

MADE IN YORKSHIRE

Ben Duncan visits the commercial division of Wharfedale plc, Britain's longest established loudspeaker manufacturer

Today, Wharfedale is a highly successful manufacturer of both raw drive units and complete loudspeakers. Leaving aside sales to domestic Hi-Fi, Wharfedale's commercial speakers (notably their models Programme 2180 and Programme 30) are widely specified by installers for pubs, winebars and restaurants as well as for CD jukeboxes, supermarkets, DIY superstores and factories.

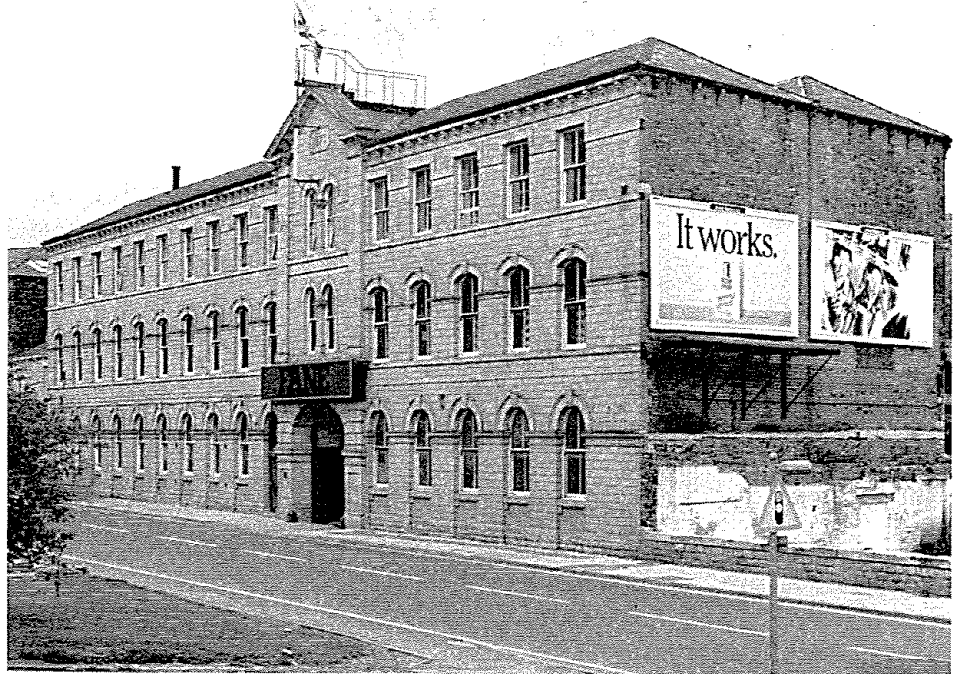
Wharfedale's history goes back to 1932, when Gilbert Briggs built his first loudspeaker, at his home in Ilkley. In 1933, he established the Wharfedale Wireless Works, which produced 4,600 speakers in its first year. After the war, production resumed in Bradford. Briggs then became increasingly involved with high fidelity sound reproduction, which was about to experience its first period of phenomenal growth, an era in which Wharfedale was to play a major part. Briggs was both perfectionist and pragmatist; he realised that sound reproduction must combine art with science. He wrote numerous books on loudspeakers, carried out spectacular live vs. recorded demonstrations (notably in Carnegie Hall) and designed speakers which could convey both the reality and the emotion in music.

By 1956, Wharfedale had even formed their own company in the USA. Two years later, Briggs, then aged 68, sold his Wireless Works to the Rank Organisation.

The Rank years

Wharfedale benefitted from Rank's investment in R&D for the next 20 years. Notable developments now taken for granted by speaker makers the world over included the 'roll surround' (1959) and ceramic magnets (1962). In 1969, Rank bought H.J. Leak, another famous Yorkshire name involved in domestic Hi-Fi. The combined Leak and Wharfedale factory was by now employing 1100. A record 800,000 drive units were made in 1977, but acute competition from the Far East forced a re-evaluation. By 1980, Leak ceased production and Wharfedale's own workforce was reduced to 500. Still, the innovation continued with laser interferometry, and new cone materials.

In 1982, Rank sold Wharfedale. It was then bought and sold by a number of corporate owners, including Vallances. In the mean-



Wharfedale have recently acquired Fane Acoustics through a reverse-takeover of Fane's parent company Audio Fidelity. In the process Wharfedale has become a plc.

while, in 1985, Wharfedale's factory had moved to a single, purpose-built outfit next to Vickers, on the outskirts of Leeds.

