



BANG & BON SOMER
DELIVERING SMART MATERIAL TECHNOLOGIES



TIBCHEMICALS

New Generation Galvanizing

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TIB Chemicals AG



Head office:
Mannheim – Germany

Facilities in:
Chicago IL
San Louis Potosi MX
Great Britain
France
Poland

Sales office:
Houston TX

**Working together with our
Hot Dip Galvanizing
customers**

Why not source all your needs from a single supplier?

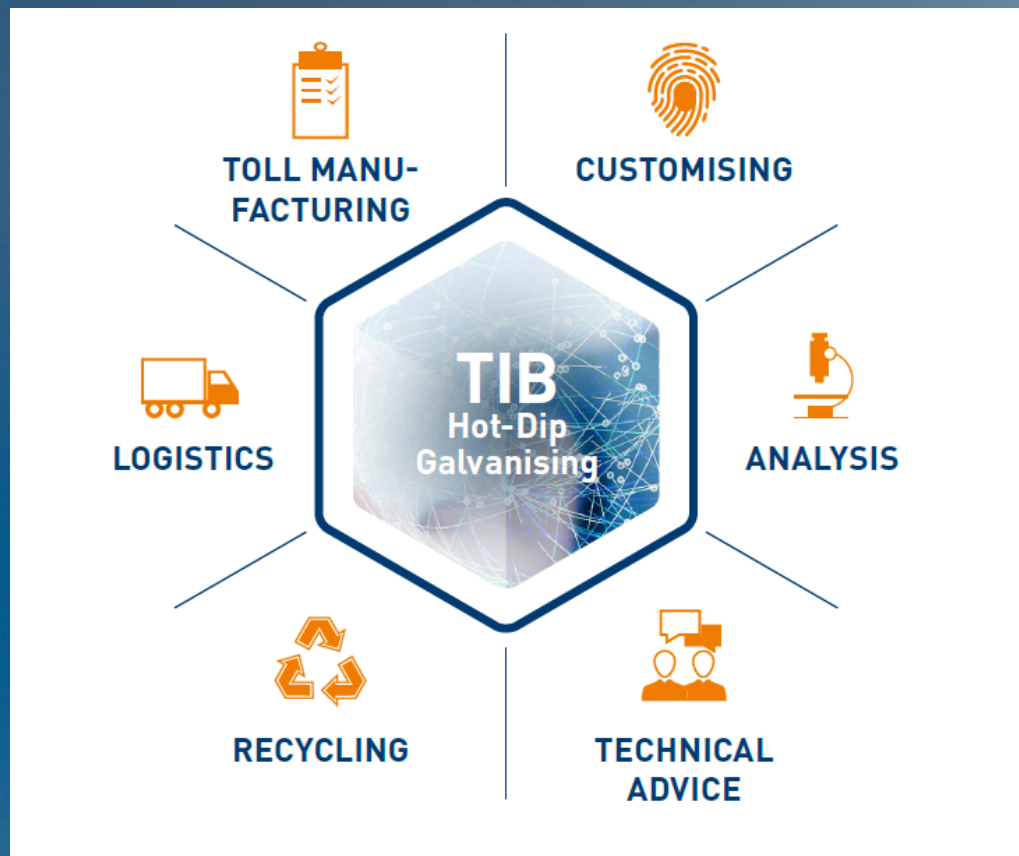
You concentrate on your customers. Leave the chemistry to us!



Hot Dip Galvanizing:

