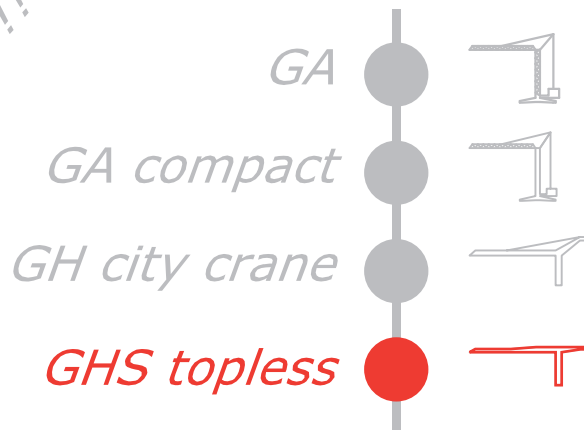


# GRU A TORRE

# GHS 451

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NUOVA SERIE  
TOPLESS!!!



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*FB F.lli Butti s.r.l.*

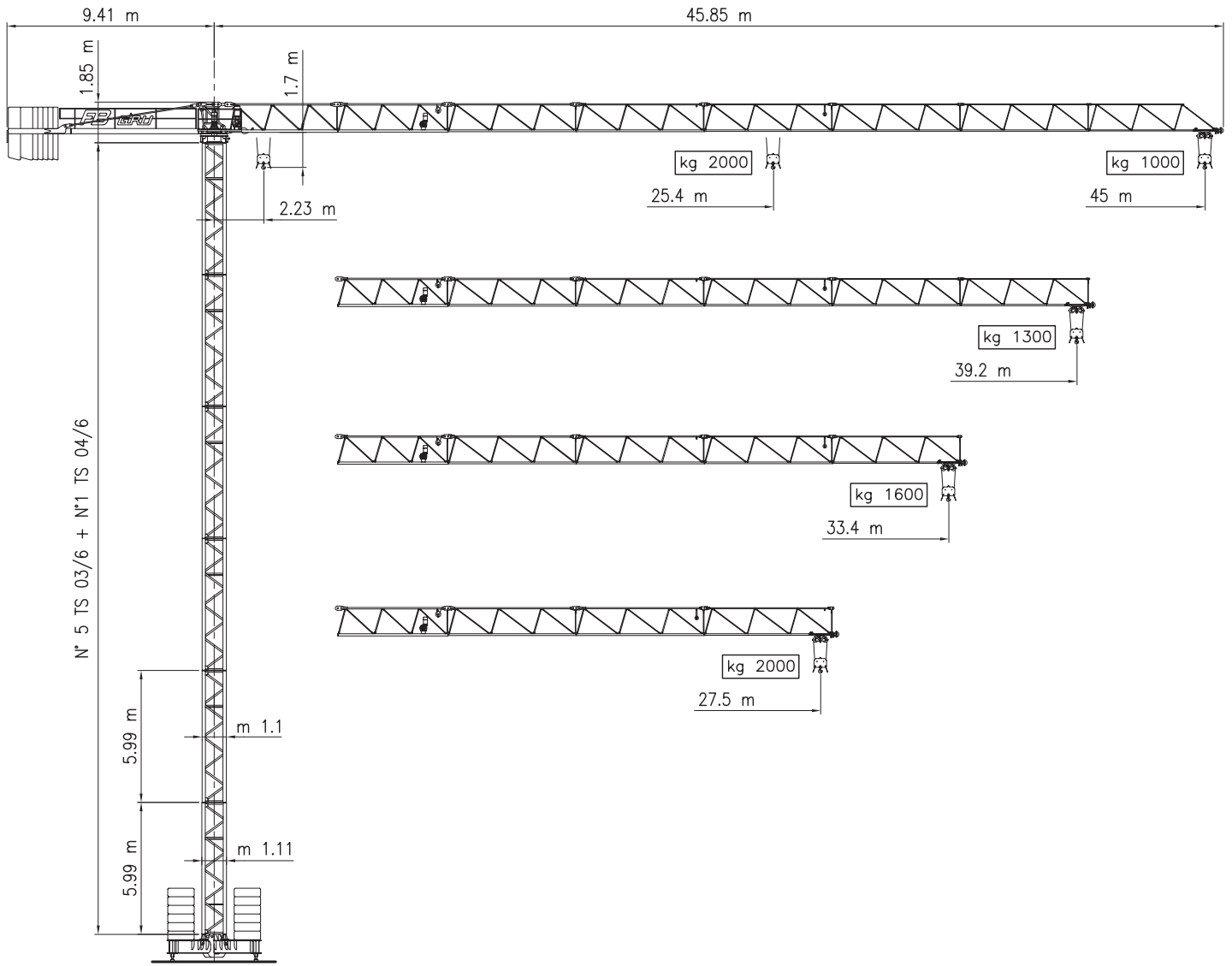
*Via XXV Aprile, 58*

*23868 Valmadrera (LC) - ITALIA*

*Tel. 0341.581108 - Fax 0341.200253*

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





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

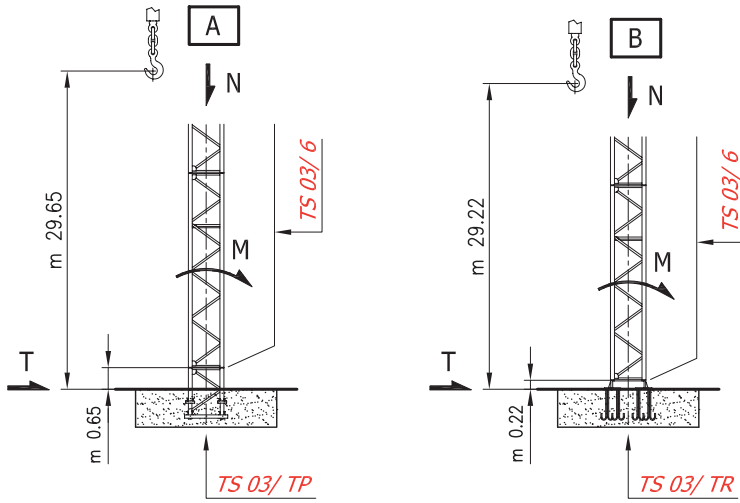
m	25.4	26.8	27.5	29	30	31	32	33.4	34	35	36	37	38	39.2	40	41	42	43	44	45	
kg	2000	1883	1830	1724	1659	1599	1542	1469	1439	1392	1348	1306	1267	1222	1193	1160	1127	1096	1067	1000	
