

sapa:



www.sapapoleproducts.com

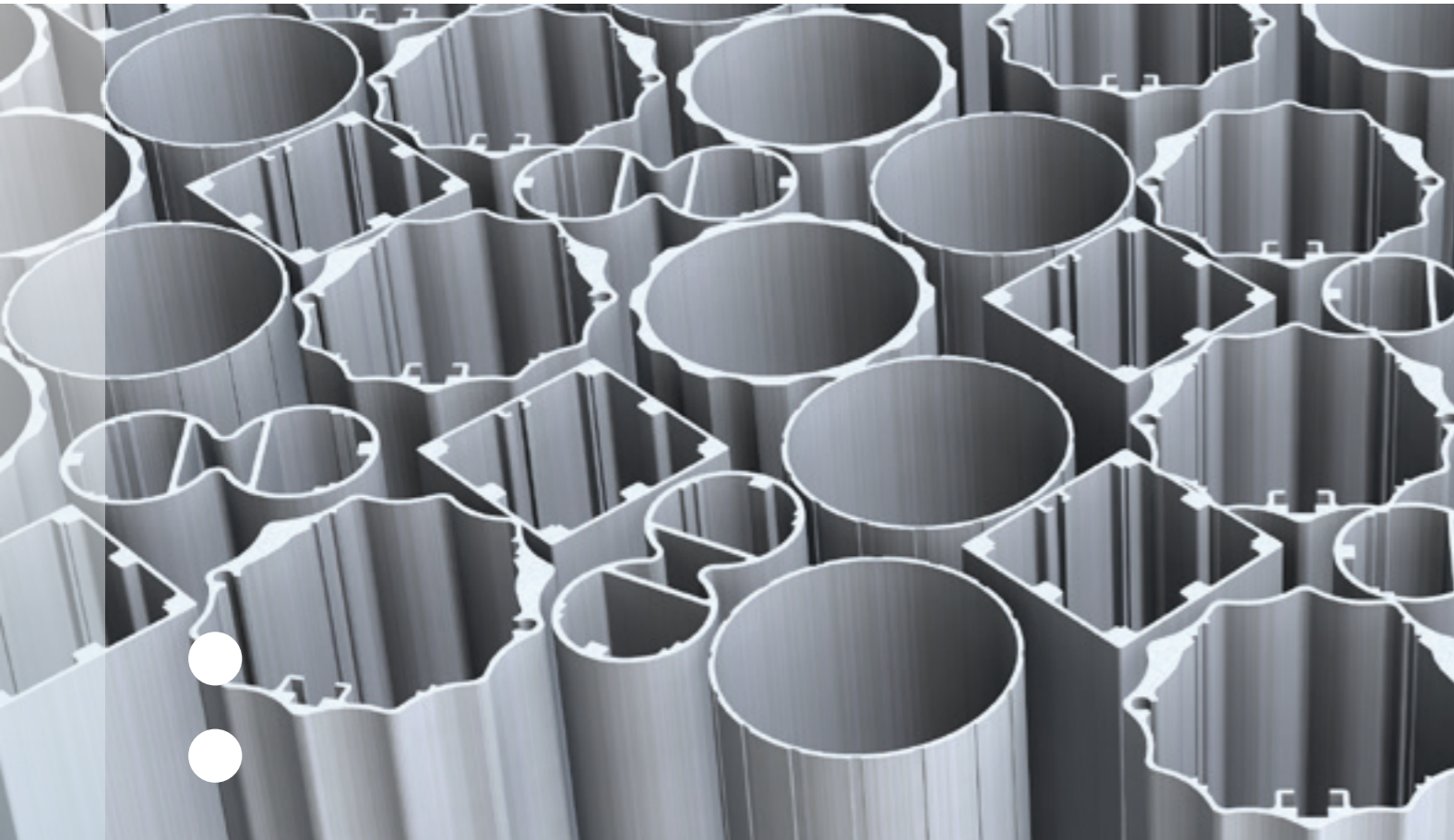
**Innovative aluminium solutions
by Sapa Pole Products**

Sapa Pole Products Rev. 1 IASBSP, Subject to product changes, misprints and printing errors

Sapa Pole Products

sapa:

Postal address	Visiting address	Phone +31 416 386 200
P.O. Box 75	Alcoalaan 12	Fax +31 416 386 230
NL-5150 AB Drunen	NL-5151 RW Drunen	Email info.poleproducts.nl@sapagroup.com
Netherlands	Netherlands	Website www.sapapoleproducts.com



Content

- Page 2 **Introduction**
- Page 4 **A most reliable partner**
- Page 6 **Aluminium, the unique properties**
- Page 8 **Aluminium, the green metal**
- Page 10 **The technical characteristics of our products**
- Page 12 **Passive Safety saves lives**
- Page 14 **Innovative aluminium solutions**
 - Page 16 Functional light poles
 - Page 18 Custom made design
 - Page 20 Soluxio, the advanced solar light system
 - Page 22 Multifunctional poles
 - Page 24 Raise & Lower poles
 - Page 26 Traffic Regulation Installations
 - Page 28 Traffic Signal Poles
 - Page 30 Traffic Sign Posts
- Page 32 **Surface treatment**
- Page 34 **Solutions for different situations**
- Page 36 **Worldwide projects**



Our mission is to develop the most innovative, custom made solutions, together with you and for you

Since the 1960s, Sapa Pole Products has been active in developing sustainable solutions for public spaces, such as light poles, flagpoles and solutions for traffic regulation systems. This history of experience, makes Sapa Pole Products a reliable partner in the markets in which we operate.

