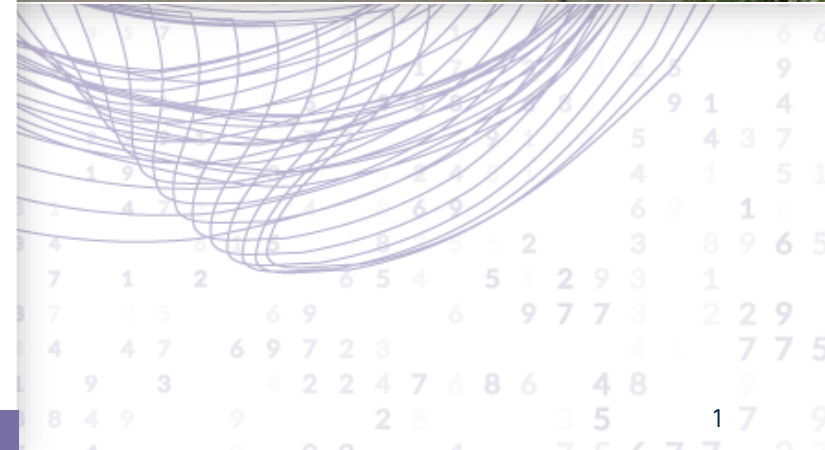




Capital Markets Day

Düsseldorf – November 29 & 30



Acerinox Capital Markets Day: Locations



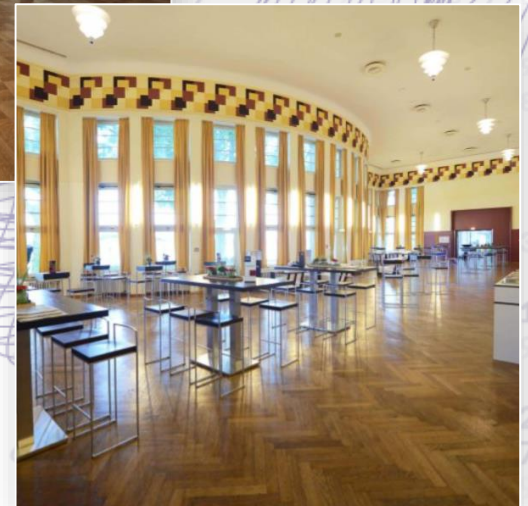
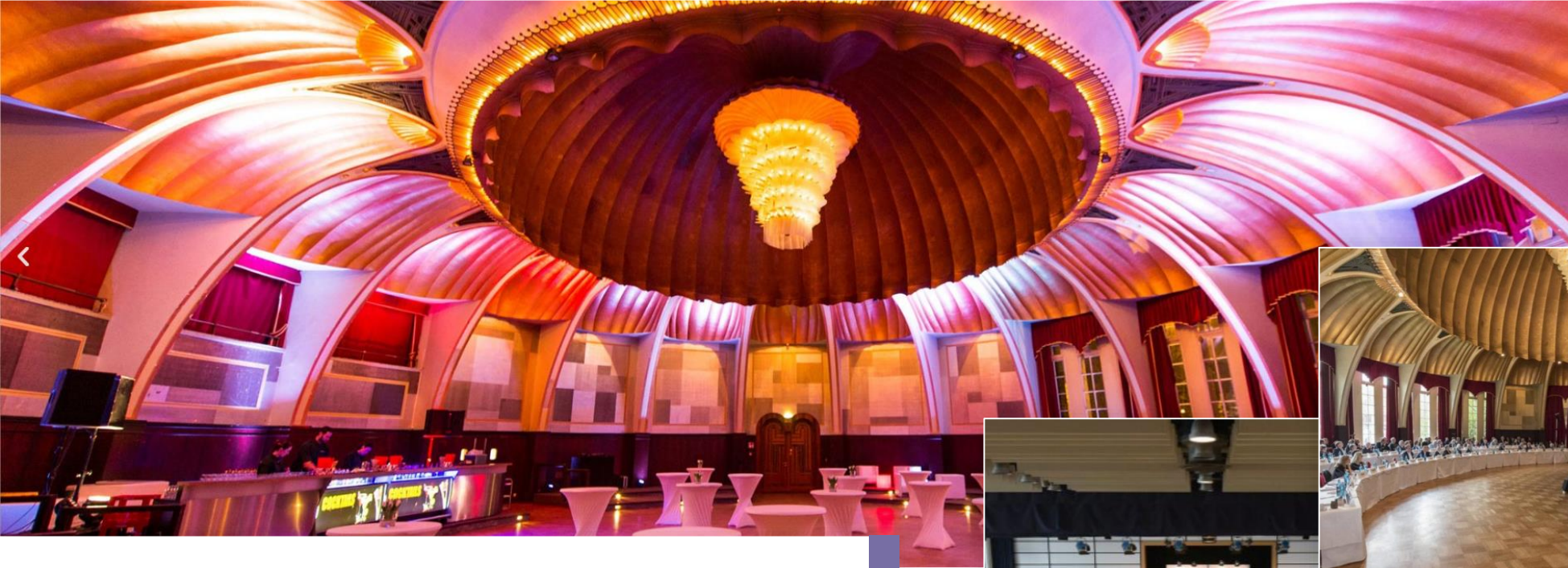
November 29

