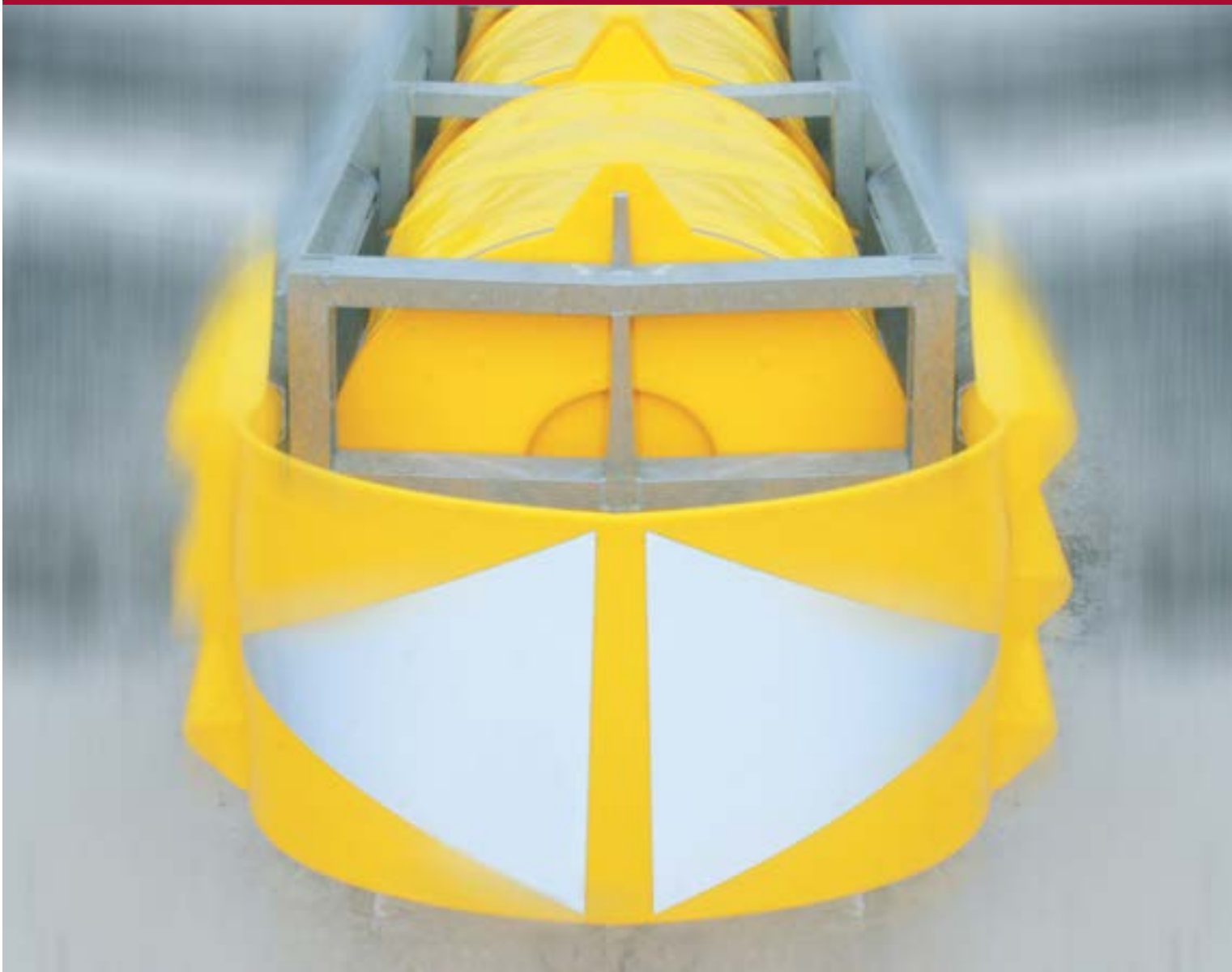


TAU[®] FAMILY

CRASH CUSHION REDIRECTIVE PARALLEL,
MEDIUM, LARGE 60, 80, 100, 110 KM/H AND LARGE 60, 80, 100 KM/H





INSTALLATION AND ASSEMBLY MANUAL

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PREFACE

The TAU® system Snoline S.p.A. is a widely tested and proven technology and is one of the most reliable systems in the field of road attenuators. Like any road safety system TAU® must be properly installed to ensure proper performance. The installation instructions must be fully known and understood before beginning the installation. If you need additional information, or have questions about TAU®, please call the Technical Department of Snoline S.p.A. at +39 02909961

INTRODUCTION

The TAU® system has been tested to meet the requirements of standard 1317, part 3. The TAU® crash cushions are available in different lengths and are able to protect obstacles of different dimensions for speed from 50 km/h up to 110 km/h. The TAU® system is a redirective crash cushion designed to protect hazard points such as black spots, toll booths, poles and similar hazard points.

The redirective crash cushion is a road restraint system whose primary function is to increase road safety; it is designed to safely decelerate and redirect a vehicle in case of collision. Therefore, this type of system is particularly suitable for hazard points where increased safety is desired for motorists.

The family of TAU® crash cushions has been tested according to the ISO 1317 part 3 and part 1 at the L.I.E.R, Safe Technologies and C.S.I. labs and has obtained the CE marking, certificate n° 1608 CPD P069, issued by the notified body IGQ Italian Institute of Quality Assurance with registered office at Viale Sarca, 223 - 20126 Milano.

The table below shows the tests carried out on the TAU® family.

| TEST REPORT LIST | | | | | |
|---------------------|------|--|-----------|------|-------|
| TEST REPORT | LAB | TEST | PRODUCT | TEST | CLASS |
| SOD/ACS-03/037C | LIER | TC 1.2.100 - 1300 kg; 100 km/h; 0 dg | TAU P100 | 1 | A |
| SOD/ACS-04/056B | LIER | TC 2.1.100 - 900 kg; 100 km/h; 0 dg offset (1/4) | TAU P100 | 2 | B |
| SOD/ACS-05/057B | LIER | TC 3.2.100 - 1300 kg; 100 km/h; 15 deg (head on) | TAU P100 | 3 | A |
| SOD/ACS-07/072C | LIER | TC 5.2.C - 1300 kg; 100 km/h; 165 deg (lateral) | TAU P100 | 5 | A |
| SNO/TAU-02/459 | LIER | TC 4.2.100 - 1300 kg; 100 km/h; 15 deg (lateral) | TAU P100 | 4 | B |
| SNO/TAU-03/564A | LIER | TC 1.1.100 - 900 kg; 100 km/h; 0 dg | TAU P100 | 1 | B |
| SNO/TAU-05/705A | LIER | TC 1.3.110 - 1500 kg; 110 km/h; 0 deg | TAU P110 | 1 | B |
| SNO/TAU-06/754A | LIER | TC 1.2.80 - 1300 kg; 80 km/h; 0 deg | TAU P80 | 1 | A |
| SNO/TAU-07/757A | LIER | TC 1.2.100 - 1300 kg; 100 km/h; 0 dg | TAU P110 | 1 | B |
| SNO/TAU-09/865 | LIER | TC 1.1.50 - 900 kg; 50 km/h; 0 dg | TAU P60 | 1 | A |
| SNO/TAU-11/867 | LIER | TC 4.2.50 - 1300 kg; 50 km/h; 15 deg (lateral) | TAU XL60 | 4 | A |
| SNO/TAU-17/991 | LIER | TC 4.3.110 - 1500 kg; 110 km/h; 15 deg | TAU XL110 | 4 | B |
| SNO/TAU-18/992 | LIER | TC 4.2.80 - 1300 kg; 80 km/h; 15 deg | TAU XL80 | 4 | B |
| TAU-XL | ST | TC 4.2.100 - 1300 kg; 100 km/h; 15 deg (lateral) | TAU XL100 | 4 | B |
| | ST | TC 1.1.100 - 900 kg; 100 km/h; 0 deg | TAU XL100 | 1 | A |
| TAU B Crash Cushion | ST | TC 3.3.110 - 1500 kg; 110 km/h; 15 deg (head on) | TAU P 110 | 3 | A |

EC certificate of conformity
1608 CPD P069

In compliance with Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to the construction products (CPD), as later amended, it has been stated that the construction product

Vehicle restraint system
Redirective crash cushion TAU family

whose characteristics are detailed in the attached annex,

placed on the market by

Snoline Spa

Via F. Baracca, 19/23 20056 Trezzo s/Adda MI - IT

and produced in the factory(ies)

Trezzo d'Adda MI -IT

is submitted by the manufacturer to a factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that the notified body No. 1608- IGQ has performed the initial type-testing for the relevant characteristics of the products, the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of conformity and the performances described in Annex ZA of the standard

EN 1317-5:2007+A1:2008

have been applied and that the products fulfill all the prescribed requirements.

first issue: **23/10/2008**

current issue: **13/07/2011**

Ing. Dario Agalbato

Director



This certificate remains valid as long as the conditions laid down in the harmonised standard in reference or the manufacturing conditions in the factory or the FPC itself are not significantly modified.

APPENDIX TO CERTIFICATE **1608 CPD P069**
Performance under impact of

Redirective crash cushion TAU family
(TAU Parallelo, TAU Medio, TAU Large, TAU X-Large)

| Product name ¹⁾ | Type of test ²⁾ | Performance level | Impact severity | Lateral displacement | Redirection zone | Durability |
|-----------------------------|----------------------------|-------------------|-----------------|----------------------|------------------|---|
| TAU PARALLELO 100 | TC1.1.100 | 100 | B | D1 | Z1 | Hot dipped galvanized steel components in accordance with EN ISO 1461 ³⁾ and polyethylene components |
| TAU PARALLELO 100 | TC1.2.100 | 100 | A | D1 | Z1 | |
| TAU PARALLELO 100 | TC2.1.100 | 100 | B | D1 | Z1 | |
| TAU PARALLELO 100 | TC3.2.100 | 100 | A | D1 | Z1 | |
| TAU PARALLELO 100 | TC4.2.100 | 100 | B | D1 | Z1 | |
| TAU PARALLELO 100 | TC5.2.100 | 100 | A | D1 | Z1 | |
| TAU PARALLELO 80 | TC1.2.80 | 80 | A | D1 | Z1 | |
| TAU PARALLELO 60 | TC1.1.50 | 50 | A | D1 | Z1 | |
| TAU X LARGE 100 | TC1.1.100 | 100 | A | D1 | Z1 | |
| TAU X LARGE 100 | TC4.2.100 | 100 | B | D1 | Z1 | |
| TAU X LARGE 80 | TC4.2.80 | 80 | B | D1 | Z1 | |
| TAU X LARGE 60 | TC4.2.50 | 50 | A | D1 | Z1 | |
| TAU PARALLELO BARILOTTI 110 | TC1.2.100 | 100 | B | D1 | Z1 | |
| TAU PARALLELO BARILOTTI 110 | TC1.3.110 | 110 | B | D1 | Z1 | |
| TAU PARALLELO BARILOTTI 110 | TC3.3.110 | 110 | A | D1 | Z1 | |
| TAU X LARGE BARILOTTI 110 | TC4.3.110 | 110 | B | D1 | Z1 | |

1) See the relevant installation and maintenance manuals for fixing devices on ground.

2) According to EN 1317-3:2000.

3) Can be installed rails with improved resistance to atmospheric corrosion steel.

first issue: **23/10/2008**


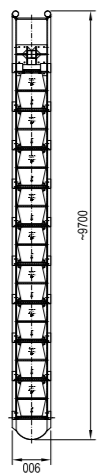
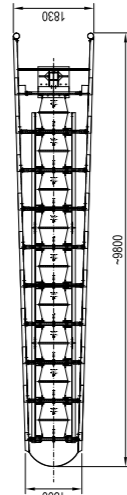
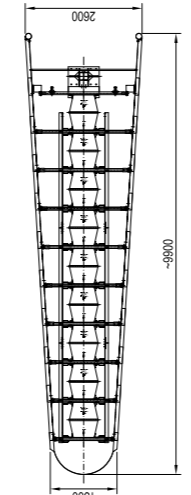
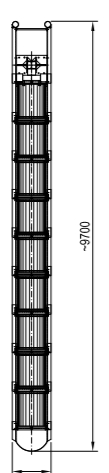
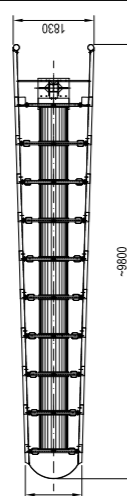
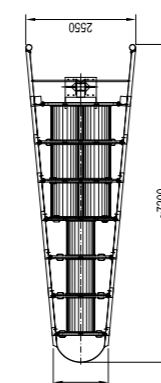
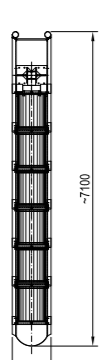
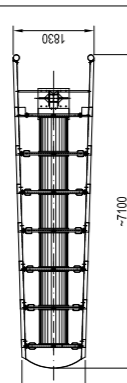
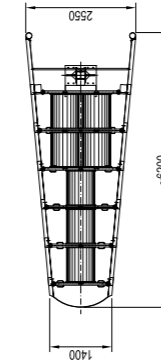
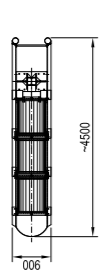
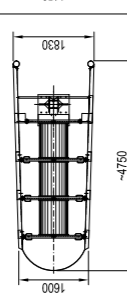
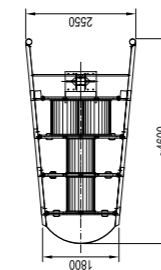
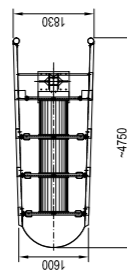
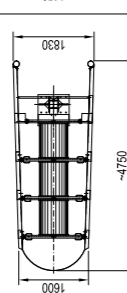
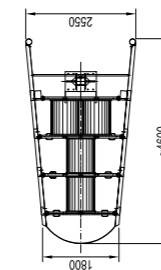
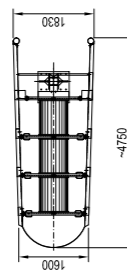
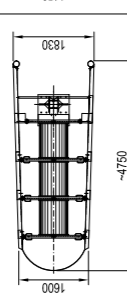
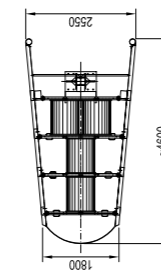
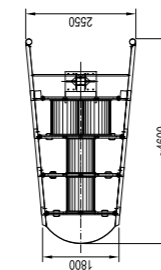
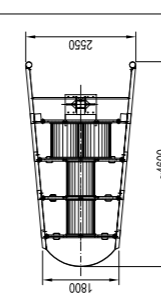
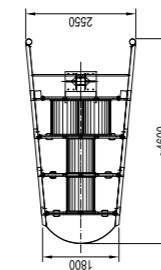
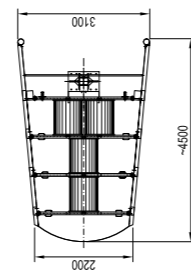
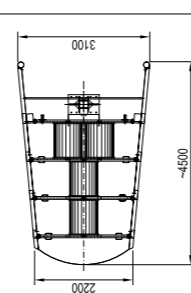
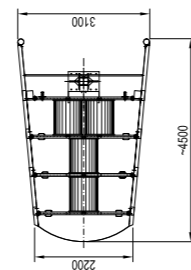
current issue: **13/07/2011**

Ing. Dario Agalbato

Director



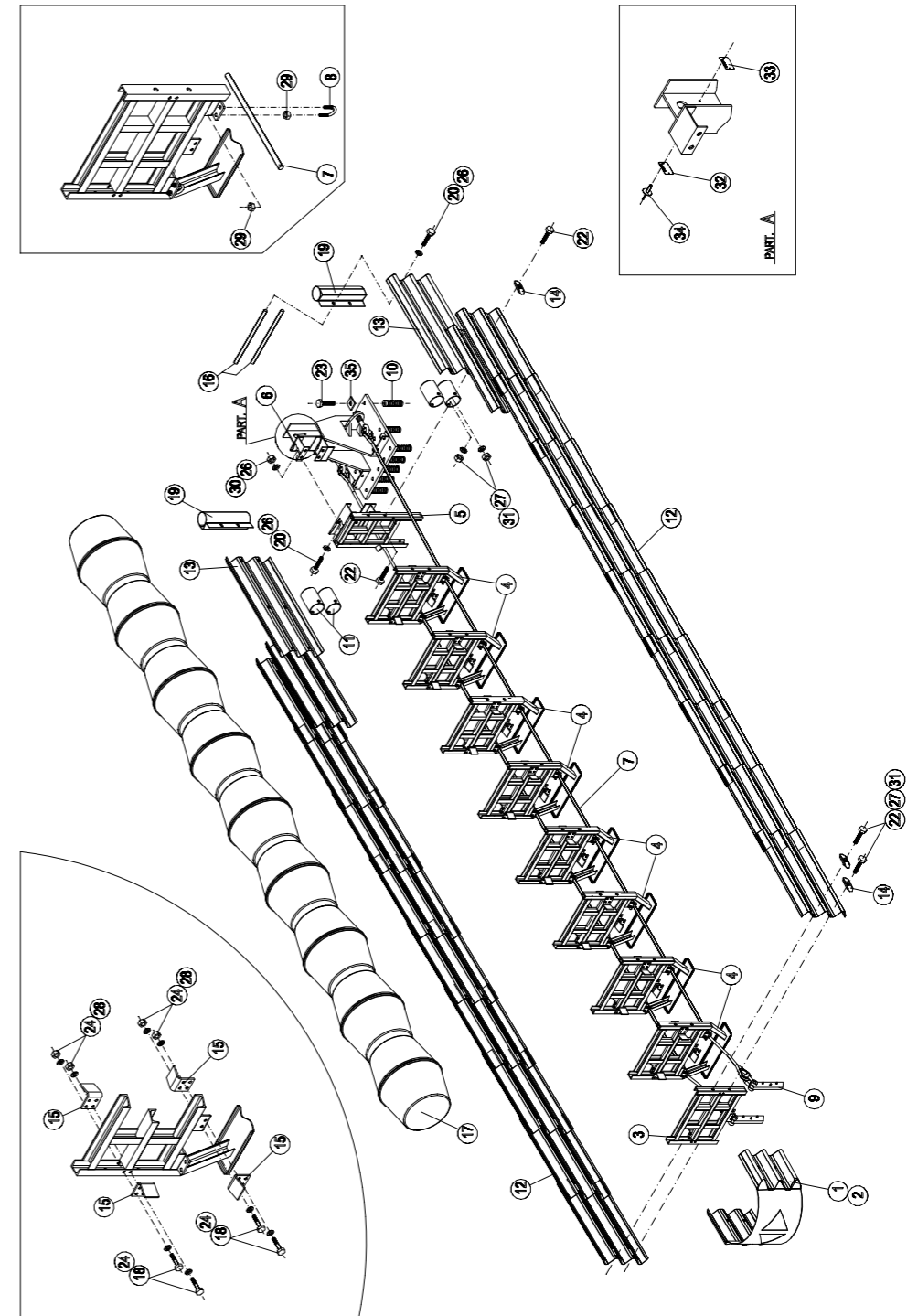
TAU® RANGE

| | | | | |
|--|----------|--|---|---|
|  A LINDSAY TRANSPORTATION SOLUTIONS COMPANY REV. - 03.12.2012 | 110 |  90T11BCYFB -9700 |  183T11BCYFB -9800 |  260T11BCYFB -9900 |
| | 100 |  90T10BCYFB -9700 |  183T10BCYFB -9800 |  255T10BCYFB -7200 |
| | 80 |  90T08BCYFB -7100 |  183T08BCYFB -7100 |  255T08BCYFB -6200 |
| | 60 |  90T06BCYFB -4500 |  183T06BCYFB -4750 |  255T06BCYFB -4600 |
| | PARALLEL |  90T06BCYFB -4500 |  183T06BCYFB -4750 |  255T06BCYFB -4600 |
| | MEDIUM |  90T06BCYFB -4500 |  183T06BCYFB -4750 |  255T06BCYFB -4600 |
| | LARGE |  90T06BCYFB -4500 |  183T06BCYFB -4750 |  255T06BCYFB -4600 |
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DRAWINGS AND BOM

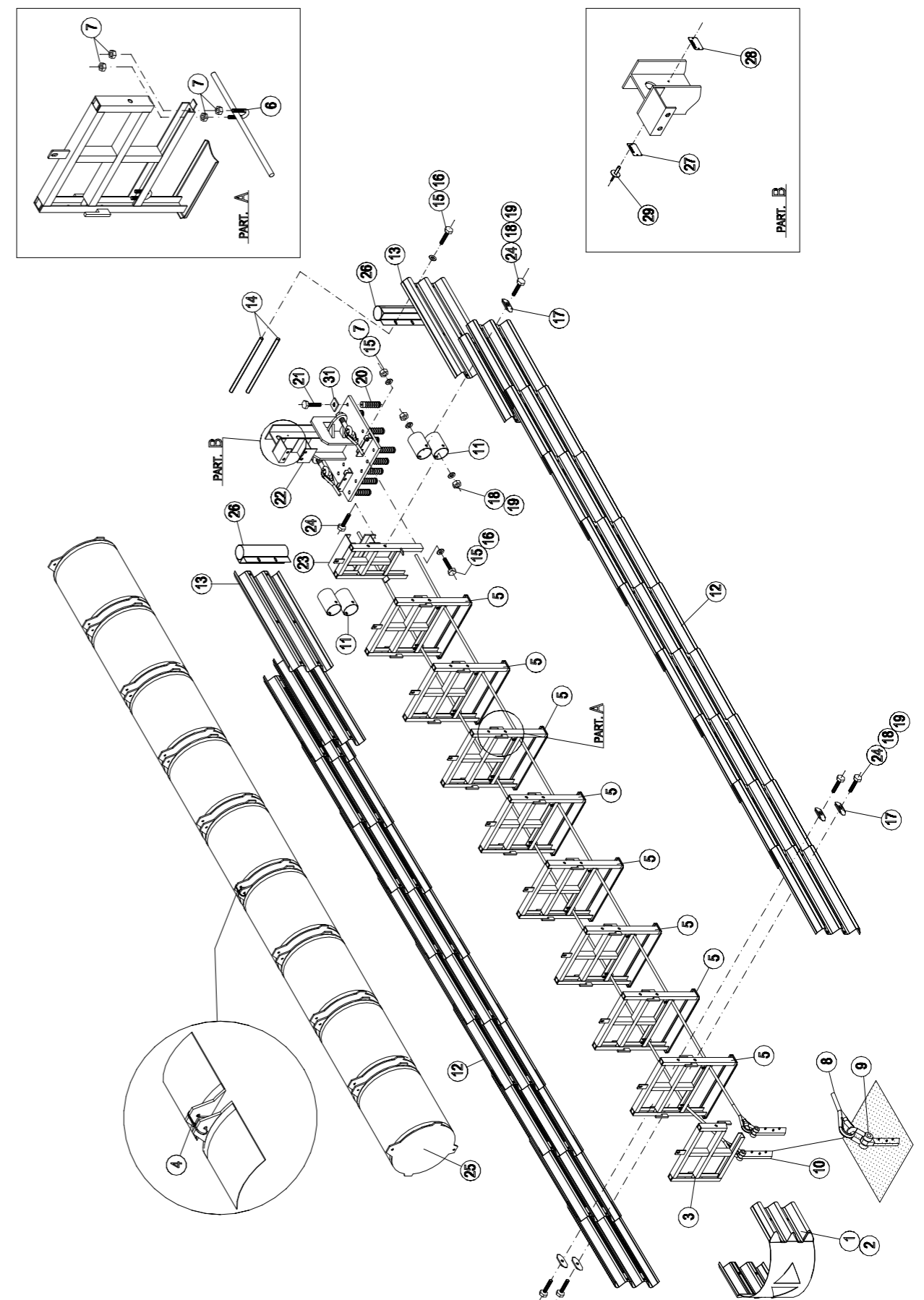
In the following pages, drawings and bills of the TAU® family currently in production. For simplicity were taken into account only the 100 and 110 km / h (with fixing bars) which summarize all the components.

