MOBILE ACCES TOWERS

System 120x200
System 120x180
System 100x200
System 100x180
System 75x200
System 75x180
Grim EU 75

GB instructions for use and maintenance

European norm UNI EN 1004

CERTIFICATED UNI EN ISO 9001

Handbook EN 1298 IM it x en

The mobile access and working towers must be used only for finishing, maintenance or similar work. This handbook contains important information regarding the use, maintenance and safety of the mobile access and working towers; the operator must have complete knowledge of the information contained herein before use. Scrupulous observance of this manual ensures that the work will be carried out in accordance with worker's health and safety regulation D.Lgs. 09.04.2008 n° 81.

NOTE:

- read and understand this manual in its entirety
- follow the instructions as indicated carefully
- before each installation verify the integrity of each individual component.

Don't use damaged or not intact components

The Mobile Access Tower on Wheels is made according to the standards. Any changes made by others invalidate the manufacturer's responsibility.

CONTENTS

ENGLISH

1.REGULATION REFERENCES

• D.Lgs. 09.04.2008 n° 81 (G.U. n° 101 dated 30.04.08) “Testo unico sulla salute e sicurezza sul lavoro”.
•UNI EN 1004 (July 2005) “Mobile access and working towers made of prefabricated elements - Materials, dimensions, design loads, safety and performance”;
•EN 1298 (February 1996) “Mobile access and working towers. Rules and guidelines for the preparation of an instruction manual”;
• D.Lgs. 06.09.2005 n° 206 (G.U. n° 235 dated 08.10.05 Suppl. Ordinario n° 162) “Codice del Consumo”.

2.“SYSTEM” SERIES

2.1 DESIGNATION

System 120x200 working tower EN 1004 3 8/12 XXCD

System 120x180 working tower EN 1004 3 8/12 XXCD

System 100x200 working tower EN 1004 3 8/8,5 XXCD

System 100x180 working tower EN 1004 3 8/8,5 XXCD

System 75x200 working tower EN 1004 3 7/7 XXCD

System 75x180 working tower EN 1004 3 7/7 XXCD

•The six mobile access towers are manufactured in compliance with the UNI EN 1004 Technical Standard;
•They are all rated to load Class “3” (2,0 KN/m²);
•The maximum allowed work platform height vary for the different models, following the directions reported in the Technical Standard between m 7,0 and m 8,0 outside of buildings, and between m 7,0 and m 12,0 inside of buildings.
Inside of building must be considered in the absence of wind.

2.2.DECLARATION OF CONFORMITY

ENGLISH

MARCHETTI ladders and mobile access tow ers, located in Città della Pieve (Pg), st. Piemonte, 22:

DECLARES

• that the mobile access tow ers denominated

- **System 120x200**
- **System 120x180**
- **System 100x200**
- **System 100x180**
- **System 75x200**
- **System 75x180**

Are manufactured in compliance with the D.Lgs. 09.04.2008 n° 81 Standard and in particular with the UNI EN 1004 (July 2005) Technical Standard)

• that they are built in conformity to their respective prototy pesw hichpassed the load and rigidity test as described in appendix “A” of the U NIEN 1004 (2005) Technical Standard and that they have been subj ectedw ithpositive outcome to the ASSESSMENT, as pursuant to point 13 of U NIEN 1004 (2005) Technical Standard conducted at:

UNIVERSITA' DEGLI STUDI DI PERUGIA
Department of Industrial Engineering

System 120x200	Certificate n° **Marc 77**
System 120x180	Certificate n° **Marc 79**
System 100x200	Certificate n° **Marc 81**
System 100x180	Certificate n° **Marc 82**
System 75x200	Certificate n° **Marc 83**
System 75x180	Certificate n° **Marc 84**

•that every product model manufactured carries its identification mark anda handbook w rittenas prescribed by the EN1298 Technical Standard (point 9 of U NIEN 1004 Technical Standard).

MARCHETTI s.r.l.
P. Marchetti

2.3 GENERAL INFORMATION

2.3.1 ACCESSING THE WORK PLATFOMS

The work platforms may be accessed from inside the tower only, using one of the following methods:
- vertical rung ladder, formed by the rungs of the structure's side frames
- inclined rung ladder, internal
- inclined step ladder, internal

2.3.2 CLASS, CAPACITY

“System” working towers are classified (in accordance with UNI EN 1004) as class 3, i.e. platform capacity equal to 2.0 KN/m²
The total load allowed for each tower is therefore:

- System 120x200 Kg 390
- System 100x200 Kg 330
- System 75x200 Kg 226
- System 120x180 Kg 350
- System 100x180 Kg 295
- System 75x180 Kg 204

The maximum number of platforms that can be loaded simultaneously is:

- System 120x200 n°3
- System 100x200 n°3
- System 75x200 n°2
- System 120x180 n°3
- System 100x180 n°3
- System 75x180 n°2

The sum of loads relative to each platform must not exceed the total load allowance.

2.3.3 MAXIMUM HEIGHTS IN THE VARIOUS CONFIGURATION (pag. 11-15-19)

The maximum work platform height, without stabilizers use, is m 2,50 (tower maximum height m 3,50).
The maximum work platform height, with stabilizers fitted, for System 120 e System 100 series working towers is m 8,00 for external use, while, for internal use the maximum work platform height is m 12.00 for System 120 series working towers and m 8.50 for System 100 series working towers. The maximum work platform height, with stabilizers fitted, for System 75 series working towers is m 7,00 whether used internally or externally.
There are two types of stabilizers: Normal-35 and Super-35.
"Normal-35" stabilizers must be always fitted inside of buildings, while outside the buildings they can be fitted for work platform heights inferior to m 6,00 (maximum tower height inferior to m 7,00) in wind exposed conditions, and for all configurations of all System series, of every height, if the tower is erected next to a wall (e.g. building façade) that acts as a wind barrier to the wall itself. In the latter instance, the stabilizers on the wall side have to be oriented towards the exterior of the tower in parallel position to the wall itself.
Super-35 stabilizers must be fitted to towers, of all series (System120 System 100 System 75), with work platform above m 6,00 and when the tower is completely exposed to the wind (for example, in the middle of a square next to a structure, such as a light pole, that does not act as a wind barrier, etc.).
The minimum height clearance between work platforms is m 1,90. The maximum vertical distance between work platform is m 4,20. The maximum vertical distance between the ground and the first level is m 4,60.

2.4.1 "SYSTEM 120X200" MOBILE ACCESS TOWER CHARACTERISTICS

UNI EN 1004 - Class "3" (2,00 KN/m²)

Total load allowed Kg 390

Number of platforms allowed simultaneously: 3

Tabel of component elements for the various configurations:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.10) A1	A2	A3	A4	A5	B6	B7	B8
	20579	**EXTRACTABLE BASE**									
1	20551	Wheel-bearing section for extr. Base -120	12,70	1	1	1	1	1	1	1	1
2	20550	Wheel-bearing section for extr. Base -120	12,60	1	1	1	1	1	1	1	1
3	20552	Base brace - 200	6,40	2	2	2	2	2	2	2	2
4	20318	Extractable adjustable foot	3,50	4	4	4	4	4	4	4	4
5	30523	Handgrip screw M14x50	0,14	4	4	4	4	4	4	4	4
	20583	**TOWER**									
10	20556	Bearing frame - 120	9,50	2	4	6	8	10	12	14	16
11	20563	Connecting brace - 200	3,90	2	4	6	8	10	12	14	16
12	20564	Diagonal bracing rod. - 200	1,30	4	8	12	16	20	24	28	32
	20612	**WORK PLATFORM - ALUMINIUM**									
13	20604	Platform w/trapdoor - alluminium - 200x51	11,50	1	1	1	2	2	2	3	3
14		Long toeboard - 200	4,60	2	2	2	4	4	4	6	6
15	20605	Platform w/out trapdoor - aluminium - 200x51	11,40	1	1	1	2	2	2	3	3
16		Short toeboard - 120	2,40	2	2	2	4	4	4	6	6
	21076	**WORK PLATFORM - STEEL**									
24	21083	Platform w/trapdoor - steel- 200x51	15,14	1	1	1	2	2	2	3	3
26		Long toeboard - 200	3,92	2	2	2	4	4	4	6	6
25	21084	Platform w/out trapdoor - steel- 200x51	15,09	1	1	1	2	2	2	3	3
27		Short toeboard - 120	1,59	2	2	2	4	4	4	6	6
	20748	**COMPLETE GUARDRAILS**									
17	20632	Long guardrail - 200	5,50	2	2	2	2	2	2	2	2
18	20784	Short guardrail - 120	2,30	2	2	2	2	2	2	2	2
		GUARDRAIL BARS									
28	20188	Guardrail bar - 200	2,20	0	0	0	2	2	2	4	4
	20753	**COMPLETE STABILIZERS**									
19	20765	Stabilizers - 35	9,80	0	0	4	4	4	4	4	4
20	31383	Stabilizers coupler for round tube-35	1,00	0	0	8	8	8	8	8	8

For configurations with H=0,90 m terminal riser **A1T-A2T-A3T-A4T-A5T-B6T-B7T**, add the following elements:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.10) A1T	A2T	A3T	A4T	A5T	B6T	B7T
	20585	**TOWER**								
21	20557	Bearing frame - 120	5,80	2	2	2	2	2	2	2
11	20563	Connecting brace - 200	3,90	2	2	2	2	2	2	2
22	20565	Diagonal bracing rod. - 200	1,10	4	4	4	4	4	4	4

The Special Base can be fitted as an alternative to the Extractable Base; simply substitute the wheel-bearing sections for Extractable Base (code 20550 and code 20551) with the following.

