

永磁起重器 Permanent Magnet Lifter

选型指南 Guide for Model Selection

我公司永磁起重器产品系列众多，针对性较强，请您按以下选型指南对照选型。

We have many series for these permanent products; please choose the right type as per the guide.

1. 当被吸物为钢板时，所有系列均适用。但各个系列各有所长，**YX1**系列适用吊运小型板料，手动卸料；**YX2**系列吊运短而厚的钢板，自动卸料；**YX3**系列适用于吊运长而薄的钢板，手动卸料；**YX4**系列适用范围广，自动卸料，但禁止空载运行；**YX5**系列吊运重而厚的钢板，但要求提供电源。

All series are suitable for steel plate, but each series has his advantage, Series YX1 is used for small size and manual discharging; Series YX2 is for short and thick size and; Series YX3 is for long and thin steel size and manual discharging; Series YX4 has wide application range and auto discharging, but not allowed to be transported without load; Series YX5 is for thick and heavy size and need power supply.

2. 吊运单根圆形物料如圆钢、钢管等选用**YX1**系列，吊运多根圆形物料请选用**YX4**、**YX5**系列。

Use Series YX1 for lifting and transporting single round material like round steel, steel tube, etc. Use Series YX4 and YX5 for lifting and transporting multi-pieces of round materials.

3. 要求自动卸料的请使用**YX2**、**YX4**、**YX5**系列。

Use Series YX2, YX4 and YX5 for auto discharging.

4. 对于厚度小于**6mm**的薄钢板只能选用**YX1**、**YX4**、**YX5**系列。

Use Series YX1, YX4 and YX5 for thin plate (thickness less than 6 mm).

5. 当采用多台联吊时，建议选用**YX3**、**YX4**、**YX5**系列，因为这几种系列能保证较好的同步性。

Use Series YX3, YX4 and YX5 for multiple units, for they have good synchronism.

6. **YX2**、**YX3**、**YX5**均有最小卸料尺寸的要求，选型及操作时注意被吸物是否满足要求。

Series YX2, YX3 and YX5 have minimum dimension demand on material to be discharged. Therefore please take note of it.

7. **YX5**系列能实现空中卸料。

Series YX5 can discharge in the air.

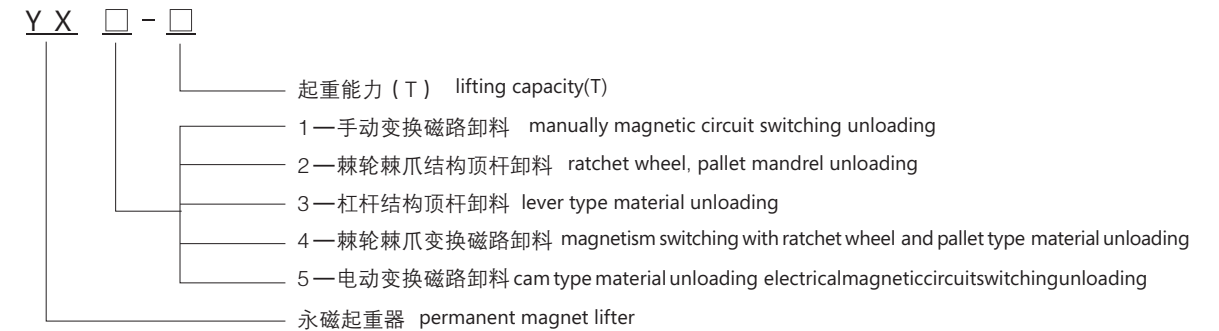
8. 每种系列的永磁起重器均有起重能力的范围。

Each series has its range of lifting capacity.

