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Units of measurement conversion chart

centimeter = 98.0665 pascal [Pa]gram-force/sq. However, with the advent of globalization, particularly the growth of commerce and science, the arguable need for a universal system of measurement became more apparent. Although the United Kingdom has technically adopted the International System of Units (SI), in practice, the UK is much like the United States in that it uses SI in many areas such as industry, healthcare, government, science, and others, but still commonly uses a system derived from English units (the imperial system) in everyday life. foot1 ton-force (short)/sq. United States customary units United States customary units (UCS) are a system of measurements used in the United States (US). Definition: A kilogram (symbol: kg) is the base unit of mass in the International System of Units (SI). 1893 – the Mendenhall Order officially redefined most US customary units in terms of meters and kilograms. foot to pascal, pascal to ton-force (short)/sq. This prototype weight could be divided into 16 ounces, a number that had three even divisors (8, 4, 2). As such, the length of a unit could vary significantly from region to region. This was amended again in 2010 to allow manufacturers to voluntarily use only metric units for labeling. cm to pascal, pascal to kilogram-force/sq. In order to maintain reliability and precision, SI requires the precise definition of constants in addition to precise of measurement standards. 1969 – the Metrication Board was created to promote and coordinate country-wide metrication. Although there are other countries in which units other than SI are primarily used, the US and the UK are the largest contributors to two of the other unit systems commonly used today. Some of the more common examples include: minute, hour, day (symbol: min, h, d respectively) – units of time degree – (symbol: °C) – unit of temperature liter – (symbol: L) – unit of volume bar – (symbol: bar) – unit of pressure millimeter of mercury (symbol: mmHg) – unit of pressure History of SI: The International System of Units (SI) is the most widely used unit system in the world. It uses some general units of volume, as well as volume measurements specifically for dry or liquid volumes. Below are listed some of the USC units of mass, along with their approximate SI equivalents: ounce (symbol: oz) – 28.350 grams pound (symbol: lb) – 453.592 grams ton (symbol: ton) – 907.185 kilograms long ton (symbol: long ton) – 1,016.047 kilograms Units of temperature: UCS uses the unit degrees Fahrenheit to measure temperatures for everyday purposes. 1965 – the UK officially agreed to a policy to support metrication. The pound is sometimes used as a force, using the term "pound-force." This should not be confused as a unit of mass. The International System of Units (SI), the most widely used system of measurement today, was developed in an effort to provide a standardized, more rational system that could be used worldwide. 1989 – the UK again chose not to make the use of the metric system compulsory by avoiding the European Units of Measurement Directive. The avoirdupois system is a system that was commonly used in the 13th century. 1824 – creation of the imperial system as part of the Weights and Measures Act of 1824. The meter and the second are defined in terms of c, the speed of light, and cesium frequency, ΔνCs. Even though the definition of the kilogram was changed in 2019, the actual size of the unit remained the same. inch1 ton-force (long)/square foot = 107251.78011595 pascal [Pa]1 ton-force (long)/square inch = 15444256.336697 pascal [Pa]1 kip-force/square inch = 6894757.2931783 pascal [Pa]kip-force/square inch to pascal, pascal to kip-force/square inch1 pound-force/square foot = 47.8802589804 pascal [Pa]pound-force/square foot to pascal, pascal to pound-force/square foot1 pound-force/square inch = 6894.7572931783 pascal [Pa]pound-force/square inch to pascal, pascal to pound-force/square inch1 poundal/square foot = 