

**Aluminium Drawn Tube  
For  
PP Multi-Filament Spin-Draw-  
Wind Lines**

# About Siddhi Group

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



— Our products are used across multiple industries —



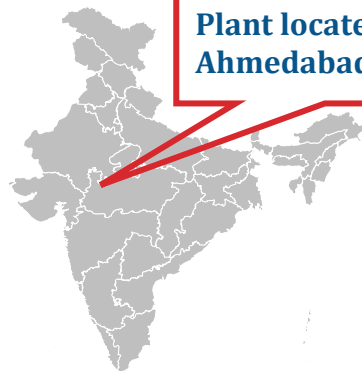
Who are we?

**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 )

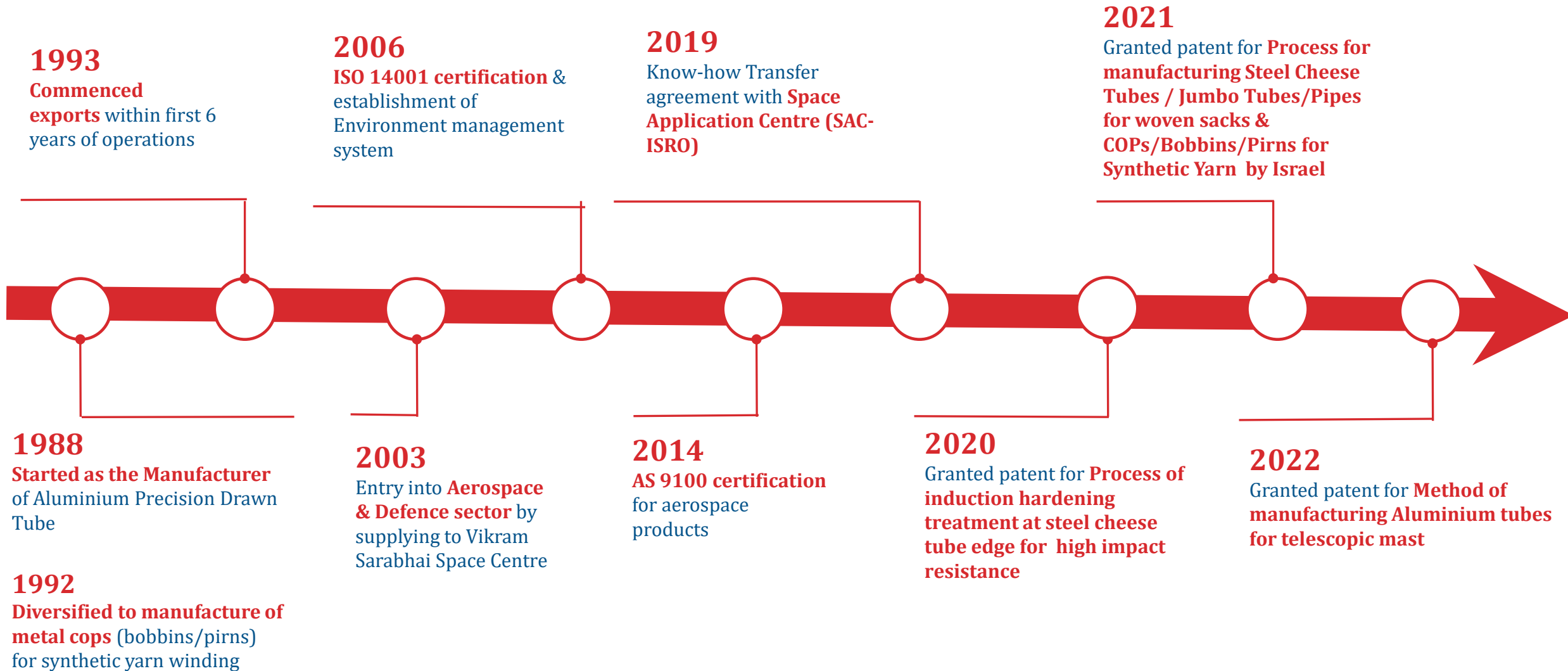


Aerospace & Defence



Industrial & General Engineering

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





# **Products for PP Multi-Filament Spin-Draw-Wind Lines**

# Products for Woven Sack & Allied Industries



*Steel / Aluminium Cheese Tubes*



**PP/HDPE  
Flat Tape  
Winding**



**FIBC  
Industry**



# Products for Woven Sack & Allied Industries



***Jumbo Tubes***



**FIBC  
Industry**

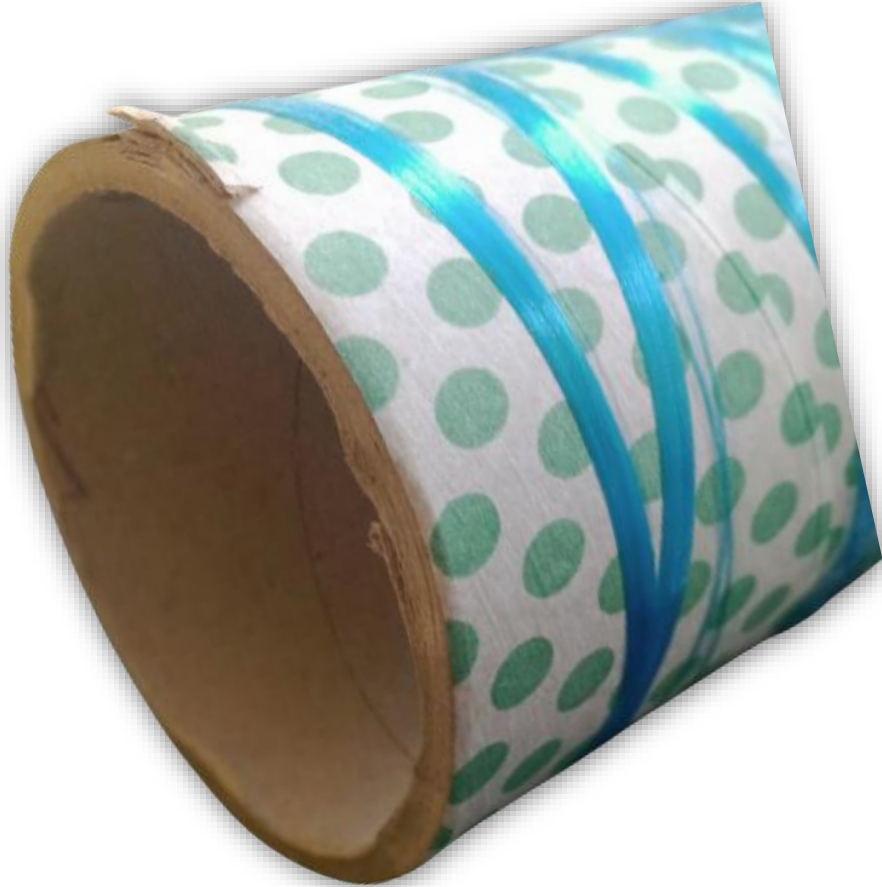


**Carpet  
Backing  
Thread**



**Geo-Textile  
Industry**

