

ROTOTALK

Quarterly Newsletter of Society of Asian Rotomoulders

Editorial Comment

StAR 2018 Annual Rotomoulding Conference is on its way to becoming a watershed event for the region and the decade and a half history of StAR : with a theme **GST – Global State of Technology** that is attracting a lot of interest, with attendees number already close to 120 and trade show booths being sold out early. Seminar & presentation topics on the future of rotomoulding like “Automation” & “Robomolding” have stirred up a lot of excitement and set the stage for sharing of knowledge and networking, of a high order.

Dear Reader

The best of rotomoulding events can be only as good as the participants endeavour to carry away new knowledge from them and actually implement them in their rotomoulding practices – like better quality Standards and more modern production processes.

The portents have been appearing on the Indian rotomoulding scenario for a while as international class and consistency have started to be the hallmark features of new Indian rotomoulded products. Use of specialty high performance raw materials, modern machines and process controls have enabled the change. The stage is now well set for the presentations and discussions at the 2018 StAR conference on the futuristic topics to leave an impact on rotomoulding developments of the region.

With high performance of rotomoulded products along with high volume production becoming increasingly relevant, technology is moving to be at the core of transformation in the industry. The StAR conference in Delhi from January 19 to 21 will thus become fertile ground to explore all aspects of such transformation.

Ashish Baheti
StAR President

S B Zaman
StAR Executive Director

FROM THE CHAIRMAN’S CORNER

The theme was selected just to be catchy in sync with the recent developments; GST – general services tax; or **Global State of Technology!**

The three main aims & benefits of StAR and the Annual Conference are: education, knowing the latest trends in the industry, and networking. **Networking** of course will be at its best with renewing old contacts and making some new ones. Both molders & suppliers of top repute will be present and active in sharing their views, achievements and future directions.

Tradeshows offers the most efficient & concentrated presence of domestic & international suppliers of latest materials, additives, machines, technology and knowhow. There are eight domestic and nine international companies exhibiting in the trade show. There are some new ones offering better ideas & technology.

On the **knowhow & learning** front there are informative and thought provoking presentations for the trends & direction of the industry in India. Martin Coles keynote speaker shall present his views about here-to-fore “unfulfilled potential” of the roto industry in India. First time in India presentation by Paul Nugent, informs us about the state of the global industry – current status and future direction.

For the first time presentations on automation & robots, by AMS & Persico, will inform us about the use of this technology by rotomolders in many parts of the world. Friday seminar on “journey towards automation in rotomoulding” will provide guidelines & steps towards consideration & implementation.

On the materials front: seminar by Matrix “advanced polymers” provides information and application of non - PE rotomolding materials. PSD Rotoworx updates on the use & applications of their SOTA [state of the art] Polypropylene for rotomolding. Total emphasizes long term material properties very important for structural & engineered products. Number of presentations on grade selection, UV, light & discoloration resistance and importance of master batches.

Dr. Sachin Wiagaonkar of BITS - Goa will be presenting on underground tanks standards and design considerations including FEA analysis. He will also update us regarding testing capabilities and services for rotomolding soon to be available at BITS Goa, where StAR board is guiding & encouraging the setup of a rotational molding development center!

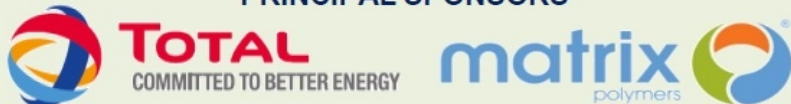
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StAR 2018 ANNUAL CONFERENCE & TRADE SHOW

Jan 19 – 21, New Delhi, India

THEME
GST – GLOBAL STATE OF TECHNOLOGY

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PROGRAMME - TOPICS & SPEAKERS

FRI – JAN 18: Four SEMINARS – Attend any Two

I - Advanced polymers & technologies for the rotomoulding industry

By: Aldo Quaratino, Matrix Polymers, UK

- An overview of a range of specialty non-polyethylene materials e.g. polyamide [nylons], polypropylene, fluoropolymers [PVDF], and polycarbonate.....

II - The Journey Toward Automation in Rotomoulding

By: Martin Spencer, Unique Roto, UK

- How today's rotomoulding plants can move towards future automation. Why future automation is essential for the industry in India and what is possible.

III - Rotomoulding Large Parts & Tanks – Semi & Automatically

By: Gary Lategan, Roto Solutions, South Africa

- Moulding large parts more efficiently e.g. product design, material selection, types of moulds, types of machines etc.

