

**STEINERT**

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## ROUND LIFTING MAGNETS AND MAGNET INSTALLATIONS...

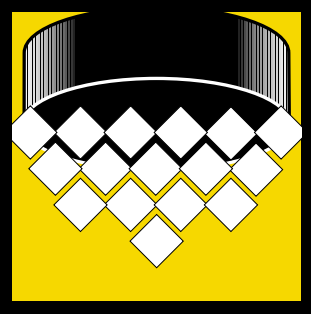
transport scrap and pig iron in scrapyards and ports and process all types of scrap in steelworks and foundries.

Ever since the company's formation in 1889, Steinert has championed the task of transporting iron and steel using magnetic power. Our latest lifting magnets draw on over 100 years of development. Our round lifting magnets transport steel blocks, pigs and scrap in scrapyards and ports and transport and process all forms of scrap in steelworks and foundries. They also crush clinker in skull cracker ball operations.



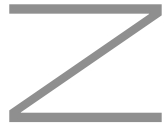
What distinguishes Steiner's products from the rest are their quality materials, quality of workmanship and extremely long life. Thousands of Steinert's round lifting magnets have been in use for many years throughout the world. We can provide you with special designs and complete solutions. We provide more details of our products and their capabilities over the next few pages. Take advantage of our expertise.





## Steinert round lifting magnets

All our round lifting magnets are constructed in exactly the same way: in a cast housing, a coil firmly connected to the housing by means of a heat conductor lies around the central pole. A hard manganese steel plate seals away the magnet's interior. High-performance chains provide maximum safety when carrying the magnet under load. The cable connection is also efficiently protected.



## Model Types

The standard **LMR L** and **LMR H** models typically transfer scrap and light scrap with densities of 0.6 to 1 t/m<sup>3</sup> using mobile cranes. The LMR 320 also forms part of this range. No larger lifting magnet has ever been built in the whole world.

(The photo on the title page shows an LMR 320 in a port transferring bails of compressed scrap.)

These standard models are available in diameters: 500 to 3200mm.



The heavy-duty **LMR X** and extra heavy-duty **LMR XS** models are used for particularly heavy loads when the requisite heavy-duty cranes are available. They transfer compressed scrap with typical densities in excess of 1 t/m<sup>3</sup>. Although the diameters are the same as for the standard range, they are designed for higher performance. They are therefore heavier and require heavier duty cranes. The XS models are distinguished from the X models by their taller coil, producing an even higher magnetic output.



## Accessories

We provide the relevant power supply for each of our magnets, designed to suit the magnet and your own mains supply. Sets of backup batteries incorporating the latest accumulator and monitoring technology protect against power failures that could cause the load to fall.

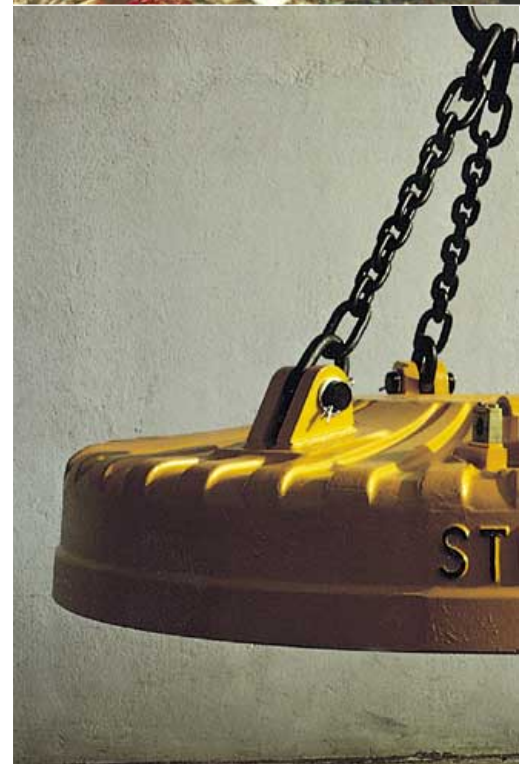


EXCLUSIVE  
TO STEINERT

## 4-quadrant control

Exclusively from Steinert, you benefit from 4-quadrant lifting magnet control. Compared to traditional controls, this enables magnets to be magnetised or demagnetised ten times faster. Magnetisation requires only two seconds, and demagnetisation three. With 4-quadrant control, your magnet installation can increase its turnover through increased load manoeuvrability. It can also be installed without problem in existing equipment.

We can supply everything, from the power supply to the magnets themselves – e.g. including the cable, cable drums, strain relievers and plug connectors. When additional magnets must be installed we can also supply complete magnetic traverse systems.