# Pain Points of using Paper Tubes



**End Damage while Fitment  
Impact on Spindle**



**Damage due to Atmospheric  
Effect**



**Damage due to Miss-  
handling / Transportation**

# Introducing Aluminium Drawn Tube for Multi-Filament Yarn



***Paper Tube*** to be replaced by  
Aluminium Drawn Jumbo Tubes  
for In-house Yarn processing



***Aluminium Drawn Jumbo Tube*** for ***Multifilament Yarn***  
***Size: ID 110 x OD 116 (in mm)***  
***1<sup>st</sup> time in the world***



# Value Proposition

Yarn produced with a better WINDING QUALITY



Increased Life by Number of Cycles

80%

Reduced Cost per Kg Production in regards to Yarn Carrying

No Repeated Buying of Tubes



Scrap Value is Min. 50% of its Purchased Cost



Scrap Value



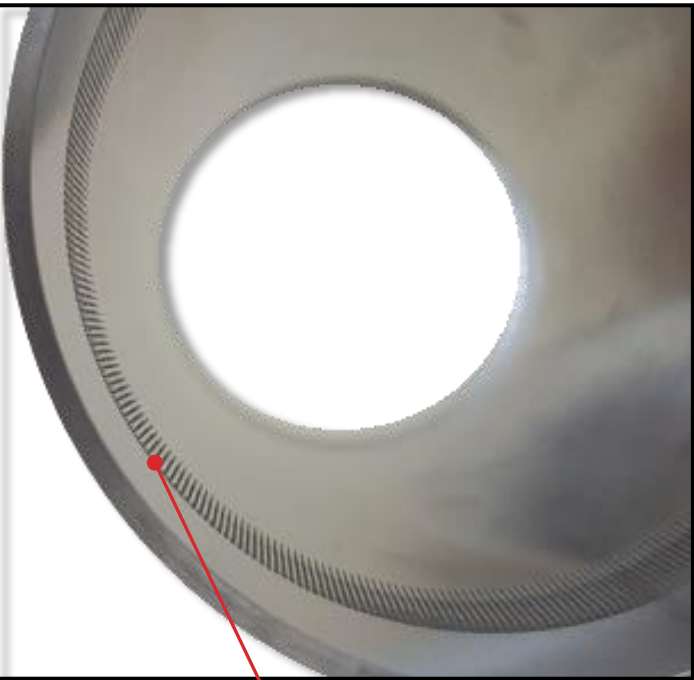
Less Damage in Handling & No Deformation due to Atmospheric Effect



