

“Combustion System Design and Application to Industrial Furnaces”
 Bloom Engineering Seminar - October 2016 - Milwaukee, Wisconsin

SAMPLE

Tuesday, October 25
Moderator: Don Whipple

	<i>TOPICS</i>	<i>SPEAKER</i>	
7:30 a.m. – 8:00 a.m.	Registration		
8:00 a.m. – 9:00 a.m.	Fundamentals of Combustion	Don Whipple	
9:00 a.m. – 10:00 a.m.	Industrial Burners	Don Whipple Keith Nieszczur	
10:00 a.m. – 10:15 a.m.	BREAK		
10:15 a.m. – 10:45 a.m.	Burner Tile Installation	Don Whipple	
10:45 a.m. – 11:15 a.m.	Burner Turndown	Don Whipple	
11:15 a.m. – 12:00 a.m.	Combustion Systems Environmental Emissions	Keith Nieszczur	
12:00 p.m. – 1:00 p.m.	LUNCH		
1:00 p.m. – 2:30 p.m.	Control – Ratio-Process	Don Whipple	
2:30 p.m. – 2:45 p.m.	BREAK		
2:45 p.m. – 4:00 p.m.	Component Selection / System Sizing	Don Whipple	
4:00 p.m. – 5:15 p.m.	Combustion Safety NFPA 85/86 / Flame Supervision	Keith Nieszczur Dave Philpot (Karl Dungs)	

SAMPLE

Wednesday, October 26
Moderator: Don Whipple
Morning Session

	<i>TOPICS</i>	<i>SPEAKER</i>	
8:00 a.m. – 8:45 a.m.	Heat Transfer Mechanisms	Don Whipple	
8:45 a.m. – 9:15 a.m.	Furnace Pressure Control	Keith Nieszczur	
9:15 a.m. – 10:15 a.m.	Heat Recovery Systems	Don Whipple Keith Nieszczur	
10:15 a.m. – 10:30 a.m.	BREAK		
10:30 a.m. – 11:15 a.m.	Preheated Air – Burner Sizing	Don Whipple	
11:15 a.m. – 12:30 p.m.	Regenerative Systems	Tony Phelps	
12:30 p.m. – 1:30 p.m.	LUNCH		

SAMPLE Wednesday, October 26 Afternoon Session

Time	Aluminum Topics	Speaker	Time	Steel Topics	Speaker
1:30 p.m. – 1:45 p.m.	Introduction to Aluminum	Don Whipple	1:30 p.m. – 2:30 p.m.	Heat Transfer	Michael Cochran
1:45 p.m. – 2:30 p.m.	Direct Charged Melters	Keith Nieszczur	2:30 p.m. – 3:30 p.m.	Heat Treat	Don Whipple
2:30 p.m. – 2:45 p.m.	Melt Cycle Emissions	Tony Phelps	3:30 p.m. – 3:45 p.m.	BREAK	
2:45 p.m. – 3:00 p.m.	BREAK		3:45 p.m. – 5:00 p.m.	Reheat Furnace Practice	Michael Cochran
3:00 p.m. – 4:00 p.m.	Well Charged Melters	Tony Phelps			
4:00 p.m. – 5:00 p.m.	Heat Treat	Don Whipple			

SAMPLE Thursday, October 27

	<i>TOPICS</i>	
8:00 a.m.-9:00 a.m.	Aluminum – Option Steel – Refractory Solutions (Harbison Walker International – John Sutton)	
9:00 a.m. – 10:00 a.m.	Aluminum – Refractory Solutions (Harbison Walker International – John Sutton) Steel – Option	
10:00 a.m. – 10:15 a.m.	BREAK	
10:15 a.m. - 11:15 p.m.	Aluminum – Metal Circulation (ALTEK – James Herbert) Steel – Option	
11:15 a.m. - 12:00 p.m.	Option	

OPTIONS:

<i>Aluminum</i>	<i>Steel</i>
Aluminum - Dry Hearth Furnaces	Steel – Burner Selection, Tuning and Maintenance
Aluminum - Melting w/ Oxy Fuel	Steel – Forging
Aluminum - Regen Sys and Round Top Charged Melters	Steel – Mill Energy Management / Delay Strategies
Aluminum Oxidation	Steel – Port Block Importance – Inspection/Maintenance
<i>General</i>	
Boilers, Fluid Heaters and Rotary Dryers	
Combustion Systems w/ Oxygen	
Typical Start Up	