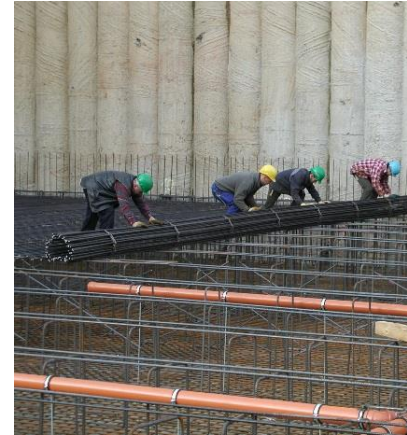


BAMTEC® Reinforcement Technology

simple



fast



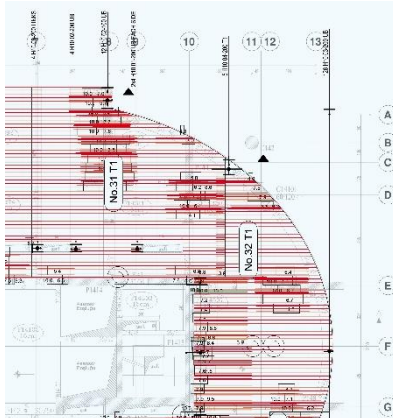
flexible



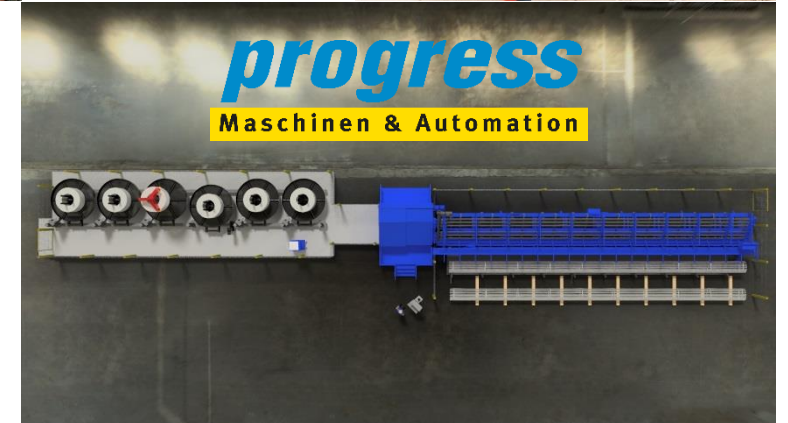
economic



innovative



progress
Maschinen & Automation



simple – fast – flexible – economic – innovative – proven



BAMTEC® – prefabricated and tailor-made

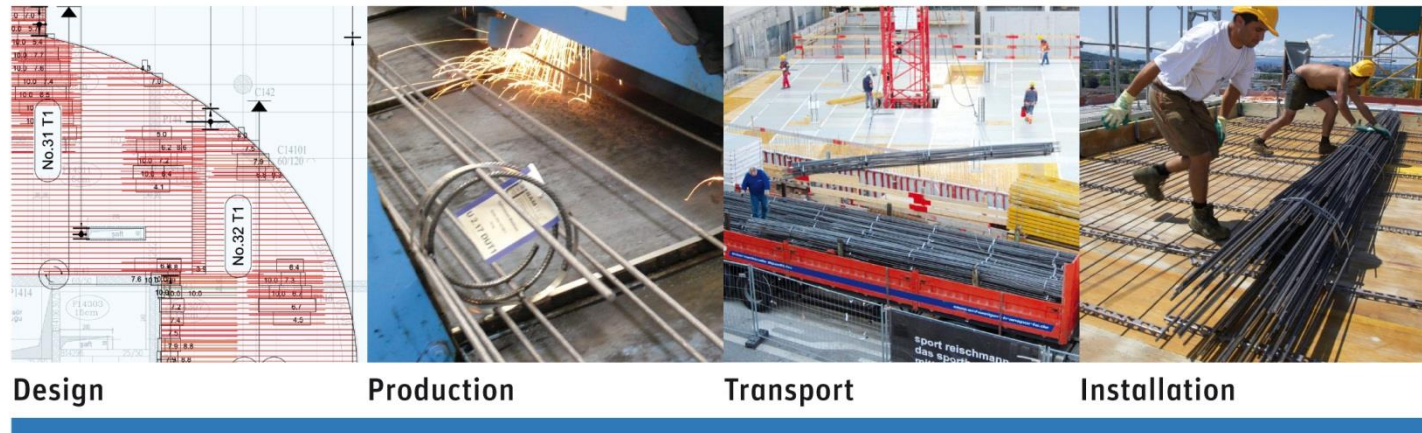
BAMTEC Reinforcement Technology is the **most efficient solution** for planning, manufacturing and installation of rolled reinforcing steel carpets.

Seamless computer controlled process from planning to production leads to prefabricated and tailor-made reinforcement, meeting the **highest quality requirements**.

