

75 years of experience in roll forming

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Facts and figures

VISION

At voestalpine Sadef, we aim to have **satisfied customers** every day. With our innovative and high-quality solutions, we can respond flexibly to the customer's requirements. We **want to excel** by tackling challenges efficiently and conscientiously. The knowledge and experience of our people – VIPs, Very Important Profiles – manifests itself in the superiority of our cold-formed profiles and solutions.

MISSION

Our mission is to be a prestigious international company that provides **innovative solutions in cold-formed profiles**.



Part of the Austrian group voestalpine.



Own engineering offices with over 20 design engineers and 20 more in production.



30 roll forming mills and 200km daily output of sections.



Over 75 years of experience in cold roll forming.



Large range of toolings at your disposal.



Own surface treatment.



CE-certified solutions.



Intelligent ready-toassemble solutions.

EXCELLENCE PEOPLE INNOVATION CUSTOMER QUALITY FLEXIBILITY

voestalpine is a globally leading steel and technology group with a unique combination of materials and processing expertise. The mother company, which operates globally, has around 500 group companies and locations in more than 50 countries on all five continents. voestalpine is fully committed to the global climate goals, and its greentec steel program represents a clear plan for decarbonizing the production of steel.



FACTS & FIGURES — P. 5

75 years of milestones



1947

Founding of "Société anonyme d'étirage à froid". Production of standard profiles. 1974

First roll forming line with perforation possibilities for the racking industry.

1986

First high frequency laser welding.

1991

Takeover by Austrian company voestalpine Krems.

1993

First production of roller tubes for the automotive industry. 1994

First 3D laser, startup division after operations.

2000

RFC in the US is bought by voestalpine Krems, voestalpine Sadef has a 40% participation. 2001

First delivery of worldwide cab profiles. 2002

Contract for CKD-components.

2004

10mm thick side members for garbage trucks.

2015

Installing of own flexible roll forming lines for building profiles.

2016

New roll forming line 51 for side members.

2017

Roll forming line 91.

Start tech center: engineering of roll forming lines for sister companies. 2019

New roll forming line 33 for side members.

1976

First slitting line.

1979

First Apple computer.

1983

Installation powder coating system with capacity up to 12m length.

1984

Just-in-time production of side members.
Introduction CAD/CAM.

1996

First roll forming production line with 54 stations to produce perforated tubes. 1997

ming Welding of first inox line with profiles | Sadef makes to produce its appearance on the tubes.

1998

inox First laser welding line.
makes
on the

New KTL system, new environmental friendly coating system.

2005

New inline coating for side members: up to 1m wideness profiles.

Central storage of tooling.

2009

Roll forming of profiles with variable thickness.

2010

Building of the biggest special tube roll forming line in the world.

2013

1999

Installing roll forming line at sister company VPCN, China.

2020

Dedicated production cell for truck and cab components.

2021

> 250 million € and> 650 Very ImportantProfile employees.

2022

75 years voestalpine Sadef

75 YEARS OF MILESTONES — P. 7



What is roll forming?

HOW DOES IT WORK?

Custom roll forming is the process of **custom shaping strip metal** by passing it through a series of specially designed rolls.

PRE-PIERCING

The metal strip being pre-pierced: the strip is fed through our pre-piercing machine where **holes can be pierced as specified**.

ROLL FORMING

The strip is then fed through to the forming rolls, which **gradually change the shape of the strip** to generate the desired profile. Step by step, with every forming roll, the profile gradually begins to take shape, providing superb **dimensional accuracy and a smooth finish**.

WELDING

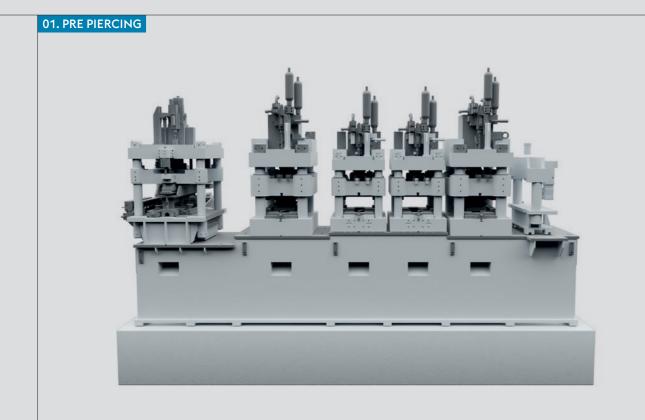
If a closed profile is required our welding process provides an **almost flat** weld seam with strength superior to the yield of the parent material.

