



Don't be surprised –
IT'S MAGNETISM.



neorem magnets

EXCELLENCE AT YOUR SERVICE.

Though founded in 1995, Neorem Magnet's roots are further in the past. As a part of Vacuumschmelze permanent magnets our position is stronger than ever in European magnet production.

Neorem Magnets manufactures high-quality NdFeB permanent magnets in Europe. Our target is to find the most suitable and cost effective solution in close co-operation with the customer. We provide demanding magnet grades and shapes and our magnets are globally licensed – including direct and indirect import to Japan.

We are a European producer of NdFeB permanent magnets for motors and generators, especially for renewable energy applications. We are participating in the fight against climate change. Our vision is to help make the Earth a better place to live and therefore we see that the true color of our magnets is green.

APPLICATION ENGINEERING

Our experts will help you to find the best possible solution for your magnetic application.

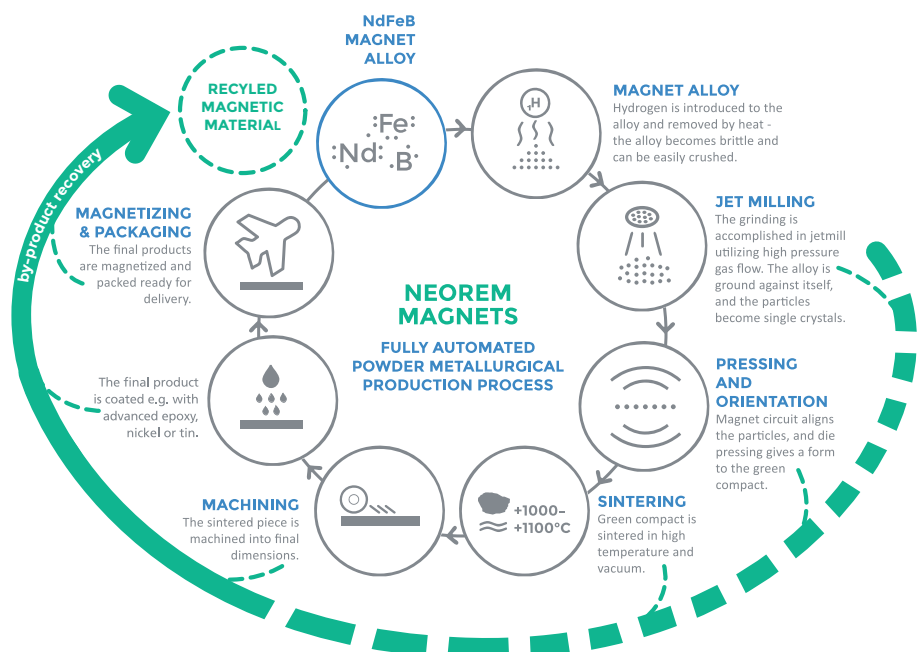
ENGINEERING

We offer you our extensive expertise in magnet circuit design, magnet production and related technology. Our magnet products are made to last for decades even in demanding conditions. Innovation is where we stand out.

FULLY LICENSED MAGNETS FOR YOUR GLOBAL OPERATIONS

PRODUCTION PROCESS

Our magnets are produced powder metallurgically in a highly automated factory. Quality is integrated in each manufacturing step.



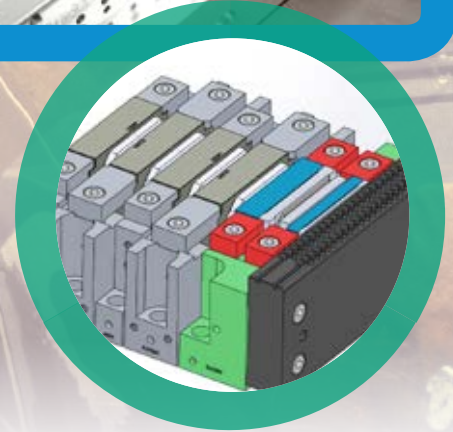
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INNOVATION IS DRIVEN BY CHALLENGES.

Often new customers confront us with magnet designs which are considered impossible to produce at reasonable cost. Inspired by this, we eventually end up developing the most cost effective, innovative and competitive magnet solution for our customer. Many of our most successful products are originated from the most challenging basic designs.

