



The SPE Press

www.socalspe.org

June 2017

The Southern California Section of the Society of Plastics Engineers
Local information on resources and education available to plastics professionals

34th Annual Golf Tournament for Plastics Education

Date:
Thursday June 22,
2017, 7:30 AM

Sierra La Vern Country
Club
6300 Country Club Dr.,
La Verne, Ca. 91750
909 596 2100

Past SPE presidents are
invited for our traditional
informal past presidents
meeting

REGISTER NOW !

The Southern California Society of Plastics Engineers is proud to host this event.

Our Golfers will enjoy our return to the exclusive Sierra Lavern Country Club. Located in the rolling foothills of the majestic San Gabriel Mountains, the course offers a cool climate surrounded by great natural beauty. We have an early morning shotgun start at 7:30AM. Event proceeds help support the SoCal SPE education and scholarship programs. **Join in after the tournament for the golf awards presentation and luncheon after golf. This year, Sierra Lavern has given us a discount so we may lower the entrance fee to \$99.00 per player.**

We are asking for Tee sponsors for this Year's Tournament. We would like to thank last year's Tee Sponsors. Many are doing so this year. We especially thank Craftech for the Tee and Flag sponsorship. All of the funds go directly to the Scholarship, High school essays and student admissions to our events.

Rusty Miller perpetual trophy (The Rusty) for the low score foursome. Be the first to have your name engraved on the trophy. If the foursome is sponsored by a company, will also engrave the company name with the player's name. That includes suppliers and guest such as (GE, DuPont, and Toshiba). Borsche, Etc.). Come and support us in honoring Rusty.

Any donations in the form of Raffle Prizes, Tee Sponsorship, Cash or Services for this fundraiser will be greatly appreciated. Your contribution will be recognized at the tournament.

Registration: register online at www.socalspe.org
Event coordinators: Kerry Kanbara 909 906 2332

SPE Southern California is also looking for an event sponsor. The tournament will be named after this sponsor. The (ABC Inc.) 33rd Annual Golf Tournament for Plastic Education. A \$3000 donation with a commitment for 3 years is all that is needed to be the event sponsor. Please Call Kerry Kanbara, 909 906 2332 for more details

PRESIDENT'S MESSAGE



The ANTEC 2017 was held in Anaheim Hilton last week and our SoCal SPE Section was making all-out effort to welcome SPE delegation and council members. We've had a pleasant time and excellent opportunity to meet high ranking plastics professionals along with CEO Wim De Voss on a boat cruise in Newport Bay on the Saturday before ANTEC. We would like to thank our sponsors, Prestige, Horn, Alba, Borche, ID Additives, Marman, LK Systems, Modified Plastics, whose generous support help make this event possible. Special thanks to Michael Smith for entertaining everyone with his world class magic act, truly astonishing!

It is amazing how quickly this year has passed! ANTEC is behind us and June is approaching with beautiful weather for our 34th Annual Golf Tournament for Plastics Education. So it is time to dust off your golf clubs and hit the golf range. Tee and flag sponsorships as well as donation for raffle prizes are welcome and greatly appreciated. As you know for 34 years the SoCal SPE has hosted this event and proceeds from the event has helped to maintain the goals to promote plastics education. We are looking forward to see everyone at this event on June 22nd at the Sierra La Vern Country Club. More details on this golf outing are on our website.

We look forward to seeing you at the Golf Tournament on June 22nd.

Tuan Dao
President, SoCal SPE
(714) 692-9492

AWARDS

SoCal Section Receives 2017 Pinnacle Award

The Pinnacle program was established in 2005 to recognize Sections and Divisions that successfully create and deliver member value during year. Sections and Divisions are reviewed in four categories of achievement: organization, technical programming, membership and communication. Two levels of achievement are possible: Silver and Gold.

So Cal SPE Section has earned this prestigious Pinnacle Gold award for the second year in a row.



