

CADWELD® Rebar Metal Filled Mechanical Splices



The Company

ERICO® is a leading designer, manufacturer and marketer of precision-engineered specialty metal products serving global niche product markets in a diverse range of electrical, construction, utility and rail applications. The company is headquartered in Solon, Ohio, USA with a network of sales locations serving more than 25 countries and with manufacturing and distribution facilities worldwide. ERICO's well-known brand names include: CADDY® fixings, fasteners and supports; CADWELD® welded electrical connections; CRITEC® surge protection devices; ERICO® rail bonds and specialty products; ERIFLEX® low-voltage panel components; ERITECH® electrical products; and LENTON® concrete reinforcement. Visit ERICO online at www.erico.com.



Concrete Reinforcement Products

ERICO pioneered the mechanical-rebar-splicing process more than 40 years ago. In 1961, the company entered the rebar-splicing and termination marketplace with the introduction of the CADWELD® rebar splice. It has since expanded to include LENTON® taper-threaded systems, LENTON® FORM SAVER, LENTON® LOCK, LENTON® INTERLOK, LENTON® QUICK WEDGE, and LENTON® SPEED SLEEVE splicing systems.

ERICO's mechanical rebar splices are tested and proven. They offer the most effective way of joining reinforcing bars and meet the codes of national and international regulatory organizations.



LENTON®

LENTON Splices are taper threaded to help assure a precise positive connection every time. Quick, dependable and cost effective, LENTON is one of the most widely used splicing systems available today.



LENTON® FORM SAVER

LENTON FORM SAVER is ideal for segmental pours because it eliminates protruding dowels. It is uniquely designed with LENTON taper threads, factory-installed thread protectors and keyed mounting holes for easy attachment to the form.



LENTON® LOCK

LENTON LOCK couplers allow for easy and simple field installation since no bar-end preparation, sawing or swaging is necessary. The couplers can be installed with just a standard wrench or an impact wrench depending on coupler size. The bolt heads will shear off when proper installation tightness has been reached, which allows for visual inspection.



LENTON® INTERLOK

The LENTON INTERLOK system provides structural integrity for joining rebar in precast construction. The system eliminates blockouts and concrete patching in precast construction, thus providing architecturally appealing results.



LENTON® QUICK WEDGE

Designed for retrofit applications, LENTON QUICK WEDGE is one of the fastest and easiest splices to install. Because it uses short dowels, LENTON QUICK WEDGE reduces costly concrete removal.



LENTON® SPEED SLEEVE

The first choice of contractors for compression-only situations, LENTON SPEED SLEEVE is uniquely designed for fast, one-person installation and easy inspection.



CADWELD®

For applications where strength and toughness are critical, CADWELD – the premier mechanical splicing system – offers consistency, versatility and flexibility.

The CADWELD® Advantage

CADWELD® has earned its reputation as one of the strongest splices for the most demanding applications. The primary use for CADWELD is in critical structures requiring high safety margins such as blast-resistant facilities, pressure-vessel applications or seismic design. Due to its popularity in critical structures, CADWELD is one of the world's most tested mechanical splice. Its record includes more than 25,000 actual field-made tensile tests. Key features of the product include:

- Consistently developing minimum ultimate strength of the rebar (>150% of yield)
- Excellent joining of circumferential bars
- Simplifying acceleration of splicing schedules
- Retrofitting and repairing with short dowels and no bar-end preparation
- Complies with ASME® Section III Div. 2 (ACI® 359) and ACI 349
- Utilized in more than 200 nuclear projects worldwide

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How It Works

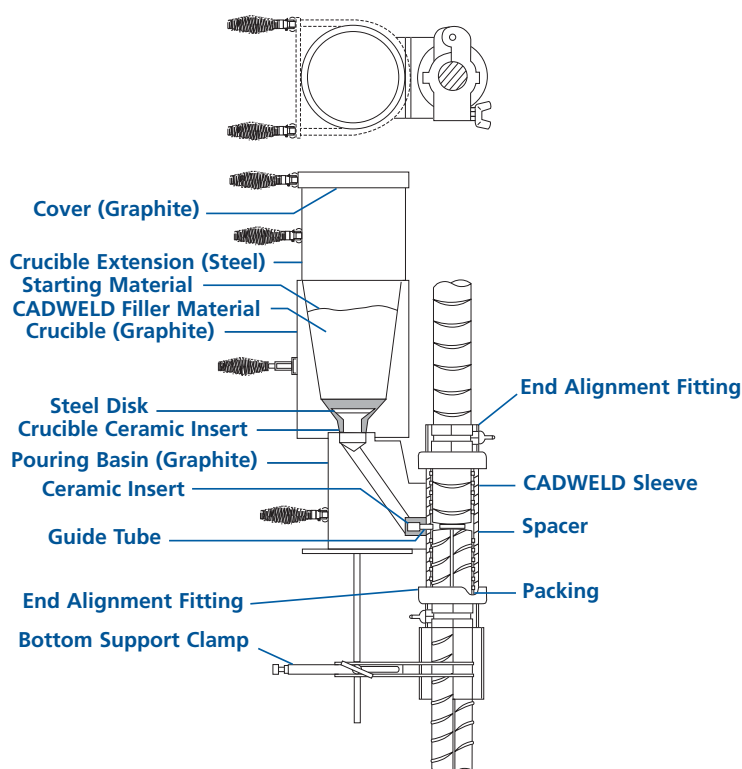
CADWELD filler material is placed in a graphite crucible and ignited, causing an exothermic reaction to take place, turning it into molten filler metal.

By melting through a steel disk at the bottom of the crucible, the filler metal flows out of the crucible along a channel in the graphite pouring basin directing the flow into the CADWELD splice sleeve. (The CADWELD splice sleeve is located approximately equidistant over the rebar ends to be spliced.) CADWELD filler metal mechanically locks or keys the splice sleeve to the reinforcing bars using the bar deformations and internal grooves in the splice sleeve. The finished connection develops strength and consistency unequalled in the industry.

When the reinforcing bars are in tension, the CADWELD filler metal is in shear and transfers the load from the deformations on one bar to the internally grooved splice sleeve to the deformations on the other bar.

When the reinforcing bars are in compression, the load is transferred through the layer of CADWELD filler material that fills the space between the ends of the bars.

For splicing reinforcing bars the CADWELD rebar splicing system creates a mechanical connection that interlocks the rebars together. It is not a weld.



CADWELD® Mechanical Rebar Splicing

The CADWELD® Rebar Splice is a mechanical means (not a weldment) of splicing deformed bars that produces a joint with basically the same mechanical properties as those of

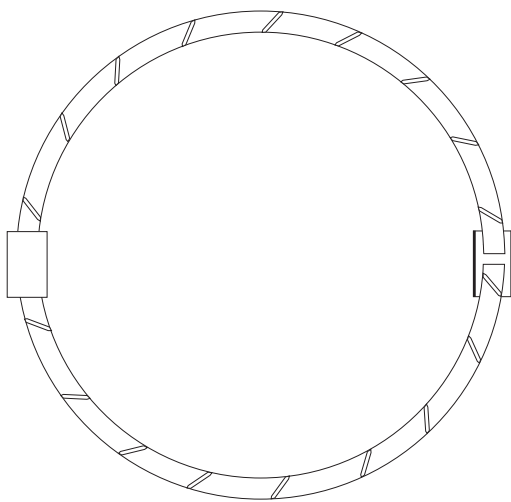
an unspliced bar and without the inherent disadvantages of welded, lapped or other types of mechanical splices.

