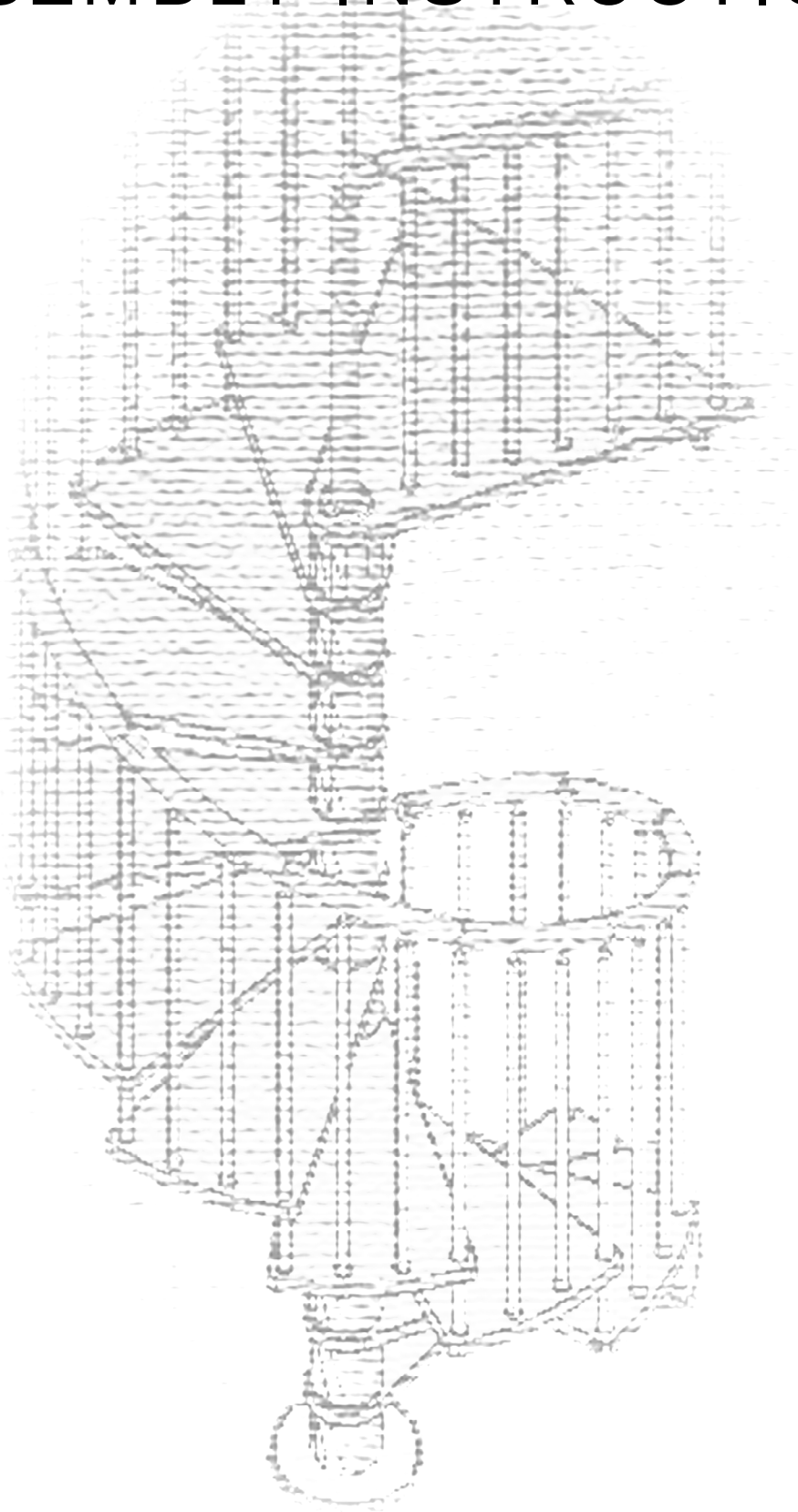
SPIRAL STAIR
ASSEMBLY INSTRUCTIONS



- ENGLISH -

PRELIMINARY OPERATIONS

Prior to fitting your staircase, please check the packaging content.
You then place all components onto a wide surface in order to assess the quantity of the materials supplied, thus checking it with the table at page nr. 3.

Please position properly the landing tread C20-50/60/70 into the opening and with the aid of a plumb-bob you determine the exact pole centering [fig. 8].

In the event of a circular opening, please mark the opening profile onto the reverse of the landing tread C20-50/60/70 [fig. 6]. You then reverse the landing tread and saw the marked profile [fig. 7].

POSTS

Please assemble the covering plate with the first post section (C20-340) by using the BU-175-ZN screw. Please mark the covering plate holes on the floor; then drill and fix the post into the floor by means of the BU-205-ZN screws and the expansion screws BU-215-PL.

INTERMEDIATE TREADS

Please start the stair assembly by inserting into the post its covering plate C20-305 followed by the components C20-295, C20-300 and the treads C20-05/15/25 [fig.10].

In order to assess the correct number of spacers C20-295 that determine the chosen riser size, please check the table [fig.11]. One then must eliminate from the spacers C20-295, which are going to be in contact with the treads C20-05/15/25, the excessive small plastic flanges, by flattening them with a hammer [fig.9].

Initially, you should place the treads C20-05/15/25 one opposite to the other, in order to balance the weight of the stair. Follow up with the mounting of the poles sections by using the threaded bar BU-195-ZB.

LANDING TREADS

Fix the landing tread C20-50/60/70 by aligning the tread top with the floor. Please use the tubolar spacer C20-320 to position the last post section C20-335 which has to be correctly cut at the middle of the landing tread thickness [fig. 12] and temporarely joined to what is left of the stair; for this operation, please use the long threaded bar BU-200-ZB, a metal washer C20-330 and the nut BU-180-ZB [fig. 1].

Then block the landing tread C20-50/60/70 by using the wall brackets C20-315 and the screws BU-240-NI, BU-210-PL and BU-235-NI [fig. 3 and 12].

STAIR RAILING ASSEMBLY

Place the treads C20-05/15/25 by fan rotating them, following the scheme shown in [fig.13]. Then assemble the elements R2T-235, R2T-245, BU-220-ZN and BU-260-ZB through the appropriate holes of all the intermediate treads C20-05/15/25 and the landing one C2O-50/60/70 [fig.2-3-4]. Then, you insert the passing through balusters R2-110 starting from the landing tread; in this way you determine the correct rotation of the intermediate treads.
At this stage you proceed with the tightening of the stair through the nut BU-180-ZB. The threaded bar BU-200-ZB should protrude by 7 cm. from the level of the landing tread [fig.12].
You should then block the passing through balusters to the treads.
This tightening procedure allows the height regulation of the balusters and their alignement with the other ones; thus obtaining a proper helicoidal shape.
Finally, fill the lateral tread hole with the small plastic cap BU-265-PL [fig.4].

The intermediate balusters R2-95/101/103/105 should be fixed to the treads by means of the elements R2T-215, R2T-260, BU-135-ZB and BU-35-NI [fig. 2 – 4].

The starting baluster should be fixed to the floor with an expansion screw BU-210-PL and a threaded bar BU-250-GR [fig.4].

