REGIONE VENETO

COMUNE DI GRUARO

COMMITTENTE:

COMUNE DI GRUARO

Piazza E. Dal Ben, 9
30020 Gruaro (VE)
comune.gruaro.ve@pecveneto.it

RESPONSABILE DEL PROCEDIMENTO

BORTOLAMI GEOM.GIANCARLO

PROGETTISTI

STUDIODRIGO
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PROGETTISTA INCARICATO

DRIGO ING. ROBERTO

COLLABORATORI

TOFFOLON ING. VALENTINA
GIUSTO ARCH. ANNA
VIDUSSONI ARCH. PAOLA

RECUPERO EDILIZIO PER IL MIGLIORAMENTO STRUTTURALE ALLE AZIONI SISMICHE DELLA PALESTRA DELLA SCUOLA PRIMARIA "EDMONDO DE AMICIS" DEL CAPOLUOGO

PROGETTO ESECUTIVO

OGGETTO

PARTICOLARI CARPENTERIA

ELABORATO

03.19

NOME FILE	REDATTO IL	SCALA
	03.09.2020	

Rev.	Data	Oggetto revisione

Red.	Verif.	Approv.
		DR

ATTENZIONE:

La numerazione dei dettagli non è consecutiva per successiva ottimizzazione.

Per il posizionamento delle piastre fare riferimento ai disegni e alla relazione di calcolo; in caso di contrasto comanda la relazione di calcolo.

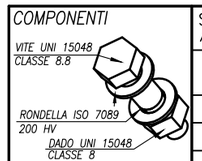
La bulloneria deve essere dotata di sistema antisvitamento.

Prima di eseguire le forature nei pilastri e nelle travi deve essere individuata con pacometro la posizione dei ferri di armatura.
In caso di interferenza la D.L. valuterà le modifiche da apportare mantenendo lo stesso livello di sicurezza.

Le piastre dovranno essere saldate in ogni connessione in modo tale da costituire il completo ripristino strutturale fra le diverse parti.
Prima di iniziare i lavori di taglio e saldatura l'Appaltatore dovrà presentare alla D.L. i relativi elaborati di officina che dovranno essere da questo approvati.

TABELLA DEI MATERIALI

- CALCESTRUZZI:
  - a) fondazioni:Rck 30MPa – slump S3 – classe di esposizione XC1
    - Rapporto a/c max: 0.60
    - Diametro max inerte: 25mm
    - Contenuto minimo di cemento: 300 kg/mc
    - Copriferro minimo: 35mm
  - b) pareti: Rck 35MPa – slump S5 – classe di esposizione XC3
    - Rapporto a/c max: 0.50
    - Diametro max inerte: 25mm
    - Contenuto minimo di cemento: 340 kg/mc
    - Copriferro minimo: 35mm
- ACCIAIO DA C.A.
  1 – Tipo B450C ad aderenza migliorata
  fyk > 450 MPa – ftk > 540 MPa – (Agt)k > 7.5%
  Diametro minimo mandrino per piegature, uncini, ganci:
  ø < 16mm 4ø
  ø > 16mm 7ø
- ACCIAIO DA CARPENTERIA
  1 –Acciaio tipo S355 J2
  Secondo la norma UNI EN 10025
  2 –Collegamenti cl.8.8
  Secondo UNI 15048 per bulloni, dadi e rondelle



SIMBOLOGIA PER BULLONI PER GIUNZIONI BULLONATE A TAGLIO *ADOTTARE IL 70% DELLA COPPIA DI SERRAGGIO RIPORTATA IN TABELLA SECONDO CNR 10011*						
SIMBOLO	*DIAMETRO BULLONE*	*DIAMETRO FORO*	*COPPIA DI SERRAGGIO Ts (N*m)*	*SIMBOLO*	*DIAMETRO BULLONE*	*DIAMETRO FORO*
	M12	ø 13	55		**M20**	ø 21
	M14	ø 15			**M24**	ø 25.5
	M16	ø 17	138		**M27**	ø 28.5
	M18	ø 19			**M30**	ø 32

N.B. TUTTI I BULLONI DOVRANNO ESSERE DOTATI DI CONTROBULLONI E SERRATI SECONDO NORMATIVA

3 – Saldature tipologia cordone d'angolo,
se non diversamente specificato

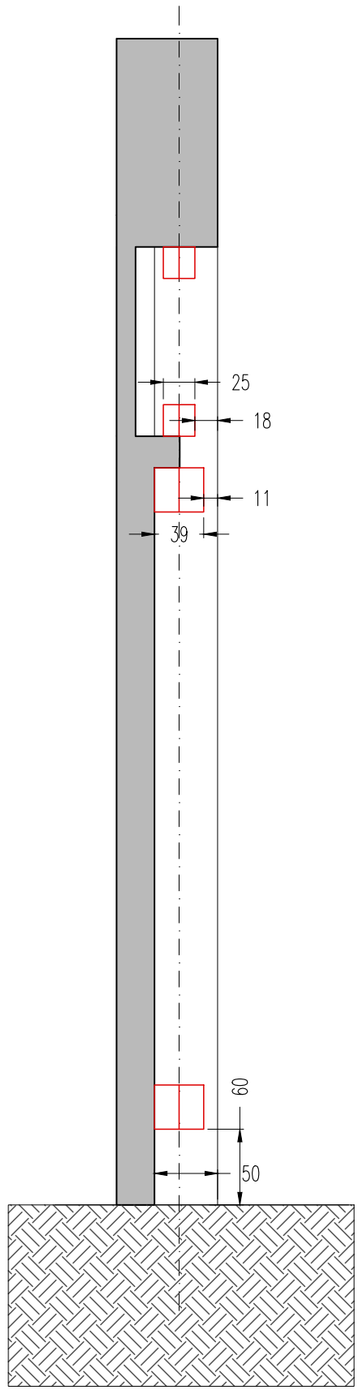
Saldature a completo ripristino

CLASSE DI ESECUZIONE: UNI EN 1090–2:2018: classe di esecuzione EXC3

TRATTAMENTO PROTETTIVO
UNI EN ISO 1461: zincatura a caldo spessore di 140 µm

N.B.
- Tutte le misure vanno verificate sul posto e confrontate con quelle riportate nel progetto. In particolare dovranno essere controllate le dimensioni dei diversi elementi strutturali.
- Tutte le variazioni vanno preventivamente sottoposte all'attenzione della DL.
- Le sovrapposizioni minime delle armature per pareti e travi sono le seguenti:
  ø8 ø10 ø12 ø16 ø20 ø24
  40cm 50cm 60cm 80cm 90cm 100cm
- Tutte le misure sono espresse in cm.

LATO SUD
POSIZIONAMENTO PIASTRE - SEZIONE

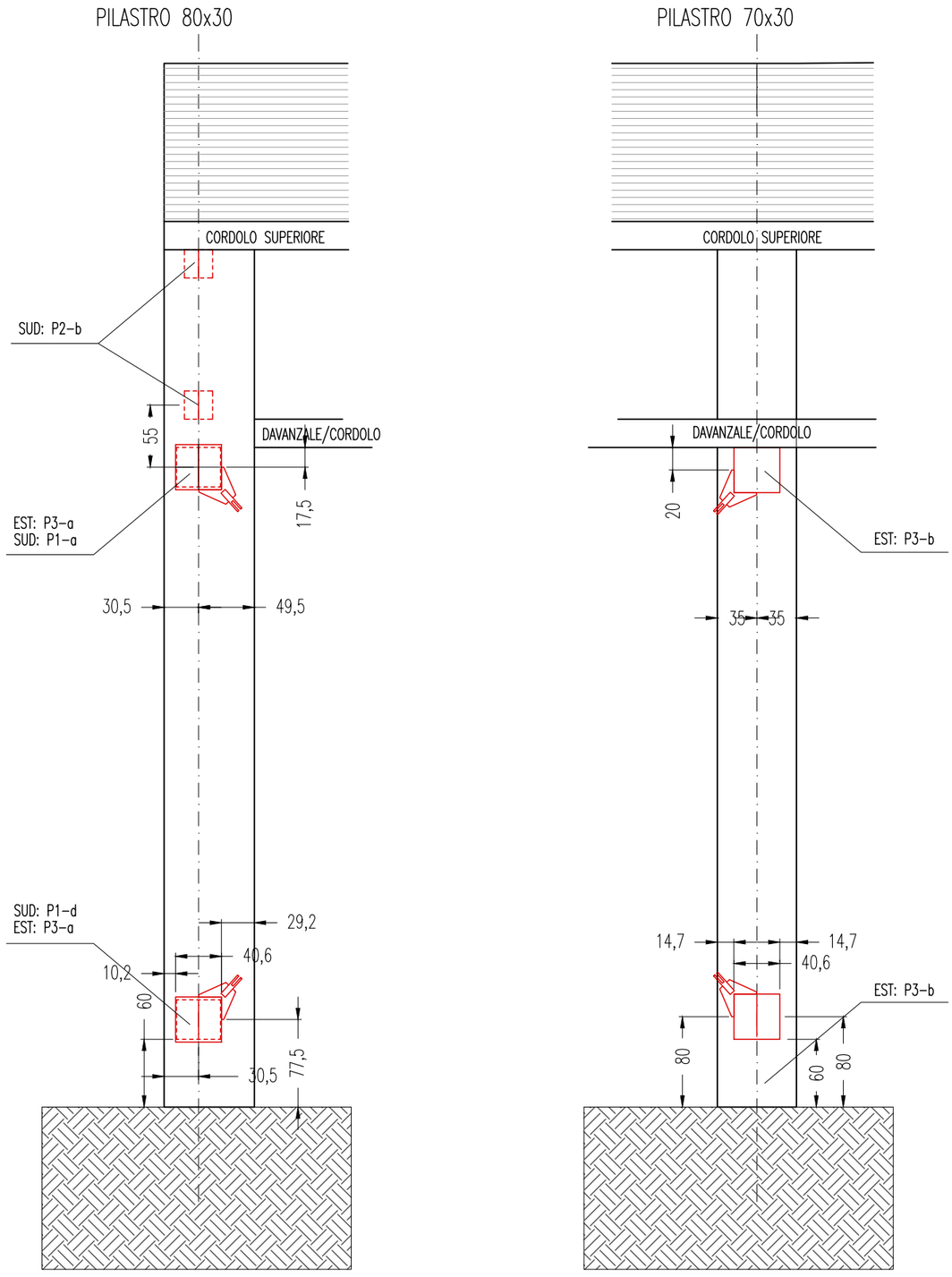


DETTAGLIO

A

LATO EST
POSIZIONAMENTO PIASTRE

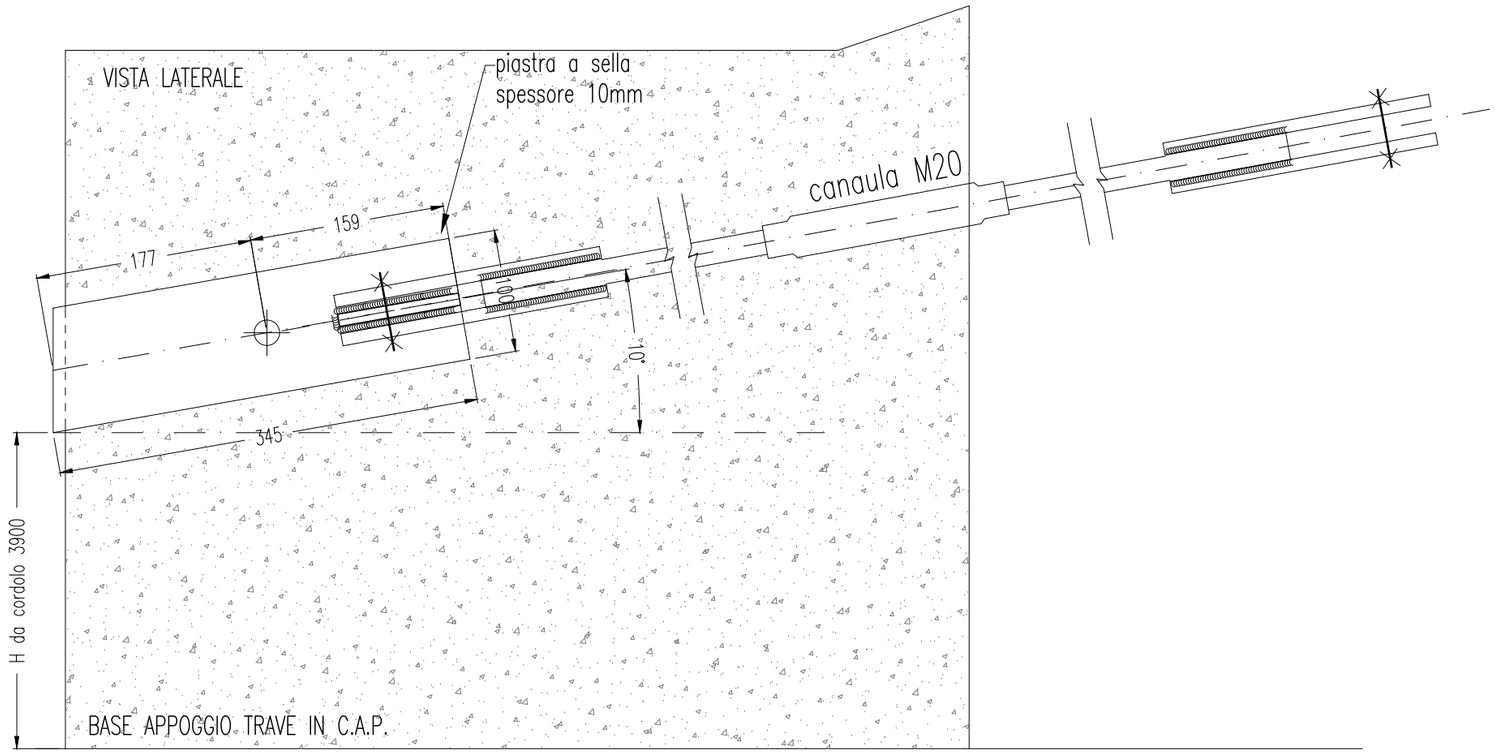
POSIZIONAMENTO PIASTRE
(tratteggiate piastre lato sud)

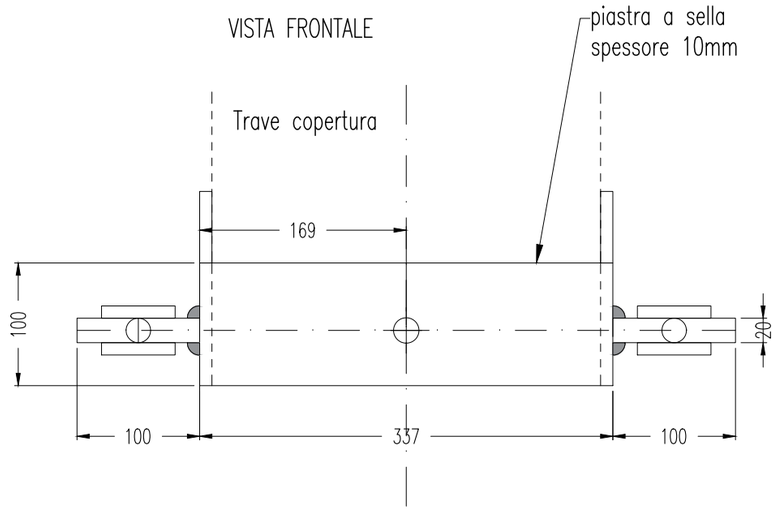


DETTAGLIO

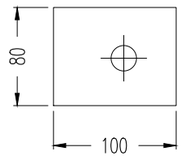
B

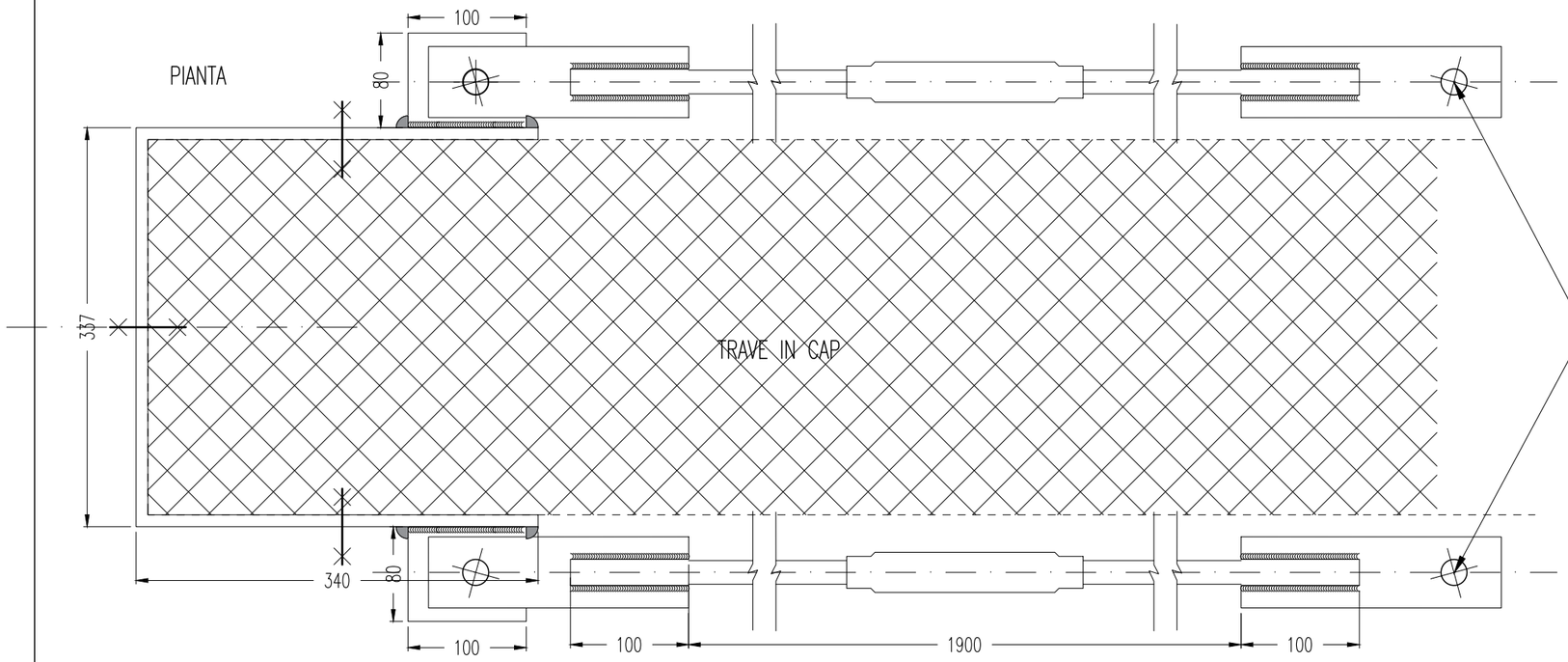
C1a: NODO SETTORE 1 - 6 LATO NORD SU TRAVE C.A.P.





PIASTRA ORIZZONTALE
sp.20mm – N°1 bullone M20



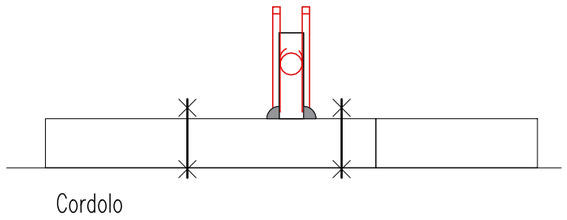


SCALA
1:5

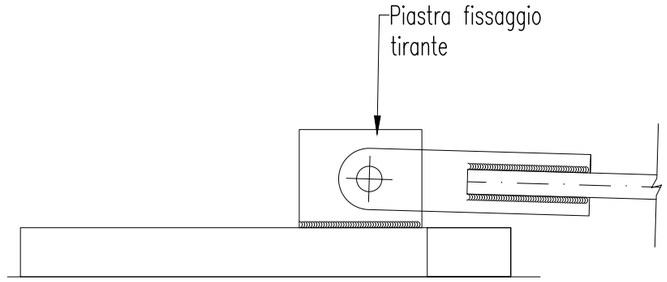
C1a

C1b: NODO SETTORE 1 LATO NORD SU CORDOLO

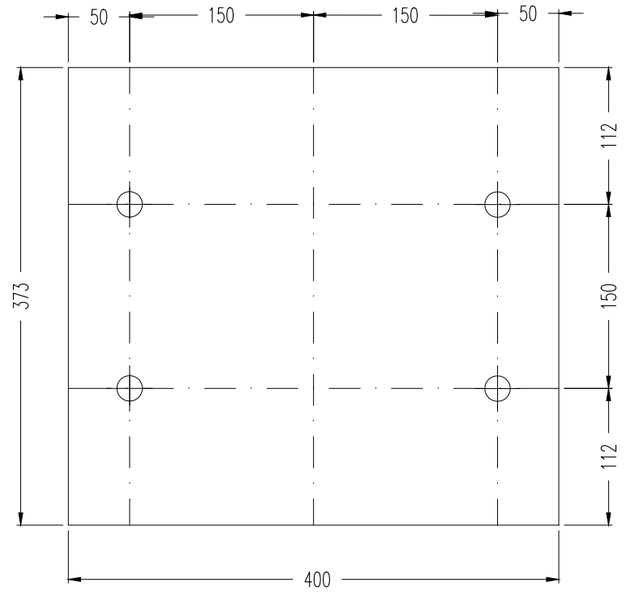
VISTA FRONTALE

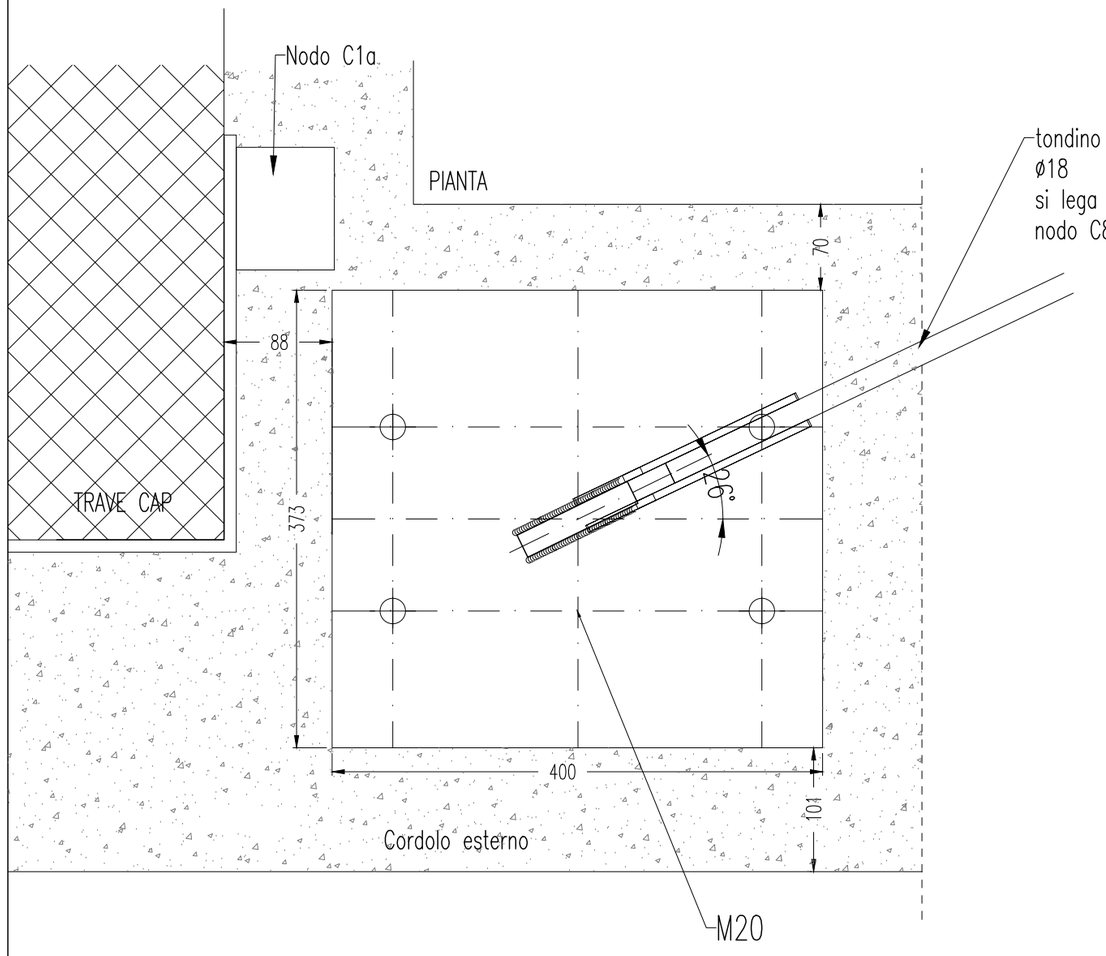


VISTA LATERALE

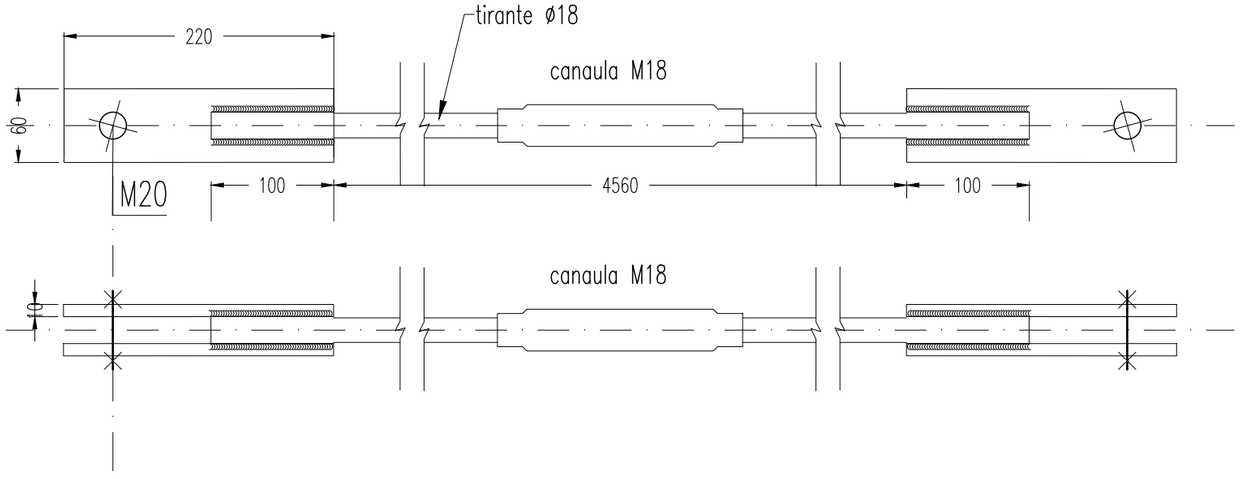


PIASTRA ANGOLARE SU CORDOLO sp.40mm
– N°4 bulloni M20

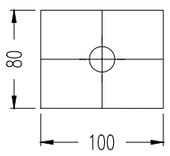




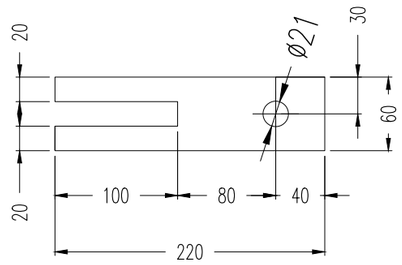
Tondino ø18 – N°1 bullone M20



PIASTRA FISSAGGIO TIRANTE
sp.20mm – N°1 bullone M20



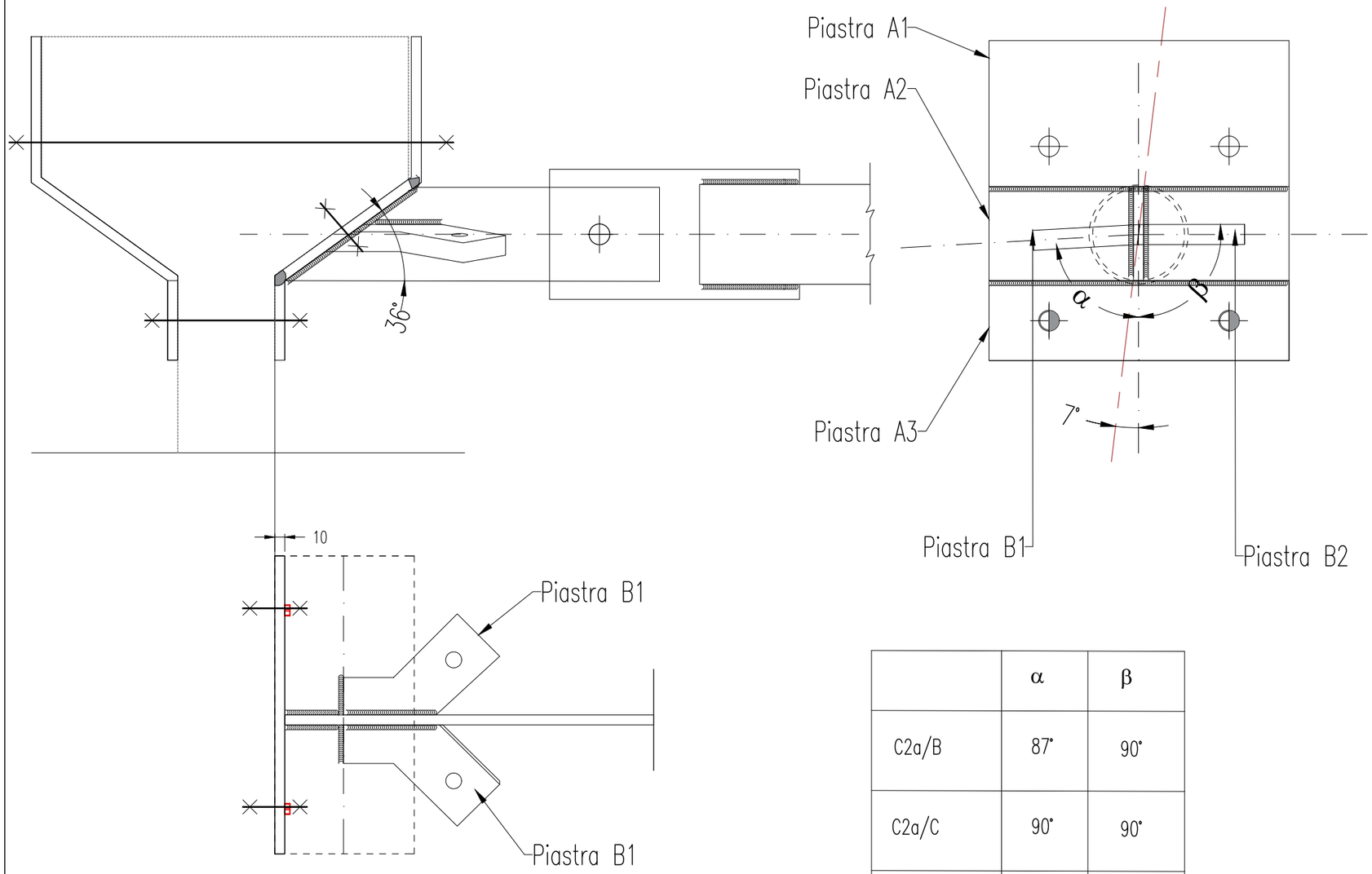
PIASTRA TONDINO ø20
2 piastre sp.=10mm – N°1 bullone M20



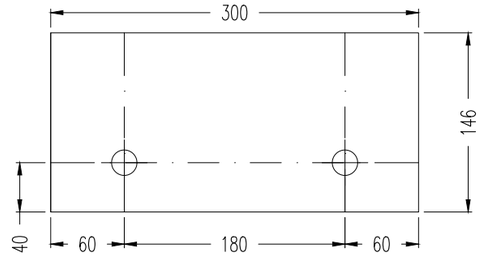
SCALA
1:5

C1b

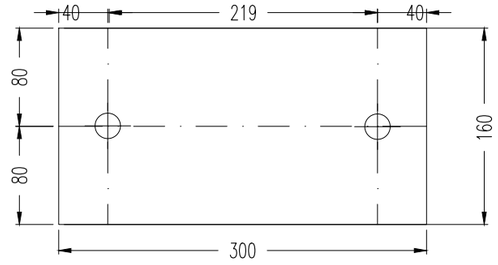
C2a: POSIZIONE PARTE ALTA TRAVE IN CAP



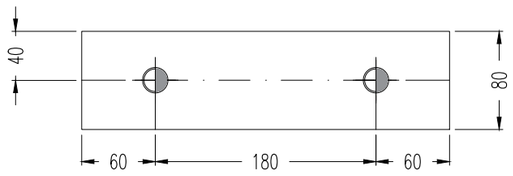
PIASTRA A1 SAGOMATA SU TRAVE C.A.P.
sp.10mm – N°2 bulloni chimici M20