Please note: CADWELD material does not contain cadmium

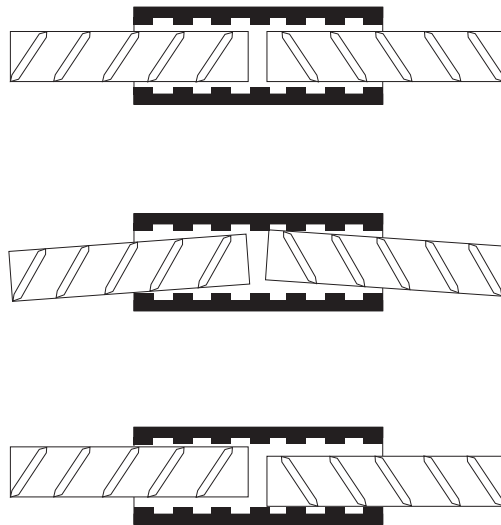
Advantages:

1. Does not require special bar-end preparation. Works with flame, shear or saw-cut bar ends.
2. Works on all grades of steel – even with bars where the chemistry of the steel (known or unknown) rules out field welding. Can be used to splice thread deformed and all thread bars.
3. No specific preheat temperature or controlled cooling is required even with alloy or high carbon bars.
4. Splices can be made regardless of the ambient temperature of the bars.
5. Can be visually inspected – does not require radiography. (X-rays are not necessary.)
6. CADWELD splices are designed to meet or exceed all ACI® 318, 349 and 359 Building Code requirements and ASME® Section III Division 2.
7. No special skill is required on the part of the user.
8. Placing schedules can be accelerated because of the ease and speed of splicing. (It is ideal for slip forming.)
9. Splicing equipment can be designed to meet special space and working restrictions.
10. Complies with requirements of NQA-1 & NCA 3800.

Connects radius bars and hoops



Design allows for generous field tolerances



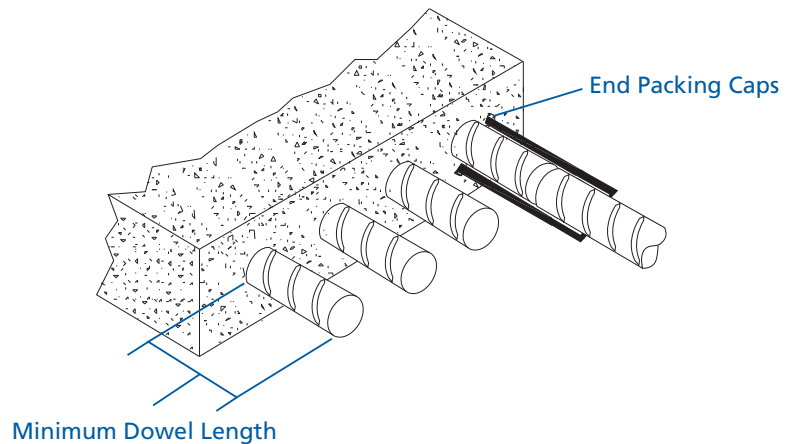
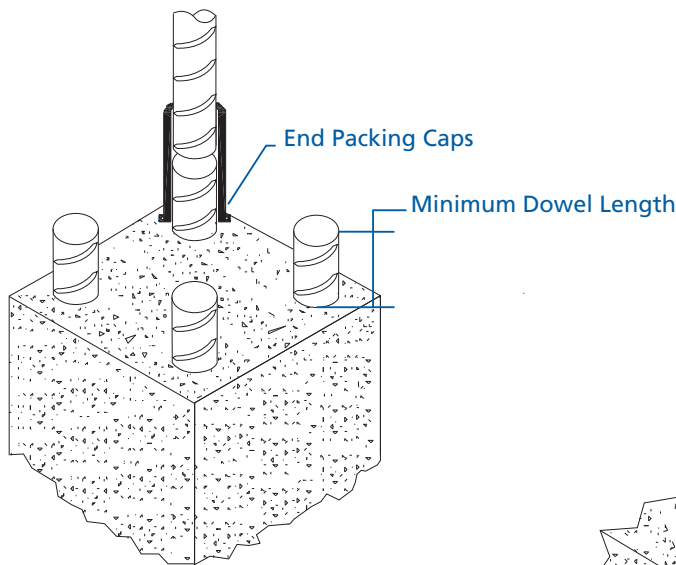
Splicing to Short Rebar Dowels

CADWELD® Rebar Splices can be made on short rebar dowels using either the standard end alignment fitting or the end packing cap. The line drawings below indicate the use of the end packing caps on short dowels in both the vertical and horizontal position.

This feature permits varying lengths of dowels to suit job

conditions. Normally, column dowels are waisted high for working convenience. However, the dowel height may be as short as 3 to 5 inches (76 to 127 mm) to facilitate movement of equipment or material, minimal concrete removal for maintenance, structural repairs and future additions. See Table below for minimum dowel height required.

Rebar Size	End Packing Clamp Part Number	Minimum Dowel Height (inch)	
		With End Packing Cap	With End Alignment Fitting
#18 (57 mm)	RBS362218	4-7/8	6-7/8
#14 (43 mm)	RBS362214	3-7/8	5-7/8
#11 (36 mm)	RBS362211	3-3/8	5-3/8
#10 (32 mm)	RBS362210	3-1/8	5-1/8
#9 (28 mm)	RBS36229	2-7/8	4-7/8
#8 (25 mm)	RBS36228	2-7/8	4-7/8
#7 (22 mm)	RBS36227	2-7/8	4-7/8
#6 (20 mm)	RBS36226	2-7/8	4-7/8
#5 (16 mm)	RBS36225	2-7/8	4-7/8
#4 (12 mm)	RBS36225	2-7/8	4-7/8



T-Series CADWELD® Sleeves For ASTM® Specified Minimum Tensile Strength

T-Series Splices (Bar-to-Bar) Splice Strength = ASTM Specified Minimum Tensile Strength

The CADWELD® T-Series splices (or sleeves) are designed to exceed the specified minimum tensile strength for the grades of reinforcing bar specified in ASTM Standards A-615 and A-706. This splice series exceeds all ACI-318 Building Code requirements. The CADWELD T-Series splices also exceed the requirements of ACI-349 & ACI/ASME®-359.

CADWELD T-Series splices are recommended for structures that must resist loading due to blast, earthquake, etc. They are also recommended for structures with extraordinarily high safety requirements such as nuclear containment vessels, bridges, and special purpose structures.

Standard T-Series (same size rebar) - See Figure 1

Sleeve Part Number	Size Designation				L		O.D.		I.D.	
	in-lb	Metric	Canadian	Soft Metric	in	mm	in	mm	in	mm
RBT1891A (1A)	18	57 mm	55M	57	9 (10)	228.6	3-3/4	95.3	2-5/8	66.7
RBT4558A	---	50 mm	---	50	8	203.2	3-3/8	85.7	2-3/8	60.3
RBT14101A (1A)	14	43 mm	45M	43	7 (8)	177.8	3	76.2	2-1/8	54.0
RBT4117A	---	40 mm	---	40	7	177.8	2-7/8	73.0	2	50.8
RBT12917A	---	38 mm	---	38	7	177.8	2-3/4	69.9	1-7/8	47.6
RBT11101A (1A)	11	36 mm	35M	36	6 (7)	152.4	2-1/2	63.5	1-3/4	44.5
RBT1091A (1A)	10	32 mm	---	32	5-1/2 - 6-1/2	139.7	2-1/4	57.2	1-5/8	41.3
RBT9101A (1A)	9	28 mm	30M	29	5 (6)	127	2-1/8	54.0	1-1/2	38.1
RB8101A (1A)	8	25 mm	25M	25	5 (6)	127	1-7/8	47.6	1-1/4	31.8
RBT7101A (1A)	7	22 mm	---	22	5 (6)	127	1-5/8	41.3	1-1/8	28.6
RBT6101A (1A)	6	20 mm	20M	19	5 (6)	127	1-1/2	38.1	1	25.4
RBT5101A (1A)	5	16 mm	15M	16	4 (5)	101.6	1-3/8	34.9	7/8	22.2
RBT5101A (1A)	4	12 mm	10M	13	4 (5)	101.6	1-3/8	34.9	7/8	22.2

Fig. 1: Standard Sleeve

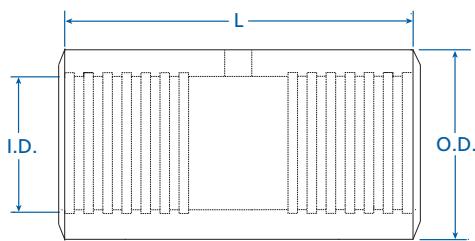
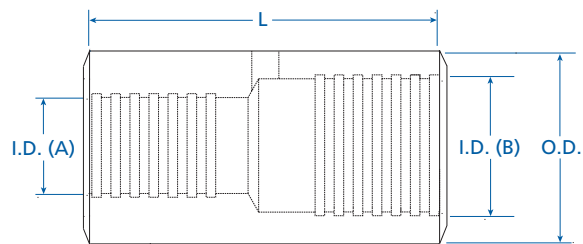


