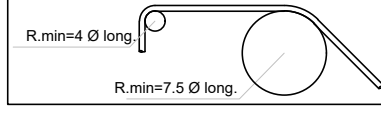

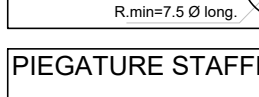
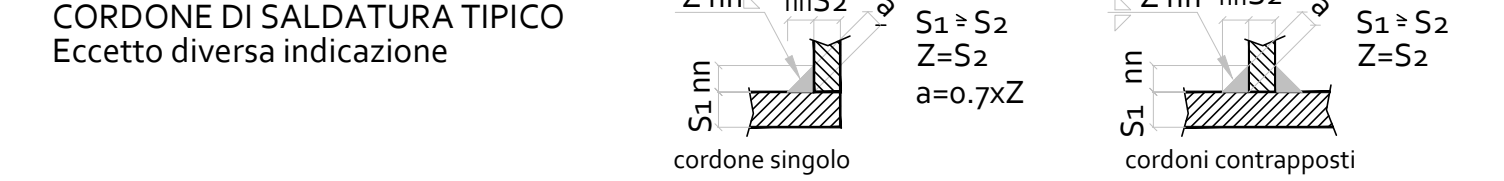


carpenteria a q +19.56m - interventi sugli impalcati
Scala 1:50

| CARATTERISTICHE DEI MATERIALI | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--|--------------------|--|-------------------------------------------------------------------------------------|--------------------------------------------|
| NUOVE STRUTTURE IN C.A. | | | | | | | | | |
| CALCESTRUZZO | SOLETTI SUI SOLAI cls alleggerito tipo LECA 1600 | | CLASSE LC30/33 | RESISTENZA CUBICA $R_{ck} \geq 33 \text{ Nmm}^{-2}$ | | COPRIFERRI 2 cm | | ACQUO | BARRA AD ADERENZA MIGLIORATA |
| | PLATEA | | C25/30 | $R_{ck} \geq 30 \text{ Nmm}^{-2}$ | | 3,5 cm | | | B450 c ($f_{yk} \geq 450 \text{ Nmm}^2$) |
| | | | | | | | | | Reti elettrosaldate |
| | | | | | | | | | (tipo $f_{yk} \geq 390 \text{ Nmm}^2$) |
| | | | | | | | | | |
| | | | | | | | | | |
| IL CONGLOMERATO PER LE STRUTTURE IN C.A. SARÀ CONFEZIONATO CON BASSO RAPPORTO ACQUA/CEMENTO E AGGIUNTA DI FLUIDIFICANTE ANTIRITIRO NEI PROPORZIONI DA DEFINIRSI PRIMA DELL'ESECUZIONE | | | | | | | | | |
| DI Dmax INERTE | | | CE CLASSE DI ESPOSIZIONE | | | | | DS DOSAGGI | |
| 16mm 20mm 24mm | | | Xo XC XD XS XF XA | | | | | Acqua/CEM max. 0,60 | |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | | | CEM. min. kg/m³ 300 | |
| PR PRESA | | | CC CLASSE DI CONSISTENZA | | | | | AD ADDITIVI SPEC. | |
| Rapida Norm. Ritard. | | | S1 S2 S3 S4 S5 SCC | | | | | Pavim. Antigelo Fibre | |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| PRESCRIZIONI (salvo diversa indicazione) | | | ANCORAGGIO BARRA ORIZZONTALI LONGITUDINALI | | | | | PIEGATURE ARMATURE LONGITUDINALI | |
| SOVRAPP. MIN. RETI ELETTRISALDATE | | | 2 maglie | | | | |  | |
| RESISTENZA AL FUOCO | | | in opera MIN R=0 | | | | | PIEGATURE STAFFE E GANCI | |
| | | |  | | | | |  | |
| | | | DAGRE TITO BARRA B300/300/300/300 (di mm) | | | | | Minimo 10 di staffe | |
| | | | Ø 10 10 50 | | | | | | |
| | | | Ø 12 60 | | | | | | |
| | | | Ø 16 80 | | | | | | |
| | | | Ø 20 100 | | | | | | |
| | | | Ø 24 120 | | | | | | |
| | | | NON PRESENTARE PRESSIONI INDEBOLISCENTI L'ORDINAMENTO DI LEGAZIONE DEVE GARANTIRE CHE OGNI BARRA SIA ELETTRICAMENTE COLLEGATA PER LA LUNGA ESTREMITÀ | | | | | | |