Consolidation

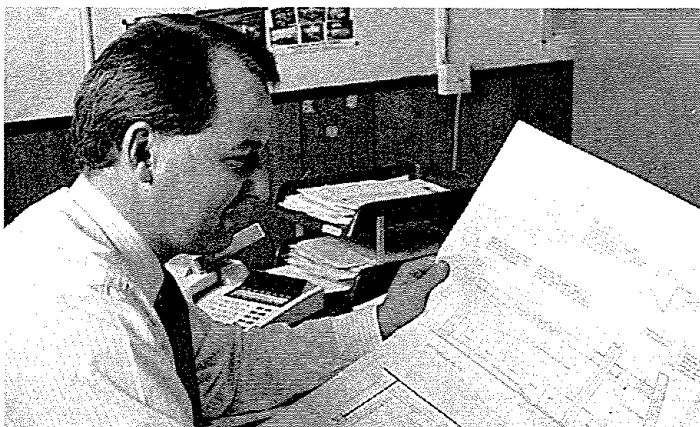
Recognising the skills and loyalty of their workers with homes in Bradford, the company wisely made a decision to operate a bussing service, so retaining the majority of the workforce. Then in 1987, Ashley Ward, Keith Mellors and Brian Drysdale 'bought in' and joined with the existing management to buy Wharfedale. In turn, they've speedily turned the company around into profitability, with a 32% upturn in sales in 1988/89.

In January this year, Wharfedale announced that it had succeeded in bringing the company to the stock exchange as well as acquiring Fane and Mackenzie Acoustics, through a reverse takeover of Audio Fidelity, who had been trying to sell Fane to make

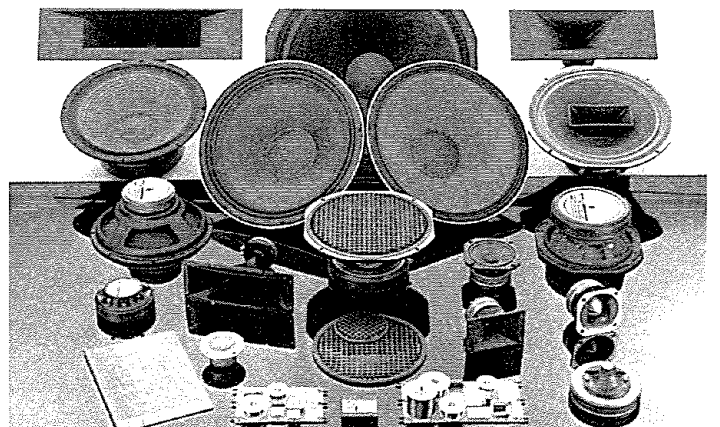
good losses in its other companies.

Production Standards

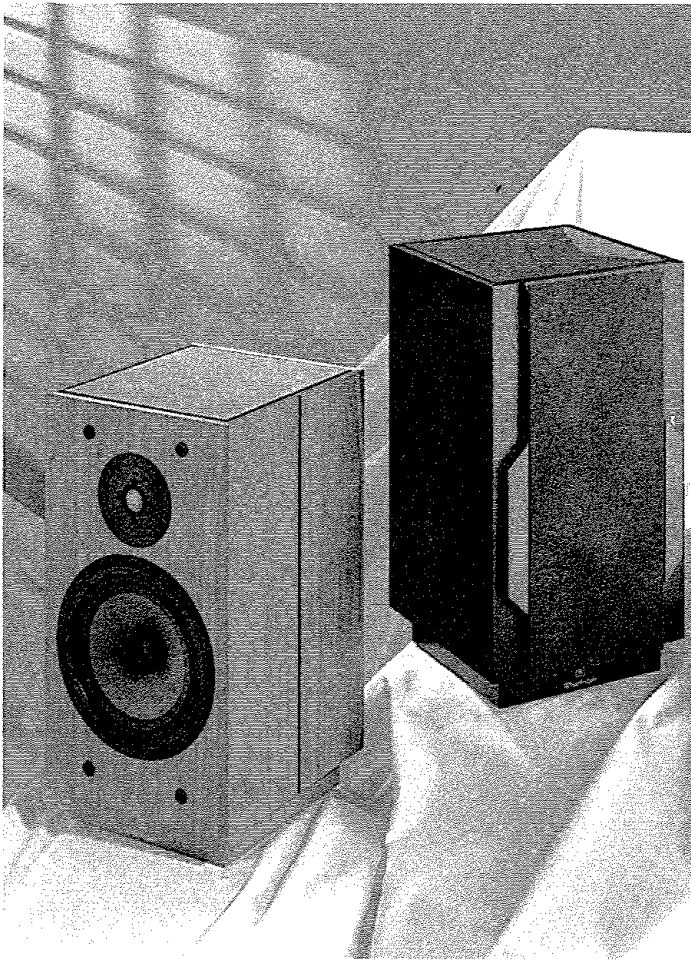
Wharfedale's loudspeaker factory is more organised than most in this business. The factory layout comprises four large 'bays', with the raw materials arriving at one end, and finished goods being shipped from the other. Production occurs along a series of conveyor belts. Even the magnets are charged automatically! The jobs may be repetitive, but they require skill, and employees are able to move from one job to another, so work experience is varied. The company are justifiably proud of their BS.5750 'ticket', which is a 'self-auditing' quality-assurance (QA) process. It's taken two years to get the certificate. The process involves Wharfedale's own QA manager making random, detailed spot checks on quality of materials as they come in, and on com-



