

Alignment of QF1

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TB3

TB4

ATF2QD0

1.97Q17.72

SA-490-900-02

WT.402KG

QDOFF

TB10



TB9

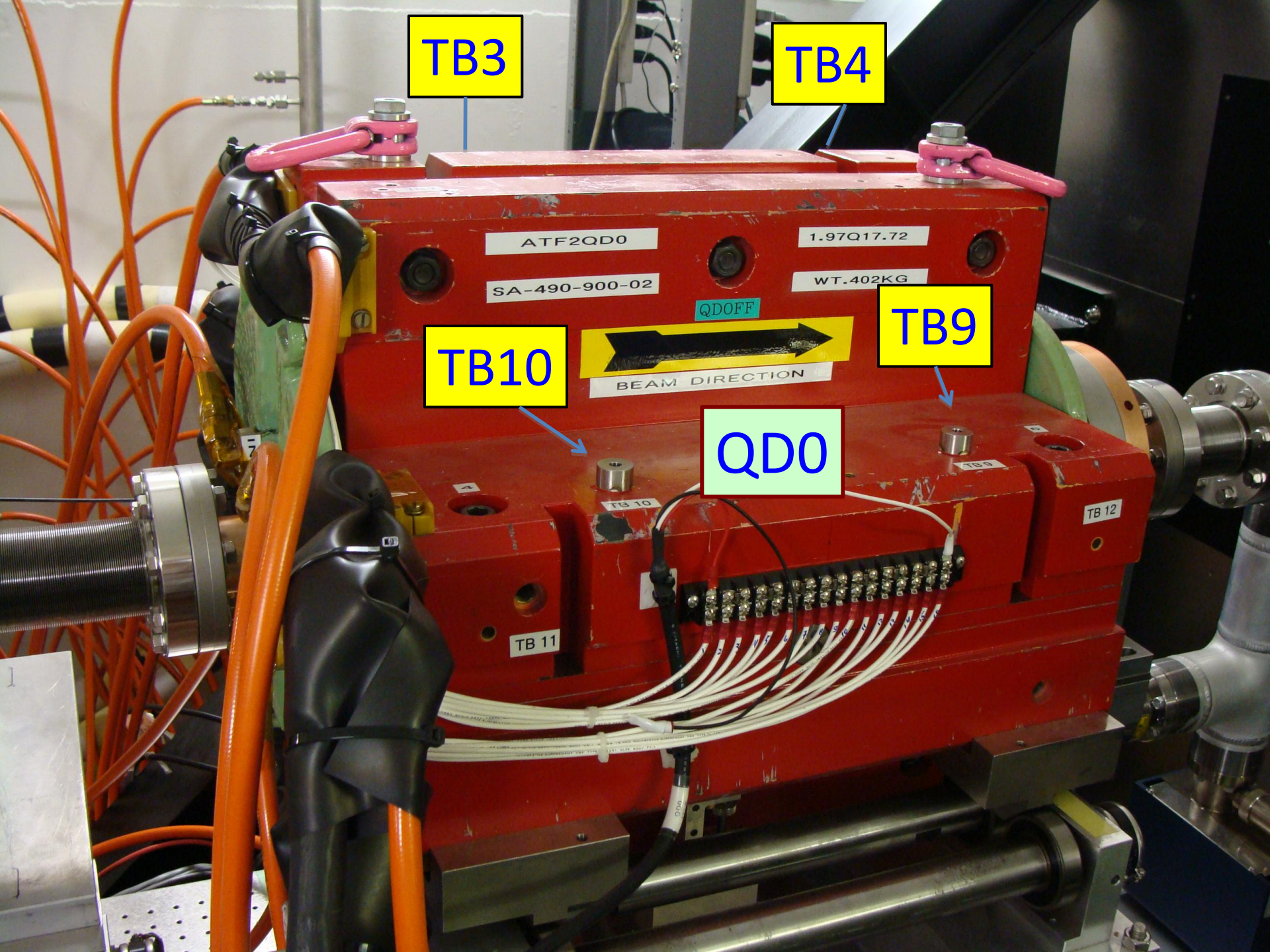
QD0

TB 10

TB9

TB 12

TB 11



TB9

TB10

ATF2QF1

1.97Q17.72

SA-490-900-02

WT.402KG

QF1FF



TB4

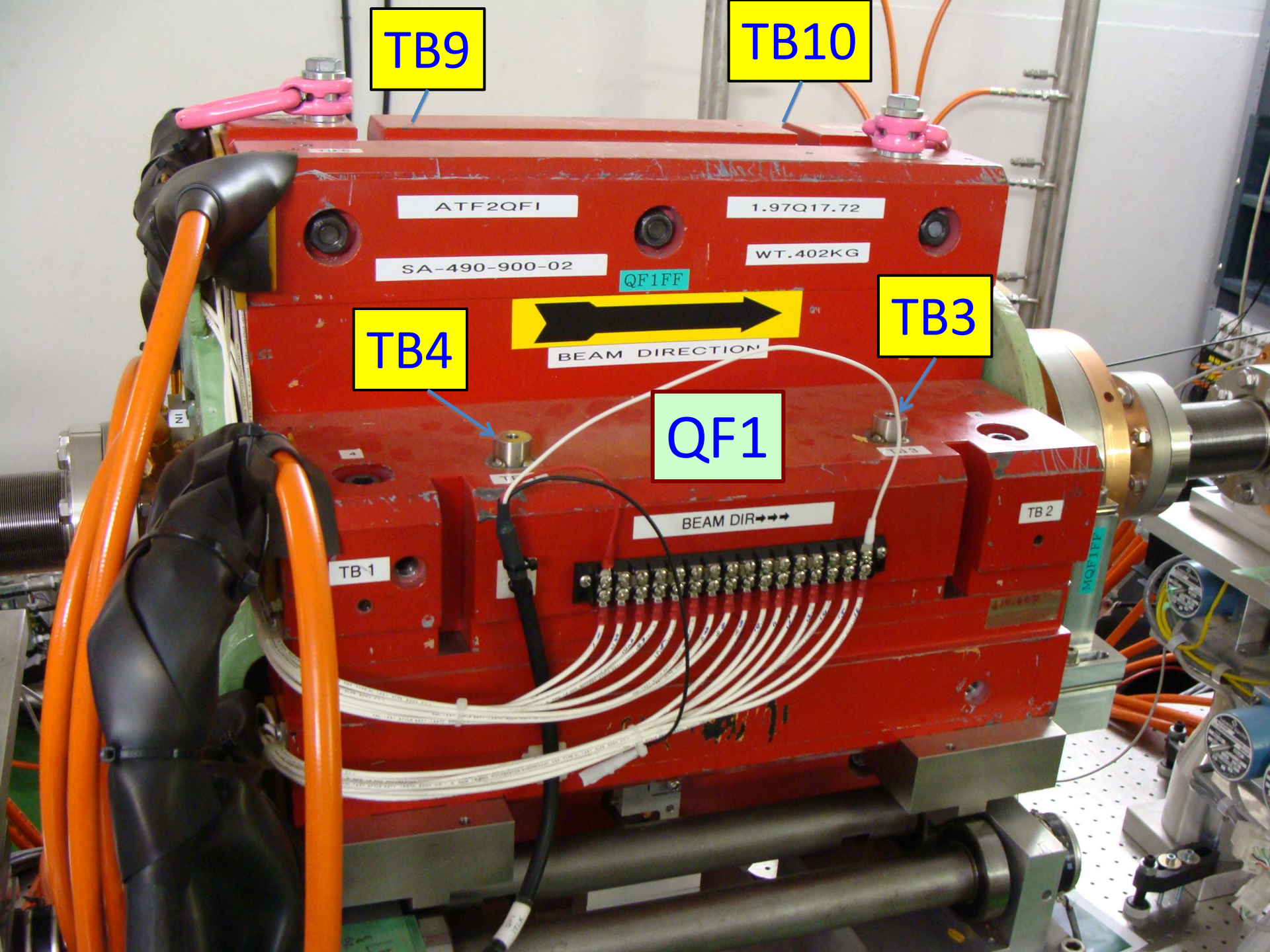
TB3

QF1

BEAM DIR → → →

TB 2

TB-1



	Holder #	X (mm)	Y (mm)	Z (mm)	Dist. From C	Z_aver
old	TB01	250.954	-186.758	41.709		
QF1FF	TB02	250.907	187.011	41.749		
	TB03	181.793	105.953	130.497	181.405	130.474
	TB04	181.017	-105.440	130.450		
	TB05	38.567	-186.873	250.541		
	TB06	38.555	186.894	250.583		
	TB07	-42.031	186.886	250.564		
	TB08	-42.013	-186.858	250.662		
	TB09	-182.741	-105.875	128.092	-182.619	128.065
	TB10	-182.497	105.872	128.038		
	TB11	-250.903	186.812	38.963		
	TB12	-250.809	-186.897	38.909		
					Roll (mrad)	6.617
new	TB3	182.777	105.953	129.116	182.389	129.095
QF1FF	TB4	182.000	-105.440	129.074		
by G.G.	TB9	-181.765	-105.875	129.474	-181.644	129.446
	TB10	-181.522	105.872	129.417		
* Keep the current status (TB9 side is higher by 0.35mm)						
* Modified by G.G. on 20090904						