9. 若要求调整吸力、侧吊、吊运特殊物料诸如钢带卷、钢坯等情况复杂时宜与我公司技术部门探讨，根据您的特殊用途、特殊环境进行特殊设计，以便达到最佳效果。

Your specific requirements like do some adjustment on attraction power, side hung or for some special materials including coiled steel, steel billet, etc., are supposed to let our technology department know at first. So that we can design it specially to reach the optimal effect

型号说明 Model Designation



YX1系列 Series YX1

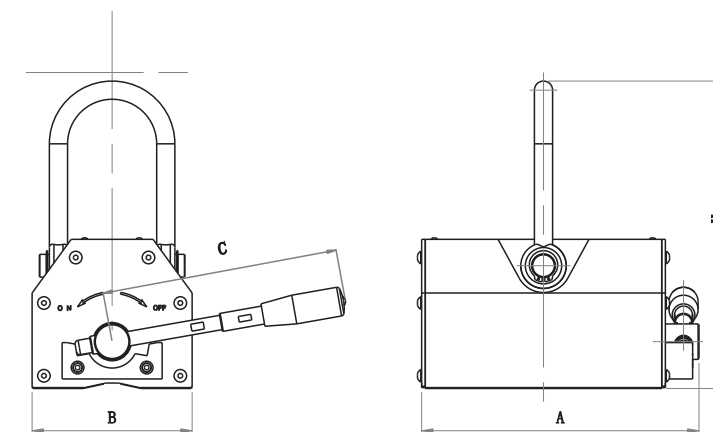
概述 Brief

YX1系列永磁起重器是由强磁钕铁硼磁性材料组成的特殊磁路系统，它通过手柄的旋向，控制磁路开关。具有不需励磁电源，体积小，自重轻，吸持力大，操作方便，使用安全，磁力恒久不衰的特点。它广泛适用于工厂，码头，仓库，交通运输部门吊装搬运钢板、钢锭等导磁性物体。

Series YX1 (Permanent-magnet lifter) has special strong magnetic circuit made by Nd-Fe-B magnetic materials whose switch is controlled by turning handle. It has advantages of no using electricity, compact, light self-weight, huge attraction force, convenient and safe operation and permanent magnetic force and is used widely to lift and transport magnetic materials such as steel plates, steel ingot at factories, docks, warehouses and transportation.



实物图
Actual Picture



外形尺寸及安装示意图
Overall Dimension & Installation Drawing

特点 Features

1. 采用计算机模拟磁路设计，磁场分布合理，透磁深度大。

Use computer to simulate magnetic circuit to get reasonable field distribution and deep penetration.

2. 在卸料状态下工作面不带磁。

It has no magnetism during unloading process.

3. 不需励磁电源，不需冷却系统。

No excitation power or cooling system is required.

4. 省电节能，故障率低。

Energy-saving and low faults.

5. 操作简单，运行安全可靠。

User-friendly operation; safe and reliable.

主要技术参数 Main technical data

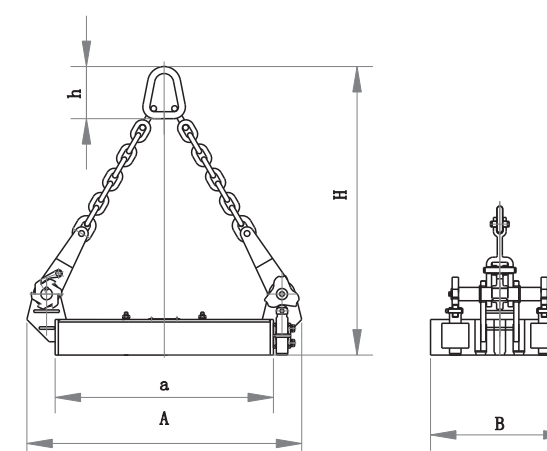
| 型号 model | 额定起重能力 rated lifting capacity (kg) | 圆柱形额定起重能力 rated lifting capacity of column type(kg) | 最大拉脱力 max. pull force (kg) | 外形尺寸 overall dimension (mm) | | | | 使用温度 working temperature (°C) | 质量 mass (kg) |
|-------------|---------------------------------------|--|-------------------------------|--------------------------------|-----|-----|-----|----------------------------------|-----------------|
| | | | | A | B | C | H | | |
| YX1-0.15 | 150 | 75 | 450 | 72 | 102 | 67 | 126 | <80 | 6 |
| YX1-0.2 | 200 | 100 | 600 | 82 | 112 | 77 | 135 | <80 | 8 |
| YX1-0.3 | 300 | 150 | 900 | 92 | 162 | 91 | 155 | <80 | 10 |
| YX1-0.5 | 500 | 250 | 1500 | 122 | 232 | 117 | 196 | <80 | 22 |
| YX1-0.8 | 800 | 400 | 2400 | 142 | 242 | 145 | 215 | <80 | 28 |
| YX1-1 | 1000 | 500 | 3000 | 176 | 258 | 163 | 285 | <80 | 50 |
| YX1-2 | 2000 | 1000 | 6000 | 234 | 378 | 212 | 426 | <80 | 125 |
| YX1-3 | 3000 | 1500 | 9000 | 286 | 458 | 261 | 521 | <80 | 220 |

