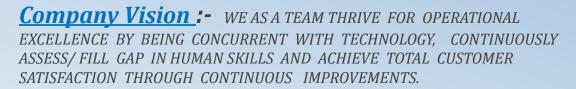
SPECTRUM INFRASTRUCTURE





<u>UNIT I: (ESTD : 1990) –</u> BANGALORE

Process:- Tool room and Moulding 4800sft Land & 15400 sft Building. Team strength:-250 members including unit 1 and 2





with customer: Delivering the best Engineering products and services exceeding customer expectations.

<u>With Suppliers</u>: Treating suppliers as our immediate business partners.

<u>With our employees</u>: Providing the best working atmosphere to enhance their efforts and ideas in the organization.



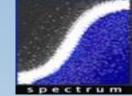
UNIT 2: (ESTD: 2012)-Bangalore.
Process:- Moulding and product
Assembly_and Administration.
4000sft Land & 12,000sft Building
Team strength:-250 members
including unit 1 and 2.

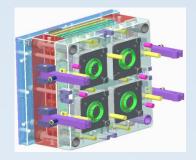


<u>UNIT 3: (ESTD : 2014)-</u> <u>Bangalore.</u>

Process:- Lighting Assembly.4000sft Land & 12,000sft Building
Team strength:-30 members.

CAPABILITIES





Design and development of molding tools



Injection molded Tool manufacturing



Injection molded parts



product assembly





Dedicated in house tool room



Dedicated PU gasket machine for foaming process



Hot chamber die casting machine



LED lighting products

TOOL ROOM- FACILITY.

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48000000	
- CONTROL OF THE REAL PROPERTY AND THE PROPERTY AND THE PROPERTY A	

Sl No	Machine Name	Machine Make	No of Machines
1	CNC Milling.	PRODIS 850 L	1
2	WEDM	ELECTRONICA ULTIMA	1
3	WEDM	AGIE-CHARMILLES	1
4	EDM	ELECTRONICA/ OSCARMAX	4
5	EDM	AGIE-CHARMILLES-	1
6	CNC DRILLING MACHINE	ESTEEM	1
7	SURFACEGRINDING	JOHNSHIPMAN	2
8	CNC MILLING	MAKINO FX650	1







MOULDING FACILITY.

SI NO	MACHINE TONNAGE	MACHINES IN NOS
1	60Т	2
2	75T	1
3	80Т	1
4	90Т	2
5	100T	4
6	120T	4
7	160T	2
8	250T	2
9	30T-Hot chamber die casting	2





FABRICATION FACILITY DETAILS

spectrum

Amada CNC Turret Punch Press AC255NT

- •Amada Press Brake RG-80
- •100T Cross Shaft Pneumatic Clutch Power press (SEW)
- •60T Cross Shaft Pneumatic Clutch Power press (SEW)
- •40T Pneumatic Clutch Power press (WMW)
- •30T Mechanical Press (Dig Vijay)
- •20T Mechanical Press (Vivek)
- •10T Mechanical Press (Vivek)
- •Guillotine Shearing 1500 mm (TEE)
- •Spot Welding 15, 20 KW (Electroweld)
- •Riveting Machine (Heager 416)
- •MIG Welding Machine (Nikit)
- •TIG Welding (Indus Arc)

TOOL DEVELOPMENT SUMMARY

- > Basic operation
- > Cycle time and heat transfer
- > Flow and solidification
- Part design
- > Tooling
- > New developments
- > Environment









PLANT SET-UP APPROACH

Software used

Software used

Machining Software: Delcam Professional 2013

: Edgecam Standard 2014

Drafting Software: Power Shape Model 2013

3D Modelling: SolidWorks Professional 2013

Inspection report: VMS

To transfer CNC programs: Wireless DNC System

Drawing formats: STL, STEP, IGES, DXF, DWG

Accounting and Material management: SAP





Tool design



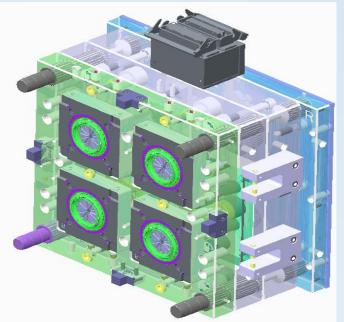
Tool Design

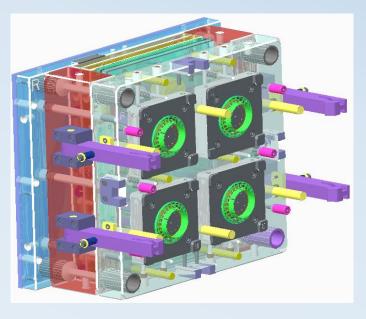
6 Tool designers

2 Product designers

Design tools: Creo, Pro/E & SolidWorks

Design output: 12-15 moulds per month





QUALITY/INSPECTION FACILITY DETAILS.