Calc.	TB01	251.225	-186.758	40.046		
by R.S.	TB02	251.178	187.011	40.088		
	TB03	182.653	105.953	129.291	182.265	129.270
	TB04	181.876	-105.440	129.249		
	TB05	40.225	-186.873	250.280		
	TB06	40.213	186.894	250.322		
	TB07	-40.372	186.886	250.837		
	TB08	-40.352	-186.858	250.934		
	TB09	-181.889	-105.875	129.299	-181.768	129.271
	TB10	-181.646	105.872	129.243		
	TB11	-250.640	186.812	40.623		
	TB12	-250.546	-186.897	40.569		
* Set TB3 side and TB9 side level						
* Calculated by R.S. on 20090916						

There was a problem in fiducialization table for QF1 at the time of alignment performed last summer.

According to the original SLAC fiducialization table, we have to rotate QF1 by +6.6 mrad from the mechanical level, which looked strange both for SLAC and KEK alignment people.

As a result, KEK adjusted the QF1 to be mechanically level last summer.

But in the beam tuning, they had to rotate the QF1 by +5.6 mrad (max. value of cam movers), and they needed to rotate more.

Although we do not know why, the original SLAC fiducialization table looks correct.

→ Should we adjust the alignment of QF1 following the original SLAC fiducialization Table?