

TLC

Carla

MODULAR STAIRS



GENERAL INFORMATION

Carla is one of the TLC Group products from the newly developed branch of modular stairs. Main purpose of CARLA stair system is communication between storeys in a building and levels in industrial structures. The stairs are easy to assemble and have a very solid structure. The simplicity of assembly is influenced by the modularity of the structure and the use of an intuitive system of stairs, railings and columns.

It is an innovative solution that differs from usually offered industrial stairs manufactured by TLC.

Carla allows to skip the time- and money-consuming process of preparing individual technical documentation for bespoke.

CARLA - ADVANTAGES:

- Low price of the project realisation,
- Time-saving - easy assembly basing on screw connectors only,
- High quality realisation - resistant to external factors,
- Safety and stability of the steps,
- Short realisation time,
- Various configurations of platform: in front (variants **L1**, **L2**, **L3**), on the left or right side of the platform (variant **P**), or without the platform (variant **BP**).

Innovative TLC assembly system



Clockwise or anticlockwise stairs



Stair radius
900, 1000, 1100 mm



Safe railing

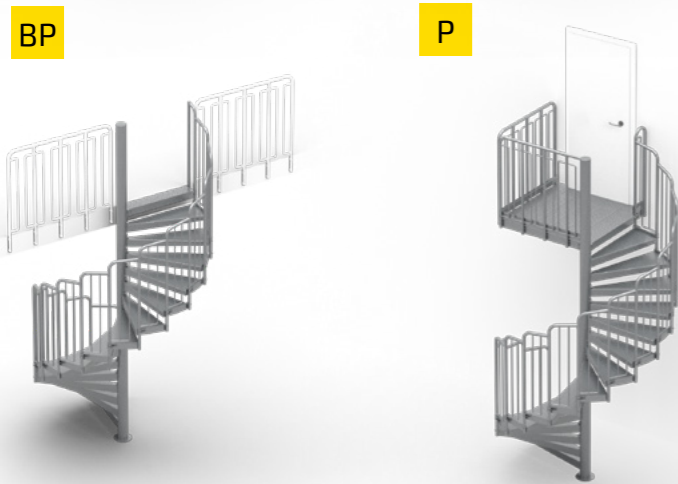


Height range
320 - 6000 mm



ASSEMBLY VARIANTS

The design of the CARLA modular stair system includes the following assembly options:



Possibility to assembly an additional internal handrail.