PIASTRA A2 SAGOMATA SU TRAVE C.A.P.
sp.10mm – N°2 bulloni chimici M20

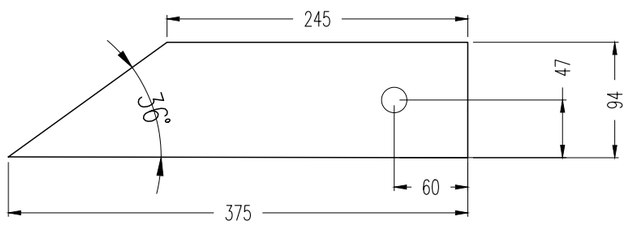


PIASTRA A3 SAGOMATA SU TRAVE C.A.P.
sp.10mm – N°2 bulloni M16

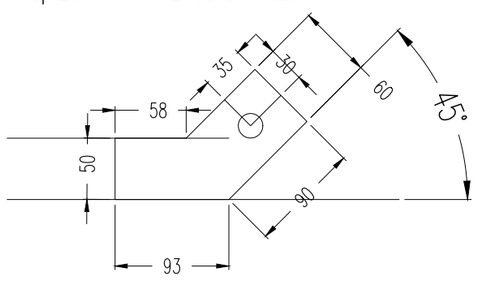


	α	β
C2a/B	87°	90°
C2a/C	90°	90°
C2a/D	90°	82°
C2a/E	84°	90°
C2a/F	90°	87°

PIASTRA C
sp.10mm – N°1 bulloni M20



PIASTRA B1–B2
sp.20mm – N°2 bulloni M20

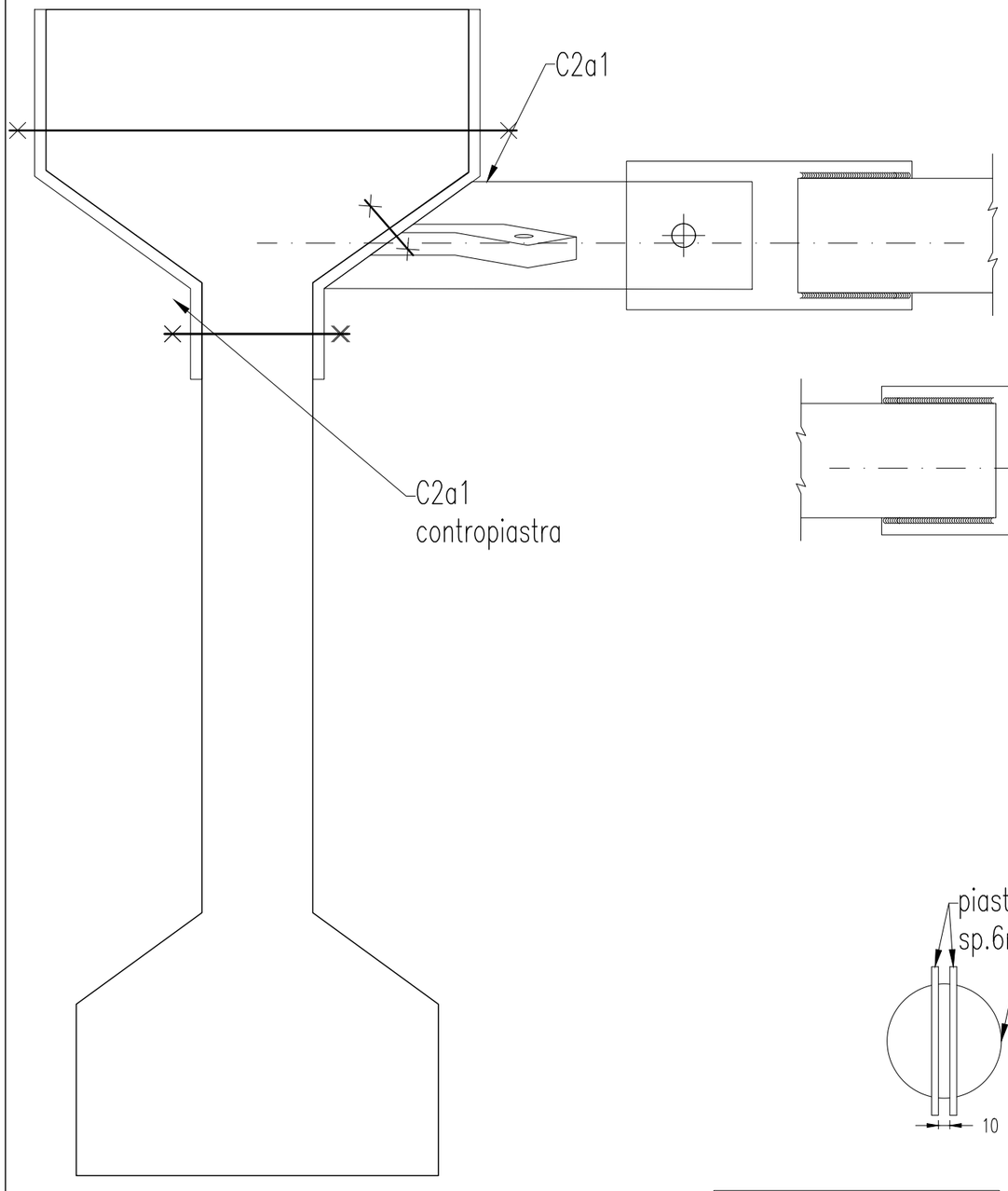


SCALA
1:5

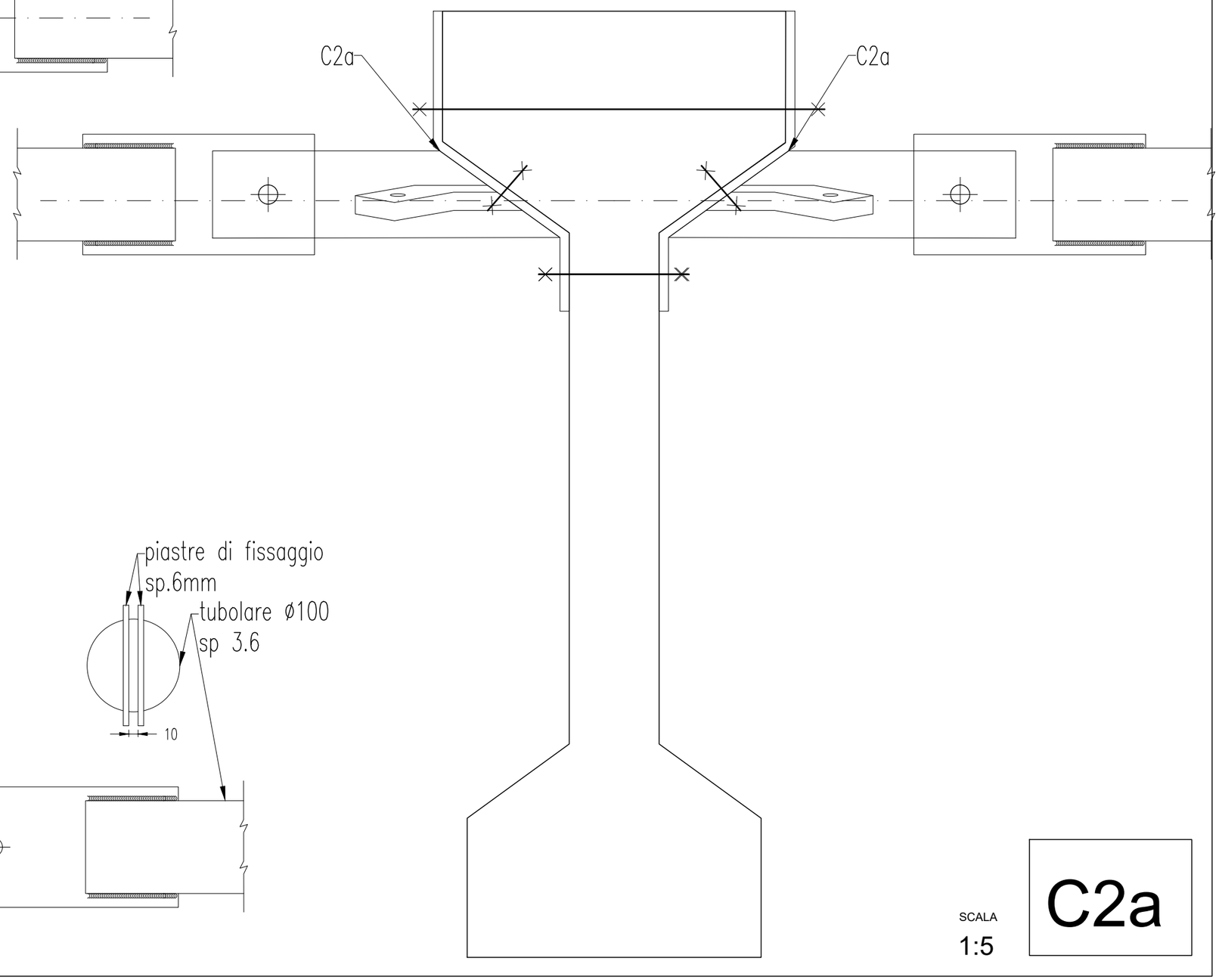
C2a

C2a: SCHEMA DI MONTAGGIO

TRAVI SETTORE 1 E SETTORE 6



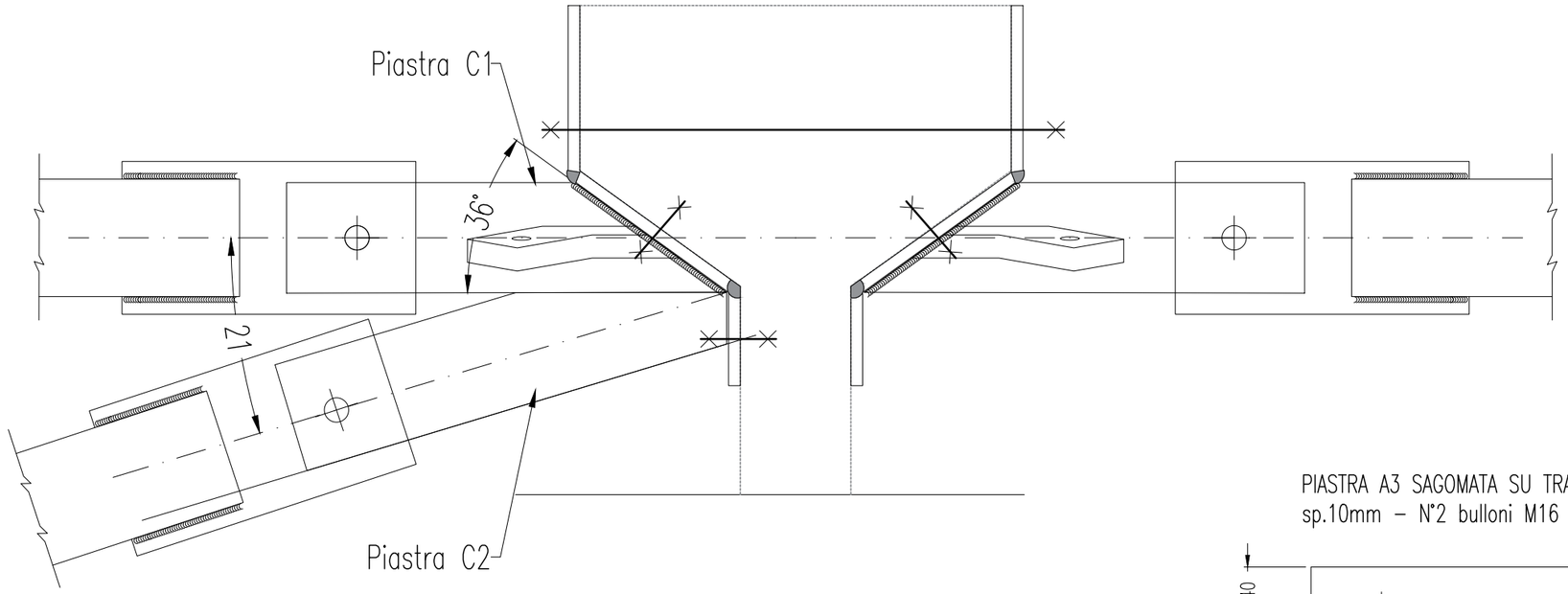
TRAVI SETTORE 2 - 5

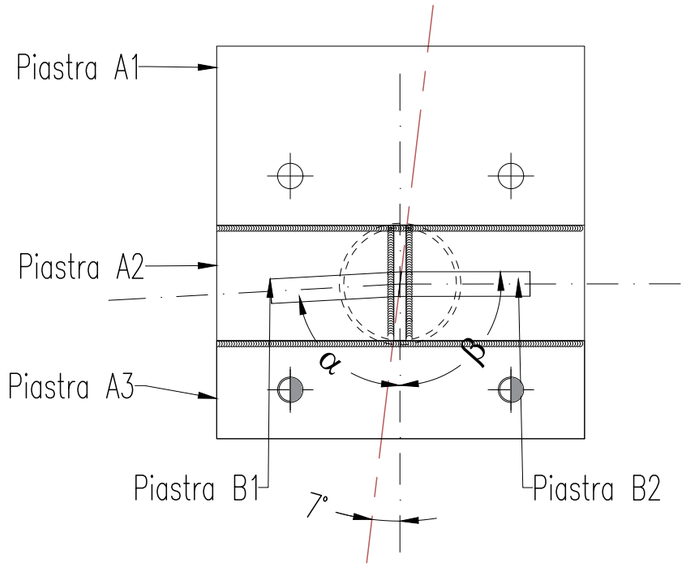


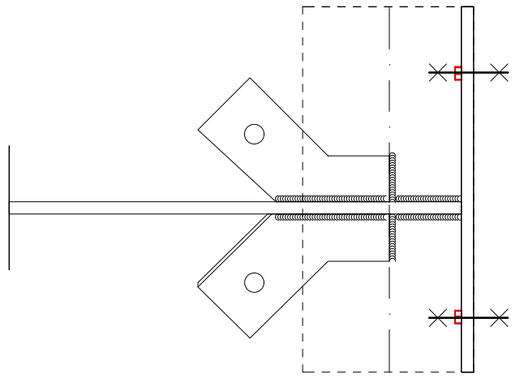
SCALA
1:5

C2a

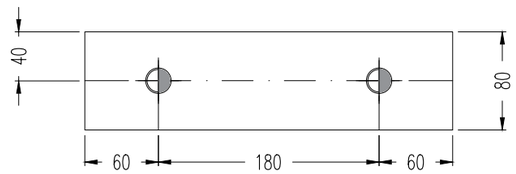
C2b: POSIZIONE PARTE ALTA TRAVE IN CAP



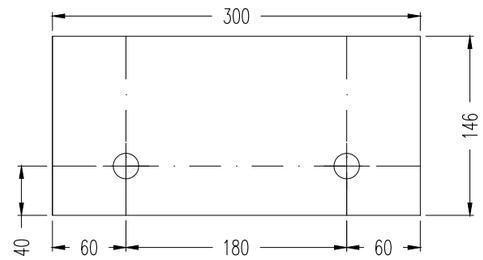




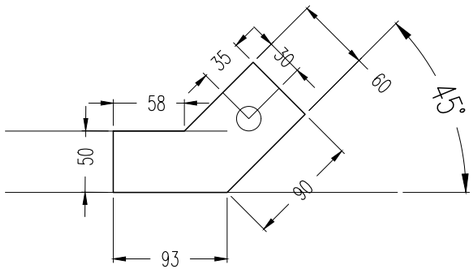
PIASTRA A3 SAGOMATA SU TRAVE C.A.P.
sp.10mm – N°2 bulloni M16



PIASTRA A1 SAGOMATA SU TRAVE C.A.P.
sp.10mm – N°2 bulloni chimici M20



PIASTRA B1–B2
sp.20mm – N°2 bulloni M20



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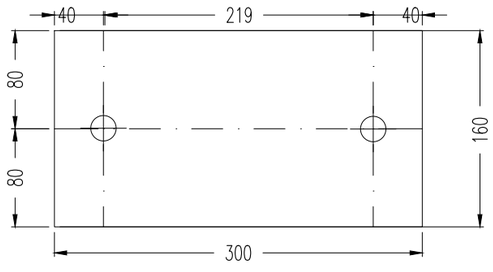
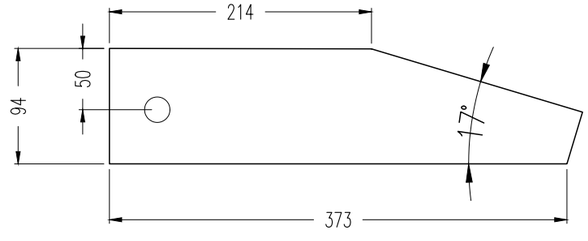
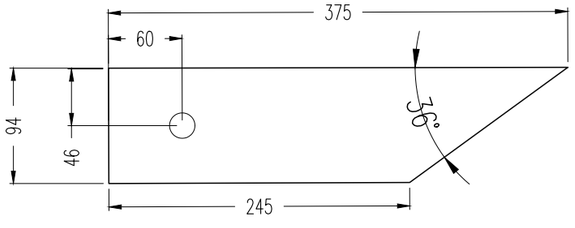
sp.10mm – N°2 bulloni chimici M20



PIASTRA C2
sp.10mm – N°1 bulloni M20



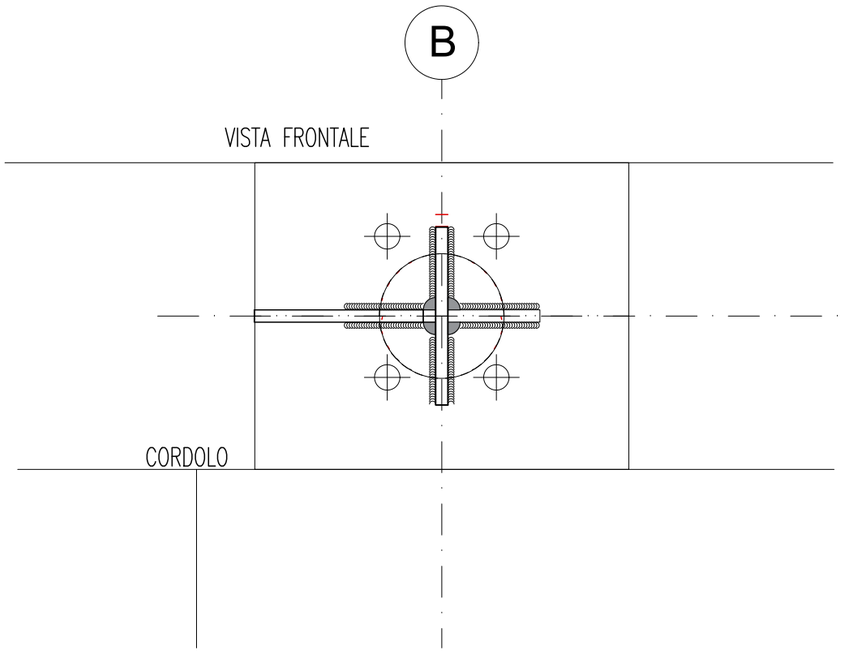
PIASTRA C1
sp.10mm – N°1 bulloni M20

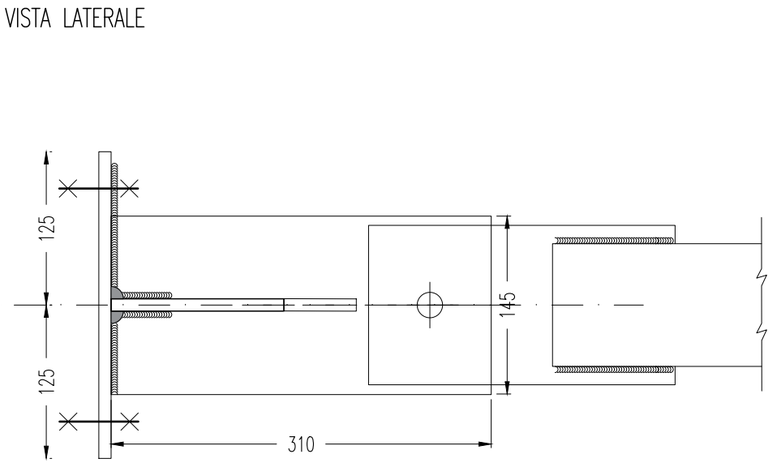


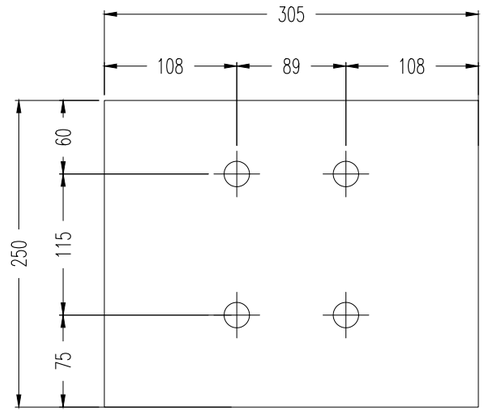
SCALA
1:5

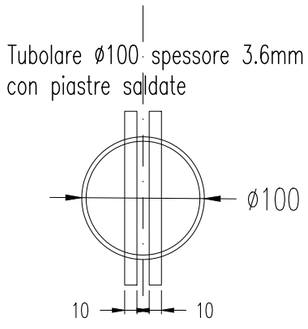
C2b

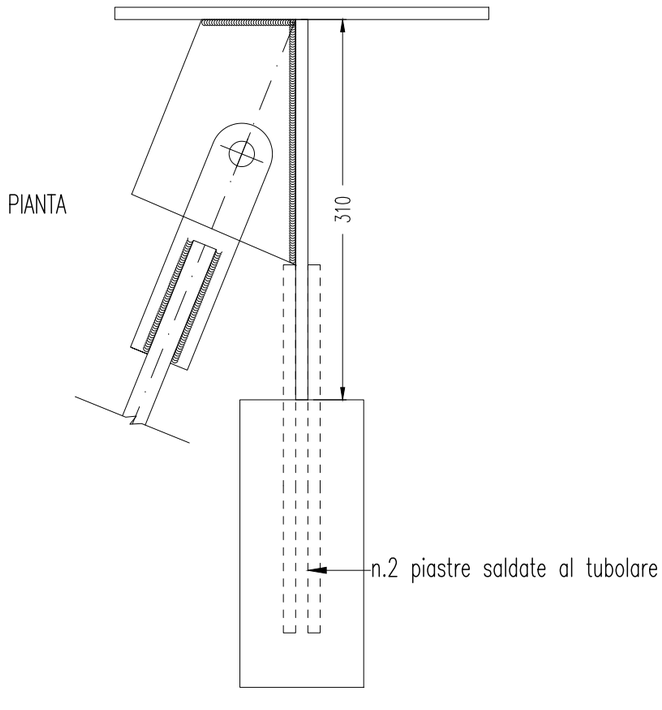
C3a: SETTORE 1 e 6 SU CORDOLO ASSE 1B e 7B



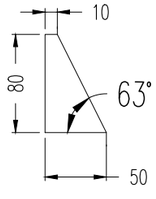




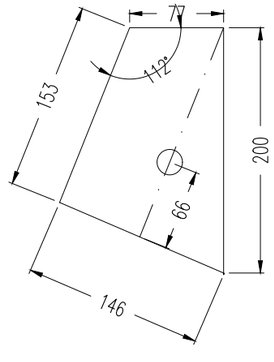


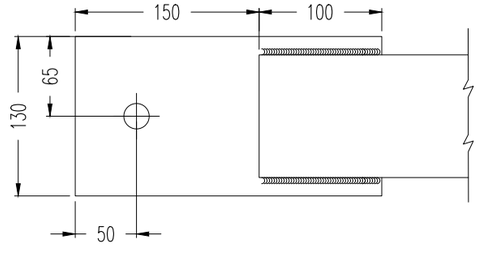


fazzoletti di rinforzo
spessore 10mm



PIASTRA per tubolare orizzontale
spessore 10mm

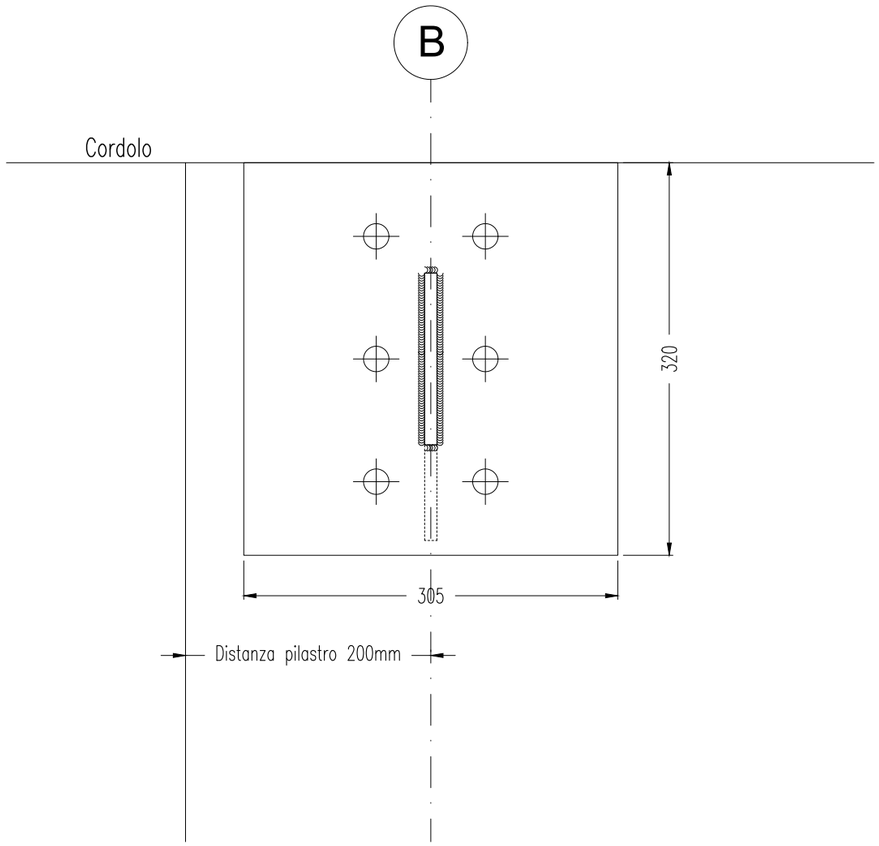


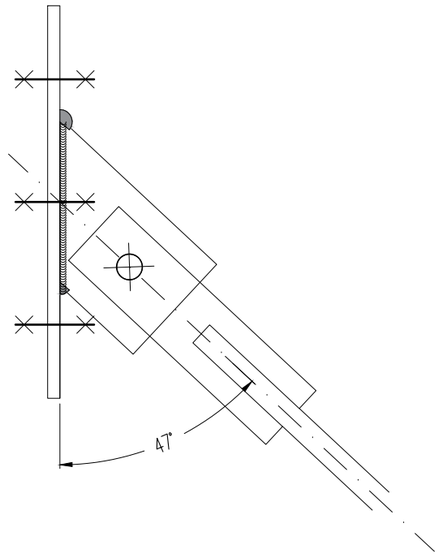


SCALA
1:5

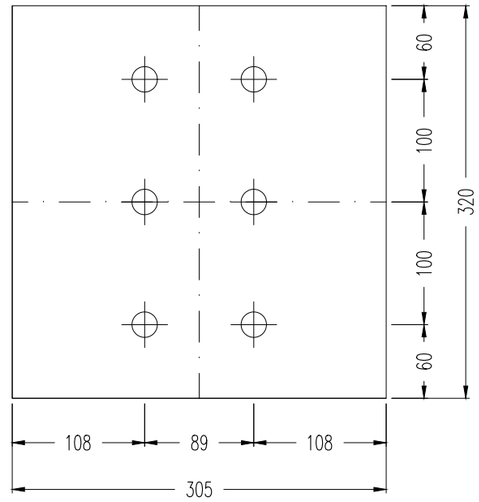
C3a

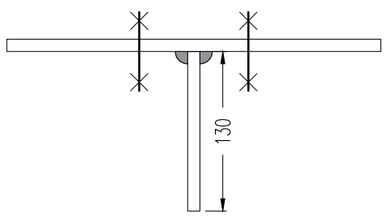
C3b: ASSE B/1 e B/7 SU PILASTRO 30x70cm - in alto con contropiastra esterna



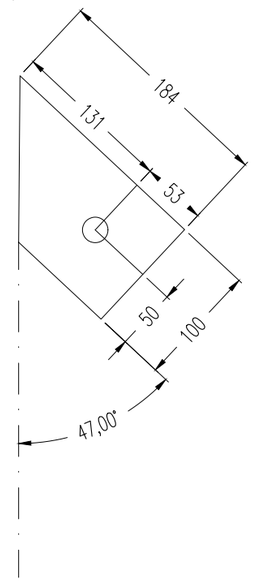


PIASTRA SU PILASTRO
sp.10mm – N°6 bulloni chimici M20

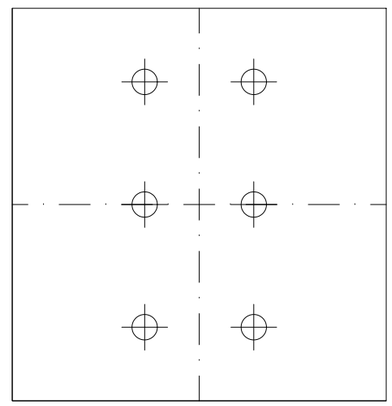




PIASTRA DI COLLEGAMENTO tenditore
sp.10mm – N°1 bulloni M20



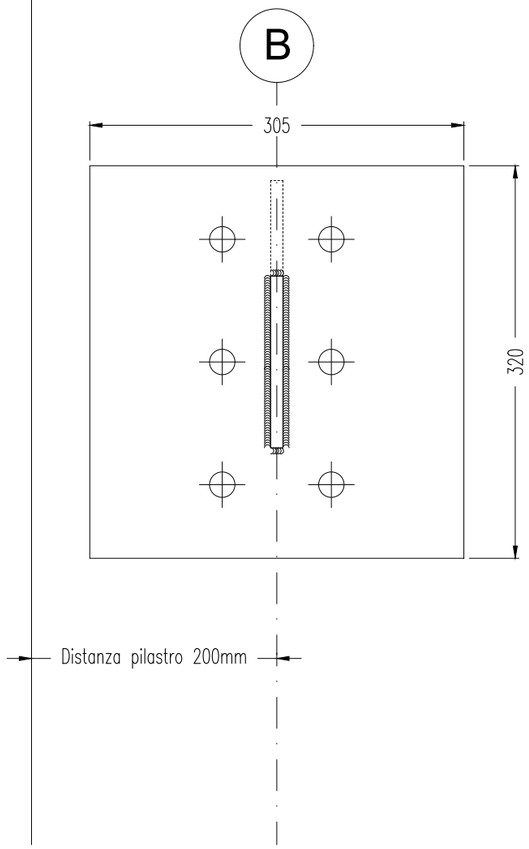
CONTROPIASTRA SU PILASTRO ESTERNO
sp.10mm – N°6 bulloni chimici M20

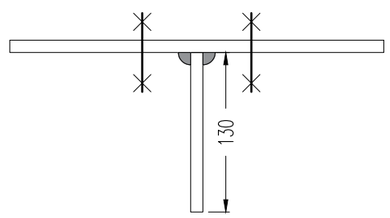


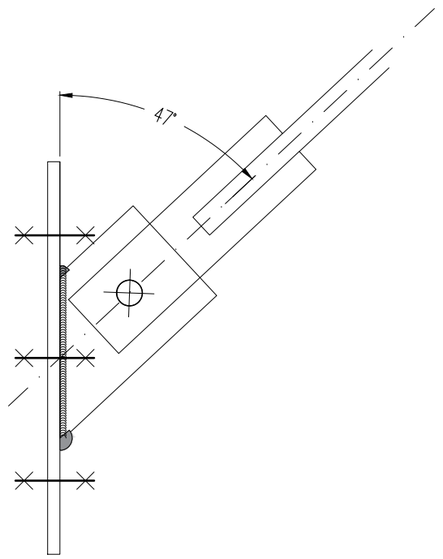
SCALA
1:5

C3b

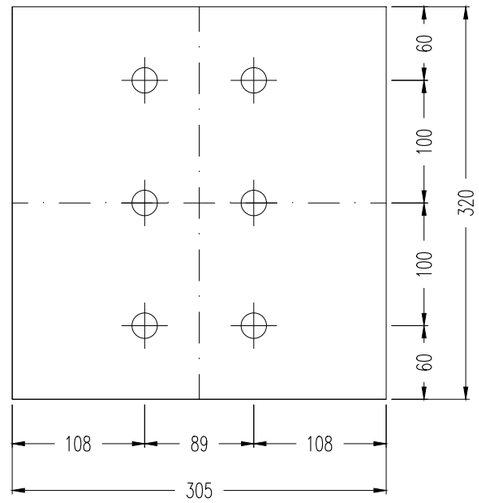
C3c: ASSE B/2-3-5-6 PARTE INFERIORE DEI PILASTRI (vedi dettaglio C6 e C12)



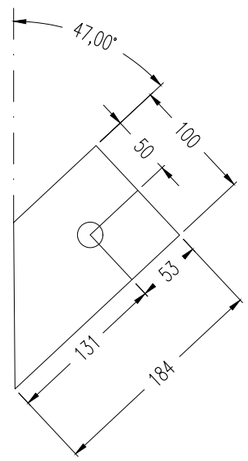




PIASTRA SU PILASTRO
sp.10mm – N°6 bulloni chimici M20



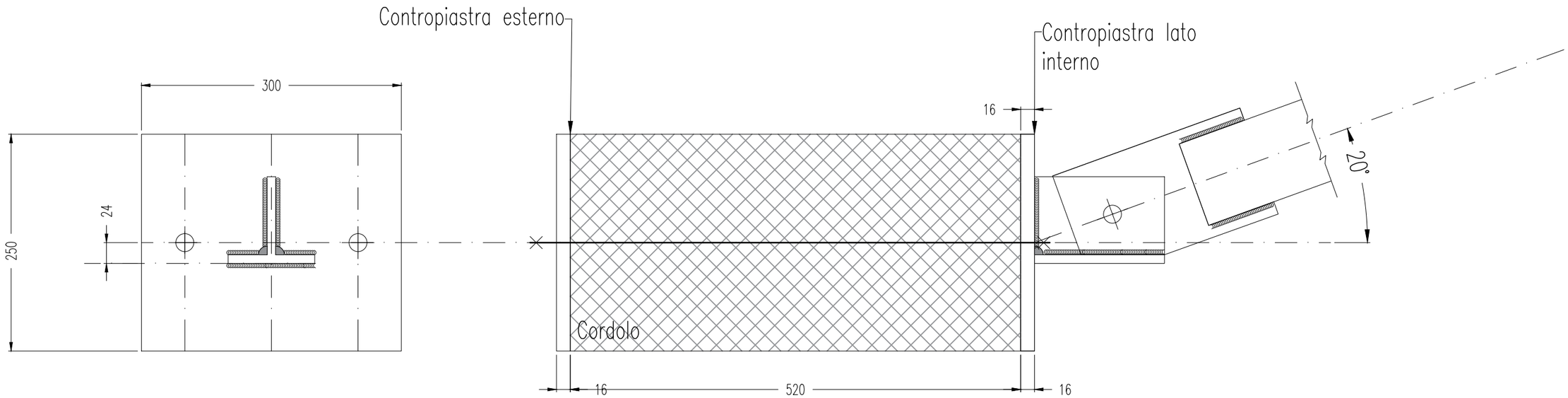
PIASTRA DI COLLEGAMENTO tenditore
sp.10mm – N°1 bulloni M20

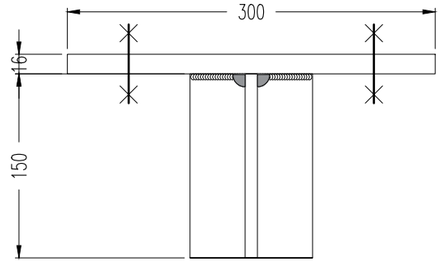


SCALA
1:5

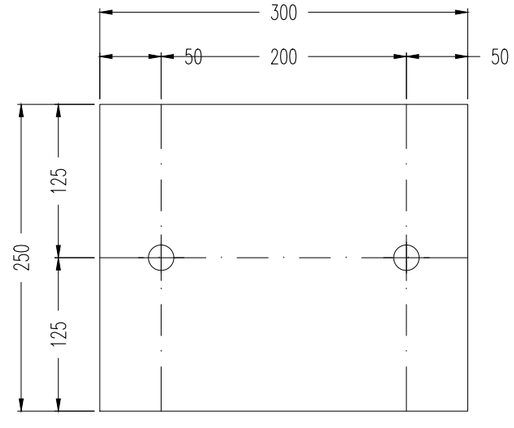
C3c

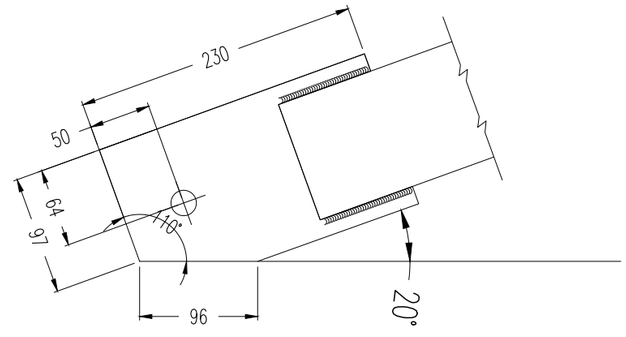
PARTICOLARE C4a SU ASSE F1 - F7



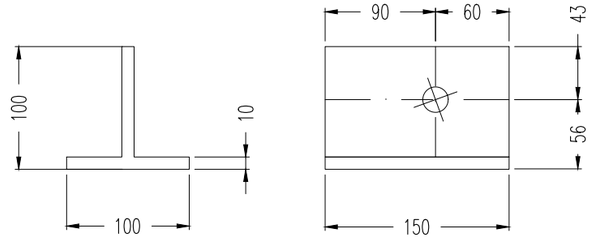


CONTROPIASTRA su CORDOLO
sp.16mm – N°2 bulloni chimici M20





PIASTRA A T
sp.10mm – N°1bulloni M20

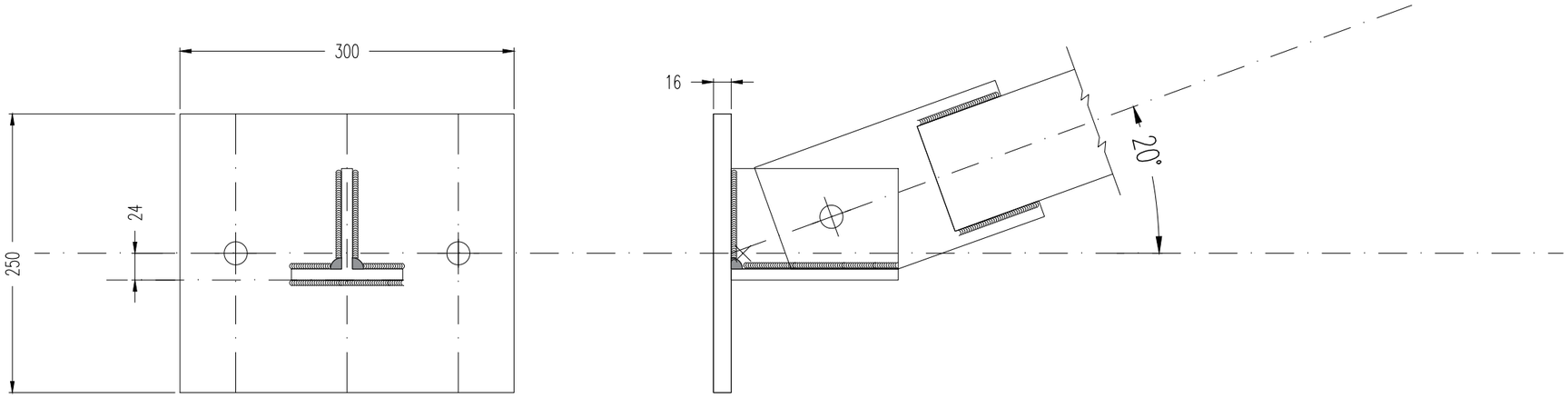


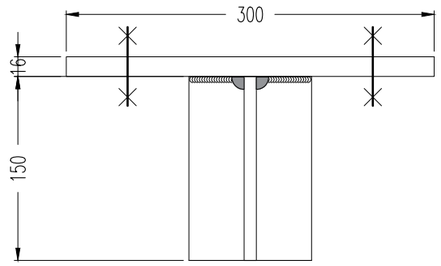
SCALA
1:5

C4a

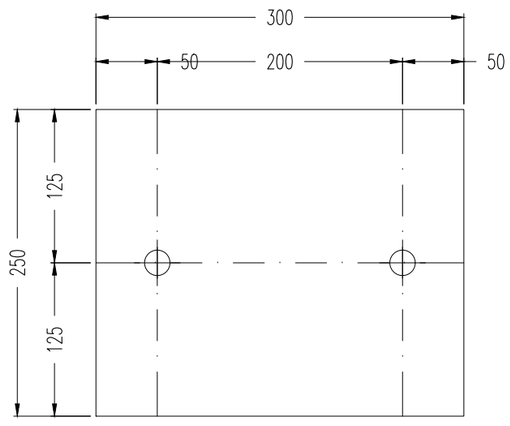
PARTICOLARE C4b SU ASSI C1 - D1 - E1 e su ASSE C7 - D7 - E7