Carpet reinforcement for obvious reasons results in an easy and **extremely fast installation process**.

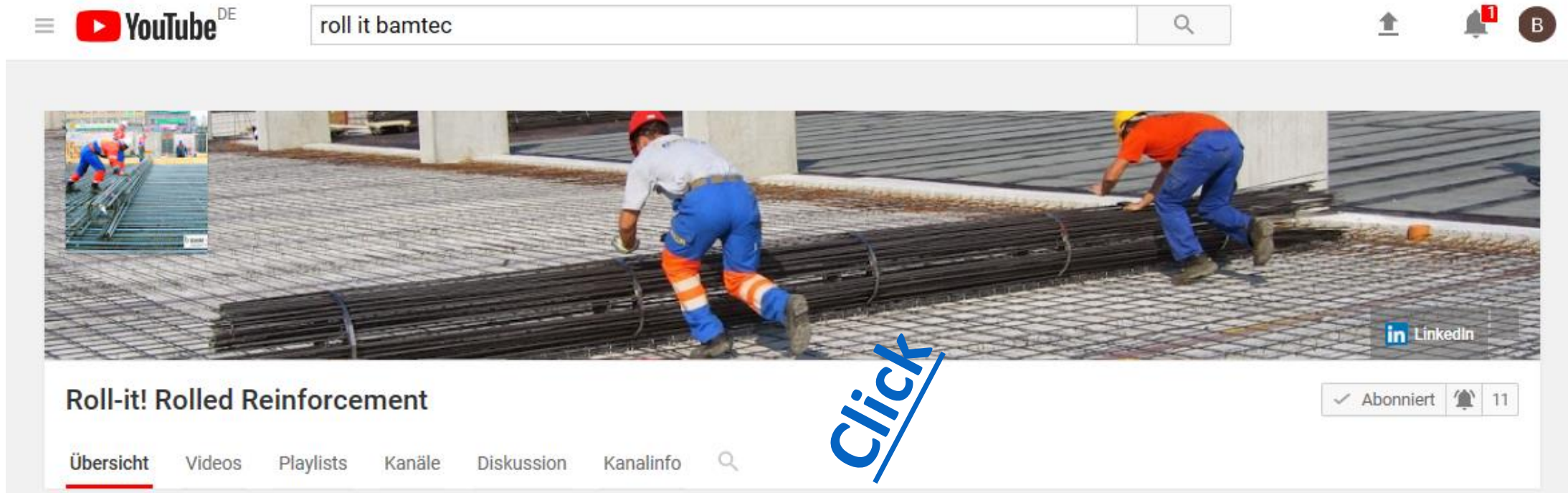
Significant material savings compared to mesh are achieved thanks to nearly unlimited coverage of a BAMTEC carpet.

BAMTEC System – the cost-efficient procedure for reinforcing reinforced concrete floors.



simple – fast – flexible – economic – innovative – proven

BAMTEC® movie



➔ Find a variety of videos on our YouTube-Channel



simple – fast – flexible – economic – innovative – proven

The BAMTEC® worldwide network



www.bamtec.com

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What is BAMTEC®?

<i>simple</i>	Automated planning and production with standardized process results in high-quality reinforcement. The installation with few elements is very simple.
<i>flexible</i>	A BAMTEC system guarantees total flexibility. One element can contain bars of (6) 8 mm – 32 mm with lengths of 1.65 m – 15 m. Bar spacing is freely selectable. Nearly all footprints are possible. All applications can be built with BAMTEC® - from single-family homes to high-rise, schools and hospitals, shopping centers and infrastructure projects
<i>fast</i>	The installation of BAMTEC® elements are extremely fast. Savings of up to 70 % for the installation per construction component are possible.
<i>economic</i>	Reduction of shell construction and material savings results in cost savings. Reduction of CO ₂ .
<i>innovative</i>	BAMTEC® is not just a machine. Innovations such as BAMTEC® RED and BAMTEC® WALL create new opportunities and potentials. With the ongoing development of the planning software, we are increasing efficiency.
<i>proven</i>	BAMTEC® has been used now for many years. You benefit from the experience and knowledge gained from thousands of executed projects with hundreds of thousands of tons of installed BAMTEC® – worldwide.



The BAMTEC® design



With the help of BAMTEC® planning software it is easy to design the BAMTEC elements.

It is possible to redesign reinforcement drawings as well as to create steel-reduced solutions based on calculation results.