This brochure is an introduction to our organization and capabilities. It also gives more insight into the aluminium material and it will explain why the material of the future fits perfectly well within a policy of sustainable procurement.

Our mission is to develop the most innovative, custom made solutions, together with you and for you. Keeping in mind your specific needs, we would like to contribute toward making your cities more beautiful and the development of your urban heritage.

Finally you experience how we, together with you, convert ideas into sustainable, beautiful and smart aluminium solutions.

If, after reading this brochure, you still have questions, our team of enthusiastic professionals is there for you.

Technical expertise, passion for aluminium, eye for design, attention to the environment and safety, are the foundation of our products. That makes our solutions so special!

Introduction

Everyone knows them; light poles, traffic regulation installations, traffic sign posts... We see them around us as part of the streetscape and the design of public space. They are indispensable in our daily lives. Sapa Pole Products offers aluminium solutions for public infrastructure projects. But what makes our solutions so special?





The Sapa Group

Sapa is the world's leading company in its field and has customers in the building, transportation, engineering and telecom industry. In 2015, the Sapa Group had combined net sales of 6.5 billion US\$ and 22.800 employees.

The Sapa Group is organized into three business areas; Building Systems, Precision Tubing and Profiles. Sapa Profiles is the world's largest aluminium extrusions company with 155 presses.

Sapa Pole Products

Sapa Pole Products, part of Sapa Profiles, is the leading aluminium light pole manufacturer with a production location in the Netherlands and local representation in over 20 countries. Our products are CE certified in accordance with the EN 40 as well as the EN 12899 standard. Sapa Pole Products runs a Quality and Environmental Management system in accordance with the requirements of ISO 9001 and ISO 14001.

Corporate social responsibility (CSR)

We provide all employees with a safe and healthy workplace, with the aim of avoiding injuries and incidents. We continuously try to reduce the environmental impact of our activities, and to optimize the use of raw materials. We use our innovation and technical resources to find economical solutions that fit within our sustainability policy.

Customer first

We see the world through our customers' eyes, anticipate their needs and move fast locally and globally to deliver excellence. With our own supplier Sapa Profiles, which is also located in Drunen, Sapa Pole Products has flexibility and can optimally guarantee quality. These are all elements which contribute to customer satisfaction.

ISO 9001

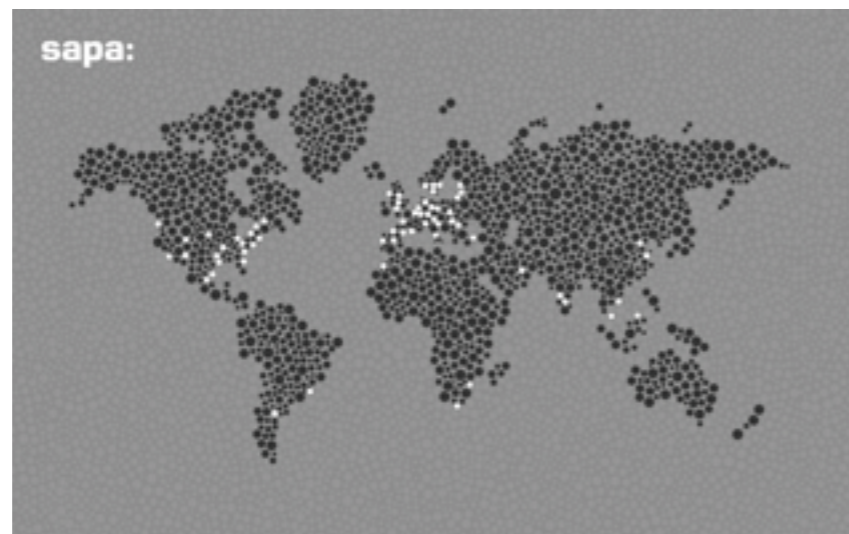


ISO 14001



A most reliable partner

“Achieving a close working relationship with customers to provide them with aluminium solutions that have added value.” That is what it is all about at Sapa.



Sapa Pole Products, your most reliable partner for innovative aluminium solutions

CE certified – EN 40



CE certified – EN 12899



CE certified – EN 1090-3





Aluminium offers countless possibilities for decorative applications in public spaces

Low weight

The density of aluminium is much lighter than traditional materials, resulting in fewer kilos of material needed to manufacture an aluminium pole. The weight saving offers many advantages such as faster installation, less fuel consumption during transportation as well as ergonomic advantages.

Superior malleability

The excellent malleability of aluminium in both hot and cold state is utilized at bending and by other deforming treatments. Therefore, aluminium offers countless possibilities for decorative applications in public spaces.

Easy machining

Aluminium is easy to handle in most machining methods: milling, drilling, cutting, bending, punching, welding, etc. An additional advantage is that the energy consumption during the machining process is relatively low.



Excellent corrosion resistance

When aluminium reacts with the oxygen in the air, a very thin layer of oxide is formed that is just a few hundredths of micron thick (1 micron or 1µm is equal to one thousandth of a millimeter). This layer is dense and provides excellent corrosion protection. If damaged mechanically, the aluminium oxide layer repairs itself immediately.

Soil is not a homogeneous material. Mineral composition, moisture content, the pH value, the presence of organic materials and electrical conductivity can all vary widely from site to site. These differences make it difficult to predict a metal's durability in soil. As a solution to this problem, Sapa Pole Products makes use of corrosion protection tape around the root section of the pole.

The range of attractive properties offers numerous possibilities to create solutions that are innovative, efficient and sustainable.



The natural oxide layer is dense and provides excellent corrosion protection

Aluminium, the unique properties

Did you know that after iron, aluminium is by far the most widely used metal in the world? The number of applications in which aluminium is selected is increasing continuously.



