

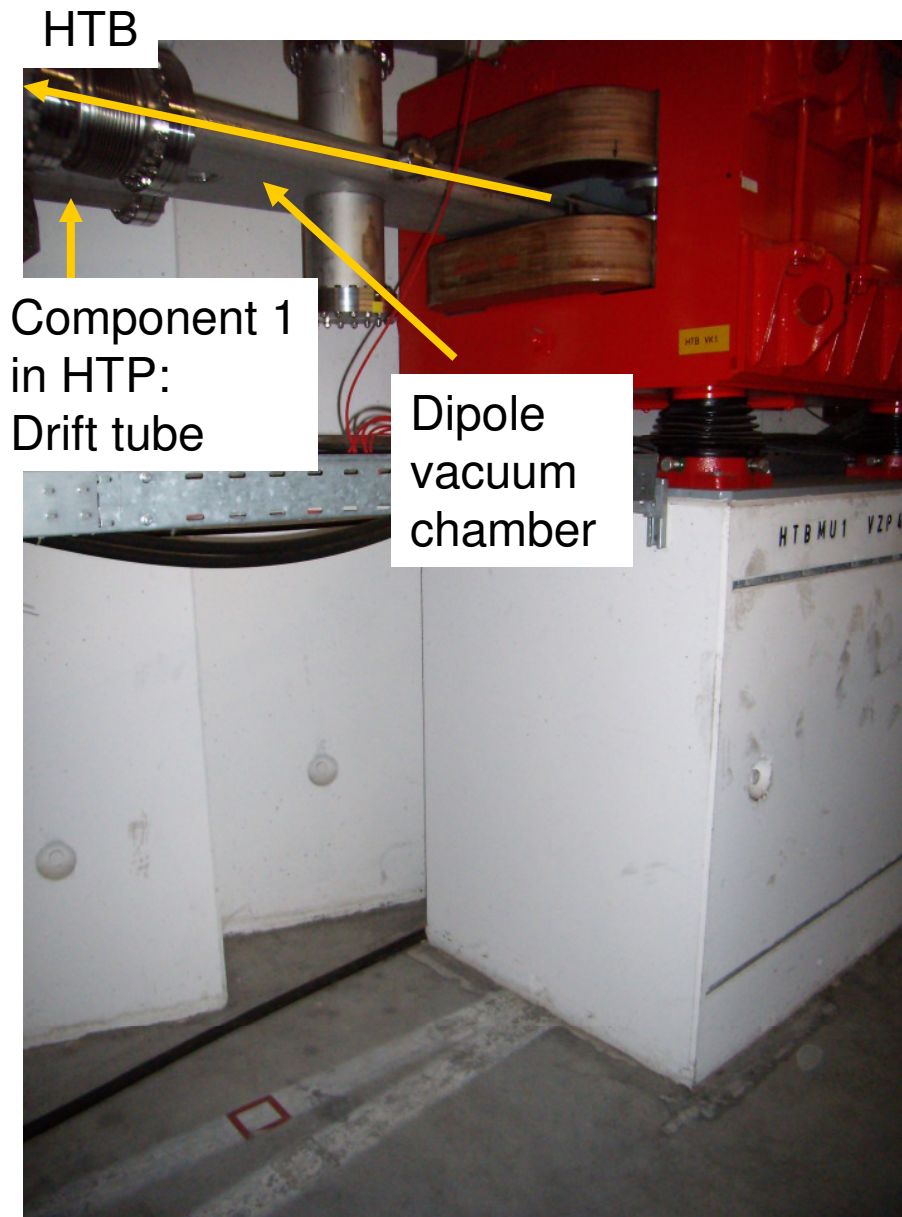
HTP Beam Line

- Phone: 2838 (near rack)
- PC: SDPC041 (140.181.88.2)
- Contact person:
 - A. Reiter, 1431
 - P. Forck, 2311

Power sockets

- A) Behind HTBQD12
 - Walther box: 3x 230 V:1 for DK1, 2 free)
 - 1x 400 V, 16 A: roughing pump
 - 1x 400 V, 32 A: free
- B) In front of beam dump wall
 - Walther box: 2x 230 V: free
 - 2x 400 V, 16 A: used
 - 1x 400 V, 32 A: used
- C) In corner at end of beam line
 - Walther box 4W4: 2x 4-fold 230 V socket:
 - Manifold 1: 2 sockets used to supply BD devices (long cables)
 - Manifold 2: 1 socket used for electronics in rack
 - Walther box 5W4: 2x 400 V, 16 A (to be activated!!!!)

View dipole HTBMU1 (05/12/2011)



- Beam lines splits to HTB and HTP
- Reference point = Centre of red square on floor (already existing!)
- Exit flange of dipole does not coincide with centre of reference, but is located a few cm downstream



Table of beam line components (02/12/2011)

Grobvermessung der Vakuumkomponenten an HTP					
	A. Reiter	02.12.2011	05.12.2011		
	Längen beinhalten die Flansche (Länge über Puffer)				
	Einheit = mm				
Nr.	Komponente	Länge / mm	Absolutposition / mm	Durchmesser	Bemerkungen
0	Kammerausgang Dipol HTBMU1	0	0	CF160	
1	Driftrohr, 20 Schrauben, CF160	1200	1200	CF160	
2	Folienflansch Balzer 4306;	25	1225		
3	Wellbalg	190	1415		
4	Driftrohr (2 Teile verschweißt)	1660	3075		
5	Driftrohr	2782	5857		
6	Wellbalg	175	6032		
7	Trafo	310	6342		
8	Wellbalg	195	6537		Übergang von CF120 zu CF160 ????
9	Driftrohr	875	7412		
10	Wellbalg	182	7594		
11	Diagnosekammer (L=500 mm, Diam=350 mm)	596	8190		
12	Wellbalg	188	8378		
13	Driftrohr	397	8775		
14	Diagnosekammer (L=470 mm, Diam.~275 mm)	514	9289		
15	Luftstrecke zu Dump	1400	10689		

Reference = Dipole exit flange

Length of HTP beam line: ~10700 mm

Table of pillars and support frames (02/12/2011)