| STRUTTURE METALLICHE | | | |
|-------------------------------------------------------------------------------------------------|-------------------|-----------------------------|---------------|
| LE SALDATURE SARANNO DEL TIPO MANUALE AD ARCO CON ELETTRODI RIVESTITI O A COMPLETA PENETRAZIONE | | | |
| PROFIL LAMINATI | PIASTRE E LAMIERE | ELETTRISALDATE | |
| S235 | S235 | par 11.3.4.5 delle NTC 2018 | |
| BULLONI | VITE | DADI | RONDELLE |
| CLASSE 8.8 | | CLASSE 8 | durezza 300HV |

OPERE IN CARPENTERIA METALLICA DI CLASSE DI ESECUZIONE 2 (EXC2)
LE STRUTTURE METALLICHE SARANNO TRATTATE CON VERNICE ANTIOSSIDANTE SALVO DIVERSE INDICAZIONI



FORI BULLONI E COPPIE DI SERRAGGIO (Nm)
Si deve far riferimento alle coppie di serraggio riportate sulle targhette delle confezioni. Nel caso il momento di serraggio non sia riportato sulle targhette delle confezioni, ma compila il solo fattore k secondo la classe funzionale, si può fare riferimento alle Tabelle 4.2.XVI e 4.2.XVII delle NTC2018, che si riferiscono rispettivamente alle viti di classe 8.8 e 10.9.

| Tavola 4.2.XVI - Coppie di serraggio per bulloni 8.8 | | | | Tavola 4.2.XVII - Coppie di serraggio M16-M20 | | | |
|------------------------------------------------------|--------|----------|--------|-----------------------------------------------|--------|--------|--------|
| Vite 4x40 - Coppie di serraggio M16-M20 | | | | Vite 16x103 - Coppie di serraggio M16-M20 | | | |
| Vite | 4x40 | 6x40 | 8x40 | Vite | 16x103 | 18x103 | 20x103 |
| M16 | 56,0 | 68,0 | 79,3 | M16 | 113 | 131 | 150 |
| M18 | 65,2 | 78,0 | 90,0 | M18 | 131 | 150 | 170 |
| M16 | 61,0 | 74,0 | 87,5 | M16 | 120 | 140 | 160 |
| M18 | 70,0 | 85,0 | 100,0 | M18 | 140 | 160 | 180 |
| M20 | 82,0 | 96,0 | 110,0 | M20 | 160 | 180 | 200 |
| M22 | 90,0 | 104,0 | 120,0 | M22 | 180 | 200 | 220 |
| M24 | 98,0 | 112,0 | 130,0 | M24 | 200 | 220 | 240 |
| M26 | 106,0 | 120,0 | 140,0 | M26 | 220 | 240 | 260 |
| M28 | 114,0 | 128,0 | 150,0 | M28 | 240 | 260 | 280 |
| M30 | 122,0 | 136,0 | 160,0 | M30 | 260 | 280 | 300 |
| M32 | 130,0 | 144,0 | 170,0 | M32 | 280 | 300 | 320 |
| M34 | 138,0 | 152,0 | 180,0 | M34 | 300 | 320 | 340 |