	Cod.	Components elements	Peso Kg	CONFIGURAZIONI (pag. 10) A1	A2	A3	A4	A5	B6	B7	B8
	20618	**SPECIAL BASE**									
6	20620	Wheel-bearing section for special Base -120	26,00	1	1	1	1	1	1	1	1
7	20621	Wheel-bearing section for special Base -120	26,00	1	1	1	1	1	1	1	1
8	31946	Securing clamp	0,35	4	4	4	4	4	4	4	4
9	30522	Handgrip screw M12x80	0,13	4	4	4	4	4	4	4	4

2.4.2 "SYSTEM 120X180" MOBILE ACCESS TOWER CHARACTERISTICS

UNI EN 1004 - Classe "3" (2,00 KN/m²)
Total load allowed Kg 350
Number of platforms allowed simultaneously: 3
Tabel of component elements for the various configurations:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.10) A1	A2	A3	A4	A5	B6	B7	B8
	20580	**EXTRACTABLE BASE**									
1	20551	Wheel-bearing section for extr. Base. -120	12,70	1	1	1	1	1	1	1	1
2	20550	Wheel-bearing section for extr. Base. -120	12,60	1	1	1	1	1	1	1	1
3	20554	Base brace - 180	6,00	2	2	2	2	2	2	2	2
4	20318	Extractable adjustable foot	3,50	4	4	4	4	4	4	4	4
5	30523	Handgrip screw M14x50	0,14	4	4	4	4	4	4	4	4
	20584	**TOWER**									
10	20556	Bearing frame - 120	9,50	2	4	6	8	10	12	14	16
11	20562	Connecting brace - 180	3,50	2	4	6	8	10	12	14	16
12	20566	Diagonal bracing rod. - 180	1,20	4	8	12	16	20	24	28	32
	20613	**WORK PLATFORM - ALUMINIUM**									
13	20606	Platform w/trapdoor- aluminium - 180x51	10,50	1	1	1	2	2	2	3	3
14		Long toeboard - 180	4,20	2	2	2	4	4	4	6	6
15	20607	Platform w/out trapdoor - aluminium -180x51	10,40	1	1	1	2	2	2	3	3
16		Short toeboard - 120	2,40	2	2	2	4	4	4	6	6
	21077	**WORK PLATFORM - STEEL**									
24	21086	Platform w/trapdoor - steel- 180x51	13,74	1	1	1	2	2	2	3	3
26		Long toeboard - 180	3,55	2	2	2	4	4	4	6	6
25	21087	Platform w/out trapdoor - steel- 180x51	13,64	1	1	1	2	2	2	3	3
27		Short toeboard - 120	1,59	2	2	2	4	4	4	6	6
	20749	**COMPLETE GUARDRAIL**									
17	20631	Long guardrail - 180	5,10	2	2	2	2	2	2	2	2
18	20784	Short guardrail - 120	2,30	2	2	2	2	2	2	2	2
		GUARDRAIL BARS									
28	20600	Guardrail bar steel - 180	1,95	0	0	0	2	2	2	4	4
	20753	**COMPLETE STABILIZERS**									
19	20765	Stabilizers - 35	9,80	0	0	4	4	4	4	4	4
20	31383	Stabilizers coupler for round tube-35	1,00	0	0	8	8	8	8	8	8

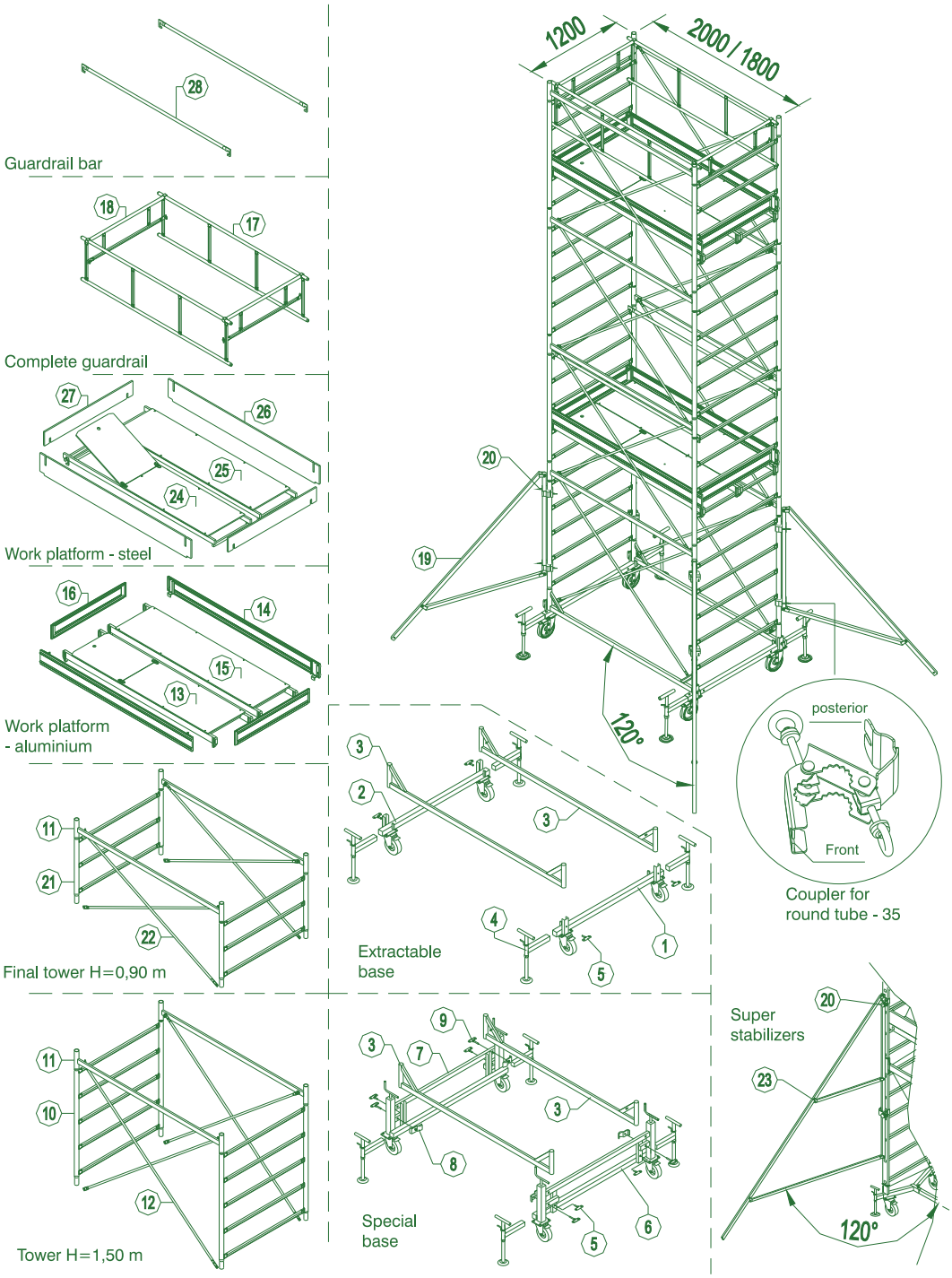
For configurations with H=0,90 m terminal riser **A1T-A2T-A3T-A4T-A5T-B6T-B7T**, add the following elements:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.10) A1T	A2T	A3T	A4T	A5T	B6T	B7T
	20586	**TOWER**								
21	20557	Bearing frame - 120	5,80	2	2	2	2	2	2	2
11	20562	Connecting brace - 180	3,50	2	2	2	2	2	2	2
22	20567	Diagonal bracing rod. - 180	1,00	4	4	4	4	4	4	4

The Special Base can be fitted as an alternative to the Extractable Base; simply substitute the wheel-bearing sections for Extractable Base (code 20550 and code 20551) with the following:

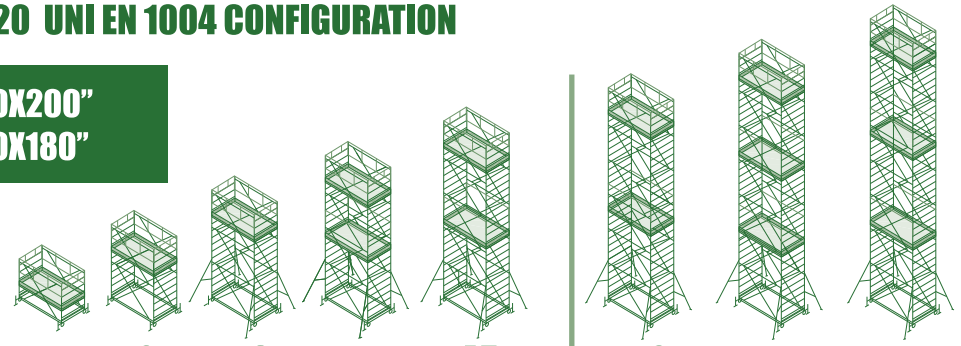
	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.10) A1	A2	A3	A4	A5	B6	B7	B8
	20619	**SPECIAL BASE**									
6	20620	Wheel-bearing section for special Base -120	26,00	1	1	1	1	1	1	1	1
7	20621	Wheel-bearing section for special Base -120	26,00	1	1	1	1	1	1	1	1
8	31946	Securing clamp	0,35	4	4	4	4	4	4	4	4
9	30522	Handgrip screw M12x80	0,13	4	4	4	4	4	4	4	4

”SYSTEM120X200 - SYSTEM 120X180”



2.4.3 SYSTEM 120 UNI EN 1004 CONFIGURATION

"SYSTEM 120X200"
"SYSTEM 120X180"



WITHOUT FINAL TOWER DA H=0,90 m

CONFIGURATIONS		A1	A2	A3	A4	A5	B6	B7	B8
H max	m	2,00	3,50	5,00	6,50	8,00	9,50	11,00	12,50
H max working platform	m	1,00	2,50	4,00	5,50	7,00	8,50	10,00	11,50
Towers (H=1,50 m)	n°	1	2	3	4	5	6	7	8
Working platform with guardrail	n°	1	1	1	2	2	2	3	3
Complete guardrails	n°	1	1	1	1	1	1	1	1
Guardrail bar	n°	0	0	0	2	2	2	4	4
Stabilizer-35	n°	0	0	4	4	4	4	4	4
Base section	n°	1	1	1	1	1	1	1	1

WITH FINAL TOWER H=0,90 m

		A1T	A2T	A3T	A4T	A5T	B6T	B7T
H max	m	2,90	4,40	5,90	7,40	8,90	10,40	11,90
H max working platform	m	1,90	3,40	4,90	6,40	7,90	9,40	10,90
Towers (H=1,50 m)	n°	1	2	3	4	5	6	7
Towers (H=0,90 m)	n°	1	1	1	1	1	1	1
Working platform with guardrail	n°	1	1	2	2	2	2	3
Complete guardrails	n°	1	1	1	1	1	1	1
Guardrail bar	n°	0	0	2	2	2	2	4
Stabilizer-35	n°	0	4	4	4	4	4	4
Base section	n°	1	1	1	1	1	1	1

2.4.4 “SYSTEM 100X200” MOBILE ACCESS TOWER CHARACTERISTICS

UNI EN 1004 - Classe “3” (2,00 KN/m²)
Total load allowed Kg 330
Number of platforms allowed simultaneously: 3

Tabel of component elements for the various configurations:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.14) A1	A2	A3	A4	A5	B6
	20575	**EXTRACTABLE BASE**							
1	20547	Wheel-bearing section for extr. Base -S100	12,30	1	1	1	1	1	1
2	20546	Wheel-bearing section for extr. Base -S100	12,20	1	1	1	1	1	1
3	20552	Base brace - 200	6,40	2	2	2	2	2	2
4	20318	Extractable adjustable foot	3,50	4	4	4	4	4	4
5	30523	Handgrip screw M14x50	0,14	4	4	4	4	4	4
	20587	**TOWER**							
6	20558	Bearing frame - 100	8,40	2	4	6	8	10	12
7	20563	Connecting brace - 200	3,90	2	4	6	8	10	12
8	20564	Diagonal bracing rod. - 200	1,30	4	8	12	16	20	24
	20614	**WORK PLATFORM - ALUMINIUM**							
11	20604	Platform w/trapdoor - aluminium - 200x51	11,50	1	1	1	2	2	2
12		Long toeboard - 200	4,60	2	2	2	4	4	4
13	20609	Platform w/out trapdoor - aluminium -200x36	8,90	1	1	1	2	2	2
14		Short toeboard - 100	2,10	2	2	2	4	4	4
	21078	**WORK PLATFORM - STEEL**							
20	21083	Platform w/trapdoor - steel- 200x51	15,14	1	1	1	2	2	2
22		Long toeboard - 200	3,92	2	2	2	4	4	4
21	21085	Platform w/out trapdoor - steel- 200x36	12,30	1	1	1	2	2	2
23		Short toeboard - 100	1,39	2	2	2	4	4	4
	20746	**COMPLETE GUARDRAILS**							
15	20632	Long guardrail - 200	5,50	2	2	2	2	2	2
16	20785	Short guardrail - 100	2,00	2	2	2	2	2	2
		GUARDRAIL BARS							
24	20188	Guardrail bar steel - 200	2,20	0	0	0	2	2	2
	20753	**COMPLETE STABILIZERS**							
17	20765	Stabilizers - 35	9,80	0	0	4	4	4	4
18	31383	Stabilizers coupler for round tube-35	1,00	0	0	8	8	8	8

