EXPANSION JOINT MB-N65



FEATURES

PHYSICAL PATTERN

MB N-65 is the original-reinforced elastomeric mono block molded expansion joint of 65 mm movement of length 1 meter & 2 meter. In all sections there is tongue and groove fittings with tight end to end mating across decks and at curbs and are steel reinforced. It can be installed in new decks, or in rehabilitation projects and aged structures.

DIVERSITY OF EXPANSION IN VARIOUS DIRECTIONS

The main body of MB N 65 rubber absorbs and eliminates the several deformational defects in verticals, horizontal, inclimed and rotational directions. It also absorbs skew movement which is one of its best feature.

TIME SAVING IN REPLACING AND MAINTENANCE

MB N 65 is a very simple featured joint, which is easy to replace in respect of its simplified constitution and physique when replacing old joint. It also same time and man power.









LEAK PREVENTIONAL FEATURE

The sealant finishing treatment on the contact and connecting parts prevent leak completely. The elastomer continuity basically prevent and preserve water leakage.

COST EFFECTIVENESS

MB N 65 joint is a very a reasonable and economical joint with a full package of excellent features. It saves man power in respect of its installation due to its simplified structure.

USAGE IN VARIETY OF CONSTRUCTIONAL WORKS

MB N 65 can be used in various kinds of bridges such as steel bridge, reinforced concrete bridge, pre-stressed concrete bridge, straight Bridge, curved bridge, skew bridge and interchanges, parking areas, in dams, etc.

ELASTOMERIC STRIP SEAL

The neoprene material shall have the physical properties conforming to the following requirements.

DURABILITY AND STABILITY

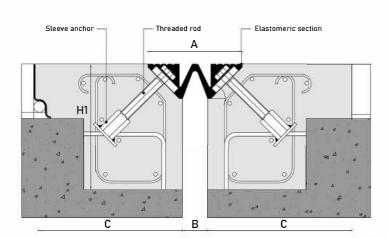
MB N 65 is made up of particular combination of synthetic rubber, which is the main reason of its solidity and firmness. It can be used for a long time with its abrasional resistance and ovesion to weather consditions. Its steel plates absorbs and eliminates the shock due to the load when the automobile passes over it.

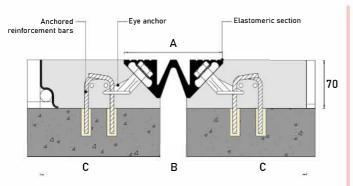




EXPANSION JOINT MB-N65







| Type | Α | | В | | C | H1 |
|-------|-----|-----|-----|-------|-----|-----|
| 1,700 | min | max | min | n max | Ŭ | |
| NB65 | 120 | 185 | 20 | 85 | 230 | 200 |

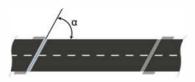
Dimensions in mm

N Joint With Anchor Parts

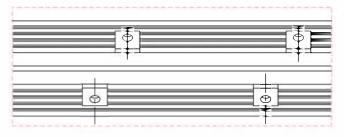


MOVEMENT RANGE

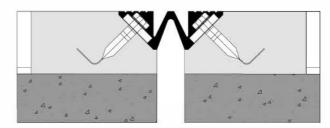
The N joint is designed to accommodate 65 mm movement capacity only. For skew angles under 70 gr, the movement capacity



is reduced. The table shows the capacity of N joints to accept movement depending on skew angle (α) of the main structure.



N Walkway Joint

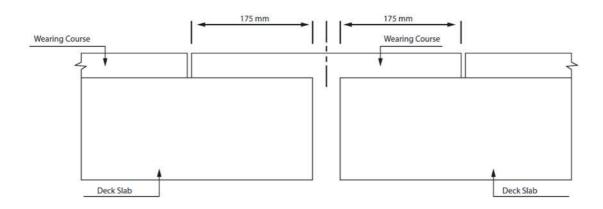


| Туре | Straight (100gr) | 90gr | 80gr | 70gr | 60gr | 50gr | 40gr |
|------|------------------|------|------|------|------|------|------|
| NB65 | 65 | 65 | 65 | 65 | 50 | 41 | 36 |

