



High Capacity Poles (HCP)

Strong, multi-purpose, crash-friendly & more sustainable



Whether it's traffic signs, wind turbines, or art objects, Hydro's lightweight aluminium High Capacity Poles (HCP) offer maximum stability, safety and versatility when placing heavy objects in public spaces. The crash-friendly structure contributes to safer traffic, an important concern for municipalities, road authorities

and road users. In addition, the HCP ensures rapid installation and offers important sustainability benefits, combined with a high load-bearing capacity and robust foundation. Safer. Smarter. Stronger and more durable. Discover how the Hydro HCP product family can be of service to you.

Maximum safety along the road

Road safety comes first. From end-users, such as municipalities and road authorities, up to contractors out in the field: all parties involved are looking for safe, robust and practical solutions for traffic signs, cameras and other infrastructure along roads and motorways. Hydro High Capacity Poles (HCP) offer the perfect combination of strength, safety and sustainability, offering quick and easy installation.



Crash tests &
white paper

Certified passive safe and smart engineering

The HCP product family is certified according to EN 12767 and is available in single-leg and multi-leg structures. Thanks to a specially designed base plate structure that is attached only with bolts, the poles are easy to install or replace, whilst more resistant to dynamic forces than many welded variants, for example. An illustrative example:

An HCP with a wall thickness of only 3 mm (non-welded) typically outperforms a conventional, welded pole with comparable outer diameter and wall thickness of 10 mm. This underlines the strength of the design. In some cases, thanks to the crash-friendly nature of the

HCP, it is not even necessary to use guardrails, resulting in significant cost savings.

Years of experience with passive safety

We have been conducting crash tests on our aluminium poles since the 1970s. This experience has resulted in a complete range of safe, crash-friendly solutions that minimise the risk of personal injury in the event of a collision. We have bundled our knowledge and expertise in a comprehensive white paper. Scan the QR code for crash test videos and download the white paper on crash-friendly support structures.



Dangerous accident due to a non-crash-friendly pole



Crash test shows safety of crash-friendly pole



Multi-leg HCP



Single-leg HCP



Prefabricated foundation for quick installation

Strong & stable in every situation

Wind turbines, art objects, cameras and other installations require a solid foundation that can withstand significant forces and vibrations. End users are looking for a solution that is both powerful and flexible, as well as quick to install. Hydro High Capacity Poles (HCP) offer just that: high load-bearing capacity, various applications and a more sustainable, maintenance-free structure.



High load-bearing capacity and maximum stability

The HCP has an exceptional load capacity of over 80 kNm, three times higher than most standard aluminium alternatives. This makes HCP ideal for applications such as wind turbines and cameras, where stability is crucial, but the HCP also provides a robust solution for other challenges, such as art objects.

Smart foundation, quick replacement

The specially developed base plate and prefabricated concrete foundation ensure quick installation. Replacement is easy in case of

damage or at the end of the pole's lifespan. Thanks to its low weight, the material is easy to handle and install.

More sustainable and full-service solution

The aluminium pole is Cradle to Cradle (C2C) Certified® silver, completely maintenance-free and 100% recyclable. Hydro not only supplies the pole, but remains involved throughout the process. From strength calculations to foundations and mounting structures: we provide the complete package. All this with one point of contact combined with a full-service solution, that is our approach.



Wind turbine on HCP



Heavyweight decorative object on top of a HCP pole

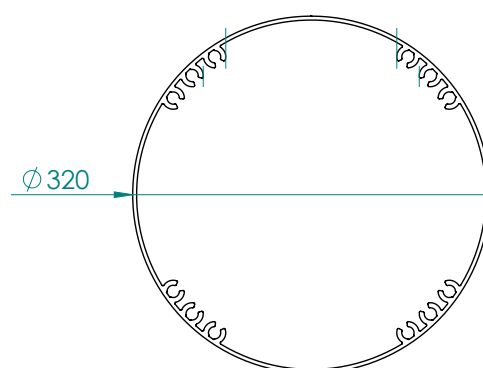
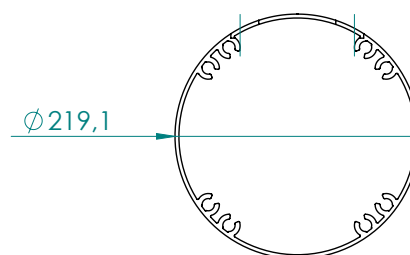
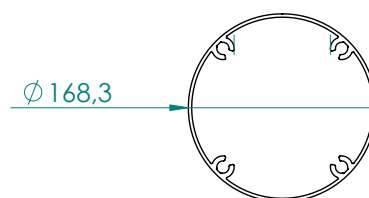


HCP with camera, powder-coated in customer-specific colours

The Hydro HCP family

Hydro HCP is currently available in four different sizes, tailored to different applications. Each pole offers the optimal combination of diameter, load-bearing capacity and installation options.

	Hydro HCP family			
	HCP108	HCP168	HCP219	HCP320
Diameter	108 mm	168 mm	219 mm	320 mm
Base plate anchor bolt spacing	200 mm	200 mm	300 mm	300 mm
Resistance moment	7,6 kNm	16,0 kNm	37,0 kNm	81,7 kNm
Torsional moment	2,3 kNm	4,8 kNm	10,2 kNm	23,0 kNm
Weight	approx. 4 kg/m	approx. 5,5 kg/m	approx. 9 kg/m	approx. 13,5 kg/m
Mounting	4 shear bolts M12 x 150	4 shear bolts M12 x 150	8 shear bolts M12 x 150	12 shear bolts M12 x 150
Door opening possible	No	Yes	Yes	Yes



Why choose Hydro HCP?

- **Multi-purpose** – From traffic infrastructure to wind turbines.
- **High strength** – Bending capacity of more than 80 kNm.
- **Lightweight** – Easy to process on site.
- **Quick installation** – Base plate structure with solid foundation.
- **More sustainable** – 100% recyclable and maintenance-free.

Curious about the possibilities?

Contact us without obligation and discover how Hydro HCP can strengthen your project!



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Hydro is a global supplier of aluminium with activities across the entire value chain, from bauxite mining to the production of extruded aluminium products and building systems. The company is based in Norway with 35,000 employees in more than 40 countries. With over a century of experience in renewable energy production, technology development and forward-thinking partnerships, Hydro is committed to strengthening the viability of the customers and communities it serves.