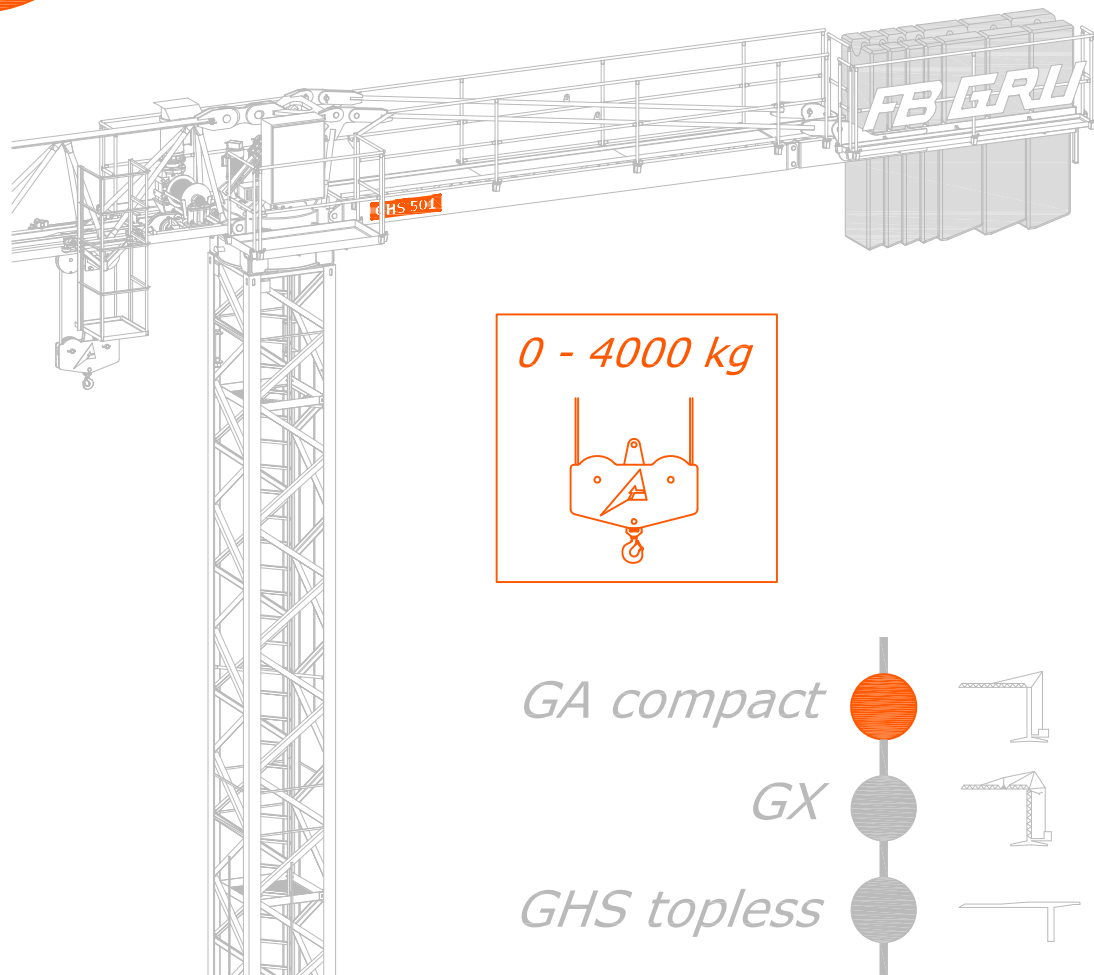


GRU A TORRE

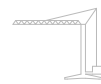
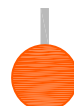
GHS 501 | 4000



0 - 4000 kg



GA compact



GX



GHS topless



FB GRU
LIFT YOUR GOALS!

FB F.lli Butti s.r.l.

