

Tomorrow's Mettle



Bhoruka Extrusions Pvt Ltd.

“Extruder of choice for iconic projects, by offering value added products and services and reducing customer's total cost of ownership (TCO) by leveraging technology”

Established in 1979

100% subsidiary of \$8 Billion YKK AP Inc. Japan

Extrusion capacity of 1200 MT / Month (6"/ 8"/ 9" - extrusion press)

In-house Anodizing capacity of 250 MT / Month (Italtechno, Italy)

In-house Powder coating capacity of 350 MT / Month (Nordson , U.S.)

Approved PE-F/D-1036 and PE-SDF/D-2525 Applicator

Award winning SAP implementation (ECC 6.0)

Approved extruder of systems – Airclos, Alu-K, Asahi, Dorma, EFP, IWIN-S, Lixil, Reynaers, Schueco

Online self-updating E-catalogue (www.bhorukaecatalogue.com)

Online order tracking through SAP (Bhoruka 360 CRM portal) and Planning (E-Planner)

Branches: Bangalore, Chennai, Coimbatore, Delhi, Hyderabad, Mumbai, Mysore, Pune

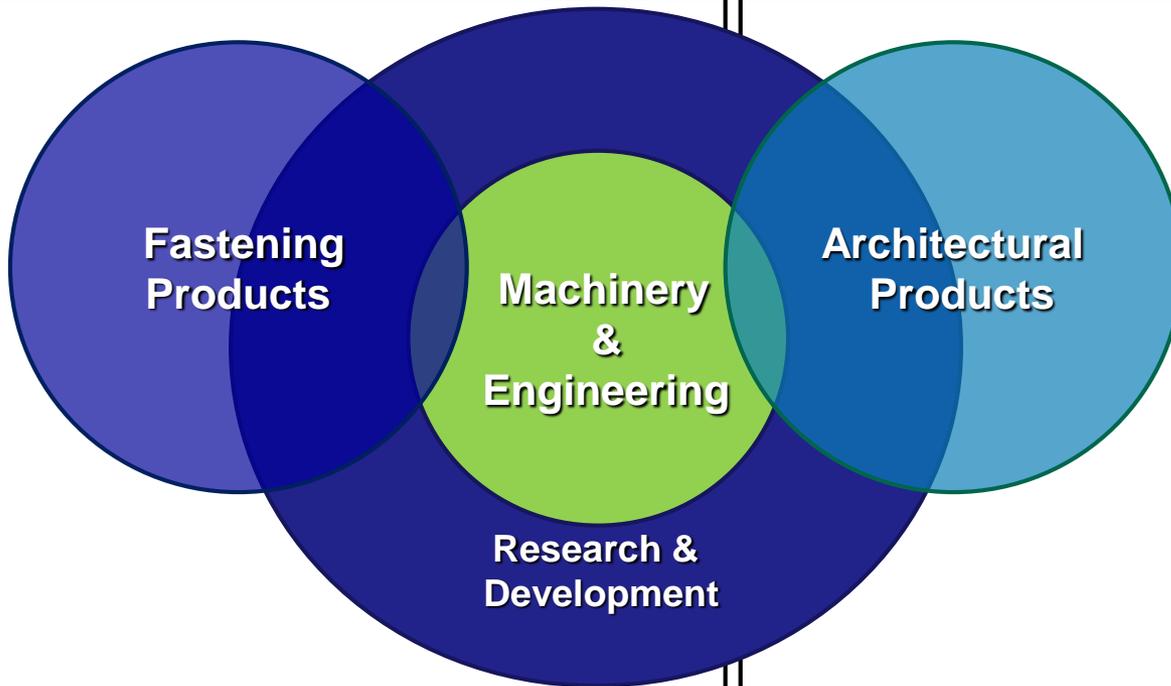
Dedicated Enquiry teams - enquiries@bhorukaextrusions.com



YKK GROUP

YKK CORPORATION

YKK AP Inc.



The YKK Group consists of YKK Corporation, the parent company, which produces fastening products, and YKK AP, which produces architectural products. At the center, we have the Machinery & Engineering Department, which supports research and development.

We build our own machinery to produce zippers, windows, and doors. These three business groups are the basis for global management.

YKK CORPORATION

- **Founded** : January 1, 1934
- **Capital** : US\$121Million

YKK AP Inc.

