

A NEW TECHNIQUE FOR THE PRODUCTION OF GAS ATOMIZED POWDER

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Abstract

A new principle of atomization, the VH atomization technique, is described. The advantage of this technique is a low gas consumption and low gas pressures combined with a fine screen cut ideal for applications such as spray powder and consolidated products where max grain sizes of about 100 μm are required.

Background

Anval Nyby Powder AB (ANPAB), a subsidiary of Valinox S A, Paris, is one of the prime producers of gas atomized powders in stainless steel and nickel base alloys. The main volume is used for the production of seamless tubes to a proprietary process, the so-called ANVALTM process. The ANVAL process is today used by the most important tube producers including Sumitomo Metal Industries, Sanyo Special Steel, Valinox and ANPAB. More than 25,000 tons of consolidated products have been produced by the ANVAL process including all types of demanding applications in the chemical industry, off-shore industry and power generating industry. The ANVAL process has proved to be a reliable process to supply the market with consolidated products like tubes, bars and profiles and through its flexibility also gives an excellent customer service.

Discussion

For many applications it is of utmost importance to be able to produce powders with a fine grain size. This applies specifically to applications like spray powder and metal injection moulding powder (MIM).