SI No	Testing Machines details.
1	VIDEO MEASURING SYSTEM
2	HIGH VOLTAGE TESTER
3	GLOW WIRE TESTER
4	FALLING DART IMPACT TESTER
5	HARDNESS TESTER
6	MAGNIFIENG LENS
6	DIGITAL MICRO METERS
7	DIGITAL CALLIPERS



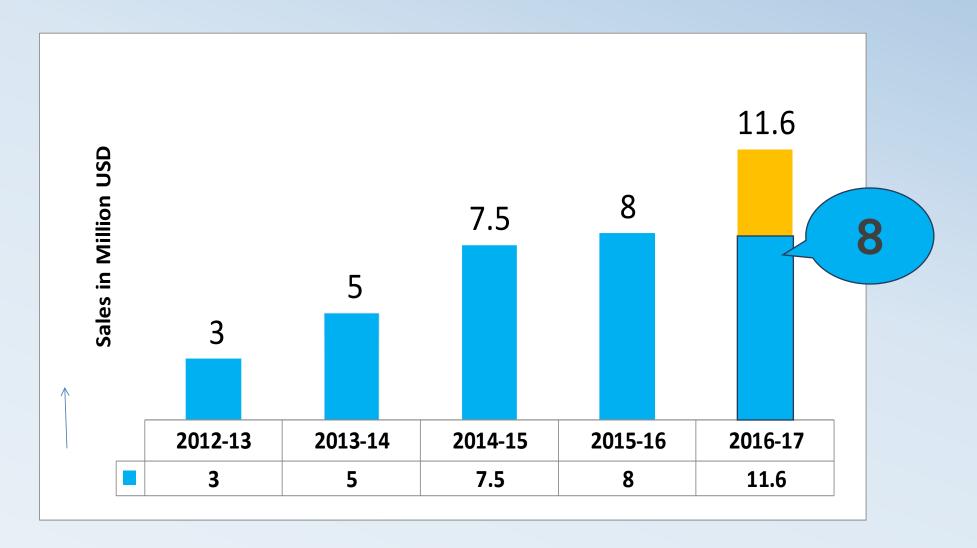






BUSINESS GROWTH





Export portion 16%

OUR CUSTOMERS



