LANDING TREAD RAILING ASSEMBLY

Please use the paper template provided in the packaging C20-1005/1015/1025 to determine where to proceed with the landing tread perforation C20-1005/1015/1025 [Fig. 14]. Fit the balusters R2-95 by using the elements R2T-215, R2T-260, BU-135-ZB e BU-35-NI [Fig. 3].

HANDRAIL

Please assemble the handrails C20-100/110/120 among them with the joiner C20-325 and the grub screw BU-230-ZN [Fig. 15- A] without tightening them completely in order to allow the rotation. Screw completely the grub screw BU-230-ZN. Fix the handrails to the top of the balusters with the relevant screws BU-295-ZB.

The succesful fitting is achieved when all the railings form a continuous helicoidal shape. Please insert the terminal handrail C20-190 by screwing it into the bar section BU-200-NI [Fig. 3] that protrude from the landing tread. Now join the terminal handrail C20-190 to the straight handrail LE-05 of the arrival railing by means of the wooden 90° joiner LE-10 and the threaded bars BU-190-ZB.

You then apply to the handrail ends the wooden caps LE-20, by using the self screwing screw BU-235-NI [Fig.3].

REINFORCING THE STAIR HANDRAIL

You can reinforce the stair handrail by connecting it to the wall, as shown in [Fig.15-B]. In this respect, please use the element R2-30 and fix it to one of the passing through balustrades, then you insert it into the element R2-90, properly cut to size.
You then insert the element R2-90 into the element R2-05 and fix it to the wall by means of the BU-165-ZN screw and the expanding one BU-85-PL.
Please use the grub screw BU-100-ZB to fix R2-05 to the element R2-90 and to the passing through baluster.

BALUSTRADE

In order to fix the balustrade properly, the balusters should be placed at a distance of 6 cm. from the well edge.

The balusters are going to be fixed into the floor as shown in [Fig.18].
You then insert into the balusters the plastic component R2T-215 and R2-260; after having drilled the floor, you then fix the baluster with the espansion screw BU-210-PL and the threaded rod BU-250-GR.

With a rectangular shaped well you connect the handrails end LE-05 with the 90° wooden connector LE-10.

Alternatively, if the well is circular, you connect the handrail ends C20-325 between them, by using the C20-325 connector and the grub screw BU-230-ZN.

REINFORCING THE BALUSTRADE

You reinforce the balustrade by using the R2-185 baluster which has to be fixed into the floor by means of the espanding screw BU-85-PL, the screws BU-165 and fixed to the baluster R2-95 with the grub screw BU-100-ZN.

You use the strengthening baluster kit R2-90, cut to size and both of them properly inserted into the balusters, to join two balusters by means of the BU-100-ZN grub screws [Fig. 16].

In order to reinforce the balustrade to the wall, you use the element R2-30, inserted into the baluster R2-95 and then connected with the element R2-05.
Use the BU-100-ZN screw and the expanding one BU-85-PL to tighten them.
Finally, you use the grub screw BU-100-ZB to fix the R2-05 element to the pipe R2-90 and to the baluster.

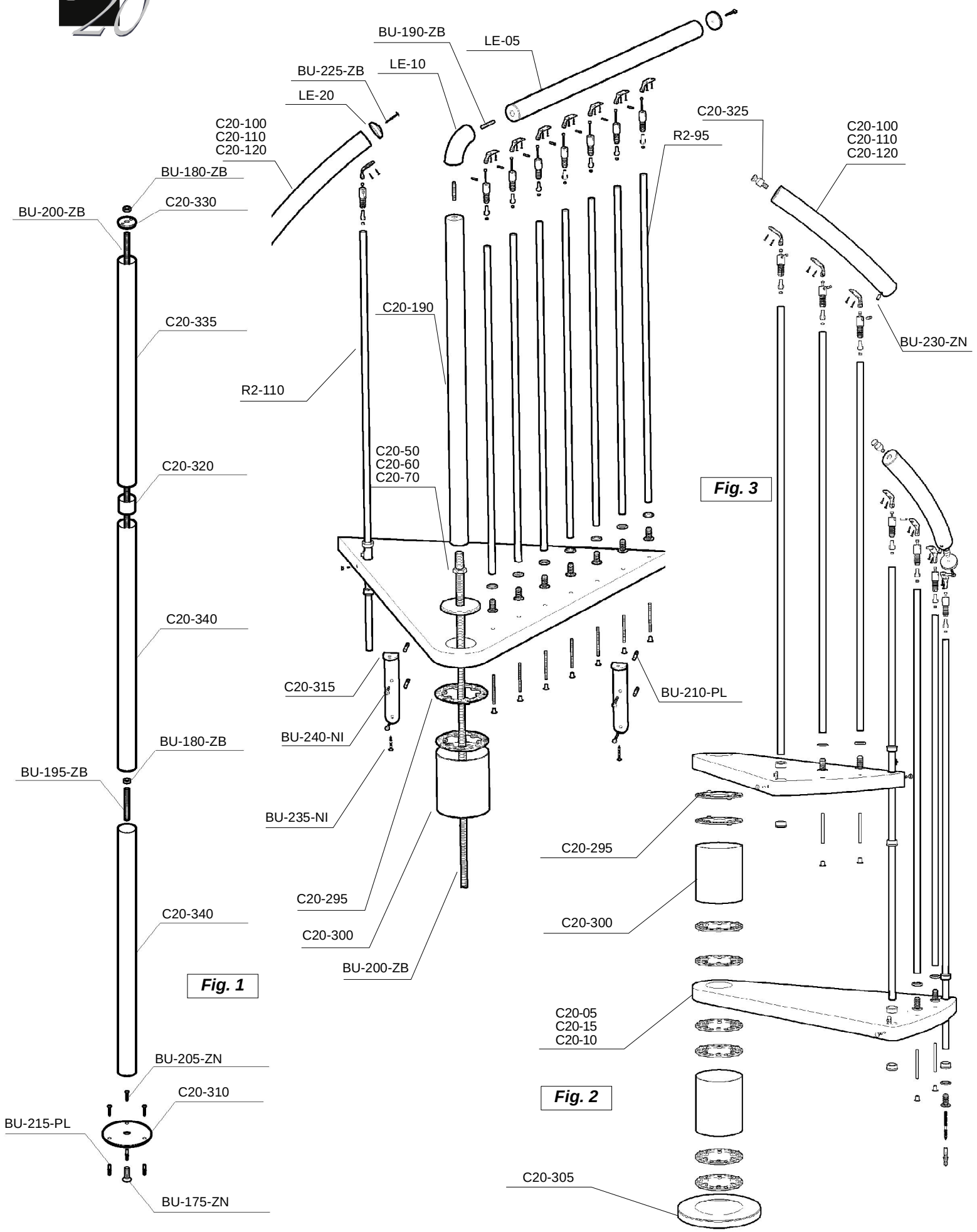
	Ø 120	Ø 140	Ø 160
C20-05	12	0	0
C20-15	0	12	0
C20-25	0	0	12
C20-50	1	0	0
C20-60	0	1	0
C20-70	0	0	1
C20-100	12	0	0
C20-110	0	12	0
C20-120	0	0	12
C20-190	1	1	1
LE-05	1	1	1
LE-10	1	1	1
LE-20	3	3	3

