ABBREVIATIONS			
A	Area	lx	Lux
ACH	Air Changes per Hour	M	Mass
A_k	Effective Area	ma	Mixed Air
AVG	Average	m	Meters / Metres
BHP	Brake Horsepower	m^3/s	Volumetric Flow: Cubic Meters Per Second
BP	Brake Power	NLA	No Load Amperage
Btu	British Thermal Unit	NPSHA	Net Positive Suction Head Available
Btu/hr or Btuh	British Thermal Unit Per Hour	oa	Outside Air
CL	Center Distance (used in belt formula)	$\%_{oa}$	% of Outside Air
°C	Degrees Celsius	Ω	Ohm
C	Friction Loss Coefficient (For Duct Fittings)	P	Pressure
CCF	100 Cubic Foot	P_a	Atmospheric Pressure
CFM	Volumetric Flow: Cubic Feet Per Minute	P_{ab}	Absolute Pressure
C_p	Specific Heat	Pa	Pascals
C_v	Flow Constant (IP)	π	Pi = 3.14
ρ	Density	PD	Sheave Pitch Diameter
d	Diameter	$P_{℄}$	Pressure at Pump Centerline
Δ	Difference or Change (Final - Initial)	ppm	Parts Per Million
d_{imp}	Impeller Diameter	psi	Pounds Per Square Inch
E	Volts	psia	Pounds Per Square Inch Absolute
Eff	Efficiency	psig	Pounds Per Square Inch Gauge
EP	Pump Efficiency	P_{vp}	Absolute Vapor Pressure
°F	Degrees Fahrenheit	Q (flow)	Volumetric Fluid Flow Rate
f	Friction Factor	Q (heat)	Heat Flow Rate
fc	foot-candle	°R	Degrees Rankin
FLA	Full Load Amps	r	Radius
FPM	Feet Per Minute	$\%_{ra}$	% of Return Air
ft	Foot	R	Resistance
g	Acceleration of Gravity	ra	Return Air
gal	Gallons	rad	Radians
GPM	Gallons Per Minute	RH	Relative Humidity
h	Enthalpy	RPM	Revolutions Per Minute
H	Head	R_{value}	Thermal Resistance
Hg	Mercury	s	Second
h_{ma}	Mixed Air Enthalpy	SHR	Sensible Heat Ratio
h_{oa}	Outside Air Enthalpy	SME	Sash Movement Effect Performance Rating (SME-XX yyy)
HP	Horsepower	SP	Static Pressure
hr	Hour	Sp Gr	Specific Gravity (for water use 1.00)
h_{ra}	Return Air Enthalpy	T	Temperature
HT	Height	Ta	Absolute Temperature (460° + T) or °R
I	Amps	T_{ma}	Mixed Air Temperature
J	Joules	T_{oa}	Outside Air Temperature
K	Kelvin	TP	Total Pressure
K_v	Flow constant (SI)	T_{ra}	Return Air Temperature
kcal	kilocalorie	TS	Tip Speed
kg	Kilogram	U	Heat Transfer Coefficient
kJ	Kilojoule	μ	Viscosity, Dynamic
kPa	Kilopascal	V	Velocity
kW	Kilowatt	VP	Velocity Pressure
l	Liter (Litre)	W	Watt or J/s
l/s	Volumetric Flow: Liters Per Second	WD	Width
lb	Pounds	wg or wc	water gauge or water column
lm	Lumens	WHP	Water Horsepower
ln	natural log	WP	Water Power
LG	Length	ω	Humidity Ratio

EQUATIONS				
TOPIC	**US Equation (IP)**	**US Unit (IP)**	**Metric Equation (SI)**	**Metric Unit (SI)**