Aluminium possesses a unique combination of attractive properties. Many of these are extremely important in our efforts to create a more sustainable society. The aluminium properties that play an important role for our poles are:

- Low weight
- High strength
- Superior malleability
- Easy machining
- Excellent corrosion resistance
- Highly sustainable



Aluminium, the green metal

There are multiple examples within Sapa that show that aluminium is the ideal material to use when it comes to sustainable development.

Did you know that because of the use of aluminium in cars, the weight of the car can be reduced? If we include the production and distribution (wheel-to-wheel) of fuel, a weight reduction of 100 kg in a car means a saving of 10 g of CO₂ per kilometer, in other words 2000 kg during the life of the car.

Another example is the developments around solar energy. Aluminium is often used in solar frameworks, but what makes aluminium so environmentally friendly? The most important features are given below:

- About 8% of the earth's crust consists of aluminium in the form of different minerals.
- Aluminium is 100% recyclable, time after time.
- Recycling aluminium only takes 5% of the energy needed for its initial production.
- There is no downgrade during the recycling process.
- The poles from Sapa Pole Products consist of a minimum of 95% recycled material.

* Check out the website of the European Aluminium Association for more information: www.european-aluminium.eu

Instead of 'less waste', the goal is 'no waste'

Sustainability is part of our CSR policy

Sapa does a lot of research to improve the energy efficiency of its production processes, to increase the percentage of recycled materials and to minimize waste. This has led to highly sustainable products such as Carbon Neutral poles and *Cradle to Cradle Certified™* silver light poles. Through the Take Back system Sapa has reached a golden level in the key area 'material reutilization' within the *Cradle to Cradle Certified™* program. Sapa collects complete light poles (including fittings, cabling, etc.) at the end of their lifespan and returns them into the technical cycle.

Today our light poles consist of a minimum of 95% recycled aluminium; a percentage that cannot be found elsewhere in the market. An important role is played by the in-house recycling capacity.

In-house recycling capacity

Sapa has 9 extrusion cast houses across Europe for recycling. These cast houses have a yearly capacity of 200,000 metric tons (enough for more than 7 million poles).

Carbon Neutral

At Sapa Pole Products we are aware that our company can contribute to a better environment. As a production company we can take steps to minimize CO₂ emissions. That is why we analyzed our production process with the assistance of an independent consultancy group. At different stages in our production process, we have implemented energy savings and, with our patented reinforcement profile, we reduced the weight of our poles by up to 20%. In 2007, we were the first company within the market to offer carbon neutral poles.



Cradle to Cradle®

When it comes to "green" certification, there are no bad products, just bad design, says German chemist Michael Braungart and US architect William McDonough, creators of the world's leading *Cradle to Cradle Certified™* program.

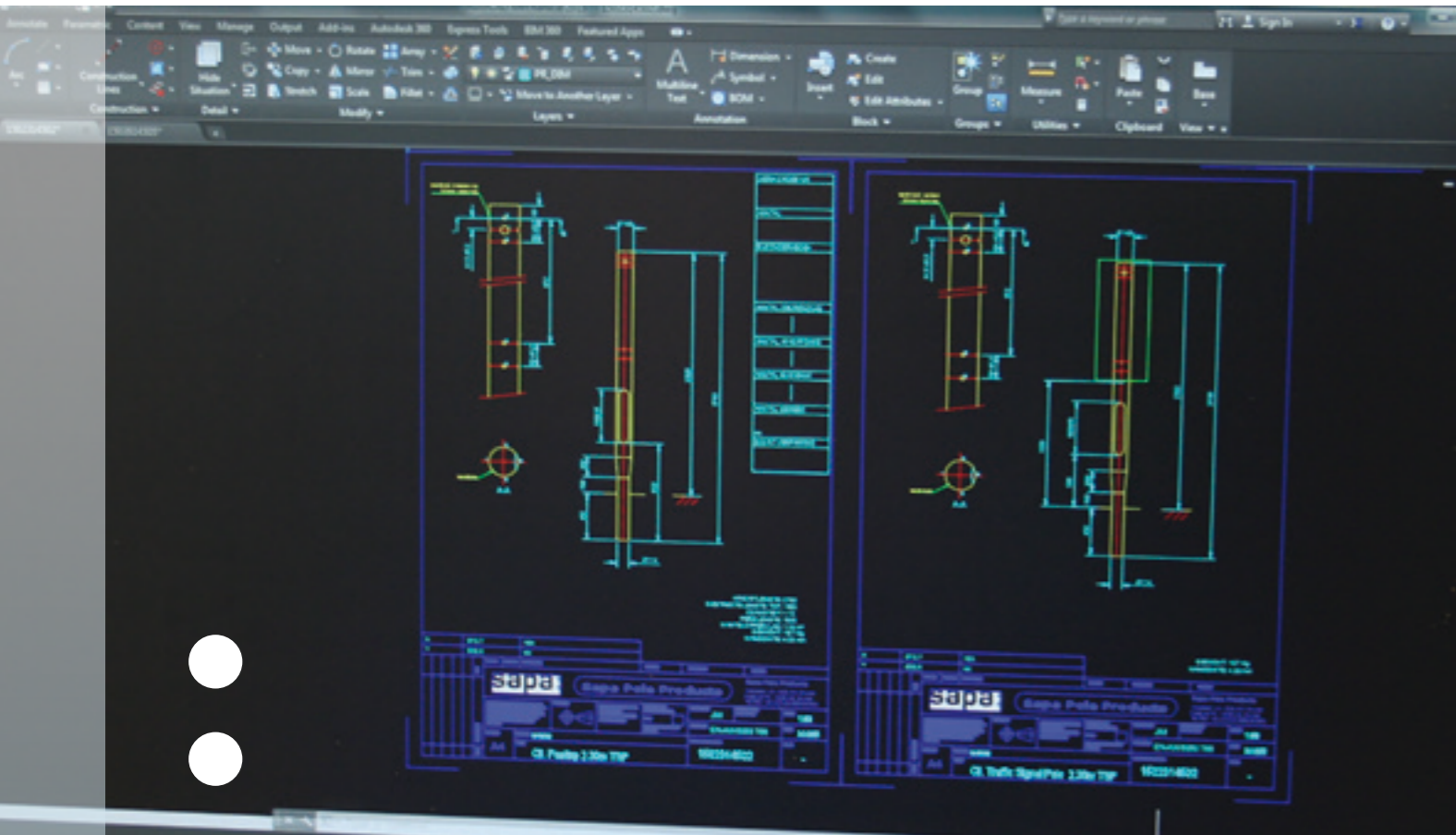
As Braungart and McDonough put it, "waste equals food": if a product is properly designed, at the end of its useful life, it can be broken down into its basic elements that become the "nutrients" for new products. Instead of "less waste", the goal is "no waste". In a C2C model, product materials circulate in an endless cycle with no net effect on the environment. To date, more than 2,000 products worldwide have received C2C certification.