SoCal Section Receives 2017 Communications Award

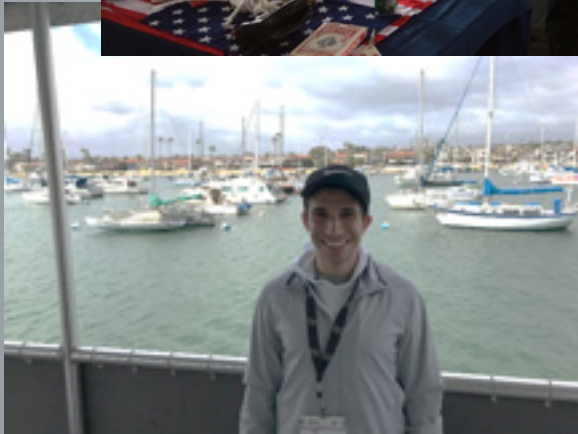
The Pinnacle program was established in 2005 to recognize Sections and Divisions that successfully create and deliver member value during year. Sections and Divisions are reviewed in four categories of achievement: organization, technical programming, membership and communication. Two levels of achievement are possible: Silver and Gold.

So Cal SPE Section has earned this prestigious Pinnacle Gold award since the inception.



SO. Cal SPE Welcomes SPE Delegation and Counselors

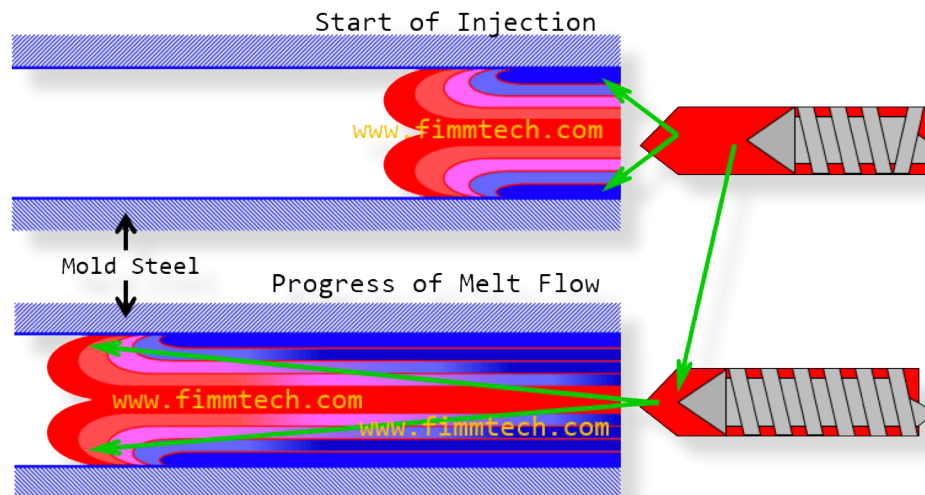
SoCal SPE Section welcomed SPE delegation and council members attending ANTEC in Anaheim in conjunction with celebrating 75th year of SPE. Everyone had a pleasant time and excellent opportunity to meet high ranking plastics professionals along with CEO Wim De Voss on a boat cruise in Newport Bay on the Saturday before ANTEC. We would like to thank our sponsors, Prestige, Horn, Alba, Borsche, ID Additives, Marman, LK Systems, Modified Plastics, whose generous support help make this event possible. Special thanks to Michael Smith for entertaining everyone with his world class magic act, truly astonishing!



TECH TIPS

What is Fountain Flow and Why is it important?

Plastic flow is laminar. When the plastic injection starts and the plastic first touches the cold mold it freezes at the walls of the mold. The plastic that is injected behind this melt pushes its way through the center, moves ahead of the frozen layer and ends up mold wall just ahead of it. The result is an 'inside – out flow' and the flow front looks similar to a water fountain and is therefore called as fountain flow.