BAMTEC® Planning Service:

1. **Re-design standard**
2. **Steel-reduced reinforcement solution**

Advantages:

- Highest quality, flexibility and speed with installation of reinforcement steel
- No waste / cut-offs – even in non-rectangular floor plans
- Exact positioning of the reinforcement on the slab
- Reduction of construction time
- 10% material saving compared to mats, thanks to reduction of overlaps
- up to 20% material savings by optimizing the reinforcement on the basis of the static calculation

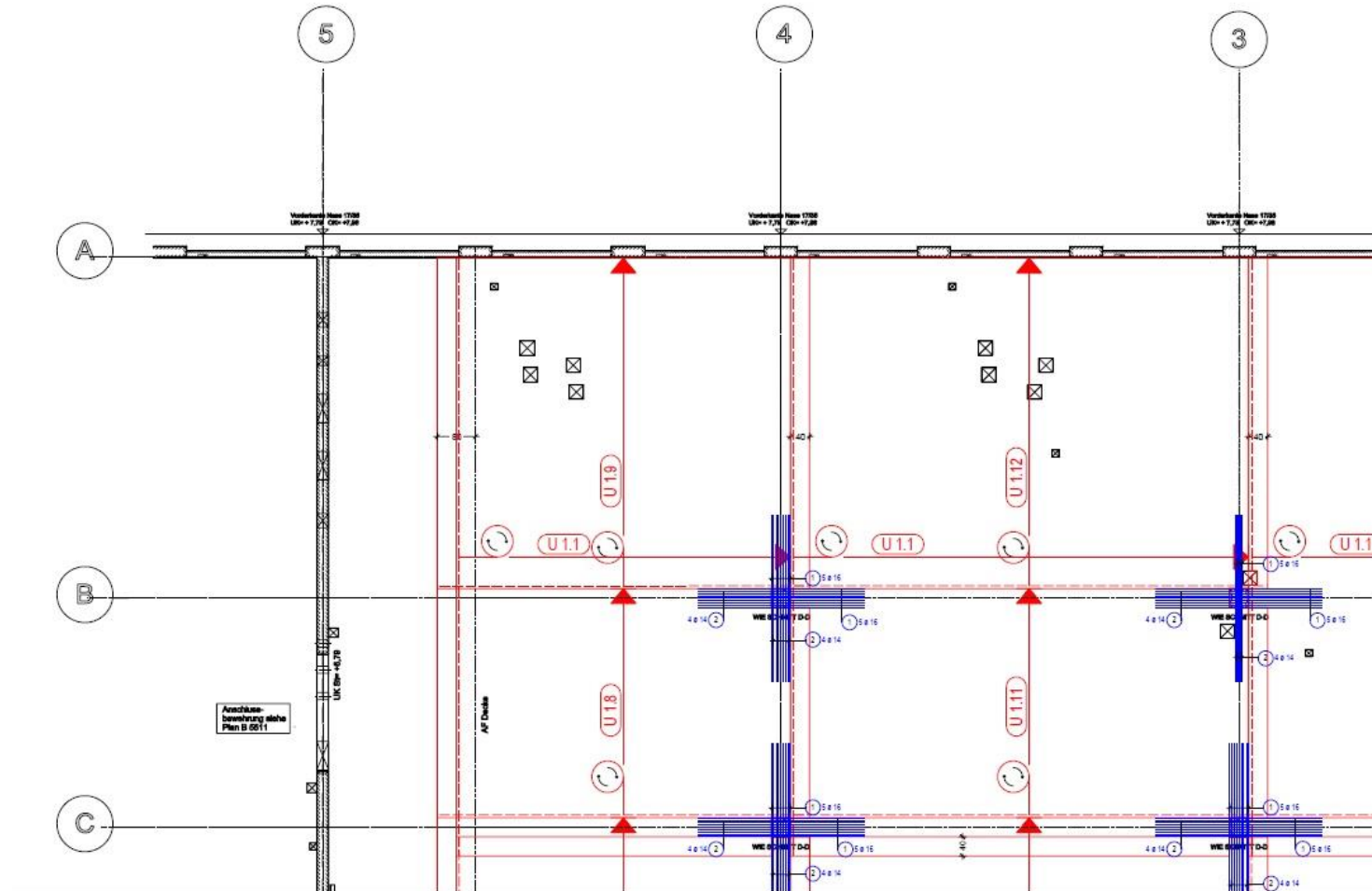


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The BAMTEC[®] plans

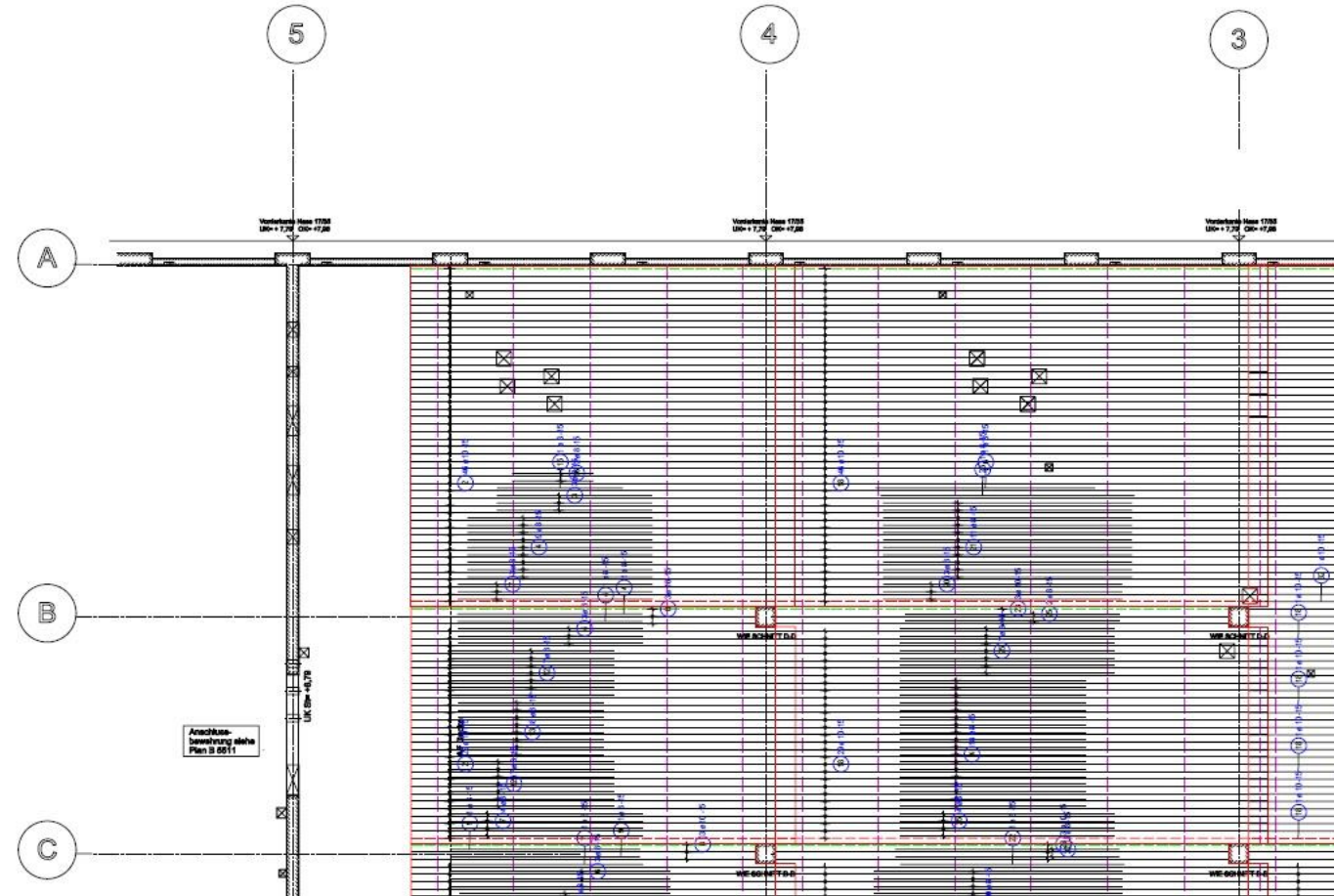
Rollout – plan