CONTROPIASTRA su CORDOLO
sp.16mm – N°2 bulloni chimici M20

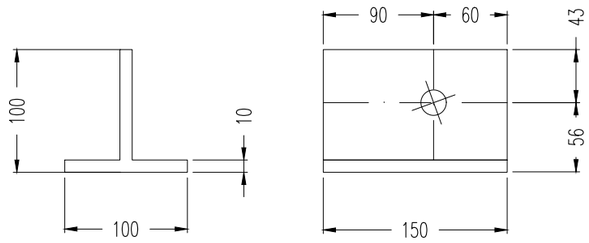




CONTROPIASTRA su CORDOLO
sp.16mm – N°2 bulloni chimici M20



PIASTRA A T
sp.10mm – N°1bulloni M20

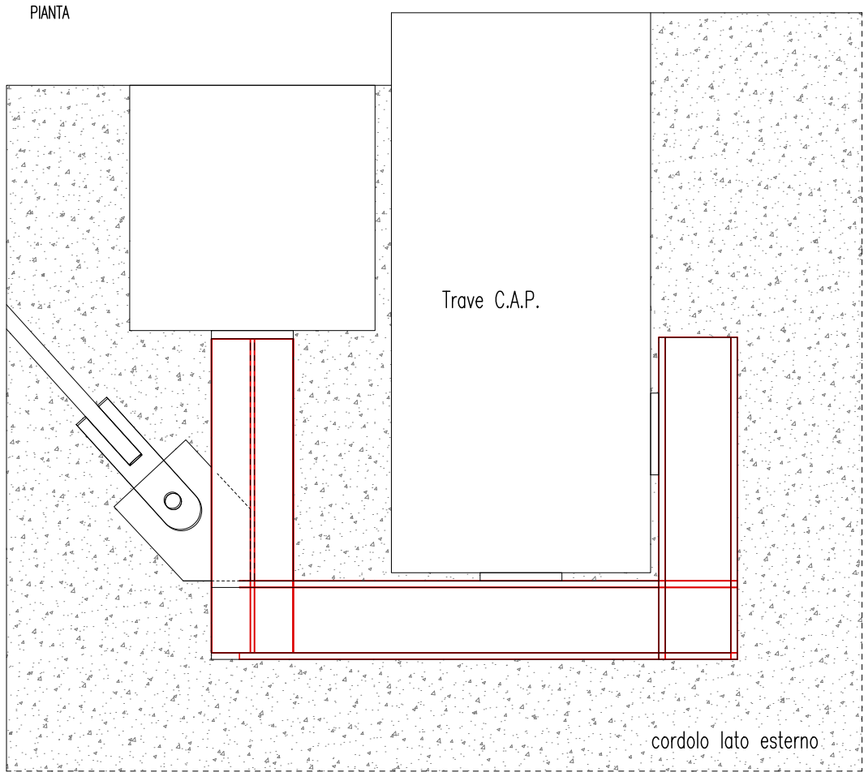


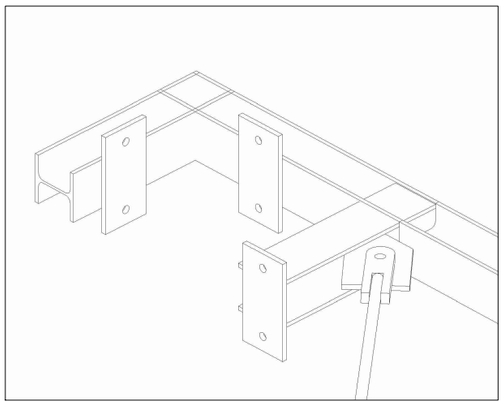
SCALA
1:5

C4b

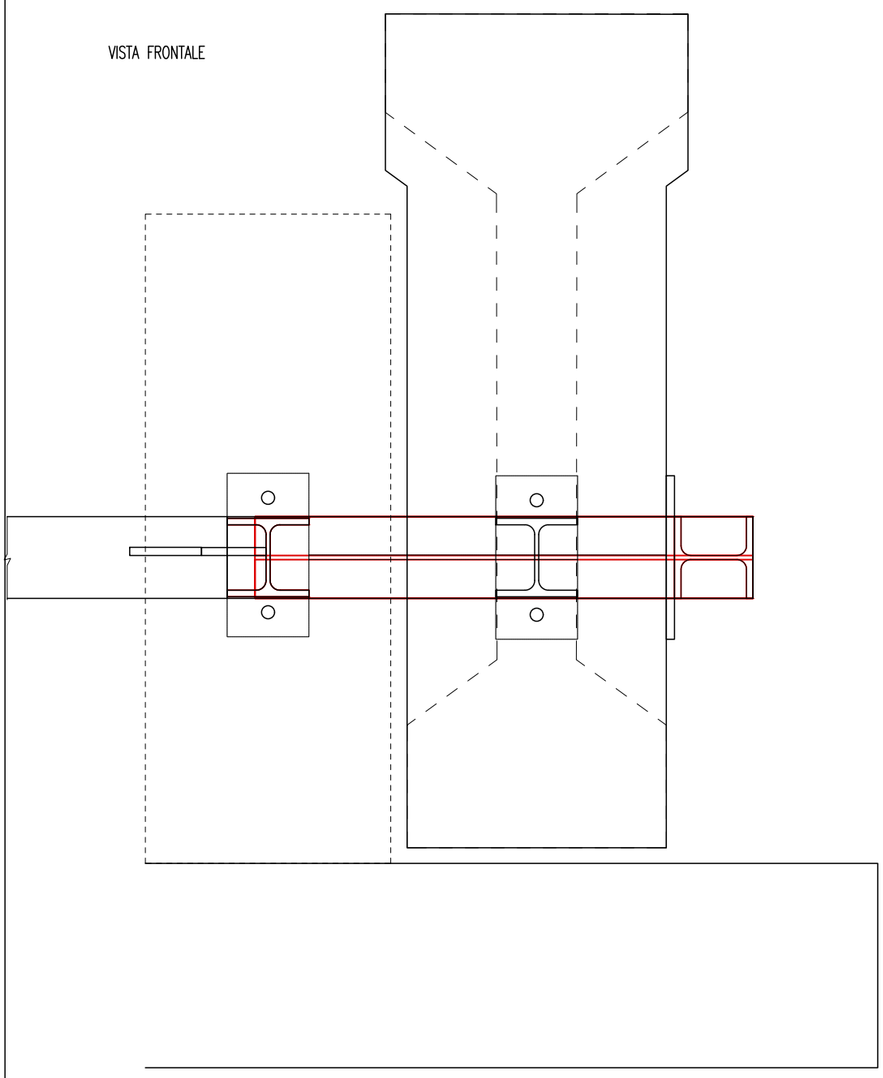
PARTICOLARE C5 angolo (vedi anche C13a e b)

PIANTA

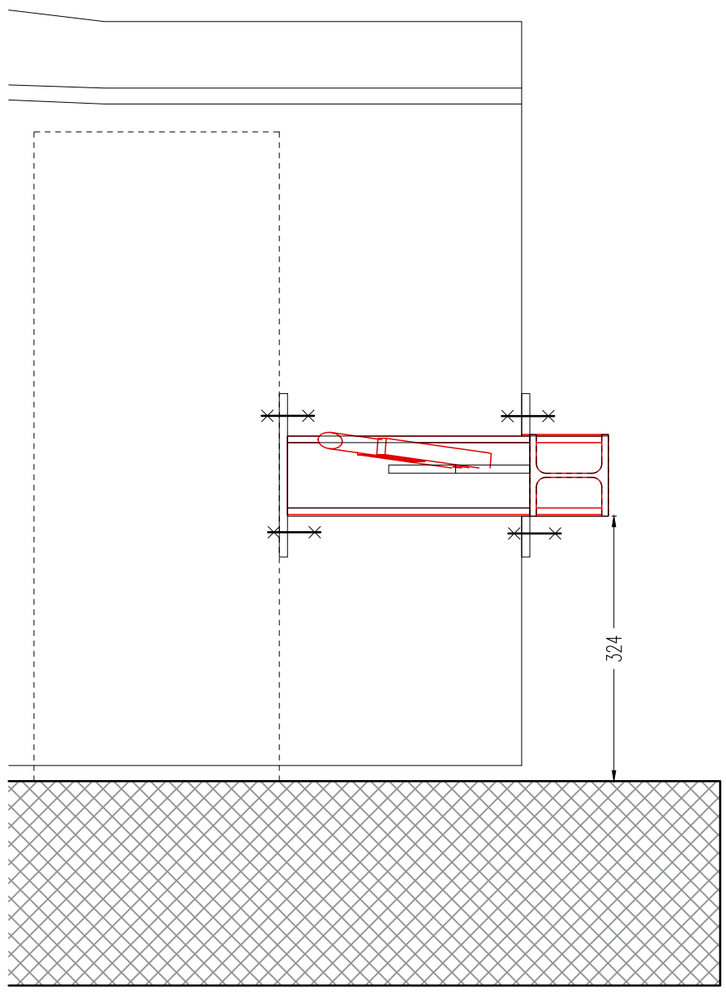




VISTA FRONTALE

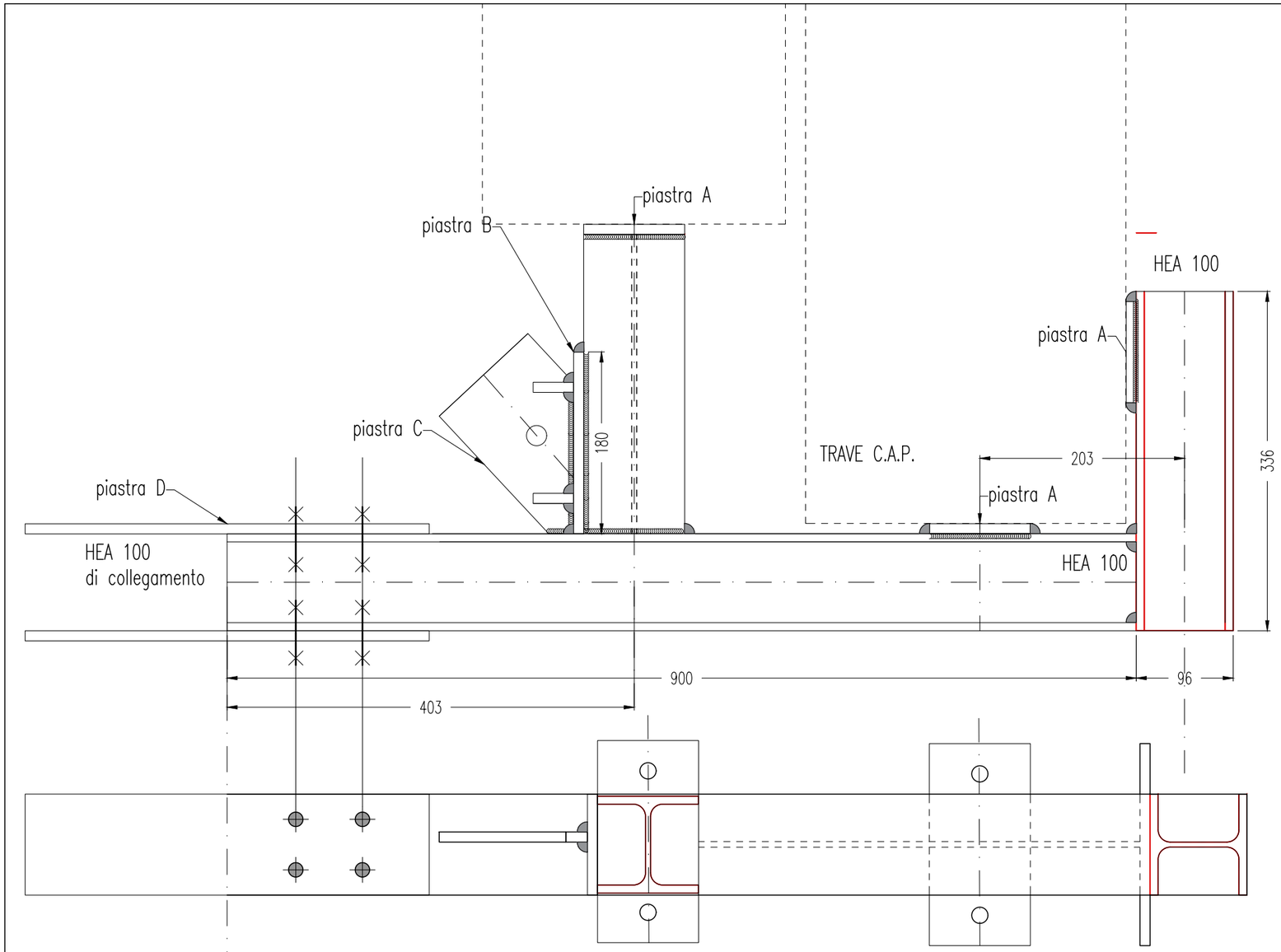


VISTA LATERALE

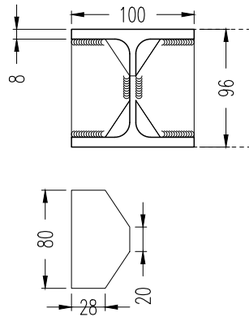


SCALA
1:7,5

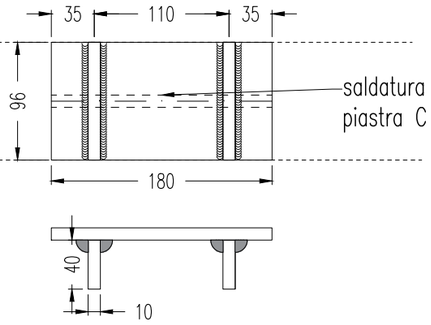
DETTAGLIO
C5



HEA 100
piastre di rinforzo saldate

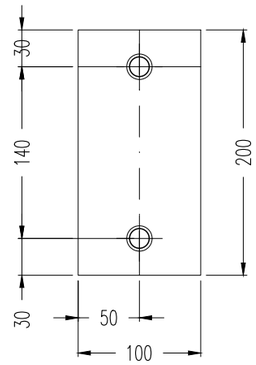


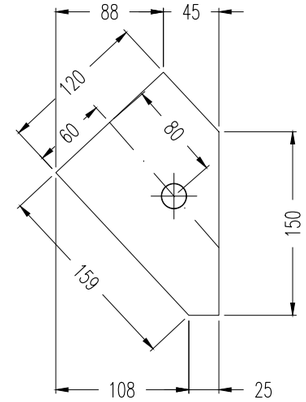
Piastra tipo B
spessore 10 mm



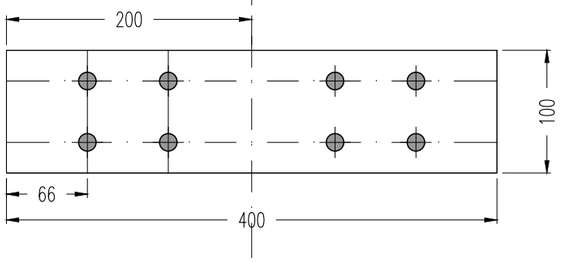
Piastra tipo A
spessore 10 mm

Piastra tipo C
spessore 10 mm

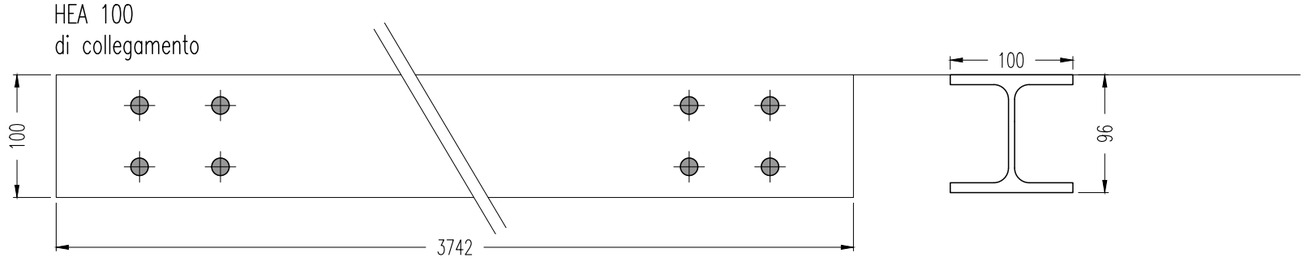




Piastra tipo D
spessore 10 mm



HEA 100
di collegamento

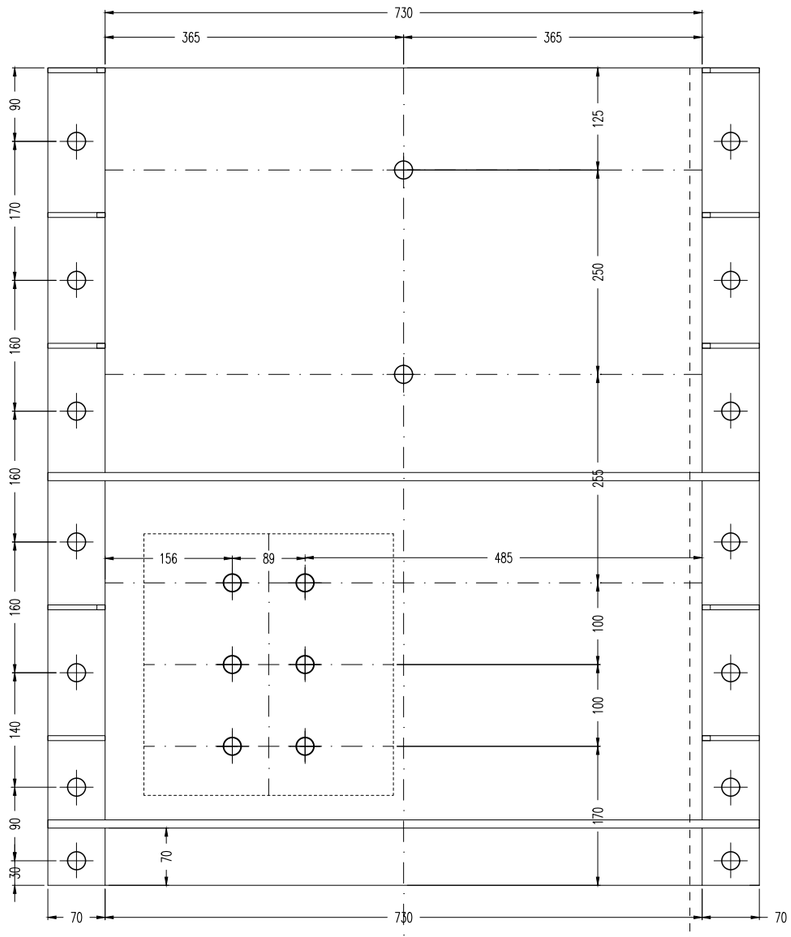


SCALA
1:5

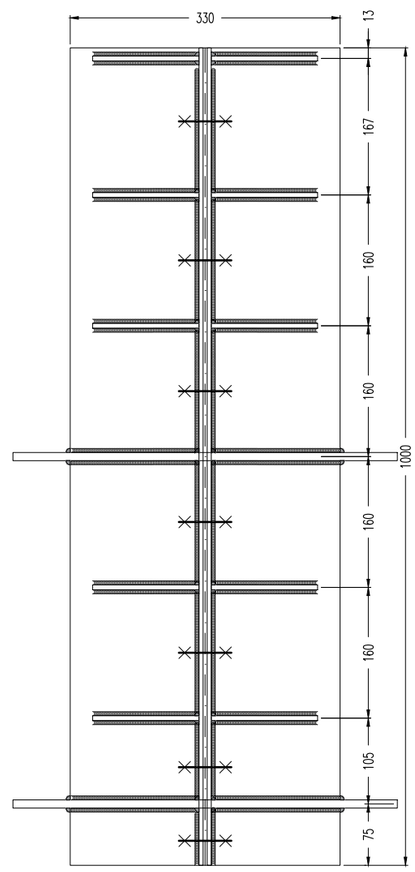
C5

C6: CERCHIATURA IN ACCIAIO PILASTRI 30X70 SETTORE 1 E 6 LATO TRIBUNA

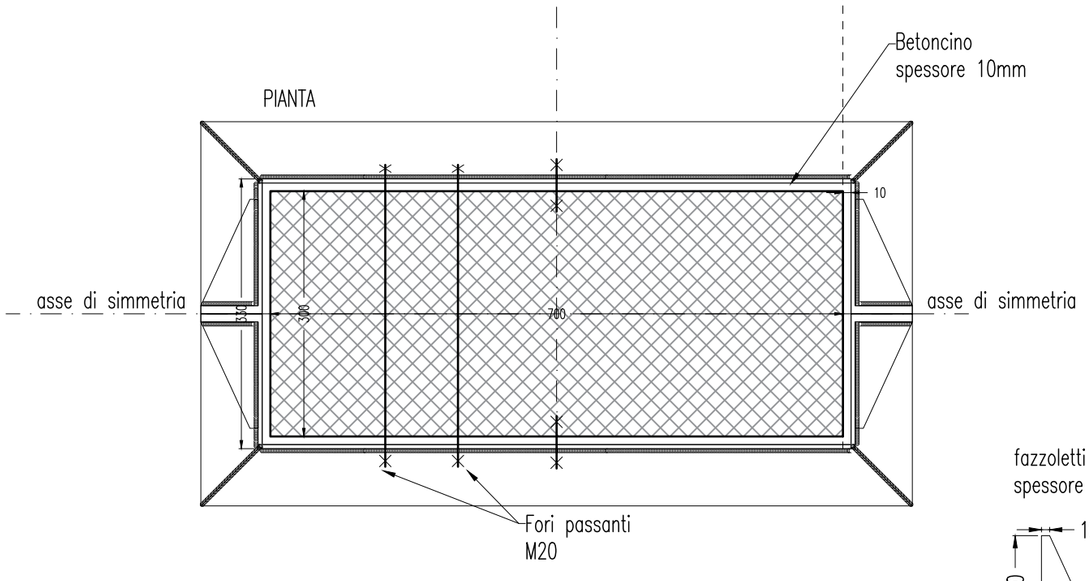
VISTA FRONTALE PIASTRA

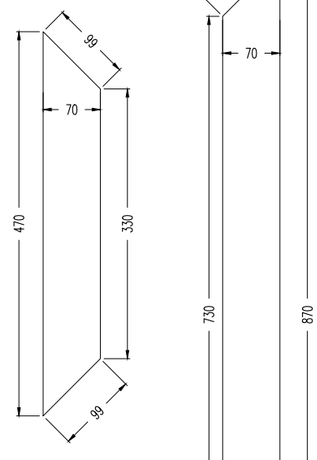


VISTA LATERALE PIASTRA

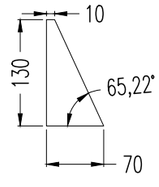


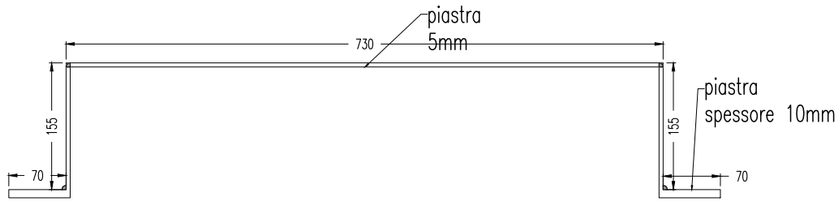
PIANTA





fazzoletti di rinforzo
spessore 6mm



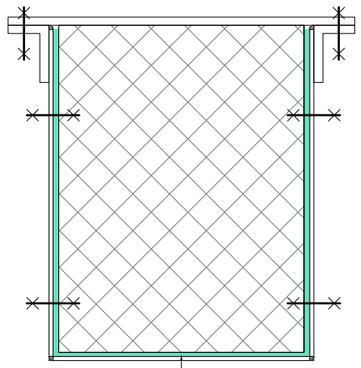


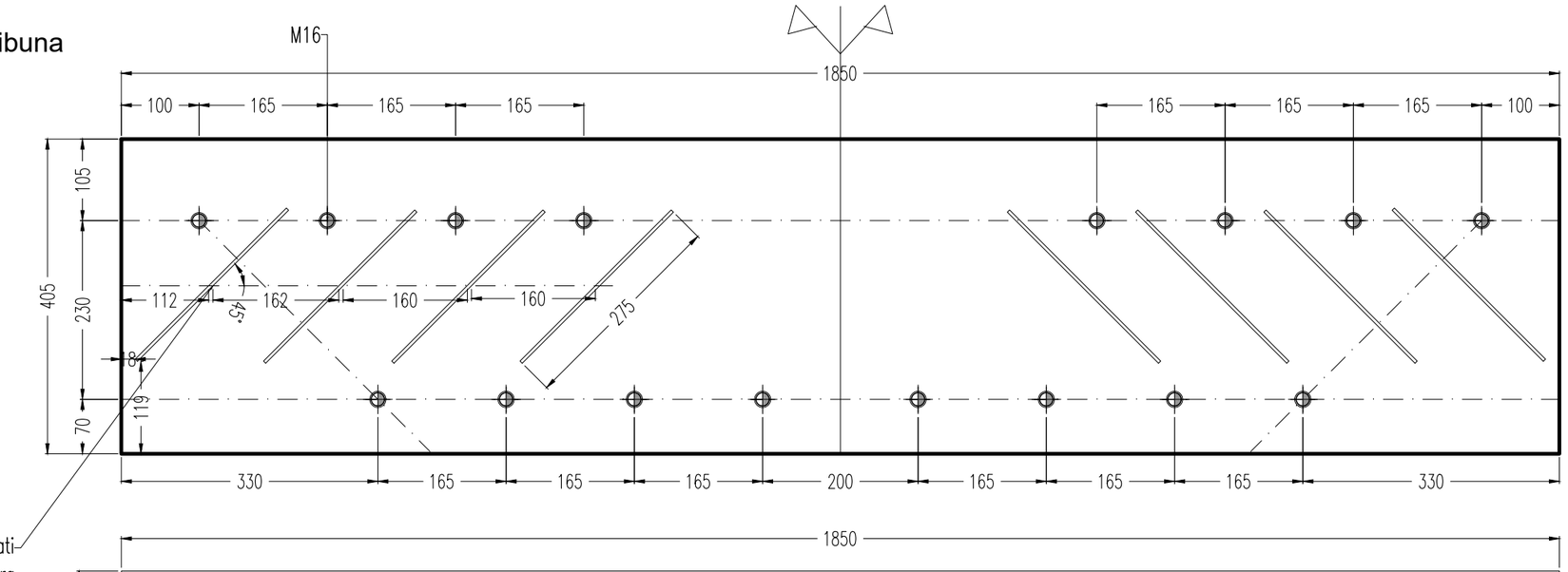
NOTA: INTERNAMENTE VERRANNO SALDATI TONDINI ø6 VEDI PARTICOLARE C12

SCALA
1:7,5

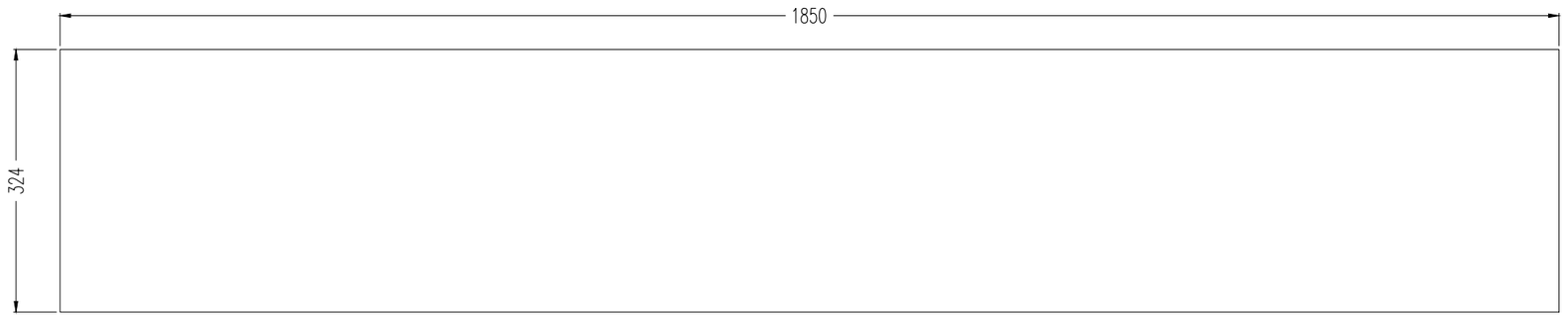
DETTAGLIO
C6

PARTICOLARE C7 + C11 trave tribuna



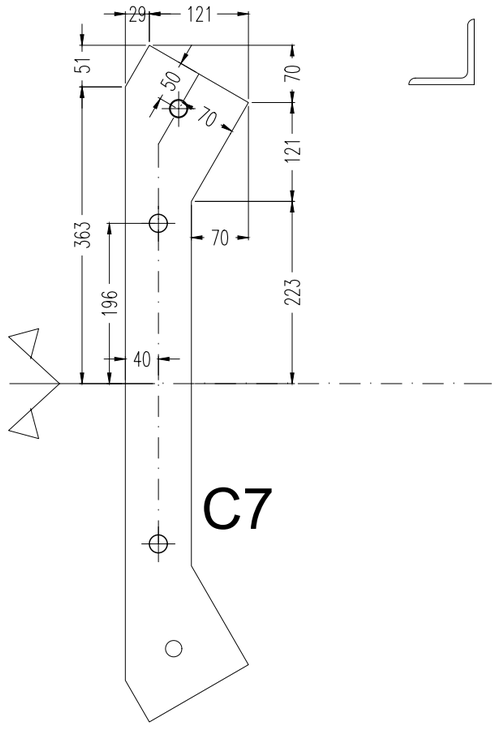


C11

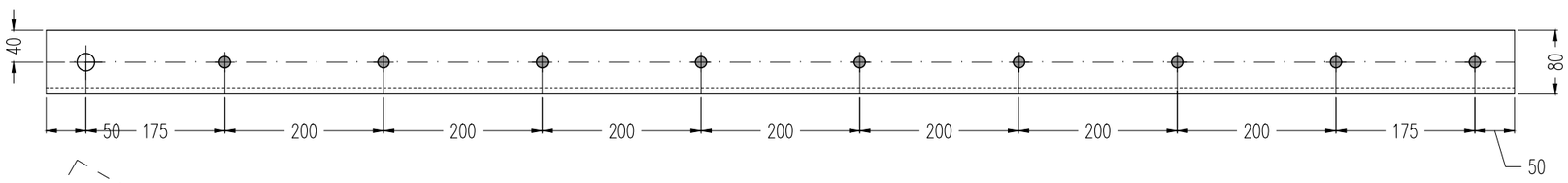


PIASTRA
spessore 15mm

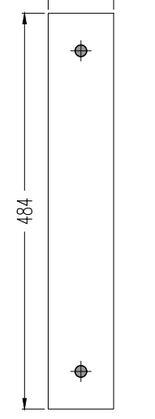
PROFILO ALI UGUALI
80x80x8

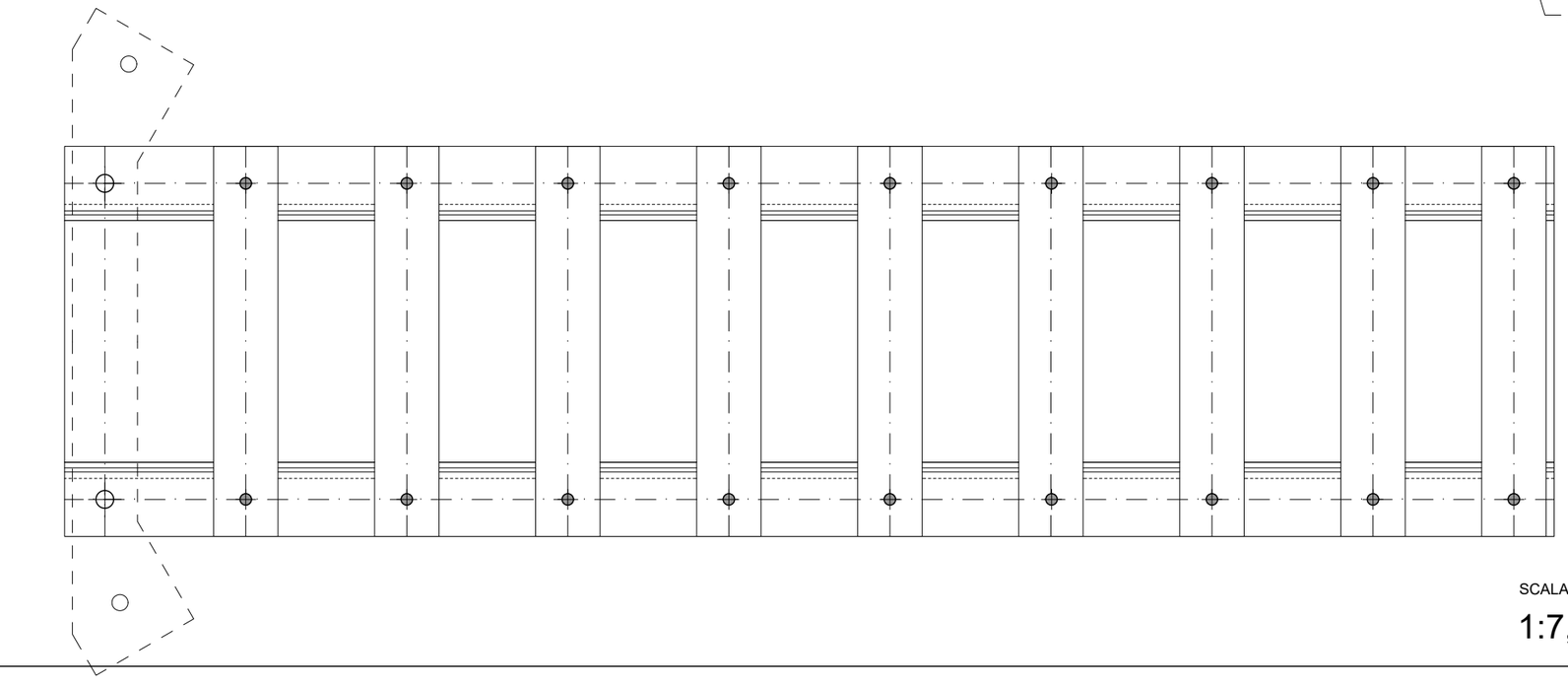


C7



PIASTRE
Spessore 8 mm





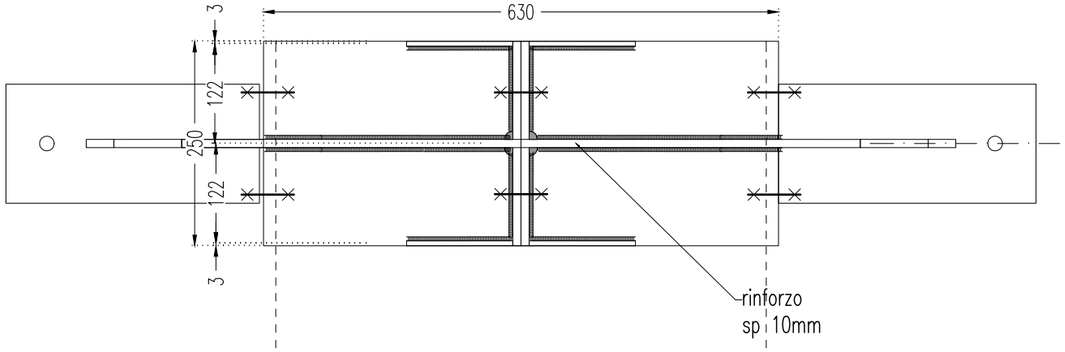
SCALA
1:7,5

DETTAGLIO

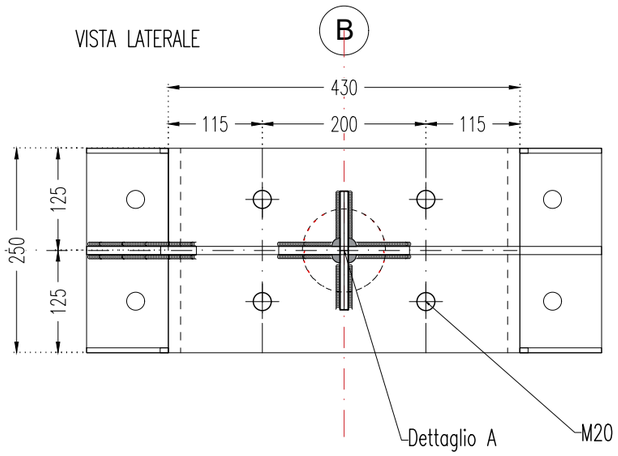
C7+C11

NODO C8 : SETTORE TRIBUNA

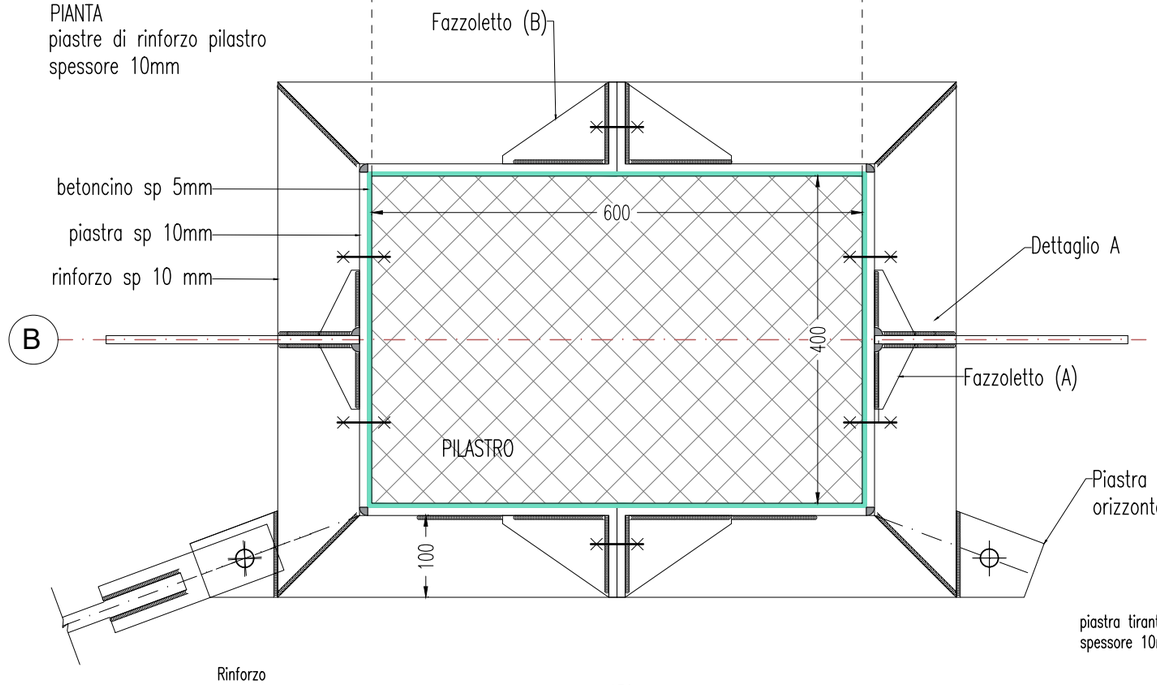
VISTA FRONTALE



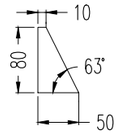
VISTA LATERALE



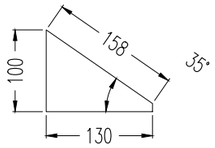
PIANTA
piastre di rinforzo pilastro
spessore 10mm