**Conferences at
Rheinterrasse**

November 30

**Visiting VDM
Metals: Unna
Plant**

Capital Markets Day: Conferences. November 29



Conferences at Rheinterrasse

Joseph-Beuys-Ufer 33 · 40479 Düsseldorf

Visiting VDM Metals: Unna

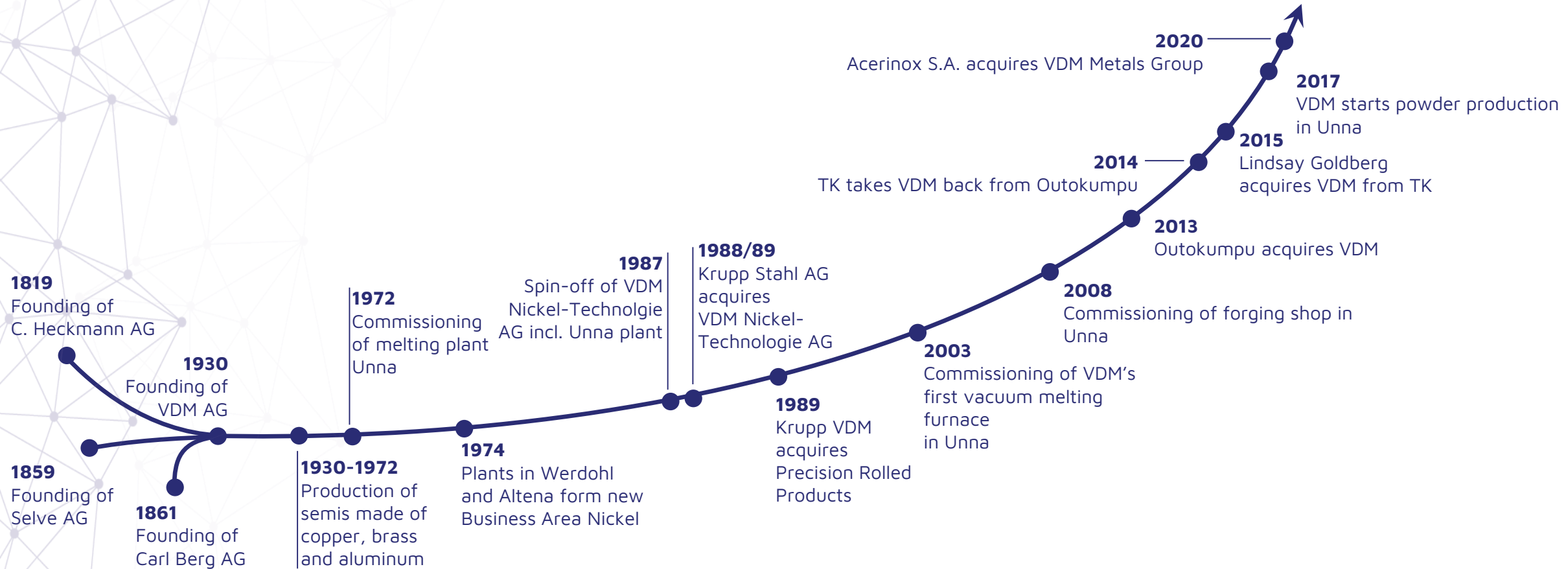
Plant November 30

Center of the HPA division's melting productions, forged bar finishing line and powder manufacturing facilities

History – Unna Plant November 30



VDM Metals combines tradition and flexibility over many decades, operating the plant in Unna since 1972.