Space Utilization as Less Stock Keeping



# Additional Features for Creating Functional Advantages



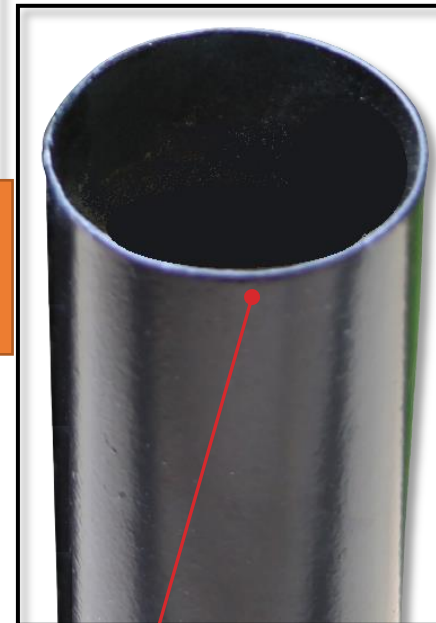
Internal  
Knurling



Longitudinal  
Grooving



Micro Grooving on  
OD circumference



Anodizing /  
Powder Coating



Rough OD  
Surface

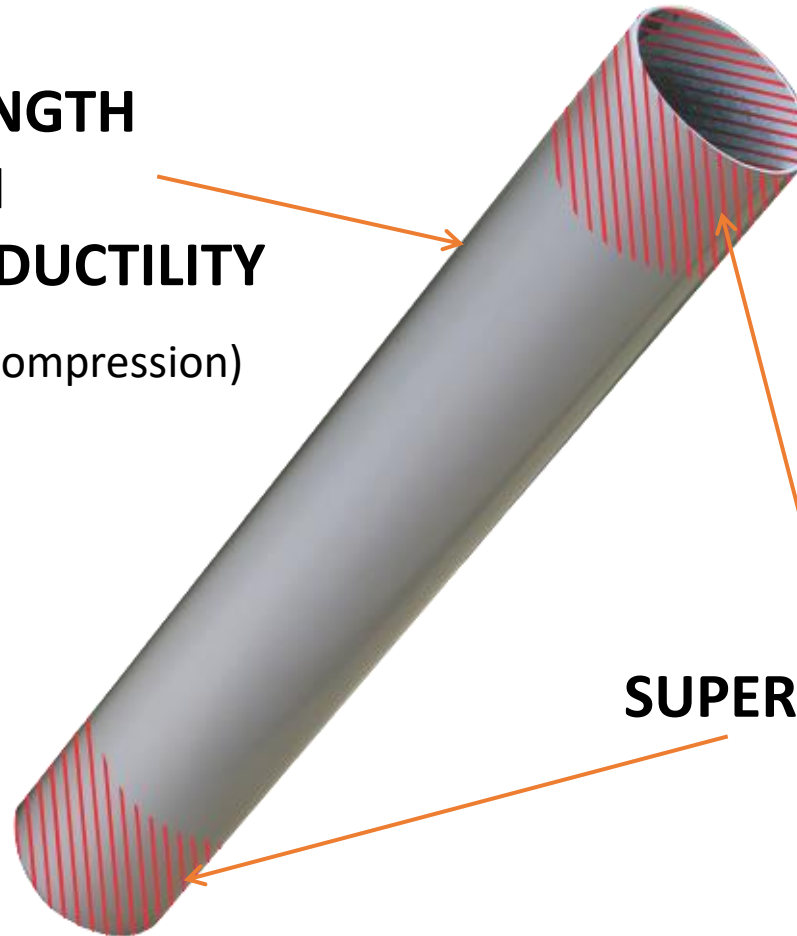
## OTHER USEFUL PRODUCTS

### EDGE HARDENED Steel Cheese Tube

- Resistance to impact
- Resistance to compression

**HIGH STRENGTH  
AREA WITH  
REQUIRED DUCTILITY**

(Resistance to compression)



