

ROTOTALK

Quarterly Newsletter of Society of Asian Rotomoulders

WELCOME GST.....

GST - Goods & Services Tax is expected to roll out from 01/07/2017. It is a destination based tax on consumption of goods and services as against origin based tax. One product or service will now have a single rate in all parts of the Country. GST is levied on all stages from manufacture to final consumption with credit of taxes paid available for set off. GST will replace, among others, Central Excise Duty, Service Tax, additional/special duty of Customs, CST, State Vat, Luxury Tax, Purchase Tax, Entry Tax, Entertainment Tax, Octroi, Central/States surcharges & cesses etc. It is basically applicable on all products/services except exempted goods and services and goods which are outside the purview of GST and the transactions which are below the prescribed threshold limit viz. Rs. 10 Lakhs for North Eastern & Hill States including Himachal Pradesh, Uttarakhand / Rs. 20 Lakhs for others. There will be dual GST with Centre and States / Union Territories levying it on common tax base. In Intra State Supply of goods and services, there will be CGST & SGST (or UTGST) in equal proportion, while in case of Inter State Supply of goods and services, there will be Integrated GST (IGST) levied by Centre which will be equal to the rate of CGST + SGST (or UTGST). In addition to exempt category, four rate classifications of goods/services categories shall be there viz. 5% category, 12% Category, 18% Category (maximum applicable category) and 28% Category. Apparently, GST on membership fees of a society shall be levied now @ 18% and the same is eligible for input credit, wherever applicable.

Parveen Kanwar, StAR Auditor
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Dear Reader

While the buzz created by StAR 2017 Jaipur Conference is yet to fully ebb away, the next StAR Conference has begun making news. The fourteenth Star Conference and Trade show is scheduled from Jan 19 to 21, 2018 in New Delhi; in terms of time and distance sufficiently away from Plastindia exhibition for it to be the cause of any distraction. PI 18 will be held from Feb 7 to 12 at Gandhinagar, Gujarat. Excitement is already growing around the Theme of the StAR Conference – "Automation for High Volume Production". The extra interest is because of the new opportunities for rotomoulded products which have opened up in huge size sectors like Infrastructure – underground tanks and products; Automotives; Transportation etc. Added alongside are the expectations from the location, Delhi – Capital city of India, great connectivity and tourism gateway.

At a time when StAR is holding new variants of Regional Meets to grow the industry, it is developing with the highly reputed BITS Goa (Birla Institute of Technology and Science Pilani) a collaboration to set up world class rotomoulding testing and knowledge centres to make this an exciting time at StAR.

Ashish Baheti
 StAR President

SB Zaman
 StAR Exec Director

StAR PROMOTES ROTOMOULDING....IN NASHIK



"Touch & Feel" by attendees of Roto products on display



Nashik Meet Attendees - full house

StAR promoted Rotational moulding as a unique moulding process with multiple advantages and good markets / business prospects at a Meet held jointly with Nashik Plastic Manufacturers Association (NPMA) at Nashik on April 13, 2017. The Meet, held in the evening at SSK Solitaire Hotel had sixty five attendees; fifty three were members and invitees of NPMA while twelve were StAR members.

Umakant Savadkar StAR Board member and MD of Phychem Technologies along with Manish Gupta President NPMA & MD Madhav Polymers played the role of champions in organizing the Joint Meet. The NPMA attendees mostly owners from assorted plastic backgrounds other than rotomoulding provided good opportunity to educate them about the basic roto process, its advantages & markets. The table top display of an interesting collection of rotomoulded parts within the meeting room added a good practical dimension to the learning process. In opening remarks Swetang Dave of Consta Cool drew the attention of the audience to the natural advantages for rotomoulding which existed in Nashik. Known for Wineries and Agro products there could be considerable opportunity for rotomoulded pallets and crates.



StAR & NPMA Organisers



Swetang Dave

In the first presentation of the evening titled "What is Rotomoulding?" Swetang Dave spoke about the rotomoulding process, advantages and market opportunities. Of how it was the best process for large hollow seamless parts, formed by bi-axial rotation of the mould. Heating and the uniform sintering of powder followed by cooling before demoulding were all explained, as were types of moulds, and the moulding of simple to complex parts.



