MDC Capability Overview

MAHAVIR

Manufacturing Your Ideas



VISION

To become a preferred source for engineered components.

MISSION

To provide quality products on time and delighting our customers

OUR VALUES

A - Can do Attitude

L - Loyalty

T - Team Work

O - Output





CONTENTS OF PRESENTATION

01

Supplier Introduction,
Customer/ Product Details
& Certifications

02

Organization Structure

03

Infrastructure & Process Flow



HISTORY AND OVERVIEW

1984-Mahavir Starts Operations 1991-Reincorporated as Pvt. Ltd. 2004-New Plant for Exports with Machining & Painting Setup 2009-ISO/TS 16949

2014–15–2nd & 3rd Plant &Technical Partnership with Hongxiang Mould Manufacturing co 2017–4th Plant + Corporate Office 2018–Trading Division Launched & IATF Certification

2023—5th Plant Land planned.



OVERVIEW

4 Manufacturing Locations

~327 Cr Turnover (40.87 Mill US\$)

950 Employee

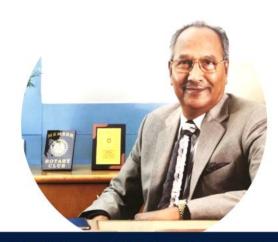
2 Wheeler Business – 65%

4 Wheeler & Other Businesses – 25%

Export Business - 10%



PROMOTERS



Shri Shanti Lal Jain - Chairman

A First generation entrepreneur, Mr. Jain is an Electrical Engineer and built the foundation on which the group stands today. With strong business principles and dynamic working style, he has guided the group to the peak it stands today. He has a keen eye for talent and technology which has helped the company become a nationally known aluminum die casting manufacturing company.



Mr. Manekk Jain - Managing Director

Manekk is a Mechanical Engineer and MBA who took over the legacy and worked to strengthen the existing business with improved business systems and successfully built 3 new state of the art manufacturing facilities and diversified the business into Trading and distribution. He is a strong proponent for teamwork and decentralized working which has allowed the business to grow from regional to now national

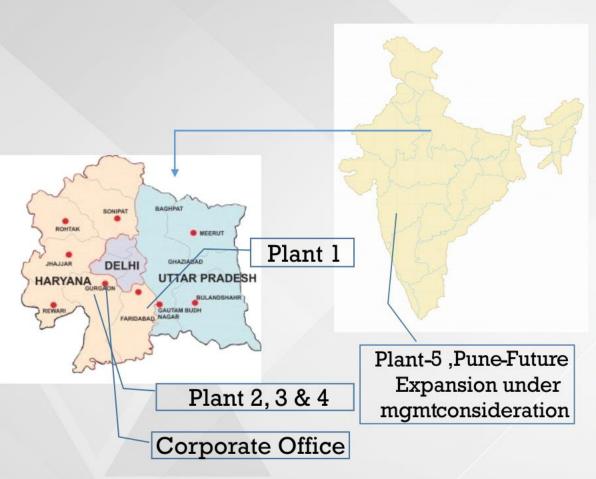


Mr. Karan Gupta - Jt Managing Director

Karan Gupta is an entrepreneur focused on leading the aluminum die casting industry. With over 18 years of successful and diversified experience in American business, he is dedicated to innovation, quality, and integrity. Karan aims to deliver exceptional products and maintain professionalism in all departments. His mission is to set new standards in aluminum die casting through continuous improvement and ethical practices.



MANUFACTURING LOCATIONS





PLANT - 1 Faridabad (since 1984) (HPDC, Mc Shop, Paint Shop)



PLANT - 2, Manesar (since 2014) (Paint ,M/C Shop & Assembly)



PLANT 3-, Manesar (since 2015) (HPDC & Machine Shop)



PLANT-4 ,Manesar (since 2017) (For Expansion)



PRODUCTS

2 Wheeler Components

Cylinder Block



Motorcycle Crankcase



Scooter Crankcase Cover



Rear Grip



2 Wheeler Components

Brake Panel



Rider Pillion



Step Plate



Brake Hub (Front & Rear)