For configurations with H=0,90 m terminal riser **A1T-A2T-A3T-A4T-A5T**, add the following elements:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.14) A1T	A2T	A3T	A4T	A5T
	20589	**TOWER**						
9	20559	Bearing frame - 100	4,90	2	2	2	2	2
7	20563	Connecting brace - 200	3,90	2	2	2	2	2
10	20565	Diagonal bracing rod. - 200	1,10	4	4	4	4	4

2.4.5 “SYSTEM 100X180” MOBILE ACCESS TOWER CHARACTERISTICS

UNI EN 1004 - Classe “3” (2,00 KN/m²)
Total load allowed Kg 295
Number of platforms allowed simultaneously: 3

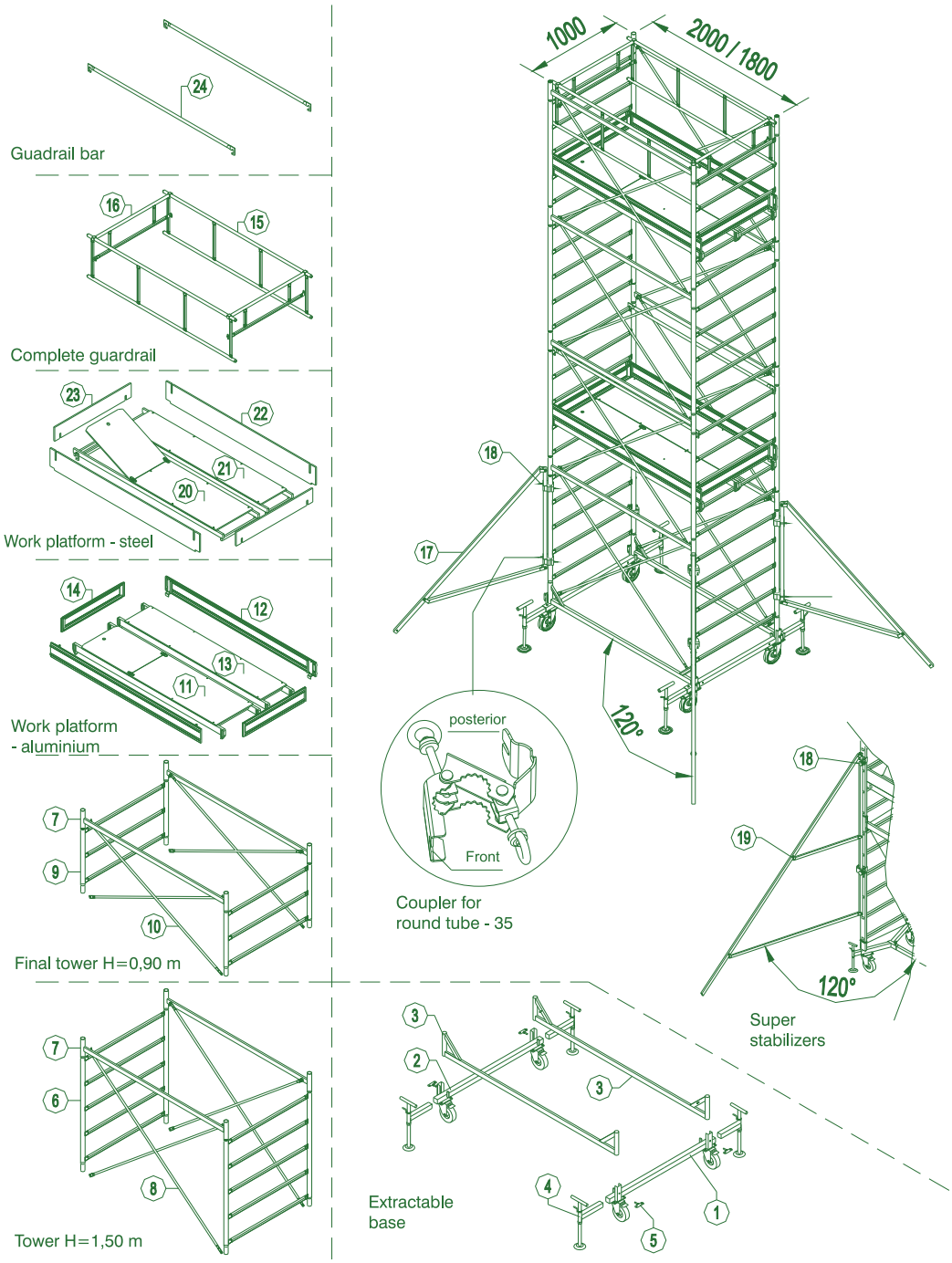
Tabel of component elements for the various configurations:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.14) A1	A2	A3	A4	A5	B6
	20576	**EXTRACTABLE BASE**							
1	20547	Wheel-bearing section for extr. Base -S100	12,30	1	1	1	1	1	1
2	20546	Wheel-bearing section for extr. Base -S100	12,20	1	1	1	1	1	1
3	20554	Base brace -S180	6,00	2	2	2	2	2	2
4	20318	Extractable adjustable foot	3,50	4	4	4	4	4	4
5	30523	Handgrip screw M14x50	0,14	4	4	4	4	4	4
	20588	**TOWER**							
6	20558	Bearing frame - 100	8,40	2	4	6	8	10	12
7	20562	Connecting brace - 180	3,50	2	4	6	8	10	12
8	20566	Diagonal bracing rod. - 180	1,20	4	8	12	16	20	24
	20615	**WORK PLATFORM - ALUMINIUM**							
11	20606	Platform w/trapdoor - aluminium - 180x51	10,50	1	1	1	2	2	2
12		Long toeboard - 180	4,20	2	2	2	4	4	4
13	20608	Platform w/out trapdoor - aluminium-180x36	8,50	1	1	1	2	2	2
14		Short toeboard - 100	2,10	2	2	2	4	4	4
	21079	**WORK PLATFORM - STEEL**							
20	21086	Platform w/trapdoor - steel - 180x51	13,74	1	1	1	2	2	2
22		Long toeboard - 180	3,55	2	2	2	4	4	4
21	21088	Platform w/out trapdoor - steel- 180x36	11,22	1	1	1	2	2	2
23		Short toeboard - 100	1,39	2	2	2	4	4	4
	20747	**COMPLETE GUARDRAILS**							
15	20631	Long guardrail - 180	5,50	2	2	2	2	2	2
16	20785	Short guardrail - 100	2,00	2	2	2	2	2	2
		GUARDRAIL BARS							
24	20600	Guardrail bar - 180	1,95	0	0	0	2	2	2
	20753	**COMPLETE STABILIZERS**							
17	20765	Stabilizers - 35	9,80	0	0	4	4	4	4
18	31383	Stabilizers coupler for round tube-35	1,00	0	0	8	8	8	8

For configurations with H=0,90 m terminal riser **A1T-A2T-A3T-A4T-A5T**, add the following elements:

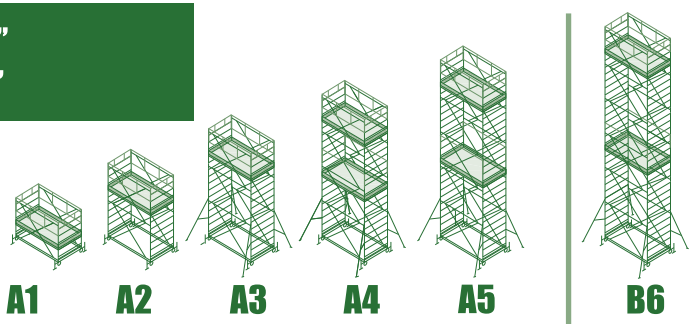
	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.14) A1T	A2T	A3T	A4T	A5T
	20590	**TOWER**						
9	20559	Bearing frame - 100	4,90	2	2	2	2	2
7	20562	Connecting brace - 180	3,50	2	2	2	2	2
10	20567	Diagonal bracing rod. - 180	1,10	4	4	4	4	4

”SYSTEM100X200 - SYSTEM 100X180”



2.4.6 SYSTEM 100 UNI EN 1004 CONFIGURATION

"SYSTEM 100X200"
"SYSTEM 100X180"



WITHOUT FINAL TOWER DA H=0,90 m

INSIDE AND OUTSIDE

ONLY INSIDE

CONFIGURATIONS		A1	A2	A3	A4	A5	B6
H max	m	2,00	3,50	5,00	6,50	8,00	9,50
H max working platform	m	1,00	2,50	4,00	5,50	7,00	8,50
Towers (H=1,50 m)	n°	1	2	3	4	5	6
Working platform with guardrail	n°	1	1	1	2	2	2
Complete guardrails	n°	1	1	1	1	1	1
Guardrail bar	n°	0	0	0	2	2	2
Stabilizer-35	n°	0	0	4	4	4	4
Base section	n°	1	1	1	1	1	1

WITH FINAL TOWER H=0,90 m

INSIDE AND OUTSIDE

CONFIGURATIONS		A1T	A2T	A3T	A4T	A5T
H max	m	2,90	4,40	5,90	7,40	8,90
H max working platform	m	1,90	3,40	4,90	6,40	7,90
Towers (H=1,50 m)	n°	1	2	3	4	5
Towers (H=0,90 m)	n°	1	1	1	1	1
Working platform with guardrail	n°	1	1	2	2	2
Complete guardrails	n°	1	1	1	1	1
Guardrail bar	n°	0	0	2	2	2
Stabilizer-35	n°	0	4	4	4	4
Base section	n°	1	1	1	1	1

2.4.7 “SYSTEM 75X200” MOBILE ACCESS TOWER CHARACTERISTICS

UNI EN 1004 - Classe “3” (2,00 KN/m²)
Total load allowed Kg 226
Number of platforms allowed simultaneously: 2