A number of European cities and municipalities have embraced C2C sustainability as a strategy to not only protect the environment but to also strengthen people's welfare and economic prospects through new business opportunities. Since 2011, we offer *Cradle to Cradle Certified™* light poles* as first supplier in the world.*

* *Cradle to Cradle Certified™* is a certification mark of MBDC.



We are the first supplier in the world to offer *Cradle to Cradle Certified™* light poles



According to international standards

Aluminium poles are designed and calculated according to international standards in which several factors are taken into account, such as material, reference wind speed, wind pressures, terrain category and safety factors. When all these factors are calculated, it can be determined if the pole meets the standard.

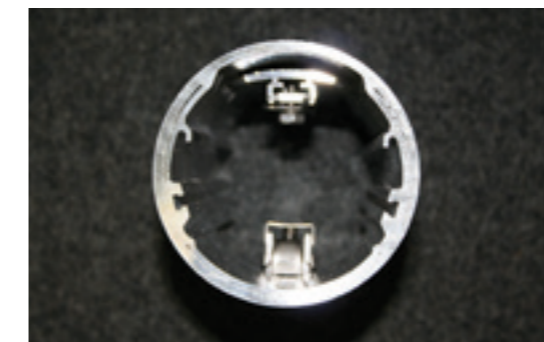
Europe applies the EN 40 standard for light poles and the EN 12899 for supports for use with fixed vertical road traffic signs.

Door section

A pole is fitted with a door (service door) with dimensions according to the EN 40 standard. The door section of our pole is easy to operate. The door is equipped with a double sliding lock. If required, the pole can be equipped with a second door depending on the strength calculation.



Door section



Reinforcement profile

Patented reinforcement profile

The poles from Sapa Pole Products are equipped with the VT5+ reinforcement profile that is welded and expanded inside the pole. This patented profile gives extra strength to the section around the door area. This solution is stronger than type 5, as stated in the European EN 40-3-3 standard. Independent scientific research shows that in addition to the tension, the effect of torsion is also reduced.



Two-piece base

One-piece base

Base plates

Poles installed on hard surfaces such as concrete foundations, bridges and viaducts are provided with a base plate. Depending on the situation, different types of base plates, all made of aluminium, are available:

- Functional **two-piece base** plates for situations that require a practical solution;
- Beautifully designed **one-piece base** plates for environments where aesthetics are the decisive factor;
- Practical **hinged base** plates for places that are difficult to reach and where a hinged pole is not wanted.

The technical characteristics of our products

Sapa Pole Products has over 50 years of experience in the machining of aluminium and has a strong ability to integrate advanced technological innovations into a pole. Hence, we are able to offer the most effective and safest solutions.

Our poles, all manufactured from a seamless tube of aluminium, have several technical characteristics that form the basis of effectiveness and safety. We will explain the most important ones.





Crash tests

Since the 1970s, Sapa Pole Products has been conducting crash tests to investigate the safest constructions for your roads. This long history of building up knowledge on this topic has resulted in a range of safe, secure and sustainable aluminium solutions for all of your lighting needs. We give you the opportunity to design and create safe roads with Fully Certified (and endorsed by a Notified Body) passively safe poles in all shapes and sizes.

The use of crash friendly, also referred to as passively safe light poles, traffic signals and sign posts are becoming increasingly important on both highways and rural roads. The European EN 12767 standard specifies performance requirements for passively safe support structures for permanent road equipment. It both defines and limits the levels of occupant injury severity when impacting these structures.



100NE3 crash test

Available family classifications

Occupant Safety Level	Energy level			
	70NE3	100NE3	100LE3	100HE3
↑	70NE2	100NE2	100LE2	100HE2
		100NE1	100LE1	

Note: The 3 behind NE is much better for the occupant safety than the 3 behind LE or HE.

Explanation on classifications

Impact speed The 100 km/h (for highways) and 70 km/h (for rural roads) numbers in the family certifications indicate the impact speed of the vehicle.

