

Sustainable

Durable

Luxurious

Innovative

**FUSED BAMBOO FOR EXTERIOR USE**

DECKING / CLADDING / SOFFIT / FENCE / LUMBER & PANEL

*dasso · bambo*







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*dasso group, founded in 1993, is the global leader and innovator of the bamboo industry. With over 27 years' history of manufacturing bamboo, dasso now have 8 manufacturing facilities and over 1000 employees, in addition to owning over 2,700 acres of productive, sustainable bamboo forest in China.*

*dasso has the most advanced crafts, technology and automated manufacturing equipments; we gathered some of the most talented people to develop the most perfect management system for production and quality control, which enable dasso to provide the bamboo products with superior quality and become the most powerful integrated solution provider for bamboo products. dasso offers dassoFLOORING, dassoELEMENTS, dassoXTR®, dassoCTECH® as regular product range.*

*In addition to conventional products, dasso group cooperates with design institutes and developers in order to provide customized products, such as: the bamboo fire-resistant ceiling of Madrid International Airport; Bamboo acoustic material of Wuxi Grand Theater; special bamboo elements in Culture and Art Center of Fuzhou Strait ... until now, we have completed more than 1,000 projects in more than 40 countries all over the world.*



#### **Hangzhou Dasuo Technology Co.,Ltd**

*Multi-purpose production facility produces 2 million m<sup>2</sup> per year.*



#### **Hangzhou Zhuangyi Furniture Co.,Ltd**

*Furnishing Plant 400 x 40 FCL container per year.*



#### **Fujian Dasso Industry Co., Ltd**

*It will be in production by February 2020, with an annual production (dassoXTR & dassoCTECH) capacity of 2 million m<sup>2</sup>,with additional facilities for further expansion.*



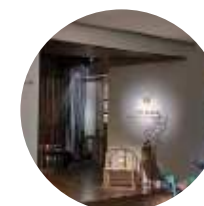
#### **Zhejiang Daocheng Bamboo Industry Co., Ltd**

*An overseas sales team of dasso bamboo products, whose business is around the world with more than 50 staffs.*



#### **Jiangxi Zhushang Bamboo Industrial Co.,Ltd**

*dassoXTR production facility produces 1 million m<sup>2</sup> per year.*



#### **Zhujia Gallery**

*Integrated design, development, sales and promotion of green bamboo, original design of bamboo crafts.*



#### **Zhejiang Xinhaiye Bamboo Technology Co.,Ltd**

*dassoXTR production facility produces 500,000 m<sup>2</sup> per year.*



#### **Shunchang Zhujia Bamboo Industrial Co.,Ltd**

*Multi-purpose production facility produces 200,000 m<sup>2</sup> per year.*



- Fused Bamboo 10,000,000 M<sup>2</sup> has been installed all over the world
- Next Generation of Hard Wood for Exterior Use
- From Natural to Natural





## Fused Bamboo for Exterior Use

Through its patented "heat treatment" technology, dasso processes fused bamboo into dassoXTR for exterior use in classic "Espresso" color; With the application of Ceramix Technology, dassoCTECH exterior materials have wonderful performance outdoor while retaining the original color - Cognac. Both dassoXTR and dassoCTECH can be processed into decking, cladding, soffit, fence, lumber and panel, which are widely used in commercial and residential projects.



**Decking**  
Reversible face  
Structural T&G end match



**Cladding**  
Simple, easy hidden fastener system  
Modular T&G end match installation



**Soffit**  
Easy hidden fastener system  
Structural T&G end match



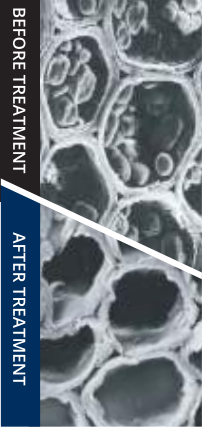
**Lumber and Panels**  
Wide range of usage  
Flexible for customized production





Technology Principle

dassoXTR



dassoXTR patented fusion process extracts the sugars and starches from the bamboo fibers and replaces it with phenolic resins. Then the impregnated fibers are compressed to create a very hard, dense and durable Fused Bamboo® that prevents bacteria, fungus and other micro-organisms from attacking dassoXTR.

dassoCTECH



dassoCTECH is crystallized the fibers with Ceramix® particles, impregnated it with phenolic resin (the same resin found in bowling balls), then compressed to form Fused Bamboo. Because Fused Bamboo is now fully impregnated with Ceramix® particles that crystallizes the nutrients from attracting bacteria, fungus, molds or insects, the fibers does not rot under exposed environments.