- **Founded**: July 22, 1957
- **Capital**: US\$101Million
- **Number of Employees**: 19,400

[As of Feb 2020]

YKK GROUP

■ **Description of Business**

Fastening Products, Architectural Products, Manufacturing and Sales of Fastening and Architectural Machinery

■ **Number of affiliated Companies**

72 countries/regions worldwide.
Japan: 18 Overseas: 91
Total : 109 companies

■ **Number of Employees**

Japan : 17,789
Overseas : 28,472

Total (Worldwide) : 46,261 (As of March 2020)

■ **Sales** (Consolidated Basis) (Fiscal Year 2020)

Fastening : US\$2,781 Million
Architectural Products : US\$3,919 Million
Others: US\$ 44 Million

Total Sales (Worldwide) : US\$6,744Million

(US\$=108.61Yen)

「 CYCLE OF GOODNESS 」



Typeface: Tenshiyo / Pen name: 「Rituzann」
(It is named after the Tateyama mountain range that I looked up to forever)



Founding president Tadao Yoshida

“No one prospers unless they render benefit to others”

“If we keep creating **new values by innovative ideas** and **inventions** through our business activity, we can expand our business. That brings **prosperity to our customers** and business partners, and as a result, we can **make a contribution to society**”



Residential Business

(Main products)

- Windows
- Entrance doors and sliding doors
- Interior doors and partitions
- Window shutters

Exterior Business

(Main products)

- Balconies
- Carpports
- Gates and fences
- Terraces
- Exterior materials

Renovation Business

(Main products)

- Window remodeling
- Door remodeling
- Building renovation
- Quake-resistance retrofitting

Commercial Products Business

(Main products)

- Office building windows
- Curtainwalls
- Building entrances
- Windows and doors for low- and medium-rise residential buildings
- Remodeling products

Facade Business

(Line of business)

- High-rise and complex curtainwalls
- Design, construction and sales of related products

Industrial Products Business

(Main products)

- Components of machinery and equipment
- Auto parts
- Architectural components
- Eco-friendly products

No. of offices and centers in Japan

198

No. of manufacturing bases in Japan

24

No. of employees in Japan

12,311

Overseas presence in

10

countries/regions

No. of major overseas manufacturing bases

8

No. of overseas employees

4,010

Advanced into Overseas Market since 1976 Building Local Business (10 Countries / Regions 15 Bases)

Dalian YKK AP Co., Ltd. (1999)

Headquarters: Dalian
Manufacturing Center: Dalian

YKK AP (Suzhou) Co., Ltd. (2002)

Headquarters: Suzhou
Manufacturing Center: Suzhou

YKK AP Co., Ltd. (2001)

Headquarters: Shanghai

YKK AP (China) Investment Co., Ltd. (2002)

Headquarters: Shanghai
Manufacturing Center: Shenzhen

Bhoruka Extrusion Pvt. Ltd. (2013)

Headquarters: Mysore
Manufacturing Center: Mysore

YKK AP MYS Sdn. Bhd (2011)

Headquarters: Kuala Lumpur

● Headquarters & Manufacturing Center

● Headquarters

● Manufacturing Center

● Representative Office

YKK AP Taiwan Co., Ltd. (1989)

Headquarters: Taipei
Manufacturing Center: Yangmei

YKK AP HONG KONG Ltd.

Headquarters: Hong Kong

YKK AP Facade Vietnam Co., Ltd. (2013)

Headquarters: Ho Chi Minh

PT YKK AP INDONESIA

The Resident Representative Office in Vietnam (2012)

YKK AP (THAILAND) CO., LTD (2015)

Headquarters: Bangkok

YKK AP Singapore Pte Ltd. (1976)

Headquarters: Singapore

YKK AP Facade Pte Ltd. (2008)

Headquarters: Singapore

PT YKK AP INDONESIA (1986)

Headquarters: Tangerang
Manufacturing Center: Tangerang

Erie Architectural Products Inc. (2019)

Headquarters: Ontario(Canada)

YKK AP America Inc. (1991)

Headquarters: Atlanta
Manufacturing Center:
• Commercial- Dublin,
Dallas,
Cincinnati
• Residential- Macon

※As of June 2020

Grand Concept

YKK AP presents operational excellence built up around the world combining research and development through detailed study of the climate and characteristics of each region, to conceptualize new ideas creating comfortable environment for the people residing.