DRAWINGS AND BOM P110



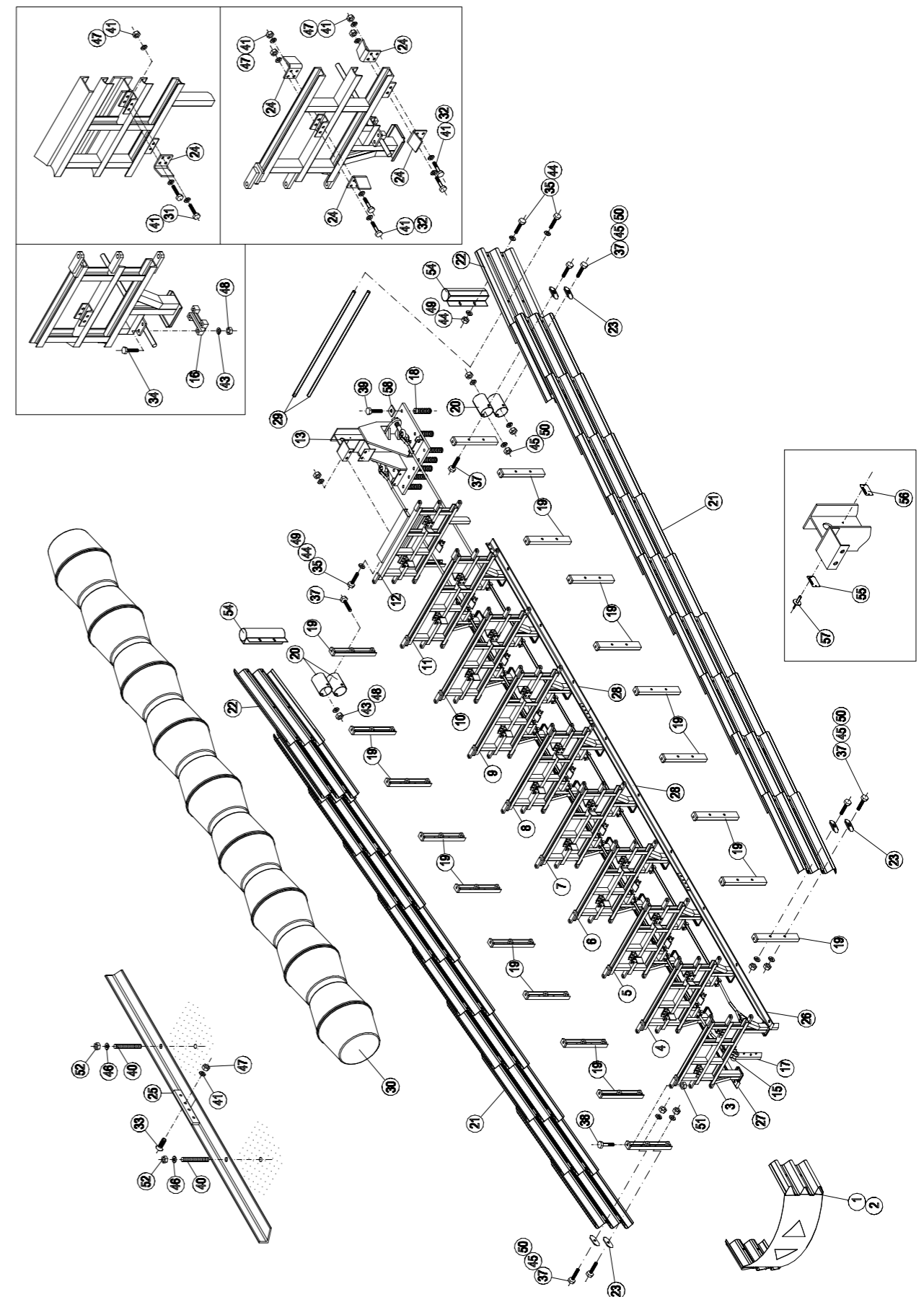
| TAU® P110 | | | | | |
|-----------|--------------------------------|-------------------------------------|-------|--------------|------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 1 | Naso | Nose | 4,0 | TN088YE | 1 |
| 2 | Pellicola | Reflective film | | | 2 |
| 3 | Supporto anteriore | First frame | 27,0 | TAU0181 | 1 |
| 4 | Supporto intermedio | Intermediate frame | 39,0 | TAU0180 | 8 |
| 5 | Supporto posteriore | Last frame | 36,0 | TAU0182 | 1 |
| 6 | Gruppo posteriore | Backup | 280,0 | TAU1003 | 1 |
| 7 | Fune con grillo L=7875 ø32 | Cable with clevis L=7875 ø32 | 50,0 | F24L7875 | 2 |
| 8 | Cavallotto passa fune | Fairlead | 0,2 | TAU0084 | 32 |
| 9 | Palo di ancoraggio | Front picket | 7,8 | TAU0023 | 2 |
| 10 | Piletta | Fixing bar | 2,5 | TAU0024 | 13 |
| 11 | Tubo fissa lama | Tube spacer | 7,4 | TAU0175 | 4 |
| 12 | Lama 3N L=1080 | 3-beam panel L=1080 | 20,0 | TAU0185 | 20 |
| 13 | Lama 3N terminale | Final 3-beam panel | 22,5 | TAU0020 | 2 |
| 14 | Cursore | Slider | 0,8 | TAU0179 | 40 |
| 15 | Sostegno barilotto | Cartridge support | 1,0 | TAU0241 | 51 |
| 16 | Traversa trasversale | Tube crosspiece | 1,4 | TAU0022 | 2 |
| 17 | Barilotto | Cartridge | 16,0 | TAU0080 | 9 |
| 18 | Vite TE M10x100 parz. fill. | Screw HH M10x100 threaded partially | | VTE10-100PZC | 54 |
| 19 | Tubo per lama terminale | Tube for final 3-beam panel | 8,0 | TAU0025 | 2 |
| 20 | Vite TE M16x50 | Screw HH M16x50 | | VTE16-50ZC | 10 |
| 22 | Vite TE M20x60 | Screw HH M20x60 | | VTE20-60ZC | 44 |
| 23 | Vite TE M20x80 | Screw HH M20x80 | | VTE20-80INX | 13 |
| 24 | Rondella piana M10 | Washer M10 | | RP10-21ZC | 108 |
| 25 | Pasta chimica malta | Chemical paste | 5,0 | MAL-EAN | 7 |
| 26 | Rondella fascia larga M16 | Washer M16 | | RP17-40ZC | 16 |
| 27 | Rondella piana M20 | Washer M20 | | RP20-37ZC | 44 |
| 28 | Dado medio M10 | Nut M10 | | D10MAZC | 54 |
| 29 | Dado medio M12 | Nut M12 | | D12MAZC | 128 |
| 30 | Dado medio M16 | Nut M16 | | D16MAZC | 6 |
| 31 | Dado medio M20 | Nut M20 | | D20MAZC | 44 |
| 32 | Targhetta identificazione | Identification plate | | TAU0114 | 1 |
| 33 | Targhetta marchio CE | Plate | | VAR0180 | 1 |
| 34 | Rivetto Al ø4,8x20 testa larga | AL rivet ø4,8x20 -large | | RV4820 | 2 |
| 35 | Rondella 60x60x8 ø22 | Washer 60x60x8 ø22 | | TAU0582 | 13 |

DRAWINGS AND BOM P100



| TAU® P100 | | | | | |
|-----------|--------------------------------|-----------------------------|-------|------------|------------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 1 | Naso | Nose | 4,0 | TN088YE | 1 |
| 2 | Pellicola | Reflective film | | | 2 |
| 3 | Supporto anteriore | First frame | 25,0 | TAU0011 | 1 |
| 4 | Fascetta | Clamp for the airbags | | TAUFSKE134 | 10 |
| 5 | Supporto intermedio | Intermediate frame | 37,0 | TAU0013 | 8 |
| 6 | Cavallotto passa fune | Fairlead | 0,2 | TAU0015 | 16 |
| 7 | Dado medio M16 | Nut M16 | | D16MAZC | 70 |
| 8 | Fune L=7790 | Cable L=7790 | 45,0 | F24L7790 | 2 |
| 9 | Grillo | Clevis | | TAUGRFA28 | WITH CABLE |
| 10 | Palo di ancoraggio | Front picket | 7,8 | TAU0023 | 2 |
| 11 | Tubo fissa lama | Tube spacer | 7,4 | TAU0175 | 4 |
| 12 | Lama 3N L=1080 | 3-beam panel L=1080 | 20,0 | TAU0185 | 20 |
| 13 | Lama 3N terminale | Final 3-beam panel | 22,5 | TAU0020 | 2 |
| 14 | Traversa | Tube crosspiece | 1,4 | TAU0022 | 2 |
| 15 | Rondella piana M16 | Washer M16 | | RP17-40ZC | 16 |
| 16 | Vite TE M16x50 | Screw HH M16x50 | | VTE16-50ZC | 10 |
| 17 | Cursore | Slider | 0,8 | TAU0179 | 40 |
| 18 | Rondella piana M20 | Washer M20 | | RP20-37ZC | 44 |
| 19 | Dado medio M20 | Nut M20 | | D20MAZC | 44 |
| 20 | Piletta | Fixing bar | 2,5 | TAU0024 | 13 |
| 21 | Vite TE M20x80 | Screw HH M20x80 | | RP20-37ZC | 13 |
| 22 | Gruppo posteriore | Backup | 248,0 | TAU1002 | 1 |
| 23 | Supporto posteriore | Final support | 38,5 | TAU0096 | 1 |
| 24 | Vite TE M20x60 | Screw HH M20x60 | | VTE20-60ZC | 44 |
| 25 | BAG | Airbag complete | 15,0 | TAUA013 | 9 |
| 26 | Tubo per lama terminale | Tube for final 3-beam panel | 8,0 | TAU0025 | 2 |
| 27 | Targhetta identificazione | Identification plate | | TAU0114 | 1 |
| 28 | Targhetta marchio CE | Plate | | VAR0180 | 1 |
| 29 | Rivetto Al ø4,8x20 testa larga | AL rivet ø4,8x20-large | | RV4820 | 2 |
| 30 | Pasta chimica malta | Chemical paste | 5,0 | MAL-EAN | 7 |
| 31 | Rondella 60x60x8 ø22 | Washer 60x60x8 ø22 | | RQ22-60ZC | 13 |

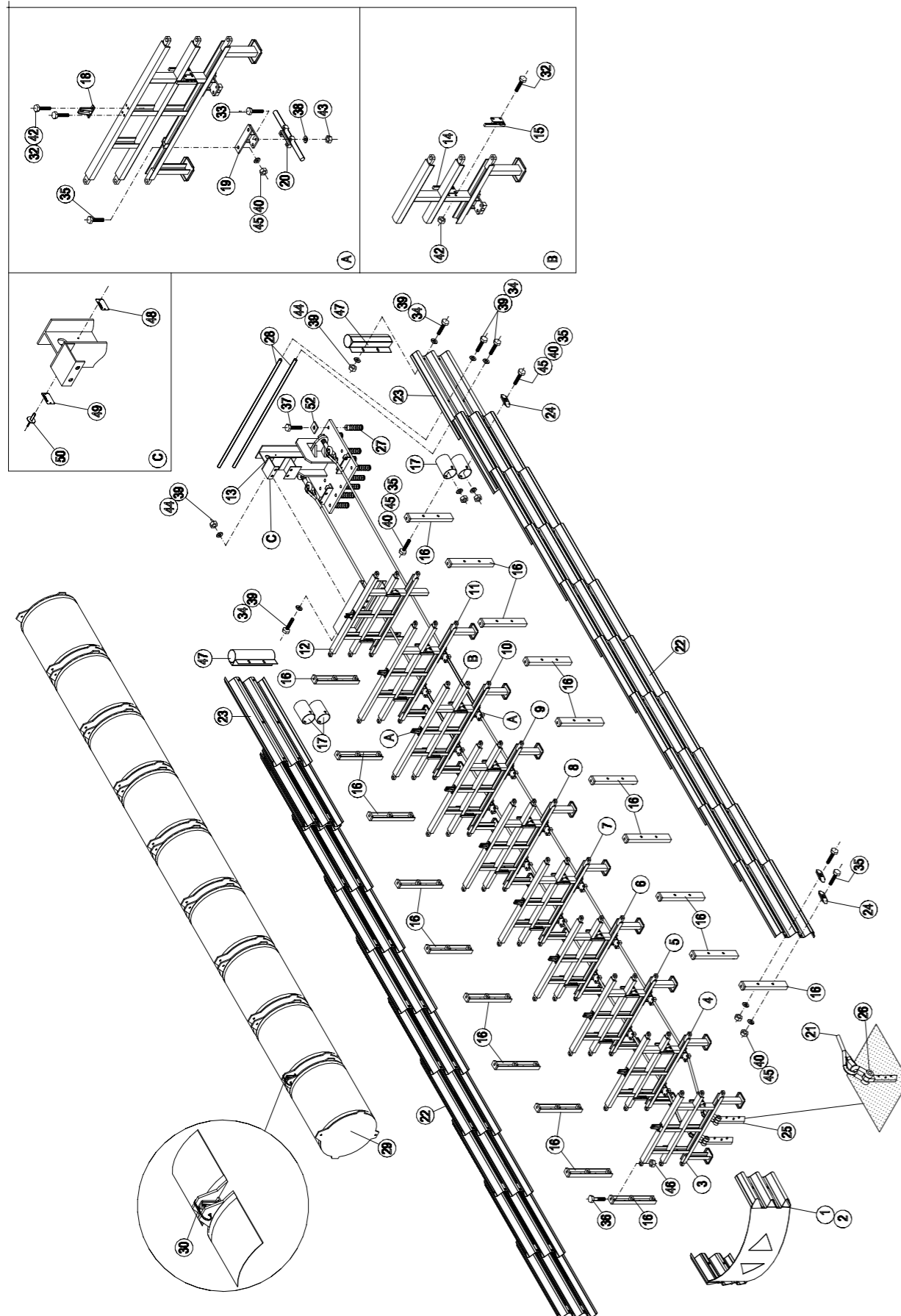
DRAWINGS AND BOM TAU M110



| TAU® M110 | | | | | |
|-----------|-------------------------------|-------------------------------------|-------|--------------|------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 1 | Naso | Nose | 5,0 | TN135YE | 1 |
| 2 | Pellicola | Reflective film | | | 2 |
| 3 | Supporto anteriore L=945 | First frame L=945 | 48,5 | TAU0570 | 1 |
| 4 | Supporto intermedio L=995 | Intermediate frame L=995 | 55,0 | TAU0571 | 1 |
| 5 | Supporto intermedio L=1045 | Intermediate frame L=1045 | 56,0 | TAU0572 | 1 |
| 6 | Supporto intermedio L=1095 | Intermediate frame L=1095 | 57,0 | TAU0573 | 1 |
| 7 | Supporto intermedio L=1145 | Intermediate frame L=1145 | 58,0 | TAU0574 | 1 |
| 8 | Supporto intermedio L=1195 | Intermediate frame L=1195 | 59,0 | TAU0575 | 1 |
| 9 | Supporto intermedio L=1245 | Intermediate frame L=1245 | 60,0 | TAU0576 | 1 |
| 10 | Supporto intermedio L=1295 | Intermediate frame L=1295 | 61,0 | TAU0577 | 1 |
| 11 | Supporto intermedio L=1345 | Intermediate frame L=1345 | 62,0 | TAU0578 | 1 |
| 12 | Supporto posteriore L=1095 | Last frame L=1095 | 72,0 | TAU0579 | 1 |
| 13 | Gruppo posteriore | Backup | 280,0 | TAU1003 | 1 |
| 15 | Fune con grillo L=7790 ø24 | Cable with clevis L=7790 ø24 | 45,0 | F24L7790 | 2 |
| 16 | Guida fune | Cable guide | 1,2 | TAU0178 | 16 |
| 17 | Palo d'ancoraggio | Front picket | 7,8 | TAU0023 | 2 |
| 18 | Piletta | Fixing bar | 2,5 | TAU0024 | 13 |
| 19 | Sostegno lama | Frame holder | 7,5 | TAU0174 | 20 |
| 20 | Tubo fissa lama | Tube spacer | 4,6 | TAU0175 | 4 |
| 21 | Lama 3N (L=1080) | 3-beam panel L=1080 | 20,0 | TAU0185 | 20 |
| 22 | Lama 3N terminale | Final 3-beam panel | 22,5 | TAU0020 | 2 |
| 23 | Cursore | Slider | 0,8 | TAU0179 | 40 |
| 24 | Sostegno barilotto | Cartridge support | 1,0 | TAU0241 | 54 |
| 25 | Piastra per fissaggio guida | Fixing square for the rail | 1,5 | TAU0243 | 4 |
| 26 | Guida anteriore dx | Front rail right | 20,0 | TAU1004 | 1 |
| 27 | Guida anteriore sx | Front rail left | 20,0 | TAU1005 | 1 |
| 28 | Guida | Rail | 23,0 | TAU1006 | 4 |
| 29 | Traversa trasversale (L=1600) | Tube crosspiece | 2,5 | TAU0433 | 2 |
| 30 | Barilotto | Cartridge | 16,0 | TAU0080 | 9 |
| 31 | Vite TE M10x30 | Screw HH M10x30 | | VTE10-30ZC | 12 |
| 32 | Vite TE M10x100 parz. fil. | Screw HH M10x100 threaded partially | | VTE10-100PZC | 48 |

| TAU® M110 | | | | | |
|-----------|------------------------------------|------------------------------------|-----|-------------|------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 33 | Vite TSEI M10x40 | Screw FSH M10x40 | | VTS10-40ZC | 16 |
| 34 | Vite TE M12x60 | Screw HH M12x60 | | VTE12-60ZC | 64 |
| 35 | Vite TE M16x50 | Screw HH M16x50 | | VTE16-50ZC | 14 |
| 37 | Vite TE M20x60 | Screw HH M20x60 | | VTE20-60ZC | 44 |
| 38 | Vite TE M20x70 parz. fil. | Screw HH M20x70 threaded partially | | VTE20-70ZC | 60 |
| 39 | Vite TE M20x80 | Screw HH M20x80 | | VTE20-80INX | 13 |
| 40 | Barra filettata M24x250 | Threaded bar M24x250 | | B24-250ZC | 18 |
| 41 | Rondella piana M10 | Washer M10 | | RP10-21ZC | 136 |
| 43 | Rondella elastica M12 | Split lock washer M12 | | RE12-21ZC | 64 |
| 44 | Rond. fascia larga M16 (øi17 øe40) | Washer M16 | | RP17-40ZC | 24 |
| 45 | Rondella piana M20 | Washer M20 | | RP20-37ZC | 44 |
| 46 | Rondella piana M24 | Washer M24 | | RP24-44ZC | 18 |
| 47 | Dado medio M10 | Nut M10 | | D10MAZC | 76 |
| 48 | Dado medio M12 | Nut M12 | | D12MAZC | 64 |
| 49 | Dado medio M16 | Nut M16 | | D16MAZC | 10 |
| 50 | Dado medio M20 | Nut M20 | | D20MAZC | 44 |
| 51 | Dado medio M20 autobloc. | Self-block nut M20 | | D20MEZC | 60 |
| 52 | Dado medio M24 | Nut M24 | | D24MAZC | 18 |
| 53 | Pasta chimica malta | Chemical paste | 5,0 | MAL-EAN | 10 |
| 54 | Tubo per lama terminale | Tube for final 3-beam panel | 8,0 | TAU0025 | 2 |
| 55 | Targhetta identificazione | Identification plate | | TAU0114 | 1 |
| 56 | Targhetta marchio CE | Plate | | VAR0180 | 1 |
| 57 | Rivetto Al ø4,8x20 testa larga | AL rivet ø4,8x20 -large | | RV4820 | 2 |
| 58 | Rondella 60x60x8 ø22 | Washer 60x60x8 ø22 | | RQ22-60ZC | 13 |