AIRFLOW & VELOCITY	$Q = V \times A$	CFM, ft^3/min	$Q = V \times A$	m^3/s , l/s
	Duct Fitting Loss $= C \times VP$	in. wg	Duct Fitting Loss $= C \times VP$	Pa
	$TP_{(in\ wg)} = VP + SP$	in. wg	$TP_{(Pa)} = VP + SP$	Pa
	$V_{(std\ air)} = 4005 \times \sqrt{VP}$	FPM, ft/min in. wg	$V_{(std\ air)} = \sqrt{(1.66 \times VP)}$	m/s, Pa
	$V = 1096 \times \sqrt{\left(\frac{VP}{\rho}\right)}$	in. wg	$V = 1.414 \times \sqrt{\left(\frac{VP}{\rho}\right)}$	Pa
	$ACH = \frac{Q \times 60}{(LG \times WD \times HT)}$	air changes/hr	$ACH = \frac{Q \times 3600}{(LG \times WD \times HT)}$	air changes/hr
	$Area_{Round} = \frac{\pi \times \left(\frac{d}{2}\right)^2}{144} = \frac{(\pi \times r^2)}{144}$	in^2 , ft^2	$Area_{Round} = \frac{\pi \times \left(\frac{d}{2}\right)^2}{1{,}000{,}000} = \frac{(\pi \times r^2)}{1{,}000{,}000}$	m^2
	$Area_{(square/rectangular)} = \frac{(HT \times WD)}{144}$	in^2 , ft^2	$Area_{(square/rectangular)} = \frac{(HT \times WD)}{1{,}000{,}000}$	m^2
	$Area_{Oval} = \frac{\left(HT \times (WD - HT) + \left(\pi \times \left(\frac{HT}{2}\right)^2\right)\right)}{144}$	in^2 , ft^2	$Area_{Oval} = \frac{\left(HT \times (WD - HT) + \left(\pi \times \left(\frac{HT}{2}\right)^2\right)\right)}{1{,}000{,}000}$	m^2
AIR TEMPERATURE	$°F = (1.8 \times °C) + 32°$	℉	$°C = (°F - 32) \div 1.8$	℃
	$°R = (°F + 460)$	°R	$K = (°C + 273)$	K
	$T_{ma} = (\%_{oa} \times T_{oa}) + (\%_{ra} \times T_{ra})$	℉, °R	$T_{ma} = (\%_{oa} \times T_{oa}) + (\%_{ra} \times T_{ra})$	℃, K
	$h_{ma} = (\%_{oa} \times h_{oa}) + (\%_{ra} \times h_{ra})$	$Btu/lb_{dry\ air}$	$h_{ma} = (\%_{oa} \times h_{oa}) + (\%_{ra} \times h_{ra})$	$kJ/kg_{dry\ air}$
	$\%_{oa} = \left(\frac{(h_{ra} - h_{ma})}{(h_{ra} - h_{oa})}\right) \times 100$	%	$\%_{oa} = \left(\frac{(h_{ra} - h_{ma})}{(h_{ra} - h_{oa})}\right) \times 100$	%
	$\%_{oa} = \left(\frac{(T_{ra} - T_{ma})}{(T_{ra} - T_{oa})}\right) \times 100$	%	$\%_{oa} = \left(\frac{(T_{ra} - T_{ma})}{(T_{ra} - T_{oa})}\right) \times 100$	%
HEAT TRANSFER (AIR)	$Q_{total} = 4.5 \times CFM \times \Delta h$ (Standard Air)	Btu/hr	$Q_{total} = 1.2 \times {}^{l}/_{s} \times \Delta h$	W
	$Q_{total} = 60 \times \rho \times CFM \times \Delta h$ (Non-Standard Air)	Btu/hr	$Q_{total} = \rho \times {}^{l}/_{s} \times \Delta h$ (Non-Standard Air)	W
	$Q_{sensible} = 60 \times Cp \times \rho \times CFM \times \Delta T_{air}$ (Non-Standard Air)	Btu/hr	$Q_{sensible} = Cp \times \rho \times {}^{l}/_{s} \times \Delta T_{air}$	W
