

# Engineering



**TITAN**®   
*Wir halten zusammen*

The TITAN difference

System and applications  
technology





Celebrating difference. Exploring our own paths. That is our philosophy, the driving force behind all we do. These ideas inspire us to question standards and to raise the bar for our customers. So that cargo world-wide is secure in transit.

TITAN engineers create and realise systems concepts for complex industrial automation solutions. From materials handling technology to scanners, from electrical controls to quality assurance. Database systems make it possible for customers to access all the details related to a process.

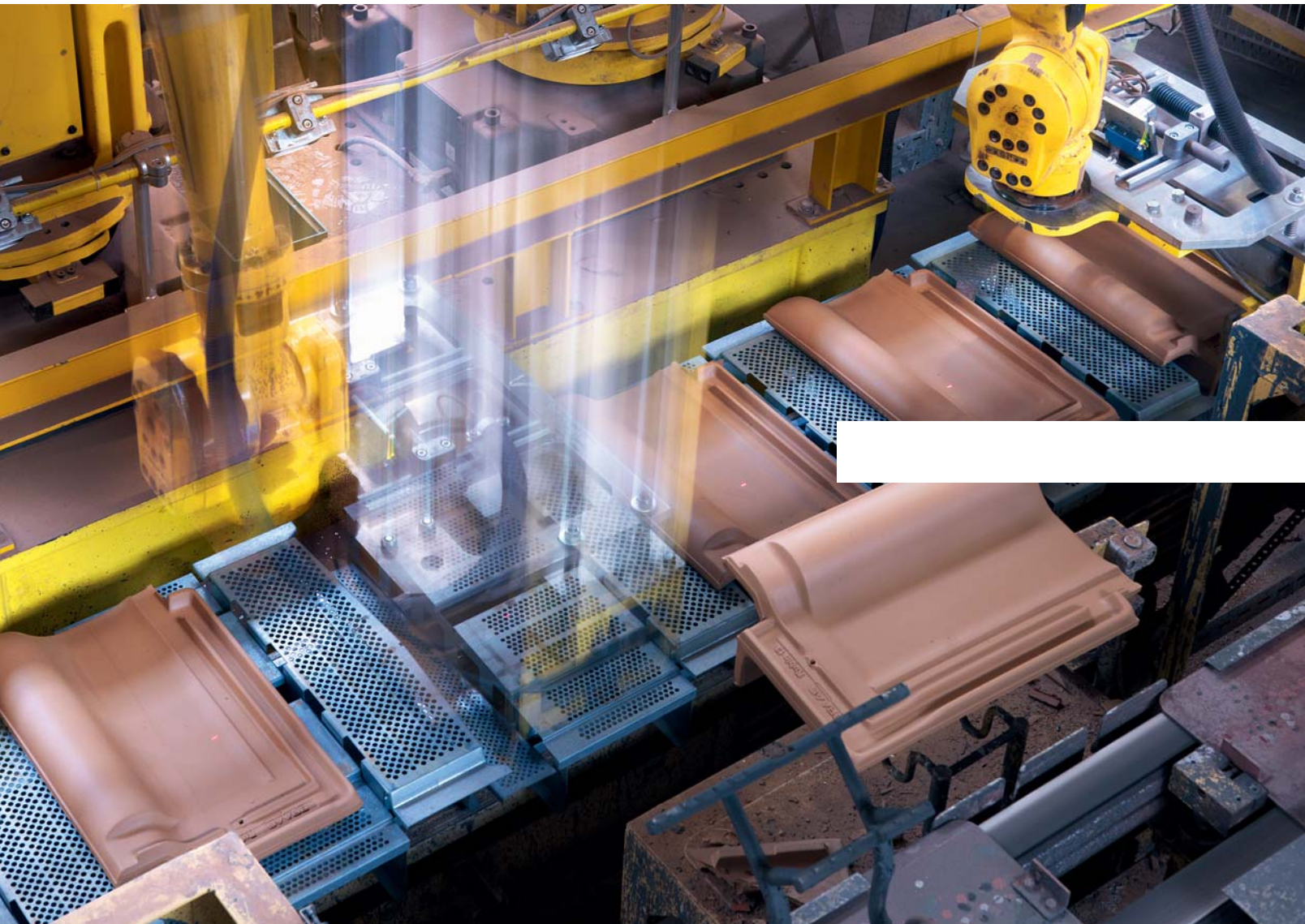
Identify, control, visualise: special solutions are TITAN's bread and butter. This begins with detailed project planning and does not end with the installation. Reliable and expert 24 hour service is a firm part of our range of services. Cutting edge technology and know-how under one roof: TITAN-Engineering makes the difference.





