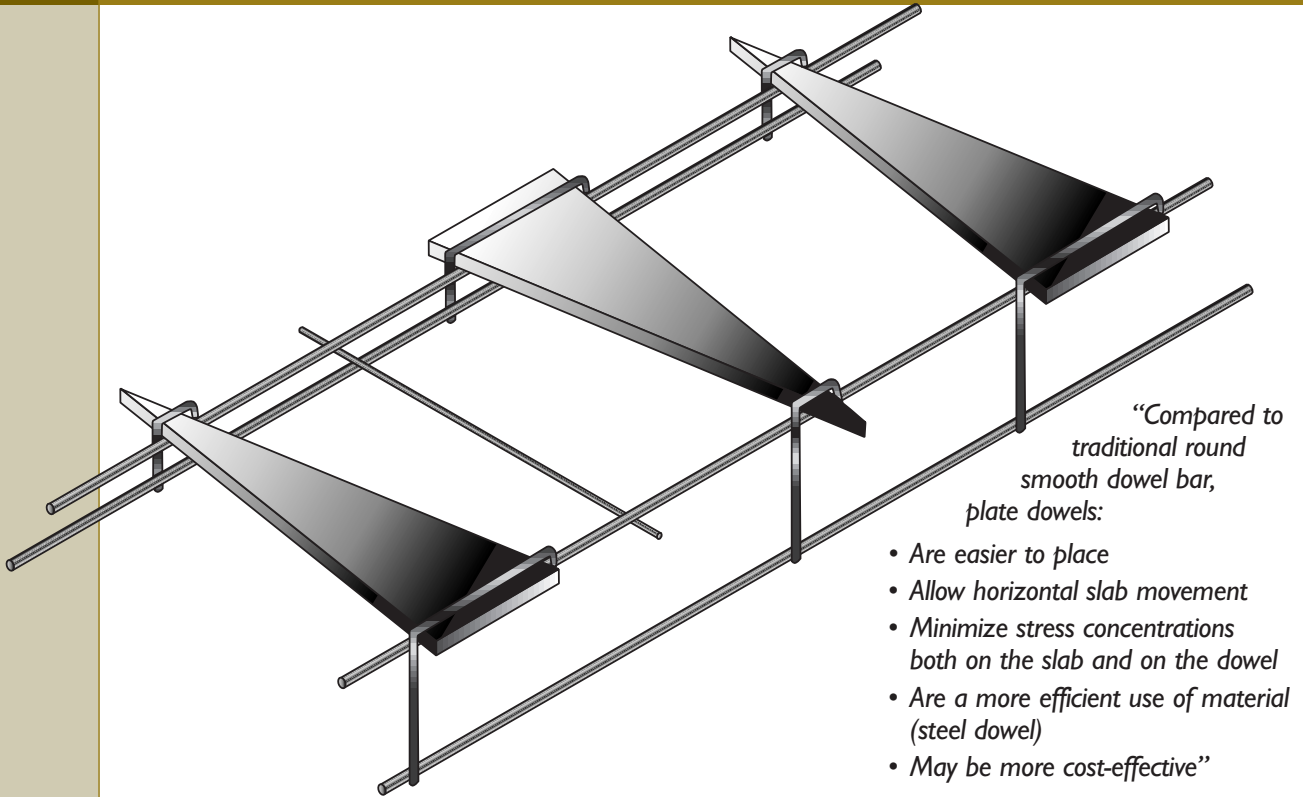


Tri-Plate® Assembly

F O R S A W E D C O N T R A C T I O N J O I N T S

FEATURES & BENEFITS



Portland Cement Association,
"Concrete Floors on Ground" (2002)

Features / Benefits

Better Engineering

- The Tri-Plate® dowel optimizes the use of the steel dowel material by increasing the bearing area, thus reducing the bearing stress in the concrete below.
- Tri-Plate® Assembly is designed to allow for up to 9° misalignment during construction while still allowing opening of the sawed contraction joint without restraint.
- The unique Tri-Plate® dowel shape permits movement parallel and perpendicular to the joint when the saw cut separates. This eliminates restraint between two slab panels moving independently from differential shrinkage and contraction.
- Tri-Plate® dowels can be located within inches of a joint intersection while still providing free slab

panel movement, assuring quality load transfer where differential slab movement and curling is greatest.

Faster, easier installation

- All PNA Tri-Plate® Assemblies are fully welded, offering the most stable support of the dowel during construction, while insuring the long-term activation of the sawed contraction joint.
- All PNA Tri-Plate® Assemblies are bundled and shipped on individual skids to provide easy unloading and handling.
- The Tri-Plate® Assembly can be custom manufactured to specific lengths, to minimize or eliminate field cutting.*

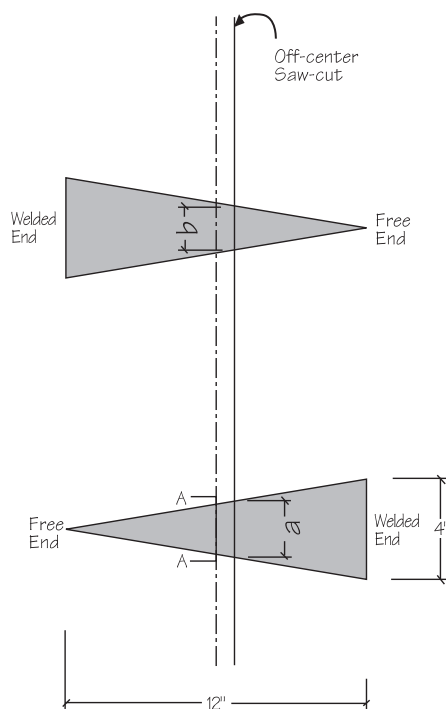
* Additional cost may apply



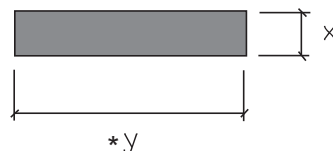
Tri-Plate® - Assembly

F o r S a w e d C o n t r a c t i o n J o i n t s

SPECIFICATIONS



Section at Sawed Joint (A)



* Design performance is established from the combined average of alternative section widths at the saw cut ($y=a+b$)

More cost effective

The optimized configuration of the Tri-Plate® Assembly provides superior performance at wider dowel spacing. Thus, Tri-Plate® Assembly are less expensive than round or square dowel baskets designed per ACI specifications.

Performance Conversion Table

	3/4" Round Dowel		1" Round Dowel		1 1/4" Round Dowel	
Tri-Plate Size™	@ 12"	@18"	@ 12"	@18"	@ 12"	@18"
3/8" x (4" to 0" Plate*)	19"	24"				
1/2" x (4" to 0" Plate*)			18"	24"		
3/4" x (4" to 0" Plate*)					18"	24"

Example Specification...

- Tri-Plate® dowels will be saw cut from hot rolled plate per ASTM A36 to within 3/16" of specified length (normally 12").
- Side frame supports will be fabricated from 1/4" diameter cold drawn wire per ASTM A108 grade 1010-1020.
- Tri-Plate® dowels will be welded (on wide end only) into the side frames, with the welds alternating along the length of the assembly.
- Eight gauge wires will be welded across the side frames at approximately 3' on center to keep the assembly stable during shipping and installation.
- The finished assembly will hold the Tri-Plate® Assembly to within plus or minus 1/8" of 1/2 the slab depth.
- The assemblies will be manufactured so that they stack on top of each other for transportation and remain stable under concrete placement.
- All Tri-Plate® Assemblies will be supplied by PNA Construction Technologies Inc. 1-800-542-0214.

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