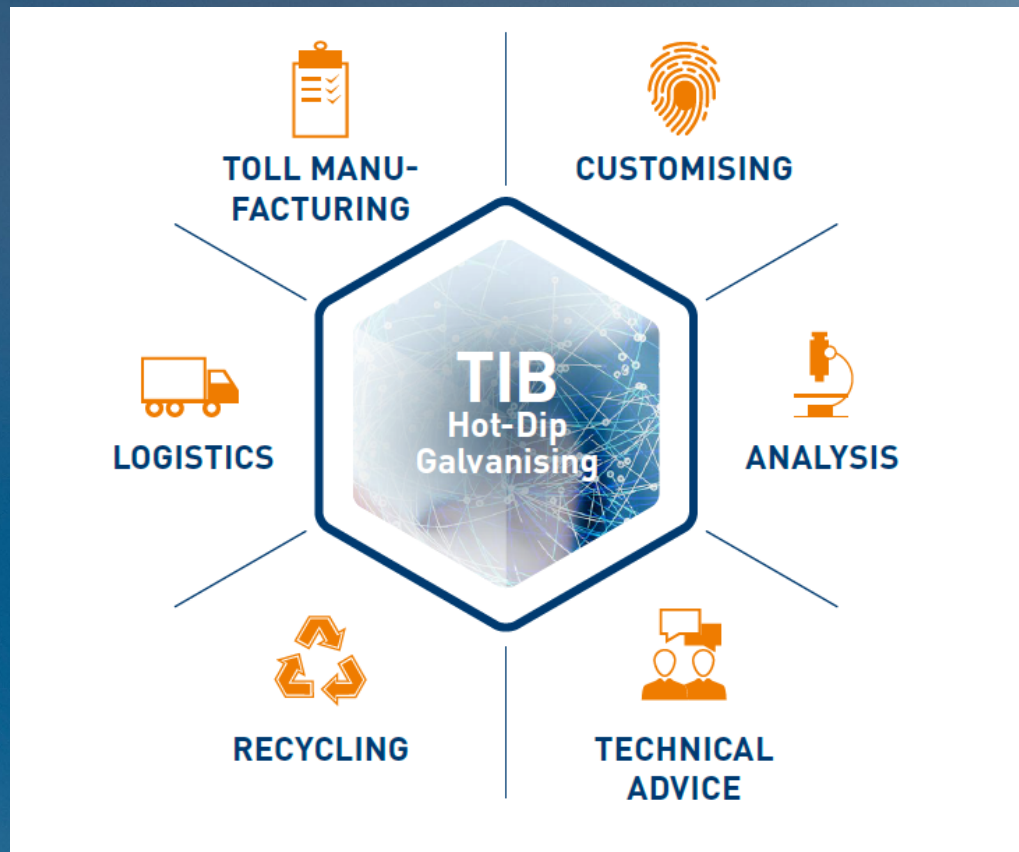
- Manufacture
 - Mannheim, Germany
- Supply – worldwide
- Process and Technical support
- Training
- Local support  **BANG & BONSUMER**
DELIVERING SMART MATERIAL TECHNOLOGIES

Over 70 years in HDG



Focus on your process:

- Reducing cost
- Reducing Energy
- Reducing Emissions
- New Generation products
- Recycling



Full process chemistry

⬡ Cleaners / Degreasing

- Acid based – precipitate free 10-40° C
- Alkaline 15-40° C (25° C) – low Alkalinity
- HCl additives

⬡ HCl Inhibitors

⬡ HCl Fume Suppressor



Full process chemistry

Fluxes:

- All flux chemistry - Double, Triple.....
- 30 + different fluxes
- Low Fume technology
- Concentrated Liquids, Powders
- Special fluxes - Zeta layer modifiers

- Zinc Chloride



Full process chemistry

Flux Additives

- Rapid drying of flux coating
- pH control – Powders, Ammonia free

Flux Treatment

- Iron removal powders
- Hydrogen Peroxide and Ammonia free
- In situ tank treatment - 90%+ iron removal