		2000	1942	1830	1762	1698	1639	1561	1530	1480	1433	1389	1347	1300							
			2000	1875	1805	1740	1679	1600													
				2000																	

**II** (0 - 2000 kg)

 **Altezza MAX. utile al gancio**  
Altura MAX. bajo gancho  
MAX. height under hook  
MAX. hakenhöhe  
Hauteur MAX. grue

## Torre TS 03/ 6

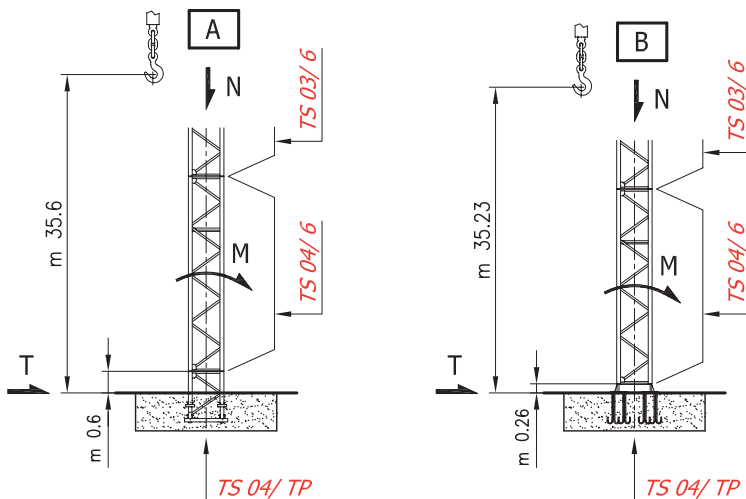
Mastil — mast — maste — mat



	A - B		
	N (kN)	T (kN)	M (kNm)
<b>IN SERVIZIO</b> EN SERVICIO — IN SERVICE IN BETRIEB — EN SERVICE	239	12	610
<b>FUORI SERVIZIO</b> FUERA DE SERVICIO — OUT OF SERVICE AUSSER BETRIEB — HORS SERVICE	217	45	647