Michael Wood is a director of Fane and Mackenzie.



The Fane range.



The Wharfedale range all carry the BS.5750 quality assurance tag which, says Michael Wood, gives the manufacturing a high degree of consistency.

ponents at every stage of assembly. Detailed records of, for example, the frequency response of every hf drive unit are stored on floppy disc. The British Standards assessors can arrive and demand to check these records at any time!

"It means," says Michael Wood, "that our speakers are especially consistent, as well as it being virtually impossible for a defective item to escape. For example, the failure rate of tweeters being tested after production has fallen to less than one in every 1000, or 0.1%"

Wharfedale's quality and productivity took a big leap when they pioneered the 'build ring'. It's a precision moulded plastic jig, used to ensure alignment of every single cone and voice-coil along the production line. It ends up being incorporated in each drive-unit. The ultimate accolade comes from the Japanese: Yamaha were so impressed by Wharfedale's manufacturing standards and consistency that they now sub-contract the

manufacturing of one of their top-selling loudspeaker models to Wharfedale's factory!

Market Design

The company's approach to designing new speakers is thoroughly pragmatic, in the Yorkshire tradition. Gary Orrell, who is Wharfedale's commercial products manager insists: "The only way to sell you a speaker is to let you listen to one." In fact, the procedure is refreshingly open. Commercial customers are invited to listen to new speakers **before** they go into production. Blind listening tests are carried out, with the new speaker included in a group of established cabinets hidden behind a curtain. Tests may include some models from foreign manufacturers that the new design aims to compete with! Wharfedale goes on to encourage its commercial customers to take the prototype speaker away and try it on their own premises. "Our customers feel involved, so they're more likely to contribute useful feedback and may see things we've

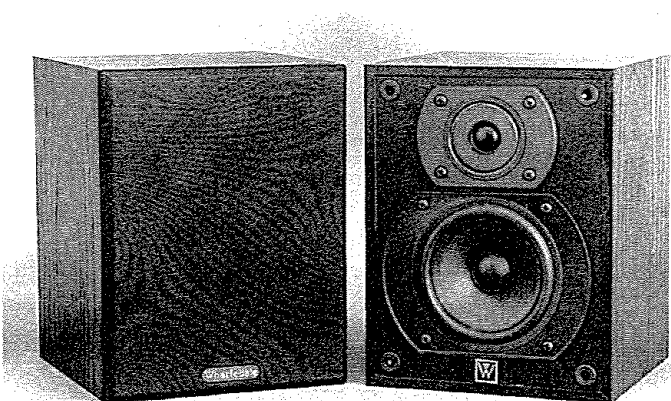
overlooked," says Michael Wood. The next stage is the trial production run, where the manufacturing technique's ability to meet BS.5750 is tested.

Wharfedale's R&D labs have the use of **laser interferometry**, which is used to measure and record the behaviour of all the moving parts under dynamic conditions, from the loudspeaker cone to the cabinet side-walls. It's done by analysing the interference patterns when a coherent light beam is reflected off vibrating surfaces.

Fane in perspective

The town of Batley (Bat'leh') has three claims to fame: as the birthplace of virtuoso guitarist Robert Palmer, and the place where Fox's biscuits and Fane loudspeakers are made.

After Fox's, Fane is the second largest employer in a town that has been harder hit than most by unemployment. The company was founded in 1958 by A. E. Falkus and Dennis Newbold; the name 'Fa-Ne' comes



Pressed steel baskets at Fane's Hick Lane premises.