Fig. 2: Transition Sleeve



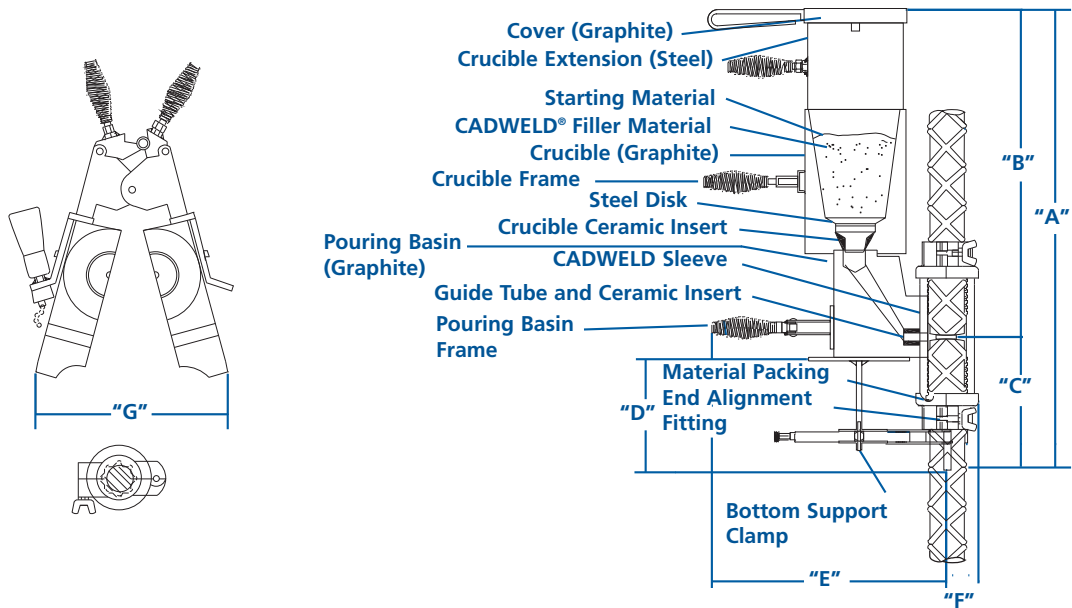
Transition T-Series (different size rebars) - See Figure 2

Size Designation in-lb	Sleeve Catalog Number	L		O.D.		I.D. (A)		I.D. (B)	
		in	mm	in	mm	in	mm	in	mm
#14 (43 mm) to #18 (57 mm)	RBT1418101A (1A)	6-1/2 (7-1/2)	165.1	3-3/8	85.7	2-1/8	54.0	2-5/8	66.7
#11 (36 mm) to #18 (57 mm)	RBT1118101A (1A)	6-1/2 (7-1/2)	165.1	3-3/8	85.7	2-1/8	54.0	2-5/8	66.7
#11 (36 mm) to #14 (43 mm)	RBT1114101A (1A)	6 (7)	152.4	2-3/4	69.9	1-3/4	44.5	2-1/16	52.4
#10 (32 mm) to #11 (36 mm)	RBT11101A (1A)	6 (7)	152.4	2-1/2	63.5	1-3/4	44.5	1-3/4	44.5
#9 (28 mm) to #10 (32 mm)	RBT10101A (1A)	5 (6)	127.0	2-1/4	57.2	1-5/8	41.3	1-5/8	41.3
#8 (25 mm) to #9 (28 mm)	RBT9101A (1A)	5 (6)	127.0	2-1/8	54.0	1-1/2	38.1	1-1/2	38.1
#7 (22 mm) to #8 (25 mm)	RBT8101A (1A)	5 (6)	127.0	1-7/8	47.6	1-1/4	31.8	1-1/4	31.8
#6 (20 mm) to #7 (22 mm)	RBT7101A (1A)	5 (6)	127.0	1-5/8	41.3	1-1/8	28.6	1-1/8	28.6

Refer to the CADWELD Instruction Manual C471B for complete information. Visit www.erico.com for a copy.

Sleeve Kit Part Number	Size Designation				A		B		C		D		E		F		G	
	in-lb	Metric	Canadian	Soft Metric	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
RBT1891	18	57 mm	55M	57	33	838	23	584	10	254	8-1/2	216	16	406	2-1/2	63.5	7-3/4	197
RBT4558	---	50 mm	---	50	33	838	23	584	10	254	8-1/2	216	16	406	2-1/2	63.5	7-3/4	197
RBT14101	14	43 mm	45M	43	30-1/2	775	21-1/2	546	9	229	8-3/4	222	15-1/4	387	2-1/2	63.5	7-1/2	191
RBT4117	---	40 mm	---	40	30-1/2	775	21-1/2	546	9	229	8-3/4	222	15-1/4	387	2-1/2	63.5	7-1/2	191
RBT12917	---	38 mm	---	38	30-1/2	775	21-1/2	546	9	229	8-3/4	222	15-1/4	387	2-1/2	63.5	7-1/2	191
RBT11101	11	36 mm	35M	36	27	686	18-1/2	470	8-1/2	216	8-1/4	210	14-3/4	375	2-1/2	63.5	7-1/2	191
RBT1091	10	32 mm	---	32	26	660	17-3/4	451	8-1/4	210	7-3/4	197	14-1/4	362	2	50.8	7	178
RBT9101	9	28 mm	30M	29	25-3/4	654	17-3/4	451	8	203	7-3/4	197	14-1/4	362	2	50.8	7	178
RBT8101	8	25 mm	25M	25	25-3/4	654	17-3/4	451	8	203	7-3/4	197	14	356	2	50.8	7	178
RBT7101	7	22 mm	---	22	25-3/4	654	17-3/4	451	8	203	7-3/4	197	14	356	2	50.8	7	178
RBT6101	6	20 mm	20M	19	25-3/4	654	17-3/4	451	8	203	7-3/4	197	13-3/4	349	2	50.8	7	178
RBT5101	5	16 mm	15M	16	25-1/4	641	17-3/4	451	7-1/2	191	7-3/4	197	13-3/4	349	2	50.8	7	178
RBT5101	4	12 mm	10M	13	25-1/4	641	17-3/4	451	7-1/2	191	7-3/4	197	13-3/4	349	2	50.8	7	178