Possibility to assembly a grating cage with door to each of the variants

Galvanized



Material: steel S355 MC / S235 JR



Designed according to EN ISO 14122-3 standard*

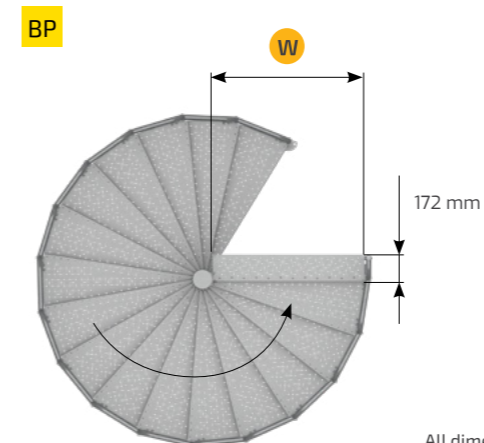
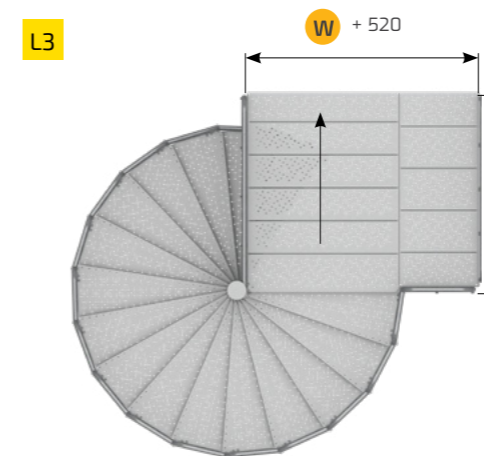
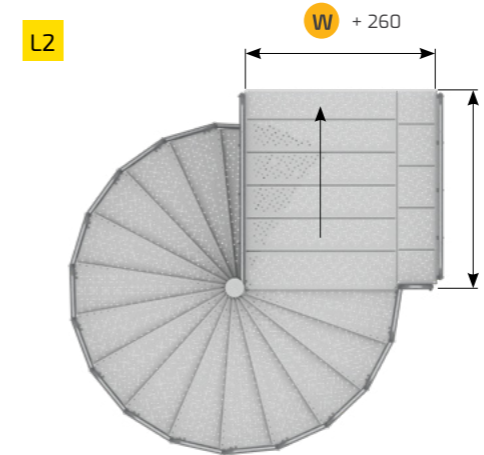
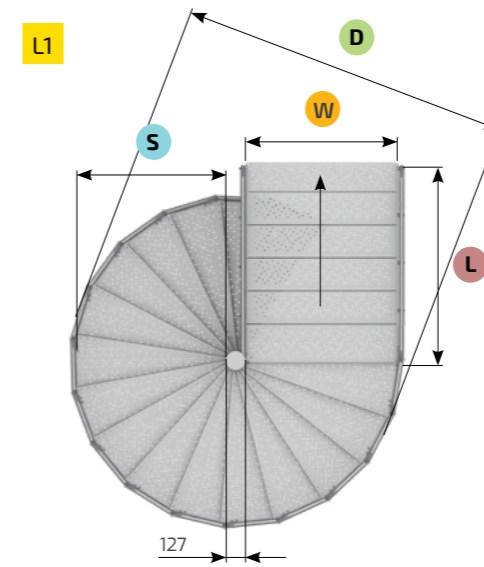
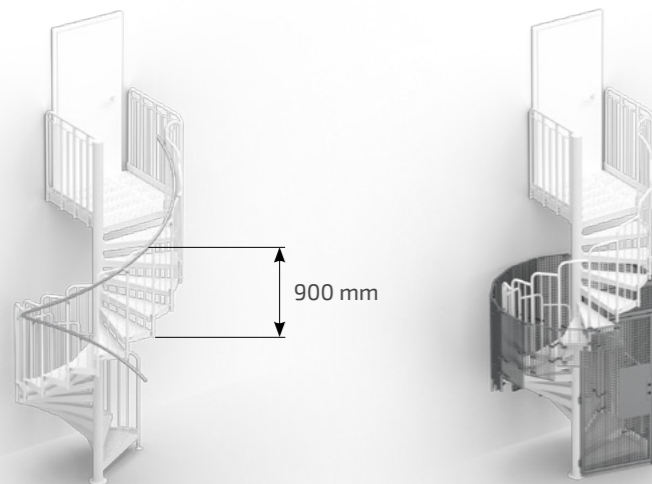


* applies to stairs up to 4 m high.

Max workload 3kN/m²



It is possible to assemble each of the variants: clockwise or anticlockwise. The direction of the staircase is determined by starting from the initial step.

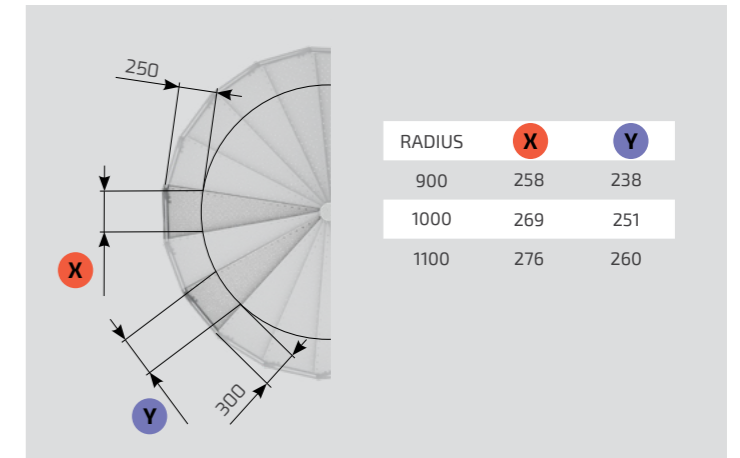


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All dimensions in mm.

