

# The American Foundry Society

## *Green Sand Casting*

*Feb 18<sup>th</sup>, 2021*

*Please put your first and last name.# in the chat as sign in!*

Join our  
GroupMe



The Ohio State University AFS Chapter:  
<http://u.osu.edu/afsatosu>

Join our  
Email list



# 2021 Officers

- Advisor: Dr. Alan Luo, MSE



Michael Moodispaw  
(.4)  
President

1 person interested

Vice President



Blake Barnett  
(.615)  
Treasurer

1 person interested

Ecouncil Rep

Secretary



Hayden Beatty  
(.231)  
Social and Outreach

# 2021 Officers

If you are interested, you have until **3/1/2021** to reach out to me ([moodispaw.4@osu.edu](mailto:moodispaw.4@osu.edu)) otherwise the people who have expressed interest will assume those roles without an election

## **Vice President** – 1 person interested

- Assists with club projects

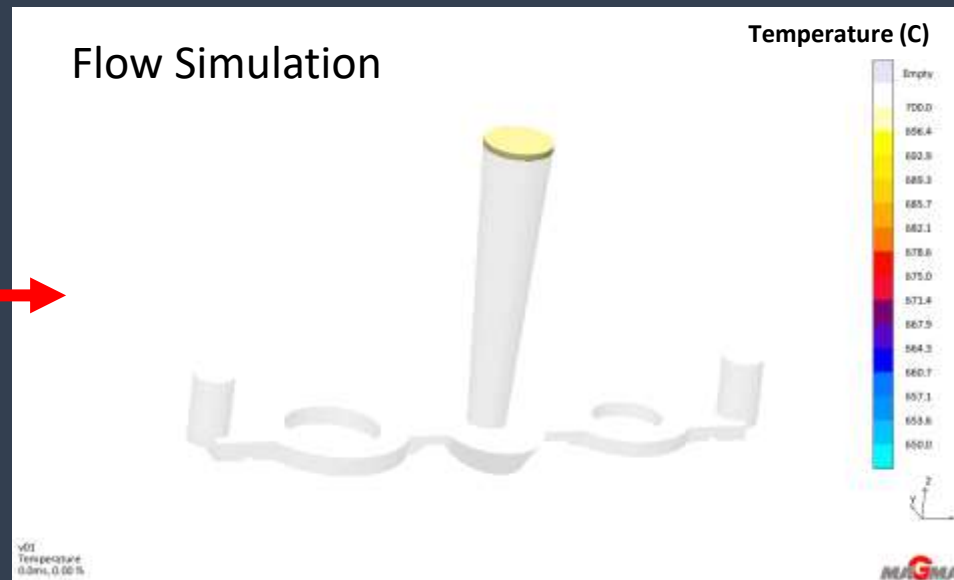
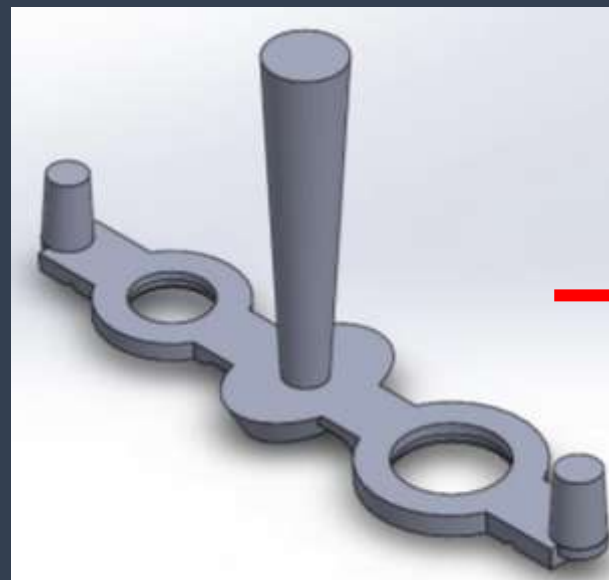
## **Secretary** – 1 person interested