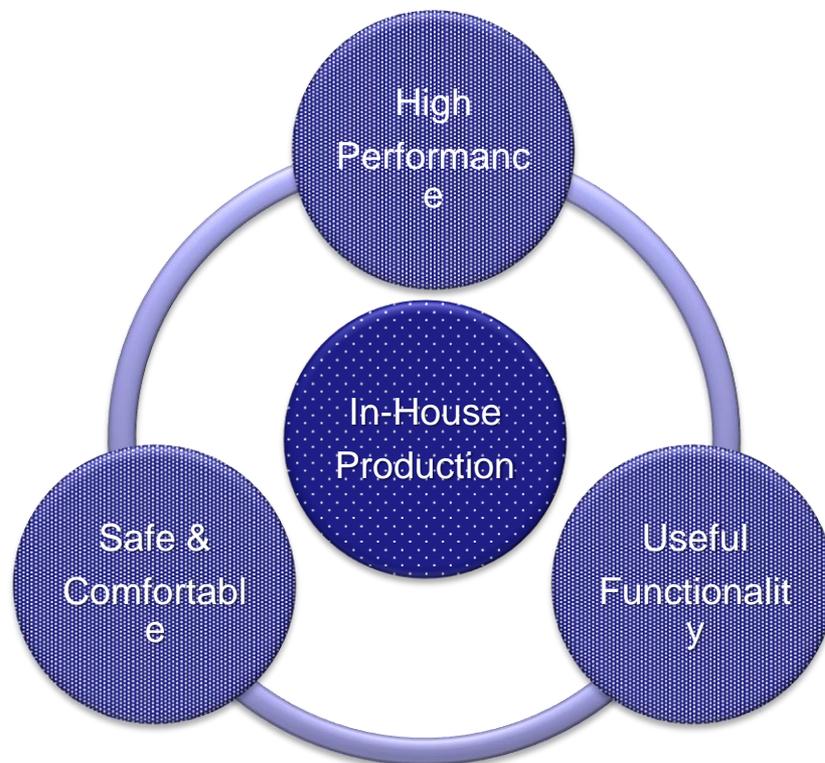


Product Characteristics

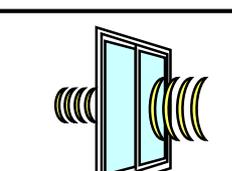
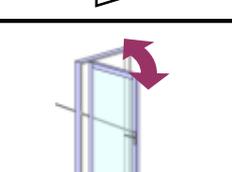
IWIN™ S

Quality with a Difference

Setting Standards of Residential Fenestration Quality in India



Performance

Structural (Wind Load)		2500 Pa Deflection: 1/175 [ASTM E 330]
Air Infiltration		1.12m ³ / (h·m ²) Maximum at 75 Pa [ASTM E 283]
Water Tightness		350 Pa / 300 Pa [ASTM E 331·547]
Sound Insulation		GradeT-2 [30dB] [JIS A 1416]
Open-Close Testing		10,000 Cycle No Damage [JIS A 4706]

Product Line Up

Sliding	Fixed / Casement Door
Sliding 2 LEAF (2 Track) 	Fix 
Sliding 4 LEAF (2 Track) 	Top Hung 
Sliding 3 LEAF (3 Track) 	Casement  
Sliding 6 LEAF (3 Track) 	Door  

Tested System with Basic Performance
Safety and operation measures are considered
to create a comfortable living environment



Mr. Fumihiko Umamo
Managing Director



Mr. Vijay N
Extrusion



Mr. Hamagishi Kodai
Technical Director



Mr. Prashant C
Powder Coating



Mr. Rajat Agarwal
Sales Director



Mr. Syed Moinuddin Zaman
Quality



Mr. Prasanna Venkatesh
Factory Manager



Mr. Praveen M H
Accounts and Finance



Ms. Suma S
Planning



Mr. Pradeep Rajshekar
HR

Billet Casting

Die Manufacturing

Extrusion

Anodising

Powder Coating

Components

TECHNICAL FACT SHEET

Parameters	Press-1	Press-2	Press-3
MAKE	Wean United (USA)	Year Chang (Taiwan)	Cheng Hua (Taiwan)
Strength of extrusion press (TONS)	1800	1100	2750
Diameter of billet	203 mm	152 mm	228mm & 203mm
Diameter of container	210 mm	158 mm	236mm & 210mm
Diameter of main Cylinder - Inches	37	29.5	44.48
Diameter of small Cylinder - Inches	9	7.087	9.09
Maximum pressure of Press (BAR)	210 BAR	210 BAR	230 BAR
Mark of Billets (6063-6060)	6063, 6005, 6105, 6061		6063, 6060, 6101, 6005, 6351, 6061, 6082
Conveyor Length	36Mtrs.	36Mtrs.	50.90 Mts
Type of Billet Oven (gas, diesel, induction)	Hot log shear	Induction	Hot log shear
Type of Puller	Track type	Track type	Track type

TOOL ROOM

Die types	Solid, Hollow, Semi-hollow
Diameter CCD	Solid – 254mm; Hollow-230mm
# of sections	>14,000
Lead Time	Solid - 15 days; Hollow - 21 days

BHORUKA ANODISING

Make	Italteco, Italy
Microns	5 to 25
Colors available	Silver, Champagne, Bronze (Light, Medium, Dark) & Black
Maximum Length	6400 mm
Finish	Matt, Brush

BHORUKA POWDER COATING

Pre - Treatment	Chemetall, Germany
Powder Coating	Nordson , U.S.
Spray System	Automatic
Thickness Range	60 To 120 Microns
Colors	All RAL Shades
Type	Metallic / Non Metallic
Gloss	High Glossy, Semi Glossy, Matt
Finish	Plain, Texture, Structure
Maximum Length	7500 mm