C20-300	13	13	13
C20-305	1	1	1
C20-310	1	1	1
C20-315	2	2	2
C20-320	1	1	1
C20-325	11	11	11
C20-330	1	1	1
C20-335	1	1	1
C20-340	2	2	2
R2-05	1	1	1
R2-30	1	1	1
R2-90	1	1	1
R2-95	7	7	7
R2-101	0	12	12
R2-105	0	12	12
R2-103	12	0	0
R2-110	13	13	13

BU-175-ZN	1	1	1
BU-180-ZB	2	2	2
BU-195-ZB	1	1	1
BU-200-ZB	1	1	1
BU-35-NI	18	31	31
BU-135-ZB	18	31	31
BU-260-ZB	25	25	25
BU-220-ZB	25	25	25
BU-265-PL	25	25	25
BU-255-ZB	32	44	44
BU-185-ZB	32	44	44
BU-295-ZB	64	88	88
BU-190-ZB	2	2	2
BU-230-ZN	12	12	12
BU-225-ZB	3	3	3
BU-100-ZB	3	3	3
BU-165-ZN	1	1	1
BU-85-PL	1	1	1
BU-210-PL	5	5	5
BU-215-PL	3	3	3
BU-235-NI	2	2	2
BU-240-NI	4	4	4
BU-205-ZN	3	3	3
BU-250-GR	1	1	1

CL1-01-PL	32	44	44
CL1-02-PL	32	44	44
CL1-03-PL	32	44	44
CL1-04-PL	32	44	44
R2-260	19	31	31
R2T-215	19	31	31
R2T-235	38	38	38
R2T-245	12	12	12
C20-295	84	84	84

C20-1005	1	0	0
C20-1015	0	1	0
C20-1025	0	0	1
C20-1000	1	1	1


BU-190-ZB
LE-05
BU-225-ZB
LE-10
LE-20
C20-100
C20-110
C20-120
BU-180-ZB
C20-330
BU-200-ZB
C20-335
C20-320
C20-340
BU-180-ZB
BU-195-ZB
C20-340
BU-205-ZN
C20-310
BU-215-PL
BU-175-ZN
C20-190
R2-110
C20-50
C20-60
C20-70
C20-315
BU-240-NI
BU-235-NI
C20-295
C20-300
BU-200-ZB
Fig. 1
C20-325
R2-95
C20-100
C20-110
C20-120
BU-230-ZN
Fig. 3
BU-210-PL
C20-295
C20-300
C20-05
C20-15
C20-10
Fig. 2
C20-305