- Assists with organization and communication

## **Ecouncil rep** – need someone!

- Reports about available funding through COE

# Casting



# Green sand process

Basic concept

Pattern making/ selection

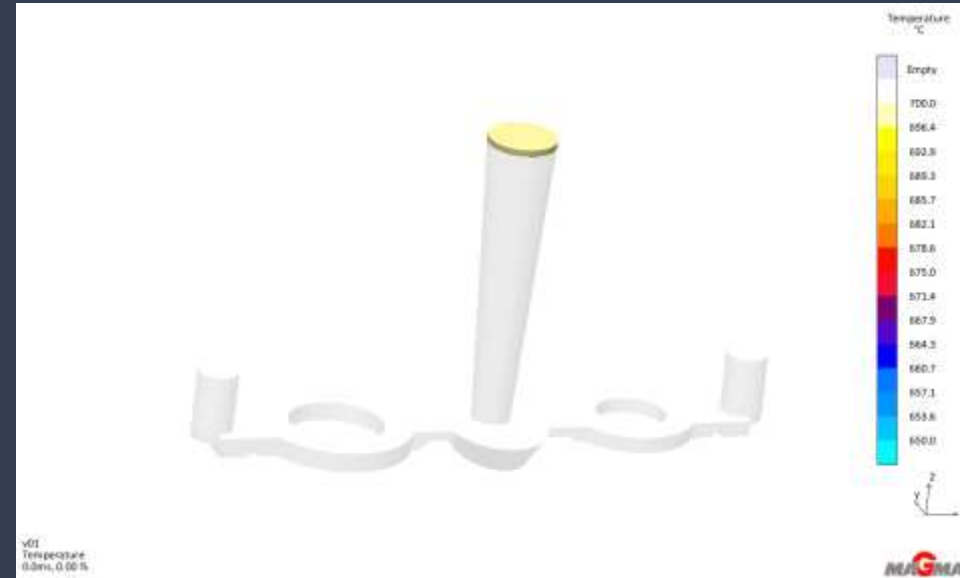
Sand preparation

Mold preparation

Melting

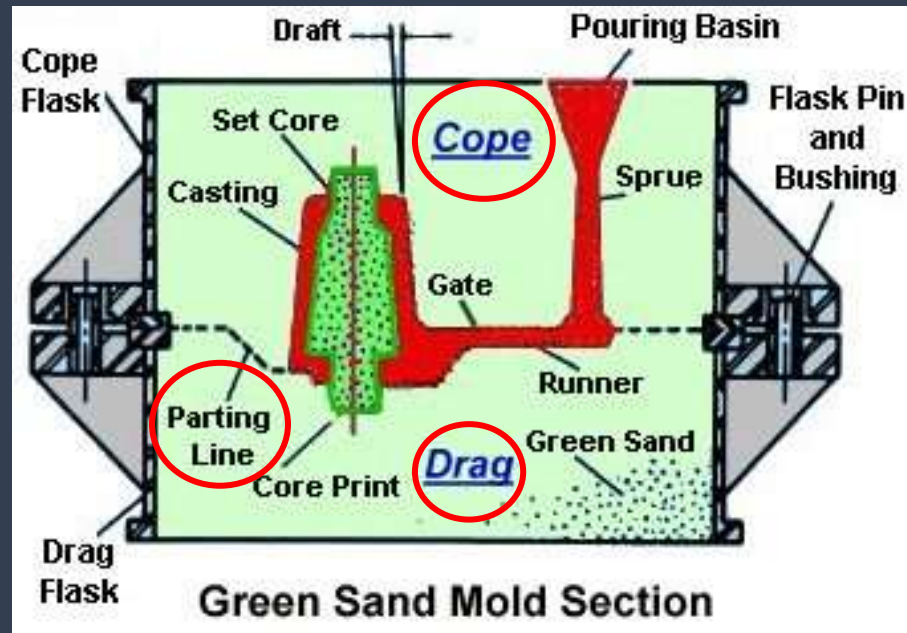
Pouring

Break-out



# Green sand process – basic concept

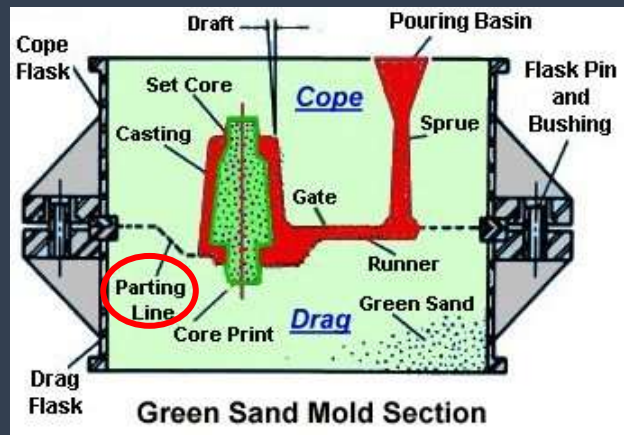
Why use sand?