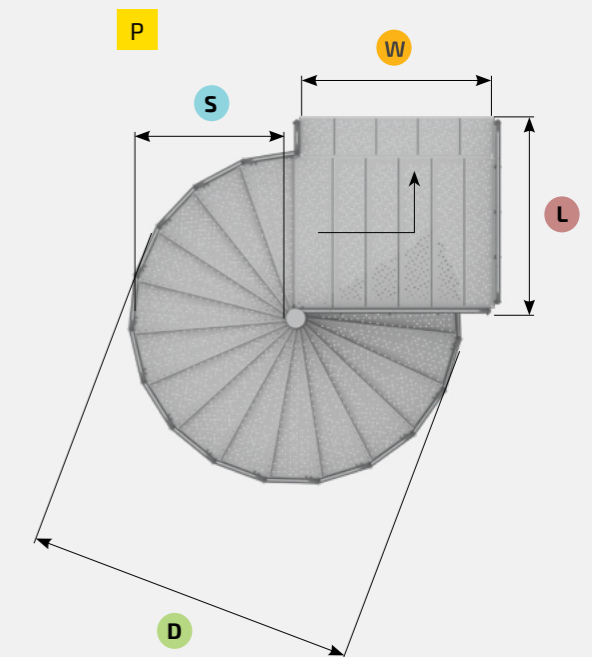
The table accords to variants L1, L2, L3, BP

RADIUS	S	W	D	L
900	785	792	1800	1108
1000	885	892	2000	1208
1100	985	992	2200	1308



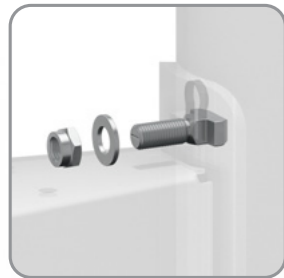
The table accords to variant P

RADIUS	S	W	D	L
900	785	1070	1800	1050
1000	885	1170	2000	1150
1100	985	1270	2200	1250



CARLA - KEY FEATURES, TECHNICAL SPECIFICATION

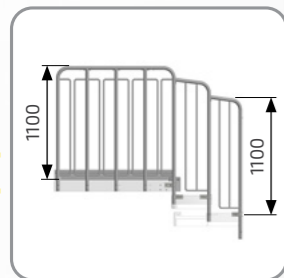
- Maximum rail load – 0.5 kN/m,
- Possibility to extend the platform with additional system elements 260 mm or 520 mm,
- Possibility to assembly an additional internal handrail and a grating cage with door to each of the variants,
- Step height adjustment in the range between 160 mm to 200 mm.



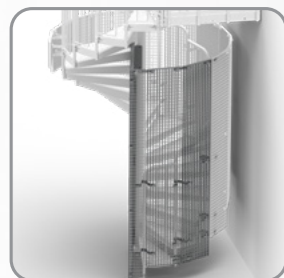
T-bolts assembly



Let's see video with T-bolts assembly

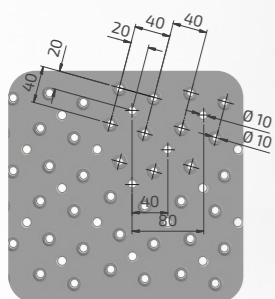


Modular railing

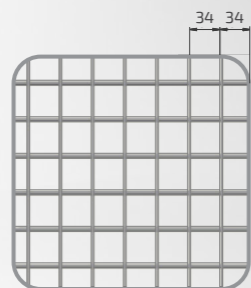


Cage from press welded grating

Available step fillings:



Profiled grating



Press-welding grating



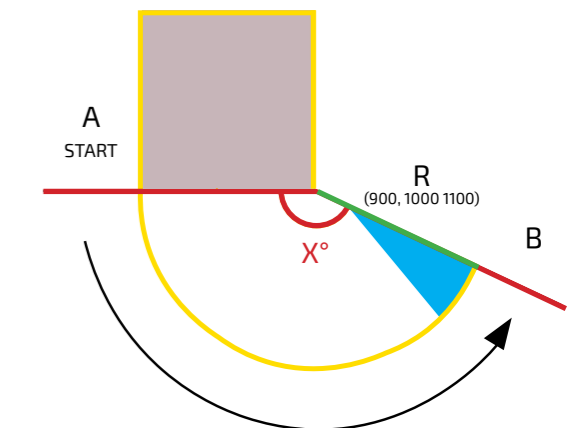
SELECTION OF THE HEIGHT AND NUMBER OF STEPS

The table below presents height of the stairs.