Chemical Composition as Per EN 573-3:2007

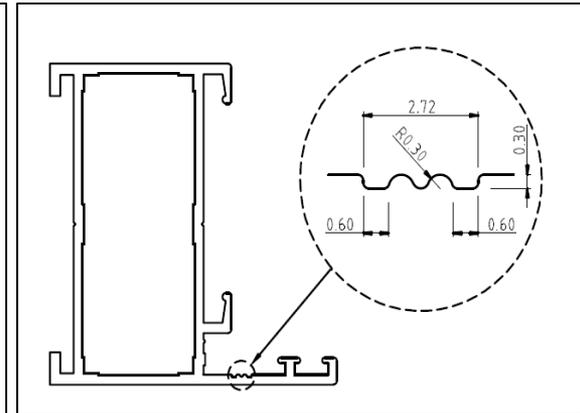
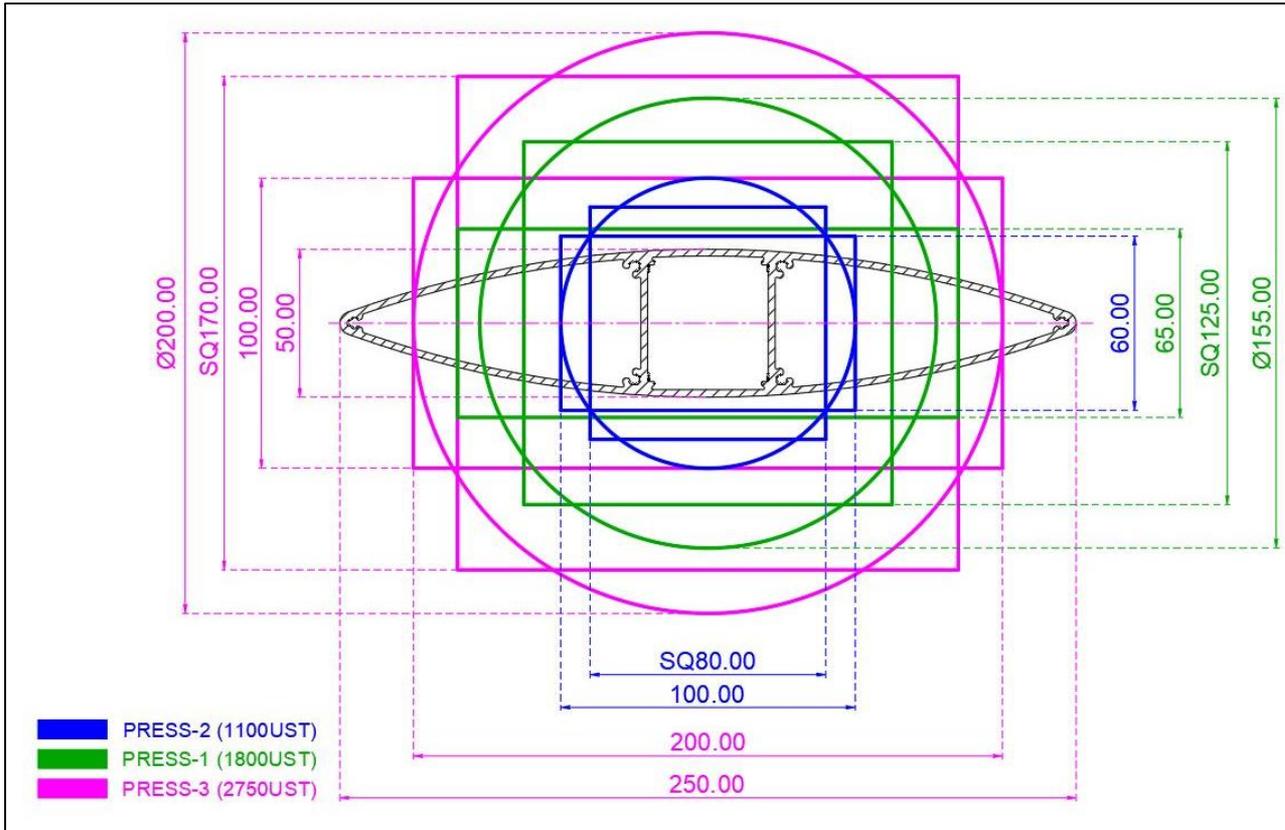
Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Aluminium Min
6063	0.20-0.60	0.35	0.1	0.1	0.45-0.90	0.1	0.1	0.1	Remainder
6060	0.30-0.60	0.10-0.30	0.1	0.1	0.35-0.60	0.05	0.15	0.1	Remainder
6005	0.6-0.90	0.35	0.1	0.1	0.40-0.60	0.1	0.1	0.1	Remainder
6082	0.7-1.3	0.5	0.1	0.4-1.0	0.6-1.2	0.25	0.2	0.1	Remainder
6101	0.30-0.7	0.5	0.1	0.03	0.35-0.8	0.03	0.1	0	Remainder
6351	0.7-1.3	0.5	0.1	0.40-0.8	0.40-0.8	0	0.2	0.2	Remainder

Mechanical properties as per DIN 755-2/IS-1285

Alloy/T6	Tensile Strength, <i>min</i> MPa	Proof Stress <i>min</i> MPa	Elongation A50mm <i>min</i> in %
6060	185	150	7
6101	200	170	8
6063	185	150	7
6005	255	200	15
6061	290	235	7
6351	295	255	7
6082	295	255	7

Tempers:

- T4-Solution heat treated & naturally aged
- T5-Cooled from hot working and artificially aged (at elevated temperature)
- T6-Solution heat-treated & naturally aged.



