



**EDGE (END) HARDENED
Steel Cheese Tube
(Patented for INDIA)**

June 2021

Specially developed Edge Hardened Steel Cheese Tubes (Patented), based on detail studying the problems for Deformation/Damage at the tube ends during handling and transportation.

About Siddhi Group

3+ decades of experience in Aluminum Precision Drawn Tubes & Metal Cops



— Our products are used across multiple industries —



Who are we?

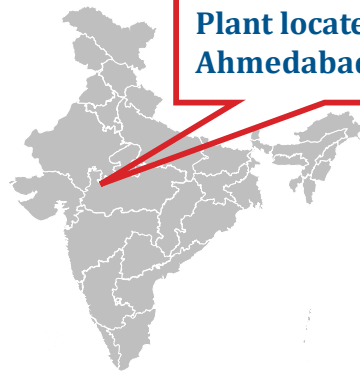
Diversified Group with 2 holding companies

- **Siddhi Engineers** : Manufacturer of Aluminum Precision Drawn Tubes from 20 different alloys since 1988
- **Samrudhi Engineering** : Engaged in manufacture of Metal Cops (bobbins/ pirns) for synthetic yarn winding since 1992



Strategically located in Western India to wide range of industrial segments

Plant located in Ahmedabad, Gujarat



Textile (incl. packaging)

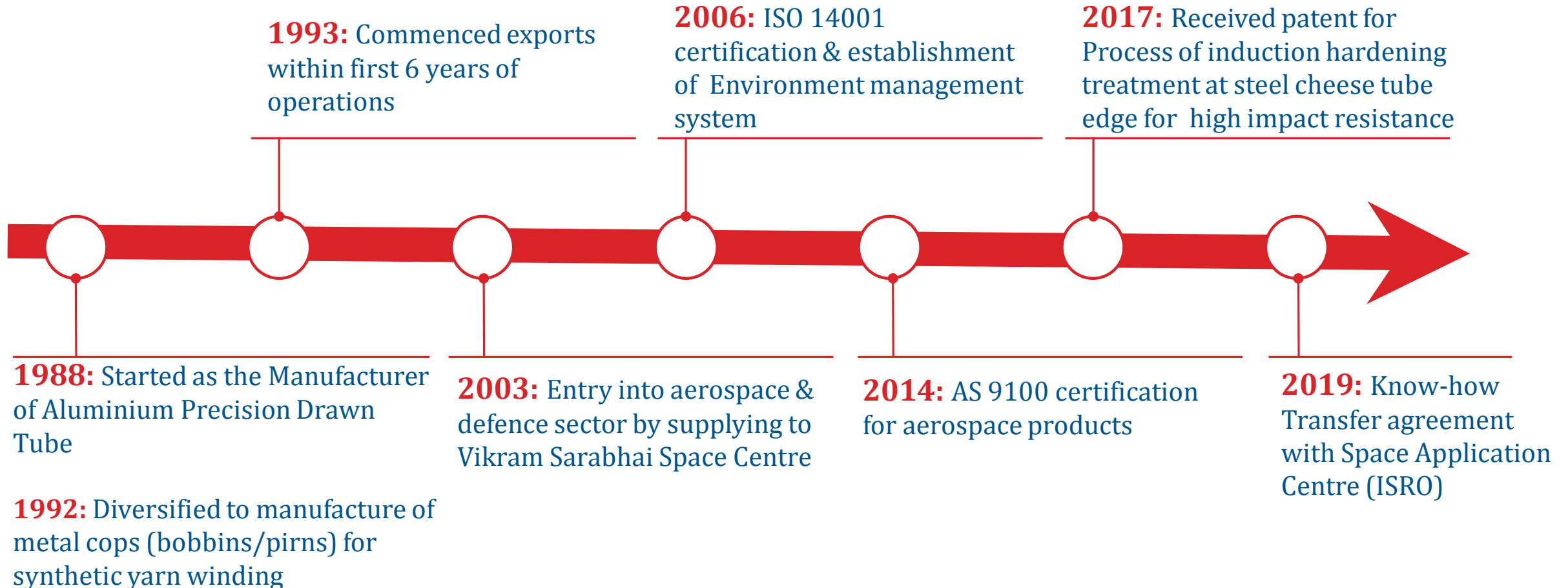


Aerospace & Defence



Industrial & General Engineering

Our innovation led Journey that aimed import substitution for India...