Umakant Savadekar

Umakant Savadekar, Phychem Technologies who made the second presentation went through the range of markets and opportunities that were available to rotomoulders in India, and in and around Nashik in particular. The presentation provided insight into how the rotomoulding industry and markets have evolved over time.

StAR Executive Director S B Zaman profiled the key role which StAR as the trade association of the Indian roto industry has been playing for the past thirteen years. Round the year promotional activities, conferences, regional meets etc all combine to make StAR the go to organisation in the country for knowledge and networking in rotomoulding.

Secretary NPMA Atul Deshmukh in his closing comments made special mention of the keen interest taken by the attendees in the presentations and products on display. He hoped that some of them would take next logical steps of learning more and trying the process



Atul Deshmukh



Keen interest of attendees

Team NA ROTO explaining finer points to attendee

A variety of questions were asked by NPMA attendees on how certain products they had in mind could be rotomoulded.

StAR & NPMA thanked sponsors of the Meet – **NAROTO, Vinodrai Engineers & GreenAge Industries** – for encouraging and supporting such a useful event. It was hoped that there would be well co – ordinated follow up to all the feedback that was being collected from attendees. Before concluding for Networking over Cocktails & Dinner there seemed to be indication enough on the usefulness of the Meet for NPMA attendees; therefore the need to repeat such Meets in other regions of the country.

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UMAKANT'S TECHNICAL CORNER

Rotomoulded Underground structures, New era....

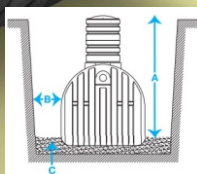
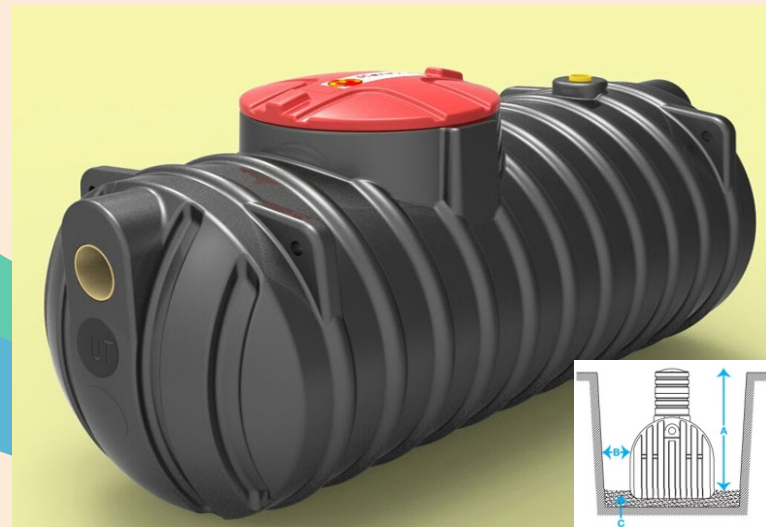
With the upcoming infrastructure and building construction growth in India, there is a Huge market for rotomoulded plastic underground products mainly Manholes, Septic tanks , Water storage tanks etc. Here just to highlight few points specific to the underground tank design and installation will help you as a checklist-

The main applications for underground water storage is for-

1. Fresh potable drinking water
2. Irrigation storage
3. Fire suppression systems
4. Rain water collection and other waste water collections

Advantages will be –

1. Light weight for easy transport and installation
2. Ideal for bungalows ,resorts construction sites
3. Consistent quality and mass production capability compared to concrete tanks .



4. Cost of plastic tanks are cheaper than concrete tanks

5. Septic tanks can be sewage water treatment plant

How underground are different than overhead ?