DRAWINGS AND BOM M100

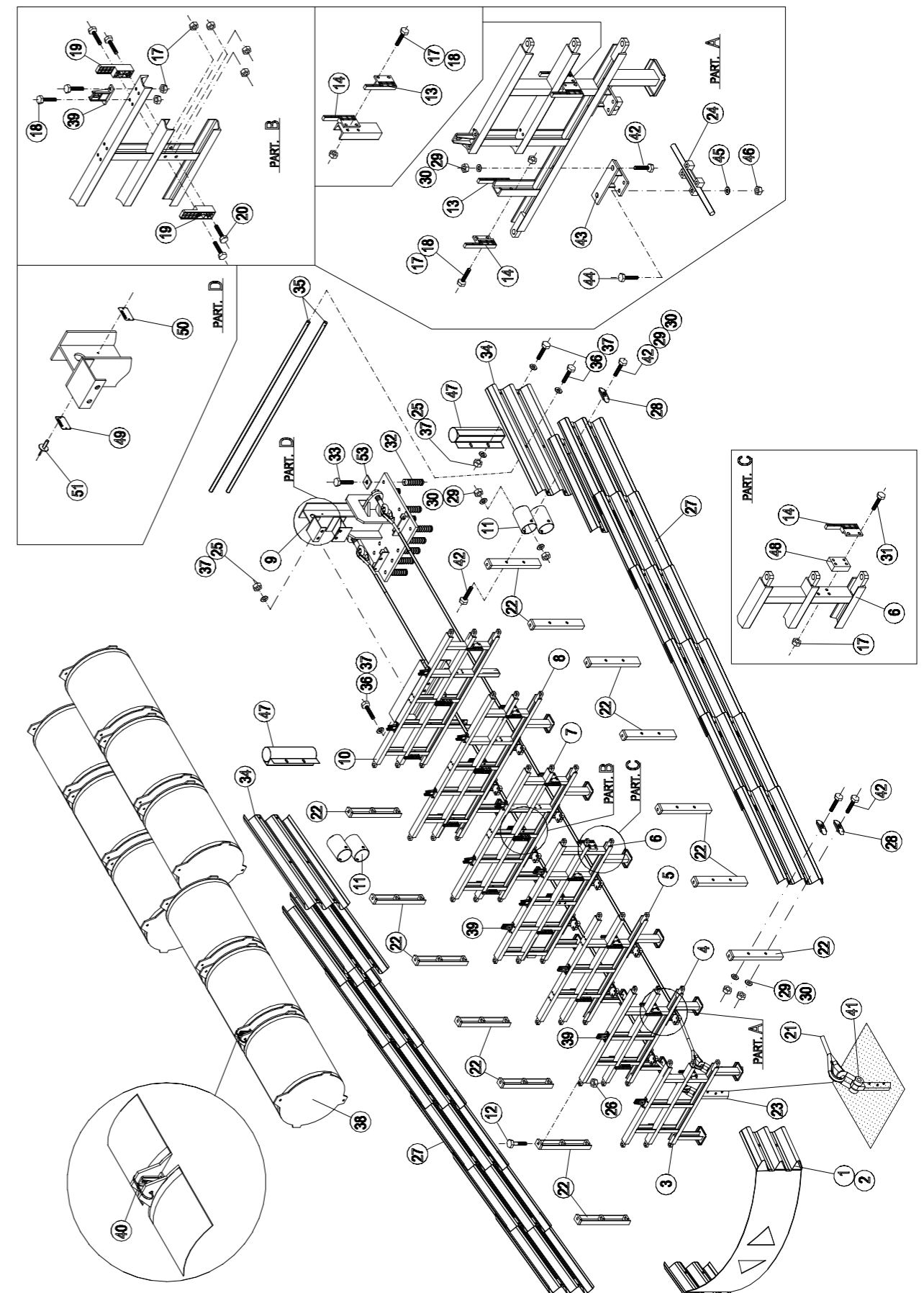


TAU® M100

| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
|------|----------------------------|---------------------------|-------|------------|------------|
| 1 | Naso | Nose | 5,0 | TN135YE | 1 |
| 2 | Pellicola | Reflective film | | | 2 |
| 3 | Supporto anteriore L=980 | First frame L=980 | 39,0 | TAU0195 | 1 |
| 4 | Supporto intermedio L=1020 | Intermediate frame L=1020 | 44,0 | TAU0424 | 1 |
| 5 | Supporto intermedio L=1070 | Intermediate frame L=1070 | 45,0 | TAU0425 | 1 |
| 6 | Supporto intermedio L=1120 | Intermediate frame L=1120 | 46,0 | TAU0426 | 1 |
| 7 | Supporto intermedio L=1170 | Intermediate frame L=1170 | 47,0 | TAU0427 | 1 |
| 8 | Supporto intermedio L=1220 | Intermediate frame L=1220 | 48,0 | TAU0428 | 1 |
| 9 | Supporto intermedio L=1270 | Intermediate frame L=1270 | 49,0 | TAU0429 | 1 |
| 10 | Supporto intermedio L=1320 | Intermediate frame L=1320 | 50,0 | TAU0430 | 1 |
| 11 | Supporto intermedio L=1370 | Intermediate frame L=1370 | 51,0 | TAU0431 | 1 |
| 12 | Supporto posteriore L=1120 | Last frame L=1120 | 71,0 | TAU0432 | 1 |
| 13 | Gruppo posteriore | Backup | 248,0 | TAU1002 | 1 |
| 14 | Supporto laterale dx | Lateral support right | | TAU0602 | 18 |
| 15 | Supporto laterale sx | Lateral support left | | TAU0601 | 18 |
| 16 | Sostegno lama | Frame holder | 7,5 | TAU0174 | 20 |
| 17 | Tubo fissa lama | Tube spacer | 4,6 | TAU0175 | 4 |
| 18 | Squadretta fissa BAG | Square for bag fixing | | TAU0603 | 10 |
| 19 | Sostegno guida fune | Cable support | 2,5 | TAU0193 | 16 |
| 20 | Guida fune | Cable guide | 1,2 | TAU0178 | 16 |
| 21 | Fune L=7790 | Cable L=7790 | 45,0 | F24L7790 | 2 |
| 22 | Lama 3N L=1080 | 3-beam panel L=1080 | 20,0 | TAU0185 | 20 |
| 23 | Lama 3N terminale | Final 3-beam panel | 22,5 | TAU0020 | 2 |
| 24 | Cursore | Slider | 0,8 | TAU0179 | 40 |
| 25 | Palo di ancoraggio | Front picket | 7,8 | TAU0023 | 2 |
| 26 | Grillo | Clevis | | TAUGRFA28 | WITH CABLE |
| 27 | Piletta | Fixing bar | 2,5 | TAU0024 | 13 |
| 28 | Traversa L=1600 | Tube crosspiece L=1600 | 2,5 | TAU0433 | 2 |
| 29 | BAG | Airbag complete | 15,0 | TAUA013 | 9 |
| 30 | Fascetta | Clamp | | TAUFSKE134 | 10 |
| 32 | Vite TE M10x30 | Screw HH M10x30 | | VTE10-30ZC | 92 |

| TAU® M100 | | | | | |
|-----------|--------------------------------|------------------------------------|-----|-------------|------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 33 | Vite TE M12x60 | Screw HH M12x60 | | VTE12-60ZC | 64 |
| 34 | Vite TE M16x50 | Screw HH M16x50 | | VTE16-50ZC | 14 |
| 35 | Vite TE M20x60 | Screw HH M20x60 | | VTE20-60ZC | 76 |
| 36 | Vite TE 20x70 parz.fil. | Screw HH M20x70 threaded partially | | VTE20-70ZC | 60 |
| 37 | Vite TE M20x80 | Screw HH M20x80 | | VTE20-80INX | 13 |
| 38 | Rondella elastica M12 | Split lock washer M12 | | RE12-21ZC | 64 |
| 39 | Rondella piana M16 fasc larga | Washer M16 | | RP17-40ZC | 24 |
| 40 | Rondella piana M20 | Washer M20 | | RP20-37ZC | 76 |
| 42 | Dado medio M10 | Nut M10 | | D10MAZC | 92 |
| 43 | Dado medio M12 | Nut M12 | | D12MAZC | 64 |
| 44 | Dado medio M16 | Nut M16 | | D16MAZC | 10 |
| 45 | Dado medio M20 | Nut M20 | | D20MAZC | 76 |
| 46 | Dado medio M20 auto bloc. | Self-block nut M20 | | D20MEZC | 60 |
| 47 | Tubo per lama terminale | Tube for final 3-beam panel | 8,0 | TAU0025 | 2 |
| 48 | Targhetta identificazione | Identification plate | | TAU0114 | 1 |
| 49 | Targhetta marchio CE | Plate | | VAR0180 | 1 |
| 50 | Rivetto Al ø4,8x20 testa larga | AL rivet ø4,8x20-large | | RV4820 | 2 |
| 51 | Pasta chimica malta | Chemical paste | 5,0 | MAL-EAN | 7 |
| 52 | Rondella 60x60x8 ø22 | Washer 60x60x8 ø22 | | RQ22-60ZC | 13 |

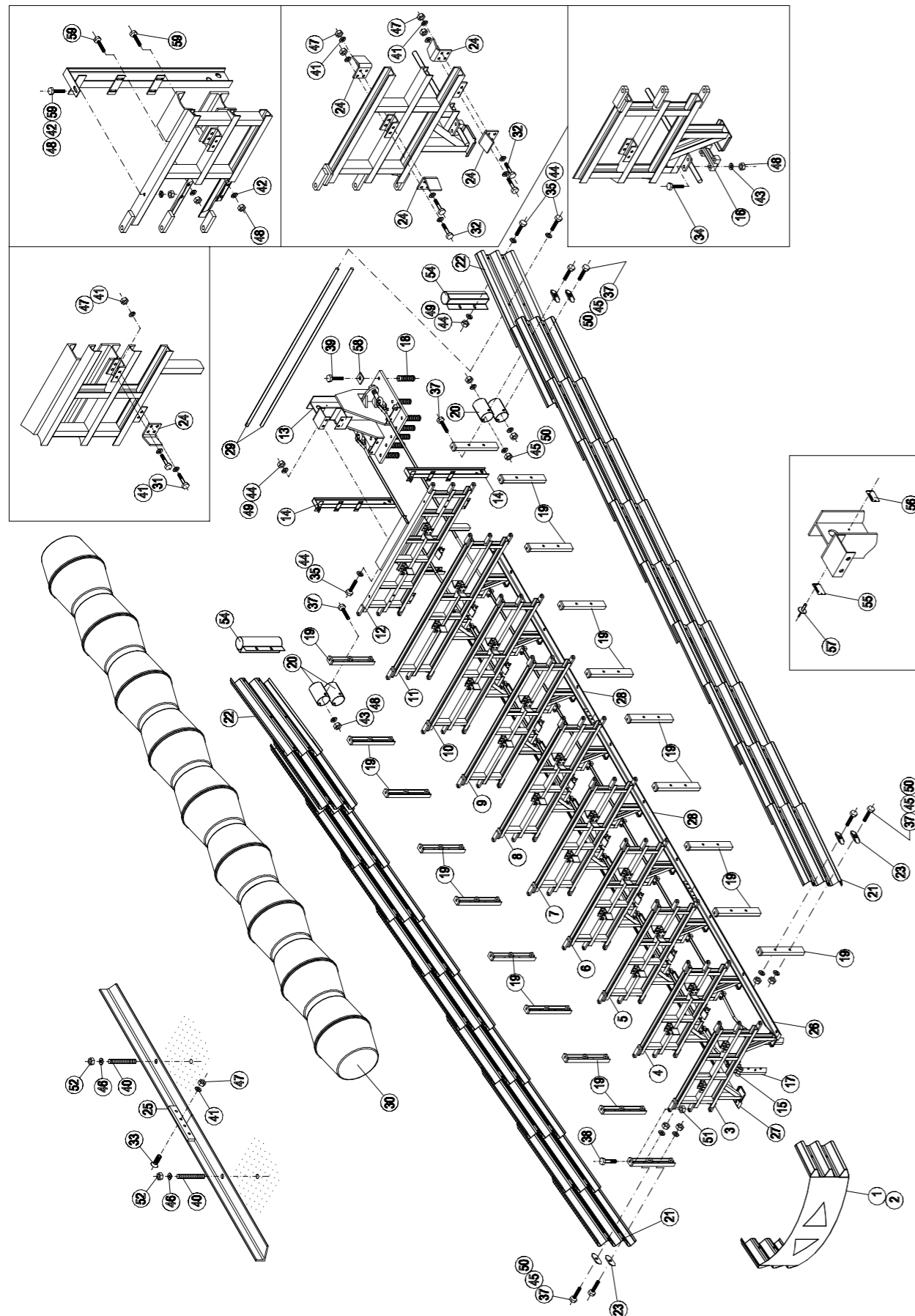
DRAWINGS AND BOM TAU L100



| TAU® L100 | | | | | |
|-----------|----------------------------|------------------------------------|-------|-------------|------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 1 | Naso | Nose | 5,0 | TN135YE | 1 |
| 2 | Pellicola | Reflective film | | | 2 |
| 3 | Supporto anteriore L=980 | First frame L=980 | 39,0 | TAU0195 | 1 |
| 4 | Supporto intermedio L=1140 | Intermediate frame L=1140 | 45,7 | TAU0196 | 1 |
| 5 | Supporto intermedio L=1300 | Intermediate frame L=1300 | 49,0 | TAU0197 | 1 |
| 6 | Supporto intermedio L=1460 | Intermediate frame L=1460 | 58,7 | TAU0198 | 1 |
| 7 | Supporto intermedio L=1620 | Intermediate frame L=1620 | 62,0 | TAU0199 | 1 |
| 8 | Supporto intermedio L=1780 | Intermediate frame L=1780 | 65,5 | TAU0200 | 1 |
| 9 | Gruppo posteriore | Backup | 248,0 | TAU1002 | 1 |
| 10 | Supporto posteriore L=1635 | Last frame L=1635 | 93,0 | TAU0201 | 1 |
| 11 | Tube fissa lama | Tube spacer | 4,6 | TAU0175 | 4 |
| 12 | Vite TE M20x70 parz.fil. | Screw HH M20x70 threaded partially | | VTE20-70ZC | 42 |
| 13 | Supporto laterale sx | Lateral support left | | TAU0601 | 12 |
| 14 | Supporto laterale dx | Lateral support right | | TAU0602 | 12 |
| 17 | Dado medio M10 | Nut M10 | | D10MAZC | 84 |
| 18 | Vite TE M10x30 | Screw HH M10x30 | | VTE10-30ZC | 68 |
| 19 | Supporto centrale | Central support | | TAU0600 | 6 |
| 20 | Vite TE M10x50 | Screw HH M10x50 | | VTE10-50ZC | 12 |
| 21 | Fune L=5195 | Cable L=5195 | 30,0 | F24L5195 | 2 |
| 22 | Sostegno lama | Frame holder | 7,5 | TAU0174 | 14 |
| 23 | Palo di ancoraggio | Front picket | 7,8 | TAU0023 | 2 |
| 24 | Guida fune | Cable guide | 1,2 | TAU0178 | 10 |
| 25 | Dado medio M16 | Nut M16 | | D16MAZC | 10 |
| 26 | Dado medio M20 auto bloc. | Self-block nut M20 | | D20MEZC | 42 |
| 27 | Lama 3N L=1080 | 3-beam panel L=1080 | 20,0 | TAU0185 | 14 |
| 28 | Cursore | Slider | 0,8 | TAU0179 | 28 |
| 29 | Rondella piana M20 | Washer M20 | | RP20-37ZC | 52 |
| 30 | Dado medio M20 | Nut M20 | | D20MAZC | 52 |
| 31 | Vite TE M10x70 parz.fil. | Screw HH M10x70 threaded partially | | VTE10-70PZC | 4 |
| 32 | Piletta | Fixing bar | 2,5 | TAU0024 | 13 |
| 33 | Vite TE M20x80 | Screw HH M20x80 | | VTE20-80INX | 13 |

| TAU® L100 | | | | | |
|-----------|--------------------------------|-----------------------------|------|------------|------------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 34 | Lama 3N terminale | Final 3-beam panel | 22,5 | TAU0020 | 2 |
| 35 | Traversa | Tube crosspiece | 3,3 | TAU0107 | 2 |
| 36 | Vite TE M16x50 | Screw HH M16x50 | | VTE16-50ZC | 14 |
| 37 | Rondella piana M16 fasc larga | Washer M16 | | RP17-40ZC | 24 |
| 38 | BAG | Airbag complete | 15,0 | TAUA013 | 9 |
| 39 | Squadretta fissa BAG | Square for bag fixing | | TAU0603 | 12 |
| 40 | Fascetta | Clamp | | TAUFSKE134 | 12 |
| 41 | Grillo | Clevis | | TAUGRFA28 | WITH CABLE |
| 42 | Vite TE M20x60 | Screw HH M20x60 | | VTE20-60ZC | 52 |
| 43 | Sostegno guida fune | Cable support | 2,5 | TAU0193 | 10 |
| 44 | Vite TE M12x60 | Screw HH M12x60 | | VTE12-60ZC | 40 |
| 45 | Rondella elastica M12 | Split lock washer M12 | | RE12-21ZC | 40 |
| 46 | Dado medio M12 | Nut M12 | | D12MAZC | 40 |
| 47 | Tube per lama terminale | Tube for final 3-beam panel | 8,0 | TAU0025 | 2 |
| 48 | Distanziale piastrina | Spacer plate | 1,3 | TAU0205 | 2 |
| 49 | Targhetta identificazione | Identification plate | | TAU0114 | 1 |
| 50 | Targhetta marchio CE | Plate | | VAR0180 | 1 |
| 51 | Rivetto Al ø4,8x20 testa larga | AL rivet ø4,8x20 -large | | RV4820 | 2 |
| 52 | Pasta chimica malta | Chemical paste | 5,0 | MAL-EAN | 7 |
| 53 | Rondella 60x60x8 ø22 | Washer 60x60x8 ø22 | | RQ22-60ZC | 13 |

DRAWINGS AND BOM XL110

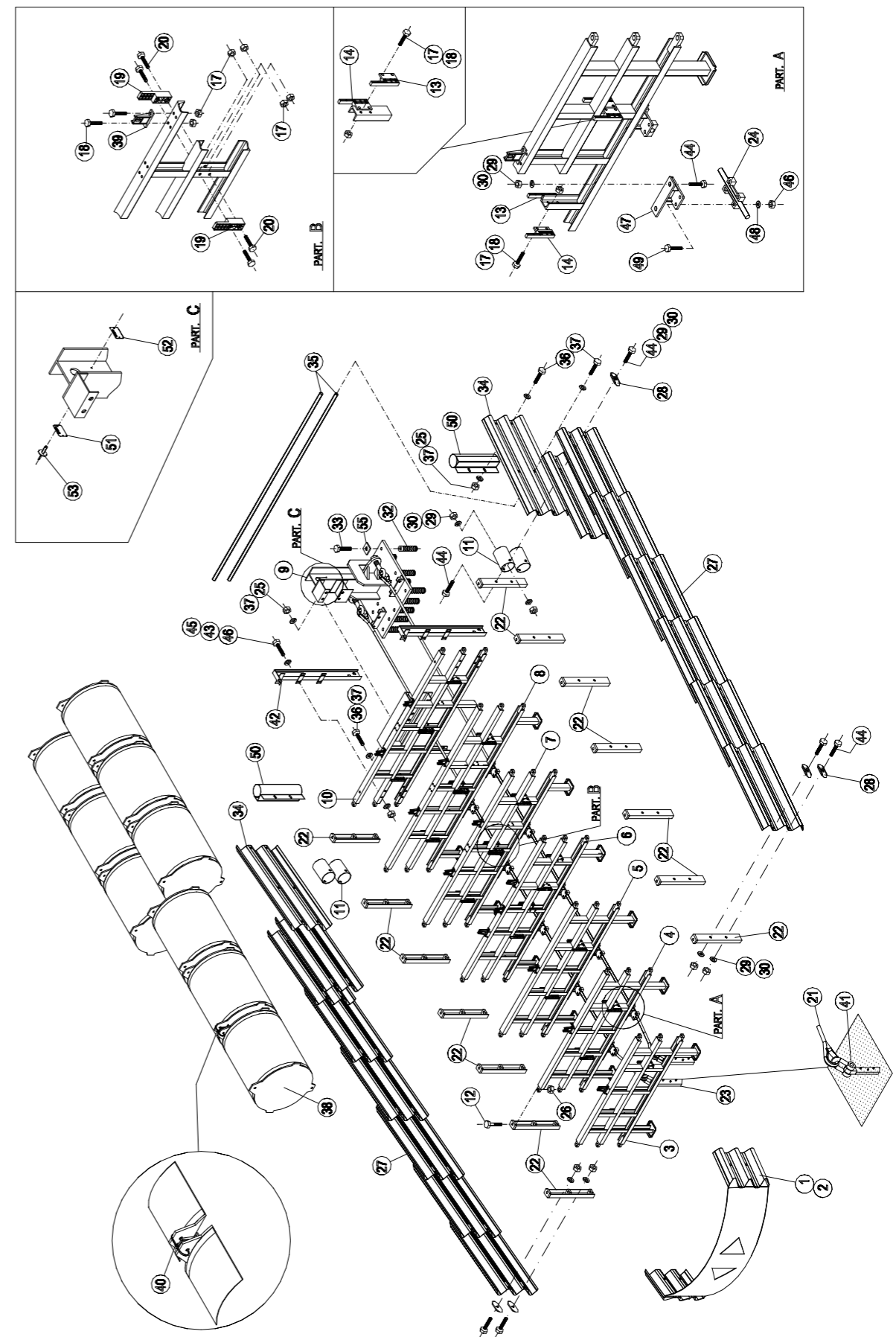


TAU® XL110

| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
|------|-------------------------------|----------------------------|-------|------------|------|
| 1 | Naso | Nose | 6,0 | TN180YE | 1 |
| 2 | Pellicola | Reflective film | | | 2 |
| 3 | Supporto anteriore L=1180 | First frame L=1180 | 56,0 | TAU0230 | 1 |
| 4 | Supporto intermedio L=1290 | Intermediate frame L=1290 | 64,0 | TAU0231 | 1 |
| 5 | Supporto intermedio L=1400 | Intermediate frame L=1400 | 66,0 | TAU0232 | 1 |
| 6 | Supporto intermedio L=1500 | Intermediate frame L=1500 | 69,0 | TAU0233 | 1 |
| 7 | Supporto intermedio L=1600 | Intermediate frame L=1600 | 70,0 | TAU0234 | 1 |
| 8 | Supporto intermedio L=1700 | Intermediate frame L=1700 | 72,0 | TAU0235 | 1 |
| 9 | Supporto intermedio L=1820 | Intermediate frame L=1820 | 74,5 | TAU0236 | 1 |
| 10 | Supporto intermedio L=1920 | Intermediate frame L=1920 | 78,0 | TAU0237 | 1 |
| 11 | Supporto intermedio L=2030 | Intermediate frame L=2030 | 78,0 | TAU0238 | 1 |
| 12 | Supporto posteriore L=1830 | Last frame L=1830 | 95,0 | TAU0239 | 1 |
| 13 | Gruppo posteriore | Backup | 280,0 | TAU1003 | 1 |
| 14 | Piede di contrasto | Last frame foot | 9,7 | TAU0099 | 2 |
| 15 | Fune con grillo (L=7790 ø24) | Cable with clevis | 45,0 | F24L7790 | 2 |
| 16 | Guida fune | Cable guide | 1,2 | TAU0178 | 16 |
| 17 | Palo d'ancoraggio | Front picket | 7,8 | TAU0023 | 2 |
| 18 | Piletta | Fixing bar | 2,5 | TAU0024 | 13 |
| 19 | Sostegno lama | Frame holder | 7,5 | TAU0174 | 20 |
| 20 | Tubo fissa lama | Tube spacer | 4,6 | TAU0175 | 4 |
| 21 | Lama 3N (L=1080) | 3-beam panel L=1080 | 20,0 | TAU0185 | 20 |
| 22 | Lama 3N terminale | Final 3-beam panel | 22,5 | TAU0020 | 2 |
| 23 | Cursore | Slider | 0,8 | TAU0179 | 40 |
| 24 | Sostegno barilotto | Cartridge support | 1,0 | TAU0241 | 54 |
| 25 | Piastra per fissaggio guida | Fixing square for the rail | 1,5 | TAU0243 | 4 |
| 26 | Guida anteriore dx | Front rail right | 20,0 | TAU1004 | 1 |
| 27 | Guida anteriore sx | Front rail left | 20,0 | TAU1005 | 1 |
| 28 | Guida | Rail | 23,0 | TAU1006 | 4 |
| 29 | Traversa trasversale (L=2370) | Tube crosspiece | 3,6 | TAU0248 | 2 |
| 30 | Barilotto | Cartridge | 16,0 | TAU0080 | 9 |
| 31 | Vite TE M10x30 | Screw HH M10x30 | | VTE10-30ZC | 12 |

| TAU® XL110 | | | | | |
|------------|------------------------------------|-------------------------------------|-----|--------------|------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 32 | Vite TE M10x100 parz. fil. | Screw HH M10x100 threaded partially | | VTE10-100PZC | 48 |
| 33 | Vite TSEI M10x40 | Screw FSH M10x40 | | VTS10-40ZC | 16 |
| 34 | Vite TE M12x60 | Screw HH M12x60 | | VTE12-60ZC | 64 |
| 35 | Vite TE M16x50 | Screw HH M16x50 | | VTE16-50ZC | 14 |
| 37 | Vite TE M20x60 | Screw HH M20x60 | | VTE16-50ZC | 44 |
| 38 | Vite TE M20x70 parz. fil. | Screw HH M20x70 threaded partially | | VTE20-70ZC | 60 |
| 39 | Vite TE M20x80 | Screw HH M20x80 | | VTE20-80INX | 13 |
| 40 | Barra filettata M24x250 | Threaded bar M24x250 | | B24-250ZC | 18 |
| 41 | Rondella piana M10 | Washer M10 | | RP10-21ZC | 136 |
| 42 | Rondella piana M12 | Washer M12 | | RP12-24ZC | 10 |
| 43 | Rondella elastica M12 | Split lock washer M12 | | RE12-21ZC | 64 |
| 44 | Rond. fascia larga M16 (øi17 øe40) | Washer M16 | | RP17-40ZC | 24 |
| 45 | Rondella piana M20 | Washer M20 | | RP20-37ZC | 44 |
| 46 | Rondella piana M24 | Washer M24 | | RP24-44ZC | 18 |
| 47 | Dado medio M10 | Nut M10 | | D10MAZC | 76 |
| 48 | Dado medio M12 | Nut M12 | | D12MAZC | 74 |
| 49 | Dado medio M16 | Nut M16 | | D16MAZC | 10 |
| 50 | Dado medio M20 | Nut M20 | | D20MAZC | 44 |
| 51 | Dado medio M20 autobloc. | Self-block nut M20 | | D20MEZC | 60 |
| 52 | Dado medio M24 | Nut M24 | | D24MAZC | 18 |
| 53 | Pasta chimica malta | Chemical paste | 5,0 | MAL-EAN | 10 |
| 54 | Tubo per lama terminale | Tube for final 3-beam panel | 8,0 | TAU0025 | 2 |
| 55 | Targhetta identificazione | Identification plate | | TAU0114 | 1 |
| 56 | Targhetta marchio CE | Plate | | VAR0180 | 1 |
| 57 | Rivetto Al ø4,8x20 testa larga | AL rivet ø4,8x20-large | | RV4820 | 2 |
| 58 | Rondella 60x60x8 ø22 | Washer 60x60x8 ø22 | | TAU0582 | 13 |
| 59 | Vite TE M12x45 | Screw HH M12x45 | | VTE12-45INX | 10 |