Our manufacturing & quality assurance capabilities



Draw Benches



Annealing Furnace



Straightening Machine



UTS Machine



Adapter Fitting Arrangement



Spindle Guide Fitting



Cop Assembly



Run-Out Measurement Arrangement



Cop Vibration Checking Arrangement

..that helps us manufacture wide range of products



Aluminium Precision Drawn Tubes



Metal & Cops



Aluminium & Steel Cheese Tubes



Plastic tubes & accessories



30 million mtrs
aluminum
tubes delivered

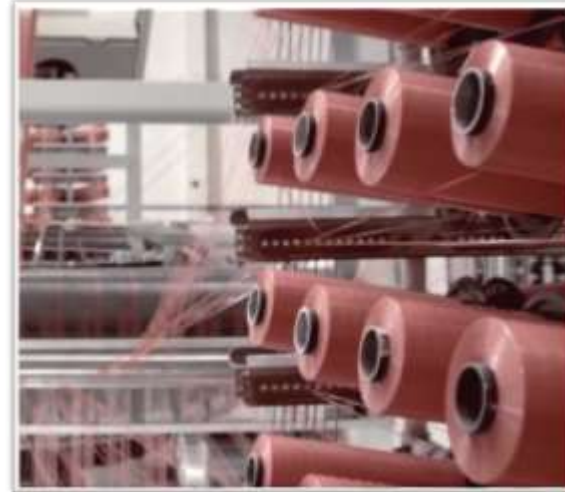


15 million
metal cops
exported



Products for Woven Sack & Allied Industries

STEEL / ALUMINIUM CHEESE TUBES



Woven Sack Industry



FIBC Industry

JUMBO TUBES



MULTI-FILAMENT



GEO-TEXTILE



CARPET BACKING

PAIN POINT FOR WOVEN SACK INDUSTRIES

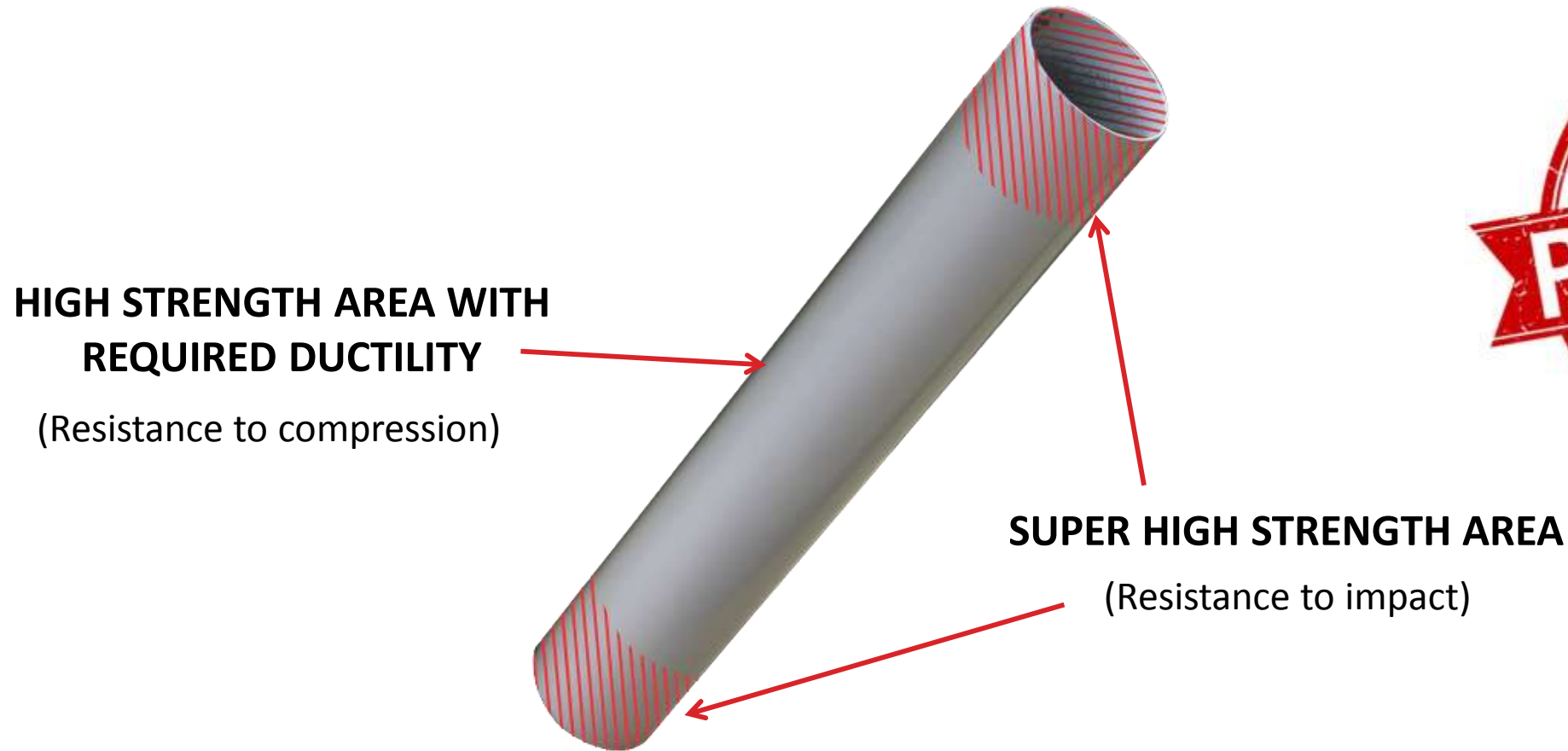


NAILS PROTECT THE FINGER FROM **INJURY**



