

Current prices and availability are linked to the product pages. This PDF does not freeze prices.

Fishing magnet pull force — measurement and comparison

Learn how pull force is measured and how vertical and lateral loading differ. For a quick model choice, use the [fishing-magnet comparison](#); for current availability and sets, visit the [product catalogue](#).

Safety first: read this before you buy

Neodymium magnets are extremely strong components and can cause injury if handled carelessly.

- Always wear work gloves and safety glasses - they protect against crush injuries and flying fragments.
- Keep magnets away from electronics: computers, phones, GPS receivers, payment cards.
- Strong magnets can interfere with pacemakers and other implanted medical devices. Keep them away from the implant, follow the device manufacturer's instructions and consult your clinician about exposure. Do not assume one distance is safe for every magnet and implant.
- Never let children play with magnets - swallowing and choking risk.
- Do not heat or drill a magnet. It may ignite or shatter.
- Avoid impacts. Neodymium is brittle and can break apart, throwing sharp fragments.
- If skin is pinched between magnets, cool the area with ice; for a serious injury see a doctor.
- Do not handle bare-handed if you are allergic to nickel.
- Store dry and cool, away from heat sources.
- Magnets are not corrosion-proof. After contact with water, dry the unit and protect it with technical oil.

What a fishing magnet is

Fishing magnets, also called magnetic recovery hooks or pot magnets, are tools for retrieving ferrous objects from the bottom of a body of water. Their effectiveness comes from the strong field of **N38-N52** grade magnets housed in a steel cup. Unlike ferrite magnets, they hold loads of several hundred kilograms - provided the contact surface is large enough, clean, and the pull is applied in the right direction.

A first-time buyer can start with the **F200 GOLD**: light and compact. The more experience you gain, the larger the diameter and the higher the rated pull force you will want.

How to choose a fishing magnet

Choosing is not a matter of reading the number in the product name. Real-world performance depends on parameters many sellers never mention.

2.1 Magnet thickness, not housing height

Do not judge by the height of the steel cup. What matters is the thickness of the neodymium magnet inside it. A thin magnet set in a tall housing looks substantial and is markedly weaker - even in a good grade such as N50.

2.2 Flux density, not just the N38 or N52 label

The grade designation (N38, N42, N52) indicates potential, not the finished unit's holding force. In practice the **flux density** in gauss matters more. Good fishing magnets reach roughly **8,000 Gs** per magnet.

A thicker N38 magnet can match a thinner N52 one - while costing less and being less prone to damage. Final strength comes from volume, thickness and build quality, not from the grade label alone.

2.3 Machined A2 stainless eyebolts, not castings

A sound fishing magnet is more than the magnet. The best eyebolts are machined from **A2 stainless steel** and cost around 12 zł each. Cheaper substitutes use castings of far lower strength (around 1.5 zł) which can snap the first time they catch on a heavy object.

2.4 Vertical and lateral holding force

Compare the direction of loading, not just the model name. F200 GOLD holds approximately 250 kg vertically and 38 kg laterally; F200 PLATINIUM N52 holds 310 kg vertically and approximately 61 kg laterally. The new F300 holds 330 / 58 kg, the previous F300 approximately 360 / 64 kg, and F200 GOLD DUAL approximately 610 / 76–82 kg (vertical / lateral). All F-series models are double-sided, not 360-degree designs. The lateral force is not a fixed percentage of the vertical rating.

2.5 How we measure pull force

The procedure we use to rate our units:

- plate of **S235JR** structural steel, **at least 10 mm (about 0.4 in)** thick,
- surface clean and dry,
- magnet in **axial** orientation, loaded through the top eyebolt,
- reading taken with a **force gauge**, not a scale.

Every model in our range is measured this way, on calibrated instruments, so the result can be repeated and compared between models.

This procedure follows the pull-off test principle described in **EN 13155** for lifting magnets: force is applied gradually until separation, on a plate of specified steel grade and thickness. The standard itself covers load-lifting equipment and does not apply to fishing magnets - we cite it as a reference for the method, not as a certification.

Model comparison

Gross prices. Pull force is measured under the conditions described in section 2.5.

Model	Diameter (mm)	Height (mm)	Weight (g)	Pull force (kg)	Grade	Eyebolts	Gross price
F120	67	28	700	180	N38	M8 + M10	Check current price — with rope Check current price — without rope
F200 GOLD	75	25	900	approx. 250	N42	3 × M10	Check current price — without rope
F200 GOLD DUAL	75	25	1800	approx. 610	N42	3 × M10	Check current price — without rope
F200 PLATINIUM	75	25	900	310	N52	3 × M10	Check current price — without rope
F300 GOLD (new)	94	28	1600	330	N38	3 × M10	Check current price — without rope
F300 (previous)	97	40	2200	approx. 360	N38	M8 + M10	Check current price — without rope
F400 SILVER	107	40	2350	480	N38	M8 + M10	Check current price — without rope
F550 SILVER/BLACK	94	40	2262	650	N52	3 × M10	Check current price — without rope
F600 SILVER (previous)	135	40	4300	approx. 650	N38	M10 + M12	Check current price — without rope

3.1 Compare holding force and current price

Compare the same rope variant and check the current product-page price. The model name is not a force rating.

- **F200 GOLD:** approximately 250 kg vertically and 38 kg laterally. F120 is lighter (700 g) and has a catalogue pull force of 180 kg.
- **F550 SILVER/BLACK:** a lighter, more compact alternative to the previous F600. Both are listed at approximately 650 kg vertically.
- **F200 GOLD DUAL:** two joined F200 units, approximately 610 kg vertically and 76–82 kg laterally.

