

**Design: 12 bar / 940°C**  
**User defined material**

**Input Data**  
 Medium: Steam  
 Material: USER DEFINED  
 Design: 22 bar/940°C  
 Dimensions: 219.1x12.5mm  
 Insulation: 180.0mm

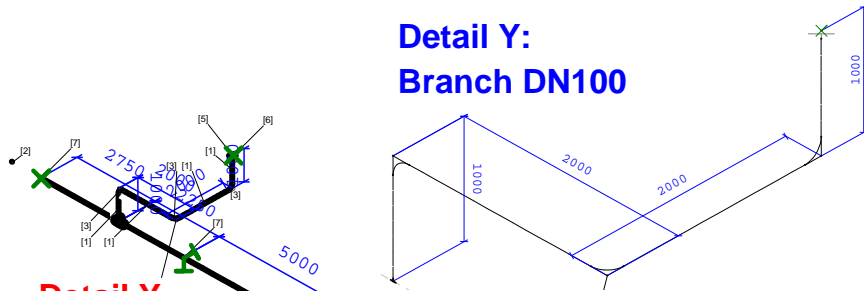
Pos.	Description	L/No.
1	Pipe 88.9x3.6mm DIN 2448 Inconel 601*	5207.8mm
2	Bend 12°88.9x3.6mm R=114.3 mm ANSI B 16.9 Inconel 601*	1
3	Bend 45°88.9x3.6mm R=114.3 mm ANSI B 16.9 Inconel 601*	1
4	Bend 90°88.9x3.6mm R=114.3 mm ANSI B 16.9 Inconel 601*	2
5	Bend 90°88.9x3.6mm R=399.0 mm ANSI B 16.9 Inconel 601*	1
6	Bend 90°88.9x3.6mm R=400.0 mm ANSI B 16.9 Inconel 601*	1
7	Sonderflansch ANSI 16.5 2500	1
8	Constant hanger DN80 BQ02	1
9	Constant hanger DN80 BQ03	1
10	Constant hanger DN80 BQ04	1
11	ST DN80 BQ01	1
12	ST DN80 reactor	1

- Vessel spring
- Constant hanger / sup.
- Rigid support



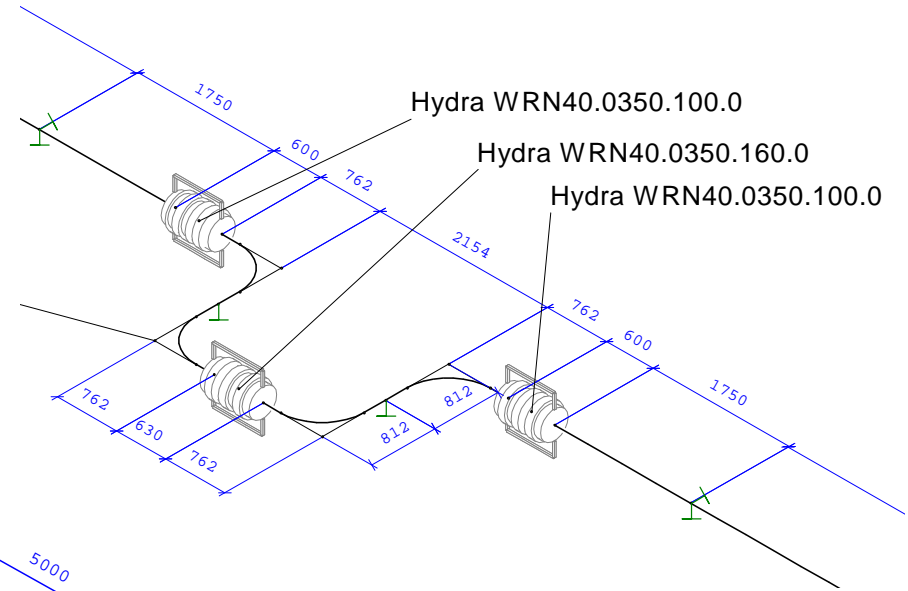
 Ingenieurgesellschaft mbH	SIGMA Ingenieurgesellschaft mbH Bertha-von-Suttner-Allee 19 D 59423 Unna	<b>ROHR2</b> Date : 13. 1.2011
	Commiss.: Heater Project: ROHR2ISO Heater with user defined material	

