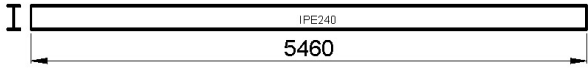
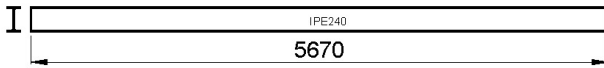
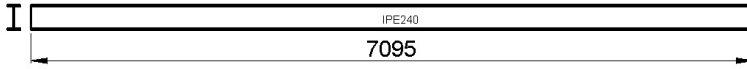
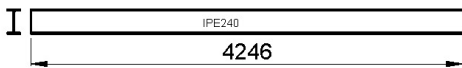
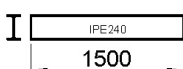
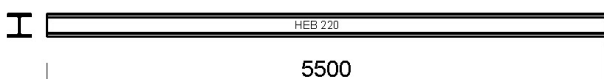
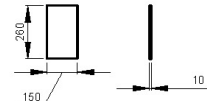
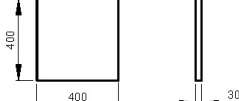
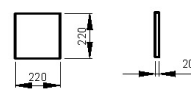
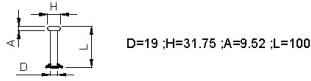

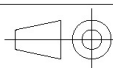
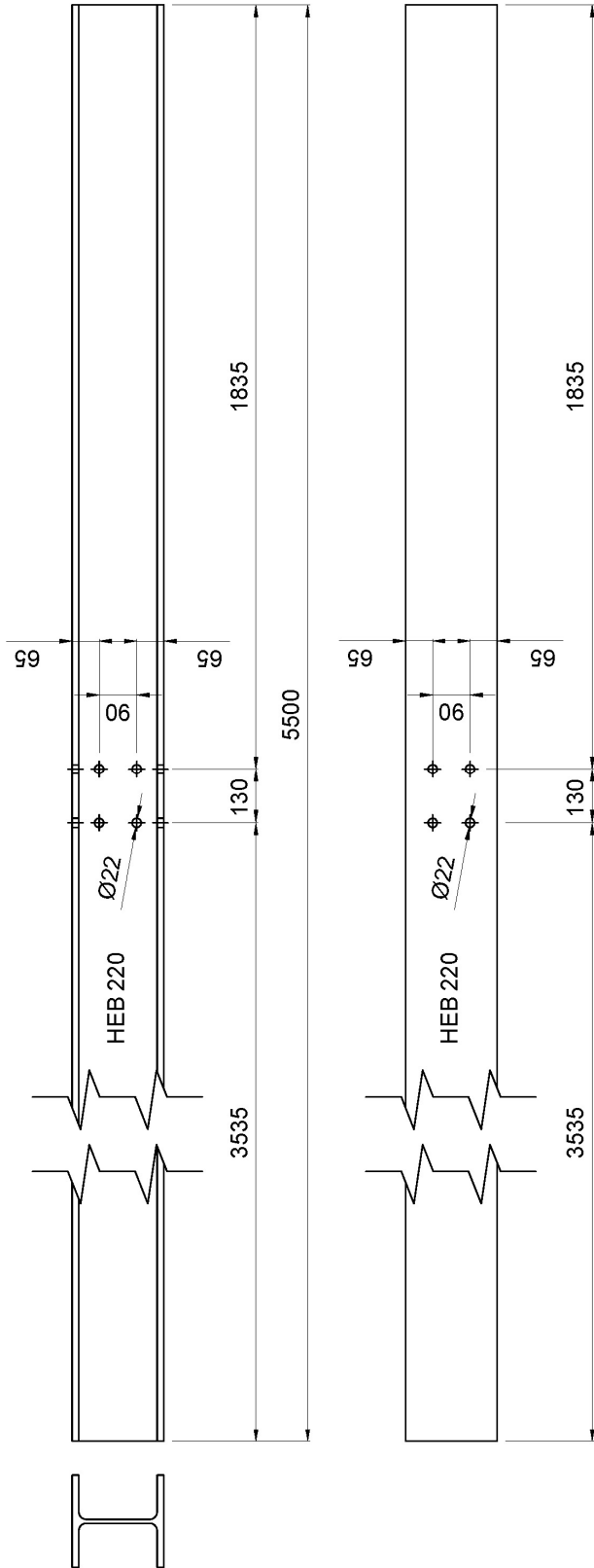



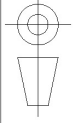
ANNEX A: FULL-SCALE TESTS - STEEL COMPONENTS

Beam Type 1 Number of pieces - 12 																																																																																											
Beam Type 2 Number of pieces - 6 																																																																																											
Beam Type 3 Number of pieces - 3 																																																																																											
Beam Type 4 Number of pieces - 3 																																																																																											
Beam Type 5 Number of pieces - 6 																																																																																											
Column type 1 Number of pieces - 18 																																																																																											
Plate type A Number of pieces - 54 	Plate type B Number of pieces - 18 	Plate type C Number of pieces - 18 																																																																																									
Shear Connector SD 3/4" x 4"; Mild Steel; 1182 Headed studs 																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Name</th> <th>Steel Grade</th> <th>Dimensions [mm]</th> <th>Weight [t]</th> <th>Number of pieces</th> <th>Total Weight [t]</th> <th>Drawing No.</th> </tr> </thead> <tbody> <tr> <td>Beam type 1</td> <td>S 355 JR</td> <td>240x120x5460</td> <td>0.168</td> <td>12</td> <td>2.011</td> <td>FST 04</td> </tr> <tr> <td>Beam type 2</td> <td>S 355 JR</td> <td>240x120x5670</td> <td>0.174</td> <td>6</td> <td>1.044</td> <td>FST 05</td> </tr> <tr> <td>Beam type 3</td> <td>S 355 JR</td> <td>240x120x7095</td> <td>0.218</td> <td>3</td> <td>0.653</td> <td>FST 06</td> </tr> <tr> <td>Beam type 4</td> <td>S 355 JR</td> <td>240x120x4246</td> <td>0.130</td> <td>3</td> <td>0.391</td> <td>FST 07</td> </tr> <tr> <td>Beam type 5</td> <td>S 355 JR</td> <td>240x120x1500</td> <td>0.046</td> <td>6</td> <td>0.276</td> <td>FST 08</td> </tr> <tr> <td>Column type 1</td> <td>S 355 JR</td> <td>220x220x5500</td> <td>0.393</td> <td>18</td> <td>7.079</td> <td>FST 02-09</td> </tr> <tr> <td>Plate type A</td> <td>S 355 JR</td> <td>260x150x10</td> <td>0.003</td> <td>54</td> <td>0.165</td> <td>FST 03-04-05-06-07-08</td> </tr> <tr> <td>Plate type B</td> <td>S 355 JR</td> <td>400x400x30</td> <td>0.038</td> <td>18</td> <td>0.678</td> <td>FST 03-09</td> </tr> <tr> <td>Plate type C</td> <td>S 355 JR</td> <td>220x220x20</td> <td>0.007</td> <td>18</td> <td>0.137</td> <td>FST 03-09</td> </tr> <tr> <td>Shear Coonectors</td> <td>SD 3/4"x 4"</td> <td>D=19; H=31.75; A=9.52; L=100</td> <td>---</td> <td>1182</td> <td>---</td> <td>FST 04-05-06-07-08</td> </tr> <tr> <td colspan="5">Total</td> <td>12.434</td> <td></td> </tr> </tbody> </table>								Name	Steel Grade	Dimensions [mm]	Weight [t]	Number of pieces	Total Weight [t]	Drawing No.	Beam type 1	S 355 JR	240x120x5460	0.168	12	2.011	FST 04	Beam type 2	S 355 JR	240x120x5670	0.174	6	1.044	FST 05	Beam type 3	S 355 JR	240x120x7095	0.218	3	0.653	FST 06	Beam type 4	S 355 JR	240x120x4246	0.130	3	0.391	FST 07	Beam type 5	S 355 JR	240x120x1500	0.046	6	0.276	FST 08	Column type 1	S 355 JR	220x220x5500	0.393	18	7.079	FST 02-09	Plate type A	S 355 JR	260x150x10	0.003	54	0.165	FST 03-04-05-06-07-08	Plate type B	S 355 JR	400x400x30	0.038	18	0.678	FST 03-09	Plate type C	S 355 JR	220x220x20	0.007	18	0.137	FST 03-09	Shear Coonectors	SD 3/4"x 4"	D=19; H=31.75; A=9.52; L=100	---	1182	---	FST 04-05-06-07-08	Total					12.434	
Name	Steel Grade	Dimensions [mm]	Weight [t]	Number of pieces	Total Weight [t]	Drawing No.																																																																																					
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 UNIVERSITÀ DEGLI STUDI DI TRENTO DIPARTIMENTO DI INGEGNERIA MECCANICA E STRUTTURALE Laboratorio Prove Materiali e Strutture		RFCS project N° RFSR-CT-2012-0029 Proposal acronym: ROBUSTIMPACT Organisation acronym: UNITRE																																																																																									
Part No. F ull S cale T est	Note: All dimensions are illustrated in the individual drawings		Material Drawing No. FST 01	SCALE Date 13/09/2013 Review Reference file Frame_Test_RobustImpact_UNITRE_FST_TST_M00																																																																																							
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MOMENT RESISTING STEEL-CONCRETE COMPOSITE FRAMES UNDER THE COLUMN LOSS SCENARIO:
 DESIGN OF THE REFERENCE FRAMES AND OF THE FULL-SCALE SUB-FRAME SPECIMENS