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The BAMTEC[®] plans

Overview – plan



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The BAMTEC® production

- Planning results are transmitted digitally to the production plant - CAM
- Fully automatic production from coil from 6 mm up to 20 mm
- Bars up to 36 mm are inserted manually
- Maximum flexibility (diameter, length, spacing) in one carpet

progress
Maschinen & Automation



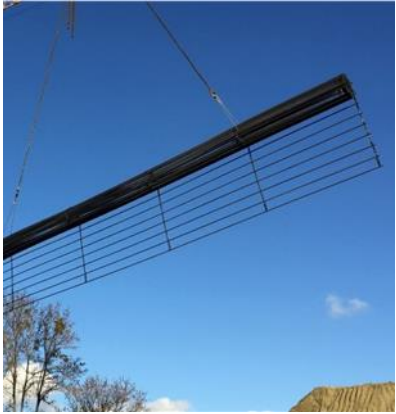
simple – fast – flexible – economic – innovative – proven

**40 BAMTEC® elements or 25 tons
can be transported on one truck**



simple – fast – flexible – economic – innovative – proven

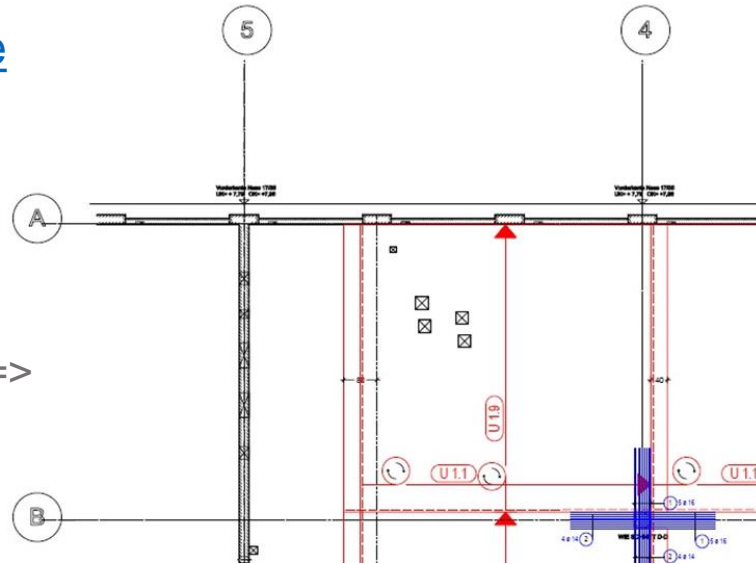
Installation - easy and fast



[Movie](#)

