

Falcon
engineers



CREATING THE FUTURE INSPIRED BY THE PAST

OUR AIM IS TO CREATE NEW MACHINES WITH EXISTING TECHNIQUES, OR ADAPT EXISTING MACHINES TO JUST DO BETTER!

For example to increase the turnover with low(er) costs or produce more in less time. Falcon Engineers is an engineering consultancy that has built up a very good reputation since its establishment in 1991. Many of our customers have been with us

since the very beginning. We are active in general mechanical engineering, and a specialist in innovative projects. By making the right combinations, we always come up with a pragmatic solution for our valued customers.

THE GOLDEN STANDARDS THAT MAKE US UNIQUE

There are 4 key values by which our company is run and lived by:

- ▶ **Over 30 years of invaluable experience**
- ▶ **An honest and unwavering no nonsense mentality**
- ▶ **Maximum customer and service orientation**
- ▶ **Almost aiming for the highest customer satisfaction**

JAN DE VRIES
Founder/owner Falcon Engineers

The Falcon Engineers consist of a team of technicians and business experts who design, build and develop the best for all our customers together.

OUR SERVICES

The technical team of Falcon Engineers consists of senior structural engineers, design engineers and draftsmen. Our (senior) structural engineers are also qualified to work with all kinds of calculation modules. The business team is a group of absolute professionals, forged by 30 years of experience in every aspect of the trade. Therefore together, Falcon Engineers can support you unparalleled in especially the next fields:



**MECHANICAL
ENGINEERING**



**CONSTRUCTION
FILES**



**3D
MODELING**



**PROJECT
MANAGEMENT**



**IMPROVE
PRODUCTION PROCES**



**STRENGTH
CALCULATION**

THE WAY WE WORK

By sticking to a reliable and proven workflow we strive to accomplish the most optimal outcome and very best results for every single one of our customers!



PROCESS
(Pencil & paper)



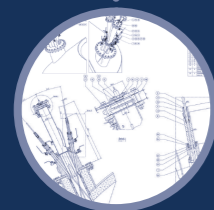
PROCESS 3D
(Inventor & solid works)



PROCESS
(Calculations)



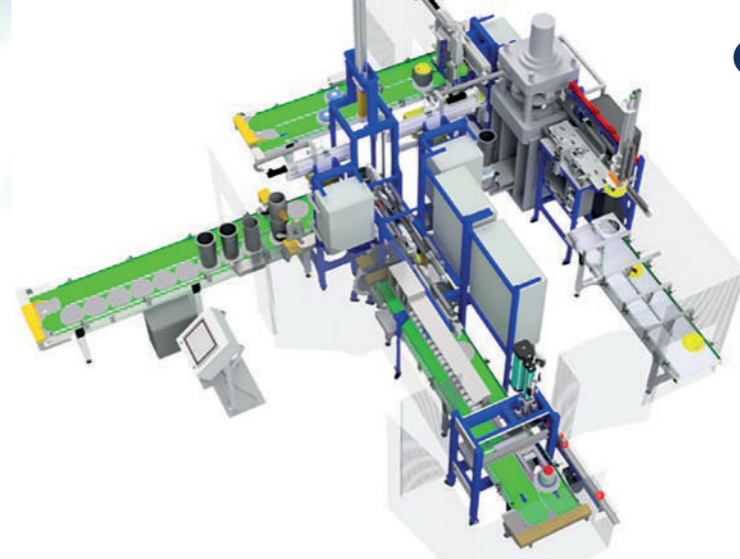
PROCESS 3D
(Final model)



PROCESS
(Drawings)



1



2



3

OUR PROJECTS

In the past decades we have been working for many clients in a wide variety of different disciplines, surroundings, services and products. We would like to share a couple of them.



AUTOMATION



OFFSHORE



MACHINE BUILDING



BRIDGES



TANKS & SILOS



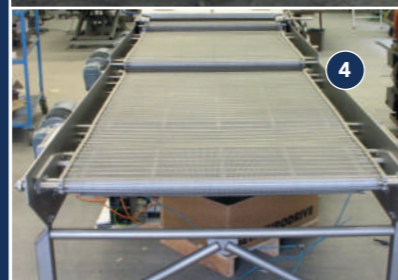
AGRICULTURE



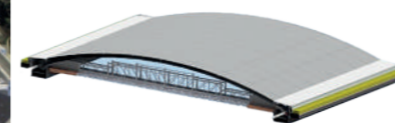
ONSHORE



FOOD INDUSTRY



4



5



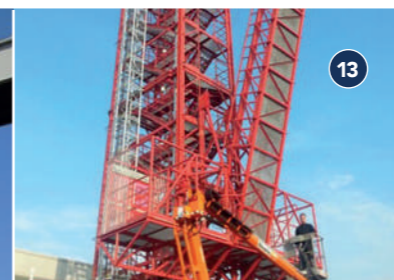
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11



12



13



14



15

OUR PROJECTS

Some expansion on the projects of the previous page.



