

# WIND RATING: USING MEWPS IN WIND

## DO NOT OPERATE BEYOND THE LIMITS

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The user must ensure that the operator controlling the Mobile Elevating Work Platforms (MEWP) complies with the limits specified by the manufacturer. Operating an indoor use only MEWP or an indoor/outdoor MEWP at the indoor setting while exposed to wind is a violation of safe working practices.

### INTRODUCTION

MEWPs may encounter wind during operation, this can affect the stability of the machine. MEWPs must be designed and tested to demonstrate stability for operation while exposed to permissible wind speeds or be labelled as designed for indoor use only. Indoor-only MEWPs should only be used in areas where there is no wind force acting on the MEWP. Some MEWPs may be rated for use both indoors and outdoors use.

### WIND RATING

- The maximum wind rating must be displayed on the data plate and at the control position.
- Typically, an outdoor-rated MEWP has a maximum wind rating of 28mph (12.5m/s).
- This rating is measured at the platform.

*Note: At elevated positions the wind may be stronger than at ground level. Buildings and structures may shield or funnel wind at low levels while at the elevated position the platform is exposed to greater force.*

### DESIGN REQUIREMENTS

- The stability calculations and stability tests include tests for– wind, side force, slope and rated load – for all configurations of the MEWP.
- The wind is calculated at 12.5m/s and applied to the MEWP structure, platform and the occupants and equipment. Testing is conducted in still conditions with a weight to simulate the effect of wind. Outdoor-rated MEWPs may include additional counterweighting to aid stability.

### INDOOR ONLY MEWPs

- Must be labelled INDOOR ONLY with a wind rating of 0 m/s.
- To be used only in environments with no exposure to wind.
- Not to be used outdoors, even if it is “not a windy day”.

*Note: Some indoor areas may be subject to wind, ie buildings under construction, warehouses or hangars.*

## INDOOR/OUTDOOR MEWPs WITH REDUCED RATING

- Some MEWPs are designed as an indoor MEWP with the option to be used as an outdoor MEWP, with operational restrictions due to potential exposure to wind loading. Such restrictions can include reducing the personnel capacity in the platform (ie two person indoors or one person outdoors) and/or allowable functionality (eg a 30ft elevated height indoors or 27ft elevated height outdoors). Operators must be aware of and follow the manufacturer's recommendations at all times. Any such limits must be specified on the MEWP data plate.
- Some MEWPs provide a switch or other mechanism to select the required indoor/outdoor mode.
- Load-sensing systems may not restrict the load capacity at the outdoor limit.
- The operator must be aware of the decreased capacity rating and operate the MEWP accordingly. When outdoors or subject to wind indoors the reduced limits must not be exceeded.
- Scissor lift example one: Indoor load 500lbs/outdoor load 250lbs.
- Scissor lift example two: Indoor platform height 30ft, outdoor platform height 27ft.

## ADD-ONS

- Use of add-on devices may increase the surface area of the MEWP and potentially reduce stability. Before installing any device, contact the manufacturer to confirm the ongoing stability of the MEWP.
- Use of these devices may be restricted to indoor (zero wind) only.
- Examples include drop-protection mesh, panel carriers, window carriers or painter's cover(s).














*Note that [banners and signs](#) should never be attached to MEWPs. Scissor lifts are not designed to hold banners. Attaching banners to a scissor lift will increase the surface area and create a "sail board" effect that will destabilize or potentially turn over a MEWP.*



## MEWP OPERATION

- Check the MEWP data plate to confirm the wind rating.
- IPAF recommends the use of a handheld anemometer at the work platform.
- When positioning the MEWP check for wind funneling and shielding.
- Once elevated confirm the wind speed is within the allowable limit.
- If you do not feel comfortable then descend from height.
- Take note of gusts and changing wind conditions.
- Always obey the MEWP limits and do not operate at higher ratings than permitted.

**WIND DESCRIPTION – BEAUFORT SCALE (this is an estimate of wind speed and not accurate)**

Beaufort number	Wind Speed (mph)	Seaman's term		Effects on Land
0	Under 1	Calm		Calm; smoke rises vertically.
1	1-3	Light Air		Smoke drift indicates wind direction; vanes do not move.
2	4-7	Light Breeze		Wind felt on face; leaves rustle; vanes begin to move.
3	8-12	Gentle Breeze		Leaves, small twigs in constant motion; light flags extended.
4	13-18	Moderate Breeze		Dust, leaves and loose paper raised up; small branches move.
5	19-24	Fresh Breeze		Small trees begin to sway.
6	25-31	Strong Breeze		Large branches of trees in motion; whistling heard in wires.
7	32-38	Moderate Gale		Whole trees in motion; resistance felt in walking against the wind.
8	39-46	Fresh Gale		Twigs and small branches broken off trees.
9	47-54	Strong Gale		Slight structural damage occurs; slate blown from roofs.
10	55-63	Whole Gale		Seldom experienced on land; trees broken; structural damage occurs.
11	64-72	Storm		Very rarely experienced on land; usually with widespread damage.
12	73 or higher	Hurricane Force		Violence and destruction.

**EXAMPLES OF MACHINES: INDOOR ONLY, INDOOR/OUTDOOR REDUCED RATING, OUTDOOR**



## EXAMPLE OF CONTROLS TO SELECT INDOOR OR OUTDOOR MODE



## EXAMPLES OF ADD-ONS



## FURTHER INFORMATION AND SUPPORT

For further information about the new North American MEWP standards, advice about how to become compliant with them, or for IPAF membership and training support enquiries, email [USA@ipaf.org](mailto:USA@ipaf.org) or visit [www.ipaf.org/contact](http://www.ipaf.org/contact) for details of how to get in touch with your nearest IPAF office or representative.