## Intelligent procedures

## Software for fully automated workpiece carrier transport



In this procedure dried roofing tiles are carried from a drying room using two robots and placed on workpiece carriers. After a transport of about 250 metres to the stacking facility a second pair of robots collects the tiles and lays them in the tile crank. Visualisation of the transport route

is done using a Human Interface System. This fully automated process is controlled by software from TITAN.

A laser distance measurement system calculates the type of drying frame and the type of tile. The robots then automatically

adjust themselves to the type of frame. The position of the tile on the workpiece carrier is also recognised by laser in order to determine the robot's grip position. A significant advantage of this solution is its efficiency because the technology renders an elaborate vision system unnecessary.



## High-tech for high stacking

## Strapping systems for drinks can pallets

Software, hardware and strapping machines under one roof: here, four TITAN facilities strap the customer's whole drinks can production. The complete system meets the strictest demands of efficiency, cleanliness and safety.

This facility is project engineering at the highest level. A very high outlet frame with an additional upper press mechanism makes it possible to strap stacks of up to 2.4 m onto pallets. The reduction of the PET band to a width of nine millimetres makes it possible to make considerable cost savings on consumable materials.





Flexible in all dimensions

Complete packaging facilities  
for the paper industry



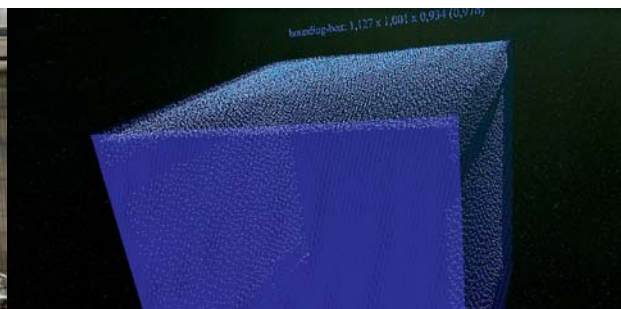
TITAN Engineering specialises in the realisation of complete facilities and in equipping them with materials handling systems, measurement instruments, protection equipment and many other technical features. Here, pallets loaded with sheets of paper are fed into the packaging facility without any rough pre-sorting. The palletised stack then receives an appropriate wooden cover. The dimensions are calculated using an integrated measurement track.

In the next step the stack is strapped twice with PET Straps. After the height has been measured automatically the facility applies four edge protectors simultaneously. Edge protector magazines for six different heights are built in. In the last step the pallet is automatically wrapped with film. The package is thus comprehensively protected against soiling.



## Complete logistics services

Transport, strap  
and digitalise pallets



TITAN offers engineering services that go well beyond strapping: in this project the software, materials handling technology and the strapping machine were developed by us. Safety, efficiency and comprehensive documentation are just some of the advan-

tages of the facility, which can process about 600 pallets a day.

A three dimensional scanner system measures the pallets to an accuracy of five millimetres. Using this information the pallet is automatically strapped, provided

with a security code in the seal, and is weighed and digitalised. Two photos per unit are saved together with all additional information in the TITAN database. In this way all the procedures are comprehensively documented. A connection to the customer's ERP system completes the performance package.



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