SO DOES THE HARDENED EDGE FROM **DAMAGE**

“Quality is FITNESS FOR USE” – Joseph M. Juran



Added Value to the products

VALUE ADDITION

INCREASED LIFE

By number of cycles
due to

**BETTER
MECHANICAL
PROPERTIES**

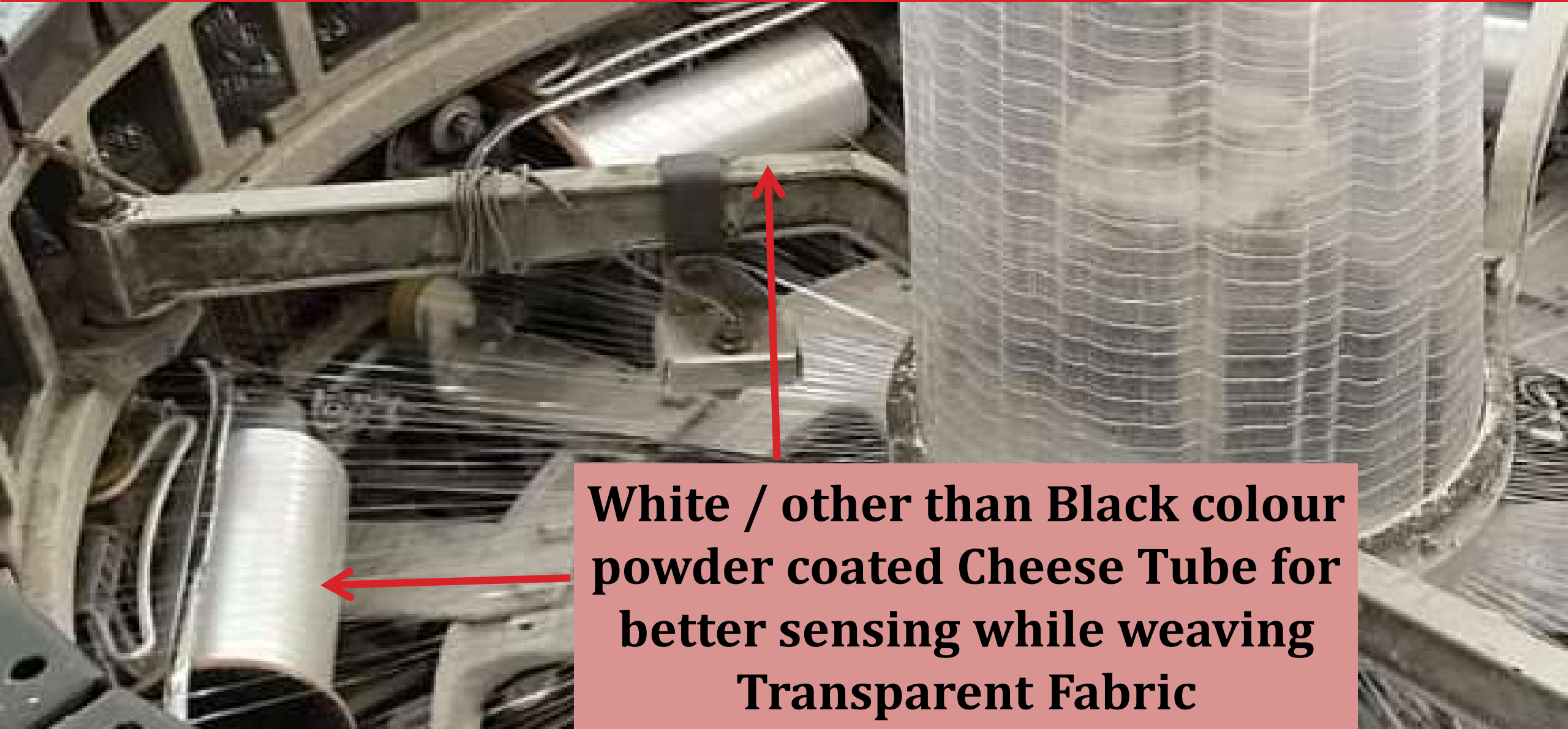
REDUCED COST PER CYCLE

and

**COST PER KG OF
PRODUCTION**

**RESIST
DEFORMATION or
DAMAGE** problem
due to **BETTER
HARDNESS**

Features



White / other than Black colour powder coated Cheese Tube for better sensing while weaving Transparent Fabric

Features

Other color options like Red, White, Black, Green or more colours on request



Value Proposition

Aluminium CHEESE Tubes offered with

**Black Powder
Coating**



**Micro Grooving
with/without Anodizing**



**Longitudinal
Grooving**



Value Proposition



Provide Product Samples



**MOQ
5000 Nos.**



**In 1-2 weeks from
confirmed order**

We have strong clientele base that can vouch for our commitment & delivery standards



SIDDHI ENGINEERS		Telephonic Follow-Up For Customer Feedback				Doc. No. QR/MKT/11
Customer : VARIYAR POLYFAB						
Invoice No /date :		SIGST20000104				
Sr. No.	Feedback Points	Poor (1)	Good (2)	Better (3)	Best (4)	
1	Quality of the Material				4	
2	Packing Quality(Receiving End) / Condition of the box			3		
3	Documents (With Consignment)/ Inspection Reports/ Invoice				4	
4	Dispatch Details From Siddhi End (Time Frame)				4	
5	Adherence to Delivery Schedule			3		
6	Packing Details			3		
Total		0	0	9	12	
		21	% of Customer Satisfaction		87.50	
OVERALL EXPERIENCE - IT INCREASE THE LIFE OF CHEESE TUBE, EXCELLENT INNOVATION FROM SIDDHI ENGINEERS.						
Siddhi Representative :		PARTH BAVALIYA		Customer Representative/Designation : HEMANT GUPTA		