Column type 1



	UNIVERSITÀ DEGLI STUDI DI TRENTO DIPARTIMENTO DI INGEGNERIA MECCANICA E STRUTTURALE Laboratorio Prove Materiali e Strutture	
	Part No.	
Full Scale Test	RFCS project N° RFSR-CT-2012-0029 Proposal acronym: ROBUSTIMPACT Organisation acronym: UNITRE	SCALE Drawing No. S 355 JR Date 15/06/2013 Revision
Note: All dimensions are illustrated in the individual drawings	Material Drawing No. S 355 JR Date 15/06/2013 Revision	Reference file Form_1_Preliminary_Layout_EST_000
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**MOMENT RESISTING STEEL-CONCRETE COMPOSITE FRAMES UNDER THE COLUMN LOSS SCENARIO:
DESIGN OF THE REFERENCE FRAMES AND OF THE FULL-SCALE SUB-FRAME SPECIMENS**

Plate type A

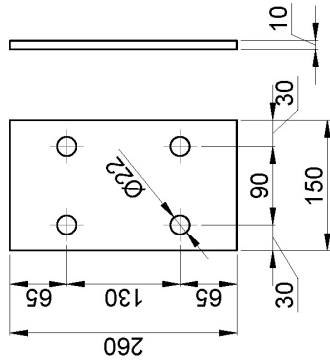


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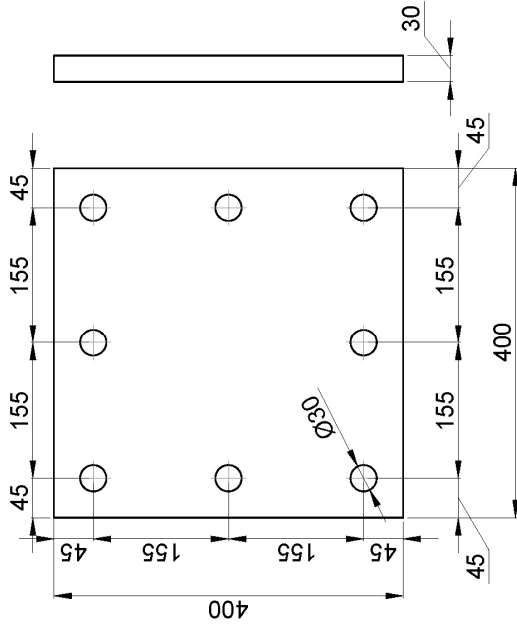
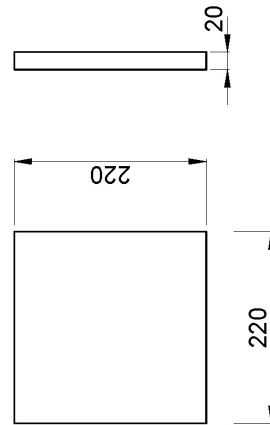

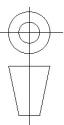
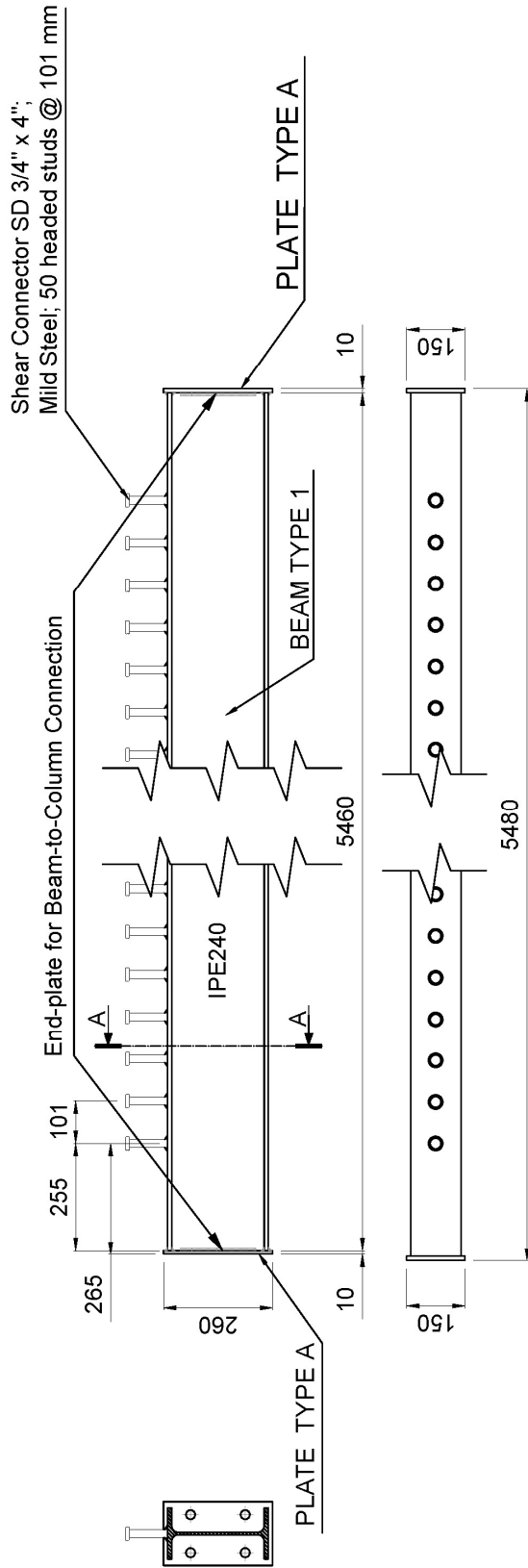


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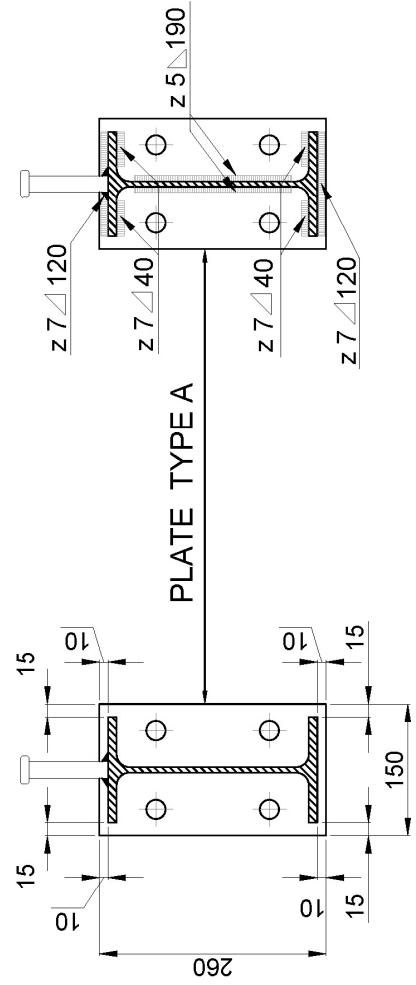



	UNIVERSITÀ DEGLI STUDI DI TRENTO DIPARTIMENTO DI INGEGNERIA, MECCANICA E STRUTTURALE Laboratorio Prove Materiali e Strutture		
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F S T	Material	S 355 JR	SCALE
	Drawing No.	FST 03	Date
	Note: All dimensions are illustrated in the individual drawings		13/06/2013
Revised by		Reviewed by	Reference file
Designed by		File name: "Inf_LaboratorioImpact_UNITIRE_fig_1_000"	
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Number of pieces - 12

