

Partnering Railways since 1952



Bearing solutions for railways

WHO IS NBC



Founded in 1946, NBC is India's first bearings manufacturer and the last word in quality and durability. In 2020, the company acquired leading European manufacturer, Kinex Bearings to further boost its expertise.

75 years since its beginning, NBC remains India's leading bearings manufacturer and exporter. NBC is also the world's only bearings manufacturer to receive the prestigious Deming Grand Prize for Total Quality Management.



1946 India's
first bearing
manufacturer



200+ million
bearings
manufactured/
annum



2300+ variants
of bearings
offered



5 manufacturing
locations



Leading
exporter



Happy customers
in 30+ countries



R&D and
Innovation
Centre



2800+People



Automotive



Industrial



Railway



Aerospace

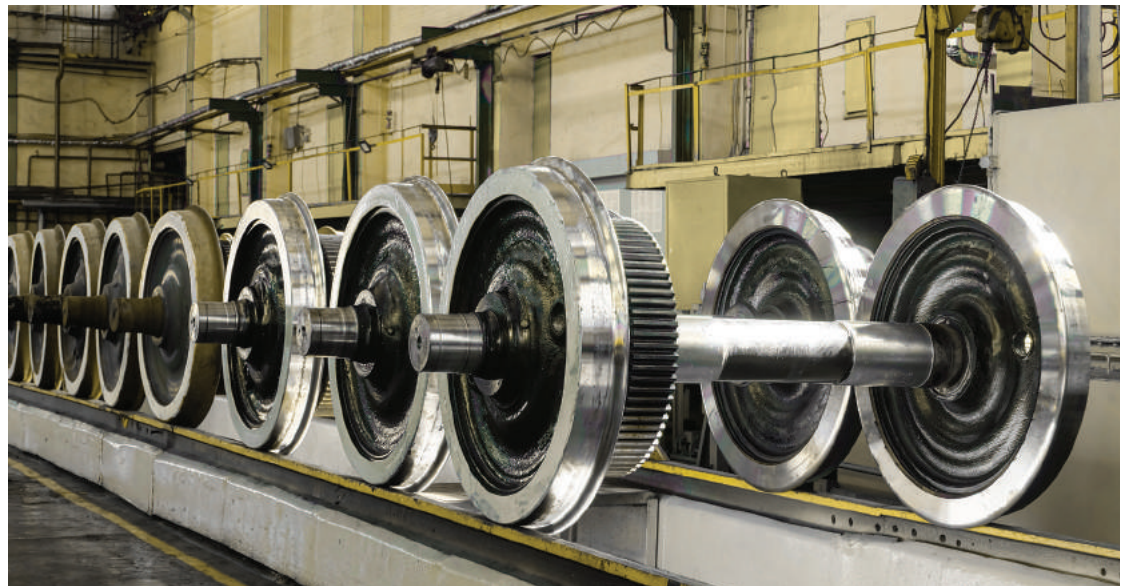
HOW NBC BEARINGS HELPS RAILWAYS BE ON TRACK

NBC develops and supplies railway vehicles with a wide variety of bearings in wheel axles and traction motors. These bearings feature high performance, high reliability, and long periods of maintenance-free service to support rail companies in their mission to provide quick, safe, and dependable transport.

Railway bearings require heavy reliability, safety & durability. With decades of experience working with leading global railways, NBC has a deep understanding of the requirements and has the capability to manufacture a complete range of bearing products to meet these requirements.

Applications

- Locomotive
- Wagon Wheel
- Traction Motor
- Freight Carriers
- Suspension



NBC'S SPECIALISED SOLUTIONS FOR RAILWAYS



ROLLER BEARING
AND AXLE BOX



CARTRIDGE TAPERED
ROLLER BEARINGS
UIC (130 X 230)



SPHERICAL
ROLLER BEARINGS



CARTRIDGE TAPERED
ROLLER BEARINGS
CLASS C (5 X 9)