	$Q_{sensible} = 1.08 \times CFM \times \Delta T_{air}$ (Standard Air)	Btu/hr	$Q_{sensible} = 1.23 \times {}^{l}/_{s} \times \Delta T_{air}$	W
	$Q_{latent} = 0.69 \times CFM \times \Delta\omega_{\frac{gr\ of\ H_2O}{lb\ dry\ air}}$ (Standard Air)	Btu/hr	$Q_{latent} = 3.0 \times {}^{l}/_{s} \times \Delta\omega_{g\ H_2O/kg\ dry\ air}$	W
	$Q_{latent} = 4840 \times CFM \times \Delta\omega_{\frac{lb\ of\ H_2O}{lb\ dry\ air}}$ (Standard Air)	Btu/hr		
	$Q_{latent} = \frac{1073}{7000} \times 60 \times Cp \times \rho \times CFM \times \Delta\omega_{\frac{gr\ of\ H_2O}{lb\ dry\ air}}$ (Non-Standard Air)	Btu/hr		
	$Q_{latent} = 1073 \times 60 \times Cp \times \rho \times CFM \times \Delta\omega_{\frac{lb\ of\ H_2O}{lb\ dry\ air}}$ (Non-Standard Air)	Btu/hr		
	$SHR = Q_{sensible} \div Q_{total}$	unitless	$SHR = Q_{sensible} \div Q_{total}$	unitless
	$Q_{total} = Q_{latent} + Q_{sensible}$	Btu/hr	$Q_{total} = Q_{latent} + Q_{sensible}$	W
	$Q_{Btuh} = A_{ft^2} \times U \times \Delta T \quad (°F)$	Btu/hr	$Q_W = A_{m^2} \times U \times \Delta T \quad (°C)$	W
FAN	$\frac{CFM_2}{CFM_1} = \frac{RPM_2}{RPM_1}$	ft^3/min, rev/min	$\frac{{}^{l}/_{s_2}}{{}^{l}/_{s_1}} = \frac{{}^{m^3}/_{s_s}}{{}^{m^3}/_{s_1}} = \frac{{}^{rad}/_{s_2}}{{}^{rad}/_{s_1}}$	l/s, m^3/s , rad/s
	$\frac{P_2}{P_1} = \left(\frac{CFM_2}{CFM_1}\right)^2$	in. wg, ft^3/min	$\frac{P_2}{P_1} = \left(\frac{{}^{l}/_{s_2}}{{}^{l}/_{s_1}}\right)^2 = \left(\frac{{}^{m^3}/_{s_2}}{{}^{m^3}/_{s_1}}\right)^2$	Pa, l/s, m^3/s
	$\frac{BHP_2}{BHP_1} = \left(\frac{CFM_2}{CFM_1}\right)^3$	HP	$\frac{kW_2}{kW_1} = \left(\frac{{}^{l}/_{s_2}}{{}^{l}/_{s_1}}\right)^3 = \left(\frac{{}^{m^3}/_{s_2}}{{}^{m^3}/_{s_1}}\right)^3$	kW, l/s, m^3/s
	Tip Speed $= TS = \frac{(\pi \times d \times rpm)}{12}$	FPM, ft/min	Tip Speed $= TS = \frac{(\pi \times d \times rpm)}{60}$	m/s
SHEAVE	$RPM_{fan} = \left(\frac{PD_{motor}}{PD_{fan}}\right) \times RPM_{motor}$	rev/min, in	$\frac{RPM_{fan}}{RPM_{motor}} = \frac{PD_{motor}}{PD_{fan}}$	rev/min, mm
	Fan Belt Length $= (CL \times 2) + \left(1.57 \times \left(PD_{large} + PD_{small}\right)\right) + \left(\frac{\left(PD_{large} - PD_{small}\right)^2}{4 \times CL}\right)$			in (IP), mm (SI)

EQUATIONS				
TOPIC	**US Equation (IP)**	**US Unit (IP)**	**Metric Equation (SI)**	**Metric Unit (SI)**
ELECTRICAL	$E = I \times \Omega$	Volts	$E = I \times \Omega$	Volts
	$\Omega = E \div I$	Ohms	$\Omega = E \div I$	Ohms