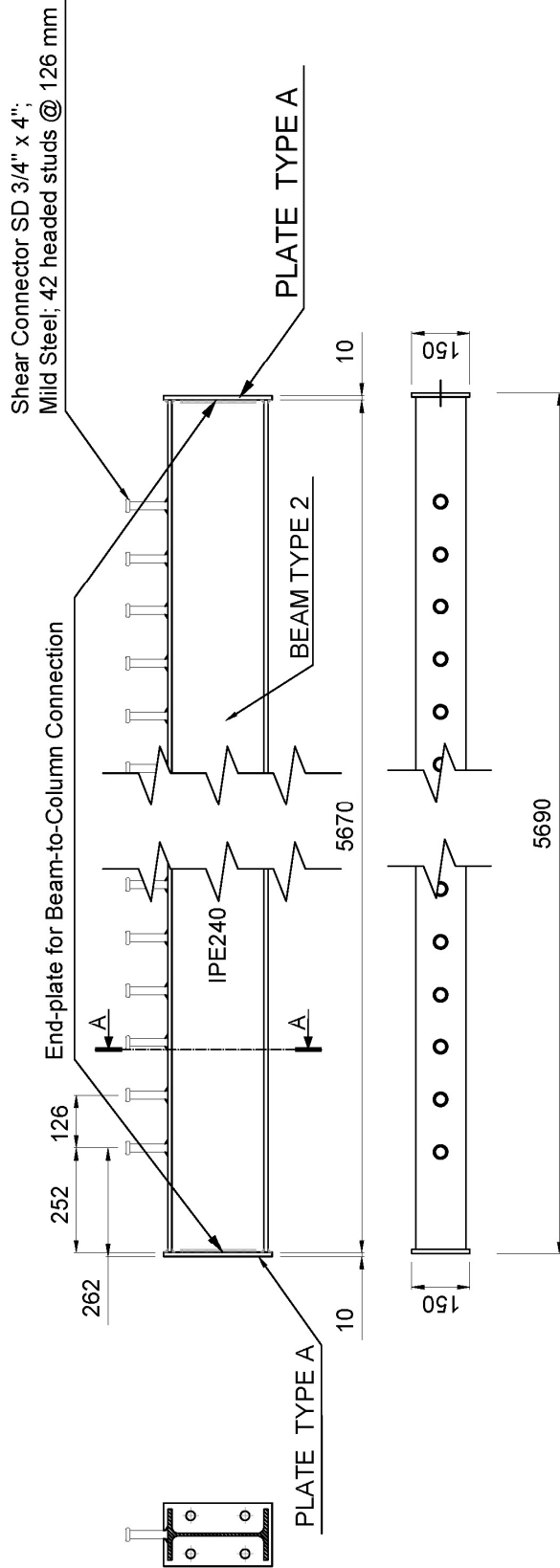


SEC. A-A SCALE 1:5

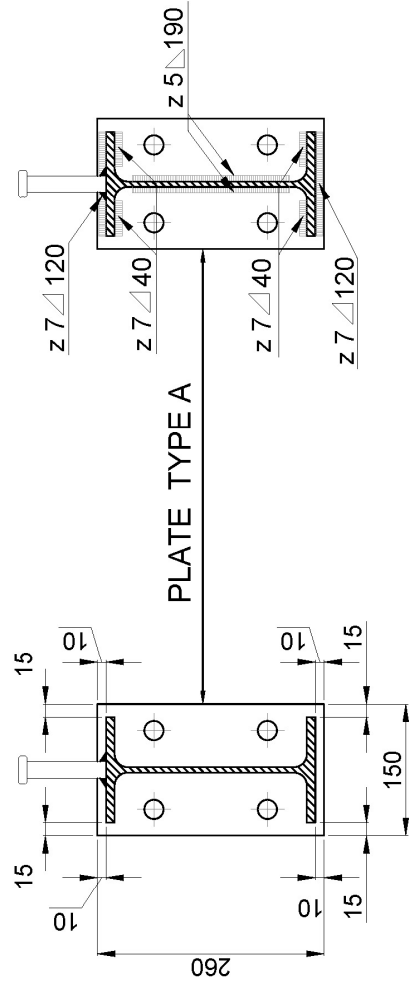



 UNIVERSITÀ DEGLI STUDI DI TRENTO DIPARTIMENTO DI INGEGNERIA, ARCHITETTURA E STRUTTURE Laboratorio Prove Materiali e Strutture	Part No.	Full Scale Test	Note: All dimensions are illustrated in the individual drawings	Material: S 355 JR
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RFCS project N° RFSR-CT-2012-0029 Proposal acronym: ROBUSTIMPACT Organisation acronym: UNITRE		SCALE: 13/06/2013	Date: 13/06/2013	Reviewer:
Revised by:		Reference file:	Drawn by:	Form: "Inf_LaboratorioIMPACT_UNITRE_fig_000"
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Number of pieces - 6



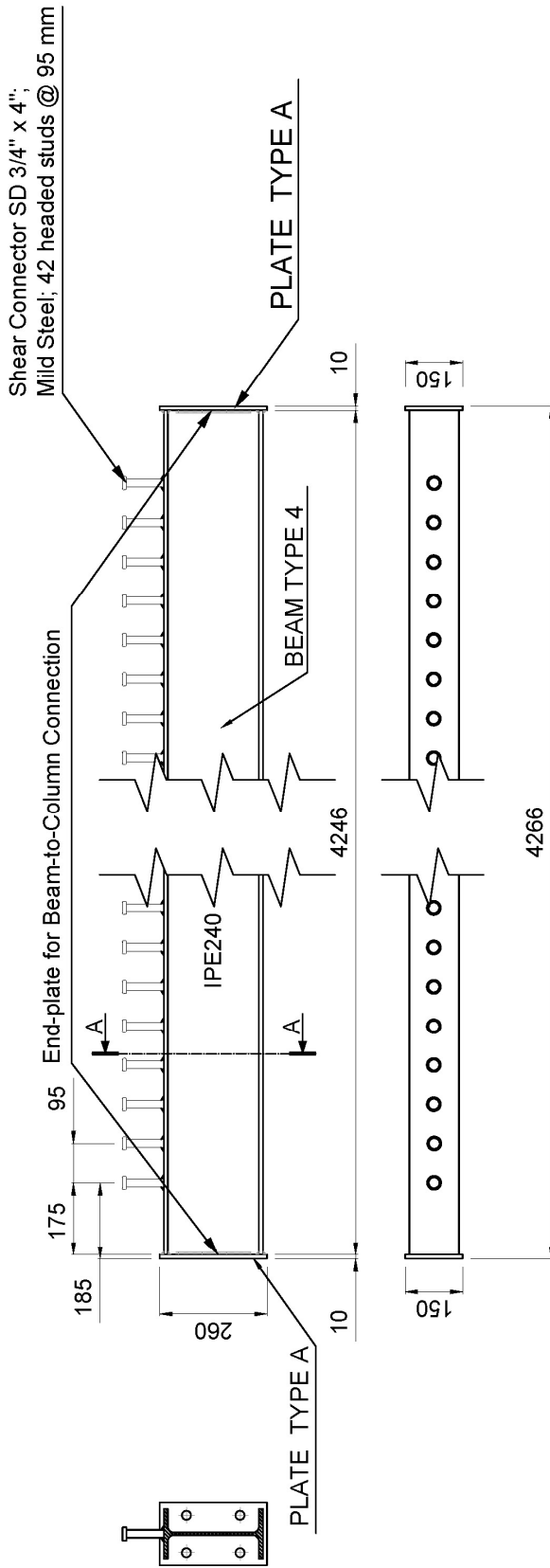
SEC. A-A SCALE 1:5



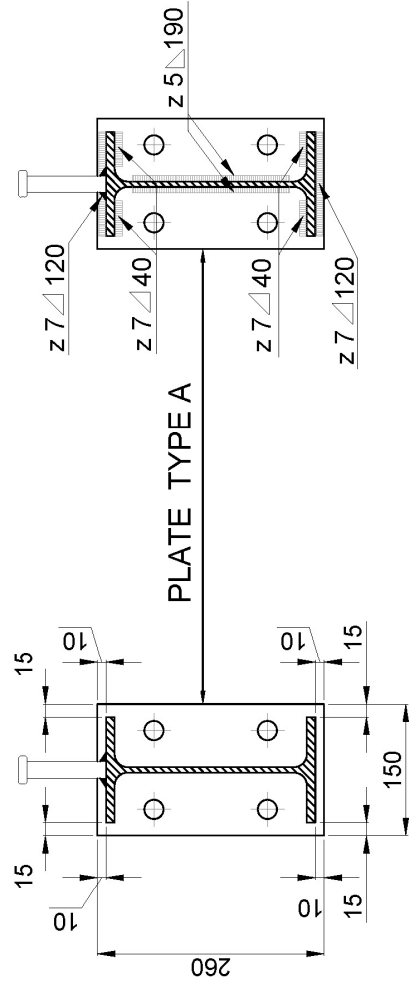
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					Drawing No.: 13/06/2013
RFCS project N° RFSR-CT-2012-0029 Proposal acronym: ROBUSTIMPACT Organisation acronym: UNITRE		SCALE Date: 13/06/2013 Reviewer:			Reference file: Form: "Full_Jobname_impact_UNITRE_fig_500"

