

PATENTED CIRCULAR LIFTING ELECTRO-MAGNET

CMPAF

CHPAF



SCOPE

Our patented **CMPAF** and **CHPAF** series are circular medium and high-performance electromagnets equipped with **double concentric 3-pole coiling**.

They are recommended for handling large quantities of bulk products :

- Light machining scrap metal,
- Medium scrap metal from metal grinding,
- Heavy scrap metal from industrial scrap,
- Mixtures from industrial scrap and steel residues.

Their sturdiness and **sealness** make them ideal for outside applications or uses in difficult conditions, such as :

- Scrap metal areas in electric steel plants and converters,
- Truck and wagon loading and unloading at metal recycling plants,
- Batching in the steel foundry industry.

TECHNICAL SPECIFICATIONS

Our **CMPAF** and **CHPAF** are made of a **single-unit steel shell** protecting the **patented double coiling**. Main parts include :

- a grooved, high magnetic permeability steel shell. Mechanical adjustments and mounting surfaces are machined for added magnet surfacing,
- three double suspension lugs with shafts and washers,

- a double concentric coil with reinforced insulation,

- a manganese-silica steel magnetic wear plate. This high resistance part is held by circlips,

- a insulation filling resin blocking the coil in the shell,

- a double electrical box cast in the mass for external connections and internal coil protection.

An impact absorber in the shell protects them from mechanical impacts.

INSTALLATION METHOD

The **CMPAF** and **CHPAF** can be installed on any lifting device (travelling crane, crane, portico...). Used alone, they are hung to a three-strand chain with a common ring.

The electric connection is provided by an insulated 3-conductor cable.

SPECIFICATIONS

Performance varies depending on various parameters :

- Treated product features,
- Ferro-magnetic part features,
- Product temperature.

The impact of apparent density on the lifting performance is shown in the curve on the back of this page.

There are **5 types of CMPAF and CHPAF** based on diameter:

1500, 1650, 1800, 2000, 2200 mm.

ANDRIN PATENT

The Andrin patent consists in dividing the coiling into 2 concentric coils separated by an intermediate steel pole.

The result is a single longer and deeper magnetic field with better thermal dissipation.



THE ADVANTAGES

- Sealed steel shell, impact and wear resistant,
- Magnetic circuit protection against external particles and humidity,
- Magnetic distribution field improved by patent to increase grip on OD of magnet,
- Thermal dissipation through grooving and 3-pole system,
- Double connection box,
- Operating factor : 50 % to 75 % depending on use,
- Lifting capacity increased by 10 to 12 % compared with standard devices.

