



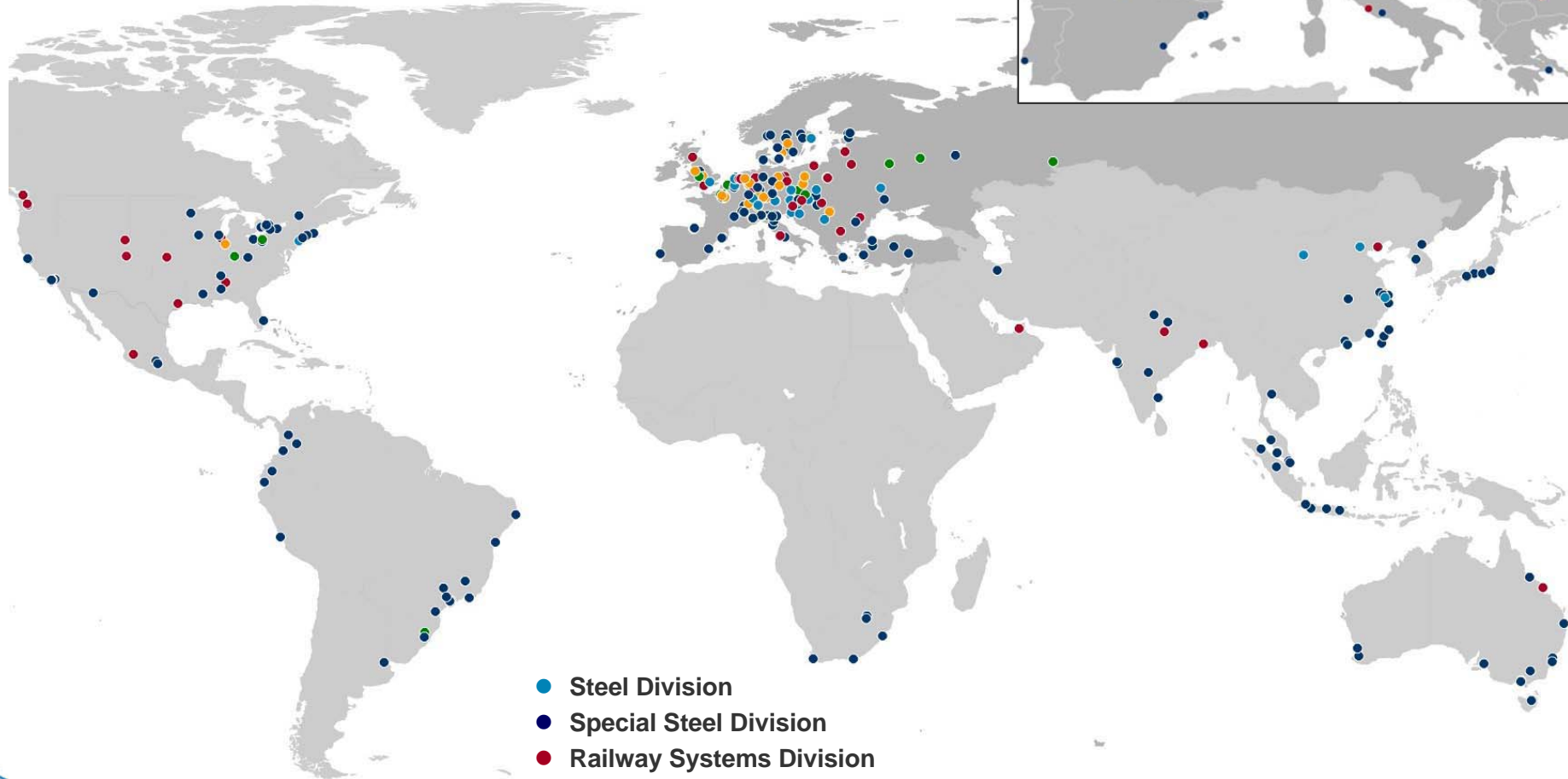
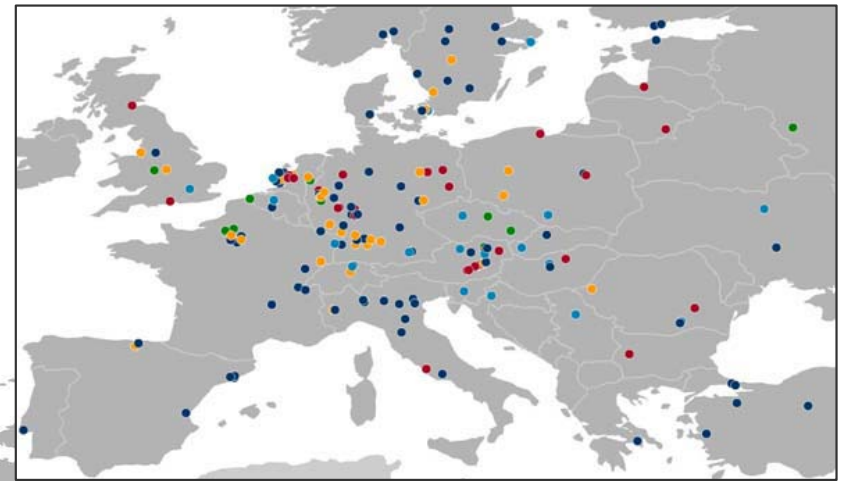
# The voestalpine Group