Rough centre position is given for each support pillar

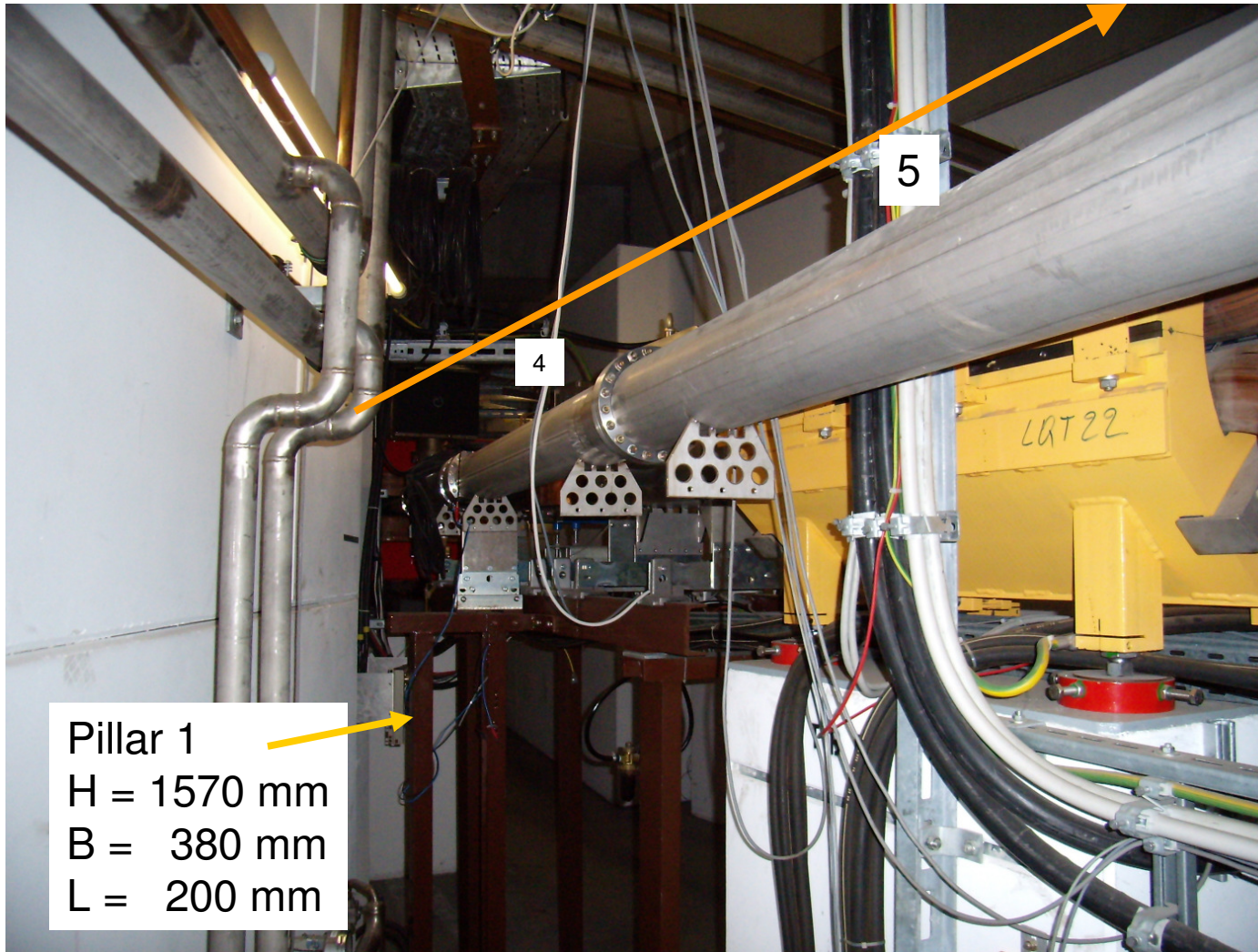
For simplicity:

Reference point = red square on floor

-> Longitudinal offset with respect to table of beam line components

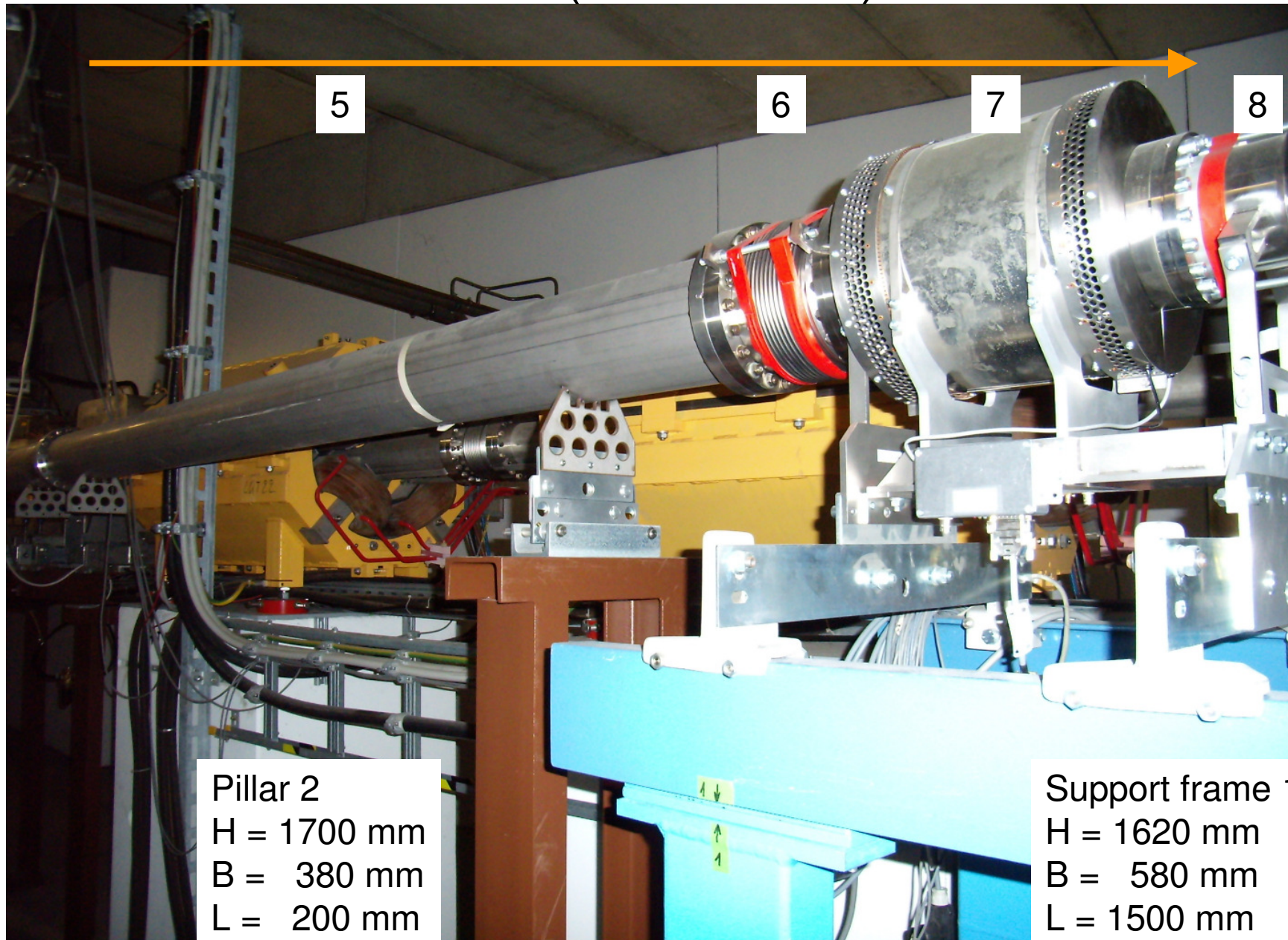
Nr.	Untergestelle und Stützen	Komponente	Von Ref.-punkt zu Mitte		Oberkante der U-Profile	Äußerer Abstand der U-Profile	Bemerkungen
			Stütze Absolutposition / mm	Länge / mm			
1	Stütze, braun	4	1750	200	1570	380	
2	Stütze, braun	5	5700	200	1700	380	
3	Untergestell, blau	6-9	6200/7270	1500	1620	580	
4	Untergestell, braun, Teil 1	11	7700	750	1635	580	Gem. mittlere Stütze
5	Untergestell, braun, Teil 2	14	8360	2500	1710	580	Gem. mittlere Stütze
6	Untergestell, braun, Teil 3		10700	0	1710	580	Letzte Stütze am Dump