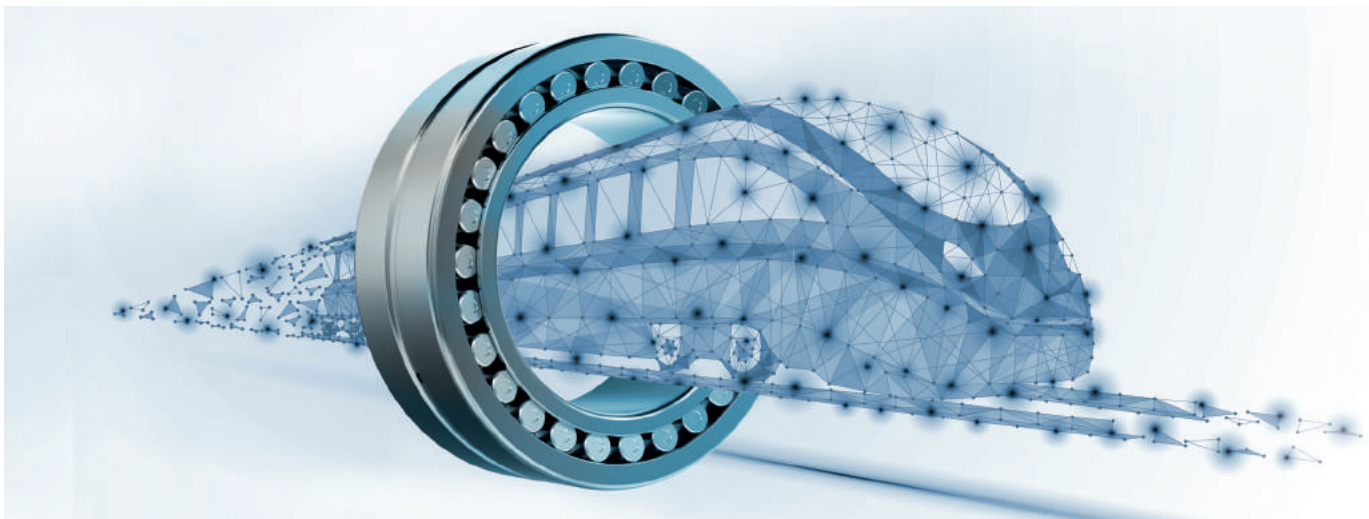
DOUBLE ROW
CYLINDRICAL BEARINGS
RB 5080



INSULATED TRACTION
MOTOR BEARINGS
NH 320-ZC2

BEARINGS AND AXLE BOXES FOR WAGONS

LOCOMOTIVES	NEI ASSEMBLY DRG.	BEARINGS	BEARING DIMENSION (MM)		
			BORE	O.DIA	WIDTH
20.3 Tonne Axle Load: BOX, CRT, BCX, BOXC, BOXT, BOXCY, BCXC, BRH-8 Wheeler BVZC	92-3965 (OLD DESIGN)	WJ130X240 & WJP130X240 P with the Special Loose Lip L5032 following old numbers may be replaced with above: L5031 & L5032	130	240	80
	M-31200 (OLD DESIGN) 1st STEP	NBR-102 & NBR -101	128	240	80
	PE-1192 (OLD DESIGN) 2nd STEP	RB5006 & RB5007	126	240	80
	X-134 (NEW DESIGN)	WJ130X240E & WJP130X240PE With Special Loose Lip RB5048	130	240	80
	X-135 (NEW DESIGN) 1ST STEP	RB5056 & RB5057	128	240	80
	X-136 (NEW DESIGN) 2nd STEP	RB5058 & RB5059	126	240	80
16.3 Tonne Axle Load: TPR Tank Wagon Open Wagon TORX TPGLR	X-110 (OLD DESIGN)	L5063 & L5064	120	220	60
	X-112 (OLD DESIGN) 1ST STEP	RB5001 & RB5002	118	220	60
	X-113 (OLD DESIGN) 2nd STEP	RB5033 & RB5034	116	220	60
	X-138 (NEW DESIGN)	L5063 & L5064	120	220	60
	X-139 (NEW DESIGN) 1ST STEP	RB5001 & RB5002	118	220	60
	X-140 (NEW DESIGN) 2ndSTEP	RB5033 & RB5034	116	220	60
22.9/25 Tonne Axle Load	RBSD-7111 (NARROW)	AAR STANDARD (Upgraded) Cartridge Tapered Roller Bearing 6×11 CLASSS "E" With Narrow/ Wide Jaw Adapter	144.5	220.6	163.5
	RBSD-7112 (WIDE)				
22.9/25 Tonne Axle Load: BWTa WAGON BOXN, BCN, BTPN,BOBRN,etc WITH CASNUB BOGIE	X-126	WJ150X300 & WJP150X300P	150	300	102
	PESD-6085 (NARROW)	AAR STANDARD (Normal) Cartridge Tapered Roller Bearing 6×11 CLASSS "E" With Narrow/ Wide Jaw Adapter	144.5	220.6	163.5
	PESD -6086 (WIDE)				
14 Tonne Axle Load: (MG Wagon) Cast Steel Bogie FRICON Bogie	X-168	RB5075 & RB5076	119.1	215	60
	X-169	RB5075 & RB5077	119.1	215	60
25 Tonne Axle Load: LIGHT WEIGHT LOW HEIGHT (LWLH25) BOGIES (NARROW JAW)	RBSD-7077	AAR STANDARD Cartridge Tapered Roller Bearing 6-1/2X9 CLASSS "K" With Narrow Jaw Adapter	157.15	249.873	160