Document No: QR/MKT/04

SIDDHI ENGINEERING
CUSTOMER FEED BACK FORM

REF. NO.
DATE: 24/09/2018

Customers Name and Address
PT.SUMBER BENGAWAN PLASINDO
PULOSARI, SROYO, JATENKARANGANYAR - 57101
JAWA TENGAH, INDONESIA / Tel: +62 271 827601/ 02
Fax: +62 271 827604 / Email: pucho@sbpl.com

Customer Representative (Name & Designation)
Ms. Kartika

Segment & Application

About Rating :- (10-9 = Excellent, 8-7= Very Good, 6-5=Good, 4-3 = Average & 2-1= Poor)

Sr. No.	Key Parameters	Rating on 1 to 10 scale
1	Response to inquiry & other Communication	8
2	Suggesting techno-economical viable alternative	9
3	Adherence to delivery schedule	8
4	Accommodating amendments, Product quality & quantity.	8
5	Accommodating amendments, Delivery schedule/ urgent requirement.	9
6	Adherence to product Specification	9
7	Response and handling of customer complaint if any	8
8	Compliance to documents requirement	8
9	Condition of packing and marking	9
10	Attitude of Marketing people	8

Suggestion for Improvement:-

Date: *October 2018* Signature of Authorized Officer
Name of Signing Person: *Kartika Dewa*
Place: *Solo/ Karanganyar* Seal of the Company

SIDDHI ENGINEERS		Telephonic Follow-Up For Customer Feedback				Doc. No. QR/MKT/11
Customer : UNOVEL INDUSTRIES PVT.LTD						
Invoice No /date :		SIGST20000151				
Sr. No.	Feedback Points	Poor (1)	Good (2)	Better (3)	Best (4)	
1	Quality of the Material				4	
2	Packing Quality(Receiving End) / Condition of the box			3		
3	Documents (With Consignment)/ Inspection Reports/ Invoice				4	
4	Dispatch Details From Siddhi End (Time Frame)				4	
5	Adherence to Delivery Schedule			3		
6	Packing Details			3		
Total		0	0	9	12	
		21	% of Customer Satisfaction		87.50	
OVERALL EXPERIENCE: THIS TUBE PREVENT FROM END DAMAGE. QUALITY IS VERY GOOD.						
Siddhi Representative :		PARTH BAVALIYA		Customer Representative/Designation : Mr. DEE'AK		

SIDDHI ENGINEERS		Telephonic Follow-Up For Customer Feedback				Doc. No. QR/MKT/11
Customer : UMAREE TEXPLAST						
Invoice No :		SIGST20000188				
Sr. No.	Feedback Points	Poor (1)	Good (2)	Better (3)	Best (4)	
1	Quality of the Material			3		
2	Packing Quality(Receiving End) / Condition of the box			3		
3	Documents (With Consignment)/ Inspection Reports/ Invoice			3		
4	Dispatch Details From Siddhi End (Time Frame)			3		
5	Adherence to Delivery Schedule			3		
6	Packing Details			3		
Total		0	0	18	0	
		18	% of Customer Satisfaction		75.00	
Suggestion for Improvement - Quality is good						
Siddhi Representative :		VARUN RAWAL		Customer Representative/Designation : CHETAN JOSHI (PURCHASE)		

Other useful Products



**FROM
PAPER TUBE**

**TO
ALUMINIUM TUBE**



Aluminium Jumbo Tube for
Multifilament Yarn
1st time in the WORLD (Patent Applied)

Size: ID 110 x OD 116 (in mm)

Paper Tube to be replaced by Aluminium Jumbo Tubes for In-house rotation

Quick payback within 3-6 Months

Other useful Products

Aluminium Cheese Tube

100 Grams - 1st time in the WORLD
(lightest – Patent Applied)

Size: ID 35 x THK 1.5 x L 218 (in mm)



