

# SPEED@TRF

An in-house publication of TRF

## Vision





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Dear Reader,

TECHNOLOGICAL LEADERSHIP is the essence of the new vision adopted by employees of TRF for growth in the future. The vision launched recently is the result of an elaborate exercise conducted across the company in which employees at all levels and locations participated. In response to the change in the business and economic scenario as well as the need to fulfill customer expectation even better the employees identified 'technological leadership' as the key to success and progress in the future. The Company believes that by ensuring employees adopt superior technologies in engineering processes, manufacturing practices, project management techniques it would be able to meet customer expectations with better delivery capability and product quality.

The current issue of SPEED@TRF carries narrations on the commitment shown by employees to understanding and addressing customers' requirements. Employees undertook the design and manufacture of products that were never handled before and showed the courage to adopt innovative techniques to handle the products in-house and deliver them to the satisfaction of the customers.

Moments of pride and achievements by employees and the TRF family are also being shared with you in this edition. Recent community outreach programmes and voluntary participation by employees in some of them have also been highlighted.

We hope you enjoy reading this issue. We also look forward to your comments on quality and content of SPEED@TRF as your feedback will help us to improve even further.

**Rajen Sahay**  
Editor

editorial

# New Vision

## Technological Leadership



Senior leadership releasing the new vision before its employees

TRF recently launched its newly co-created vision. In order to bring greater clarity on the underpinnings of the new vision statement, SPEED@TRF interviewed the TRF MD, Mr Sudhir Deoras.

## Vision

**TRF will achieve technological leadership in Bulk Material Handling Equipment and Services business.**

**Upgradation of our people skills, engineering processes, manufacturing practices and project management techniques would underpin our ability to achieve the leadership.**

**We shall strive to be the preferred choice of customers based on superior technology, product quality and delivery capability for a sustainable value growth.**

***Q1. What is the outlook for the equipment and solutions providers in the bulk material handling sector both locally and globally?***

**SD** - For about three years our business was adversely affected due to the slowdown of the economy in India and worldwide. If India has to grow in a sustained manner it will need more power, more steel and these new plants will require greater amounts of raw materials. Similarly parts of the world have large raw materials reserves, which will at some point of time be utilised. So the outlook for equipment business is very good, as soon as we can kick start the economy.

***Q2. Do you believe that the new Vision translates into a distinct shift in the way we look at our business?***

**SD** - Are any customer segments going to receive greater priority?

Our new vision does not talk about a distinct shift in the way we look at our business. What it says is, we should be battle ready. In the coming years the customer will increasingly look at 'Total Ownership Cost' - what this implies is the customer will not buy the equipment only on price. Customers like to buy peace. Customers like top quality, operating efficiency, lower operating cost and so on. All this can be achieved if we work on our technology improvement plan. We need to go to the customer to learn their pain points and build technology into our equipment to assure them of peace. We will have to focus on steel, business parts sector. One area where we will focus is on building our overseas business. We have decided to invest our best efforts to providing O&M work in Tata Steel in a big way and follow it up in Kalinganagar.

## STOP PRESS

TRF bags ₹ 353.67 crores order from BHEL for the NMDC integrated steel plant at Nagarnar, Chhattisgarh for a conveying and crushing system with associated equipment



## Leadership team strengthened

### Rupam Bhaduri, Vice President



In a career spanning 30 years, Mr Bhaduri has held many leadership roles in various functions including production, maintenance, supply chain, technology, project, Theory of Constraints (TOC) and Total Quality Management (TQM).

A postgraduate in Business Management from the premier management institute, XLRI and a Mechanical Engineer from IIT, Kharagpur, Mr Bhaduri lead a team of 50 as Chief, Total Quality Management at Tata Steel responsible for deploying TQM vehicles and focused methodologies across the complete value chain of the steel major, from mining to finished product. The effort led to the Company winning the Deming Grand Prize in year 2012. He has also been responsible for implementing the Replenishment Model and Buffer Management System for production planning and scheduling as well as Flow Management across the coal value chain and input materials to steel making, project "SPEED" (Supply chain Program Enabling Excellence in Delivery) with i2 consulting for the Flat Products supply chain. Prior to moving to TRF Mr Bhaduri was Executive in Charge Tata Growth Shop, a profit center of Tata Steel.