Via XXV Aprile, 58

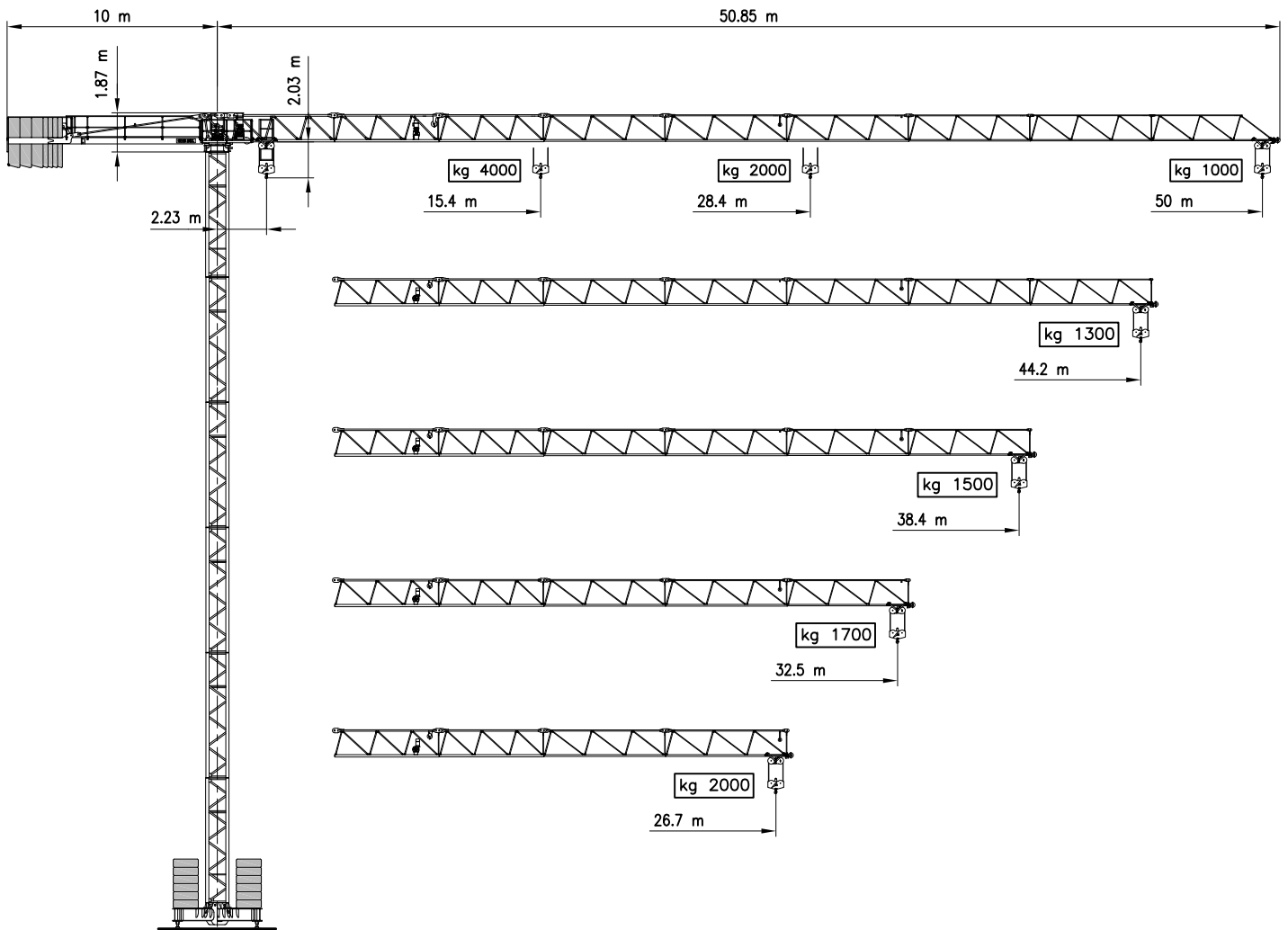
23868 Valmadrera (LC) - Italia

Tel. 0341.581108 - Fax 0341.200253

E-mail : fbgru@fbgru.it - <http://www.fbgru.it>

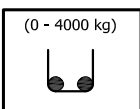
CE

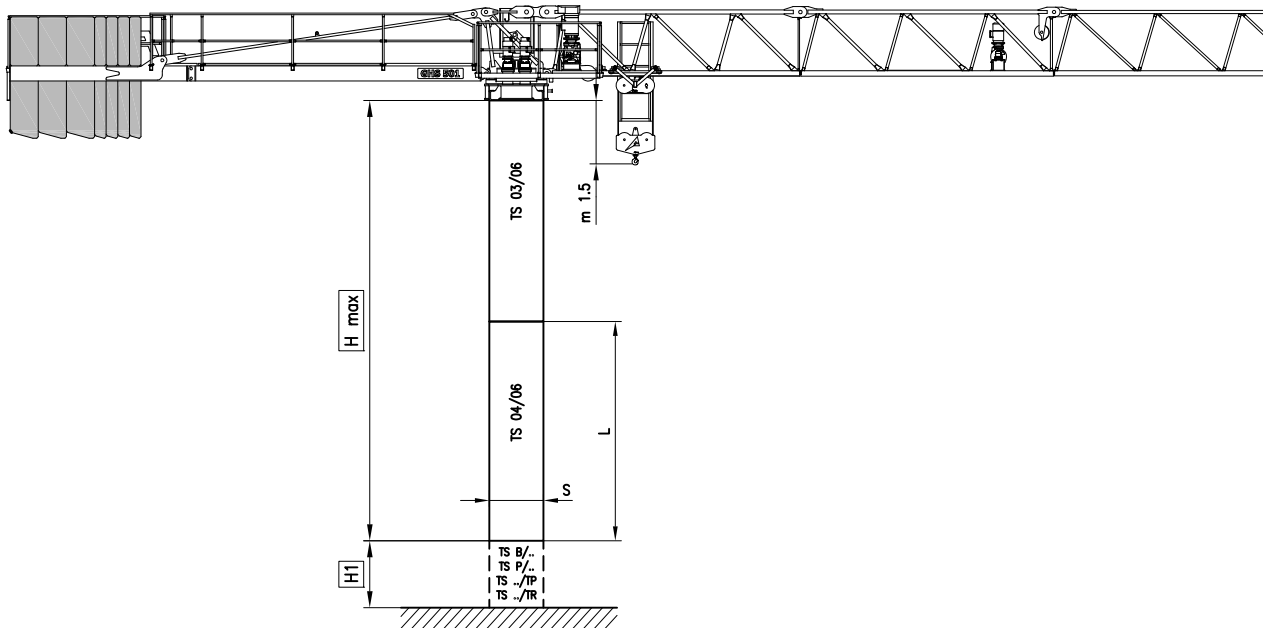
FEM 1.001 - A3
EN 14439 - C25



CURVE DI CARICO CURVAS DE CARGAS — LOAD DIAGRAMS
 LASTKURVEN — COURBES DE CHARGES

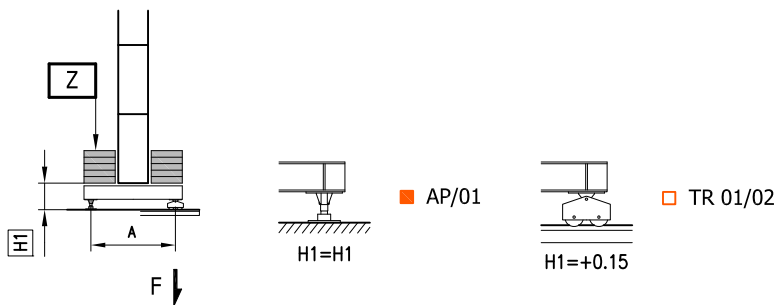
| m | 14.4 | 15.3 | 15.4 | 16.3 | 16.7 | 18 | 20 | 22 | 24 | 25 | 26.7 | 28.3 | 28.4 | 30.2 | 30.9 | 32.5 | 34 | 36 | 38.4 | 40 | 42 | 44.2 | 46 | 48 | 50 |
|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| kg | | | 4000 | 3739 | 3638 | 3342 | 2965 | 2658 | 2403 | 2292 | 2122 | 2011 | 2000 | 1863 | 1813 | 1708 | 1618 | 1510 | 1396 | 1327 | 1249 | 1172 | 1114 | 1054 | 1000 |
