FLOCEA

GALVANISED STEEL

WATER TANKS

Modular water storage solutions for industrial, agricultural and fire protection projects.



See the range online:

flocea.com/en/galvanised-steel-tanks

www.flocea.com

TECHNICAL STUDY

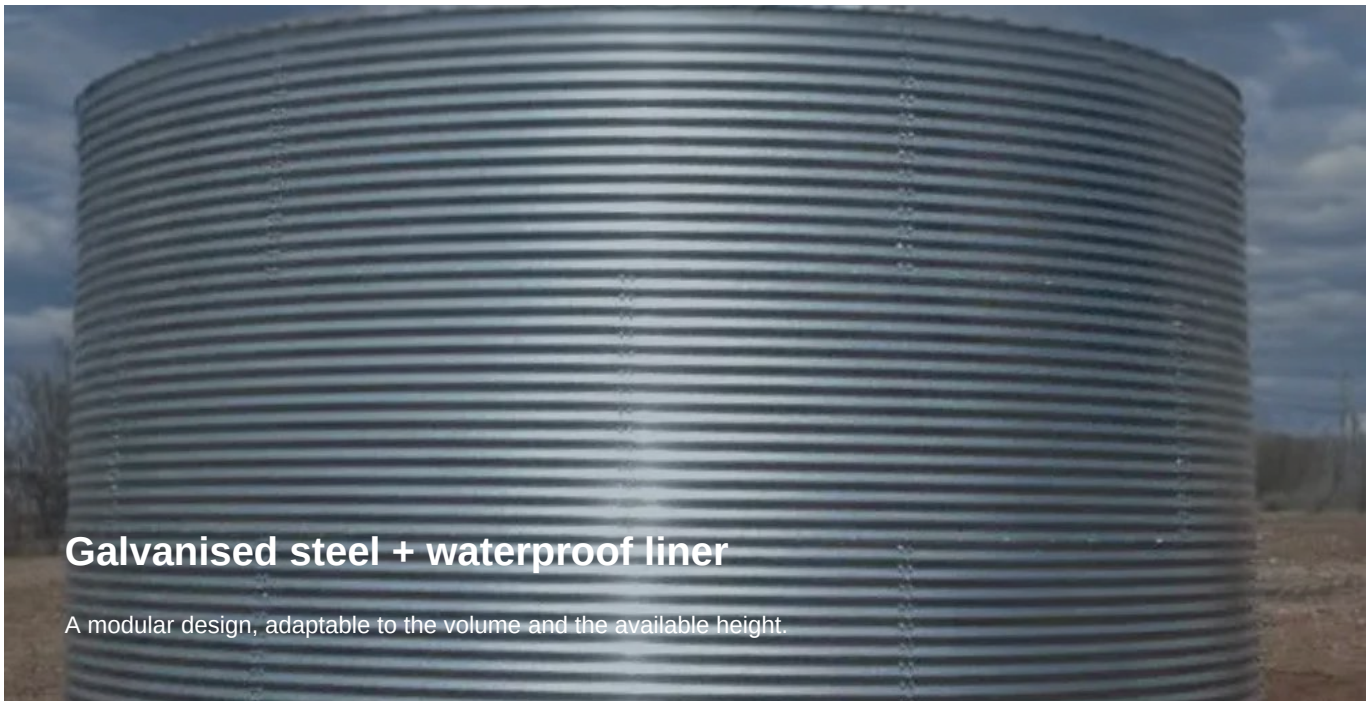
Sizing for each project

Configuration to suit the site

A small-footprint option for large volumes

The cylindrical shape concentrates the volume on a limited area, subject to validating the height, base, access and equipment of the project.

A compact solution for large volumes



18 m³	> 3 000 m³	1.12 m	Per project
smallest catalogue size	catalogue configurations	height per ring	diameter, height, roof

01

Optimised footprint

Height adds storage and can reduce the footprint compared with a very spread-out solution.

02

Modular assembly

Bolted corrugated panels, shipped as a kit and assembled on a prepared base.