éolane

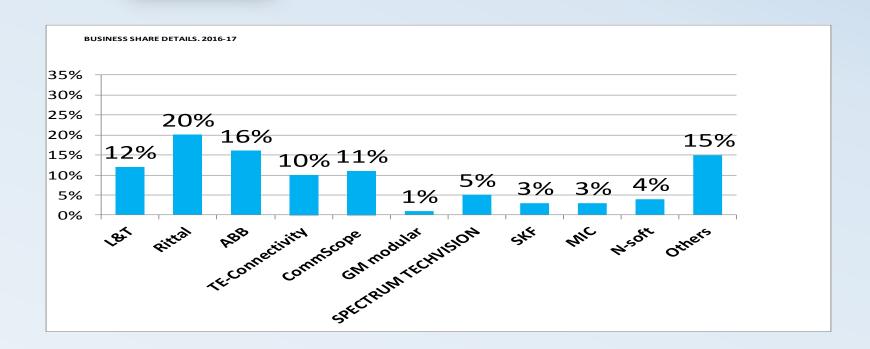






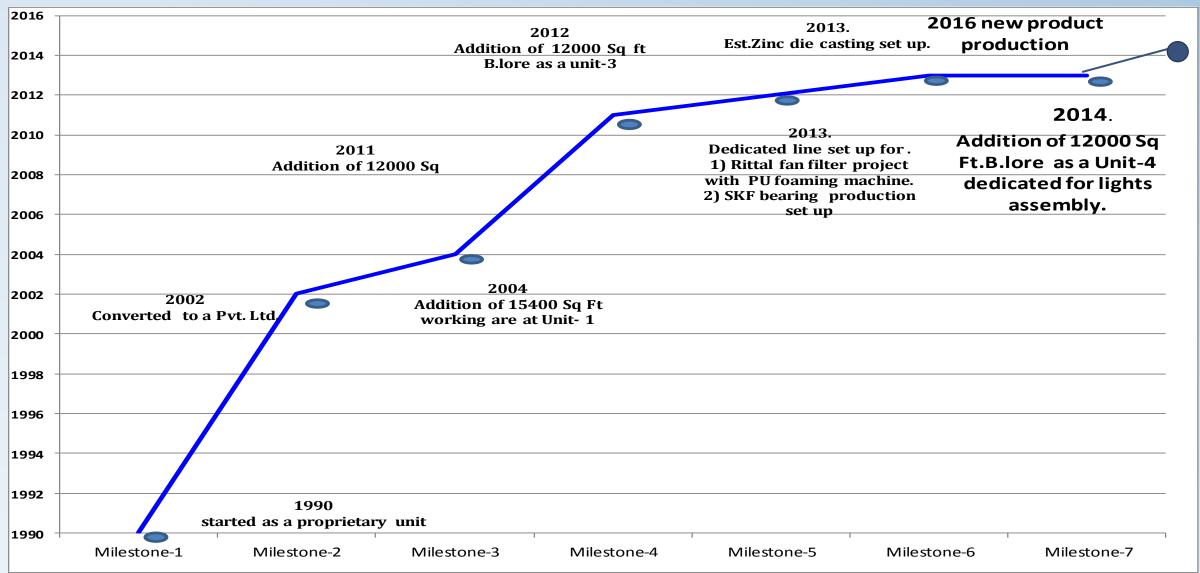






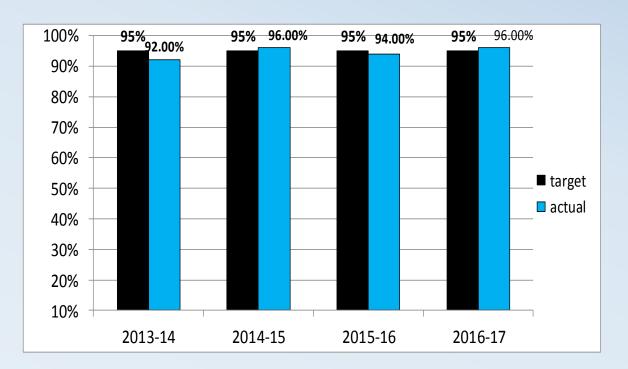
ORGANIZATION MILESTONES.





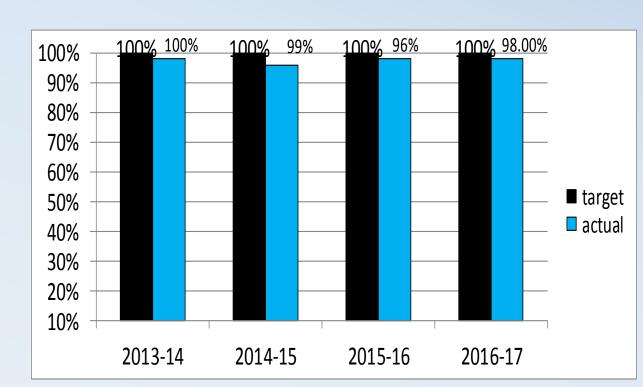


SPECTRUM OVERALL PERFORMANCE DELIVERY TO REQUEST





SPECTRUM OVER ALL PERFORMANCE FOR DELIVERY TO CONFIRM.