Rotomoulder has to understand that underground tank is a totally different product and market than overhead tanks. Following are some parameters rotomoulders have to consider for design of underground tanks

1. Loads on the tank –

For overhead tanks, there is only inside liquid pressure but for underground tanks there are external loads due to-

- Soil pressure
- Pore water pressure(water table)
- Load due to back filling
- Handling and transportation

2. Materials-

Due to External uneven loads on underground tank, materials required should have –

- Better stiffness (Flexurus modulus) , Multilayer construction with foam can be effective way
- tensile strength.
- Long term Creep properties
- ESCR, for septic tank

3. Testing of tanks –

- Low temperature impact test – Overall quality testing
- Overall water tightness – To test leak proof connections at plumbing and at risers
- Testing for External loads , Vacuum test

To be successful in underground tank market, only designing and manufacturing good quality tank is not going to be sufficient. Rotomoulders should have trained team of personnel to install the tank in the right way and in right place. Lots of failures have been observed in underground tanks just because they are not installed in a right place. Things to be considered for installation are:

1. Water table
2. Proximity to the heavy vehicle traffic

Rotomoulded underground tanks require good manufacturing practices with standard methods for testing. Keeping in view of this StAR has already taken initiative to form technical standards and guidelines for Underground structures in joint project with renowned BITS Pilani, Goa.

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QUALITY MANAGEMENT

All over the world, standardisation through the process of formulation and implementation of quality standards is considered as the back bone for development of a nation's economy. Quality standards play a vital role in the developmental process for any product to attain global reach. It is of relevance to the plastic industry. Plastic components and products have great penetrated several critical sectors where stringent regulatory norms, product diversity and performance requirements are always a challenge to meet. With all these complexities, plastic products are dynamically changing the face of these industries due to the fast development of new materials, composites, machines and process technology with greater flexibility over the existing conventional materials.

Quality of plastic products and their competitiveness can be improved by adhering to an internationally acceptable standard in the cycle of operation such as: selection of raw materials, process of design, production, quality control & quality assurance. Performance plastic products following the prescribed standards pose lesser risk to the environment and ensure that products and services are safe, reliable and of good quality. It is always less expensive and better to design quality product following quality standards at the beginning in order to avoid the high costs of needless corrections at the end.

It takes months to find a customer... and seconds to lose one

What is Quality? It is the degree to which a product or service meets or exceeds a customer's requirements and expectations. For business, they are strategic tools that reduce costs by minimizing waste, errors and increasing productivity. They help and give confidence to companies to access new markets, participate and compete in free and fair global trade. Following a global standard and the Certification will add credibility, by demonstrating that the product or service meets the expectations of the esteemed customers. For industries, following a globally recognised standard and procedure in the process of manufacturing is a guaranteed step towards the acceptance of the product in the global market and many times a contractual requirement.

For industries, quality shall not be a department but the entire organisation

Coming to our industry, it has been noticed that, guidelines or standards for many plastic products which has been widely used and consumed by masses at large are not in place. Lack of such a discipline may lead to sub-standard product ruling over quality product eventually taking advantage of the ignorance of customer or encashing the attraction of short term monetary benefits. Similarly large number of plastic products which are imported and used for critical applications also goes unchecked due to lack of proper standards and specifications. Absence of such standards allows inferior and hazardous products to enter the market, eventually ends with performance failure, loss in production, loss of credibility and greater risk of health hazards. In sectors like farming, plasticulture, water transportation and storage

Quality products and quality service begin with quality thinking

Any material before being utilized or processed has to be checked for its suitability. Any product before being utilized has to be checked for its performance criteria.

There is an urgent need to bring products which are used in large volumes and are related to safety concerns under quality monitoring through standards or quality norms. The most important step at this stage is to identify those products. It is the responsibility of industry to identify the products for which the standards are needed and then strengthen the enforcing and monitoring mechanism to make sure quality products as per standards are marketed. This not only help the industry to progress in the right way but also assures the customer the right product for their end use application. Plastic Industry Associations have a big role to play to arrest the inflow of non-standard and inferior products entering Indian market. We have to spread the awareness on the importance of standardisation among our industry associates.

Competition should not be for a share of market by Cost but by Quality

We have to take the lead role in developing these standards by consultation with various stake-holders. Our Vision is to spread the quality movement throughout the country. Good standard play a vital role to help producer/exporter to maintain and monitor the quality of their product and comply with the International standards. Similarly to curb import of sub-standard material, standards are required to check the quality of product being imported so as to assess the risk associated with safety of human health and environment etc...