DRAWINGS AND BOM XL110



| TAU® XL100 | | | | | |
|------------|----------------------------|------------------------------------|-------|-------------|------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 1 | Naso | Nose | 6,0 | TN180YE | 1 |
| 2 | Pellicola | Reflective film | | | 2 |
| 3 | Supporto anteriore L=1477 | First frame L=1477 | 56,0 | TAU0165 | 1 |
| 4 | Supporto intermedio L=1637 | Intermediate frame L=1637 | 62,5 | TAU0166 | 1 |
| 5 | Supporto intermedio L=1797 | Intermediate frame L=1797 | 66,0 | TAU0167 | 1 |
| 6 | Supporto intermedio L=1957 | Intermediate frame L=1957 | 69,0 | TAU0168 | 1 |
| 7 | Supporto intermedio L=2117 | Intermediate frame L=2117 | 72,5 | TAU0169 | 1 |
| 8 | Supporto intermedio L=2277 | Intermediate frame L=2277 | 78,5 | TAU0170 | 1 |
| 9 | Gruppo posteriore | Backup | 248,0 | TAU1002 | 1 |
| 10 | Supporto posteriore L=2136 | Last frame L=2136 | 103,5 | TAU0171 | 1 |
| 11 | Tube fissa lama | Tube spacer | 4,6 | TAU0175 | 4 |
| 12 | Vite TE M20x70 parz.fil. | Screw HH M20x70 threaded partially | | VTE20-70ZC | 42 |
| 13 | Supporto laterale sx | Lateral support left | | TAU0601 | 12 |
| 14 | Supporto laterale dx | Lateral support right | | TAU0602 | 12 |
| 17 | Dado medio M10 | Nut M10 | | D10MAZC | 84 |
| 18 | Vite TE M10x30 | Screw HH M10x30 | | VTE10-30ZC | 72 |
| 19 | Supporto centrale | Central support | | TAU0600 | 6 |
| 20 | Vite TE M10x50 | Screw HH M10x50 | | VTE10-50ZC | 12 |
| 21 | Fune L=5195 | Cable L=5195 | 30,0 | F24L5195 | 2 |
| 22 | Sostegno lama | Frame holder | 7,5 | TAU0174 | 14 |
| 23 | Palo di ancoraggio | Front picket | 7,8 | TAU0023 | 2 |
| 24 | Guida fune | Cable guide | 1,2 | TAU0178 | 10 |
| 25 | Dado medio M16 | Nut M16 | | D16MAZC | 10 |
| 26 | Dado medio M20 auto bloc. | Self-block nut M20 | | D20MEZC | 42 |
| 27 | Lama 3N L=1080 | 3-beam panel L=1080 | 20,0 | TAU0185 | 14 |
| 28 | Cursore | Slider | 0,8 | TAU0179 | 28 |
| 29 | Rondella piana M20 | Washer M20 | | RP20-37ZC | 52 |
| 30 | Dado medio M20 | Nut M20 | | D20MAZC | 52 |
| 32 | Piletta | Fixing bar | 2,5 | TAU0024 | 13 |
| 33 | Vite TE M20x80 | Screw HH M20x80 | | VTE20-80INX | 13 |
| 34 | Lama 3N terminale | Final 3-beam panel | 22,5 | TAU0020 | 2 |
| 35 | Traversa | Tube crosspiece | 3,9 | TAU0108 | 2 |

| TAU® XL100 | | | | | |
|------------|--------------------------------|-----------------------------|------|-------------|------------|
| POS. | DESCRIZIONE (IT) | DESCRIPTION (ENG) | kg | CODE | QTY. |
| 36 | Vite TE M16x50 | Screw HH M16x50 | | VTE16-50ZC | 14 |
| 37 | Rondella piana M16 fasc larga | Washer M16 | | RP17-40ZC | 24 |
| 38 | BAG | Airbag complete | 15,0 | TAUA013 | 9 |
| 39 | Squadretta fissa BAG | Square for bag fixing | | TAU0603 | 12 |
| 40 | Fascetta | Clamp | | TAUFSKE134 | 12 |
| 41 | Grillo | Clevis | | TAUGRFA28 | WITH CABLE |
| 42 | Piede di contrasto | Last frame foot | 9,7 | TAU0099 | 2 |
| 43 | Rondella piana M12 | Washer M12 | | RP12-24ZC | 10 |
| 44 | Vite TE M20x60 | Screw HH M20x60 | | VTE20-60ZC | 52 |
| 45 | Vite TE M12x45 | Screw HH M12x45 | | VTE12-45INX | 10 |
| 46 | Dado medio M12 | Nut M12 | | D12MAZC | 50 |
| 47 | Sostegno guida fune | Cable support | 2,5 | TAU0193 | 10 |
| 48 | Rondella elastica M12 | Split lock washer M12 | | RE12-21ZC | 40 |
| 49 | Vite TE M12x60 | Screw HH M12x60 | | VTE12-60ZC | 40 |
| 50 | Tube per lama terminale | Tube for final 3-beam panel | 8,0 | TAU0025 | 2 |
| 51 | Targhetta identificazione | Identification plate | | TAU0114 | 1 |
| 52 | Targhetta marchio CE | Plate | | VAR0180 | 1 |
| 53 | Rivetto Al ø4,8x20 testa larga | AL rivet ø4,8x20-large | | RV4820 | 2 |
| 54 | Pasta chimica malta | Chemical paste | 5,0 | MAL-EAN | 9 |
| 55 | Rondella 60x60x8 ø22 | Washer 60x60x8 ø22 | | RQ22-60ZC | 13 |

BEFORE INSTALLATION

Depending on the application and circumstances on the laying site installation TAU® should employ a team of two people for up to three hours. Before you start you need to get familiar with the basic components that make up the TAU®.

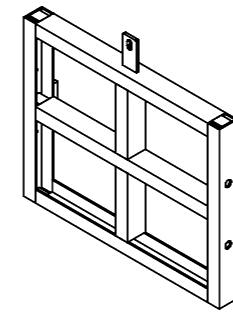
EQUIPMENT CHECK LIST FOR ASSEMBLY

- Current generator (minimum power = 3kW)
- Extensions suitable for power tools
- Core drill diam. 80 mm and dia. 120 mm
- Bin with water and submersible pump
- Bat, lever (or crowbar)
- Fixed Key Series and socket ratchet with 1/2"
- Electric screwdriver, 1/2", grinder with cutting discs
- Key small torque up to 200 Nm, 1/2 "
- Steel cable or synthetic to extend the system
- Rib metric or metro
- Trucks equipped with cranes and lifting accessories
- Bucket with chalk and chalk line
- Deposit the complete irons (slotted and Phillips screwdrivers, sheet metal hacksaw, pipe wrench, ..)

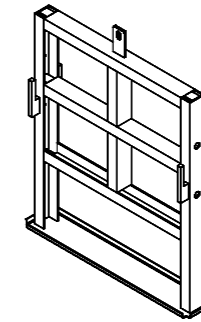
During installation the installer are obliged to apply the current safety requirements in the European community and in force in the country of installation of the device updated to the date of installation

Note: this list is the general recommendation. It may depend on the specific characteristics of the installation site a real need for equipment to be used.

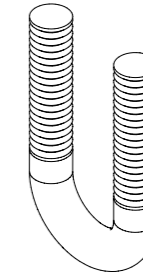
COMPONENTS REQUIRED



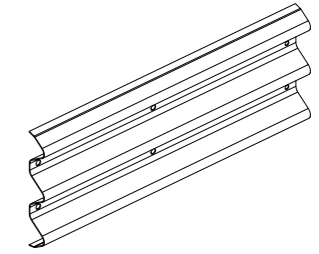
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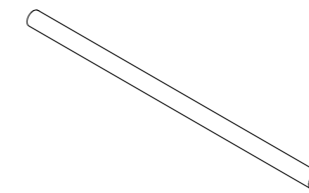
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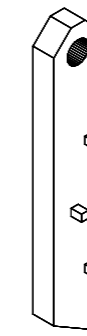
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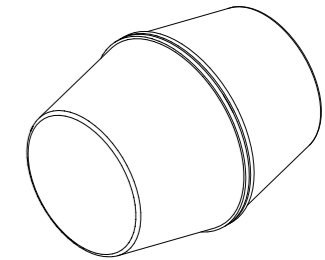
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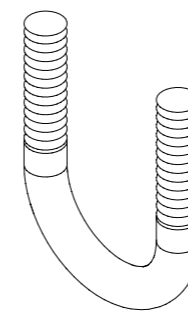
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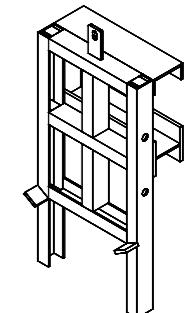
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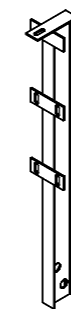
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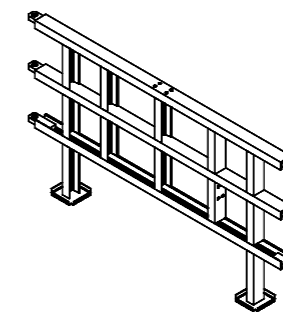
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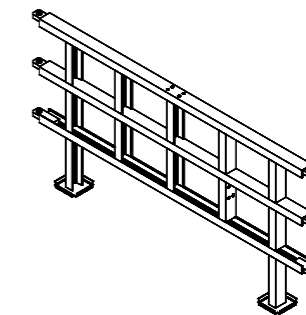
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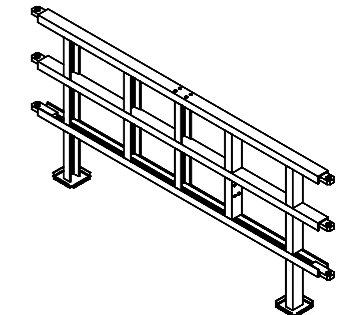
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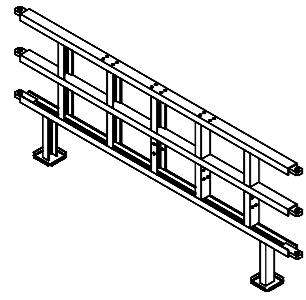
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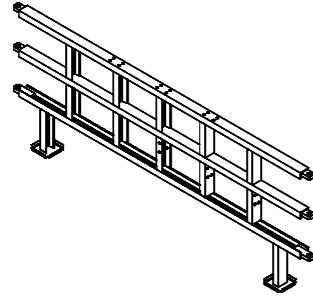
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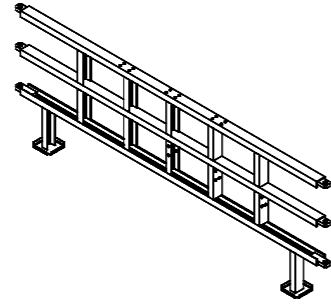
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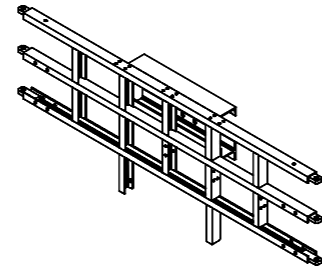
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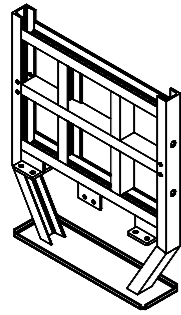
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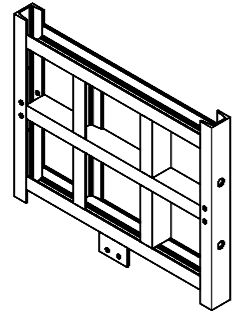
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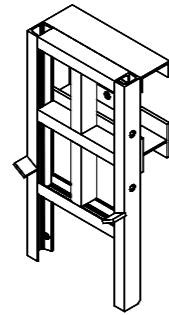
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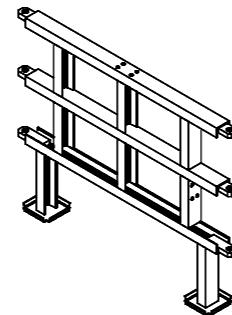
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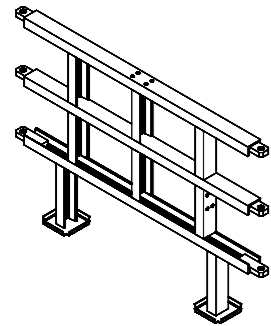
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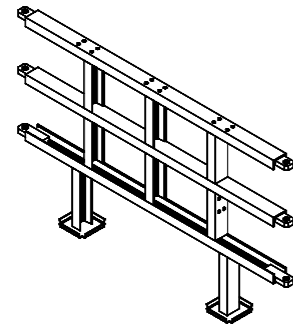
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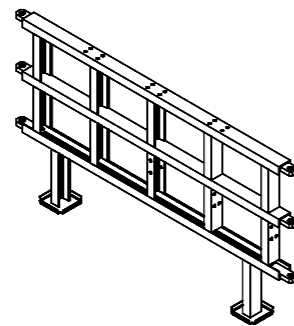
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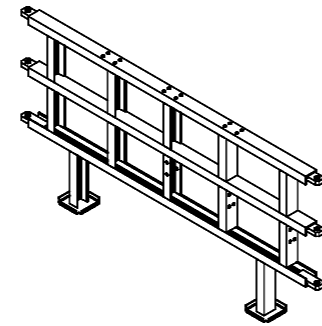
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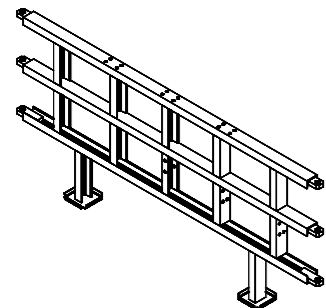
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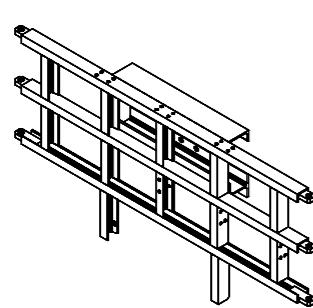
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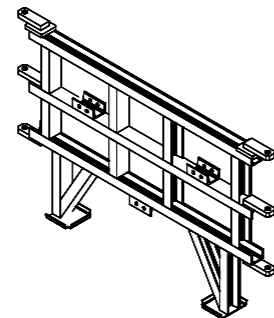
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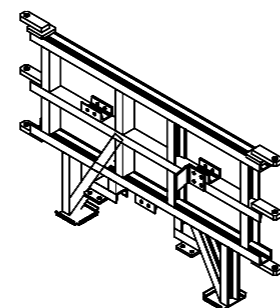
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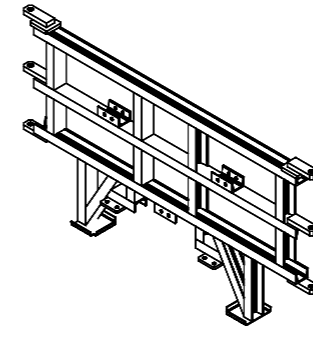
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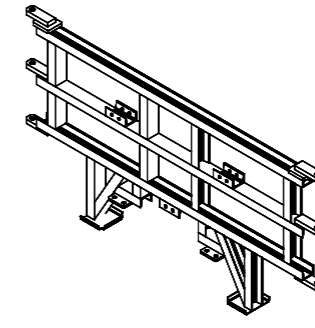
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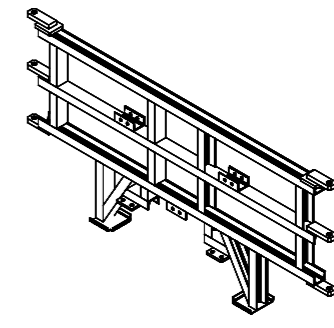
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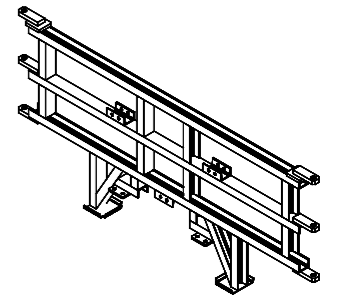
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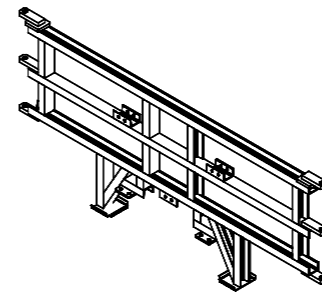
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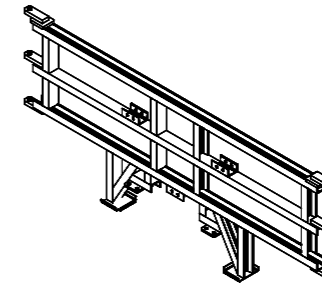
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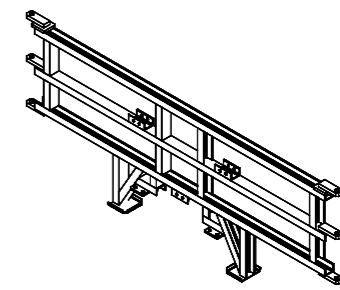
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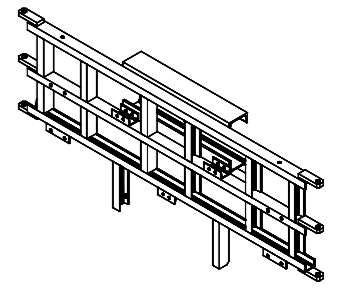
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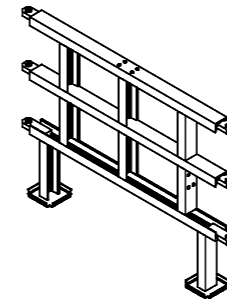
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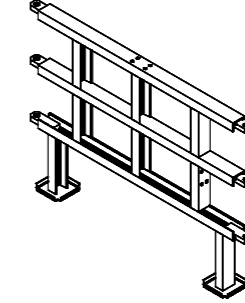
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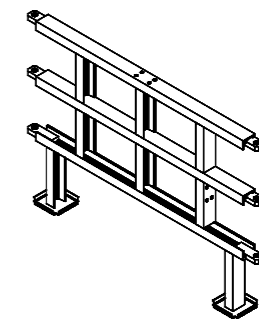
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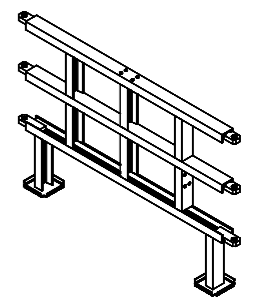
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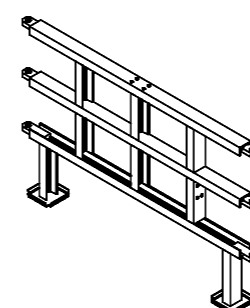
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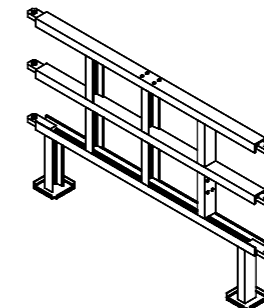
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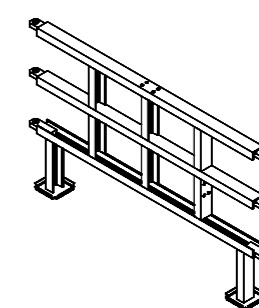
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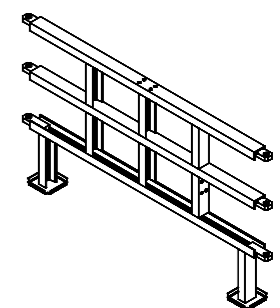
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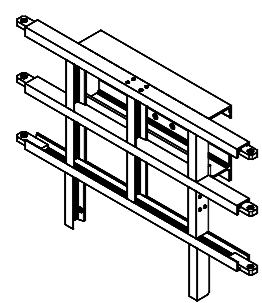
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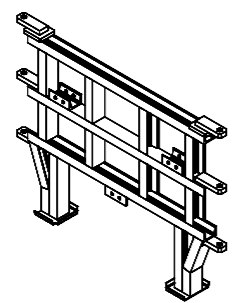
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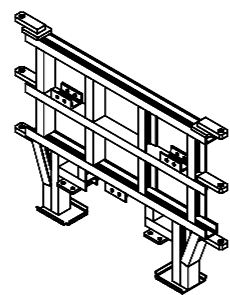
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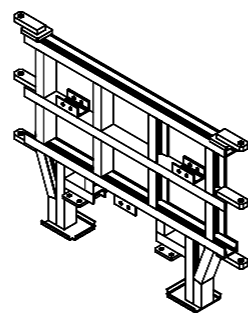
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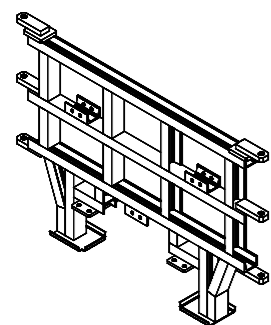
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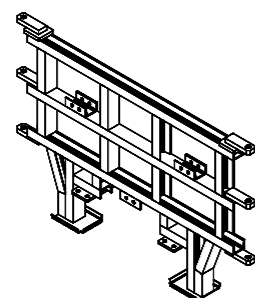
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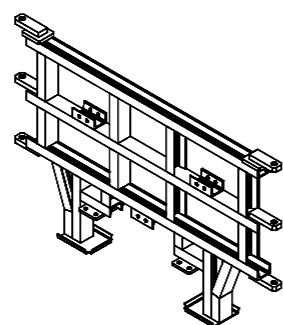
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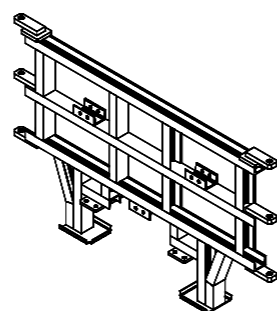
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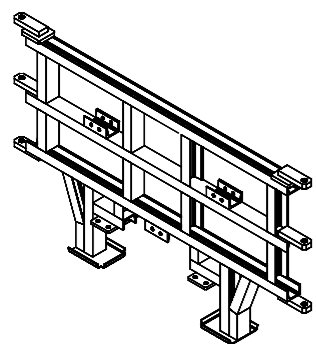
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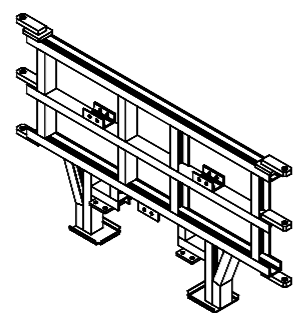
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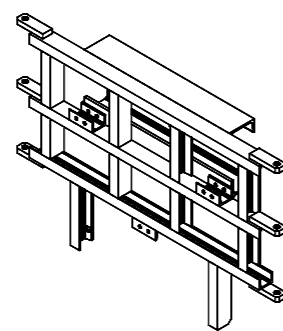
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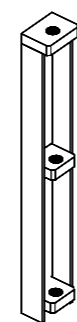
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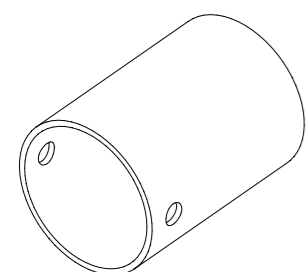
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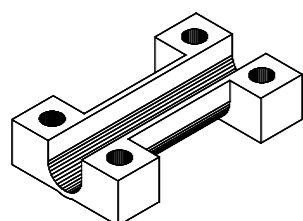
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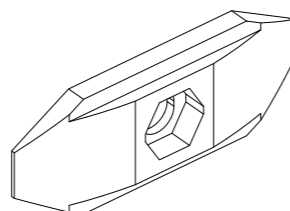
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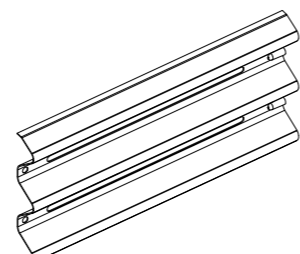
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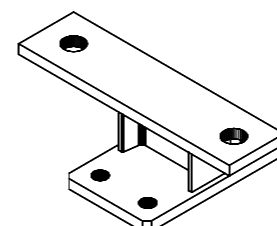
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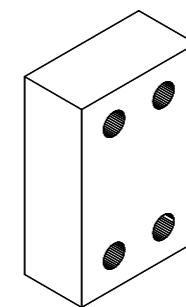
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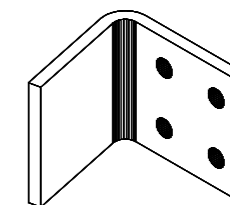
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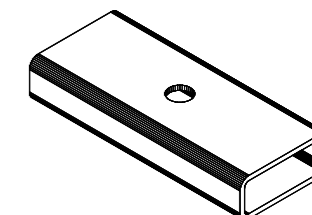
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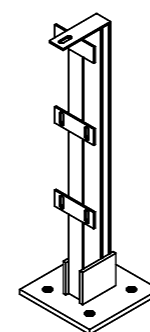
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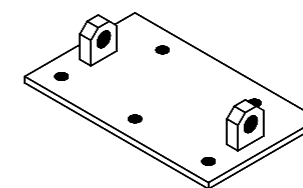
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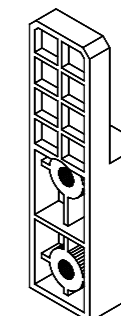
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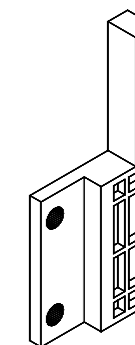
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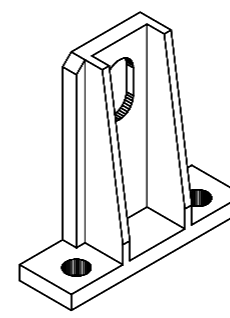
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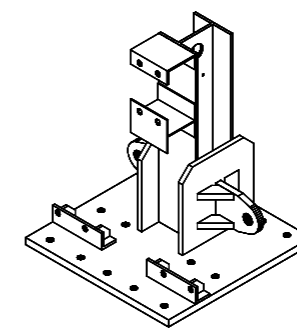
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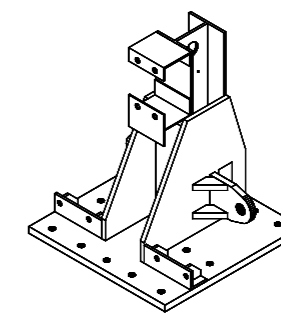
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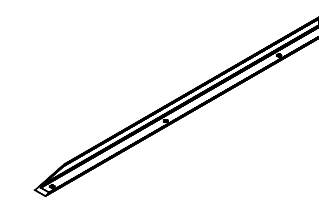
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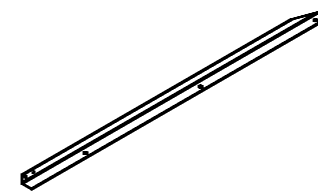
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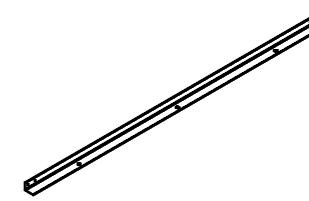
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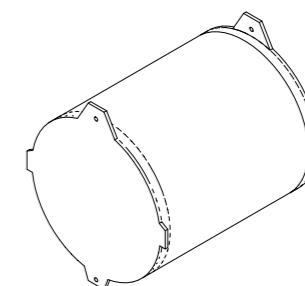
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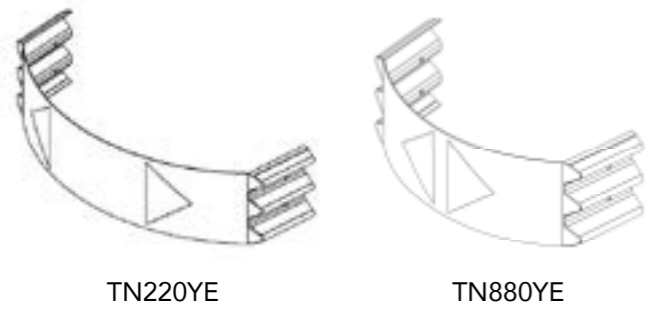
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TAUA013