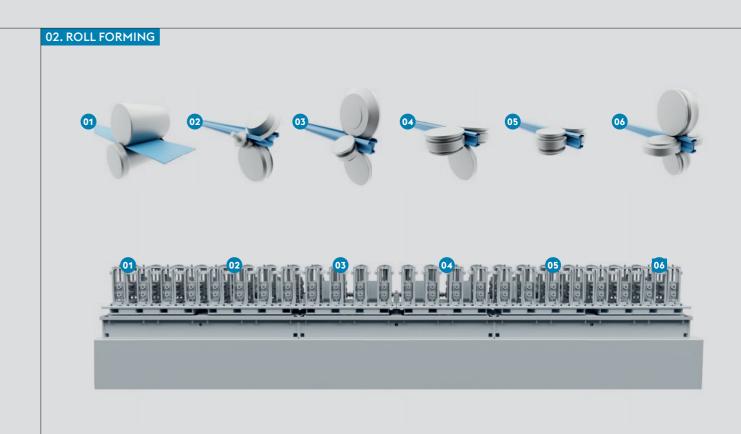
FLYING CUT OFF

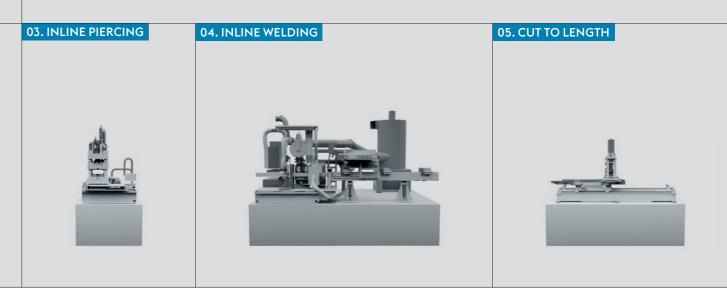
The profile is then fed through to our flying saw, which cuts it into **individual lengths**. The individual profiles are then released and stacked together, ready for final packing and dispatch or to move on for **secondary operations**.

8 WHAT IS ROLL FORMING — P. 9

The technology of roll forming





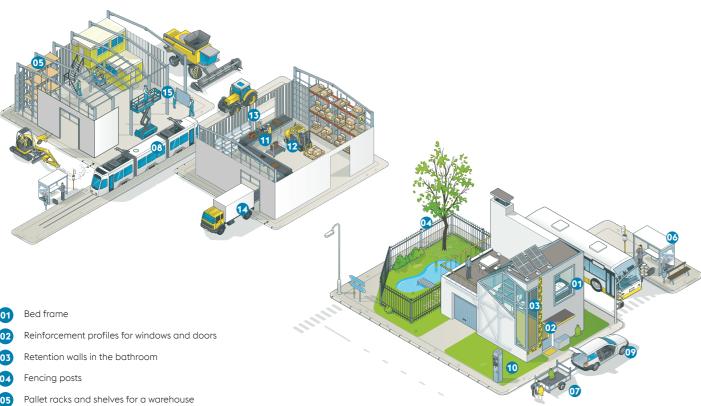




THE TECHNOLOGY OF ROLL FORMING — P. 11

Custom roll forming

"IF YOU CAN DREAM IT, WE CAN MAKE IT!" WITH OUR CO-ENGINEERING SERVICE, WE DESIGN, ENGINEER AND ROLL FORM YOUR PERFECT PROFILE!

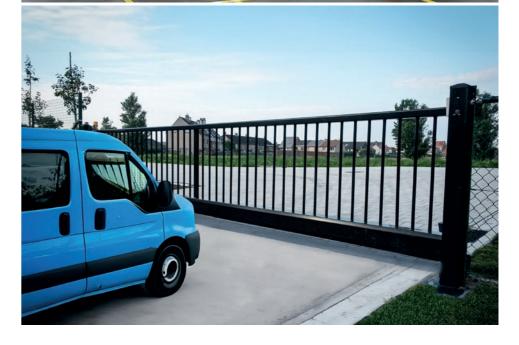


WHAT ARE CUSTOM MADE PROFILES?