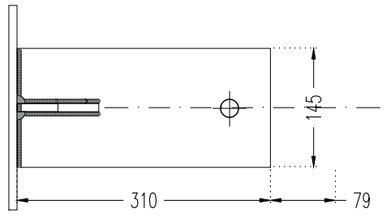
fazzoletti di rinforzo (A)
spessore 10mm

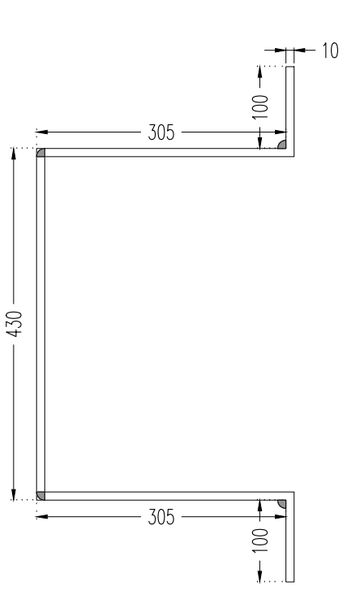


fazzoletti di rinforzo (B)
spessore 6mm

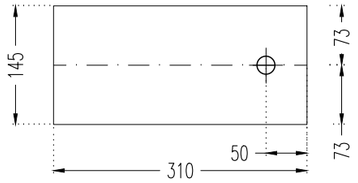


VISTA LATERALE dettaglio A su asse B

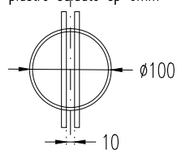


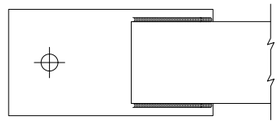


piastra di collegamento TUBOLARE ø100
spessore 10mm

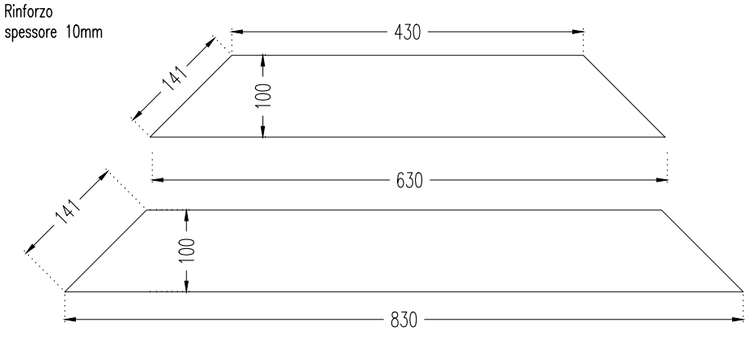


Tubolare ø100 spessore 3.6mm
con piastre saldate sp 6mm

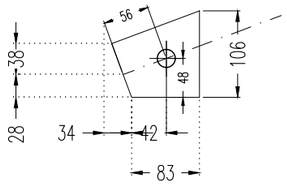


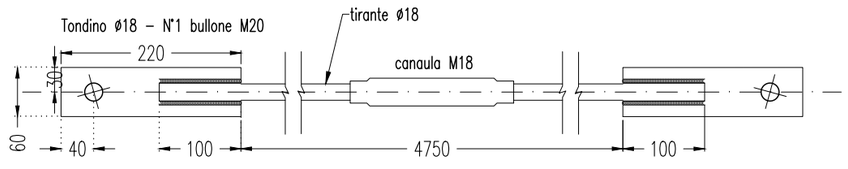


Rinforzo
spessore 10mm



piastra tiranti orizzontali
spessore 10mm



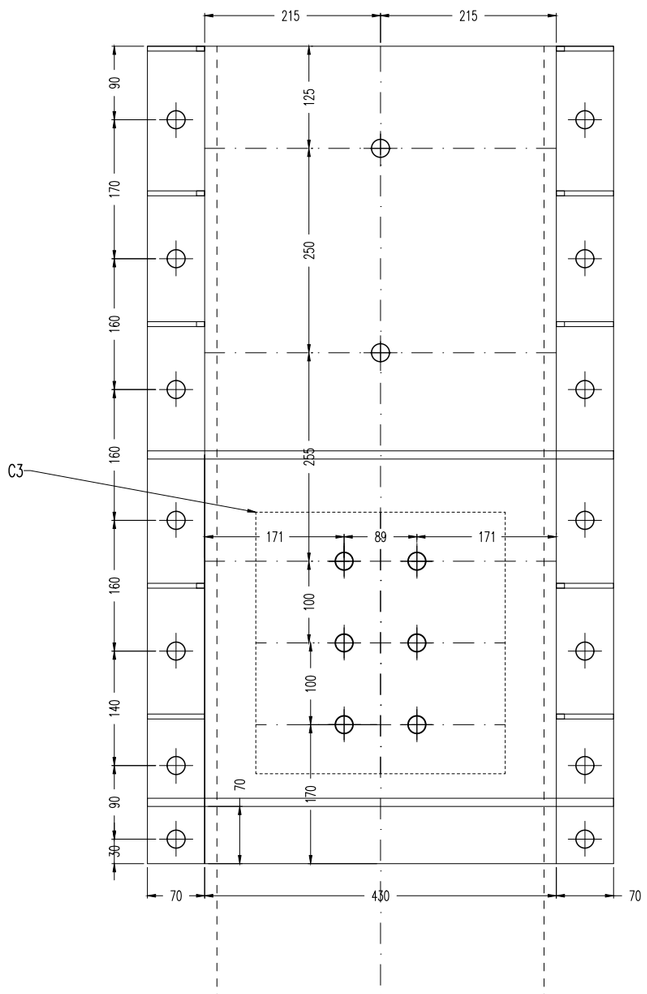


SCALA
1:7,5

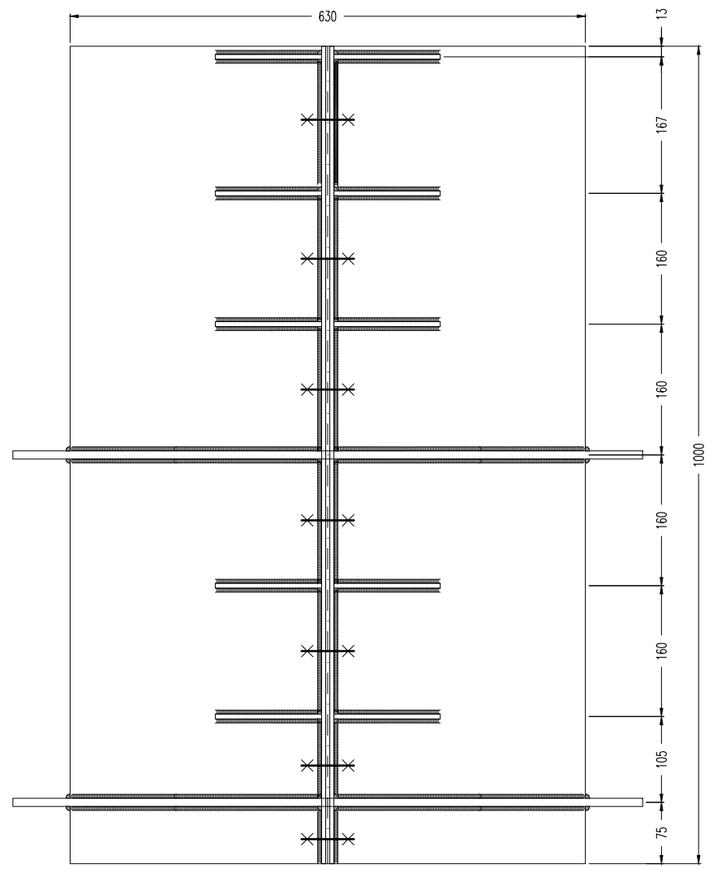
DETTAGLIO
C8

C12: CERCHIATURA IN ACCIAIO PILASTRI 40X60 TRIBUNA

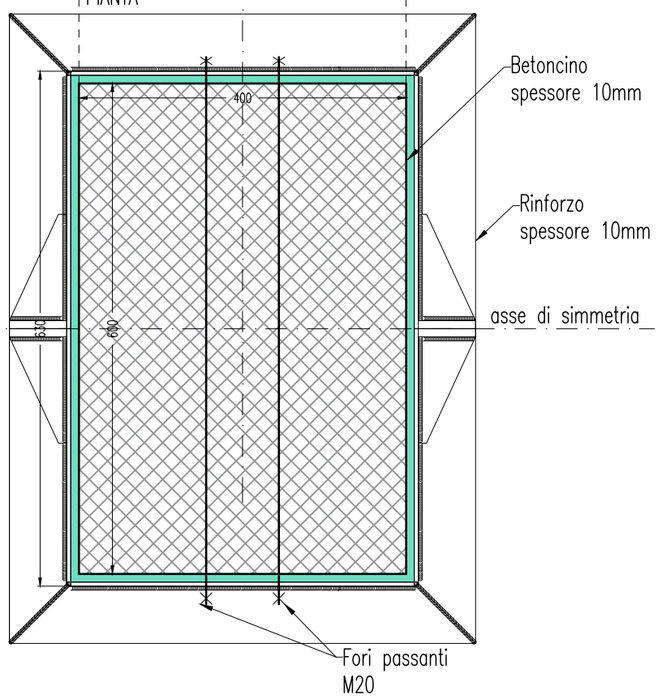
VISTA FRONTALE



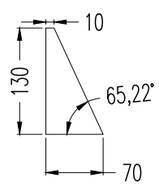
VISTA LATERALE



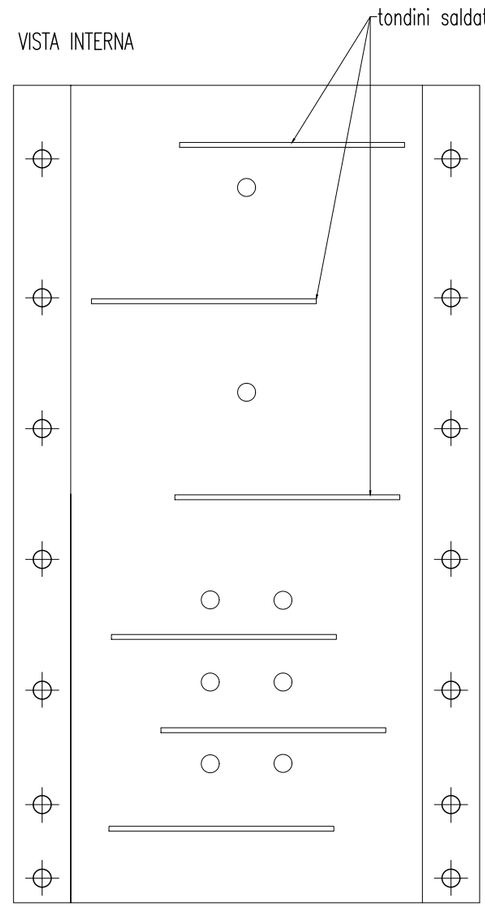
PIANTA

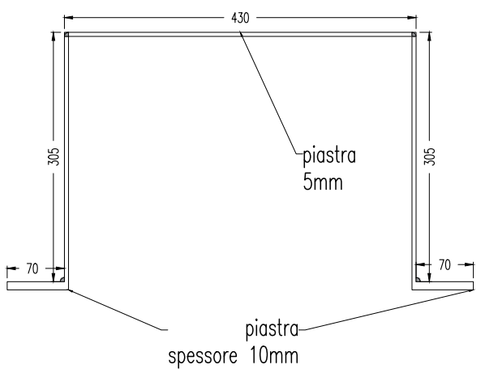


fazzoletti di rinforzo
spessore 6mm

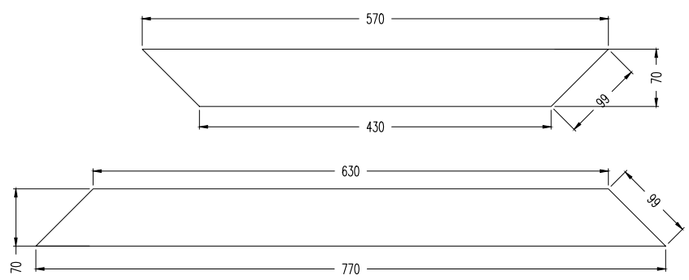


VISTA INTERNA



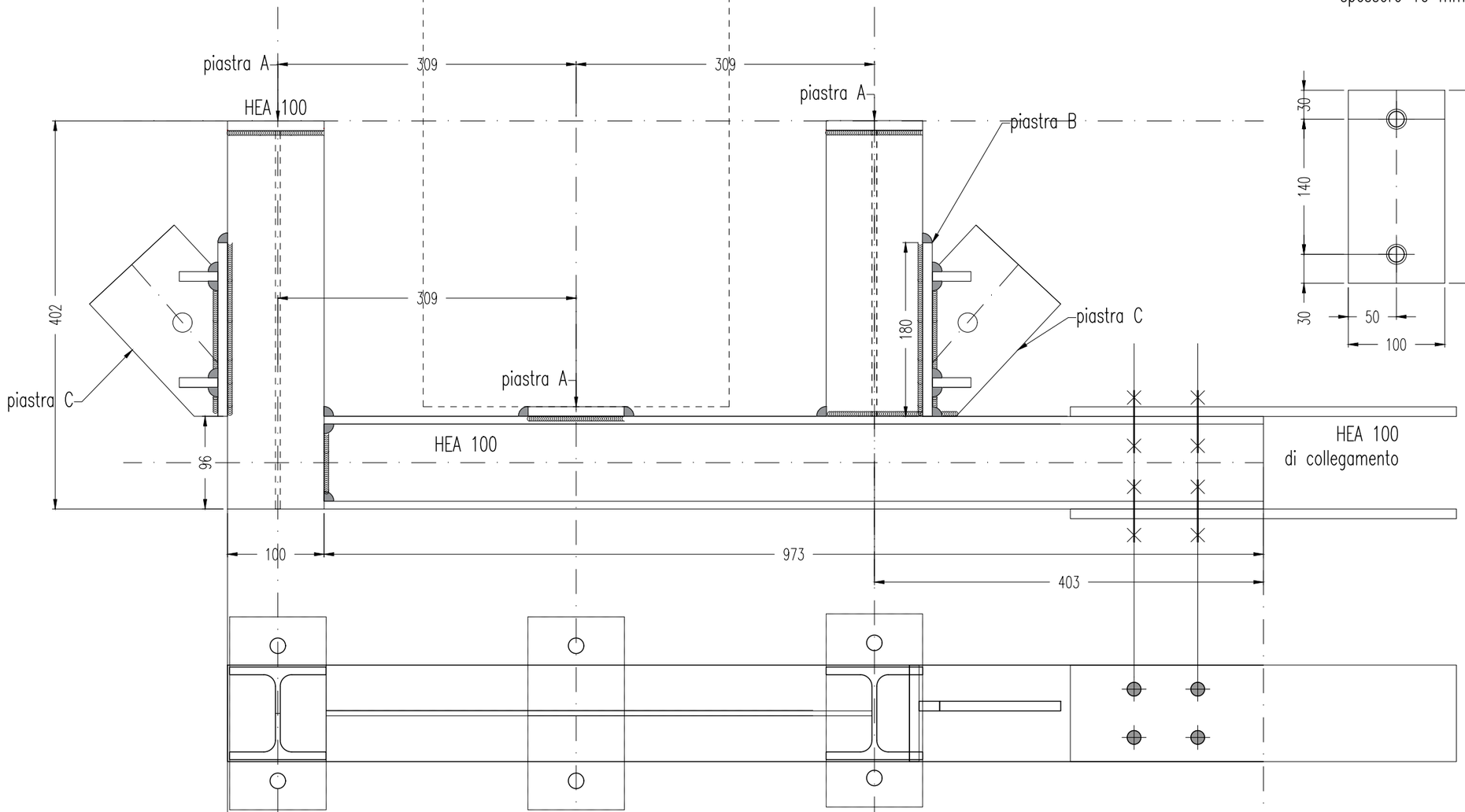


Rinforzo
spessore 10mm



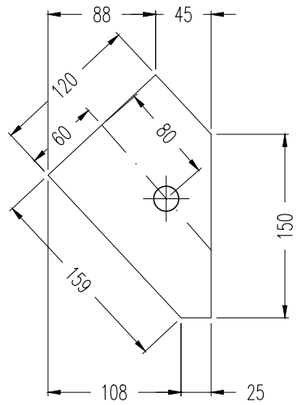
SCALA
1:7,5

DETTAGLIO
C12

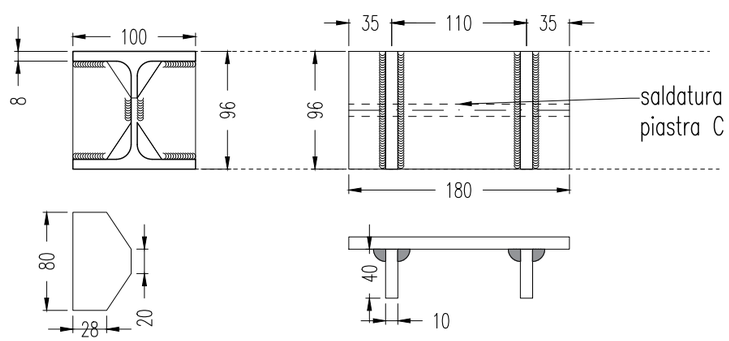


Piastra tipo A
spessore 10 mm

Piastra tipo C
spessore 10 mm

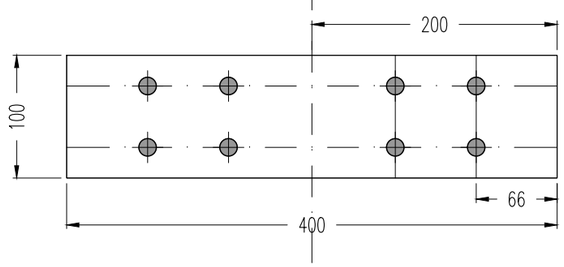


HEA 100
piastre di rinforzo saldate



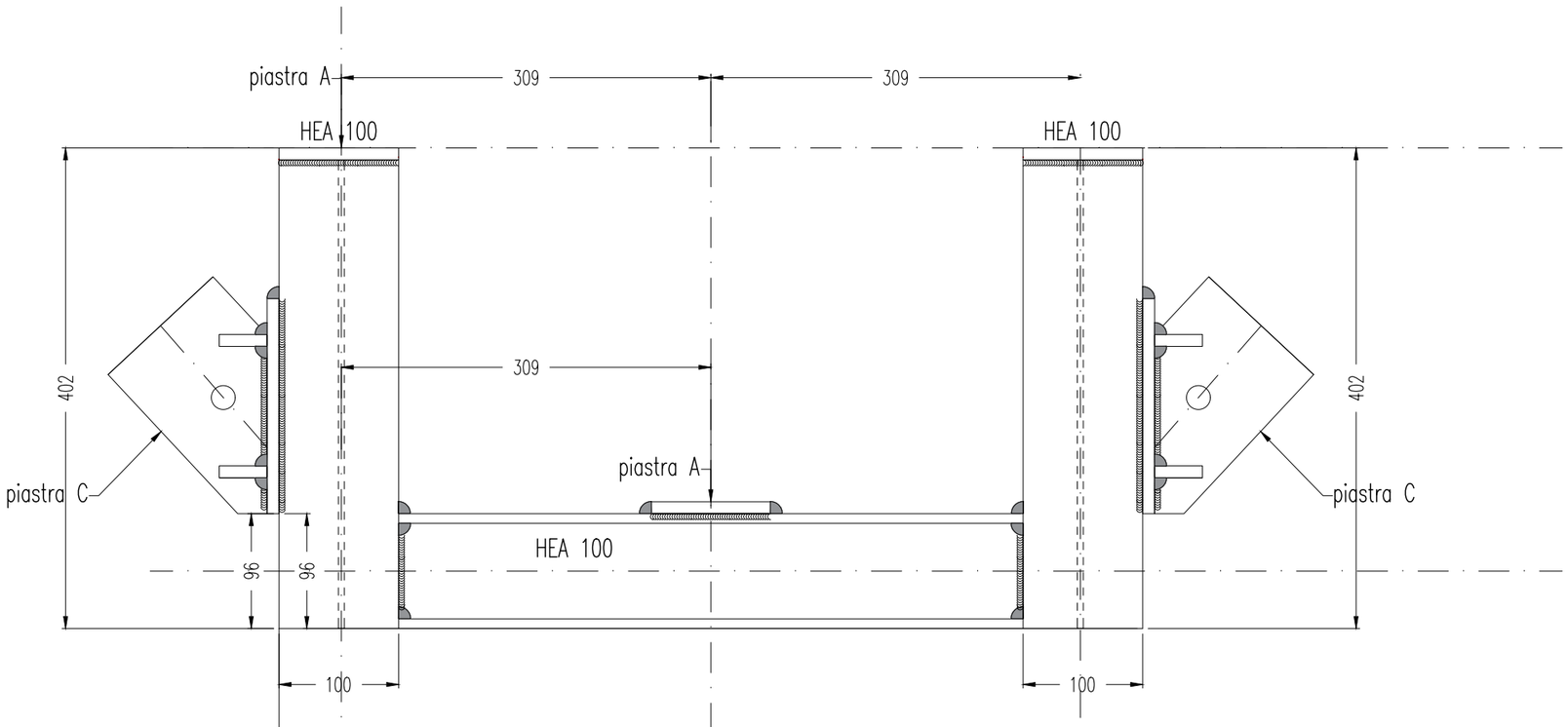
Piastra tipo B
spessore 10 mm

Piastra tipo D
spessore 10 mm

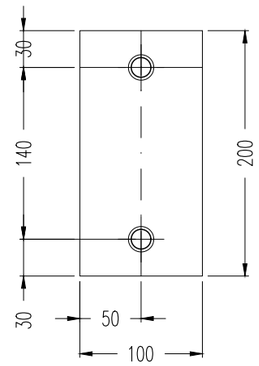


SCALA
1:5

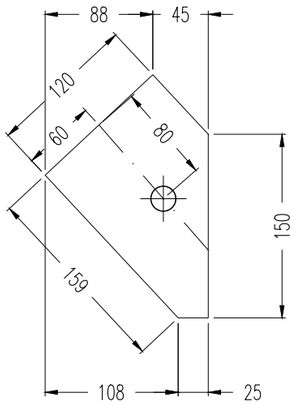
C13a

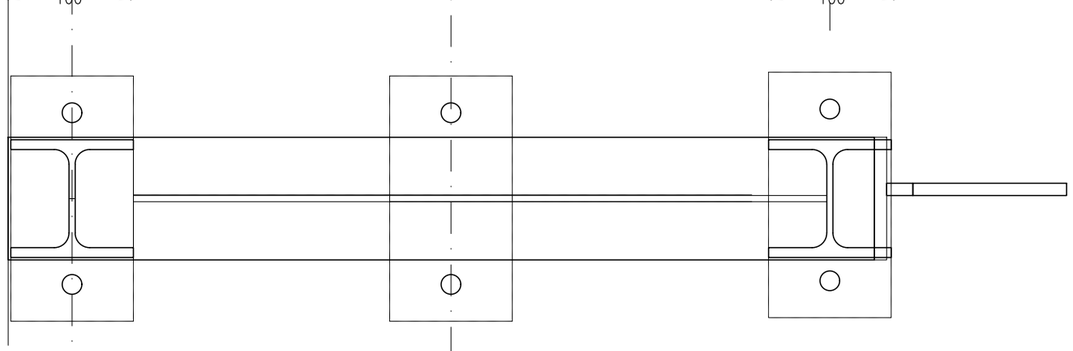


Piastra tipo A
spessore 10 mm

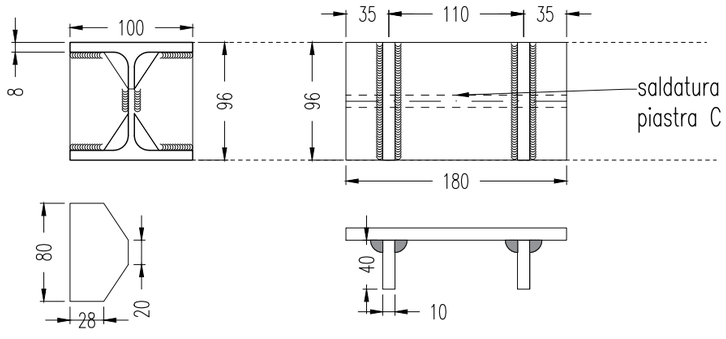


Piastra tipo C
spessore 10 mm





HEA 100
piastre di rinforzo saldate

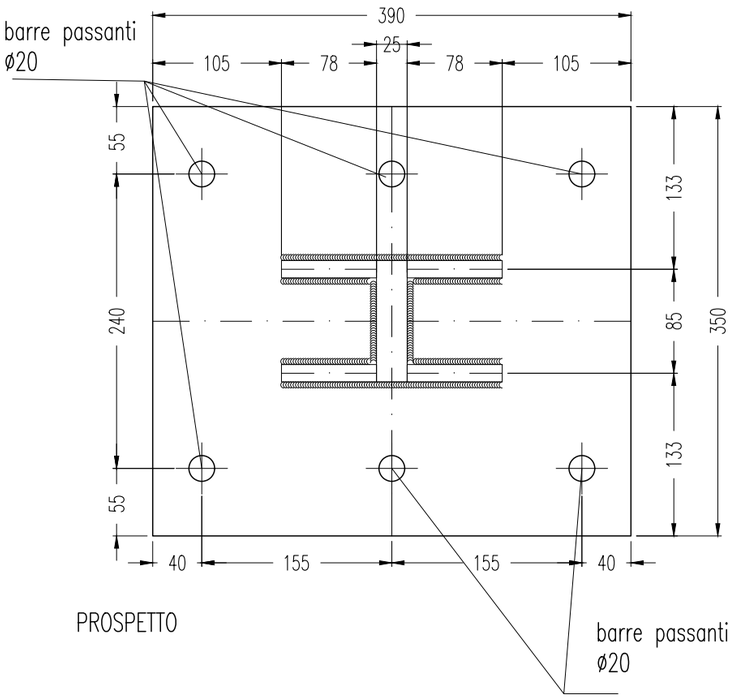


Piastra tipo B
spessore 10 mm

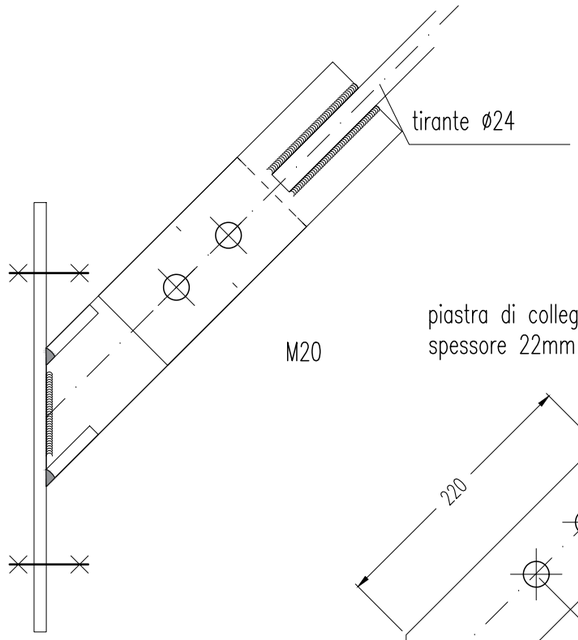
SCALA
1:5

C13b

piastra spessore 10mm

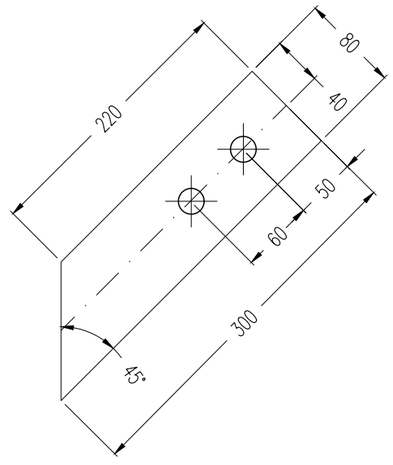


PROSPETTO

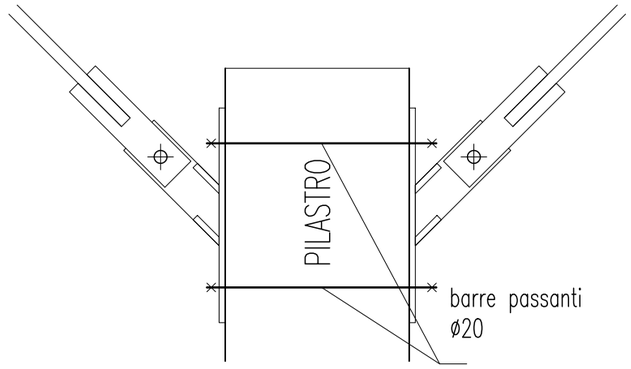


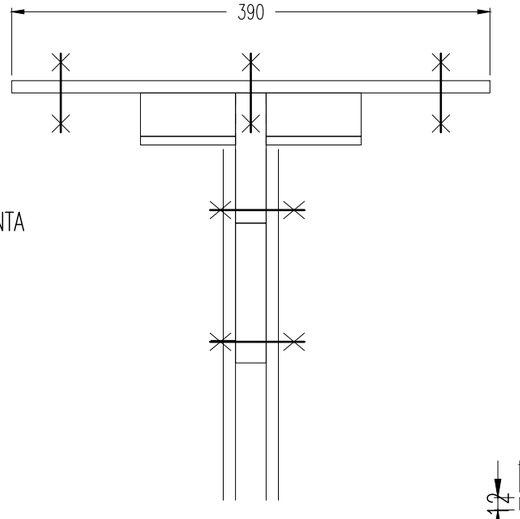
SEZIONE LATERALE

piastra di collegamento
spessore 22mm



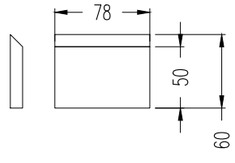
SEZIONE SU PILASTRO SCALA 1:10



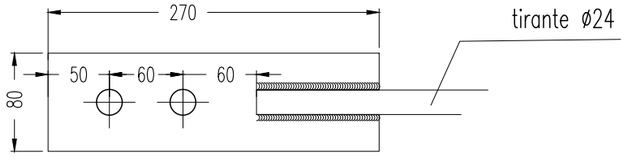


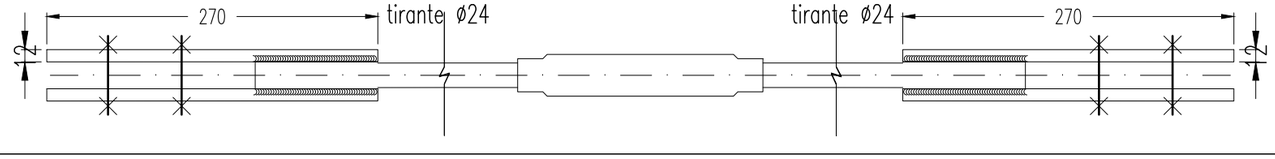
PIANTA

piastre di irrigidimento
spessore 10mm



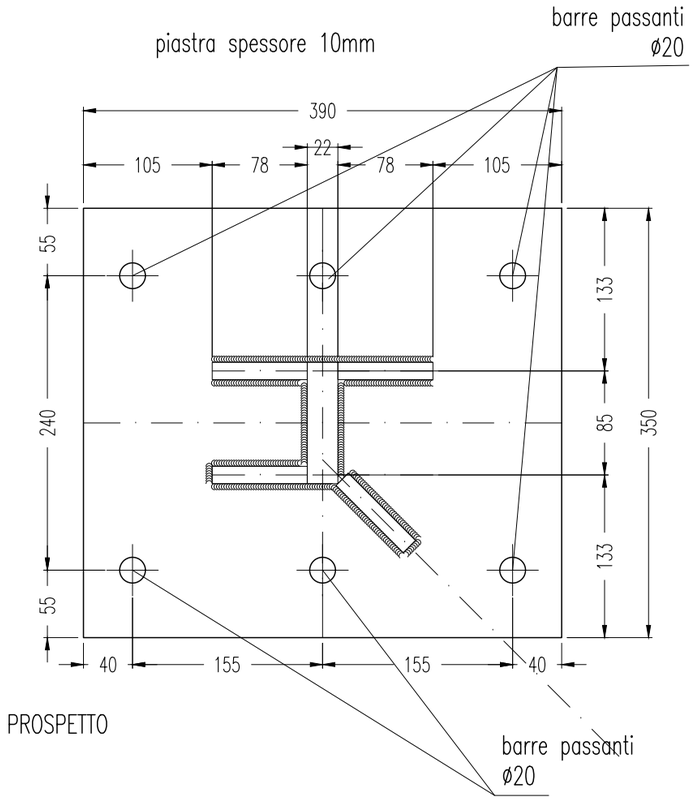
piastra di fissaggio tirante
spessore 20mm