TN180YE



TN220YE

TN880YE

The TAU® family systems doesn't contain toxic components.

ASSEMBLY

For the assembly considering the **TAU® PARALLEL-standing**; In this case the assembly is done before the transport to the installation site.

SELF-ASSEMBLY OF COMPONENT

Place the intermediate supports at a certain distance, thread the cables in the cable guides in the lower part of the supports. Start the panel assembling from the rear part putting the two 3-beams panels double on the last intermediate support and proceed with the assembling of the panels. Tighten them a little to the intermediate support's frame with the slider and the related screw, washer and nut. Assemble the tube spacers, the final 3-beam panels and the tube crosspiece on the backup.

At this point the self-standing TAU® PARALLEL is ready for the transportation. The backup is never connected to the frame work until the installation.

After the installation the BAGS are inserted between the supports (with the valve directed to the rear part). **TAU® MED IUM, LARGE and X-LARGE are partially preassembled and are finished on the installation site.**

INSTALLATION TAU® PARALLEL 60, 80, 100 WITH SUPPORTS TAU® PREASSEMBLED

1. Backup Installation

Trace the centerline of the location where the TAU® has to be installed. Place the backup in the correct position and mark the anchoring holes (figure 1).



Figure 1 - Backup installation

Measure and mark the exact position of the front pickets. After marking them, drill the holes using the 80 mm diameter coring bit to a depth of 350 mm (figure 2).



Figure 2 - Coring for the anchoring piles

Put the front picket into position and fill the holes with chemical grout to ground level (approx. 2 ÷ 2,5 Kg for each hole) and make it uniform to the pavement level. Clean the holes keeping them free from water, snow or other substances.



Figure 3 - Front picket insertion



Figure 4 - Front picket insertion

Core-drill the holes using the 80 mm diameter coring bit to a depth of 220 mm and fill them with the chemical grout (approx. 1.5. Kg per hole). Ensure holes are clean. For anchoring with threaded bars should see the drilling plan.



Figure 5 - Preparation holes for backup



Figure 6 - Preparation holes for backup

Lift the backup, place the fixing bars on the plate with screws and washer slightly tighten (figure 7).



Figure 7 - Insertion of the fixing bars on the plate

Lift the backup, place the fixing bars on the plate with screws and washer slightly tighten. Lower the backup and insert the fixing bars in to the holes filled with chemical grout (figure 8). Mix the chemical resin just before using it. The chemical resin requires approximately 24 hours to reach optimal resistance, but it is possible to fix the system by tensioning the anchoring (60 Nm) components after 2 hours.



Figure 8 - Placement of the backup

Attach the fixed-panel pipe (80 Nm) to the backup. (figures 9 - 10)



Figure 9 - Fixed-panel pipe



Figure 10 - Fixed-panel pipe

2. The TAU® preassembled system positioning

Place the TAU® system preassembled on the center line (figures 11 - 12).



Figure 11 - The TAU® preassembled system positioning



Figure 12 - The TAU® preassembled system positioning

Fix the pre-assembled part to the backup with sliders (figure 13 - 14).



Figure 13 - Fixing of preassembled TAU®



Figure 14 - Fixing of preassembled TAU®

3. Positioning of the cables

Spread the cables along the center line and hook to the backup (figure 15-16).



Figure 15 - Cable attached to the backup



Figure 16 - Cable attached to the backup

Hook the cable to the front pickets through cricket (40 Nm) mounted on the cable (figure 17-18).



Figure 17 - Cables connecting to front pickets



Figure 18 - Cables connecting to front pickets

Fix the pre-assembled part to the rear side of a truck with a cable and drag it to extend it (figures 19 - 20).



Figure 19 - Final placement



Figure 20 - Final placement

4. Tightening of the sliders

Tighten the screws of the sliders using a torque meter set to 140 Nm (figure 21).



Figure 21 - Tightening of the sliders

5. Nose assembly

Place the nose polyethylene (equipped with reflective film) to the first front support (figure 22) and lock the sliders of the nuts (40 Nm) (figure 23).



Figure 22 - Positioning nose

6. Preparing Bags

Unscrew the four nuts, remove washers and air valve (figure 24).



Figure 23 - Lock sliders



Figure 24 - Opening bag



Figure 25 - Filling bag

Lift the bag so to fill it with air (figure 25), reposition the ring (figure 26), the air valve and the washers and tighten the nuts (10 Nm) (figure 27).



Figure 26-27 - Closing bag

7. Inserting the Bag

Starting from the nearest bay to the rear support housing the bag into the supports (figure 28) and anchor them to the supports with suitable clips (figures 29 - 30).

Warning: the valve of the bag must be positioned in front of the backup (★).



Figure 28 - Housing bag



Figure 29 - Anchor clamps

8. Placement of the tube crosspiece

Fix the tubes crosspieces (60 Nm) to the finals beams and the tube to the finals beams (60 Nm) (figure 31).



Figure 30 - Anchor clamps



Figure 31 - Tube crosspiece

9. Tensioning the cables

After not less than two hours, as soon as the chemical grout has reached the proper strength, put the cables in tension to 150 Nm (figure 32).



Figure 32 - Tensioning the cables

INSTALLATION TAU® MEDIUM, LARGE AND XLARGE 60, 80, 100

1. Backup Installation

Installation TAU® M, L and XL for convenience are fully assembled on site. Mark the center line of the site where you install the TAU®. Place the backup and mark the hole (figure 1).



Figure 1 - Backup Installation

Measure and mark the exact position of the front pickets. After marking them core the holes using the 80 mm diameter coring bit to a depth of 350 mm (figure 2).



Figure 2 - Coring for the anchoring piles

Put the front pickets into position and fill the holes with chemical grout (approx. 2 ÷ 2,5 Kg per hole) to ground level. Clean the holes keeping them free from water, snow or other substances.



Figure 3 - Inserting pole anchor



Figure 4 - Inserting pole anchor

Core-drill the anchoring holes using the 80 mm diameter coring bit to a depth of 220 mm in the backup position and two holes with a diameter of 120 mm to a depth of 220 mm for the last frame foot (only for XL), and fill with chemical resin (about 1.5 Kg per hole). Ensure holes are clean. (figures 5 - 6).



Figure 5 - Preparation holes for backup



Figure 6 - Preparation holes for backup

Holding the backup raised, place the fixing bars (or threaded bars) on plate with screw and washer avoiding to detain them (figure 7).



Figure 7 - Fixing bars insertion in backup

Lift the backup, place the fixing bars on the plate with screws and washer slightly tighten. Lower the backup and insert the fixing bars in to the holes filled with chemical resin (figure 8). Mix the chemical resin just before using it. The chemical resin requires approximately 24 hours to reach optimal resistance, but it is possible to fix the system by tensioning the anchoring components (60 Nm) after 2 hours.



Figure 8 - Placement of the backup

2. Attach the cables to backup

Attach the cables to the back support (figure 9).



Figure 9 - Attach the cables to backup

Hook the cable to the front pickets through the cricket mounted on the cable (10 Nm) (figure 10).



Figure 10 - Connecting cable to the front pickets

3. Positioning of intermediate frames

Position the intermediate frames front smallest to largest (figures 11 - 12).



Figure 11 - Positioning of intermediate frames



Figure 12 - Positioning of intermediate frames

Pass the cables under the supports and insert them into the cables guide (40 Nm) (figures 13 -14).



Figure 13 - Cables guide



Figure 14 - Cables guide

4. Positioning the tube spacer

Fix the tube spacer to the backup (40 Nm) (figure 15).



Figure 15 - Tighten the tube crosspiece

5. Placement of the panels

Place the two w-beam panels starting from the last intermediate frame and proceed upwards to the first frame (**Note:** in the last bay are inserted two 3-beam panels for side). The slider has to be placed at the end of the groove. Then tighten screws of the sliders with a torque wrench to 140 Nm.

In some cases, only for mounting the L100 system, in correspondence of the fourth frame could be difficult, the tightening of the sliders according to the type of key used. In this case, a dealer to remove the components represented in the corresponding detail of the technical drawing, tighten the sliders and reassemble the components prior to insertion of the bag.

6. Nose placement

See section 5 of the previous chapter

7. Bags placement

See section 6 of the previous chapter

8. Tube crosspiece placement

See section 8 of the previous chapter



Figure 16 - 3N panel



Figure 17 - 3N panel



Figure 18 - Tightening screws sliders

9. Cable Tensioning

After not less than two hours, as soon as the chemical grout has reached the proper strength, put in tension cables 150 Nm (figure 19).



Figure 19 - Cable Tensioning

| SYSTEM TORQUE CHART | Nm |
|-------------------------------------|----|
| Square for bag fixing (TAU 0603) | 20 |
| Lateral support (TAU0601 - TAU0602) | 15 |
| Central support (TAU0600) | 15 |
| Cable Clamp (TAU0015 - TAU0084) | 40 |
| Cable support (TAU0193) | 40 |
| Cable guide (TAU0178) | 40 |

ASSEMBLY

Self-standing TAU 110® PARALLEL assembling takes place before the freight to the installation site. Place the intermediate frames at a certain distance, thread the cables underneath them and insert them into fairleads attached to the lower part of the supports. Start the panels assembling from the rear part putting the two 3-beam panels double on the last intermediate support and proceed with the assembling of the panels. Tighten them a little to the intermediate screw support's frame with the slider and the related screw, washer and nut.

Assemble the tube spacers, the final 3-beam panels and the tube crosspiece on the backup. Self-standing TAU 110® PARALLEL is ready for the freight.

The backup is never connected to the framework until the installation. After the installation the cartridges inserted between the supports.

TAU 110® MEDIO and TAU 110® X-LARGE are usually pre-mounted in the same way, but it's assembled on site. Differently from the "PARALLEL", the rear frame is already mounted on the backup.

INSTALLATION TAU 110® PARALLEL WITH SUPPORTS TAU® PREASSEMBLED

1. Backup installation

Use the chalkline to mark the centerline of the location where the TAU 110® PARALLEL has to be installed. Place the backup and mark the anchoring position. Measure and mark the exact position of the front drilling. See drilling plan.



Figure 1 - Backup placement

After marking front pickets position, core the holes using the 80 mm diameter reaching a depth of 350 mm (figure 2) according the drilling plan (drawing TAU® 190).



Figure 2 - Coring for front pickets

Put the front pickets into position and fill the holes with the chemical grout to ground level (figures 3 - 4) (approx. 2 ÷ 2,5 Kg per hole). Ensure holes are clean.



Figure 3 - Filling with chemical grout



Figure 4 - Pickets inserting

Core-drill the anchoring holes already marked in the backup position using the 80 mm diameter coring bit to a depth of 220 mm according drilling plan (drawing TAU 190). See the drilling plan.



Figure 5 - Holes preparation for backup

For the correct and safe preparation and use of the chemical grout please refer to the manufacturer instruction and to the information on the safety sheet.

Lower the backup and insert the fixing bars (or threaded bars) in to the holes already filled in with chemical grout (figure 6). This operation must take place in a relatively short time, immediately after filling of the holes with the chemical grout, in order to avoid excessive hardening of the grout by tightening the anchors (60 Nm).



Figure 6 - Backup placement

Attach the tubes spacers (80 Nm) to the backup. (figures 7 - 8)

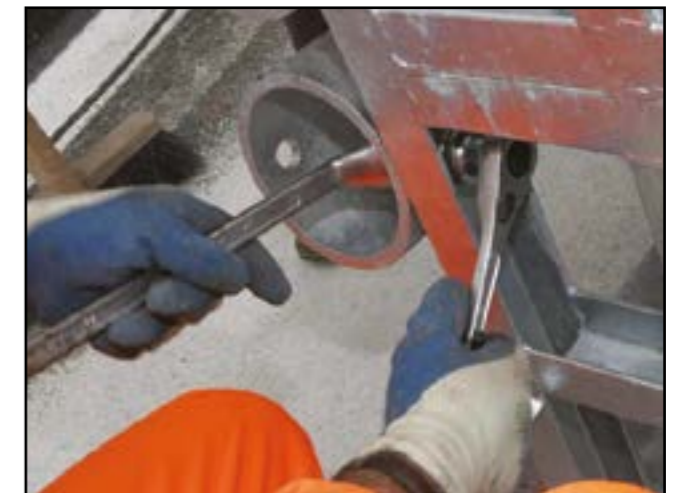


Figure 7 - Tube spacer

2. TAU® system placement

Place the TAU® system 110 PARALLEL on the center line (figures 9 - 10) outlined above.

3. Cable placement

See section 3 of the previous chapter.

4. Tightening sliders

See section 4 of the previous chapter TAU® Parallel 60, 80, 100 with preassembled supports.

5. Positioning of the tubes crosspiece

See section 4 of the previous chapter.



Figure 8 - Tube spacer



Figure 9 - System placement



Figure 10 - System placement

6. Cartridge placement

Place the cartridges with the arrow towards front parts of the system, in other words towards front picket. (figure 11).



Figure 11 - Cartridges

7. Cable tensioning

After not less than 2 hours, as soon as the chemical grout has reached enough resistance, tension the cables to 150 Nm (figure 12).



Figure 12 - Cable tensioning

INSTALLATION TAU® 110 MEDIUM, X-LARGE

1. Backup installation

Mark the center line of the site where you install the TAU 110®. Position the Backup and mark the hole (figure 1). As the drilling plan.



Figure 1 - Backup placement

After having marked front pickets positions, core the holes using the 80 mm diameter coring bit to a depth of 350 mm according drilling plan.



Figure 2 - Coring for the anchoring piles

Put the front pickets into position and fill the holes with the chemical grout to ground level. (approx. 2 ÷ 2,5 Kg per hole). Ensure holes are clean.



Figure 3 - Pickets inserting

Core-drill the anchoring holes already marked in the backup position using the 80 mm diameter coring bit to a depth of 220 mm. See drilling plan. For the correct preparation and a safe use of the chemical grout please refer to the manufacturer instruction on the packaging and to the information of the safety sheet.

Lift the backup, place the fixing bars (or threaded bars) on the plate and attach them with screws and washers slightly tightened (figure 6).



Figure 4 - Pickets inserting



Figure 5 - Preparation holes for backup



Figure 6 - Inserting fixing bars in the backup

Ensure holes are clean. Fill them with chemical grout (approx. 1.5 Kg per hole) figure 7 and 8. Mix the chemical grout just before using it. It requires approximately 24 hours to reach optimal resistance, but it is possible to fix the system by tensioning the anchoring components after 2 hours. tightening the anchors (60 Nm).



