4.0 Product Programme

At the site in Oldesloe Hako produces and assembles custom-made solutions for almost any use, e.g.

Sweepers for dust free cleaning inside and out. With different drives and area performances up to 18.000m² cleanliness per hour or,

Wet and Dry Machines for intensive wet cleaning of hard floors; for use by hand or comfortably sitting down

Furthermore there are **City Cleaning Machines** for pedestrian precincts, paths and other public places.

In addition the **Hako Advantage Programme** (HAP) offers further interesting purchasing options to the keen customer e.g. to acquire quality used models plus computer supported cost/benefit analysis, round the clock service and so on…

4.1 Principles of Production

The drawings and data drawn up in the development area allow for a very precise construction and assembly. Not only does the final assembly take place at Hako in Bad Oldesloe, but it is also the sheet metal manufacturing core facility. Modern NC controlled laser and cutting machinery, a welding robot, various manual welding booths and an environmentally friendly powder spray coating facility ensure the precise production suitable for assembling all components made from sheet steel like chassis, frames, containers and linings.


ZERTIFIKAT

TÜVNORD

für das Managementsystem nach
DIN EN ISO 9001 : 2000

Hako-Werke GmbH
Hamburger Str. 209-239
23843 Bad Oldesloe
Deutschland

Hako
Clean ahead

Entwicklung, Produktion und Steuerung von Vertrieb und Service
für Maschinen zur Betriebsreinigung, Gebäudereinigung, Außenreinigung
und Grundstückspflege sowie Multicar - kompakte Geräteträger und Transporter

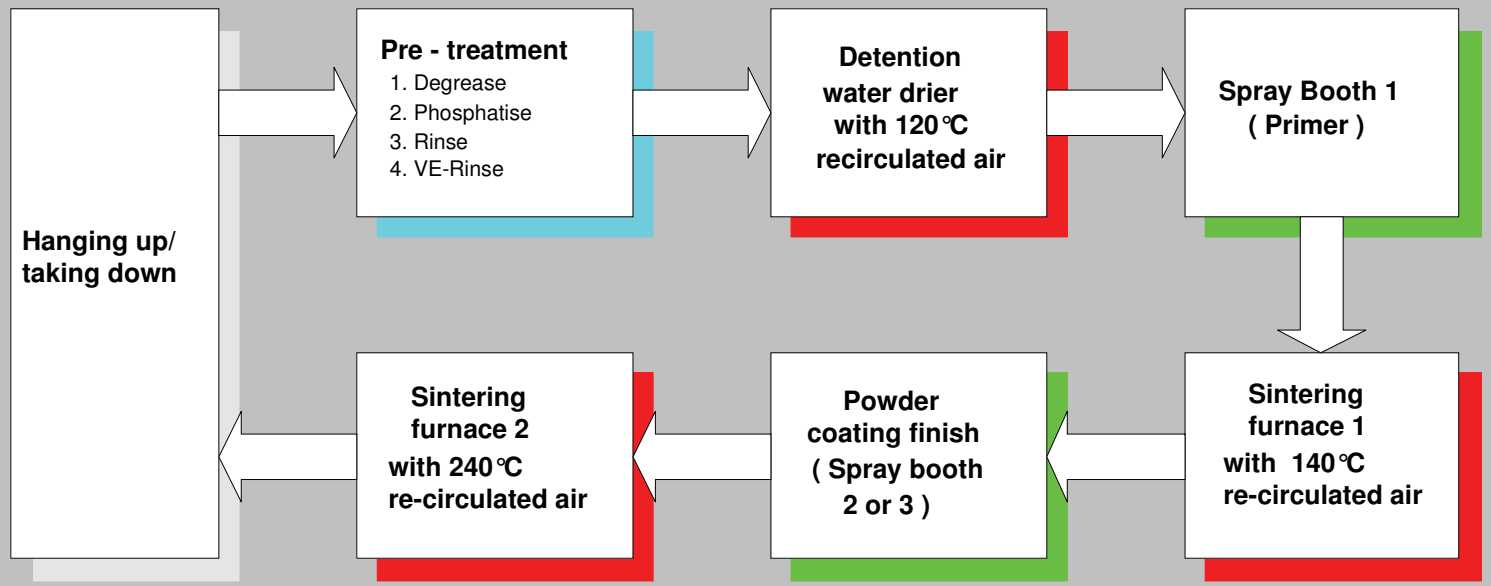
TÜV NORD CERT GmbH Langemarckstraße 20 45141 Essen www.tuev-nord-cert.de

For Hako products there are strict quality guidelines in place, so that together with highly qualified employees and a quality orientated choice of materials we can guarantee a certified production according to:

DIN EN ISO 9001: 2000

4.2 Process Chain Illustration

Using the powder coating facility at Hako as an example



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4.3 Environmental Impact

...using the powder coating facility as an example

No. Series	Process stage	Dangerous material Input	Hazard symbols	Fresh water	Sewage	Vitiated air	Noise	Technical equipment	Waste
1.1	Pre-treatment zone	Phosphatising means :	Xi	Yes	From emptying bath contents via neutralisation.	Steam		Vaporizer Neutralisation Steam vent	Concentrate, silt residue
1.1.1	Heat exchanger	Limescale remover	C	Yes	After the cleaning procedure, chemicals are neutralised and disposed of via neutralisation.			Stainless steel pump	
1.2	Detention water drier					Waste heat		Direct gas burner	
1.3	Spray booth							Powder recovery	Powder remnant
1.4	Sintering furnace	Natural gas				Waste gas		Direct gas burner	
1.5	Jet facility					Dust	Yes	Filter in the recirculated air system.	Dust
1.6	Pyrolysis	Natural gas				Waste gas		Smouldering fire with TNV.	Ashes
1.7	Spray coating	Varnishes Thinner Cleaner	Xn ; F ; N	Sprinkinling system	Half yearly via neutralisation	VOC proportions		Suction with filter	Varnish sludge, old filters, silt
1.8	Neutralisation	Caustic soda	C		Yes			Collecting basin, PH	