Custom made steel profiles are the opposite of standard profiles. voestalpine Sadef doesn't make standard profiles, nor have we profiles in stock. We design, engineer and roll form a co-engineerd **profile**, the perfect profile to match your needs. We strongly believe in **profiles with added value**: don't work harder, work smarter! With 30 roll forming lines, more than 20 product design engineers and 75 years of experience in cold roll forming, we are the perfect partner.







06 Frame for a bus shelter

Side panels of a trailer

Roof profiles of a tram OS Sliding guides for a car seat

10 Side panels of a parking machine

11 Parts for conveyor belts

12 Processing of cargo at the airport

13 Automated warehouse with shuttle rails

Components for a van

15 Profiles for elevated platforms

12 CUSTOM ROLL FORMING - P. 13

Building profiles

Our Building Department supplies tailor-made steel solutions for all kind of building applications, such as Industrial halls, Mezzanines, Sprinkler, Stables, (modular) houses Flexbuild etc. Our wide range of standard profiles consists of 4 different profile shapes: ZED, SIGMA(+), CEE(+) and U profiles. Different thicknesses are available and high quality steel reduces the weight in order to optimize the project and make it more economical. From the preliminary design up to the delivery on the building site, we support our customers with advice, construction details and statical calculations according to the Eurocode Standard. Our high quality engineers are motivated to help the customer to find the right solution for their project. This means that a specific design is possible for every project. Even for smaller volumes and short-term deliveries.

We have developed smart integrated connections (Auto Connect Middle AutoNotches and Auto Connect End) to make the assembly of the parts easier and to increase the mounting speed. All profiles are bolted which makes the assembly easier which is favorable with shortage of workers. For outdoor applications, such as canopies for PV Modules we can offer the best possible solution with the right surface treatment.

SADEF PROJECTS ARE BIM PROOF

BIM (Building Information Modeling) means that all parties that are involved in the building project work with the same 3D Digital model of the project. So every company uses the same data and will directly be informed when there are changes made by one of the companies.

- BIM improves the collaboration between all parties and gives a clear view how to implement and connect all necessary building parts. Also pipes, electricity etc can be planned in this model which makes it easier to make the right decisions with less mistakes because all changes are known already in the design stage.
- Customers can create a detailed digital 3D-prototype of a building or infrastructure project. This intelligent design process reduces costs across the project and the entire lifecycle.
- The last model is "as built" which means that all suppliers and materials are known in the system





Pallet racks and shelves for a warehouse

03 Steel structure of a house







BUILDING PROFILES - P. 15

Solar structures

MORE THAN 15 YEARS OF EXPERIENCE IN THE DESIGN AND PRODUCTION OF STEEL PROFILES FOR SOLAR MOUNTING STRUCTRURES.

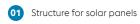
FACTS & FIGURES

We are a global industrial supplier with **a weekly delivery capacity of more than 30MW.** We have more than 75 years of experience in roll forming. To coengineer your specific project more than 20 engineers are at your disposal. We offer a wide **range of custom-designed steel components and solutions**.

ADVANTAGES OF SADEF SOLAR PANEL STRUCTURES

They are ready-made for assembly. We offer a specific project design for projects over 500 kW. Our structures are built up with a limited number of components. Our projects boost a long lifespan and durability thanks to the high quality we offer. And also very important: our structures have low maintenance costs!







SOLAR STRUCTURES — P. 17

Automotive

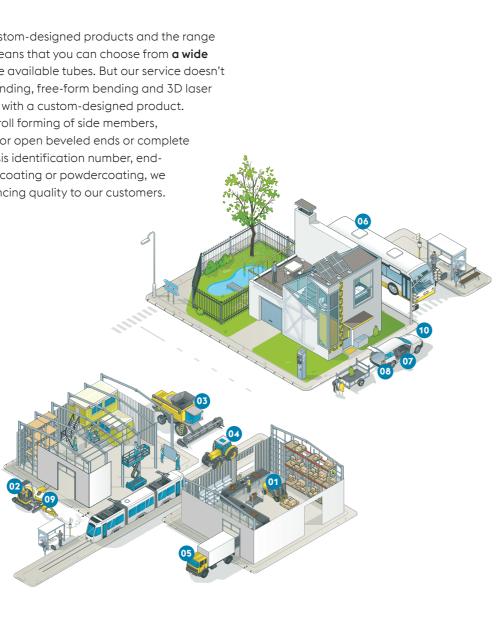
cabs, automotive, side members

FOR THE CHALLENGING AUTOMOTIVE SECTOR SADEF HAS THE RIGHT EQUIPMENT, EXPERIENCE AND EXPERTISE!