Useful Videos



**HIGH STRENGTH
STEEL CHEESE TUBES**



**INNOVATIONS BY SIDDHI
ENGINEERS IN CHEESE TUBE**



**ALUMINIUM CHEESE TUBE /
BOBBINS APPLICATIONS**



**CHEESE TUBE / BOBBINS
APPLICATIONS**

Awards & Certifications

45+ awards and counting



Export Excellence



Research & Development



Entrepreneurship



Banker's award



Society of Aerospace Manufacturers



Make in India award

Certifications



ISO 9001 - 2015 quality management



ISO 14001 - 2015 Environment management



EN 9100 - 2018 Aerospace Products

Patent Applications made and in process

High focus on research and innovative solutioning

Spends around 5% of revenue on R&D

1 patent received



Process of induction hardening treatment at steel cheese tube edge for high impact resistance

5 Patents applications in process



India

Process for **manufacturing of Aluminium alloy cheese tube**, cheese pipe or bobbin for woven sack



India

Process for **manufacturing steel cheese tubes**, jumbo tubes, pipes for woven sacks and cops, bobbin, pirns for synthetic yarn



India

Process for **manufacturing of steel cops/ bobbins/ pirns** for synthetic yarn



India

Method of **manufacturing Aluminium tubes** for telescopic mast



Israel

Process for **Manufacturing Steel Cheese tubes/ jumbo tubes/ pipes** for woven-sacks and cops/ bobbins/ pirns for synthetic yarn



State-of-the-art manufacturing facility with robust quality management processes that ensures reliability and consistency



Our commitment to manufacture products that have enhanced features for higher functional performance



In-house product development capabilities & customization to embedded in strong in-house research and development



Our demonstrated success of delivery in import substitution in 30+ years



Our partnership centric approach with our customers to solve their deepest problem in cost-effective and efficient way (E.g. ISRO, DRDL, BAPL etc.)

Why **Siddhi Group** is best suited partner for your business

Successful client case studies of co-development, innovation and problem solving



Select Examples



Helping ISRO design and build efficient and cost-effective satellite systems

Context: ISRO wanted low weight substitutes for wave guide tube: brass/copper-based wave guide tube of thickness 1.2 mm used

Approach: Siddhi Engineers developed & innovated 0.63 mm aluminium based wave guide tubes



Helping Israel-based textile player in developing cost-effective bobbin to save reverse logistics cost

Context: Nilit used heavy metal cops that led to cost (reverse logistics) and supply chain hassles (inventory management, paper work, etc.)

Approach: Samruddhi Engineers re-designed & commercialized optimal grade steel tubes

15-20%



lower weight leading to efficient space system design

Gold Medal



from Indian Space and Defense Programme (2009)

60%



lower weight and zero reverse logistics

2 pronged approach to drive research and development within the group



Collaboration and partnership with institutions to drive research and development



राष्ट्रीय डिज़ाइन संस्थान
NATIONAL INSTITUTE OF DESIGN



CIPET सि पे ट
probo · perform · practice · Plastics



Building culture of innovation and continual improvement



Monthly cadence of idea generation by involving shopfloor manpower (Karmayogi) to improve **product and processes**



Have developed **full time in-house innovation team** to drive change in equipment, process and products



Development of unique product features (light weight, better tolerance, optimal alloy composition, exceptional concentricity, etc.)