QUALITY PRINCIPLES

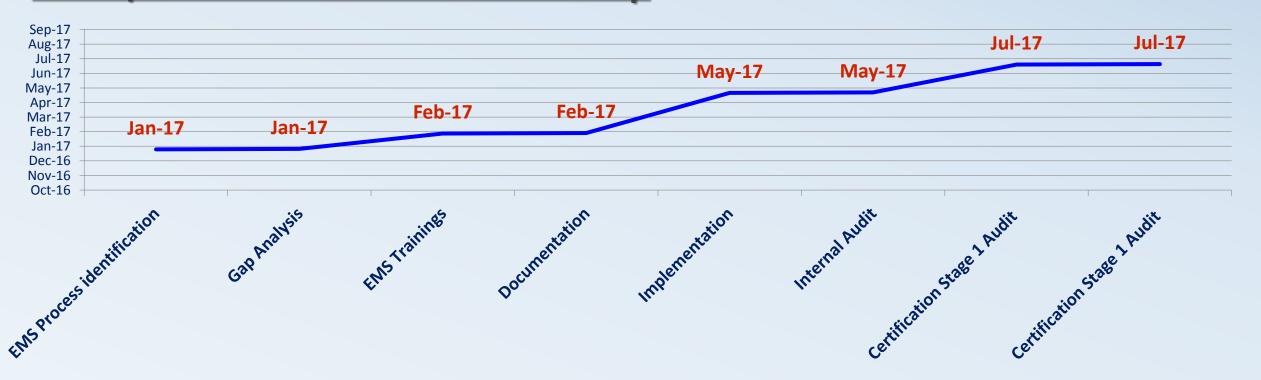
- spectrum
- * We want satisfied customers. We achieve this with products and services whose quality meets the expectations of our customers.
- * We see the pursuit of quality as an responsibility of everyone from directors to Trainees.
- Our policies and procedures based on international standards, customer requirements, our knowledge and experience. Knowledge of and compliance are the basis for our quality.
- Quality means for us to do things right the first time. Process quality reduces costs and increases profitability.
- Error prevention has priority over error elimination. We therefore call systematically on methods and tools for preventive quality assurance. We learn from mistakes and eliminate immediately the causes of errors.
- * For quality of our products and services, our suppliers contribute significantly. We therefore provide them the same high quality standards as ourselves.

ENVIRONMENT POLICY

We at **Spectrum Tool Engineers.**, are committed to

- > Conduct our operations in an environmentally responsible manner to comply with environmental legislation and other requirements.
- > Conservation of natural resources by optimum usage and minimizing waste generation.
- > Prevention of pollution by monitoring and controlling environmental pollutants.
- > Strive for continual improvement in our Quality and Environmental performance by setting challenging targets.

ISO 14000 EMS Certification road map













Larsen & Toubro's Metering and Protection Systems, India's leading manufacturer in comprehensive range of high quality electronic energy meters and protective relays

<u>Project Challenge</u>: we are manufacturing all mechanical part in one place

Achievement:

- -we are supplying meter parts to L&T past 25 years
- -one point solution for tool development and part supply's



RTXP 8, RTXP 18 and RTXP 24 test switches for fast and fail-safe testing of protection relays and other similar products















Project Challenge:

- Past 35 years ABB imparting this product from Sweden
- We have developed complete product at our facility. This product and process has been approved by ABB SWEDEN .

Achievement:

- -Now we are exporting this product to ABB SWEDEN.
- -We are on ABB global approved vendor list.







Achievement: we are supplying all mechanical parts past 5years









Project Challenge:

- The project: FAN FILTER developed by a vendor in ISRAEL and being supplied to India and other locations.
- SPECTRUM was identified for this project . Team visited ISRAEL and the complete project was transferred .
- Production, development process and supply chain activities in total was relocated.

Achievement:

- We are supplying past 5years complete products assembly's
- Now Rittal global approved vendor list

Rittal India Pvt Ltd is 100 % Subsidiary of Rittal GmbH & Co. KG, Germany. Rittal is the world's largest manufacturer of enclosure systems. It belongs to the Friedhelm Loh group of companies in Germany. Founded in 1961 the company rapidly developed to become the World's number one enclosure manufacturer.

Website address; - www.rittal-india.com



Corner piece



Zinc die cast



Slide piece



5W tube light





FAN FILTER





FANTRAYS







FAN FILTERS







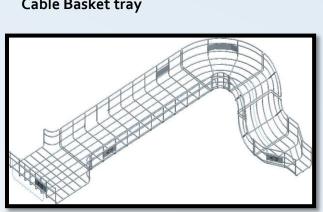
Cable manager racks.





