

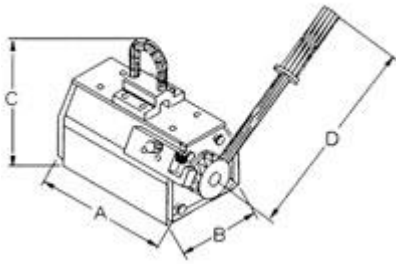
# Lifting Magnet

## Technical Data

Lifting Equipment Ltd



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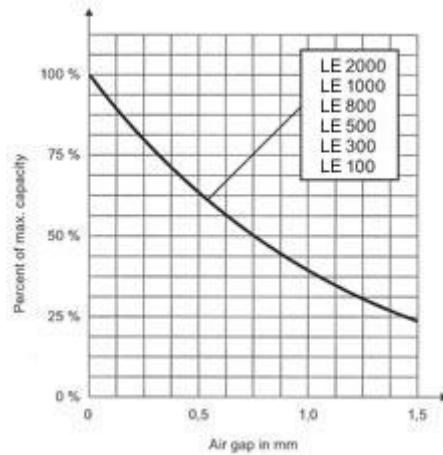


Relevant EC Directives - EC Machinery Directive 2006/42/EC

Standards - ISO12100:2004; ISO12100-2:2004; EN349:2008 +A1; EN13155:2007; BGR500

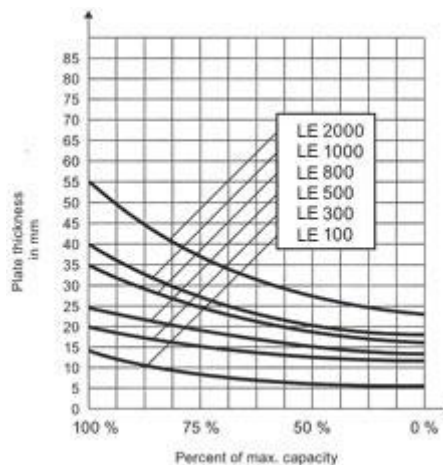
Quality Assurance - DIN EN ISO 9001:2000

Model	Flat Material			Round Material			
	Maximum capacity SWL	Minimum thickness to obtain Max. SWL	Maximum length of material	Maximum capacity SWL	Diameter	Maximum length of material	Tear off force
	Kg	mm	mm	Kg	mm	mm	Kg
LGD1	100	15	2000	50	200 - 300	2000	300
LGD3	300	19	2500	150	200 - 300	2500	900
LGD5	500	25	3000	250	200 - 400	3000	1500
LGD8	800	35	3500	400	200 - 400	3500	2400
LGD10	1000	40	3500	500	200 - 400	3500	3000



### Material Thickness

It is important when choosing your lifting magnet to take into account the thickness of materials to be lifted; this is because the clamping force will be significantly reduced if the magnet lifts thinner plate than the recommended minimum. The performance curves of this **lifting gear** are identified along with the adhesive force / flat thickness is the diagram.



### Air Gaps

It is the high magnetic forces that are produced via the lifting magnet which allow it to hold securely the materials through the air gap. Air gaps can occur in several ways, including badly machined surfaces, paint and dust particles and also heavy mill scale.

As all air gaps significantly reduce the lifting capacity of the magnet, the SWL will need to be down graded accordingly. Please look at the diagram for precise data.

### Contact Area & Material Type

Lifting magnets can only achieve their full lifting capacity when total contact is achieved with the material. Some factors will influence whether absolute contact is made, such as holes, dents or an uneven surface, these factors will decrease performance; during these conditions always do a test lift first to establish a correct and safe lift.

There are certain materials that have varying capabilities to carry magnetism for any material other than mild steel a reduction factor will need to be used, to determine the effective clamping force.

Reduction of capacity for material type	% of capacity
Temperature $\leq 60^{\circ}\text{C}$	100%
Humidity $\leq 80\%$	100%
St 52	95%
Alloy Steel	80%
High Carbon Steel	70%
Cast Iron	45%
Nickel	45%
Austenitic Stainless Steel	0%
Brass	0%
Aluminium	0%

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