Upstream view (02/12/2011)



- Far end: Red dipol HTBMU1. Beam line splits into HTB and HTP

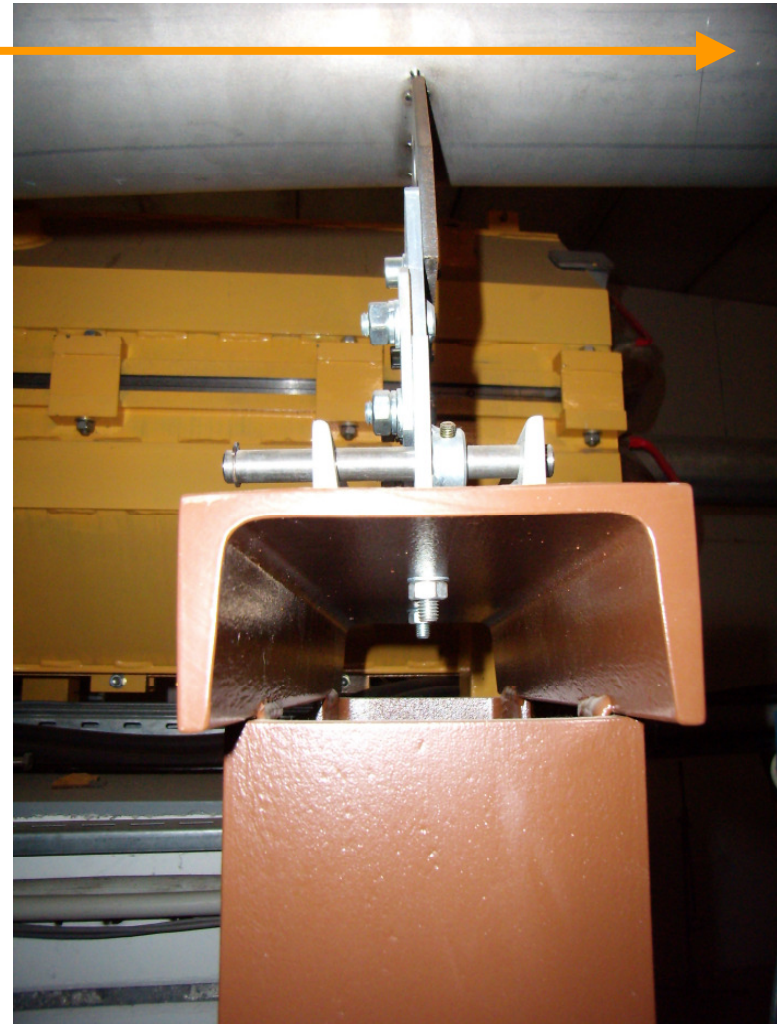
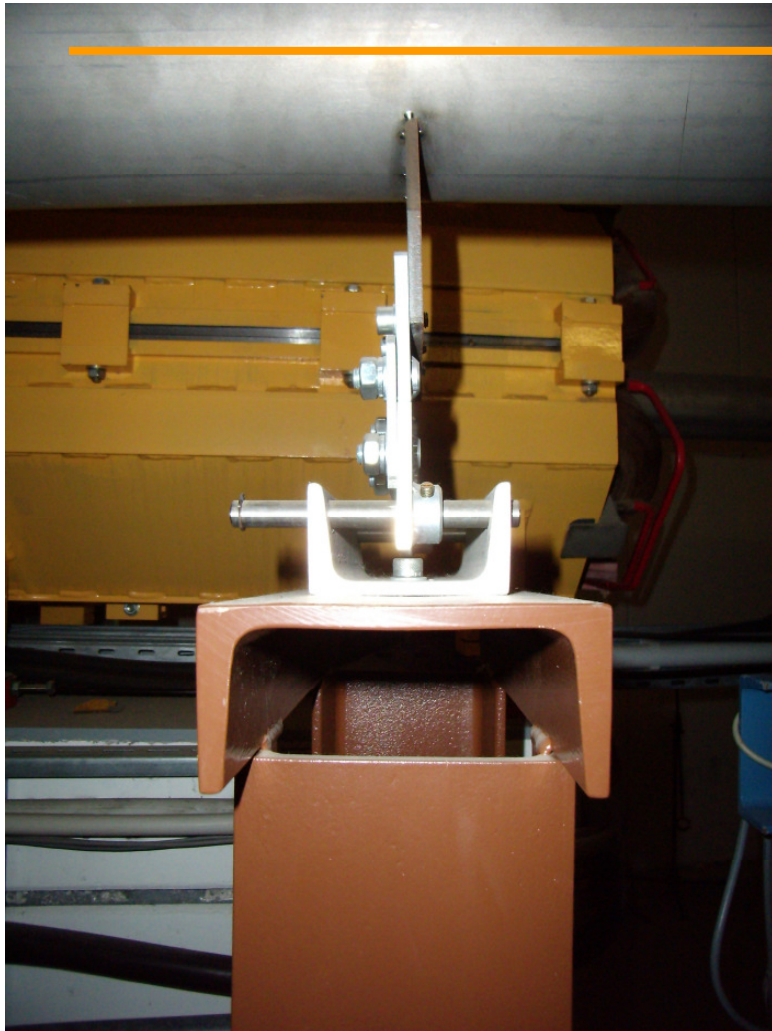
Upstream view up to AC transformer **HTPDT1** (02/12/2011)