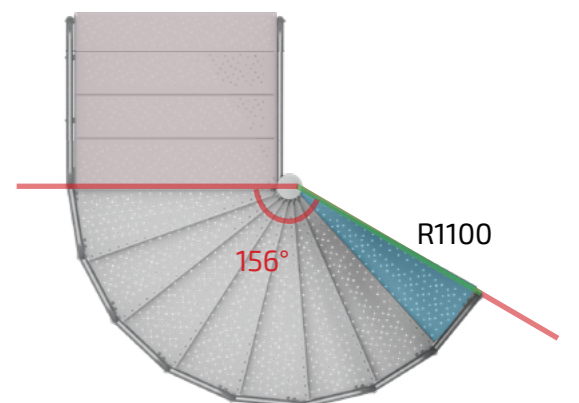
Number of heights	Number of steps	H min-max (mm)	degrees		
			R900	R1000	R1100
2	1	320-400	23,23°	21,3°	19,5°
3	2	480-600	46,5°	42,6°	39°
4	3	640-800	69,7°	63,9°	58,5°
5	4	800-1000	92,9°	85,2°	78°
6	5	960-1200	116,1°	106,4°	97,5°
7	6	1120-1400	139,4°	127,7°	117°
8	7	1280-1600	162,6°	149°	136,5°
9	8	1440-1800	185,8°	170,3°	156°
10	9	1600-2000	209,1°	191,6°	175,5°
11	10	1760-2200	232,3°	212,9°	195°
12	11	1920-2400	255,5°	234,2°	214,5°
13	12	2080-2600	278,8°	255,5°	234°
14	13	2240-2800	302°	276,8°	253,5°
15	14	2400-3000	325,2°	298,1°	273°
16	15	2560-3200	348,4°	319,3°	292,5°
17	16	2720-3400	371,7°	340,6°	312°
18	17	2880-3600	394,9°	361,9°	331,5°
19	18	3040-3800	418,1°	383,2°	351°
20	19	3200-4000	441,4°	404,5°	370,5°
21	20	3360-4200	464,6°	425,8°	390°
22	21	3520-4400	487,8°	447,1°	409,5°
23	22	3680-4600	511,1°	468,4°	429°
24	23	3840-4800	534,3°	489,7°	448,5°
25	24	4000-5000	557,5°	511°	468°
26	25	4160-5200	580,7°	532,2°	487,5°
27	26	4320-5400	604°	553,5°	507°
28	27	4480-5600	627,2°	574,8°	526,5°
29	28	4640-5800	650,4°	596,1°	546°
30	29	4800-6000	673,7°	617,4°	565,5°
31	30	4960-6000	696,9°	638,7°	585°
32	31	5120-6000	720,1°	660°	604,5°
33	32	5280-6000	743,4°	681,3°	624°
34	33	5440-6000	766,6°	702,6°	643,5°
35	34	5600-6000	789,8°	723,9°	663°
36	35	5760-6000	813,1°	745,1°	682,5°
37	36	5920-6000	836,3°	766,4°	702°

Determining the location of the first step at the bottom:

- 1) From the height [H] determine the required number of steps.
- 2) Select the radius of the stairs [R].
- 3) Read the degree value [x°].
- 4) Draw as shown in the diagram, starting from the upper landing [A].