POWER	$BHP_{1\ phase} = \frac{(E \times I \times PF \times Eff)}{746}$	HP	$kW_{1\ phase} = \frac{(E \times I \times PF\ x\ Eff)}{1000}$ PF=Power Factor	kW
	$BHP_{3\ phase} = \frac{(E \times I \times PF \times Eff \times 1.732)}{746}$ PF=Power Factor = 0.8 & Eff=0.9; if not given	HP	$kW_{3\ phase} = \frac{(E \times I \times PF \times Eff\ x\ 1.732)}{1000}$	kW
	$BHP = HP \times \left(\frac{(I_{actual} - (NLA \times 0.5))}{(FLA - (NLA \times 0.5))}\right)$	HP	$BkW = kW \times \left(\frac{(I_{actual} - (NLA \times 0.5))}{(FLA - (NLA \times 0.5))}\right)$	kW
	$FLA_{actual} = \frac{(FLA_{tag} \times E_{tag})}{E_{actual}}$	Amps	$FLA_{actual} = \frac{(FLA_{tag} \times E_{tag})}{E_{actual}}$	Amps
	$Fan\ HP = \frac{(CFM \times TP \times SpGr)}{(6356 \times Eff)}$	HP	$Fan\ kW = \frac{(m^3/s \times TP)}{(10 \times Eff)}$	kW
RESISTANCE	$\frac{1}{R_{Total_{Parallel}}} = \frac{1}{R_1} + \frac{1}{R_2} + \cdots + \frac{1}{R_n}$	Ohms	$\frac{1}{R_{Total_{Parallel}}} = \frac{1}{R_1} + \frac{1}{R_2} + \cdots + \frac{1}{R_n}$	Ohms
	$R_{Total_{Series}} = R_1 + R_2 + R_3 + \cdots + R_n$	Ohms	$R_{Total_{Series}} = R_1 + R_2 + R_3 + \cdots + R_n$	Ohms
	$E_{primary} \times I_{primary} = E_{secondary} \times I_{secondary}$	Volts, Amps	$E_{primary} \times I_{primary} = E_{secondary} \times I_{secondary}$	Volts, Amps
	$Voltage\ Drop = I \times R_{Total}$	Volts	$Voltage\ Drop = I \times R_{Total}$	Volts
PUMP	$\frac{GPM_2}{GPM_1} = \frac{RPM_2}{RPM_1}$	gal/min, rev/min	$\frac{l/s_2}{l/s_1} = \frac{m^3/s_2}{m^3/s_1} = \frac{rad/s_2}{rad/s_1}$	l/s, m^3/s, rad/s
	$\frac{GPM_2}{GPM_1} = \frac{d_{imp2}}{d_{imp1}}$	gal/min, in	$\frac{m^3/s_2}{m^3/s_1} = \frac{d_{imp2}}{d_{imp1}}$	m^3/s, mm
	$\frac{H_2}{H_1} = \left(\frac{GPM_2}{GPM_1}\right)^2$	in wc, ft wc, psi, gal/min	$\frac{H_2}{H_1} = \left(\frac{m^3/h_2}{m^3/h_1}\right)^2 = \left(\frac{rad/s_2}{rad/s_1}\right)^2$	Pa, m^3/h, rad/s
	$\frac{BHP_2}{BHP_1} = \left(\frac{GPM_2}{GPM_1}\right)^3$	HP, gal/min	$\frac{kW_2}{kW_1} = \left(\frac{m^3/s_2}{m^3/s_1}\right)^3 = \left(\frac{rad/s_2}{rad/s_1}\right)^3$	kW, m^3/s, rad/s
	$WHP = \frac{(GPM \times H_{ft\ wg} \times SpGr)}{3960}$ SpGr = 1.0, unless given, EP use 0.7 if not given	HP	$WP_{kW} = 9.81 \times m^3/s \times H_m \times SpGr$	kW
			$WP_W = \frac{(l/s \times H_{Pa} \times SpGr)}{1002}$	W
	$BHP = \frac{(GPM \times H_{ft\ wg} \times SpGr)}{(3960 \times EP)}$	HP	$kW = \frac{WP}{EP}$	kW
	$EP_{in\ \%} = \frac{(WHP \times 100)}{BHP}$	%	$EP_{in\ \%} = \frac{(WP \times 100)}{BP}$	%