| M36 | 146,0 | 160,0 | 190,0 | M36 | 320 | 340 | 360 |
| M38 | 154,0 | 168,0 | 200,0 | M38 | 340 | 360 | 380 |
| M40 | 162,0 | 176,0 | 210,0 | M40 | 360 | 380 | 400 |
| M42 | 170,0 | 184,0 | 220,0 | M42 | 380 | 400 | 420 |
| M44 | 178,0 | 192,0 | 230,0 | M44 | 400 | 420 | 440 |
| M46 | 186,0 | 200,0 | 240,0 | M46 | 420 | 440 | 460 |
| M48 | 194,0 | 208,0 | 250,0 | M48 | 440 | 460 | 480 |
| M50 | 202,0 | 216,0 | 260,0 | M50 | 460 | 480 | 500 |
| M52 | 210,0 | 224,0 | 270,0 | M52 | 480 | 500 | 520 |
| M54 | 218,0 | 232,0 | 280,0 | M54 | 500 | 520 | 540 |
| M56 | 226,0 | 240,0 | 290,0 | M56 | 520 | 540 | 560 |
| M58 | 234,0 | 248,0 | 300,0 | M58 | 540 | 560 | 580 |
| M60 | 242,0 | 256,0 | 310,0 | M60 | 560 | 580 | 600 |
| M62 | 250,0 | 264,0 | 320,0 | M62 | 580 | 600 | 620 |
| M64 | 258,0 | 272,0 | 330,0 | M64 | 600 | 620 | 640 |
| M66 | 266,0 | 280,0 | 340,0 | M66 | 620 | 640 | 660 |
| M68 | 274,0 | 288,0 | 350,0 | M68 | 640 | 660 | 680 |
| M70 | 282,0 | 296,0 | 360,0 | M70 | 660 | 680 | 700 |
| M72 | 290,0 | 304,0 | 370,0 | M72 | 680 | 700 | 720 |
| M74 | 298,0 | 312,0 | 380,0 | M74 | 700 | 720 | 740 |
| M76 | 306,0 | 320,0 | 390,0 | M76 | 720 | 740 | 760 |
| M78 | 314,0 | 328,0 | 400,0 | M78 | 740 | 760 | 780 |
| M80 | 322,0 | 336,0 | 410,0 | M80 | 760 | 780 | 800 |
| M82 | 330,0 | 344,0 | 420,0 | M82 | 780 | 800 | 820 |
| M84 | 338,0 | 352,0 | 430,0 | M84 | 800 | 820 | 840 |
| M86 | 346,0 | 360,0 | 440,0 | M86 | 820 | 840 | 860 |
| M88 | 354,0 | 368,0 | 450,0 | M88 | 840 | 860 | 880 |
| M90 | 362,0 | 376,0 | 460,0 | M90 | 860 | 880 | 900 |
| M92 | 370,0 | 384,0 | 470,0 | M92 | 880 | 900 | 920 |
| M94 | 378,0 | 392,0 | 480,0 | M94 | 900 | 920 | 940 |
| M96 | 386,0 | 400,0 | 490,0 | M96 | 920 | 940 | 960 |
| M98 | 394,0 | 408,0 | 500,0 | M98 | 940 | 960 | 980 |
| M100 | 402,0 | 416,0 | 510,0 | M100 | 960 | 980 | 1000 |
| M102 | 410,0 | 424,0 | 520,0 | M102 | 980 | 1000 | 1020 |
| M104 | 418,0 | 432,0 | 530,0 | M104 | 1000 | 1020 | 1040 |
| M106 | 426,0 | 440,0 | 540,0 | M106 | 1020 | 1040 | 1060 |
| M108 | 434,0 | 448,0 | 550,0 | M108 | 1040 | 1060 | 1080 |
| M110 | 442,0 | 456,0 | 560,0 | M110 | 1060 | 1080 | 1100 |
| M112 | 450,0 | 464,0 | 570,0 | M112 | 1080 | 1100 | 1120 |
| M114 | 458,0 | 472,0 | 580,0 | M114 | 1100 | 1120 | 1140 |