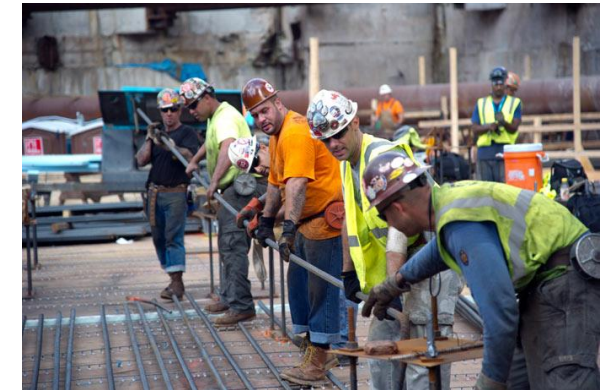
BAMTEC® Installation time

- 6 Min / element; average weight 500 kg; plus unloading
- Performance 5 to/h with 4 men => ca. 1 h/t
- protects health of the workers



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Why BAMTEC® now? - The productivity problem



**Urgently needed productivity
Increase in the construction
industry**



The Solution

Assembling instead of tying



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BAMTEC® – solves problems

Time and Budget
Pressure

Labor Shortage

Increasing Quality
Requirements



Save time and material

Complete job with
 $\frac{1}{2}$ workers

Computer controlled
manufacturing (CAM)



Der Deutsche
Innovationspreis

Eine Initiative von Accenture, EnBW,
Evonik und WirtschaftsWoche

Preisträger 2012

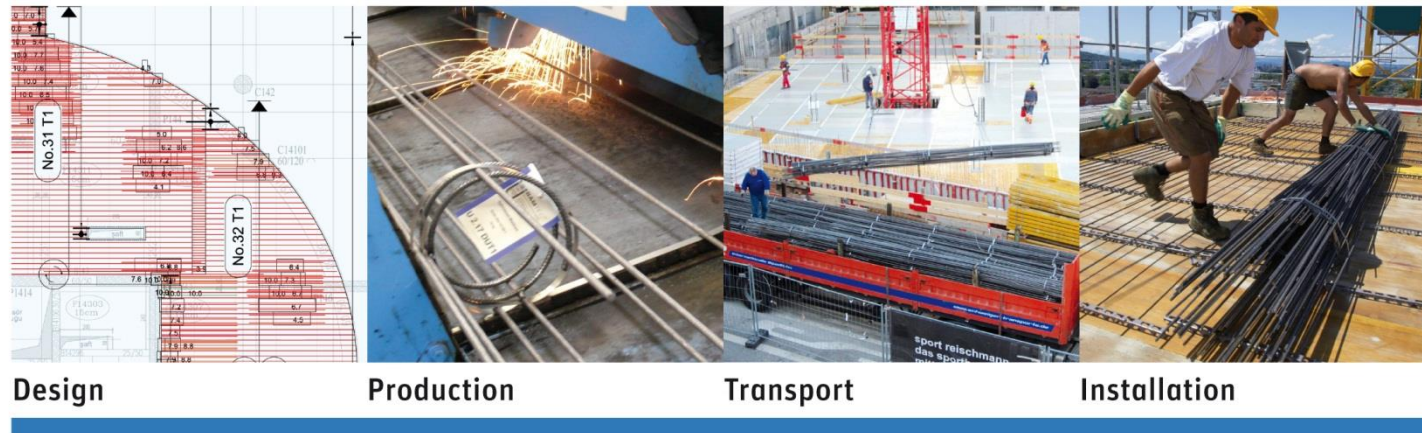
Kategorie Mittelständische
Unternehmen



Assembling instead of tying

1. Planning or redesigning of reinforcement (possibly 3D)
2. Industrial pre-production on the basis of planning data (CAM)
3. Deliver welded reinforcing steel elements to the construction site precisely fitting, on schedule and cost-effective
4. Simple and quick assembly of prefabricated elements
5. Planning of minimally necessary connections to secure the position

BAMTEC System – the cost-efficient procedure for reinforcing reinforced concrete floors.



