

Acceptance Sheet Collimators

new values values not remeasured

Collimator Name	CERN Name	Arrival Date
HCTCTP0001-CZ000016	TCTP_016	21/05/2014

	Value	Unit	Specification Value	Comments	Responsible	Result			
Transport - Reception tests	Shock	Green	-	<1g	O.Aberle	OK			
	Water pressure test	30 bar	-	20 bar		16/04/2014	OK		
	Visual Inspection	n/a	-	n/a			OK		
	Paper Documentation	n/a	-	n/a	B.Salvachua	OK			
Vacuum	Leak Test	1.50E-10	mbar.L/s	<5E-10	2014/07/04 J.Gallagher	G.Cattenoz	OK		
	Vacuum limit after Bakeout (CINEL)	5.40E-09	mbar	< 4E-08			OK		
	Vacuum limit final test (CERN)	4.00E-09	mbar	< 4E-08	2014/07/04 J.Gallagher		OK		
	Outgassing	3.60E-08	mbar.L/s	≤ 2E-7	2014/07/04 J.Gallagher		OK		
	Vacuum spectrum	within acceptance limits	-	EDMS1113402	2014/07/04 J.Gallagher		OK		
	Longitudinal RF fingers	n/a	-	n/a	O.Aberle	OK			
Flatness	Surface Flatness AC	32	µm	≤ 50	CINEL	O.Aberle, B.Salvachua	OK		
	Surface Flatness BD	40	µm	≤ 50			OK		
	BPM test without vacuum	n/a	-	n/a	C.Boccard	OK			
	BPM test after bake out	n/a	-	n/a		08/07/2014 C. Boccard	OK		
Torque	Max. Dynamic Torque at CINEL (A/B/C/D)	0.48/0.45/0.48/0.45	Nm	≤ 0.55 at 35mm	J.Lendaro	OK			
	Max. Dynamic Torque at CERN (A/B/C/D)	0.59/0.54/0.57/0.52	Nm	≤ 0.55 at 35mm		30/05/2014 P.Gander	OK		
LVDT calibration	Mechanical Play A/B/C/D	13/7/8/14	µm	< 20	08/07/2014 P.Gander	J.Lendaro	OK		
	Autoretraction	A	B	C	D		mm	n/a	08/07/2014 P. Gander
		27.3	27.62	24.52	25.46				
	Test of switches	n/a	-	n/a			OK		
	Test of temperature sensors	n/a	-	n/a			OK		
	Test of motors	n/a	-	n/a			OK		
Test of resolvers	n/a	-	n/a		OK				
Test of LVDT's	n/a	-	n/a		OK				
Calibration of LVDT	n/a	-	n/a		OK				
Switches Alignment	Gap across zero (switches)	AC	BD	mm	> 5	08/07/2014 P. Gander	OK		
		5.8087	-6.01697						
	Max. gap switches	AB	CD	mm	≥ 58	08/07/2014 P. Gander	OK		
		60.99473	61.08437						
		Min. gap switches	0.593					0.496	mm
Min gap (visual inspection)	n/a	n/a	mm	≤ 0.5		OK			
Mechanical Stops Alignment	Gap across zero (minimum)	AC	BD	mm	n/a	CINEL	OK		
		6.053	-6.22						
	Max. gap end stops	AB	CD	mm	n/a		OK		
		61.63	61.62						
		Min. gap end stops	0.30					0.30	mm
Min gap (visual inspection)	n/a	n/a	mm	n/a		OK			
Jaw Tilt Angel	Max. tilt angle	AC	BD	mrad	> +2.0		OK		
		2.98	3.1						
		Min. tilt angle	-3.03					-3.07	mrad
Operational data	Flatness data	n/a	-	n/a		B.Salvachua, S.Redaeli	OK		
	Mechanical data	n/a	-	n/a			OK		
	MTF data availability	n/a	-	n/a			OK		
Installation	Proposed Position Tunnel	TCTPH.4L5.B1	-	n/a		B.Salvachua, S.Redaeli	OK		
	Beam	Beam 1	-	n/a			OK		
	Azimuthal orientation	0	deg	n/a			OK		
	Check tunnel support	n/a	-	n/a			OK		
		AC	BD	7TeV - t* = 3.5µm IP1 IP5 TCTPH	σx [µm]		σy [µm]	OK	
	Flatness/beam size β* = 0.3m	3	3	%	1164		720	OK	
	Flatness/beam size β* = 0.6m	4	5	%	823		509	OK	
Check collimator orientation	n/a	-	n/a			OK			
Other	General Comments					OK			

Date of steering meeting: offline meeting 07/04/2014

Decisions	YES	NO	Comments
	Acceptance of CINEL delivery	X	
Acceptance of CERN consolidation			
Conformity for installation			
Installation position	X		