

Standards for European Model Railroads

Clearance Perimeter in track curves

NEM 103

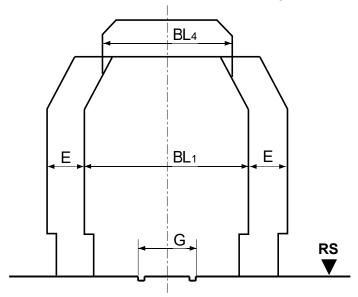
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Binding Standard

Dimensions in mm

Edition 2024 (Replaces Edition 2016)

In the area of track curves, the perimeter of the clearance space according to NEM 102, excepting the space for the overhead pantograph, is to be enlarged by dimension \boldsymbol{E} with respect to the outer and inner curve edges, dependent upon the curve radius and rolling stock used.



The lateral deflection determines the enlargement. The largest lateral deflection on the inside of curves is mostly produced by vehicles with bogies. The effective bogie pivot spacing of the longest deployed bogie vehicle is thus decisive in determining the dimension \boldsymbol{E} .

Therefore, vehicles with bogies are divided into three groups according to **NEM 301** ¹⁾.

The size of the expansion *E* is to be taken from the table on page 2. The minimum value for vehicle group A should always be maintained if possible, even when no vehicles with bogies are present.

Size Table for E:

Gauge	Z			N			TT			H0			S			0			I			II		
Radius of		Vehicle Group																						
Track Curve	Α	В	С	Α	В	С	Α	В	С	Α	В	С	Α	В	С	Α	В	С	Α	В	С	Α	В	С
140	3	4																						
175	2	3	5	4																				
200	2	3	4	4																				
225	2	2	4	3	5																			
250	1	2	3	3	5	6	6																	
275	1	2	3	3	4	6	5																	
300	1	2	3	2	4	5	5	7																
325	1	1	2	2	3	5	4	6																
350	1	1	2	2	3	4	4	6	8	8														
400	0	1	2	1	2	4	3	5	7	7	11													
450	0	1	1	1	2	3	3	4	6	6	9	12	12											
500	0	0	1	1	1	3	2	4	5	5	8	11	10											
550	0	0	1	0	1	2	2	3	4	4	7	10	9	14										
600	0	0	1	0	1	2	1	3	4	4	6	9	8	13	17	19								
700	0	0	0	0	0	2	1	2	3	3	5	7	7	11	15	16								
800	0	0	0	0	0	1	0	2	3	3	4	6	6	9	13	14	22							
900	0	0	0	0	0	1	0	1	2	2	3	5	5	8	11	12	19	25	23					
1000	0	0	0	0	0	0	0	1	2	2	3	4	4	7	9	10	17	22	20	31				
1200	0	0	0	0	0	0	0	0	1	1	2	3	3	5	7	8	14	18	16	25	34	37		
1400	0	0	0	0	0	0	0	0	1	1	2	2	2	4	6	7	11	15	13	21	28	31		
1600	0	0	0	0	0	0	0	0	1	0	1	2	2	3	5	6	9	13	11	18	24	26	41	
1800	0	0	0	0	0	0	0	0	0	0	1	1	1	2	4	5	8	11	9	15	21	23	36	47
2000	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	4	7	9	7	13	18	20	32	42
2500	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	5	7	5	10	13	15	24	32
3000	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	5	3	7	10	11	19	26
3500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	2	5	8	9	16	21
4000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	4	6	6	13	18

Notes:

- 1. Values with gray background serve solely for interpolation and are not intended for use as they fall below the minimum radii according to NEM 111.
- 2. Track spacing in curves are to be measured according to NEM 112.

In the transition zone to the track curve, the enlargement of the clearance perimeter of the sketch is to be provided for accordingly (a = maximum occurring bogie pivot spacing).