YX2系列 Series YX2

概述 Brief

YX2系列内部采用铁氧体磁性材料制作，它利用棘轮棘爪机构，通过行车的起升一起控制顶杆，自动完成吸、放料工作。具有不需励磁电源，操作方便，使用安全等特点。它广泛适用于工厂，码头，仓库，交通运输部门吊装搬运短而厚的钢板。特设气隙调整杆，可方便的调整磁力大小。但它在卸料状态下，工作面仍带磁性。

Series YX2 is made of ferrite adopting ratchet wheel and pallet mechanism together with the raise of traveling crane to control the mandril and automatically absorb and unload the materials, featuring no electricity consumption, convenient and safe in operation. It is widely used for lifting and transporting short and thick plates at factory, dock, warehouse and transportation department. The air gas adjusting rod is equipped in particular which can adjust the magnetic force conveniently. Its working face still remain magnetism, during unloading process.



YX2系列外形尺寸图
Overall Dimension Drawing



实物图
Actual Picture

主要技术参数 Main technical data

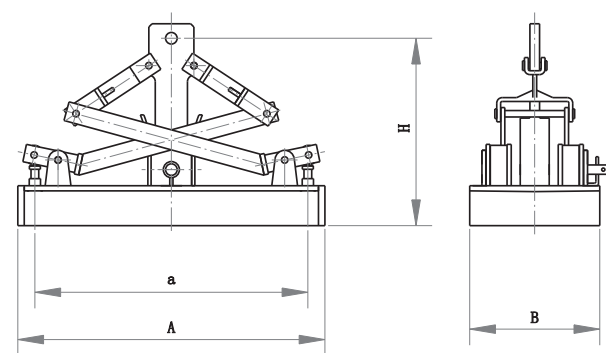
| 参数 data 型号 model | 起重能力 lifting capacity (kg) | 最小卸料能力 Min. discharging capacity (kg) | 最小卸料板厚 Min. thickness of discharging plate (mm) | 最小吸料外形长X宽 Min. dimension of attached material 长L X 宽W (mm) | 外形尺寸 overall dimension (mm) | | | | | 质量 mass (kg) |
|---------------------------|-------------------------------|--|--|---|--------------------------------|------|-----|------|-----|-----------------|
| | | | | | A | a | B | H | h | |
| YX2-0.2 | 200 | 20 | 3 | 440×185 | 440 | 350 | 185 | 525 | 112 | 50 |
| YX2-0.5 | 500 | 50 | 5 | 560×275 | 560 | 470 | 275 | 645 | 112 | 80 |
| YX2-1 | 1000 | 100 | 8 | 720×355 | 720 | 540 | 355 | 760 | 165 | 140 |
| YX2-2 | 2000 | 200 | 10 | 870×436 | 870 | 690 | 436 | 905 | 165 | 140 |
| YX2-3 | 3000 | 500 | 14 | 1100×410 | 1100 | 950 | 410 | 1090 | 180 | 410 |
| YX2-5 | 5000 | 1500 | 20 | 1270×565 | 1270 | 1010 | 565 | 1130 | 220 | 640 |