BEARINGS FOR PASSENGER COACHES					
PASSENGER COACH	TYPES	BEARINGS	BEARING DIMENSION (MM)		
			BORE	O.DIA	WIDTH
ICF Coaches	(a) ICF Design MG	22320	100	215	73
	(b) ICF Design BG	22326	130	280	93
JESSOP Coaches	(a) ICF Design MG	22320	100	215	73
	(b) ICF Design BG	22326	130	280	93
Electrical Multiple Units (EMU)	(a) MG Trailer	22320	100	215	73
	(b) BG Trailer	22326	130	280	93
	(c) BG Motor Coach	22328	140	300	102
BEML Coaches	(a) ICF Design BG	22326	130	280	93
	(b) MAN Design BG PE-1179	WJ120X240 & WJP120X240P	120	240	80
LHB Coaches		UIC 130X230	130	230	160
LHB Coaches		UIC 130X240	130	240	160

TRACTION MOTOR BEARINGS						
TRACTION MOTOR	LOCATION	NEI DRG.	BEARING	BEARING DIMENSION (MM)		
				BORE	O.DIA	WIDTH
TM4301, TM4601, TM4303, TM4605, 253-BX	Commutator End	PE-1842	NUP318	90	190	43
TM3702, TM5002AZ, TAO-659	Commutator End	PESD-3598	NH318 (Rivetless Cage)	90	190	43
TM3702, TM5002AZ, TAO-659, TM4906, TM4939, 165 M, GE-752	Commutator End	PE-1895	NH318 (Riveted Cage)	90	190	43
	Commutator End	PESD-3477	NH320 (Rivetless Cage)	100	215	47
TM4906, TM4939, 165 M, GE-752	Commutator End	PE-1845	NH320 (Rivetless Cage)	100	215	47
TG10931AZ & TG10919AZ HS15250A, HS1050	Commutator End	PE-2626	NH324	120	260	55
6FRA6068	Commutator End	RBSD-7115	NH320 (Insulated)	100	215	47
6FXA 7059	Commutator End	RBSD-7067	NH219 (Insulated)	95	170	32
1TB2622 OTA02	Commutator End	NEIC00113255	6326 (Insulated)	130	280	58
TM4601, TM4603, TM4605, TM4606, MB3080, 253-BX	Pinion End	PE-1627	NU326 (Riveted Cage)	130	280	58
TM4906, TM4939, 165 M, GE-752	Pinion End	PE-1847	NU330 (Riveted Cage)	150	320	65
TG10931AZ & TG10919AZ TM4906, TM4939, 165M, GE-752	Pinion End	PE-3324	NU330 (Rivetless Cage)	150	320	65
6FRA6068	Pinion End	PESD-3743	NU2236 (Rivetless Cage)	180	320	86
6FXA 7059	Pinion End	RBSD-7064	NU224	120	215	40
1TB2622 OTA02	Pinion End	RBSD-7085	N332 (Insulated)	160	340	68
–	Pinion End	RBSD-7020	NU328	140	300	62