Matching the model to your experience

First time out - F200 GOLD

Compact, light, easy to handle. Rated at approximately 250 kg (about 551 lb). Good for learning without the risk of hooking something you cannot move.

Stepping up - F200 PLATINIUM or DUAL

More force in the same housing. The PLATINIUM uses an N52 magnet; the DUAL joins two F200 GOLD units into one assembly.

Intermediate - F300 GOLD 94×28

Larger diameter means a larger contact area and a steadier grip on big objects.

Advanced - F400 SILVER

More mass and deeper penetration through silt. For harder finds: scrap, tools, heavier structures.

Professional - F550 and F600

about 650 kg (about 1433 lb). For very heavy objects. Requires experience and rope rated to match.

Use and maintenance

Clean it after every session

- Rinse the unit in clean water.
- Remove sand, silt and rust from the magnet face and from the eyebolts.
- Dry with a towel or leave in a well-ventilated spot.

Corrosion protection

- Once dry, apply a thin film of technical oil to the magnet face.
- Do not use paint or lacquer - they damage the protective coating.
- Do not store the unit anywhere damp.

Check the bolts and eyebolts

- Check the torque on the top eyebolt and the side eyebolts regularly.
- Tighten with a wrench to the correct torque.
- Inspect the shackles - a loose one can release mid-retrieval.

Working in difficult conditions

- The magnet performs best in a vertical pull, through the top eyebolt.
- Side-loaded through an eyebolt, holding force drops by up to 75%.
- In salt water, rinse the equipment in fresh water after every session.

Accessories

Rope

The standard supplied rope is blue, 8 mm in diameter and 25 m long, made by a Polish manufacturer. Diameter alone does not establish strength: check the rope, knot, shackle and eyebolt specifications. The weakest component determines the capacity of the set.

Work gloves

Protect against cuts, abrasion and crush injuries. Rubber, leather or reinforced fabric with a non-slip coating, sized to fit.

Safety glasses

Shield the eyes from fragments, silt and water. Polycarbonate with scratch-resistant coating and an adjustable strap.

Carry bag

Waterproof nylon or polyester, sized to the magnet. Internal compartments keep shackles and technical oil separate.

Other items

- Shackles and carabiners - for attaching the rope and releasing it quickly.
- Technical oil - corrosion protection.
- Container for finds - coins, nails, small ferrous items.
- Waterproof torch - for murky water and after dark.

Magnet fishing and the environment

Pulling scrap metal out of rivers and lakes cleans the water, reduces the hazard to fish and birds, and tidies the landscape.

- Small scrap - nails, bolts - goes to a recycling point.
- Report larger objects to the local authority or a waste disposal company.
- Report dangerous finds, ammunition included, to the police or bomb disposal.

Materials and references

Materials used

NdFeB (neodymium-iron-boron)

Rare-earth alloy with very high magnetic strength, the most efficient magnetic material used in fishing magnets. Requires protection against corrosion.

NiCuNi

Three-layer electroplated coating: nickel, copper, nickel. Protects against moisture, oxidation and mechanical damage. The industrial standard.

A2 stainless steel

Corrosion-resistant and non-magnetic. Used for the eyebolts. Machined rather than cast, unlike low-quality substitutes.

S235JR steel

Low-carbon structural steel, used as the reference plate when measuring pull force.

Links

- [Neodymium magnet - Wikipedia](#)
- [Neodymium magnet production technology](#)
- [dhit.pl knowledge base](#)
- [Magnet selection calculator](#)

Technical contact

Questions about use, maintenance or detailed material specification: bok@dhit.pl, phone +48 22 499 98 98, [contact form](#). We prepare individual quotations for trade customers.

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Frequently asked questions

Can a fishing magnet lose its strength?

Use the operating temperature stated on the product page. N52 models discussed here have a limit of 60 °C. Heat and damage can reduce magnetic strength; a model designation is not a temperature rating.

Can I recover a safe, a firearm or a bicycle?

It depends on the size and shape of the object, the condition of its surface and the angle at which the magnet catches. Large objects with a smooth surface call for an F550 or F600. For bicycles and similar finds, use a unit rated above 400 kg (about 880 lb).

What do I do if I pull up ordnance or ammunition?

Do not touch or move an object that resembles unexploded ordnance or ammunition. Move away and call 112 in Poland.

Can I use a fishing magnet in winter?

Yes. Neodymium magnets do not lose strength in low temperatures. Watch for frost and ice in the housing - they reduce holding force by creating an air gap between the magnet and the find.

Do I need a special rope?

The standard supplied rope is blue, 8 mm in diameter and 25 m long, made by a Polish manufacturer. Check the strength of every component, including the knot, shackle and eyebolt. Diameter alone does not establish the capacity of the set.

Does a magnet work in salt water?

Yes, but salt water accelerates corrosion even on stainless steel. Dry and protect the unit after every session.

What if the magnet gets stuck?

Change the angle of pull on the rope, or use a side shackle. Do not jerk the line - you risk stripping the thread or snapping the rope.

Can two units be joined together?

Yes. The DUAL series, such as the F200 GOLD DUAL, is designed for this, increasing both force and contact area.

Should I protect the magnet after fishing?

Apply a thin film of technical oil to the face. It prevents rust and extends the life of the coating.

Why does the magnet hold so poorly from the side?

Vertical and lateral holding forces are different parameters. For F200 GOLD the confirmed values are approximately 250 kg vertically and 38 kg laterally; for F200 PLATINIUM N52, 310 kg vertically and approximately 61 kg laterally. Surface condition, steel thickness, contact and loading direction affect the result. Do not use a fixed percentage as a measured product parameter.