



**A SIMPLE WAY TO CALCULATE THE TOLERANCE WEIGHTS OF FIRE EXTINGUISHERS**

To ensure compliance with SANS 1475 Part 1, servicemen are required to calculate a 5% weight tolerance (underweight or overweight) of fire extinguisher expellants e.g.DCP, CO2. Table “A” will simplify calculating a 5% tolerance for all types and sizes:

Fire extinguisher expellant is measured in kilograms (DCP, CO2) or litres (Water, Foam).

1 x Litre of water = 1 kilogram (kg)

1 x kg = 1000 grams. 10% of 1000 grams = 100 grams.

Therefore, 5% of 1000 grams = 50 grams.

0, 5 Kg = 500 grams. 5% of 500 grams = 25 grams

To calculate expellant tolerances: remember 50 grams and 25grams

**TABLE “A”**

DCP / WATER / FOAM							CO2 Extinguishers			
Grams	1kg	1.5kg	2kg	2.5kg	4.5kg	9kg	6.8kg*	5kg	2.27kg*	2kg
1x50	50									
1x50 +25		75								
2X50			100							
2X50+25				125						
4X50+25					225					
9X50						450				
6X50+25							325*			
5X50								250		
2X50									100*	
2X50										100

\*The two odd sizes: for ease of calculation just use half kg, and you are safe. The difference is extremely small 6.8 = 340 grams, and 2.27 = 113.5 grams (**keep it simple**)

Work with grams so convert the full weight of the extinguisher to grams.

How? Remove the decimal point and add **00**

Example: 9kg DCP with a full weight of 12.4kg = 12400 grams

12400 grams – **450 grams (underweight)** = 11950 grams or 11.95 Kg minimum weight

12400 grams + **450 grams (overweight)** = 12850 grams or 12.85 Kg maximum weight

Easy – no need for a calculator

**Note: CO2 extinguishers are weighed without the hose and horn**

**Average Weights of hose and horns 2Kg CO2: Swivel Horn Average between 19 and 21 Grams – Snow horn (Cone Type) 9 and 12 Grams. 4.5 / 5kg / 6.8Kg CO2: Hose and Horn old type 47 Grams and New type 70 Grams.**

**I.e.: 5kg CO2 Tare 11.2kg + 5kg CO2 = 16.2 + 5% = (medium) 16.45 + Horn Hose New Type = 16.52Kg total weight**

Presented By:	Date	Signature
Name: _____	_____	_____



TOOL BOX 001- Calculations

**NAME**

**SIGNATURE**

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