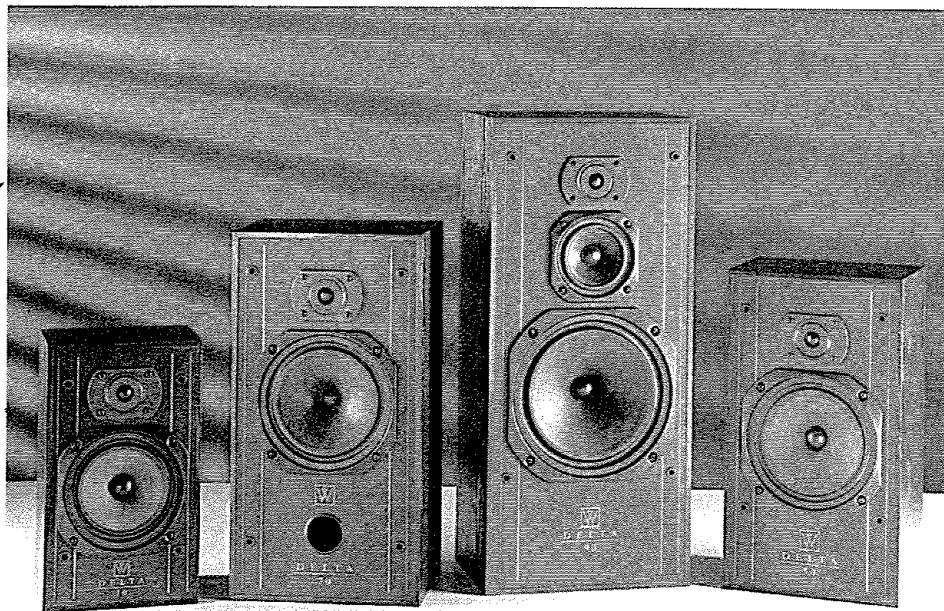
The Diamond range of loudspeakers from Wharfedale.

from the first two letters of their surnames. Falkus had been in the Royal signal corps during WWII. Between 1946 and 1958, he worked at Plessey, as chief engineer of 'reproducers and amplifiers' and latterly as the manager of their loudspeaker division.

In the early days, Fane manufactured huge volumes of tiny loudspeakers for TV sets, in the days when TV sets were manufactured in England by UK companies! Fane's long-standing expertise with high power drive units has its roots in supplying guitar amplifier manufacturers, notably A.C. Jennings, whose famous VOX AC 30 (as used by the Beatles and the other Merseybeat bands from 1961 onwards) eventually used Fane's original 12" drivers.

At the time, loudspeaker power ratings were laughable by today's standards; a 12" or 15" speaker could handle 25 or maybe 50 watts at most before burning out. With the widespread arrival of 'high power' (100 watt+) amplifiers in the second half of the sixties, both Valve (Marshall) and transistor (WEM) ordinary speakers were being destroyed left, right and centre by musicians. By the late sixties, Fane had pioneered a new class of high power voice coils using glass-fibre formers and new epoxy adhesives. These pushed power handling up to 150 watts and beyond, and, for a time, Fane had stolen a lead on the big stateside drive-unit manufacturers who had yet to fulfil the requirement for high power handling. Always good value for money, Fane speakers quickly became a legend amongst guitarists for their survivability.

In more recent years, Fane has seen increasing competition in the specialist field of high power guitar/PA/disco drive units from Mackenzie, another Yorkshire-based manufacturer founded by Brian Mackenzie,



The Delta line-up from Wharfedale. Part of the range is popular with pubs, clubs and bars.

who was a member of Fane's technical department for some years. In 1987, Fane were acquired by Audio Fidelity plc, along with Mackenzie. In turn, Mackenzie's factory was moved to Batley, to be amalgamated with Fane. "Today," says Michael Wood, who's looking after the Fane operation, "Fane still supply the cream of UK instrument amplifier makers." Fane's exports to sound equipment manufacturers range across 30 countries, including Eastern Europe, Japan and the USA, while its OEM range (numbering some 600 models) is easily the most ex-

tensive of any UK maker.

Even before he joined Wharfedale, Michael Wood managed sales at Fane's factory. Before then, he worked for Bostik, heading export sales worldwide. Loudspeaker manufacturing may seem far removed, but it largely revolves around adhesives and exporting. In the future, Fane are looking forward to new investment and R&D which will vastly improve the consistency of their drive units, as well as introducing new, improved designs which will compete with the very best foreign makes.



The comprehensive Wharfedale range is given an airing at an industry exhibition.

LIGHTING+*Sound*

International



THE ROXY, BURY (SEE DISCO AND CLUB SCENE)

- City Theatre Reykjavik
- Restoring Historic Canadian Theatres
- Paul McCartney and Simply Red on tour
- Smoke Without Fire: the latest on smoke and fog
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