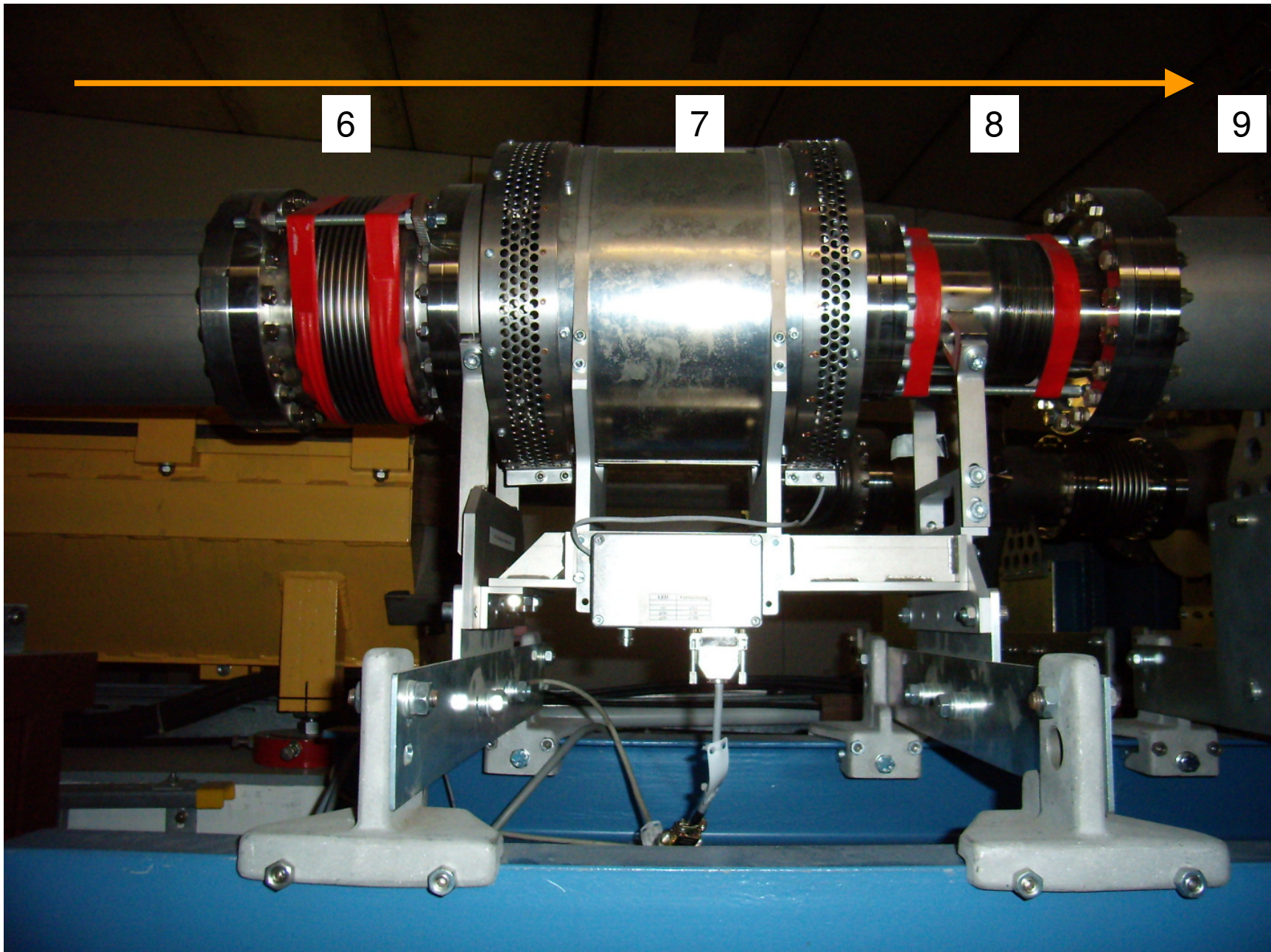
Pillar 2
H = 1700 mm
B = 380 mm
L = 200 mm

Support frame 1
H = 1620 mm
B = 580 mm
L = 1500 mm

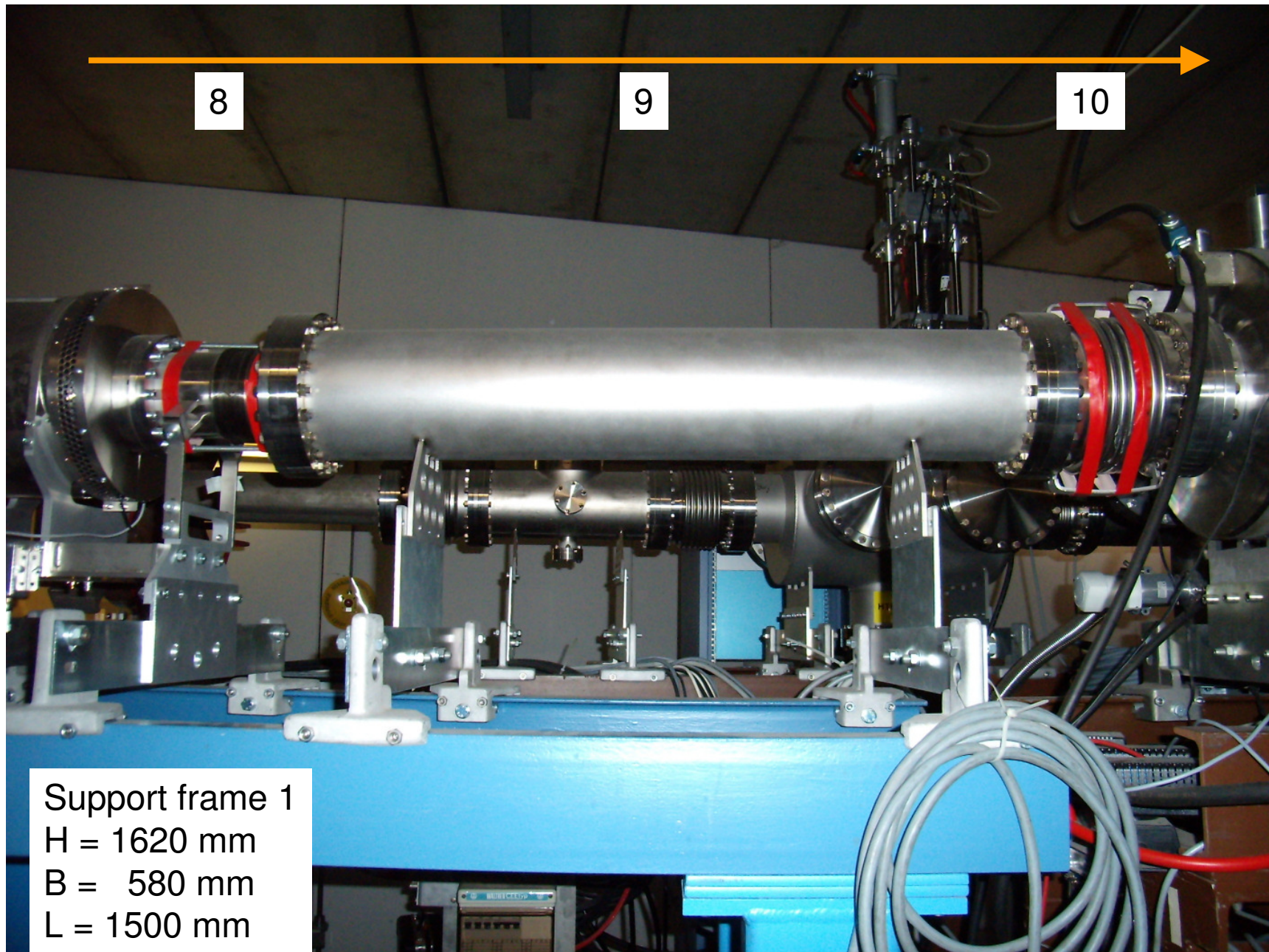
Side view pillar 2 (05/12/2011)