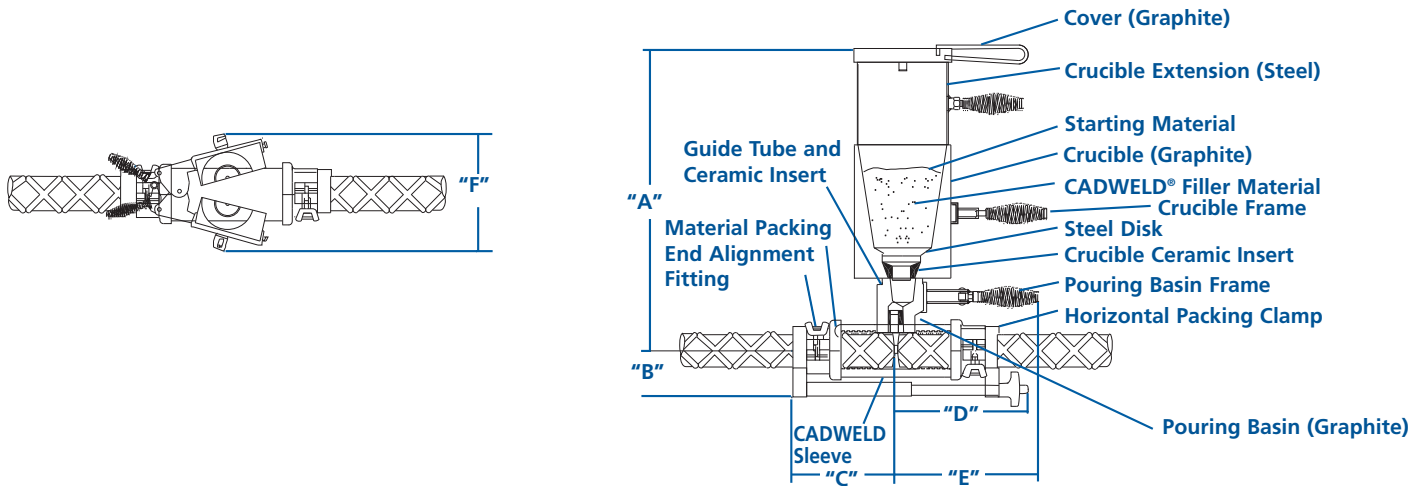
Vertical Splice Equipment Dimensions



T-Series Splices Horizontal Splice Equipment Details

Sleeve Kit Part Number	Size Designation				A		B		C		D		E		F	
	in-lb	Metric	Can- dian	Soft Metric	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
RBT1891H	18	57 mm	55M	57	21-3/4	552	4-1/4	108	8	203	10	254	10-1/4	260	8-3/4	222
RBT4558H	---	50 mm	---	50	21-3/4	552	4-1/4	108	8	203	10	254	10-1/4	260	8-3/4	222
RBT14101H	14	43 mm	45M	43	21-3/4	552	3-3/4	95	7	178	10	254	10-1/4	260	8-3/4	222
RBT4117H	---	40 mm	---	40	21-3/4	552	3-3/4	95	7	178	10	254	10-1/4	260	8-3/4	222
RBT12917H	---	38 mm	---	38	21-3/4	552	3-3/4	95	7	178	10	254	10-1/4	260	8-3/4	222
RBT11101H	11	36 mm	35M	36	18-3/4	476	3-3/4	95	6-1/2	165	10	254	10-1/4	260	8-3/4	222
RBT1091H	10	32 mm	---	32	18-3/4	476	3-1/2	89	6-1/4	159	9	229	10-1/4	260	8-3/4	222
RBT9101H	9	28 mm	30M	29	18-3/4	476	3-1/2	89	6	152	9	229	10-1/4	260	8-3/4	222
RBT8101H	8	25 mm	25M	25	18-1/2	470	3-1/2	89	6	152	9	229	10-1/4	260	8-3/4	222
RBT7101H	7	22 mm	---	22	18-1/2	470	3-1/2	89	6	152	9	229	10-1/4	260	8-3/4	222
RBT6101H	6	20 mm	20M	19	18-1/4	464	3-1/2	89	6	152	9	229	10-1/4	260	8-3/4	222
RBT5101H	5	16 mm	15M	16	18-1/4	464	3-1/2	89	5-1/2	140	9	229	10-1/4	260	8-3/4	222
RBT5101H	4	12 mm	10M	13	18-1/4	464	3-1/2	89	5-1/2	140	9	229	10-1/4	260	8-3/4	222

Horizontal Splice Equipment Dimensions



B-Series Splice Sleeves

Connections of Rebar to Structural Steel

B-Series Splices (Bar to Structural Steel)

Splice Strength = ASTM® Specified Minimum Tensile Strength

The CADWELD® B-Series structure splice provides a mechanical means of connecting GRADE 40, 60 and 75 reinforcing bar to structural steel, plates and shapes. This splice series exceeds the ACI® 318 Building Code requirements and the requirements of ACI 349 & ACI/ASME® 359.

The CADWELD B-Series Sleeve is machined from plain carbon steel, AISI Grades 1026 or 1018. Both are considered easily weldable grades of steel and compatible with common grades of structural plate and shapes.

Typical Chemistries AISI No.	C	Mn	P max.	S max.
1026	0.22 – 0.28	0.60 – 0.90	0.04	0.05
1018	0.15 – 0.20	0.60 – 0.90	0.04	0.05

Welding of CADWELD Sleeves to Structural Steel

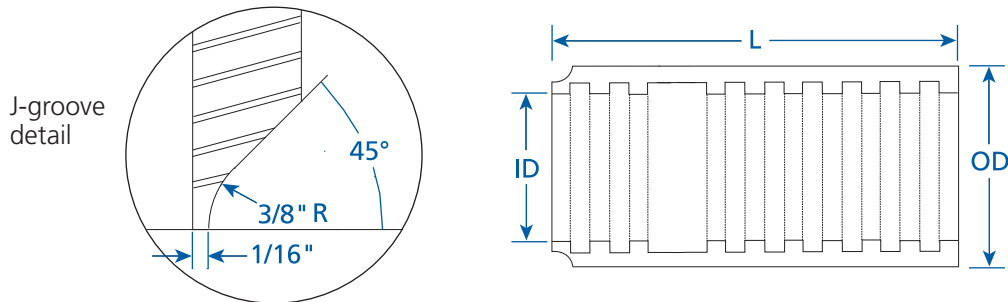
CADWELD sleeves are generally arc welded to the structural steel in a fabricating shop.

The design of the weld, the selection of the electrode, etc. depend on the chemical and physical properties of the structural steel to which the splice sleeves are welded.

The engineer designing the assemblies should refer to the pertinent codes and recommended practices of the American Concrete Institute, American Welding Society, etc.

Care of Finished Assemblies

Prior to completing the CADWELD B-Series sleeves, the welded assemblies can be covered to inhibit rusting and help prevent foreign contaminants from entering the sleeve interior.



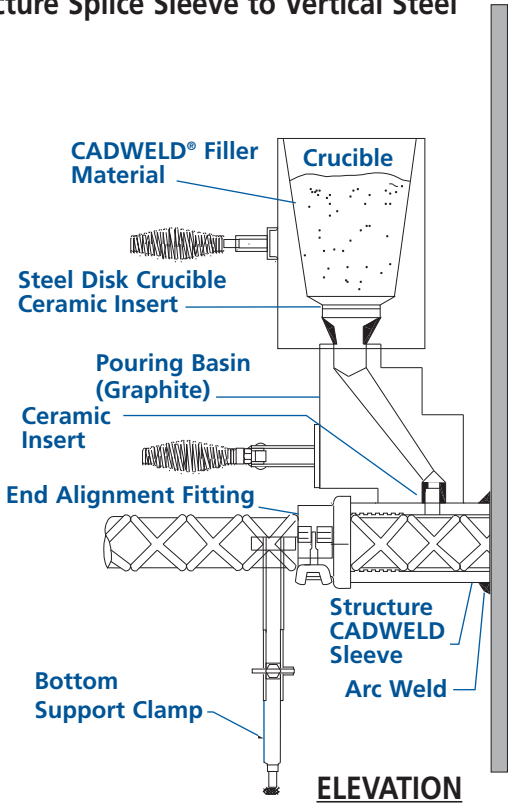
Rebar Size and Grade	Sleeve Part Number	Splice Sleeve					
		O.D.		I.D.		Length	
		in	mm	in	mm	in	mm
#18 (57 mm)	RBB1892JA	3-3/4	95.25	2-5/8	66.7	7	177.8
#14 (43 mm)	RBB14101JA	3	76.2	2-1/8	54	6	152.4
#11 (36 mm)	RBB11101JA	2-1/2	63.5	1-3/4	44.5	6	152.4
#10 (32 mm)	RBB1092JA	2-1/4	57.2	1-5/8	41.3	5	127
#9 (28 mm)	RBB992JA	2-1/8	55	1-1/2	38.1	5	127
#8 (25 mm)	RBB8101JA	1-7/8	47.6	1-1/4	38.1	5	127
#7 (22 mm)	RBB792JA	1-5/8	41.3	1-1/8	28.6	5	127
#6 (20 mm)	RBB692JA	1-1/2	38.1	1	25.4	5	127
#5 (16 mm)	RBB592JA	1-3/8	34.9	7/8	22.2	5	127
#4 (12 mm)	RBB592JA	1-3/8	34.9	7/8	22.2	5	127

NOTE: Coupler section view shown represents #18, #14, and #11 only.