Performance Level There are three categories of passive safety support structures:

- **High-energy (HE)** absorbing: slows the vehicle considerably on impact. The risk of secondary collisions with trees, pedestrians and other road users is reduced, however, the severity of the impact for vehicle occupants can be high.
- **Low-energy (LE)** absorbing: generally designed to bend in front of and under the impacting vehicle before shearing or detaching toward the end of the impact.
- **Non-energy (NE)** absorbing: allows the vehicle to continue after the impact with a limited reduction in speed. They may, therefore, represent a lower primary injury risk than energy absorbing support structures, but a higher secondary injury risk if other hazards exist behind the support structure.

Occupant safety level The occupant safety level is based on the results of the ASI (Acceleration Severity Index) and the THIV (Theoretical Head Impact Velocity). The 1, 2 and 3 levels provide increasing levels of safety, in that order, by reducing impact severity.

Non energy absorbing (100NE3) poles

NE3 is the safest passive safe classification for medium- and high-speed roads. The impact speed of non-energy (NE) absorption combined with the 3rd occupant safety level demands special features from a pole. Sapa Pole Products therefore developed a shear-off solution. This in-built solution is unique as it will shear-off in the event of a collision and is unaffected by the direction of the impact. The solution is based just above the ground level of the pole.



100HE3 crash test

High energy absorbing (100HE3) poles

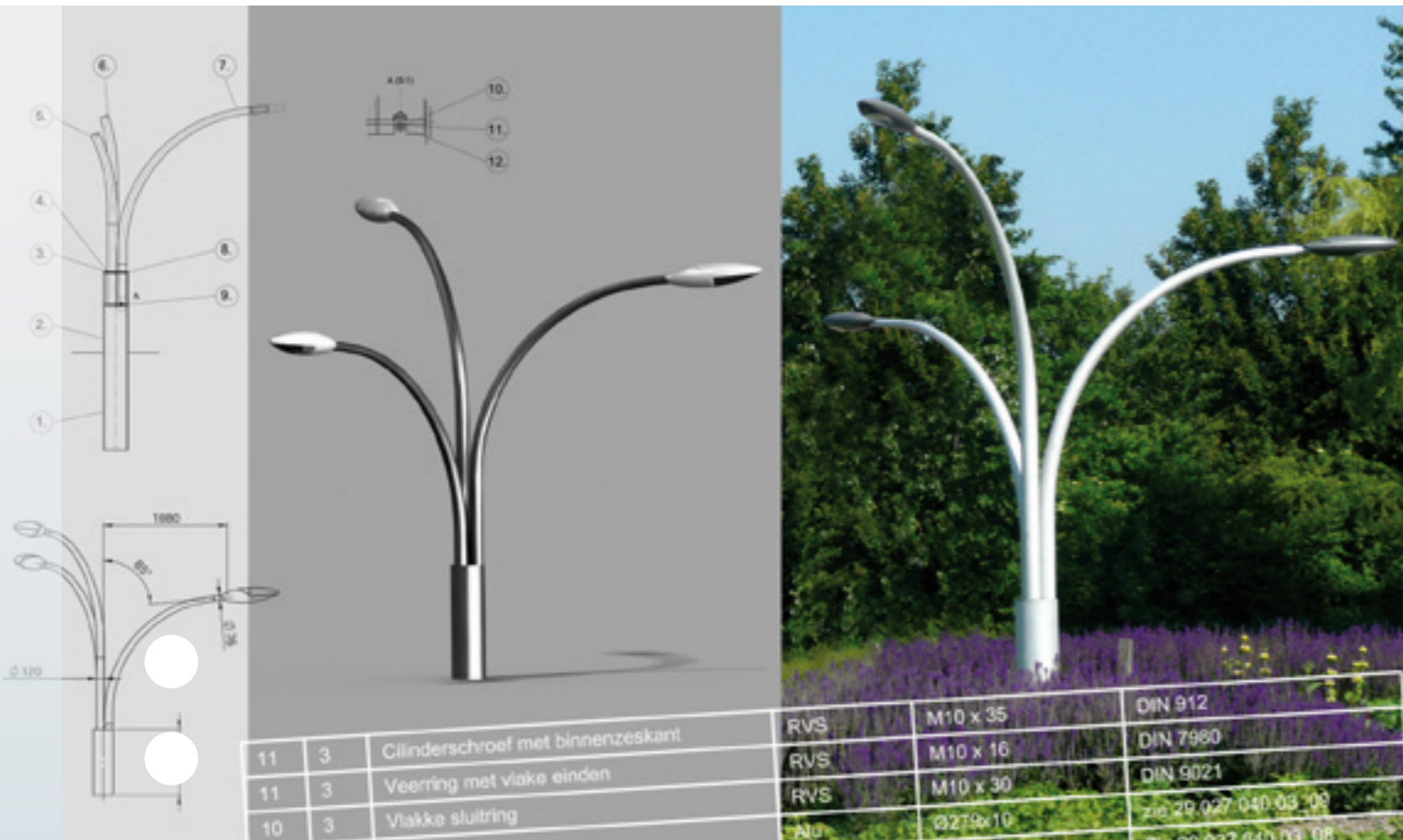
In urban areas where risk of a secondary impact is high, poles require a high-energy absorbing classification. The best high energy absorbing classification for occupants is HE3. To obtain the HE3 classification, a patented "catch-up" construction is integrated into the pole. The construction ensures that, during impact, the speed of the vehicle is significantly reduced while, at the same time, guaranteeing maximum occupant safety.

Passive Safety saves lives

Have you ever thought of the impact of a collision when a car hits a light pole? Accidents do happen and can happen to all of us. Even at low speeds, a collision can be fatal. The crash friendly aluminum poles from Sapa reduce the risk of personal injury after a collision and, therefore, increase your safety on the road.