**Detail Y:  
Branch DN100**

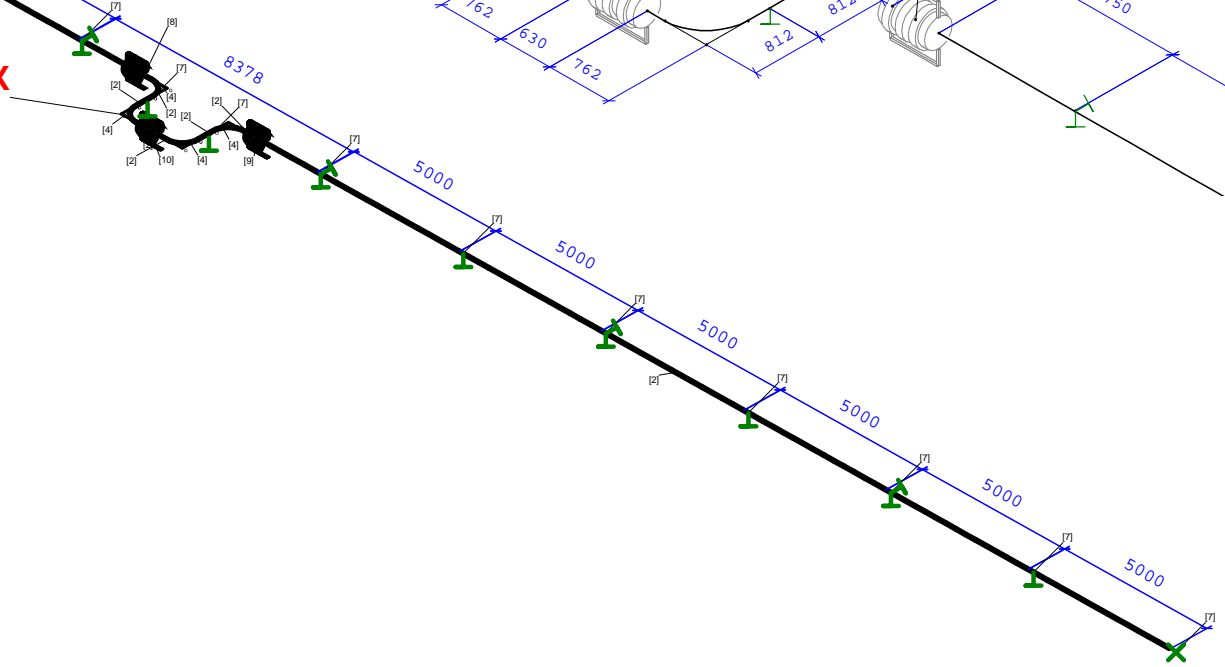


**Detail Y**

**Detail X:  
Expansion Loop with 3 angular expansion joints**



**Detail X**



**Input Data**

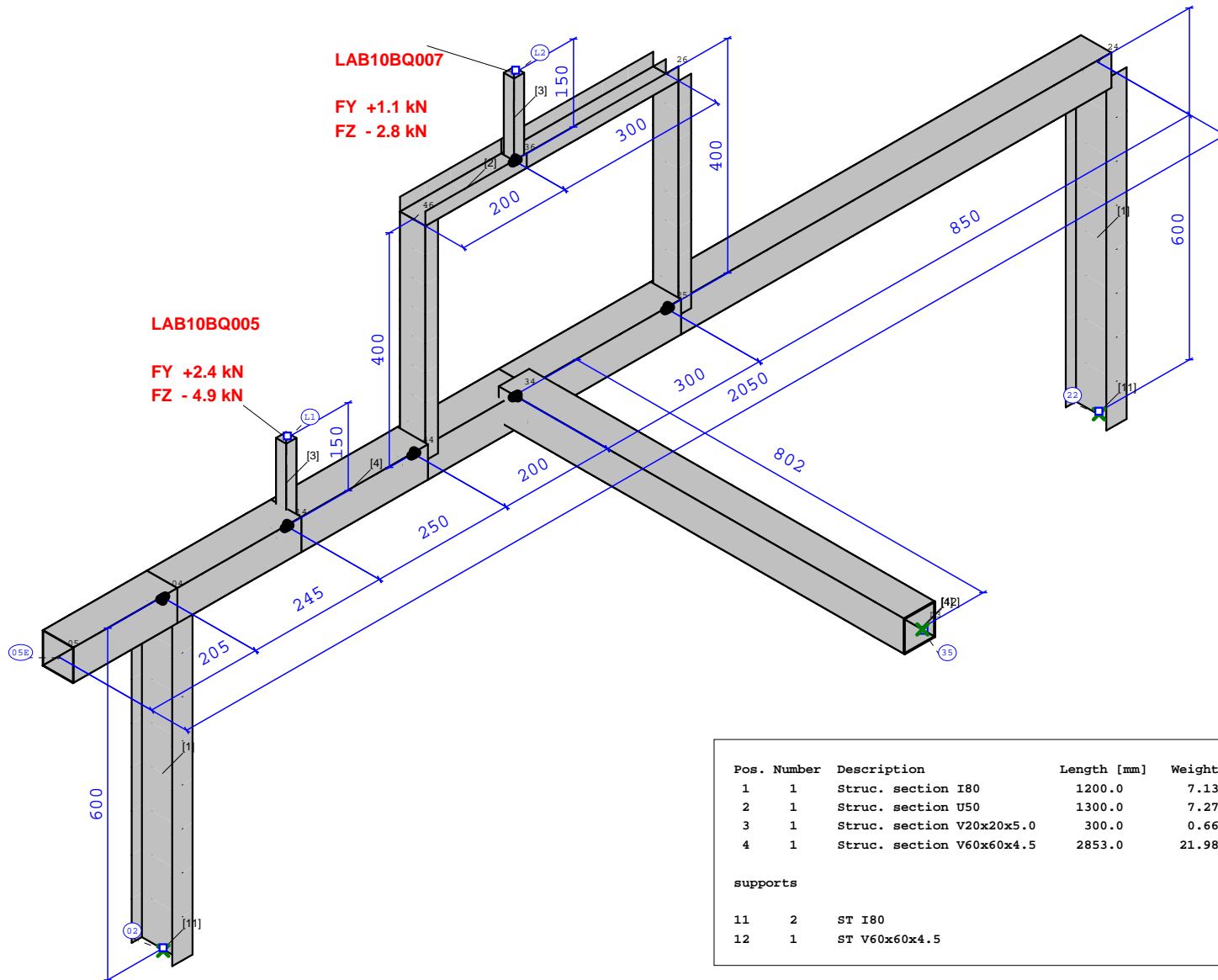
**Medium:** Steam  
**Material:** P265GH  
**Design:** 22 bar/340°C  
**Dimensions:** DN350: 355.6x8.0mm  
 DN100: 114.3x5.6mm  
**Insulation:** DN350: 120mm  
 DN100: 80mm

Pos. Number	Description	Diameter	Length [mm]	Weight [kg]	Insul. [mm]	Surface [m²]	Material Norm
1	1 Pipe 114.3x3.6mm	DN100	4854.6	47.71	80.00	4.2139	ST37.0 DIN 2448
2	1 Pipe 355.6x8.0mm	DN350	60542.0	4151.89	120.00	113.6625	ST37.0 DIN 2448
3	3 Bend 90° R=152 mm	DN100	2.35	80.00	0.2072	ST37.0	DIN 2605 T1
4	4 Bend 90° R=533 mm	DN350	57.42	120.00	1.5718	ST37.0	DIN 2605 T1
5	1 Flange DN100 PN40	DN100	65.0	6.52	80.00		DIN 2635
6	1 ST DN100	DN100					
7	15 ST DN350	DN350					
8	1 Hydra WRN40...	DN350	600.0	148.00	120.00		
9	1 Hydra WRN40...	DN350	600.0	148.00	120.00		
10	1 Hydra WRN40...	DN350	630.0	162.00	120.00		




- T Rigid support
- X Anchor point

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	Commiss.: Training Project: ROHR2 Training Steam DN350 - Expansion Loop with three-hinged	



Pos. Number	Description	Length [mm]	Weight [kg]	Material
1	1 Struc. section I80	1200.0	7.13	ST35.8
2	1 Struc. section U50	1300.0	7.27	RST37-2
3	1 Struc. section V20x20x5.0	300.0	0.66	RST37-2
4	1 Struc. section V60x60x4.5	2853.0	21.98	RST37-2
<b>supports</b>				
11	2 ST I80			
12	1 ST V60x60x4.5			

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	Auftrag: Projekt:	

- Einzelmasse
- ✕ Festpunkt