1.4881639436 pascal [Pa]poundal/square foot to pascal, pascal to poundal/square foot1 torr [Torr] = 133.3223684211 pascal [Pa]torr to pascal, pascal to torr1 centimeter mercury (0°C) = 1333.22 pascal [Pa]centimeter mercury (0°C) to pascal, pascal to centimeter mercury (0°C)1 millimeter mercury (0°C) = 133.322 pascal [Pa]millimeter mercury (0°C) to pascal, pascal to millimeter mercury (0°C)1 inch mercury (32°F) [inHg] = 3386.38 pascal [Pa]inch mercury (32°F) to pascal, pascal to inch mercury (32°F)1 inch mercury (60°F) [inHg] = 3376.85 pascal [Pa]inch mercury (60°F) to pascal, pascal to inch mercury (60°F)1 centimeter water (4°C) = 98.0638 pascal [Pa]centimeter water (4°C) to pascal, pascal to centimeter water (4°C)1 millimeter water (4°C) = 9.80638 pascal [Pa]millimeter water (4°C) to pascal, pascal to millimeter water (4°C)1 inch water (4°C) [inAq] = 249.082 pascal [Pa]inch water (4°C) to pascal, pascal to inch water (4°C)1 foot water (4°C) [ftAq] = 2988.98 pascal [Pa]foot water (4°C) to pascal, pascal to foot water (4°C)1 inch water (60°F) [inAq] = 248.843 pascal [Pa]inch water (60°F) to pascal, pascal to inch water (60°F)1 foot water (60°F) [ftAq] = 2986.116 pascal [Pa]foot water (60°F) to pascal, pascal to foot water (60°F)1 atmosphere technical [at] = 98066.500000003 pascal [Pa]atmosphere technical to pascal, pascal to atmosphere technical Please provide values below to convert kilogram [kg] to pound [lbs], or vice versa. centimeter1 ton-force (short)/sq. While the stone is related to the ounce and the pound, and would have the same measurement in USC, the stone is not used in the United States, and is mainly widely used as a measurement of body weight in the UK. The United Kingdom: 1862 – preparations for conversion to the metric system began, and metric units could be legally used in the UK for nearly a century before efforts to fully convert to the metric system actually began. Imperial system The imperial system of measurements, also known as British Imperial, was defined in 1824, replacing the previous English units known as the Winchester Standards, which were in effect from 1588 to 1825. Despite efforts to implement SI globally, there are still a few unit systems in common use, including the United States customary units, and the imperial system of measurement (though most countries that have not officially adopted SI still use SI to a certain extent). 1989 – government policy shifted again back to preference for voluntary metrication. UCS is based on the avoirdupois pound, which was defined in 1959 as exactly 453.59237 grams. inch = 13789514.586338 pascal [Pa]ton-force (short)/sq. Some of the more common examples of these include: radian (symbol: rad) – unit of angle newton (symbol: N) – unit of force or weight watt (symbol: W) – unit of power volt (symbol: V) – unit of voltage, electrical potential difference, and electromotive force degree Celsius (symbol: °C) – unit of temperature Non-SI units accepted for use with SI: There are also numerous units that are accepted for use with SI that are not considered SI units or SI derived units. SI is intended as a coherent, rational system of measurement. This is at least in part due to the inconsistencies and lack of coherence that can arise through use of centimeter-gram-second systems, such as those between the systems of electrostatic and electromagnetic units.The kilogram was originally defined as the mass of one liter of water at its freezing point in 1794, but was eventually re-defined, since measuring the mass of a volume of water was imprecise and cumbersome.A new definition of the kilogram was introduced in 2019 based on Planck's constant and changes to the definition of the second. In the past, unit systems were defined locally, and often, highly arbitrarily. France officially introduced the metric system in 1799, and the system spread throughout Europe during the 19th century. The process of metrication, including the eventual definition and adoption of the International System of Units was a slow process. centimeter to pascal, pascal to gram-force/sq. cm = 98066.5 pascal [Pa]kilogram-force/sq. It is currently defined based on the fixed numerical value of the Planck constant, h, which is equal to 6.62607015 × 10-34 in the units of J·s, or kg·m2·s-1. 