- VESA KANKARE

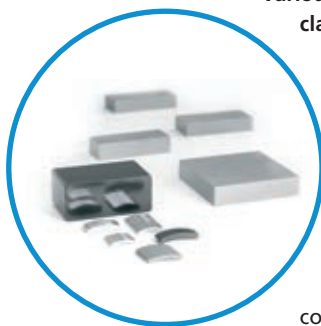
Sales Director
Neorem Magnets



MAGNET ASSEMBLIES

We are an experienced supplier of different types of magnet assemblies:

- Pole elements for large electric motors and generators.
- Components for actuators and sensors.
- Undulator and wiggler type X-ray sources for particle accelerators.
- CMM measuring for assemblies up to 1.6 m in length and over 0.5 m in height



PERMANENT MAGNETS

We have three standard series of sintered NdFeB magnet grades with various coatings up to offshore classification:

- **NEOREM 500** series general grade with moderate magnetic and corrosion properties.
- **NEOREM 700** series grades characterized by improved remanence, coercivity and corrosion resistivity.
- **NEOREM 800** series for most demanding applications with extreme magnetic properties.

QUALITY AND OCCUPATIONAL SAFETY


Our quality policy is to guarantee that our products and operations meet your requirements and the products are delivered on time. We offer a safe working environment and are constantly developing it further to keep our occupational safety at zero incident level.


ECOLOGISTICS

Magnet material is a recyclable and our production process includes the recovery of by-products to be used as raw material for new magnetic alloys. Developing this technology is an important part of our R & D activities.


NdFeB

Typical material production t-grades

500 t-series	Material grade	Remanence B_r [T]		Normal coercivity H_{cN} [kA/m]		Intrinsic coercivity H_{cJ} [kA/m]		Energy product $(BH)_{max}$ [kJ/m ³]	
		nom	min	nom	min	nom	min	nom	min
NEOREM 500 series general grades with moderate magnetic and corrosion properties. 	NEOREM 512t	1.35	1.30	1030	970	1120	1050	350	320
	NEOREM 537t	1.32	1.27	1000	940	1350	1200	330	310
	NEOREM 553t	1.29	1.24	980	920	1500	1400	310	290
	NEOREM 576t	1.26	1.21	960	900	1750	1550	300	280
	NEOREM 591t	1.23	1.18	930	880	1900	1700	280	260
	NEOREM 593t	1.20	1.15	910	850	2100	1800	270	250
	NEOREM 595t	1.16	1.12	890	830	2400	2100	260	240
	NEOREM 597t	1.12	1.08	850	800	2800	2600	240	220
	NEOREM 599t	1.08	1.03	820	760	3200	3000	220	200

700 t-series	Material grade	Remanence B_r [T]		Normal coercivity H_{cN} [kA/m]		Intrinsic coercivity H_{cJ} [kA/m]		Energy product $(BH)_{max}$ [kJ/m ³]	
		nom	min	nom	min	nom	min	nom	min
NEOREM 700 series grades characterized by improved remanence, coercivity and corrosion resistivity. 	NEOREM 712t	1.38	1.35	1050	1000	1120	1050	360	340
	NEOREM 737t	1.35	1.32	1030	980	1350	1200	340	330
	NEOREM 737t modified*	1.35	1.33	1030	990	1350	1270	350	340
	NEOREM 753t	1.33	1.30	1010	960	1500	1400	330	320
	NEOREM 776t	1.30	1.27	1000	950	1750	1550	320	310
	NEOREM 776t modified*	1.32	1.30	1010	970	1700	1600	330	320
	NEOREM 791t	1.28	1.25	980	930	1900	1700	310	300
	NEOREM 793t	1.25	1.22	960	910	2100	1800	300	280
	NEOREM 795t	1.20	1.17	920	870	2400	2100	270	260
	NEOREM 797t	1.16	1.13	890	840	2800	2600	250	240
	NEOREM 799t	1.12	1.09	860	810	3200	3000	240	220

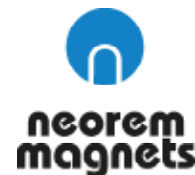
* Examples for modified grades according to customer requirements

800 t-series	Material grade	Remanence B_r [T]		Normal coercivity H_{cN} [kA/m]		Intrinsic coercivity H_{cJ} [kA/m]		Energy product $(BH)_{max}$ [kJ/m ³]	
		nom	min	nom	min	nom	min	nom	min
NEOREM 800 series grades for most demanding applications with extreme magnetic properties. 	NEOREM 820t	1.40	1.37	1070	1020	1200	1100	370	360
	NEOREM 830t	1.36	1.33	1040	990	1400	1350	350	340
	NEOREM 870t	1.34	1.32	1030	980	1700	1600	340	330
	NEOREM 880t	1.29	1.26	990	940	2100	2000	320	300
	NEOREM 890t	1.27	1.24	970	920	2350	2250	310	290


The properties in the tables above apply for transversally pressed magnets. The demagnetization curves are available on our web site.