## Torre TS 03/ 6 - TS 04/ 6

Mastil — mast — maste — mat



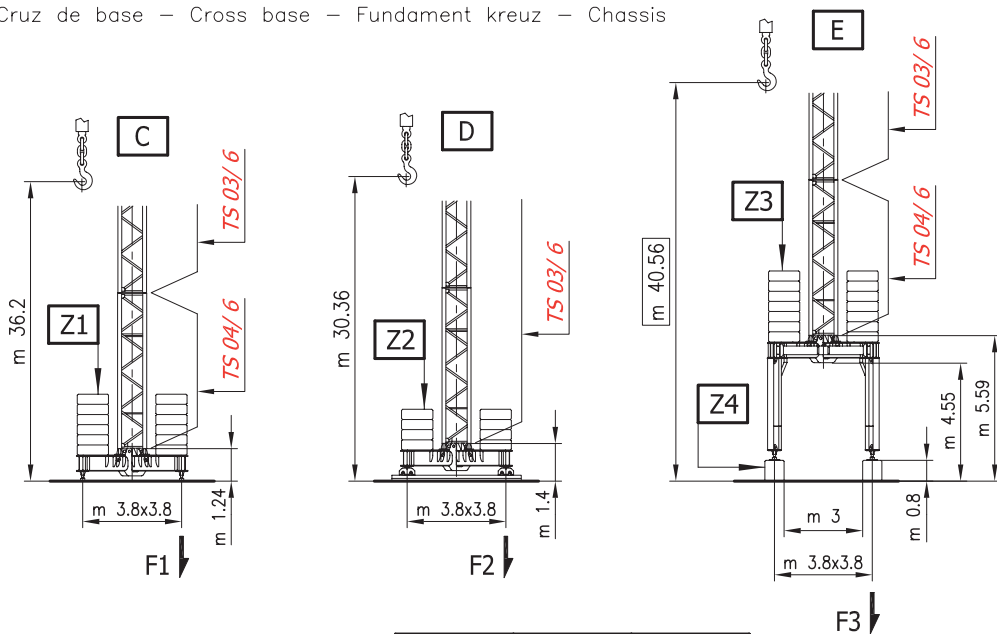
	A - B		
	N (kN)	T (kN)	M (kNm)
<b>IN SERVIZIO</b> EN SERVICIO — IN SERVICE IN BETRIEB — EN SERVICE	252	14	695
<b>FUORI SERVIZIO</b> FUERA DE SERVICIO — OUT OF SERVICE AUSSER BETRIEB — HORS SERVICE	230	53	989

# HMAX/REAZIONI HMAX/REACCIONES — HMAX/REACTIONS HMAX/ECKDRUCKE — HMAX/REACTIONS

 **Altezza MAX. utile al gancio**  
 Altura MAX. bajo gancho  
 MAX. height under hook  
 MAX. hakenhöhe  
 Hauteur MAX. grue

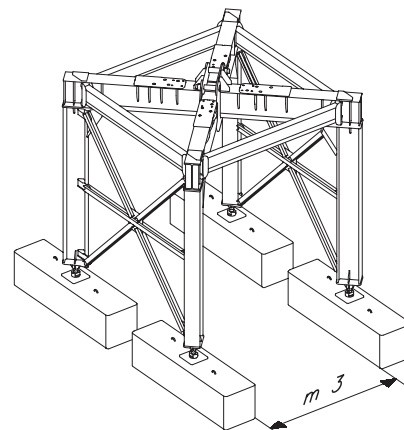
## Crociera di base TS B/ 03 (m 3.8 x 3.8)