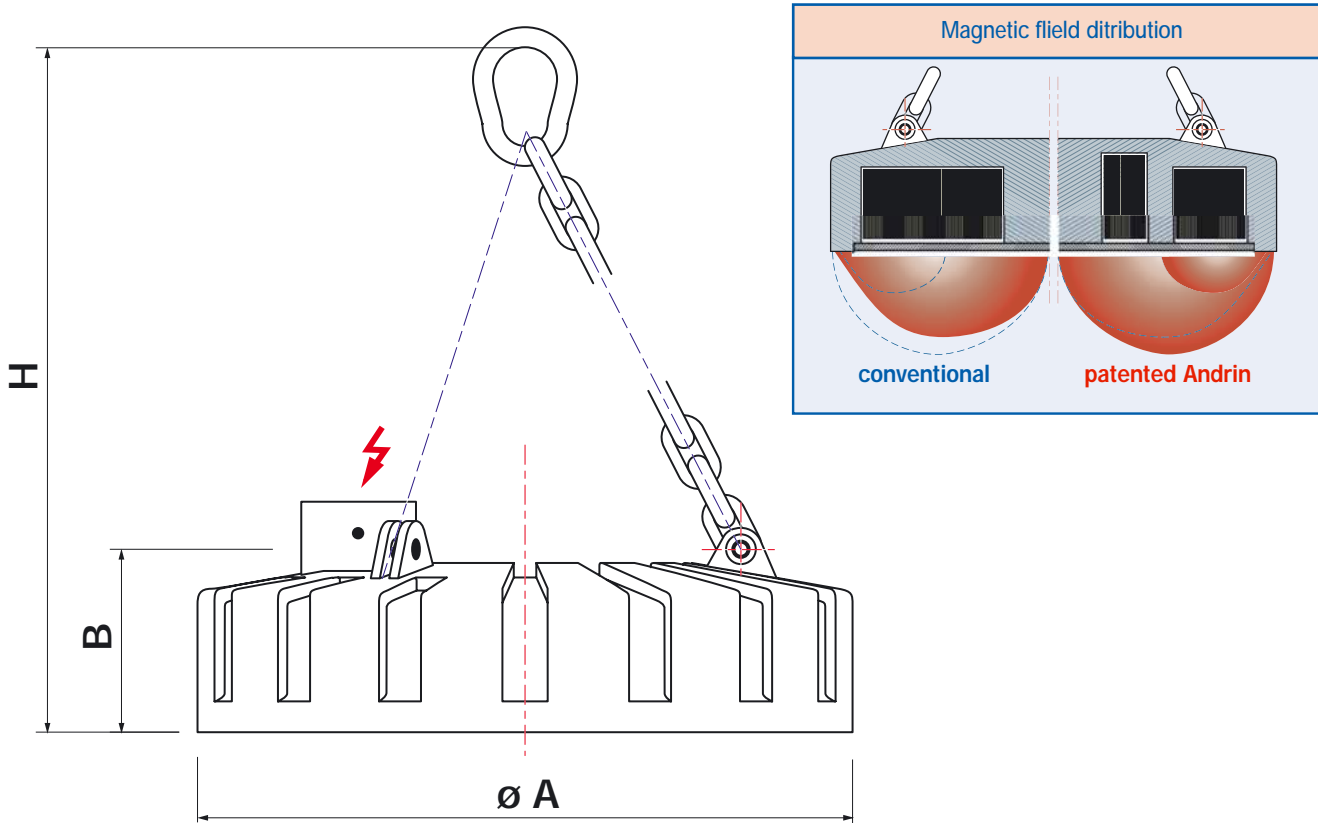
INSTRUCTIONS FOR USE

No specific maintenance required, apart from regular electric connection, shell and suspension cable inspections.

TECHNICAL FEATURES

C MPAF – CHPAF

We provide after-sales service all marks and types of devices.



TYPE	Weight kg	Magnet strength at 20 kW	VDC voltage	Size (mm)			Lifting capacity in kg				
				A	B	H	Slab -	Socket - Cast iron scrap	Chip 0.2-1.0 t/m ³	Light scrap 1.0-3.0 t/m ³	Pig mould 3.0-4.5 t/m ³
CMPAF 150	2520	16	220	1500	423	1500	28000	9000	260-670	670-1085	1085-2000
CMPAF 165	3260	20	-	1650	439	1700	33500	11000	360-915	915-1490	1490-2740
CMPAF 180	4090	23	-	1800	450	1710	40000	13000	435-1115	1115-1800	1800-3300
CMPAF 200	5460	27	-	2000	475	1735	49500	15000	495-1295	1295-2100	2100-3950
CMPAF 220	7060	32	-	2200	520	2300	60000	16000	585-1485	1485-2400	2400-4850
CHPAF 150	3600	19	-	1500	560	1640	36800	11000	310-880	880-1450	1450-2630
CHPAF 165	4750	22	-	1650	605	1860	44500	13000	430-1200	1200-1990	1990-3600
CHPAF 180	6600	25	-	1800	655	1915	53000	15000	520-1460	1460-2410	2410-4360
CHPAF 200	8800	30	-	2000	710	2500	65500	18000	630-1750	1750-2900	2900-5100
CHPAF 220	11000	36	-	2200	660	2400	87000	20000	760-2050	2050-3460	3460-5950

The lifting capacities above are indicated in good holding conditions and at temperatures achieved with a percentage duty cycle of 60 %.