1969 – the Metrication Board was founded to promote and coordinate metrication. Many versions of the pound existed in the past in the United Kingdom (UK), and although the UK largely uses the International System of Units, pounds are still used within certain contexts, such as labelling of packaged foods (by law the metric values must also be displayed). 1978 – the government began mandating metrication in certain sectors in response to carpet retailers reverting to imperial measurements of area for pricing. 1818 – discussion of adoption of the metric system occurred in Parliament. This convenience could be the reason that the system was more popular than other systems of the time that used 10, 12, or 15 subdivisions.Current use: The pound as a unit of weight is widely used in the United States, often for measuring body weight. The SI base units as well as a table of metric prefixes (courtesy of Wikipedia.org) are listed below: SI base units: ampere (symbol: A) – unit of electric current kelvin (symbol: K) – unit of temperature second (symbol: s) – unit of time meter (symbol: m) – unit of length kilogram (symbol: kg) – unit of mass candela (symbol: cd) – unit of luminous intensity mole (symbol: mol) – unit reflecting amount of a substance Metric prefixes: Metric prefixes in everyday use TextSymbolFactorPower exaE1000000000000000000 petaP1000000000000000 teraT1000000000000 gigaG1000000000 megaM1000000 kilok1000 hectoh100 decada10 (none)(none)1 decid0.1 centic0.01 millim0.001 micro μ0.000001 nanon0.000000001 picop0.000000000001 femtof0.000000000000001 attoa0.000000000000000001 SI-derived units: In addition, SI also includes 22 units of measurement that are derived from the 7 SI base units. Standardized units of measurement facilitate communication between different cultures and countries that may otherwise choose to use local systems, potentially leading to confusion and miscommunication. It is the modern version of the metric system which was developed over time while borrowing units or ideas from other systems, in large part by a committee of the French Academy of Sciences, beginning in 1791. International System of Units The international System of Units (SI) is the modern form of the metric system and is comprised of seven base units that use twenty metric prefixes to denote decimal multiples or submultiples of the base unit. Various unit systems have existed throughout history, and their importance remains evident today, as seen by their widespread use within society. Like most of the rest of the world however, UCS uses degrees Celsius and kelvins within scientific contexts. The United States: 1866 – the metric system was legalized as a system of measurement, though not widely used. 1992 – an amendment to the Fair Packaging and Labeling Act required that food labels on federally regulated consumer commodities include both metric and US customary units. Although striving for standardization is important, since it is difficult to entirely eliminate the local use of historical unit systems, it is equally important to accept that other systems of measurement exist and be able to use them, or at least relate and convert them to the preferred unit system. Prior to the current definition, the kilogram was defined as being equal to the mass of a physical prototype, a cylinder made of a platinum-iridium alloy, which was an imperfect measure. The three common unit systems that are in use today are the International System of Units, United States customary units, and the imperial system of units. It was updated to its current form in 1959. millimeter = 9806650 pascal [Pa]1 gram-force/sq. 1965 – the government set a 10-year plan for full metrication. It is a system that was based on a physical standardized pound that used a prototype weight. This act allowed the use of English units as long as imperial equivalents were marked. The changes were intended to improve the definitions of SI base units, not to actually change how the units are used throughout the world.History/origin: The name kilogram was derived from the French "kilogramme," which in turn came from adding Greek terminology meaning "a thousand," before the Late Latin term "gramma" meaning "a small weight."Unlike the other SI base units, the kilogram is the only SI base unit with an SI prefix. 