

# POLYMER BRIDGES JFB



## DISCOVER OUR SUSTAINABLE BRIDGES

Janson Bridging is proud to offer a range of durable, practical and low-maintenance polymer bridges (JFB) with various aesthetic designs. These versatile bridges can serve as both bicycle and pedestrian bridges as well as traffic connections. Utilising fibreglass layers and free-form foam cores, our bridges offer unprecedented design possibilities. Whether you need a bridge with a front arch, a horizontal arch radius or even a bespoke shape, we make it possible.

What sets our bridges apart is their remarkable lightweight construction, often weighing less than half of the traditional steel and concrete counterparts. This characteristic translates to substantial cost savings and reduced CO2 emissions. Simplified transport, smaller lifting equipment requirements, and less intricate abutments contribute to these efficiencies. Additionally, our bridges arrive fully pre-assembled on-site, facilitating swift and efficient installation.

Our polymer bridges are the ideal solution for those looking for a durable product with fast delivery and an affordable price. Your bridge is ready for immediate use!





### APPLICATION







Jansons polymer bridges have many advantages over traditional

bridges made from other materials:

•	Technical service life exceeding 100 years.	•	
	Resistant to rust rot or organism infestation		C
		•	
•	Minimal maintenance requirements, resulting in	i	
	significantly reduced upkeep expenses.	•	F
•	UV-resistant for long-lasting durability.	(	C
•	Fully customisable design options are available.	•	V
			y
	Enhanced aesthetic appeal within the landscape.		



- exceptional fire resistance due to self-extinguishing onstruction.
- Decalcification poses no threat to the structure and easily removed.
- invironmentally friendly and economically viable hoice.
- Varranty of 50 years on the bridge deck and 10 ears on the surface.



## BE INSPIRED!

At Janson Bridging, we present you with the opportunity to fully customise your bridge according to your specific requirements. Our team of experts is readily available to provide guidance and support throughout the entire process. While our JFB bridges are typically installed for pedestrian and cyclist use, they are also suitable for occasional motorised traffic.

With bridge decks up to 40 metres long and 7 metres wide in a single span, impressive configurations are within reach! Additionally, you have the flexibility to adjust the depth of the bridge to suit your preferences. While a slender design can enhance the aesthetic appeal, it's important to note that this may lead to a denser polymer, potentially resulting in a slightly heavier and more costly bridge.

Moreover, polymer construction affords extensive design freedom, allowing for special modifications to incorporate risers, steps, and other structural elements. We prioritise efficient rainwater drainage within the deck and seamlessly integrate pipes for cables and utilities into the design. Additionally, both the deck and the railing can be finished in any RAL colour of your choosing. In summary, the customisation possibilities are limitless.







## FINISHES AND MASSES

### FINISHES

You have the option to select from a variety of fixed-edge finishes, handrails, colours, and desired surface layers. Furthermore, all Janson polymer bridges are bespoke creations, so if you have alternative ideas in mind, let's explore them together!

#### **Edge finish**

Bridges are typically supplied with the following types of edge finish.



#### Colours

These are the most popular colours for the bridge and handrail of Janson JFB bridges.



#### Surface layer

Janson polymer bridges are usually supplied with the following types of surface layer or combination of these.



Amaril

India red Moraine

The following types of handrails are frequently used on Janson polymer bridges.









### MASSES

Each bridge is unique, yet a slender design typically carries a higher deadweight compared to a less slender counterpart. The table below provides an overview of bridge masses relative to design slenderness at various lengths.

The tables present this data for both cycle and pedestrian bridges permitting occasional

BICYCLE AND PEDESTRIAN LOAD + 5-TONNE VEHICLE										M = Mass in kg/m2, $H = girder height in mm$												
	Lightweight							Standard							Slender							
Width in m	1.5-2.5		1.5-2.5 2.5-4		>4		1.5-2.5		2.5-4		> 4		1.5-2.5		2.5-4		>4					
Length in m	м	Н	М	н	м	Н	м	Н	М	Н	м	Н	М	Н	М	Н	М	н				
5,0	60	250	57	250	56	250	92	180	90	180	90	170	123	120	120	110	117	90				
7,5	62	320	58	270	56	250	97	250	91	210	91	200	130	170	124	140	121	120				
10,0	67	370	62	320	61	360	102	300	96	260	95	270	137	220	130	180	128	170				
12,5	72	450	67	420	66	470	108	380	104	350	103	360	143	290	141	260	138	250				
15,0	79	500	74	530	72	530	115	460	111	460	107	430	145	390	148	380	140	310				
17,5	92	690	85	690	82	670	125	620	120	600	113	530	148	530	155	500	143	400				
20,0	112	850	98	860	95	860	140	780	130	750	122	700	153	690	162	620	148	530				
22,5	130	910	115	1050	109	970	160	890	143	920	132	820	185	810	170	750	152	670				
25,0	165	1180	131	1240	119	1060	195	1100	154	1080	140	940	222	1000	177	890	159	810				
27,5	195	1450	147	1430	130	1380	220	1360	167	1240	148	1170	240	1250	184	1050	167	950				
30,0	220	1700	160	1600	144	1460	250	1540	175	1420	158	1290	260	1350	191	1200	170	1100				