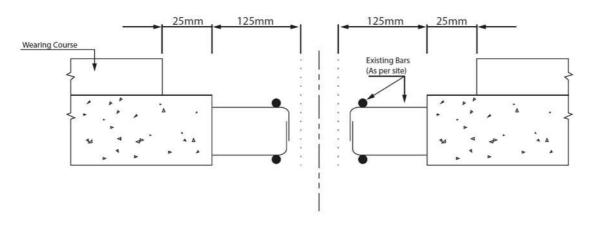




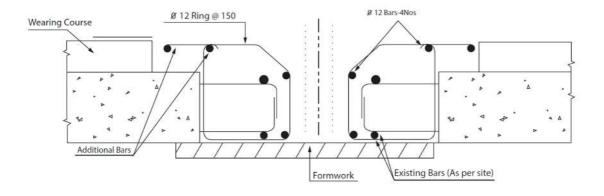
ASPHALT CUTTING



CLEARING THE BLOCK OUT

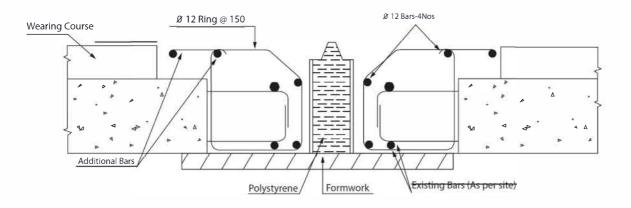


INSTALLATION OF ADDITIONAL REINFORCEMENT

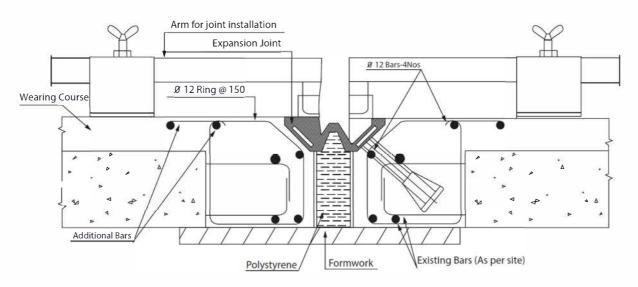




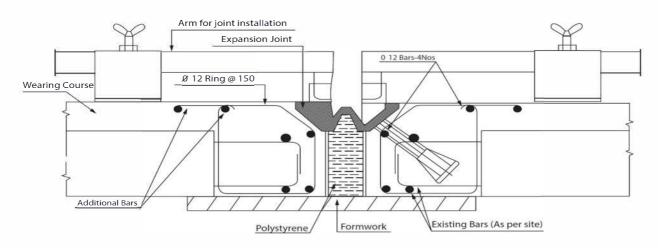
INSTALLATION OF SPACING FORMS



FIXING THE JOINT COMPONENT ON THE INSTALLATION ARMS



INSTALLATION OF ANCHORAGE



EXPANSION JOINT MB-N65



| PHYSICAL PROPERTY | ASTM TEST METHOD | RESULT |
|--|---------------------|---------------|
| Tensile Strength, min | D 412 | 127 Kgf / cm2 |
| Elongation at Break, min | D 412 | 400 % |
| Hardness, Shore A | D 2240 | 50 ± 5 |
| Compression Set, 22 hrs at 70 degree C, Method B | D 395 | 20 % Max. |
| After accelerated aging for 70 hrs at 100 degree C | D 573 | Changes |
| Tensile Strength, min | D 412 | ± 15 |
| Elongation at Break, min | D 412 | -40 |
| Hardness, Shore A | D 2240 | + 10 |
| Oil Deterioration – Volume increase after soaking in ASTM oil No. 3 for 70 hrs at 100 degree C | D 471 | 120 % Max. |
| Ozone Resistance, 20% strain, Exposure to 100 PPHM Ozone for 70 hrs at 38 degree C | D 1149 | No Cracks |
| Low Temperature Brittleness for 5 hrs at -40 C | D 746 | No Brittle |

LIST OF TOLARENCES



| STEEL PLATE (ASTM A 36) | SPECIFIED (AASTHOM M251) | RESULT |
|-------------------------|-----------------------------|--------|
| Tensile Strength (Mpa) | >250.0 | 315 |
| Yield Strength (Mpa) | >20.0 | 24 |
| Elongation (Mpa) | <0.250 | 0.222 |
| Phosphorus (%) | <0.040 | 0.020 |
| Sulphur (%) | < 0.050 | 0.001 |
| Silicon (%) | <0.400 | 0.250 |

Overall vertical Rubber dimensions -0, +3 mm -0, +6 mm Average total rubber thickness 32 mm or less Average total rubber thickness over 32 mm Overall horizontal Rubber dimensions 0, +6 mm 0.914 m or less Over 0.914 m Thickness of individual layers of Elastomer at any point with in the ±20% of the Design joints Value ±20% of the nominal Thickness of top and bottom layer cover layer thickness

Metal Reinforced Elastomeric Expansion Joints will comply with the following tolerances

Parallelism with opposite face Top and Bottom sides

Edge cover of embedded laminates or connection members

0.005 radians 0.02 radians

 $\pm 3 \, \mathrm{mm}$