- Unique Identification mark in all new profile developments (since 2015)
- This Identification mark will be prominent throughout the profile length (utilizing only 0.3mm thickness)
- It will be located at only non-functional and unexposed/hidden area of the profile.
- ID mark will be non-functional/ un-exposed area)

8"--Press-1 (1800UST)	
Square	125x125mm
Rectangle	170x65mm
Circle	Ø155mm

9"--Press-3 (2750UST)	
Square	170x170mm
Rectangle	200x100mm
Circle	Ø200mm
Elliptical	250x50mm

6"--Press-2 (1100UST)	
Square	80x80mm
Rectangle	100x60mm
Circle	Ø100mm



- **Extrusion**



- **Billet Casting**



- **Die Tooling**



- **Anodizing**



- **Powder Coating** • **Components**



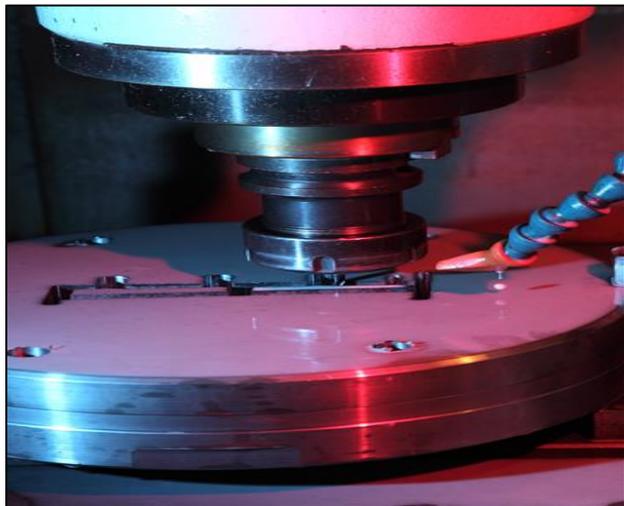


- Percentage on complaints is at all-time low! Well below industry norms
- Rework percentage was very low and achieved the lowest plant rejection rate of 3.5 % last year
- Customer rejection is less than 0.27%

“ No QC teams are needed, every process has QC inbuilt ”

*Syed Moinuddin Zaman
Asst. Manager Quality control*





- With state of the art technology with latest machinery like CNC wire cutting, surface grinding etc, which helps improving die quality
- R&D is intrinsic to our process, we design exactly to your need
- We are consistently developing ~100 dies/month of which 75% are for new shapes



With our 3D-printing technology our customers can test the product for snap/slide fitment or gasket development prior to die manufacturing

- FFF printing technology with auto platform calibration.
- Print up a 60-micron resolution with a 0.25mm nozzle.

Building and Construction

We are one of the **largest direct-sales suppliers** to **the building and construction sector** in India and offer various products ranging from Doors, Windows, Railings, Formwork, Shutters, Curtain Wall systems and more in a wide variety of shapes, sizes and finishes! Our value offerings can be broadly categorised as follows -

Catalogue

Our catalogue contains more than 10,000 sections that Boruka has developed by virtue of being in the industry for more than 40 years. It offer a wide variety of readily available designs from various industries and sectors for you to choose from

Made-to-order

Drawing from our vast experience, our Design and Engineering department excels at meeting specific customer requests as per the needs and demands of various projects and helps in turning your vision into reality

Systems

We have the unique distinction of being the only extruder in India associated with many globally reputed systems such as Airclos, AluK, Dorma, EFP, Schueco to name a few. We will be delighted to offer their range of products through authorised channels

E-Catalogue Online self-updating catalogue with unique set of features

- Get instant access to thousands of profiles listed by different categories/sub-categories
- View product images & description along with other details
- Download drawings in PDF format right on your computer
- Send us an enquiry with complete details directly from the software
- Search by 'section number'
- More than 50 designs automatically added every month right on your computer
- Choose from our on-line as well as off-line module for on-the-go work

OEM

Since our inception, Bhoruka has been catering to the growing demand and utilization of aluminum in various sectors ranging from – Electronics, Transportation, Textiles, Renewable Energy, Defense, Aerospace etc. We also specialize in the development of custom-made profiles under our made-to-order offering. We have extensive experience in working with various industrial alloys such as 1060, 6063, 6005, 6082, 6061. Some of the key sectors served by us are –

Electrical & Electronics

One of the earliest uses of aluminum sections was in the Electrical & Electronics sector. Bhoruka has been supplying aluminium in this sector for over 30 years. Most of our sections are used for applications which require very good conduction, heat control, heat transfer etc. We manufacture a wide variety of sections using different alloys depending on the end-use of our customers

Transportation

We have got a wide range of sections which are used in the Transportation Sector. Some of our product range includes sections for Bus Body & Truck Body. Bhoruka also manufactures sections for carriers, footsteps and other light SUV requirements