Mr Bhaduri is keen on leveraging his experience in Total Quality Management (TQM) and Theory of Constraints (TOC) to create value in any business. He believes TRF's new vision will ensure alignment and integration of various functions across TRF, lay emphasis on mindset orientation, drive all employees to focus on quality and customer and focus on technology leadership across the entire value chain.

### Mr Nityanand Padhy, Vice President, Projects



A mechanical engineer from NIT, Rourkela Mr Padhy worked with TRL, Nilachal Ispat, Jindal Stainless, Rawmet, Essar, Jindal Steel & Power and Tata Steel before joining TRF Ltd. Most of his 25-year career has been devoted to implementing steel plant projects and maintenance.

He believes that given the nation's desire for a radical improvement in industries and infrastructure development, areas such as ports, mining and major industries are steel and power have a huge growth potential. All these require bulk material handling systems, translating into a tremendous growth opportunity for TRF and also its competitors.

To stand apart and be a leader TRF must demonstrate customer orientation, deliver quality products & services backed by competent human resources. By identifying all these aspects in its new vision TRF, Mr Padhy believes, is bound to grow beyond the expectation of its stakeholders. The vision also provides direction on upgradation of engineering processes, which will maintain TRF's position as a technological leader and add to its competitive advantage.



**Q3. Our new vision places emphasis on technology, skills and capabilities, how do you expect these to shape our future?**

**SD -** As I mentioned earlier, the customer has to be educated to use higher technology products. This is important to be competitive in the marketplace. Customers must prefer our products. Skill and capability is fundamental to the use of technology to build our technical prowess.

**4. Another area of emphasis is sustainable value creation, what are the strengths and how are we going to leverage them?**

**SD -** Businesses must sustain a meaningful growth drive, must innovate, focus on technology and cost, etc. while at the same time be responsible to society. It must create value for the company and at same time create value for its stakeholders. How do you do it? It means the core business strategy identifies new scalable sources of competitive advantages that generates profits and community benefits. So what could be our new scalable source of competitive advantage? A win-win situation for sustainable value creation is helping the business and helping people at the same time.

**Q5. Our group includes some of the foremost leaders in their business such as York and Hewitt. How do you believe we can maximise the impact of this association in our domestic business as the economy recovers?**

**SD -** Our overseas companies also play an important role in enhancing our value creation capabilities. HRIL is clearly an important part of the bulk material handling business as it contributes as a technology provider to our Indian operations for screens and mobile crushers. It will also enlarge its business in Europe, Middle East & Africa.

As far as York is concerned it has already established its manufacturing unit and has more than 25 per cent market share. The market acknowledges its quality, delivery and service and I see great traction building up to York as the economy revives.

**Q6. How can the shopfloor employee contribute to taking the company closer to its Vision?**

**SD -** Our employees should take pride in the work they do. Productivity and quality is totally within their command. They should have the passion to produce right, first time every time. They should help the company to become a self-certified company. Inspectors of customers should not have to come to the plant to clear despatches. We should build such a reputation in manufacturing that it helps us to stop the conventional process of inspection wherein inspectors come from customer companies.

Above all we all should be very conscious of safety and must not compromise on safety processes.



# TRF fabricates Charging Plate for Coking Plant

The Coking Plant of Tata Steel's Haldia MetCoke Division has charging plates manufactured in China or in Tata Steel's machine shop. For the first time, however, Tata Steel placed an order on TRF for manufacturing charging plates with a finished weight of 40 tonnes, fabricated from raw material of 60 tonnes.

The charging plate comprises a skeleton made with a MS Plate, a front and a rear panel, a longitudinal side forged on to it, top and bottom covers and a stainless steel liner.

TRF's Process Planning department detailed the process prior to fabrication and machining, with the specific purpose of optimizing steel procurement and thereby minimising scrap generation.

Work began on cutting the skeleton from a 63 mm plate.

To the consternation of the team the plate warped due to the heat generated during the process. The challenge they were up against was to straighten the plate to fit it precisely to the final product. The options before them were either to outsource the task or use an in-house 7-Roll Straightening Machine with a capacity to handle plates of up to 50 mm thickness. The team took on the challenge of working with in-house resources to successfully and safely straighten the plate on the 7-Roll Straightening Machine at the required tolerance of 3 mm.