Figure 7 - Grout inclusion



Figure 8 - Grout inclusion



Figure 9 - Attach the cables to backup

2. Attach the cables to backup

Hook the cable to the front pickets through the cricket mounted on the rope (10 Nm) (figure 10).



Figure 10 - Attach the cables to backup

3. Positioning of intermediate frames

Place the cables and leftover frames (the last frame is already attached to the backup) from the largest to the smallest (figures 11 - 12).



Figure 11 - Positioning of intermediate frames



Figure 12 - Positioning of intermediate frames

4. Cable placement

For TAU® 110 Medium and TAU® XLarge B 110 are provided guides (TAU1004, TAU1005, TAU1006) which must be positioned (pos. 26, 27, 28) as the exploded drawing (respectively on page 11 and 20), following the appropriate drilling plans for the attenuator model.

Place cables underneath the supports and insert them in the cable guide (60 Nm) (figures 13-14).



Figure 13 - Cable guide



Figure 14 - Cable guide

5. Placement of tube spacer

Place the rail underneath the supports and mark the holes according to the drilling plans. then core the holes using the 30 mm diameter coring bit to a depth of 200 mm. The rails are modular and the different elements are fixed with the given screws. Tighten the anchors (60 Nm) (figure 15).



Figure 15 - Tube spacer

6. Placement of the beams

Place the two w-beam beams starting from the last intermediate frame and proceed upwards to the first frame (the slider has to be placed at the end of the groove). Then tighten screws of the sliders with a torque wrench to 60 Nm (figures 16 - 17).



Figure 16 - Terminal beam positioning



Figure 17 - Terminal beam positioning

Proceed forwards fixing the beams from the largest support to the smallest, starting from the back. Attach the cables to the front pickets thanks to the clevis and tie rod. (figures 18 -19).



Figure 18 - Locking cables

7. Nose placement

See section 5 page 40.

8. Placement of cartridges

See section 6 page 55.

9. Placement of the tube crosspiece

See section 8 page 43.

10. Cable tensioning

After not less than two hours, as soon as the chemical grout has reached the proper resistance, put in tension cables 150 Nm (figure 12).

SYSTEM TORQUE CHART

| | Nm |
|-----------------------------|----|
| Cartridge support (TAU0241) | 50 |
| Cable support (TAU0193) | 40 |
| Cable guide (TAU0178) | 40 |

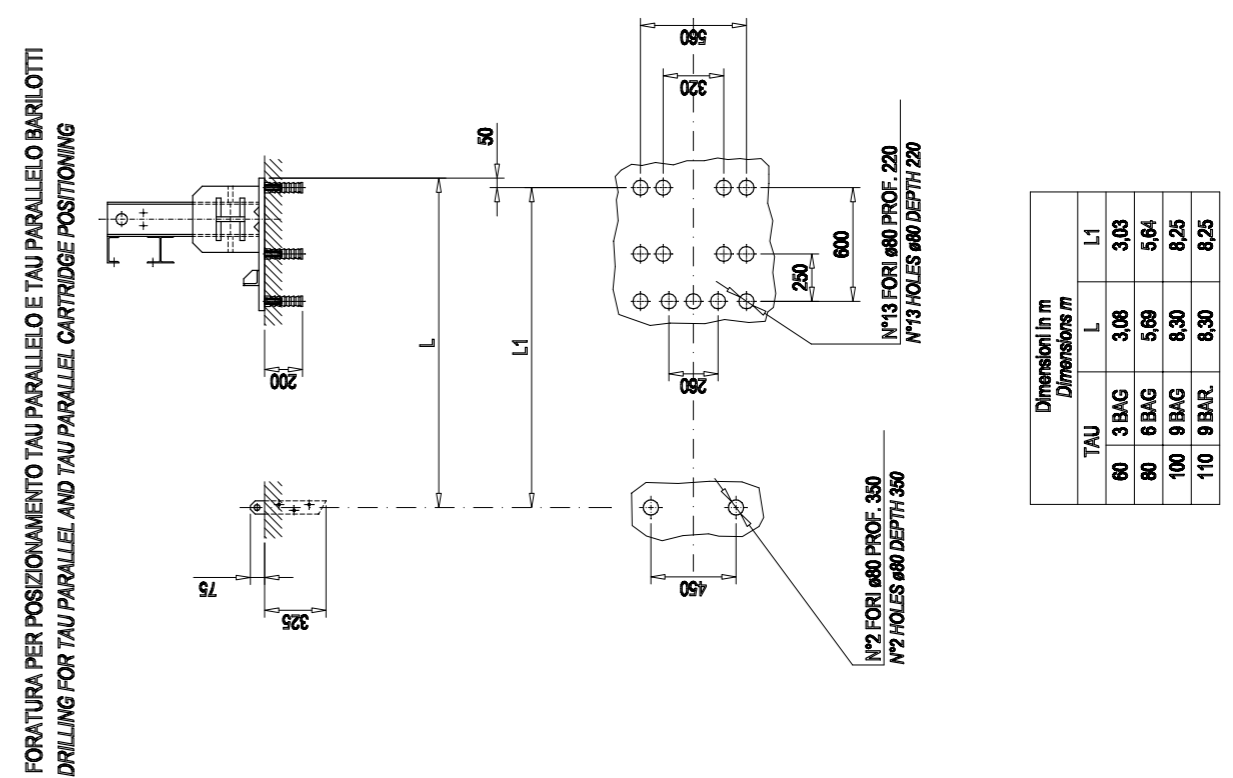
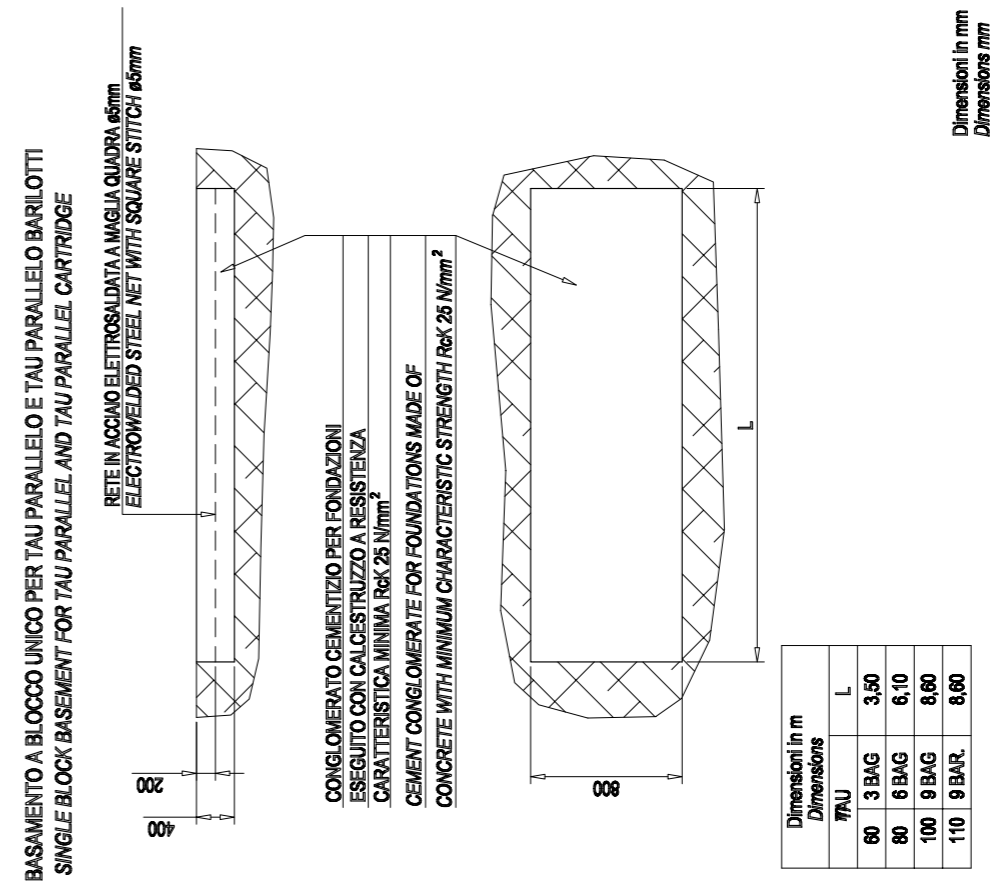


Figure 19 - Locking cables



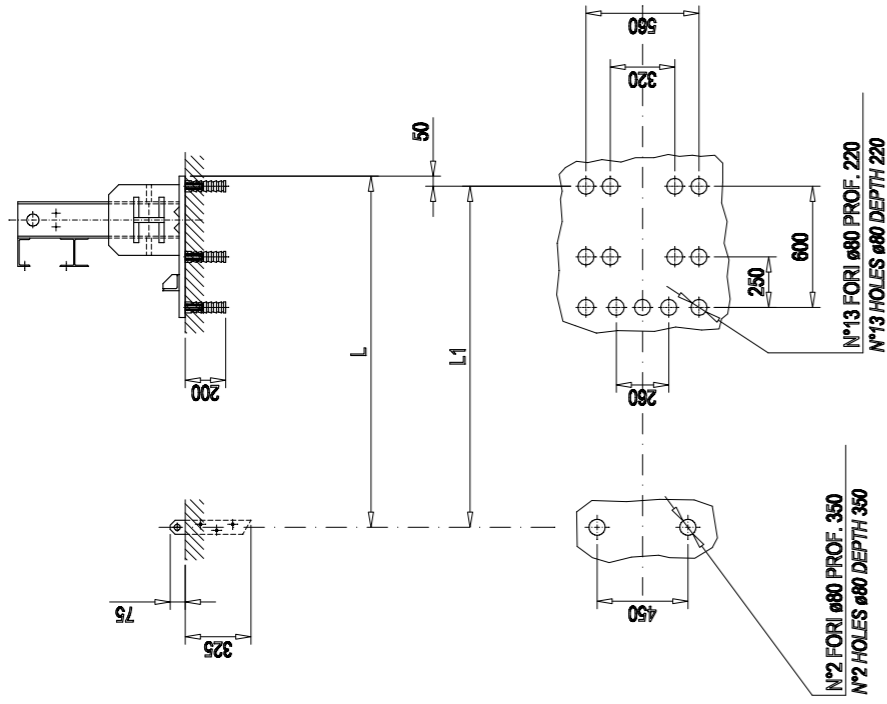
Figure 20 - Cable tensioning

FOUNDATIONS AND DRILLING PLANS TAU® PARALLEL WITH FIXING BARS



FOUNDATIONS AND DRILLING PLANS TAU® MEDIUM 60-80-100 WITH FIXING BARS

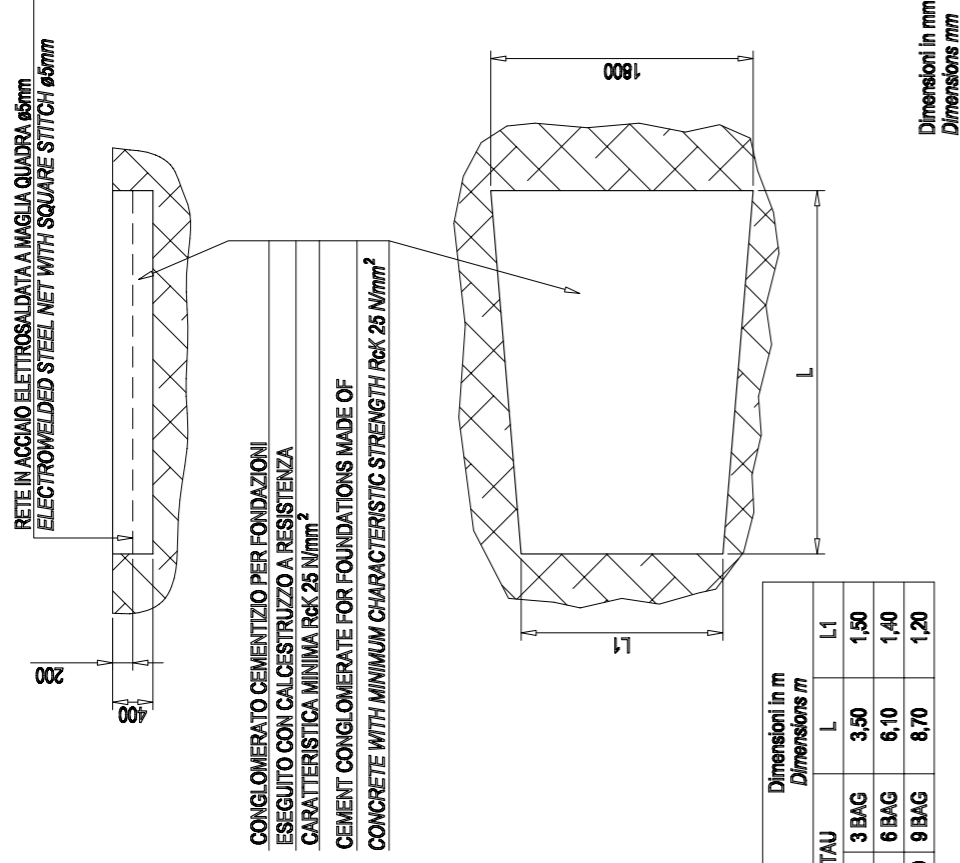
FORATURA PER POSIZIONAMENTO TAU MEDIUM DRILLING FOR TAU MEDIUM POSITIONING



| Dimensioni in m Dimensions m | | |
|---------------------------------|------|------|
| TAU | L | L1 |
| 60 | 3,08 | 3,03 |
| 80 | 5,68 | 5,64 |
| 100 | 8,30 | 8,25 |

| Dimensioni in m Dimensions m | | |
|---------------------------------|------|------|
| TAU | L | L1 |
| 60 | 3,50 | 1,50 |
| 80 | 6,10 | 1,40 |
| 100 | 8,70 | 1,20 |