AC transformer **HTPDT1** (02/12/2011)



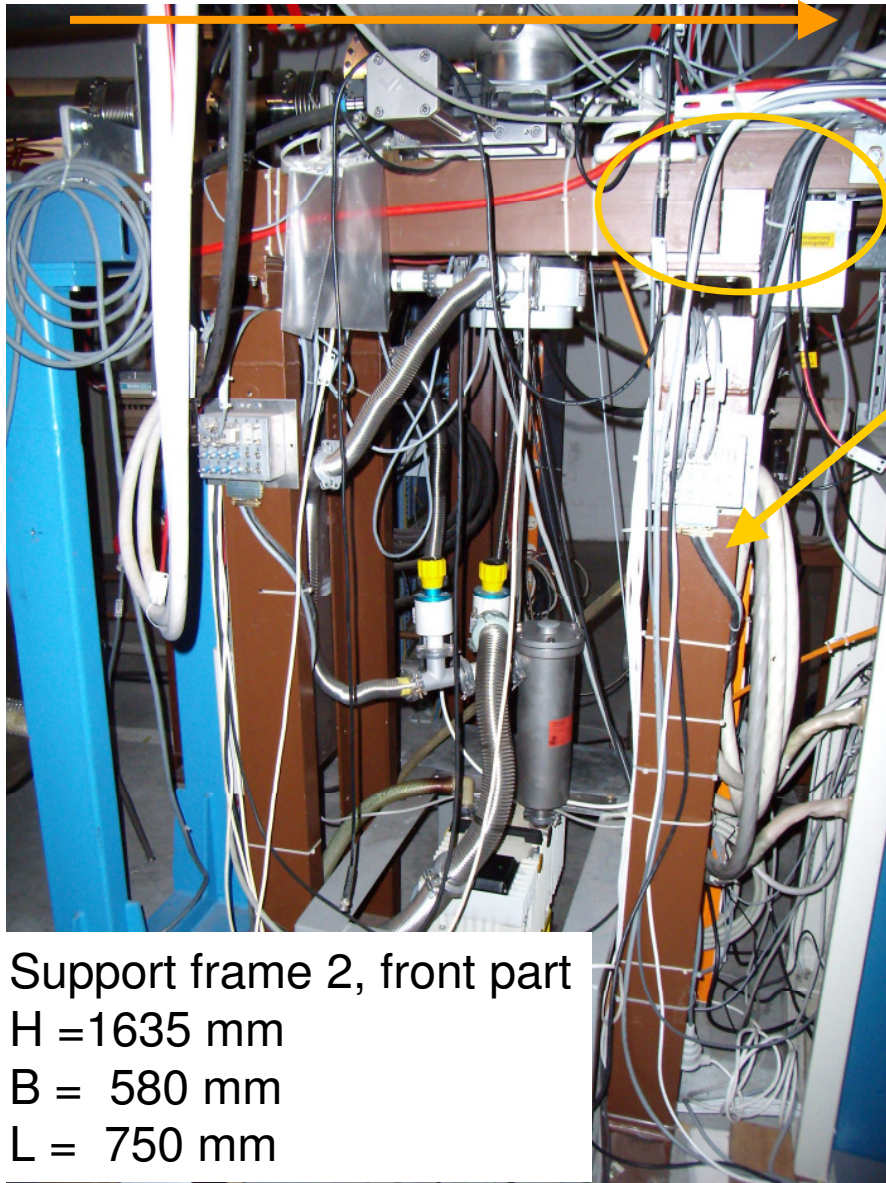
AC transformer **HTPDT1** to start DK1 (02/12/2011)



View HTBMU1 to AC transformer **HTPDT1** (02/12/2011)



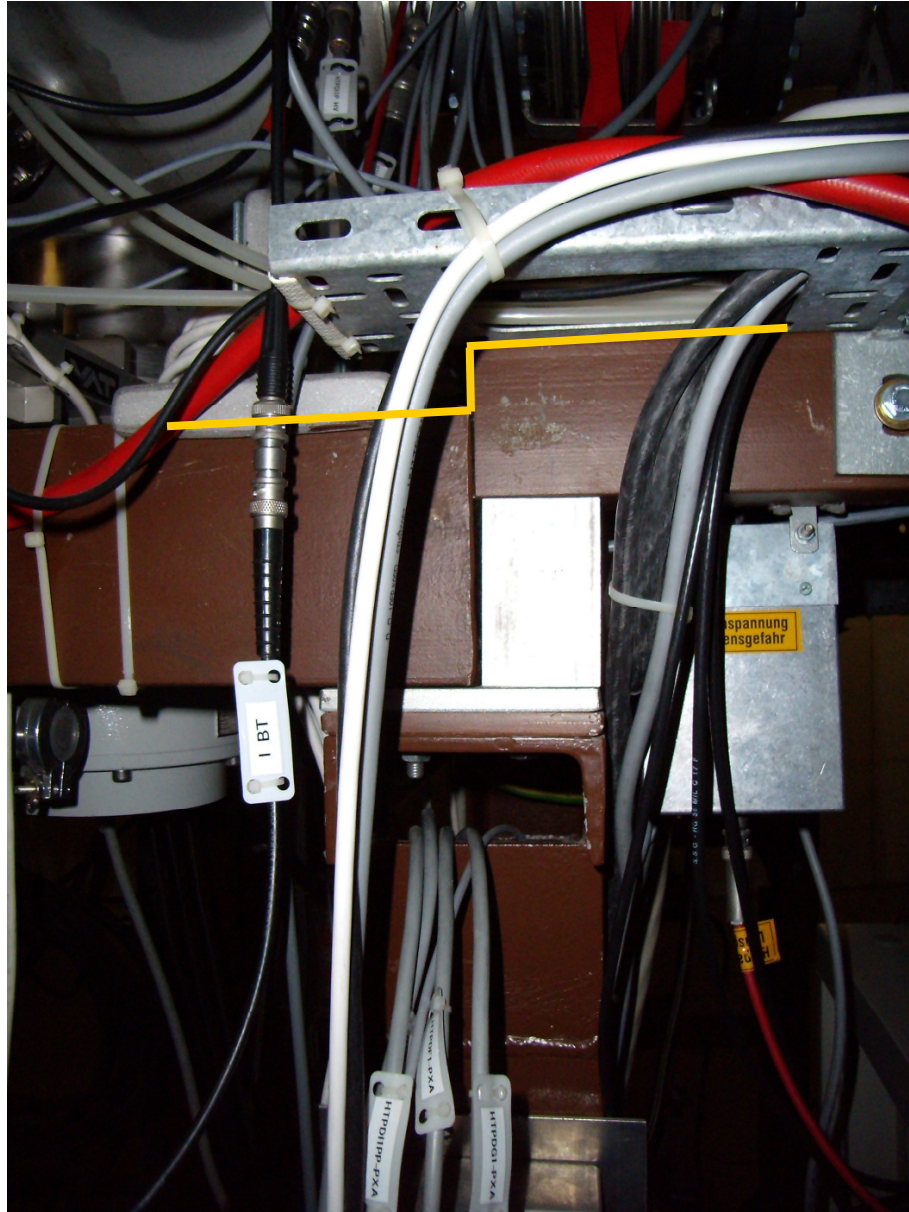
Side view support frame 2 (05/12/2011)



