

Why is Cooling Important

Heat stress is a serious problem.

Like other unsafe work conditions, heat stress lowers productivity and increases accident and error rates. All of which contribute to the cost of doing business.

Productivity lost to high temperatures is well documented. As the table from NASA report CR-1205-1 indicates, when temperatures in the work environment rise to 90 degrees, output drops 29% and errors increase 300%!

Cool, comfortable work environments directly contribute to productivity, quality and profitability. Keep your employees happy & stress free!



Heat Index Chart																
Temperature (°F) vs. Relative Humidity																
	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	
115°F	111	115	120	127	135	143	151									
110°	105	108	112	117	123	130	137	143	151							
105°	100	102	105	109	113	118	123	129	135	142	149					
100°	95	97	99	101	104	107	110	115	120	126	132	136	144			
95°	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136	
90°	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113	
85°	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	
80°	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86	
75°	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78	

Heat Index / Heat Disorders	
Heat Index	Possible heat disorders for people in higher risk groups
130 or Higher	Heatstroke/sunstroke highly likely with continued exposure.
105-130	Sunstroke, heat cramps or heat exhaustion likely and heat stroke possible with prolonged exposure and/or physical activity.
90-105	Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity.
80-90	Fatigue possible with prolonged exposure and/or physical activity.

Source: National Weather Service

NASA Report CR-1205-1:

Effective Temperature	75°	80°	85°	90°	95°	100°	105°
Loss of Work Output	3%	8%	18%	29%	45%	62%	79%
Loss in Accuracy	-	5%	40%	300%	700%	-	-

Safe working conditions keep workers' compensation rates down while minimizing disruptions and down time. As illustrated above, errors increase which may compromise good safety practices leading to more accidents. Low morale can be direct result of heat stress in the workplace. Low morale causes high employee turnover, absenteeism and work slow-down. Businesses cannot afford the costs of temporary employees to make up for lost productivity caused by heat stress.

Today's managers & supervisors should be trained to watch for signs of heat stress. Personal protective equipment including fans, appropriate rest periods, liquids and modified work practices can reduce the risk of heat stress. Employees must understand the need to replace fluids and salt while watching for signs of dehydration, fainting, heat cramps, heat exhaustion and heat stroke.