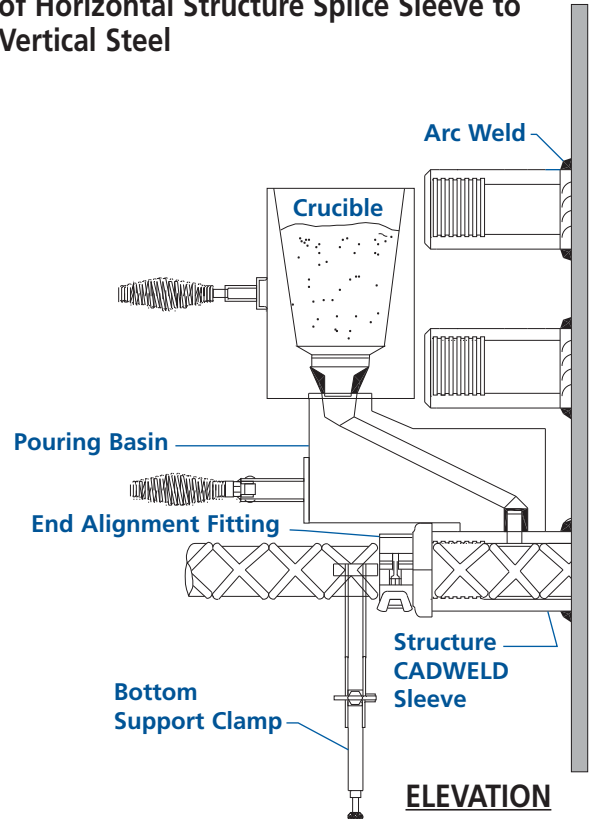
B-Series Installation – Set Up

For clarity, crucible extension and cover are not shown.

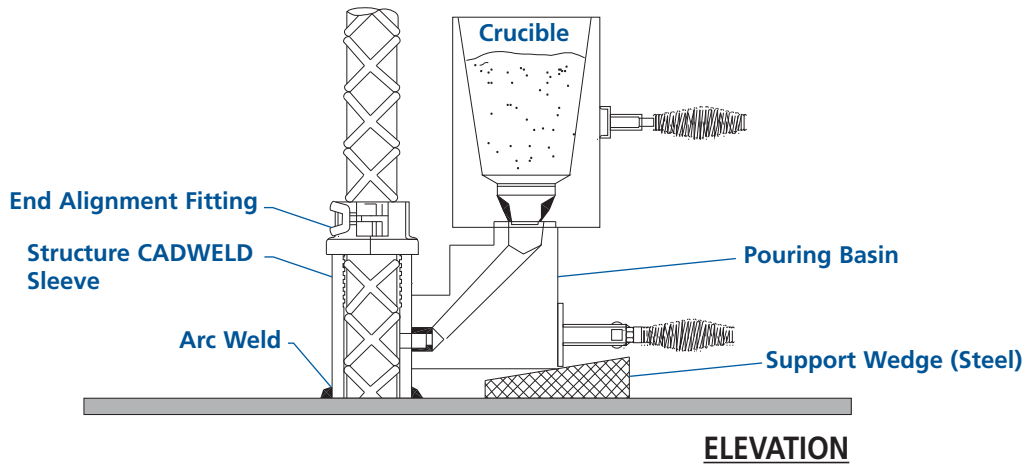
Equipment in Position on Horizontal Structure Splice Sleeve to Vertical Steel



Equipment in Position on Multiple Rows of Horizontal Structure Splice Sleeve to Vertical Steel



Equipment in Position on B-Series Splice Sleeve for Typical Base Plate Application

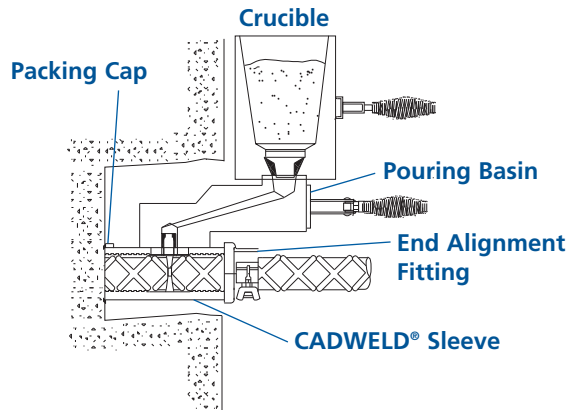


Refer to the CADWELD Instruction Manual C471B for complete information. Visit www.eric.com for a copy.

Special Installation – Set Up

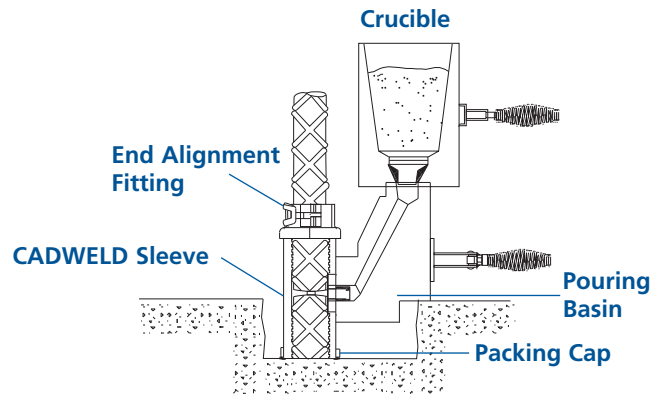
For clarity, crucible extension and cover are not shown. Contact ERICO® with your special applications.

Horizontal Splice in Hand Hole Opening



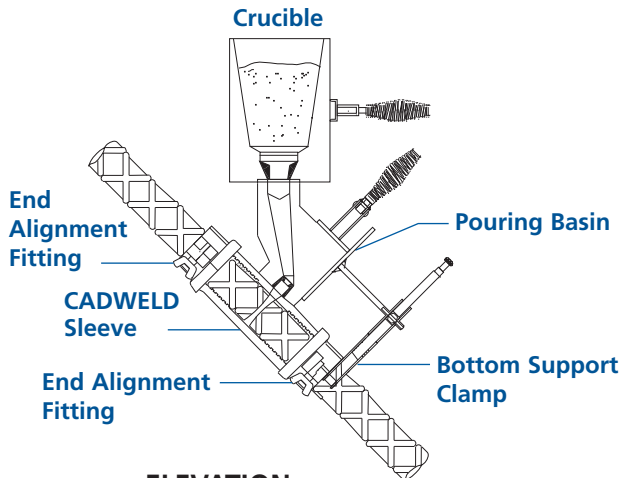
ELEVATION

Vertical Splice in Hand Hole



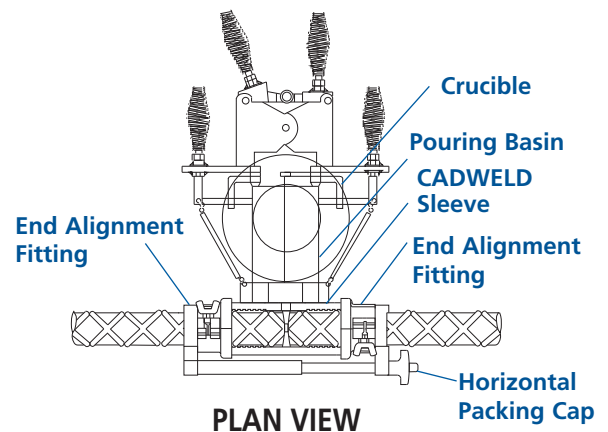
ELEVATION

45° Splice Equipment



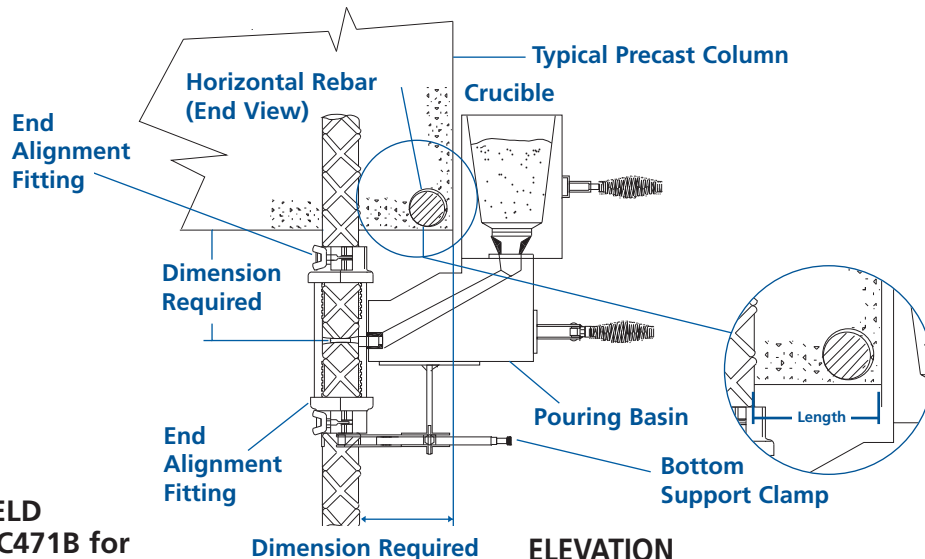
ELEVATION

Equipment for Horizontal Side Filling Splices



PLAN VIEW

Special length vertical pouring basin extended nose allows clearing the horizontal bar or vertical concrete face



ELEVATION

Refer to the CADWELD Instruction Manual C471B for complete information. Visit www.ericom.com for a copy.