Thereon thanks to planning the process, the rear plate and front plate were pre-machined and fitted to

skeleton, a pre-machined forged plate (side plate) welded to the side of the skeleton.

The job carried out by the TRF team not only ensured that it was done well but seamless co-ordination within the team gave its members the opportunity to carry out modifications in the drawings provided by

Tata Steel, thereby reducing scrap generation. Tata Steel has approved the new design developed by TRF.

The Company has delivered three charging plates to Hoogly MetCoke while one is in the process of being fabricated.



*Charging plate under fabrication at TRF works*

# TRF builds Bins and Bunkers for Tata Steel's Kalinganagar Project

**Bins and Bunkers are hoppers designed to store solid bulk materials, such as cement, ore, coal, carbon black, woodchips and enhance their mass discharge when required. Bins have conical sections while bunkers have cylindrical sections. Their normal length in a steel plant ranges from 10 to 20 metres.**

## Scope of Work:

The scope of work assigned to TRF in Tata Steel's Kalinganagar Project was to manufacture and install bins and bunkers for their crusher house and screen house, according to specifications provided by Tata Steel.

A total of four halves for two cylinders, two halves of a cone and two halves of a load shell were to be fabricated for the Screen House, which has two cylinders and six cones. In addition 10 halves of cylinders, four halves of cones and two halves of a load shell were required to be fabricated for the crusher house, comprising six cylinders and seven cones.

A first-time job for TRF, a team immediately drew up a plan to meet the order. This included a study of the specifications as well as detailing of the drawings for final estimation of steel and proper execution and despatch.

## Pathway to Success:

The first hurdle for the team was to finalise the sections of the bins and cones, which would

facilitate their despatch. It was decided that the cylindrical sections would be fabricated in two parts each while the cones would be divided into adjoining sections, resulting in varying numbers and as well as diameters, as per the requirement for the screen and the crusher.

Next was the task of rolling the mother plate and liner, completion of welding and drilling according to the drawing. It was then found that the total number of holes in each half of the cylindrical section would be 288 while each conical half would require 1360 holes!! Once the load shell consisting of liners in the cylindrical halves and conical section was complete they were sent for control assembly and then for blasting and painting.

## Constraints Faced:

Given the multiple halves to be fabricated, estimation of raw materials was a tough task. During fabrication such as liner

rolling, drilling and cutting of plates on rolled sections was a challenge. To overcome these hurdles the team created templates to understand the challenges as well as find solutions.

## Benefits To Customers:

This effort by the TRF team has undoubtedly ensured that the

any purpose. It has also been ensured that all the material in motion will be at approximately the same velocity. Material will be stored in such a manner that it does not bake.

The direct benefits that Tata Steel will derive are increased yield, along with reduction in material cost, processing cost, cycle time and handling time.



*Various sections of bins and bunkers ready for dispatch*

bins and bunkers are being used by the customer for mass flow of raw materials, at the maximum discharge rate given its conical shape, and an outlet flow mode that is reliable for

The bins and bunkers developed by TRF will also ensure faster delivery of material and can be modified to fulfill future applications of diverse customers.



# PYE to set up its largest ship unloader at Ennore Port

TRF's Port & Yard Equipment Division at Kolkata is a leading supplier of equipment and services to ports, shipyards, power plants and metallurgical sectors.

