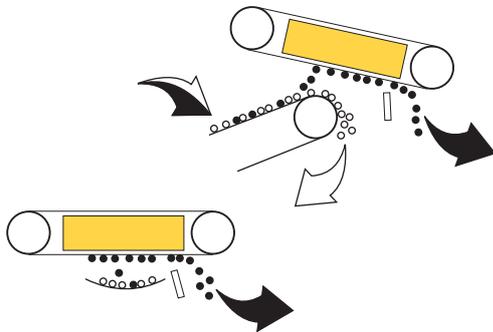


OVE



OVE overbelt magnetic separators have been extensively used across various industries. These machines are designed to pick up and remove tramp iron objects from bulk materials such as coal, stone, fertilizers, slag, gypsum, and ores. OVE self-cleaning overbelt magnets are ideal for applications with substantial quantities of tramp iron or where manual cleaning access is challenging. The separator attracts tramp iron and carries it out of the magnetic field, with ejection performed by a discharge belt running around the magnet. This protects crushers, pulverisers, mills, conveyor belts, and other valuable equipment in processing plants from excessive wear and damage. The separators can be installed either in-line over the discharge head pulley or across conveyor belts, vibratory feeders, or gravity chutes. Installing the separator magnets in-line above the discharge end of the conveyor enhances separation efficiency and facilitates the discharge of extracted iron parts. Tramp iron must remain within the magnetic field for at least 0.4 to 0.5 seconds to become fully magnetized and effectively separated from the material flow. Therefore, the magnet box must be properly sized to ensure adequate dwell time. Mag Magnetics offers a range of standard electrical OVE series overbelt magnetic separators suitable for belt widths up to 2500 mm and operating heights up to 950 mm. Electrical over-belt magnets can be chosen as “air-cooled” or “oil-cooled,” with oil-cooled magnets generally being shorter and lighter than their air-cooled counterparts.



Advantage of Oil Cooling

Oil-cooled OVE separators, compared to naturally air-cooled models, feature smaller dimensions and reduced weight. The oil inside the magnet housing allows for more efficient heat dissipation from the coil. As the oil heats up and expands, OVE equipped with an expansion tank to accommodate the increased oil volume.

MAG Magnetics self-cleaning over-belt magnets consist of magnetic box, supporting structure for the discharge belt including drive and tail drums, two additional idlers mounted on self-aligning bearings, geared motor to drive the discharge belt, device for tensioning the discharge belt on the fixed axle of the tail drum, suspension lugs, turnbuckles, and suspension wire ropes.

For re-tightening the discharge belt, the fixed axle of the tail drum is fitted with a tensioning device. Suspension lugs and one set of turn buckles and suspension wire rap are normally supplied.

Important Factors for Selecting OVE Separators

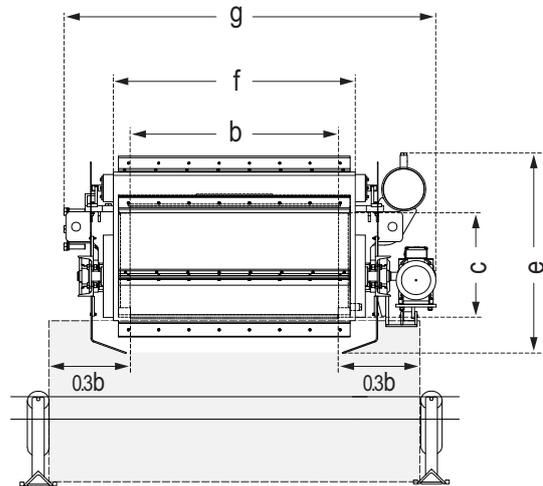
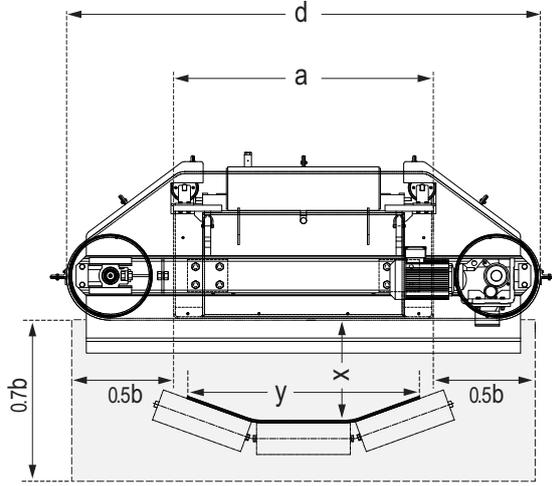
- Material size, type, and density
- Shape and minimum size of tramp iron
- Maximum material lump size
- Percentage of tramp iron in the material
- Conveyor belt/chute width
- Bulk material capacity (t/hr or m³/hr)
- Details of machinery or equipment to be protected
- Conveyor belt speed
- Angle of trough idlers
- Head pulley diameter and material (for in-line installations)
- Ambient temperature
- Available AC power supply

OVE Electrical Magnetic Separators comply with VDE 0580 standards and require DC supply for coil excitation, operate within ambient temperatures of -20°C to +40°C and for extraordinary operating conditions—such as high ambient temperatures (over 40°C), high humidity, chemically aggressive atmospheres, severe dust pollution, wet and sticky materials, very large tramp iron objects, or hot materials custom-designed magnets are recommended.