Fused Bamboo vs Other Exterior Materials

Competitive Material	dassoCTECH	dassoXTR	ipe	Balaau(Bangkirai)	Teak	Meranti Batu	Western Red Cedar
Density(kg/m3)	1,200	1,100	1,060	850	655	480	340
Stiffness MOE(MPa)	16,700	14,490	22,070	16,950	11,280	11,390	7,660
Janka Hardness(N)	17,659	16,992	15,620	7,120	4,740	2,460	1,560
Durability(Class)	1	1	1-2	2	1-3	3-4	2

The Feature of Fused Bamboo



Environment Friendly

Ready for harvest after 4-6 years  
[Compared to up to 100 years for  
hardwood species]—no deforestation



Mould Resistance

Class 0  
[DIN EN ISO 846: 1997-10]  
[DIN EN 152: 2011]



Fire Resistance

Class A-ASTM E84  
BFI-s1-EN13501-1  
BAL 29-AS 1530.8.1-2007



Termite Resistance

Reticulitermes saranensis  
DC Ddurable)  
[EN 117]  
Class 1-AS 5604 (2005)



Hard & Durable

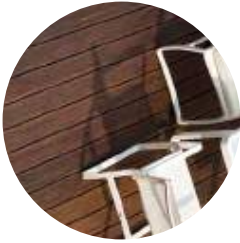
Brinell > 9.5KG/mm2 [EN1534], harder  
than any other hardwood.  
Durability: Class 1  
[CEN/TS 15083-1: 2005][EN 350: 2016]



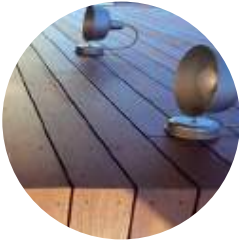
Warranty

Applicable Residential and  
Commercial Warranty

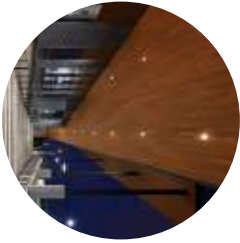
The Process of Fused Bamboo



Decking



Cladding



Soffit



Lumber & Panel

Technology Patented

dasso is the owner of fused bamboo processing technology and patent, and has been protected by technology patent in many countries.



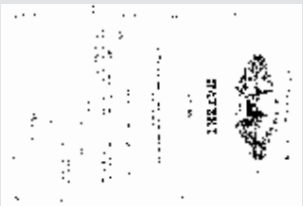
Europe  
2269788



Singapore  
SG165525



United States  
US870958B2



Russia  
RU2446940C1



Malaysia  
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China  
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Australia  
2008355033.0



Anantara Hotel in Maldives



DECKING



dassoXTR

dassoCTECH



*dassoXTR & dassoCTECH Decking are the superior choice for all exterior decking applications and has been used worldwide in many commercial and residential projects. Only two decking profiles are needed for your exterior decking application. A single grooved (G1) plank used as starter and ending plank and the G2 for the deck itself. All our deck planks also include our exclusive tongue & grooved end matched system to attach the planks seamlessly together.*