TRACTION MOTOR SUSPENSION UNIT BEARINGS						
TRACTION MOTOR	LOCATION	NEI DRG.	BEARING	BEARING DIMENSION (MM)		
				BORE	O.DIA	WIDTH
HS15250A, HS1050, TM4906	Drive End	PESD-5061	M249747/M249710	257.175	358.775	71.438
	Non-Drive End	PESD-5062	M349547/M349510	255.6	342.9	57.15
WAG9 & WAP7 Locomotive Traction Motor	Drive End	PESD-3454	NU1964	320	440	56
	Non-Drive End	PESD-3453	NH1044	220	340	56
MSU for WDG4/WDP4	Drive End	PESD-5068	N1059/M244210	221.170	314.325	61.912
	Non-Drive End	PESD-5069	M244249A/N1060	220.662	314.325	61.912
Traction Motor Armature Bearing, Kolkata Metro (Traction Motor 3701BX/BY)	Non-Drive End	PESD-6019	67981/67919	198.298	279.400	46.038
	Drive End	PESD-6020	67982/67919	199.949	279.400	46.038
WAP5 Gear Box	Main Gear	RBSD-7178	4TBL558548/10	320.675	406.4	50.8
	Intermediate Gear	RBSD-7179	4TBM432148A/11	157.162	223.838	46.038
	Pinion	RBSD-7180	4TB798/792	127	206.375	47.625

BEARINGS AND AXLE BOXES FOR ELECTRIC LOCOMOTIVES					
LOCOMOTIVES	NEI ASSEMBLY DRG.	BEARINGS	BEARING DIMENSION (MM)		
			BORE	O.DIA	WIDTH
Broad Gauge Locomotives: WAM4,WAM4A,WAG5,WAG5A, WAG5C, WAG5D, WCAM1, WCG2	92-4271C	L6204 & L6205	150	270	80
	X-119 (Step Size)	RB5043 & RB5044	148	270	80
Broad Gauge Locomotives: (High Speed) WAM4, WAG5B,WCAM1	X-105	RB5020 (2 Nos.) With Special Loose Lips RB5021 & RB5022	150	270	80
	X-141(Step Size)	RB5062 (2 Nos.) With Special Loose Lips RB5063 & RB5064	148	270	80
Broad Gauge Locomotives: (Flexi Coil Bogie) WAP1, WAP4	X-122	RB5020 (2 Nos.) With Special Loose Lips RB5021 & RB5022	150	270	80
	X-186 (Step Size)	RB5062 (2 Nos.) With Special Loose Lips RB5063 & RB5064	148	270	80
Broad Gauge Locomotives: (Freight Service) WAG7, WCM6	X-171 & X-207	RB5020 (2 Nos.) With Special Loose Lips RB5021 & RB5022	150	270	80
	X-182 (Step Size)	RB5062 (2 Nos.) With Special Loose Lips RB5063 & RB5064	148	270	80
Broad Gauge Locomotives: (Passenger Service) WAP3	X-149	L6204 & L6205	150	270	80
Broad Gauge Locomotives: (Passenger Service) WAP3, WAP6	X-180 End Axle Box	L6204 & L6205 (End Axle)	150	270	80
	X-180 Middle Axle Box	RB5020 (2 Nos.) With Special Loose Lips RB5022(Middle Axles)	150	270	80
Broad Gauge Locomotives: WAP7 (ABB Loco) WAG9 (ABB Loco)	X-181(with CRU Bearing)	RB5080D Double Row Cylindrical Roller Bearing Sealed Unit	150	250	160/180
Broad Gauge Locomotives: WAP5	RBSD-7169	Cartridge Tapered Roller Bearing UIC150X250D	150	250	160
BHEL Locomotives: WCAM1 AC/DC Loco 1400 HP Loco	X-105	RB5020 (2 Nos.) With Special Loose Lips RB5021 & RB5022	150	270	80
	X-171	RB5020 (2 Nos.) With Special Loose Lips RB5021 & RB5022	150	270	80
Broad Gauge Locomotives: WAG5HB 1400 HP Loco	X-175	L6204 & L6205	150	270	80
	X-179	RB5020 ((2 Nos.) With Special Loose Lips RB5021 & RB5022	150	270	80