Data and Facts  
Group Presentation

July 2010

# voestalpine Locations

- Five continents
- 60 countries
- 335 production and distribution companies



- Steel Division
- Special Steel Division
- Railway Systems Division
- Profilform Division
- Automotive Division

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# Steel Expertise voestalpine for Solar Energy Market

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# Automotive Division Product Portfolio

- 600 million parts/year  
or 2.4 million parts/day



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# Automotive Division Production facilities



## *voestalpine Europlatinen*

2 blanking lines  
7 laser welding lines

## *voestalpine Rotec*

10 tube drawing lines  
75 cutting lines  
13 presses for tube forming  
2 laser cutting lines  
31 production lines for tube components  
(rotational forming, turning, bending)  
7 bending-punching-forming lines  
1 line for welding-pickling-inspection  
1 line for ceramic coating  
1 processing station for forging and turning

## *voestalpine Polynorm*

8 press lines (4,000-28,000 kN)  
10 Stand-alone presses  
1 CDP coating lines  
1 press-hardening steel line  
(phs-ultraform)  
49 plastic injection moulding machines  
19 plastic presses

## *voestalpine Stamptec*

60 presses for series production  
(1,000–25,000 kN)  
1 CDP coating line  
65 welding lines  
*MIG/MIG brazing/MAG/PLASMA*  
*Medium-frequency and resistance welding*  
8 laser cutting stations  
4 CNC tube bending machines

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# Divison Automotive

## Automotive Customers



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# Automotive Division Industrial Customers