Technical Data

How to Specify CADWELD®

By Name:

Mechanical connections shall be CADWELD Mechanical couplers as manufactured by ERICO®.

By Generic Description:

Type of splice required is sleeve with ferrous filler material.

Technical Data

CADWELD Rebar Splices are engineered for rebar with deformation spacing of 0.75 (or less) times the ASTM® maximum allowable and deformation base width equal to three times ASTM minimum deformation height. See Chart below.

- 1) Most U.S. rebar meets this specification.
- 2) Rebar with more widely spaced deformations usually requires a longer splice sleeve to engage more deformations. Contact ERICO.
- 3) Some rebars with deformations omitted at the mill mark result in a spacing between adjacent deformation in excess of the ASTM maximum deformation spacing and may require longer sleeves. Contact ERICO.

Bar Size			Nominal Dimensions			CADWELD	
Designation ASTM	Diameter Inches	Weight Lb./Ft.	Round Sections			Deformation Requirements	
			Diameter	Area In. ²	Perimeter	Max. Spacing	Min. Width At Base
#18 (57 mm)	2-1/4	13.60	2.257	4.00	7.09	1.185	.306
#14 (43 mm)	1-3/4	7.65	1.693	2.25	5.32	.889	.255
#11 (36 mm)	1-3/8	5.313	1.410	1.56	4.430	.740	.213
#10 (32 mm)	1-1/4	4.303	1.270	1.27	3.990	.667	.192
#9 (28 mm)	1-1/8	3.400	1.128	1.00	3.544	.593	.168
#8 (25 mm)	1	2.670	1.000	.79	3.142	.525	.150
#7 (22 mm)	7/8	2.044	.875	.60	2.749	.459	.132
#6 (20 mm)	3/4	1.502	.750	.44	2.356	.394	.114
#5 (16 mm)	5/8	1.043	.625	.31	1.963	.327	.084
#4 (12 mm)	1/2	.668	.500	.20	1.571	.262	.060

Applications



Repair Application - Nuclear Containment Structure



B-Series Application to Base Plate



Precast Application



Steam Generator Change Out - Nuclear Power Plant



Shear Wall Application

T-Series Material & Equipment

Rebar Size	T-Series Style	Splice Kit Part Number	Splice Kit Components (Included in kit)			
			Sleeve	Filler Material Kit	Pouring Basin	Crucible
#18 (57 mm)	VERTICAL	RBT1891	RBT1891A	RBT1891B	RBWS1482M	RBWS22777
#18 (57 mm)	HORIZONTAL	RBT1891H	RBT1891HA	RBT1891HB	RBWS1467M	RBWS22777
(50 mm)	VERTICAL	RBT4558	RBT4558A	RBT4558B	RBWS1482K	RBWS22777
(50 mm)	HORIZONTAL	RBT4558H	RBT4558HA	RBT4558HB	RBW1467K	RBWS22777
#14 (43 mm)	VERTICAL	RBT14101	RBT14101A	RBT14101B	RBWS1481J	RBWS22776
#14 (43 mm)	HORIZONTAL	RBT14101H	RBT14101HA	RBT14101HB	RBWS1467J	RBWS22776
(40 mm)	VERTICAL	RBT4117	RBT4117A	RBT4117B	RBW1481H	RBWS22776
(40 mm)	HORIZONTAL	RBT4117H	RBT4117HA	RBT4117HB	RBWS1467H	RBWS22776
#12 (38 mm)	VERTICAL	RBT12917	RBT12917A	RBT12917B	RBWS1481G	RBWS22776
#12 (38 mm)	HORIZONTAL	RBT12917H	RBT12917HA	RBT12917HB	RBWS1467G	RBWS22776
#11 (36 mm)	VERTICAL	RBT11101	RBT11101A	RBT11101B	RBWS1499F	RBWS22775
#11 (36 mm)	HORIZONTAL	RBT11101H	RBT11101HA	RBT11101HB	RBWS1467F	RBWS22775
#10 (32 mm)	VERTICAL	RBT1091	RBT1091A	RBT1091B	RBWS1500E	RBWS22775
#10 (32 mm)	HORIZONTAL	RBT1091H	RBT1091HA	RBT1091HB	RBWS1467E	RBWS22775
#9 (28 mm)	VERTICAL	RBT9101	RBT9101A	RBT9101B	RBWS1500D	RBWS22774
#9 (28 mm)	HORIZONTAL	RBT9101H	RBT9101HA	RBT9101HB	RBWS1467D	RBWS22774
#8 (25 mm)	VERTICAL	RBT8101	RBT8101A	RBT8101B	RBWS1500C	RBWS22774
#8 (25 mm)	HORIZONTAL	RBT8101H	RBT8101HA	RBT8101HB	RBWS1467C	RBWS22774
#7 (22 mm)	VERTICAL	RBT7101	RBT7101A	RBT7101B	RBWS1500A	RBWS22774
#7 (22 mm)	HORIZONTAL	RBT7101H	RBT7101HA	RBT7101HB	RBWS1467A	RBWS22774
#6 (20 mm)	VERTICAL	RBT6101	RBT6101A	RBT6101B	RBWS1500X	RBWS22774
#6 (20 mm)	HORIZONTAL	RBT6101H	RBT6101HA	RBT6101HB	RBWS1467X	RBWS22774
#5 (16 mm)	VERTICAL	RBT5101	RBT5101A	RBT5101B	RBWS1500U	RBWS22774
#5 (16 mm)	HORIZONTAL	RBT5101H	RBT5101HA	RBT5101HB	RBWS1467U	RBWS22774
#4 (12 mm)	VERTICAL	RBT4101	RBT4101A	RBT5101HB	RBWS1500U	RBWS22774
#4 (12 mm)	HORIZONTAL	RBT4101H	RBT4101HA	RBT5101HB	RBWS1467U	RBWS22774

T-Series Material & Equipment Chart (For Same Size Bars)

This chart lists FULL TENSION CADWELD® Rebar Splices in the vertical and horizontal positions for GRADE 40, 60 and 75 rebar with deformation spacing of 0.75 (or less) times the ASTM® maximum allowable and deformation base width equal to 3 times ASTM minimum deformation height.

How to order splice kits:

Quantity of splices needed, CADWELD Rebar, rebar size, series, horizontal or vertical.

Example:

20 kits, CADWELD Rebar, #8 (25 mm), T-Series, Vertical.