Feature


**End Matched**

**Fire Resistance**

**Reversible Faces**

**Stable & Precise**

**2-Side Grooved**

**Termite Resistance**

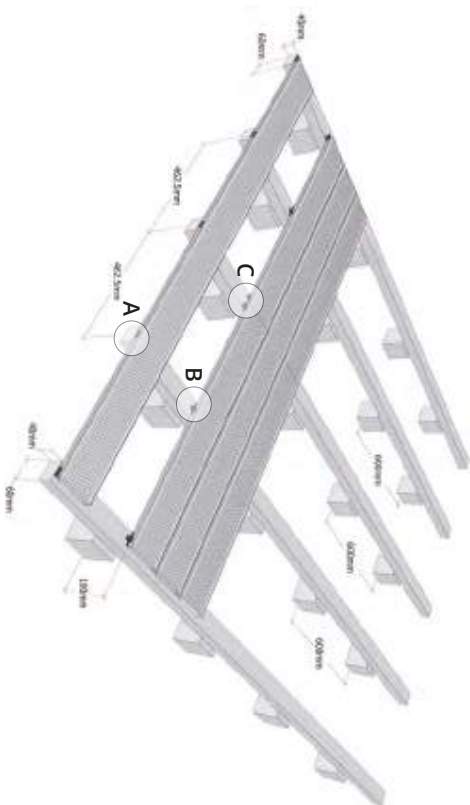
**Hard & Durable**

**Mould Resistance**

Specification

dassoXTR Decking	dassoCTECH Decking	Size (mm)	dassoXTR Decking	dassoCTECH Decking	Size (mm)
XD20-SG2-5TG-PSR	ED20-SG2-5TG-PSR	T20 * W137 * L1850	XD20-MG2-5TG-PSR	ED20-MG2-5TG-PSR	T20 * W155 * L1850
XD20-SG1-5TG-PSR	ED20-SG1-5TG-PSR	T20 * W137 * L1850	XD20-WG2-5TG-PSR	ED20-WG2-5TG-PSR	T20 * W178 * L1850
XD20-SG2-5TG-PSV	ED20-SG2-5TG-PSV	T20 * W137 * L1850	XD40-SG0-5TG-PSV	ED40-SG0-5TG-PSR	T20 * W137 * L1850
XD20-SG1-5TG-PSV	ED20-SG1-5TG-PSV	T20 * W137 * L1850			

Installation



Option1: Clip Installation

- Step 1.** Determine the surface side of the boards (reeded or flat surface).
- Step 2.** Use fasteners or other suitable fasteners in the following sequence.
- Step 3.** Press fastener in the groove of one decking board.
- Step 4.** Tighten the screw in the fastener and the sub beam.
- Step 5.** Use approx. 20/17/14 fasteners per m<sup>2</sup>, this is depending on the type or board 137/155/178mm wide. When the tongue and groove are connected on the sub beam use 2 fasteners, 1 for every board.

Option2: Screw down installation

- Step 6.** Only use the included stainless steel decking screws (4.5x30mm).
- Step 1.** Determine the surface side of the boards (reeded or flat surface).
- Pre-drill the screw holes 20mm from the side of the board. Be sure to pre-drill with a large enough drill to avoid cracking of the decking.
- Step 2.** Always screw both sides (left and right) of the board.
- Step 3.** Use stainless steel decking screws (5x50mm).

Installation Accessories

Clips	Clips Code	Size	Photos	Screw		
				Screw Code	Size	Photos
	I-Clips (DC-02)	28x25x12		DS-01	M6x30	
	B-Clips (DC-04)	40x15x10		DS-02	M6x24.5	
	S-Clips (DC-06)	28x25x12		DS-04	M6x29	

CLADDING







**dassoXTR**





**dassoCTECH**


*dassoXTR & dassoCTECH Cladding is the great choice in commercial exterior siding, where it ages naturally like wood. Our unique sheathing system with Fasttrak offers the most appealing, looking rain screen and cladding siding solution available. It reduces wastage and speeds up installation by 50%.*