PRODUCTS

4 Wheeler Components

4 Wheeler Components

4 Wheeler Components

EV & Non Auto

Armature 1



Restrictor Bracket



Mounting Bracket



Battery Housing



Armature D Shape



Mounting Bracket



Mounting Bracket



Battery Housing



Timing Cover



Compressor Bracket



Mounting Bracket



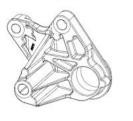
Heat Sink



Timing Gear Case



Mount



Engine Mount



EV Structural





OUR VALUED CUSTOMERS

DIRECT SUPPLY-As Tier 1































INDIRECT SUPPLY (Through Tier I)











GROUPE









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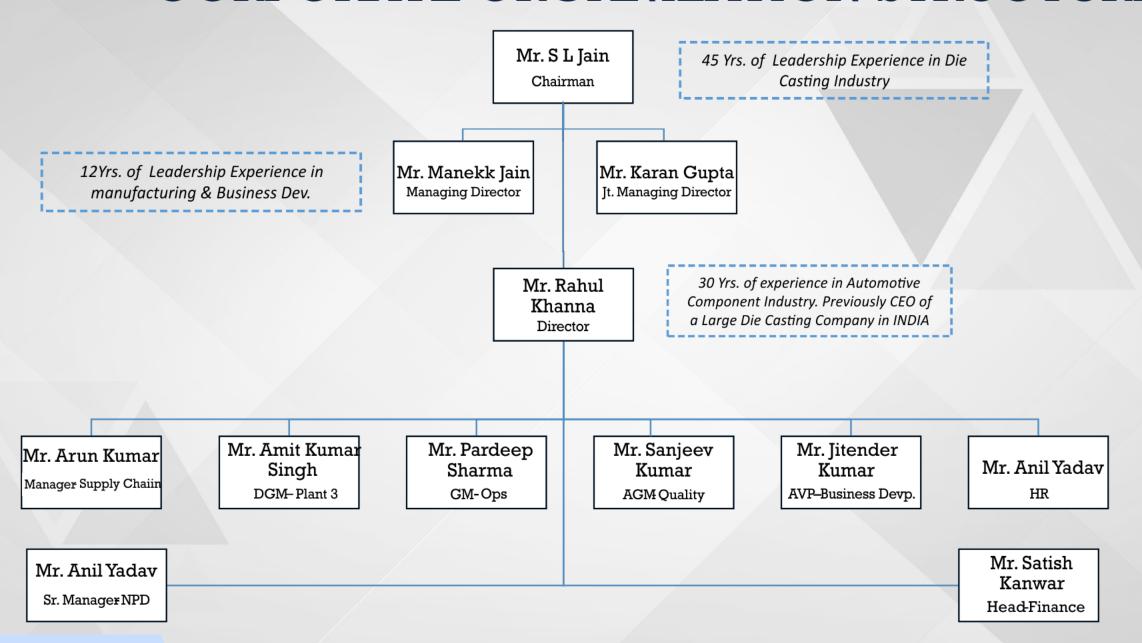
Organization Structure