| | | | | 4000 | 3664 | 3253 | 2919 | 2643 | 2521 | 2336 | 2183 | 2174 | 2022 | 2000 | 1883 | 1786 | 1668 | 1544 | 1469 | 1384 | 1300 | | | | |
| | | | | 4000 | 3883 | 3569 | 3168 | 2842 | 2572 | 2453 | 2272 | 2123 | 2114 | 2000 | 1943 | 1831 | 1736 | 1621 | 1500 | | | | | | |
| | | 4000 | 3969 | 3723 | 3623 | 3328 | 2952 | 2646 | 2393 | 2282 | 2112 | 2000 | 1993 | 1885 | 1805 | 1700 | | | | | | | | | |
| | | 4000 | 3746 | 3718 | 3487 | 3392 | 3115 | 2761 | 2473 | 2234 | 2130 | 2000 | | | | | | | | | | | | | |





| | TS 03/06 | TS 04/06 | H max (m) |
|----------|----------|----------|--------------|
| S | m 1.1 | m 1.116 | |
| L | m 5.99 | m 5.99 | |
| TS B/03 | 4 | 1 | 29.95 □ |
| | 4 | 2 | 35.94 ■ |
| TS B/04 | 4 | 1 | 29.95 □ |
| | 4 | 2 | 35.94 ■ |
| TS P/03 | 4 | 2 | 35.94 |
| TS P/04 | 4 | 2 | 35.94 |
| TS 03/TP | 4 | | 23.96 |
| TS 04/TP | 4 | 2 | 35.94 |