'Establishing product is by quality, making profit is an art and together they bring good business & the best Management.

Dr E Sundaresan
Chairman Quality & Standards PIF
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FIRST PERSON : EXPERIENCING GROWTH THROUGH ROTOMOULDING MARKET

Back in 2011 when I joined my family business. I was very passionate about taking plastic products that we were manufacturing, to the next level. When researching for my new entrepreneurial venture Greenage Industries, I found Rotomoulding market was dominated by Water Storage Tank manufacturers. The product itself had reached peak of its Product Life Cycle leading to toll on margins due to stiff competition, which ultimately took effect on quality of Raw Materials being used. Majority of moulders were looking to proliferate into other products but did not have credible source for quality customized material. Quality being part of our Culture, we were determined to provide only quality Rotomoulding compounds. Our commitment led us on a journey, where we were required to have expertise on efficient compounding technology - where converting resin to coloured granules was not enough to pulverizing best quality powder - where powder size was not the only parameter for quality. Rotational Moulding is a stress free process making it extremely difficult to control different processes of moulding. A perfect powder compound can make a big difference in getting a perfectly cooked product pre-peri-post moulding. When I started manufacturing Roto Compounds, the basic understanding we had was its a 2 step process, wherein 1st we add Carrier resin with color masterbatch and additives and compound it on an extruder. 2nd step involved grinding the coloured resin to powder on a pulveriser under desired mesh/micron size. Quite easy ha...!! Probably yes when you are moulding general-purpose products. But when we started approaching moulders doing complex mouldings, the scenario changed. We were required to offer material that can withstand the most stringent of quality standards. We went back to square one.



Greenage plant

We tested materials before & after extrusions on different screw profiles on residual times, dispersion, thermal exposures etc while compounding and found the best combination of screw design that gets superior compounding. We have a quality assurance plan when it came to Pulverising. We conduct dry flow and bulk density tests while in process to testing particle size distributions after process helping us in maintaining powder consistency. We understood how it's not only the size but also shape of your powder that is equally important. Now the process technology was in place. But then we faced challenges with grades. Since majority of the applications our powders were used was custom moulding applications requiring different specifications. We started compounding imported grades. We now offer a high performance butene & a Hexene grade readily stocked. We have a full-fledged inhouse laboratory where we extensively test our powders on technical parameters, with we being the only company in India who tests its powders on PIAT and ARM Low Temperature Impact Strength tests (-40C). Today we proudly acknowledge that our powders are used in more than 30 different applications ranging from Food, Marine, Defense, Automotive and many more. With a special mention to StAR, who exposed us to that other side of Rotational moulding which we probably wouldn't have seen otherwise. I would like to thank my customers for trusting us in your growth and my suppliers for your support; you both are pillars of our success.

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CLEAN INDIA OPPORTUNITY

Independent studies have suggested that 60-65% of the India's population do not have access to toilets. This leads to defecation in the open. This not only is a social issue but creates several health problems. The consequences are far reaching and these range from polluted water leading to women and children dying from childbirth-related infections.

India's Prime Minister Narendra Modi brought this issue to the forefront with the Swachh Bharat mission. This promised to tackle the crises of lack of access to clean and safe toilets. Since then, more than 1 million toilets have been planned or built. The Hindu reported some time back "Responding to the clarion call of the Prime Minister, NTPC Ltd, the largest power utility in India has constructed 24,626 toilets in and around 16,000 schools spread in 17 states and 80 districts across the country. Coal India Limited (CIL), the coal mining PSU giant, has set aside a whopping `235 crores fund, 50% of the company's total CSR for providing hygienic sanitation in schools and in the households of underprivileged by constructing individual toilet facilities. TCS too has earmarked a budget of `100 crore for building dedicated sanitation facilities for girls in selected schools. Under the first phase of this sanitation initiative, the company has already implemented building girls' toilets in about 1,041 schools spread across, Andhra Pradesh, Telangana and Bihar. L&T has collaborated with Sulabh International on their endeavour to improve hygiene & waste management in the Country. While L&T plans to construct some 5,000 toilets, the Vedanta Group's Hindustan Zinc would construct 10,000 and the Jaipur-based Indian Institute of Health Management Research (IIHMR) University has plans to add 13,000 toilets in 6,500 schools." In August, the Sunil Mittal's Bharati Enterprises' development arm, Bharati Foundation, had announced `100 crore for setting up toilets in Ludhiana over the next three years"

This offers a huge opportunity for portable toilets. When Rotomoulding has replaced traditional water tanks, Manholes & Inspection chambers in Telecommunication why not in sanitation?