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Practical experience



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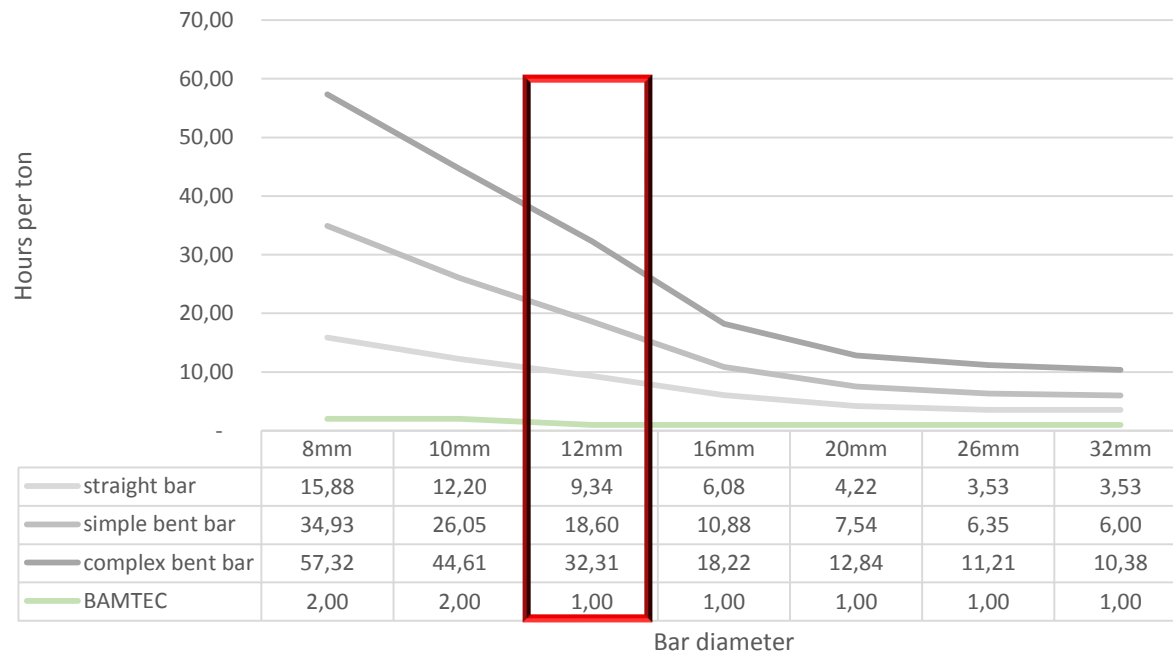
Practical experience



simple – fast – flexible – economic – innovative – proven

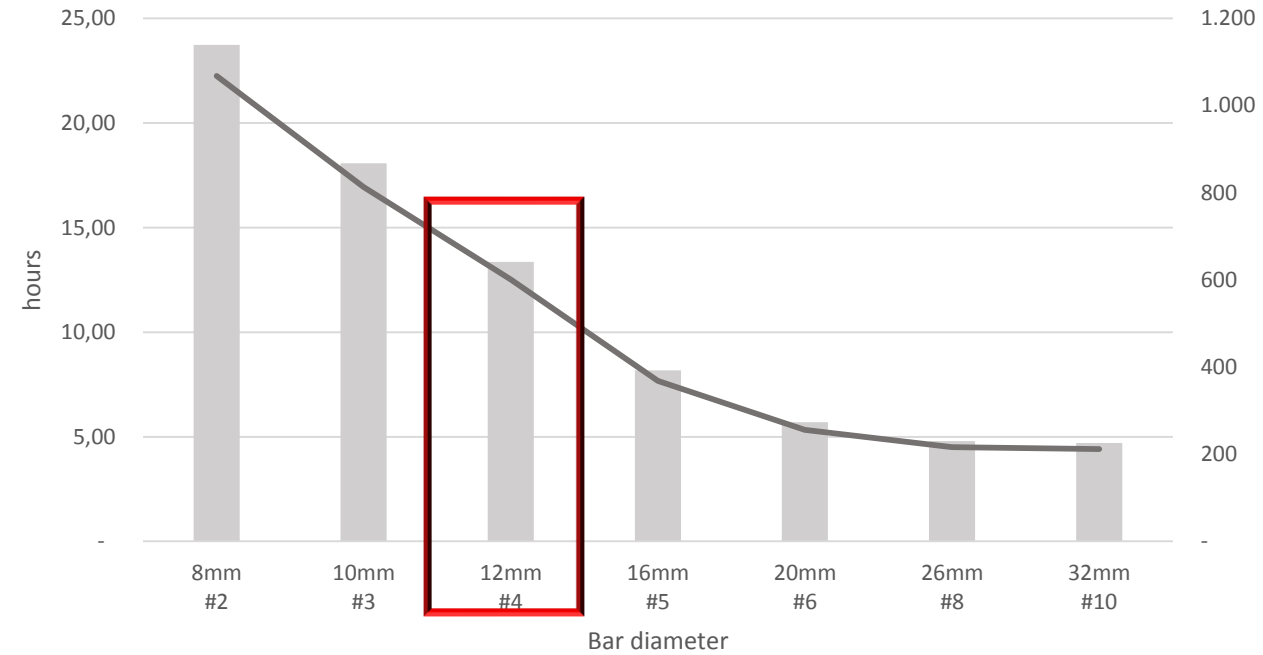
Analysis: Installation rate and costs traditional reinforcement

