

Text | **Text** = English Language | Danish / Scandinavian Language

BASICS | GRUNDLÆGGENDE

Length | Længde

1	m	=	39,37	" in	=	3,281	' feet
1	in "	=	25,40	mm	=	$2,540 \cdot 10^{-2}$	m
1	ft '	=	304,8	mm	=	0,3048	m
1	Nautical Mile	=			=	1,853	km

Area | Areal

1	m ²	=	10,76	ft ²	=	1550	ln ²
1	ft ²	=	$9,290 \cdot 10^{-2}$	m ²	=		
1	ln ²	=	$6,452 \cdot 10^{-4}$	m ²	=		

Volume | Volumen

1	m ³	=	$6,102 \cdot 10^4$	in ³	=		
1	m ³	=	35,31	cf ft ³	=	264,2	US Gallon
1	cf ft ³	=	$2,832 \cdot 10^{-2}$	m ³	=	28,32	Liter dm ³
1	in ³	=	$1,639 \cdot 10^{-5}$	m ³	=	$1,639 \cdot 10^{-2}$	Liter dm ³
1	US Gallon	=	$3,785 \cdot 10^{-3}$	m ³	=	3,785	Liter dm ³
1	UK Gallon	=	$4,546 \cdot 10^{-3}$	m ³	=	4,546	Liter dm ³

For Ideal Gasses :

Standard Cubic Feet (SCF) @ 70°F (21,1°C) / 1 Atm. abs.
Normal Cubic Meter (m_n³) @ 0°C / 1 Atm. absolute (1,013 bar)

1	m _n ³ Air Luft	=	38,04	SCF Air	=	1,292	kg Air Luft
1	SCF Air Luft	=	$2,629 \cdot 10^{-2}$	m _n ³ Air	=	$3,397 \cdot 10^{-2}$	kg Air Luft

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Specific Volume | **Specifik Volumen**

$$\begin{aligned} 1 \text{ m}^3/\text{kg} &= 16,02 \text{ ft}^3/\text{lb} \\ 1 \text{ ft}^3/\text{lb} &= 6,243 \cdot 10^{-2} \text{ m}^3/\text{kg} \end{aligned}$$

Density | **Massefylde**

$$\begin{aligned} 1 \text{ kg/m}^3 &= 6,243 \cdot 10^{-2} \text{ lb/ft}^3 \\ 1 \text{ lb/ft}^3 &= 16,02 \text{ kg/m}^3 \end{aligned}$$

Mass | **Masse**

$$\begin{aligned} 1 \text{ kg} &= 2,205 \text{ lb | lbs} \\ 1 \text{ lb | lbs} &= 0,4536 \text{ kg} \end{aligned}$$

FLUIDS & FLOW | **VÆSKER & STRØMNING**

Velocity | **Hastighed**

$$\begin{aligned} 1 \text{ m/s} &= 3,281 \text{ ft/s} \\ 1 \text{ m/s} &= 196,9 \text{ ft/min | FPM} \\ 1 \text{ FPM} &= 5,080 \cdot 10^{-3} \text{ m/s} \\ 1 \text{ ft/sec.} &= 0,3048 \text{ m/s} \\ 1 \text{ Knot} &= 1,853 \text{ km/h} = 1 \text{ Nautical Mile / hour} \end{aligned}$$

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Volume Flow | Volumenstrøm

$$\begin{aligned} 1 \text{ m}^3/\text{h} &= 0,5885 \text{ CFM} \mid \text{ft}^3/\text{min} \\ 1 \text{ CFM} &= 1,699 \text{ m}^3/\text{h} \end{aligned}$$

For Ideal Gasses :

Standard Cubic Feet per Minute (SCFM) @ 70°F / 1 Atm. absolute
Normal Cubic Meter per Hour (m_n^3/h) @ 0°C / 1 Atm. abs.

$$1 \text{ SCFM Air} \mid \text{Luft} = 1,577 \text{ m}_n^3/\text{h Air} \mid \text{Luft}$$