IV - Best practices in rotomoulding, finishing and quality control

By: Celal Beysel, Floteks, Turkey

- Basics of rotomolding, behaviour of various raw materials....his experiences with the lab size rock and roll machine (Mini Rock and Roll) also finishing: shrinkage, other secondary operations and use of Robots

SAT & SUN – JAN 20 & 21: PRESENTATIONS

GSI – Global State of Industry:

- **Keynote Address: Roto in India - Unfulfilled Potential?**

By: Martin Coles, Matrix Polymers, UK

- **Global Rotomolding: Current scenario - Future direction**

By: Paul Nugent, Roto Consultant, USA

GST – Global State of the Technology:

- **ROBOMOULding – From world class to fully automated rotomoulding**

By: Johan Potargent, AMS – Automation & Manufacturing Services, Belgium

- **Collaborate for success – a Team approach**

By: Martin Spencer, Unique Roto, UK

- **Affordable steps to process monitoring and control**

By: Martin Spencer, Unique Roto, UK

- **Lab capabilities required to assure quality of rotomoulded products**

By: Celal Beysel, Flotek, Turkey

- **DTH - The Technology driving the future of Rotational moulding**

By: Alberto Carrara, Persico, Italy

- **New Machine design**

By: Shivinder Singh, Reinhardt, India

- **Mould Release – a barrier that can save you money**

By Gary Lategan, Roto Solutions, South Africa

- **Rotomoulding is all about Good POWDER**

By: Gary Lategan, Roto Solutions, South Africa

- **Pulverizing PE - Monitoring, controlling and improving the powder quality**

By: Alexander Datzinger, Maag Automatik GmbH, Germany

- **Underground Tank Standards**

By: Sachin Waigaonkar, BITS-GOA, India

GST – Global State of the Materials:

- **Right material for the right application**

By: Saugata Chaudhuri, Total Petrochemicals, India

- **Long term material properties - ensure performance over the life of a part**

By: Geert Vaes, Total Petrochemicals and Refining, Belgium

- **SOTA Polypropylene - Why Where & How to use it**

By: Ted Humphreys, PSD Rotoworx, Australia

- **Understanding high quality rotomoulding –**

Hexene (C6) vs. Butene (C4)

By: Aldo Quaratino, Matrix Polymers, UK

- **UV and light stabilization of materials for outdoor applications**

By: Angélique Brocatus, A. Schulman, Netherlands

- **Discoloration Resistant LLDPE for Rotational Moulding**

By: Soontorn Chooprayoon, PTT Global Chemicals, Thailand

- **Understanding important role of Masterbatches in rotomolding**

By: Milan Aggarwal, Prayag Polytech,

- **Environment friendly Blowing Agent for Polyurethane Foam Application**

By Samir Arora, Foam Specialties, India

- **High Density LLDPE for Rotational Moulding in Infrastructure Applications**

By: Dhananjay Sahoo, Polymers, Indian Oil Company, India

Attendee Companies At The Conference

Moulder

- 1 Aditya Polytechnic, India
- 2 Allwin Rotoplas, India
- 3 B.D. Industries, India
- 4 Balaji Rotomoulders, India
- 5 BAPL Rototech, India
- 6 Carris Pipes And Tubes, India
- 7 Consta Cool, India
- 8 Cosmos Fiber Glass, India
- 9 Crestia Polytech, India

- 10 Dali And Samir Engineering, India
- 11 Floteks, Trukey
- 12 Frontier Polymer's, India
- 13 GEEPEE Industries, Nigeria
- 14 GMI Zarhak, India
- 15 Heera Rotopolymers, India
- 16 Ideal Poly Tecnologies, India
- 17 Infra Industries, India
- 18 Jamshedpur Resource, India
- 19 K K Nag, India
- 20 Kentainers, Kenya
- 21 Misya Su Ürünleri A.Ş, Turkey
- 22 Nilkamal Industries, India
- 23 Oriplast Industries, India
- 24 Prabh Dayal Om Parkash Infrastructure, India
- 25 Prins Polytech.Pvt LTD, India
- 26 Roots Multiclean, India
- 27 Rotoline Polyplast, India
- 28 Sigma Roto Lining LLP, India
- 29 Simplex Plast, India
- 30 Sintex-BAPL, India
- 31 Swastik Rotomatic, India
- 32 The Supreme Industries, India
- 33 Uniko Plast, India
- 34 UniqueRoto, UK
- 35 Vectus Industries, India
- 36 Vijay Polymers, India