Cruz de base — Cross base — Fundament kreuz — Chassis



## Portale TS P/ 03

Porta — Portal  
 Portal — Portique

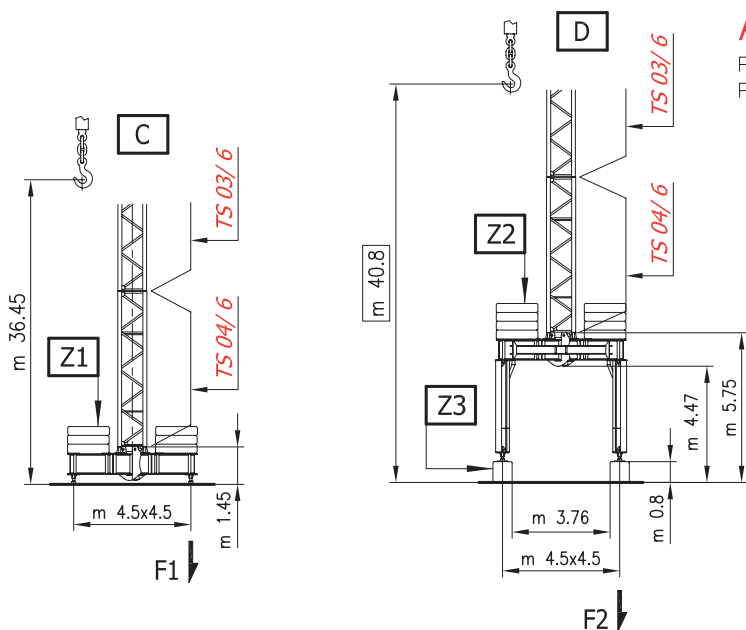


	C	D	E
	F1 (kN)	F2 (kN)	F3 (kN)
<b>IN SERVIZIO</b> EN SERVICIO — IN SERVICE IN BETRIEB — EN SERVICE	321	271	408
<b>FUORI SERVIZIO</b> FUERA DE SERVICIO — OUT OF SERVICE AUSSER BETRIEB — HORS SERVICE	388	271	531

	C	D	E
	Z1 (kg)	Z2 (kg)	Z3+Z4 (kg)
<b>ZAVORRA DI BASE</b> LASTRE DE BASE CENTRAL BALLAST ZENTRAL BALLASTSTEIN LEST DE BASE	48000	32000	72000
	N°12 4000 kg	N°8 4000 kg	N°14 kg 4000 + N°4 kg 4000

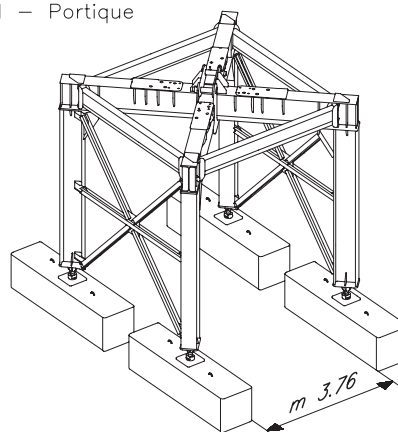
## Crociera di base TS B/ 04 (m 4.5 x 4.5)

Cruz de base — Cross base — Fundament kreuz — Chassis



## Portale TS P/ 04





Porta — Portal  
 Portal — Portique



	C	D
	F1 (kN)	F2 (kN)
<b>IN SERVIZIO</b> EN SERVICIO — IN SERVICE IN BETRIEB — EN SERVICE	272	366
<b>FUORI SERVIZIO</b> FUERA DE SERVICIO — OUT OF SERVICE AUSSER BETRIEB — HORS SERVICE	319	455

	C	D
	Z1 (kg)	Z2+Z3 (kg)
<b>ZAVORRA DI BASE</b> LASTRE DE BASE CENTRAL BALLAST ZENTRAL BALLASTSTEIN LEST DE BASE	36000	64000
	N°6 6000 kg	N°8 kg 6000 + N°4 kg 4000