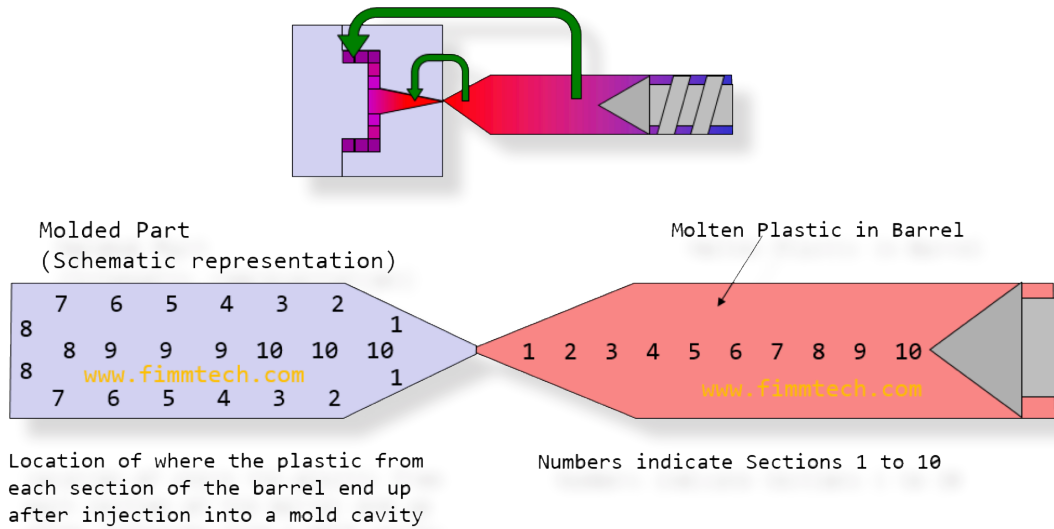


Depiction of Fountain Flow and the formation of the frozen layer with melt progression

If we divide the plastic melt that is ready for being injected into the mold into various sections, it is interesting to see where each of these sections end up. The plastic that is in the nozzle tip forms the skin of the sprue whereas the center of the sprue contains the plastic from the very back of the melt that was in front of the check ring. Refer to figure that shows a schematic cross section a mold and the progression of the melt marked by the numbers. For example, in the barrel Section 1 is in the nozzle tip. When this gets injected into the mold, it will end up on the skin of the part that is closest to the machine nozzle. Section 2 will get pushed further and will form the skin on the part that is ahead of Section 1.

... continued on page 6

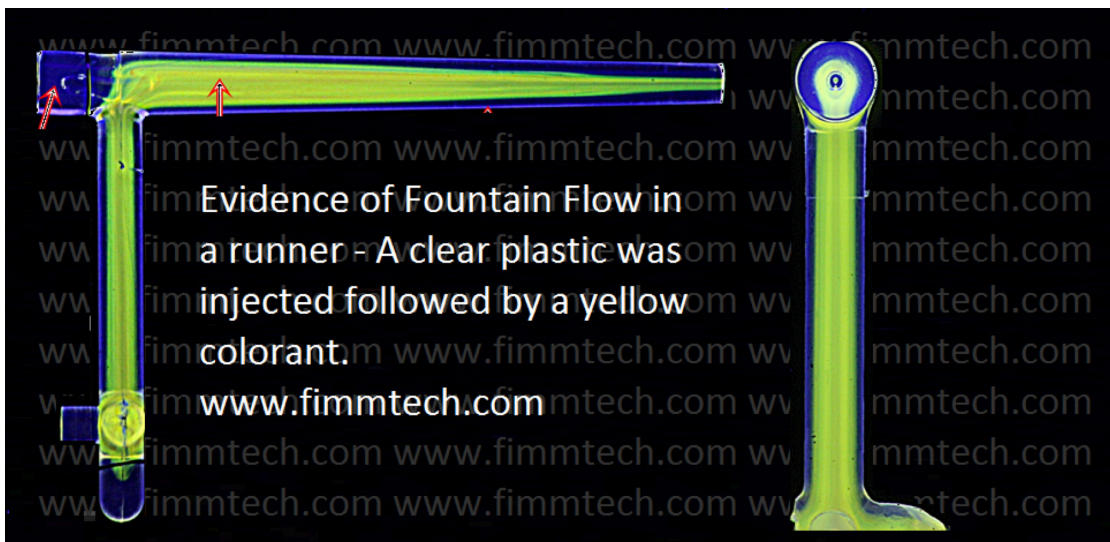
... continued from page 5



Relationship between position of the molecules in the barrel and their position in the final molded part

Understanding fountain flow can help is troubleshooting defects in molded parts. If a cosmetic defect is always located in the same spot one could backtrack the possible location of the melt to figure out the source of the problem. A molder had a part that failed in one particular section. The problem was tracked down to a long nozzle body with the thermocouple at one end and the heater band at the other. The plastic was getting degraded and during the injection ended up in the section of the failure. Changing the nozzle body to a shorter one helped solve the problem.