Tabel of component elements for the various configurations:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.19) A1	A2	A3	A4	A5
	20577	**EXTRACTABLE BASE**						
1	20548	Wheel-bearing section for extr. Base -S75	11,00	1	1	1	1	1
2	20549	Wheel-bearing section for extr. Base -S75	10,90	1	1	1	1	1
3	20552	Base brace - 200	6,40	2	2	2	2	2
4	20318	Extractable adjustable foot	3,50	4	4	4	4	4
5	30523	Handgrip screw M14x50	0,14	4	4	4	4	4
	20591	**TOWER**						
6	20560	Bearing frame - 75	6,90	2	4	6	8	10
7	20563	Connecting brace - 200	3,90	2	4	6	8	10
8	20564	Diagonal bracing rod. - 200	1,30	4	8	12	16	20
	20616	**WORK PLATFORM - ALUMINIUM**						
11	20616	Platform w/trapdoor -200x60	13,30	1	1	1	2	2
12		Short toeboard - 75	1,60	2	2	2	4	4
13		Long toeboard - 200	4,60	2	2	2	4	4
	20750	**COMPLETE GUARDRAILS**						
14	20632	Long guardrail - 200	5,50	2	2	2	2	2
15	20786	Short guardrail - 75	1,70	2	2	2	2	2
		GUARDRAIL BARS						
19	20188	Guardail bar- steel - 200	2,20	0	0	0	2	2
	20753	**COMPLETE STABILIZERS**						
16	20765	Stabilizers - 35	9,80	0	0	4	4	4
17	31383	Stabilizers coupler for round tube-35	1,00	0	0	8	8	8

For configurations with H=0,90 m terminal riser **A1T-A2T-A3T-A4T**, add the following elements:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.19) A1T	A2T	A3T	A4T
	20593	**TOWER**					
9	20561	Bearing frame - 75	4,10	2	2	2	2
7	20563	Connecting brace - 200	3,90	2	2	2	2
10	20565	Diagonal bracing rod. - 200	1,10	4	4	4	4

2.4.8 "SYSTEM 75X180" MOBILE ACCESS TOWER CHARACTERISTICS

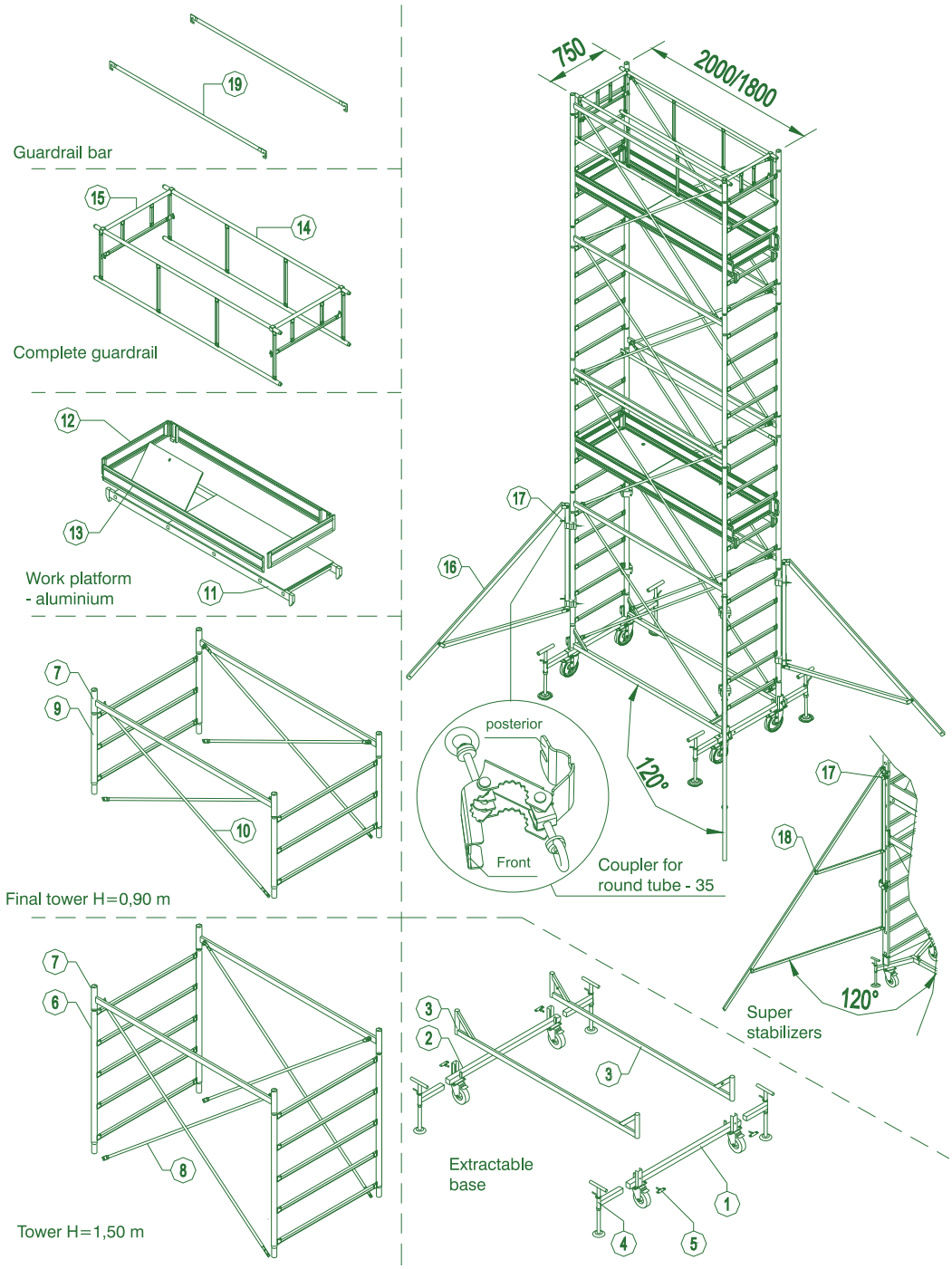
UNI EN 1004 - Classe "3" (2,00 KN/m²)
Total load allowed Kg 204
Number of platforms allowed simultaneously: 2
Tabel of component elements for the various configurations:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.19) A1	A2	A3	A4	A5
	20578	**EXTRACTABLE BASE**						
1	20548	Wheel-bearing section for extr. Base -75	11,00	1	1	1	1	1
2	20549	Wheel-bearing section for extr. Base -75	10,90	1	1	1	1	1
3	20554	Base brace - 180	6,00	2	2	2	2	2
4	20318	Extractable adjustable foot	3,50	4	4	4	4	4
5	30523	Handgrip screw M14x50	0,14	4	4	4	4	4
	20592	**TOWER**						
6	20560	Bearing frame - 75	6,90	2	4	6	8	10
7	20562	Connecting brace - S180	3,50	2	4	6	8	10
8	20566	Diagonal bracing rod. - 180	1,20	4	8	12	16	20
	20617	**WORK PLATFORM - ALUMINIUM**						
11	20617	Platform w/trapdoor -180X60	12,50	1	1	1	2	2
12		Short toeboard - 75	1,60	2	2	2	4	4
13		Long toeboard - 180	4,20	2	2	2	4	4
	20751	**COMPLETE GUARDRAILS**						
14	20631	Long guardrail - 180	5,10	2	2	2	2	2
15	20786	Short guardrail - 75	1,70	2	2	2	2	2
		GUARDRAIL BARS						
19	20600	Guardrail bar - steel - 180	1,95	0	0	0	2	2
	20753	**COMPLETE STABILIZERS**						
16	20765	Stabilizers - 35	9,80	0	0	4	4	4
17	31383	Stabilizers coupler for round tube-35	1,00	0	0	8	8	8

For configurations with H=0,90 m terminal riser **A1T-A2T-A3T-A4T**, add the following elements:

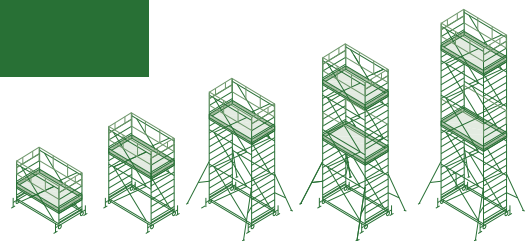
	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.19) A1T	A2T	A3T	A4T
	20594	**TOWER**					
9	20561	Bearing frame - 75	4,10	2	2	2	2
7	20562	Connecting brace - 180	3,50	2	2	2	2
10	20567	Diagonal bracing rod. - 180	1,10	4	4	4	4

”SYSTEM 75X200 - SYSTEM 75X180”



2.4.9 SYSTEM 75 UNI EN 1004 CONFIGURATION

"SYSTEM 75X200"
"SYSTEM 75X180"



A1 A2 A3 A4 A5

INSIDE AND OUTSIDE

WITHOUT FINAL TOWER DA H=0,90 m

CONFIGURATIONS		A1	A2	A3	A4	A5
H max	m	2,00	3,50	5,00	6,50	8,00
H max working platform	m	1,00	2,50	4,00	5,50	7,00
Towers (H=1,50 m)	n°	1	2	3	4	5
Working platform with guardrail	n°	1	1	1	2	2
Complete guardrails	n°	1	1	1	1	1
Guardrail bar	n°	0	0	0	2	2
Stabilizer-35	n°	0	0	4	4	4
Base section	n°	1	1	1	1	1

WITH FINAL TOWER H=0,90 m

INSIDE AND OUTSIDE

CONFIGURATIONS		A1T	A2T	A3T	A4T
H max	m	2,90	4,40	5,90	7,40
H max working platform	m	1,90	3,40	4,90	6,40
Towers (H=1,50 m)	n°	1	2	3	4
Towers (H=0,90 m)	n°	1	1	1	1
Working platform with guardrail	n°	1	1	2	2
Complete guardrails	n°	1	1	1	1
Guardrail bar	n°	0	0	2	2
Stabilizer-35	n°	0	4	4	4
Base section	n°	1	1	1	1

2.4.10 BASE SECTION (pagg. 10, 14, 18)
The “Extractable” base section, made from E260 steel pipes, consists of 2 wheel-bearing sections, 2 connecting braces, 4 extractable adjustable feet, and 4 M 14x50 handgrip screws. The 4 swivelling wheels are mm 200 in diameter and are all provided with brake. A “Special” base is available for “System 120x200” and “System 120x180” mobile access towers. The “Special” base section features the characteristics of the Extractable base as well as wheels that can be crank-adjusted vertically. The wheel-bearing sections for this base are different from those for the “Extractable” base. In addition, this base comes with 4 securing clamps (for the base brakes) and 4 M12x80 handgrip screws.

2.4.11 TOWER (pagg. 10,14,18)
The tower, made from E260 steel pipes, is a modular structure. Each module, 1.50 metres high, is comprised of two load bearing lateral frames, two connecting braces and four diagonal bracing rods. The lateral frames are comprised of two uprights and five cross-pieces at intervals of mm 300, each capable of bearing the work platform in addition to serving as the vertical rung ladder for access to the platform itself. The cross-pieces have non-slip upper and lower surfaces.

2.4.12 WORK PLATFORM - ALUMINIUM (pagg. 10,14,18)
Each work platform is comprised of 1 or 2 frames in aluminium tubing with overhanging slip-resistant multiplex plywood panels, one of which contains the trapdoor. A 150-mm-high toe-board made from profiled and galvanized sheet steel runs around all four edges of the platform. It is inserted between the platform and the first cross-piece of the load bearing lateral frame and firmly secures the platform to the tower, preventing any unintentional removal.

2.4.13 WORK PLATFORM - STEEL (pagg. 10,14,18)
Each work platform is comprised of 1 or 2 frames in galanized steel tubing with overhanging slip-resistant multiplex plywood panels, one of which contains the trapdoor. A 150-mm-high plywood toe-board runs around all four edges of the platform. It is inserted between the platform and the first cross-piece of the load bearing lateral frame and firmly secures the platform to the tower, preventing any unintentional removal.