Frontal impact – 100LE3 crash test



Innovative aluminium solutions

Sapa has the ambition to turn good ideas into achievable projects. Together with the customer, the engineers of Sapa transform your imagination, innovation and inspiration into solutions.

[Page 16](#) Functional light poles

[Page 18](#) Custom made design

[Page 20](#) Soluxio, the advanced solar light system

[Page 22](#) Multifunctional poles

[Page 24](#) Raise & Lower poles

[Page 26](#) Traffic Regulation Installations

[Page 28](#) Traffic Signal Poles

[Page 30](#) Traffic Sign Posts



A73 Nijmegen - The Netherlands

Our broad range of functional light poles consists of conical and cylindrical stepped light poles. They are manufactured from seamless aluminium tubes and are supplied as standard in natural brushed aluminium. If required, we deliver the light poles anodized or electrostatically powder coated.

Functional light poles are crucial for safety in the dark



Auckland Airport - New Zealand



Leeuwarden - The Netherlands

Functional light poles, the standard in our streetscape



A light pole can have beautiful lines, an exciting shape or an interesting structure. But first and foremost, a light pole is part of a series. Along roads, they form a repeating pattern. This not only makes them crucial for nighttime safety but also esthetically pleasing for the daytime appearance of roads.

Conical light poles

Conical light poles offer many possibilities in terms of height and diameter, tailored to your needs, luminaries and location. You can choose from conical post top light poles, conical light poles with bracket(s) and conical bended light poles, all of excellent quality. They mostly have a cylindrical part at the base with a door section, followed by a conical section and finally a cylindrical top to fit a lantern.



Jönköping - Sweden

Cylindrical stepped light poles

Our range of cylindrical stepped light poles consists of cylindrical stepped post top light poles and cylindrical stepped light poles with bracket(s). Characteristic of the cylindrical stepped light poles is that the different pole diameters decrease towards the top of the pole. The position and number of steps can be altered to suit your design.



Tilburg - The Netherlands



El Jadida - Morocco



Aluminium has specific properties that make the material ideal for use in public spaces. In decorative projects, aluminium provides numerous opportunities. Where light poles become limited edition works of art, designers choose for light poles from Sapa. We have all the facilities for in-house product development and the production of aluminium light poles even in small quantities.

Our long experience in machining aluminium, our expertise in the field of the international standards for light poles and a team of professional and enthusiastic people enable us to convert your ideas into achievable projects. This leads to high-quality light poles in unique shapes and designs.

Together we make innovative aluminium solutions. Your imagination is the fuel for our creativity...

Custom made design, shaped by your ideas

A unique urban plan requires unique lighting. The features and functions of your urban landscape demand custom made solutions; solutions in the form of light poles turned into unique, specially designed objects that become one with the surroundings or provide accents in the urban environment.



Alkmaar - The Netherlands



Albertillery - United Kingdom



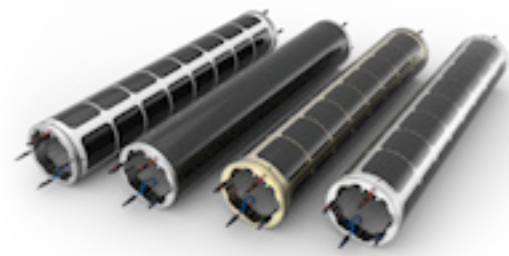
Houllgate - France



Soluxio:

Soluxio, the advanced solar light system

The use of solar power systems has increased considerably in recent years including in public lighting. A new generation of stand-alone light poles is being introduced: Soluxio, innovative solar panel technology integrated in an aluminium light pole that offers economic and sustainable benefits.



Soluxio modules

Designed with sustainability in mind, the Soluxio automatically adjusts to deliver the required amount of energy even in cases of cloudy weather, low yield or indirect sunlight. The Soluxio works exclusively through solar power, storing generated energy acquired through several integrated cylindrical solar modules in built-in battery packs. The stored energy can also be used for other applications such as a surveillance camera, weather station or a GPS system.

Efficient shape

The circular shape is aesthetically pleasing and offers numerous efficiency advantages. The patented, circular solar module has an exact fit to create a smooth surface, which makes sure that no dirt and sand can stick to the pole. Furthermore, the overall resistance in deflection, torsion and buckling is much higher than for octagonal, hexagonal or square shapes. Moreover, the shape is perpendicular to the sun, from all angles, which guarantees a better irradiation of the solar cells.

Modular system

Soluxio consists of aluminium profiles, with one or more integrated solar modules. Depending upon the amount of energy required, you can choose the configuration of the light pole, that is, the number of solar modules and the number of batteries. The modular system can be extended with different types of brackets, depending upon the luminaries chosen.

SmartControl

Soluxio has an intelligent control system. Once configured according to user requirements, the main control unit operates autonomously without any user actions being required. The lighting schedule can be configured in detail, allowing for smarter and more sustainable lighting.

Custom design

Soluxio not only offers a high technical performance, but can also be customized based on your preferences. In high-profile areas, such as boulevards or green urban streets, the Soluxio can be designed to fit perfectly into its surroundings or to stand out. Powder coating, anodizing, special patterns and colored solar modules are an option.

For areas where no cabling or infrastructure for lighting is available or prestige projects in the field of sustainability, Soluxio is the solution.

Soluxio offers economic and sustainable benefits



Rome - Italy



Rheden - The Netherlands



Custom design



Marin Place, Sydney - Australia

Multifunctional poles, combining different functionalities

Are you familiar with the problem of street clutter? Those busy crossroads with unnecessary poles that populate the streetscape? Multifunctional poles deliver a solution where many urban streetscape applications can be co-located on a single pole rather than a series of poles with individual applications. This frees up space and improves the environment visually and operationally.