- 


**End Matched**
- 


**Fire Resistance**
- 

**Match Installation**
- 

**Stable & Precise**
- 

**SHIPLAP**
- 

**Termite Resistance**
- 

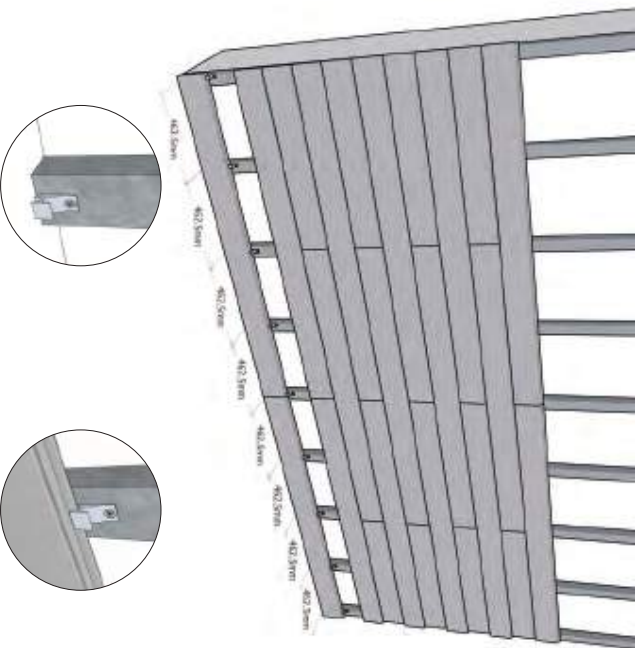
**Hard & Durable**
- 

**Mould Resistance**

dassoXTR Cladding	dassoCTECH Cladding	Size (mm)
XS18-MSL-5TG-PSS	ES18-MSL-5TG-PSS	T18 * W137 * L1860
XS18-WSL-5TG-PSS	ES18-WSL-5TG-PSS	T18 * W178 * L1860

dassoXTR Cladding	dassoCTECH Cladding	Size (mm)
XS12-100-6FT-PSS	ES12-100-6FT-PSS	T12 * W100 * L1860

Installation



- Step 1. Levelling first row of fasteners.**





  - Start with the lowest row of fasteners and make sure they are placed fully level (using a spirit level).
- Step 2. Install first row of boards.**

  - Holding the first boards level, slide the lip of the groove on the lower edge behind the tabs on the fasteners.
  - Make sure that the fasteners engage deeply enough in the groove so that the boards lay level, trapping the boards should be done carefully, preferably with a rubber mallet.
  - We advise always fixing the end (end joints) of the boards on a batten/ beam, using 2 fasteners.
- Step 3. Second row of fasteners**

  - Install the second row of fasteners, pushing them down on the top edge of the first row of boards.
- Step 4. Install second row of boards.**

  - Continue with the rest.
- Step 5. Continue to install the cladding boards in this way to cover the full surface. Make sure you keep the fasteners level and make sure enough ventilation space (5-10 mm) is kept on the edge.**

Installation Accessories

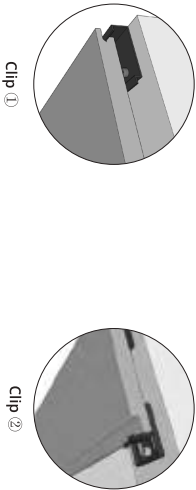
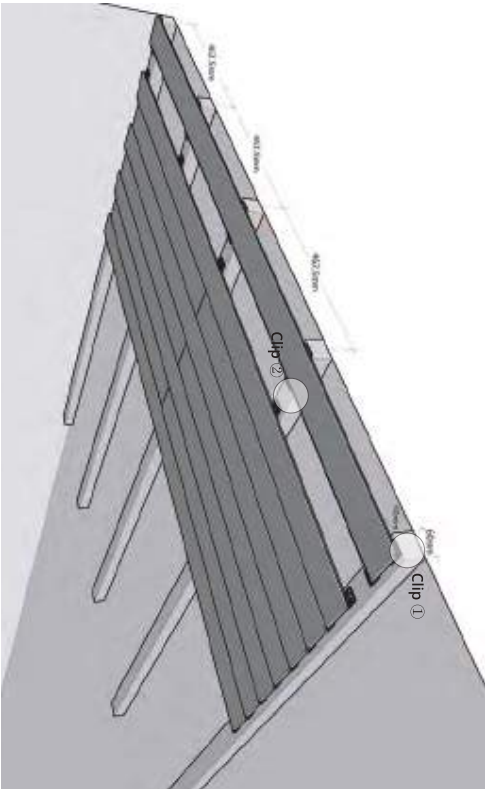
Clips	Clips Code	Size	Photos	Screw		
	Clip (CC-18)	42.5x19x15				
	Clip (CC-12)	40.5x24.5x8		CS-01	M11x30	
				DS-01	M6x30	



