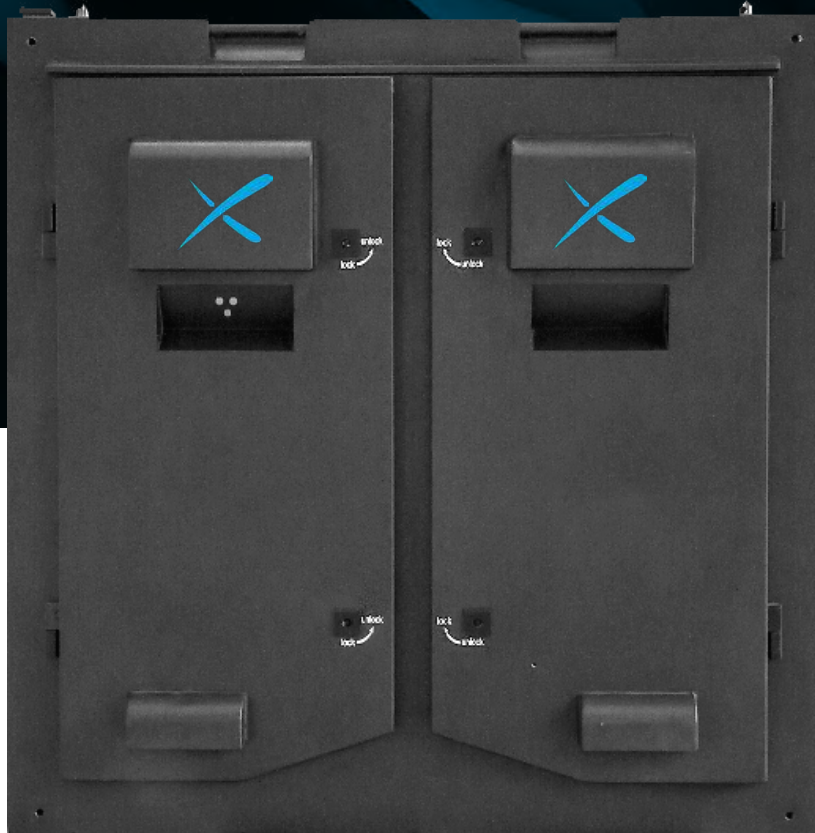




# HYDROGEN

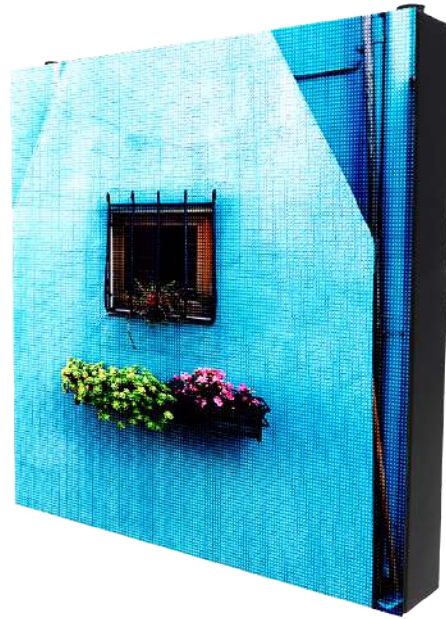
CUSTOMIZABLE INDOOR & OUTDOOR LED DISPLAY





## OVERVIEW

The HYDROGEN is our industry-standard and most accessible cabinet. It's a highly customizable product, able to fit all kinds of LED applications in many environments. Most of the HYDROGEN's components are changeable or customizable, from the structure to the electronics. The many options available make this LED cabinet one of the most adaptable products in our range.



APPLICATION  
**Indoor / Outdoor**



INGRESS PROTECTION  
**IP41 (indoor)  
IP65 (outdoor)**



PIXEL PITCH  
**P4 P5 (indoor)  
P3 P4 P5 P6 (outdoor)  
P6.6 P8 P10 (outdoor)**



DISPLAY AREA (W x H)  
**960 x 960 mm  
576 x 576 mm (P3)  
768 x 768 mm (P4)  
1024 x 768 mm (P4)**