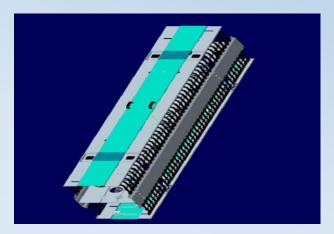
THE RESIDENT SHIPPERSON AND ADDRESS OF THE PERSON AND ADD

Cable Basket tray



TE Connectivity (NYSE: TEL) is a technology leader in the world's fastest growing markets, helping connect power, data and signal in everything from automotive and aerospace to broadband communications, consumer, energy and industrial applications. By helping our customers meet the need for greater energy efficiency, ever-increasing productivity and faster, more reliable data, TE's market-defining technologies and engineering expertise is setting the pace for the future of connectivity





Project Challenge:

The product design and development done by spectrum as per customer concepts

Achievement:

- Developed with in shortest lead time and this was an import substitute.
- Product developed keeping price and compact design in mind.





Patch chord lock.





Rom collar

Solar box





Terminal block

Cable channel.





Plug shell connector





GM is a company that has redefined switch manufacturing in India. GM is an INDIAN origin company.



SPIKES



SPIKES



DOOR BELL



SPIKES



SPIKES



DOOR BELL



SPIKES



BULB HOLDER

Products



Cricket board game



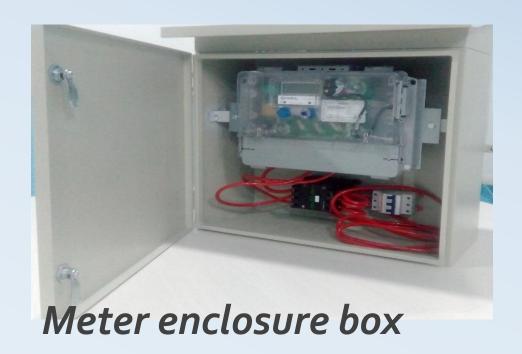
street light



street light



DCDB



BEARING COVER









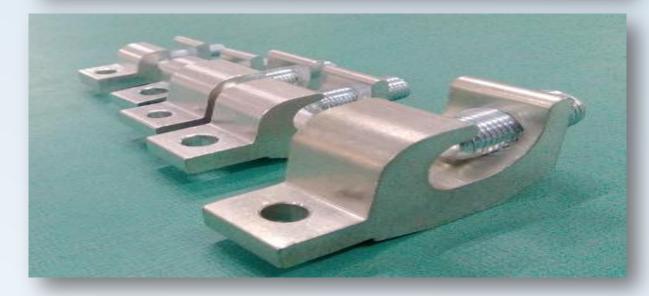


PRECISION MACHINE PARTS AND HOT CHAMBER DIE CASTING PARTS













MK-3 Link BOX



Terminal box



High Voltage bus bar











6L &10L water heater enclosure

Fuse holder

54 watt street light























ENCLOSURE BOXS











Spectrum LED Lights







ASSEMBLY FACILITY.



laser marking machine



polyurethane gasketing machine



ultrasonic welding machine



















ISO CERTIFICATION.



CERTIFICATE TUVNORD

Management system as per

ISO 9001: 2008

In accordance with TÜV INDIA procedures, it is hereby certified that

SPECTRUM TOOL ENGINEERS PVT. LTD.

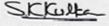
UNIT 1: # 97/100, Pete Channappa Industrial Estate, Kamakshipalya, Magadi Road, Bangalore - 560 079, Karnataka Unit 2: Spl No.70 & 71, Hebbal Industrial Estate, Mysore - 570 016, Karnataka, India



applies a quality management system in line with the above standard for the following scope

Manufacture of Plastic Moulded Components and Sub-assemblies

Certificate Registration No. QM 08 01068 Audit Report No. Q 6601/2015 Valid until 03.04.2018



Certification Body at TÛV INDIA PVT, LTD. Issue 04.04.2015 Place : Mumbai

This cartification was conducted in accordance with the TÛV INDIA auditing and certification procedures and is subject to regular surveillance audits.

TUV India Pvt. Ltd., 801, Reheja Plaza - 1, L.B.S. Marg, Ghatkopar (W), Mumbai - 400 086, India www.tuvindia.co.in





AWARDS AND RECOGNITIONS













WE BELIEVE OUR GROWTH IN OUR CUSTOMER'S GROWTH.