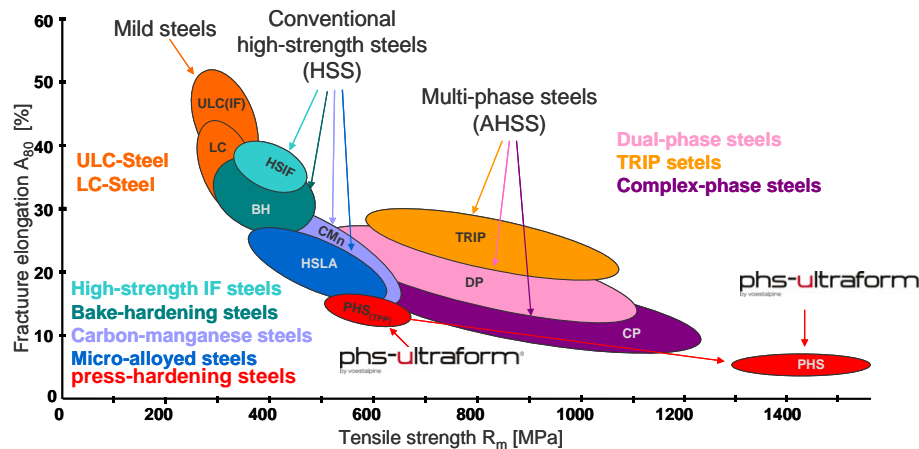


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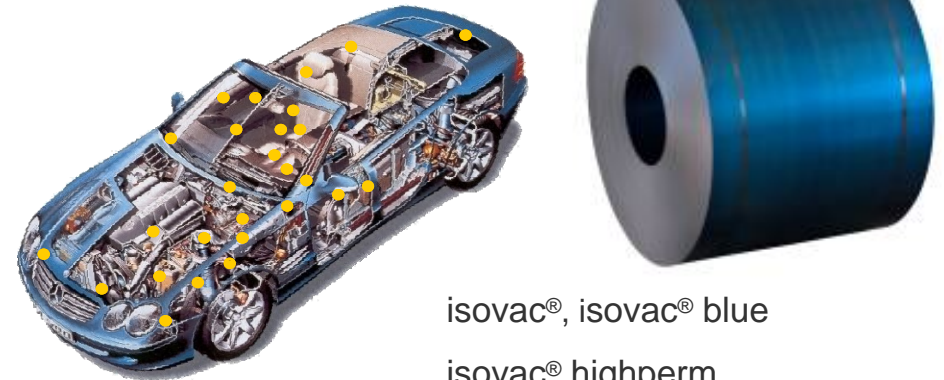
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# Automotive Steel Expertise

## ■ Cold-rolled strip (body in white)



## ■ Electrical Strip (Engines)



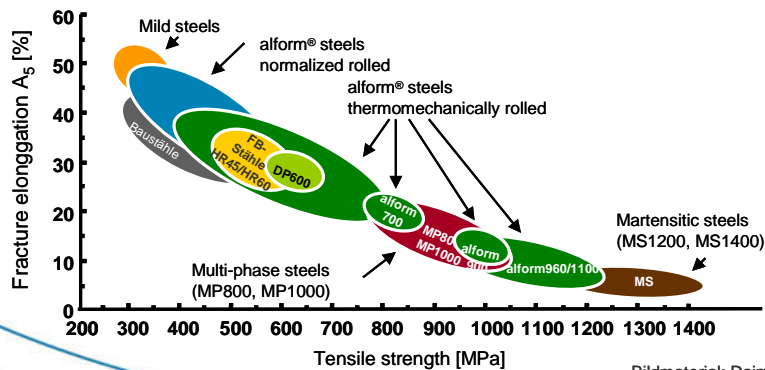
isovac®, isovac® blue  
isovac® highperm

## ■ Maintenance-free Sliding Elements

Compact and standardized



## ■ Hot-rolled Strip (Structure)



Bildmaterial: Daimler Global Media Site

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# Automotive Special Steel Expertise

## ■ Tool Steel

for sophisticated toolmaking

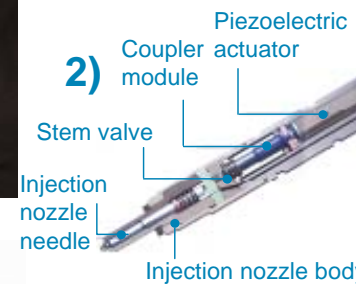
- 1) Plastic mould steels
- 2) Hot-work tool steels
- 3) Cold-work tool steels
- 4) Prototyping and surface design



## ■ Special Materials

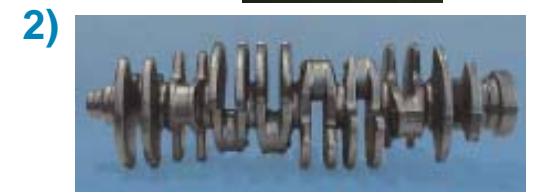
for injection systems, valves, etc.