**SUPER HIGH STRENGTH AREA**  
(Resistance to impact)



**PATENTED**

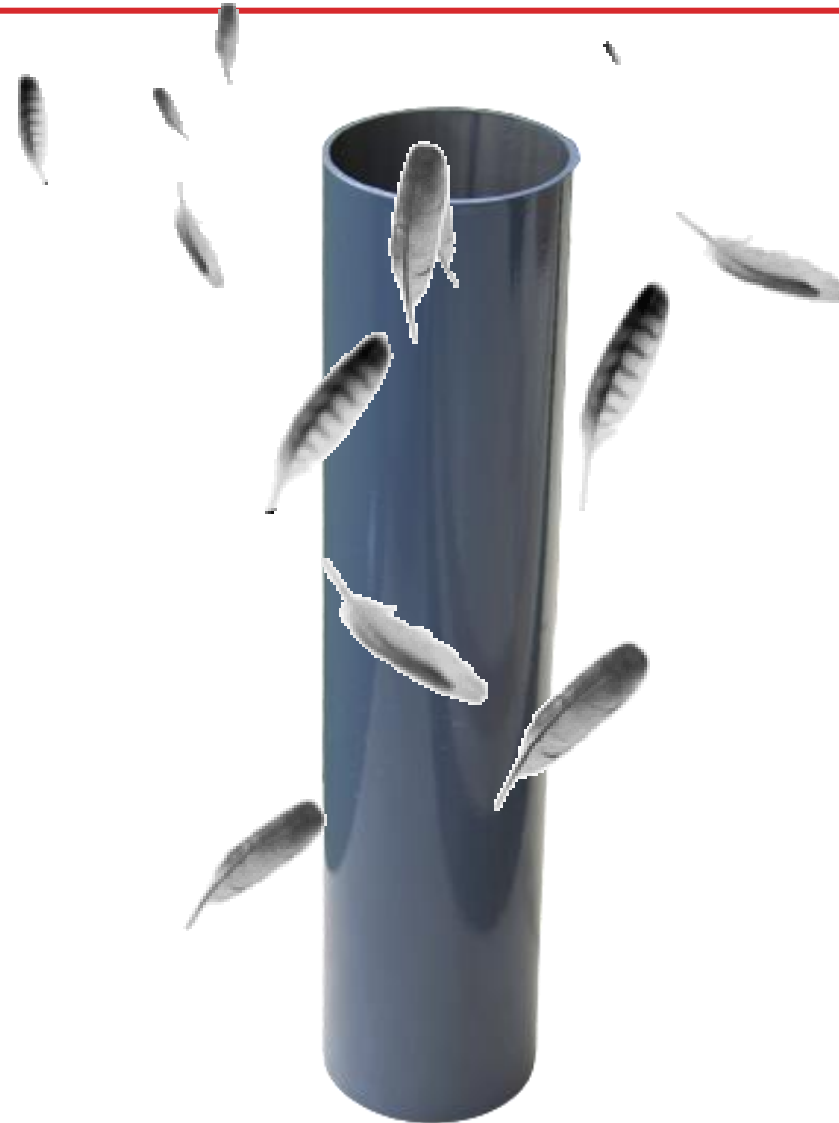
## OTHER USEFUL PRODUCTS

Aluminium  
Cheese  
Tube

100 Grams

1st time in the  
WORLD

(lightest – Patent  
Applied)





# Useful Videos

**Applications  
and  
advantages  
of different  
products by  
Siddhi Group**

**Get more  
details  
through  
YouTube  
Videos**



**HIGH STRENGTH  
STEEL CHEESE TUBES**



**INNOVATIONS BY SIDDHI  
ENGINEERS IN CHEESE TUBE**



**ALUMINIUM CHEESE TUBE /  
BOBBINS APPLICATIONS**



**CHEESE TUBE / BOBBINS  
APPLICATIONS**

# Products Manufactured from Aluminium and Steel Tubes



EXPORTING TO

**30+**

COUNTRIES



*For Multifilament Yarn, Woven Sack, FIBC, Geo-Textile, Carpets,  
Aero Space, Defence, Automobile, Telecommunications &  
Automation Industries*

