

CUANTIFICACIÓN DE UNA ZAPATA CORRIDA 3 M.L

VOLUMEN DE CONCRETO

- PLANTILLA - 100 kg/cm²
0.05 x 1.00 x 3m = 0.15 m³
- ZAPATA - 200 kg/cm²
0.15 x 0.80 x 3m = 0.36 m³
- CONTRATRABE - 200 kg/cm²
0.30 x 0.35 x 3m = 0.315 m³
- CADENA DE DESPLANTE - 200 kg/cm²
0.15 x 0.20 x 3m = 0.09 m³
- CASTILLO - 200 kg/cm²
0.15 x 0.20 x 3.95m = 0.1185 m³

CONCRETO	100 kg/cm ²	200 kg/cm ²
TOTAL =	0.15 m ³	0.8835 m ³

	100 kg/cm ²	200 kg/cm ²
CEMENTO	5 BULTOS	7 BULTOS
ARENA	0.9	0.756 m ³ 0.072 m ³ 0.504 m ³
GRAVA	0.144	0.756 m ³ 0.708 m ³
AGUA	160 LT	170 LT

200 kg/cm² (10)

- CEMENTO

= 0.8835 x 7 BULTOS = 6.15 BULTOS

ARENA

= 0.8835 x 0.504 m³ = 0.445 m³

GRAVA

= 0.8835 x 0.756 m³ = 0.667 m³

AGUA

= 0.8835 x 170 L = 150.19 L

100 kg/cm (13)

CEMENTO

0.15 m³ x 5 BULTOS = 0.75 BULTOS = 0.825 BULTOS

ARENA

0.15 m³ x 0.9 m³ = 0.13 m³ = 0.113 m³

GRAVA

0.15 m³ x 0.144 m³ = 0.0216 m³ = 0.02376 m³

AGUA

0.15 m³ x 160 LT = 24 L = 26.4 m³

ACERO

CADENA DE DESPLANTE
DE 15 x 20 CMS
4 Ø#3, E#2@15cm

Ø4 = 32m

E = 11 * 16 + 11 + 16 = 54 + 20cm = 74cm x 24 = 17.76 m²L

GANCOS = 2.54/4 = 0.635 x 1 = 0.635 x 15 = 9.525 = 10cm = 20cm

CONTRATRABE DE

30 x 50 cm
7 Ø#3, E#2.5@15cm

Ø7 = 21m

E = 28 + 28 + 48 + 48 = 162m + 26 = 172cm = 1.28

GANCOS = 2.54/16 = 0.15875 x 5 = 0.79375 x 15 = 11.90 = 10cm x 2 = 20cm

ZAPATA Ø3@15cm
A.S

A5 = 6Ø = 19.2m

A1 = 20 x 0.80 = 16m

CASTILLO DE Ø4#3
15 x 20, E#2@15

1Ø = 4.45 x 4Ø = 17.8m

E = 11 + 11 + 16 + 16 = 54 + 20cm = 74 x 30 = 22.2

G = 2.54/4 = 0.635 x 1 = 0.635 x 15 y 9.525 = 10cm = 20

ACERO - CUANTIFICACIÓN DE ACERO

VARILLA	M	Kg/cm	PESO	15%
#2	39.96	0.25 kg/cm	9.99	11.48
#2.5	41.28	0.38 kg/cm	15.68	18.03
#3	86	0.56 kg/cm	48.16	55.38
TOT		TOTAL	73.83 kg	84.89
		ALAMBRE DE AMARRE 57.	77.52	89.13

VOLUMEN DE EXCAVACION

$$1.75 \times 1 \times 3 = 5.25 \text{ m}^3$$

$$5.25 \text{ m}^3 \times 1.30 = 6.826 \text{ m}^3$$

	200 kg/cm	10%	100 kg/cm	10%
CEMENTO	6.16 Bolsas	6.765 B = 7 B	0.75 Bolsas	0.825 B = 1 B
ARENA	0.445 m ³	0.489 m ³	0.13 m ³	0.143 m ³
GRAVA GRAVA	0.667 m ³	0.733 m ³	0.0216 m ³	0.02376 m ³
AGUA AGUA	150.19 L	165.209 L	24 L	26.4 L