1975 – the metric system was officially adopted for government and military use as well as for trade and commerce. Below are some, but not all of these volumes, and their SI equivalents. Although both systems are based on English units and have many similarities, this development also resulted in significant differences between the two systems. SI is a system based on the meter-kilogram-second system of units rather than a centimeter-gram-second system. Also, for most of these measurements, the US simply adds the term "dry" before the unit to distinguish a unit from its liquid definition. While UCS is primarily used for commercial, social, and personal applications, the US uses the International System of Units (SI) in many other areas including science, medicine, industry, the government, and the military. Units of volume: UCS uses many different measurements of volume. 1960 – certain industries and government agencies underwent, or were in the process of undergoing metrication by this point in time. History: 1824 – creation of the imperial system, marking the split of the unit systems used in the UK and the US. No plans were made to mandate the use of the metric system, and the Metrication Board was abolished in 1980 after a change in government. The international avoirdupois pound (the common pound used today) is defined as exactly 0.45359237 kilograms. Specifically, the policy was intended to support voluntary metrication with some government subsidization. As such, it is an evolving system that changes when more stable constants are discovered, or other constants can be more precisely measured. The UK also often uses both pounds and stones when describing body weight, where a stone is comprised of 14 pounds.Kilogram [kg]Pound [lbs]0.01 kg0.0220462262 lbs0.1 kg0.2204622622 lbs1 kg2.2046226218 lbs2 kg4.4092452437 lbs3 kg6.6138678655 lbs5 kg11.0231131092 lbs10 kg22.0462262185 lbs20 kg44.092452437 lbs50 kg110.2311310924 lbs100 kg220.4622621849 lbs1000 kg2204.6226218488 lbs1 kg = 2.2046226218 lbs1 lbs = 0.45359237 kgExample: convert 15 kg to lbs:15 kg = 15 × 2.2046226218 lbs = 33.0693393277 lbs joule [J]1 kilojoule [kJ] = 1000 joule [J]kilojoule to joule, joule to kilojoule1 kilowatt-hour [kW*h] = 3600000 joule [J]kilowatt-hour to joule, joule to kilowatt-hour1 watt-hour [W*h] = 3600 joule [J]watt-hour to joule, joule to watt-hour1 calorie (nutritional) = 4186.8 joule [J]calorie (nutritional) to joule, joule to calorie (nutritional)1 horsepower (metric) hour = 2647795.5 joule [J]horsepower (metric) hour to joule, joule to horsepower (metric) hour1 Btu (IT) [Btu (IT), Btu] = 1055.05585262 joule [J]Btu (IT) to joule, joule to Btu (IT)1 Btu (th) [Btu (th)] = 1054.3499999744 joule [J]Btu (th) to joule, joule to Btu (th)1 gigajoule [GJ] = 1000000000 joule [J]gigajoule to joule, joule to gigajoule1 megajoule [MJ] = 1000000 joule [J]megajoule to joule, joule to megajoule1 millijoule [mJ] = 0.001 joule [J]millijoule to joule, joule to millijoule1 microjoule [μJ] = 1.0E-6 joule [J]microjoule to joule, joule to microjoule1 nanojoule [nJ] = 1.0E-9 joule [J]nanojoule to joule, joule to nanojoule1 attojoule [aJ] = 1.0E-18 joule [J]attojoule to joule, joule to attojoule1 megaelectron-volt [MeV] = 1.6021766339999E-13 joule [J]megaelectron-volt to joule, joule to megaelectron-volt1 kiloelectron-volt [keV] = 1.6021766339999E-16 joule [J]kiloelectron-volt to joule, joule to kiloelectron-volt1 electron-volt [eV] = 1.6021766339999E-19 joule [J]electron-volt to joule, joule to electron-volt1 erg = 1.0E-7 joule [J]erg to joule, joule to erg1 gigawatt-hour [GW*h] = 3600000000000 joule [J]gigawatt-hour to joule, joule to gigawatt-hour1 megawatt-hour [MW*h] = 3600000000 joule [J]megawatt-hour to joule, joule to megawatt-hour1 kilowatt-second [kW*s] = 1000 joule [J]kilowatt-second to joule, joule to kilowatt-second1 watt-second [W*s] = 1 joule [J]watt-second to joule, joule to watt-second1 newton meter [N*m] = 1 joule [J]newton meter to joule, joule to newton meter1 horsepower hour [hp*h] = 2684519.5368856 joule [J]horsepower hour to joule, joule to horsepower hour1 kilocalorie (IT) [kcal (IT)] = 4186.8 joule [J]kilocalorie (IT) to joule, joule to kilocalorie (IT)1 kilocalorie (th) [kcal (th)] = 4184 joule [J]kilocalorie (th) to joule, joule to kilocalorie (th)1 calorie (IT) [cal (IT), cal] = 4.1868 joule [J]calorie (IT) to joule, joule to calorie (IT)1 calorie (th) [cal (th)] = 4.184 joule [J]calorie (th) to joule, joule to calorie (th)1 mega Btu (IT) [MBtu (IT)] = 1055055852.62 joule [J]mega Btu (IT) to joule, joule to mega Btu (IT)1 ton-hour (refrigeration) = 12660670.23144 joule [J]ton-hour (refrigeration) to joule, joule to ton-hour (refrigeration)1 fuel oil equivalent @kiloliter = 40197627984.822 joule [J]1 fuel oil equivalent @barrel (US) = 6383087908.3509 joule [J]1 gigaton [Gton] = 4.184E+18 joule [J]gigaton to joule, joule to gigaton1 megaton [Mton] = 4.184E+15 joule [J]megaton to joule, joule to megaton1 kiloton [kton] = 4184000000000 joule [J]kiloton to joule, joule to kiloton1 ton (explosives) = 4184000000 joule [J]ton (explosives) to joule, joule to ton (explosives)1 dyne centimeter [dyn*cm] = 1.0E-7 joule [J]dyne centimeter to joule, joule to dyne centimeter1 gram-force meter [gf*m] = 0.00980665 joule [J]gram-force meter to joule, joule to gram-force meter1 gram-force centimeter = 9.80665E-5 joule [J]gram-force centimeter to joule, joule to gram-force centimeter1 kilogram-force centimeter = 0.0980665 joule [J]kilogram-force centimeter to joule, joule to kilogram-force centimeter1 kilogram-force meter = 9.8066499997 joule [J]kilogram-force meter to joule, joule to kilogram-force meter1 kilopond meter [kp*m] = 9.8066499997 joule [J]kilopond meter to joule, joule to kilopond meter1 pound-force foot [lbf*ft] = 1.3558179483 joule [J]pound-force foot to joule, joule to pound-force foot1 pound-force inch [lbf*in] = 0.112984829 joule [J]pound-force inch to joule, joule to pound-force inch1 ounce-force inch [ozf*in] = 0.0070615518 joule [J]ounce-force inch to joule, joule to ounce-force inch1 foot-pound [ft*lbf] = 1.3558179483 joule [J]foot-pound to joule, joule to foot-pound1 inch-pound [in*lbf] = 0.112984829 joule [J]inch-pound to joule, joule to inch-pound1 inch-ounce [in*ozf] = 0.0070615518 joule [J]inch-ounce to joule, joule to inch-ounce1 poundal foot [pdl*ft] = 0.04214011 joule [J]poundal foot to joule, joule to poundal foot1 therm = 105505600 joule [J]therm to joule, joule to therm1 therm (EC) = 105505600 joule [J]therm (EC) to joule, joule to therm (EC)1 therm (US) = 105480400 joule [J]therm (US) to joule, joule to therm (US)1 Hartree energy = 4.3597482E-18 joule [J]Hartree energy to joule, joule to Hartree energy1 Rydberg constant = 2.1798741E-18 joule [J]Rydberg constant to joule, joule to Rydberg constant This is evidenced by the fact that the mass of the original prototype for the kilogram now weighs 50 micrograms less than other copies of the standard kilogram.Current use: As a base unit of SI, the kilogram is used globally in nearly all fields and applications, with the exception of countries like the United States, where the kilogram is used in many areas, at least to some extent (such as science, industry, government, and the military) but typically not in everyday applications.PoundDefinition: A pound (symbol: lb) is a unit of mass used in the imperial and US customary systems of measurement. Since travel was more limited in the past, local definition and use of units could be seen as being more practical. UCS originated from English units (not to be confused with imperial units) which were used by the British Empire starting