Installation time per ton



— straight bar — simple bent bar — complex bent bar — BAMTEC

Time and costs per ton and diameter



■ Installation traditional — Costs traditional

Source:
Bewehrungsarbeiten im Baubetrieb
Prof. Hofstadler, Gerald Franzl

Reinforcement in a building part

67 % straight bar

26 % simple bend bar

7 % complex bend bar

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Analysis: Traditional vs. Solution «assembling instead of tying»

Reinforcement in a building part

- 67 % straight bar / 26 % simple bend bar/
7 % complex bend bar

BAMTEC® rollout time (straight bars)

- 6 Min / Element; middle weight 500 kg;
plus unloading time
- Rollout time 5 t/h with 4 workers => approx. **1 h/t**

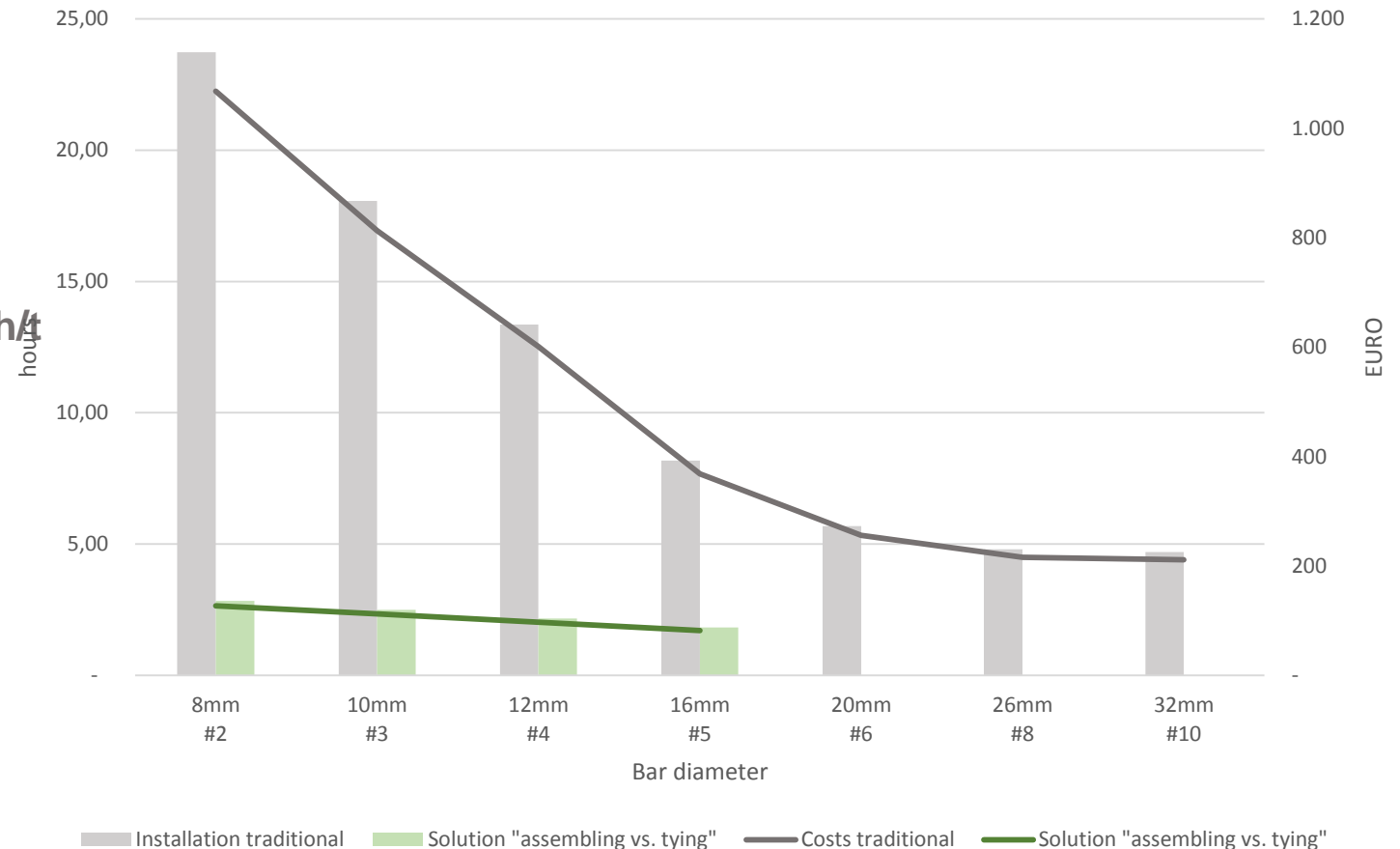
Welded reinforcement cages (bended bars)