YX3系列 Series YX3

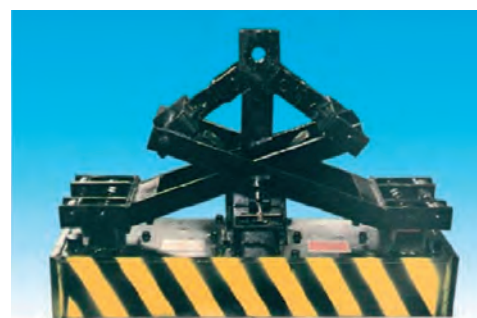
概述 Brief

YX3系列内部采用铁氧体磁性材料制作，它运用杠杆机构，人工可轻松抽动拉杆，完成吸、放料工作。具有不需励磁电源，操作方便，使用安全等特点。它广泛适用于工厂，码头，仓库，交通运输部门多台吊装搬运长而薄的钢板，杠杆式卸料机构能保证较好的同步性。特设气隙调整杆，可方便的调整磁力大小。但它在卸料状态下，工作底面仍带磁性。

Series YX3 which is made of ferrite adopts lever mechanism and can draw rod easily to absorb and discharge materials, featuring no electricity consumption, convenient and safe in operation. It is widely used for transporting long and thin steel plates in combined units at factory, dock, warehouse and transportation. Discharging mechanism equipped with lever has good synchronism. And magnetic force can be adjusted conveniently through air gas adjusting rod. Its working face still remain magnetis, during unloading process.



YX3系列外形尺寸图
Overall Dimension Drawing



实物图
Actual Picture

主要技术参数 Main technical data

| 型号 model | 参数 data | 起重能力 lifting capacity (kg) | 最小卸料能力 Min. discharging capacity (kg) | 最小卸料板厚 Min. thickness of discharging plate (mm) | 最小吸料外形长X宽 Min. dimension of attached material 长L X 宽W (mm) | 外形尺寸 overall dimension (mm) | | | | 质量 mass (kg) |
|-------------|------------|-------------------------------|--|--|---|--------------------------------|-----|-----|-----|-----------------|
| | | | | | | A | a | B | H | |
| YX3-1 | | 1000 | 100 | 5 | 824×256 | 824 | 586 | 256 | 570 | 240 |
| YX3-2 | | 2000 | 200 | 8 | 960×376 | 960 | 848 | 376 | 600 | 320 |
| YX3-3 | | 3000 | 360 | 12 | 960×406 | 960 | 848 | 406 | 680 | 420 |
| YX3-5 | | 5000 | 1200 | 16 | 1090×516 | 1088 | 848 | 516 | 548 | 650 |

YX4系列 Series YX4

概述 Brief

YX4系列是采用稀土高性能永磁材料精心设计而成，具有吸力大、体积小、高度节能、安装方便、安全可靠、使用寿命长、能自动完成卸料过程等特点，可广泛用于机械、化工、码头、船厂、钢结构厂等需要搬运低于100℃的导磁性钢坯、钢板、圆钢等场合。它能与行车起重机、汽车起重机等所有起重设备配套使用，既可单台使用，也可多台组合使用，是节约能源、减轻劳动强度、提高劳动生产率的理想吊具。



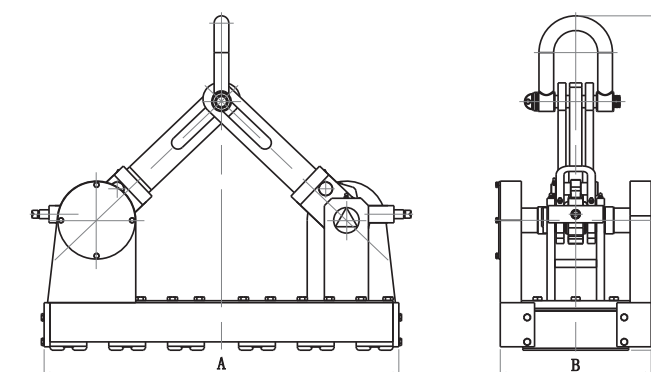
实物图 Actual Picture

Series YX4(Permanent-magnet lifter) which are made of the rare earth has advantages of powerful attraction force, compact, high energy-saving, convenient installation, reliable performance, long service life, and automatically discharging materials. It's widely been used for lifting and transporting magnetic materials less than 100°C such as steel billet, steel plate, round steel and steel scraps in mechanical & chemical industry, docks, ship factories and steel factories. It is assistant equipment to all lifting device such as crane and auto lifter and can be put into operation with sigle unit or multiple units. It is an ideal lifter for saving energy, reducing labor tension and improving production rate.