- Support consists of 2 parts:
 - L = 750 / B = 580 / H = 1635
 - L = 2500 / B = 580 / H = 1710
- Common middle support

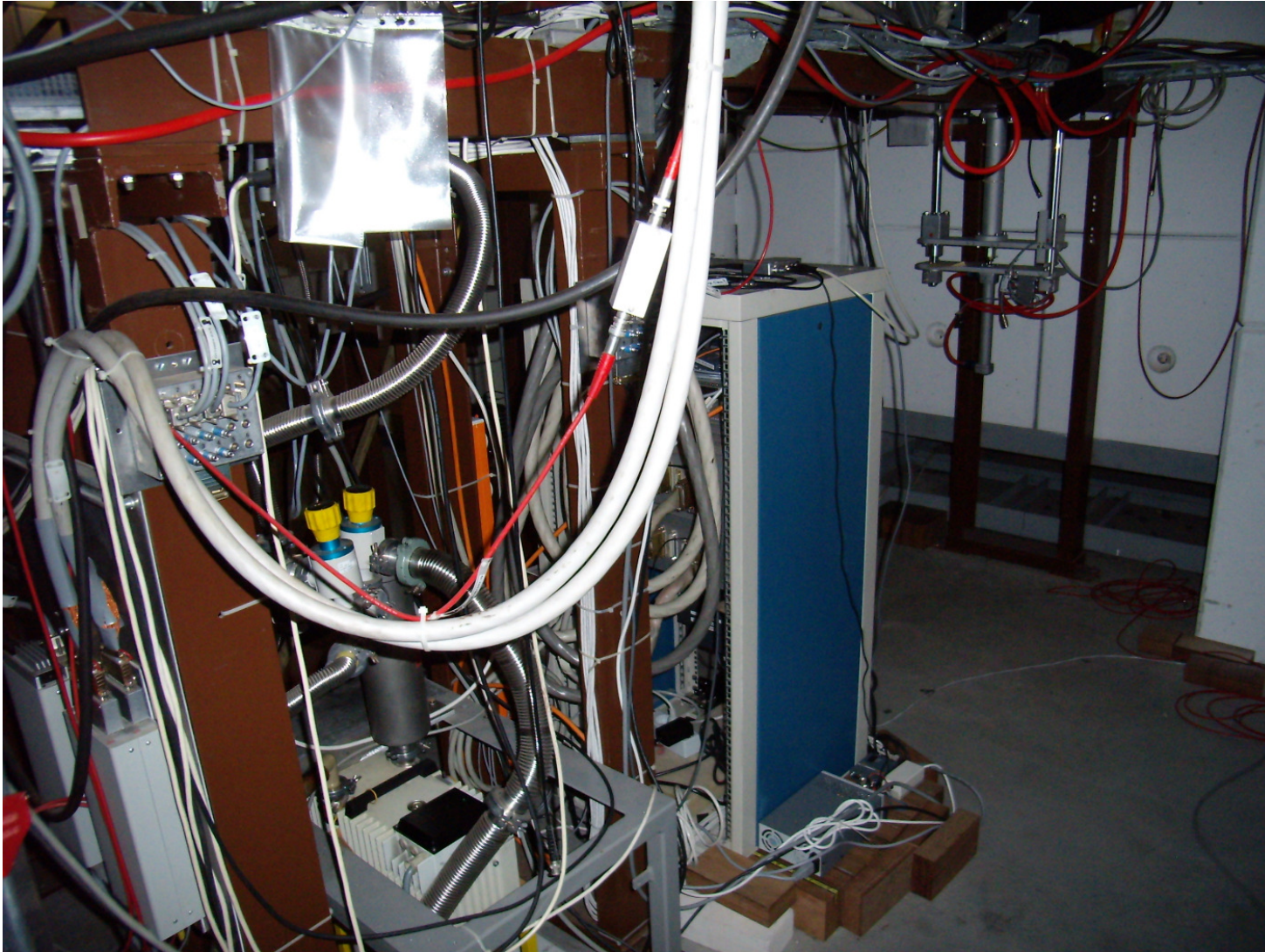
Support frame 2, front part
H = 1635 mm
B = 580 mm
L = 750 mm

Close view support frame 2, central pillar (05/12/2011)