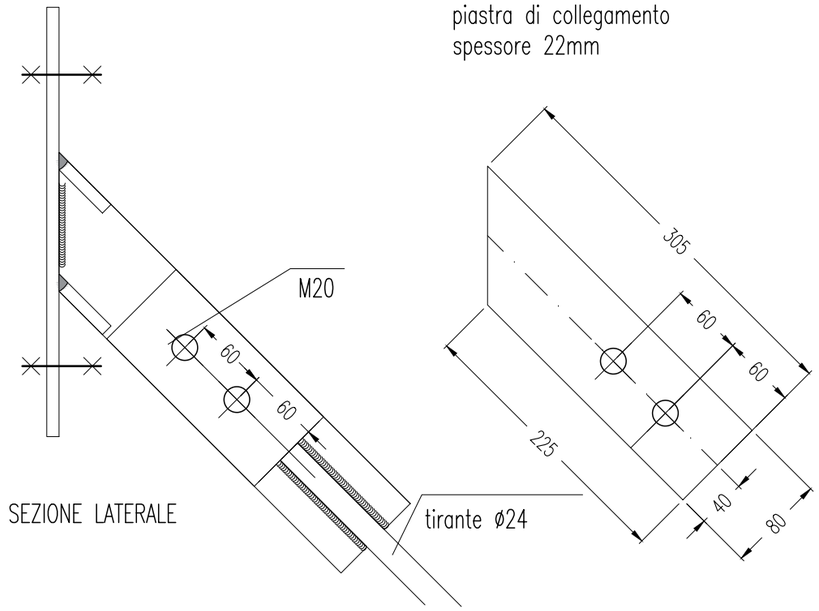


SCALA
1:5

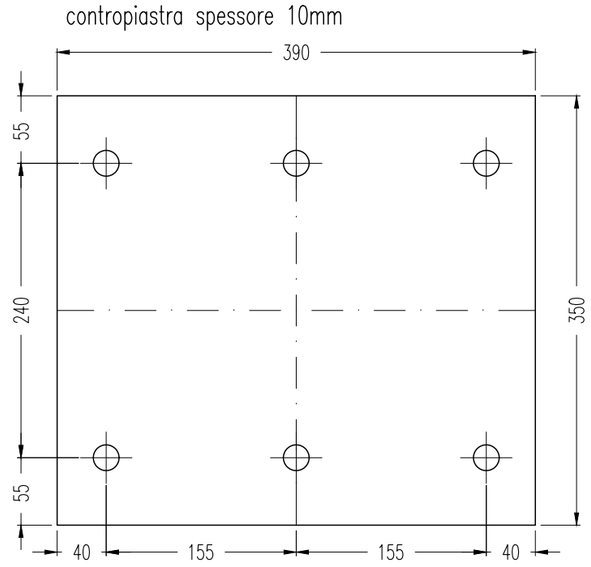
DETTAGLIO
P1-a

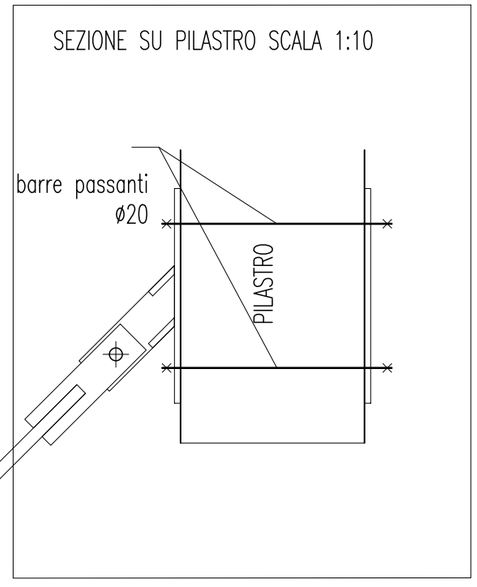


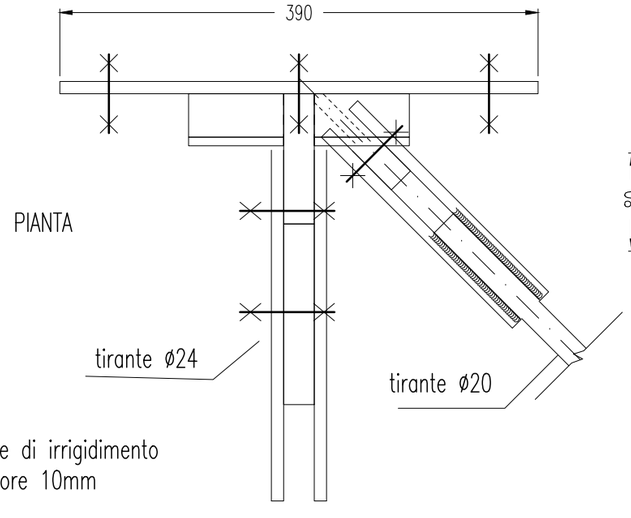
PROSPETTO



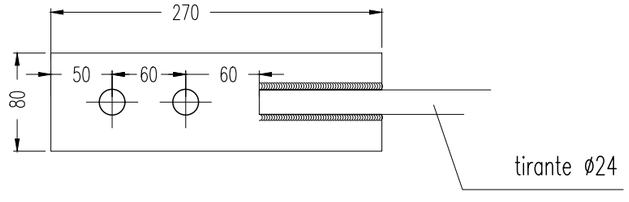
SEZIONE LATERALE



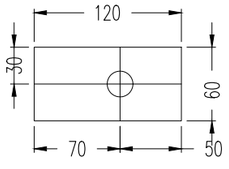


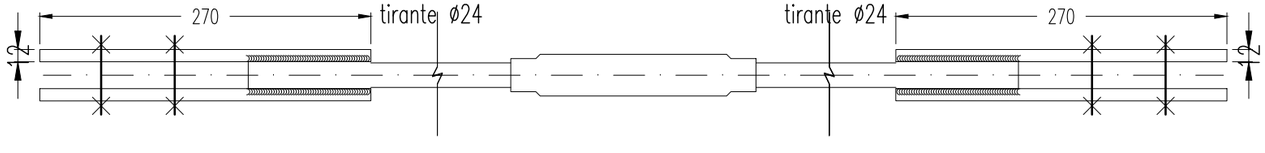


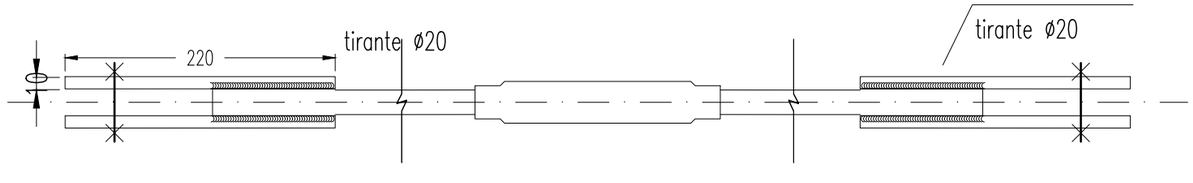
piastra di fissaggio tirante
spessore 20mm



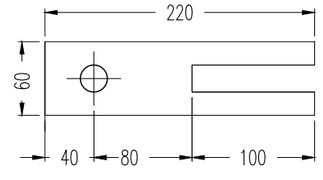
piastre di collegamentoa tirante interno
lato ovest spessore 20mm



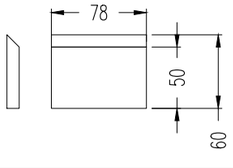




piastra di fissaggio tirante ø 20
spessore 20mm



piastre di irrigidimento
spessore 10mm



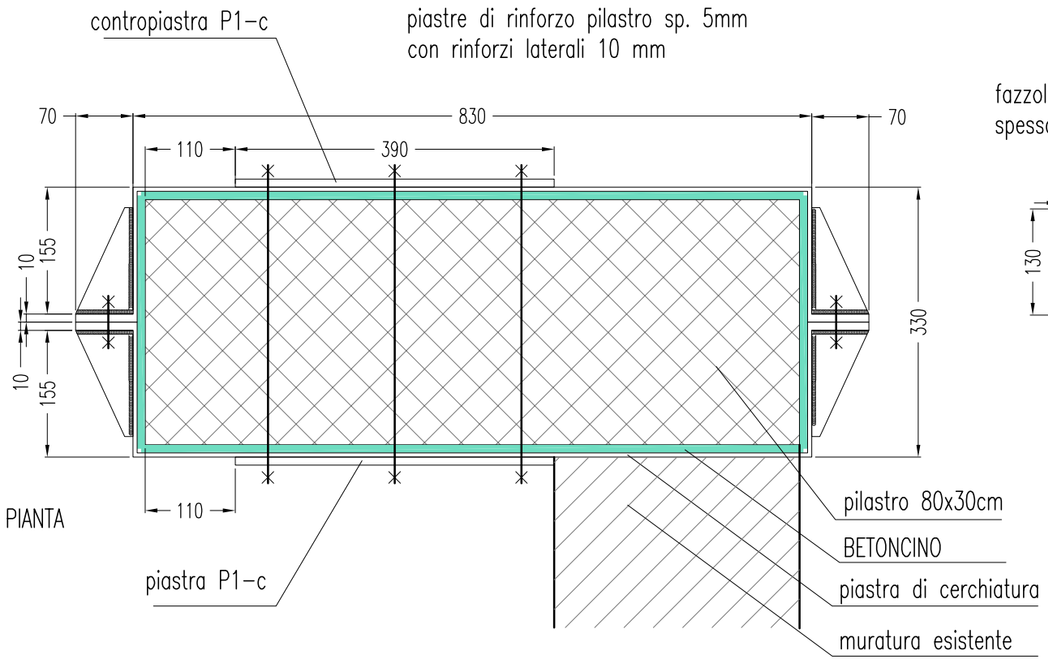
DETTAGLIO

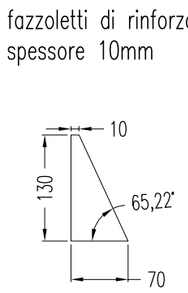
P1-b

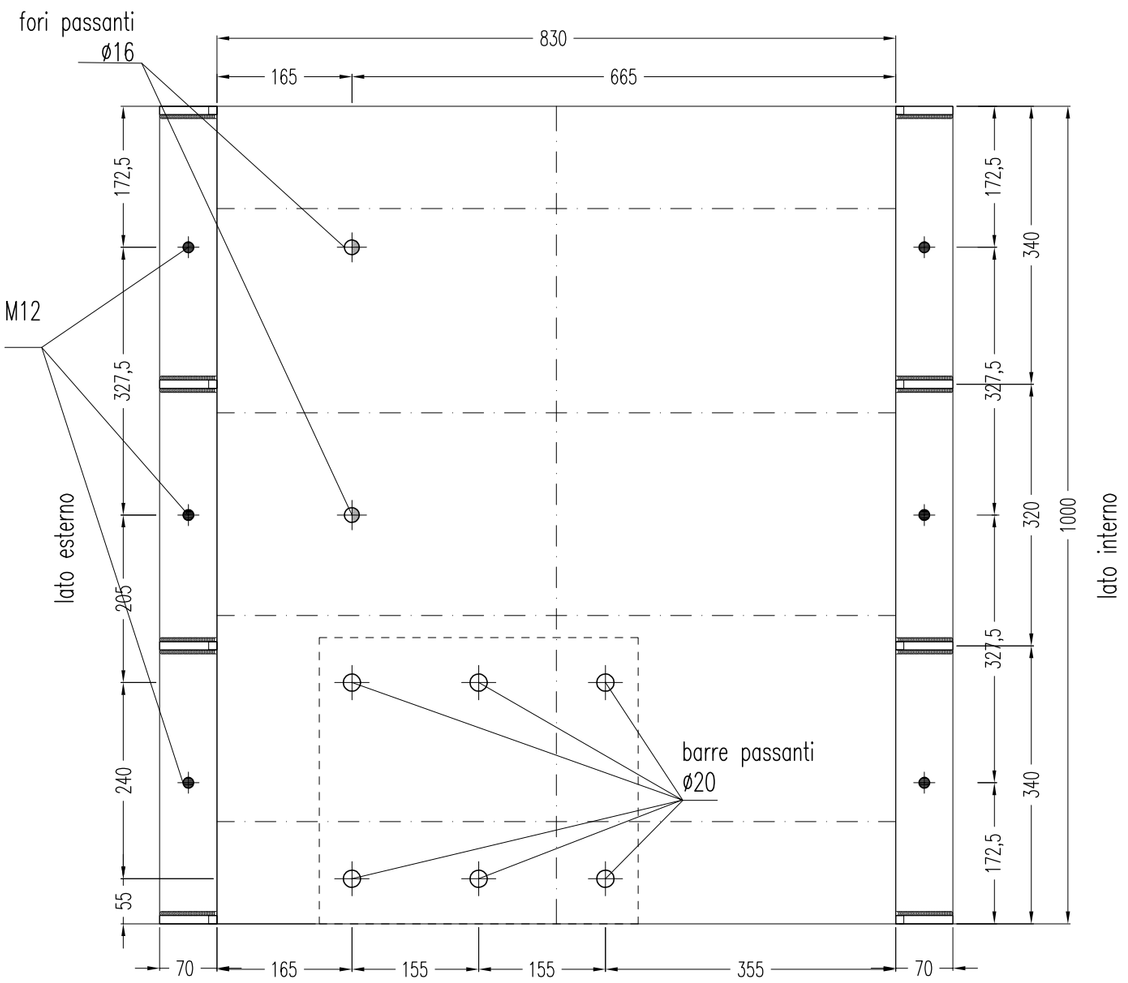
SCALA

1:5

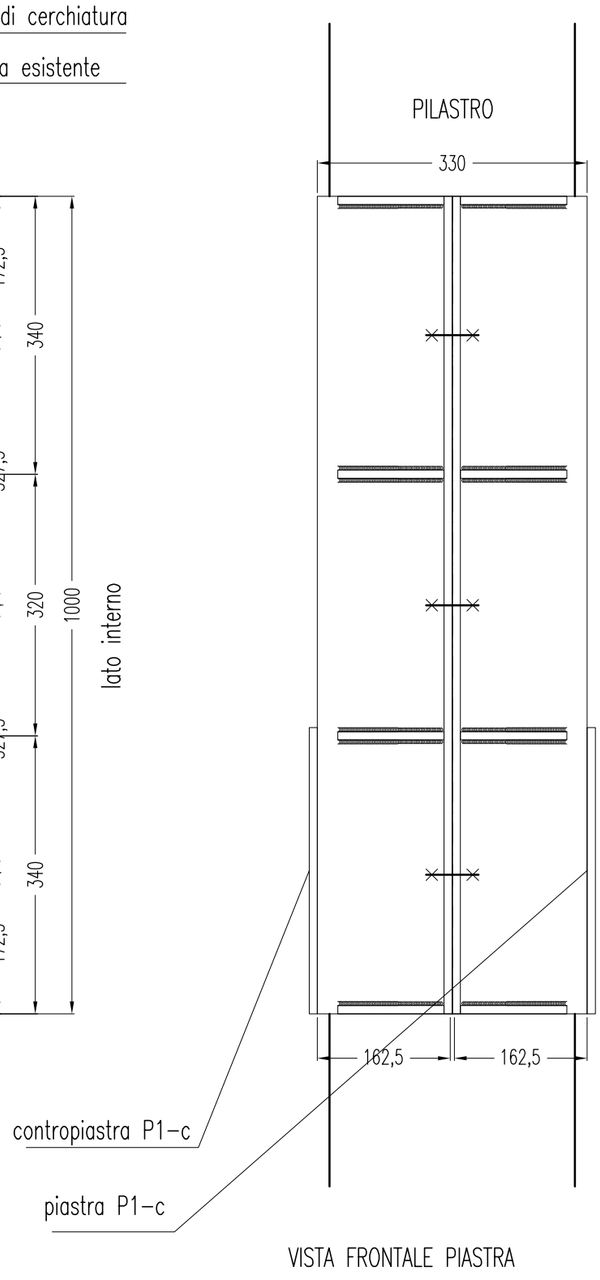
P1-c: CERCHIATURA IN ACCIAIO







VISTA LATERALE PIASTRA

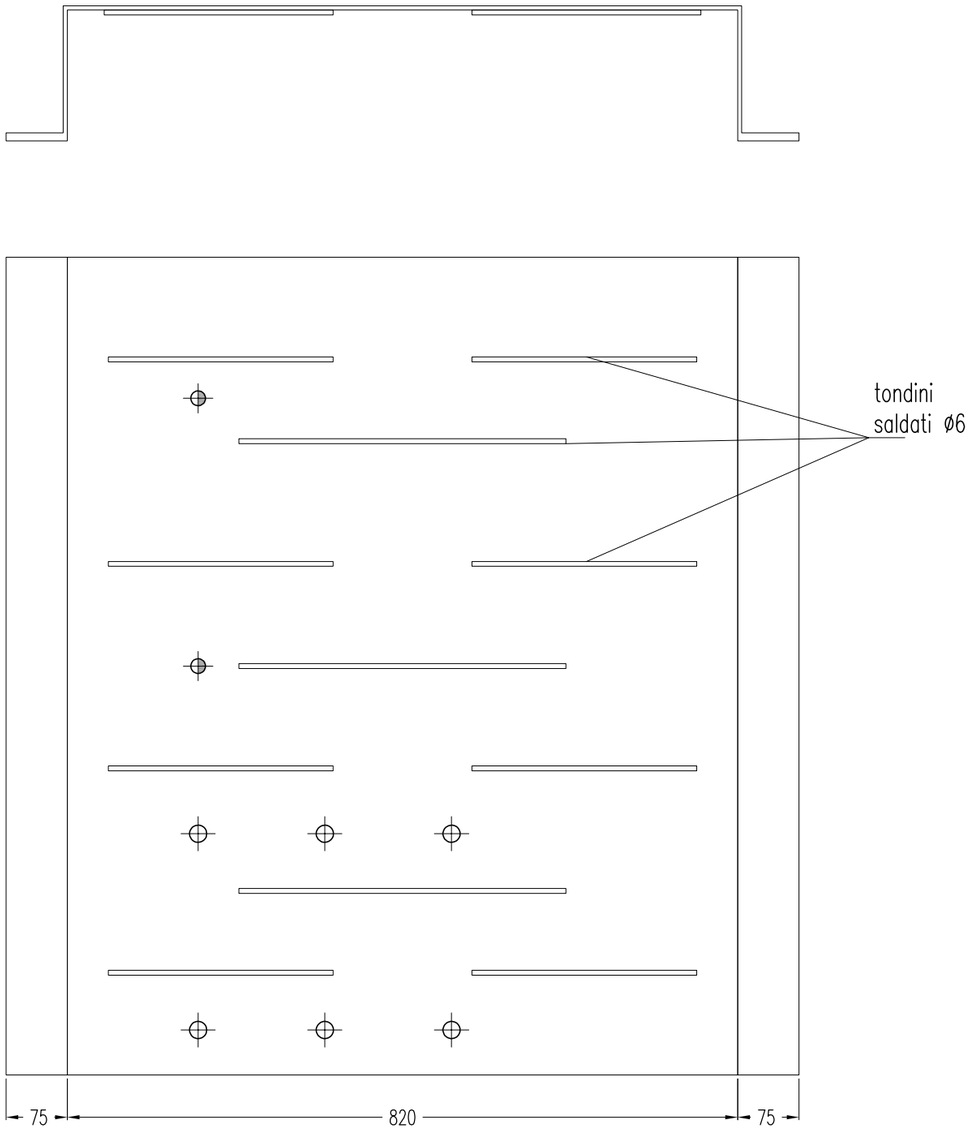


VISTA FRONTALE PIASTRA

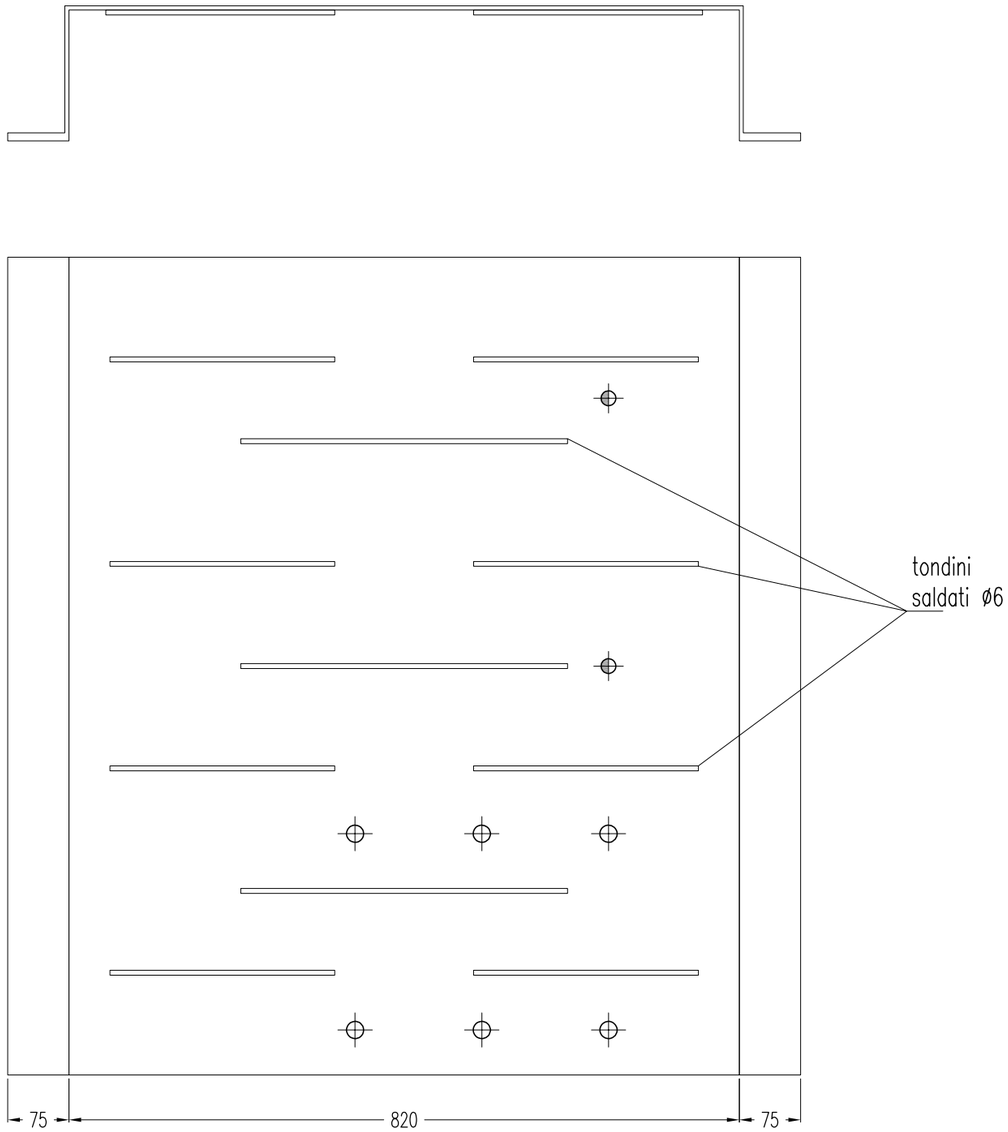
SCALA
1:7,5

DETTAGLIO
P1-c

P1-c: CERCHIATURA IN ACCIAIO - LATO INTERNO PIASTRE



VISTA LATERALE INTERNA PIASTRA (lato ovest)

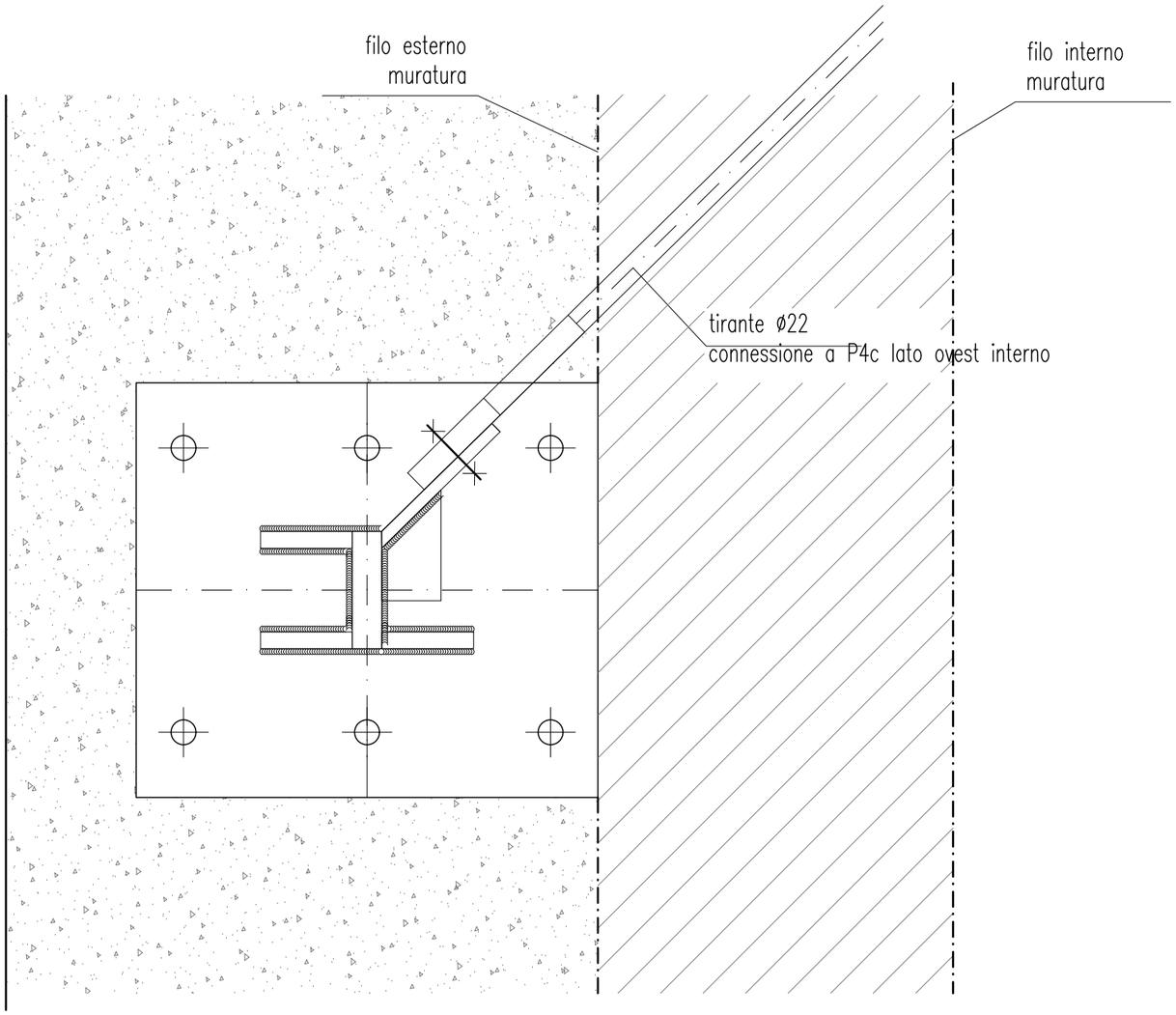


VISTA LATERALE INTERNA PIASTRA (lato est)

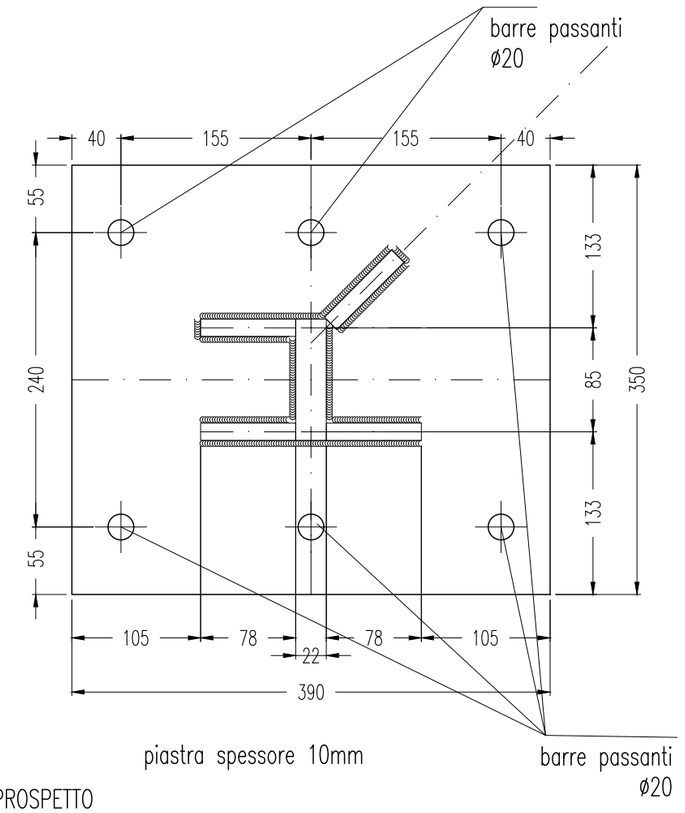
SCALA
1:7,5

DETTAGLIO
P1-c

P1-c: PIASTRA LATERALE

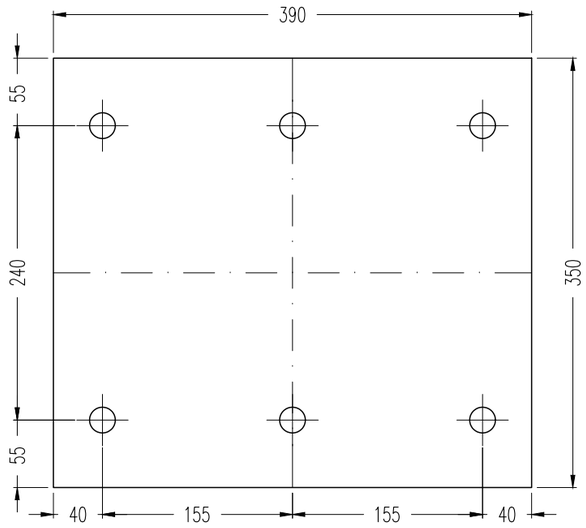


PROSPETTO

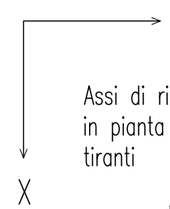


PROSPETTO

WARNING: per i dettagli si fa riferimento alla P1b



contropiastra spessore 10mm



Assi di riferimento
in pianta per individuazione
tiranti

DETTAGLIO

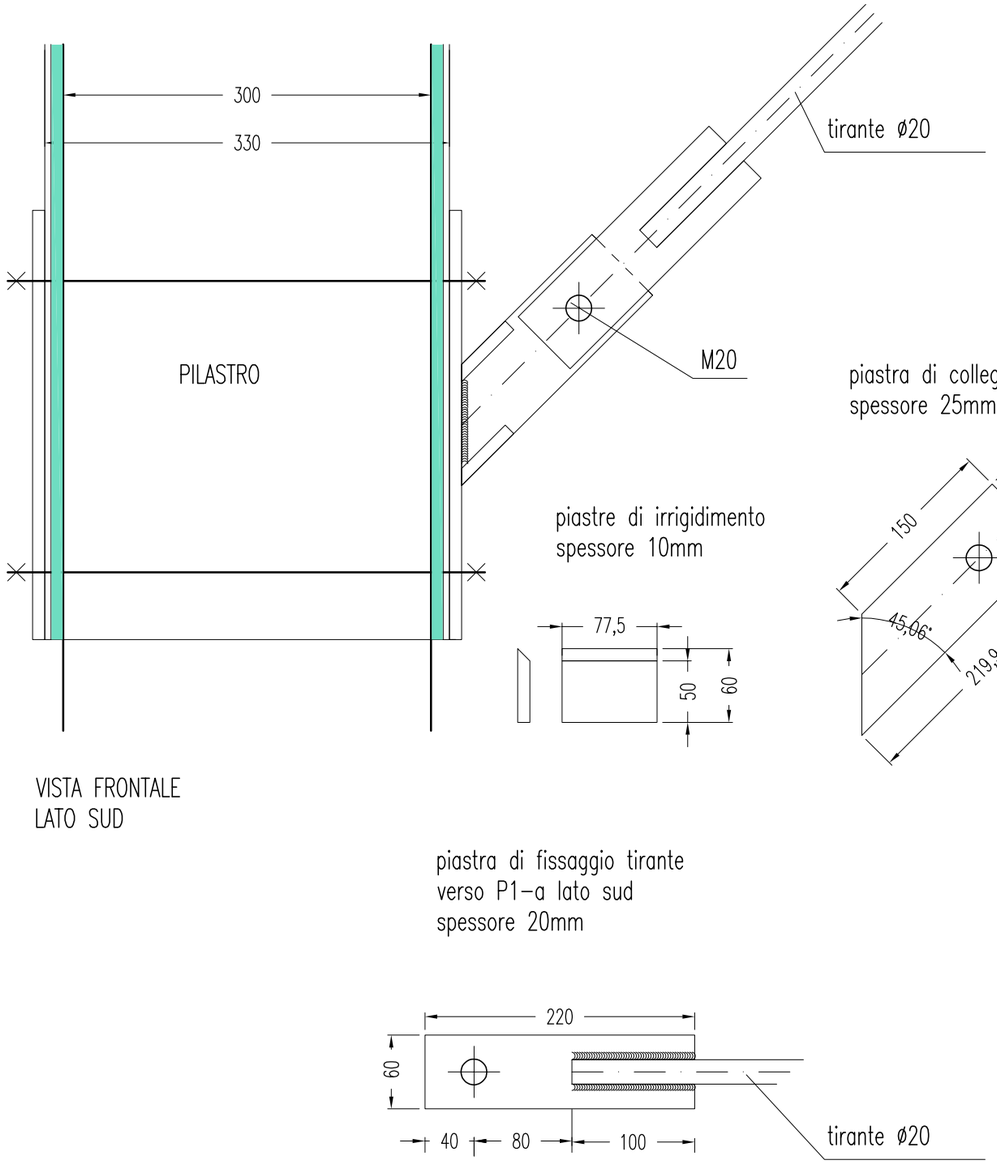
P1-c

SCALA

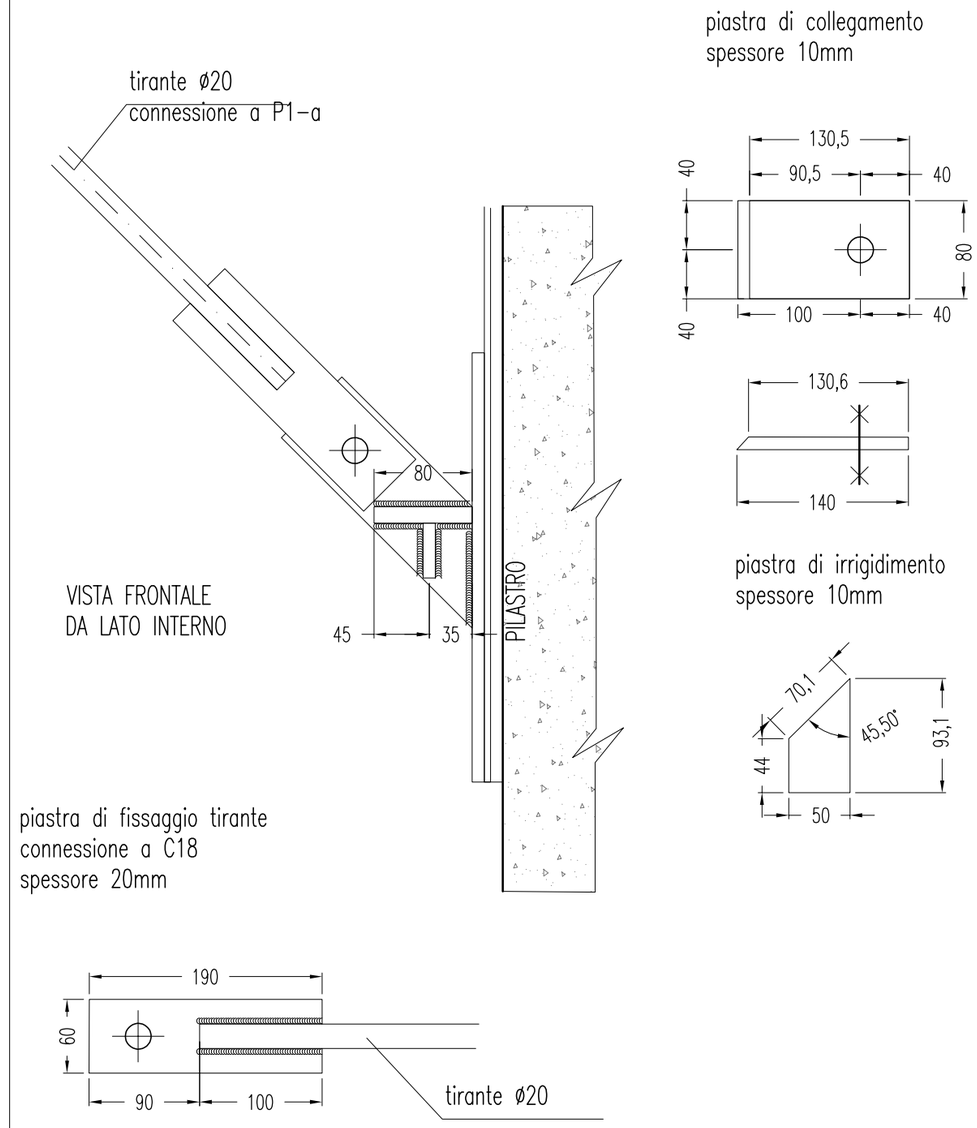
1:5

P1-c: PIASTRA LATERALE

TIRANTE TRA P1–c E P1–a SU LATO SUD (asse X)



TIRANTE TRA P1–c E C18 SU LATO SUD (asse Y)