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Number of pieces - 3

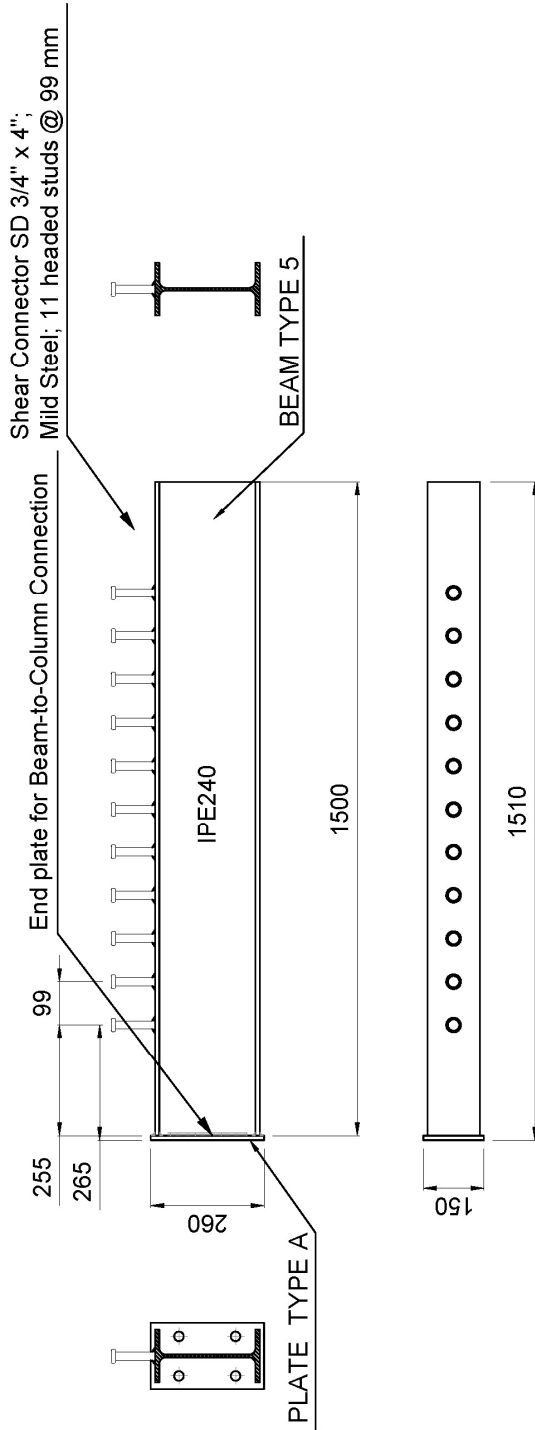


SEC. A-A SCALE 1 : 5

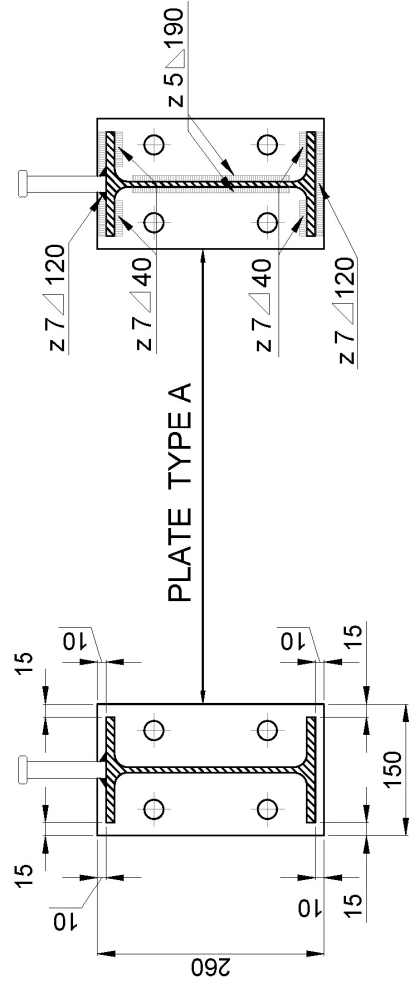


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	Part No.	
Full Scale Test	Material: S 355 JR Drawing No.: 13/06/2013 Date: 13/06/2013 Reviewer:	RFCS project N° RFSR-CT-2012-0029 Proposal acronym: ROBUSTIMPACT Organisation acronym: UNITRE
Note: All dimensions are illustrated in the individual drawings	FST 07	Reference file: Form_104_LaboratorioImpact_UNITRE_1306_200
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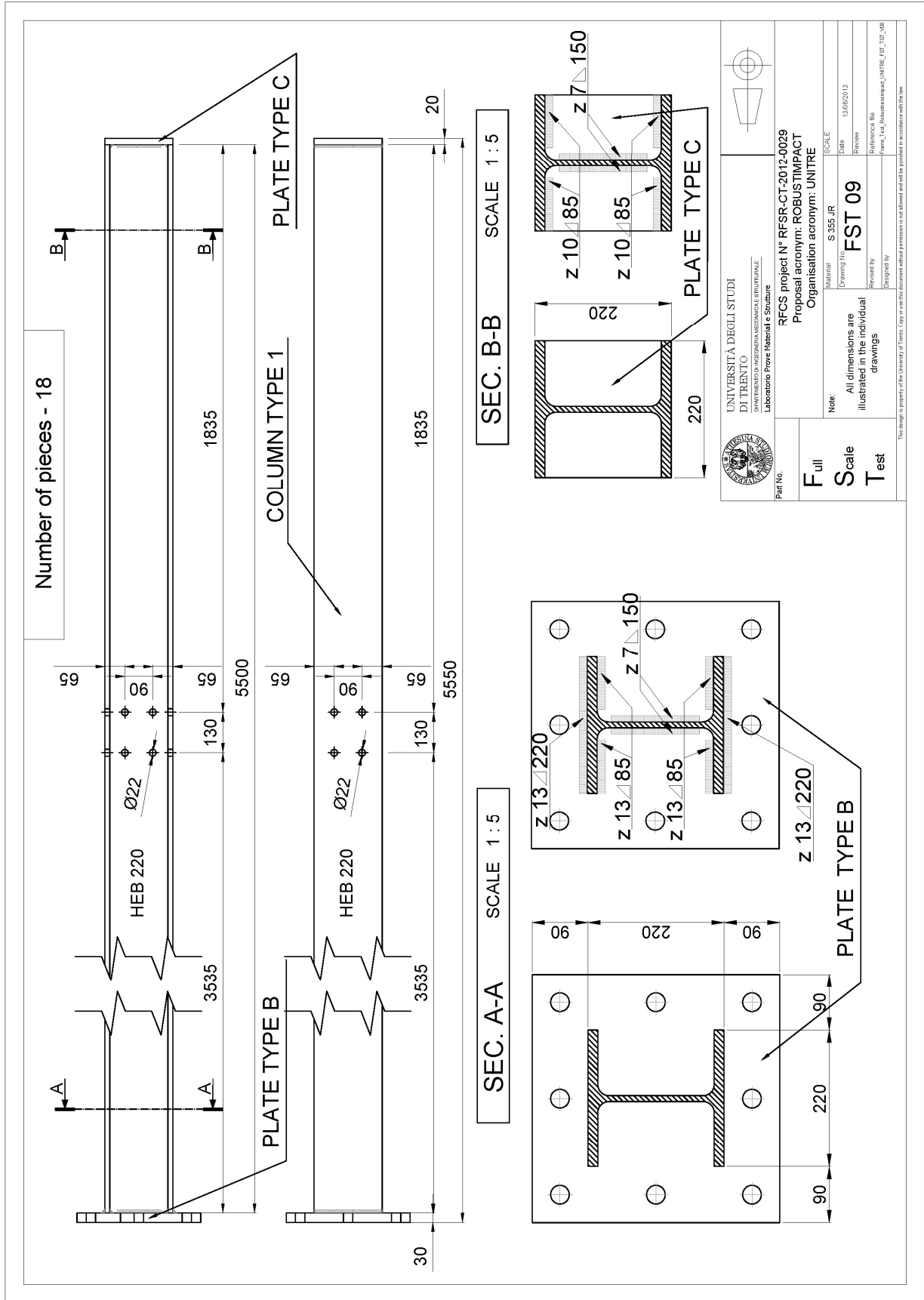
Number of pieces - 6