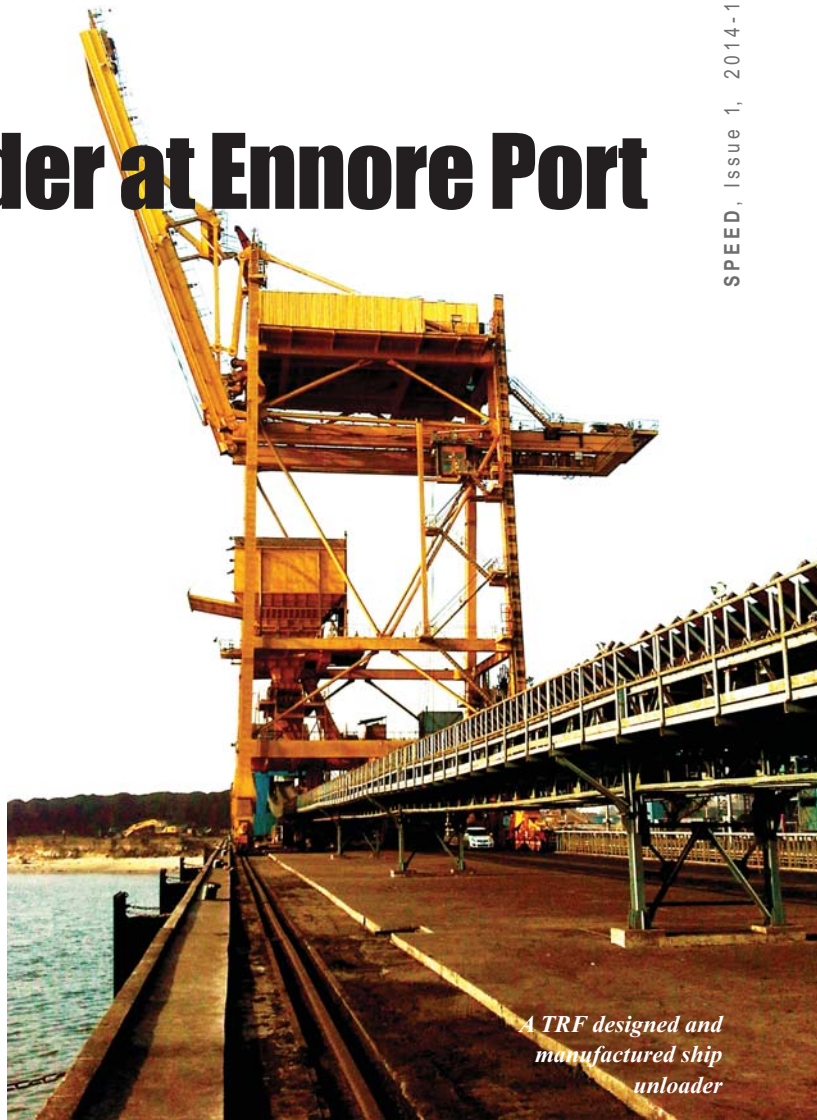
Besides the satisfaction derived by the TRF team in creating a marvel from concept to final erection and commissioning, Ship Unloaders are a sought after order because of the volumes they offer both in terms of manufacturing activity as well as the value it creates for the Company. At the same time they are extremely challenging because they require highly precise and complicated engineering activities comprising a combination of structural, mechanical, electrical and electronics related jobs.

TRF's P&YE Division is currently erecting six Ship

Unloaders - two each for Krishnapatnam Port Co Ltd. (KPCL) at Nellore, NTPC Tamil Nadu Energy Ltd. (NTECL) at Ennore Port and Neyveli Tamil Nadu Power Ltd. (NTPL) at Tuticorin Port. While the unloaders at KPCL are currently being commissioned, the unloaders for NTPL and NTECL are of the highest capacity so far by the Division - 2000 tonnes per hour.

The task of executing the job while ensuring that operations are not disrupted, with continuous berthing and unloading of ships, in a constraint space has made the execution of the order even more critical.

At the location where TRF has to erect the new unloaders are discharge conveyors for the existing unloaders. These



conveyors are the lifeline of Tamil Nadu Generation & Distribution Company Limited (TANGEDCO) and the adjoining power plants serving Chennai city and its suburbs. The coal from the ships is unloaded by existing unloaders and conveyed directly to the power plants. Hence their operations cannot be interrupted. The possibility of a reasonable shutdown from Ennore Port / TANGEDCO to create space for construction activity was very difficult. After extended deliberations a shutdown of three days in phases for each conveyor was agreed to. The TRF team worked non-stop for

24 hours to complete work in time without disturbing the berth operation and coal feeding to the power plants.

Though the erection and commissioning of two unloaders on the berth at Ennore Port was to happen simultaneously but holdups by NTECL for unloading ships, to feed coal to their recently commissioned 2x500 MW generating units, has led to the decision that the unloaders will be erected one after the other. The first unloader is now to be commissioned in October 2014 followed by the second one in second quarter of January 2015.



# BMHE enhances TRF's capabilities

*Manufactures idler rolls beyond existing capacity through a "Must Do" approach*



*HB4 - Double ended boring and plunge machine*

TRF manufactures about 1,80,000 idler rollers per year of various sizes and lengths as per the exact specifications desired by its customers.