- 1) Inlet and outlet valves
- 2) Injection nozzle for diesel engines
- 3) Exhaust turbocharger shafts
- 4) High-pressure sensors
- 5) Bucket-type tappets



## ■ Forged and strip products

- 1) Bevel gears/ring gears
- 2) Crankshaft
- 3) high-alloyed narrow steel (hot- or cold-rolled)



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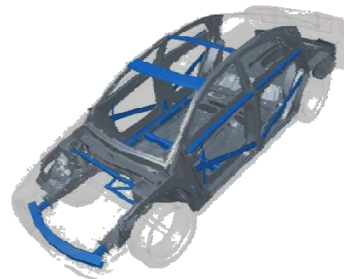
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# Automotive Expertise in Profilform Applications

- Tubes and sections in strength classes up to 1500 MPa with the most complex cross sections for further processing as follows:

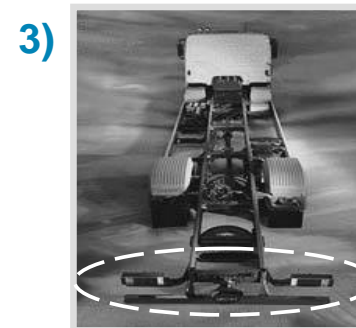
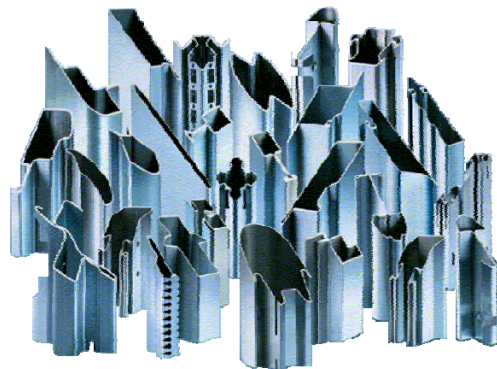
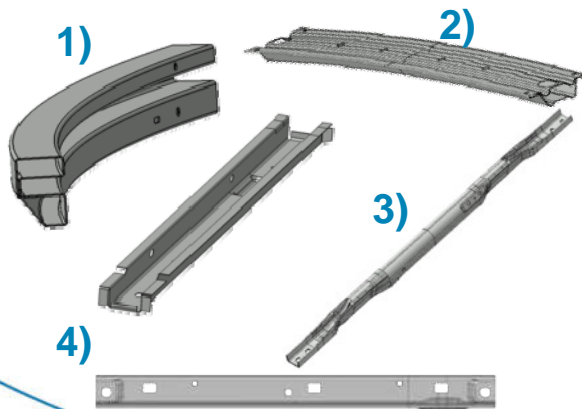
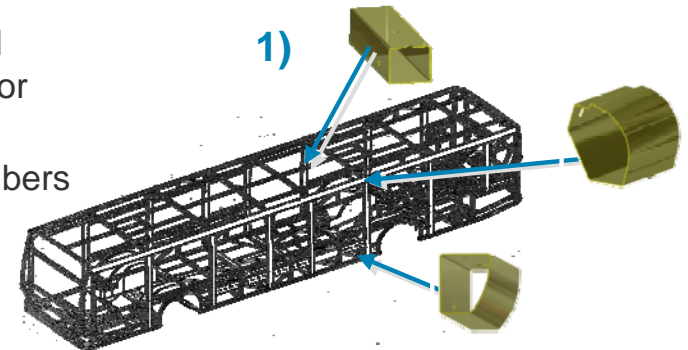
- Cars

- 1) Bumpers
- 2) Roof cross member
- 3) Supports, chassis tubes
- 4) Frames, rocker panels



- Buses and Commercial Vehicles

- 1) Frame, roof and seam sections for buses
- 2) Truck side members
- 3) Collision guard