2.4.14 COMPLETE GUARDRAIL UNI EN 1004 (pagg. 10,14,18)
The lateral protection consists of two E260 steel pipes frames joined by two E260 steel cross elements that ensure protection at both intermediate and top positions. They are hooked to the lateral cross-pieces to avoid accidental detachment. **Use as working top guardrail.**

2.4.15 GUARDRAIL BAR (pagg. 10,14,18)
Steel E260 bar with device unthreading at either ends. To use as a protection in the passing workplatform. **If such workplatforms were used as staging or for working is obligatory the use of the UNI EN 1004 guardrail.**

2.4.16 STABILIZERS AND COUPLERS (pagg.10,14,18)

There are two types of stabilizers: Normal-35 and Super-35. Each Normal-35 stabilizer is made up of 3 E260 steel pipes, 35x35 mm shaped galvanised steel square-section. The three pipes have hinges at the ends, in order to allow both open and closed stabilizers' positions. In closed position the three elements are put side by side and lined up to the blocking pawl in the lower hole of the longer bar, as to reduce the encumbrance when carried. To open the stabilizer is enough to remove the blocking pawl, to fold the two shorter bars as to form a triangle and to introduce the pawl inside the central hole of the longer bar.

The Super-35 stabilizers have in addiction a steel 35x35 square-section pipe, as regards the Normal ones, with the function of break bending and they are longer, while the functioning is similar to the other stabilizers. Both model of stabilizers, to be used as indicated in section 2.3.3, are fitted to the 4 uprights to increase the effective base dimensions of the tower and are required when the work platform exceeds m 2.50 (tower maximum height m 3.50). Two hinge couplers secure each stabilizer.Each coupler has a central section fitted with two side hinge elements. These hinge elements bind up the tower upright and the stabilizer, respectively, and are then closed and secured to the central element with screws and eyebolts. The rear clamp that goes on the upright is in the shape of a semi-circle to adapt to the upright itself and has two symmetric slots that must be positioned at the rung-upright weld point, either from the top or the bottom depending on specific needs.

These slots prevent the coupler from rotating in relation to the upright.

The coupler's central element and the front clamp are serrated in order to accommodate the stabilizer. Being square, the stabilizer can assume various angles in relation to the tower, always ensuring no stabilizer-coupler rotation.

MOBILE ACCES TOWERS

Grim EU 75

European norm UNI EN 1004

CERTIFICATED UNI EN ISO 9001

3.GRIMEU75

3.1 Designation

Grim EU 75 torre da lavoro EN 1004 3 6/6 XXCD

• The mobile access tower is manufactured in compliance with the Italian D.lgs 81/08 and in particular with UNI EN 1004 Technical Standard;
• They are all rated to load Class "3" (2,0 KN/m²);
It has a maximum work platform height allowed of m 6.00, both outside or inside buildings.

ENGLISH

3.2.DECLARATION OF CONFORMITY

MARCHETTI®

MARCHETTI s.r.l. ladders and mobile access tow ers, located in Città della Pieve (Pg), st. Piemonte, 22:

DECLARES

• that the mobile access tower denominated:

• GrimEu75

is manufactured in compliance with the D.Lgs. 09.04.2008 n° 81 Standard and in particular with the UNI EN 1004 (July 2005) Technical Standard.
• that it is built in conformity to the prototype, which passed the load and rigidity test as described in appendix "A" of the UNI EN 1004 (2005) Technical Standard and that it has been subjected with positive outcome to the ASSESSMENT, as pursuant to point 13 of UNI EN 1004 (2005) Technical Standard conducted at:

UNIVERSITA' DEGLI STUDI DI PERUGIA
Department of Industrial Engineering

GRIMEU75 Certificato n° **Marc 85** del 20.09.2006

• that every product model manufactured carries its identification mark and a handbook written as prescribed by the EN1298 Technical Standard (point 9 of UNI EN 1004 Technical Standard).

MARCHETTI s.r.l.
P.I. Marchetti

3.3 GENERAL INFORMATION

3.3.1 ACCESSING THE WORK PLATFORMS

The work platforms may be accessed from inside the tower only, using one of the following methods:
- vertical rung ladder, formed by the rungs of the structure's side frames
- inclined rung ladder, internal
- inclined step ladder, internal

3.3.2 CLASS, CAPACITY

“Grim Eu 75” working tower is classified (in accordance with UNI EN 1004) as class 3, i.e. platform capacity equal to 2.0 KN/m^2.
The total load allowed for each tower is therefore kg 190.
The maximum number of platforms that can be loaded simultaneously is 2.
The sum of loads relative to each platform must not exceed the total load allowance.

3.3.3 MAXIMUM HEIGHTS IN THE VARIOUS CONFIGURATIONS (pag. 27)

The maximum work platform height, without stabilizers use, is m 1,80 (tower maximum height m 2,90).
The maximum work platform height, with stabilizers fitted, is m 4.40 if the GRIM is assembled on NORMAL BASE, and 6,10 if is it assembled on EXTRACTABLE BASE, in both configurations for use inside or outside of buildings.
There are two types of stabilizers: Normal-30 and Super-30.(p. 26)
"Normal-35" stabilizers must be always fitted inside of buildings.
Outside they must be fitted for work platform heights inferior to m 5,00 in wind exposed conditions.
If the tower is erected next to a wall (e.g. building façade) that acts as a wind barrier to the wall itself. In the latter instance, the stabilizers on the wall side have to be oriented towards the exterior of the tower in parallel position to the wall itself.
Super-30 stabilizers must be fitted to towers when the work platform is above 5,00 m and when the tower is completely exposed to the wind (for example, in the middle of a square next to a structure, such as a light pole, that does not act as a wind barrier, etc.).
The minimum height clearance between work platforms is m 1,90. The maximum vertical distance between work platform is m 4,20. The maximum vertical distance between the ground and the first level is m 4,60.

3.4.1 “GRIM EU 75”MOBILE ACCESS TOWER CHARACTERISTICS

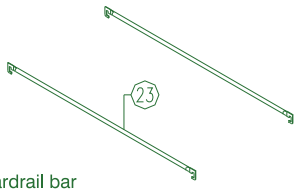
UNI EN 1004 - Classe “3” (2,00 KN/m²)
Total load allowed Kg 190
Number of platforms allowed simultaneously: 2
Tabel of component elements for the various configurations:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.27) A1	A2	A3	B1	B2	B3	B4
	20596	**EXTRACTABLE BASE**								
1	20573	Wheel-bearing section for extr. Base	9,00	0	0	0	2	2	2	2
2	20574	Base brace	3,30	0	0	0	1	1	1	1
3	20318	Extractable adjustable foot	3,50	0	0	0	4	4	4	4
4	30522	Handgrip screw M12x80	0,14	0	0	0	2	2	2	2
	20641	**NORMALE BASE**								
5	20642	Wheel - bearing section - normal base	4,50	2	2	2	0	0	0	0
6	20644	Diagonal - 160	0,90	1	1	1	0	0	0	0
	20595	**TOWER**								
7	20568	Bearing frame	7,60	2	4	6	2	4	6	8
8	20570	Connecting brace	2,10	2	4	6	2	4	6	8
9	20571	Diagonal bracing rod.	1,20	4	8	12	4	8	12	16
	20622	**WORK PLATFORM - ALUMINIUM**								
12	20622	Platform w/trapdoor - aluminium- 165	13,00	1	1	1	1	1	1	2
13		Long toeboard - 165	3,90	2	2	2	2	2	2	4
14		Short toeboard - 75	1,60	2	2	2	2	2	2	4
	21082	**WORK PLATFORM - STEEL**								
20	21082	Platform w/trapdoor- steel - 165	17,05	1	1	1	1	1	1	2
21		Long toeboard - 165	3,26	2	2	2	2	2	2	4
22		Short toeboard - 75	1,03	2	2	2	2	2	2	4
	20752	**COMPLETE GUARDRAILS**								
15	20643	Long guardrail - 165	4,90	2	2	2	2	2	2	2
16	20786	Short guardrail - 75	1,70	2	2	2	2	2	2	2
		GUARDRAIL BARS								
23	20112	Guardrail bar Grimeu75	1,76	0	0	0	0	0	0	2
	20713	**COMPLETE STABILIZERS**								
17	20766	Stabilizers - 30	5,40	0	4	4	0	0	4	4
18	31619	Stabilizers coupler for round tube-30	0,50	0	8	8	0	0	8	8

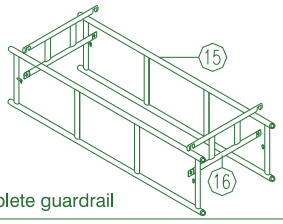
For configurations with H=0,85 m terminal riser **A1T-A2T-B1T-B2T-B3T**, add the following elements:

	Cod.	Components elements	Weight Kg	CONFIGURATIONS (pag.27) A1T	A2T	B1T	B2T	B3T
	20597	**TOWER**						
10	20569	Bearing frame	3,50	2	2	2	2	2
8	20570	Connecting brace	2,10	2	2	2	2	2
11	20572	Diagonal bracing rod.	0,90	4	4	4	4	4

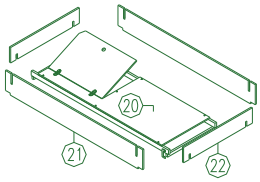
"GRIMEU75"



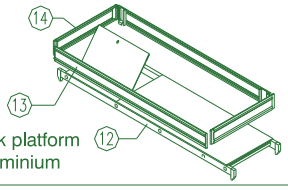
Guardrail bar



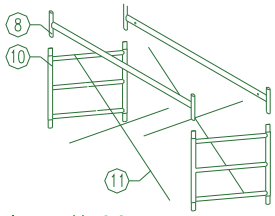
Complete guardrail



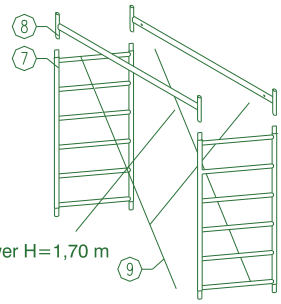
Work platform - steel



Work platform
- aluminium

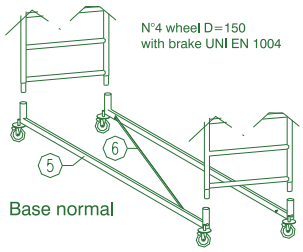


Final tower H=0,85 m

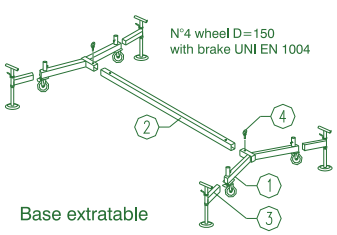


Tower H=1,70 m

Coupler for
round tube - 30



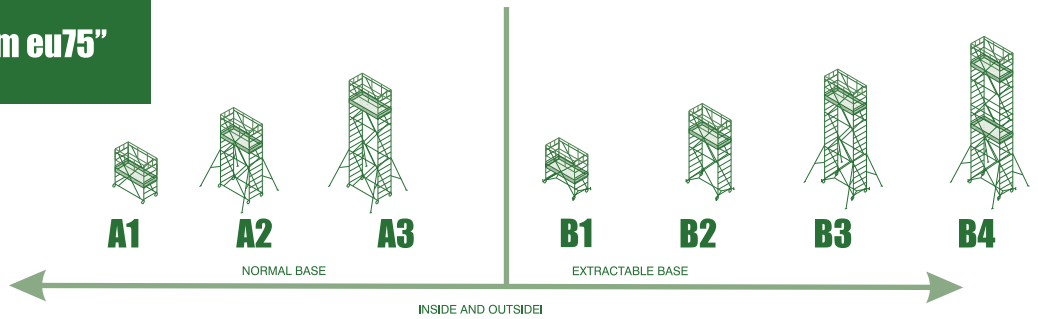
Base normal



Base extratable

3.4.2 GRIMEU75 UNI EN 1004 CONFIGURATION

“Grim eu75”