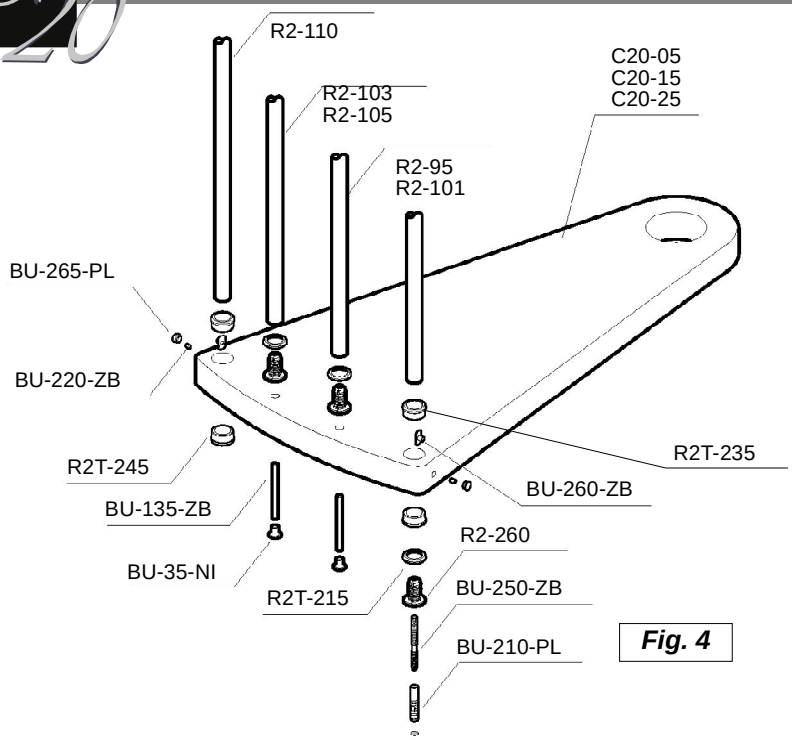


Fig. 4

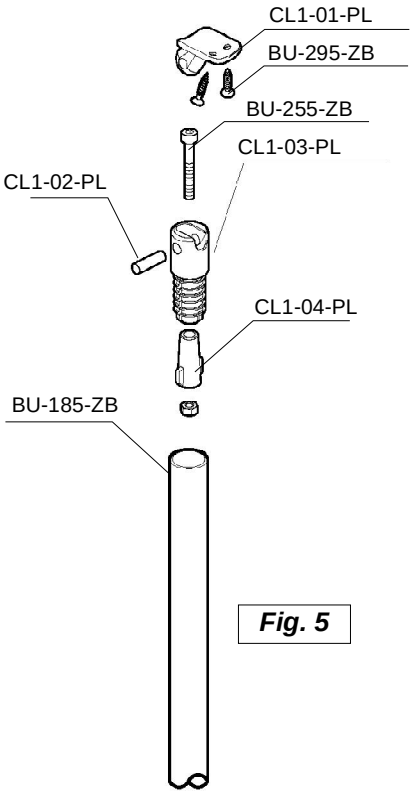


Fig. 5

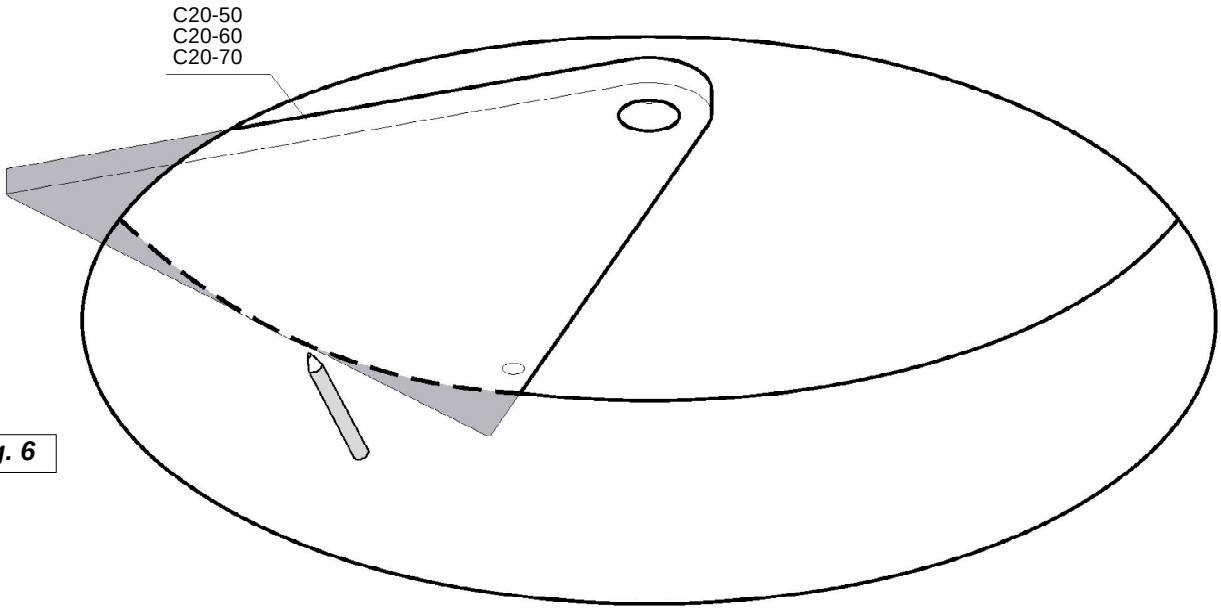


Fig. 6

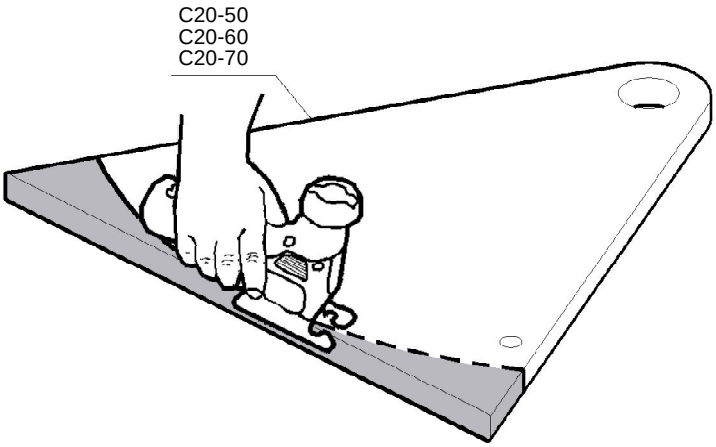
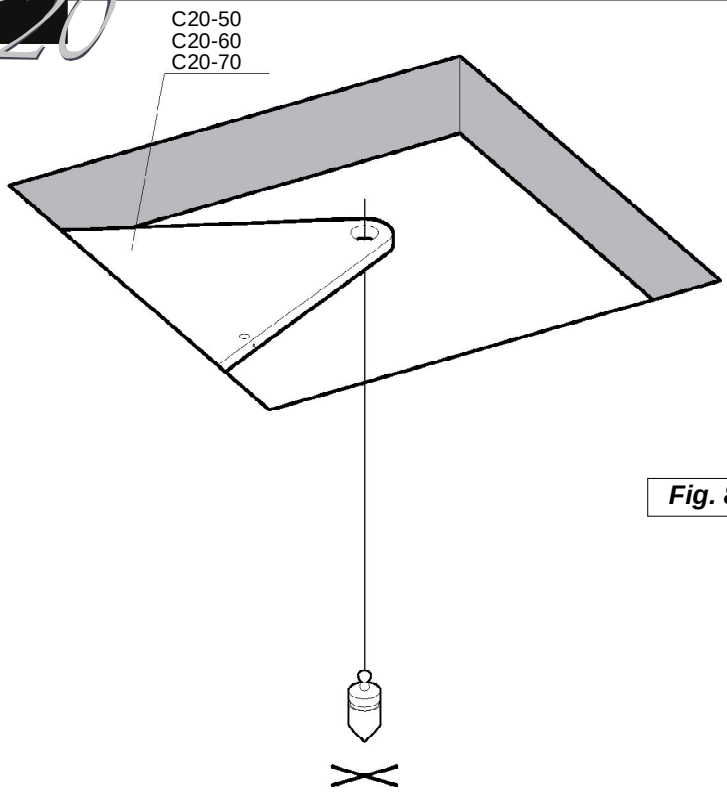