| M116 | 466,0 | 480,0 | 590,0 | M116 | 1120 | 1140 | 1160 |
| M118 | 474,0 | 488,0 | 600,0 | M118 | 1140 | 1160 | 1180 |
| M120 | 482,0 | 496,0 | 610,0 | M120 | 1160 | 1180 | 1200 |
| M122 | 490,0 | 504,0 | 620,0 | M122 | 1180 | 1200 | 1220 |
| M124 | 498,0 | 512,0 | 630,0 | M124 | 1200 | 1220 | 1240 |
| M126 | 506,0 | 520,0 | 640,0 | M126 | 1220 | 1240 | 1260 |
| M128 | 514,0 | 528,0 | 650,0 | M128 | 1240 | 1260 | 1280 |
| M130 | 522,0 | 536,0 | 660,0 | M130 | 1260 | 1280 | 1300 |
| M132 | 530,0 | 544,0 | 670,0 | M132 | 1280 | 1300 | 1320 |
| M134 | 538,0 | 552,0 | 680,0 | M134 | 1300 | 1320 | 1340 |
| M136 | 546,0 | 560,0 | 690,0 | M136 | 1320 | 1340 | 1360 |
| M138 | 554,0 | 568,0 | 700,0 | M138 | 1340 | 1360 | 1380 |
| M140 | 562,0 | 576,0 | 710,0 | M140 | 1360 | 1380 | 1400 |
| M142 | 570,0 | 584,0 | 720,0 | M142 | 1380 | 1400 | 1420 |
| M144 | 578,0 | 592,0 | 730,0 | M144 | 1400 | 1420 | 1440 |
| M146 | 586,0 | 600,0 | 740,0 | M146 | 1420 | 1440 | 1460 |
| M148 | 594,0 | 608,0 | 750,0 | M148 | 1440 | 1460 | 1480 |
| M150 | 602,0 | 616,0 | 760,0 | M150 | 1460 | 1480 | 1500 |
| M152 | 610,0 | 624,0 | 770,0 | M152 | 1480 | 1500 | 1520 |
| M154 | 618,0 | 632,0 | 780,0 | M154 | 1500 | 1520 | 1540 |
| M156 | 626,0 | 640,0 | 790,0 | M156 | 1520 | 1540 | 1560 |
| M158 | 634,0 | 648,0 | 800,0 | M158 | 1540 | 1560 | 1580 |
| M160 | 642,0 | 656,0 | 810,0 | M160 | 1560 | 1580 | 1600 |
| M162 | 650,0 | 664,0 | 820,0 | M162 | 1580 | 1600 | 1620 |
| M164 | 658,0 | 672,0 | 830,0 | M164 | 1600 | 1620 | 1640 |
| M166 | 666,0 | 680,0 | 840,0 | M166 | 1620 | 1640 | 1660 |
| M168 | 674,0 | 688,0 | 850,0 | M168 | 1640 | 1660 | 1680 |
| M170 | 682,0 | 696,0 | 860,0 | M170 | 1660 | 1680 | 1700 |
| M172 | 690,0 | 704,0 | 870,0 | M172 | 1680 | 1700 | 1720 |
| M174 | 698,0 | 712,0 | 880,0 | M174 | 1700 | 1720 | 1740 |
| M176 | 706,0 | 720,0 | 890,0 | M176 | 1720 | 1740 | 1760 |
| M178 | 714,0 | 728,0 | 900,0 | M178 | 1740 | 1760 | 1780 |
| M180 | 722,0 | 736,0 | 910,0 | M180 | 1760 | 1780 | 1800 |
| M182 | 730,0 | 744,0 | 920,0 | M182 | 1780 | 1800 | 1820 |
| M184 | 738,0 | 752,0 | 930,0 | M184 | 1800 | 1820 | 1840 |
| M186 | 746,0 | 760,0 | 940,0 | M186 | 1820 | 1840 | 1860 |