03

Infrastructure & Process Flow

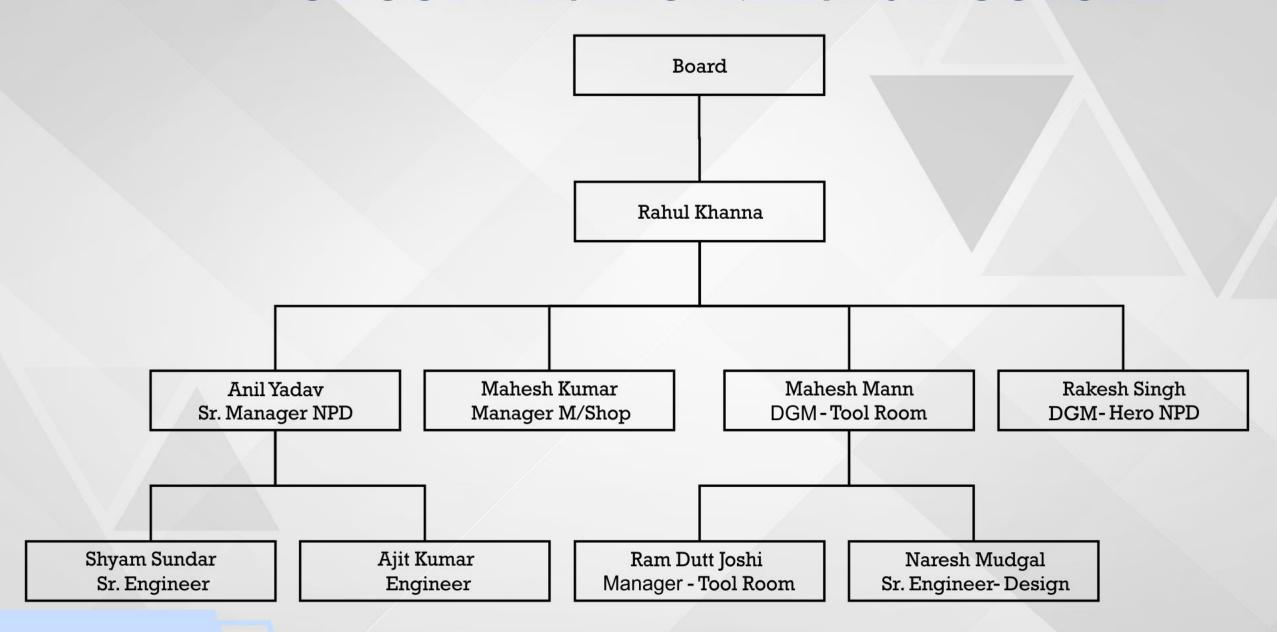


CORPORATE ORGANIZATION STRUCTURE





PRODUCT DEVELOPMENT STRUCTURE





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DESIGN CENTER AND TOOL ROOM

Design & Tool Room Capability

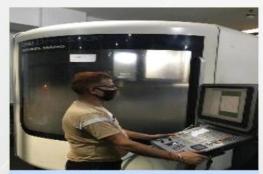
- Total Strength-50 People
- Mr. Rakesh 24 Yrs. Experience
- Mr. NareshMudgil 23 Yrs. Experience
- Centralized Tool Room
- Tool Making Capacity 120 Tools/Year.
- Design Stations
- Unigraphics-NX-10-CAD-02 Seats
- Ideas NX 6.3-01 Seat
 Auto CAD 01 Seat
- CATIA Version 2024
- Simulations By JAS, MAGMA
- CNC Mc's (Deckel Maho-German Make)
- EDMs(Bed Size-1000x750x750)
 Can Manufacture tool up to 900Ton
- Wire Cut Mc's (Makino Japan Make)
- Technical Partnership with Hongxiang China.



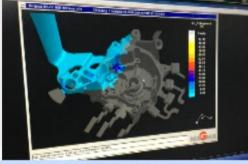
In House Design



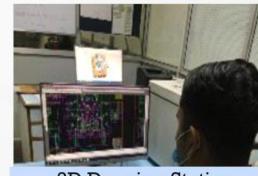
EDM



Dackel Maho Machining Centre



Simulation



2D Drawing Station



Conventional Machine

Total Capacity	Current Orders
10 Tools	7~8 Tools
per	per
month	month



LAB AND TESTING EQUIPMENTS

- X Ray
- VMM
- CMM (1 nos. Carl Zeiss & 2 COORD)
- UTM
- Spectrometer
- Hardness Tester
- Hook Test
- Bend Test
- Contour Zeiss





MACHINERY AND EQUIPMENT

Plant	Die Casting	Machining Centre	Painting
Plant 1	23 (LK, YUZUMI, ZITAI, UBE) (250T–900T)	51 (Brother,Deckel Maho, AMS, Makino)	2
Plant 2	0	0	1 (Rdevis)
Plant 3	13 (LK, YUZUMI) (400T-900T)	8 (AMS,TONGTAI, HASS)	0
Plant 4	0	12 (Brother , AMS, BFW)	0
TOTAL	36	71	3

Casting Range

250 T-3 nos.

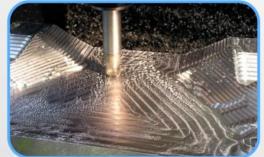
400 T-15 nos.