as early as 1495 and continued to be used in the UK up until replacement by the imperial system in 1824. Troy weight is sometimes used, but not widely. cm1 kilogram-force/sq. The imperial system is also still in use in Canada as well as some other countries previous under the control of the British Empire. This does not apply to draught beer, road signs, and speedometers, all of which still either use imperial units exclusively, or include metric measurements alongside the imperial units. For example, since some units in the past were often based on parts of the body, the unit of the "foot" could have a different definition based on the size of the foot of the king or feudal lord of a given region. It is a system that was stringently conceived and is defined based on invariant constants of nature including the speed of light, the triple point of water, and a physical prototype. Excluding the United Kingdom, these countries are the only countries that have not officially adopted SI. By the 1970s, metrication in the form of SI was complete in almost all countries around the world. Following the UKs exit from the European Union, there has been a movement from retailers to shift back to the use of imperial units. 2012 – a petition was created to "Make the Metric system the standard in the United States, instead of the Imperial system." The white house responded by stating that United States customary units were defined within the metric system, and that the choice to use the metric system should be made by individuals, implying that there is no federal intent to mandate the nationwide use of the metric system. Units of length: inch (symbol: in) – 0.0254 meters foot (symbol: ft) – 0.3048 meters yard (symbol: yd) – 0.9144 meters chain (symbol: ch) – 20.1168 meters furlong (symbol: fur) – 201.168 meters mile (symbol: mi) – 1,609.344 meters league (symbol: lea) – 4,828.032 meters (3 miles) Units of area: perch – 25.293 square meters rood – 1011.714 square meters acre – 4046.856 square meters Units of volume: While these units have the same names in US customary units, their values are different, and the imperial system does not have separate dry or liquid volumes. This distinction does not exist in the imperial system, which does not have separate dry or liquid volumes. A unit system, or system of measurement, is a system comprised of interrelated units of measurement. foot = 95760.517960678 pascal [Pa]ton-force (short)/sq. teaspoon (symbol: tsp) – 4.929 milliliters tablespoon (symbol: tbsp) – 14.787 milliliters fluid ounce (symbol: fl oz) – 29.574 milliliters cup (symbol: cp) – 236.588 milliliters pint (symbol: pt) – 473.176 milliliters quart (symbol: qt) – 946.353 milliliters gallon (symbol: gal) – 3785.41 milliliters Approximate dry volumes: dry pint (symbol: pt) – 550.610 milliliters dry quart (symbol: qt) – 1,101.221 milliliters dry gallon (symbol: gal) – 4,404.884 milliliters Units of weight and mass: The most commonly used system of mass in the United States is avoirdupois weight. These units are either dimensionless or are expressed as a product of one or more of the SI base units. Notable exceptions to this include the United Kingdom, the United States, Liberia, and Myanmar. Below are some of the various units of the imperial system, and their approximate metric equivalents. 1975 – the Metric Conversion Act of 1975 was passed, making the metric system "the preferred system of weights and measures for U.S. trade and commerce." Units of length: The four US customary units that are in everyday use are listed below, along with their SI equivalents based on the definition of 1 yard as 0.9144 meters: inch (symbol: in) – 0.0254 meters foot – 0.3048 meters yard – 0.9144 meters mile – 1609.344 meters Units of area: Square feet, square inches, square yards, etc., are units of area commonly used in UCS, but the only area measurement in the system that is not related to one of its lengths is the acre, which is equal to 4,046.873 m2. fluid ounce (symbol: fl oz) – 28.413 milliliters gill (symbol: gi) – 