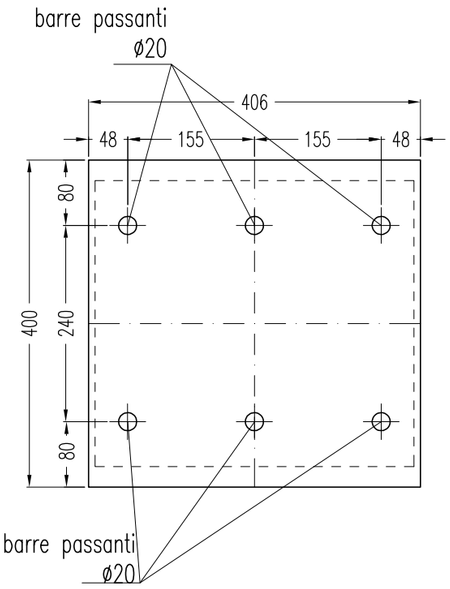


SCALA
1:5

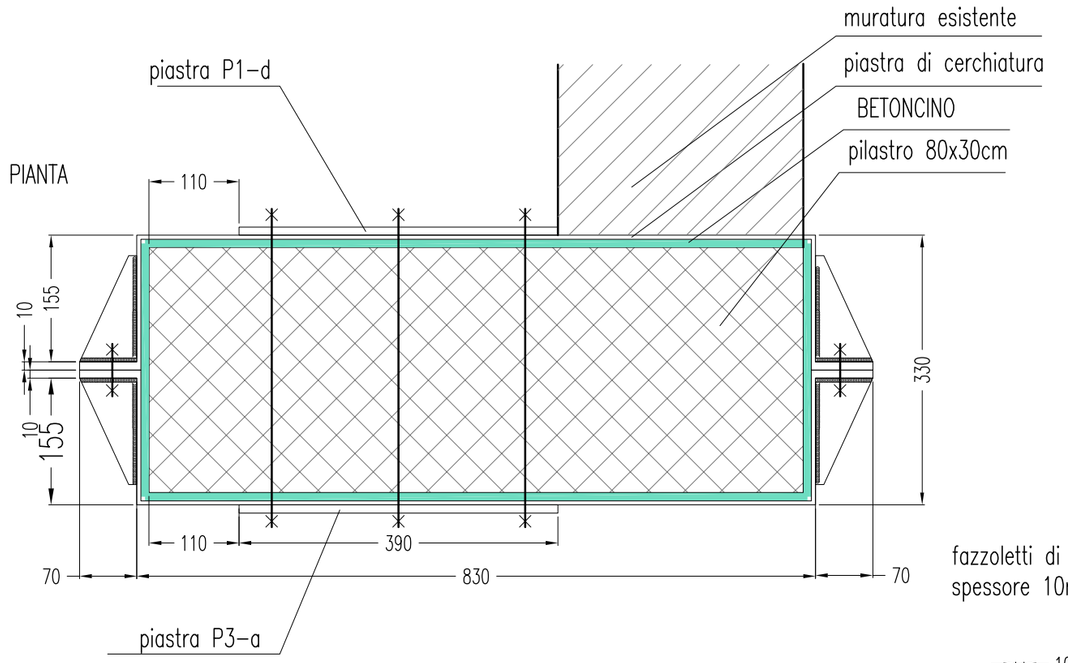
DETTAGLIO
P1-c

P1-d: CERCHIATURA IN ACCIAIO

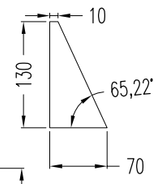
piastra nodo P3–a spessore 10mm

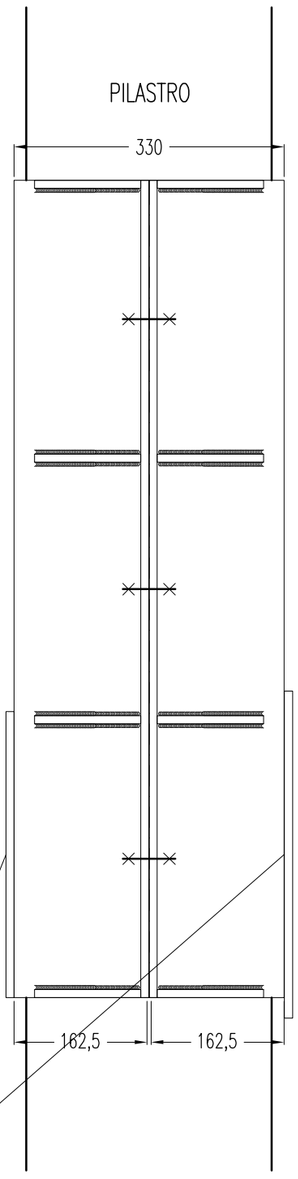


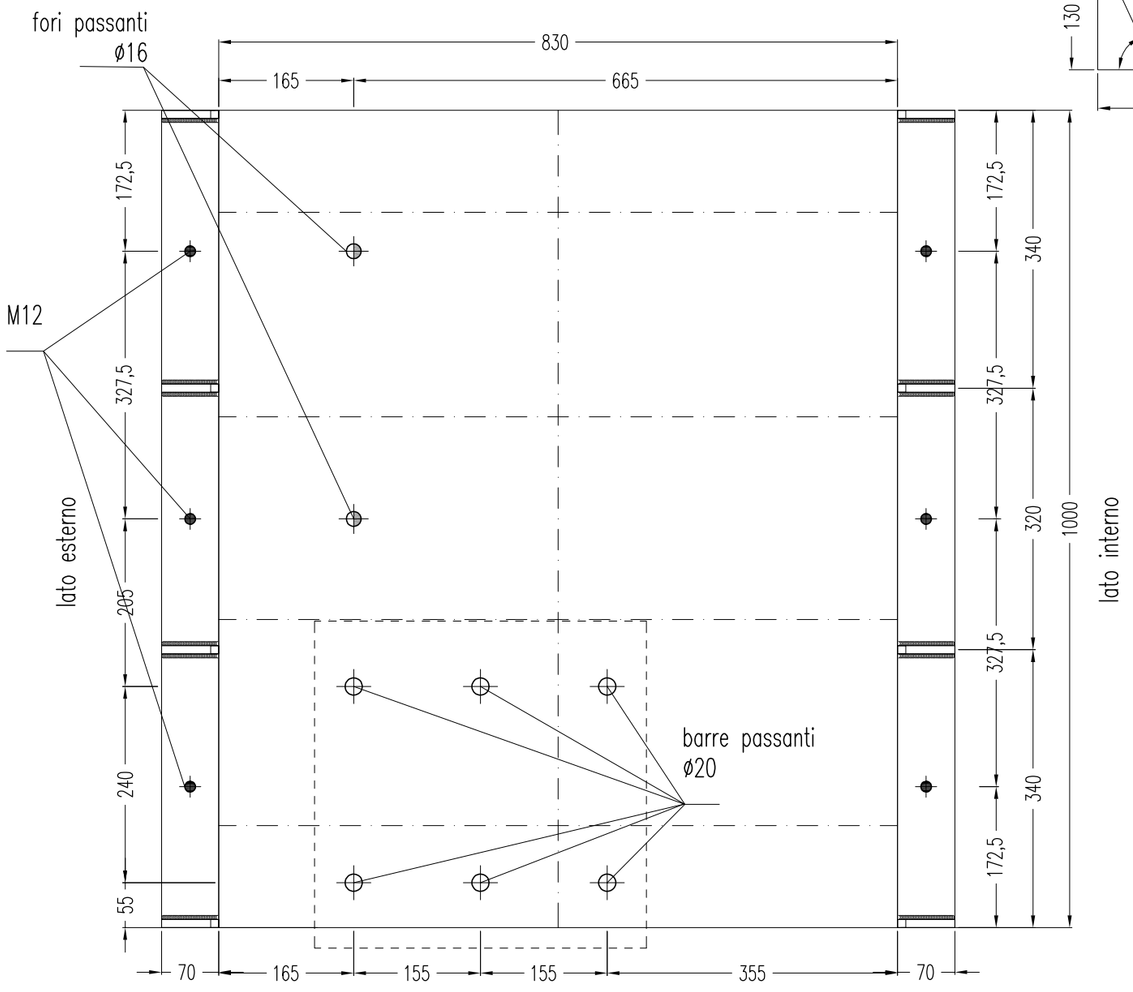
piastre di rinforzo pilastro sp. 5mm
con rinforzi laterali 10 mm



fazzoletti di rinforzo
spessore 10mm







VISTA LATERALE PIASTRA

VISTA FRONTALE PIASTRA

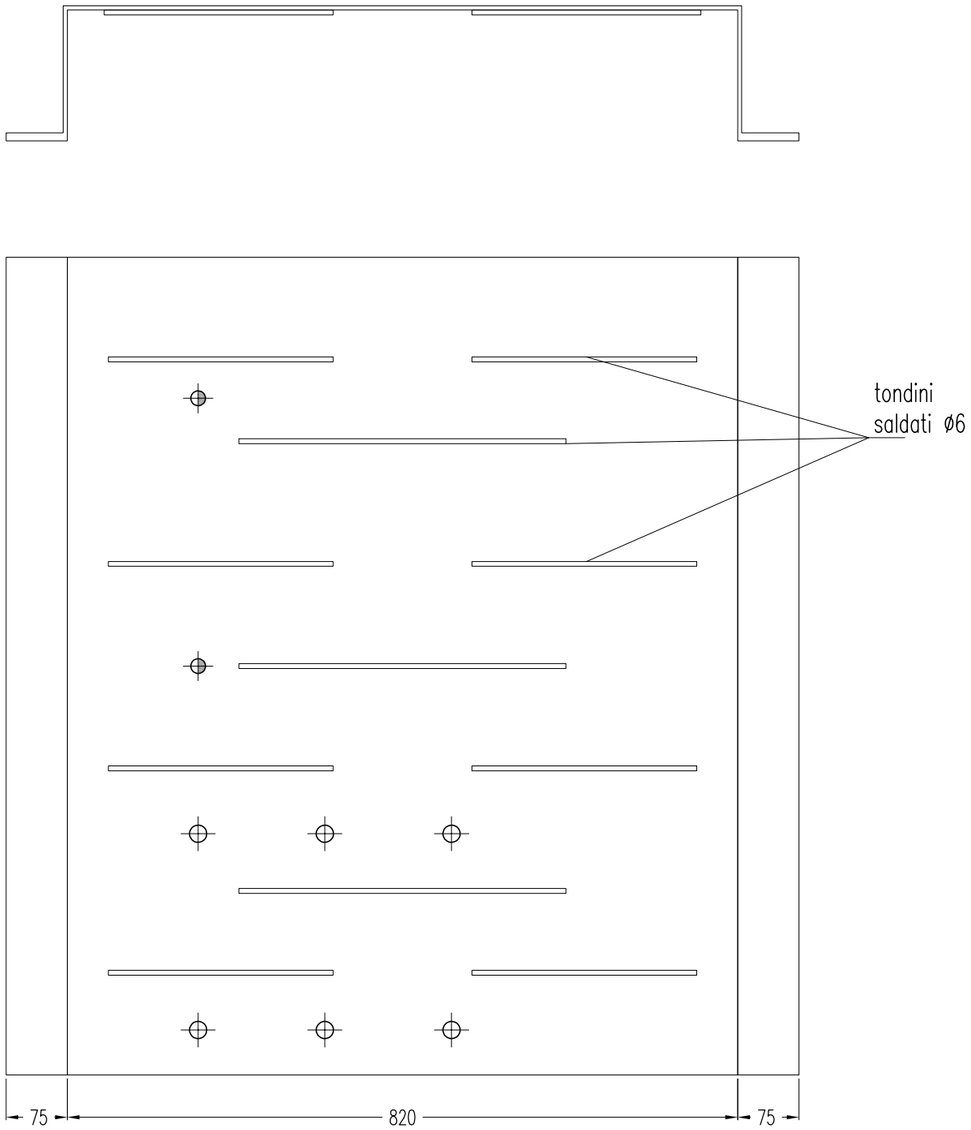
DETTAGLIO

P1-d

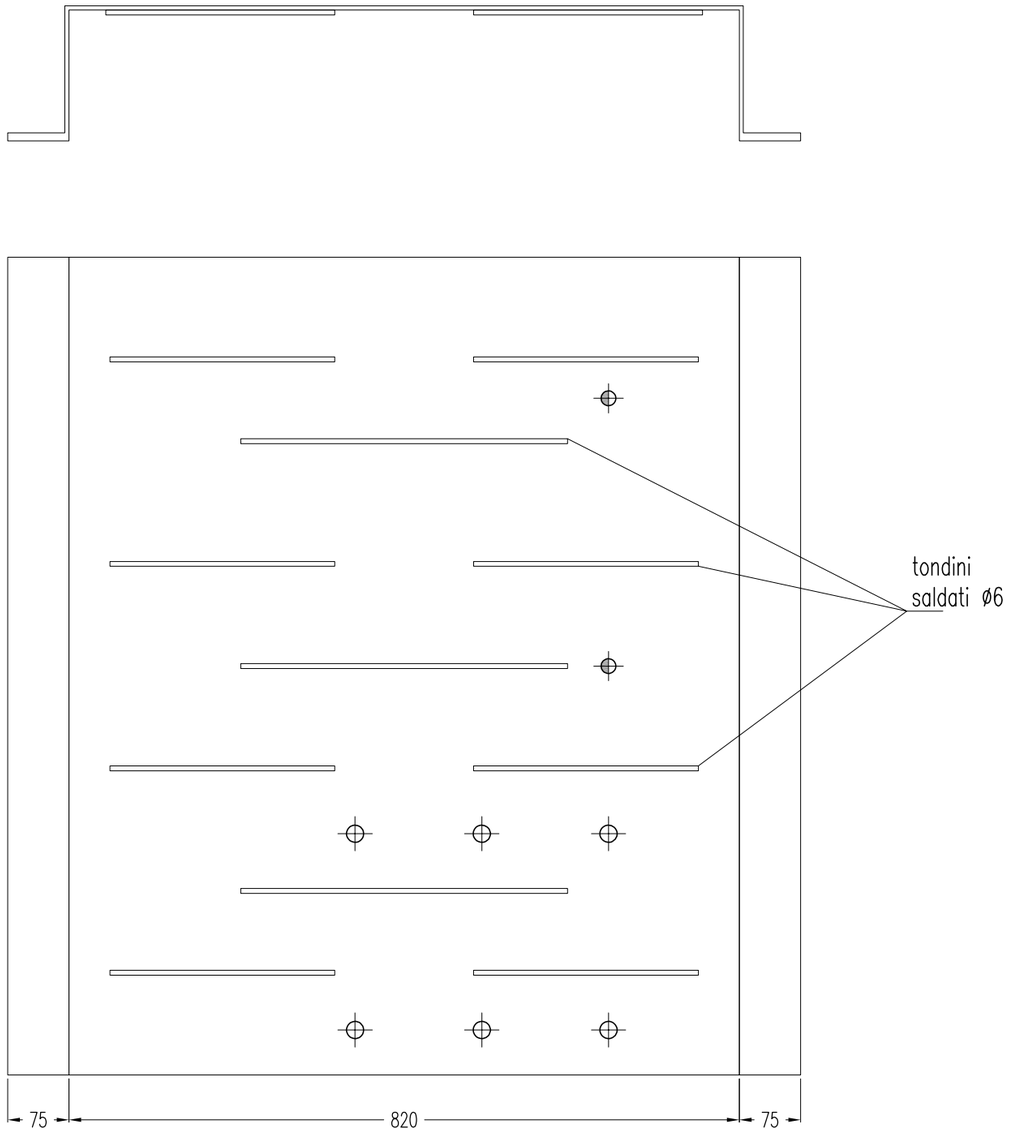
SCALA

1:7,5

P1-d: CERCHIATURA IN ACCIAIO - LATO INTERNO PIASTRE



VISTA LATERALE INTERNA PIASTRA (lato ovest)



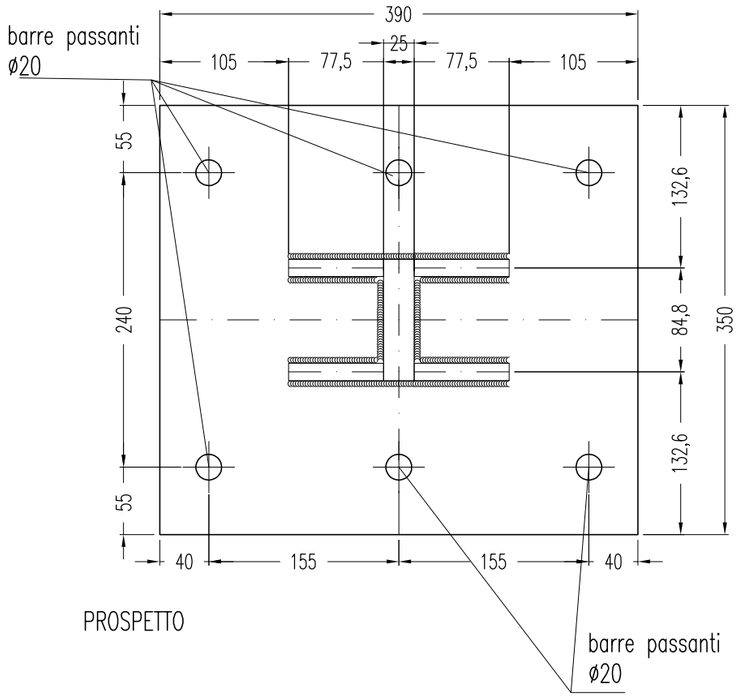
VISTA LATERALE INTERNA PIASTRA (lato est)

SCALA
1:7,5

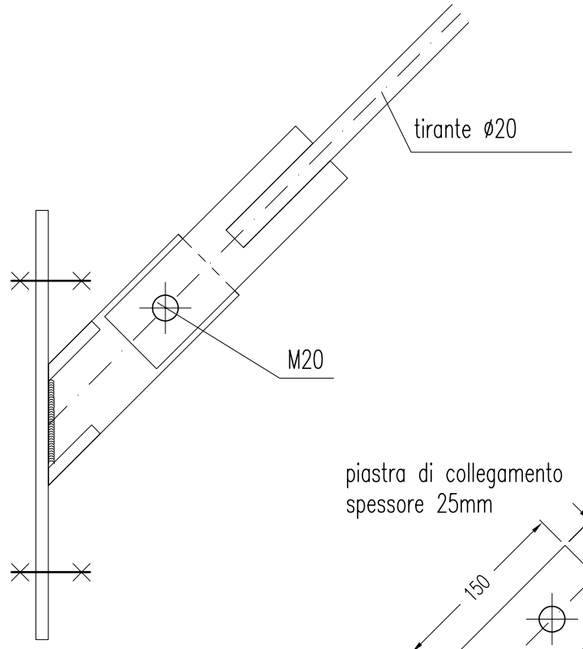
DETTAGLIO
P1-d

P1-d: PIASTRA LATO SUD

piastra spessore 10mm

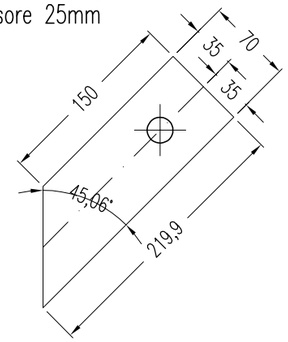


PROSPETTO

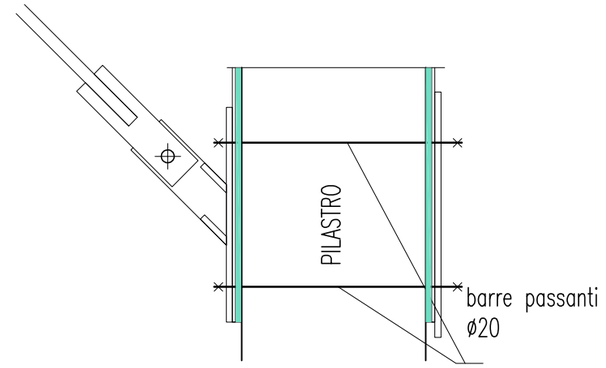


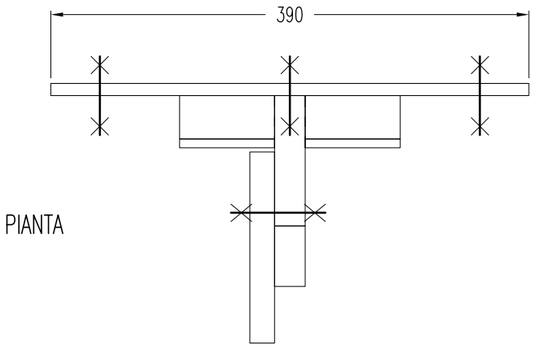
SEZIONE LATERALE

piastra di collegamento
spessore 25mm



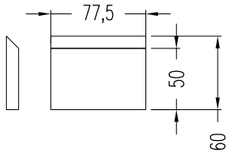
SEZIONE SU PILASTRO SCALA 1:10



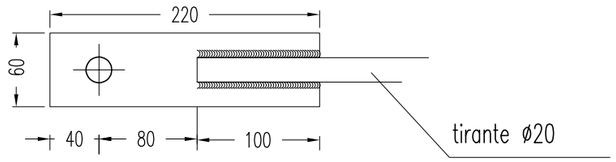


PIANTA

piastre di irrigidimento
spessore 10mm



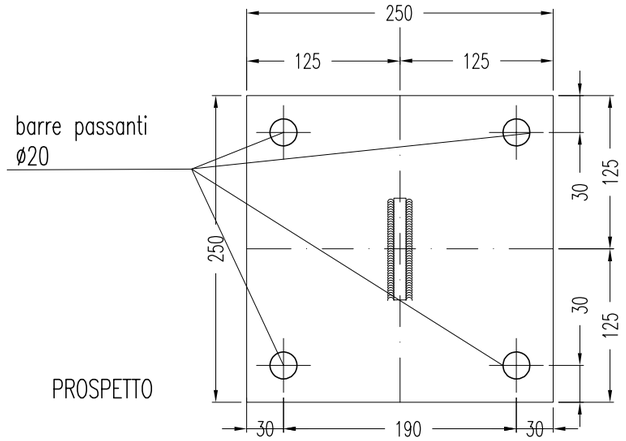
piastra di fissaggio tirante
spessore 20mm

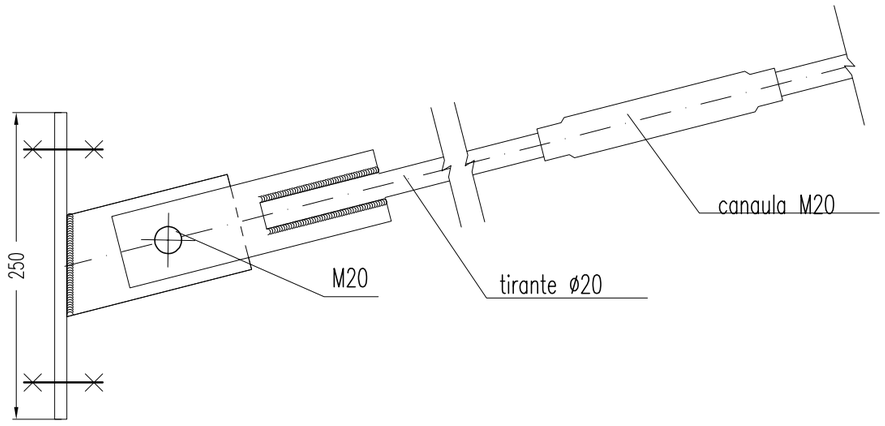


SCALA
1:5

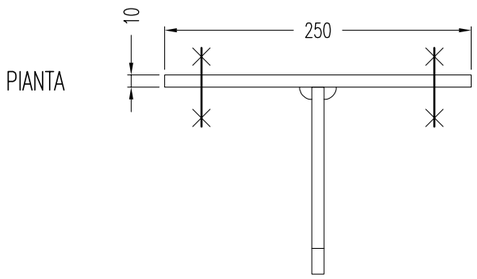
DETTAGLIO
P1-d

piastra spessore 10mm

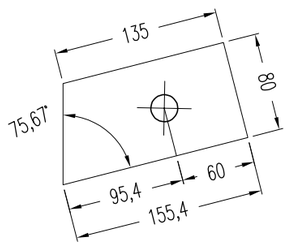




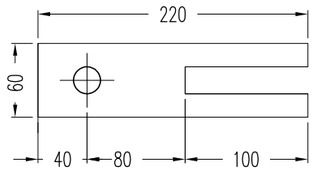
VISTA LATERALE



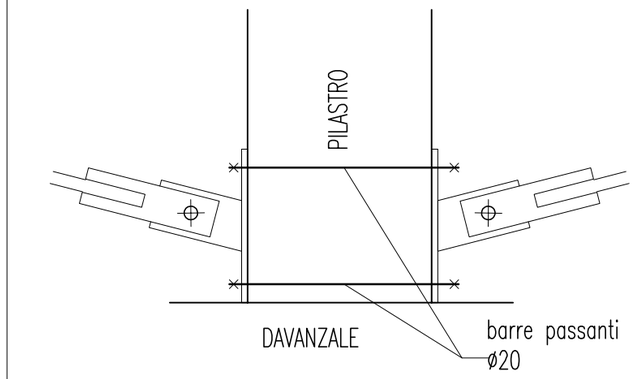
piastra di collegamento
spessore 20mm



piastra di fissaggio tirante
spessore 20mm



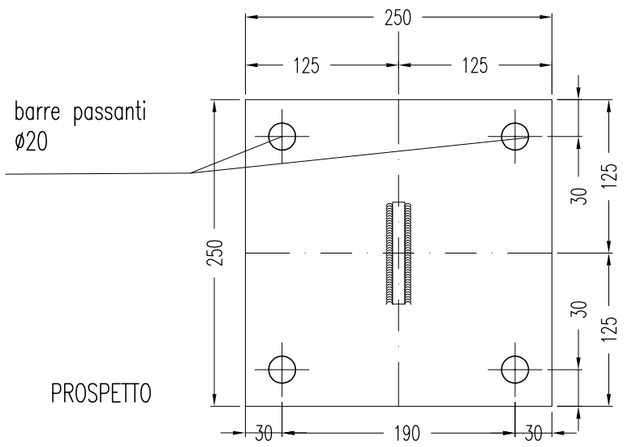
SEZIONE SU PILASTRO SCALA 1:10

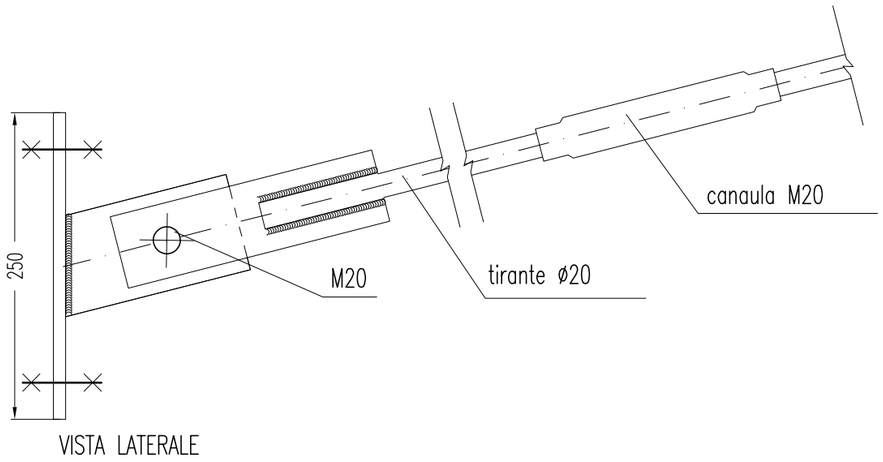


SCALA
1:5

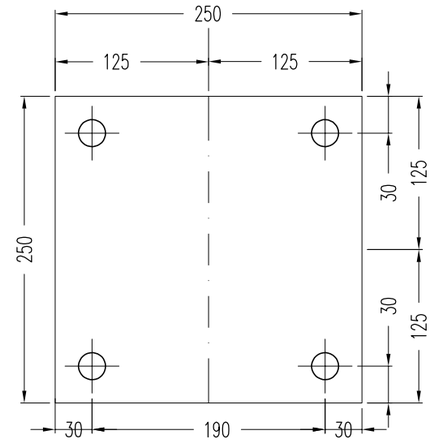
DETTAGLIO
P2-a

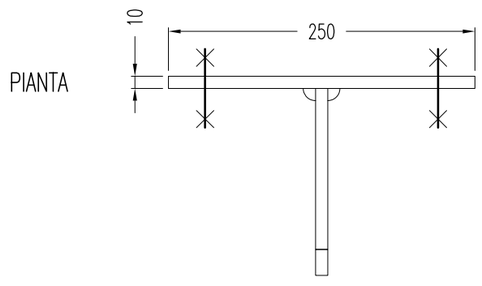
piastra spessore 10mm



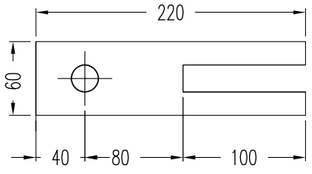


contropiastra spessore 10mm

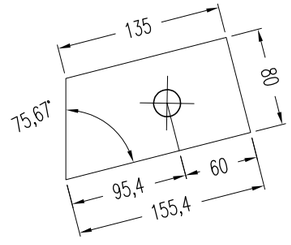




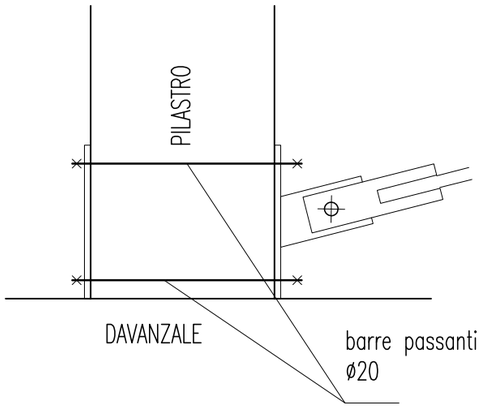
piastra di fissaggio tirante
spessore 20mm



piastra di collegamento
spessore 20mm



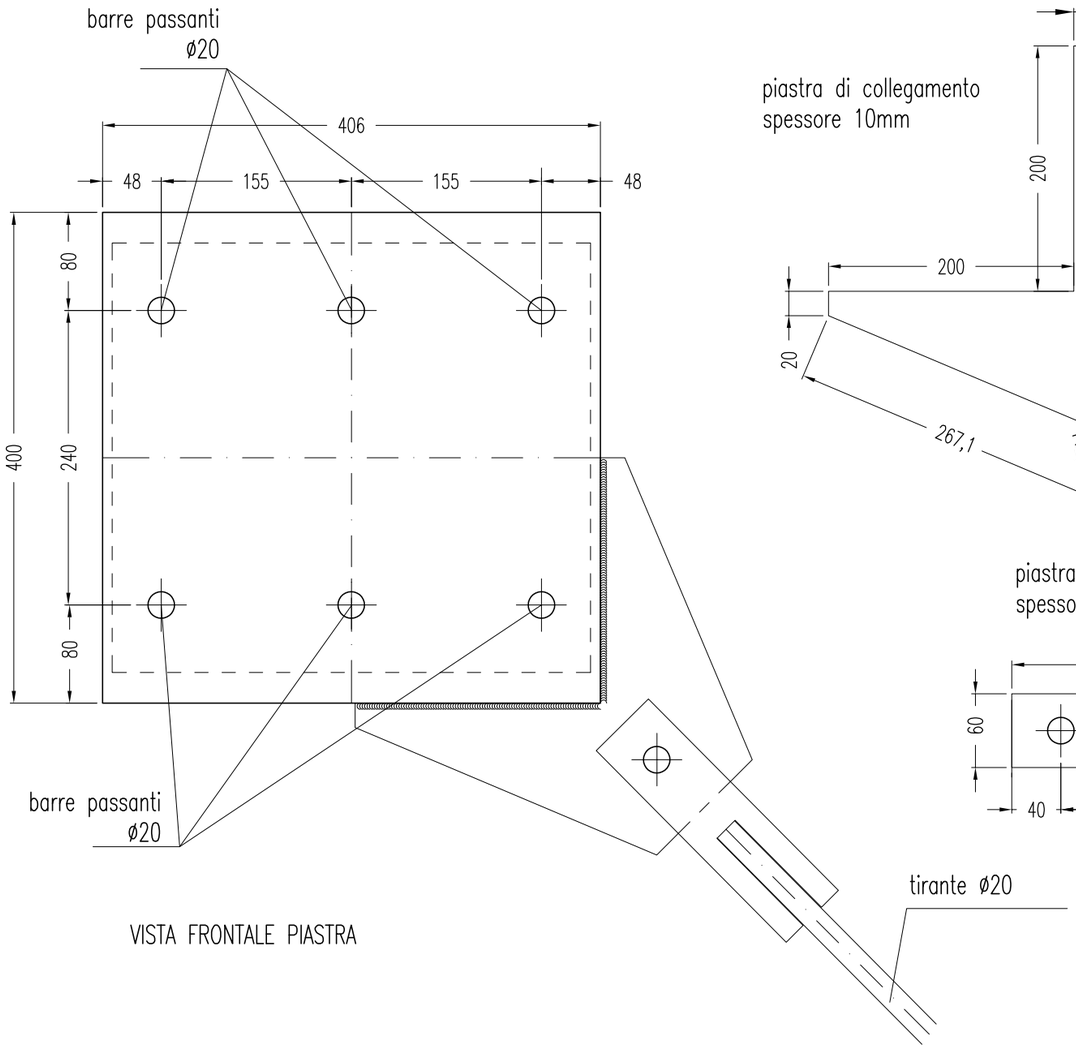
SEZIONE SU PILASTRO SCALA 1:10



SCALA
1:5

DETTAGLIO
P2-b

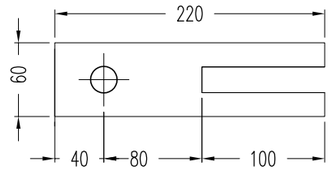
piastra spessore 10mm



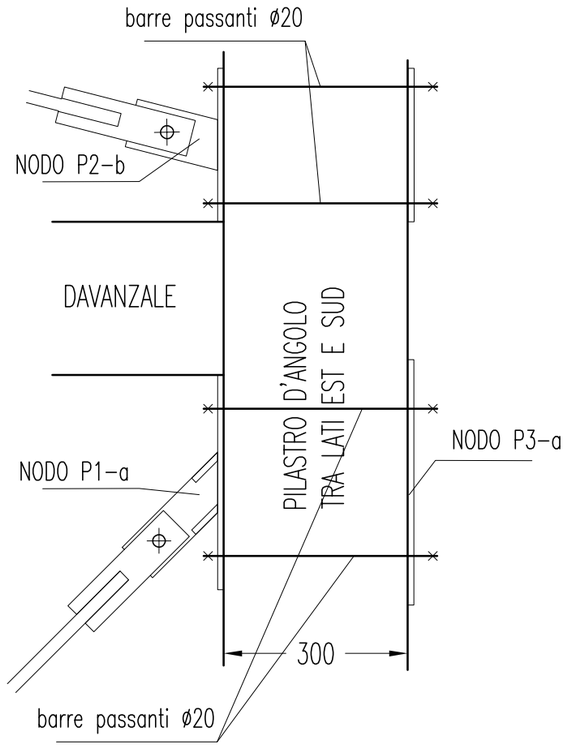
VISTA FRONTALE PIASTRA

piastra di collegamento
spessore 10mm

piastra di fissaggio tirante
spessore 20mm



SEZIONE SU PILASTRO SCALA 1:10



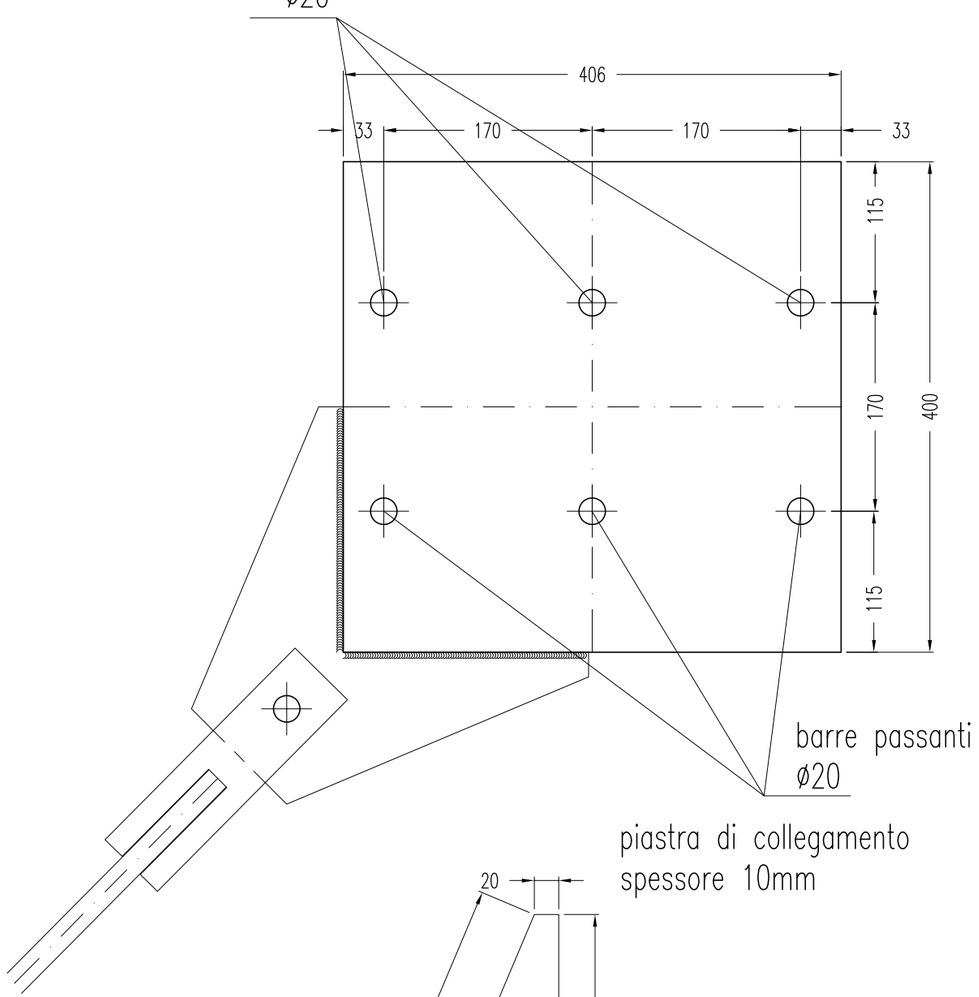
SCALA
1:5

DETTAGLIO
P3-a

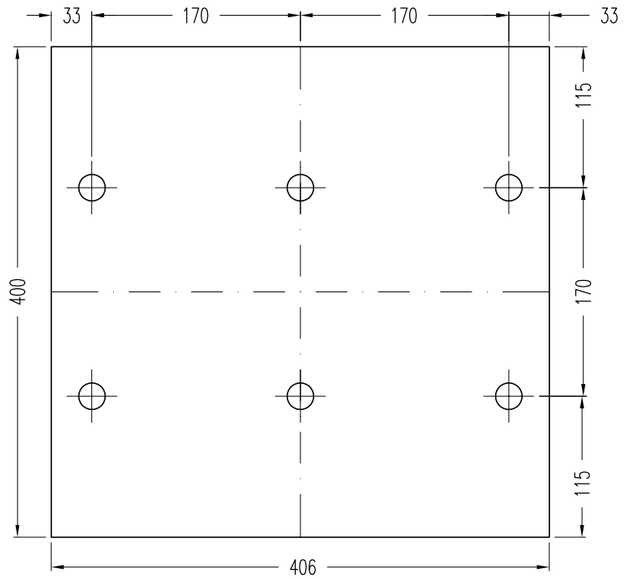
VISTA FRONTALE PIASTRA

barre passanti
ø20

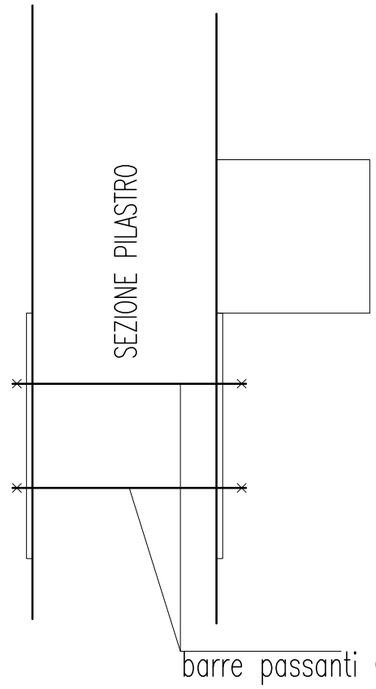
piastra spessore 10mm



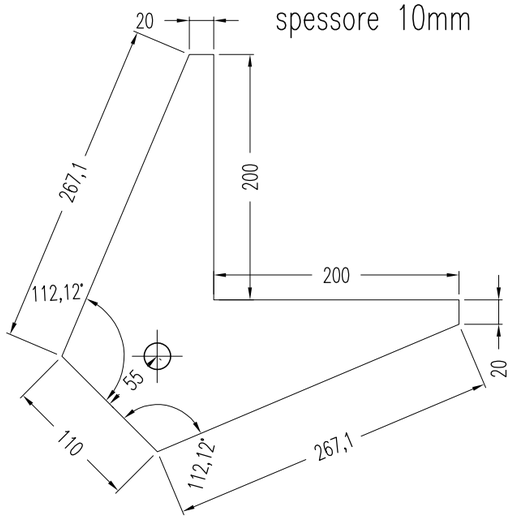
contropiastra
spessore 10mm



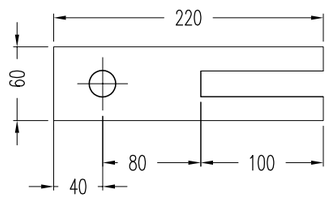
SEZIONE SU PILASTRO
SCALA 1:10



piastra di collegamento
spessore 10mm



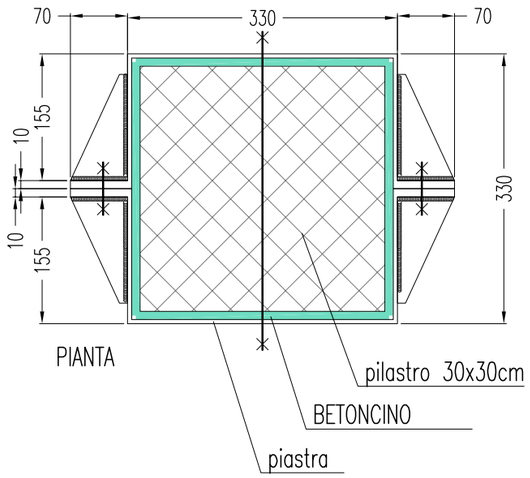
piastra di fissaggio tirante
spessore 20mm