650 T-12 nos.

900 T-6 nos.

TOTAL-36











Raw Material

Die Casting

Trimming

Machining

Buffing

Vibro / Shot Blasting

Cleaning

Painting

Final Inspection

Raw Material in Molten Form





100% Molten metal used in production < Optimum RM Control, Reduced Rejection>



Temperature checked for each molten < Range 720~750 Degree Centigrade>



Chemical composition checked for each molten < 100% composition Control>



100% Runner & Riser sent for renelting <Better Ratio Control>



Raw Material

Die Casting

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Final Inspection





Fully Automatic Close
Loop Machine
< No Human interface>



Online Process Parameter Record & Control < M/c alarm if out of range>



Conveyor with Air
Cooling
< Right Temperature part
for Trimming>



Poka Yokéor holding Furnace Temp. <680~720 Degree>

Total 36 Die
Casting M/c
(250 Ton ~ 900
Ton) with
Automation &
Poke Yoke Control
System



Raw Material

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FettlingBy Trimming
<Gate & Parting Line
Removal in Single
Stroke>

Segmented trimming tool used <Localized Correction Saves Time >

Online Shot Trimming with segmented tool



Raw Material

Die Casting

Trimming

Machining

Buffing

Vibro / Shot Blasting

Cleaning

Painting

Final Inspection

Machine Shop



Turn Mill Centers

Honing





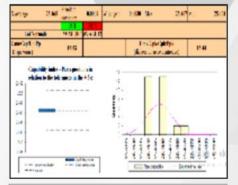
4-Axis VMC-Brother Japan



Spindle Run -Out <Checking Frequency Once in week>



Gauging < 100 % Check Up>



Process Capability On Line < Cple >1.67 >

PART NAME	S.No.	DIM	DIM CTQ	FREQUENCY
HUB COMP FR. KZNA	1	DRUM DIA.	Ø 130+0.3	180
	2	RUN OUT PAD FACE	0.05	180
	3	DIA.	Ø 32-0.025 / - 0.05	180
	4	PCD	172±0.1	180

Control Parameters <Cpk Monitoring Frequency 6 Month > With Automation & Poke Yoke Control System



Raw Material

Die Casting

Trimming

Machining

Buffing

Painting

Final Inspection

Paint Shop With SCADA Control





10 Step Spray Type PT < Chromate free, low chemical contamination



Automated Fire Control
<Automatic Co2 Discharge in
case of fire>



Additional Pressurized
Chamber
<Dust Prevention>



Separate Paint Kitchen <Controlled Paint Mixing & Quick Changeover of Color>

Conveyrised Paint Shop With 2m/min. Speed



Raw Material

Die Casting

Trimming

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Buffing

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Final Inspection

Painting Sequences



Painting Sequence

Step 1. Paint Spray Left to Right movement

Step 2. Paint Spray Right to Left movement

Step 3. Paint Spray
Top to Bottom
movement

Step 4. Paint Spray
Bottom to Top
movement

Step 5. Check coverage of area of the part



Water Fall Screen
<Water screen to prevent dust
& paint fumes in booths>



Electrostatic Guns <Effective Paint Coverage>



Auto-Control Panel <Conveyer Stop in Case Of Burnet trip & Temp out spec as required 148-150°C>



Humidity & Temp Control < Temp spec+2532°C Humidity+55-75 % RH>



Raw Material Die Casting

Trimming

Machining

Buffing

Painting

Final Inspection







Dedicated Q GATE for each station < To ensure Zero defect outflow to next station>

Online Inspection <To ensure zero defect outflow to ≥ext station

Q-GATE AT ALL STAGES





Raw Material

Die Casting

Trimming

Machining

Buffing

Painting

Final Inspection

Visual WI (SOP)



Customer Complaint Summary

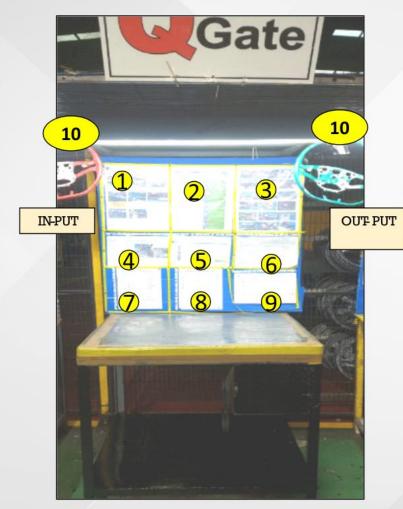


Defect Matrix Sheet



Quality Alert







Lux Level Monitoring



Inspector Code List

Cpove	INSPECTOR	CODE L	ISI
S.NO.	INSPECTOR NAME	NIAIRIN	STORM! NO
1	RAJESH	VISUAL	98
2	KATERNAK	VISUAL	27
- 4	VIKRAM	VISUAL	147
4	MANGE	SCANNING	112
5	NANJAY	SCANNING	57
	MMMGH2	GAUGING	
,	PRODEED	145,11047404	
- 3	TAUMEED	GAUGING	