142.065 milliliters pint (symbol: pt) – 568.261 milliliters quart (symbol: qt) – 1,136.523 milliliters gallon (symbol: gal) – 4,546.09 milliliters Units of weight and mass: These units are similar to their UCS counterparts with the exception of the ton. 1959 – the international yard and pound agreement of 1959 further refined the definitions of UCS in terms of metric units. ounce (symbol: oz) – 28.350 grams pound (symbol: lb) – 453.592 grams stone (symbol: st) – 6.350 kilograms ton (symbol: t) – 1,016.047 kilograms pascal [Pa]1 kilopascal [kPa] = 1000 pascal [Pa]kilopascal to pascal, pascal to kilopascal1 bar = 100000 pascal [Pa]bar to pascal, pascal to bar1 psi [psi] = 6894.7572931783 pascal [Pa]psi to pascal, pascal to psi1 ksi [ksi] = 6894757.2931783 pascal [Pa]ksi to pascal, pascal to ksi1 Standard atmosphere [atm] = 101325 pascal [Pa]Standard atmosphere to pascal, pascal to Standard atmosphere1 exapascal [EPa] = 1.0E+18 pascal [Pa]exapascal to pascal, pascal to exapascal1 petapascal [PPa] = 1.0E+15 pascal [Pa]petapascal to pascal, pascal to petapascal1 terapascal [TPa] = 1000000000000 pascal [Pa]terapascal to pascal, pascal to terapascal1 gigapascal [GPa] = 1000000000 pascal [Pa]gigapascal to pascal, pascal to gigapascal1 megapascal [MPa] = 1000000 pascal [Pa]megapascal to pascal, pascal to megapascal1 hectopascal [hPa] = 100 pascal [Pa]hectopascal to pascal, pascal to hectopascal1 dekapascal [daPa] = 10 pascal [Pa]dekapascal to pascal, pascal to dekapascal1 decipascal [dPa] = 0.1 pascal [Pa]decipascal to pascal, pascal to decipascal1 centipascal [cPa] = 0.01 pascal [Pa]centipascal to pascal, pascal to centipascal1 millipascal [mPa] = 0.001 pascal [Pa]millipascal to pascal, pascal to millipascal1 micropascal [μPa] = 1.0E-6 pascal [Pa]micropascal to pascal, pascal to micropascal1 nanopascal [nPa] = 1.0E-9 pascal [Pa]nanopascal to pascal, pascal to nanopascal1 picopascal [pPa] = 1.0E-12 pascal [Pa]picopascal to pascal, pascal to picopascal1 femtopascal [fPa] = 1.0E-15 pascal [Pa]femtopascal to pascal, pascal to femtopascal1 attopascal [aPa] = 1.0E-18 pascal [Pa]attopascal to pascal, pascal to attopascal1 newton/square meter = 1 pascal [Pa]newton/square meter to pascal, pascal to newton/square meter1 newton/square centimeter = 10000 pascal [Pa]newton/square centimeter to pascal, pascal to newton/square centimeter1 newton/square millimeter = 1000000 pascal [Pa]newton/square millimeter to pascal, pascal to newton/square millimeter1 kilonewton/square meter = 1000 pascal [Pa]kilonewton/square meter to pascal, pascal to kilonewton/square meter1 millibar [mbar] = 100 pascal [Pa]millibar to pascal, pascal to millibar1 microbar [μbar] = 0.1 pascal [Pa]microbar to pascal, pascal to microbar1 dyne/square centimeter = 0.1 pascal [Pa]dyne/square centimeter to pascal, pascal to dyne/square centimeter1 kilogram-force/square meter = 9.80665 pascal [Pa]1 kilogram-force/sq. Many of these are similar to units in the US customary system. The imperial ton (2,240 pounds), commonly referred to as the long ton in the US, is much closer to the metric ton (2,204.6 pounds) and is larger than the US short ton (2,000 pounds). SI is the most widely used system of measurement, and the evolution of the system is still ongoing today. 1995 – UK completes its official partial transition to the metric system. inch to pascal, pascal to ton-force (short)/sq. The avoirdupois pound is equivalent to 16 avoirdupois ounces.History/origin: The pound descended from the Roman libra, and numerous different definitions of the pound were used throughout history prior to the international avoirdupois pound that is widely used today. As such, the other countries, many of which use unit systems influenced by either the UK or the US, will not be discussed here. General approximate units of volume: cubic inch (in3) – 0.0000164 meters3 cubic foot (ft3) – 0.0283 meters3 cubic yard (yd3) – 0.765 meters3 Approximate liquid volumes: These volumes have similar names as their counterparts in the imperial system, but the actual measurements differ slightly.