Over Belt Electromagnet Separator

OVE



Electromagnet Over Belt Separator " S " series

Model	Magnet Cold Wattage	Max Working Distance "X"	Max Belt Width Installation		Gear Motor Drive	Magnet Dimensions			Magnet Weight Approx.	Overall Dimensions				Total Weight Approx.
			Across	Inline		a	b	c		d	e	f	g	
	kw	mm	mm	mm	kw	mm	mm	mm	kg	mm	mm	mm	mm	kg
OVE 20-80 S	2.3	200	800	800	0.75	750	750	380	564	2,172	532	650	1,131	1,001
OVE 25-80 S	2.5	250	800	800	0.75	750	750	435	687	2,274	587	650	1,131	1,236
OVE 25-100 S	2.75	250	1,000	800	0.75	920	750	435	755	2,444	587	650	1,131	1,304
OVE 30-100 S	3.6	300	1,000	1,000	1.1	920	920	485	997	2,546	688	800	1,301	1,684
OVE 35-100 S	3.7	350	1,000	1,000	1.50	920	920	510	1,220	2,545	713	800	1,301	2,069
OVE 35-120 S	3.9	350	1,200	1,000	1.5	1,080	920	510	1,287	2,705	713	800	1,301	2,136
OVE 40-120 S	4.7	400	1,200	1,000	1.50	1,080	1,080	535	1,766	2,147	764	1,000	1,486	2,877
OVE 45-120 S	4.9	450	1,200	1,000	1.5	1,080	1,080	570	2,021	2,147	798	1,000	1,486	3,183
OVE 45-140 S	5.25	450	1,400	1,000	1.5	1,250	1,080	560	2,099	2,317	788	1,000	1,486	3,261
OVE 50-140 S	6.15	500	1,400	1,200	2.2	1,250	1,250	585	2,622	2,317	814	1,150	1,657	3,952
OVE 55-140 S	6.50	550	1,400	1,200	2.2	1,280	1,250	620	2,993	2,346	924	1,150	1,657	4,444
OVE 55-150 S	6.6	550	1,500	1,200	2.2	1,380	1,250	610	3,048	2,446	914	1,150	1,657	4,499
OVE 60-150 S	7.50	600	1,500	1,400	2.2	1,380	1,380	635	3,751	2,446	940	1,250	1,786	5,333
OVE 65-150 S	7.8	650	1,500	1,400	4.0	1,380	1,380	700	4,108	2,447	1,005	1,250	1,786	5,652
OVE 65-160 S	8.1	650	1,600	1,400	4.0	1,500	1,380	675	4,152	2,567	980	1,250	1,786	5,696
OVE 70-160 S	9.0	700	1,600	1,500	4.0	1,500	1,500	715	4,961	2,567	1,020	1,400	1,906	6,764
OVE 75-160 S	9.4	750	1,600	1,500	4.0	1,500	1,500	780	5,409	2,567	1,135	1,400	1,906	7,342
OVE 75-180 S	9.7	750	1,800	1,500	4.0	1,650	1,500	760	5,546	2,717	1,115	1,400	1,906	7,479
OVE 80-180 S	11.3	800	1,800	1,600	4.0	1,650	1,650	840	6,835	2,717	1,196	1,500	2,056	9,027
OVE 85-180 S	11.8	850	1,800	1,600	4.0	1,650	1,650	910	7,445	2,717	1,266	1,500	2,056	9,720
OVE 85-200 S	12.3	850	2,000	1,600	4.0	1,830	1,650	890	7,662	2,897	1,246	1,500	2,056	9,937
OVE 90-200 S	14.0	900	2,000	1,800	5.5	1,830	1,830	940	9,029	3,284	1,321	1,700	2,327	11,383
OVE 95-220 S	16.75	950	2,200	2,000	5.5	2,000	2,000	1,050	10,732	3,439	1,409	1,900	2,519	13,195



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273 Abbotsford Rd, Bowen Hills QLD 4006, Brisbane, Australia
 Tel: +61 4 20 300 775 info@mag-magnetics.com www.mag-magnetics.com