**MECCANISMI** MECANISMOS — MECHANISMS  
ANTRIEBE — MÉCANISMES

<b>MOVIMENTO</b> MOVIMIENTO MOVEMENT BEWEGUNG MOUVEMENT	<b>ALIMENTAZIONE</b> ALIMENTACION OPERATING VOLTAGE BETRIEBSSPANNUNG TENSION DE SERVICE	<b>PRESTAZIONI</b> FUNCIONAMIENTOS PERFORMANCES LEISTUNGEN EXÉCUTIONS	<b>POTENZA NECESSARIA</b> POTENCIA NECESARIA POWER REQUIREMENT KRAFTE DARF PUISSANCE NÉCESSAIRE
		▷ m/1' - kg    ▷▷ m/1' - kg    ▷▷▷ m/1' - kg	
<b>SOLLEVAMENTO</b> ELEVACION — HOISTING HEBEN — LEVAGE  <b>INVERTER</b>	400 V 50 Hz	5 ↑↓    26 ↑    27 ↓    40 ↑    42 ↓ <b>2000</b> <b>2000</b> <b>1000</b>	<b>kW</b> <b>9.2</b>
		▷ m/1'    ▷▷ m/1'    ▷▷▷ m/1'	
<b>CARRELLO</b> CARRILLO — JIB TROLLEY LAUFKATZE — DISTRIBUTION  <b>INVERTER</b>	400 V 50 Hz	18    30    50	<b>kW</b> <b>2.2</b>
		▷ g/1'    ▷▷ g/1'    ▷▷▷ g/1'	
<b>ROTAZIONE</b> ROTACION — SLEWING DREHEN — ORIENTATION  <b>INVERTER</b>	400 V 50 Hz	0 → 0.18    0.18 → 0.56    0.56 → 1.02	<b>kW</b> <b>4</b>
		▷ m/1'	
<b>TRASLAZIONE</b> TRASLACION — TRAVELLING SCHIENENFAHREN — TRANSLATION  <b>INVERTER</b>	400 V 50 Hz	<i>D</i> (m 3.8x3.8)    0 → 20	<b>kW</b> <b>N° 2 x 3</b>



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 level

Gemäss EWG-Richtlinien für  
den Schall-Leistungspegel

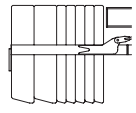
Conforme aux directives CEE  
sur le niveau acoustique

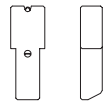
**POTENZA RICHIESTA** POTENCIA-ELECTRICA NECESARIA — NECESSARY ELECTRIC POWER  
KRAFTBEDARF — PUISSANCE ELECTRIQUE NECESSAIRE

<b>ALIMENTAZIONE TRIFASE</b> TRIFASICA — THREE PHASE DREIPHASIGE — TRIPHASE	<b>15 kw</b> 400 V - 50 Hz	<b>SOLLEVAMENTO</b> ELEVACION — HOISTING HEBEN — LEVAGE	<b>kg 2000</b>
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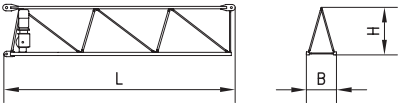
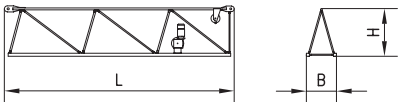
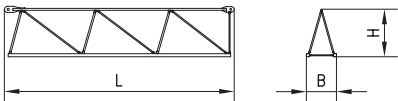
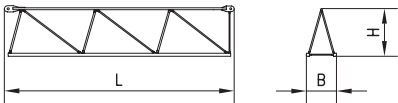
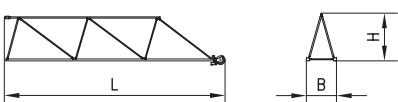

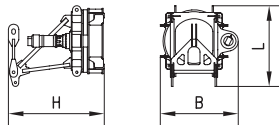
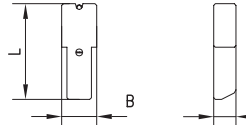
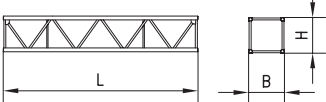
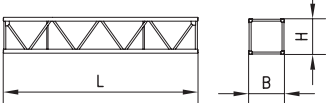
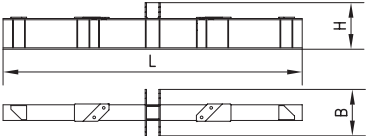
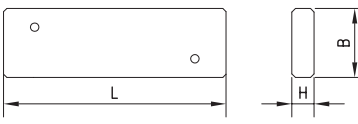
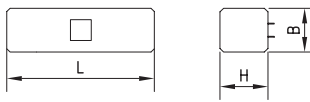
*Gru senza traslazione*    Grúa sin traslación    Crane without travelling equipment    Krane ohne schienenfahren    Grue sans translation