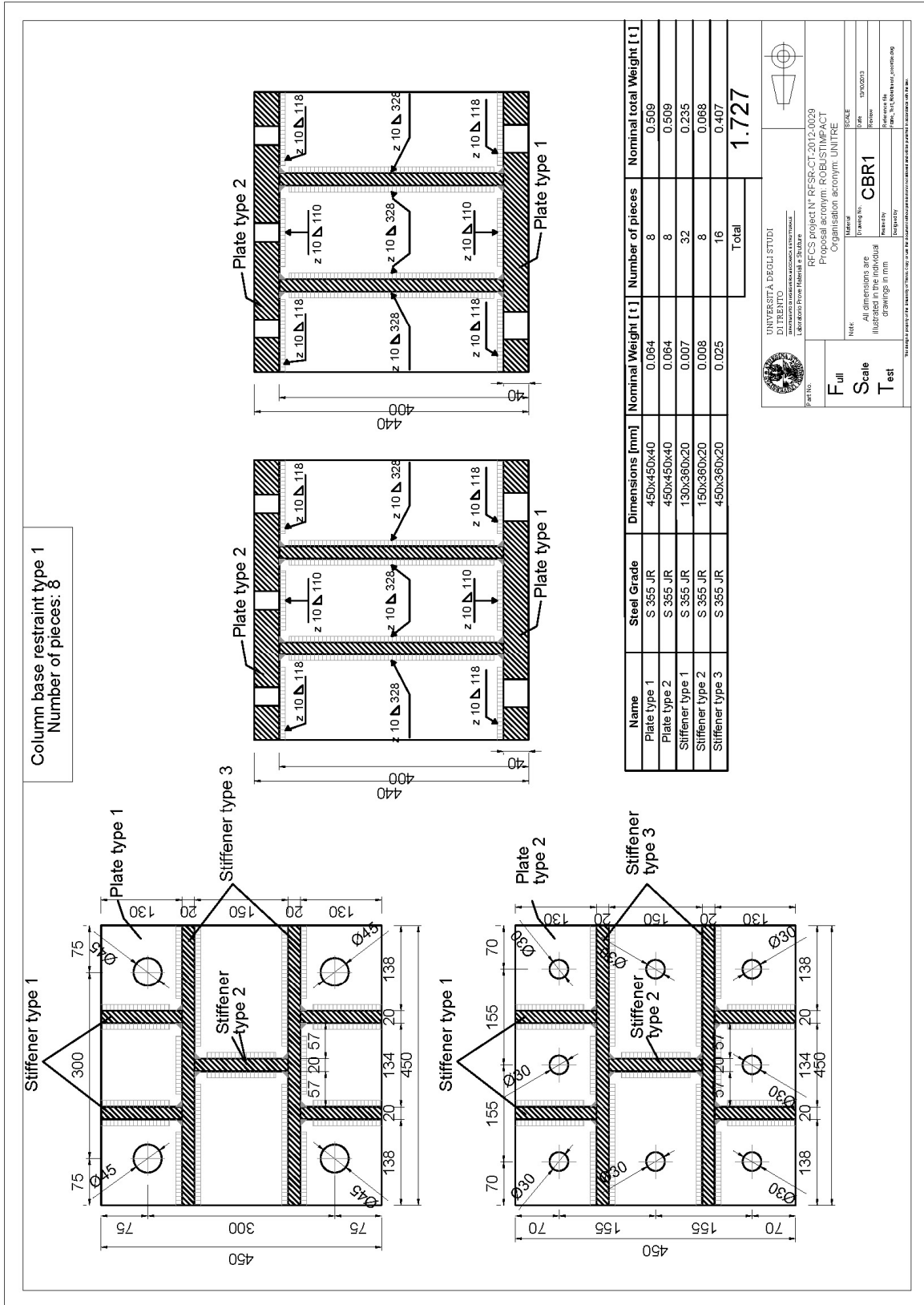
SEC. A-A SCALE 1 : 5



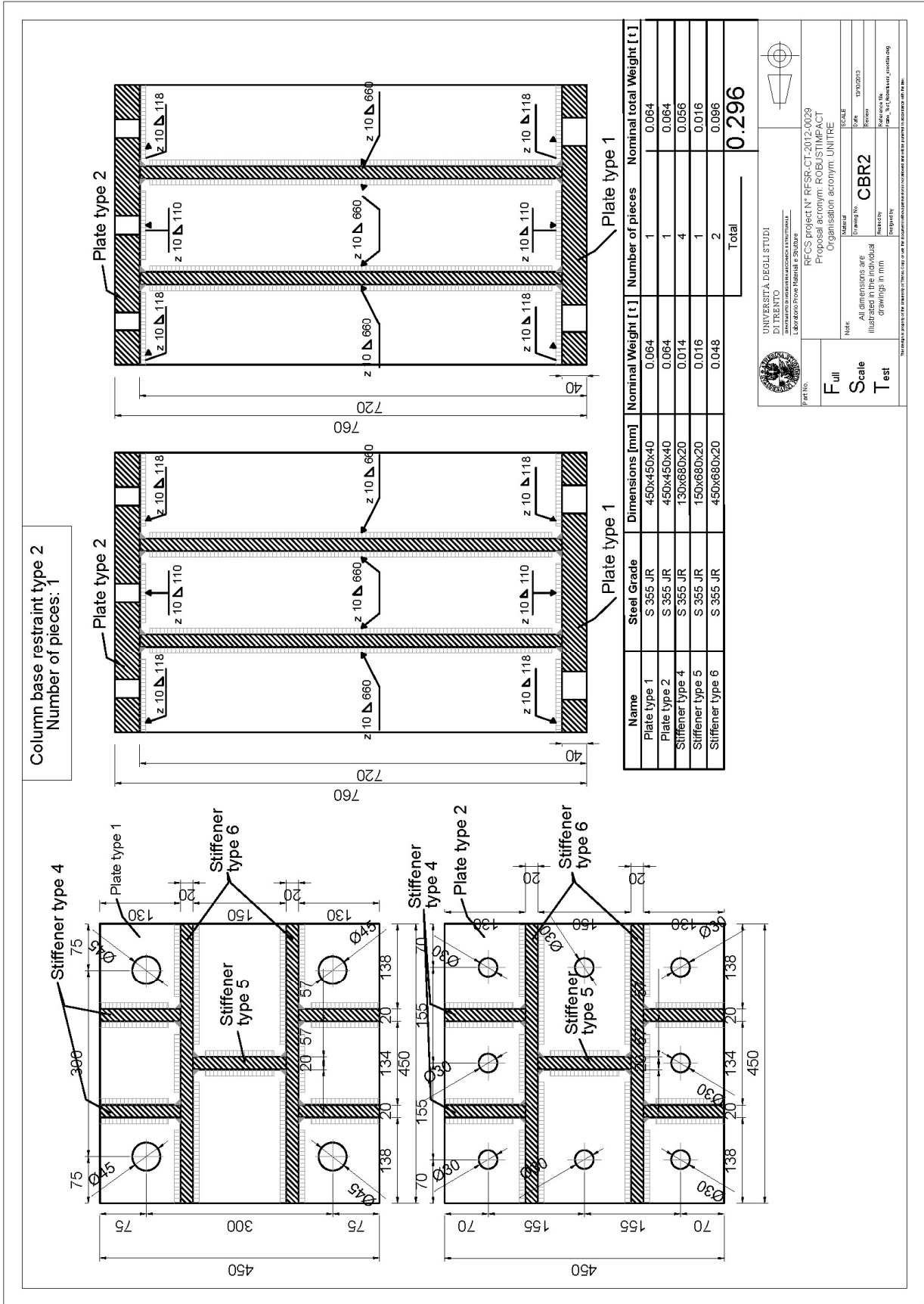
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	Part No.	
Full Scale Test	Material: S 355 JR Drawing No.: FST 08 Date: 13/06/2013 Reviser:	RFCS project N° RFSR-CT-2012-0029 Proposal acronym: ROBUSTIMPACT Organisation acronym: UNITRE
Note: All dimensions are illustrated in the individual drawings	Scale:	Reference file: Form: "Full_JobnameImpact_UNITRE_fig_000"
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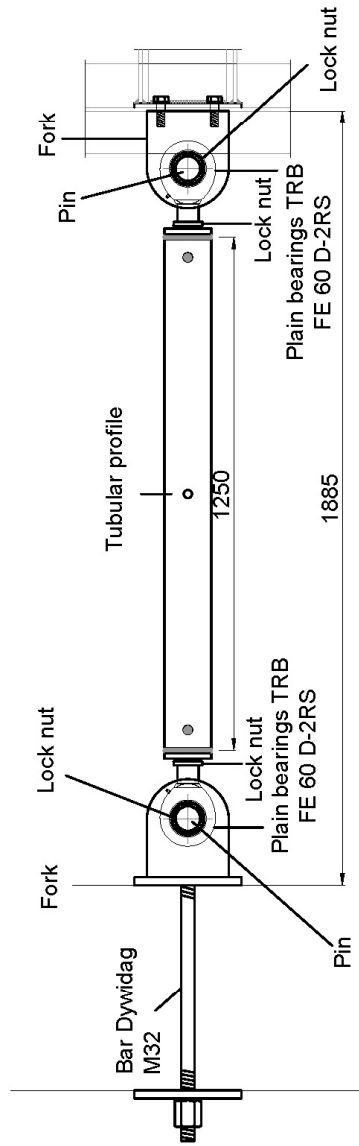
ANNEX B: RESTRAINTS




MOMENT RESISTING STEEL-CONCRETE COMPOSITE FRAMES UNDER THE COLUMN LOSS SCENARIO:
DESIGN OF THE REFERENCE FRAMES AND OF THE FULL-SCALE SUB-FRAME SPECIMENS