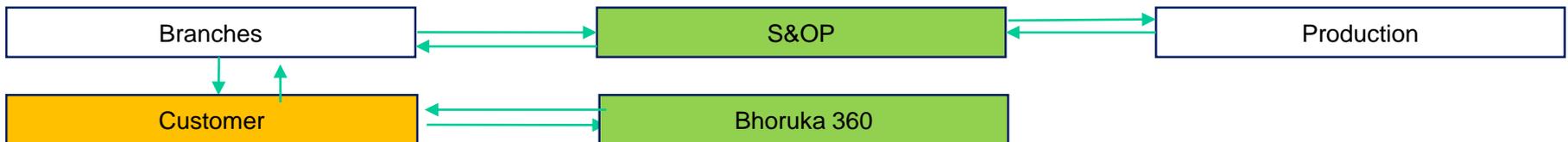
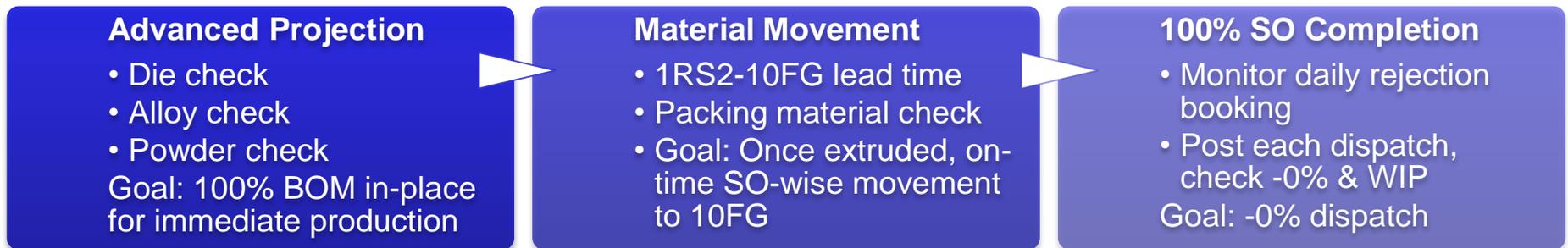
Textile industry

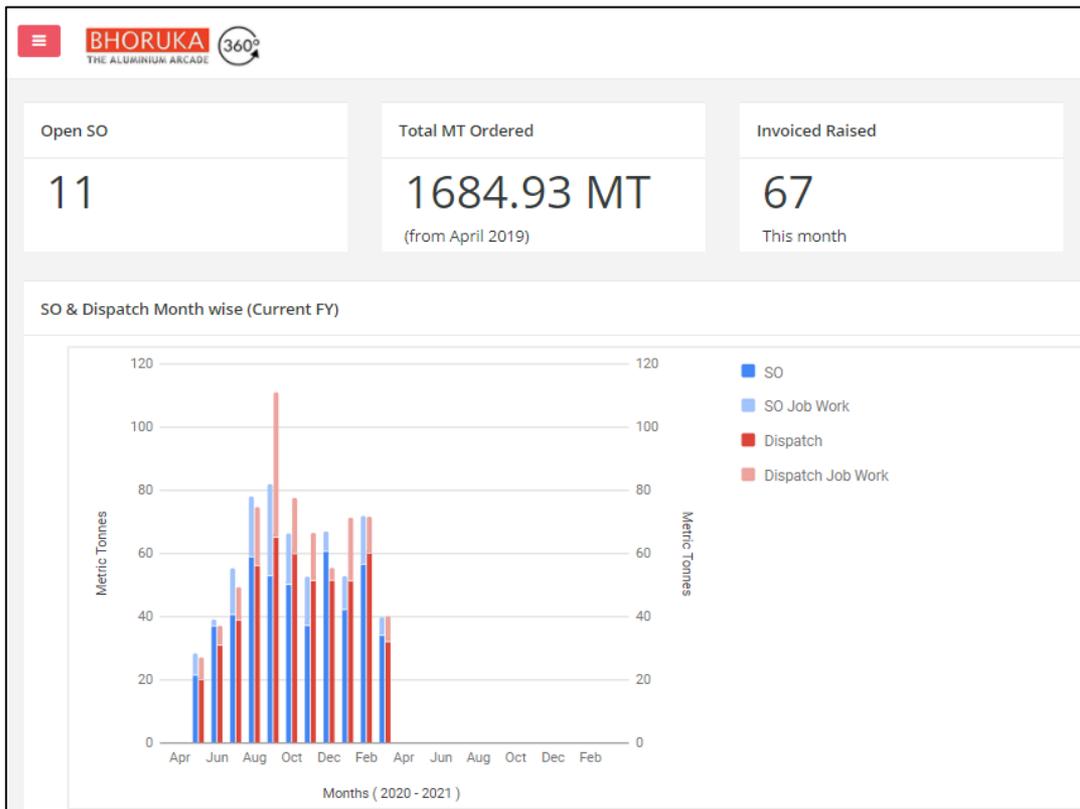
We supply various sections for for the textile industry, which is an important part of the Indian economy. The quality & precision of these sections are of high importance & Bhoruka is committed in providing both the right quality & service to this sector

Renewable Energy

Bhoruka has been always committed to a safer and better environment. Keeping this in mind we have dedicated offerings for our solar panel and windmill customers. These sections are often supplied in natural anodizing which are all done at our own in-house facility.