Daily Inspection Summary



Daily Inspection Summary





Limit Sample

MDC Ensuring Quality
Parts Dispatch To
Customer

Fixed Inspector (As Per Skill Chart)

4

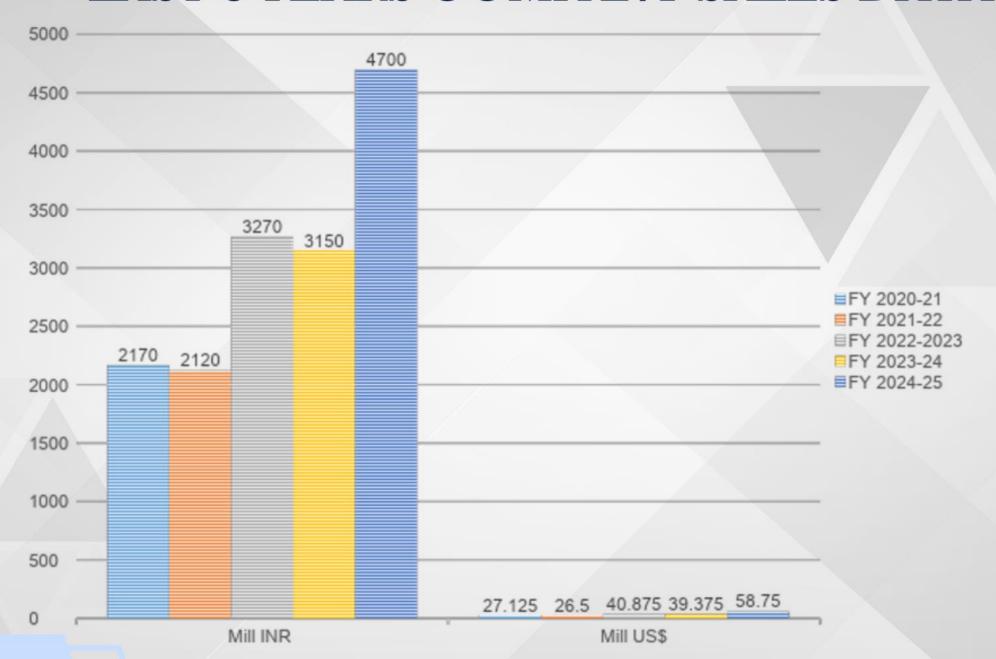


TARGETED GROWTH AREAS

NVHPARTS	TRANSMISSION	ENGINE & BODY PARTS	ENDSHIELD	ENGINEERING
ENGINE MOUNT	GEAR SHIFTER PART	ENGINE ASSYPARTS	EV MOTORS	OFF HIGHWAY
BODY MOUNT	SHIFTER CASE	FILTERHOUSINGS	HOME APPLIANCES	AGRICULTURE
CHASSIS MOUNT	SELECT HOUSING	RAIL PARTS	ENERGY MOTORS	AUTOMOTIVE
HYDRO MOUNT	SHFIT& FORK PART	MECHTRONICS PARTS	HEAT SINKS	