Suppliers

- 37 A.Schulman Gainsborough, UK
- 38 Arihant Plast Pulverizing Industry LLP, India
- 39 AMS Automation, Belgium
- 40 BASF, India
- 41 Foam Specialties India, India
- 42 GreenAge Industries, India
- 43 Indian Oil Corporation, India
- 44 Ingenia Polymers India, India
- 45 Lifeline Technologies
- 46 Maag Automatik GmbH, Germany
- 47 Maharashtra Maha Polyplast, India
- 48 Matrix Polymers, UK
- 49 ML Industries, India
- 50 MPlast India, India
- 51 NAROTO Machines & Mould, India
- 52 Omega Plasto Compounds, India
- 53 Palvi Powertech Sales, India
- 54 Persico spa, Italy
- 55 Phychem Technologies, India
- 56 Prayag Polytech, India
- 57 PSD Rotoworx Pty, Australia
- 58 PTT Global Chemical, Thailand
- 59 Reinhardt Roto machines, India
- 60 Roto Solutions, South africa
- 61 Shanghai Chunyang Rotomolding, China
- 62 Shanghai Young Mould Co.China
- 63 Shri Sukan Traders, India
- 64 SS Polyfusion, India
- 65 Total Refining & Chemicals, Belgium
- 66 Vinodrai Engineers, India

Others

- 67 BITS Pilani K K Birla Goa Campus, India
- 68 Design Directions, India
- 69 Roto Consultant, USA

StAR 2018 TRADE SHOW LAYOUT



EXHIBITORS

COMPANY NAME

- 01 Total Petrochemicals & Refining, SA
- 02 Omega Plasto Compounds, India
- 03 Matrix Polymers, UK
- 04 Prayag Polytech, India
- 05 MPlast, India
- 06 Maag Automatik C/o Dover, India
- 07 Shanghai Chungang Rotomoulding, China
- 08 RotoSolutions, South Africa
- 09 PSD Rotoworx, Australia
- 10 M L Industries, India
- 11 Indian Oil, India
- 12 NARoto Machines & Mould, India
- 16 Shanghai Young Mould Co, China
- 15 Foam Specialties, India
- 17 Persico S.p.A, Italy
- 18 Maharashtra Maha Polyplast, India
- 19 Reinhardt Roto Machines, India

StAR GROUP FOR ARMO 2018 IN HAMBURG

ARMO INTERNATIONAL CONFERENCE 2018
16.-18. September 2018 in Hamburg

"FUNCTION MEETS DESIGN"

600
EXPECTED PARTICIPANTS

ACCOMPANYING PROGRAMME

50
PRESENTATIONS AND WORKSHOPS

60+
COUNTRIES

400m²
Expected Participants

GALA DINNER WITH BOAT TRIP

The formation of a StAR Group to attend ARMO 2018 International Conference in Hamburg, Germany from 16 to 18 September will begin at the registration desk during the StAR Conference in Delhi. A register will be kept specially for the purpose where you can enter your name to attend the conference.

Special group facilitation will be provided by the host ARMO affiliate ARM-CE. StAR members who were part of the group which attended ARMO 2013 in Lyon and ARMO 2016 in Nottingham will remember the advantage and benefits of going together for an ARMO conference.

For more information on proposed StAR Group for Hamburg please write to sbzamanp@gmail.com
For more information on ARMO conference in Hamburg please visit www.armoconference2018.com



ADVANCE TECHNOLOGIES DEMAND IN INDIA

GST is buzz word for now, new taxation stabilising, long way to go before complete implementation.

Even though conference this year is going to be about GST (Global state of technology), here we will see more about Indian state of technology.

Indian rotational moulding industry is going through big transformation as we have been discussing for last 4-5 years. It's now in full swing, demand for infrastructure products, automobile components, material handling crates, pallets etc are on an all time high. Even in water tank market rotomoulded tanks are regaining their share of the market which they had lost to rotomoulding. Major rotational moulders are investing heavily, setting up multi locational plants to cover a large geographical area of India. Few of them are replacing their old machineries with latest technology machines to improve their production capacities. Leading machinery manufacturers are flooded with new orders. In contrast to earlier days, now moulders are not focusing only on price factor. They are demanding from machine manufacturers the best technologies available to enhance their product quality and overall productivity. Now it depends on machine manufacturer how they respond to give the best solution..

Automation is going to be key factor as volumes are going to be very big in short time. Foreign players have these technologies ready but they have to make it suitable for Indian industry. Also after sales service, availability of spare parts locally is going to be a big challenge for these industries.