Idler rolls are normally made from ERW (Electric Resistance Welded) tubes or seamless pipes of various diameters. They are 'recessed/ bored' in machines that are capable of delivering idler rolls with outer pipe diametres ranging from 168.3 to 60.3 mm.

The Company received an order from Tata Steel for 1350 pieces of idler rolls. They were to be made in lengths of 1100 and 750 mm. However, the outer pipe would have to be 193.7 mm in diameter. This was a challenge for TRF as its had thus far delivered recessing machines

with diametres of only 180 mm. The problem the team faced was that the existing machines were not designed to deliver the diametres required by customer. Therefore the dilemma before TRF was: would it meet the customer's requirement?

It had no intention of falling short of its commitment, of course! A goal was set to find the means to machine the pipes in the Company's workshop and deliver 1350 idler rolls to Tata Steel either by modifying the machine or by providing an attachment. A team of committed employees comprising Praveen Kr Singh, Avinash Kumar Verma, Ritesh Kumar Singh, Nitish Kumar and R P Singh got down to brainstorming, researching for relevant data, technical analysis,

as well as undertaking innovative thinking.

A technical study of all three 'recessing' machines in the plant was conducted. This revealed that the HB4 machine had the largest capacity.

The team found that the HB4 machine had a special feature. The HB4 allows pipes to be machined from both ends. However additional 'jaws' of a higher size had to be made and bolted on to the existing 'jaws' before the job could be done.

They ensured that the recommended modifications were made in the minimum time and additional jaws were made and bolted to the existing jaws on both sides. The boring bar and cutting tool was also modified to handle the job better.

## Tangible Benefits:

The tangible benefits that accrued to TRF was that it could immediately fulfill a significantly large order, while the cost incurred for modifying the machine was negligible. The Company has since marketed this capability and received another order of 8400 rollers of 193.7 mm in diameter from INDURE, Bhavnagar. Tata Steel went on to place a repeat order for 1000 pieces, which is proof of their satisfaction with the product. The total number of such large-diameter idlers produced so far by TRF is 11,400.



*Modified 'boring bar & cutting tool' to 'reach' the job*



*Additional jaw made and bolted to existing jaws on both sides of HB4 machine*



# Hewitt Robins supply feeders for Hemerdon project

A leading manufacturer of quarry processing equipment, Measham based Hewitt Robins International (HRI) has supplied a range of feeders for the £130 million – Wolf Minerals – Hemerdon project in Devon. GR Engineering Services (GRES) based in Perth, Western Australia, – is building the process plant as part of an EPC contract.

Once the contract to supply six feeders was received, HRI manufactured and detailed each feeder to meet the specific user requirements under the process flow diagram and equipment specification.

Mr Charlie Northfield – Wolf Minerals – Process Plant Manager, commented: “We are pleased that HRI have been



*Umblex Feeders developed for Wolf Minerals*

awarded the feeder contract. HRI conformed to the technical requirements GRES needed to meet. I personally visited the Hewitt Robins plant during final assembly and was impressed by the manufacturing quality and by the depth of technical expertise”.

All are Umbex feeders developed by HRI as a cost effective solution for specific applications. HRI feeders supplied for the Hemerdon

project set the standard for high productivity, exceptional reliability, ease of maintenance

and are driven by twin low noise vibrator motors.

## Features:

- Bespoke design for the application
- Extra heavy duty
- Grizzlies available in horizontal, sloped or stepped arrangements
- Bolted construction allowing single component replacement
- Wear resistant design
- Ease of servicing – minimum downtime
- Bolted AR wear liners
- Eccentric shafts avoid the need for cumbersome counterweights



*Feeders ready for dispatch*

## Adithya Automotive Applications chalks up new milestone

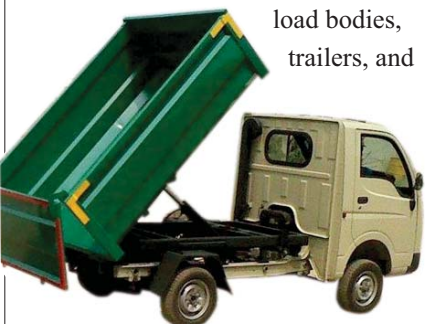


128 units in FY10 to 3111 units in FY14 thus setting a new milestone. AAA fabricates and machines the vehicles.