Multifunctional poles improve the environment visually and operationally

Combing different elements

Multifunctional light poles deliver a wide range of options from a small number of components. Different elements can be attached to the pole such as traffic lights, street signage, power outlet fittings, festive decoration support structures, banners, CCTV and security equipment.

Multifunctional poles are suitable for highways, major roads, local roads, pedestrian precincts, car parks and sports grounds.

Strong, structural system

Sapa Pole Products is a partner of Metro Smart International FZCo, a UAE registered company located in Dubai, supplier of different types of multifunctional poles. These multifunctional poles consist of a patented, modular and flexible system. The structured profile allows us to combine a variety of elements on the pole, representing different functionalities and giving the pole its multifunctional character. Internal strengthening enables significant loads to be attached in all terrain categories.

Longevity, with ease of installation and transportation

All multifunctional poles are made of marine grade aluminium profiles, assuring longevity in all environments along with ease of installation and transportation due to the light weight of aluminium. Optionally, the surface can be anodized or powdercoated.



Paddington, Sydney - Australia



Paddington, Sydney - Australia



Marin Place, Sydney - Australia



hilo:

Raise & Lower poles with wedge

The Raise & Lower poles with wedge have an ingenious hinged mechanism that is located just above the door section. The seamless fitted hinge mechanism is invisibly integrated into the pole. After the door is opened, you can unlock the hinged mechanism from inside the pole.



Hinged mechanism (wedge)

Raise & Lower tool

The optional Raise & Lower tool provides easy operation of poles with a higher top weight such as heavier cameras or traffic lights. The operation of the pole from ground level can still be performed manually, to facilitate safe and cost effective maintenance. For a demonstration movie of the Raise & Lower tool visit our website.

The Raise & Lower poles from Sapa are especially designed to carry out maintenance on cameras and other devices in a safe and secure manner

Raise & Lower poles with winch

The Raise & Lower pole with winch is provided with an integrated hinged system. The hinged mechanism is located halfway up the pole, which allows the top of the pole to be lowered to working height.

Raise & Lower poles, allowing easy and safe operations



Raise & Lower pole (low hinged)

Cameras and traffic lights require regular maintenance. The Raise & Lower poles from Sapa, called Hilo, can be operated manually due to the low weight of aluminium, allowing the carrying out of maintenance in a safe and secure manner.

Raise & Lower poles are mainly used for camera applications, but also its use as a Traffic Signal Pole is increasing. Because a cherry picker is no longer needed, you avoid the dangers of working at height and save significantly on the cost of maintenance and traffic management. There are two different types of hinged mechanisms available depending on the type of pole. Both variants are crash friendly in accordance with the European EN 12767 standard.



Raise & Lower pole (high hinged)





Support for pedestrian crossing sign



ADVIOS (Temporary TRI)

Traffic Regulation Installations, offering safety in public spaces

The traffic on our roads and in public spaces keeps on growing. To increase safety for all road users, it is important to manage traffic in the right direction. Traffic Regulation Installations (TRIs) play an important role within this context.



Multi legged Sign Post

Besides light poles, Sapa Pole Products offers a variety of aluminium poles and structures for traffic signs, warning signs and static signs. The range of TRI products can be divided into two families: Traffic Sign Posts and Traffic Signal Poles.

By using Sapa aluminium Traffic Regulation Installations, you will be impressed with the ease of installation coupled with the improvements to safety and health and, in particular, manual handling and the reduced requirement for working at height.

Safety first

Safety in public spaces is a prerequisite for products for facilitating traffic. Sapa Pole Products test its products extensively both by its own engineers and by an independent accredited test institute. As a result, you are assured of reliable products that are certified according to the applicable European EN 12899 standard and tested in accordance with the EN 12767 standard. All certificates are endorsed by a Notified Body.

Crash friendly

Sapa offers Passive Safe Traffic Regulation Installations, fully crash tested (NE2) and endorsed by a Notified Body. Crash test movies can be found under the Passive Safe page of our website.

Easy and safe installation

Due to the light weight of aluminium, TRIs are easy and safe to install. The light weight of the horizontal beam of cantilevers and gantries allows easy preassembly of traffic lights on site.

Saving on maintenance costs

During its lifespan, a Sapa TRI does not have to be disassembled for maintenance like other material structures. Due to the natural oxide layer of aluminium, surface treatment is not necessary.

Different foundation possibilities

Installation in soil (Soil S), concrete (Rigid R) or a special foundation (Type X) in accordance with the EN 12767 standard is possible.

Combining elements

Traffic Regulation Installations can also combine different elements on the same pole such as traffic signals, street lighting and any illuminated signs to eliminate the number of poles in the streetscape.

Aluminium is perfectly suitable for Traffic Regulation Installations



Traffic Signal Poles and push button poles

Traffic Signal Poles, giving you the green light

Traffic Signal Poles come in all shapes and sizes. From the largest bespoke gantries to cantilevers and push button poles. Sapa Pole Products has developed a range of Traffic Signal Poles that is suitable for all types of traffic situations, helping to keep all road users safe.

The range of Traffic Signal Poles consists of:

- Traffic Signal Poles
- Cranked Traffic Signal Poles
- Raise & Lower Traffic Signal Poles
- Push button poles
- Cantilevers
- Gantries
- Universal poles that allow attachments and extensions

Safe installations & maintenance

Raise & Lower versions of the Traffic Signal Poles overcome the problems and risks of working at height. A hinge enables the pole to be cranked down by an operator who can work on repairs from ground level and away from the flow of traffic.

Crash friendly: Passively Safe, fully crash tested (NE2) and endorsed by a Notified Body.