BICYCLE AND PEDESTRIAN LOAD + 12-TONNE VEHICLE M = Mass in kg/m2, H = girder height in															nt in mm							
	Lightweight							Standard							Slender							
Width in m	1.5-2.5		2.5-4		>4		1.5-2.5		2.5-4		> 4		1.5-2.5		2.5-4		>4					
Length in m	М	н	М	н	М	н	М	н	М	н	М	н	М	н	М	Н	М	Н				
5,0	85	260	82	250	81	250	108	190	106	185	105	185	130	120	129	120	129	120				
7,5	88	320	81	260	79	260	114	245	107	200	104	190	139	170	132	140	129	120				
10,0	91	370	85	320	84	370	119	295	112	250	110	270	147	220	139	180	136	170				
12,5	97	460	92	460	90	460	127	370	122	360	115	355	157	280	151	260	140	250				
15,0	104	500	98	500	96	500	132	450	129	435	118	425	160	400	160	370	144	350				
17,5	117	690	109	690	106	690	138	620	132	600	120	585	171	550	163	510	148	480				
20,0	134	880	112	900	110	900	140	780	135	750	122	700	179	730	167	670	151	640				
22,5	145	910	115	1050	113	970	160	890	143	920	132	820	185	810	170	750	156	670				
25,0	165	1180	131	1240	119	1060	195	1100	154	1080	140	940	222	1000	177	890	159	810				
27,5	195	1450	147	1430	130	1380	220	1360	167	1240	148	1170	240	1250	184	1050	167	950				
30,0	220	1700	160	1600	144	1460	250	1540	175	1420	158	1290	260	1350	191	1200	170	1100				



passage of a 5-tonne vehicle, as well as cycle and pedestrian bridges allowing the crossing of a 12-tonne vehicle. The masses listed in the tables encompass the weight of the surfacing and exclude the handrail weight. Should any of the handrails depicted in the tables be utilized, an additional 35 kg per linear meter of handrail should be accounted for.



## ENVIRONMENT,SAFETY & STANDARDS

### MORE THAN AN ENVIRONMENTALLY CONSCIOUS CHOICE

Opting for a JFB bridge from Janson Bridging reflects a profound commitment to environmental consciousness. The exceptional durability and low maintenance attributes of our bridges are truly remarkable. The material loss during the production can be reduced by up to 50% if one of the most popular colours and finishes are chosen for your design.

Moreover, the extensive lifespan of our bridges opens avenues for a potential second life, where they can be seamlessly repurposed in new locations. Depending on the design, recycled materials can be integrated into the core, such as replacing PUR with PET granules or incorporating them as additives to the base material in 3D printed bridges.

#### Unrivaled environmental score

Unmatched environmental performance is further underscored by the option to compute an Environmental Cost Indicator (ECI) for many of our Janson bridges. The ECI consolidates all environmental impacts of bridge production into a single environmental score. A lower ECI signifies a reduced environmental footprint. Remarkably, Janson FRP bridges boast an average ECI value that is less than 10% of the European standard! Thus, with our polymer bridges, you are making a conscious choice towards a highly sustainable solution that not only meets rigorous technical standards but also upholds stringent environmental criteria.



### QUALITY GUARANTEED!

Over recent decades, polymer has demonstrated its efficacy across various industries. Our bridges are renowned for their unparalleled strength, enabling us to confidently assure both safety and comfort for bridge users.

Crafted with sturdy construction and cutting-edge materials, our polymer bridges adhere to the most rigorous standards of durability and dependability. The utilisation of premium polymer components not only extends the bridge's lifespan but also guarantees hassle-free and secure passage for all users. By selecting our bridges, you are not only investing in quality but also peace of mind, assured that your infrastructure surpasses the highest safety standards.



"By choosing our bridges, you are not only investing in quality but also peace of mind"

### **OUR BRIDGES COMPLY WITH:**



- Foot/bicycle load à 5kN/m2 + maintenance vehicle of 5 tonnes
- Unintended vehicle of 12 tonnes
- CROW-CUR recommendation 96:2019
- Natural frequency cf. EUR 23984 EN (natural frequency 1st harmonic)

# LOCATIONS

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