Fig. 7



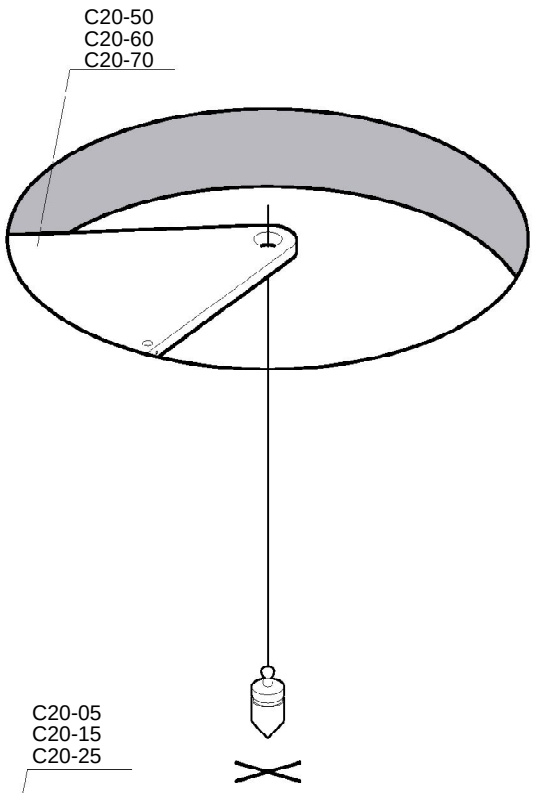


Fig. 8

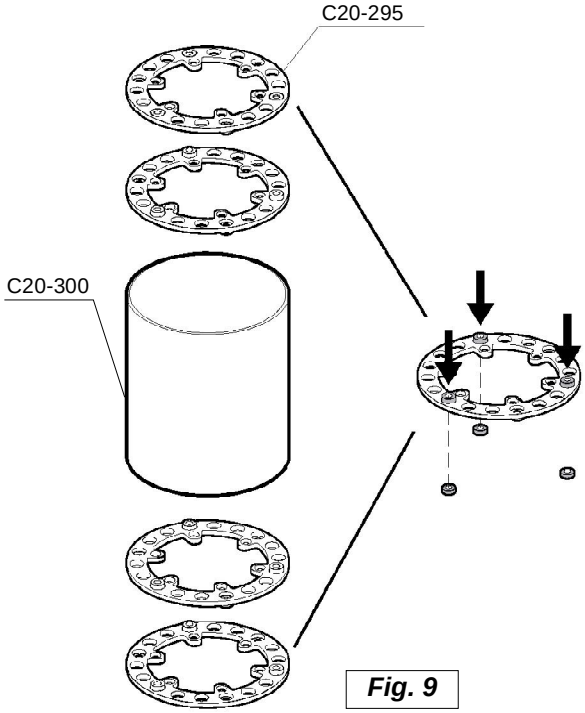


Fig. 9

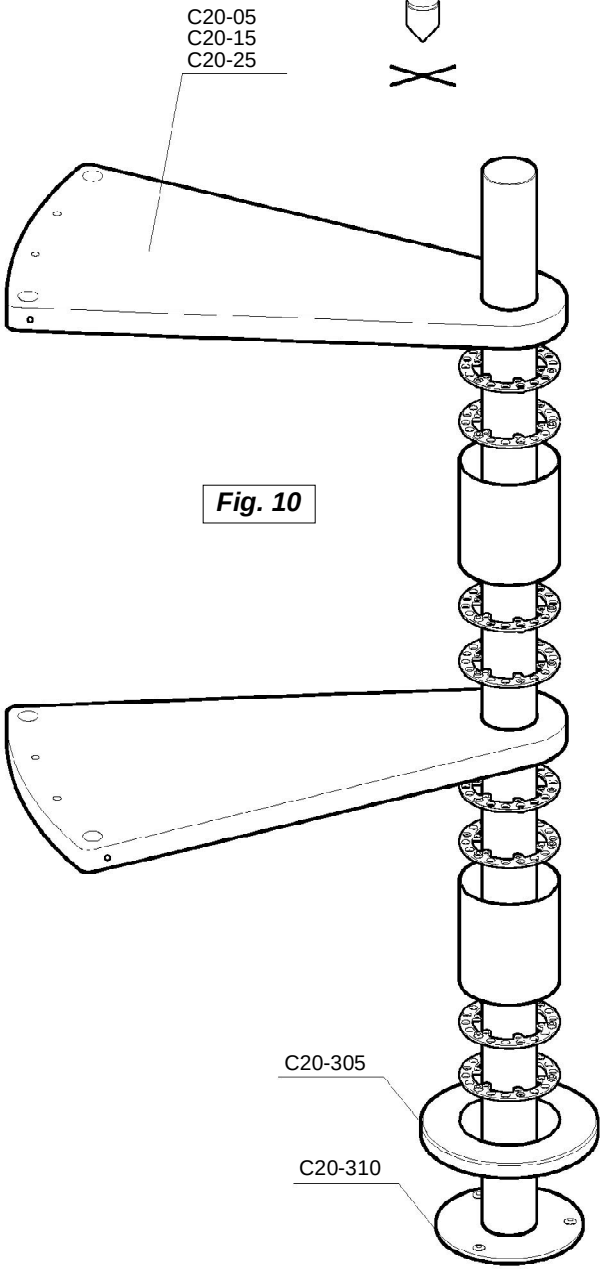


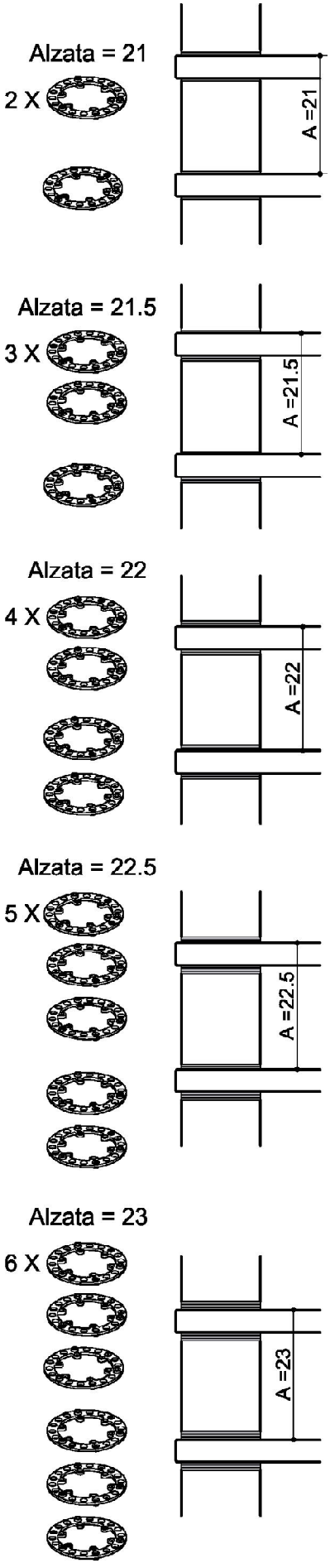
Fig. 10

The table dimensions are shown in cm.

Fig. 11

A.T.	N° Grad.	ALZATE					N° Tot. Distanziali
		21.0	21.5	22.0	22.5	23.0	
232.0	10+1	10	1				23
233.0	10+1	8	3				25
234.0	10+1	6	5				27
235.0	10+1	4	7				29
236.0	10+1	2	9				31
237.0	10+1		11				33
238.0	10+1		9	2			35
239.0	10+1		7	4			37
240.0	10+1		5	6			39
241.0	10+1		3	8			41
242.0	10+1		1	10			43
243.0	10+1			10	1		45
244.0	10+1			8	3		47
245.0	10+1			6	5		49
246.0	10+1			4	7		51
247.0	10+1			2	9		53
248.0	10+1				11		55
249.0	10+1				9	2	57
250.0	10+1				7	4	59
251.0	10+1				5	6	61
252.0	10+1				3	8	63
253.0	10+1				1	10	65
254.0	11+1	9	3				27
255.0	11+1	7	5				29
256.0	11+1	5	7				31
257.0	11+1	3	9				33
258.0	11+1	1	11				35
259.0	11+1		11	1			37
260.0	11+1		9	3			39
261.0	11+1		7	5			41
262.0	11+1		5	7			43
263.0	11+1		3	9			45
264.0	11+1		1	11			47
265.0	11+1			11	1		49
266.0	11+1			9	3		51
267.0	11+1			7	5		53
268.0	11+1			5	7		55
269.0	11+1			3	9		57
270.0	11+1			1	11		59
271.0	11+1				11	1	61
272.0	11+1				9	3	63
273.0	11+1				7	5	65
274.0	11+1				5	7	67
275.0	11+1				3	9	69
276.0	11+1				1	11	71
277.0	12+1	6	7				33
278.0	12+1	4	9				35
279.0	12+1	2	11				37
280.0	12+1		13				39
281.0	12+1		11	2			41
282.0	12+1		9	4			43
283.0	12+1		7	6			45
284.0	12+1		5	8			47
285.0	12+1		3	10			49
286.0	12+1		1	12			51
287.0	12+1			12	1		53
288.0	12+1			10	3		55
289.0	12+1			8	5		57
290.0	12+1			6	7		59
291.0	12+1			4	9		61
292.0	12+1			2	11		63
293.0	12+1				13		65
294.0	12+1				11	2	67
295.0	12+1				9	4	69
296.0	12+1				7	6	71
297.0	12+1				5	8	73
298.0	12+1				3	10	75
299.0	12+1				1	12	77
300.0	13+1	3	11				39
301.0	13+1	1	13				41
302.0	13+1		13	1			43
303.0	13+1		11	3			45
304.0	13+1		9	5			47
305.0	13+1		7	7			49
306.0	13+1		5	9			51
307.0	13+1		3	11			53
308.0	13+1		1	13			55
309.0	13+1			13	1		57
310.0	13+1			11	3		59
311.0	13+1			9	5		61