TS B

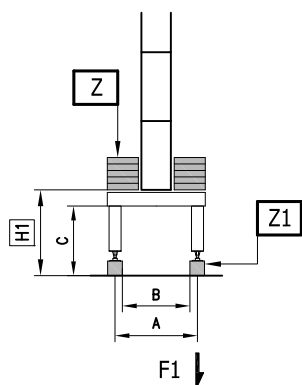


| | F (kN) | Z (kg) | A (m) | H1(m) |
|---------|--------|--------|---------|-------|
| TS B/03 | ● 362 | 48000 | 3.8x3.8 | 1 |
| | ○ 362 | | | |
| TS B/04 | ● 309 | 36000 | 4.5x4.5 | 1.2 |
| | ○ 308 | | | |

| | |
|---|---|
| IN SERVIZIO EN SERVIZIO – IN SERVICE IN BETRIEB – EN SERVICE | ● |
| FUORI SERVIZIO FUERA DE SERVICIO – OUT OF SERVICE AUSSER BETRIEB – HORS SERVICE | ○ |
| ZAVORRA di BASE LASTRE DE BASE – CENTRAL BALLAST ZENTRAL BALLASTSTEIN – LEST DE BASE | Z |

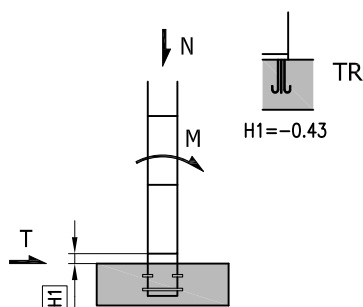
*Solo per Hmax – Sólo para Hmax – Only for Hmax – Nur für Hmax – Seulement pour Hmax

TS P



| | F1 (kN) | Z (kg) | Z1 (kg) | A (m) | B (m) | C (m) | H1 (m) |
|---------|---------|--------|---------|---------|-------|-------|--------|
| TS P/03 | ● 448 | 56000 | 4x4000 | 3.8x3.8 | 3 | 4.55 | 5.34 |
| | ○ 496 | | | | | | |
| TS P/04 | ● 402 | 48000 | 4x4000 | 4.5x4.5 | 3.76 | 4.47 | 5.5 |
| | ○ 440 | | | | | | |

TS TP/TR



| | N (kN) | T (kN) | M (kNm) | H1 (m) |
|----------|--------|--------|---------|--------|
| TS 03/TP | ● 263 | 11 | 705 | 0.65 |
| TS 03/TR | ○ 231 | 32 | 728 | |
| TS 04/TP | ● 294 | 14 | 859 | 0.65 |
| TS 04/TR | ○ 261 | 38 | 1135 | |

| | |
|---|---|
| IN SERVIZIO EN SERVIZIO — IN SERVICE IN BETRIEB — EN SERVICE | ● |
| FUORI SERVIZIO FUERA DE SERVIZIO — OUT OF SERVICE AUSSER BETRIEB — HORS SERVICE | ○ |
| ZAVORRA di BASE LASTRE DE BASE — CENTRAL BALLAST ZENTRAL BALLASTSTEIN — LEST DE BASE | Z |



*Solo per Hmax — Sólo para Hmax — Only for Hmax — Nur für Hmax — Seulement pour Hmax



ZAVORRA DI CONTROBRACCIO


LASTRE DE CONTRA FLECHA — COUNTER JIB BALLAST
 GEGENAULEGERBALLAST — LEST DE CONTRE-FLÈCHE


| | BRACCIO (m) FLECHA — JIB AUSLEGER — FLECHE | 50 | 44.2 | 38.4 | 32.6 | 26.8 |
|--|--|------------------|-----------------|-----------------|--------------|-----------------|
| | ZAVORRA (kg) LASTRE — BALLAST BALLAST — LEST | 10050 (3A+4B) | 9150 (3A+3B) | 7900 (2A+4B) | 6450 (3A) | 5200 (2A+1B) |