ALL THE GRADES CAN BE FURTHER MODIFIED - PLEASE CONTACT US FOR DETAILS.

NdFeB




Typical material production a-grades

500 a-series	Material grade	Remanence B_r [T]		Normal coercivity H_c [kA/m]		Intrinsic coercivity H_c [kA/m]		Energy product $(BH)_{max}$ [kJ/m ³]	
		nom	min	nom	min	nom	min	nom	min
<p>NEOREM 500 series general grades with moderate magnetic and corrosion properties.</p> 	NEOREM 512a	1.31	1.27	1000	940	1120	1050	330	310
	NEOREM 537a	1.28	1.24	980	920	1350	1200	310	290
	NEOREM 553a	1.25	1.21	960	900	1500	1400	300	280
	NEOREM 576a	1.22	1.18	930	880	1750	1550	280	270
	NEOREM 591a	1.19	1.15	910	860	1900	1700	270	250
	NEOREM 593a	1.16	1.12	890	830	2100	1800	260	240
	NEOREM 595a	1.13	1.09	860	810	2400	2100	240	230
	NEOREM 597a	1.09	1.05	830	780	2800	2600	230	210
	NEOREM 599a	1.05	1.00	800	740	3200	3000	210	190

700 a-series	Material grade	Remanence B_r [T]		Normal coercivity H_c [kA/m]		Intrinsic coercivity H_c [kA/m]		Energy product $(BH)_{max}$ [kJ/m ³]	
		nom	min	nom	min	nom	min	nom	min
<p>NEOREM 700 series grades characterized by improved remanence, coercivity and corrosion resistivity.</p> 	NEOREM 712a	1.33	1.29	1020	960	1120	1050	340	320
	NEOREM 737a	1.3	1.26	990	940	1350	1200	320	300
	NEOREM 753a	1.28	1.24	980	920	1500	1400	310	290
	NEOREM 776a	1.26	1.22	960	910	1750	1550	300	280
	NEOREM 791a	1.24	1.20	950	890	1900	1700	290	270
	NEOREM 793a	1.21	1.17	930	870	2100	1800	280	260
	NEOREM 793a modified*	1.21	1.18	930	880	2100	2000	280	260
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	NEOREM 797a	1.12	1.08	860	800	2800	2600	240	220
	NEOREM 799a	1.08	1.04	820	770	3200	3000	220	210