A.T.	N° Grad.	ALZATE					N° Tot. Distanziali
		21.0	21.5	22.0	22.5	23.0	
312.0	13+1			7	7		63
313.0	13+1			5	9		65
314.0	13+1			3	11		67
315.0	13+1			1	13		69
316.0	13+1				13	1	71
317.0	13+1				11	3	73
318.0	13+1				9	5	75
319.0	13+1				7	7	77
320.0	13+1				5	9	79
321.0	13+1				3	11	81
322.0	13+1				1	13	83
323.0	14+1		15				45
324.0	14+1		13	2			47
325.0	14+1		11	4			49
326.0	14+1		9	6			51
327.0	14+1		7	8			53
328.0	14+1		5	10			55
329.0	14+1		3	12			57
330.0	14+1		1	14			59
331.0	14+1			14	1		61
332.0	14+1			12	3		63
333.0	14+1			10	5		65
334.0	14+1			8	7		67
335.0	14+1			6	9		69
336.0	14+1			4	11		71
337.0	14+1			2	13		73
338.0	14+1				15		75
339.0	14+1				13	2	77
340.0	14+1				11	4	79
341.0	14+1				9	6	81
342.0	14+1				7	8	83
343.0	14+1				5	10	85
344.0	14+1				3	12	87
345.0	14+1				1	14	89
346.0	15+1		13	3			51
347.0	15+1		11	5			53
348.0	15+1		9	7			55
349.0	15+1		7	9			57
350.0	15+1		5	11			59
351.0	15+1		3	13			61
352.0	15+1		1	15			63
353.0	15+1			15	1		65
354.0	15+1			13	3		67
355.0	15+1			11	5		69
356.0	15+1			9	7		71
357.0	15+1			7	9		73
358.0	15+1			5	11		75
359.0	15+1			3	13		77
360.0	15+1			1	15		79
361.0	15+1				15	1	81
362.0	15+1				13	3	83
363.0	15+1				11	5	85
364.0	15+1				9	7	87
365.0	15+1				7	9	89
366.0	15+1				5	11	91
367.0	15+1				3	13	93
368.0	15+1				1	15	95
369.0	16+1		11	6			57
370.0	16+1		9	8			59
371.0	16+1		7	10			61
372.0	16+1		5	12			63
373.0	16+1		3	14			65
374.0	16+1		1	16			67
375.0	16+1			16	1		69
376.0	16+1			14	3		71
377.0	16+1			12	5		73
378.0	16+1			10	7		75
379.0	16+1			8	9		77
380.0	16+1			6	11		79
381.0	16+1			4	13		81
382.0	16+1			2	15		83
383.0	16+1				17		85
384.0	16+1				15	2	87
385.0	16+1				13	4	89
386.0	16+1				11	6	91
387.0	16+1				9	8	93
388.0	16+1				7	10	95
389.0	16+1				5	12	97
390.0	16+1				3	14	99
391.0	16+1				1	16	101



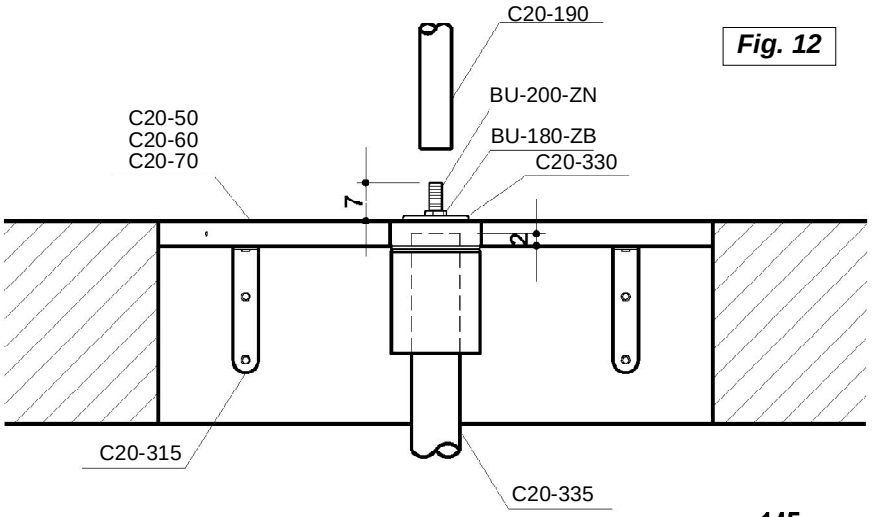

C20-190
BU-200-ZN
BU-180-ZB
C20-330
C20-50
C20-60
C20-70
7
21
C20-315
C20-335

Fig. 12

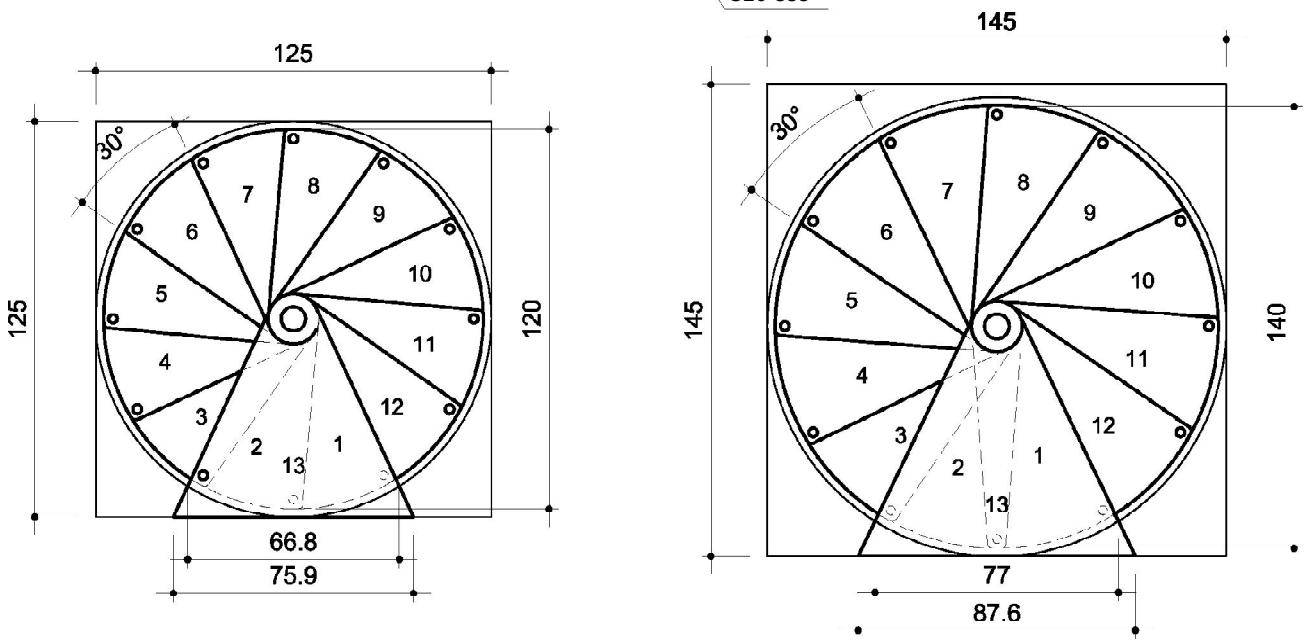
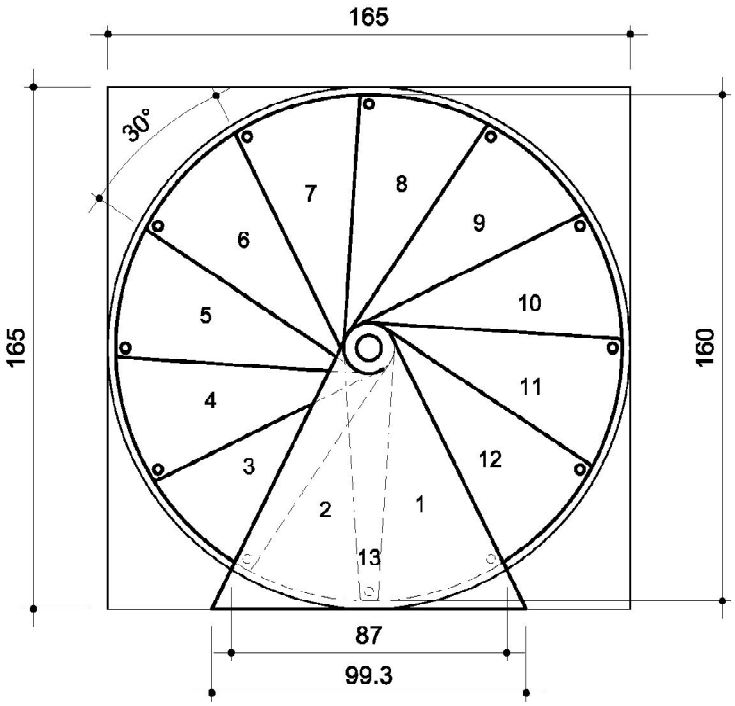