Bearings and Axle Boxes for Diesel Electric Locomotives					
Locomotives	NEI Assembly Drg.	Bearings	Bearing Dimension (mm)		
			Bore	O.DIA	Width
Broad Gauge Locomotives: WDM2, WDM2A, WDM2B, WDS5, WDS6, WDS8	92-4271C	L6204 & L6205	150	270	80
	X-119 (Step Size)	RB5043 & RB5044	148	270	80
Broad Gauge Locomotives: (high Speed) WDM2C,WDM3A, WDM7	X-105	RB5020 (2 NOS.) With Special Loose Lips RB5021 & RB5022	150	270	80
	X-141 (Step Size)	RB5062 (2 NOS.) With Special Loose Lips RB5063 & RB5064	148	270	80
WDM3A	X-197 (with CRU bearing)	RB5081 D-E (End Axle) RB5081 D-M (Middle Axle)	150	270	174/215
Broad Gauge Locomotives: (Freight Service) WDG3A, WDG3B, WDM3D,WDG2	X-171	RB5020 (2 NOS.) With Special Loose Lips RB5021 & RB5022	150	270	80
	X-182 (Step Size)	RB5062 (2 NOS.) With Special Loose Lips RB5063 & RB5064	148	270	80
Broad Gauge Locomotives (Passenger Service) WDP1	X-174	RB5020 (2 NOS.) With Special Loose Lips RB5021	150	270	80
Broad Gauge Locomotives: (Passenger Service) WDP2, WDP3A	X-180 End Axle Box	L6204 & L6205 (End Axles)	150	270	80
	X-180 Middle Axle Box	RB5020 (2 NOS.) With Special Loose Lip RB5022 (Middle Axles)	150	270	80
Broad Gauge Locomotives: WDG4 (EMD GT - 46MAC) WDP4 (EMD GT -46PAC)	RBSD-7053	Cartidge Tapered Roller Bearing 6 1/2X12 Class "F"	157.15	252.413	184.2 Cup 273.1Total
	X-190	Adapter Assembly			
Broad Gauge Locomotives: WDG3A & WDM3D	X-198 (with CRU bearing)	RB5081 D-E (End Axle) RB5081 D-M (Middle Axle)	150	270	174/215
Broad Gauge Locomotives: WDM3D, WDM3E, WDM3F	X-192	RB5020 (2 Nos.) With Special Loose Lips RB5021 & RB5022	150	270	80
Meter Gauge Locomotives: YDM4, YDM4A	92-4253	L6179 & L6180	120	215	60
	X-151 (Step Size)	RB5069 & RB5070	118	215	60
Narrow Gauge locomotive: ZDM4	X-158	WJ100×200 & WU100×200W	100	200	67
Broad Gauge Shunter: WDS3 (Non-floating type leading inter trailing wheel)	92-4204	L6019 (2 NOS.)	200	360	98
	92-4277A	L6207 (1-SET)	200	360	236
DLW's Export Locomotive: Sri Lankan Railways (SLS3200WB) M8A Loco (Sri Lankan Railways) Malaysian Railways (Cape /MG) 2300 HP CAPE Gauge Diesel Electric Locomotives	X-187	RB5020 (2 NOS.) With Special Loose Lips RB5021 & RB5022	150	270	80
	X-205				
	X-188				
	X-194				
Vietnam Railways	X-189	(Axle Box & Components Only)			
Broad Gauge Locomotives: WDM2 Axle Wheel	PESD-5072	74555/74555D/74849XD	139.7	215.9	137.324/ 212.724
Broad Gauge Locomotives: WDP1M	X-211	RB5020 (2 Nos.) With Special Loose Lip RB5021	150	270	80
Broad Gauge Locomotives: WDP3AM	X-212 End Axle Box	L6204 & L6205 (End Axle)	150	270	80
	X-212 Middle Axle Box	RB5020 (2 Nos.) With Special Loose Lips RB5022 (Middle Axles)	150	270	80

OTHER PRODUCTS FROM NBC

Since the challenges faced by the industry are many, NBC offers a diverse range of exceptional bearings. NBC bearings are available in sizes from 06 mm bore to 2000 mm outer diameter.



* Products with special features like high temperature application, special heat treatment, coated roller/races and cage options are also available across product range.

NBC MILESTONES



1946

National Bearing Company was established



1958

Renamed as National Engineering Industries Limited; the NBC trademark retained.



1981

Bearing production started in Newai, Rajasthan



1982

Technical collaboration with BRESCO, USA for Cartridge Taper Roller Bearings



2005

Bearing production started in Manesar, Haryana



2003

Received TS 16949 certification



2000

ISO-14001 and QS-9001 certification



1995

ISO 9001 certification



1985

Technical collaboration with NTN Japan



2006

Received AAR certification



2007

TPM Excellence Award



2010

Deming Application Award



2014

Bearing production started in Savli, Gujarat.