03

Project configuration

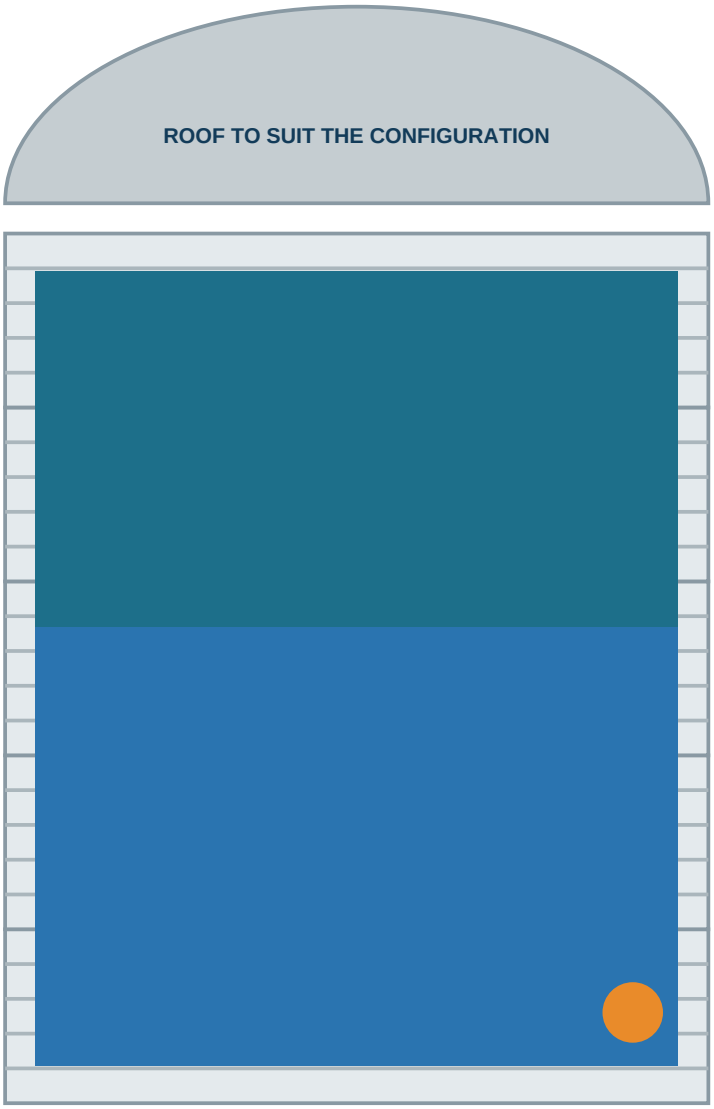
Liner, roof, connections and accessories are defined to suit the use and the site.

Typical applications

- Fire water reserves and site protection, once the applicable requirements are validated.
- Industrial and agricultural water storage, irrigation and rainwater harvesting.

Online: Galvanised steel tanks Fire-water storage Bespoke steel tank

Tank design



1. Corrugated galvanised steel panels
2. Bolts and stiffeners
3. Waterproof liner
4. Custom connections
5. Anchoring as per design



[Rigid galvanised roof - product page]

Points to define before quotation

- water use and required liner quality;
- usable volume, diameter and overall height;
- roof, hatch, access and safety;
- connections, valves, overflow, drain and suction.

Size range - diameters 4.584 to 16.500 m

Indicative nominal capacities in m³, based on the technical range table. The usable volume, the overall height with roof and the availability of each combination must be confirmed before quotation.

Wall heights: 1.12 to 8.96 m

Standard models online

Tank Ø (m)	1.12	2.24	3.36	4.48	5.60	6.72	7.84	8.96
4.584	18	37	55	74	92	111	129	148
5.5	27	53	80	106	133	160	186	213
6.417	36	72	109	145	181	217	253	290
7.334	47	95	142	189	236	284	331	378
8.25	60	120	180	239	299	359	419	479
9.167	74	148	222	296	369	443	517	591
10.084	89	179	268	358	447	536	626	715
11	106	213	319	426	532	638	745	851
11.917	125	250	375	499	624	749	874	999
12.834	145	290	434	579	724	869	1,014	1,159
13.75	166	332	499	665	831	997	1,164	1,330
14.668	189	378	567	757	946	1,135	1,324	1,513
15.584	214	427	641	854	1,068	1,281	1,495	1,708
16.5	239	479	718	957	1,197	1,436	1,676	1,915

Reading the table

Each column corresponds to a wall height built from 1.12 m rings. A taller combination concentrates more volume but increases the overall height, the loads and the requirements for access, roof and anchoring.

Size range - diameters 17.418 to 30.200 m

Indicative nominal capacities in m³, based on the technical range table. The usable volume, the overall height with roof and the availability of each combination must be confirmed before quotation.