Passivation

- Chromium free
- Cr(III) technology
- All one tank application



New Generation Chemistry

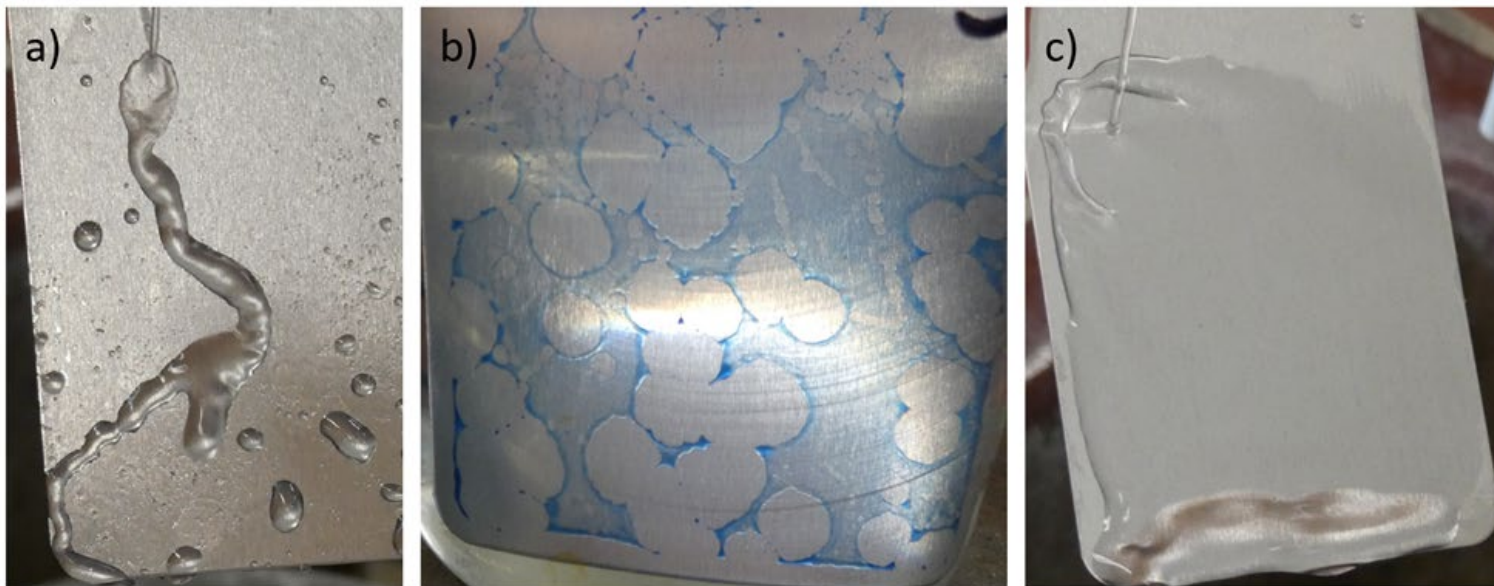
FOCUS - Reducing Energy costs

- ⬡ **TIB Clean A 300**
 - Low temperature alkaline degreaser

- ⬡ pH 12.0 (1.5g/l sodium hydroxide)
- ⬡ 15 - 40°C - normally 20 - 25°C
- ⬡ 6 - 8 minutes
- ⬡ No rinse tank required
- ⬡ Oil emulsion stable in HCl – no oil separation
- ⬡ Low consumption rate of 0.15 – 0.25kg/mt steel
- ⬡ Long tank life 10+ years typically
- ⬡ Total solution control
- ⬡ 45+ tanks in Europe + USA, Canada, Mexico
- ⬡ Reduced temperature – reduced energy costs



Laboratory testing



- a) Reference steel substrate before application of degreaser, no water film can form on the oily surface.
- b) TIB Clean A300 acts upon a blue dyed test soil consisting of high viscosity mineral oil.
- c) After cleaning: water wets the surface completely, no residual oil is left.

New Generation Chemistry

FOCUS - Reducing Emissions

- ⬡ **Low Fume Fluxes**
- ⬡ TIB - First to develop the technology
- ⬡ Reduces emissions by 80%
- ⬡ No loss of fluxing efficiency
- ⬡ Reduced processing costs



New Generation Chemistry

FOCUS - Reducing Flux and zinc costs

- ⬡ **TIB Additive F Ferrexal**
- ⬡ Flux treatment – removal of Iron salts
- ⬡ Safer chemicals - Hydrogen peroxide and Ammonia free
- ⬡ Compatible with all fluxes

- ⬡ Selectively removes Iron salts
- ⬡ Powder
- ⬡ Treatment:
 - Off line equipment
 - Directly in the tank – 90% Iron removal in one application

- ⬡ Reduces Ash and Dross production
- ⬡ No more flux disposal
- ⬡ 10+ years in use.



Summary

- 🏠 **New Generation Galvanizing products**
- 🏠 **Full support, local support**

- 🏠 **Reduced energy costs**
- 🏠 **Reduced emission**
- 🏠 **Reduced operating costs**

- 🏠 **Good for the Environment**

- 🏠 **High quality galvanizing**

TRUST YOUR
PROCESS TO...
TIB

Do you have any questions? – we should start talking



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