BRIGHTNESS  
**≤ 2000 NITS (indoor)  
≤ 6000 NITS (outdoor)**



WEIGHT  
**40 - 50 kg/sqm**



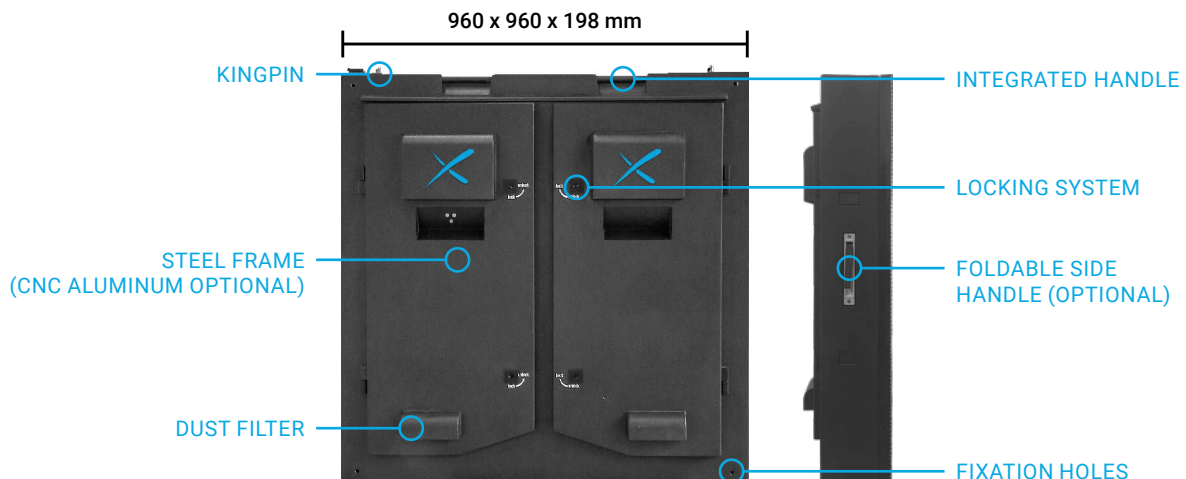
MATERIAL  
**Reinforced steel**



MAINTENANCE  
**Back & front maintenance  
(indoor)  
Back maintenance (front opt. -  
outdoor)**



## FEATURES



## CUSTOM CABINETS

The HYDROGEN can be made of steel or CNC aluminum depending on the project. Steel cabinets, mostly dedicated to fixed LED applications, are heavy but robust, with a long lifespan. However,

some projects require a lighter product, which is why we also sell CNC aluminum cabinets that weigh up to 20% less than steel cabinets.



**BACKDOOR LOCKING SYSTEM**



**HYDRAULIC SYSTEM (OUTDOOR)**



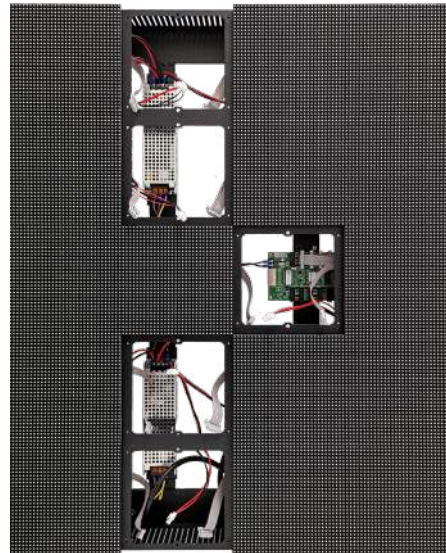
**+/-10° CURVES (OPTIONAL)**

## WATERPROOFING

Upon request, we can implement additional waterproof protections on the power and data connectors, locking system, and wiring, ensuring a dry and flawless cabinet no matter the environment. Using car sealing protection for the back doors of the HYDROGEN insure 100% waterproof protection.