OPTIONS

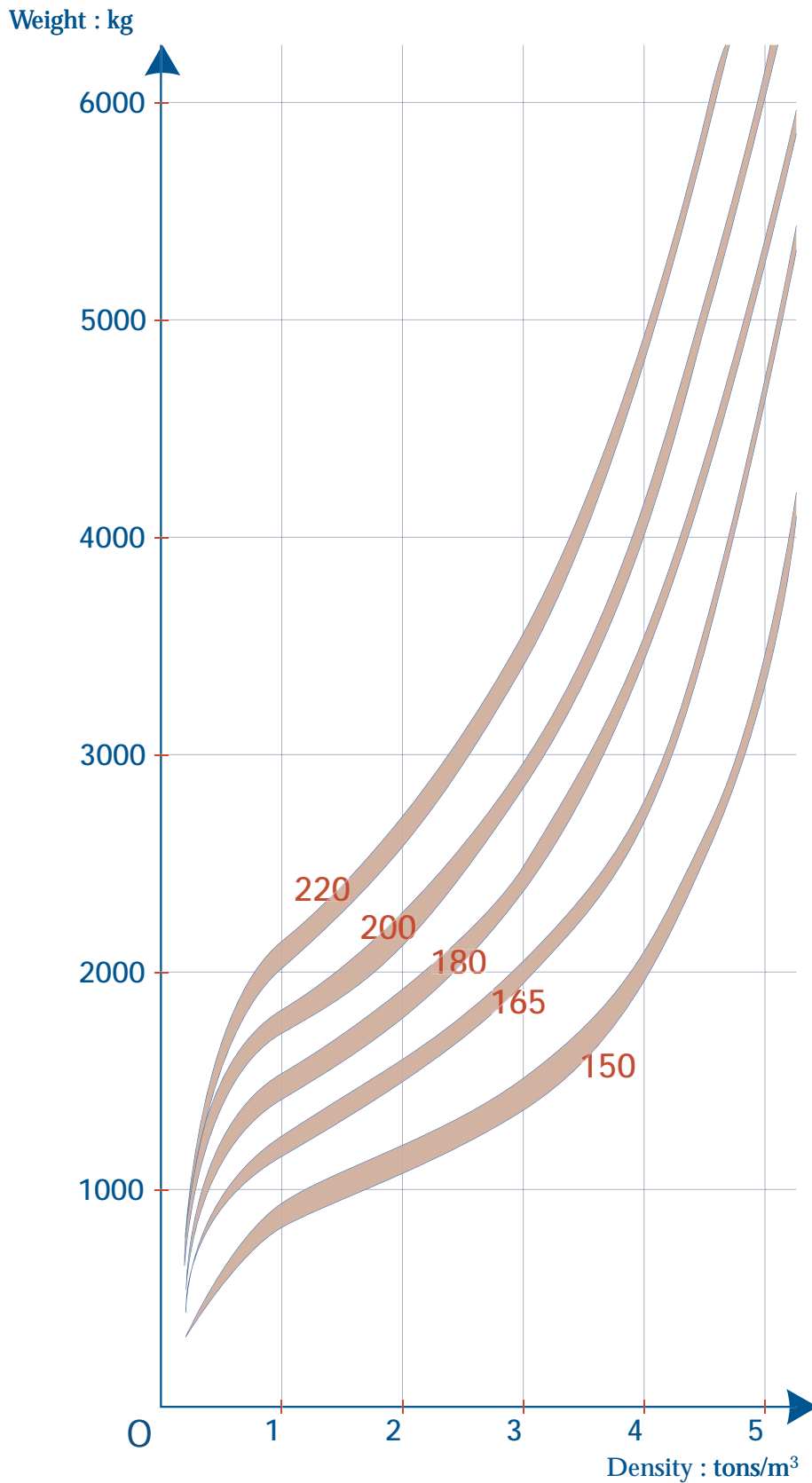
- Electric devices
- Electrical control, monitoring and security equipment (contactor or static variant)
- Specific voltage
- High-hardness mounting surface resurfacing
- Independent stabilising chains
- Protector circling
- Other sizes on request up to 3000 mm diameter.
- Special series for hot product handling
- Sealed version
- Enhanced special series for melting puzzle balls handling (unpatented CHPA-R version, a single coil)



AVERAGE LIFTING CAPACITY GRAPH BASED ON BULK MATERIAL DENSITY

Standards: NFC 79-300 (44-4-2)

