

Acceptance Sheet Collimators

new values values not remeasured

Collimator Name	CERN Name	Arrival Date
HCTCTP001-CZ00015	TCTP_015	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		16/4/2014 cinel	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	J.Gallagher 2014/07/04	OK			
	Vacuum limit after Bakeout (CINEL)	3.80E-09	mbar	< 4E-08		OK			
	Vacuum limit final test (CERN)	1.90E-09	mbar	< 4E-08	J.Gallagher 2014/07/04	OK			
	Outgassing	3.60E-08	mbar.L/s	≤ 2E-7	J.Gallagher 2014/07/04	OK			
	Vacuum spectrum	within acceptance limits	-	EDMS1113402	J.Gallagher 2014/07/04	OK			
	Longitudinal RF fingers	n/a	-	n/a	O.Aberle	OK			
Flatness	Surface Flatness AC	21.5	µm	≤ 50	O.Aberle, B.Salvachua	OK			
	Surface Flatness BD	22.6	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)	0.45/0.43/0.47/0.48	Nm	≤ 0.55 at 35mm	28/04/2014 Lamena	J.Lendaro	OK		
	Max. Dynamic Torque at CERN (A/B/C/D)	0.65/0.57/0.57/0.60	Nm	≤ 0.55 at 35 mm	28/05/2015 P.Gander		OK		
LVDT calibration	Mechanical Play A/B/C/D	30/8/5/28	µm	< 20	2014/07/09 P. Gander	J.Lendaro	OK		
	Autoretraction	A	B	C	D		mm	n/a	2014/07/09 P. Gander
		30.36	15.53	30.85	14.023				
	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	2014/07/09 P.Gander	O.Aberle		
		5.85233	-5.96687						
	Max. gap switches	AB	CD	mm	≥ 58	2014/07/09 P.Gander	OK		
		61.1453	60.99003						
	Min. gap switches	0.787	0.598	mm	≤ 0.5 (0.6-1.0 for TCTPs)	2014/07/09 P.Gander	OK		
Min gap (visual inspection)	n/a	n/a	mm	≤ 0.5	2014/07/09 P.Gander	OK			
Mechanical Stops Alignment	Gap across zero (minimum)	AC	BD	mm	n/a	from cinel	O.Aberle		
		6.217	-6.177						
	Max. gap end stops	AB	CD	mm	n/a		OK		
		61.65	61.63						
	Min. gap end stops	0.55	0.38	mm	n/a		OK		
Min gap (visual inspection)	n/a	n/a	mm	n/a		OK			
Jaw Tilt Angel	Max. tilt angle	AC	BD	mrad	> +2.0		O.Aberle		
		3.13	2.98						
	Min. tilt angle	-3	-2.82	mrad	< -2.0		OK		
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	TCTPV.4L5.B1	-	n/a		B.Salvachua, S.Redaeli	OK		
	Beam	Beam 1	-	n/a			OK		
	Azimuthal orientation	90	deg	n/a			OK		
	Check tunnel support	n/a	-	n/a			OK		
		AC	BD	7TeV - $\epsilon^* = 3.5 \mu\text{m}$ IP1 and IP5 TCTPV	σ_x [µm]		σ_y [µm]	OK	
	Flatness/beam size $\beta^* = 0.3\text{m}$	3	3	%	1166		740	OK	
	Flatness/beam size $\beta^* = 0.6\text{m}$	4	4	%	825		523	OK	
Check collimator orientation	n/a	-	n/a			OK			
Other	General Comments						OK		

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

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