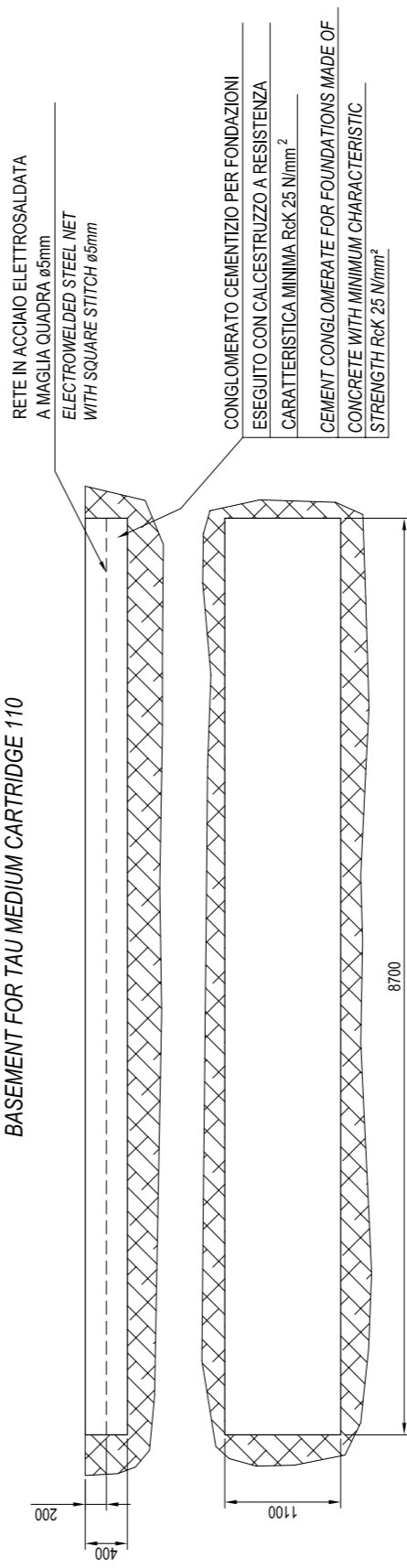
BASAMENTO A BLOCCO UNICO PER TAU MEDIUM SINGLE BLOCK BASEMENT FOR TAU MEDIUM



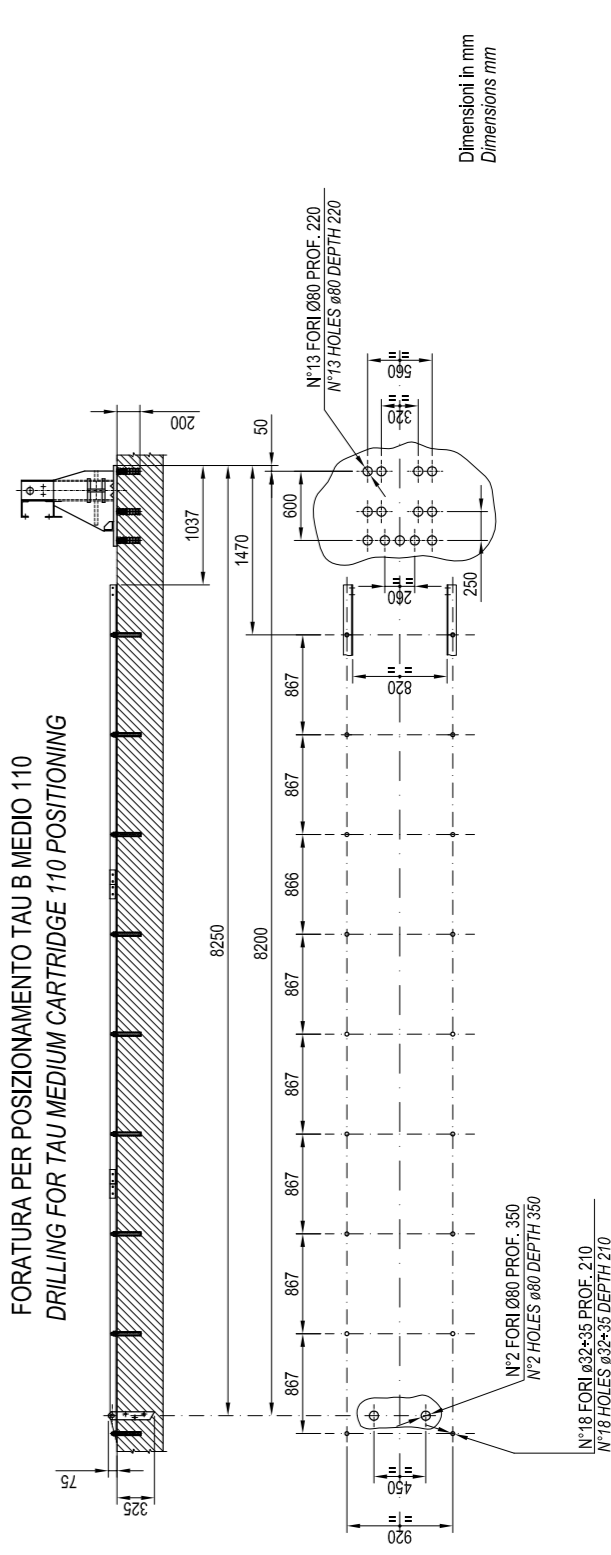
Dimensioni in mm
Dimensions mm

FOUNDATIONS AND DRILLING PLANS TAU® MEDIUM 110 WITH FIXING BARS

BASAMENTO A BLOCCO UNICO PER TAU MEDIUM BARILOTTI 110 BASEMENT FOR TAU MEDIUM CARTRIDGE 110

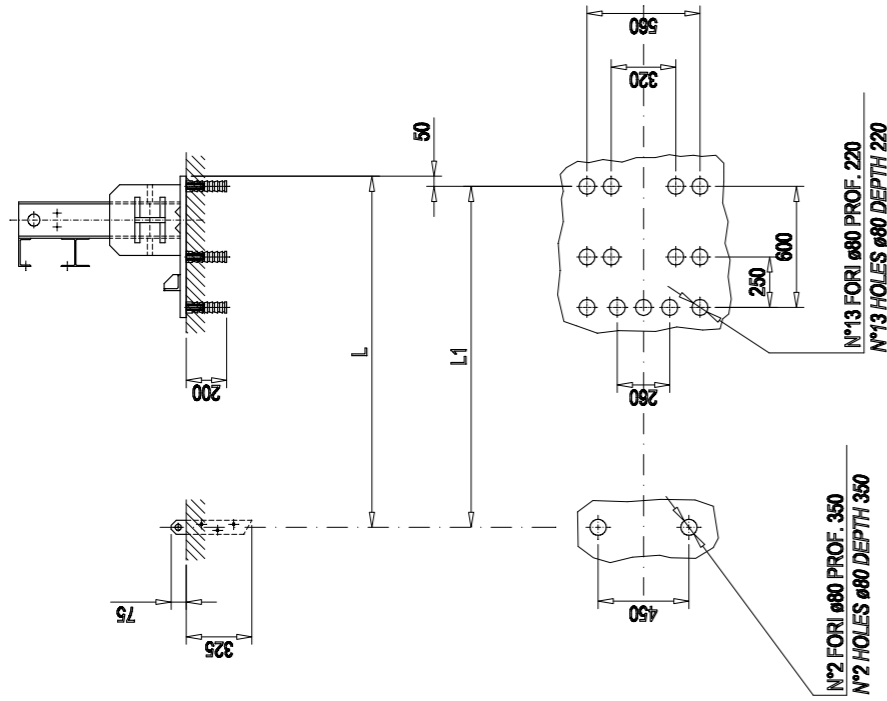


FORATURA PER POSIZIONAMENTO TAU B MEDIUM 110 DRILLING FOR TAU MEDIUM CARTRIDGE 110 POSITIONING



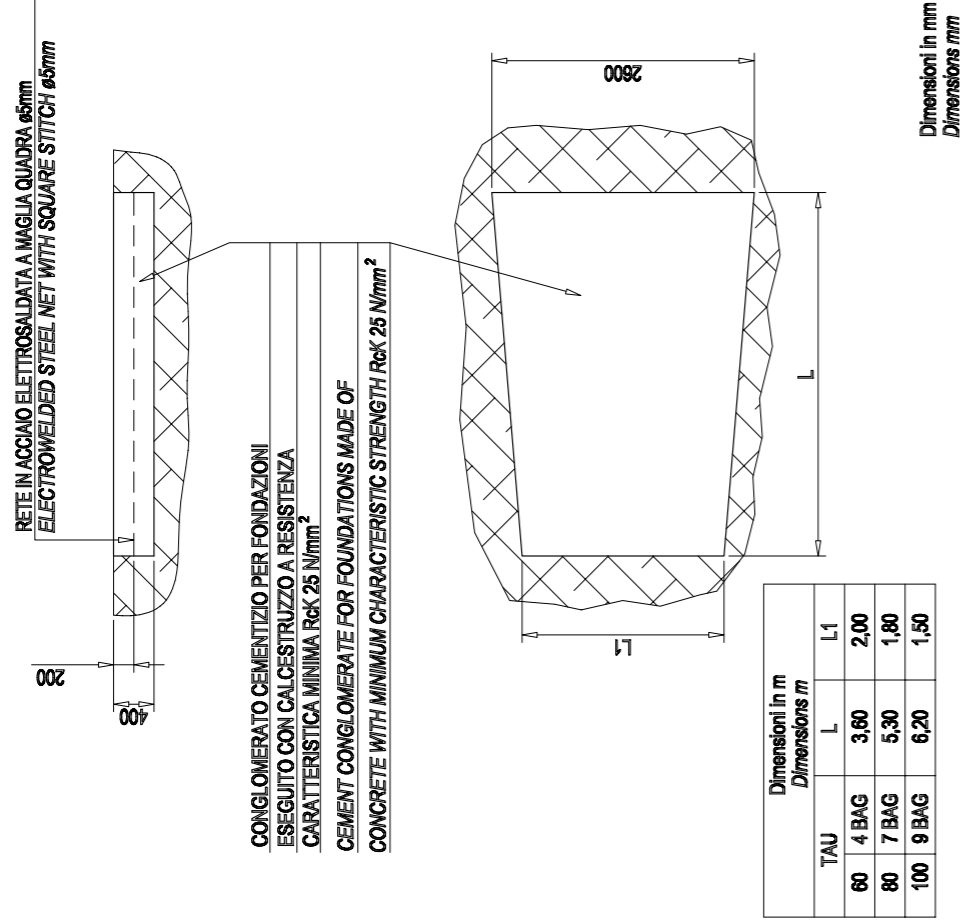
Dimensioni in mm
Dimensions mm

FORATURA PER POSIZIONAMENTO TAU LARGE
DRILLING FOR TAU LARGE POSITIONING



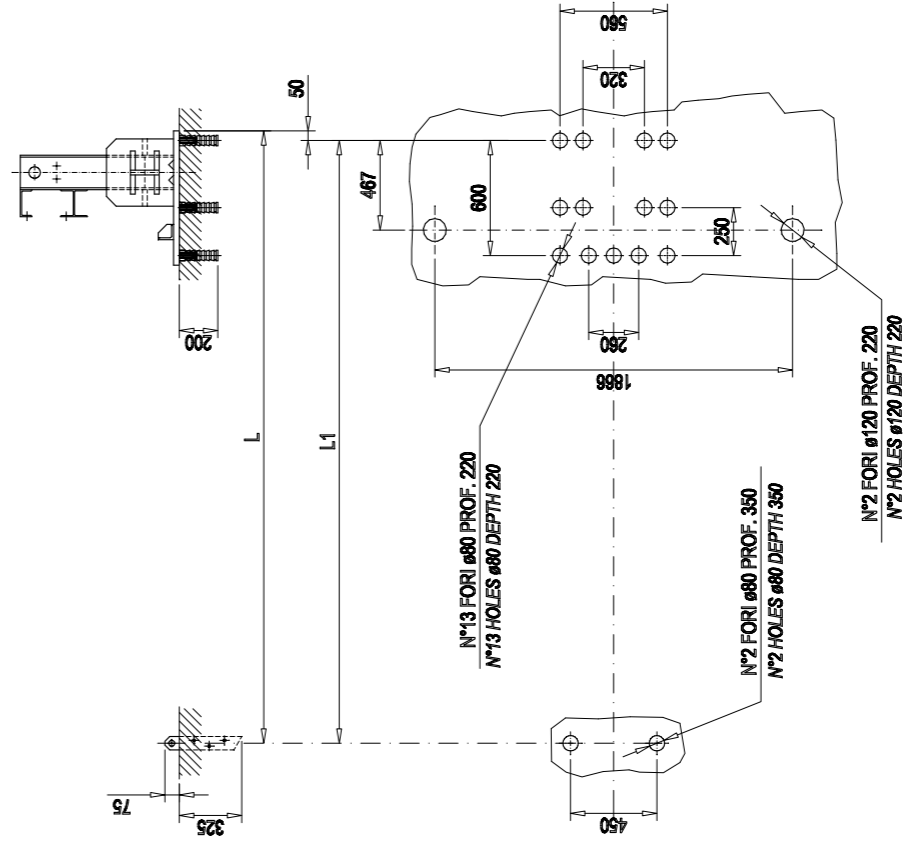
| Dimensioni in m Dimensions m | | |
|---------------------------------|-------|------|
| TAU | L | L1 |
| 60 | 4 BAG | 3,08 |
| 80 | 7 BAG | 4,82 |
| 100 | 9 BAG | 5,68 |

BASAMENTO A BLOCCO UNICO PER TAU LARGE
SINGLE BLOCK BASEMENT FOR TAU LARGE



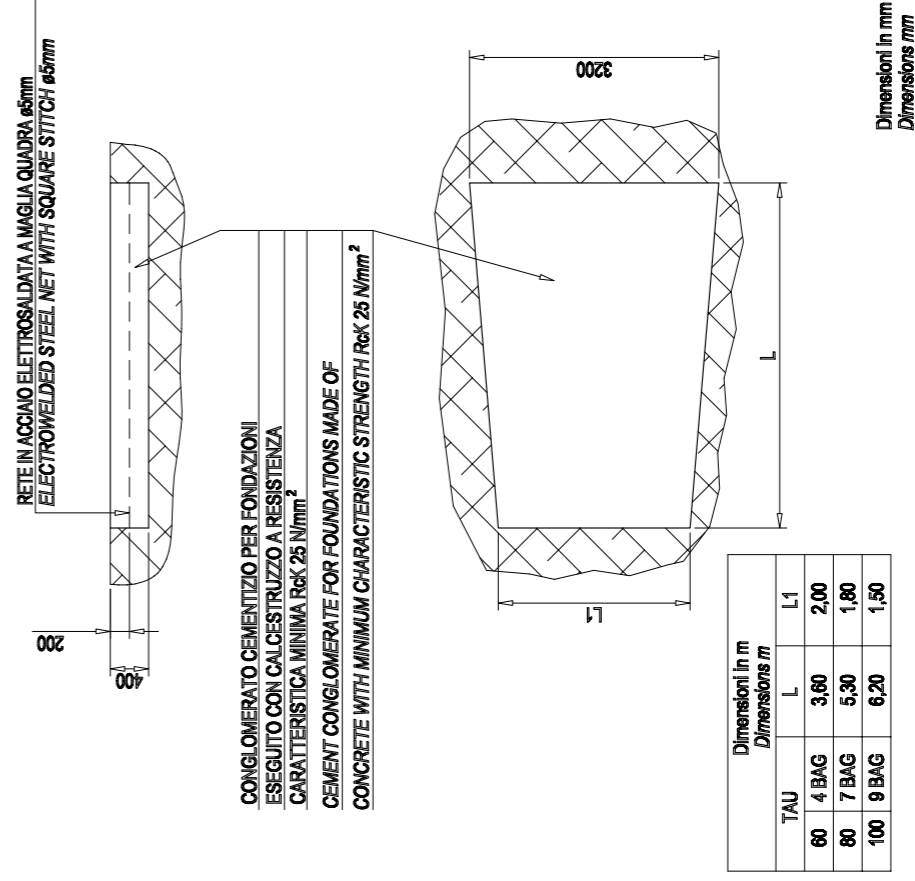
FOUNDATIONS AND DRILLING PLANS
TAU® LARGE 60-80-100 WITH FIXING BARS

FORATURA PER POSIZIONAMENTO TAU XLARGE
DRILLING FOR TAU XLARGE POSITIONING



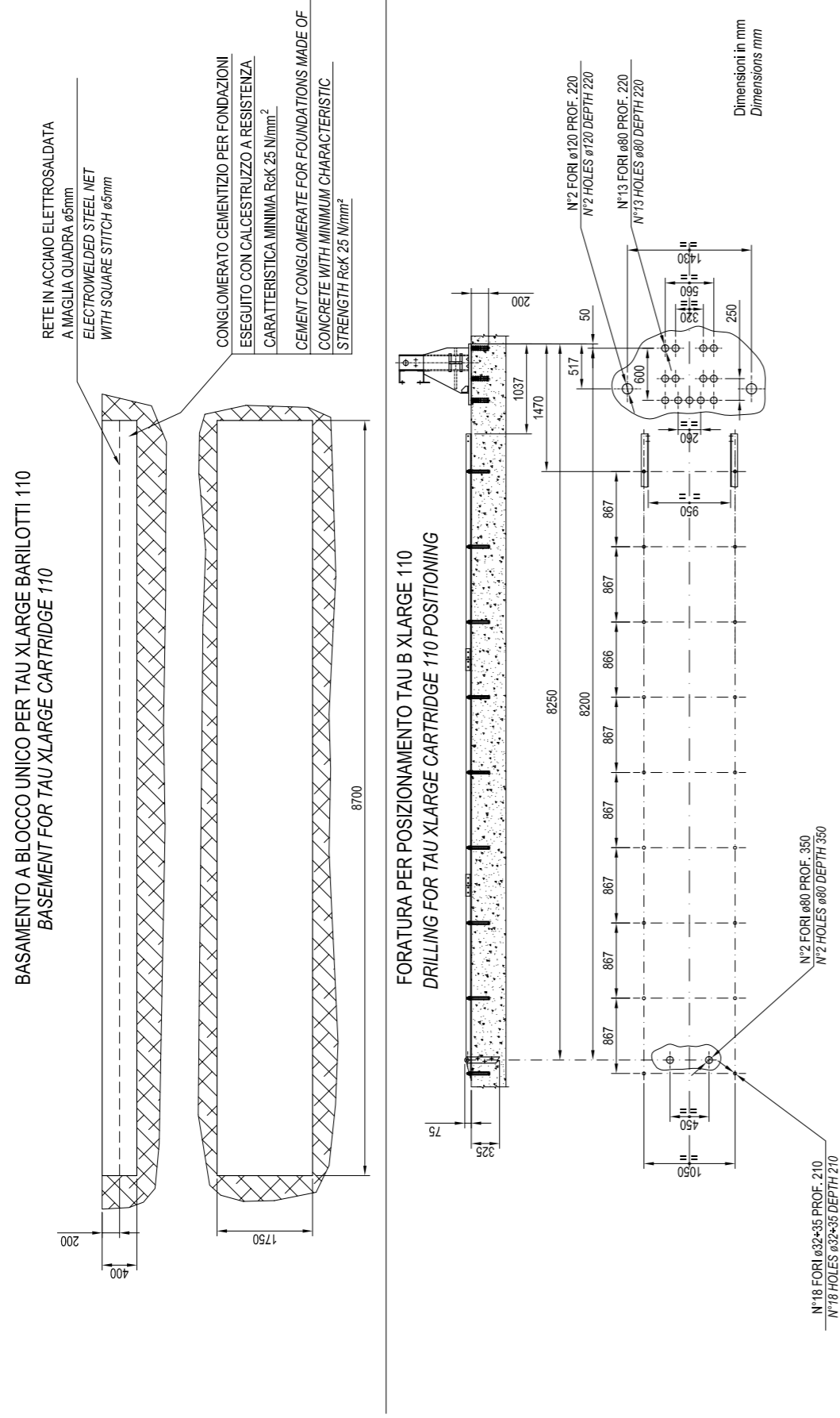
| Dimensioni in m Dimensions m | | |
|---------------------------------|-------|------|
| TAU | L | L1 |
| 60 | 4 BAG | 3,08 |
| 80 | 7 BAG | 4,82 |
| 100 | 9 BAG | 5,68 |

BASAMENTO A BLOCCO UNICO PER TAU XLARGE
SINGLE BLOCK BASEMENT FOR TAU XLARGE

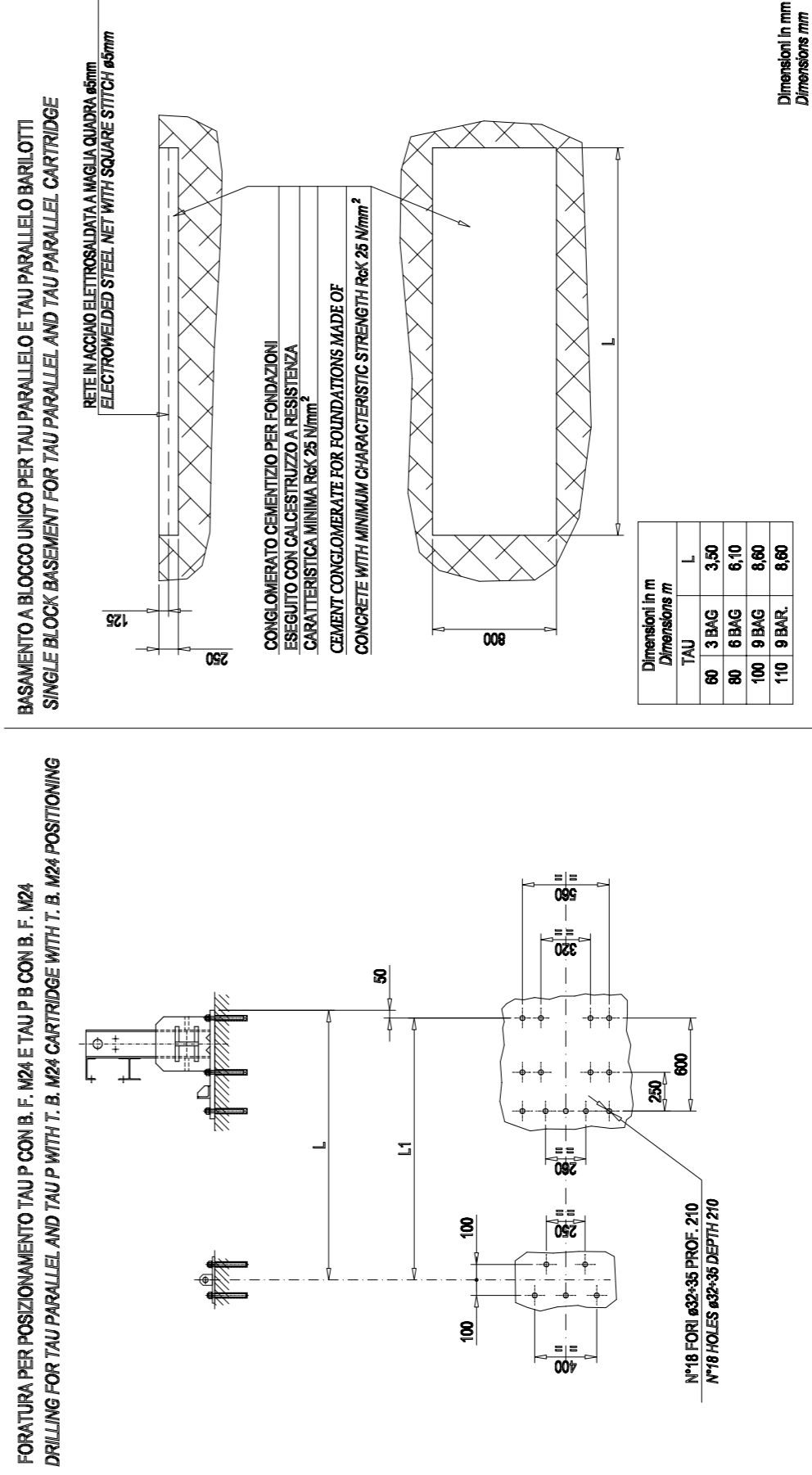


FOUNDATIONS AND DRILLING PLANS
TAU® XLARGE 60-80-100 WITH FIXING BARS

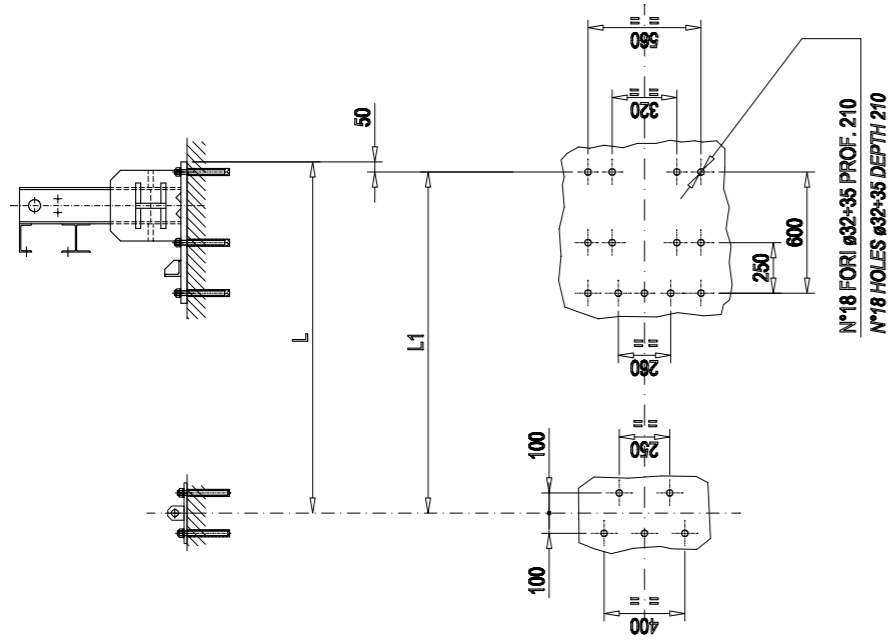
FOUNDATIONS AND DRILLING PLANS TAU® XLARGE 110 WITH FIXING BARS



FOUNDATIONS AND DRILLING PLANS TAU® PARALLELO WITH THREADED BARS

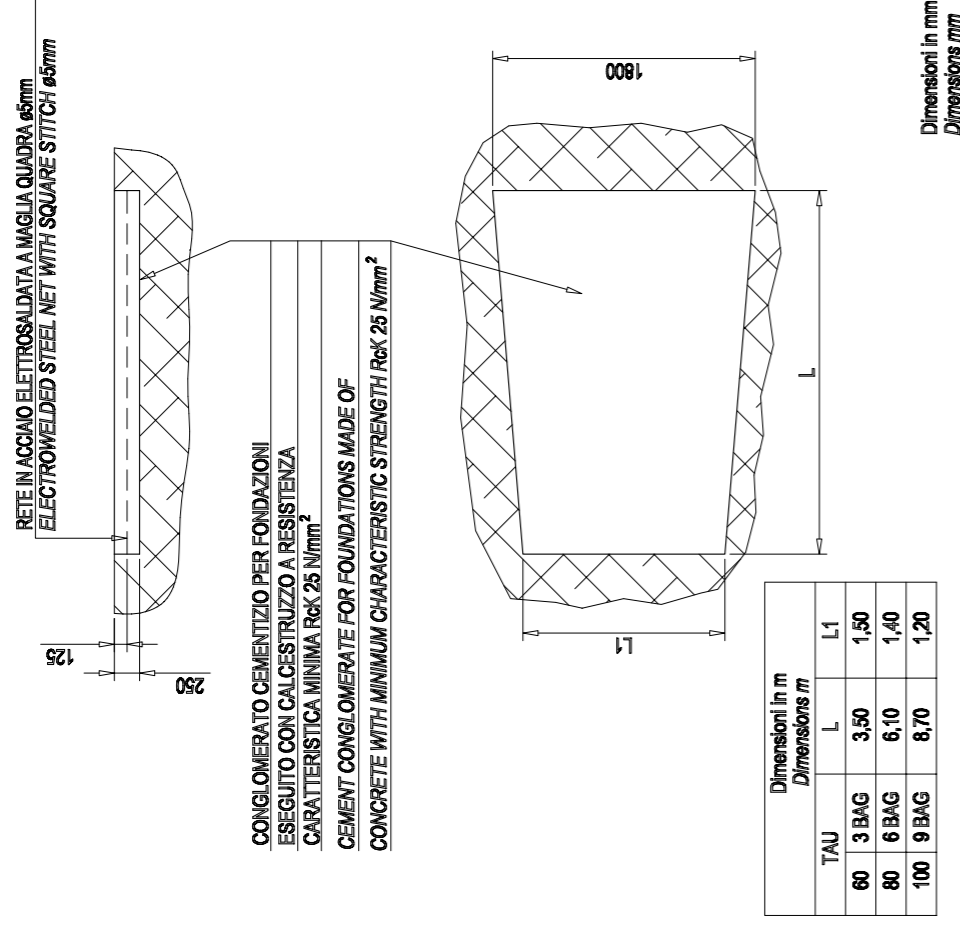


**FORATURA PER POSIZIONAMENTO TAU MEDIO CON B. F. M24
DRILLING FOR TAU MEDIUM POSITIONING WITH THREADED BARS M24**



| Dimensioni in m Dimensions m | | |
|---------------------------------|------|------|
| TAU | L | L1 |
| 60 | 3,08 | 3,03 |
| 80 | 5,68 | 5,64 |
| 100 | 8,30 | 8,25 |