WHAT DO WE OFFER FOR THE AUTOMOTIVE SECTOR?

At voestalpine Sadef, we're proud of our custom-designed products and the range of options that we offer our customers. It means that you can choose from a wide range of specially formed tubes and/or free available tubes. But our service doesn't stop at roll-forming. Thanks to our thorn-bending, free-form bending and 3D laser cutting capabilities, we can also supply you with a custom-designed product. With almost 40 years of experience in cold roll forming of side members, whether it be conical tapered end, pressed or open beveled ends or complete side members with all punched holes, chassis identification number, end-finishing by shot blasting and cathodic-dip coating or powdercoating, we offer ready-to-assemble solutions in convincing quality to our customers.

- 01 Forklift cab
- O2 Cab of an excavator
- O3 Components for a combine harvester
- O4 Components for a tractor
- 05 Steel chassis and cab of a truck
- O6 Steel structure of a bus
- 07 Steel car bumper
- 08 Car boot trays
- O9 Components for crane and lifting systems
- 10 Parts for an electric car









AUTOMOTIVE — P. 19

Further manipulations

Sadef doesn't stop at roll forming, thanks to our advanced machinery, we can add a lot of value going from: special tubes in all kinds of curved shapes to custom made profiles cut to length, with lasered end forms and finished with inserts. Also including threaded holes, welded clamps, surface treatment or other finishing options.







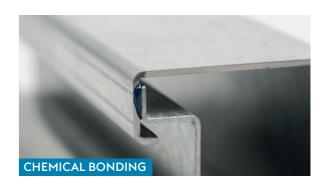
















20 FURTHER MANIPULATIONS — P. 21



Co-engineering

COLD-FORMED PROFILES

Our own team of engineers is responsible for **our state-of-the-art machinery**. Thanks to continuous investment and adjustments, our production site is setting the trend in the sector, always one step ahead. This is the focus not just at voestalpine Sadef; the emphasis at the voestalpine group is also on **continuous investment in innovation and improved processes**.

01

CONCEPT

- 1. Customer Concept
- 2. Co-engineering: optimisation of customer need
- 3. Commercial and technical agreement
- 4. Production drawing
- 5. Prototype and approval by customer
- 6. Tooling engineering

02

PRODUCTION

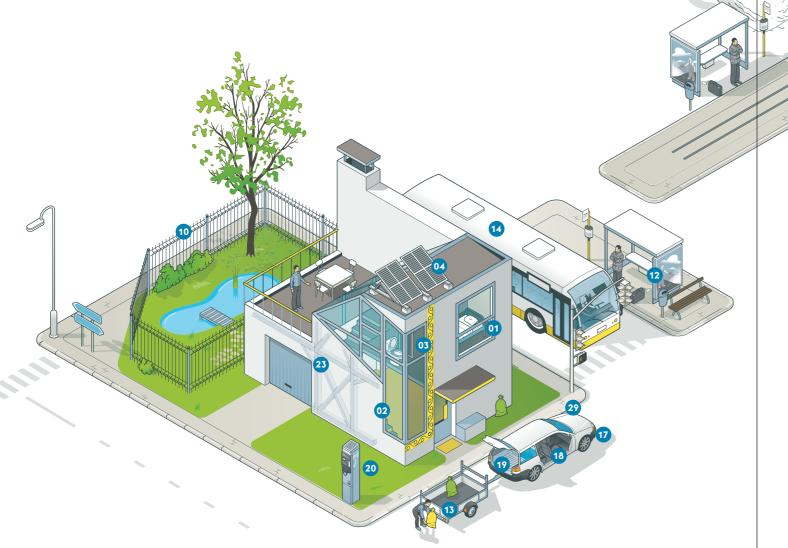
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PERFECT PROFILE

CO-ENGINEERING — P. 23

Sadef is everywhere

Inside or outside. In your home or in your work environment. You can find **voestalpine Sadef products everywhere**. voestalpine Sadef plays a pervasive role in your daily live, even though you may not realise it. These illustrations prove it.