High nominal capacities - structural and roof study required

Standard models online

Tank Ø (m)	1.12	2.24	3.36	4.48	5.60	6.72	7.84	8.96
17.418	267	533	800	1,067	1,334	1,600	1,867	2,134
18.334	296	591	887	1,182	1,478	1,773	2,069	2,364
19.251	326	652	977	1,303	1,629	1,955	2,281	2,607
20.168	358	715	1,073	1,430	1,788	2,146	2,503	2,861
21.084	391	782	1,173	1,563	1,954	2,345	2,736	-
22	426	851	1,277	1,702	2,128	2,553	2,979	-
22.918	462	924	1,385	1,847	2,309	2,771	-	-
23.835	499	999	1,498	1,998	2,497	2,997	-	-
24.751	539	1,077	1,616	2,154	2,693	-	-	-
25.668	579	1,159	1,738	2,317	2,896	-	-	-
26.585	621	1,243	1,864	2,486	-	-	-	-
27.501	665	1,330	1,995	2,660	-	-	-	-
28.418	710	1,420	2,130	2,840	-	-	-	-
29.335	757	1,513	2,270	3,026	-	-	-	-
30.2	802	1,604	2,406	-	-	-	-	-

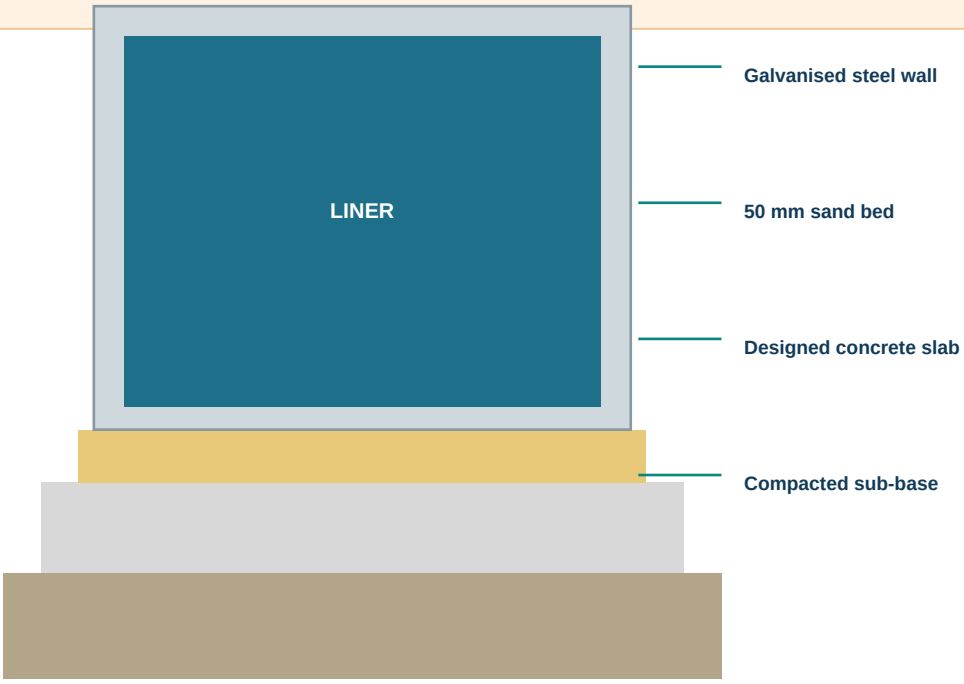
Reading the table

Each column corresponds to a wall height built from 1.12 m rings. A taller combination concentrates more volume but increases the overall height, the loads and the requirements for access, roof and anchoring.

Base and foundations

Design basis - to be confirmed by the ground and structural study

The design basis calls for a concrete slab of at least 100 mm, C20 mix at 300 kg/m³, with a base diameter 600 mm larger than the tank and a 50 mm stone-free sand bed. These generic values do not replace a local structural design.



Indicative quantities from the technical documentation

Tank Ø	Min. base Ø	Concrete	Sand
2.74 m	3.34 m	0.88 m³	0.30 m³
3.65 m	4.25 m	1.42 m³	0.53 m³
4.57 m	5.17 m	2.10 m³	0.82 m³
5.48 m	6.08 m	2.91 m³	1.18 m³
6.40 m	7.00 m	3.85 m³	1.61 m³
7.32 m	7.91 m	4.92 m³	2.10 m³
8.23 m	8.83 m	6.12 m³	2.66 m³
9.14 m	9.74 m	7.46 m³	3.28 m³
10.06 m	10.66 m	8.92 m³	3.97 m³
10.97 m	11.57 m	10.52 m³	4.73 m³
11.89 m	12.49 m	12.25 m³	5.55 m³
12.80 m	13.40 m	14.11 m³	6.44 m³
13.71 m	14.31 m	16.10 m³	7.39 m³
14.63 m	15.23 m	18.22 m³	8.41 m³
21.03 m	21.63 m	36.75 m³	17.37 m³

Modular assembly and equipment

The tank is delivered as a kit. Assembly, anchoring, liner installation and first filling must follow the drawing and the instructions for the chosen configuration.

01

Set out

Mark out the diameter and check the base, levels and clearances.