Mass Flow | Massestrøm

$$\begin{aligned} 1 \text{ kg/h} &= 2,205 \text{ lb/h} \\ 1 \text{ lb/h} &= 0,4536 \text{ kg/h} \end{aligned}$$

Pressure | Tryk

$$\begin{aligned} 1 \text{ bar} &= 14,50 \text{ psi} \\ 1 \text{ bar} &= 100,0 \text{ kPa} \\ 1 \text{ bar} &= 0,9869 \text{ Atm.} \\ 1 \text{ mbar} &= 0,7501 \text{ mmHg} \mid \text{Torr} \\ 1 \text{ mbar} &= 10,20 \text{ mmWG} \\ 1 \text{ mbar} &= 100,0 \text{ Pa} \\ 1 \text{ psi} \mid \text{lbf/in}^2 &= 6,895 \cdot 10^{-2} \text{ bar} \\ 1 \text{ psi} \mid \text{lbf/in}^2 &= 6,804 \cdot 10^{-2} \text{ Atm.} \\ 1 \text{ psi} \mid \text{lbf/in}^2 &= 6,895 \text{ kPa} \end{aligned}$$

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Kinematic Viscosity | Kinematisk Viskositet

1	cSt	=	$1,076 \cdot 10^{-5}$	ft ² /s	=	$1,000 \cdot 10^{-6}$	m ² /s
1	ft ² /s	=	$9,290 \cdot 10^4$	cSt	=	$9,290 \cdot 10^{-2}$	m ² /s

Dynamic Viscosity | Dynamisk Viskositet

1	Pa·s	=	1.000	cP	=	0,6720	lb/(ft·s)
1	cP	=	$1,000 \cdot 10^{-3}$	Pa·s Ns/m ²			
1	cP	=	$1,000 \cdot 10^{-3}$	kg/(m·s)			
1	lb/(ft·s)	=	1,488	Pa·s	=	1488	cP mPa·s

HEAT | VARME

Temperature | Temperatur

°C Celsius	=	$5 \cdot (°F - 32) / 9$
°F Fahrenheit	=	$32 + 9 \cdot °C / 5$

Heat Content & Energy | Varme & Energi

1	kJ kN·m	=	0,9478	Btu	=	0,2388	Kcal
1	Btu	=	1,055	kJ	=	0,2520	Kcal
1	kcal	=	4,187	kJ	=	3,968	Btu
1	kWh	=	3600	kJ	=	859,8	Kcal

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Heat Load / Power | Effekt / Varmestrøm

1 kW	=	3412	Btu/h	=	859,8 kcal/h
1 Btu/h	=	$2,931 \cdot 10^{-4}$	kW	=	0,2520 kcal/h
1 kcal/h	=	$1,163 \cdot 10^{-3}$	kW	=	3,968 Btu/h
1 Boiler HP	=	9,81	kW	=	15,65 kg steam /h

Specific Heat | Varmefylde

1 kJ/(kg·K)	=	0,2388	Btu/(lb·°F)	=	0,2388 kcal/(kg·°C)
1 Btu/(lb·°F)	=	4,187	kJ/(kg·K)		
1 kcal/(kg·°C)	=	4,187	kJ/(kg·K)		

Conductivity | Varmeledning

1 W/(m·K)	=	0,8598	kcal/(m·h·°C)	=	0,5778 Btu/(ft·h·°F)
1 kcal/(m·h·°C)	=	1,163	W/(m·K)		
1 Btu/(ft·h·°F)	=	1,731	W/(m·K)		

Heat Transmission | Varmetransmission

1 W/(m ² ·K)	=	0,8598	kcal/(m ² ·h·°C)	=	0,1761 Btu/(ft ² ·h·°F)
1 kcal/(m ² ·h·°C)	=	1,163	W/(m ² ·K)		
1 Btu/(ft ² ·h·°F)	=	5,679	W/(m ² ·K)		

Evaporation Heat | Forvampningsvarme

1 kJ/kg	=	0,430	Btu/lb
1 Btu/lb	=	2,326	kJ/kg