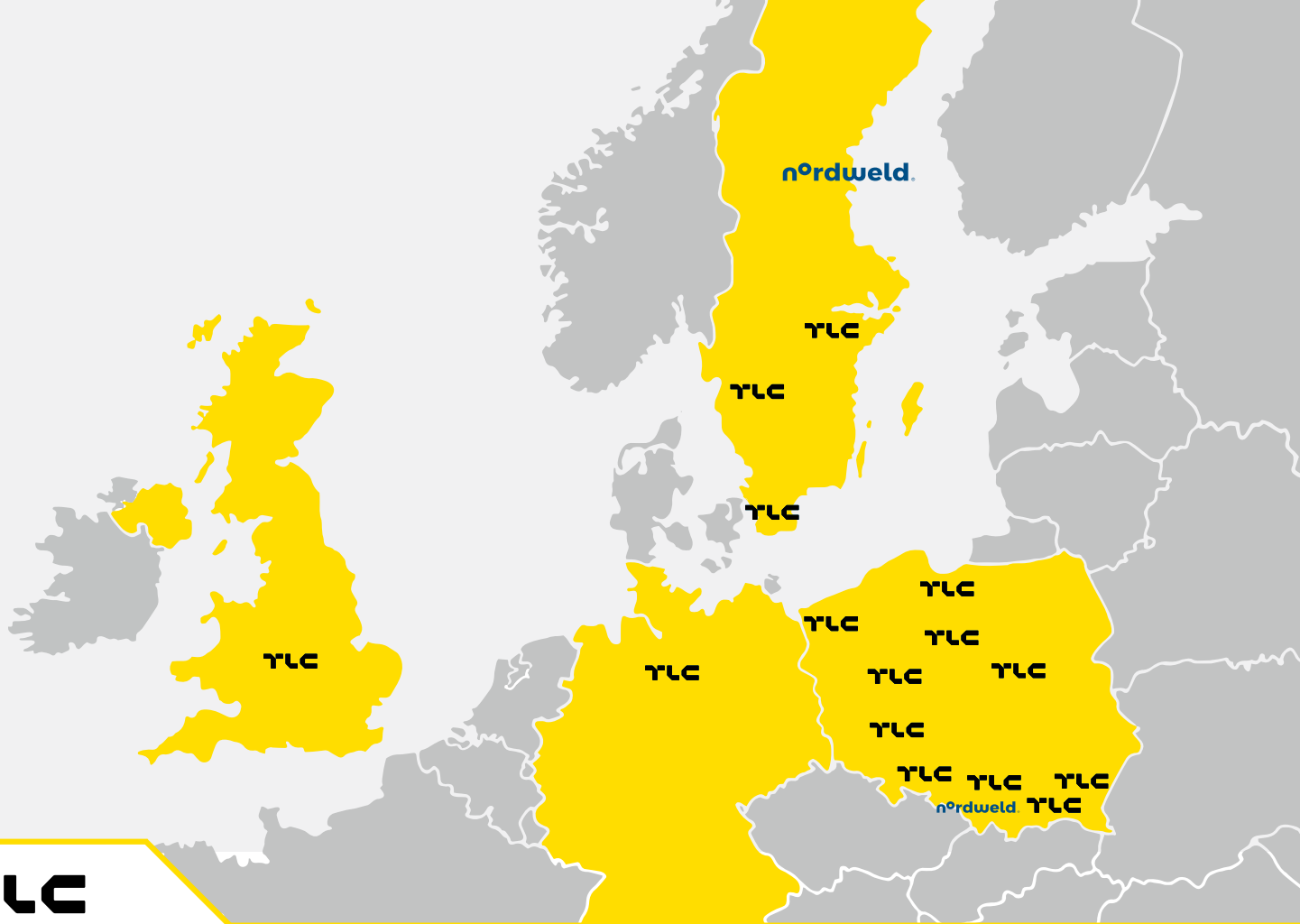


- B - start step- lower
- A - descent platform - upper
- angle
- outline of the stairs
- stairs radius



Example:

Right-clockwise, R1100,
9 heights, 8 steps, x=156°, H=1800 mm



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TLC - MANUFACTURER OF STAIRS AND STEEL PLATFORMS FOR BUILDING INDUSTRY

TLC RENTAL - MOBILE PROTECTION SYSTEMS FOR CONSTRUCTION SITES

NORDWELD TBS - INNOVATIVE TANK BUILDING SYSTEM