工作原理 Woring principle

YX4系列由永磁铁和磁极组成若干单元磁路，每一个单元磁路的永磁铁可由传动机构带动在单元磁极内转动0~90°，整体形成开、闭磁路，达到吸、卸料的目的。

Series YX4 (Permanent-magnet lifter) is made of several magnetic circuit, each magnetic circuit can be rotated 0~90° inside each magnetic pole by actuating mechanism, to form open and close magnetic circuit as a whole for attracting or unloading materials.



YX4系列外形尺寸图
Overall Dimension Drawing

1. 起重机吊钩 crane hook
2. 连杆 rod
3. 防空载挡板 no-load defencing fender
4. 棘爪 pallet
5. 弹簧 spring
6. 棘轮 ratchet wheel
7. 状态指示牌 state indication board
8. 保护罩 protective cover
9. 工作面(磁极) working face(magnetic pole)

电磁铁常用连接方式 Magnet Connection Drawing

主要技术参数 Main technical data

| 型号 model | 参数 data | 额定起重能力 rated lifting capacity (kg) | 最大拉脱力 Max. pull force (kg) | 外形尺寸 overall dimension (mm) | | | 质量 mass (kg) |
|-------------|------------|--|----------------------------------|-----------------------------|-----|------|-----------------|
| | | | | A | B | H | |
| YX4-1 | | 1000 | 3500 | 550 | 350 | 518 | 130 |
| YX4-2 | | 2000 | 7000 | 625 | 460 | 672 | 250 |
| YX4-3 | | 3000 | 10500 | 690 | 470 | 806 | 386 |
| YX4-5 | | 5000 | 17500 | 970 | 580 | 1020 | 575 |
| YX4-10 | | 10000 | 35000 | 1440 | 800 | 1440 | 1197 |
| YX4-20 | | 20000 | 70000 | 1640 | 800 | 1560 | 2110 |

YX5系列 Series YX5

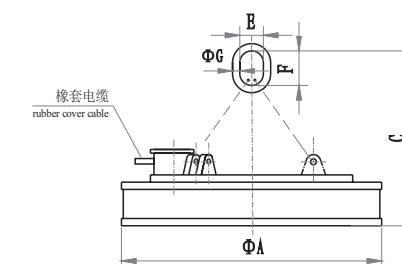
概述 Brief

YX5系列是采用稀土高性能永磁材料精心设计而成，它通过电动执行机构完成磁路的转换达到快速卸料的目的，因为大吨位的起重器要克服其内部的磁吸合力进行卸料采用人工是不实际的。可广泛用于机械、化工、码头、船厂、钢构厂等需要搬运低于100°C的导磁性钢坯、钢板、圆钢等场合。

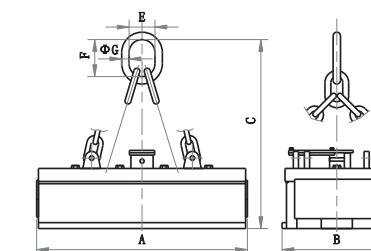
Series YX5 which are made of the rare earth can fulfill the aim of discharging quickly through the shift of circuit controlled by motor, because for some large size lifter, it's no way to overcome its inside pick-up force by manual. It is widely used for transporting magnet-conductive steel caster, steel plates, round steels and scrap steels with a temperature under 100°C in the machinery industry, chemical industry, dock, ship factory, steel structure factory and etc.,