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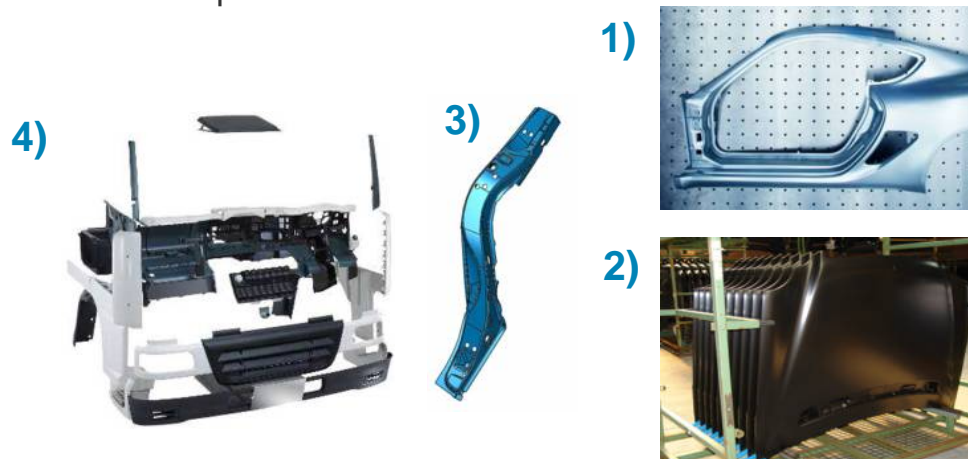
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# Automotive Expertise

## ■ Outer Skin Components/Spare Parts

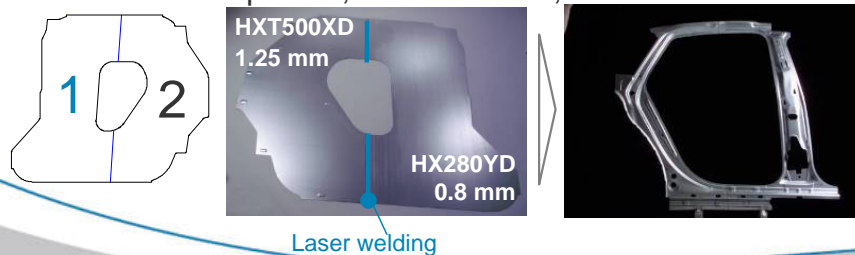
- Outer skin and structural parts of steel and aluminium
- Spare parts for total modules (doors, engine hoods, etc)
- Press-hardened parts
- Plastic parts

phs-ultraform<sup>®</sup>



## ■ Laserwelded blanks

for interior door panels, sidemembers, sidewall frames



## ■ Structural Parts

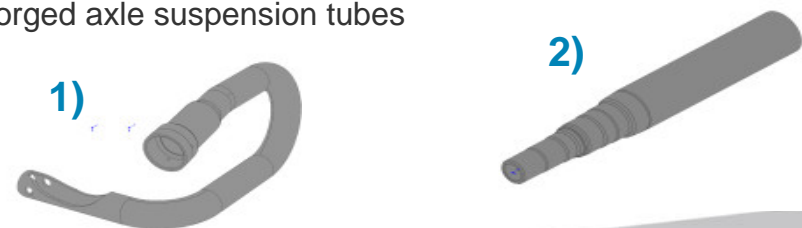
- 1) Oil pans
- 2) Battery holders
- 3) B pillar reinforcements
- 4) Rear axle reinforcements