# Awards & Certifications

50+ awards and counting

## Certifications



Export Excellence



Research & Development



Entrepreneurship



Banker' award



Make in India award



Gold Medals from SAME (2009, 2017)



AS 9100D  
ISO 9110:2015  
Quality Management



ISO 14001:2015  
Environment management



# ISRAEL



# INDIA



## 4 applications are in process



## India

## India

) **India**

## A process for Preventing Deformation in the ends of Jumbo Aluminium Tubes

**Spends  
around 5%  
of revenue  
on R&D**





**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**

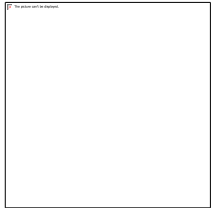
**In-house product development capabilities & customization to embedded in strong in-house research and development**

**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



**Supporting SAC(ISRO)** to design and build efficient and cost-effective satellite payload systems

**Context:** SAC(ISRO) wanted low weight substitutes for Brass/Copper/Aluminium-based waveguide tube of thickness 1.2 mm

**Approach:** Siddhi Engineers innovated & developed 0.63 mm thick aluminium based waveguide tubes

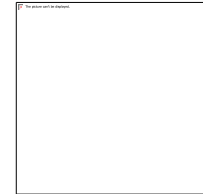
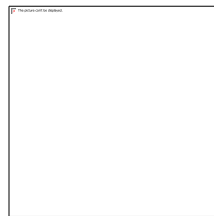
**15-20%**

lower weight leading to saving satellite launching cost



**2 Gold Medals**

from Society of Aerospace Manufacturing Engineer (2009, 2017)



**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

**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



**IIT Gandhinagar**  
Indian Institute of  
Technology Gandhinagar

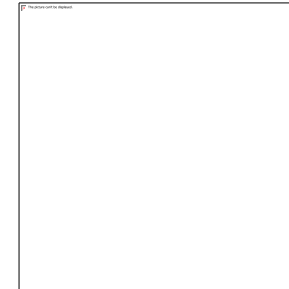


**PDEU** PANDIT  
DEENDAYAL  
ENERGY  
UNIVERSITY  
Formerly Pandit Deendayal Petroleum University (PDPU)

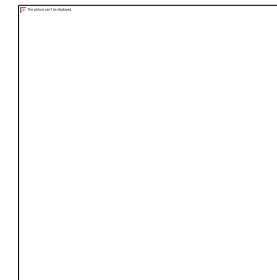


INSTITUTE OF  
INFRASTRUCTURE  
TECHNOLOGY RESEARCH  
AND MANAGEMENT  
**IITRAM**

## 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.)

# Innovation and Culture Building Practices being adopted



Daily Exercise, Prayer and Good News Sharing



Quarterly Karmayogi Meet



Graveyard for negative thoughts



Book distribution every month to all team  
members with their salary



Blood Donation & Dental Health check up  
Camps





**Himanshu Dargi**  
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SATIS is a consortium. This is not for sale! India's 84 top S&T Engineers, the recipient of national honours for their small and medium enterprises for outstanding enterprise performance (New Delhi: August 28, 2009).

S&T Engineers Association is a consortium of private engineering industries and the Indian Space Research Organisation (ISRO) and Space Applications Satellite (SAS), Ahmedabad. These firms were originally imported from France, New South Wales, and others supporting their private industries and the government for its progress, but they are now the cost of the project.

Appreciating the contribution in 84th prime minister Manmohan Singh presented to the award to P. Parag Mehta, chairman of the committee.

We are honoured that a small set of private, local and

Cultural GDC has been awarded by prime minister ISRO in new starting aluminium pipes from us. It is much cheaper than the earlier ones imported from France. These pipes are being used in the national communication system for the first time. It is a very important step. 20 different sizes. We have also bagged contracts from the defence sector," said Mr. Patel.

Along with S&T Engineers, a total of 15 MSMEs of Gujarat are working with the government for their innovation, quality and entrepreneurship.

This is the first time that Gujarat-based industries have received awards in such a large number. Last year only three small and medium enterprises were awarded the award. "Of these 15 companies, 13 are members, which is a matter of great pride for us. This is a testimony to the experience, and commitment spent on Gujarat's industries," said the S&T Engineers Association president, Anil Kulkarni.

[illegible][illegible][illegible]

hysical 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-





**SIDDHI GROUP**

## Key team & contact details



**Mr. Prashant Gandhi**  
Partner



**Mr. Bhagwat Patel**  
Partner



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