- 5 Min/cage; middle weight 25 kg;
plus unloading time
- Installation time 300 kg/h => approx. **3,5 h/t**
- regardless of diameter (up to 16 mm)

Cost savings

UP TO 90 %

Time and costs per ton and diameter
Traditional vs. Solution "assembling instead tying" with BAMTEC



Analysis: Construction time savings in days

Example

Concrete pouring section with 33 tons of Ø12 mm

Reinforcement in a building part

67 % straight bar / 26 % simple bend bar/ 7 % complex bend bar

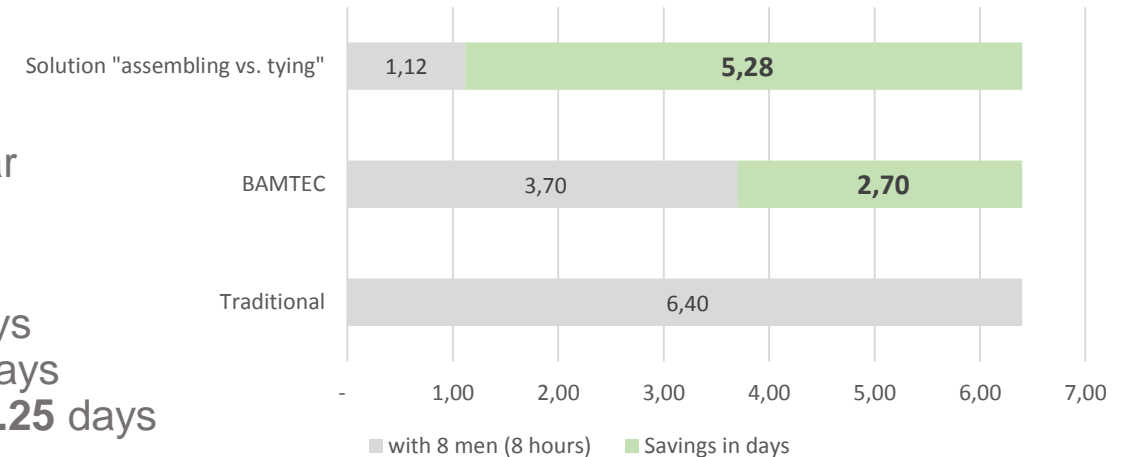
Construction time saving

- Installation time for bars: 410 h / 8 workers = **6.4** working days
- Installation of BAMTEC®: 237 h / 8 workers = **3.7** working days
- Montage „Assembling instead of tying“: 72 h / 4 workers = **2.25** days

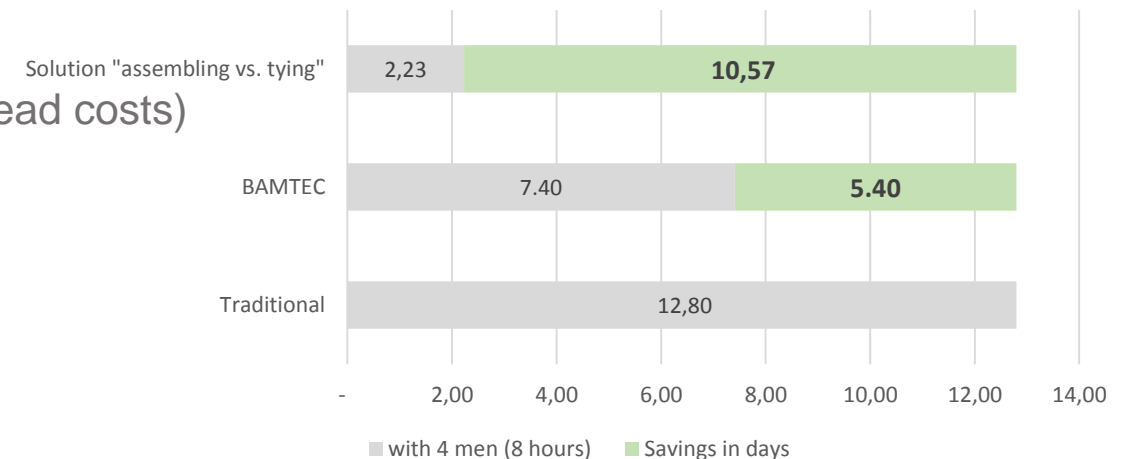
Results

- Job done in **HALF THE TIME** with **HALF THE WORKERS**
- Reduction of construction time is cost saving (building overhead costs)
- Lower formwork rent due to shorter rental period
- Keeping the timeline and quality control
- Avoidance of weekend work, less staff needed
- More projects possible
- Health protection, environmental protection

Pouring section: Working days with 8 men



Pouring section: Working days with 4 men



BAMTEC® applications

Highrise



Commerical



Health



Shopping



Industrial



Airports



Logistics



School / University



Tunnels / Roads



Walls / Dams



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Thank you very much for your attention

Please do not hesitate to contact me if you have any questions.

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