



Date:  
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2023

## Load Capacity Certificate

#2023-01-0002

Issued to:  
NICMA International Holdings Ltd.  
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Kelowna, BC, V1Y 9N7, Canada  
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[www.Instacm.com](http://www.Instacm.com)

Description:  
Rack type 3210 stress analysis and load capacity test for certification. Racks are built and tested as per drawings number:  
530-220.

Engineering design and stress analysis was performed on **two** and as per description below. Also a static load test was performed to evaluate deflection on shelves. Deflection was found to be within acceptable norms [1].

Three shelves rack 3210. (See table 1)

Description	Total load per bracket kg (lb)
Two shelf accumulative load	500 (1100)

This certificate is issued with accordance of WorkSafeBC OHS Guidelines part G4.11 [2]

Important safety notes:

1. Do not overload the rack with more than loads listed below.
2. Do not load the rack with combined load in the middle and at the end at the same time.
3. Do not apply impact or dynamic load. Do not change magnitude and direction of the load.
4. Loads must be applied in the way shown on the diagram below.
5. Ignoring safety recommendations may result in failure of the rack.
5. Materials specification: AISI 1015 HR
6. Wall thickness of the tubing 32 mm × 32 mm and tubing 25 mm × 25 mm no less than 1.8 mm.

Source of information:

[1] R. Mott, Machine elements in Mechanical design, ed 4, Pearson, 2004.  
[2] WorkSafeBC OHS Guidelines part G4.11  
<http://www2.worksafebc.com/Publications/OHSRegulation/GuidelinePart4.asp#SectionNumber:G4.11>.



**Table 1**

Model 3210  
drawing # 530-220.

LOAD DIAGRAM			
Load PER BRACKET ON EACH SHELF			
CONVERSION TO OTHER UNITS	LB	kg	
	550	250	

Stamp



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