HYDRONIC	Coil ΔP: $GPM_2 = GPM_1 \times \sqrt{\left(\frac{P_2}{P_1}\right)}$	in wc, ft wc, psi	Coil ΔP: $m^3/h_2 = m^3/h_1 \times \sqrt{\left(\frac{P_2}{P_1}\right)}$	Pa
	$C_v = \frac{GPM \times \sqrt{SpGr}}{\sqrt{\Delta P_{psi}}}$	GPM, gal/min	$K_v = \frac{m^3/h \times \sqrt{SpGr}}{\sqrt{\Delta P_{Bar}}}$	m^3/h
	$GPM = \frac{C_v \times \sqrt{\Delta P_{psi}}}{\sqrt{SpGr}}$	GPM, gal/min	$m^3/h = \frac{K_v \times \sqrt{\Delta P_{Bar}}}{\sqrt{SpGr}}$	m^3/h
	$\Delta P_{psi} = SpGr \times \left(\frac{GPM}{C_v}\right)^2$ SpGr = 1.0, unless given, EP use 0.7 if not given	psi	$\Delta P_{Bar} = SpGr \times \left(\frac{m^3/h}{K_v}\right)^2$	bar
	$NPSHA = P_a \pm P_s + \left(\frac{V^2}{2g}\right) - P_{vp} - P_f$	ft wc	$NPSHA = P_a \pm P_s + \left(\frac{V^2}{2g}\right) - P_{vp} - P_f$	m
HEAT TRANSFER (HYDRONIC)	$Q_{Btu} = 500 \times GPM \times \Delta T_{°F}$ (Standard Water)	Btu/hr	$Q_{kW} = C_p \times \rho \times l_s \times \Delta T_{°C}$ (Non-Standard Water)	kW
	$Q_{Btu} = C_p\ x\ 60 \times \rho \times GPM \times \Delta T_{°F}$ (Non-Standard Water)	Btu/hr	$Q_{kW} = 4190 \times m^3/s \times \Delta T_{°C}$	kW
			$Q_W = 4190 \times l/s \times \Delta T_{°C}$	W
BOILER	$Output\ Btu = Input\ Btu \times \%Eff$	Btu	$Output\ kW = Input\ kW \times \%Eff$	kW
	$Boiler\ Operating\ Cost = Fire\ Rate_{gal/hr} \times hrs\ Burned \times \$Cost/gal$			$
	$Fire\ Rate = \frac{Input\ Btu}{Fuel\ Btu_{\ gal/hr}}$	gal/hr		

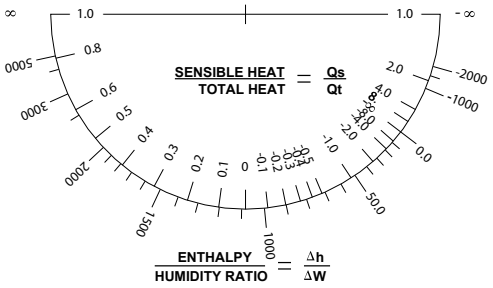
METRIC EQUIVALENTS		
Unit of	**Metric Unit (SI)**	**Equivalent US Unit (IP)**
acceleration	1 m/s^2	3.281 ft/sec^2
area	1 m^2	10.764 ft^2
area	1 mm^2	0.0016in^2
energy	1 kcal	3.968 Btu/hr
energy	1 W	3.413 Btu/hr
energy	1 kW	3413 Btu/hr
length	1 m	3.281 ft
length	1 m	39.37 in
length	1 cm	0.39 in
length	1 mm	0.039 in
lighting intensity	1 lx	0.093 fc
lighting intensity	1 lm/m^2	0.0931 fc
mass	1 kg	2.2 lb
power (motor)	1 kW	1.34 HP
power (energy)	1 J/hr	0.000948 Btu/hr
pressure	1 Pa	0.004 in wg
pressure	1 kPa	0.145 psi
pressure	1 kPa	0.03358 ft wc
pressure	1 kPa	0.296 in Hg
velocity	1 m/s	196.9 fpm
velocity	1 m/s	3.28 fps
volume	1 m^3	35.31 ft^3
volumetric flow rate (air)	1 m^3/s	2118.88 cfm
volumetric flow rate (air)	1 l/s	2.12 cfm
volumetric flow rate (air)	1 m^3/hr	0.589 cfm
volumetric flow rate (water)	1 l/s	15.88 gpm
volumetric flow rate (water)	1 m^3/s	15880 gpm

ENGINEERING CONSTANTS		
Definition	**US Units (IP)**	**Metric Units (SI)**
Atmospheric Pressure @ Sea Level	1 atm = 29.92 in Hg = 14.7 psi	101.325 kPa