## ■ Tube Components

for airbags, belts, steering and underbody components

- 1) Seatbelt pretensioner tubes
- 2) Forged axle suspension tubes



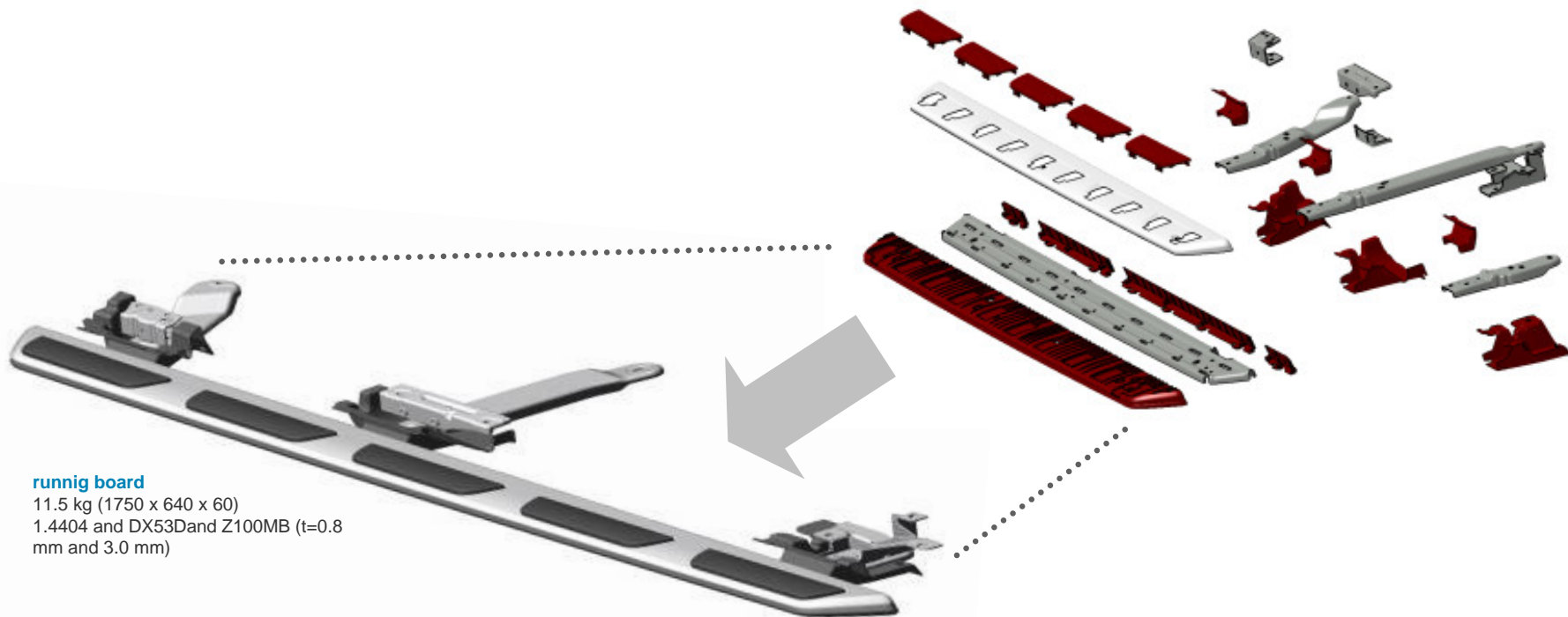
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# Automotive Division – R&D

## Multi-material Expertise

- SUV running board
  - Optimized material at the right place (special steel, plastic, carbon steel)



### running board

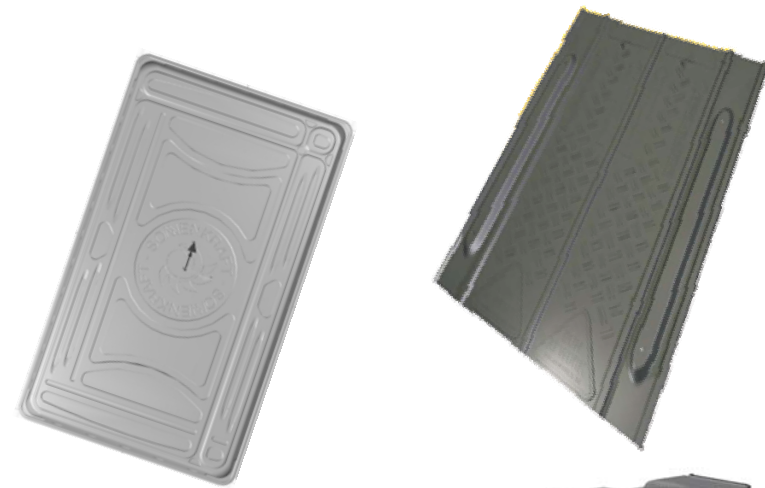
11.5 kg (1750 x 640 x 60)  
1.4404 and DX53D and Z100MB (t=0.8  
mm and 3.0 mm)

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# Solar Energy Projects

- Solar Thermic
  - New Designs and concepts developed
- Photovoltaik
  - In-roof part for installation of PV-modules
- Mounting Systems
  - Partly part production + complete systems
- Inverters
  - New Designs and concepts developed
- Co-engineered Support Structure for large PV on ground installations
  - New designs and concepts for ground installations
- Componentes for Heating industry
  - Boilers, etc.



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