- Red fram
- 02 Reinforcement profiles for windows and doors
- 03 Retention walls in the bathroom
- 04 Structure for solar panels
- 05 Forklift cab
- 06 Cab of an excavator
- Components for a combine harvester
- 08 Components for a tractor
- 09 Steel chassis and cab of a truck
- 10 Fencing posts
- Pallet racks and shelves for a warehouse
- 12 Frame for a bus shelter
- 13 Side panels of a trailer
- 14 Steel structure of a bus
- Roof profiles of a tram

- 16 Complete structure for a modular unit
- 17 Steel car bumper
- 18 Sliding guides for a car seat
- 19 Car boot trays
- 20 Side panels of a parking machine
- 21 The structure for a building
- Parts for conveyor belts
- 23 Steel structure of a house
- 24 Processing of cargo at the airport
- 25 Automated warehouse with shuttle rails
- 26 Components for a van
- 27 Profiles for elevated platforms
- 28 Components for crane and lifting systems
- 29 Parts for an electric car

Quality control









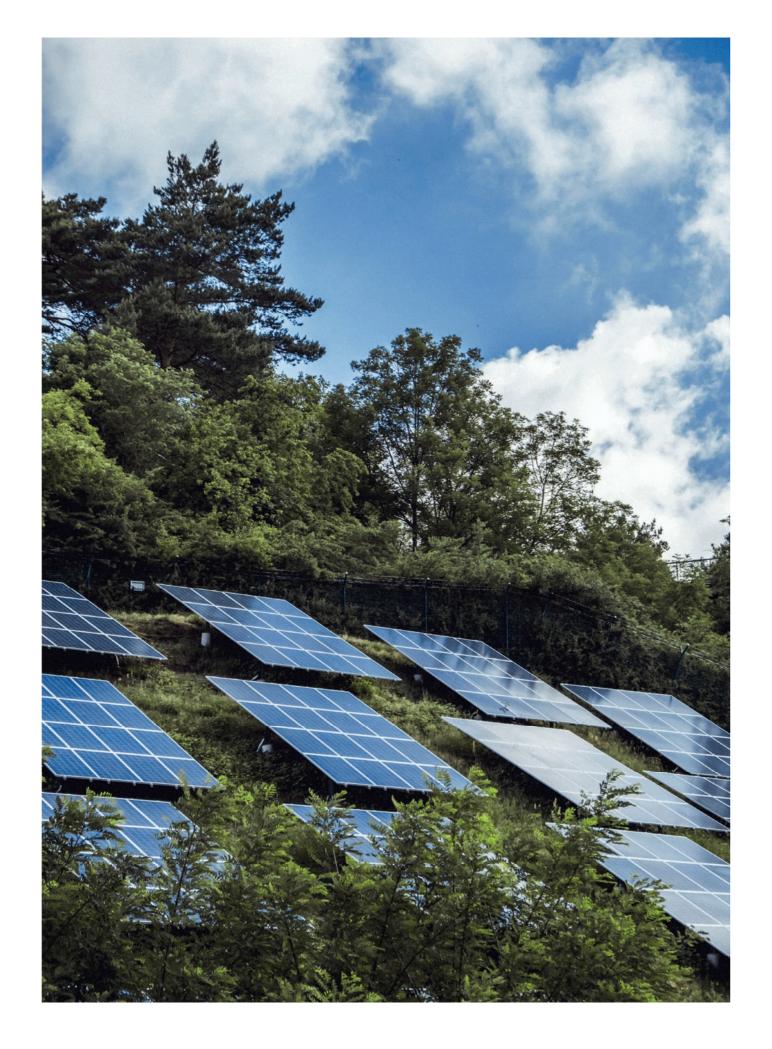
Our customer is at the center of our attention, add to that our focus on "Excellence" in our vision and mission statement of voestalpine Sadef and you get to our **meticulous** attention for the quality of our steel profiles.

Our production plant is **checked regularly by official control organizations**, we hold the following certificates: ISO 9001, IATF 16949, ISO 14001 and the EN 1090.