2015

Became the world's only bearing manufacturing company to get the Deming Grand Prize



2022

- NBC Mascot Runningo launched
- Certified 'Great Place To Work' 5th year in a row
- NBC Kaili JV, China started
- NBC Global Technology Centre, Germany started



2021

- India's Best Workplaces in Manufacturing (Top 30)
- NEI Amsted JV Started in Bagru
- 75 years of incorporation.
- NBC Global Sales Office started in Switzerland



2020

- Acquired Kinex Bearings, Europe.
- Featured in India's top 100 companies to work for list
- Launched Needle Roller Bearings
- The Jaipur plant received the IGBC Platinum certification



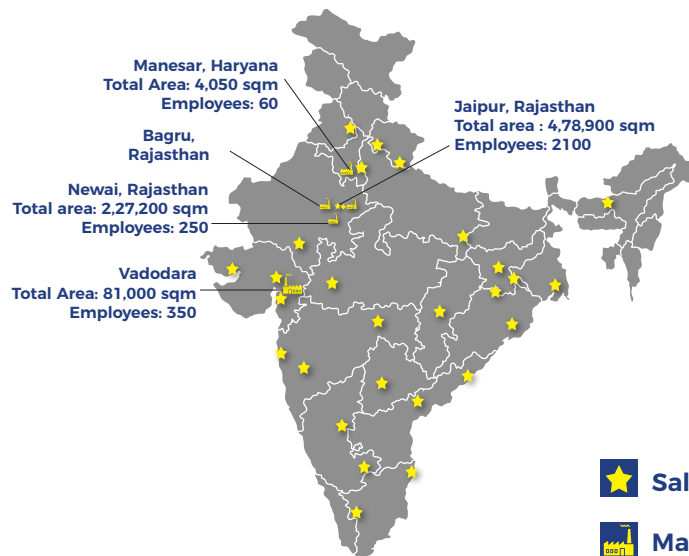
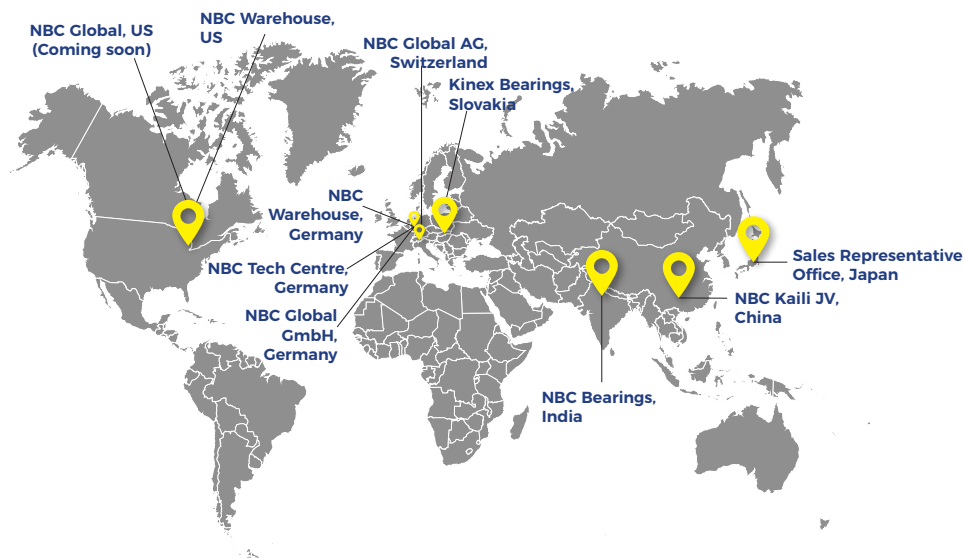
2017-18

- Industry 4.0 journey started
- Received the 'Great Place To Work' certification

OUR GLOBAL REACH

The NBC Bearings: Product, Technology & Services

NBC provides a wide range of bearings and associated service solutions to diverse industries such as **Industrial, Automotive, Railways, and Aerospace**. As a company that has been established for over 75 years, NBC Bearings has an international presence with offices and R&D centers across the globe. For us, engineering goes beyond manufacturing; it is the fusion of Product, Technology, and Services that make us different and the most preferred choice of our customers worldwide.



Sales Support



Manufacturing Facility



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