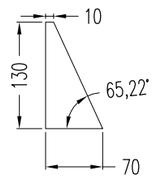
SCALA
1:5

DETTAGLIO
P3-b

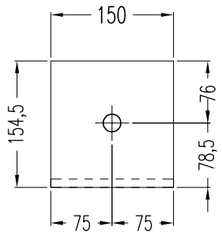
piastre di rinforzo pilastro sp. 5mm
con rinforzi laterali 10 mm



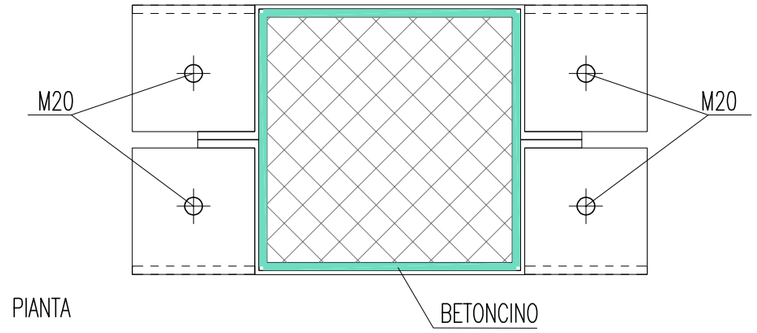
fazzoletti di rinforzo
spessore 10mm



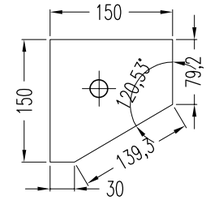
piastre superiori
spessore 8 mm



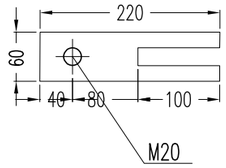
piastre di rinforzo pilastro con piastre laterali superiori
spessore 8mm

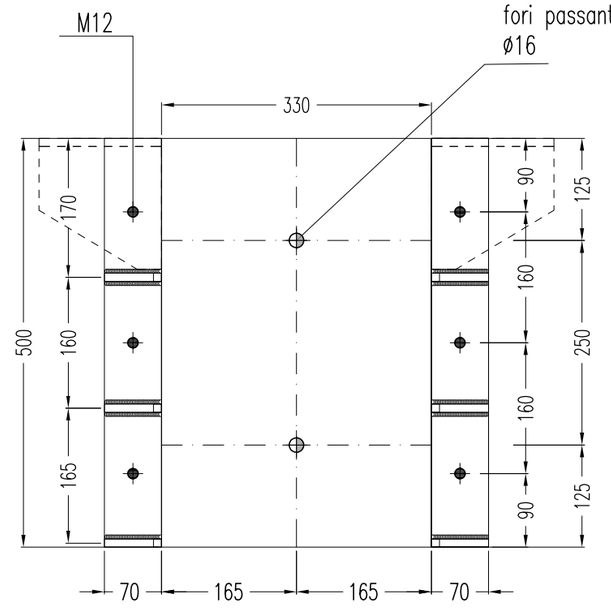


fazzoletto
spessore 10mm

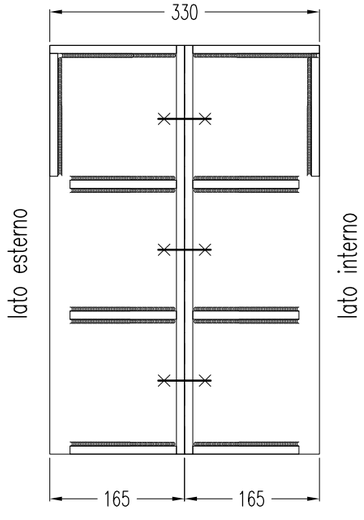


piastre di fissaggio tirante
Sp.=20 mm

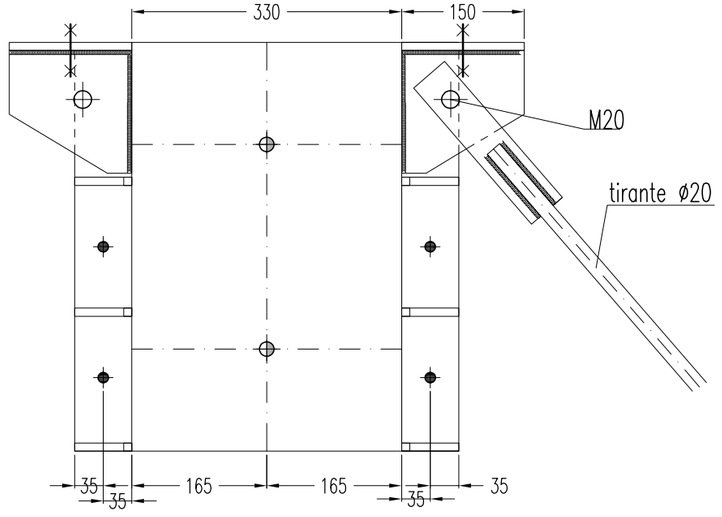




VISTA FRONTALE PIASTRA



VISTA LATERALE PIASTRA

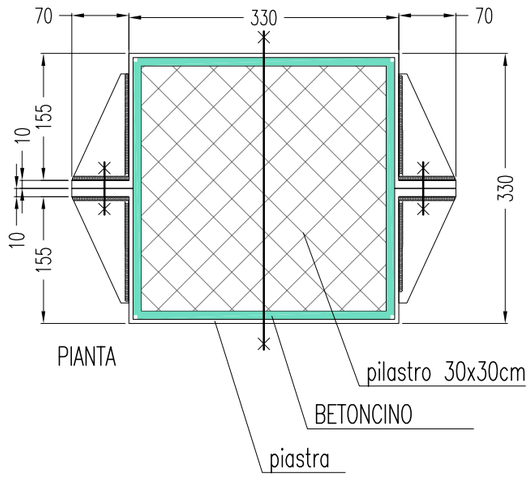


VISTA FRONTALE PIASTRA

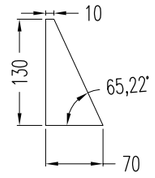
SCALA
1:7,5

DETTAGLIO
P4-a

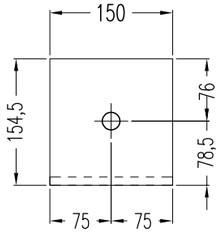
piastre di rinforzo pilastro sp. 5mm
con rinforzi laterali 10 mm



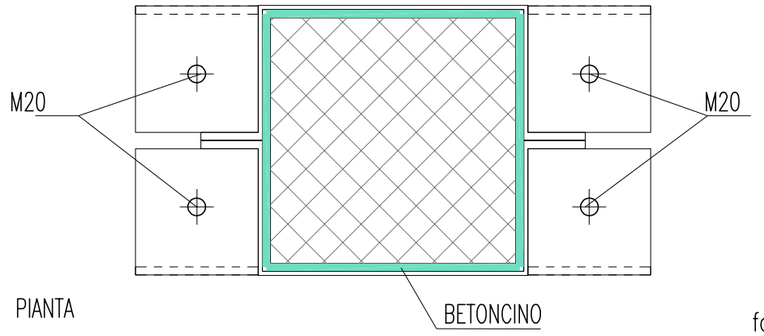
fazzoletti di rinforzo
spessore 10mm



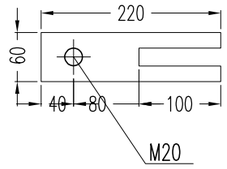
piastre inferiori
spessore 8 mm



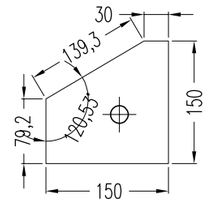
piastre di rinforzo pilastro con piastre laterali superiori
spessore 8mm

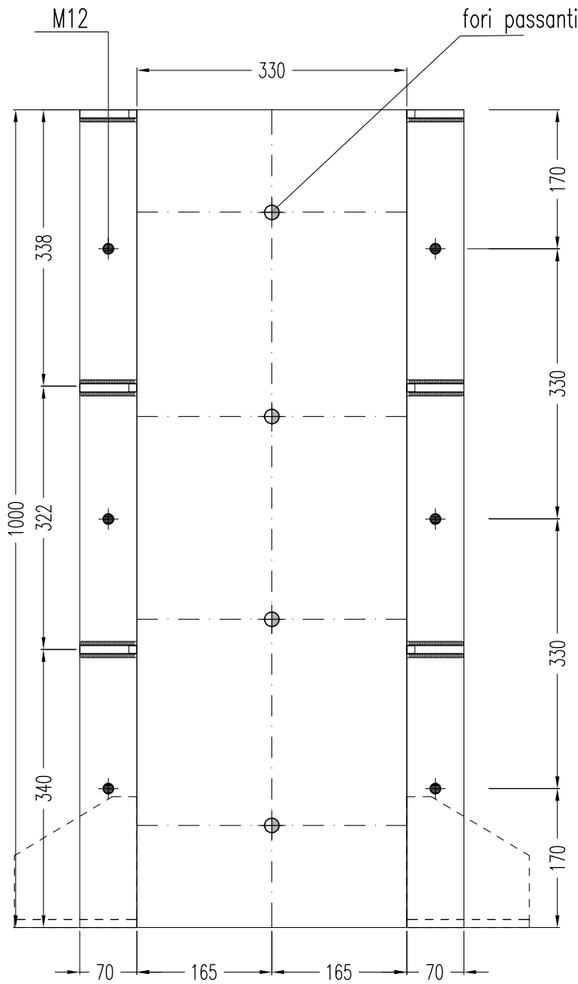


piastre di fissaggio tirante
Sp.=20 mm

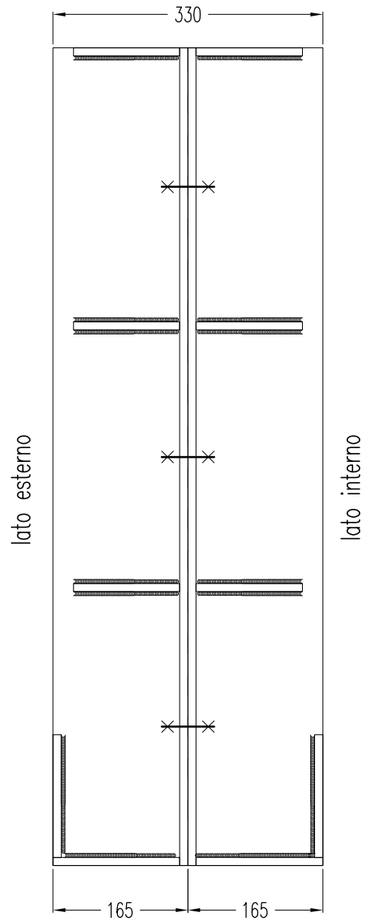


fazzoletto
spessore 10mm

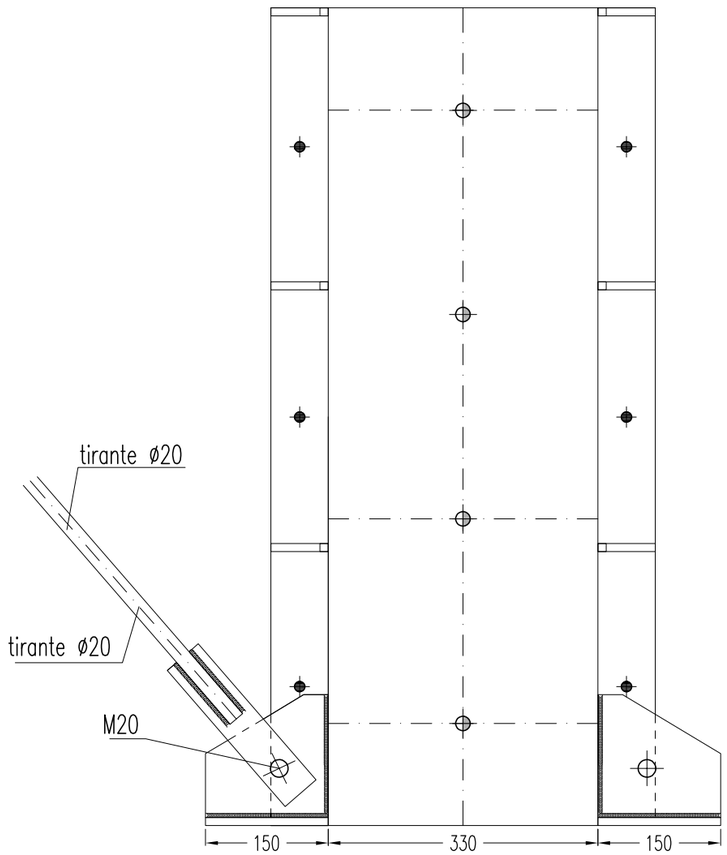




VISTA FRONTALE PIASTRA



VISTA LATERALE PIASTRA

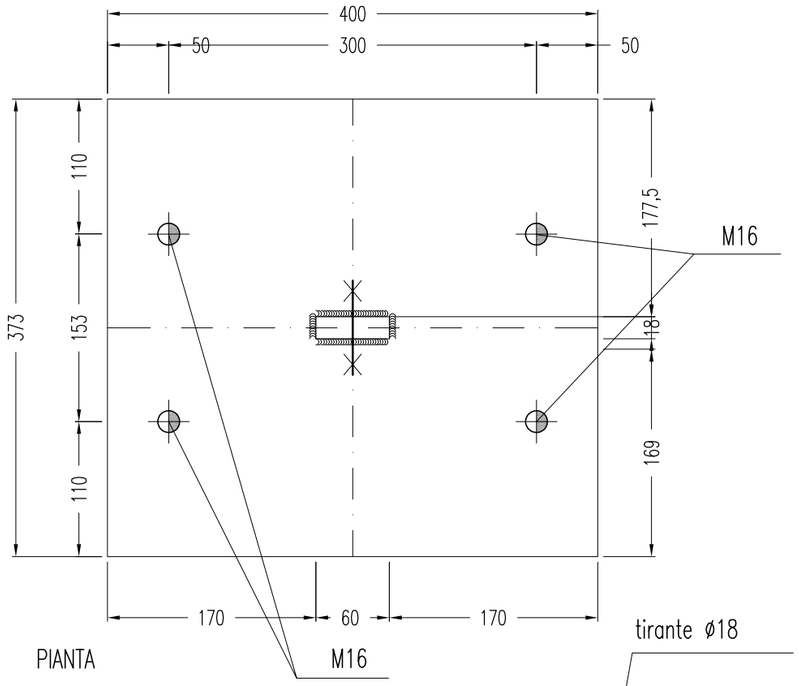


VISTA FRONTALE PIASTRA

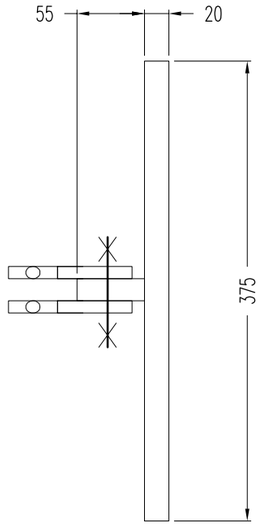
SCALA
1:7,5

DETTAGLIO
P4-b

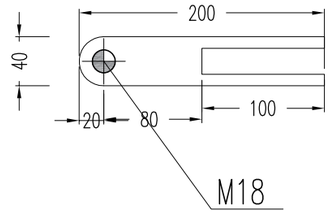
piastra spessore 20mm



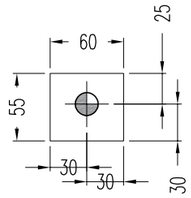
PIANTA

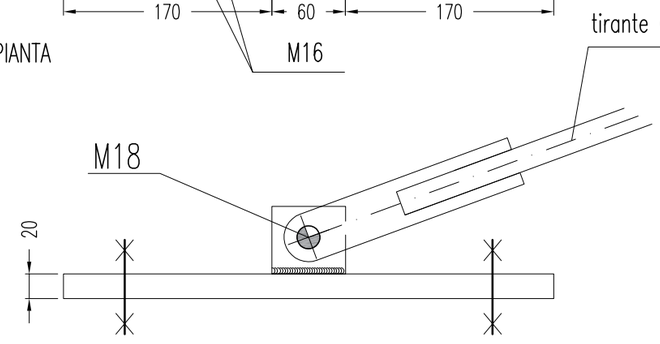


piastra di fissaggio tirante
Sp.=20 mm

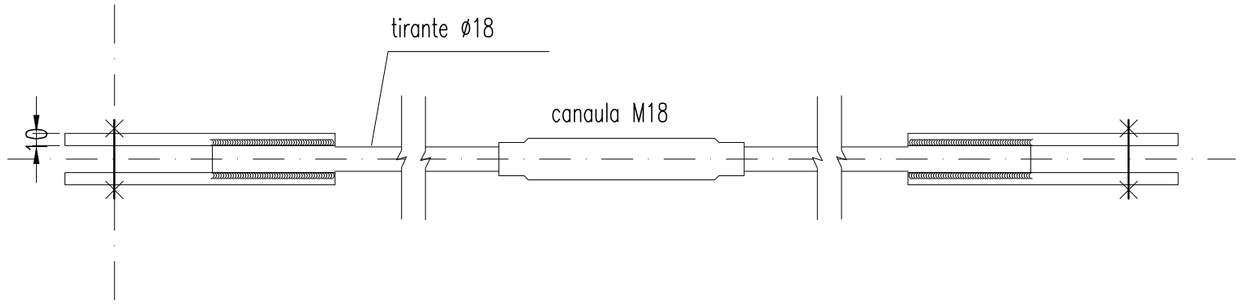


piastre di fissaggio
Sp.=18 mm

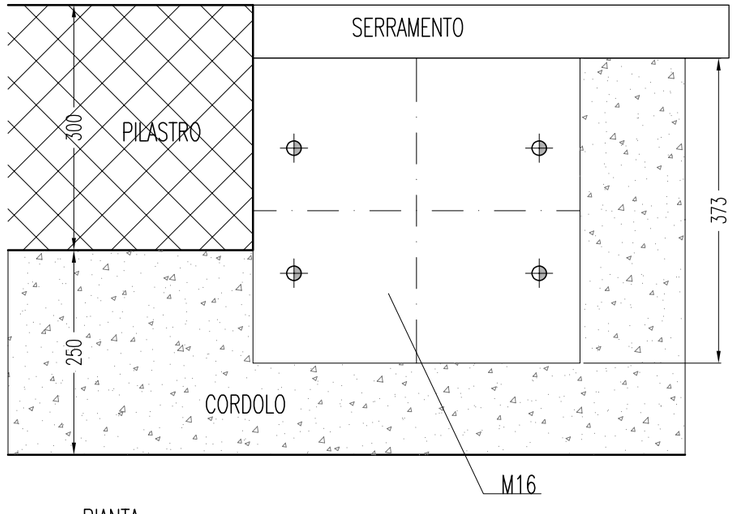




VISTA FRONTALE



POSIZIONAMENTO
SUL CORDOLO
scala 1:10

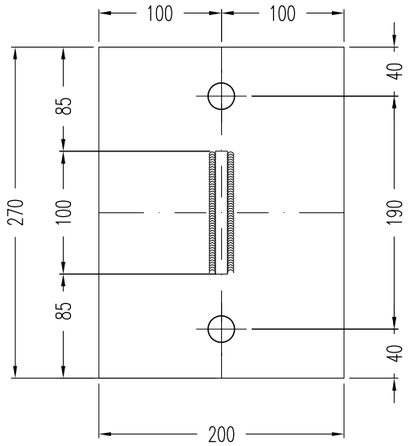


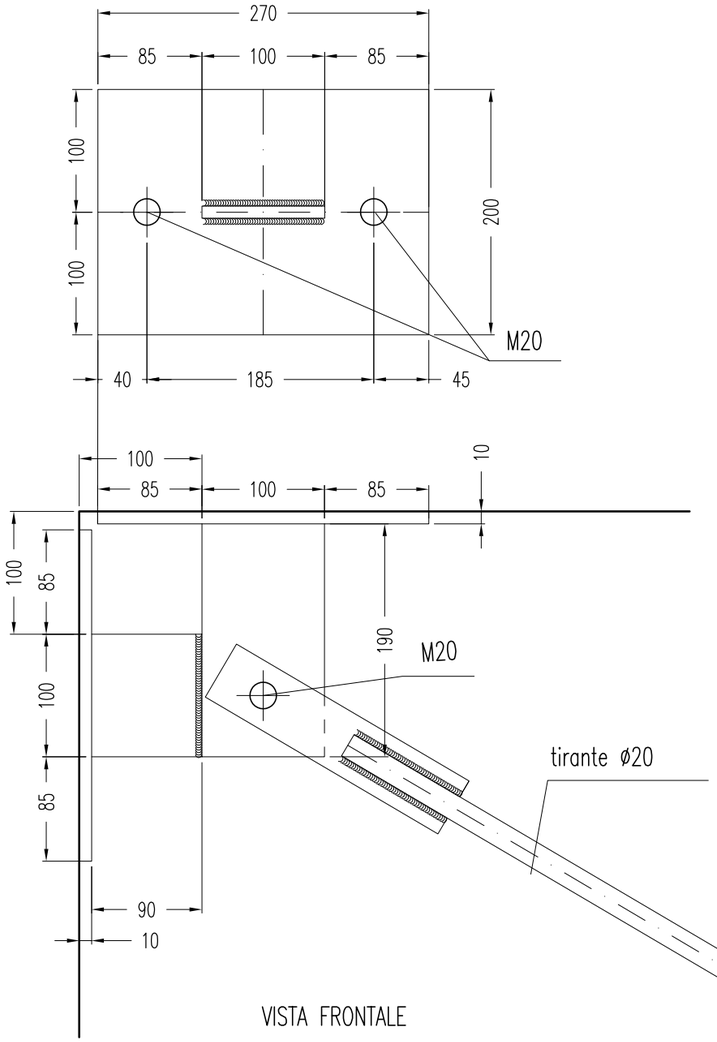
PIANTA

SCALA
1:5

DETTAGLIO
P5

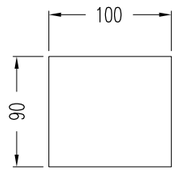
piastre 200x300
spessore 10mm



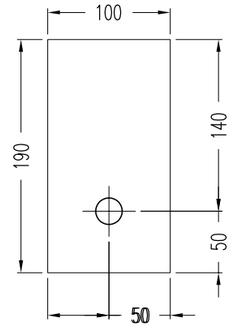


VISTA FRONTALE

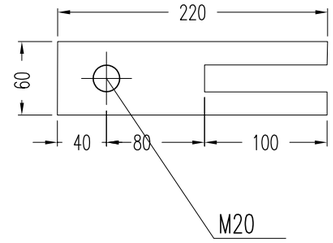
fazzoletto sp.10mm



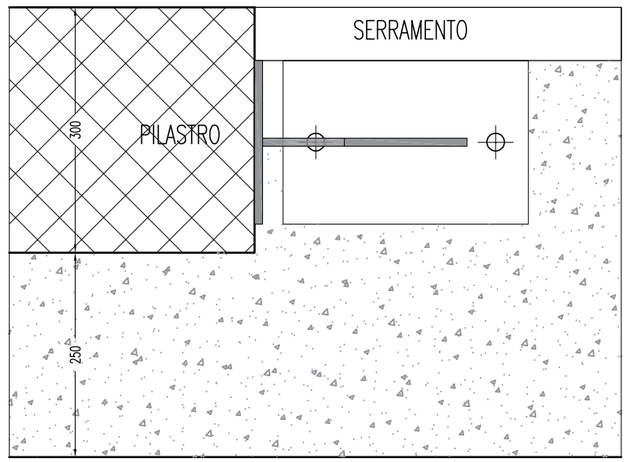
fazzoletto sp.10mm



piastre di fissaggio tirante
Sp.=20 mm



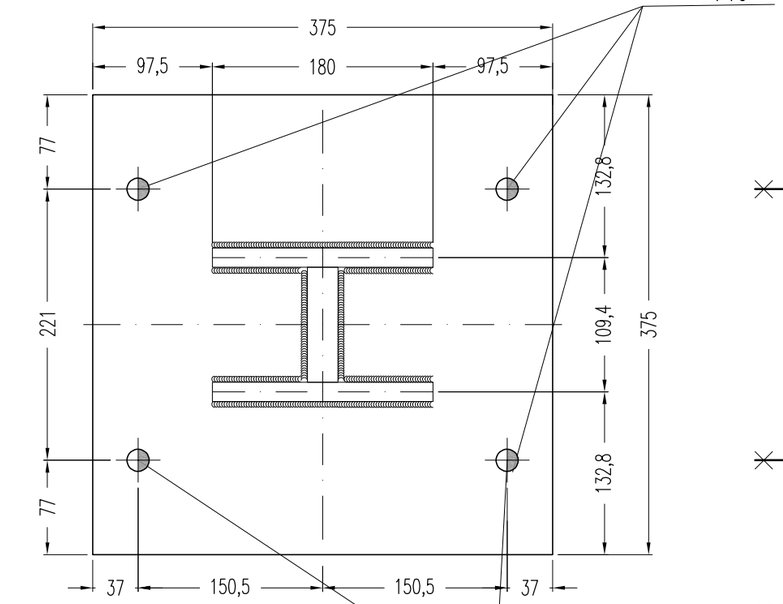
POSIZIONAMENTO
SUL CORDOLO
scala 1:7,5



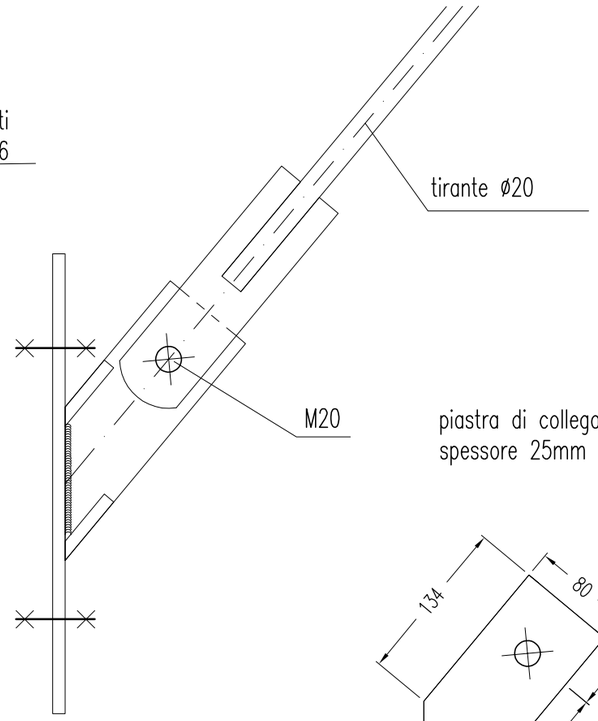
SCALA
1:5

DETTAGLIO
P6

piastra spessore 10mm

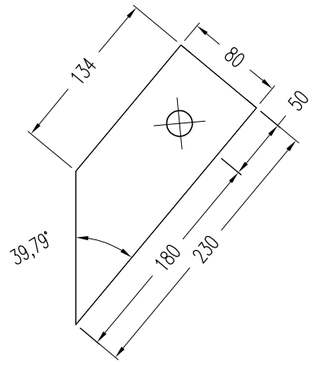


PROSPETTO

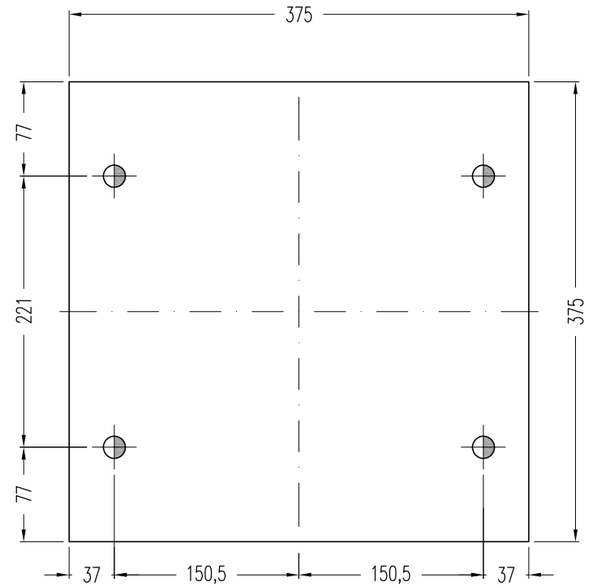


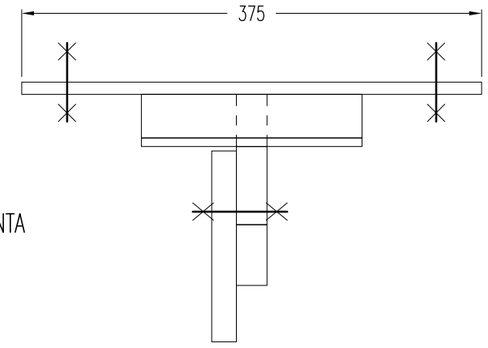
SEZIONE LATERALE

piastra di collegamento
spessore 25mm



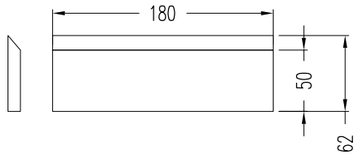
contropiastra spessore 10mm



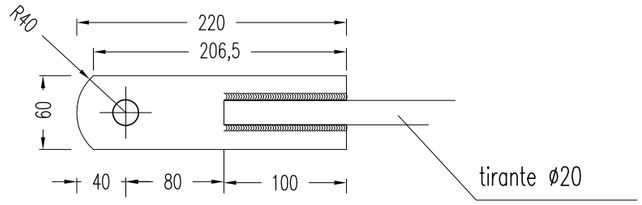


PIANTA

piastra di irrigidimento
spessore 10mm



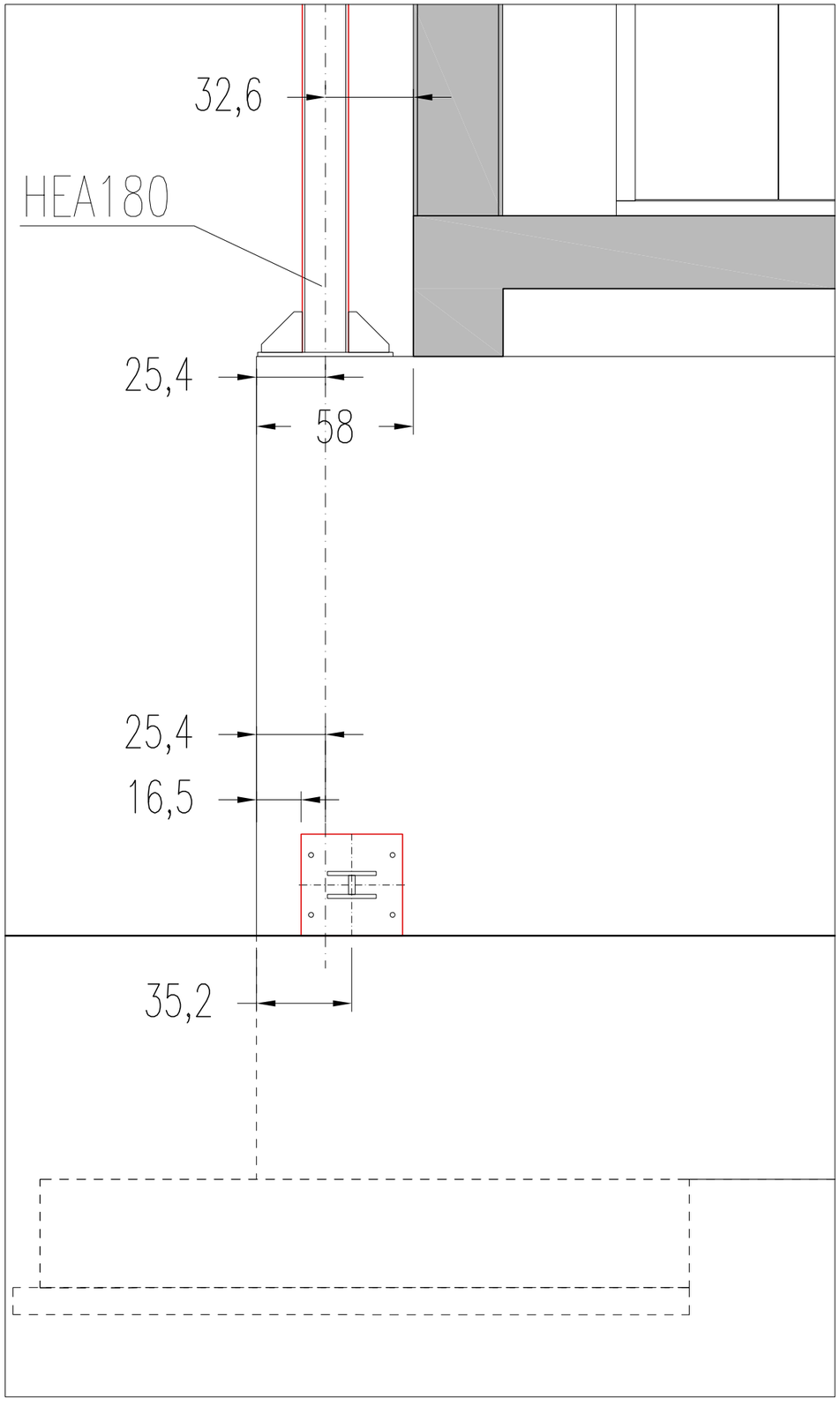
piastra di fissaggio tirante
spessore 20mm