WITHOUT FINAL TOWER DA H=0,90 m

CONFIGURATIONS		A1	A1T	A2	A2T	A3
H max	m	2,00	2,85	3,70	4,55	5,40
H max working platform	m	1,00	1,85	2,70	3,55	4,40
Towers (H=1,50 m)	n°	1	1	2	2	3
Working platform with guardrail	n°	0	1	0	1	0
Complete guardrails	n°	1	1	1	1	1
Guardrail bar	n°	1	1	1	1	1
Stabilizer-35	n°	0	0	0	0	0
Base section normal	n°	0	0	4	4	4
	n°	1	1	1	1	1

WITH FINAL TOWER H=0,90 m

CONFIGURATIONS		B1	B1T	B2	B2T	B3	B3T	B4
H max	m	2,00	2,85	3,70	4,55	5,40	6,25	7,10
H max working platform	m	1,00	1,85	2,70	3,55	4,40	5,25	6,10
Towers (H=1,50 m)	n°	1	1	2	2	3	3	4
Towers (H=0,90 m)	n°	0	1	0	1	0	1	0
Working platform with guardrail	n°	1	1	1	1	1	2	2
Complete guardrails	n°	1	1	1	1	1	1	1
Guardrail bar	n°	0	0	0	0	0	2	2
Stabilizer-35	n°	0	0	0	4	4	4	4
Base section extractable	n°	1	1	1	1	1	1	1

3.4.3 BASE SECTION (pag. 26)
• Extractable Base - The “Extractable” base section, made from E260 steel pipes, consists of 2 wheel-bearing sections, 1 connecting brace, 4 extractable adjustable feet, and 2 M 12x80 handgrip screws. The 4 swivelling wheels are mm 150 in diameter and are all provided with brake.
•Normal Base - The “Normal” base section, made from E260 steel pipes, consists of 2 wheel-bearing sections and one diagonal. The wheel-bearing elements have a 150-mm diameter wheel on stive pin at each end, provided with brake.

3.4.4 TOWERS (pag. 26)
The tower, made from E260 steel pipes, is a modular structure. Each module, 1.68 metres high, is comprised of two load bearing lateral frames, two connecting braces and four diagonal bracing rods. The lateral frames are comprised of two uprights and six cross-pieces at intervals of mm 280, each capable of bearing the work platform in addition to serving as the vertical rung ladder for access to the platform itself. The cross-pieces have non-slip upper and lower surfaces.

3.4.5 WORK PLATFORM - ALUMINIUM (pag. 26)
Each work platform is comprised of 1 or 2 frames in aluminium tubing with overhanging slip-resistant multiplex plywood panels, as to contain the trapdoor. A 150-mm-high toe-board made from profiled and galvanized sheet steel runs around all four edges of the platform. It is inserted between the platform and the first cross-piece of the load bearing lateral frame and firmly secures the platform to the tower, preventing any unintentional removal.

3.4.6 WORK PLATFORM - ACCIAIO (pag. 26)
Each work platform is comprised of 1 or 2 frames in galanized steel tubing with overhanging slip-resistant multiplex plywood panels, one of which contains the trapdoor. A 150-mm-high plywood toe-board runs around all four edges of the platform. It is inserted between the platform and the first cross-piece of the load bearing lateral frame and firmly secures the platform to the tower, preventing any unintentional removal.

3.4.7 COMPLETE GUARDRAIL UNI EN 1004 (pag. 26)
T helateral protection consists of tw oE260 steel pipes frames j oinedby tw oE260 steel cross elements that ensure protection at both intermediate and top positions. T heyare hook edo the lateral cross-pieces to avoid accidental detachment. **Use as working top guardrail.**

3.4.8 GUARDRAIL BAR (pag. 26)
Steel E260 bar with device unthreading at either ends. To use as a protection in the passing workplatform. **If such workplatforms were used as staging or for working is obligatory the use of the UNI EN 1004 guardrail.**

3.4.9 STABILIZERS AND COUPLERS(pag. 26)
There are two types of stabilizers: Normal-30 and Super-30. Each Normal-30 stabilizer is made up of 3 E260 steel pipes, 30x30 mm shaped galvanised steel square-section. The three pipes have hinges at the ends, in order to allow both open and closed stabilizers' positions.

The three pipes have hinges at the ends, in order to allow both open and closed stabilizers' positions. In closed position the three elements are put side by side and lined up to the blocking pawl in the lower hole of the longer bar, as to reduce the encumbrance when carried. To open the stabilizer is enough to remove the blocking pawl, to fold the two shorter bars as to form a triangle and to introduce the pawl inside the central hole of the longer bar.
The Super-30 stabilizers have in addiction a steel 30x30 square-section pipe, as regards the Normal ones, with the function of break bending and they are longer, while the functioning is similar to the other stabilizers. Both models of stabilizers, to be used as indicated in section 3.3.3, are fitted to the 4 uprights by hinge couplers, to increase the effective base dimensions of the tower and are required when the work platform exceeds m 1,80 (tower maximum height m 2,90).
Each coupler is made up of two galvanized, press formed sheet steel elements hinged at the end. Two couplers are required for each stabilizer and they must bind the stabilizer and the lateral frame's upright, each attaching to a cross-piece of the frame itself. To lock couplers in place, tighten the eyebolt nut supplied on the screw integrated into one of the two half-couplers. The two half-couplers are serrated in order to accommodate the stabilizer, which, being square, can assume various angles in relation to the tower, always ensuring no stabilizer-coupler rotation.

4. ASSEMBLY AND DISMANTLING

4.1 GENERAL INFORMATION:

A) The assembly and dismantling of the mobile access towers requires at least two people, both of whom must be familiar with the assembly and use instructions.
B) The choice of configuration p. 11 for “System 120”, p.15 for “System 100”, p.19 for “System 75”, p. 27 for ”Grim EU 75” will depend on your required working heights. The elements required for assembly, along with their weights and quantities, are listed in pp. 7 and 8 for “System 120”, in pp. 12 and 13 for “System 100”, in pp. 16 and 17 for “System 75” and in pp. 25 for ”Grim EU 75”.
C) Damaged components must not be used.
D) Only original components indicated by the manufacturer may be used.

4.2 SAFETY PLATFORM (D.Lgs. 09.04.2008 n° 81 Sez. IV - art. 128)

The Safety Platform (constructed in the same way as a normal work platform) is obligatory in maintenance and repair works lasting more than 5 days and always obligatory in building works and must be positioned under the work platform at a distance not greater than m 2.50.

4.3 PRELIMINARY CHECKS

a) The surface on which the tower is to be assembled and moved (if necessary)must be capable of supporting the weight. It must be perfectly levelled and capable of guaranteeing the distribution of the load, preferably with the use of wooden planks or their equivalent;

B) Ensure that the ground is free of obstacles of any kind;
C) The assembly operations can only be undertaken in the absence of wind;
D) Check that all of the parts, accessories and safety equipment are near at hand before assembling the mobile access tower;
E) The uprightness of mobile access towers must be controller by spirit level or pendulum.

4.4 ASSEMBLY INSTRUCTIONS

4.4.1 SYSTEM AND GRIM EU 75 TOWERS OVER EXTRACTABLE BASE

Having checked that all of the requirements of section 4.3 have been met, proceed with the assembly of the base section:
A) Join the two wheel-bearing sections with the one/two base connecting braces using the two/four handgrip screws supplied;
B) Before tightening the screws fully, position the first two lateral frames;
C) Tighten the screws, engage the brakes in the four wheels and proceed to the horizontal extraction of the adjustable feet to the maximum length the surrounding surface space allows; Pull the extractables up to the MAX line or by the proper automatic device that prevent from the unintentionally extractions. Then tighten the extraction locking screw.
D) Level the base section using the screws on the feet, taking care to raise all the wheels at least 20 mm off the ground; once levelled, tighten the lock nuts;
E) Continue the assembly by inserting the 2 connecting braces into the slots on top of the uprights of the lateral frames;
F) Install the diagonal bracing rods, hooking the ends onto the anti-slip latches on the connecting braces;
G) Position the mobile access tower's elements on the fourth rung from the bottom of the first two lateral frames;
H) First, position the 2 long toeboards parallel to the walking surface. Make sure the stamped plate hooks on the ends of the toeboards face inwards. Now fit the 2 short toeboards into the respective housings found in the long boards;
I) At this point at least one of the workers authorised to assemble the tower must put on a safety belt and climb onto the work platform from the inside of the tower through the trapdoor;
J) After having securely attached the end of the rope of the safety belt to one of the two already fitted connecting braces, the next two lateral frames can be attached and the tower can then continue to be assembled following the same sequence of operations described up to this point;
K) If the tower must be erected to a work platform height above m 2,50 for System towers or above m 1,80 for Grim tower, the 4 stabilizers must be fitted at this point as instructed in section 2.3.3 for System towers and in section 3.3.3 for the Grim tower;

L) For System series towers: arrange the stabilizers in open position as instructed in section 2.4.13. Remove the respective stabilizers couplers from the bag supplied. Open the rear clamp of the first coupler by loosening the eyebolt nut. Fit the coupler to the tower's upright on the rung weld point at the height that allows accomodating the upper vertical portion of the stabilizer. Repeat the operation on the same upright with a second coupler. Place the coupler at an appropriate distance from the first in order to accommodate the same stabilizer. Open the front clamps of the two couplers by loosening the respective eyebolt nuts. Position the stabilizer between the two couplers at an angle of about 120° in relation to the tower's longer side (p. 10,14,18). Always try to increase the dimensions of the floor contact surface area. Close the two front clampson on the stabilizer, making sure it rests firmly on the ground, and then tighten the corresponding eyebolt nuts. Repeat the same sequence of operations for the other three tower uprights;

M) For Grim EU 75 tower: arrange the stabilizers in open position as instructedin section 3.4.6. Remove the respective stabilizers couplers from the bag supplied. Open a coupler by removing the eyebolt nut. With the coupler, bind the tower upright and the highest point of the stabilizer, fasten to one of the frame's cross-pieces positioned as to form an angle of about 120° in relation to the tower's longer side (page 26), then screw the eyebolt nut in place. Repeat the operation on the same upright with a second coupler, fastening it to the cross-piece immediately below the first one to accommodate the same stabilizer. Repeat the same sequence of operations for the other three tower uprights;

N) As the tower is being assembled, pay careful attention to place the floor pieces in a position that allows the person working at height the maximum possible safety and freedom of movement. The person should have the possibility to anchor the safety belt worn easily;

O) Once the tow er has been assembled, fit the w ork platforms, toeboards and lateral protections at the desired heights follow ingthe instructions in section 2.3.3 or section 3.3.3; in case of steel w orkplatforms mak esure that the anti-lifting devices (hook s)located at the ends, are in the correct position of the anti- detachment;

P) The lateral protections are composed of 2 long frames in E260 steel pipe and 2 short frames in E260 steel pipe. The two frames must be fitted first, parallel to the long sides of the tower. Rest them on the cross-pieces of the load bearing frames, making sure the top pipe is one meter from the walking surface. Install the short frames parallel to the short side of the mobile access tower, hooking them up to the long guardrails at the top end, and to the latches positioned on the latter at the bottom side;

For passage platform use the steel E260 guardrail bar, with anti-detachment device at the ends. Place the bars on the rung and make sure that the hooks are in the correct anti-detachment position.