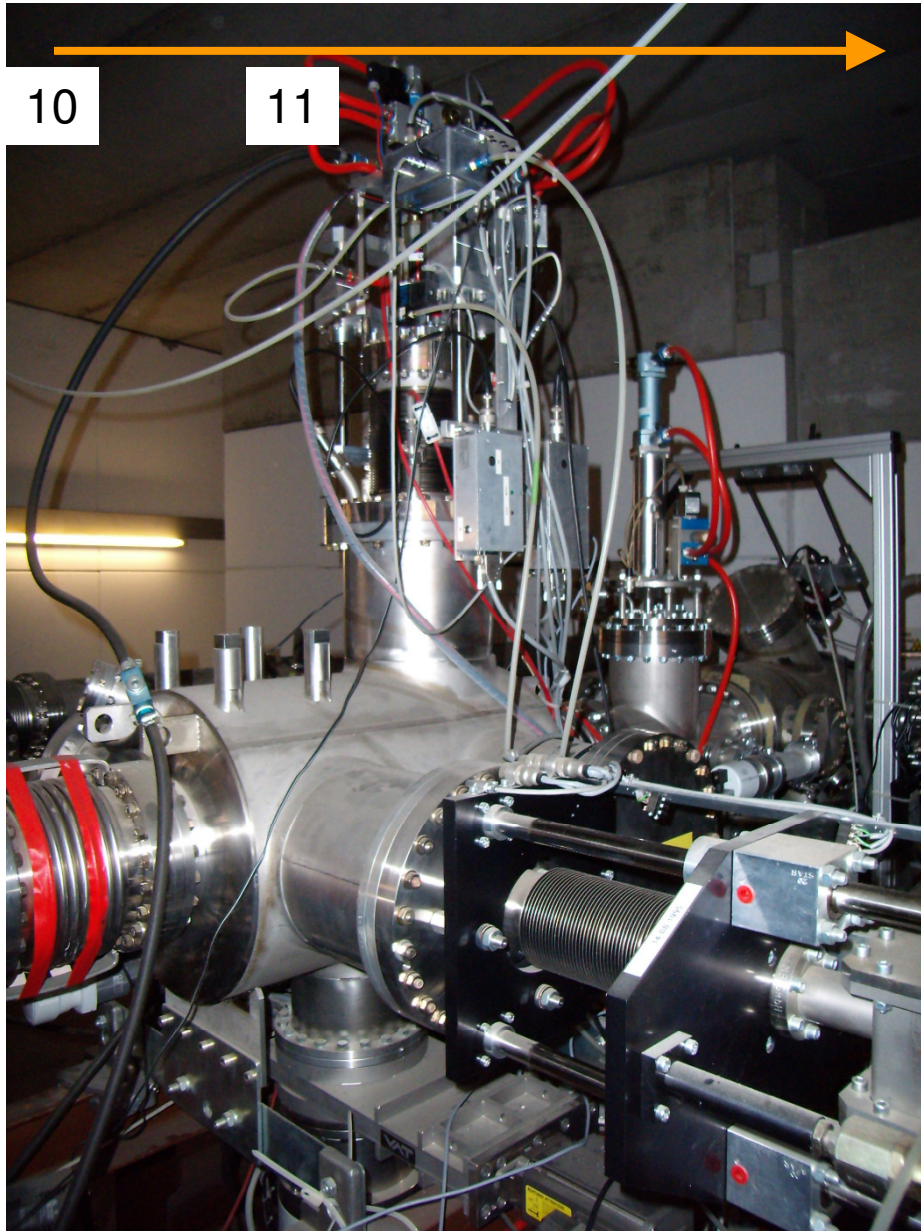


- Vertical offset between part 1 and part 2 of support frame

View support frame 2 (05/12/2011)



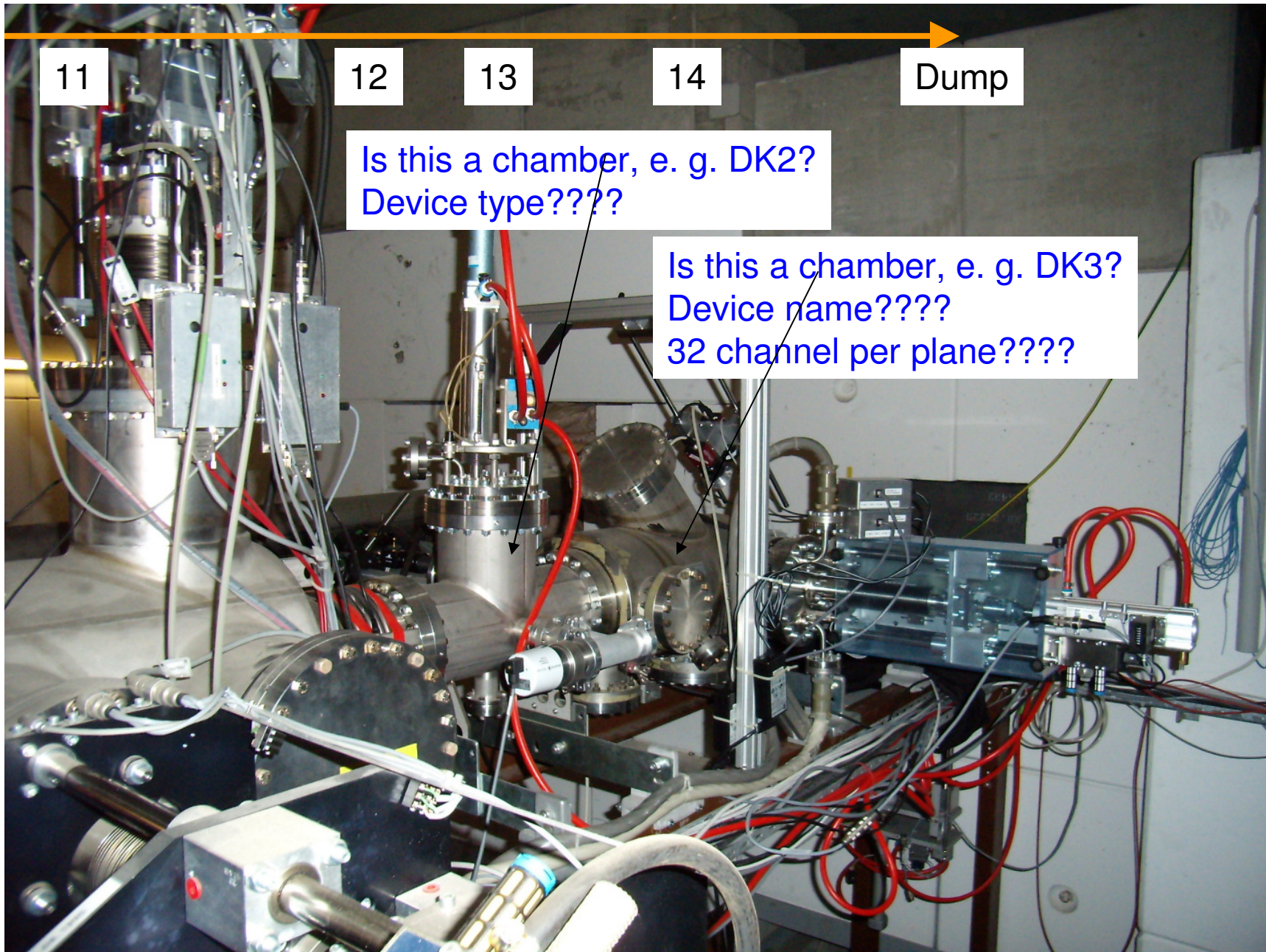
HTP-DK1: ~DG1G, ~DI1I, ~DI1S, ~DI1P (02/12/2011)



- Name: HTPDK1
- Length: 500 mm
- Diameter: 350 mm
- Type = ??????

- Devices:
 - HTPDG1G (right)
 - HTPDI1I (top)
 - HTPDI1S (top)
 - HTIDI1P (top)

View DK1, ~DF1, DK2, ~DG2, Dump (02/12/2011)



Detectors BLMS & BLMI, Dump (14/04/2011)



??? Open issues ???

- Bilder der Untergestelle der Kammern am Ende der Strahlführung
- Alle Gerätetypen und Kammertypen
- Vakuumkomponenten????
- Abstände der Drähte bei SEM Grid und MWPC, aktive Flächen der Detektoren, Material, etc.
- Dicke Folienfenster????

