

## LIQUID OR FLUID MEASURES

### British Units

1 ft. oz.	=	1.732 cu. ins.
	=	0/96 ft. oz. us
5 ft. oz	=	8.55 cu. ins.
	=	1 gill
4 gills	=	34.68 fit. Cu. ins.
	=	20 ft. ozs.
	=	1 pint
	=	1.20 pints US
	=	½ galls
	=	¾ bottles
2 pints =	69.366	xu. Ina.
	=	1 quart
4 quarts	=	277.42 cu. ins.
	=	160 ft. ozs. (br.)
	=	8 pints
	=	1 gallon
	=	6 bottles

### American Units

1 ft. Oz.	=	1.805 cu. Ins.
	=	1.04 FT. OZ. Br.
4 ft. oz.	=	7.220 cu. Ins.
	=	1 gill (us)
4 gills	=	26.675 cu. Ins.
	=	16 ft. ozs. (us)
	=	1 pint (us)
	=	0.833 pints Br.
2 pints	=	57.75 cu. Ins.
	=	1 quart (us)
4 quarts	=	231 cu.ins.
	=	128. fl. Ozs. (US)
	=	8 pints (US)
	=	1 gall (US)
	=	0.8327. Galls (imp)

1 barrel = 31 ½ or 42 gallons US

## DRY MEASURES (PARTLY OBSOLETE)

### British Units

2 gallons	=	1 peck	=	554.8 cu. ins.	0.321 cu. ft.
4 packs	=	1 bushel	=	2219.3 cu. ins.	= 1.284 cu. ft. = 8 galls
	=	1.03 bushels US	=	0.036 k.	
8 bushels	=	1 quarter			
1 cu. ft.	=	6.24 galls.	=	3.1144 pecks	= 0.7786 bushes
1 cu. yd.	=	68.178 galls	=	84.089 pecks	= 21.02 bushels

1 Br. Bushel = 1.032 Us bushels

1 US bushel = 0.969 Br.

### American Units

2 pints = 1 quart = 67.20 cu. ins.

4 quarts = 8 pints = 1 gall = 268.8 cu. ins. = 2.164 US liq. Galls

8 quarts = 1 peck = 2 galls = 537.6 cu. ins.

4 pecks = 1 bushel = 8 galls = 2150.42 cu. ins. = 1.224 cu. ft.

1 cu. ft. contains 7.48 liq. Us galls. And 6.428 dry US galls

1 pint dry US = 1.164 pints liq. US = 0.97 pints Br. = 33.6 cu. ins.

1 pint liq us = 0.86 pints dry US = 0.833 pints Br. = 28.875 cu. ins.

1 pint Br. (liq) = 1.03 pints dry US = 1.2 pints liq. Us = 34.68 cu. ins.

### Metric Units of Liquid measures

1 killolitre (kl) = 1000 Litres

1 kilolitre = 1 cu. metre

1 hectolitre (hl) = 100 Litres

1 litre = 1 cu. decimeter

1 dekalitre (dkl) = 10 litre

1 millilitre = 1 cu. centimeter

1 litre = 1000 ml. = 1 litre

10 dl = 35.30 ft. oz. hr.

1 declitire (dl) = 1/10 litre

10 cl = 25.53 ft. oz. br.

1centilitre (cl) = 1/100 Litre

10 ml = 0.353 ft.oz. br.

1 millilitre (ml) = 1/1000 litre

### Conversion Factors

1 cu. In. = 16.387 millilitres or cu. Cm.

1 Millilitres = 0.061 cu. In.

= 0.577 ft. ounces Br.

1 centrilitres = 0.61 cu. in

1 cu. Ft. = 28317 litres or cu. Dm.

1 decilitres = 6.10 cu. Ins.

= 0.028 cu. Metres

1 dekalitres = 2.2 galls. Imp.

= 6.24 galls. Imp.

= 2.64 galls US

= 7.48 galls US

I kilolitres = 35.317 cu. Ft.

1 Cu. Yd. = 764.53 litres

or = 1.308 cu. Yds.

= 0.704 cu. Metres	cu. Metre	= 219.97 galls imp.
= 108.178 galls imp.	Or	= 264.17 galls US
= 202 galls US		

1 Ft. dram Br.	= 3.55 Milliliters or cu. Cm.	
1 ft. dram US	= 3.697 Milliliters or cu. Cm.	
1 ft. ounce Br.	= 28.413 „ „ „ „	= 0.0284 litres
1 ft. ounce US	= 29.574 „ „ „ „	= 0.0296 litres
1 pint Br.	= 0.568 liters or cm. dm.	= 34.68 cu. Ins.
1 pin US Liq.	= 0.473 „ „ „ „	= 28.875 „
1 quart Br.	= 1.136 „ „ „ „	= 693366 „
1 „ US Liq.	= 0.946 „ „ „ „	= 57.75 „