## Steinert round lifting magnets – the difference is the quality

Many round lifting magnets tend to resemble one another: Steinert magnets tower above the rest in many respects:

**The cast housing.** This is made from quality cast steel, combining extreme ruggedness with high conductivity.

**The cover plate.** A strong plate made from hard, wear-resistant, manganese steel protects the coil but does not interfere with the magnetic field.

**The coil.** This is made from aluminium conductors and partly from anodised foil. This anodised aluminium strip requires no insulation and has a much better fill factor than copper coils, which increases the load possibilities. The coil is also extremely temperature-resistant.

**The heat conduction medium.** This insulates the coil from the casing both electrically and mechanically, conducting any heat away outside. It must also withstand critical temperature spikes without damage. Round lifting magnets can have operating temperatures of over 200° C in the coil. They must also be able to withstand high pressure during heating. To meet these requirements we use the latest heat conduction materials, specially manufactured to our instructions.

**The design.** The magnetic pole, the steel cross-section and the flow through the coil have all been precisely tailored to each other to provide optimum transport power and weight conditions.

**The power supply.** We deliver the appropriate power supply with every one of our magnets.

**Complete solutions.** We examine your requirements and your operating conditions and then produce a complete solution precisely tailored to your needs with all the components optimally adapted to each other, from the power supply to the magnet itself.

**Our experience.** We have a lot of practical experience. From processing scrap, right through to skull cracker ball operations, we have supplied equipment for every conceivable requirement.

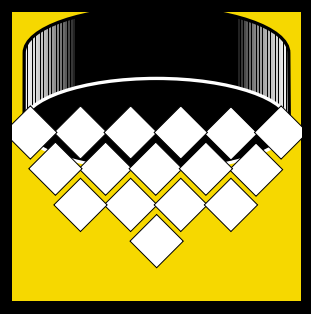
### You benefit from:

**The longest operational life.** Steinert lifting magnets have been in use for decades.

**Optimum performance and weight conditions.** Your existing crane can operate to its maximum capacity, with every load optimised.

**Special designs for every application.** All our magnets are waterproof and designed for open-air use. Magnets can be designed for extreme operating conditions: for instance, Steinert can supply waterproof magnets for use in under water operations and specially insulated magnets for use in transporting hot material. Based on our experience of installing thousands of Steinert round lifting magnets, we can determine and build the precise type of product suitable for your task.





# STEINERT-QUALITY, THE BEST IN THE LONG RUN.



Steinert is certified to DIN ISO 9001.

Thanks to our long experience we can ensure the best results in every type of application and can produce special designs to suit your requirements. We are particularly good at finding solutions for difficult operating conditions, such as under water operations and the transportation of hot material.

Diameter		Available sizes			
		Standard models		Heavy-duty models	
mm	inch	LMR L	LMR H	LMR X	LMR XS
500	20	●			
700	28		●		
900	35		●		
1100	43	●			
1300	51	●			
1500	60	●			●
1600	63	●			●
1700	67			●	
1800	71	●		●	●
1900	75		●		
2000	79	●		●	●
2200	87	●		●	
2400	94	●			
2600	102	●			
2800	110	●			
3200	126	●			

## Write, fax or email us with any special applications you may have.

We want you to be completely satisfied. This means expert personal advice both before and after your purchase. We listen carefully to your requirements, check what is possible and design the equipment in close consultation with you. We will maintain close contact with you and ask for any additional information required, until an appropriate design solution is reached.

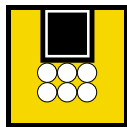
**We conduct tests with your material in our own in-house R&D department. These measures ensure that you receive the exact solution you need.**

## Please ask for further information.



### ROUND LIFTING MAGNETS

For scrap and pig iron in scrapyards and ports. Sorts out scrap in foundries and steelworks.



### RECTANGULAR LIFTING MAGNETS

Transport hot slabs and bars, tables, profiles and bundles of wire in steelworks, steel storage depots and shipyards.



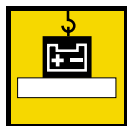
### MAGNETIC TRAVERSES

For transporting large volumes and bulky articles. For scrapyards, steelworks, steel storage depots, production units and incineration shredders.



### MAGNETIC HANDLING EQUIPMENT

Transport work pieces to and from processing areas in factories.



### BATTERY-POWERED MAGNETS

Handling magnets powered by batteries, requiring no external source of power. Remote control optional.



### 4-QUADRANT CONTROL

Reduces magnetisation and demagnetisation times and improves performance and throughput in lifting magnet installations. Retrofit are possible.



### SLAB-TURNING MAGNETS

Turn slabs in steelworks.



### WIRE COIL MAGNETS

Transport wire coils in steel storage warehouses.



### BAND COIL MAGNETS

Transport band coils in steel storage warehouses.

**EXCLUSIVE  
TO STEINERT**

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