Q) During assembly, to raise the components for the upper section, it is advisable to use ropes or cables rated for the application, taking care never to pass up more than one component at a time;

R) If access to the work platforms is to be gained by inclined rung or step ladders, these must be attached with the two hooks at the top end to the cross piece on which the work platform;

4.4.2 GRIMEU75 TOWER OVER NORMAL BASE

Having checked that all of the requirements of section 4.3 have been met, proceed with the assembly of the base section:
A) Place the 2 base braces on the ground in parallel position and with the latches facing inward;
B) Engage the 2 lateral frames into the housing on the ends of the base braces;
C) Continue the assembly by inserting the 2 connecting braces into the slots on top of the lateral frame uprights. Make sure the latches are facing inward;
D) Install the diagonal bracing rods, hooking the ends onto the anti-slip latches on the braces;
E) Fit the diagonal, hooking the ends onto the anti-slip latches on the base braces, and then lock the 4 wheels with the brakes;
F) Position the mobile access tower's flat element on the fourth rung from the bottom of the first two lateral frames.
G) First, position the 2 long toeboards parallel to the walking surface. Make sure the stamped plate hooks on the ends of the toeboards face inwards. Now fit the 2 short toeboards into the respective housings found in the long boards;
H) If the tower must be erected to a work platform height above m 1.80, the 4 stabilizers must be fitted at this point as instructed in section 4.4.1, letter m);
I) At this point at least one of the workers authorised to assemble the tower must put on a safety belt and climb onto the work platform from the inside of the tower through the trapdoor;
J) After having securely attached the end of the rope of the safety belt to one of the two already fitted connecting braces, the next two lateral frames can be attached and the tower can then continue to be assembled following the same sequence of operations described up to this point;
K)From this point on, follow the assembly instructions from section 4.4.1, letter m) forward;

4.5 DISMANTLING INSTRUCTIONS

A)To dismantle the mobile access tower, follow the assembly instructions in reverse order;
B) Lower mobile access tower components from above using ropes, cables or other suitable means, avoiding at all times abrupt impact with the ground.

5.STABILITY

A) Erect and use the mobile access towers only in the absence of windy conditions;
B) Fit the stabilizers, based on the configuration and height to be reached, as instructed in section 4.4.1. k, 2.3.3. (System towers), and 3.3.3 (GRIM EU 75 tower);
C)The maximum horizontal load capacity (e.g. applied by effect of work in progress in an adjacent structure) is 25 kg, understood as the sum of the loads applied by the various operators working on the tower;
D)If the tower must be left unattended in position due to temporary interruption of work or windy conditions, anchor it firmly to a fixed, stable structure;
E) At the summit of the mobile access tower additional overlying structures should not be mounted, and shielding of any kind, such as lattice, tarpaulin, etc., should not be fitted.

6. USE

6.1 PRELIMINARY CHECKS

A) Verify that the mobile access tower has been assembled in an upright position. Refer to the supplier's instructions regularly and follow them scrupulously to guarantee a perfect execution;
B) Verify that there are no adverse weather conditions that could influence the safe use of the mobile access tower (ice, rain, wind, etc.).

6.2 USE

A) Verify that the mobile access tower has been assembled in an upright position. Refer to the supplier's instructions regularly and follow them scrupulously to guarantee a perfect execution;
B) Verify that there are no adverse weather conditions that could influence the safe use of the mobile access tower (ice, rain, wind, etc.).

- Vertical rung ladder; in this case, the lateral bearing frames, which have rungs with non-slip surface and rung spacings compliant with the regulatory requirements, can be used for this purpose
- Inclined rung ladder
- Inclined step ladder

C)All scaffolds in the tower, fitted according to the instructions in sections 2.3.3 and 3.3.3, must be provided with lateral protection and toeboards, whethe used for passage or work;
D) Where possible, towers used outside of buildings, must be secured to the building or other structure;
E) Tools and materials must be lifted from the inside of the tower, from one platform to another, through the trapdoors, using manual traction with appropriate ropes/cables.

Where not possible, materials may be lifted on the outside of the tower. Manual traction with appropriate ropes/cables must still be used, the load must not exceed 50 kg, and it must be lifted vertically parallel to the tower, ensuring it remains within the area marked out by the stabilizers;
F) The attachment or use of hoisting devices to lift materials is forbidden;
G) It is forbidden to jump on the platforms;
H) Bridging connections between the mobile access tower and any building are not allowed;
I) The mobile access towers are not designed to be lifted off the ground or suspended in the air (e.g. by means of a crane).

6.3 MOVING THE TOWER

A) Mobile access towers can only be moved manually, on compact, smooth surfaces that are free of obstacles and in wind-free conditions;
B) Before moving the tower, reduce the tower's total height to a maximum of 7.00 m, lift the adjustable feet and the stabilizers off the ground by no more than 20 mm and disengage the wheel brakes;
C) Normal walking pace should not be exceeded while moving the tower;
D) Material and personnel should not be on the mobile access tower while it is being moved;
E) It is mandatory to keep a distance of at least 5.00 metres from power line;
Once moved, engage the brakes on the four wheels, level the tower again (sec. 4.4.1., Letter D), and move the stabilizers until perfectly in contact with the ground.

7. INSPECTION, CARE AND MAINTENANCE

A) After a certain number of uses, at the discretion of the operator, clean away the encrustations of cement, mortar, paint or other which will eventually build up on the various components;
B) Always keep the supplied clamping and adjusting screws, and the gudgeon/wrist pins and couplings of the various couplers well oiled;
C) Before every assembly, check that all components are in perfect condition, replacing any damaged or worn components with others of the same type, which must be original components as indicated by the manufacturer;
D) While moving, transporting or storing the mobile access tower, take care to not subject any of its components to loads which could cause permanent deformation, avoiding therefore badly organised stacking and stacking together with materials of a different nature.

MOBILE ACCES TOWERS

D.Lgs. 09.04.08 n°81

System 120x200
System 120x180
System 100x200
System 100x180
System 75x200
System 75x180
Grim EU 75

1.REGULATION REFERENCES

• D.Lgs. 09.04.2008 n° 81 (G.U. n° 101 dated 30.04.08) “Testo unico sulla salute e sicurezza sul lavoro”.
• EN 1298 (February 1996) “Mobile access and working towers. Rules and guidelines for the preparation of an instruction manual”;
• D.Lgs. 06.09.2005 n° 206 (G.U. n° 235 dated 08.10.05 Suppl. Ordinario n° 162) “Codice del Consumo”.

2.DECLARATION OF CONFORMITY

MARCHETTI®

MARCHETTI s.r.l. ladders and mobile access towers, located in Città della Pieve (Pg), st.Piemonte, 22:

DECLARES

• that the mobile access towers denominated:

• System 120x200 • System 120x180
• System 100x200 • System 100x180
• System 75x200 • System 75x180
• Grim EU 75

Are manufactured in compliance with the

D.Lgs. 09.04.2008 n° 81

• that every product model manufactured carries its identification mark band a handbook.

MARCHETTI s.r.l.

3.1 DIFFERENCES BETWEEN D.LGS. 09.04.2008 N° 81 AND UNI EN 1004

"System" and "Grim EU 75" series mobile access towers in steel are built in compliance with both the Italian D.Lgs. 81/08 and the UNI EN 1004 Technical Standard. The differences lie in their use:

• in the case of use according to UNI EN 1004 (refer to the handbook attached), for the two towers of the "System 120" series the maximum work platform height allowed is 7.90 m if used outside buildings and 11.50 m if used inside buildings; for the two towers of the "System 100" series the maximum work platform height allowed is 7.90 m if used outside buildings and 8.50 if used inside buildings; for the two towers of the "System 75" series the maximum work platform height allowed is 7.00 m, whether used inside or outside buildings; and for the "Grim EU 75" mobile access tower the maximum work platform height allowed is 4.30 m if erected over a Normal base and 6.00 m if erected over an Extractable base, whether used inside or outside buildings. They must all be erected in strict accordance with one of the standard configurations illustrated in the handbook. The use of stabilizer is required for work platform heights above those indicated in the manual. Anchoring to a fixed, stable structure is recommended (not required).

• According to Italian D.Lgs. 09.04.2008 n° 81 use the configuration instructions of this table:

Tabel of configurations according to Italian D.Lgs 81/08

Tower mobile D.Lgs. 81/08	H max tower m	H max working platform m	N. Ot tower	Min.N° Working platform	N° stabilizer H>7m	Type of base	Wall anchorage
System 120x200	17,00	16,00	11	1	n° 4 standard ty pe	Extractable Special	every 2 tow ers
System 120x180	14,00	13,00	9	1	n° 4 standard ty pe	Extractable Special	every 2 tow ers
System 100x200	11,00	10,00	7	1	n° 4 standard ty pe	Extractable	every 2 tow ers
System 100x180	9,50	8,50	6	1	n° 4 standard ty pe	Extractable	every 2 tow ers
System 75x200	8,00	7,00	5	1	n° 4 standard ty pe	Extractable	every 2 tow ers
System 75x180	8,00	7,00	5	1	n° 4 standard ty pe	Extractable	every 2 tow ers
Grim Eu75	7,10	6,00	4	1	n° 4 standard ty pe	Extractable	every 2 tow ers
Grim Eu75	5,40	4,30	3	1	n° 4 standard ty pe	Norm.En Norm.D.lgs.81	every 2 tow ers

Configuration Grim EU 75, maximum working platform height allowed m 4.30, can be assembled instead of Normal Base EN, Normal Base D.Lgs. 81/08. it has n° 4 D=100 mm wheels, all with brake (page 40). All the mobile access towers pursuant to D.Lgs. 81/08, but not to UNI EN 1004 standard, must be anchored to a fixed stable structure every two levels.
They can also have only one working platform fitted, complete with toeboards and guardrails. Guardrails can be D.Lgs. 81/08 (page 39 and page 40) composed of n° 2 steel bracing elements with blocking device at the two parts. If guardrails are D.Lgs. 81/08 working platforms need to be placed attentively, in order to have the tower lateral bracing element (upper guardrail) at a minimum of m 1.00 distant from working platform and insert bracing element of guardrails in a intermediate position between upper guardrail and toeboard. Following attentively the distances right above explained working platform can be assembled in different positions in order to have the bracing element as upper guardrail and a connecting batten as intermediate guardrail. In the mobile access towers pursuant to D.Lgs. 81/08, but not to UNI EN 1004 standard, the wheels must be braked during use and positioned on a levelled ground
Pull the extractables up to the MAX line or by the proper automatic device that prevent from the unintentionally extractions. T hentighten the extraction lock ingscrew. T hestabilizers, w hen present, equipped w ithan anti-screw ingdevice, must be screw edcompatibly to the surrounding encumbrances and put vertically to touch the ground.
T hestabilizers are component of the base, essential to mobile access tow ershigher than 7.00 m and they alw aysust be present on such tow ers,both during use and in every movement. Put them vertically at about 10 mm to the ground.