Factor	Bhoruka	Competitor	BEPL-Advantage
SO Release	Pieces	Kgs	Matches with FAB Cutting-list software
Weight Measurement	Drawing Mean Weight	Actual Weight	Matches with Tender weight, PO-Invoice consistency, ~3.5% savings on powder weight
Dispatch Tolerance	1-1000 pcs (-0%+5%)/ >1000 pcs (-0%+2%)	+/- 10% in Kgs	Reduced inventory and less total cost
Matching Section	@Aging and Invoice blocked	No check	Reduced inventory at customers
Order Status	Online	NA	Customer can track PO-Invoice online
Est Dt Dispatch	E-Planner (March 2019)	MS Excel	Customers can plan operations based on estimated date of dispatch





- Industry-first CRM Module Bhoruka 360 for customers (100% automated via SAP)
- Invoices, test certificate and **packing** list are readily available in the portal
- Live updates on your orders are made available
- Real-time order status and expected order completion dates

“ Multi-dimensional operational metrics gives me a 360° view ”

BHORUKA 360°
THE ALUMINIUM ARCADE

INV #: 0094422632 Dated: 02 Mar 2021

SO #	:	Transporter Name	:	OTHER PARTY
PO #	:	Transporter LR #	:	
PO Date	:	Vehicle #	:	19 Feb 2021
Project Name	:	Driver Phone #	:	
Deliver #	:		:	
Text	:		:	

Uploaded Documents	
1	Warranty certificate
2	Test certificate
3	Photos
4	Packing List



Mr. Mathew Shijoy



Ms. Suma S

Interpon D1000

Interpon D Approved Applicator

Interpon D1000 Series

Bhoruka Extrusions Pvt Ltd
#01, KRS Road, Metagalil, Mysore-570016 India

Has fulfilled AkzoNobel's tests and inspection regarding the pre-treatment, the application, the quality management standards, the procedures and Complies with the requirements of the Architectural Range Approved Applicator schedule.

This certificate is effective from
30th June 2020 to 29th June 2022

Approved for Aluminium Alloy: AA2024
Approved for Pre-treatment Type: Chromating with Chromating

[Signature]
P V R Narasimha Rao
Sales Manager, Powder Coatings, India

Date: 7th July 2023
Certification Number: IND-43-20

Akzo Nobel India Limited, Plot No. 627, 628, 629, 630, Mysore Industrial Area, Bangalore - 560114, India

InterponD2000

Interpon D Approved Applicator

Interpon D2000 Series

Bhoruka Extrusions Pvt Ltd
#01, KRS Road, Metagalil, Mysore-570016 India

Has fulfilled AkzoNobel's tests and inspection regarding the pre-treatment, the application, the quality management standards, the procedures and Complies with the requirements of the Architectural Range Approved Applicator schedule.

This certificate is effective from
30th June 2020 to 29th June 2022

Approved for Aluminium Alloy: AA2024
Approved for Pre-treatment Type: Chromating with Chromating

[Signature]
P V R Narasimha Rao
Sales Manager, Powder Coatings, India

Date: 7th July 2023
Certification Number: IND-43-20

Akzo Nobel India Limited, Plot No. 627, 628, 629, 630, Mysore Industrial Area, Bangalore - 560114, India

Interpon D3000

Interpon D Approved Applicator

Interpon D3000 Series

Bhoruka Extrusions Pvt Ltd
#01, KRS Road, Metagalil, Mysore-570016 India

Has fulfilled AkzoNobel's tests and inspection regarding the pre-treatment, the application, the quality management standards, the procedures and Complies with the requirements of the Architectural Range Approved Applicator schedule.

This certificate is effective from
15th March 2022 to 14th March 2024

Approved for Aluminium Alloy: AA2024
Approved for Pre-treatment Type: Chromating

Approved for Pre-treatment Type: Chromating with Chromating

[Signature]
P V R Narasimha Rao
Sales Manager, Powder Coatings, India

Date: 20th March 2022
Certification Number: IND-114-22

Akzo Nobel India Limited, Plot No. 627, 628, 629, 630, Mysore Industrial Area, Bangalore - 560114, India

PE-F

JOTUN

Certificate of Approval

Bhoruka Extrusions Pvt. Ltd.
70, 1 KRS Road, Metagalil, Mysore - 570016

is certified as an Approved Applicator to use
Jotun F Aquide Series
a product from Jotun Powder Coatings

This company fulfils the requirements set by Jotun Powder Coatings for pre-treatment and application of powder coatings. These include having the necessary equipment, process controls and technical knowledge to comply with Jotun Powder Coatings standards.