| M188 | 754,0 | 768,0 | 950,0 | M188 | 1840 | 1860 | 1880 |
| M190 | 762,0 | 776,0 | 960,0 | M190 | 1860 | 1880 | 1900 |
| M192 | 770,0 | 784,0 | 970,0 | M192 | 1880 | 1900 | 1920 |
| M194 | 778,0 | 792,0 | 980,0 | M194 | 1900 | 1920 | 1940 |
| M196 | 786,0 | 800,0 | 990,0 | M196 | 1920 | 1940 | 1960 |
| M198 | 794,0 | 808,0 | 1000,0 | M198 | 1940 | 1960 | 1980 |
| M200 | 802,0 | 816,0 | 1010,0 | M200 | 1960 | 1980 | 2000 |
| M202 | 810,0 | 824,0 | 1020,0 | M202 | 1980 | 2000 | 2020 |
| M204 | 818,0 | 832,0 | 1030,0 | M204 | 2000 | 2020 | 2040 |
| M206 | 826,0 | 840,0 | 1040,0 | M206 | 2020 | 2040 | 2060 |
| M208 | 834,0 | 848,0 | 1050,0 | M208 | 2040 | 2060 | 2080 |
| M210 | 842,0 | 856,0 | 1060,0 | M210 | 2060 | 2080 | 2100 |
| M212 | 850,0 | 864,0 | 1070,0 | M212 | 2080 | 2100 | 2120 |
| M214 | 858,0 | 872,0 | 1080,0 | M214 | 2100 | 2120 | 2140 |
| M216 | 866,0 | 880,0 | 1090,0 | M216 | 2120 | 2140 | 2160 |
| M218 | 874,0 | 888,0 | 1100,0 | M218 | 2140 | 2160 | 2180 |
| M220 | 882,0 | 896,0 | 1110,0 | M220 | 2160 | 2180 | 2200 |
| M222 | 890,0 | 904,0 | 1120,0 | M222 | 2180 | 2200 | 2220 |
| M224 | 898,0 | 912,0 | 1130,0 | M224 | 2200 | 2220 | 2240 |
| M226 | 906,0 | 920,0 | 1140,0 | M226 | 2220 | 2240 | 2260 |
| M228 | 914,0 | 928,0 | 1150,0 | M228 | 2240 | 2260 | 2280 |
| M230 | 922,0 | 936,0 | 1160,0 | M230 | 2260 | 2280 | 2300 |
| M232 | 930,0 | 944,0 | 1170,0 | M232 | 2280 | 2300 | 2320 |
| M234 | 938,0 | 952,0 | 1180,0 | M234 | 2300 | 2320 | 2340 |
| M236 | 946,0 | 960,0 | 1190,0 | M236 | 2320 | 2340 | 2360 |
| M238 | 954,0 | 968,0 | 1200,0 | M238 | 2340 | 2360 | 2380 |
| M240 | 962,0 | 976,0 | 1210,0 | M240 | 2360 | 2380 | 2400 |
| M242 | 970,0 | 984,0 | 1220,0 | M242 | 2380 | 2400 | 2420 |
| M244 | 978,0 | 992,0 | 1230,0 | M244 | 2400 | 2420 | 2440 |
| M246 | 986,0 | 1000,0 | 1240,0 | M246 | 2420 | 2440 | 2460 |
| M248 | 994,0 | 1008,0 | 1250,0 | M248 | 2440 | 2460 | 2480 |
| M250 | 1002,0 | 1016,0 | 1260,0 | M250 | 2460 | 2480 | 2500 |
| M252 | 1010,0 | 1024,0 | 1270,0 | M252 | 2480 | 2500 | 2520 |
| M254 | 1018,0 | 1032,0 | 1280,0 | M254 | 2500 | 2520 | 2540 |
| M256 | 1026,0 | 1040,0 | 1290,0 | M256 | 2520 | 2540 | 2560 |
| M258 | 1034,0 | 1048,0 | 1300,0 | M258 | 2540 | 2560 | 2580 |
| M260 | 1042,0 | 1056,0 | 1310,0 | M260 | 2560 | 2580 | 2600 |