Atmospheric Pressure @ Sea Level (coll)	1 bar = 14.5 psi = 29.53 in Hg	100 kPa
Heat of Evaporation	970 Btu/lb	2257 kJ/Kg
Heat of Condensation	970 Btu/lb	2257 kJ/Kg
Heat of Fusion	144 Btu/lb	335 kJ/kg
Mass (1 lb of moisture)	7000 grains	N/A
Density of Air (Std)	0.075 lb/ft^3	1.204 kg/m^3
Density of Water (Std)	62.4 lb/ft^3	1000 kg/m^3
Density of Water (Std)	8.33 lb/gal	1000 kg/m^3
Specific Heat (Cp) of dry air	0.24 Btu/(lb x ˚F) @ 68°F	1.005 kJ/(kg x °K) @ 20°C
Specific Heat (Cp) ice	0.50 Btu/(lb x ˚F) @ 32°F	2.05 kJ/(kg x °K) @ 0°C
Specific Heat (Cp) vapor	0.45 Btu/lb x ˚F @ 68°F	1.996 kJ/(kg x °K) @ 20°C
Specific Heat (Cp) water	1.00 Btu/lb x ˚F @ 68°F	4.187 kJ/(kg x °K) @ 20°C
Standard Temperature & Pressure (STP)	68°F at Sea Level (14.7 psi)	20°C at Sea Level (101.325 kPa)
Standard Temperature & Pressure (STP)	68°F at Sea Level (29.92 in. Hg)	20°C at Sea Level (101.325 kPa)
Ton of refrigeration	12,000 Btu/hr	3.516 kW
Ton of refrigeration (evaporator)	12,000 Btu/hr	3.516 kW
Ton of refrigeration (condenser)	15,000 Btu/hr	4.395 kW
Volume	1 CF = 7.49 gallons	N/A

CONVERSIONS			
Unit of	**To Convert**	**Into**	**Multiply by**
energy	CCF	Btu	100,000
energy	mbh	Btu/hr	1,000
power	HP	Btu/hr	2545
power	HP	watts	746
pressure	ft.wc	psi	0.434
pressure	psi	ft. wc	2.31
pressure	psi	in. Hg	2.036

PSYCHROMETRIC CHART

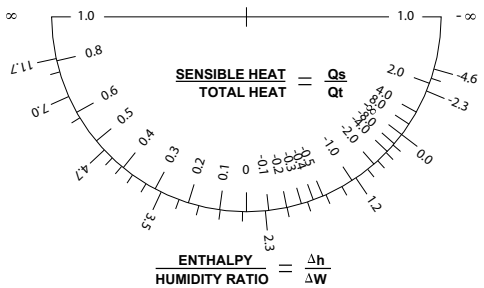
BAROMETRIC PRESSURE 29.921 inches of Mercury



NEBB Fundamental Formulas

PSYCHROMETRIC CHART - METRIC
NORMAL TEMPERATURE
SI Units

SEA LEVEL
BAROMETRIC PRESSURE: 101.325 kPa



Air Density Correction Factors (US Units) Standard Air Density (Sea Level & 70°F) = 0.075 lb/ft^3 @ 29.92 in Hg												
Altitude (ft)		**Sea Level**	**1000**	**2000**	**3000**	**4000**	**5000**	**6000**	**7000**	**8000**	**9000**	**10000**
Barometer (in Hg)		**29.92**	**28.86**	**27.82**	**26.82**	**25.84**	**24.90**	**23.98**	**23.09**	**22.22**	**21.39**	**20.58**
(in wg)		**407.50**	**392.80**	**378.60**	**365.00**	**351.70**	**333.90**	**326.40**	**314.80**	**302.10**	**291.10**	**280.10**
Air Temperature °F	-40°	1.26	1.22	1.17	1.13	1.09	1.05	1.01	0.97	0.93	0.90	0.87
	-0°	1.15	1.11	1.07	1.03	0.99	0.95	0.91	0.89	0.85	0.82	0.79
	40°	1.06	1.02	0.99	0.95	0.92	0.88	0.85	0.82	0.79	0.76	0.73
	70°	1.00	0.96	0.93	0.89	0.86	0.83	0.80	0.77	0.74	0.71	0.69
	100°	0.95	0.92	0.88	0.85	0.81	0.78	0.75	0.73	0.70	0.68	0.65
	150°	0.87	0.84	0.81	0.78	0.75	0.72	0.69	0.67	0.65	0.62	0.60
