run at derated speed and scaled to the specified duty by the fan laws, and the Performance Test Report states the conditions in full.

The system, the numbers, the limits

Quality KPIs (live tracking · ERP statistics)	
On-time delivery (OTD)	95%
Complaint resolution	100%
NCR rate (units)	2.0%
CAPA closure (median)	14 days
Field warranty (mfr.)	1.4%

CAPABILITY ENVELOPE

2,25,000

CMH MAX FLOW

2,000

MMWC MAX PRESSURE

425 HP

MAX DRIVE

500 °C

MAX GAS TEMP

Governed by an ISO 9001:2015 quality system — quality manual, internal audit, quarterly management review, NCR / CAPA discipline. CE & ATEX are self-declared for Zone 2/22 builds. Quality is engineered into the fan, not inspected into it.

Design through despatch — the real floor



Integrated shop floor — bays under EOT cranes



CNC fiber laser — 20 mm MS / 12 mm SS



Coded welding — six stations, ASME IX



Blast & paint — DFT checked at every stage



200 HP test rig — AMCA 210 / IS 4894 method



In-process QC — DP/MPI in-house, full traceability



■ THE CAPABILITY, IN ONE LINE

One integrated plant — design, fabrication, paint, balance and in-house performance test — under a single ISO 9001:2015 quality system, with 15,000+ fans behind it.

“Every fan is cut, welded, balanced and tested under one roof — and the test report tells you exactly how it ran before it ever reached your site.”

Plant tours arranged for serious evaluators — contact us to schedule a visit or a witnessed FAT.

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