Quality Management and Quality Assurance – Unna Plant November 30



Materials from VDM Metals pass through a very strict quality control process



Melting Preparations – Unna Plant November 30



Preparation of a new melt in the open meltshop: the share of virgin raw materials and recycled scrap that is charged to the furnaces varies from material to material. Scrap that is produced during further processing is collected and returned to the cycle.



Open Melting – Unna Plant November 30



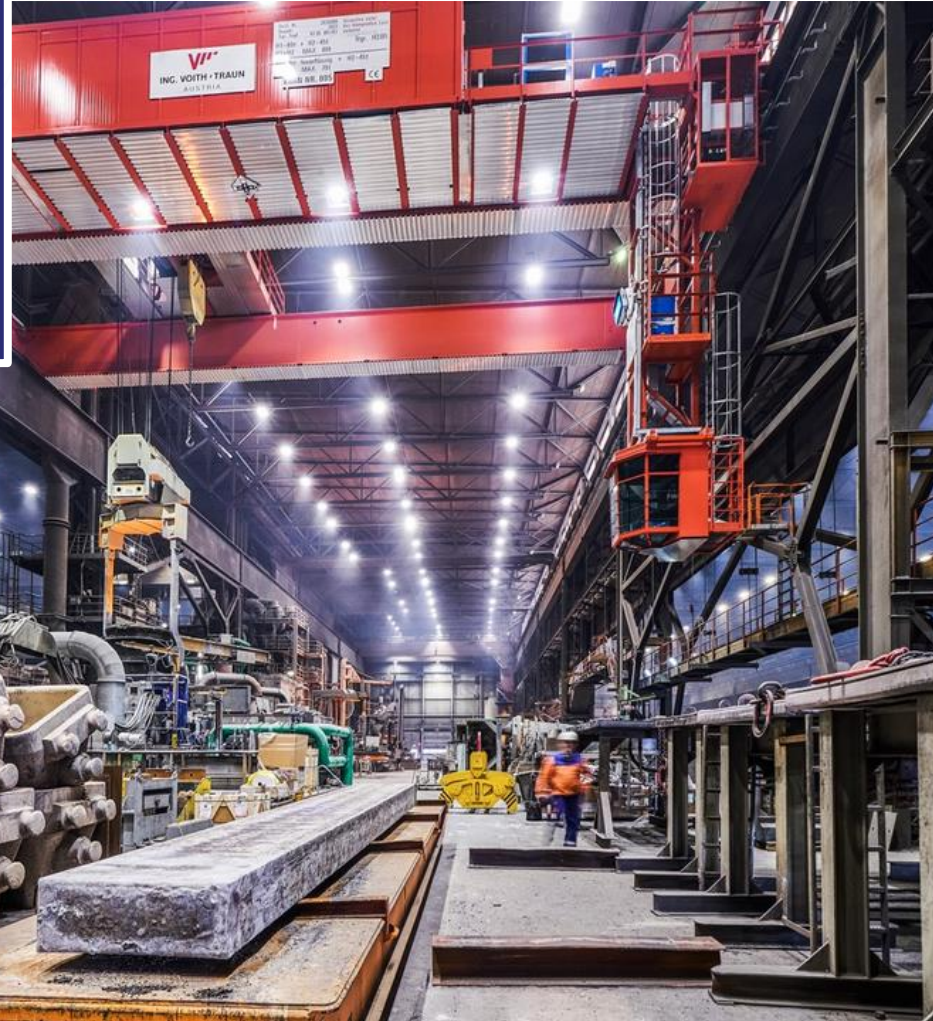
VDM Metals operates an Electric Arc Furnace and three Induction Furnaces in its open meltshop. Secondary metallurgy equipment is available to increase the purity of the materials. This part of the plant was already commissioned in 1972.