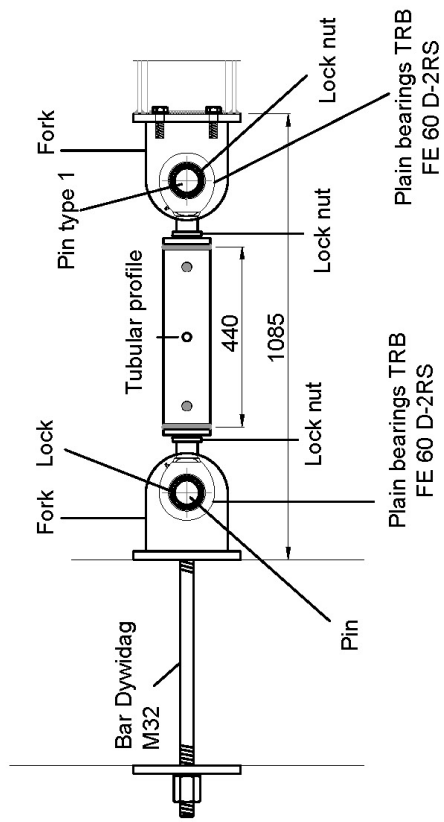




Lateral restraint type 1
 number of pieces: 1



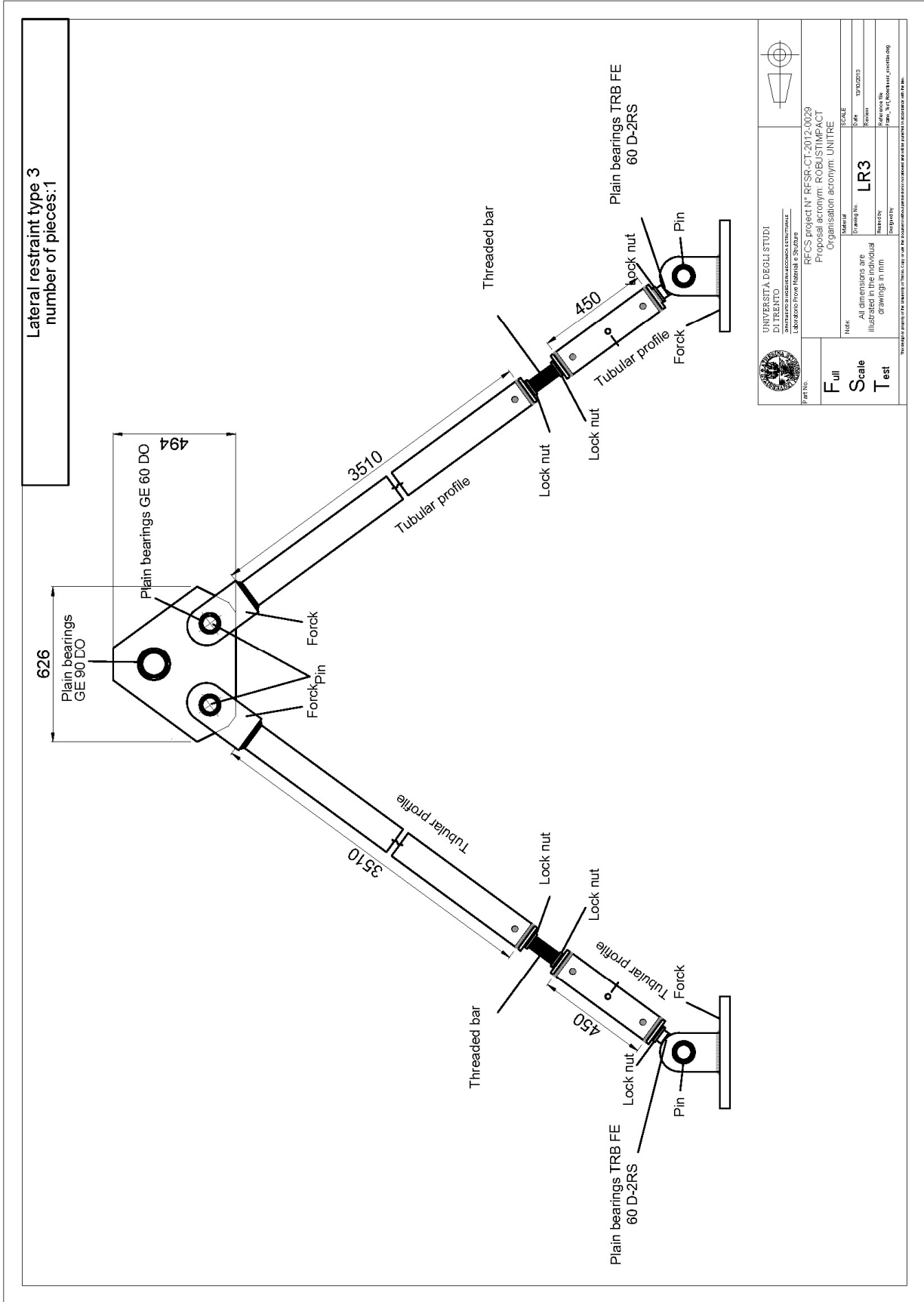
 UNIVERSITÀ DEGLI STUDI DI TRENTO Dipartimento di Ingegneria Strutturale Laboratorio Prove Meccaniche e Sismiche	RECS project N° RFSR-CT-2012-0028 Proposal acronym: ROBUSTIMPACT Organisation acronym: UNITRE	Part No.	Scale	Date
		Full	LR1	19/02/2013
Note: All dimensions are illustrated in the individual drawings in mm.		Drawing No.	Revision	Reference file
Tutti i diritti sono riservati. È vietata espressamente la ristampa o l'uso non autorizzato senza permesso scritto dall'Università di Trento.		Project No.	Date	Reference file
		Project No.	Date	Reference file

Lateral restraint type 2
 number of pieces: 2



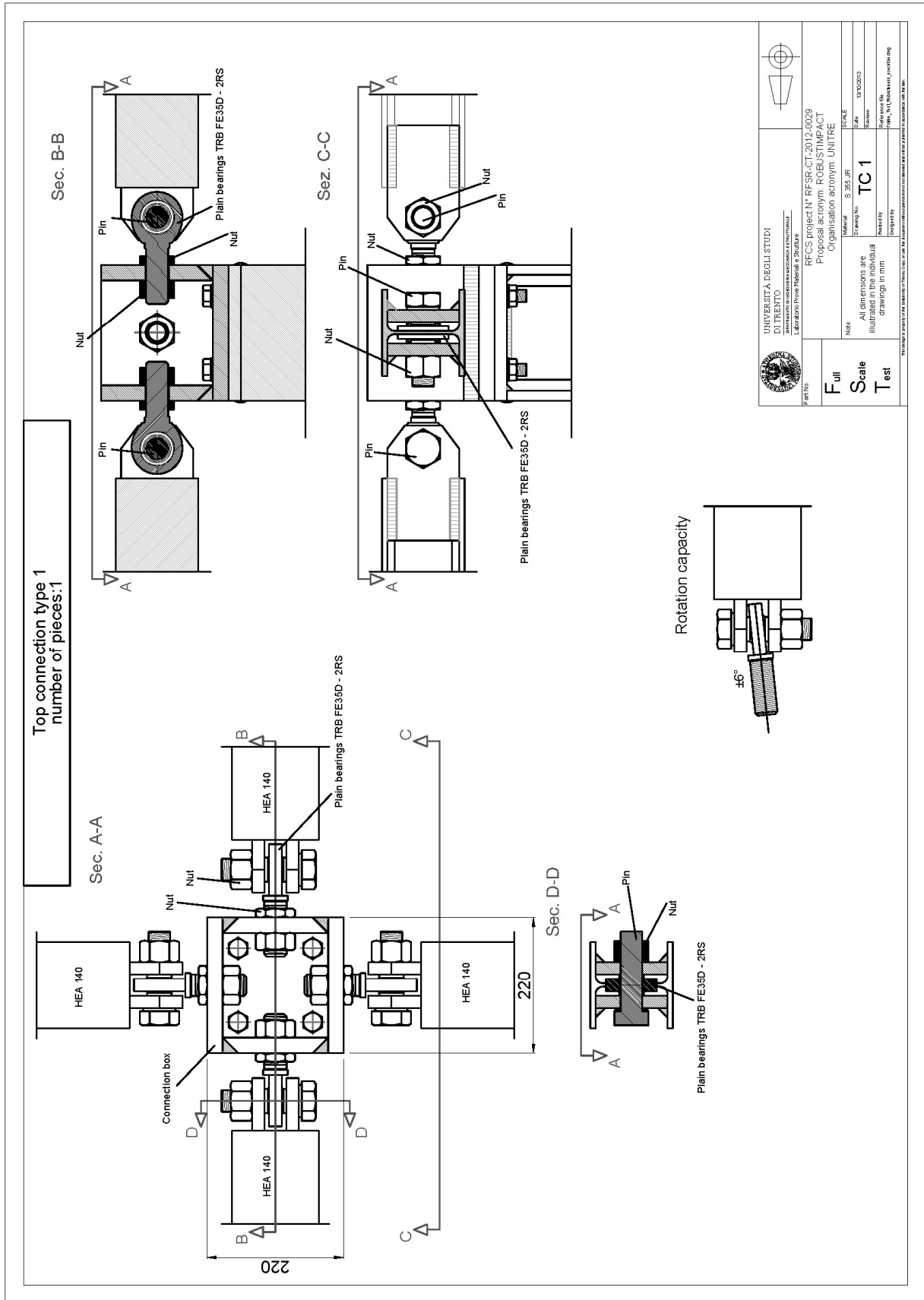
 UNIVERSITÀ DEGLI STUDI DI TRENTO LABORATORIO DI STRUTTURE			
Part No.		Project No.	
Full		Scale	
Scale		Test	
Note: All dimensions are illustrated in the individual drawings in mm.		Material:	
You must comply with the standards in force at the time of the publication of this document and the standards in force at the time of the test.		Revision:	
Proposals acronym: ROBUSTIMPACT Organisation acronym: UNITRE		Date: 19/09/2013	
Revision:		Drawing No.	
Drawing No.		Drawing No.	
Drawing No.		Drawing No.	
Drawing No.		Drawing No.	