[Signature]
Date: 17 January 2023
Jotun India Pvt. Ltd.

PE-SDF

JOTUN

Certificate of Approval

Bhoruka Extrusions Pvt. Ltd.
70, 1 KRS Road, Metagalil, Mysore - 570016

is certified as an Approved Applicator to use
Jotun Super Durable Series
a product from Jotun Powder Coatings

This company fulfils the requirements set by Jotun Powder Coatings for pre-treatment and application of powder coatings. These include having the necessary equipment, process controls and technical knowledge to comply with Jotun Powder Coatings standards.

[Signature]
Date: 17 January 2023
Jotun India Pvt. Ltd.

ISO 9001:2015

Bureau Veritas Certification



BHORUKA EXTRUSIONS PVT. LTD.



NO. 1, KRS ROAD, METAGALLI, MYSORE - 570 016, KARNATAKA, INDIA

Bureau Veritas Certification Holding SAS - UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the Management System Standard detailed below.

Standard

ISO 9001:2015

Scope of certification

MANUFACTURE OF MILL FINISH, ANODIZED AND POWDER COATED ALUMINIUM EXTRUSIONS IN STANDARD AND FUNCTIONAL SHAPES FOR STRUCTURAL /ARCHITECTURAL COMPONENTS, TRANSPORT, TEXTILE AND ELECTRICAL INDUSTRIES

Original cycle start date: 12 March 1995
 Recertification cycle start date: 11 November 2021
 Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 13 December 2024
 Certificate No. IND.21.2152/OMU Version: 1 Revision date: 11 November 2021

Signed on behalf of BVCH SAS UK Branch
Jagdish N. MANNAN
 Head - CERTIFICATION, South Asia
 Commodities, Industry & Facilities Division



Certification body address: 88 Floor, 88 Penton Street, London, E1 8BG, United Kingdom
 Local office: Bureau Veritas (India) Private Limited (Certification Business) 72 Business Park, Marol Nagar, Andheri West, Mumbai - 400 058, India
 Further information regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the registration. To check the certificate validity please call +91 22 674 2000.

IGBC




Confederation of Indian Industry

Membership Certificate

This is to certify that

Bhoruka Extrusions Pvt Ltd

is an Annual Member of Indian Green Building Council (IGBC)

bearing Membership No **IGBCM170151**

this certificate shall be valid up to **December 2022**


K S Venkatagiri
 Executive Director
 CII - IGBC


Y Suresh
 Chairman
 Indian Green Building Council


Gurmit Singh Arora
 Vice Chairman
 Indian Green Building Council

Indian Green Building Council
 CII - Sohrabji Godrej Green Business Centre, Survey No. 64, Near Hitech City, R. R. Dutt, Hyderabad - 500 084
 T: +91 40 4418 5127, 33 F: +91 40 4418 9189 E: igbc@cii.in W: igbc.in

GRIHA



GRIHA Council

This is to certify that the product of

"Bhoruka Extrusions Pvt. Ltd."

ALUMINIUM EXTRUDED PROFILES (WITH ANODIZING AND POWDER COATING)

has been included in the GRIHA Product Catalogue under the following categories:

GRIHA V.3 criterion: 17
GRIHA V.2015 criterion: 21
 &
SVAGRHA criterion: 12

This product can be used in GRIHA & SVAGRHA registered projects to meet the GRIHA & SVAGRHA norms, respectively. This is valid only for the products which have been mentioned above.

The certificate for the above mentioned products is valid from
17th January 2022 - 16th January 2024


Sanjay Seth
 Chief Executive Officer

Note: This evaluation has been done based on the documentation in the form of pre-party test results and/or declarations submitted by the manufacturer to GRIHA Council.
 GRIHA Council is a joint initiative of Ministry of New and Renewable Energy, Government of India and the Energy and Resources Institute (ERI) to implement GRIHA (Green Rating for Integrated Habitat Assessment), India's National Rating System for Sustainable Habitats.
www.griha.in

Transport

- Metro coaches
- Gangway parts

Automotive

- Foot Step
- Roof Rails

Textile

- Roving Tubes
- Bobbin Rail

Projects

- Radiant Baffle
- Cycle frames



Machining – Inhouse machines from Emmegi, and Hurco

Project Management - Developing the entire value chain and taking responsibility upto end delivery

Designing – Working with customer to simplify their designs for efficiency and cost reduction

Tools and Fixture Developments – To improve storage and packaging specific to projects

Special Purpose Machine (SPM) - Developed bending , and turning machines inhouse

Sub Assembly – Steel, plastic, wooden and electronic sub assembly



#427E, Hebbal Industrial Area
Mysore – 570016
Karnataka, **India**
Phone- +91 - 821 - 2510351 / 2513876

E-mail: marketing@bhorukafabcons.com
Web: www.bhourkafabcons.com









When you think extrusion, think **Bhoruka**,
Your partner of choice

Thank You