Casting – Unna Plant November 30



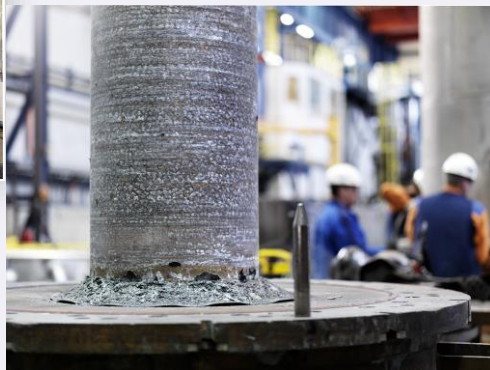
Casting in the open meltshop takes place in a vertical continuous caster or by ingot casting. VDM Metals uses the cast and/or remelted slabs or ingots as pre-material for the production of sheets and plates, strips, rods, bars, forgings and wires.



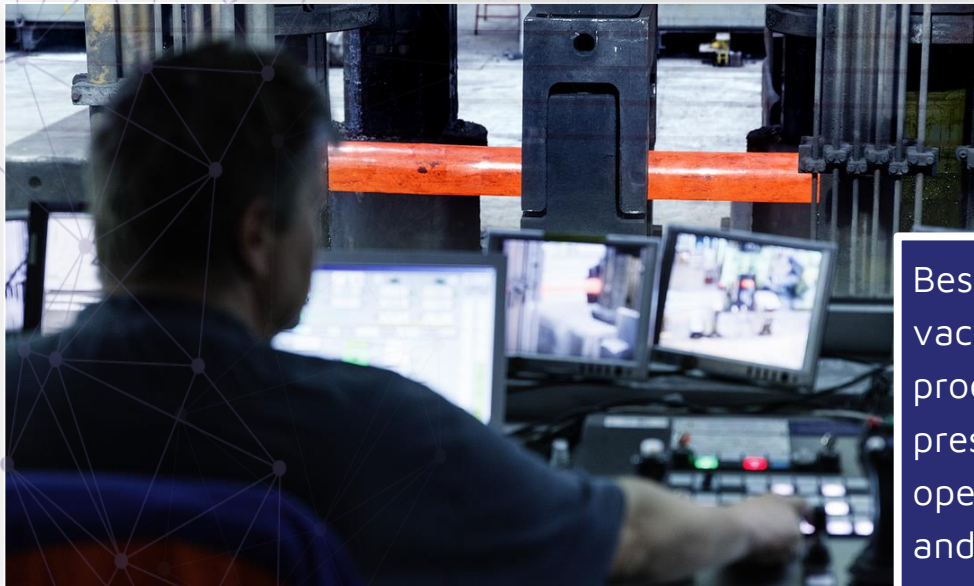
Vacuum Melting and Remelting – Unna Plant November 30



In addition to the conventional technology of open melting, VDM Metals operates a Vacuum Induction Melting (VIM) furnace to produce highest-quality ingots. The homo-geneity and purity of the materials can be enhanced by remelting via electroslag remelting (ESR) or vacuum arc remelting (VAR).