125
125
120
30°
1
2
3
4
5
6
7
8
9
10
11
12
13
66.8
75.9
145
145
140
30°
77
87.6

Fig. 13


165
165
160
30°
87
99.3

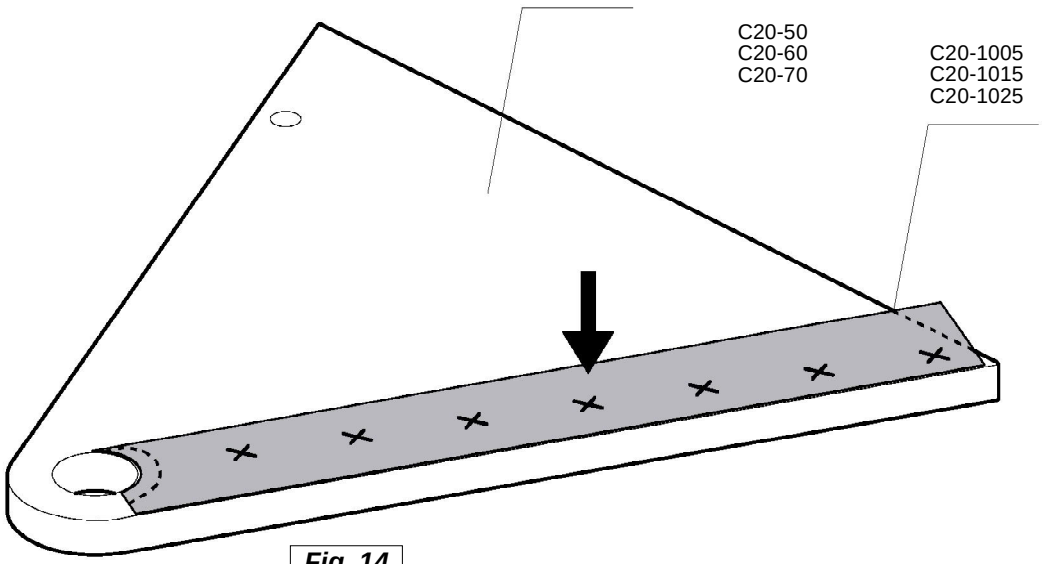

C20-50
C20-60
C20-70
C20-1005
C20-1015
C20-1025

Fig. 14

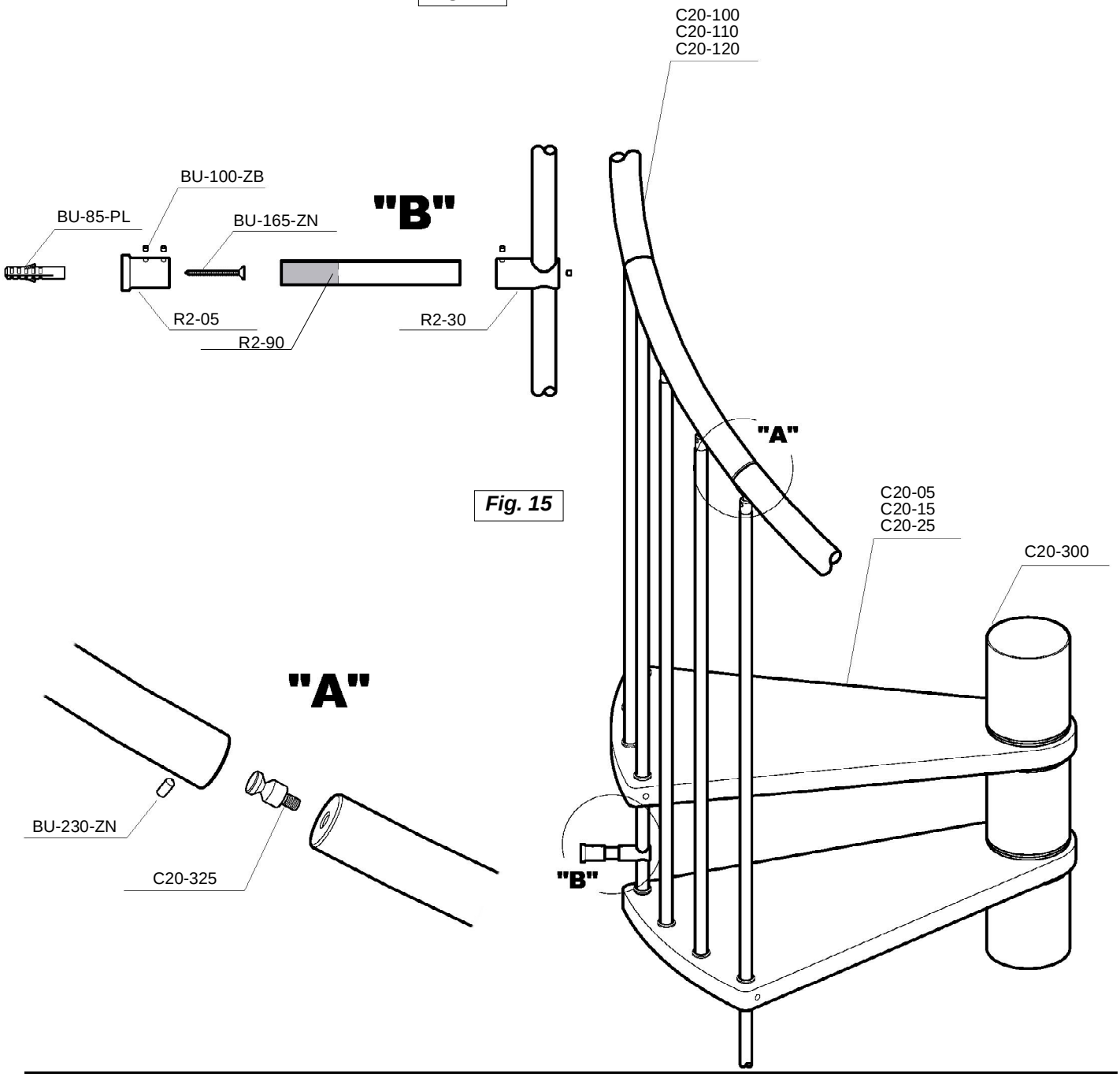

C20-100
C20-110
C20-120
BU-100-ZB
BU-85-PL
BU-165-ZN
"B"
R2-05
R2-90
R2-30
"A"
C20-05
C20-15
C20-25
C20-300
"A"
BU-230-ZN
C20-325
"B"