	200°	0.80	0.77	0.74	0.71	0.69	0.66	0.64	0.62	0.60	0.57	0.55
	250°	0.75	0.72	0.70	0.67	0.64	0.62	0.60	0.58	0.56	0.54	0.51
	300°	0.70	0.67	0.65	0.62	0.60	0.58	0.56	0.54	0.52	0.50	0.48
	350°	0.65	0.62	0.60	0.58	0.56	0.54	0.52	0.51	0.49	0.50	0.45
	400°	0.62	0.60	0.57	0.55	0.53	0.51	0.49	0.48	0.46	0.44	0.42
	450°	0.55	0.56	0.54	0.52	0.50	0.48	0.46	0.45	0.43	0.42	0.40
	500°	0.58	0.53	0.51	0.49	0.47	0.45	0.44	0.43	0.41	0.39	0.38
	550°	0.53	0.51	0.49	0.47	0.45	0.44	0.52	0.41	0.39	0.38	0.36
	600°	0.50	0.48	0.46	0.45	0.43	0.41	0.40	0.39	0.37	0.35	0.34
	700°	0.46	0.44	0.43	0.41	0.39	0.38	0.37	0.35	0.34	0.33	0.32
	800°	0.42	0.40	0.39	0.37	0.36	0.35	0.33	0.32	0.31	0.30	0.29
Water Temperature °F							60°	150°	200°	250°	300°	340°
Feet head differential per inch Hg differential							1.046	1.070	1.090	1.110	1.150	1.165

Air Density Correction Factors (Metric Units) Standard Air Density (Sea Level & 20°C) = 1.204 kg/m^3 @ 101.325 kPa												
Altitude (m)		**Sea Level**	**250**	**500**	**750**	**1000**	**1250**	**1500**	**1750**	**2000**	**2500**	**3000**
Barometer (kPa)		**101.33**	**98.30**	**96.30**	**93.20**	**90.20**	**88.20**	**85.10**	**83.10**	**80.00**	**76.00**	**71.90**
Air Temperature °C	0°	1.08	1.05	1.02	0.99	0.96	0.93	0.91	0.88	0.86	0.81	0.76
	20°	1.00	0.97	0.95	0.92	0.89	0.87	0.84	0.82	0.79	0.75	0.71
	50°	0.91	0.89	0.86	0.84	0.81	0.79	0.77	0.75	0.72	0.68	0.64
	75°	0.85	0.82	0.80	0.78	0.75	0.73	0.71	0.69	0.67	0.63	0.60
	100°	0.79	0.77	0.75	0.72	0.70	0.68	0.66	0.65	0.63	0.59	0.56
	125°	0.74	0.72	0.70	0.68	0.66	0.64	0.62	0.60	0.59	0.55	0.52
	150°	0.70	0.68	0.66	0.64	0.62	0.60	0.59	0.57	0.55	0.52	0.49
	175°	0.66	0.64	0.62	0.62	0.59	0.57	0.55	0.54	0.52	0.49	0.46
	200°	0.62	0.61	0.59	0.57	0.56	0.54	0.52	0.51	0.49	0.47	0.44
	225°	0.59	0.56	0.56	0.54	0.53	0.51	0.50	0.48	0.47	0.44	0.42
	250°	0.56	0.55	0.53	0.52	0.50	0.49	0.47	0.46	0.45	0.42	0.40
	275°	0.54	0.52	0.51	0.49	0.48	0.47	0.45	0.44	0.43	0.40	0.38
	300°	0.51	0.50	0.49	0.47	0.46	0.45	0.43	0.42	0.41	0.38	0.36
	325°	0.49	0.48	0.47	0.45	0.44	0.43	0.41	0.40	0.39	0.37	0.35
	350°	0.47	0.46	0.45	0.43	0.42	0.41	0.40	0.39	0.38	0.35	0.33
	375°	0.46	0.44	0.43	0.42	0.41	0.39	0.38	0.37	0.36	0.34	0.32
	400°	0.44	0.43	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.33	0.31
	450°	0.41	0.40	0.38	0.37	0.36	0.35	0.34	0.33	0.32	0.31	0.29
	500°	0.38	0.37	0.36	0.35	0.34	0.33	0.32	0.31	0.30	0.28	0.27
Water Temperature °C							15.5°	65.5°	93.2°	121°	148.7°	170.9°