Mold making is still a painful area as getting Quality molds on time is a challenge. Till date cost effective cast aluminium molds are not available easily. For lots of playground equipment and decorative article molds, molders have to depend on import, again a service which is not easily available.

Speciality grade raw materials now have very good demand. Automobile sector is growing, products are required to pass stringent tests. Lots of new grades with specific functionality are already in the Indian market.

Internal air temperature measurement can be key to make high quality parts consistently with reduced scrap rate.

Skilled manpower on shop floor as well as in quality control labs needs to be trained for understanding rotational moulding technology. In response to this requirement, StAR has already signed MOU for setting up testing and training facility at BITS Pilani Goa campus.

In short Indian rotational moulding industry has become a most happening industry now...

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POLYPROPYLENE THE OTHER MATERIAL

Polyethylene has widespread adoption for the rotational moulding industry and with just cause. It is a forgiving material to mould, has good impact, takes additives for stabilization and improved weathering readily, and is well priced.

But there is a need for a polymer that meets technical requirements above those of polyethylene for a moderate price.

Polypropylene surpasses polyethylene for stiffness, hardness, chemical resistance, creep deformation and heat resistance, but suffers from low impact at low temperatures.

PSD Rotoworx, an Australian company, identified the attributes of polypropylene for rotational moulding and set about to address its shortcomings. They recognised the need to find an optimum balance of

performance and processability in an impact-modified polypropylene that could be pulverized at ambient conditions and be acceptably priced. It also had to process in conventional machinery and sinter with good surfaces.

Understanding the stiffness versus impact disparity between polypropylene and polyethylene drove PSD Rotoworx to find a balance between these two important properties for their polypropylene compound.

For the targeted applications like Chemical Storage and Infrastructure (especially underground), polypropylene's inherent attributes of stiffness, high hardness, good ESCR and excellent creep resistance led the way.

And for under the bonnet applications in automotive, the high heat performance which is vastly superior to polyethylene has already seen polypropylene dominate this market.

For Furniture and also Transport and Construction Panels the requirements are for high stiffness together with good gloss and scratch resistance. Polypropylene wins out compared to polyethylene.

So now we have a competitively priced polypropylene compound that moulds well and produces parts showing high stiffness with good impact, and all the other inherent attributes of polypropylene like high heat, better creep, good chemical resistance and improved gloss and scratch resistance.

Mould some PSD Rotoworx polypropylene and see first-hand the product advantages and new markets it can open for your business.

sales@psdrotoworx.com

STAR HEARTILY WELCOMES ITS NEW MEMBERS

Company	Category	Primary Contact
Arihant Plast Pulverizing Industry, Thane	Supplier	Anuj Nagda
Allwin Rotoplast, Ahmedabad	Moulder	Amjad Pisuwala
Palvi Power Tech Sales, Vadodara	Supplier	Dhawal Sheth
Sigma Roto Lining LLP, Ankleshwar	Moulder	B.P Kapadia
Rotoline Polyplast, Patna	Moulder	Niranjan Kumar
Foam Supplies India	Supplier	Anil Bansal
BITS Pilani – K.K.birla Goa Campus	Educator	Sachin Waigaonkar
Aditya Polytechnic, Patna	Moulder	Ankit Palriwal

FORTHCOMING EVENTS

EVENTS	DATE	VENUE
STAR 2018 ANNUAL CONFERENCE & TRADESHOW	Jan 19 – 21, 2018	Crowne Plaza Okhla, New Delhi, India
NORDIC ARM 10TH ANNUAL CONFERENCE	Feb 6 – 7, 2018	Oslo, Sweden
2018 ROTATION	Mar 13 – 15, 2018	Johannesburg, South Africa
ARM EXECUTIVE MEETING	Mar 25 – 27, 2018	Hyatt Grand Cypress Orlando, FL USA
RPC - CPPIA	EARLY MAY, 2018	Shanghai, China

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ARE YOU STILL GETTING CAUGHT OUT BY THE LIMITATIONS OF POLYETHYLENE?



HELP IS HERE WITH A NEW AFFORDABLE POLYPROPYLENE

Polypropylene is tougher, scratch resistant, has excellent load resistance and provides better high temperature performance. Yet it's often overlooked for the less expensive, less effective polyethylene option.

PSD Rotoworx is the new source for affordable polypropylene.

A cost-effective solution designed specifically for rotational moulding.

Distributors in India – **Baroda Polyform**

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can put the
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Polypropylene
to work for you

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