| | TIPO TIPO — TYPE ART — TYPE | A | B |
|--|---|------|-----|
| | PESO (kg) PESO — WEIGHT GEWICHT — POIDS | 2150 | 900 |

| | | | | |
|---|---|---|---|--|
| MOVIMENTO MOVIMIENTO MOVEMENT BEWEGUNG MOUVEMENT | ALIMENTAZIONE ALIMENTACION OPERATING VOLTAGE BETRIEBSSPANNUNG TENSION DE SERVICE | PRESTAZIONI FUNCIONAMIENTOS PERFORMANCES LEISTUNGEN EXÉCUTIONS |  |  (m) |
|---|---|---|---|--|

| | | 1 ^a m/1' - kg | 2 ^a m/1' - kg | 3 ^a m/1' - kg | 4 ^a m/1' - kg | | |
|---|----------------|--------------------------|--------------------------|--------------------------|--------------------------|----------|---|
| SOLLEVAMENTO ELEVACION — HOISTING HEBEN — LEVAGE  INVERTER | 400 V 50 Hz | 4 | 16 | 34 | 46 | kW 15 |  AS 15 80 Hmax 40 m |
| | | 4000 | 4000 | 2000 | 1000 | | |

| | | 1 ^a m/1' | 2 ^a m/1' | 3 ^a m/1' | | |
|---|----------------|---------------------|---------------------|---------------------|---------|--|
| CARRILLO CARRILLO — JIB TROLLEY LAUFKATZE — DISTRIBUTION  INVERTER | 400 V 50 Hz | 19 | 42 | 61 | kW 3 | |
| | | | | | | |

| | | 1 ^a g/1' | 2 ^a g/1' | 3 ^a g/1' | | |
|--|----------------|---------------------|---------------------|---------------------|----------------|--|
| ROTAZIONE ROTACION — SLEWING DREHEN — ORIENTATION  INVERTER | 400 V 50 Hz | 0 → 0.15 | 0.15 → 0.49 | 0.49 → 0.9 | kW N° 2 x 3 | |
| | | | | | | |

| | | 1 ^a m/1' | | |
|---|----------------|---------------------|----------------|--|
| TRASLAZIONE TRASLACION — TRAVELLING SCHIENENFAHREN — TRANSLATION  INVERTER | 400 V 50 Hz | 0 → 20 | kW N° 2 x 3 | |
| | | | | |



Conforme alle direttive
CEE sul livello acustico
2000/14/CE

Conforme con las directivas
CEE sobre el nivel acustico

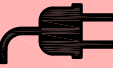


In compliance with the EEC
instructions on noise levell

Gemass EWG-Richtlinien für
den Schall-Leistungspegel

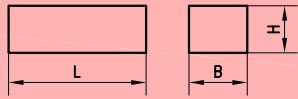

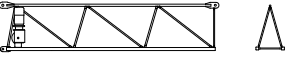
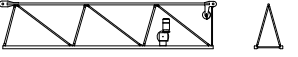
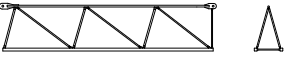
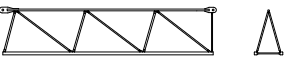
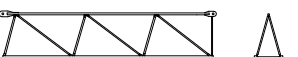
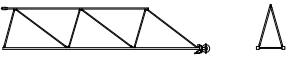
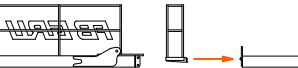

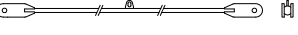
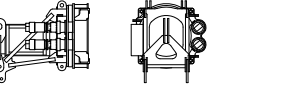

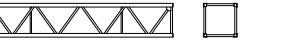
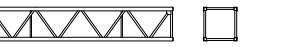

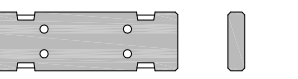

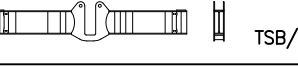
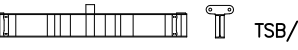
Conforme aux directives CEE
sur le niveau acoustique

