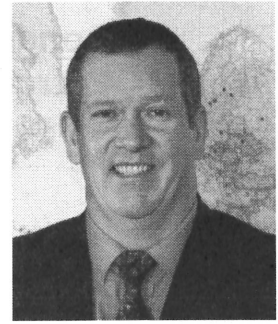


Greetings from the American Heartland

Dr. John Ormerod

V.P. Technology and Bonded Magnets, Group Arnold



As we enter the New Year of 2001, (the real new millenium?) the seemingly unstoppable engine of the U.S. economy is clearly beginning to show signs of losing momentum. The magnitude of this slowdown in growth is currently the subject of much debate and conjecture. Certainly, in the next few months it will become very obvious if this is the much hoped for soft landing or the dreaded recessionary correction. Already, the North American automotive industry, a significant consumer of bonded magnets, has announced reduced production schedules from the record levels of last year. However, while the volume of automotive units may be decreasing, the technology drivers of safety, performance, convenience, environmental and fuel economy increase the opportunities for magnetic material applications. In particular, bonded magnets are being used increasingly in automotive sensing, actuation and brushless motor commutation applications.

Looking farther ahead, the increasing activity in electric and hybrid vehicle traction systems is another exciting opportunity for bonded magnet materials. Commercialization of these vehicles is now taking place in both the U.S. and Japan. It is interesting to note that the two regions appear to be using different machine design philosophies for the traction drives. However, all the leading concepts incorporate permanent magnets as part of the machine design and bonded magnets in particular offer unique advantages.

The recent electrical power supply problems experienced in several areas of the U.S. have led to a heightened awareness of the need to increase the efficiency of all power consuming devices. This is beginning to generate a demand for household appliances that are "smart" with increased

energy efficiency. The trend is in the increased use of brushless-type motors in these applications with more opportunities for bonded magnets.

The rapid evolution of the Internet and e-commerce has been a revolutionary tool for all of our global businesses. However, we are seeing signs that this technology can begin to force the entire permanent magnet industry towards a more commodity-based market place. Of course, no industry is immune to having segments of their product lines migrate towards commodity status, e.g., memory chips in the integrated circuit industry.

The danger I see is that the infrastructure and R and D investments that have created the revolution in magnetic materials and applications over the past 20 years cannot be sustained with this type of commodity-type pricing when applied across our industry. The challenge is that both individual companies and industry associations, such as the JABM, help educate our customer base to ensure that there is a good understanding of magnet technology at all levels. As an example, Group Arnold now holds both permanent magnet and soft magnetic training seminars at our Magnetics Technology Center in Illinois.

Collectively, we must continue to develop innovative materials and technologies that meet ever-increasing application demands. In addition we must provide the value added magnetic solutions that our customers can utilize in their devices and products that generate the required economic added value.

In 2001 we are anticipating the first steps on a closer co-operation between then Magnetic Material

Producers Association (MMPA) and the JABM. Dr. Hideki Harada has very kindly accepted an invitation to attend and speak at the MMPA Spring Meeting in May. On behalf of all the MMPA members we look forward to both Dr. Harada's visit and a closer cooperation with the JABM.

In conclusion, the numbers of applications for bonded magnets will continue to grow. Our challenge as members of the JABM is to both educate our customer base on their unique advantages and provide the highest value-added bonded magnet products and services to the market.

Speaking both personally, and on behalf of Group Arnold, we are very honored to be members of the Association and wish all the members, our colleagues and friends a happy, healthy and prosperous 2001.

Dr John Ormerod, V.P Technology and Bonded Magnets, Group Arnold

Marengo IL, USA.

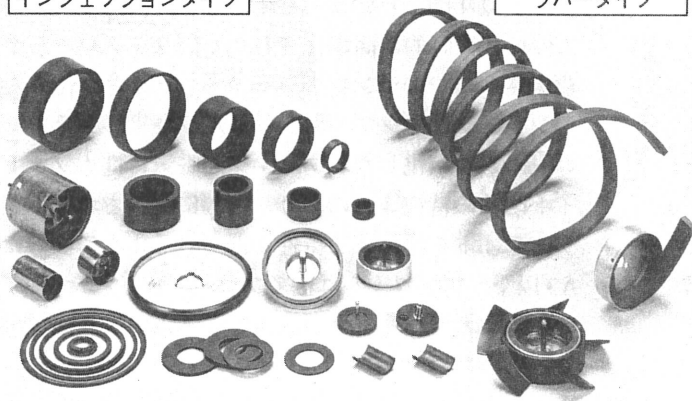
February, 2001

インジェクションタイプ&ラバータイプ

高性能

インジェクションタイプ

ラバータイプ



インジェクションタイプ (代表グレード)

品名	残留磁束密度	保磁力		最大エネルギー積
	Br(G)	bHc(Ce)	lHc(Ce)	(BH)max
NT-192 (フェライト系)	2820	2650	3200	1.9
NT-212 (フェライト系)	3000	2410	2660	2.1
NT-562 (ネオジウム系)	5420	4050	7192	5.7

ラバータイプ (代表グレード)

品名	残留磁束密度	保磁力		最大エネルギー積
	Br(G)	bHc(Ce)	lHc(Ce)	(BH)max
8E-37	2560	2220	3280	1.4
8E-180	2800	2270	2820	1.8
8E-230	3120	2320	2460	2.3

■主な扱い品目●押出、異方性プラスチックマグネット●マグネットシート●射出成形 (フェライト・ネオジウム) プラスチックマグネット

プラスチックマグネットの専門メーカー



株式会社 **マジエックス**

本社 東京都中央区東日本橋1丁目9番地13号
〒103-0004 (ユウワビル2F)
TEL.03-3863-3171(代表) FAX.03-3863-3180