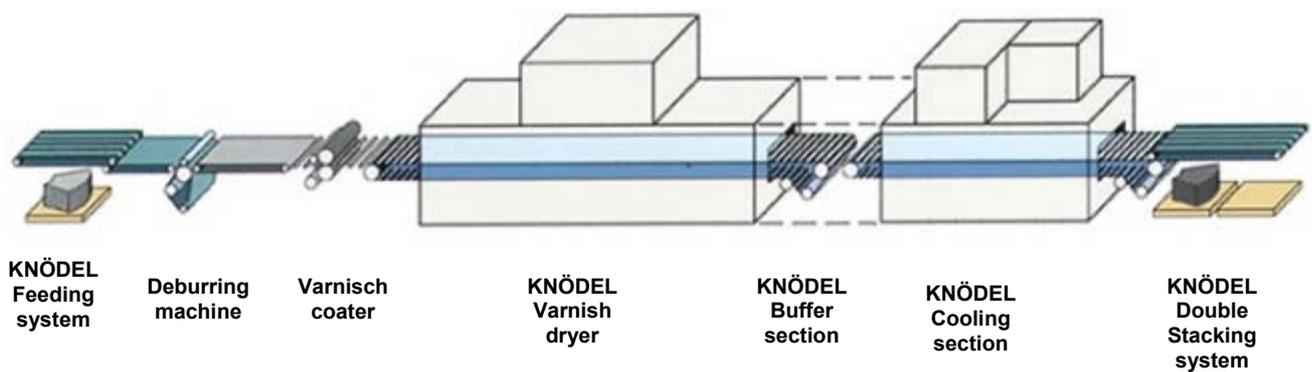


Segment Coating Lines



GTL KNÖDEL GMBH

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Where considerable throughputs of sheet metal cuttings have to be coated production lines with belt type and cross-rod conveyors are used since long time. The geometry of the cutting decides the design of the handling while coating process and the form of the conveyor while the treatment of the coatings.



KNÖDEL varnish dryer



KNÖDEL dryer section, electrically heated

traces in the drying bottom side surface. The drying of top and bottom varnish layer is realized by hot air convection with support of IR-radiation, in order to have short drying times as well as short dryers. High supply air temperatures between 250 and 350 °C and resulting high peak metal temperatures are therefore usual.

The use of convection is for a physical drying process unavoidable: Drying is a transport phenomenon, air is the transport medium which takes away the evaporated thinners.

A standard width of the conveyor is 1300 or 1500 mm, sufficient in nearly 100% of all economically layouted applications is 1300 mm. Usual conveyor speeds are between 5 and 15 m/min.



KNÖDEL double stacking system



KNÖDEL feeding system

Sheet metal used in rotors and stators in layered packages are double sided coated in order to achieve highest efficiency. The coating process on both sides with liquid coatings is realized in one run-through. The electro-insulating coatings are today mostly waterbased with only a small percentage of flammable solvents. Sheet metal thicknesses are 0,35 up to 0,5 mm, sometimes 0,65 mm, in very seldom cases still 1,0 mm, what was standard more than 20 years ago. The insulating coatings have a good adhesion and highest insulating values, they have not to protect against weather and corrosion. As soon as they are included in the package of a rotor or stator, only good insulation and good temperature resistance are requested.

The handling of the double sided coated segments in wet state is executed by a special cross-rod conveyor. The cross- rods are fit out with spikes in order to produce a minimum of



KNÖDEL jet cooler



Control cabinet