

CUBIC YARD (C.Y.) CALCULATIONS:

CALCULATING CUBIC YARDS FOR SQUARE / RECTANGULAR AREAS:

Length x Depth x Width (all expressed in feet) = cubic feet divided by 27 = cubic yards.

NOTE: 1 cubic yard = 27 cubic feet (3' x 3' x 3').

Example: A 20-foot by 40foot rectangular area 3 inches deep.

20' x 40' x .25' (i.e. 3'') = 200 cubic feet divided by 27 = 7.41 cubic yards

CALCULATING CUBIC YARDS FOR CIRCULAR AREAS:

Radius squared x 3.14 (Pi) x depth (all expressed in feet) = cubic feet divided by 27 = cubic yards. NOTE: 1 cubic yard = 27 cubic feet (3' x 3' x 3').

Example: A 50-foot diameter circular area, 4 inches deep. Note: the radius is 1/2 of the diameter

25' x 25' x 3.14 x .33 = 648 cubic feet divided by 27 = 24 cubic yards

CONVERTING INCHES TO FRACTIONS OF FEET:

$\frac{1''}{.08}$	$\frac{2''}{.16}$	$\frac{3''}{.25}$	$\frac{4''}{.33}$	$\frac{5''}{.42}$	$\frac{6''}{.5}$	$\frac{7''}{.58}$	$\frac{8''}{.67}$	$\frac{9''}{.75}$	$\frac{10''}{.83}$	$\frac{11''}{.92}$	$\frac{12''}{1.0}$
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ONE CUBIC YARD (C.Y.) OF MATERIAL COVERS:

338	Square feet @ 1'' deep
169	Square feet @ 2'' deep
108	Square feet @ 3'' deep
82	Square feet @ 4'' deep
64	Square feet @ 5'' deep
54	Square feet @ 6'' deep

SQUARE FOOTAGE (S.F.) CALCULATING:

Length x Width (or Height) (expressed in feet) = Square Footage

Example: A 3 foot high by 40' long rockery = 3' x 40' = 120 square feet.

CALCULATING TONNAGE NEEDED PER S.Q. OF ROCKERY:

Length x Height (all expressed in feet) divided by 18 (for half-man rocks) = tons needed.

Length x Height (all expressed in feet) divided by 15 (for one man rocks) = tons needed.

Example: A rockery 3 feet high by 40 feet long using one-man rocks.

3' x 40' = 120 square feet divided by 15 = 8 tons of one-man rocks.

APPROXIMATE POUNDS AND TONS* PER CUBIC YARDS (C.Y.)*:

<u>PRODUCT</u>	<u>POUNDS PER C.Y.*</u>	<u>CONVERSION (TONS PER C.Y.)*</u>
PIT RUN GRAVEL:	3,050 lbs.	1.52 +/- TONS PER C.Y.
CRUSHED GRAVEL:	2,900	1.45 +/- TONS PER C.Y.
CLEAR GRAVEL	2,500	1.25 +/- TONS PER C.Y.
WASHED GRAVEL:	2,800	1.40 +/- TONS PER C.Y.
SCREENED SAND:	2,700	1.35 +/- TONS PER C.Y.
TOPSOIL:	2,000 – 2,400	1.00 – 1.20 +/- TONS PER C.Y.
1/4" RED CINDERS:	2,000 – 2,200	1.00 – 1.10 +/- TONS PER C.Y.
3/4" RED CINDERS:	2,000 – 2,200	1.00 – 1.10 +/- TONS PER C.Y.
1/4" LAVA SAND:	1,800	0.90 +/- TONS PER C.Y.
3/8" LAVA ROCK:	1,500	0.75 +/- TONS PER C.Y.
1/2"– 1" LAVA ROCK:	1,400	0.70 +/- TONS PER C.Y.
1"– 2-1/2" LAVA ROCK:	1,350	0.67 +/- TONS PER C.Y.
SAFECO FIELD MIX:	2,000	1.00 +/- TONS PER C.Y.
BLUE-GREY CLEAR	2,200 – 2,400	1.10 – 1.20 +/- TONS PER C.Y.
GOLF COURSE SAND:	2,200	1.10 +/- TONS PER C.Y.
COMPOST / BARK:	1,000 – 1,300	0.50 - .65 +/- TONS PER C.Y.
4"– 8" QUARRY ROCK:	2,800	1.40 +/- TONS PER C.Y.
1/2 - ONE MAN ROCK:	2,800	1.40 +/- TONS PER C.Y.
BOULDERS:	3,000	1.50 +/- TONS PER C.Y.

ROCKERY ROCK SPECIFICATIONS (per W.S.D.O.T. 9-13.7(1))

<u>ROCK SIZE</u>	<u>ROCK WEIGHT*(lbs.)</u>	<u>AVERAGE DIMENSION</u>
HALF MAN	25 – 50 lbs.	6" – 12"
ONE MAN	50 – 200	12" – 18"
TWO MAN	200 – 700	18" – 28"
THREE MAN	700 – 2,000	28" – 36"
FOUR MAN	2,000 – 4,000	36" – 48"
FIVE MAN	4,000 – 6,000	48" – 54"
SIX MAN	6,000 – 8,000	54" – 60"

* NOTES: All of the product weights and conversions are approximations only. There is no warranty, expressed or implied, that our products equal those weights or conversions. There can be wide variances in the weight of various products due to a number of factors, including the moisture content, season, recent weather (dry vs. wet), the material density, the composition of the product, the absorptive qualities of the product, changes in the pit, change in supplier, etc. As a general rule, denser material without much void space is heavier, such as rockery rock or pit run gravel. By the same token, bigger rocks and boulders are denser and thus heavier than smaller loose products, such as sand, which are lighter. The greater the capacity for a product to absorb water (particularly weather sensitive materials such as topsoil, cinders, clay, etc.) the more prone that material is to changes in weight due to moisture, rain, or other wet conditions. By the same token, well-drained materials such as pea gravel, 7/8", or 1-1/2" drain gravel are not very susceptible to weight changes due to the presence of moisture. A crushed gravel product with a higher content of fines (or sandy binder) such as State Spec. 5/8" or 1-1/4" crushed gravel (typically 50% fines) is typically heavier than a clear crushed product such as 5/8" or 1-1/4" Clear (typically 5-10% fines), due to there being more void space in the Clear crushed products.