See the photograph that was taken at the FIMMTECH training center in a test mold. It clearly shows the evidence of Fountain Flow.



You Gotta Love ANTEC

by Eric R. Larson

I just got back from ANTEC - the Annual Technical Conference of the Society of Plastics Engineers. I don't attend the conference every year, but this year it was held in Anaheim, right here in Southern California, so it was easy for me to attend. Like many conferences, it offered a mix of technical papers, keynote presentations, and networking events. And, like most conferences, the travel and logistics can be cumbersome and exhausting. *Still, you gotta love going to ANTEC.*

Meeting People

A big part of ANTEC is meeting people. You not only get to meet experts, you get to meet people with expertise. Most of them are not famous; they don't use an agent, host a TV show, or have 2.794K followers on Instapound (I mean Instagram). But each one of them has an area of expertise, often in a different part of the industry.

Sure, you meet some people who are completely full of themselves. They shake your hand, smile politely, and mumble some pleasantries as their eyes glaze over. Nice to meet you, they say, as they sashy over to the next big fish on their dance card. But for every one of those, there are a dozen other individuals, each one eager to meet you and engage in thoughtful dialogue.



You gotta love ANTEC.

Talking Geek

51 weeks out of the year, when people ask me what I do, I have to hold back. At ANTEC, you don't have to hold back, and you can be as geeky as you want. So, when someone asks, What do you do? You can dive deep.



"I am engaged in research on isotactic macromolecules and how they affect the polymerization of both amorphous and semi-crystalline polymers. It has important commercial applications, such as industrial piping, roofing tiles, and golf balls."

Bet your bippe, someone is going to respond with the likes of: Wow. That's cool.

You gotta love ANTEC.

Learning Something New

I have been working with plastics for over 30 years now, and while I don't claim to know everything, I think I know more than most. Sometimes, I find myself getting complacent, and I ask myself, "What am I going to learn by going to ANTEC?" But I sign up anyway, and when I get there, something amazing happens, usually on the

continued on page 8...

first day of the conference. I might read a title of a paper on some topic of plastics technology that piques my interest, and when I go to the session I am presented with something that smacks me upside the head.

Say what?

You gotta love ANTEC.

Getting My Mind Blown

On top of learning something new, every time I go to ANTEC I see or hear something that totally blows my mind.

“Wait a minute. You are molding a double flip-flop thing-a-ma-jig, using a mold cavity that was 3D printed with a reverse pull lifter with negative draft and positive compression, and you are molding parts with zero defects, zero failures, a Cpk of 1.33, and a ΔE color shift of less than 0.4. How in the world are you doing that?”

Sorry, I can't tell you, it's proprietary.

And then they stick out their tongue, tap their hands upside their head, and taunt you.

Nah, nah, nah, nah, nah, nah.

You gotta love ANTEC.

The Next Generation

With over 3 decades of experience in the industry, I realize I am an old fart. However, as an old fart, I take pride in the next generation. I go to the student poster sessions, and the networking events. I see the research they are doing, and I hear the questions they are asking. Often times, I shake my head, as I remember that most them are barely 20 years old.

What is it with these kids today?

You gotta love ANTEC.



About The Author

Eric R. Larson is a mechanical engineer with over 30 years' experience in the plastics industry. He is owner of [Art of Mass Production](#) (AMP), an engineering consulting company based in San Diego, CA. AMP provides services to manufacturing companies in the consumer electronics, wireless, and medical device industries. Eric is also moderator of the blog site plasticsguy.com, where he writes about plastics technology and its effect on people and the planet.

MEMBERSHIP SPOTLIGHT

SoCal SPE Wants YOU to Become a Member

The SPE Southern California Section is, for a limited time, offering one FREE registration to a single, exclusive local technical event for those who sign up for an SPE Membership! To be eligible for this special offer, visit our website @ socalspe.org to check out the event calendar and register as an SPE Member! Once a member, you will be sent a voucher to bring to the SoCal SPE event of your choice! Offer also applies to expired memberships. Don't let this opportunity pass you by, become an SPE member today!

For questions, contact Ashley Price at 562-217-1377 or aprice@ethorn.com.