* Examples for modified grades according to customer requirements

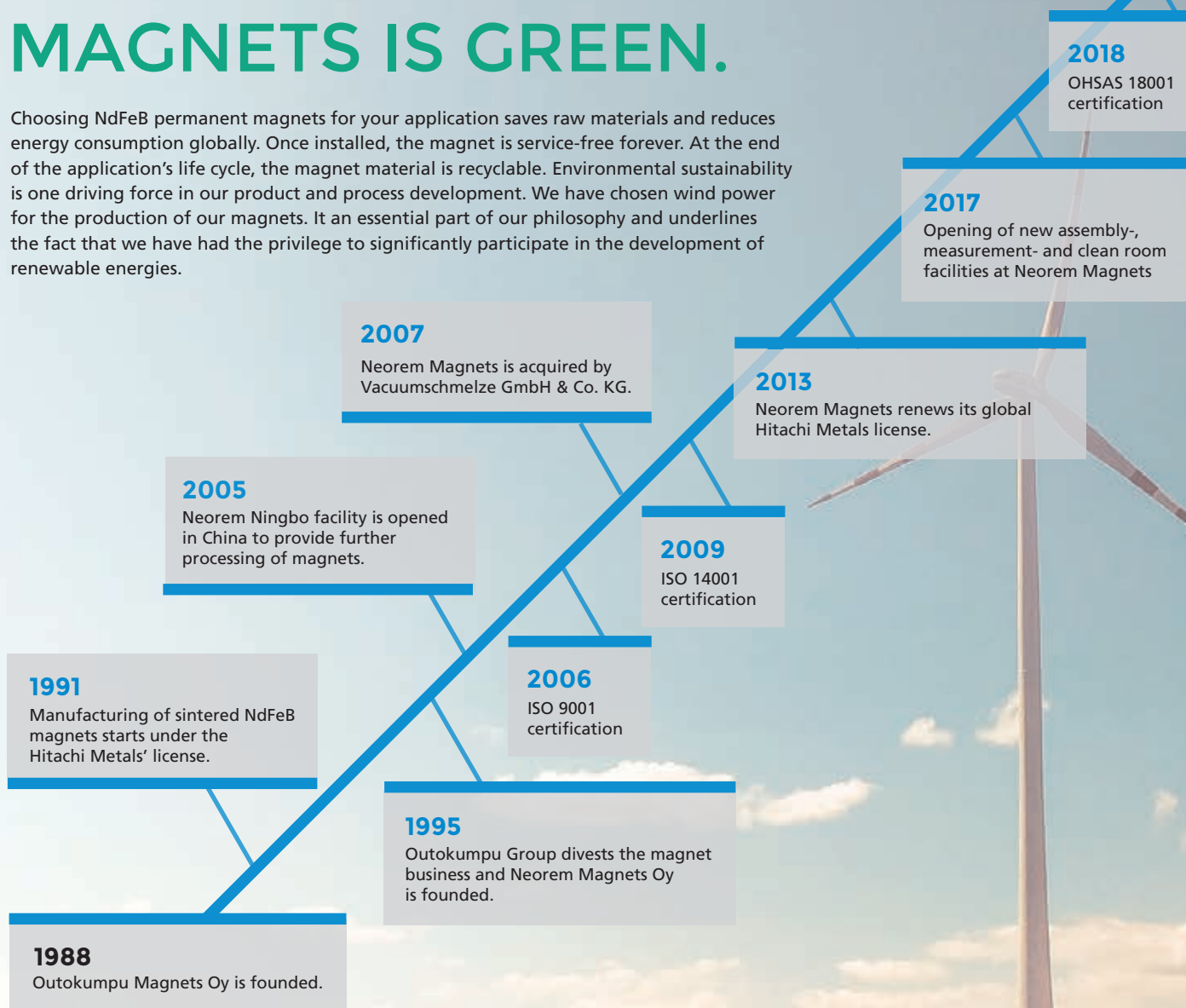
800 a-series	Material grade	Remanence B_r [T]		Normal coercivity H_c [kA/m]		Intrinsic coercivity H_c [kA/m]		Energy product $(BH)_{max}$ [kJ/m ³]	
		nom	min	nom	min	nom	min	nom	min
<p>NEOREM 800 series grades for most demanding applications with extreme magnetic properties.</p> 	NEOREM 830a	1.32	1.29	1010	960	1400	1350	330	320
	NEOREM 870a	1.30	1.27	990	940	1700	1600	320	310
	NEOREM 880a	1.26	1.23	960	910	2100	2000	300	290
	NEOREM 890a	1.24	1.21	950	900	2350	2250	290	280

The properties in the tables above apply for axially pressed magnets. The demagnetization curves are available on our web site.

ALL THE GRADES CAN BE FURTHER MODIFIED - PLEASE CONTACT US FOR DETAILS.

THE REAL COLOR OF MAGNETS IS GREEN.

Choosing NdFeB permanent magnets for your application saves raw materials and reduces energy consumption globally. Once installed, the magnet is service-free forever. At the end of the application's life cycle, the magnet material is recyclable. Environmental sustainability is one driving force in our product and process development. We have chosen wind power for the production of our magnets. It is an essential part of our philosophy and underlines the fact that we have had the privilege to significantly participate in the development of renewable energies.



OVER 30 YEARS OF MAGNETIC EXPERTISE

Our values are based on customer-oriented policy and thus our first and foremost aim is to provide our customers with the best possible service all the way from the preliminary ideas until the delivery of the final product. In addition to the magnets and assemblies, we supply a complete package of designing assistance and magnetic know-how. Our efforts have been recognized by continuing Kone Gold level supplier status.

Further information about our magnets can be found in the datasheets and on our web site.

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