1. THE ENGINEERING OF A DEMOLITION CRANE FOR RUSCH CRANES BV

- Reachheight of 34 meters, with scissor weighing 25 tons at the end.
- The purchased Caterpillar has been reinforced and the tracks have been lengthened and further spaced for stability.
- The sticks are made of high tension steel.



2. THE ENGINEERING OF AN AUTOMATION LINE FOR CONTITECH IN GERMANY

- Different types of air springs must be assembled completely automatically
- We have realised that by using conveyor belts, in combination with pick & place units and robots.



3. AN INSPECTION VEHICLE TO MAINTAIN THE BRIDGE NEAR ZUIDHORN

- The railway line near Zuidhorn in Friesland (NL) was replaced in 2017 by a 175-metre long bridge.
- For this application, Falcon Engineers developed an inspection vehicle to maintain the bridge without stops of trains and water transport.



4. THE ENGINEERING OF A CONVEYOR BELT WITH EQUIPMENT FOR VERKADE BISCUITS.

- Here, the challenge was to develop a belt on which the biscuits were impregnated with a jelly, and the excess jelly was neatly collected, purified and reused.



5. VARIOUS WALKWAYS FOR THE MAINTENANCE OF FACADES AND ROOFS

- For various buildings in the Netherlands, we have developed walkways for the maintenance of facades and roofs.
- This is done for both internal and external buildings.



6. THE ENGINEERING OF A VERTICAL PIPE PUSHING SYSTEM

- Developed and owned by Falcon together with 2 partners.
- 15 yokes each capable of generating a compressive force of up to 20 tons.
- Via WIFI the yokes communicate with each other and existing and new pipes are pushed (deeper) into the ground according to a wave movement.



7. COMPLETE ENGINEERING FOR A TANK PARK

- For the company Janssens & Dieperink we did the complete engineering for a tank park, including cage ladders, stairs and landings.
- Falcon is also unique and able to do the engineering for rectangular tanks.



8. THE ENGINEERING FOR APS (LATER KALTENBACH) OF AN DRILL AND SAW LINE.

- Beam sizes had to be drilled and shortened. Largest profile size HEA-1000.
- We have realised the whole mechanical engineering like design, stress calculation and drawings.



9. FOR A TANK STORAGE PARK IN AMSTERDAM, WE BUILT VARIOUS TANKS AND PIPELINES.

- This was necessary so that large tankers can safely store their products in the Amsterdam harbour.



10. WE DESIGNED A NEW LOCK COMPLEX FOR THE PROVINCE OF SOUTH HOLLAND.

- Here we designed, calculated and drew moving and static bridges and walking platforms.



11. THE ENGINEERING OF A PUMP SKID FOR ENGIE.

- This is an installation that serves for oil storage and is calculated according to the PED. A challenge in this project was the rectangular tank that had to be pressure tested and approved by Lloyds.



12. THE REPLACEMENT OF THE COOLING TOWER AT TATA STEEL IJMUIDEN

- Here, we reproduced the models and drawings 1:1, taking into account the current state of the art.



13. THE ENGINEERING OF A STAIR TOWER

- This for easy access of maintenance people to a drilling platform brought into the port.
- The stair tower is self-moving and has a height of 55 meters. On both sides a construction elevator, and on the front a height-adjustable telescopic walkway.
- It was commissioned a few years ago in December, and in May that following year the system was fully operational.



14. THE ENGINEERING OF SEVERAL STAIRTOWERS AND GANGWAYS FOR ABUCO BV.

- This gangway is 15 meters long and is, like the Stairtower, DNV approved.
- The customer's challenge was a tight schedule. At Falcon's request, DNV participated immediately after the start of the project, partly because of this, the resulting short lines met the deadline.



15. DEVELOPMENT OF A FOOTBRIDGE THAT IS PLACED ON A BOAT

- Falcon Engineers, together with a number of companies, has developed a footbridge that is placed on a boat to safely transfer maintenance people to a drilling platform or wind turbine.
- This is an alternative to the Ampelmann, where the aim was to develop a simpler system.

REVERENCES





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