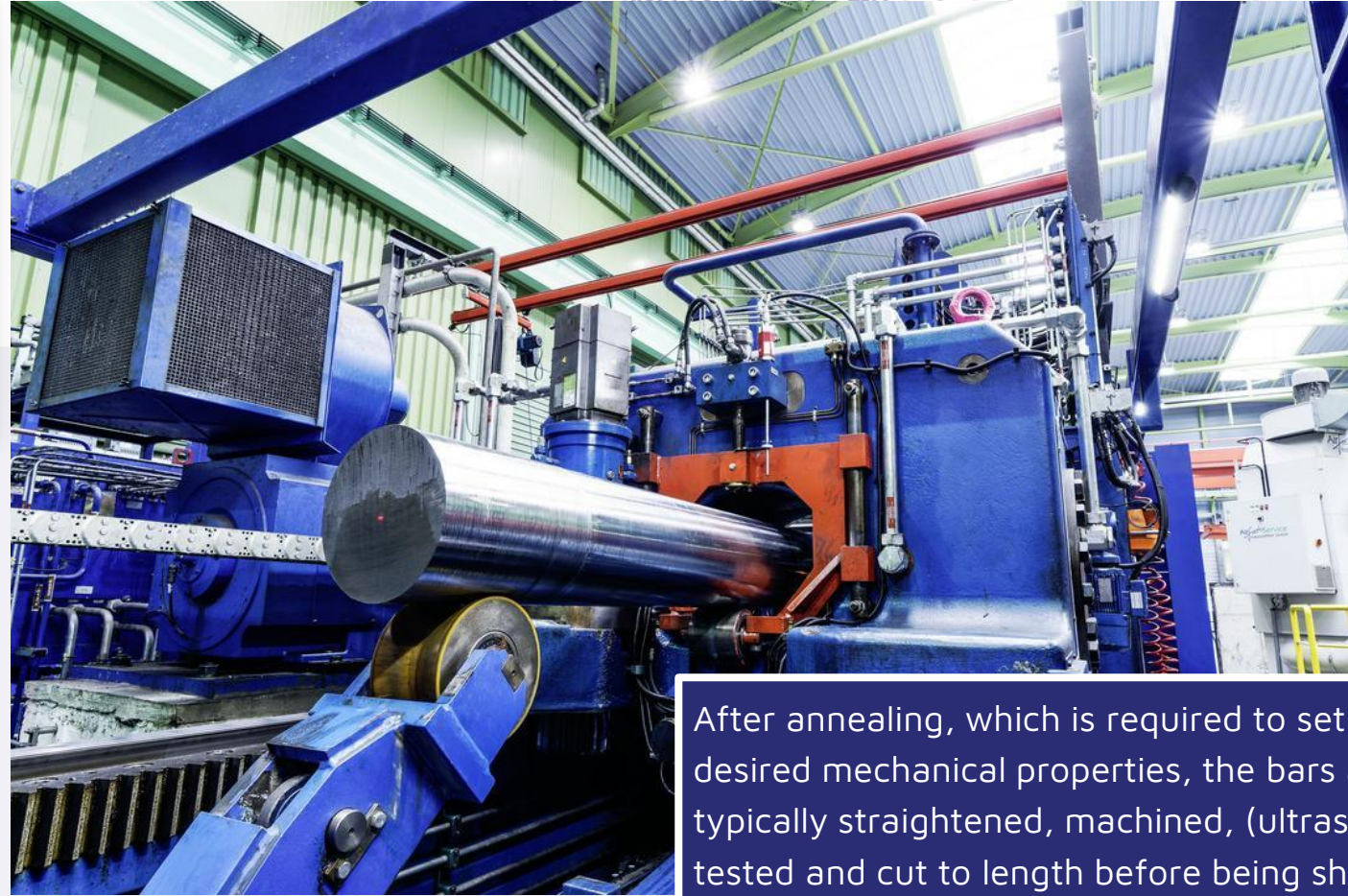
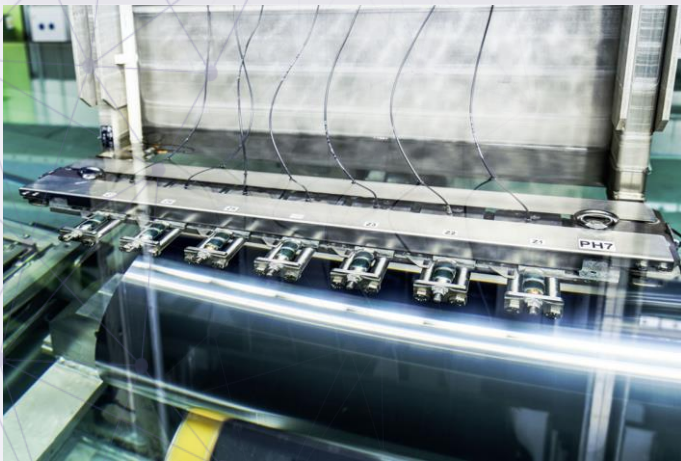


Forging – Unna Plant November 30



Besides the operation of the open and vacuum/remelting meltshops, VDM Metals produces forged bars in Unna. The open-die press which is used to forge ingots to bars operates with a pressure of up to 4,500 tons and uses two rail-bound manipulators.

Bar Production – Unna Plant November 30



After annealing, which is required to set the desired mechanical properties, the bars are typically straightened, machined, (ultrasonic) tested and cut to length before being shipped to customers around the world.

Powder Production – Unna Plant November 30



A Vacuum Inert Gas Atomization plant (VIGA) forms the core of the powder manufacturing facility. The entire process takes place under vacuum and inert gas conditions, so as to ensure as high a purity as possible.



Thank you!