

BASES **BREAKAWAY**

MOUNTING AND TRANSFORMER BASES FOR ROUND TAPERED ALUMINUM POLES

During the period following World War II, aluminum lighting poles with cast aluminum transformer bases were developed by P&K. It soon became apparent that these T-Bases exhibited a surprising safety feature not anticipated by P&K designers. When struck by an errant automobile, they broke away with relative ease, saving lives and reducing injuries to the motoring public. P & K took the lead in this field, promoting this life-saving feature to industry and government officials. This effort ultimately led to the adoption of Federal Breakaway Standards for all unguarded poles used on the Interstate Highway system.

1985 AASHTO

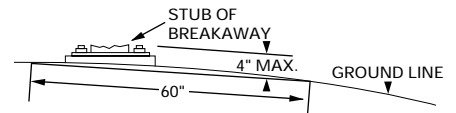
In 1985 the American Association of State Highway and Transportation Officials (AASHTO) adopted new standard specifications that challenged the pole industry to meet tougher break-away base requirements by July 1, 1990. These new requirements, as adopted, affect the entire Federal Highway system and update the 1975 standards regarding break-away device performance.

Vehicle Weight

The most dramatic impact regarding items in the new standards was the change in design of vehicle weight from 2250 lbs. to 1800 lbs. This provides minimal impact breakaway and was due largely to the reduction in auto weights which has occurred since 1975. The majority of domestic and foreign autos currently on our highways weigh less than 2250 lbs., formerly the lower limit of the 1975 weight range. Today 1800 lbs. represents this lower limit.

Stub Clearance

Once the pole breaks away, the remaining stub may not protrude more than 4" above the surface. This is to prevent further loss of control of the vehicle due to the potential contact with the undercarriage.



To avoid vehicle undercarriage snagging, any substantial remains of a breakaway support should not project more than 4 inches above a 60 inch chord aligned radially to the center line of the highway and connecting any point on the ground surface on one side of the support to a point on the ground surface on the other side.

What are the Effects?

Effective July 1, 1990, all poles used on Federal Highways or highway projects receiving federal funds must meet the new Federal Highway Administration's (FHWA) Break-away standards.

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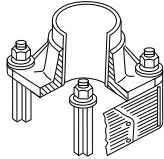
TYPE 1

7", 8" or 10" Breakaway Shoe Base



TYPE 2

Breakaway Couplings



TYPE 3

7", 8" or 10" SB-2/TB1-17



TYPE 4

8" or 10" SB-4/TB1-17



TYPE 5

7" or 8" SB-2/TB2-17



TYPE 6

8" SB-3/TB3-17



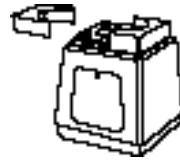
TYPE 7

10" or 12" SB-8/TB3-17



TYPE 8

12" SB-4/TB-4 ¹



ORDERING INFORMATION

Ordering Information for Breakaway Bases

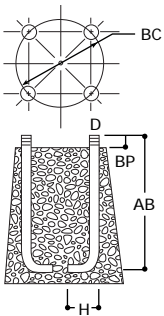
Data for Breakaway Bases

Pole Dia. (In.)	Base Type	Max. Luminaire Mtg. Ht. (Ft.)	Max. Pole Size Permitted (In.)
7	1	30.0	7 O.D. x .188 (M) Wall
7	2	35.0	7 O.D. x .188 (M) Wall
7	3	35.0	7 O.D. x .188 (M) Wall
7	5	35.0	7 O.D. x .188 (M) Wall
8	1	35.0	8 O.D. x .156 (L) Wall
8	2	40.0	8 O.D. x .250 (X) Wall
8	3	40.0	8 O.D. x .250 (X) Wall
8	4	40.0	8 O.D. x .250 (X) Wall
8	5	40.0	8 O.D. x .250 (X) Wall
8	6	40.0	8 O.D. x .250 (X) Wall
8	9	40.0	8 O.D. x .250 (X) Wall
10	1	45.0	10 O.D. x .156 (X) Wall
10	2	50.0	10 O.D. x .250 (X) Wall
10	4	50.0	10 O.D. x .250 (X) Wall
10	5	50.0	10 O.D. x .250 (X) Wall
10	6	50.0	10 O.D. x .250 (X) Wall
10	7	50.0	10 O.D. x .250 (X) Wall
10	9	50.0	10 O.D. x .250 (X) Wall
12	7	50.0	12 O.D. x .250 (X) Wall
12	8	50.0	12 O.D. x .250 (X) Wall

Pole Dia. (In.)	Base Type	Bolt Circle BC (In.)	Bolt Proj. BP (In.)	Anchor Bolt Dimensions D x AB X H (In.)	Base Size (In.)	Net Wt. (Lbs.)
7	1	11	2 1/4	1 x 36 x 4	11 sq.	--
7	2	11	2 1/2	1 x 36 x 4	--	--
7	3	15	3 1/4	1 x 36 x 4	15 3/8 sq.	26
7	5	12	3 1/4	1 x 36 x 4	12 1/16 sq.	24
8	1	12	--	1 x 36 x 4	12 sq.	--
8	2	12	2 1/2	1 x 36 x 4	--	--
8	3	15	3 1/4	1 x 36 x 4	15 3/8 sq.	26
8	4	15	3 1/4	1 x 36 x 4	15 3/8 sq.	26
8	5	12	3 1/4	1 x 36 x 4	12 1/16 sq.	24
8	6	17 1/4	3 1/4	1 x 36 x 4	16 3/8 sq.	34
8	9	12 1/2	3 1/4	1 x 36 x 4	12 3/4 sq.	15
10	1	15	2 1/4	1 x 36 x 4	12 15/16 sq.	--
10	2	15	2 1/2	1 x 36 x 4	--	--
10	4	15	3 1/4	1 x 36 x 4	15 3/8 sq.	26
10	5	17 1/4	3 1/4	1 x 36 x 4	16 3/8 sq.	34
10	6	17 1/4	3 1/4	1 x 36 x 4	16 3/8 sq.	34
10	7	17 1/4	3 1/4	1 x 36 x 4	16 3/8 sq.	34
10	9	15 1/2	3 1/4	1 x 36 x 4	15 1/4 sq.	17
12	7	17 1/4	3 1/4	1 x 36 x 4	16 3/8 sq.	34
12	8	20	3 3/4	1 1/4 x 48 x 6	18 1/4 sq.	72

Note: The 12" SB-4/TB-4 Base meets the requirements of the 1975 AASHTO Specification regarding breakaway. At this time, no transformer base meeting the physical dimensions and bolt circles of this base is commercially available that conforms to the 1985 AASHTO Specification.

OUR BOLT ANCHORAGE

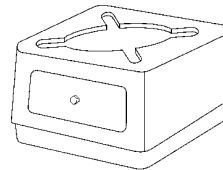


BC=Bolt Circle
BP=Bolt Projection
AB=Bolt Dimensions
D=Bolt Diameter
H=Bolt Dimension

NEW

May be used to replace existing breakaway coupling installations or for breaking safety in new installations.

Type 9



TB5-9
TB-9-CH (With 1" connecting hardware)
14 1/2" to 15 1/2" bolt circle diameter
Used with 10" diameter poles

TB-6-9
TB-6-9-CH (With 1" connecting hardware)
11 1/2" to 12 1/2" bolt circle diameter
Used with 8" diameter poles