The figures are significant given the stiff challenges faced by industry in the domestic vehicle sector. The company's sales grew by 15% during the year. AAA performed against the downturn and recorded its highest ever topline as well as bottomline.

Adithya Automotive Applications Pvt. Ltd (AAA), a TRF subsidiary that provides end-to-end solutions for vehicles

used as tippers, load bodies, trailers, and



refrigerated bodies, set a new record by selling 3111 units in the FY14. The sales figure of AAA has grown from

The company also crossed another milestone in FY13-14, selling 10,000 units since it commenced production. The Company has developed and sold several new variants during 2013-14. These include a 9 KL water tanker on a Tata Motors SE 1613, two cubic metre tippers on Tata Ace and 16 cubic metre tippers on LPK 2518 HD.

## Linde cruises on York aggregates



*Cryogenic tanker fitted with York aggregates*

Linde India Limited (formerly BOC India Limited) is a leading industrial gases company in India. The company owns and operates India's largest air separation plant in Jamshedpur and supplies more than 20,000 gases and mixtures, besides a range of related services.

Their strong supply chain network helps them reach customers in the remotest corners of the country. York India, a subsidiary of TRF Limited, is proud to be a preferred partner for Linde India's land transportation network

The industrial gas major has a fleet of 430 cryogenic tankers plying across the country - including a large fleet of over

118 company-owned cryogenic tank semi-trailers, 95 per cent of which are fitted with York aggregates.

Most of the semi-trailers are operated in Jamshedpur, located in eastern India and served by perhaps the most treacherous roads in the country. In order to combat the bad road conditions and consequently the high downtime, while still maintaining high service levels, Linde deployed York's flagship air suspension unit, Tecair 1 on 12 of its flat back trailers. These Tecair 1 suspensions have been running smoothly ever since, clocking over 150,000 kilometres on the most treacherous roads in the country without needing any repair or maintenance.

## Dutch Lanka Trailer Manufacturers Limited

Dutch Lanka Welfare Society with the assistance of the company's management successfully fulfilled the entire requirement of schoolbooks for children of their colleagues within the group for year 2014. The year - on - year assistance signifies the commitment of the Society to uplifting education in Sri Lanka.

Based on the Tata Group's belief that "people are its greatest asset", DLT has also introduced a medical insurance package covering annual medical checkups conducted at the workplace in three locations. Mobile laboratories and a team of doctors cover all employees, also testing them for major illnesses and providing medical consultations.



*School books being given to employees for their children*



# Valley View School celebrates *25 Glorious Years*

Valley View School, located within the TRF Colony, celebrated 25 years of service to the children of colony and its neighbouring communities on June 12, 2014. The Silver Jubilee

Celebrations were kicked off on June 14, 2014. Among those present were Mr Sudhir Deoras, Chairman, SMC & Managing Director, TRF Ltd, all members of the School Managing



**Founder Principal, Mrs. Alka Arvind with Mr Sudhir Deoras** Committee and special invitees from TRF Ltd. Valley View School had a modest beginning with six classrooms in 1989. Affiliated to the Central Board of Secondary Education, is today a massive facility with 50 plus rooms, including classrooms, science and computer laboratories, libraries, auditorium and the like. The school caters to a student

population of over 1800 and counts among its alumni IITians, doctors, scientists, designers, pilots, entrepreneurs and, last but certainly not the least, a host of great human beings.

Among many other achievements, the two that are special for it are the title of "CBSE New Generation School" conferred by the CBSE Chairman and the CBSE Principal's Award for its the Founder Principal, Mrs Alka Arvind Kumar, both

'firsts' for a school in Jamshedpur.

The school owes its success and the reputation it has built to the encouragement and support of all past and present members of its school management, whose dynamic and vibrant leadership always drove this institution to aspire for higher levels of success each year.



## Sports Bonanza: Football

Football frenzy gripped TRF when an internal football tournament was organised at TRF Colony playground in the last week of August. Suddenly teams were built up across departments and conversation during lunch and tea break drifted from work related targets to developing strategies to defeat the opponents on the football field. Played over four days, the matches provided opportunities to the players to check their fitness and engage with colleagues to work as a team. The matches turned out to be cliff hangers with some being decided on the basis of a penalty shootout.

