



Explosives Branch

Bulletin # 15

July 2006

Storage Capacity of Blasting Explosives Magazines

The size of a magazine depends on the maximum quantity of explosives to be stored at any one time and the storage method, be it palletized or bulk containers such as Flexible Intermediate Bulk Containers (FIBC), Rigid Intermediate Bulk Containers (RIBC), etc. Based on this quantity, a minimum volume and floor area are necessary to ensure adequate air circulation within the magazine and to provide for both easy access to, and safety in the handling of, the stock.

The guide used by the Explosives Branch for calculating the licence limits for large magazines is based on a factor of 1.2 m² of floor area for each tonne of industrial explosives. For a quantity not exceeding 250 kg stored in a magazine serviced from the outside, about 25% of the volume of the magazine should be left for air circulation and handling of stock.

However, notwithstanding these factors, explosives inspectors may order a decrease in licence limits when, in their opinion, air circulation within a magazine or floor space for selection and safe handling of industrial explosives is inadequate.

Appendix A is provided as a ready reference to magazine size and capacity when submitting an application for a licence.

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APPENDIX A

Table of Magazine Capacities

Nominal Outside Dimensions (metres)			Nominal Capacity	
Length	Width	Height	By Weight (kg)	By Standard Case*
Magazines Serviced From Outside Only				
1.2	0.9	0.9	250	10
1.2	1.2	1.2	250	10
Walk-In Magazines				
1.2	1.2	2.3	500	20
1.5	1.5	2.3	1 250	50
1.8	1.8	2.3	2 500	100
2.4	2.4	2.3	5 000	200
3.7	2.4	2.3	7 500	300
4.9	2.4	2.3	10 000	400
6.1	2.4	2.3	12 500	500
6.1	3.7	2.3	20 000	800
7.3	3.7	2.3	25 000	1 000

* A standard case is 25 kg of blasting explosives. A case of detonators is a maximum of 1000 detonators.

Note: For larger magazines, use a factor of 1.2 m² of floor area for each 1000 kg of explosives.