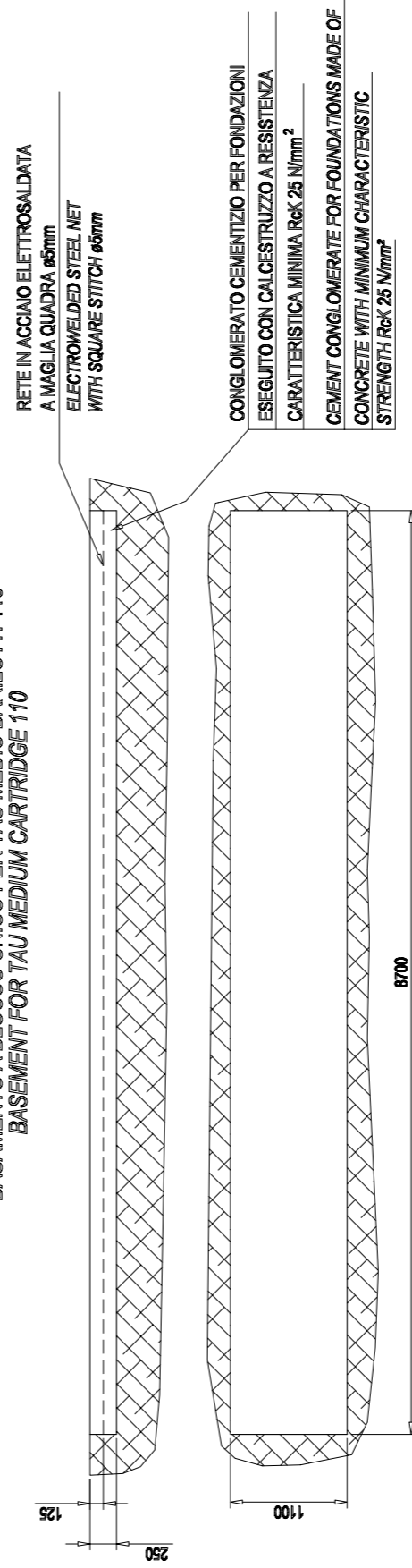
**BASAMENTO A BLOCCO UNICO PER TAU MEDIO
SINGLE BLOCK BASEMENT FOR TAU MEDIUM**



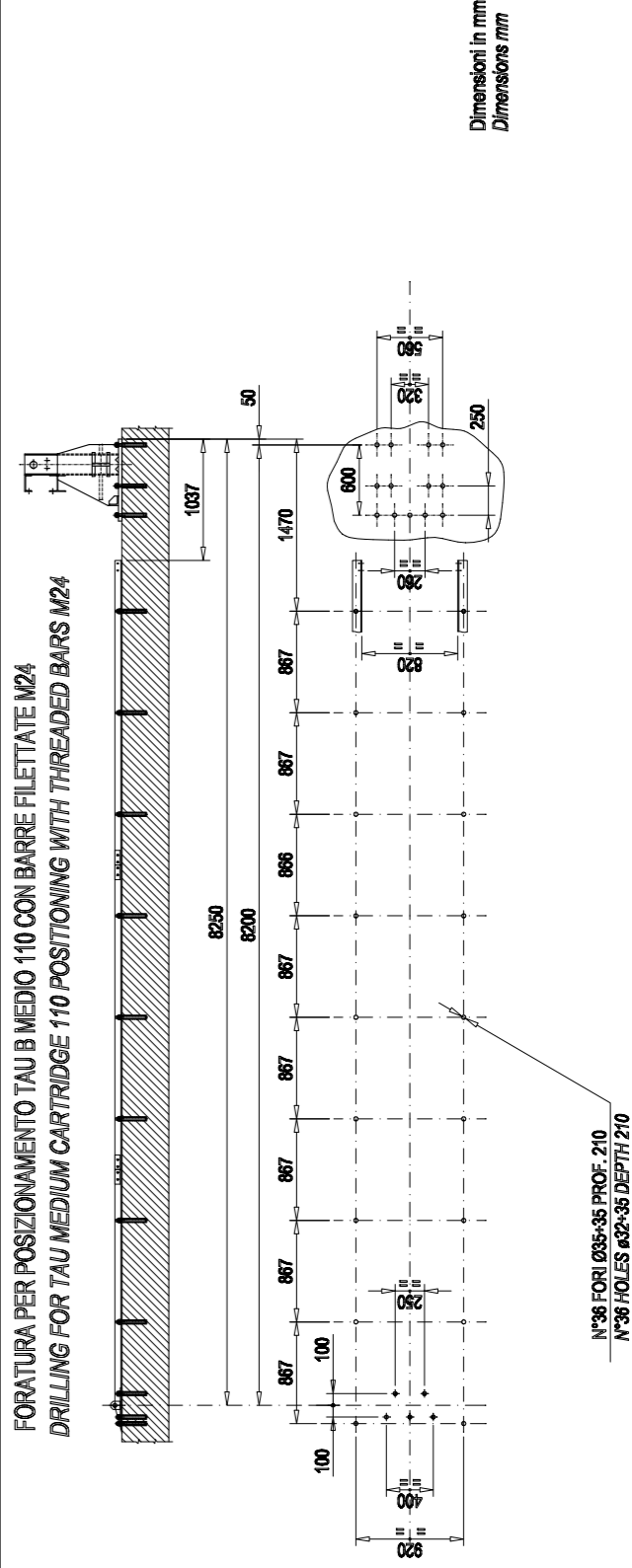
Dimensioni in mm
Dimensions mm

**FOUNDATIONS AND DRILLING PLANS
TAU® MEDIUM 60-80-100 WITH THREADED BARS**

**BASAMENTO A BLOCCO UNICO PER TAU MEDIO BARILOTTI 110
BASEMENT FOR TAU MEDIUM CARTRIDGE 110**



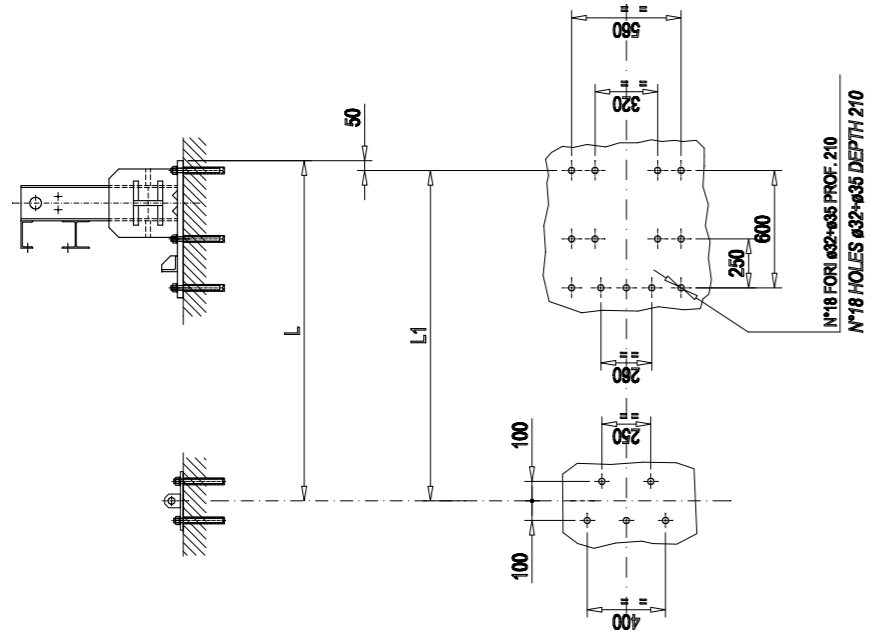
**FORATURA PER POSIZIONAMENTO TAU B MEDIO 110 CON BARRE FILETTATE M24
DRILLING FOR TAU MEDIUM CARTRIDGE 110 POSITIONING WITH THREADED BARS M24**



Dimensioni in mm
Dimensions mm

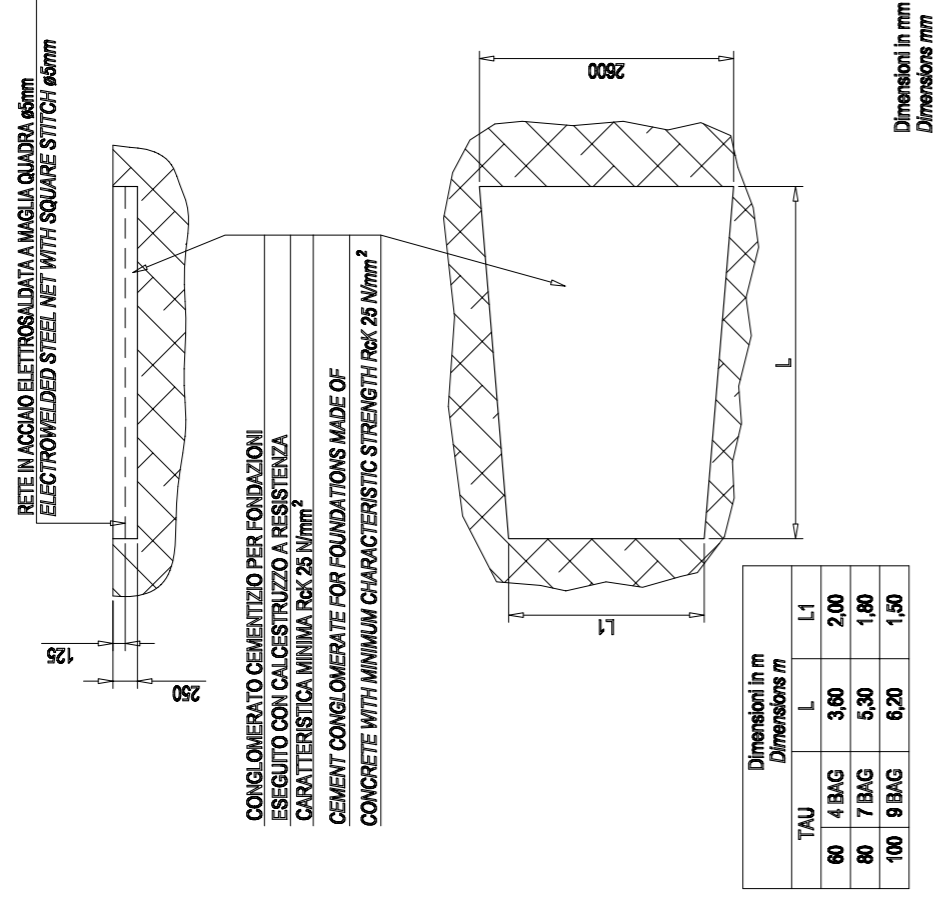
**FOUNDATIONS AND DRILLING PLANS
TAU® MEDIUM 110 WITH THREADED BARS**

**FORATURA PER POSIZIONAMENTO TAU LARGE CON B. F. M24
DRILLING FOR TAU LARGE POSITIONING WITH THREADED BARS M24**



| Dimensioni in m Dimensions m | | |
|---------------------------------|-------|------|
| TAU | L | L1 |
| 60 | 4 BAG | 3,08 |
| 80 | 7 BAG | 4,82 |
| 100 | 9 BAG | 5,64 |

**BASAMENTO A BLOCCO UNICO PER TAU LARGE
SINGLE BLOCK BASEMENT FOR TAU LARGE**

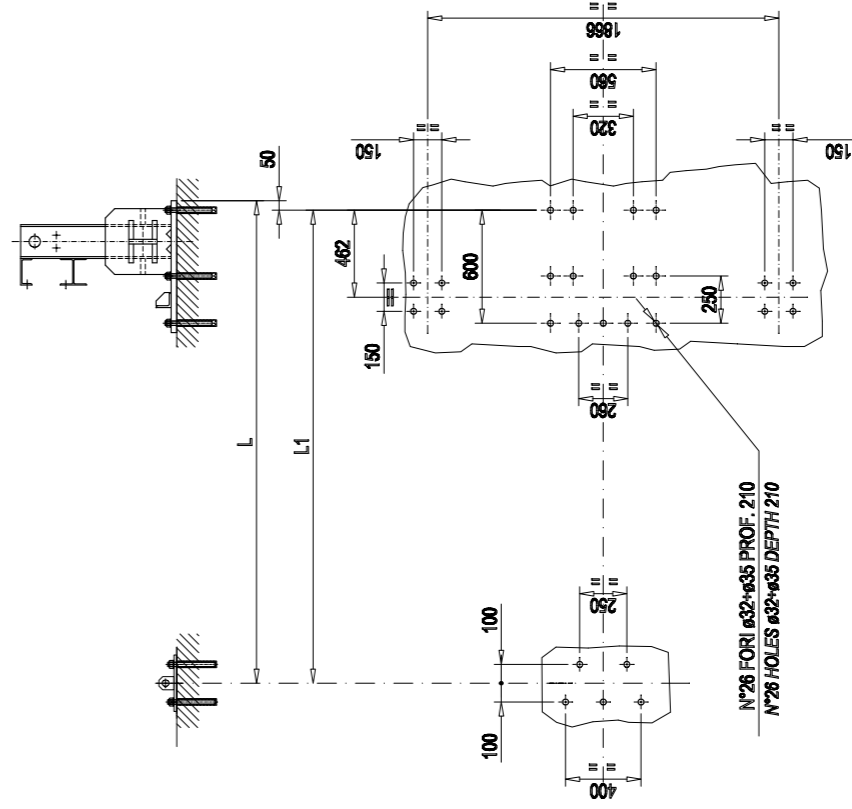


| Dimensioni in m Dimensions m | | |
|---------------------------------|-------|------|
| TAU | L | L1 |
| 60 | 4 BAG | 3,60 |
| 80 | 7 BAG | 5,30 |
| 100 | 9 BAG | 6,20 |

Dimensioni in mm
Dimensions mm

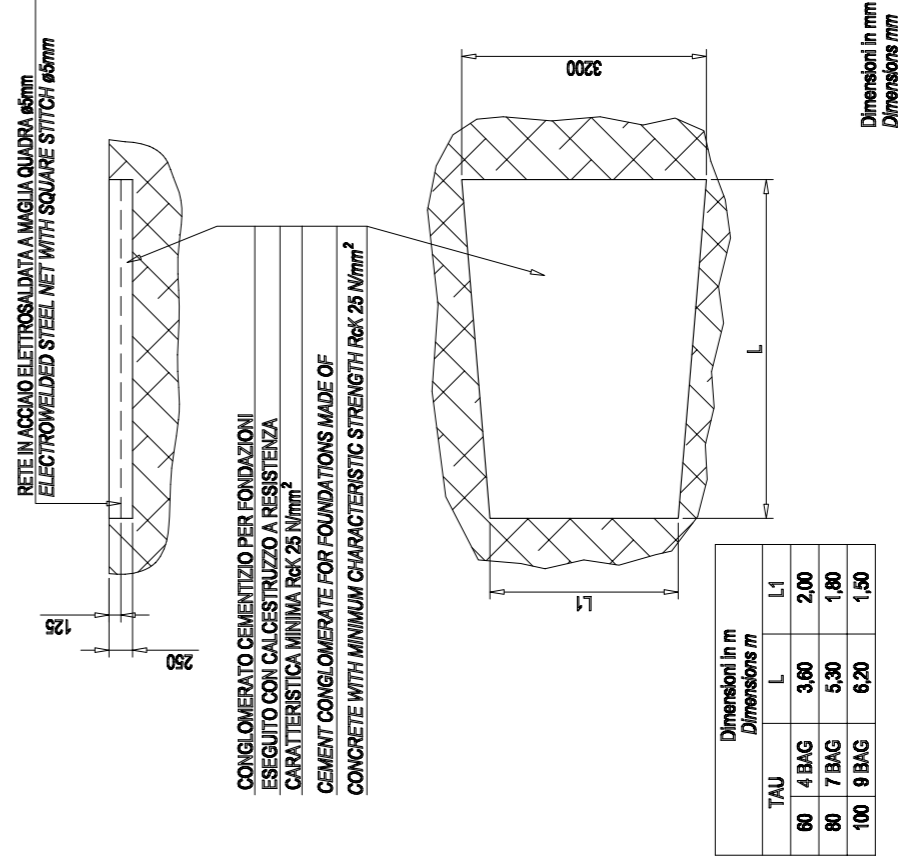
**FOUNDATIONS AND DRILLING PLANS
TAU® LARGE 60-80-100 WITH THREADED BARS**

**FORATURA PER POSIZIONAMENTO TAU XLARGE CON BARRE FILETTATE M24
DRILLING FOR TAU XLARGE WITH THREADED BARS M24 POSITIONING**



| Dimensioni in m Dimensions m | | |
|---------------------------------|-------|------|
| TAU | L | L1 |
| 60 | 4 BAG | 3,08 |
| 80 | 7 BAG | 4,82 |
| 100 | 9 BAG | 5,64 |

**BASAMENTO A BLOCCO UNICO PER TAU XLARGE
SINGLE BLOCK BASEMENT FOR TAU XLARGE**

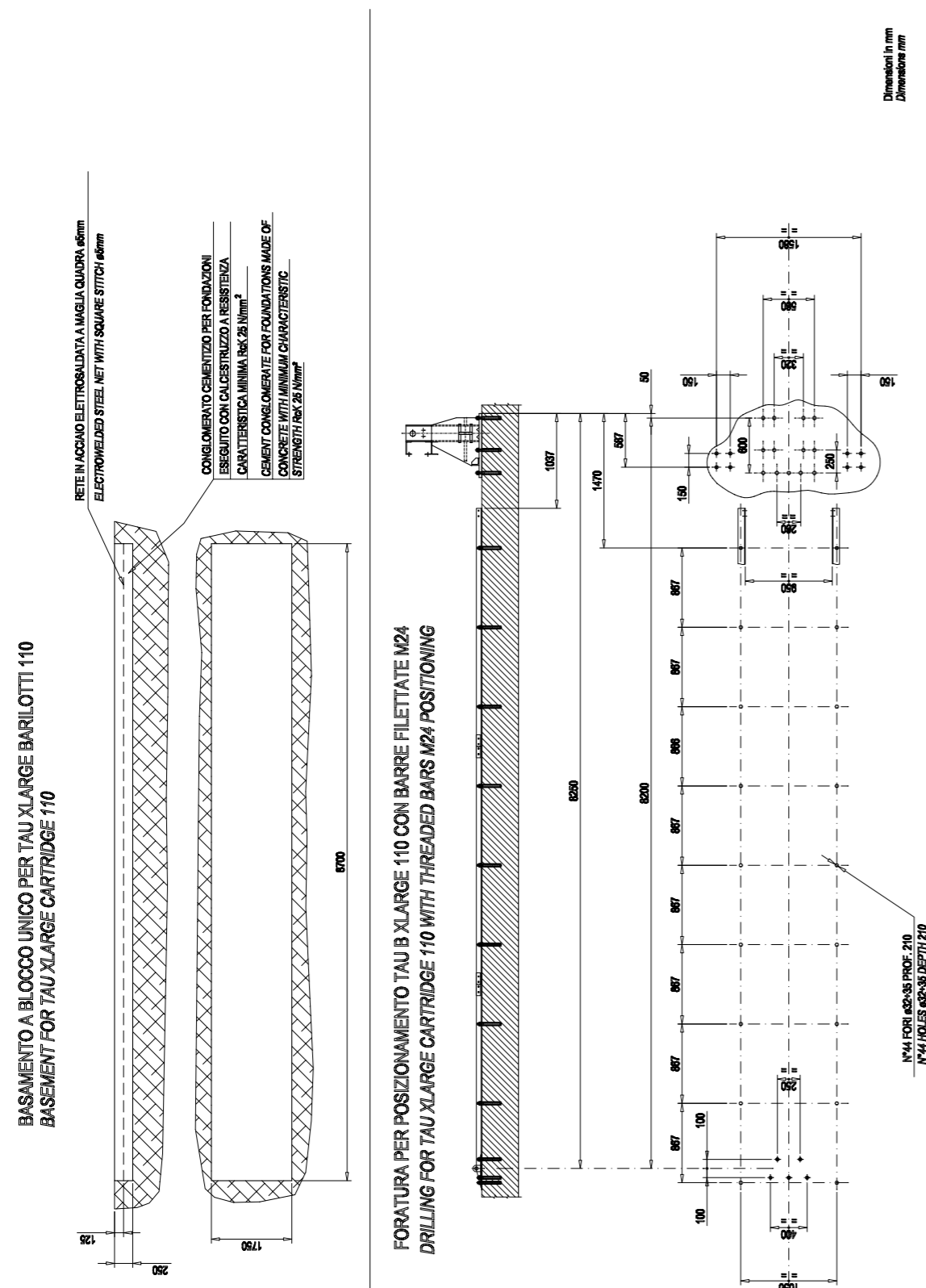


| Dimensioni in m Dimensions m | | |
|---------------------------------|-------|------|
| TAU | L | L1 |
| 60 | 4 BAG | 3,60 |
| 80 | 7 BAG | 5,30 |
| 100 | 9 BAG | 6,20 |

Dimensioni in mm
Dimensions mm

**FOUNDATIONS AND DRILLING PLANS
TAU® XLARGE 60-80-100 WITH THREADED BARS**

FOUNDATIONS AND DRILLING PLANS TAU® XLARGE 110 WITH THREADED BARS



SOIL AND FOUNDATIONS SUITABLE FOR THE SYSTEM

The ground where the system has to be placed has not to be disconnected, irregular, with potholes or humps. Verify, considering the drilling plan in previous drawings, that the installation of the system doesn't damage the devices already present in the ground and doesn't modify their structural completeness and performances. Remove any sidewalk or island higher than 100mm. More over remove sidewalks lower than 100 mm placed in front of the TAU®, to avoid ramping effect during impact. The concrete where the TAU® has to be installed has to correspond to what described on the basement drawings hereafter.

The installation can be done on asphalt too, following the minimum conditions in the following table, always using fixing bars for the backup and the front pickets in the front part to connect the cables as standard supplied.

| ANCHORING WITH FIXING BARS | |
|----------------------------|--|
| 1 | 250 mm of asphalt |
| 2 | 150 mm of asphalt and 150 mm of compact ground |
| 3 | 100 mm di asphalt and 200 mm of concrete |

| ANCHORING WITH FIXING BARS, THREADED BARS | |
|---|-------------------------------------|
| 1 | 400 mm of concrete with squared net |

In limited cases due to problematic installation sites because of disconnections and / or grades of the land and / or lack of depth for anchoring the grinding (also by flame cutting) might be possible "onsite" in phase installation, after consultation with Technical Department.

In case of a surface with slope of more than 8% (5°), it must be leveled.

GROUT - USE AND STORAGE

According to technical data sheet, it is recommended to store the grout in the original packagin in a dry and sheltered area with a **temperature between 10 to 30°C**. For the due date, please check the label. Considering chemical grout has to be used the one supplied or one with similar performance: Malta Hilti CM 730 EAN, two-component mortar based on polyester resins. For the use of the grout, please follow the required conditions pointed out by the manufacturer in installation instructions available inside the packages. The quantity of grout is related to the size of the holes as shown in the drilling plans.

CONNECTIONS

Connections might be different depending where the TAU® has to be installed, from the type of the existing barrier or type of obstacle it protects.

- **3-beam inwards folding connections.**

They are suitable for connection to New Jersey barriers or to concrete walls which are narrower than the crash cushion. They are fastened to the TAU® after the final panels, on one side, by means of screws and to the barrier, on the other side, by drilling a through-hole and using two threaded M16 bars and nuts.



Figure 1 - Connection to New Jersey

- **2-beam connections for guard-rails.**

They are suitable for connection to standard steel guardrails. They are fastened after the final panel, on one side, and to the guardrail, on the other side, by using screws and nuts inserted in the existing holes.



Figure 2 - Connection to Guard Rail

INSPECTION AND MAINTENANCE

TAU® elements do not require any kind of maintenance. It is suitable to foresee recurring inspections (each two or three years) to verify and remove the debris.

Concerning the recurring inspections, we recommend to:

- **Check the structural condition of the Bags** (no split and abrasion on the fabric, on the plastic heads and valves).
- **Check the structural conditions and the tension of the steel cables** (no engraving, deformations or breaks), and verify their tightening at both ends.
- **Check nose conditions** (integrity, fixing holes and reflective arrows):
Even if the nose is damaged, it will not affect the operation of the device, however it must ensure the reflection.
- **Check the metallic structure** (intermediate and last frames) through control and possible refurbishment of the stand conditions (check for rust absence).
- **Check the pavement condition under the crash cushion** in order to allow the correct sliding of the frame holders on the pavement during impacts, clean obstacles (stones, debris...).

REPAIRS

If an accident occurs, the system has to be restored, in particular only damaged parts need to be replaced. Construction of the TAU® is designed in such a way that the number of components to be replaced in case of accident is limited to the minimum necessary.

To guarantee the system working properly, it is recommended to use Snoline's original parts and have repairs made by qualified expert personnel, following the instructions in the sections on assembly and installation.

Non observance of the installation instructions may result in non-conforming performances.

No unauthorized changes to system components, if would be necessary to make changes or repairs on site call, before proceeding, the technical department of Snoline S.p.A. at +39 02909961 in order to guarantee the proper functioning of the device. If galvanizing flaws are found or if repairs are required during installation (in particular for holes made by flame cutting) it is suggested to renew the affected area following the treatment described in the "repair" paragraph of regulation 1461: remove scales and then repair using thermal spraying of zinc or by using a zinc rich paint.

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