POTENZA RICHIESTA

POTENCIA-ELECTRICA NECESARIA — NECESSARY ELECTRIC POWER
KRAFTBEDARF — PUISSANCE ELECTRIQUE NECESSAIRE

| | |
|--|--|
|  400 V - 50 Hz |   15 kW |
| | 18 kVA* (15 kW) |

* Gru senza traslazione — Grúa sin traslación — Crane without travelling equipment — Krane ohne schienenfahren — Grue sans translation

| Pos. Pos. Item Pos. Rep. | DENOMINAZIONE Denomination Benennung Dénomination |  | Q.tà Cant. Qty. Anz. Qte. | L | B | H |  (kg) | |
|--------------------------------------|--|--|---------------------------------------|------|-------|-------|---|------|
| | | | | (m) | | | | |
| 1 | Elemento di braccio 1 Tramo de flecha 1 – Jib element 1 Auslegerschuss 1 – Element de flèche 1 |  | 1 | 5.28 | 0.91 | 1.5 | 1300 | |
| 2 | Elemento di braccio 2 Tramo de flecha 2 – Jib element 2 Auslegerschuss 2 – Element de flèche 2 |  | 1 | 5.25 | 0.87 | 1.37 | 830 | |
| 3 | Elemento di braccio 3 Tramo de flecha 3 – Jib element 3 Auslegerschuss 3 – Element de flèche 3 |  | 1 | 5.23 | 0.8 | 1.35 | 465 | |
| 4 | Elemento di braccio 4 Tramo de flecha 4 – Jib element 4 Auslegerschuss 4 – Element de flèche 4 |  | 1 | 6.03 | 0.8 | 1.32 | 435 | |
| 5 | Elementi di braccio 5 - 6 - 7 - 8 Tramos de flecha 5-6-7-8 – Jib elements 5-6-7-8 Auslegerschuss 5-6-7-8 – Elements de flèche 5-6-7-8 |  | 1 | 6.01 | 0.8 | 1.32 | 345 | |
| | | | 1 | 5.98 | | 1.31 | 320 | |
| | | | 1 | 5.95 | | 1.29 | 265 | |
| | | | 1 | 5.91 | | 1.27 | 212 | |
| 6 | Elementi di braccio 9 Tramos de flecha 9 – Jib elements 9 Auslegerschuss 9 – Elements de flèche 9 |  | 1 | 5.90 | 0.8 | 1.25 | 195 | |
| 7 | Controbraccio parte A Contraflecha – Counter jib Gegenausleger – Contre-flèche |  | 1 | 3.73 | 1.32 | 1.31 | 740 | |
| 8 | Controbraccio parte B Contraflecha – Counter jib Gegenausleger – Contre-flèche |  | 1 | 5.95 | 0.85 | 1.36 | 880 | |
| 9 | Tiranti Tirantes – Tie-rods Abspannung – Hauban |  | 2 | 6.4 | 0.8 | 0.2 | 132 | |
| 10 | Gruppo rotazione Plataforma de giro – Slewing platform Drehbühne – Porte-flèche tournant |  | 1 | 1.87 | 1.52 | 1.6 | 1920 | |
| 11 | Blocco di contrappeso Lastre de contraflecha – Counter jib block Gegengewichtsballast – Contrepoids |  | 4 | 2.4 | 0.82 | 0.23 | 900 | |
| | | | 3 | 2.4 | 0.82 | 0.55 | 2150 | |
| 12 | Elemento di torre TS 03/06 Mastil – Tower element Turmschuss – Mats |  | | 5.99 | 1.1 | 1.1 | 1410 | |
| 13 | Elemento di torre TS 04/06 Mastil – Tower element Turmschuss – Mats |  | | 5.99 | 1.116 | 1.116 | 1640 | |
| 14 | Blocco zavorra di base per TS B/03 Lastre de base para – Base ballast block for Zentral ballaststein für – Lest de base pour |  | | 3.8 | 0.38 | 1.18 | 4000 | |
| 15 | Blocco zavorra di base per TS B/04 Lastre de base para – Base ballast block for Zentral ballaststein für – Lest de base pour |  | | 5 | 0.34 | 1.6 | 6000 | |
| 16 | Blocco di appoggio Gatos – Concrete pad Fundament block – Blocs d'appui |  | | 3 | 0.8 | 0.74 | 4000 | |
| 17 | Crociera di base (Trave A) Cruz de base – Cruciform base Fundament kreuz – Châssis de base |  | TSB/03 | 1 | 5.75 | 0.35 | 1.08 | 1660 |
| | | | TSB/04 | 1 | 6.75 | 0.35 | 1.26 | 2315 |
| | Crociera di base (Trave B) Cruz de base – Cruciform base Fundament kreuz – Châssis de base |  | TSB/03 | 1 | 5.75 | 0.92 | 0.9 | 1515 |
| | | | TSB/04 | 1 | 6.75 | 0.93 | 1.1 | 2050 |