SOFFIT



Installation



dasoXTR



dasoCTECH



*dasoXTR & dasoCTECH Soffit, Deck Skirting and Wainscoting are Pre-primed and specifically designed for interior and exterior use with no leaching and zero VOC. All Fused Bamboo are b1/ rated, dasoCTECH soffit, deck skirting and wainscoting are ideal for creating an elegance lasting beauty environment.*

Feature

- 

End Matched
- 

Fire Resistance
- 

Match Installation
- 

Stable & Precise
- 

SHIPLAP
- 

Termite Resistance
- 




Hard & Durable
- 

Mould Resistance

Specification

dasoXTR Soffit	dasoCTECH Soffit	Size (mm)
XSO 12-100-5TG-PSS	ESO 12-100-5TG-PSS	T12 * W100 * L1850

Installation Accessories

Clips	Clips Code	Size	Photos	Screw		Size	Photos
	Clip SOF--1	32x32x10.6		SS-01		M8x28	
	Clip SOF--2	32x25x11.5					

LUMBER&PANEL&FENCE



dassoXTR



dassoCTECH



dassoXTR & dassoCTECH Lumbers and Panels are to be considered like unfinished lumber. It is S2S+R&E2 (sides need to be planed). The material is not pre-primed so the user can finish it as they choose. Both lumbers and panels come oversized to trim in two different thickness: 20mm and 40mm.

dassoXTR & dassoCTECH bamboo panels are ideal for creating outdoor furnishings for years of lasting beauty.

dassoXTR & dassoCTECH Fence is Pre-primed and specifically designed for gallery frame, Pergola barrier, outdoor furnishings, signs and so on.

Feature

- 

Hard & Durable
- 

Fire Resistance
- 

Stable & Precise
- 

Termite Resistance
- 

Mould Resistance
- 

Wide range of usage
- 

Flexible for customized production

Specification

XTR Lumber		CTECH Lumber		Size (mm)	
XL20 -205-6FT-UAC		EL 20 -205-6FT-PAC		T20 * W205 * L1860	
XL40 -152-6FT-UAC		EL 40 -152-6FT-PAC		T40 * W152 * L1860	
XP20 -625-6 FT-UAC				T20 * W625 * L1860	
XP 40-625-6 FT-UAC		/		T40 * W625 * L1860	
XF30 -65-6FT-PS		EF30-65-6FT-PS S		T30 * W65 * L1860	
XF30 -100-6FT-PSS		EF30 -100-6FT-PSS		T30 * W100 * L1860	





## Color Fading & Maintenance

Fused Bamboo (dassoXTR and dassoCTECH) are natural product, its appearance may vary in grains and colors. When exposed under the natural sunlight over time, the appearance and color may change depending on the extent of UV light exposed to the material. The XTR boards originally have a dark brown color and the CTECH in Cognac, both will lighten up over several weeks or months. The board's color without regular maintenance will eventually grey out to a nice silver patina just like any hardwood exposed to sunlight. If a brown color is preferred, maintenance should be done with an exterior penetrating oil. Stains could be added to the penetrating oil to achieve a desired color of the finish product.

Maintenance instruction is available on [dassogroup.com](http://dassogroup.com)

### dassoXTR



New      6 Months      18 Months      After Cleaning      After Maintenance

### dassoCTECH



New      6 Months      18 Months      After Maintenance

## Normal Phenomena

*Checks and cracks on the surface and on the ends of the boards can arise from the different drying characteristics of the surface and cross-cut ends. This does not affect the structure soundness of the boards.*

### Project Reference - Tourism College of Zhejiang ( Qiantao Lake Campus )



Installed in 2013



Revisited in 2019

## WARRANTY

dassoXTR and dassoCTECH offers a 25 years (residential application)/ 10 years (commercial application) limited warranty against material defects in workmanship and warrant that the material will not suffer structural damage due to rot, decay, or termites for that period of time, as long as it has been installed and maintained according to our guidelines.

