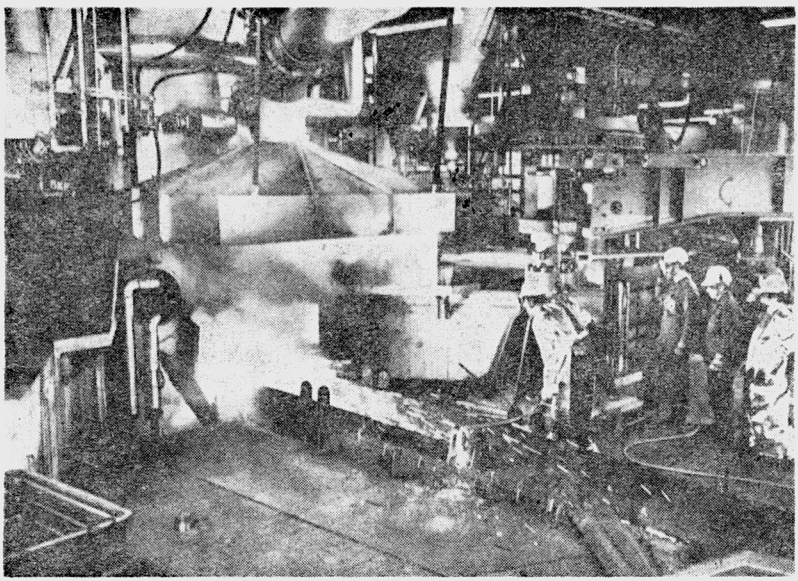
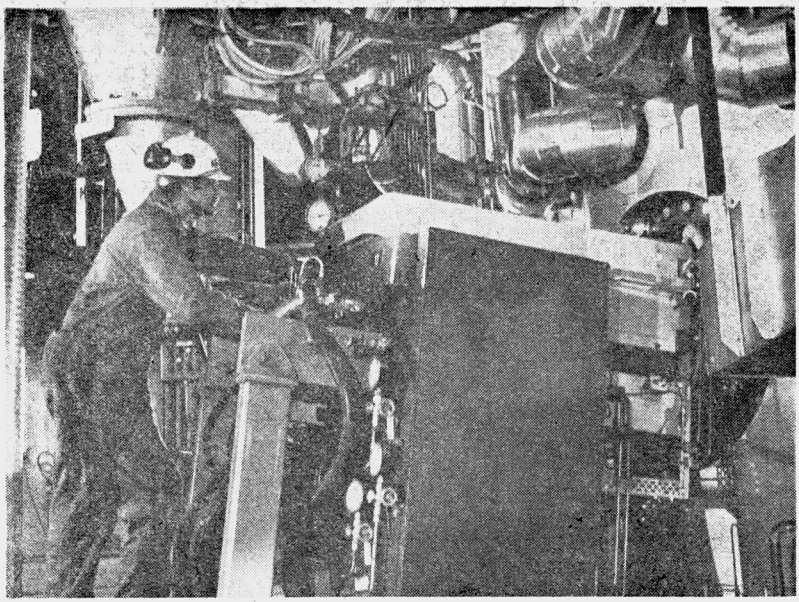
PRESS INFORMATION FROM EIBIS

FIRST CONTINUOUS PLASMA PROCESS PLANT OPENED BY KING OF SWEDEN

Figures 1 and 2 are the first available photographs of the interior of a new continuous plasma process plant – in Landskrona, southern Sweden – which was officially opened on September 6, 1984, by H. M. Carl XVI Gustaf of Sweden. Completed earlier this year, the ScanDust plant was built as a turnkey project by SKF Steel Engineering AB, who have developed plasma technology for continuous production processes. Figure 1 shows the first heat in progress at the ScanDust plant and fig. 2 the 6MW plasma generator which is the heart of all the company's plasma processes.



The ScanDust plant is recovering valuable metals such as zinc, lead, chromium, nickel, molybdeum and iron at the rate of 35 000 t/p.a. from the waste oxides in 70 000 t/p.a. of baghouse dust from steel plants throughout northern Europe. Until the PLASMADUST process was developed, the dust was normally piled in waste heaps around the steelworks where it was liable to pollute ground water reserves. The new process is environmentally clean.