主要技术参数 Main technical data

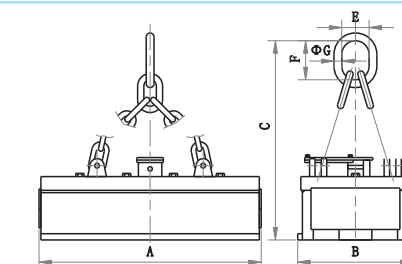
| 型号 model | 参数data | | | | 自重 self-weight (kg) | 额定起重 rated lifting capacity (kg) |
|-------------|----------------------------|------|-------------------------|--------------------|---------------------------|---|
| | 外形尺寸 overall dimension(mm) | | | | | |
| | 长 L | 宽 W | 磁体高 magnet height | 总高 total height | | |
| YX5-20 | 1640 | 800 | 260 | 1300 | 2210 | 20000 |
| YX5-30 | 1950 | 1060 | 310 | 1600 | 3810 | 30000 |
| YX5-40 | 2410 | 1060 | 350 | 1900 | 4710 | 40000 |
| YX5-50 | 2410 | 1220 | 350 | 1900 | 5470 | 50000 |



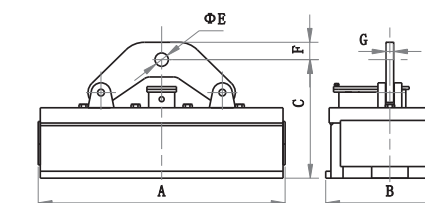
单挂点A型：单挂点与行车主钩或挂梁联接
Single Suspending Point Mode A: the single suspending point is jointed with crane hook or suspension beam



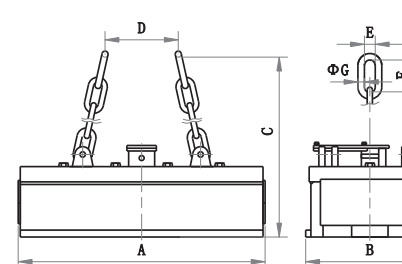
单挂点A I型：单挂点与行车主钩或挂梁联接
Single Suspending Point Mode AI: the single suspending point is jointed with crane hook or suspension beam



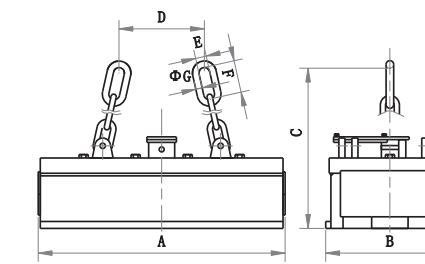
单挂点A II型：单挂点与行车主钩或挂梁联接
Single Suspending Point Mode AII: the single suspending point is jointed with crane hook or suspension beam



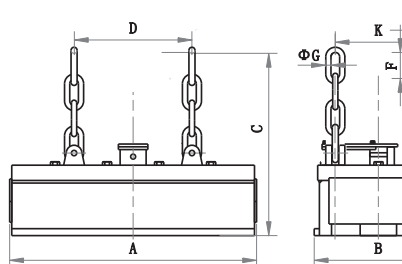
单挂点B型：吊攀与行车或挂梁联接
Single Suspending Point Mode B: the single lifting hook is jointed with crane or suspension beam.



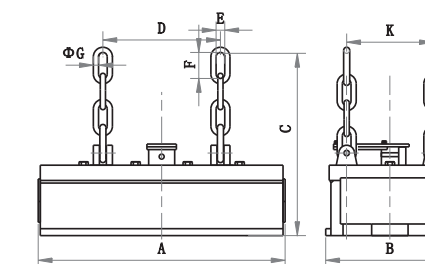
双挂点C I型：双挂点与行车主钩或挂梁联接
Double Suspending Points Mode CI: the double suspending points are jointed with crane hook or suspension beam.



双挂点C II型：双挂点与行车主钩或挂梁联接
Double Suspending Points Mode CII: the double suspending points are jointed with crane hook or suspension beam.



四挂点D I型：四挂点与行车主钩或挂梁联接
Four Suspending Points Mode DI: the four suspending points are jointed with crane hook or suspension beam.



四挂点D II型：四挂点与行车主钩或挂梁联接
Four Suspending Points Mode DII: the four suspending points are jointed with crane hook or suspension beam.