**ZAVORRA DI CONTROBRACCIO** LASTRE DE CONTRA FLECHA — COUNTER JIB BALLAST  
GEGENAUFLERBALLAST — LEST DE CONTRE-FLECHE

	<b>BRACCIO (m)</b> FLECHA — JIB AUSLEGER — FLECHE	<b>45</b>	<b>39.2</b>	<b>33.4</b>	<b>27.5</b>
	<b>ZAVORRA (kg)</b> LASTRE — BALLAST BALLAST — LEST	<b>8800</b> (2A + 5B)	<b>7900</b> (2A + 4B)	<b>7000</b> (2A + 3B)	<b>6100</b> (2A + 2B)

	<b>TIPO</b> TIPO — TYPE ART — TYPE	<b>A</b>	<b>B</b>
	<b>PESO (kg)</b> PESO — WEIGHT GEWICHT — POIDS	<b>2150</b>	<b>900</b>

*Con riserva di modifiche*    Derecho de modificaciones reservadas    Subject to change without notice    Änderungen vorbehalten    Modifications réservées

Pos. Pos. Item Rep.	Q.tà Qty. Anz. Qte.	DENOMINAZIONE Denominacion Denomination Benennung Dènomination		L	B	H	 (kg)	
				(m)				
1	1	<b>Elemento di braccio 1</b> Tramo de flecha 1 Jib element 1 Auslegerschuss 1 Element de flèche 1		5.23	0.8	1.43	900	
2	1	<b>Elemento di braccio 2</b> Tramo de flecha 2 Jib element 2 Auslegerschuss 2 Element de flèche 2		5.23	0.8	1.35	635	
3	1	<b>Elemento di braccio 3</b> Tramo de flecha 3 Jib element 3 Auslegerschuss 3 Element de flèche 3		6.03	0.8	1.32	452	
4	1	<b>Elementi di braccio 4 - 5 - 6 - 7</b> Tramos de flecha 4-5-6-7 Jib elements 4-5-6-7 Auslegerschuss 4-5-6-7 Elements de flèche 4-5-6-7		6.01	0.8	1.32	355	
	1			5.98	0.8	1.3	310	
	1			5.95	0.8	1.28	255	
	1			5.91	0.8	1.27	230	
5	1	<b>Elemento di braccio 8</b> Tramo de flecha 8 Jib element 8 Auslegerschuss 8 Element de flèche 8		5.90	0.8	1.25	185	
6	1	<b>Controbraccio</b> Contraflecha Counter jib Gegenausleger Contre-flèche		8.9	0.88	1.15	1335	
7	1	<b>Gruppo rotazione</b> Plataforma de giro Slewing platform Drehbühne Porte-flèche tournant		1.55	1.5	1.84	1470	
8	5	<b>Blocco di contrappeso</b> Lastre de contraflecha Counter jib blok Gegengewichtsbalken Contrepoids		2.4	0.82	0.23	900	
	2			2.4	0.82	0.55	2150	
9		<b>Elemento di torre TS 03/ 6</b> Mastil Tower element Turmschuss Mats		5.99	1.1	1.1	1410	
10		<b>Elemento di torre TS 04/ 6</b> Mastil Tower element Turmschuss Mats		5.99	1.116	1.116	1640	
11	1+1	<b>Crociera di base</b> Cruz de base Cruciform base Fundament kreuz Châssis de base		TS B/03	5.75	0.35	1.08	1660
					5.75	0.92	0.9	1515
	1+1			TS B/04	6.75	0.35	1.26	2315
					6.75	0.93	1.1	2050
12		<b>Blocco zavorra di base</b> Lastre de base Base ballast blok Zentral ballaststein Lest de base		TS B/03	3.8	1.18	0.38	4000
	TS B/04				5.0	1.6	0.34	6000
13		<b>Blocco di appoggio</b> Gatos Concrete pad Fundament block Blocs d'appui		3.0	0.74	0.8	4000	