For those customers who emphasize on detailed product information, we are able to trace back very **specific production parameters** as well as **detailed information about the origin**, the mechanical and chemical properties, up to even the environmental impact of the raw material which was used for their steel profiles.



26 QUALITY CONTROL — P. 27



Sustainability

WHAT ABOUT THE ENVIRONMENT?

Climate change is the biggest challenge of our time. We are working to meet this challenge, setting ourselves **the goal of zero carbon emissions** in the Metal Forming Division by 2035. Only when everyone in the value chain does their part we can jointly achieve our common goal.

Already today, **numerous projects to save energy**, optimize processes, source green electricity, or even to generate our own renewable energy are underway at our locations around the world, together with efforts to motivate our suppliers to implement their own climate protection measures.

SAVE ENERGY AND OPTIMIZE PROCESSES

Energy which is not consumed cannot create emissions — so our goal is **to save energy wherever** we can. We plan to achieve this by continuously improving our manufacturing processes and site infrastructures. One method is to use the waste heat from manufacturing to heat office space, for example, or to improve building insulation.

SUSTAINABILITY — P. 29

Very Important Profiles

At voestalpine Sadef, our slogan is "work hard, play hard". But besides our activities on the work floor, there's **also time to be involved in sports, eat and celebrate** as colleagues together! An ice cream in hot temperatures and a cup of hot soup in cold winter. Enjoy the family party or spend the weekend mountain-biking to test your strength against that of your colleagues. After all these years we have a bigger diversity in Sadef employees, we welcome women from the shop floor to management and engineering!



VERY IMPORTANT PROFILES — P. 31





Sadef future

IN A TIME OF RAPID CHANGE, STANDING STILL IS THE MOST DANGEROUS COURSE OF ACTION.

PLANS FOR THE FUTURE

Never a dull day at Sadef. New halls for **new machines and new offices are being built systematically**. In 2022, for the 75th anniversary, the car park at the Bruggesteenweg is thoroughly renovated. The car park is redesigned with more greenery and useful facilities for the future, such as charging stations for electric cars.

The very oldest part of Sadef urgently needed an update! A new office building and new changing rooms and sanitary facilities on the ground floor were needed to cover our expansion. The First Aid will now also have a well-equipped room.

In order to get the trucks off the streets, a whole now logistical center will be built on the new site at the Stationsstraat. The drivers will also be able to use new sanitary facilities.

There is also a need for more reception areas for customers and meeting rooms. The administrative services and the House of Innovation will also get a new place, so that customers can always see our latest innovative profiles. With these changes, **Sadef is ready for another 75 years** of innovation in the world of cold roll forming.

32 SADEF FUTURE — P. 33

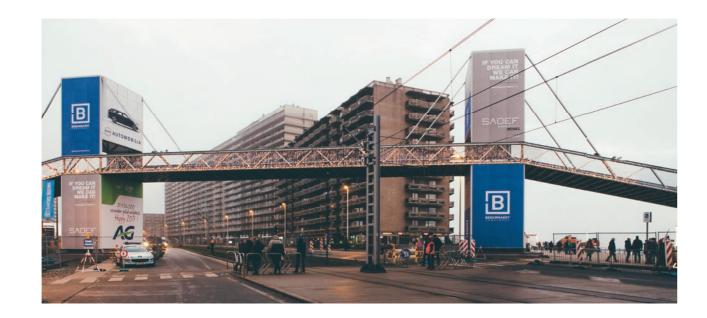
If you can dream it, we can make it!

EVERY ACCOMPLISHMENT STARTS WITH THE DECISION TO TRY.

Sadef is never shy of a special project. **Our engineers love a great challenge**. At the Tomorrowland festival a bridge near the art piece of famous artist Arne Quinze was installed to bring the party people safely to the other side of the grounds.

In 2017 a special bridge was engineered for the Belgian championship cyclocross in Ostend. The cyclists had to cross the tramline above the power lines to continue their race for victory in the sand.

To celebrate 75 years of voestalpine Sadef a blue tower was engineered to give the local community the opportunity to enjoy the nice landscape and landmarks around voestalpine Sadef. A pure **example of the voestalpine**Sadef brand: the mix of the brain power, accurate follow-up, teamwork and flexibility to deliver such an impressive project within tight deadlines.





IF YOU CAN DREAM IT, WE CAN MAKE IT — P. 35

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