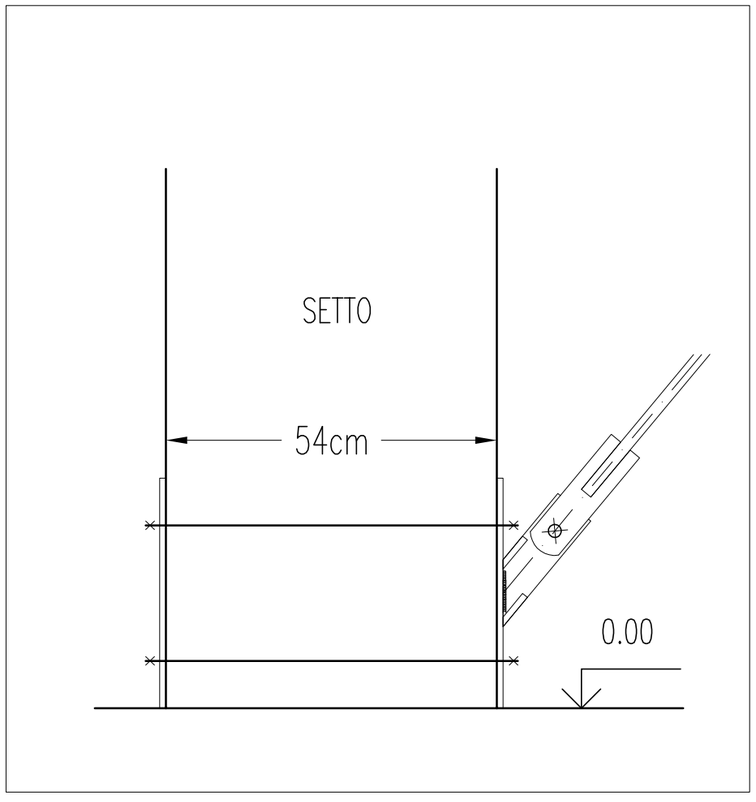
SCALA
1:5

DETTAGLIO
P7

POSIZIONAMENTO SU SETTO
SCALA 1:20

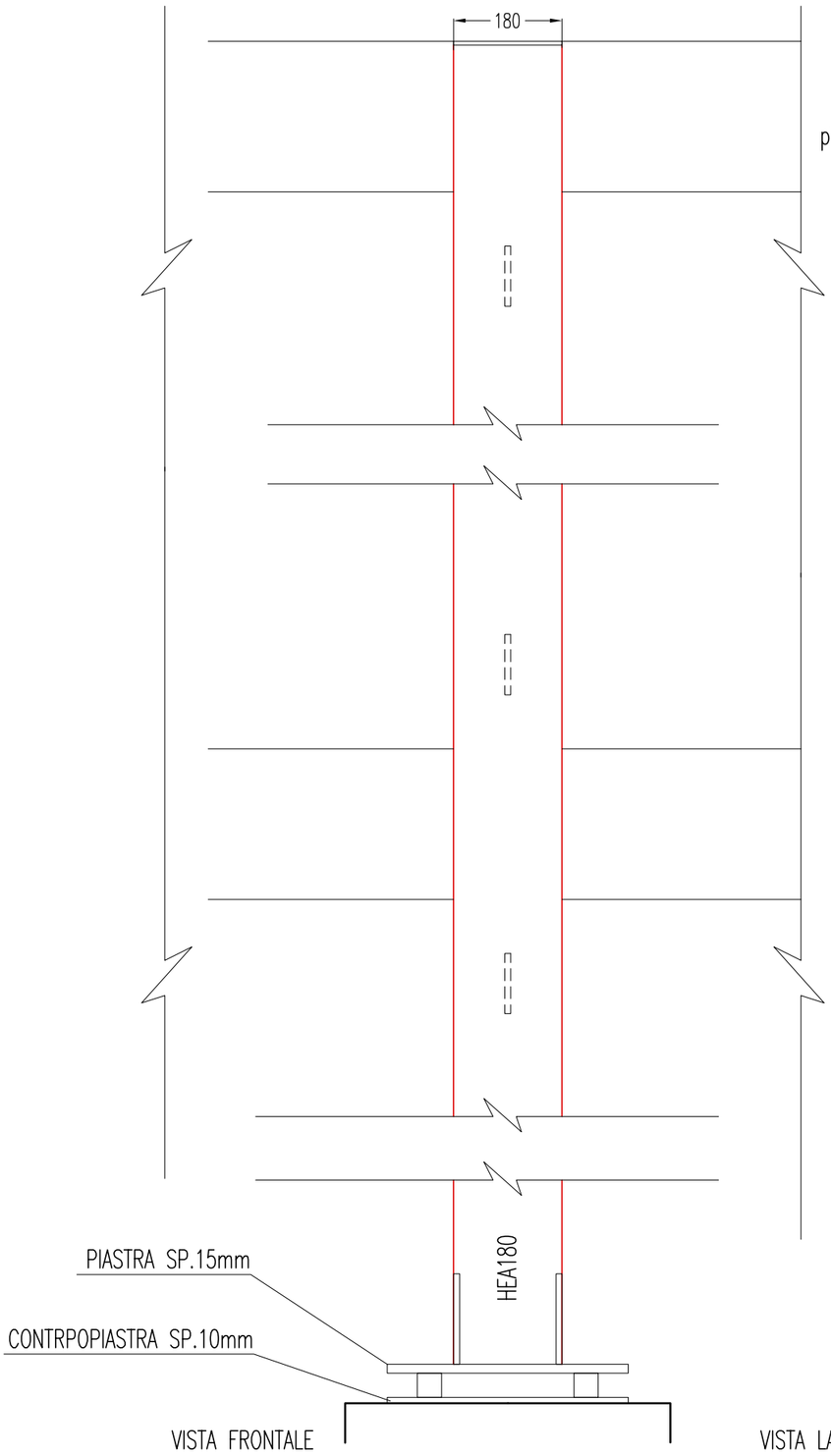


SEZIONE SUL SETTO
SCALA 1:10

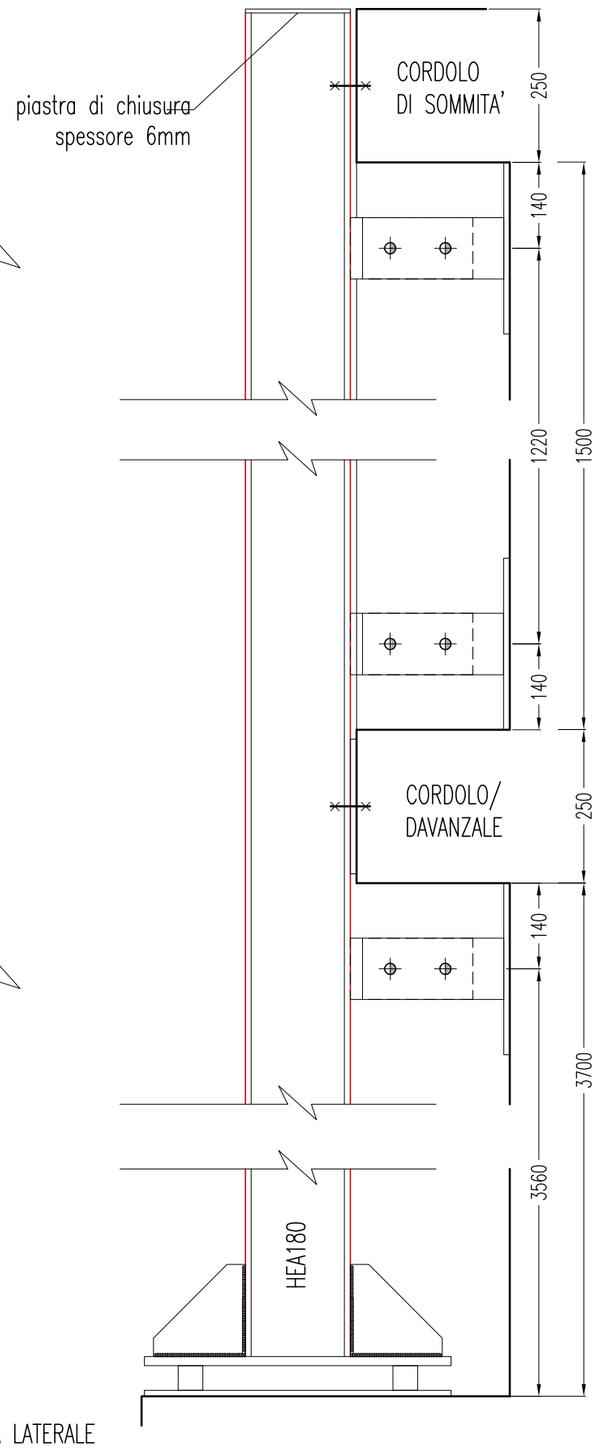


SCALA
1:5

DETTAGLIO
P7



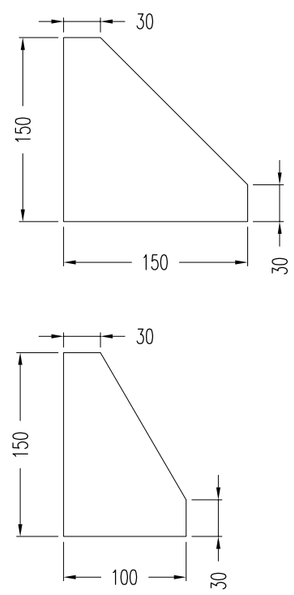
VISTA FRONTALE



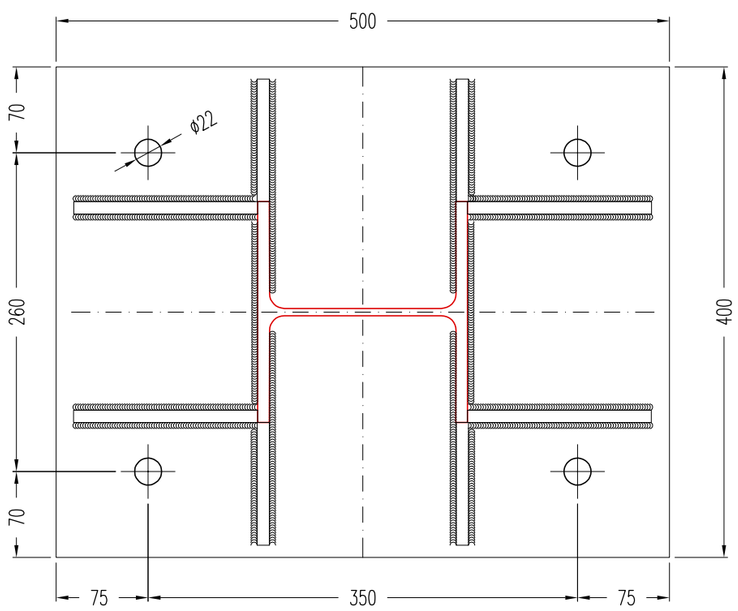
VISTA LATERALE

DETTAGLI PIASTRA DI BASE E FAZZOLETTI SCALA 1:5

fazzoletti di rinforzo sp.10mm

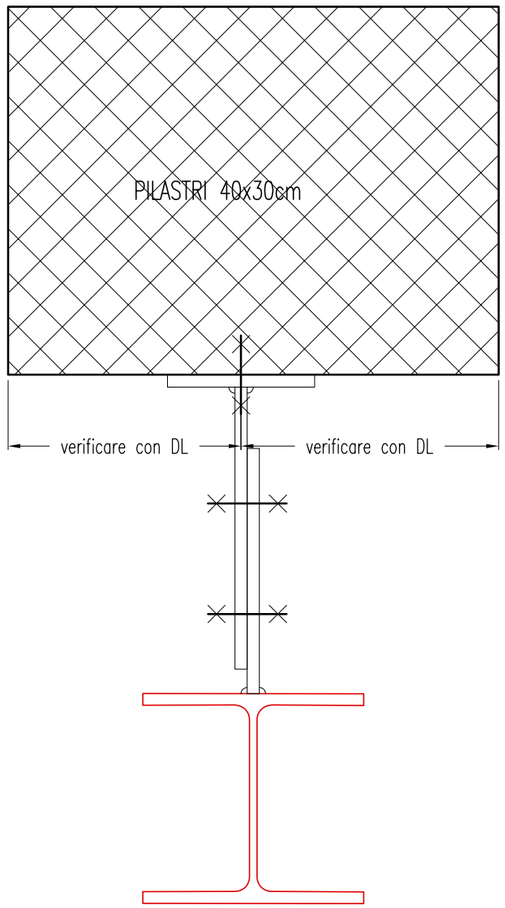


VISTA IN PIASTA: PIASTRA DI BASE sp.15mm
N° 4 TIRAFONDI M20 CL.8.8

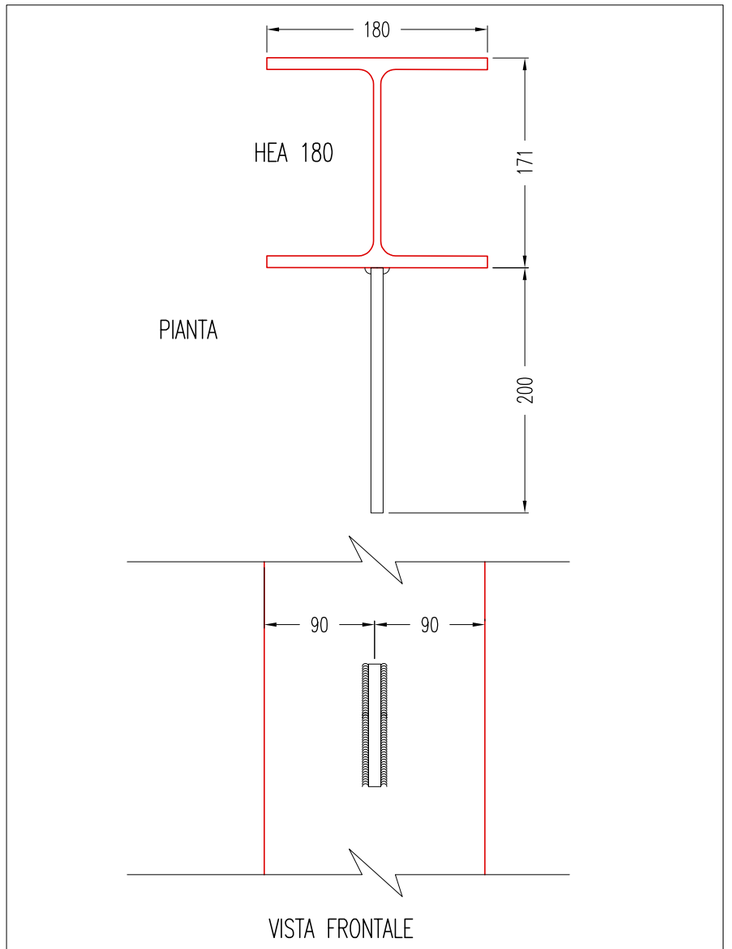


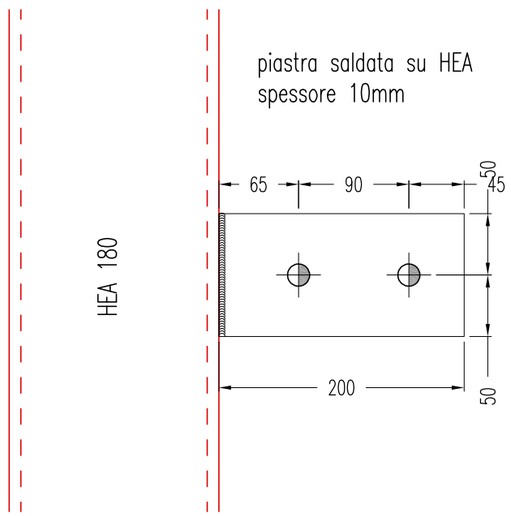
SCALA
1:10

DETTAGLIO
P8

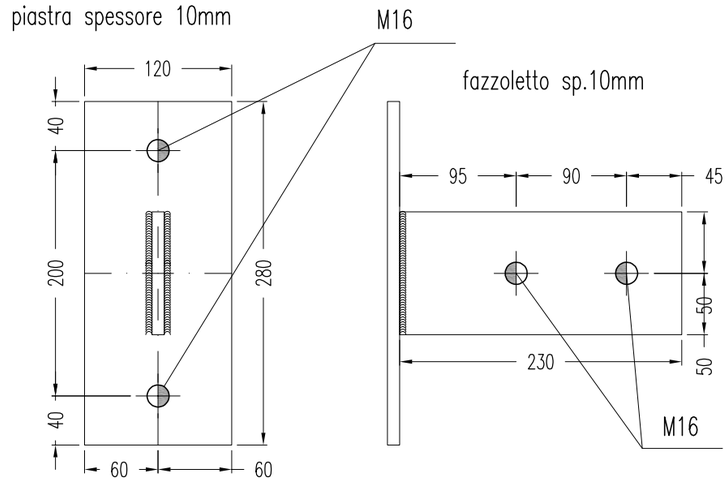


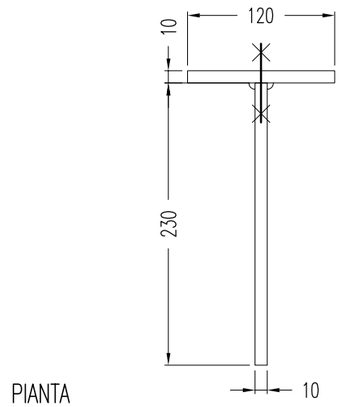
PIASTRA DA SALDARE SU ALA HEA





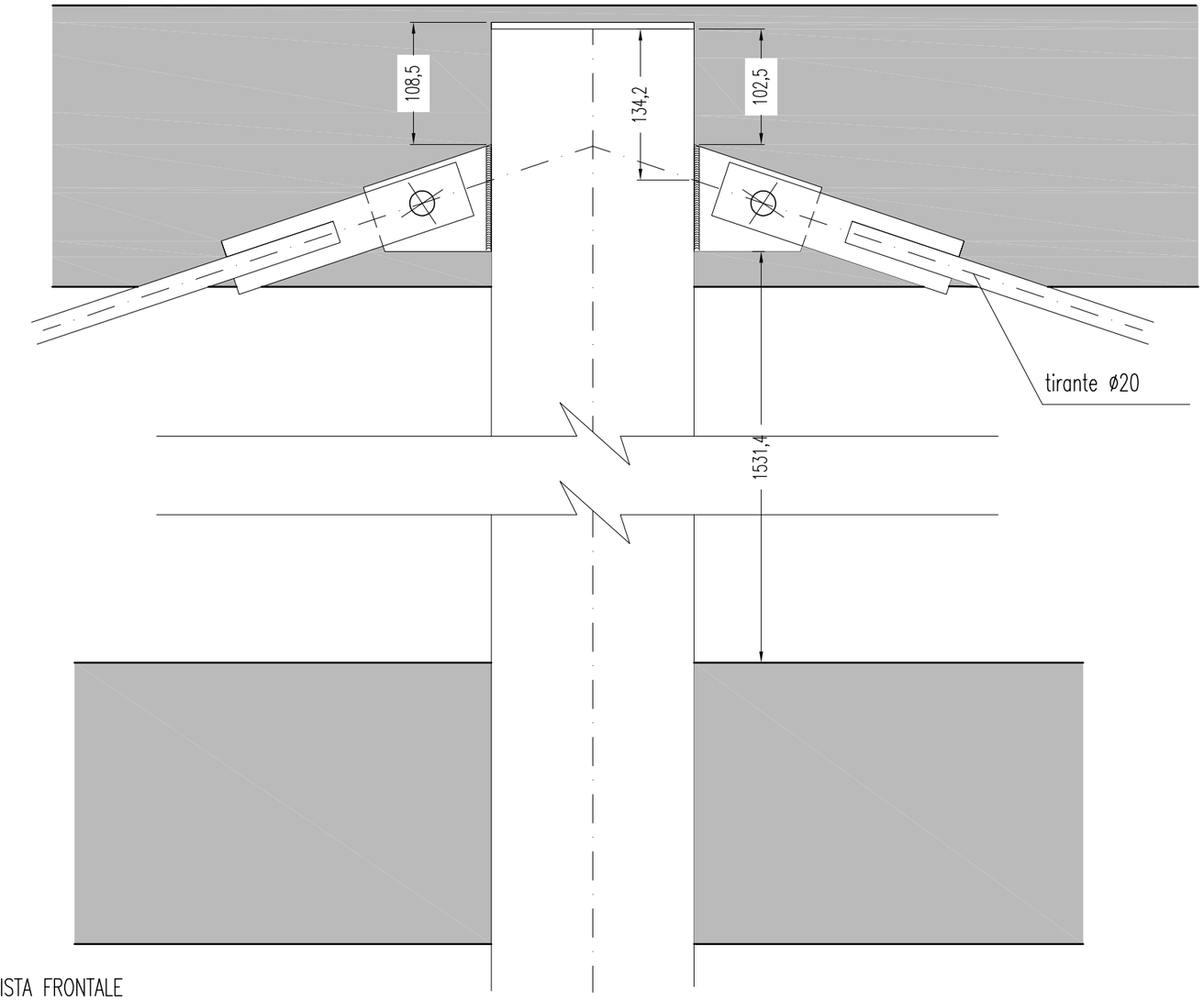
PIASTRA DA FISSARE A PILASTRO



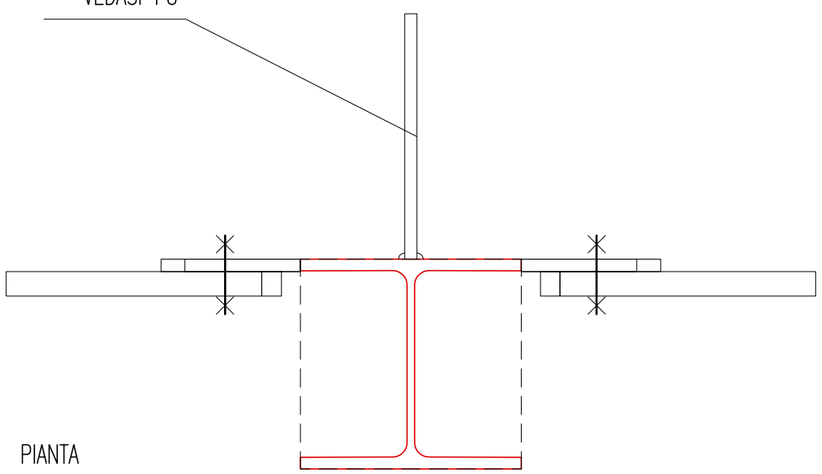


SCALA
1:5

DETTAGLIO
P8

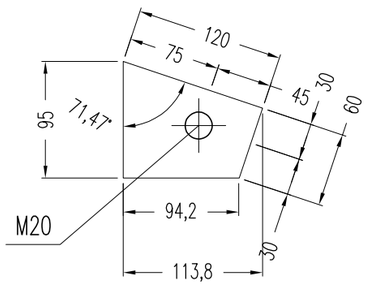


VISTA FRONTALE

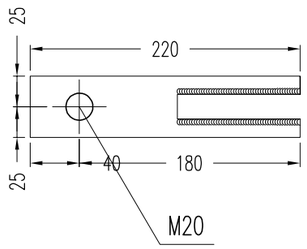


PIANTA

piastra spessore 10mm

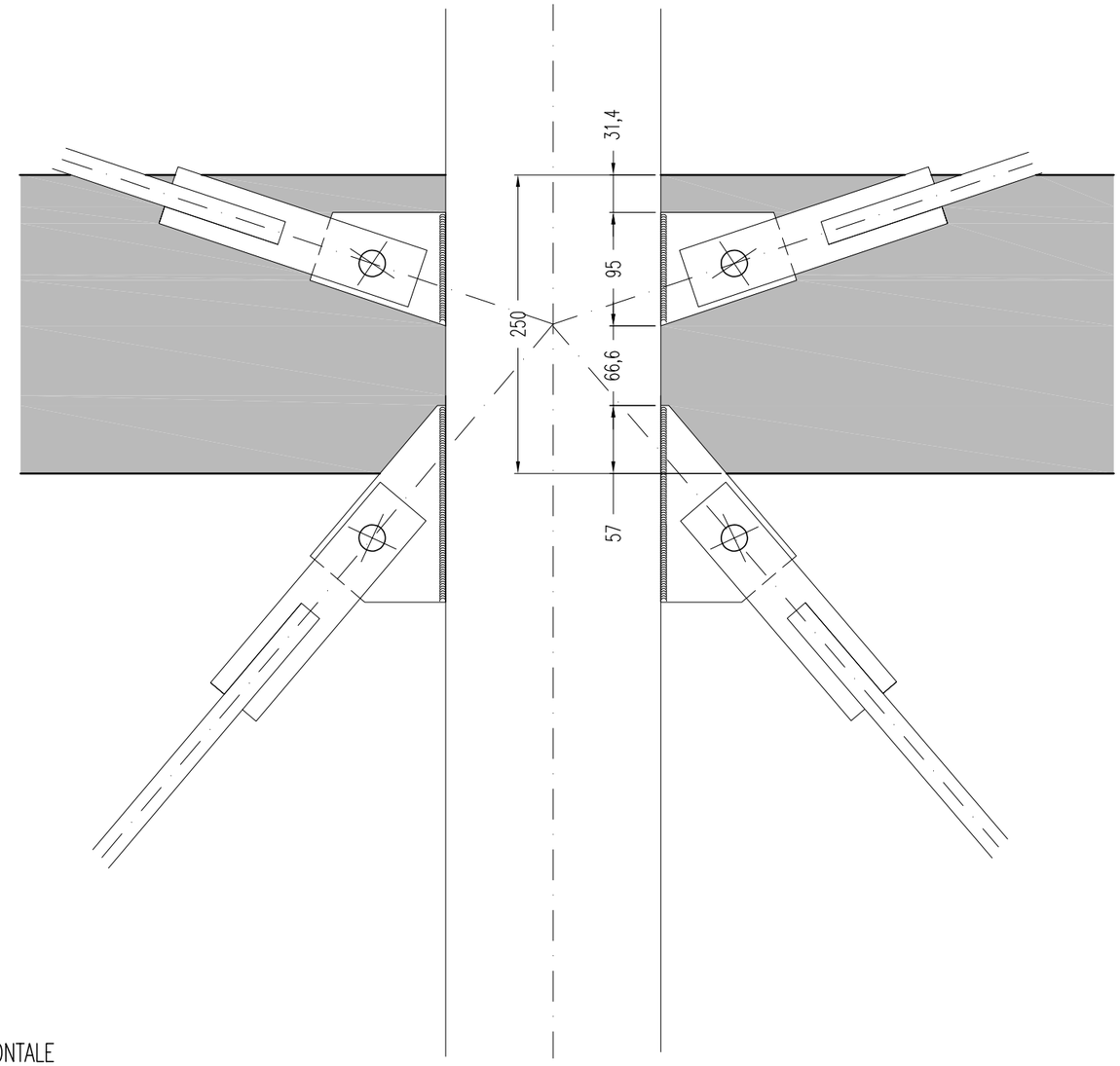


piastra di fissaggio tirante
spessore 20mm

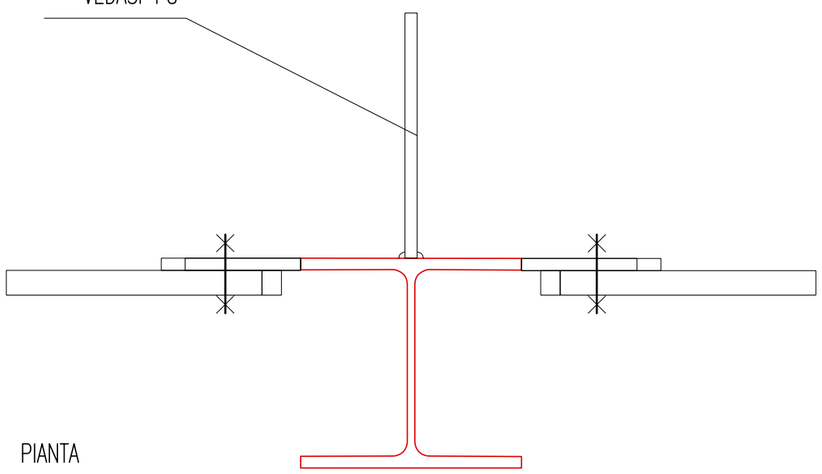


SCALA
1:5

DETTAGLIO
P9-a

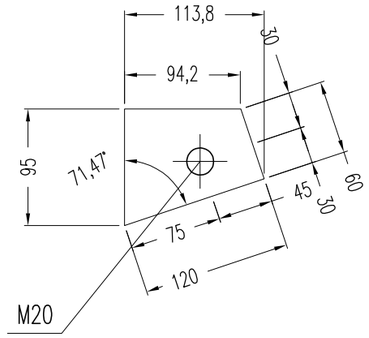


VISTA FRONTALE

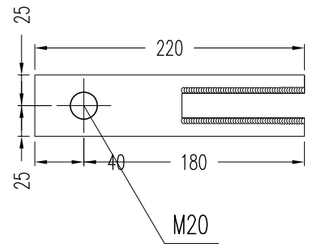


PIANTA

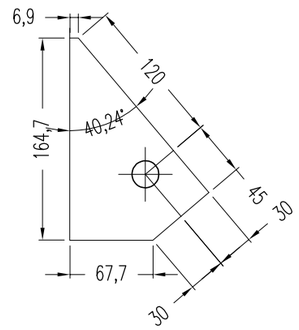
piastra superiore
spessore 10mm



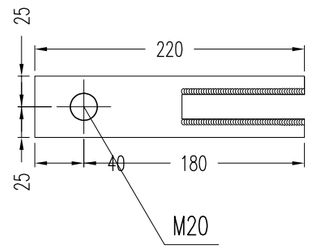
piastra di fissaggio tirante
spessore 20mm



piastra inferiore
spessore 10mm

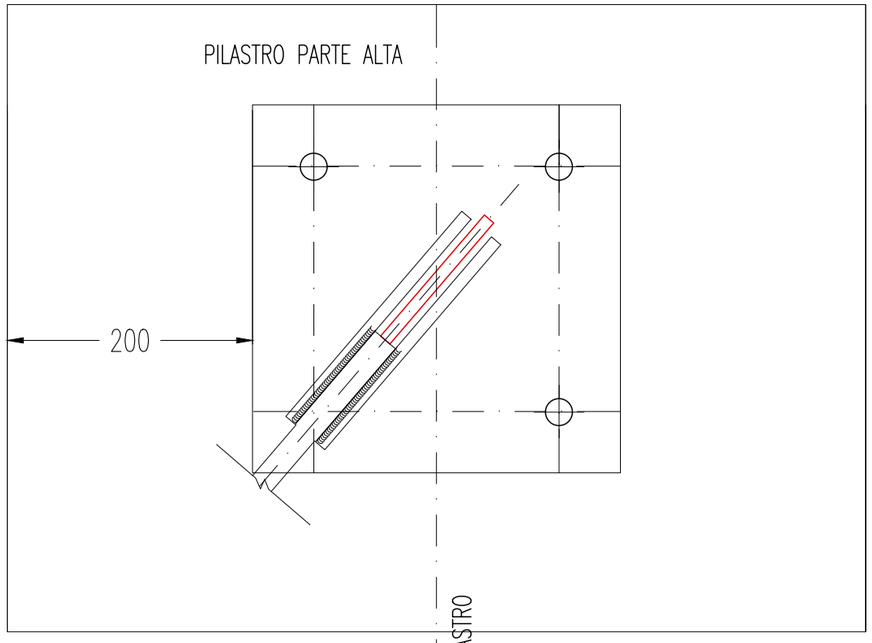


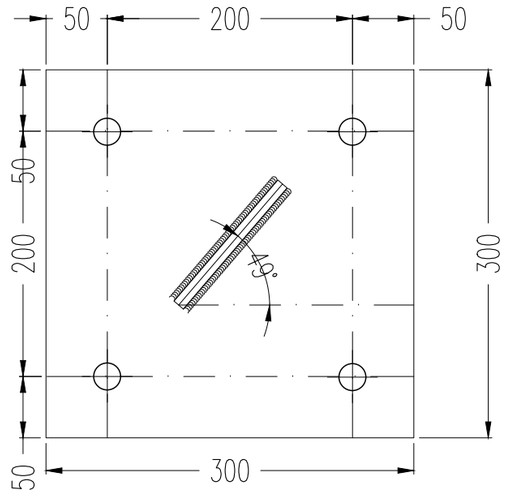
piastra di fissaggio tirante
spessore 20mm

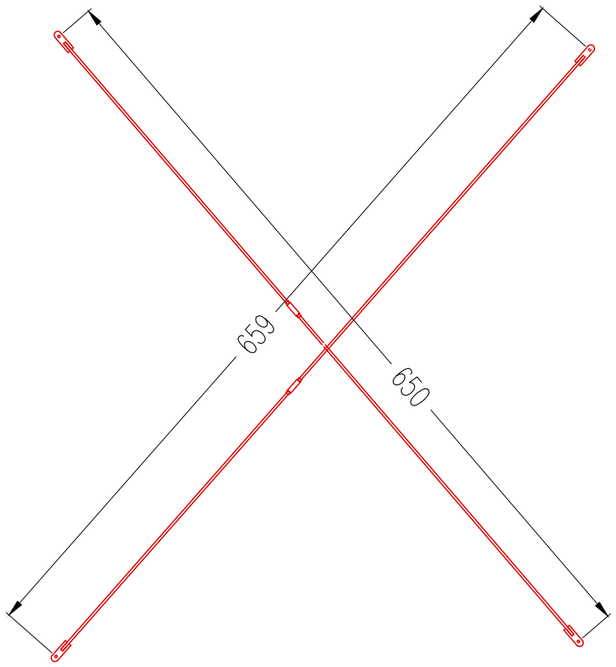


SCALA
1:5

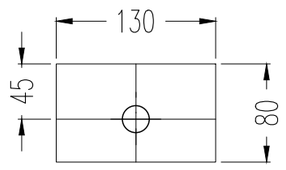
DETTAGLIO
P9-b

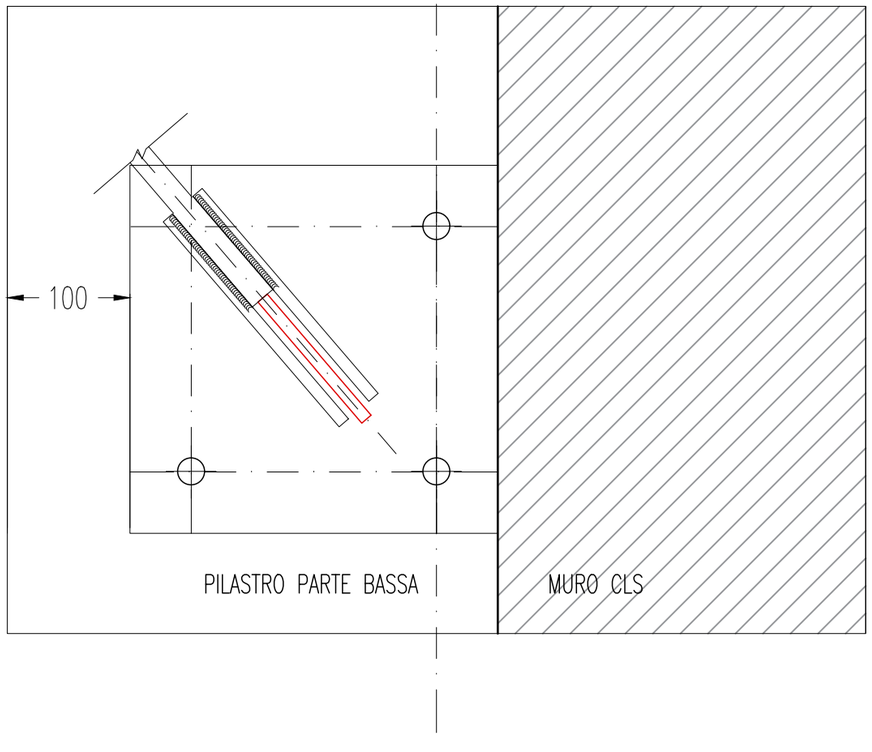




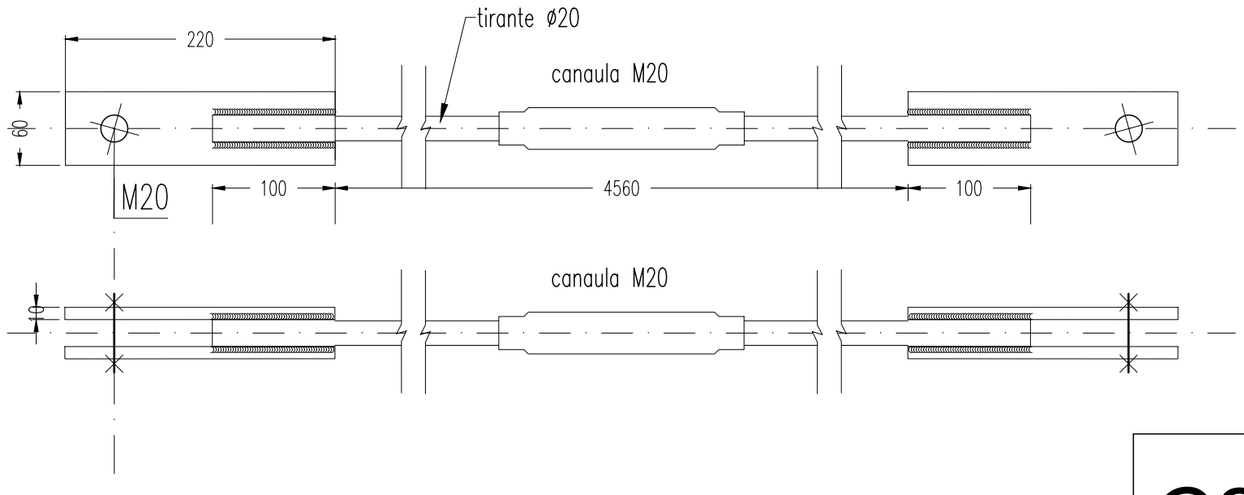


Piastra di collegamento tirante
spessore 10mm





Tondino ø20 – N°1 bullone M20



SCALA
1:5

C22