02

Assemble

Fit the panels in a staggered pattern and check the roundness at every ring.

03

Anchor

Position the anchors as per the drawing. Final tightening follows the assembly procedure.

04

Fit the liner

Unfold it on the stone-free sand, limit folds and protect the connection openings.

05

Equip and test

Fit the valves, overflow and accessories, then fill progressively under control.

Equipment

- inlet and filling;
- outlet and suction;
- overflow;
- bottom drain;
- valves and flanges;
- inspection hatch;
- ladder and guardrail;
- roof or cover;
- level indicator;
- frost protection to suit the site.

Product pages:

DN50 valve, stainless flange

DN100 valve, stainless flange

Rigid galvanised roof

Installation guide (PDF)

Important

Connection positions and diameters must be validated before production.

Configurations and installations

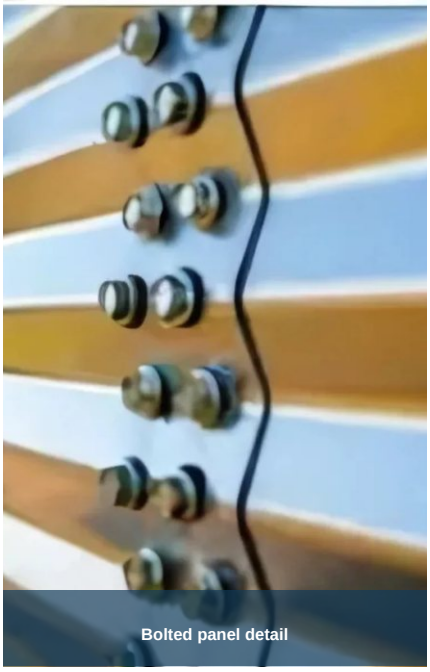
The pictures below show various shapes, heights, roofs and installation settings. They are not contractual references for any given project.



Cylindrical galvanised tank



Multi-tank installation



Bolted panel detail



Rigid galvanised roof



External connections



DN50 valve and stainless flange

Click a picture to open the matching page on flocea.com.

Your project with Flocea

Choosing a steel tank is not only a matter of volume. Flocea defines the configuration, the site constraints and the necessary validations before making a proposal.

1

Requirement

Usable volume, use, water availability and expected level of service.

2

Location

Available diameter, height, access, maintenance, slope and surroundings.

3

Configuration

Liner, roof, connections, suction, filling and drain.

4

Validation

Feasibility, wind/snow study, base, local or fire authority requirements.

5

Proposal

Outline drawing, scope of supply, options, lead time and quotation.

Let's talk about your project

www.flocea.com/en/contact | contact@flocea.com

Galvanised steel tanks: flocea.com/en/galvanised-steel-tanks

CUSTOM STUDY

The range online

Each line below opens the product page on flocea.com, with pictures, specifications and equipment. The standard models are shown as references; larger volumes, such as the formats in the size range tables, are made to measure.

Product	Diameter	Height	Link
Galvanised steel water tank 60 m³	Ø 5.34 m	2.70 m	View the product
Galvanised steel water tank 100 m³	Ø 7.04 m	2.57 m	View the product
Galvanised steel water tank 120 m³	Ø 7.925 m	2.45 m	View the product
Steel fire-water tank 120 m³ (low)	Ø 9.68 m	1.63 m	View the product
Compact galvanised steel water tank	Ø 1.85 m	1.72 m	View the product
Bespoke galvanised steel tank	Per project	Per project	View the product
Rigid galvanised steel tank roof	To suit the tank	-	View the product
DN50 valve with stainless steel flange	-	-	View the product
DN100 valve with stainless steel flange	-	-	View the product

Also online

All galvanised steel tanks - flocea.com/en/galvanised-steel-tanks

Fire-water storage solutions - flocea.com/en/fire-water-tanks

Installation, operation and maintenance guide (PDF)

Technical scope of this brochure

Product data

The dimensions and foundation values come from the technical documentation of the range. They are general guidelines. The usable capacity, overall dimensions, liner, roof, bolts, anchors and equipment must be confirmed for the chosen configuration.

Site study

The base must be level, load-bearing, clean and drained. Its structure depends on the ground, loads, diameter, height and climatic actions. A local study may lead to more demanding provisions than the generic design basis.

Fire protection

For a fire water reserve, the volume, outlets, suction areas, access, signage, maintenance, testing and acceptance are governed by the applicable requirements and must be validated by the competent fire authority or the project engineer. This brochure does not certify compliance with any fire protection standard.

Pictures

Photographs and drawings are for illustration only. Equipment, colours, shapes, finishes and accessories may vary with the model and the project.