#### DRY MEASURES (PARTLY OBSOLETE)

1 pint US	= 0.55 Cu. Dm.	= 33.6 cu. Ins.	
1 quart US	= 1.100 cu. Dm.	= 67.20 „ „	= 2 pints
1 peck Br.	= 9.092 „ „	= 554.8 „ „	
1 „ Us	= 8.827 „ „	= 537.6 „ „	= 8 quarts
1 bushel Br.	= 36.374 „ „	= 1.284 „ „ft.	
1 bushel US	= 35.238 „ „	= 1.244 „ „	= 4 pecks
1 cu. Metre	= 27.49 bushels Br.	= 28.38 bushels US	

#### Gallon explained

1 Imps. Gall.	= 1.20 Us galls. Liq.	1 US gall.	= 0.833 imp. Galls
	= 1.03 US galls dry		= 0.859 US dry „
	= 277.42 cu. Ins.		= 231 cu. Ins.
	= 0.16 cu. Ft.		= 0.134 cu. Ft.
	= 4546 cu. Cm.		= 3785 cu. Cm.
	= 4546 litres		= 3785 litres
	= 160 ft. ozs.		= 3.785 litres
	= 6 bottles		= 8 pints liq. US

Cu.cm.	= minims x 0.06	Cu. Cm. x 16.9	= minims
	= ft.drams x 3.55	x 0.28	= ft.drams
	= ft. oz. Br x 28.4	x 0.035	= ft. oz. Br.

Litre; is the volume occupied by one kilogram of water (or one litre of water weights one kilogram).

It is one cu. Decimeter or one thousand cu. Centimeters.

1 litre = 1.76 pints Br.

= 2.113" US	Litres = ft.oz. x 0.028
= 0.22 galls. Imp.	= pints x 0.568
= 0.264" US	= galls. Imp. X 4.55
= 61.025 cu. Ins.	
= 0.0353" ft.	Litres x 35.30 = ft.oz.
= 0.88 quarts imp.	x 1.76 = pints. Br.
= 1.057" US	x 0.22 = galls. Imp.
= 35.30 ft. oz. Br.	

Grams / cu. cm. = kg. / cu. dm. = tonnes / cu. metre

Grams / cu. metre = milligrams / litre or 1 cu. decimeter

#### EQUIVALENTS OF MOMENTS OF INERTIA AND SECTION MODULUS

Moment of inertia in cm. units

= moment of inertia in inch units x 41.648

Moment of inertia in inch units

= moment of inertia in cm. units x 0.024

Section modulus in cm. units

= section modulus in inch units x 16.397

Section modulus in inch units

= section modulus in cm. units x 0.061

### Sundry Units

12 articles or units	= 1 dozen	1 quire	= 25 sheets of paper
12 dozens	= 1 gross	20 quires	= 1 ream of paper
1 score	= 20 articles or units		= 500 sheets

### INDIAN MEASURES & WEIGHTS

8 ratties	= 1 masha
12 mashas	= 1 tola = wt. of rupee coin
5 tolas	= 1 chhatak
4 chhataks	= 1 pau = 20 tolas
4 pau	= 1 seer = 80 tolas
40 seers	= 1 maund

### INDIAN MEASURES AND WEIGHTS

#### Conversion Factors

1 ratti	= 1.875 grams	1 lb. abp	= 0.486 seers
1 masha	= 15 grams	1 cwt. Br.	= 1.361 maunds or 1 md. 14.4 srs.
	= 1 grams (approx)		
1 tola	= 180 grams	1 ton Br.	= 27.222 maunds or 27 mde. 8.8cm.
	= 0.41 oz. avp.		
	= 0.375 oz. ap	1 ton US	= 24.3 maunds
	= 3 drachms ap		
	= 6.583 drams avp	1 gram	= 1 masha (approx)
	= 11.66 grams	1 kilogram	= 1.072 seers
1 chhatak	= 2.057 ozs. avp		= 86 tolas
	= 58.30 grams	1 quintal	= 2.68 maunds
1 pau	= 8.23 ozs. Avp.		= 2mds. 27.2 seers
1 seer	= 2.057 lbs. avp.	1 tonne	= 26.79 maunds
	= 32.9 ozs. Avp		

Liquid Measures

	= 0.033 kilograms	1 chhatak	= 3.057 ft. ozs.
	= 933 grams	1 pau	= 8.23 ft. ozs.
1 maund	= 0.0367 Br. Tons		= 0.234 litres
	= 0.04114 US tons	3.3 drams	= 1 tola
	= 0.03732 tonnes		= 11.7 ml. or cu. cm.
	= 32.28 lbs. Avp	1 ft. oz.	= 2.43 tolas
	= 0.73 cwts. (Br.)	1 litre	= 1.08 seers
	= 37.324 kilograms	1 seer	= 0.93 litres
	= 0.373 quintals	To convert multiply by	
9 lbs. Avp	= 350 tolas (exact)	Seers to lbs. Avp	$\frac{72}{35}$
1 oz. avp	= 2.43 tolas	Maunds to cwts.	$\frac{36}{49}$
1 oz. tr or ap	= 2.67 tolas	Tons to maunds	$27 \frac{1}{2}$