| M262 | 1050,0 | 1064,0 | 1320,0 | M262 | 2580 | 2600 | 2620 |
| M264 | 1058,0 | 1072,0 | 1330,0 | M264 | 2600 | 2620 | 2640 |
| M266 | 1066,0 | 1080,0 | 1340,0 | M266 | 2620 | 2640 | 2660 |
| M268 | 1074,0 | 1088,0 | 1350,0 | M268 | 2640 | 2660 | 2680 |
| M270 | 1082,0 | 1096,0 | 1360,0 | M270 | 2660 | 2680 | 2700 |
| M272 | 1090,0 | 1104,0 | 1370,0 | M272 | 2680 | 2700 | 2720 |
| M274 | 1098,0 | 1112,0 | 1380,0 | M274 | 2700 | 2720 | 2740 |
| M276 | 1106,0 | 1120,0 | 1390,0 | M276 | 2720 | 2740 | 2760 |
| M278 | 1114,0 | 1128,0 | 1400,0 | M278 | 2740 | 2760 | 2780 |
| M280 | 1122,0 | 1136,0 | 1410,0 | M280 | 2760 | 2780 | 2800 |
| M282 | 1130,0 | 1144,0 | 1420,0 | M282 | 2780 | 2800 | 2820 |
| M284 | 1138,0 | 1152,0 | 1430,0 | M284 | 2800 | 2820 | 2840 |
| M286 | 1146,0 | 1160,0 | 1440,0 | M286 | 2820 | 2840 | 2860 |
| M288 | 1154,0 | 1168,0 | 1450,0 | M288 | 2840 | 2860 | 2880 |
| M290 | 1162,0 | 1176,0 | 1460,0 | M290 | 2860 | 2880 | 2900 |
| M292 | 1170,0 | 1184,0 | 1470,0 | M292 | 2880 | 2900 | 2920 |
| M294 | 1178,0 | 1192,0 | 1480,0 | M294 | 2900 | 2920 | 2940 |
| M296 | 1186,0 | 1200,0 | 1490,0 | M296 | 2920 | 2940 | 2960 |
| M298 | 1194,0 | 1208,0 | 1500,0 | M298 | 2940 | 2960 | 2980 |
| M300 | 1202,0 | 1216,0 | 1510,0 | M300 | 2960 | 2980 | 3000 |
| M302 | 1210,0 | 1224,0 | 1520,0 | M302 | 2980 | 3000 | 3020 |
| M304 | 1218,0 | 1232,0 | 1530,0 | M304 | 3000 | 3020 | 3040 |
| M306 | 1226,0 | 1240,0 | 1540,0 | M306 | 3020 | 3040 | 3060 |
| M308 | 1234,0 | 1248,0 | 1550,0 | M308 | 3040 | 3060 | 3080 |
| M310 | 1242,0 | 1256,0 | 1560,0 | M310 | 3060 | 3080 | 3100 |
| M312 | 1250,0 | 1264,0 | 1570,0 | M312 | 3080 | 3100 | 3120 |
| M314 | 1258,0 | 1272,0 | 1580,0 | M314 | 3100 | 3120 | 3140 |
| M316 | 1266,0 | 1280,0 | 1590,0 | M316 | 3120 | 3140 | 3160 |
| M318 | 1274,0 | 1288,0 | 1600,0 | M318 | 3140 | 3160 | 3180 |
| M320 | 1282,0 | 1296,0 | 1610,0 | M320 | 3160 | 3180 | 3200 |
| M322 | 1290,0 | 1304,0 | 1620,0 | M322 | 3180 | 3200 | 3220 |
| M324 | 1298,0 | 1312,0 | 1630,0 | M324 | 3200 | 3220 | 3240 |
| M326 | 1306,0 | 1320,0 | 1640,0 | M326 | 3220 | 3240 | 3260 |
| M328 | 1314,0 | 1328,0 | 1650,0 | M328 | 3240 | 3260 | 3280 |
| M330 | 1322,0 | 1336,0</ | | | | | |