Result:

20 Kits, RBT8101.

T-Series Material & Equipment

Installation Equipment (reusable tools) - Tools not included in kit, tools are purchased separately

	Pouring Basin Frame	Crucible Frame Set	Crucible Extension	Crucible Cover	End Alignment Fitting (2 required)	Horizontal Packing Clamp	Bottom Support Clamp
	RBM2660	RBW346767	RBS36877	RBS43837	RBM2671100M		RBM2960
	RBW167	RBW346767	RBS36877	RBS43837	RBM2671100M	RBW117C	
	RBM2660	RBW346767	RBS36877	RBS43836	RBM267156K		RBM2960
	RBW167	RBW346767	RBS36877	RBS43836	RBM267156K	RBW117B	
	RBM2660	RBW346766	RBS36876	RBS43837	RBM2669125J		RBM2960
	RBW167	RBW346766	RBS36876	RBS43837	RBM2669125J	RBW117B	
	RBM2660	RBW346766	RBS36876	RBS43836	RBM2669100H		RBM2960
	RBW167	RBW346766	RBS36876	RBS43836	RBM2669100H	RBW117B	
	RBM2660	RBW346766	RBS36876	RBS43836	RBM266975G		RBM2960
	RBW167	RBW346766	RBS36876	RBS43836	RBM266975G	RBW117B	
	RBM2660	RBW346545	RBS36875	RBS43835	RBM266785F		RBM2960
	RBW167	RBW346545	RBS36875	RBS43835	RBM266785F	RBW117B	
	RBM2660	RBW346545	RBS36875	RBS43835	RBM275075E		RBM2960
	RBW167	RBW346545	RBS36875	RBS43835	RBM275075E	RBW117A	
	RBM2660	RBW346544	RBS36874	RBS43835	RBM2748100D		RBM2960
	RBW167	RBW346544	RBS36874	RBS43835	RBM2748100D	RBW117A	
	RBM2660	RBW346544	RBS36874	RBS43835	RBM2886112C		RBM2960
	RBW167	RBW346544	RBS36874	RBS43835	RBM2886112C	RBW117D	
	RBM2660	RBW346544	RBS36874	RBS43835	RBM2870100A		RBM2960
	RBW167	RBW346544	RBS36874	RBS43835	RBM2870100A	RBW117D	
	RBM2660	RBW346544	RBS36874	RBS43835	RBM2974125X		RBM2960
	RBW167	RBW346544	RBS36874	RBS43835	RBM2974125X	RBW117D	
	RBM2660	RBW346544	RBS36874	RBS43835	RBM2974100U		RBM2960
	RBW167	RBW346544	RBS36874	RBS43835	RBM2974100U	RBW117D	
	RBM2660	RBW346544	RBS36874	RBS43835	RBM2974100U		RBM2960
	RBW167	RBW346544	RBS36874	RBS43835	RBM2974100U	RBW117D	

Filler Material Kits - Included in Splice Kit

Filler Material Kit Part Number	Filler Material	Horizontal Packing (Quantity of two)	Vertical Top Packing	Vertical Bottom Packing	Pouring Basin Ceramic Guide Tube	Crucible Ceramic and Disk
RBT1891B*	RBF270		RBS35479	RBS354720	RBS5039	RBS5037
RBT1891HB*	RBF270	RBS354720			RBS5039	RBS5037
RBT4558B*	RBF240		RBS35477	RBS354720	RBS5039	RBS5037
RBT4558HB*	RBF240	RBS354715			RBS5039	RBS5037
RBT14101B*	RBF195		RBS35477	RBS354715	RBS5039	RBS5037
RBT14101HB*	RBF195	RBS354715			RBS5039	RBS5037
RBT12917B*	RBF150		RBS35479	RBS354715	RBS5039	RBS5037
RBT12917HB*	RBF150	RBS354720			RBS5039	RBS5037
RBT11101B*	RBF105		RBS35476	RBS354712	RBS5038	RBS5037
RBT11101HB*	RBF105	RBS354712			RBS5038	RBS5037
RBT1091B*	RBF90		RBS35476	RBS354712	RBS5038	RBS5037
RBT1091HB*	RBF90	RBS354712			RBS5038	RBS5037
RBT9101B*	RBF80		RBS35475.5	RBS354711	RBS5038	RBS5037
RBT9101HB*	RBF80	RBS354711			RBS5038	RBS5037
RBT8101B*	RBF55		RBS35475.5	RBS354710	RBS5038	RBS5037
RBT8101HB*	RBF55	RBS354710			RBS5038	RBS5037
RBT7101B*	RBF50		RBS3544	RBS35478	RBS5038	RBS5037
RBT7101HB*	RBF50	RBS35478			RBS5038	RBS5037
RBT6101B*	RBF50		RBS3543.5	RBS35477	RBS5038	RBS5037
RBT6101HB*	RBF50	RBS35477			RBS5038	RBS5037
RBT5101B*	RBF40		RBS35475.5	RBS354710	RBS5038	RBS5037
RBT5101HB*	RBF40	RBS354710			RBS5038	RBS5037

*Includes all expendable components required to make an individual splice. Components contained in chart.

T-Series (Transition) Material & Equipment

Rebar Size	T-Series Transition Style	Splice Kit Part Number	Splice Kit Components (Included in kit)				
			Sleeve	Filler Material Kit	Pouring Basin	Crucible	
#14 (43 mm) to #18 (57 mm)	VERTICAL	RBT1418101	RBT1418101A	RBT1418101B	RBWS1481K	RBWS22776	
#14 (43 mm) to #18 (57 mm)	HORIZONTAL	RBT1418101H	RBT1418101HA	RBT1418101HB	RBWS1467K	RBWS22776	
#11 (36 mm) to #18 (57 mm)	VERTICAL	RBT1118101	RBT1418101A	RBT1118101B	RBWS1481K	RBWS22777	
#11 (36 mm) to #18 (57 mm)	HORIZONTAL	RBT1118101H	RBT1418101HA	RBT1118101HB	RBWS1467K	RBWS22777	
#11 (36 mm) to #14 (43 mm)	VERTICAL	RBT1114101	RBT1114101A	RBT1114101B	RBWS1499G	RBWS22776	
#11 (36 mm) to #14 (43 mm)	HORIZONTAL	RBT1114101H	RBT1114101HA	RBT1114101HB	RBWS1467G	RBWS22776	
#10 (32 mm) to #11 (36 mm)	VERTICAL	RBT1011101	RBT11101A	RBT1011101B	RBWS1499F	RBWS22776	
#10 (32 mm) to #11 (36 mm)	HORIZONTAL	RBT1011101H	RBT11101HA	RBT1011101HB	RBWS1467F	RBWS22776	
#9 (28 mm) to #10 (32 mm)	VERTICAL	RBT910101	RBT10101A	RBT910101B	RBWS1500E	RBWS22775	
#9 (28 mm) to #10 (32 mm)	HORIZONTAL	RBT910101H	RBT10101HA	RBT910101HB	RBWS1467E	RBWS22775	
#8 (25 mm) to #9 (28 mm)	VERTICAL	RBT89101	RBT9101A	RBT89101B	RBWS1500D	RBWS22775	
#8 (25 mm) to #9 (28 mm)	HORIZONTAL	RBT89101H	RBT9101HA	RBT89101HB	RBWS1467D	RBWS22775	
#7 (22 mm) to #8 (25 mm)	VERTICAL	RBT78101	RBT8101A	RBT78101B	RBWS1500C	RBWS22774	
#7 (22 mm) to #8 (25 mm)	HORIZONTAL	RBT78101H	RBT8101HA	RBT78101HB	RBWS1467C	RBWS22774	
#6 (20 mm) to #7 (22 mm)	VERTICAL	RBT67101	RBT7101A	RBT67101B	RBWS1500A	RBWS22774	
#6 (20 mm) to #7 (22 mm)	HORIZONTAL	RBT67101H	RBT7101HA	RBT67101HB	RBWS1467A	RBWS22774	

T-Series Material & Equipment Chart (For Transition Splices)

This chart lists FULL TENSION TRANSITION CADWELD® Rebar Splices in the vertical and horizontal positions for GRADE 40, 60 and 75 rebar with deformation spacing of 0.75 (or less) times the ASTM® maximum allowable and deformation base width equal to 3 times ASTM minimum deformation height.

How to order transition splice kits:

Quantity of splices needed, CADWELD Rebar, smaller rebar size to larger rebar size, series, horizontal or vertical.

Example:

15 kits, CADWELD Rebar, #9 (28 mm) to #10 (32 mm), T-Series, Horizontal.