SECOND PLASMA PROCESS ANNOUNCED

The construction of a second plasma plant, which uses the PLASMACHROME process, will begin at Malmö, Sweden, before the end of 1984. It will produce 70 000 tons of ferro-chromium p.a. from chrome ore, and will be built by SKF Engineering for SwedeChrome — a Swedish consortium. PLASMADUST and PLASMACHROME are only two of a large number of plasma processes developed and applied by SKF Steel Engineering AB.

Other plasma processes already developed by SKF Steel Engineering include PLASMA-RED, for the direct-reduction of iron-ore to sponge iron, now in use at the SKF steelworks in Hofors, Sweden, and also under discussion for use at a new plant in Sweden; PLASMA-BLAST, designed to improve the efficiency of existing blast furnaces; and PLASMASMELT, a hot metal production process which reduces both the cost and the scale of equipment normally used.

As with the first two plants to be completed, all these processes produce excess heat for use in local district heating projects and manufacturing industries. They use much smaller furnaces than would normally be required to produce temperatures of 3000° to 5000°C. The plants are environmentaly clean and use the 6 MW plasma generator — the most powerful to date in the series developed by SKF Steel Engineering AB.

Modern research into plasma technology began in the space industry when a highly concentrated form of intensive heat was needed to simulate re-entry conditions for spacecraft. SKF Steel Engineergin AB of Sweden has developed the knowledge and the hardware needed to apply plasma technology to production processes.

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NEW AIR-SAMPLING INSTRUMENT FOR ASBESTOS DUST

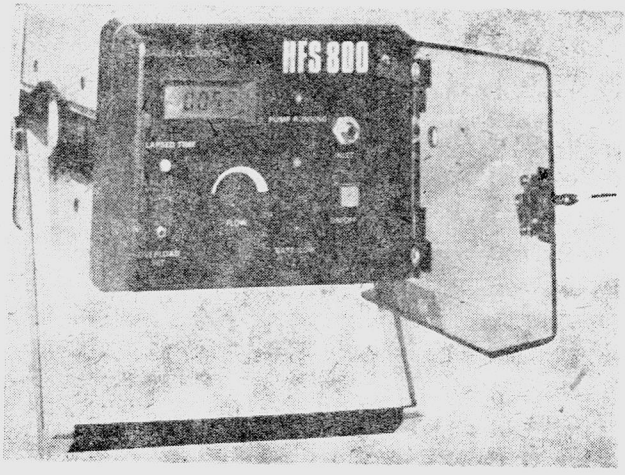
HIGHER FLOW-RATE TO MONITOR LOW CONCENTRATIONS ACCURATELY

The new HFS 800 sampler for airborne asbestos dust — announced by Casella London Ltd., England — can draw air from the environment through a head containing a membrane filter at a constant flow-rate adjustable between 4 and 10 dm^3/min.

These high flow-rates — several times those previously available — are needed for accurate monitoring of asbestos concentrations near and below the latest occupational exposure limits. With increasing awareness of the health risks presented by asbestos dust, concentration limits in most countries have been reduced in recent years. Limits of 0.2 fibre/cm^3 for blue and brown asbestos and 0.5 fibre/cm^3 for white asbestos are now typical.

Alternatively, reasonably accurate 'clearance' tests to prove a site safe can now be completed in 1 h instead of 4 h.

The self-contained pump unit (see photograph) is powered by rechargeable batteries which give at least 5 h continuous sampling at 8 dcm^3/min. A lockable transparent cover prevents tampering with the flow setting. 'Time run' in minutes and tenths is shown by a resettable liquid-crystal display. After sampling, the dangerous fibres are normally counted under a microscope.



The HFS 800 is a 'static' sampler for monitoring working environments where asbestos is being processed, installed or stripped out. It can assess whether ventilation is effective; whether breathing sets should be worn; whether there are dangerous leaks from a tented work-area; or whether a site can safelly be re-occupied after removal of asbestos. Casella also produce lightweight 'personal' asbestos samplers for wearing by individual workers.

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