

FOCUS:

Door Hardware Maximum Operating Forces, and Maximum Door Opening Forces

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The 2021 IBC and 2021 IFC update the maximum forces permitted for unlatching doors, and separate these requirements from the limits on the forces permitted to open doors once unlatched.

The IBC and IFC have long required panic hardware to be operable with a maximum of 15 pounds of force – this requirement is not changed with the 2021 IBC or IFC. However, the 2021 IBC and IFC **clarified** the maximum force for hardware operated by a rotational motion, such as a lever handle, is 28 inch-pounds.

These requirements are consistent with the latest edition of ICC A117.1.

The allowable maximum forces to open doors, once unlatched, have not changed with the 2021 IBC or IFC. For interior swinging egress doors that are manually operated, other than doors required to be fire

rated, the force for pushing or pulling open the door is limited to 5 pounds (22 N). For other swinging doors, sliding doors, or folding doors, and doors required to be fire rated, there's a 30-pound (133 N) limit on the force needed to set the door in motion, and a 15-pound (67 N) force limit to move the door to a full-open position.



Hardware unlatched by a rotational motion is required by the 2021 I-Codes to operate with a maximum of 28 inch-pounds of force.



The 2021 I-Codes require hardware operated by a pushing or pulling motion to unlatch with a maximum force of 15 pounds.

DISCLAIMER: BHMA provides this information as a service. Refer to the jurisdiction's building codes and the project requirements. If questions, consult the Authority Having Jurisdiction (AHJ).