**MOMENT RESISTING STEEL-CONCRETE COMPOSITE FRAMES UNDER THE COLUMN LOSS SCENARIO:
DESIGN OF THE REFERENCE FRAMES AND OF THE FULL-SCALE SUB-FRAME SPECIMENS**

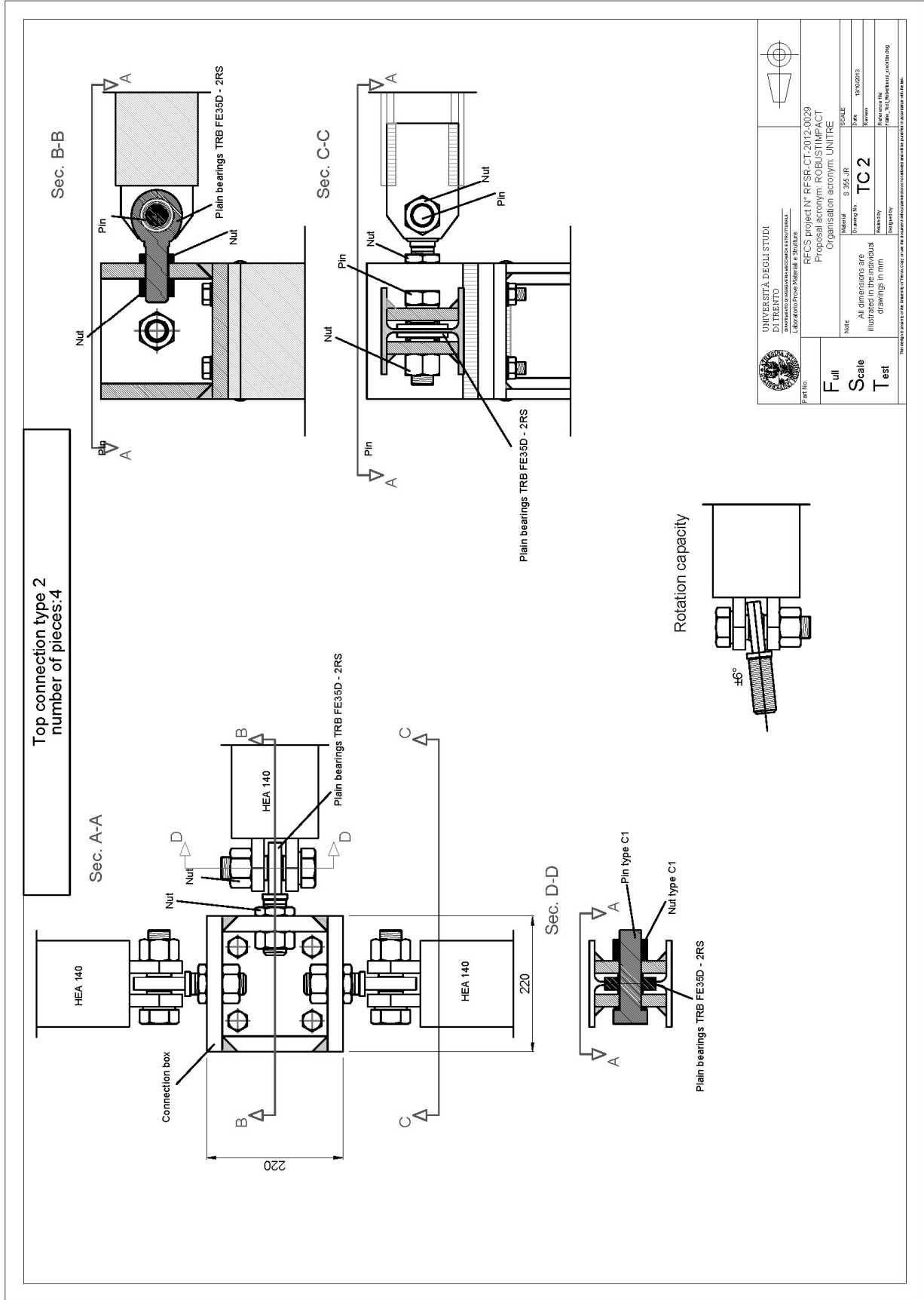


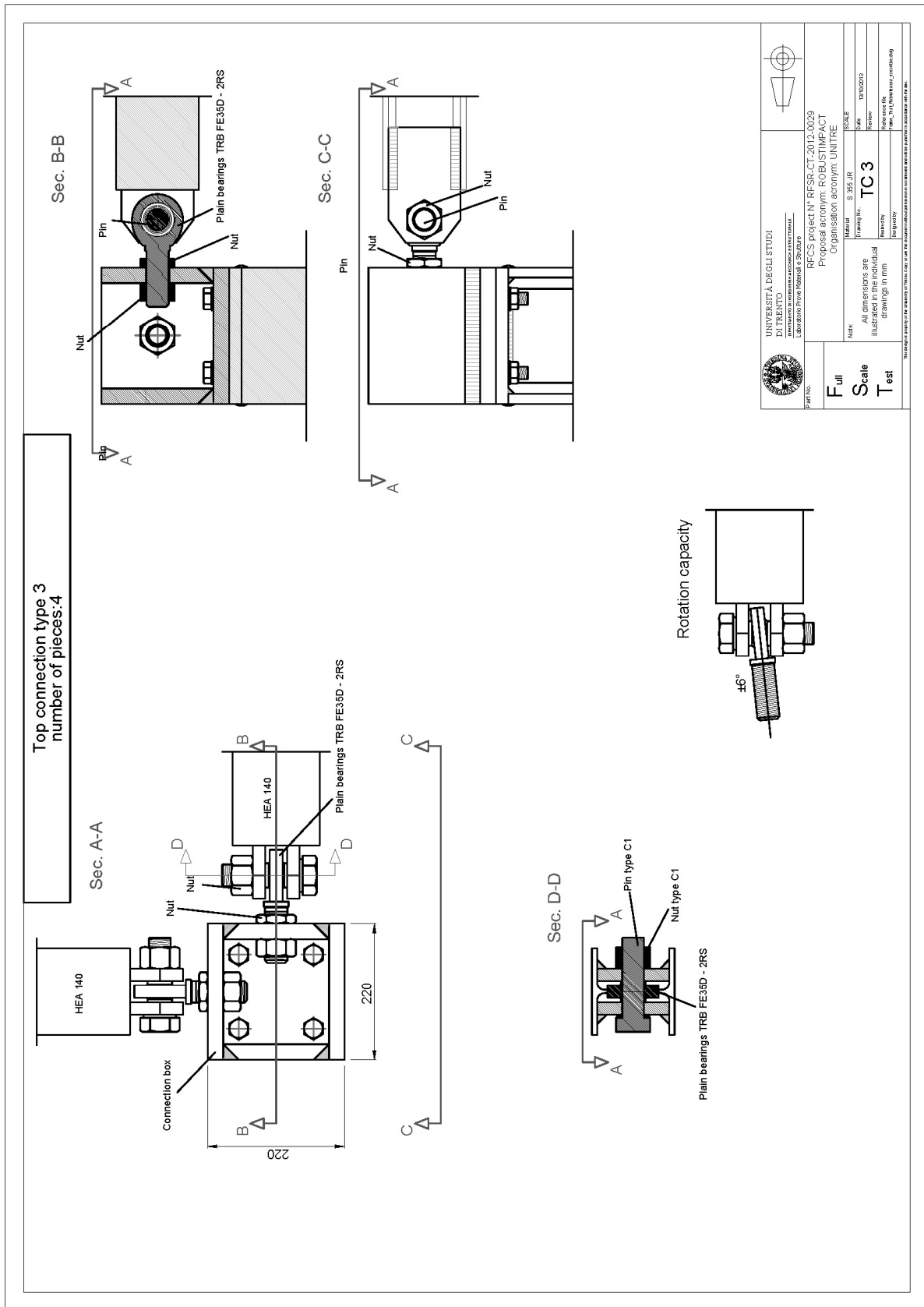
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PART No.	RECS project N° REFSR-CT-2012-0029 Proposal acronym: ROBUSTIMPACT Organisation acronym: UNITRE
Full Scale Test	Material: LR3 Drawing No.: LR3 Date: 19/02/2013 Revision: 1 Reference file: /app/314/RobustImp/Assemble.dwg Drawing by: [unintelligible]
This drawing is part of the drawings of the project. It is not to be used for the purpose of construction without the permission of the author.	