## MODULES

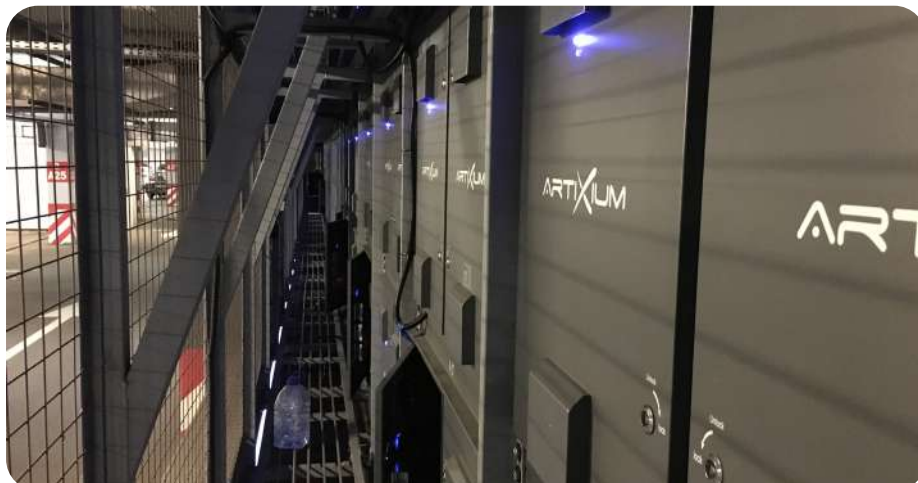
The HYDROGEN modules come in various dimensions to better fit any requirement. With a wide range of pixel pitches using SMD or DIP LEDs, the modules are optimized with protection masks (optional for indoor versions) for better resilience and better contrast.



## MAINTENANCE

Most of the HYDROGEN cabinets can be maintained from the front or from the back. The outdoor versions can be optimized with a hydraulic system that gives

access to the power box from the front, and the P5 to P16 outdoor versions can be provided with magnetic modules.



## DIFFERENT FRAME TYPES



OPEN FRAME

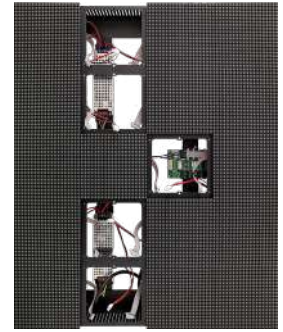


BACKDOORS

## MAINTENANCE MODE



HYDRAULIC SYSTEM



MAGNET SYSTEM

## ELECTRONICS

The HYDROGEN is fully EMC compliant, with cable management following the AWG (American Wire Gauge) guidelines. Line filters protect the power supply from power surges with safety ear-

thing. Other optional electronic features are also available, such as monitoring boards, light sensors for power efficiency, and a 3G control system.



## INTEGRATION

The integration of the HYDROGEN can be done in many different ways. Because of the cabinet's weight, this process requires several technicians, yet it offers multiple possibilities such as wall integration, hanging, stacking, and more else. Once integrated, the HYDROGEN LED display makes for a sturdy and durable installation.

## CURVE AND 90° OPTIONS

Upon request, we can provide HYDROGEN cabinets designed to allow +/-10° curves or 90° angles. This adds yet more possibilities to fit your custom LED display project.



## SIZE CUSTOMIZABLE ON DEMAND





## TECHNICAL SPECIFICATIONS

		INDOOR	
Product Parameters	Unit	4	5
Pixel Pitch	mm	4,00	5,00
LED		SMD2020 3in1 (Black Face)	SMD2020 3in1 (Black Face)
Application		Affordable and customizable integration	
Ingress Protection	IP	IP41	
Brightness	cd/sqm	≤ 2000 Nits @5volts	
Color Temperature after calib (adjustable)	deg. K	6500	
Viewing Angle (50% brightness)	deg.	140(+/-70) H / 140 V	
Cabinet Size (WxHxD)	mm	768 x 768 x 198	960 x 960 x 198
Display area (WxH)	mm	768 x 768	960 x 960
Module Size (WxHxD)	mm	256 x 128	320 x 160
Pixel Matrix Per Cabinet (WxH)	px	192 x 192	192 x 192
Pixel Matrix Per Module (WxH)	px	64 x 32	64 x 32
Pixel Density	px/sqm	62500	40000
Weight	kg/sqm	50	
Cabinet Material		Steel + CNC	
Maintenance Mode		Front and back (tools required for front)	
Mask specification		95% Plastic + 5% Fiber / SS Screws / Shaders	
Contrast Ratio		High	
Grey scale (linear)	bit	16	
Brightness control	bit	16	
Processing depth	bit	16	
Color		281 Trillions	
Display Refresh Rate	Hz	3840	
Operation Power	V	AC85-230V	
Max. Power Consumption	W/sqm	600	
Average Power Consumption	W/sqm	200	
Control Mode		Synchronization	
Video Frame Rate	Hz	50/60Hz	
Input Types Supported		DVI / SDI / HDMI	
3D ready (optional)		Yes	
Calibration		Yes	
Lifetime (50% brightness)	h	50000	
Operating Humidity Range		10-95%	
Operating Temperature Range		-10°C / +50°C	
Screen Uniformity Correction			
Certification		CE / ETL / CCC	
Available options		Aluminum, Neutrik connectors, customizable size, curved, open frame available	
Compatibility		No	