Gantry



Detail signal head



Traffic Signal Pole (Punch 6m 165/145)



Cantilever



Cranked Traffic Signal Pole (Punch 4m cr 114/145)



Raise & Lower Traffic Signal Pole including hinge tool



Support for Variable Message Sign



Support for pedestrian crossing sign



Support for smiley board



PRIS (parking system) incl. lighting



Single legged Sign Post



Single legged Sign Post



Double legged Sign Post



Shored-up multi legged Sign Post

Traffic Sign Posts, leading the way

Wouldn't it be nice if the entire streetscape was of a uniform design? Where light poles and traffic sign posts, both aluminium structures, are a good match? Sapa offers the ultimate solution for your ideal image, so that beauty and signage go hand-in-hand.

We can offer a full range of supports for static and variable traffic signs, all under the family name Traffic Sign Posts. They are made from seamless aluminium tubes and entirely passive safe.

The range of Traffic Sign Posts solutions can be divided into three categories:

- Single legged Sign Posts
- Multi legged Sign Posts
- Shored-up multi legged Sign Posts

All Traffic Sign Posts can be provided with a door for electronic ballasts such as lighting. The low level access door allows access to the electrical connections, making installation and maintenance much safer and easier.



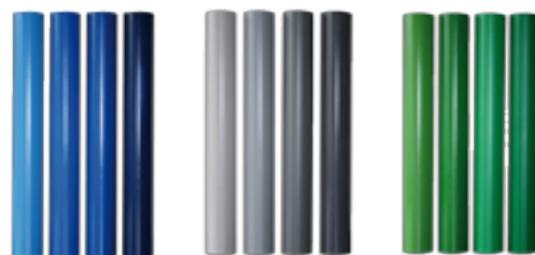
Barneveld - The Netherlands (Decolene wood finished)



Natural anodized Brushed finished

Surface treatment

The corrosion resistance of aluminium is excellent. This is why there is no need to surface treat aluminium poles. However, if a street image needs a certain color or design, there are of course possibilities to treat the surface with a coating or anodizing it.



Powder coated finish (RAL)

We provide a sample of what is possible, however, the shown options can differ when physically applied.

Powder coating

An electrostatically powder coated finish is available in a range of colors. RAL colors as well as DB colors or maybe even your own PMS color that suits your local environment.

Anodizing

Anodizing is one of the most common methods of surface treatment for aluminium, which gives the pole a nice matt appearance. The advantages of anodizing are that it increases corrosion durability, creates a dirt-repellent surface, offers a decorative finish with constant color and glow, and provides a touch friendly and functional surface.

Decolene

Are you searching for a light pole with the look of wood, and yet prefer aluminium? Decolene is the answer. Thanks to a unique and innovative process, Sapa Pole Products is able to produce poles in a range of decorative designs never before thought possible. It is also possible to create your own surface texture. The special Qualicoat coating guarantees color fastness and offers optimal protection against the influence of weather and UV radiation.



Decolene finish



Solutions for different situations

Loose sand, vandalism, work at ground level, installation in the ground ...
All situations where a pole requires extra attention. The accessories of Sapa Pole Products offer a solution in such situations that will protect and stabilize your pole.



Alulock

Optimal protection against vandalism

The door of a pole is often a target of vandalism. With the development from the **Alulock ①**, the unique patented door lock from Sapa Pole Products, vandalism will not stand a chance. The Alulock is provided with an oval-shaped stainless steel bolt with an oval eccentric bolt so that you can only open the door lock with a special key. The universal Alulock is also separately available for all Sapa poles.



A stable placement in loose soil

To counter possible sinking into the ground or unwanted turning from a pole in loose soil, the universal twist-on **ground plate ④** and/or twist-on **ground wings ③**, are the ideal solution. They are made from environmentally friendly PP (polypropylene) and easy to assemble. The universal ground plate and wings are available separately both for Sapa poles and poles from other manufacturers.

An additional protection against mechanical damage

In situations where a pole needs additional protection from being damaged at ground level (e.g. during mechanical sweeping, mowing or paving activities, or the installation of the pole), the ground level protector offers the solution. The **ground level protector ②** optimally protects the pole just below and above ground level, precisely where it is needed. The fully recyclable ground level protector is made of PP (polypropylene) and available in the colors black and gray. The material is UV stabilized for optimal protection against the sun. Ground level protectors are factory installed by Sapa or can be included in a delivery as an accessory.



Invisible joint

A smooth transition between pole and bracket

When poles consist of several parts, e.g. poles with a separate bracket, it is possible to establish an aesthetical finish by means of the **invisible joint**. The joint is almost invisibly integrated between the pole parts. Besides the aesthetic benefits, the invisible joint also supplies logistical advantages: a pole in two or more parts is easier to transport and requires less storage space.

Placement in the ground

In situations where a pole is installed in the ground, the pole is provided with a root section. The length of the root section depends on the height of the pole and soil conditions as specified in the EN 40-6 standard. The root section has a cable entry to allow the passage of electric cables.

Anti-corrosion tape is applied to the root section of the pole up to a height of 250 mm above ground level. The tape provides protection against corrosion throughout the life of the pole and is, at the end of the pole's lifespan, completely strippable and 100% recyclable.



Malécon, Havana - Cuba



Bacia Norte do Patane – Macau



St. Margarets college, Christchurch - New Zealand



Schiphol Airport - The Netherlands



London – United Kingdom

Worldwide projects



Hersbruck - Germany



Shuaiba Refinery – Kuwait



Malaga - Spain



Brussels – Belgium



Nouasseur - Morocco



Sydney – Australia