**MOMENT RESISTING STEEL-CONCRETE COMPOSITE FRAMES UNDER THE COLUMN LOSS SCENARIO:
DESIGN OF THE REFERENCE FRAMES AND OF THE FULL-SCALE SUB-FRAME SPECIMENS**

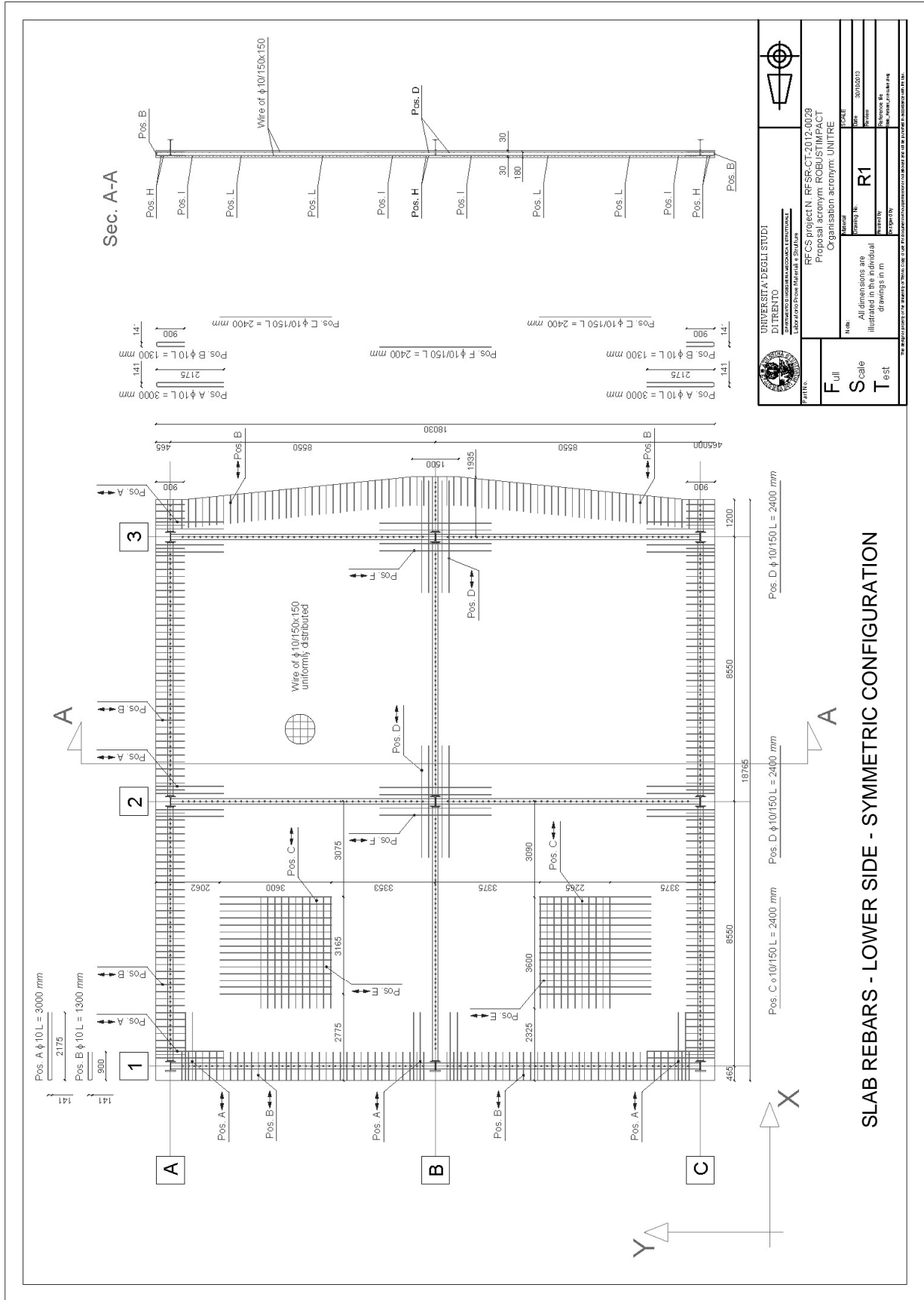


MOMENT RESISTING STEEL-CONCRETE COMPOSITE FRAMES UNDER THE COLUMN LOSS SCENARIO:
 DESIGN OF THE REFERENCE FRAMES AND OF THE FULL-SCALE SUB-FRAME SPECIMENS



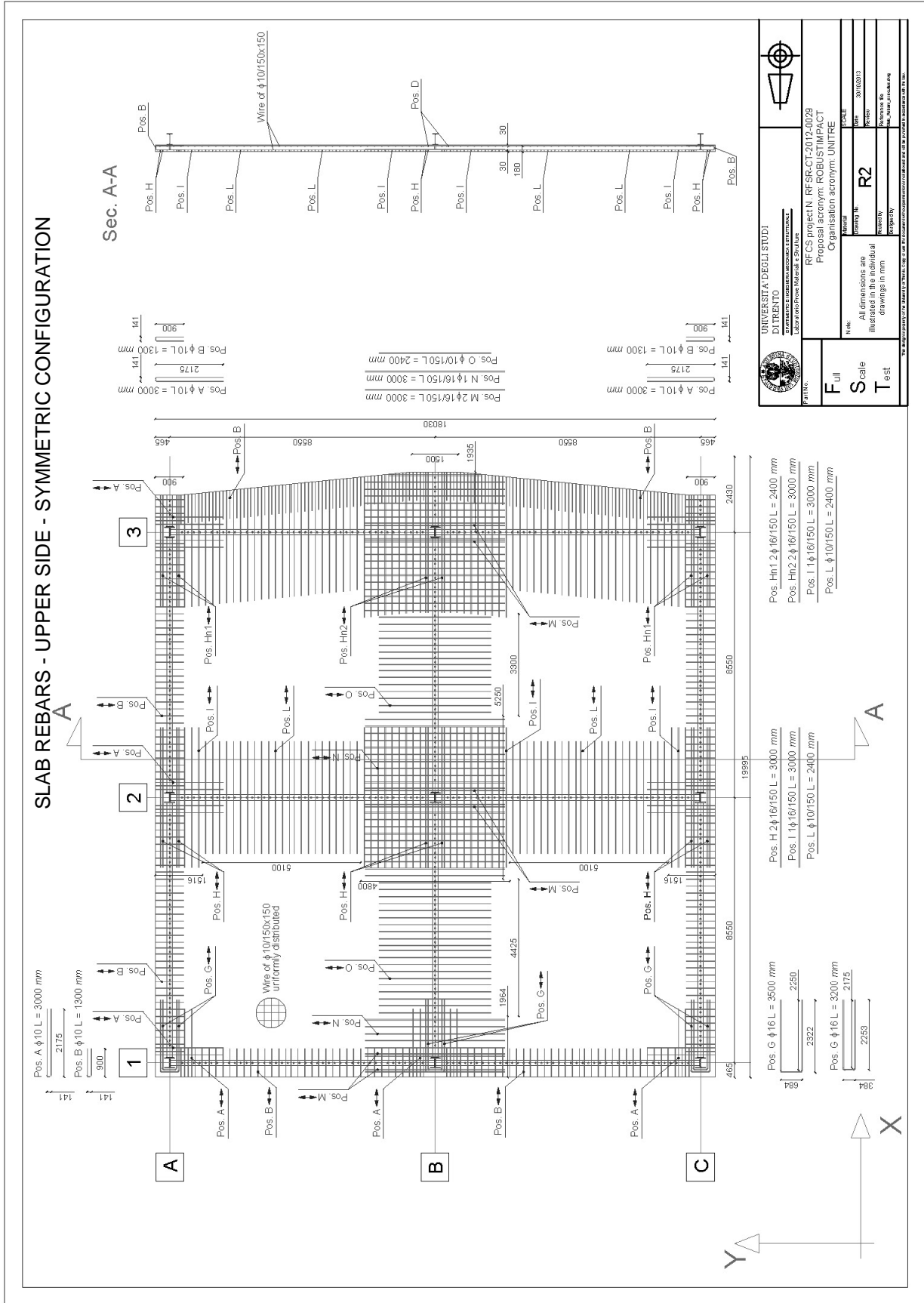


ANNEX C: SLAB'S REINFORCEMENT



	UNIVERSITÀ DEGLI STUDI DI TRENTO Dipartimento di Ingegneria Strutturale e Geotecnica Laboratorio Prove Materiali e Strutture	
	RECS project N. RF-SRCT-2012-0029 Proposal acronym: ROBUSTIMPACT Organisation acronym: UNITRE	
Full Test	Name: R1 Date: 30/10/2013 Revision: 01 Scale: As shown in m Project:	Name: [Blank] Date: [Blank] Revision: [Blank] Scale: [Blank] Project: [Blank]

SLAB REBARS - LOWER SIDE - SYMMETRIC CONFIGURATION



SLAB REBARS - UPPER SIDE - ASYMMETRIC CONFIGURATION