How to make a cavity in a block of sand?



# Green sand process – patterns



# Green sand process – sand preparation

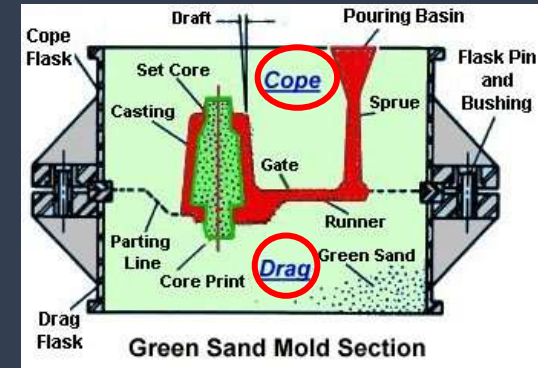
Why use sand? – mix with water to create a moldable structure (think sandcastles)

Why do we want finer sand? – surface finish



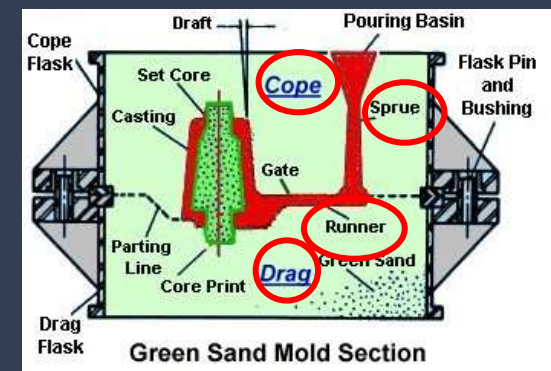
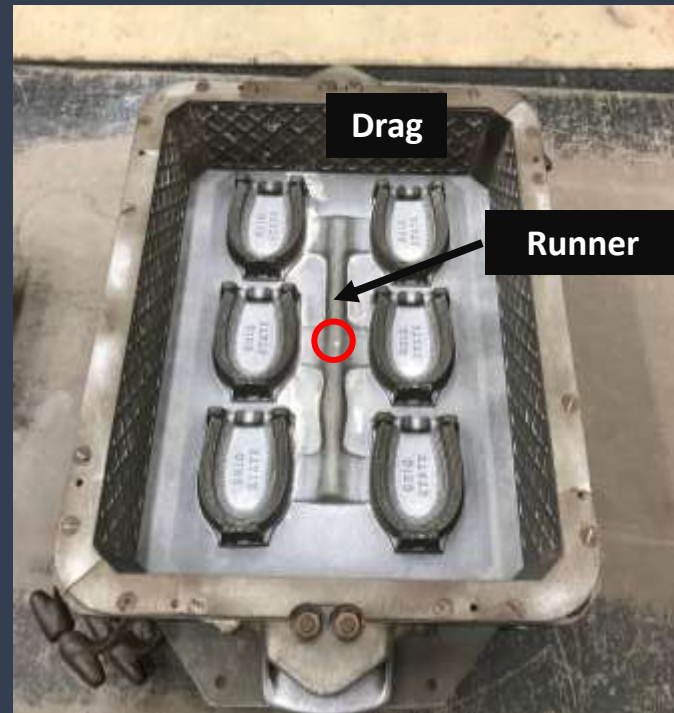


# Green sand process – mold preparation



# Green sand process – mold preparation

Talc (non-sticking agent) → Fine sand via fine riddle → Coarse sand → Packing → Sprue





# Green sand process – melting + pouring



# Green sand process – shake out





# Green sand process – demo video



<https://youtu.be/-8KVdZIoNRQ>