Stedox® Adjustable Wall Brace with Magnetic Clamps

Safety & User Instructions

> ⚠ **WARNING — READ BEFORE USE**
>
> This brace is sold without a stated safe working load for the magnetic end clamps. **The magnet manufacturer's rated capacity is tested on flat, clean, dry, room-temperature steel** — not at the 30°–60° angle this brace is designed for. A magnet can release without warning. NEVER use this brace as the sole support for any structure — always secure the load independently with a chain, crane sling, or mechanical prop.

1. WHAT THIS PRODUCT IS

The Stedox® Adjustable Wall Brace positions and holds steel workpieces using a magnetic clamp at each end, typically angled 30°–60° from horizontal. It is designed for temporary use only and must never be permanently installed. It is a fabrication positioning aid — not a certified lifting appliance and not a substitute for engineered load-bearing supports.

2. NEVER THE ONLY SUPPORT

Magnetic grip can be lost instantly and without warning due to heat, vibration, surface condition, or an angle that exceeds real-world holding capacity. The structure being supported must always be independently secured.

- Always back up the magnet with a chain, crane sling, prop, or equivalent independent support
- Never allow anyone to stand or work under a structure held only by this brace
- Treat the magnet as a positioning aid only — not a load-bearing connection

3. NO WELDING, GRINDING OR HEAT NEAR CLAMPED STEEL

Steel conducts heat. Even far from the weld or grind point, temperature rise WILL cause magnet release without warning.

- Never weld or grind on or directly next to the magnet
- Keep the clamp as far from the weld or grind point as practical
- Monitor the magnet body for warmth during extended weld runs
- If the steel near the magnet feels warm to the touch, stop and allow it to cool before continuing

4. WHY THE MAGNET'S RATED CAPACITY DOESN'T APPLY

The capacity printed on the magnet was measured perpendicular to a clean, flat, room-temperature test block. Real-world holding force is lower due to:

- Mounting angle — shear and peel forces at 30°–60° are not what the vertical pull-off rating covers
- Steel type and thickness — magnetic permeability varies; thin sections don't close the circuit as well
- Surface condition — rust, paint, scale, oil, or any air gap reduces grip significantly
- Temperature — heat from welding or environment weakens the magnet, sometimes permanently
- Curved or uneven contact surfaces — reduced contact area compared to the flat test block
- Vibration or shock — from nearby welding, grinding, or crane movement

⚠ ***Treat the manufacturer's rated capacity as a laboratory reference only — not your safe working load.***

5. BEFORE EVERY USE

- Inspect the contact surface: must be clean, dry, flat, free of rust, paint, ice, and coatings
- Confirm steel grade and thickness are compatible with the magnet's stated requirements
- Verify ambient and surface temperature is within the magnet's rated range
- Apply an additional safety margin for the actual mounting angle
- Check that the lock lever is fully engaged and functioning correctly
- Confirm an independent secondary support (chain, crane, prop) is in place before releasing any manual hold

⛔ DO NOT USE WHEN

Surface is wet, icy, rusted, painted, oily, or coated • Surface or steel temperature is elevated (welding, grinding, sunlight) • Contact surface is curved, uneven, or smaller than the magnet pole face • Welding or grinding is being performed on or near the clamped workpiece • Mounting angle is outside 30°–60° • No independent secondary support is in place • Any component of the brace or clamp is cracked, bent, corroded, or damaged.

6. STORAGE & MAINTENANCE

Proper care preserves magnet performance and prevents unexpected loss of grip in the field.

- Store in a dry environment — moisture causes corrosion on pole faces and reduces grip
- Wipe contact surfaces clean of metal particles, dust, and oil after every use
- Inspect pole faces regularly for pitting, corrosion, or damage that would reduce contact area
- Do not store near other large magnets or strong EM fields — this can partially demagnetize the clamp
- If the brace has been exposed to heat above the magnet's rated limit, retire from service until tested or replaced

8. CHECKING THE BRACE BEFORE USE

Check the brace before each use. The brace may not be modified or changed in any way. A broken or damaged brace may not be used.

- Permanent deformations: stretched holes, dents, bent tubes or end brackets
- Condition of weld seams on end brackets — must be intact, no cracks or separation
- Condition of threads — no damage, moves without resistance
- Missing or loose parts
- Lock lever: undamaged, engages correctly, and is in place before loading
- Allowable loads decals present and legible

Contact Stedox® customer service if you need support, spare parts, or advice. If the product is damaged or broken, stop using it immediately and replace or repair before resuming work.

9. SERVICE AND SPARE PARTS

Only original Stedox® spare parts may be used. Maintenance must be performed by qualified personnel. Always inspect the product before use in accordance with the criteria in section 8.

Only use original Stedox® spare parts.

10. IN CASE OF AN ACCIDENT

In the event of an accident when using the Stedox® Adjustable Wall Brace, do the following in order:

- Prevent personal injuries
- Prevent property damage
- Inform the person in charge on site

STEDOX® CONTACT INFORMATION

For questions, spare parts, or support contact Stedox® Product Developer Dennis Sundström:
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7. RESPONSIBILITY AND LIABILITY

Stedox® makes no warranty — express or implied — regarding safe working load for any specific installation, angle, environment, or surface condition. The magnet manufacturer's rated capacity applies to their test conditions only.

The buyer, employer, and end user are solely responsible for: determining a safe working load with adequate safety margin; providing operator training and supervision; ensuring an independent secondary support is always in place; and complying with applicable safety regulations (OSHA · CSA/OHS · EU Machinery Directive).

By using this product, the user accepts that Stedox® is not liable for injury, death, or property damage from use outside these conditions. This document supplements — and does not replace — the magnet manufacturer's own safety documentation.