The solution is a unique rotomoulded double wall insulated modular panel toilet. The advantages of a rotomoulded toilet are:

- Strength that helps to take load of the overhead loft water tank
- Cheaper transportation (It is a completely knockdown unit)
- Easy on site assembly
- No leakage

- Ease of installation: Underneath pit not required. It can be installed and connected to an existing sewage system

However, rotomoulders face production challenges as follows for producing good quality toilets:

- Pre-release
- Poor release around flanges and vent-tubes
- Double skin parts
- Parts exhibiting "swirls"
- Poor gloss level

Chem-Trend release agent plays a critical part in the correct formation of rotomoulded parts.

It needs to perform several tasks:

- Provide a protective barrier for the metal surface of the mould.
- Allow the moulding resin to become attached to the mould wall (of course, the release agent always needs to be present between the mould wall and the plastic resin) during the initial heating phase of the moulding cycle.
- Ensure that the fully molten skin of the formed part remains in close contact with the mould wall throughout the heating cycle and the initial part of the cooling cycle.
- Ensure that the formed part stays in close contact with the mould wall until the part has sufficient cohesion within its structure to resist collapse when the release process begins.
- Allows the moulded part to release cleanly, quickly and evenly, once the release process actually begins.
- Allows the moulded part to slide out of the mould without any surface abrasion damage.

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BECOMING CUSTOMER FRIENDLY

NAROTO is always ready to pro-actively think on behalf of plastic clients – users requirements. In same line, NAROTO has taken note of the user requirements of Trial with small prototype products to check Master Batch quality and Colour dispersion on Products, which avoids large wastages & saves precious resources. It has been always worrisome for Master Batch manufacturers / users to know, without trial, exact colour dispersion that would be achievable on their end products with use of particular master batch. Such Trial, if taken on large machine, would require lots of costly resources, thereby becoming an expensive process apart from larger wastages. However, if small replica of large machine is there on which such colour dispersion trials can be made, it would save costly resources thereby saving operational costs/energy and result in enhanced experience of clients. To facilitate this process of pilot testing, NAROTO introduced "Little-NAROTO" – its Lab Rotational Moulding Machine. Little-NAROTO serves as a perfect match for user's colour matching requirements by providing replica of larger products & reliable colour dispersion visibility. Little-NAROTO is Fully Automatic Machine, capable to accommodate maximum 200 Ltr. capacity vertical tank and consumes less power apart from occupying very small space, thus being convenient in all ways. So, now u can save on your scarce resources with Little - NAROTO.

WELCOME BACK VALUED StAR MEMBERS

Company	Category	Primary Contact
Shreemomai Roto Cast Containers Pvt Ltd, Vadodara	Supplier	Ranjan Iyer

FORTHCOMING EVENTS

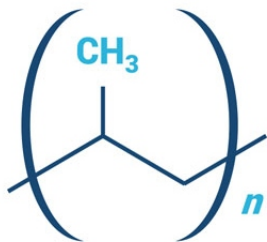
EVENTS	DATE	VENUE
ROTOMOULD 2017	Jun 25 – 27, 2017	Melbourne, Australia
StAR Rotomoulding Promotion Meet	July, 2017	Kolkata
StAR Rotomoulding Promotion Meet	August, 2017	Coimbatore
StAR Regional Meet & Seminar	September, 2017	Pune
ROTOPLAS 2017	Sep 26 – 28, 2017	Donald Stephens Convention Center Chicago/Rosemont, IL
StAR 2018 Annual Conference & Trade show	Jan 19 – 21, 2018	National Capital Region Delhi

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