## TECHNICAL SPECIFICATIONS

Product Parameters	Unit	OUTDOOR							
		3	4	5	6	6,6	8	10	
Pixel Pitch	mm	3	4	5	6,00	6,67	8	10	
LED		SMD1921 (Black Face)			SMD2727 3in1 (Black Face)		SMD3535 3in1 (Black Face)		
Application		Affordable and customizable integration							
Ingress Protection	IP	IP65 (front) / IP54 (rear)							
Brightness	cd/sqm	≤ 6000 Nits @5volts							
Color Temperature after calib (adjustable)	deg. K	6500							
Viewing Angle (50% brightness)	deg.	140(+/-70) H / 140 V							
Cabinet Size (WxHxD)	mm	576 x 576 x 198	960 x 960 x 198 / 1024 x 768		960 x 960 x 198				
Display area (WxH)	mm	576 x 576	960 x 960 / 1024 x 768		960 x 960				
Module Size (WxHxD)	mm	192 x 192	320 x 160 / 256 x 128		320 x 160 / 160 x 160	192 x 192	320 x 320 x 25	320 x 320 x 25	320 x 160 / 160 x 160
Pixel Matrix Per Cabinet (WxH)	px	192 x 192	240 x 240 / 256 x 192		192 x 192	160 x 160	144 x 144	120 x 120	96 x 96
Pixel Matrix Per Module (WxH)	px	64 x 64	80 x 40 / 64 x 32		64 x 32 / 32 x 32	32 x 32	48 x 48	40 x 40	32 x 16 / 16 x 16
Pixel Density	px/sqm	111111	62500		40000	27778	22500	15625	10000
Weight	kg/sqm	45						40	
Cabinet Material		Steel + CNC		Reinforced Steel					
Maintenance Mode		Back only (front optional)							
Mask specification		95% Plastic + 5% Fiber / SS Screws / Shaders							
Contrast Ratio		High							
Grey scale (linear)	bit	16							
Brightness control	bit	16							
Processing depth	bit	16							
Color		281 Trillions							
Display Refresh Rate	Hz	3840							
Operation Power	V	AC85-230V							
Max. Power Consumption	W/sqm	900							
Average Power Consumption	W/sqm	300							
Control Mode		Synchronization							
Video Frame Rate	Hz	50/60Hz							
Input Types Supported		DVI / SDI / HDMI							
3D ready (optional)		Yes							
Calibration		Yes							
Lifetime (50% brightness)	h	50000							
Operating Humidity Range		10-95%							
Operating Temperature Range		-20°C / +60°C							
Screen Uniformity Correction									
Certification		CE / ETL / CCC							
Available options		Aluminum, Neutrik connectors, customizable size, curved							
Compatibility		No							