### SCOPE

- The outdoor board is a natural forest product, which varies in color, grain and appearance. Color changes over time depending on the maintenance schedule. Color change can not be a reason to make a claim.
- This warranty does not cover damage caused by misuse, accidents, insect infestation, force majeure and damage caused by other, in normal residential unusual, circumstances.
- Also not covered are purely visual impairments such as imprints, joints, discoloration by light, seasonal climate-related deformation or wear of the surface coating. Damage resulting from improper installation, maintenance, cleaning or maintenance of the surface coating, mechanical or chemical damage are also excluded from this warranty.
- This warranty statement supersedes all previous statements; the granting of the manufacturer's warranty applies only to the current version.
- Cracks on the surface and on the end of the boards can arise from the different drying characteristics of the surface and cross cut ends. This phenomenon is normal for most wood species and can not be a reason to make a claim.
- The surface sides of the boards will get rougher and will splinter over time as a result of constant shrink and swell of the boards due to dry and wet climate periods. This phenomenon is normal for most wood species and can not be a reason to make a claim.
- Dimensional change or cupping of the boards can occur after installation. This phenomenon is normal for most wood species and can not be a reason to make a claim.
- The guarantee extends to A-grade products only.
- The guarantee applies only to the original purchaser.

## Warranty Conditions

To be able to make use of the warranty the decking must be installed according to the installation instructions. Please read our installation instructions carefully, before installing the floor. No claims can be accepted in case of improper installation!

- This warranty applies in addition to the normal legal rights of the buyer, including the rights of the buyer against the seller.
- If a claim is granted before installing the material, faulty planks are replaced free of charge. No claims can be accepted after installing the material if the buyer could have detected the defects before installation. This warranty does not cover damage that was caused by Third parties (eg transport damage).
- If defects occur after installation, dasso reserves the right to either repair the defect or to offer material free of charge to the buyer. If the defective product is no longer in the product range, an equivalent from the current range will be supplied.
- A claim does not lead to an extension of the warranty period.
- The cost for the replacement of material and other charges are not included in the warranty

## Settlement of the guarantee

The claim must be made in writing, within 30 days, to the dasso dealer/seller, a dasso subsidiary or directly to dasso headquarter.

Dasso reserves the right to check the claimed damage.