Fig. 15

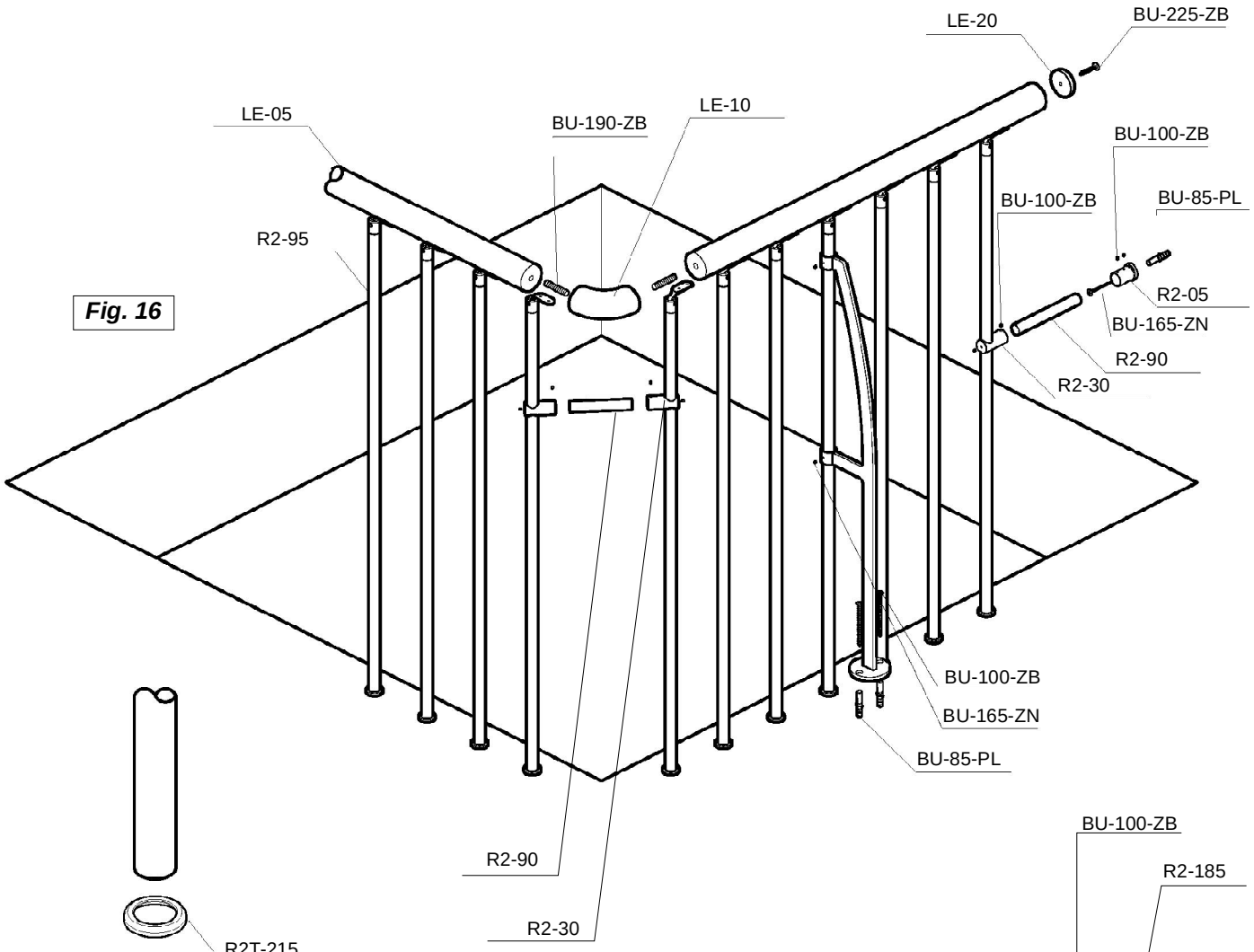


Fig. 16

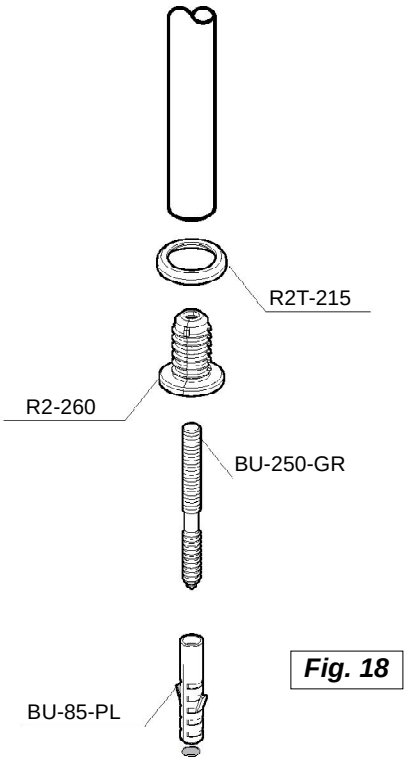


Fig. 18

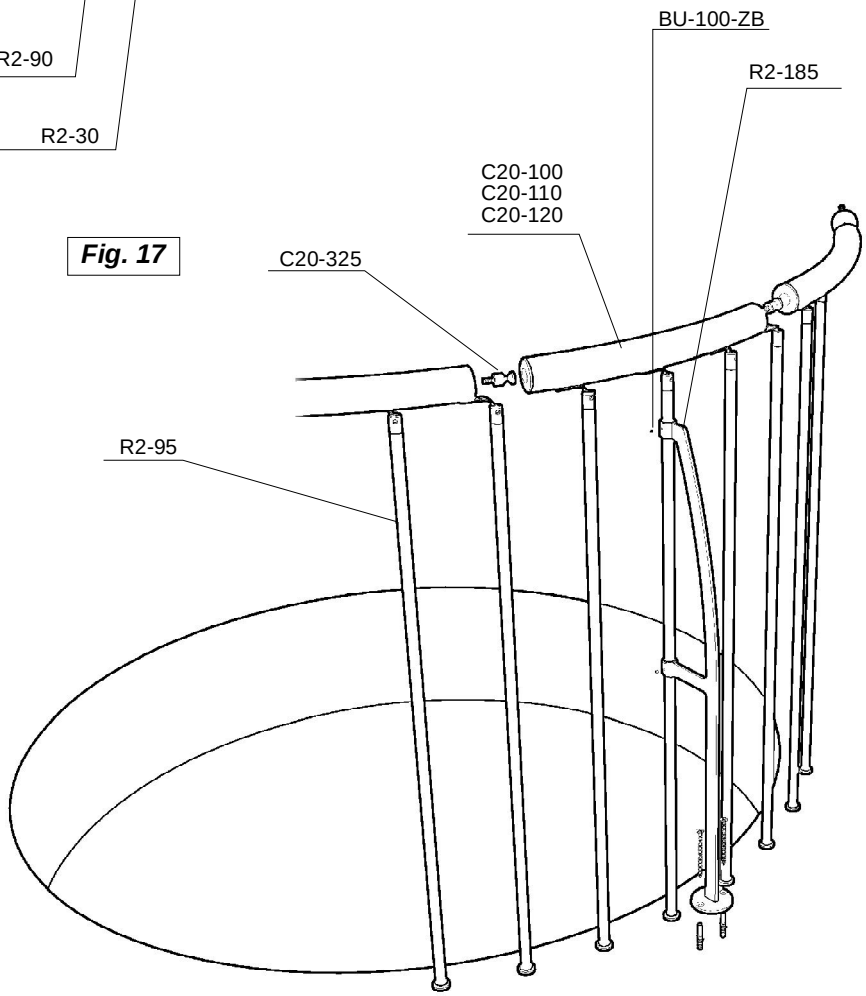


Fig. 17