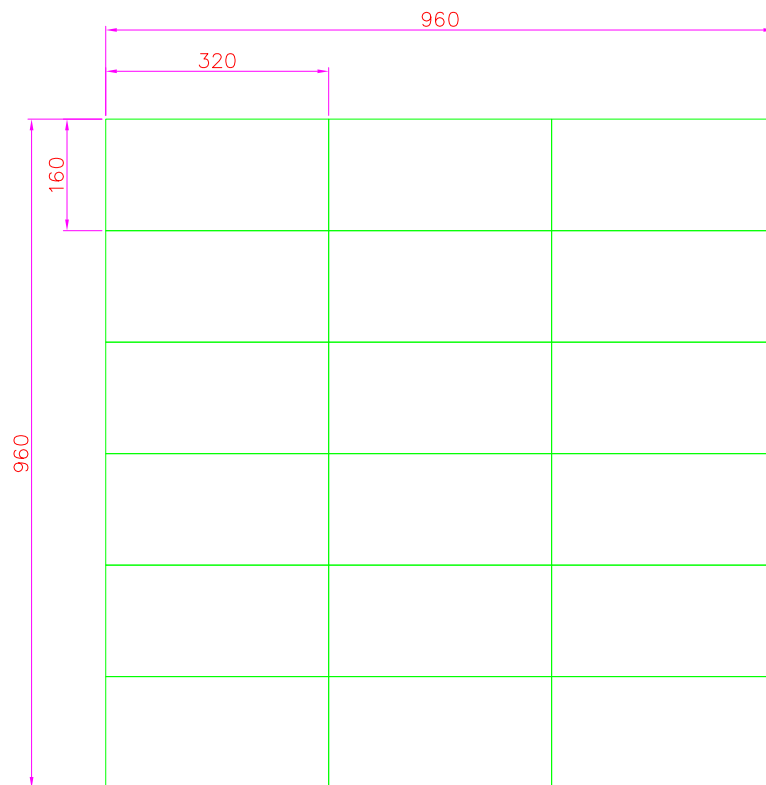
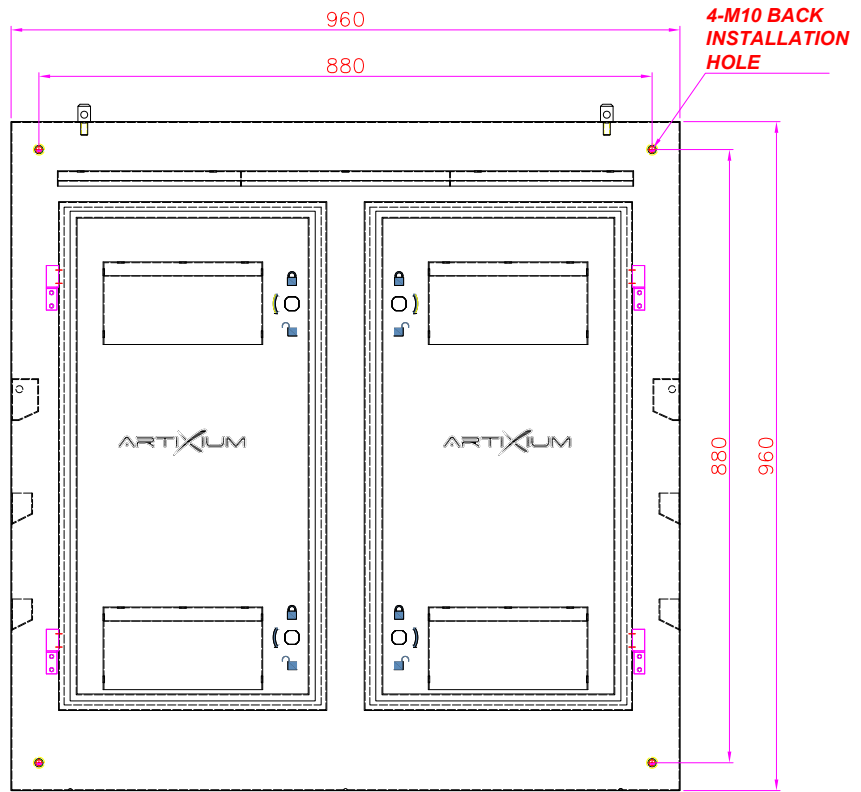
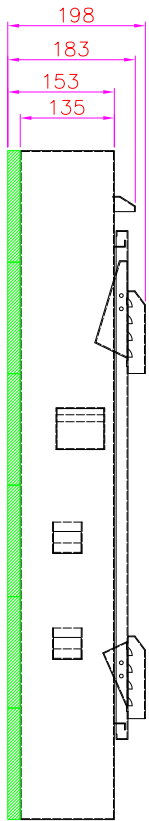


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# TECHNICAL DRAWINGS

960 X 960 X 198 MM





# CONTACT

The Artixium regional branches are the key for the growth and development of our global network all over the world. Artixium's team is a spectrum of different nationalities and cultures, reflecting their global presence and mindset, mak-

ing their communication smooth and hassle-free with clients from all around the world. Customer care, Innovation and flexibility has always been our values and we intend to keep this reputation for many years to come.

## ARTIXIUM FRANCHISES

*"From your project's conception to its completion."*



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Since its creation in 2012 by two european entrepreneurs, Artixium has been evolving and always looking for innovative ways to contribute to the digital transition of our world. It only took a few years for Artixium to become a key player in the LED display industry.

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[www.artixium.com](http://www.artixium.com)