Boao ASIA Forum International Conference Center Hainan / China



Merino Crescent Singapore



Private Villa Shanghai / China





Four Season Ocean Courtyard Hotel Hainan / China



Olmos Park TX / USA



Ningbo Liangzhu Cultural Park Zhejiang / China





Atlantis Sanya    Hainan / China



NanXun Urban Planning Exhibition Center    Zhejiang / China



Metro Police Nashville Davidson County    Tennessee / USA

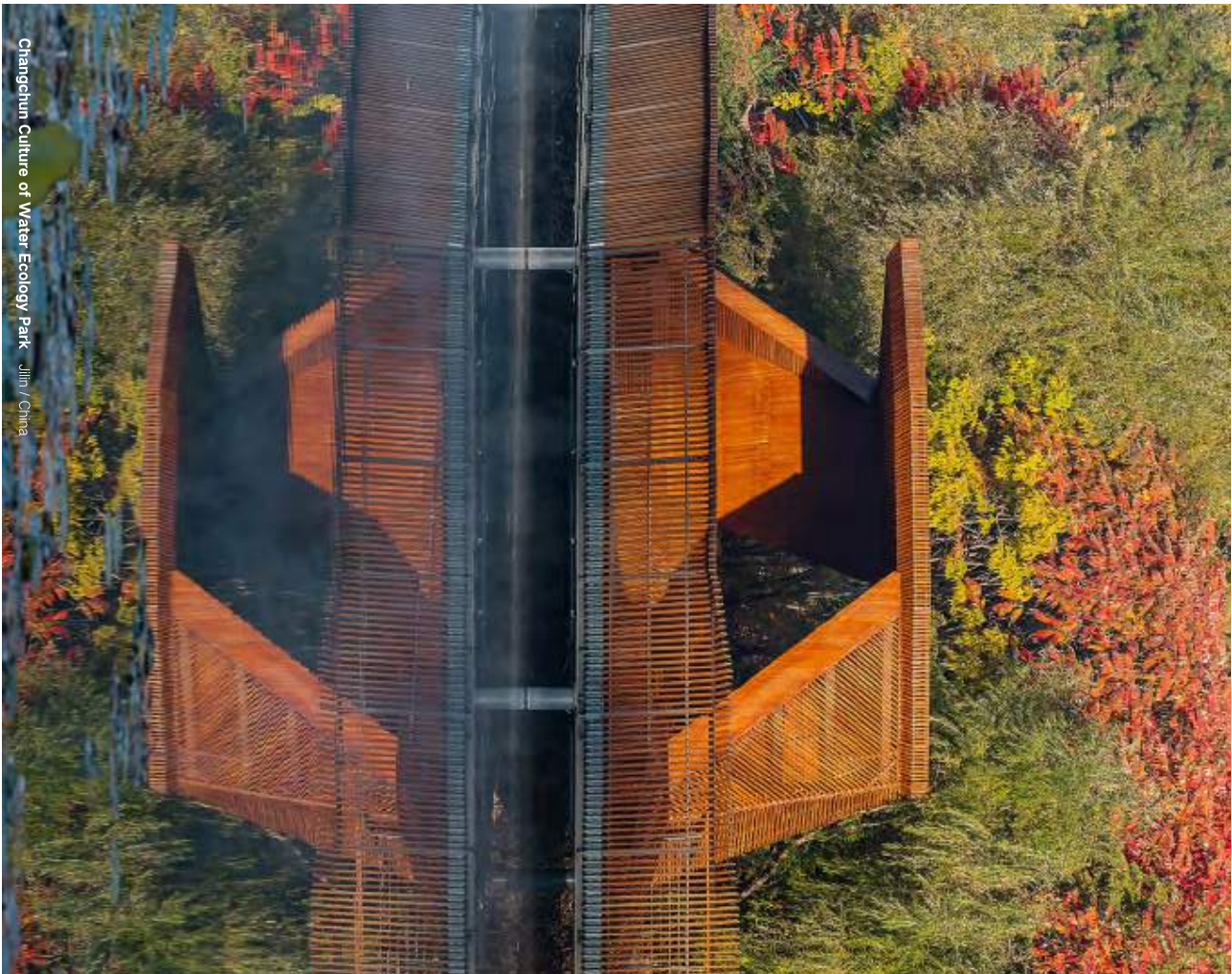




Changchun Culture of Water Ecology Park, Jilin / China



Tsingpu Yangzhou Retreat, Sichuan / China



Changchun Culture of Water Ecology Park, Jilin / China





Hotel in German



Vanke Metropolis in Beijing



Qiantao Lake Pearl Square



Tsingpu Yangzhou Retreat



Fifth Park of Shanghai Vanke Blue Mountain



Reconstruction of Jilin Waterworks



Jiezi Ancient Town Meiyl Square



Atlantis Sanya



Park in Taiwan



Vanke Center Shenzhen



Changchun Culture of Water Ecology Park



Kunming Innhouse



Embassy of Switzerland in China



Wuxi Yangshan Geological Museum



Tourism College of Zhejiang  
(Qiandao Lake Campus)



Metro Police Nashville Davidson County



Tianjin Eco City Jinlu



Private Villa in Sanya



HongKong-Zhuhai-Macao Bridge



Private Villa in Morocco



Chongzhou Ancient Town in Chengdu



Wuzhen Graceland



Changchun Park Landscape



Yitong River Landscape





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Web: [www.dassogroup.com](http://www.dassogroup.com)

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Fax: 1.404.691.6870  
Email: [info@dassousa.com](mailto:info@dassousa.com)  
Web: [dassoxt.com](http://dassoxt.com)

**dasso Group Europe**

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