CHPAF

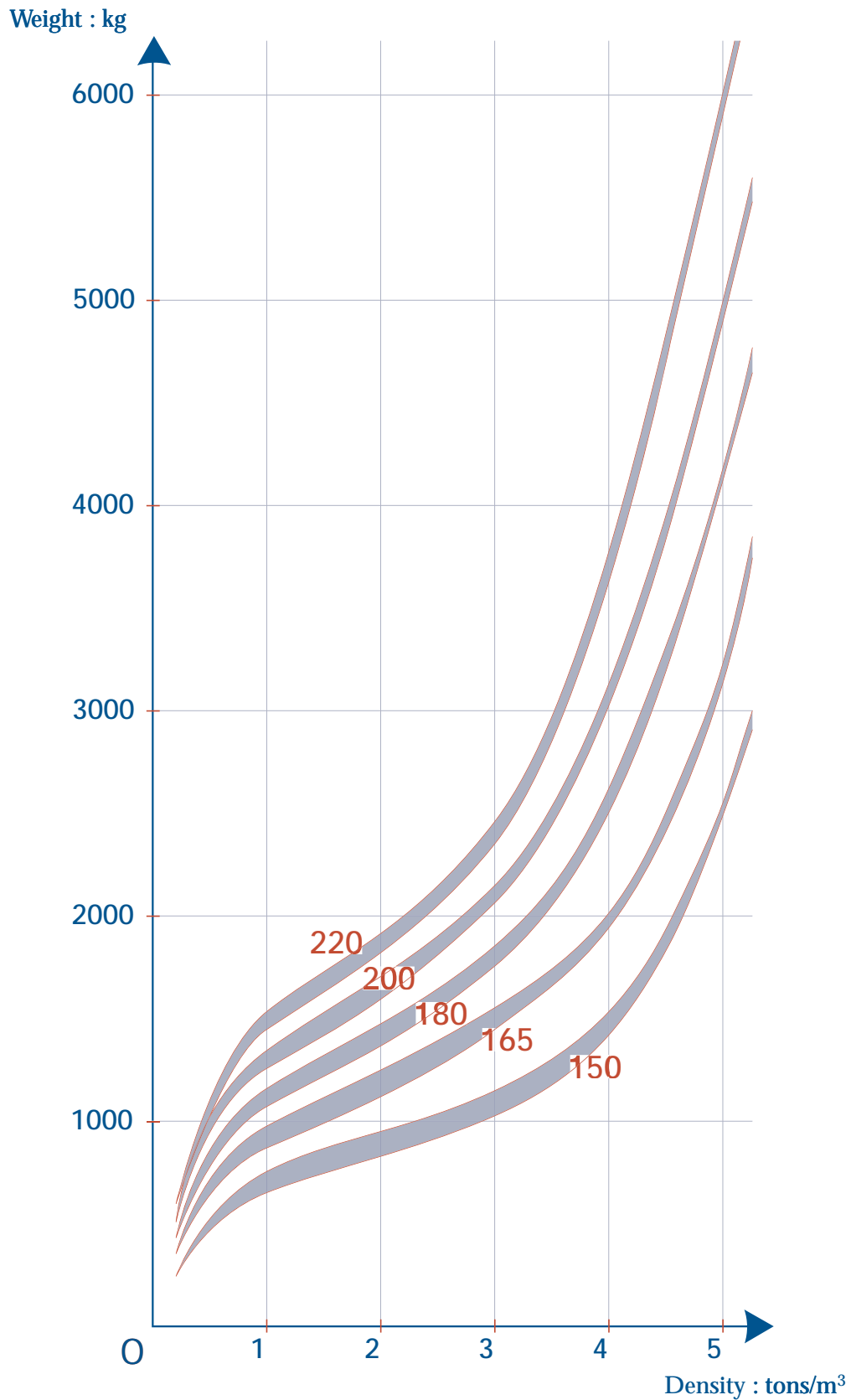


The lifting capacities above are indicated in good holding conditions. They are the average of 5 lifts at a temperatures achieved with a percentage duty cycle of 60 %.

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CMPAF



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