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Why Join SPE?

Whether you're a plastics scientist or engineer, a business owner, marketing/sales expert, or any other professional in plastics, SPE membership can help you advance your knowledge and your career. The information you need to increase efficiency and productivity, develop your career, and add to your company's bottom line is literally right at your fingertips.

The Society of Plastics Engineers is home to nearly 20,000 plastics professionals in more than 70 countries around the world. SPE is the "go to" resource for plastics technical information.

Each Month, we will explore one of the six key benefits of becoming SPE.

- Plastics InSight – A customized to your need Weekly Newsletter
- SPE Material database – Access "Tons" of material in the world of Plastics
- Registration Discounts – on over 40 conferences and local meetings and events
- Plastics Engineering Magazine – Free subscription to leading
- SPE Online Technical Library -
- **Education Cost Assistance through SPE Foundation**
- The Chain – Where Plastics Professionals connect and get answers

Last month, we explored key benefit of being a member – a free subscription to Plastics Engineering magazine.

This month we will talk about another key benefit of being a member – Education Cost Assistance through SPE Foundation.

The SPE Foundation funds programs and projects that support the education of plastics and polymers worldwide.

Scholarships

The SPE Foundation offers numerous scholarships to students who have demonstrated or expressed an interest in the plastics industry. They must be majoring in or taking courses that would be beneficial to a career in the plastics industry. This would include, but is not limited to, plastics engineering, polymer science, chemistry, physics, chemical engineering, mechanical engineering, and industrial engineering. All applicants must be in good standing with their colleges. Financial need is considered for most scholarships.

More Information

Grants

Through educational grants programs, the SPE Foundation strives to provide students of all ages with the means to explore the science and technology of plastics and polymers, and for programs/projects at educational institutions that will benefit the members of the Society of Plastics Engineers, the plastics industry, and/or the general public.

Check it out for yourself: <http://www.plasticsengineering.org/>





In this new section of our Newsletter, all SPE members are and their employers are welcome to post Position Wanted or Seeking Employment three times per calendar year at no cost. All Newsletter advertisers are also welcome to post advertisement six times per calendar year.

Help Wanted

New Injection Molding start up and Technical Service Representative



Send your resume to: borchusa@gmail.com

Position Wanted:

M.S. Materials Science & Engineering Graduate, University of Texas.

Seeking employment which contributes to my long-term career growth involving materials like polymers and opportunity to work on challenging projects.

Have industry experience of working with the latest developments in testing and characterization methods used for analysis of materials;

Trained on the working of injection molding, compression molding, extrusion

| 404-647-3532 | 4sakri@gmail.com | www.linkedin.com/in/shambhavisakri

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Special Events Chair: Matthew Dauphinee, Mission Plastics	909-947-7287	mdauphinee@missionplastics.com

2016-2017 YEAR CALENDAR www.socalspe.org

SEPTEMBER 2016


S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

September 15
Evening Technical Meeting
Robots, Collaborative
6:00 PM
Jagerhaus, Anaheim

MARCH 2017

S	M	T	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

March 23
EDUCATION NIGHT 6 PM
TBD
Norwalk



OCTOBER 2016

S	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

October 20
Plant Tour
6:00 PM
Torrance, CA

APRIL 2017


S	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
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23	24	25	26	27	28	29
30						

April 20
No Events

NOVEMBER 2016

S	M	T	W	Th	F	S
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6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

November 14



Molding 2016 Workshop
Milacron Tech Center
Irvine

MAY 2017


S	M	T	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

May 8-9-10
SPE ANTEC
Hilton
Anaheim

DECEMBER 2016

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

December 6



SPE Networking Reception
Featuring Greg LeMond

JUNE 2017

S	M	T	W	Th	F	S
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

June 22



Annual Golf Outing

JANUARY 2017

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

January 19
Evening Technical Meeting
Advances in Silicone
Technology for Medical
Applications
Jagerhaus, Anaheim

JULY 2017

S	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



Happy 4th!

FEBRUARY 2017

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5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

February 16
Workshop
Autodesk/Moldflow 2016
TBD
Irvine

AUGUST 2017

S	M	T	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

No Events

*All meetings are held on third Thursday of the month unless otherwise noted