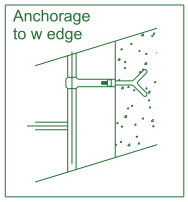
3.2 ACCESSING THE WORK PLATFORM

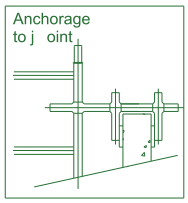
It is obligatory to gain access to the w orkplatforms from inside the tow er;the cross pieces of the lateral load-bearing frames constitute the access ladder. Work ersassigned to use the tow erare required to use a fall arrest device attached to a safety belt that limits the free-fall to a maximum of 0.7 metres. T his devicemust run along a rope/ cable anchoredabove on the highest cross-piece of the highest lateral load bearing frame and below on the w heel bearing section of the base. T hefall arrest device, the safety belt and the supporting rope/ cablemust be ty pe-approved.
For the access to the w orkplatforms using inclined ladders, the descriptions are in the attached EN 1298 IM-itxen handbook apply.

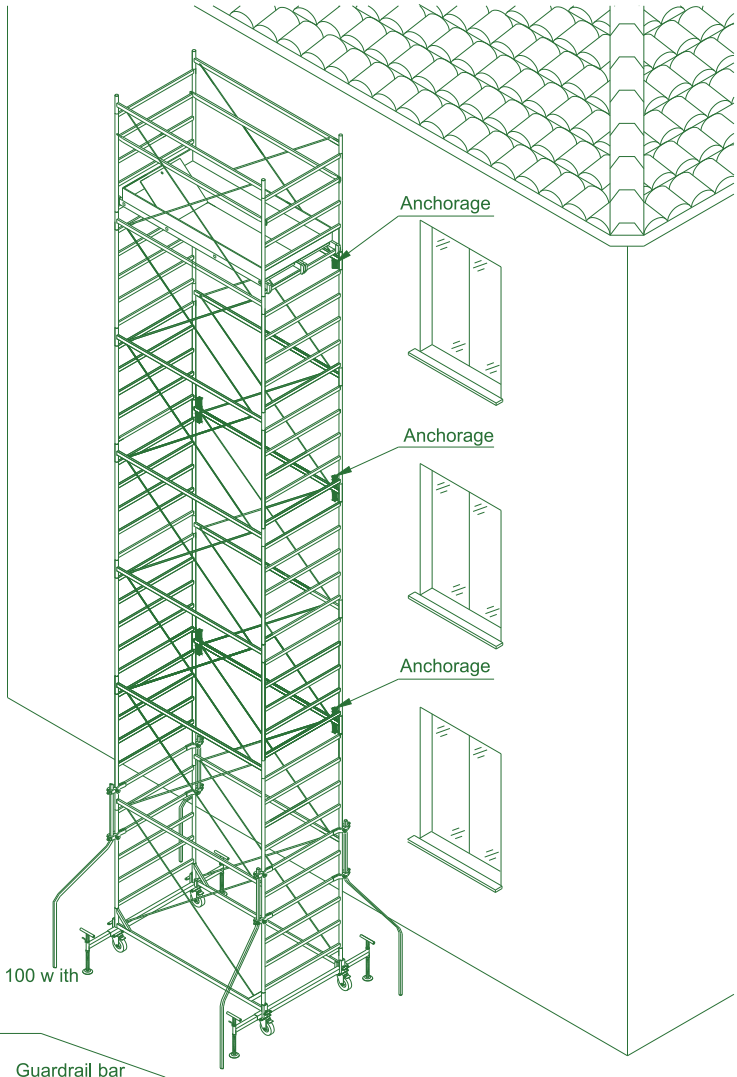
4. ADDITIONAL INFORMATION

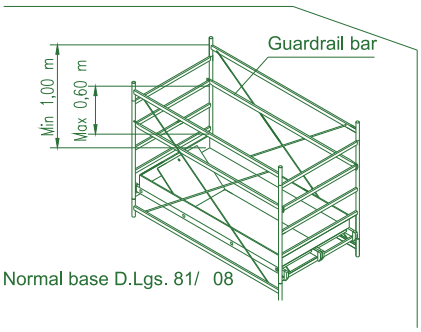
With regard to additional information on:
capacities / number of w orkplatforms allow edsimultaneously / safety platform / w indlimitations / identify ingcomponents / assembly and dismantling / stability / use / inspection / care and maintenance, the instructions in the EN 1298 IM-itxen manual attached apply, tak inginto account the different limitations described in the preceding sections 3.1, 3.2 and 4.

"SYSTEM" - MOBILE ACCESS TOWER WITH ANCHORAGE



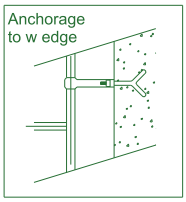


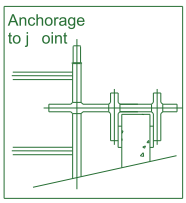


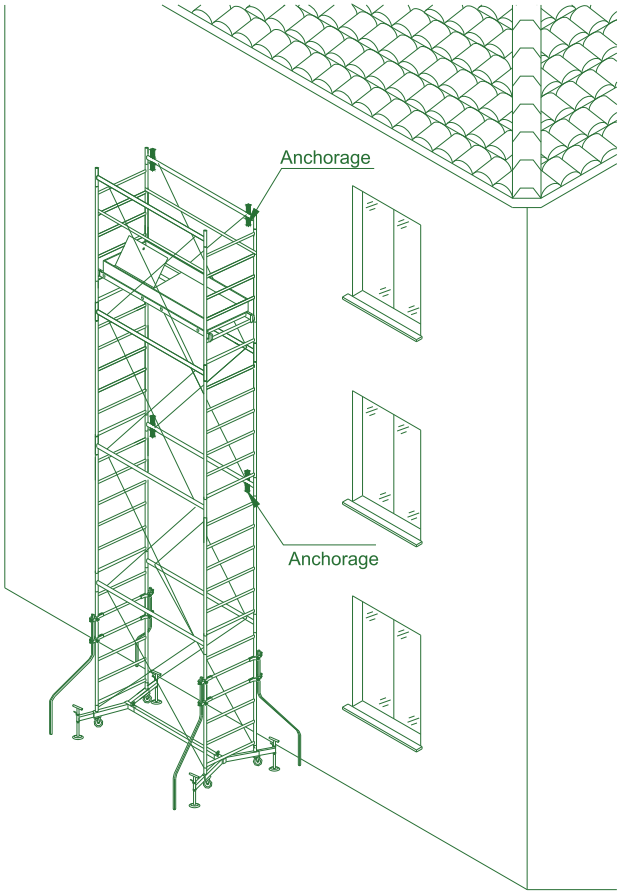


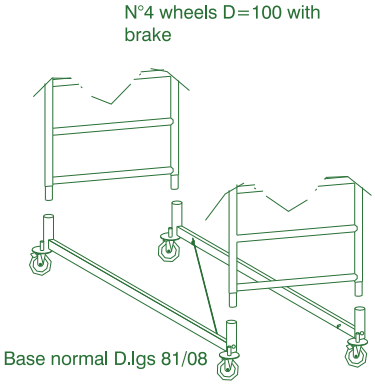
ENGLISH

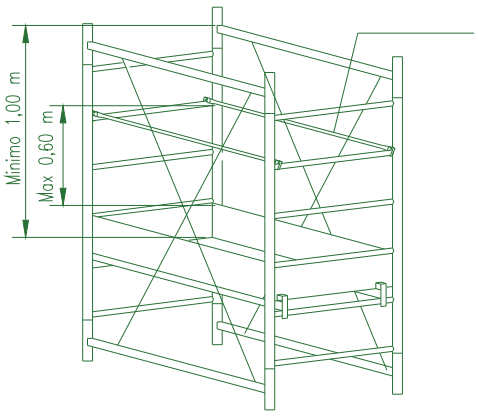
”GRIM Eu75” - MOBILE ACCESS TOWER WITH ANCHORAGE











REVIEW

Mobile access tower model
……..

Review of ……

- ☐ Check number of components
- ☐ Cleaning components
- ☐ Integrity of components
- ☐ No oxidized zones
- ☐ Integrity of welds
- ☐ Lubrication of screws
- ☐ Lubrication of plugs and sockets
- ☐ Efficiency of wheels and braking devices
- ☐ Integrity of work platforms
- ☐ Integrity of parapets
- ☐ Integrity of toe boards
- ☐ Integrity instruction hand book
- ☐ Integrity stickers with identification markings

Anomalies ……

……..

Elements discarded to be replaced ……

……..

Remarks ……..

……..

Safety Officer
(Name in full)

Safety Officer
(Signature)

REVIEW

Mobile access tower model
……..

Review of ……

- ☐ Check number of components
- ☐ Cleaning components
- ☐ Integrity of components
- ☐ No oxidized zones
- ☐ Integrity of welds
- ☐ Lubrication of screws
- ☐ Lubrication of plugs and sockets
- ☐ Efficiency of wheels and braking devices
- ☐ Integrity of work platforms
- ☐ Integrity of parapets
- ☐ Integrity of toe boards
- ☐ Integrity instruction hand book
- ☐ Integrity stickers with identification markings

Anomalies ……...

……..

Elements discarded to be replaced …….

……..

Remarks ……..

……..

Safety Officer
(Name in full)

Safety Officer
(Signature)

MARCHETTI

REVIEW

Mobile access tower model
……..

Review of ……

- ☐ Check number of components
- ☐ Cleaning components
- ☐ Integrity of components
- ☐ No oxidized zones
- ☐ Integrity of welds
- ☐ Lubrication of screws
- ☐ Lubrication of plugs and sockets
- ☐ Efficiency of wheels and braking devices
- ☐ Integrity of work platforms
- ☐ Integrity of parapets
- ☐ Integrity of toe boards
- ☐ Integrity instruction hand book
- ☐ Integrity stickers with identification markings

Anomalies ……..

……..

Elements discarded to be replaced …….

……..

Remarks ……..

……..

Safety Officer
(Name in full)

Safety Officer
(Signature)

MARCHETTI®

MARCHETTI S.r.l. - Via Piemonte, 22 - 06062 Città della Pieve - PERUGIA - Italy
Tel. +39 0578 20348 - Fax +39 0578 226488
info@marchettionline.it - www.marchettionline.it