<http://bel.gsi.de/Beamlines/Strahlwege/strahlwege.html>

(108) SIS bis Beam-Dump über TS (1032)

Devices 1 – 19

Nr	Nomen	Gruppe	IL-Nom	Dev	Sub	Staff	PZA	Fig	Pik	Position [mm]	Länge [mm]	Abstand [mm]	x-Ap [mm]	y-Ap [mm]	Kommentar	W3C HTML 4.01
1		HTBVK0				---	?	0		0.00	961.00	0.00	75.00	75.00	Vakuunkammer für Umlenkmagnet 2. Hälfte	
2	HTBMU1	HTBVK0		MAGN	BEND	NONE	V -	5		961.00	1473.00	961.00	60.00	60.00	(D)-7.5° hor Dipol Rho=-11.25m l=1472.6mm	
3		HTPVR1				---	?	0		961.00	9696.30	0.00	0.00	0.00	Vakuumrohr	
4		HTPDT				---	0 ?	0		10657.30	510.00	0.00	75.00	75.00	Rohr für Strahltrafo, 510 mm lang	
5	HTPDT1	HTPDT		TRAF	LAD	NORM	S -	75		10912.30	200.00	255.00	50.00	50.00	Strahltrafo	
6		HTPDK1				---	?	0		11167.30	650.00	0.00	75.00	75.00	Diagnosekammer l=650mm [SIS-DK_090-010]	
7	HTPDG1G	HTPDK1		PROF	HOVE	NORM	V -	28		11267.30	0.10	100.00	45.00	45.00	Profilgitter mit Gasverstärkung, (T-DG 080) 61*61*1.5mm, Abfrage H u.V aber nur: 5*4.5mm; 5*3mm; 10*1.5mm; 5*3mm; 5*4.5mm	
8	HTPDG1GP	HTPDK1		ANTR	PRES	ANGE	0 +	67		11267.30	0.00	100.00	0.00	0.00	Pressluftantrieb (Gasfluss) (F1, SIS DL ???)	
9	HTPDG1GV	HTPDK1		HVDM		HVDM	0 -	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für Profilgitter	
10	HTPDI1S	HTPDK1		MESS	SEKU	NONE	V -	113		11167.30	0.00	0.00	0.00	0.00	Impulsmonitor Sekundärelektronen Detektor SEM	
11	HTPDI1SP	HTPDK1		DRIV	PRES	ANTR	0 +	67		11167.30	0.00	0.00	0.00	0.00	Pressluftantrieb	
12	HTPDI1SV	HTPDK1		HVDM		HVDM	0 -	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für SEM	
13	HTPDI1I	HTPDK1		MESS	IONI	IONI	V +	112		11167.30	0.00	0.00	0.00	0.00	I-Kammer	
14	HTPDI1IV	HTPDK1		HVDM		HVDM	0 -	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für I-Kammer	
15	HTPDI1P	HTPDK1		MESS	PLAS	NONE	V -	111		11167.30	0.00	0.00	0.00	0.00	Impulsmonitor (Szintillator) aus Plastik	
16	HTPDI1PP	HTPDK1		DRIV	PRES	ANTR	0 +	67		11167.30	0.00	0.00	0.00	0.00	Pressluftantrieb	
17	HTPDI1PV	HTPDK1		HVDM		HVDM	0 -	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für Szintillator	
18	HTPDI2I	HTPDK1		MESS	IONI	IONI	V +	112		11167.30	0.00	0.00	0.00	0.00	I-Kammer	
19	HTPDI2IV	HTPDK1		HVDM		HVDM	0 -	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für I-Kammer	

<http://bel.gsi.de/Beamlines/Strahlwege/strahlwege.html>

(108) SIS bis Beam-Dump über TS (1032)

Devices 20 – 38

20	HTPDI2P	HTPDK1	MESS PLAS	NONE	V -	111		11167.30	0.00	0.00	0.00	0.00	Impulsmonitor (Szintillator) aus Plastik
21	HTPLI2PP	HTPDK1	DRIV PRES	ANTR	0 +	67		11167.30	0.00	0.00	0.00	0.00	Pressluftantrieb
22	HTPDF1	HTPDK1	LTAR	NONE	S -	110		11597.30	1.00	430.00	40.00	40.00	Fluoreszenzschirm (Leuchttarget, Crolux)
23	HTPDF1_P	HTPDK1	ANTR PRES	ANTR	0 +	67		11597.30	0.00	430.00	0.00	0.00	Pressluftantrieb für Fluoreszenzschirm
24	HTPDI2V	HTPDK1	HVDM	HVDM	0 -	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für Szintillator
25	HTPDI3P	HTPDK1	MESS PLAS	NONE	V -	111		11167.30	0.00	0.00	0.00	0.00	Impulsmonitor (Szintillator) aus Plastik fest
26	HTPDI3_V	HTPDK1	HVDM	HVDM	0 +	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für Szintillator
27	HTPDI4P	HTPDK1	MESS PLAS	NONE	V -	111		11167.30	0.00	0.00	0.00	0.00	Impulsmonitor (Szintillator) aus Plastik fest
28	HTPDI4PV	HTPDK1	HVDM	HVDM	0 -	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für Szintillator
29	HTPDI5P	HTPDK1	MESS PLAS	NONE	V -	111		11167.30	0.00	0.00	0.00	0.00	Impulsmonitor (Szintillator) aus Plastik fest
30	HTPDI5PV	HTPDK1	HVDM	HVDM	0 -	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für Szintillator
31	HTPDI6P	HTPDK1	MESS PLAS	NONE	V -	111		11167.30	0.00	0.00	0.00	0.00	Impulsmonitor (Szintillator) aus Plastik fest
32	HTPDI6PV	HTPDK1	HVDM	HVDM	0 -	94		11167.30	0.00	0.00	0.00	0.00	Hochspannungsgeräte für Szintillator
33	HTPVP1I	HTPDK1	VAPU IONG	NONE	0 -	71		11167.30	0.00	0.00	0.00	0.00	Ionengetterpumpe, 270l/s
34		HTPDK2		---	?	0		11817.30	400.00	0.00	75.00	75.00	Diagnosekammer l=?? mm [DK??]
35	HTPDG2	HTPDK2	PROF HOVE	NORM	S -	28		11917.30	0.10	100.00	45.00	45.00	Profilgitter, 47 x 47 x 1 mm (DG 200, DL 290)
36	HTPDG2_P	HTPDK2	ANTR PRES	ANTR	0 +	67		11917.30	0.00	100.00	0.00	0.00	Pressluftantrieb (F?, DL ???)
37	HTPDF2LP	HTPDK2	DRIV PRES	ANTR	0 +	67		11937.30	2.00	120.00	10.00	0.00	Leuchtdioden für Abschätzung der Strahlachse
38	XS1032EN	PSEUDO	PSEU END	---	?	0		12217.30	0.00	0.00	0.00	0.00	