Finally it was the Works Team #1 (comprising machine shop

employees) that lifted the trophy when it beat the Services Team in a penalty shootout. The matches created a high level of

excitement and brought not just employees and their families to the playground but also senior leaders of the Company namely

Mr H C Kharkar, Mr P K Tibdewal, Mr Nityanand Padhy and senior executives and officer bearers of the labour union.



# Suggestions of great worth earn TRF and authors kudos

The authors of two high value suggestions, Mr Partha Pratim Choudhury of Marking and Cutting and Mr Rakesh Kr. Singh of Project Engineering (BMHS), have not only brought kudos to the Company but have given themselves much acclaim.

Suggestions provided by employees of TRF resulted in savings of Rs 110 lakhs in FY14 for the Company. Of the 1006 suggestions made, four were of high value.

## Improvement in yield of Plasma CNC Machine

The existing nesting software of the Plasma CNC Machine at TRF did not support common cutting and bridge cutting. Partha developed a new process to incorporate this feature in the plasma machine thereby increasing its yield while also reducing the cycle time for the liner at Tata Steel's Kalinganagar plant. After the modification by Partha the yield of machine shot-up from 71.34 per cent to 98.35 per cent.

A total of 10 sets of Bins and Bunkers were to be fabricated for the plant. After the modification the time saved for each set was 73 hours. The Company also saved substantial costs after deploying the new process.



*Mr Partha Pratim Choudhury*

### Benefits to TRF and the customer

- Yield Increased
- Material Cost Reduced
- Processing Cost Reduced
- Cycle Time Reduced
- Faster Delivery
- Handling Time Reduced
- The Modified Process Will Be Applied In Future Requirements

## An enduring impact at Kalinganagar



*Mr Rakesh Kr. Singh*

Rakesh Singh's suggestion that the hoppers at Tata Steel's Sinter Plant at its greenfield project site in Kalinganagar be shifted to either side of the building has both an immediate and an enduring impact. In consultation with Tata Steel the conveying system layout was modified, which enabled a reduction in the length of the conveyor by about 42 meters and belt length by 83 meters. Immediately, the client saved erection time and monetary resources. But over its entire life the benefits promise to be much more enduring with better safety, less man machine interface and power savings during operations.

### Benefits to TRF and the customer

- The design was appreciated from a Safety point of view
- The frequency of movement of the pay loader can be increased
- Less time is required for erection
- Huge amount of civil work saved for the client
- Power saving of drive equipment due to reduction in conveyor length



# Deepshikha delights all with her creativity



Ms Deepshikha Dutta, daughter of Mr Avijit Dutta, Senior Manager, MMD recently won the Excellence Award in the Kolkata Regional Level Category of the Canvas Competition, organised by Bank of Baroda.

A pan-India drawing and slogan competition, Canvas was held in January 2014. The theme given to the participants was "Scene of a Modern Bank Branch". The award was presented by Dr G V Subramanian-Joint Director, Bharatiya Vidya Bhavan, Kolkata at a prize distribution ceremony organised by Bharatiya Vidya Bhawan on May 12, 2014. Mr R Dhawan, Executive Director, Bank of Baroda, had also graced the occasion.

Equally proficient in academics, Deepshikha scored 98 per cent in her Standard IX Annual Examination in school.

## Prashant: Leveraging science with a purpose

He was bound for IIT with the dream of becoming an engineering student when SPEED@TRF wrote about him in 2010. Then he had no plans in sight. Four years later he has completed his course and has gained much more clarity on the road ahead.



work on the current industrial trends and requirements.

The one job that will bring him satisfaction is to work for the cause of science.

Prashant, now a B Tech in mechanical engineering from, IIT-BHU, wishes to explore the unexplored facets in the world of engineering. The key he believes is on focussing energy on getting the concepts right and not in the rat race of numbers. Prashant's interest clearly lies in research and he hopes that his GATE score would help him join a company where he can

Inspired by his father, a mechanical engineer with TRF, Prashant grew up watching him work. Problems thrill him because of the challenges they represent. Needless to say he does not mean the simple one - easily addressed by the right formula or the right reference material - the more complicated they are, the more they excite Prashant. Prashant is currently working on "assessment of shifting of neutral axis on fracture characteristics of bi-modulus materials."

## Fostering awareness on laws on Sexual Harassment

It is the responsibility of every organisation to provide all employees with a safe workplace. For India to achieve its true potential, women must comprise half the workforce. Hence as more and more women join the workforce laws on Sexual Harassment are getting more stringent.