Innovative team & culture building practices being adopted



Daily Exercise, Prayer and Good News Sharing



Quarterly Karmayogi Meet



Graveyard for negative thoughts



Good Book every month to all team members with their salary



Blood Donation & Dental Health check up Camps



Media publication and press releases

Siddhi Engineers awarded for outstanding entrepreneurship

BIG ON EXCELLENCE

SME ENTERPRISES		RESEARCH & DEVELOPMENT	
Award Winner	Company	Award Winner	Company
Vishwanath Parikh	Shreevast Systems	Chandrayan Dholakiya	Mobile Refrigerators
Satish Parmar	Energy Mission Engineers	Maganbhai Patel	Capitan Tractors
Maganbhai Patel	Capitan Tractors	Bhagvat Patel	Techno Industries
Harish Patel	Vasu Healthcare	Bhagvat Patel	Siddhi Engineers
Bhagvat Patel	Techno Industries	Harish Patel	Vasu Healthcare
Dinesh Daga	Shree Hans Alloys	QUALITY PRODUCTS	
Chandubhai Kothiyar	Ganesh Chemicals	Award Winner	Company
Bhagvat Patel	Siddhi Engineers	Ramesh Kulkarniya	Capitan Polypast
Nilesh Shah	Swan Sweets		

15 State-Based MSMEs Receive Awards From Centre For Innovation, Quality

Himanshu Dahiya
ANANDHARAJ

SMART is sometimes big. It is not for Kala-based 80-odd Siddhi Engineers, the recipient of national awards for micro, small and medium enterprises for outstanding entrepreneurship in New Delhi on August 26, 2009.

Siddhi Engineers manufactures aluminium pipes for aircraft industries and supplies them to Indian Space Research Organisation (ISRO) and Space Applications Satellite Centre (SAC), Ahmedabad. These pipes were originally imported from France. Now with Siddhi Engineers supplying these pipes, we only save a little on exchange and avoid the cost of the pipes in INR.

Appreciating the contribution in 8th prime minister Manmohan Singh presented a award to Bhagavat Patel, chairman of the company, at New Delhi.

"We are honoured to be a part of this event. It is an



સિદ્ધી ગ્રુપની સમૃદ્ધિ એન્જીનીયરીંગને માઈક્રો એન્ટરપ્રાઈઝ એવોર્ડ મળ્યો

સિદ્ધી ગ્રુપની સમૃદ્ધિ એન્જીનીયરીંગને માઈક્રો એન્ટરપ્રાઈઝ એવોર્ડ મળ્યો. આ એવોર્ડને આપવામાં આવેલા છે. આ એવોર્ડને આપવામાં આવેલા છે. આ એવોર્ડને આપવામાં આવેલા છે.

J. S. GROUP

EETPC INDIA

ENGINEERING THE FUTURE

TIMES OF INDIA - AHMEDABAD
DTD 5/9/2009
PAGE NO 5

Sky's the limit to their aspirations

Nayan Dave | TNN

Ahmedabad: During their college days in early 80s, these two roommates dreamt of reaching for the sky. Three decades on, the mechanical engineers have done it, literally. Siddhi Engineers, a firm promoted by Bhagavat Patel (50) and Prashant Gandhi (50) recently bagged an award from Union Ministry of Micro, Small & Medium Enterprises for designing high-precision tubes for Indian Space Research Organisation (ISRO). The space organisation will use these tubes to establish contact with GSAT-12, which is likely to be launched in 2010.



Prashant Gandhi (left) and Bhagavat Patel

After passing out from Birla Vishwakarma Mahavidyalaya in Vallabh Vidyanagar, both Patel and Gandhi worked for seven years in different companies. "It was our dream that brought us together again in 1988. We thought of doing something on our own and launched a partnership firm with an initial invest-

firm supplied fuel supply line to ISRO for GSLV F01 satellite. There has been no looking back since then. Today, the Rs 10-crore firm employs over 150 persons.

"Scientists from Space Application Centre (SAC) wanted us to design a hollow aluminium rectangular tube, which is extremely lightweight and sturdy at the same time. Even a variation of 10 microns was not allowed. We took it as a challenge and succeeded," said Gandhi, talking about the award-winning product, which is used to manufacture 'Wave Guide', a crucial component for space-earth linkage. Siddhi Engineers managed to nudge out a large multinational giant to bag the project from ISRO.



SIDDHI GROUP

Key team & contact details



Mr. Prashant Gandhi
Partner



Mr. Bhagwat Patel
Partner



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