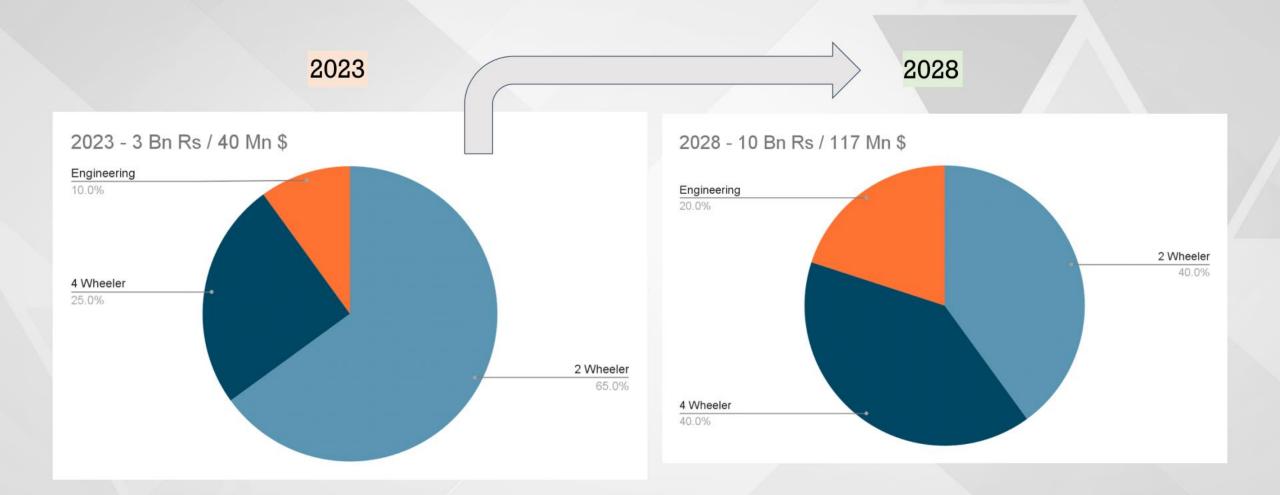


LAST 5 YEARS COMPANY SALES DATA





BUSINESS PIE





CERTIFICATES



CERTIFICATE

Management system as per

IATF 16949:2016

(1" edition, 2016-10-01)

Evidence of conformity with the above standard has been furnished and is certified for

Mahavir Die Casters Pvt. Limited Plot No. 153 & 165, Sector - 24, Faridabad, Haryana - 121 005, India

Scope

Manufacture of Aluminium Die Casting, Machining, Painting & Assembly Components

without product design responsibility (according to section 8.3)

IATF Registration No. 0440697 Certificate Registration No. 44 111 181828 Issue date: 2022-01-08 Expiry date: 2025-01-07

Vision de

Certification body

Essen, 2022-01-08

This certification was conducted in accordance with the IATF "Rules for achieving and maintaining IATF recognition"

page 1/1

TÜV NORD CERT GmbH

Langemarckstraße 20

45141 Essen

www.tuev-nord-cert.de



02-IAO-QMC-01021

A13F201e rev. 01/03.19

American Systems Registrar, LLC, Certificate Number: IAOB-1021

MAHAVIR DIE CASTERS PVT LTD

PLOT NO. 162, SECTOR- 3, IMT MANESAR GURGAON, 122050, HARYANA, INDIA

USI NUMBER: CGEAXW

th a scope of:

MANUFACTURING OF ALUMINIUM DIE CASTING, MACHINING, PAINTING AND ASSEMBLY COMPONENTS

American Systems Registrar issues this certificate and applicable appendices to Mahavir Die Casters Pvt Ltd after assessing their quality system and finding it in compliance with the first edition of:

IATF 16949:2016

IATF Certificate Number: ASR Certificate Number: Exclusions: Date of Certification: Date of Certification Expiration 0466735 9262 8.3 Product Design January 12, 2023 January 11, 2026

Terchelle Lind

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CERTIFICATE OF REGISTRATION



American Systems Registrar, LLC, Certificate Number: IAOB-1021

Mahavir Die Casters Pvt Ltd Appendix to the Certificate: ASR 9262 IATF Certificate Number: 0466735

Extended Manufacturing Sites: Mahavir Die Casters Pvt Ltd Plot No. 114, Sec-8, IMT Manesar 122050, Gurgaon, Haryana, India USI Number: PGEF4Z

Remote Support Locations: Mahavir Die Casters Pvt Ltd Plot No. 153 & 165, Sector-24 Faridabad-121005, Haryana, India USI Number: Not Issued

Functions: Engineering, Policy Making, Process Design, Production Equipment Development, Purchasing, Strategic Planning, Supplier Management

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CERTIFICATE OF REGISTRATION

MAHAVIR

QUALITY – QUANTITY, ON TIME, ..EVERY TIME

MAHAVIR

गुणवत्ता – गिन्ती, समय पर, ..हर बार