To apprise officers of the changes in the laws in 2013 TRF invited Mrs Sunita Thawani, former Chief, Legal, JUSCO and the then Head of its Sexual Harassment Prevention Committee. The programme was well received by the participants.



# Pharmacist felicitated by TRF Ladies Association

TRF Ladies Association (TRF LA) runs a free-weekly health clinic at TRF Nagar for the benefit of the economically underprivileged residents residing in the vicinity of its Works and employees colony. Apart from a free medical examination, medicines are also provided free of cost to the beneficiaries. Employees from the Company's medical department volunteer at the clinic, when it is open to the public every Friday.

Under TRF's employee volunteerism initiative 'Main Hoon Na', Dharmendar Kumar Sinha, Ranjit Kumar, Mitesh Kumar & Manoj Kumar Singh

volunteer their services regularly, after office hours, helping the ladies run the clinic. During the last financial year the clinic served 1953 patients who visited the clinic, and TRF LA has already touched 391 patients this year till July. TRF

LA felicitated the good samaritans for their excellent work.

In addition to the medical clinic TRF LA also runs several CSR programmes for the benefit of the community in the proximity

of the colony, TRF Nagar. These include its literacy school for the poor, 'Akshar' and women empowerment centre, 'Astitva'. Through its rainwater harvesting project it provides 10,000 litres of potable water to the adjoining community.



## TRF Ladies Association collects record 202 units of blood



In an endeavour to create awareness on the need for safe blood donation and encourage employees to donate blood voluntarily, TRF Ladies Association organised a blood donation camp, 'Navjeevan' on August 21, 2014. A total of 202 units of blood were collected during the camp held at the premises of the TRF Works.

Mr H C Kharkar, COO, CS, Mr P K Tibdewal, COO, BMHB, Mr Rupam Bhaduri, VP, Products and Mr M

Hiramanek, Deputy President, Tata Robins Fraser Labour Union and Mrs P Kharkar President, TRF LA jointly inaugurated the camp, which was attended by senior executives of the Company, union representatives and large number of employees.

Dr Archana Sirivastava proposed the vote of thanks and acknowledged the role of Voluntary Blood Donors' Association, Blood Bank of Jamshedpur and employees and

associates of TRF for making the 'Navjeevan' camp successful. The TRF Ladies Association (TRF LA) - the corporate social responsibility arm of the company - collected

164 units of blood during the previous 'Navjeevan' camp organised by it on February 21, 2014 setting a new record with the current achievement.





# World Environment Day!

## TRF spreads message of clean, green way of life



*Mrs Madhuri Deoras planting a sapling along with Mr S Deoras & Mr Rakeshwar Pandey*

TRF observed World Environment Day to underscore its commitment to environment protection and conservation. This year's theme for World Environment Day proposed by the United Nations Environment Programme (UNEP), 'Raise your voice, not the sea level', provided the basis for all communication to elicit the participation of employees in forging a sustainable future. In response, employees from all locations, including TRF's project sites participated in numerous programmes.

To enhance the understanding of employees on issues

impacting the environment, employees from all sections of the Company were invited to participate in a skit competition. The contest was held through the month of June 2014 to spread greater awareness on energy conservation, pollution as well as on the need to recycle and reuse waste.

The winners were Team Revolution consisting of Ms Madhulika Thakur, Mr Wasim Akram, Ms Bela Topno and Mr Sunil Kumar.

Ms Priya Mahato was adjudged the best actor in the competition. Mr Sudhir Deoras and Mr R K

Rahi, General Secretary, Tata Robins Fraser Labour Union, gave away prizes to the winners. TRF launched a tree plantation programme christened 'Mera Ghar, Mera Ped' in July.

Mr Sudhir Deoras, Managing Director, TRF Limited and Mr Rakeshwar Pandey, President, Tata Robins Fraser Labour Union (TRFLU), jointly planted the first sapling at TRF's residential colony, TRF Nagar.

A large number of employees, especially those residing in the colony along with their family members participated. Students from the Company's Valley View School volunteered to help make the programme a success. Under TRF's employee volunteerism initiative - 'Main Hoon Na', employees took on the responsibility of sensitising the community on environment protection through dos and don'ts.