Result:

15 Kits, RBT910101H.

T-Series (Transition) Material & Equipment

Installation Equipment (reusable tools) - Tools not included in kit, tools are purchased separately								
	Pouring Basin Frame	Crucible Frame Set	Crucible Extension	Crucible Cover	End Alignment Fitting (Small Bar)	End Alignment Fitting (Large Bar)	Horizontal Packing Clamp	Bottom Support Clamp
	RBM2660	RBW346766	RBS36876	RBS43837	RBM267885K	RBM267150K		RBM2960
	RBW167	RBW346766	RBS36876	RBS43837	RBM267885K	RBM267150K	RBW117C	
	RBM2660	RBW346767	RBS36877	RBS43837	RBM2759K	RBM267150K		RBM2960
	RBW167	RBW346767	RBS36877	RBS43837	RBM2759K	RBM267150K	RBW117C	
	RBM2660	RBW346766	RBS36876	RBS43837	RBM2687126G	RBM266975G		RBM2960
	RBW167	RBW346766	RBS36876	RBS43837	RBM2687126G	RBM266975G	RBW117B	
	RBM2660	RBW346766	RBS36876	RBS43837	RBM2750125F	RBM266785F		RBM2960
	RBW167	RBW346766	RBS36876	RBS43837	RBM2750125F	RBM266785F	RBW117B	
	RBM2660	RBW346545	RBS36875	RBS43835	RBM2767100E	RBM275075E		RBM2960
	RBW167	RBW346545	RBS36875	RBS43835	RBM2767100E	RBM275075E	RBW117A	
	RBM2660	RBW346545	RBS36875	RBS43835	RBM2886150D	RBM2748100D		RBM2960
	RBW167	RBW346545	RBS36875	RBS43835	RBM2886150D	RBM2748100D	RBW117A	
	RBM2660	RBW346544	RBS36874	RBS43835	RBM2870112C	RBM2886112C		RBM2960
	RBW167	RBW346544	RBS36874	RBS43835	RBM2870112C	RBM2886112C	RBW117D	
	RBM2660	RBW346544	RBS36874	RBS43835	RBM2870100A	RBM2870100A		RBM2960
	RBW167	RBW346544	RBS36874	RBS43835	RBM2870100A	RBM2870100A	RBW117D	

Filler Material Kits - Included in Splice Kit						
Filler Material Kit Part Number	Filler Material	Horizontal Packing (Quantity of two)	Vertical Top Packing	Vertical Bottom Packing	Pouring Basin Ceramic Guide Tube	Crucible Ceramic and Disk
RBT1418101B*	F195		RBS35477	RBS354720	RBS5039	RBS5037
RBT1418101HB*	F195	RBS354720			RBS5039	RBS5037
RBT1118101B*	F240		RBS354712	RBS354720	RBS5039	RBS5037
RBT1118101HB*	F240	RBS354720			RBS5039	RBS5037
RBT1114101B*	F125		RBS35476	RBS354715	RBS5039	RBS5037
RBT1114101HB*	F125	RBS354715			RBS5039	RBS5037
RBT1011101B**	F125		RBS35476	RBS354712	RBS5038	RBS5037
RBT1011101HB	F125	RBS354712			RBS5038	RBS5037
RBT910101B*	F105		RBS35475.5	RBS354712	RBS5038	RBS5037
RBT910101HB*	F105	RBS354712			RBS5038	RBS5037
RBT89101B*	F90		RBS35475.5	RBS354711	RBS5038	RBS5037
RBT89101HB*	F90	RBS354711			RBS5038	RBS5037
RBT78101B*	F70		RBS35475.5	RBS354710	RBS5038	RBS5037
RBT78101HB*	F70	RBS354710			RBS5038	RBS5037
RBT67101B*	F55		RBS35475.5	RBS35478	RBS5038	RBS5037
RBT67101HB*	F55	RBS35478			RBS5038	RBS5037

*Includes all expendable components required to make an individual splice. Components contained in chart.

B-Series Material & Equipment

Rebar Size	T-Series Style	Splice Kit Part Number	Splice Kit Components (Included in kit)			
			Sleeve	Filler Material Kit	Pouring Basin	Crucible
#18 (57 mm)	VERTICAL	RBB1892	RBB1892JA	RBB1892B	RBWS1482M	RBWS22777
#14 (43 mm)	VERTICAL	RBB14101	RBB14101JA	RBB14101B	RBWS1481J	RBWS22776
#11 (36 mm)	VERTICAL	RBB11101	RBB11101JA	RBB11101B	RBWS1499F	RBWS22775
#10 (32 mm)	VERTICAL	RBB1092	RBB1092JA	RBB1092B	RBWS1500E	RBWS22775
#9 (28 mm)	VERTICAL	RBB992	RBB992JA	RBB992B	RBWS1500D	RBWS22774
#8 (25 mm)	VERTICAL	RBB8101	RBB8101JA	RBB8101B	RBWS1500C	RBWS22774
#7 (22 mm)	VERTICAL	RBB792	RBB792JA	RBB792B	RBWS1500A	RBWS22774
#6 (20 mm)	VERTICAL	RBB692	RBB692JA	RBB692B	RBWS1500X	RBWS22774
#5 (16 mm)	VERTICAL	RBB592	RBB592JA	RBB592B	RBWS1500U	RBWS22774
#4 (12 mm)	VERTICAL	RBB492	RBB592JA	RBB592B	RBWS1500U	RBWS22774

CADWELD® B-Series Splice Connections of Rebar to Structural Steel

B-Series Splices (Bar to Structural Steel)

Splice Strength = ASTM® Specified Minimum Tensile Strength

The CADWELD B-Series structure splice provides a mechanical means of connecting GRADE 40, 60 and 75 reinforcing bar to structural steel, plates and shapes. This splice series exceeds the ACI®-318 Building Code requirements.

How to order splice kits:

Quantity of splices needed, CADWELD Rebar, rebar size, series, horizontal or vertical.

Example:

25 kits, CADWELD Rebar, #10 (32 mm)), B-Series, Vertical.

Result:

25 Kits, RBB1092.

B-Series Material & Equipment

Installation Equipment (reusable tools) - Tools not included in kit, tools are purchased separately						
Pouring Basin Frame	Crucible Frame Set	Crucible Extension	Crucible Cover	End Alignment Fitting (2 required)	Bottom Support Clamp	
RBM2660	RBW346767	RBS36877	RBS43837	RBM2671100M	RBM2960	
RBM2660	RBW346766	RBS36876	RBS43837	RBM2669125J	RBM2960	
RBM2660	RBW346545	RBS36875	RBS43835	RBM266785F	RBM2960	
RBM2660	RBW346545	RBS36875	RBS43835	RBM275075E	RBM2960	
RBM2660	RBW346544	RBS36874	RBS43835	RBM2748100D	RBM2960	
RBM2660	RBW346544	RBS36874	RBS43835	RBM2886112C	RBM2960	
RBM2660	RBW346544	RBS36874	RBS43835	RBM2870100A	RBM2960	
RBM2660	RBW346544	RBS36874	RBS43835	RBM2974125X	RBM2960	
RBM2660	RBW346544	RBS36874	RBS43835	RBM2974100U	RBM2960	
RBM2660	RBW346544	RBS36874	RBS43835	RBM2974100U	RBM2960	

Filler Material Kits - Included in Splice Kit				
Filler Material Kit Part Number	Filler Material	Vertical Packing	Pouring Basin Ceramic Guide Tube	Crucible Ceramic and Disk
RBB1892B*	F220	RBS35420	RBS5039	RBS5037
RBB14101B*	F180	RBS354715	RBS5039	RBS5037
RBB11101B*	F105	RBS354712	RBS5038	RBS5037
RBB1092B*	F90	RBS354712	RBS5038	RBS5037
RBB992B*	F80	RBS354711	RBS5038	RBS5037
RBB8101B*	F55	RBS354710	RBS5038	RBS5037
RBB792B*	F50	RBS35478	RBS5038	RBS5037
RBB692B*	F40	RBS35477	RBS5038	RBS5037
RBB592B*	F40	RBS35477	RBS5038	RBS5037

*Includes all expendable components required to make an individual splice. Components contained in chart.

WARNING

ERICO products shall be installed and used only as indicated in ERICO's product instruction sheets and training materials. Instruction sheets are available at www.erico.com and from your ERICO customer service representative. Improper installation, misuse, misapplication or other failure to completely follow ERICO's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death.

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