

ZAP SCREWLOK® FX SERIES SPLICES

SHEAR SCREW AND WEDGE MECHANICAL SPLICE COUPLING SLEEVE

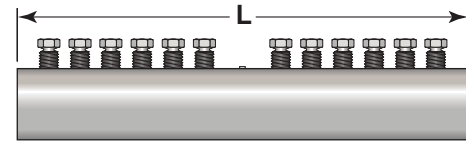
- **HIGH STRENGTH, FULL MECHANICAL SPLICE** – Exceeds 125% x specified yield (f_y) strength of uncoated ASTM A1035* Grade 100 bar, and ASTM A615 or ASTM A706 Grade 80 bar.
- **IAPMO-UES EVALUATION REPORT ER-0796** – Uncoated sizes #11, #14 and #18
- **NEW CONSTRUCTION, RENOVATION or REPAIR** – Suited for butt-splicing of bars new-to-new or new-to-old.
- **DUAL CERTIFIED REINFORCEMENT BARS** – Acceptable for use on ASTM A1035 or A615 Dual certified bars ranging from Grade 75 to Grade 100.
- **EPOXY COATED BARS** – Capacity to exceed 125% x f_y , Grade 80 epoxy coated ASTM A775 bar, sizes #4 - #14.
- **CONVENIENCE** – Field installed – No specialized installation equipment – No special bar end preparation or thread cutting – Easy visual inspection. For bar sizes #4 – #18 (Ø 13 – 57 mm) [10M – 55M].

ZAP SCREWLOK® FX TRANSITIONS

SHEAR SCREW AND WEDGE MECHANICAL SPLICE COUPLING SLEEVE

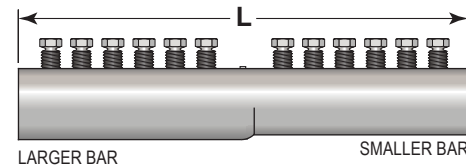
- **PURPOSE** – For butt-splicing bars of different sizes, or for connecting bars of different configurations or shape.
- **APPLICATIONS** – Many vertical applications such as columns, walls, piers, caissons, parking garages, high rise buildings – or for connecting different types of reinforcing bars (i.e. smooth bar, threaded rod, etc) to standard rebar in retrofit or repair situations.
- **SIMPLE DESIGN** – One piece device with converging sides for wedging of different bar sizes – Made from seamless shaped tubing with no welds – Includes center stop.
- **FULL MECHANICAL SPLICE** – Capacity to exceed 125% x specified yield (f_y) of the smaller size uncoated ASTM A1035 Grades 100 bar, and ASTM A615 or ASTM A706 Grade 80 bar.

ZAP SCREWLOK® FX SERIES



REBAR SIZE US [Metric]	PRODUCT CODE* FX SERIES	COUPLER WEIGHT (lb)	DIMENSIONS (in)				NUMBER SCREWS PER BAR	AVERAGE SCREW TORQUE (lb-ft)	MIN. IMPACT WRENCH RATING (lb-ft)	
			LENGTH 'L'	HEIGHT 'H'	'A'	'B'				'C'
#4 [13]	04ZFXA	2.19	7	1 5/8	1 1/16	11/16	1/2	1 3/8	60	250
#5 [16]	05ZFXA	3.38	9	1 13/16	1 1/8	13/16	5/8	1 5/8		
#6 [19]	06ZFXA	4.68	11	1 15/16	1 3/16	15/16	11/16	1 3/4	105	500
#7 [22]	07ZFXA	7.85	13	2 1/4	1 1/4	1 1/16	13/16	2 1/16		
#8 [25]	08ZFXA	11.0	15 1/4	2 3/8	1 3/8	1 1/8	7/8	2 1/4	215	750
#9 [29]	09ZFXA	17.6	16 3/4	2 7/8	1 5/8	1 5/16	1 1/16	2 5/8		
#10 [32]	10ZFXA	21.5	19 1/8	3	1 11/16	1 7/16	1 1/8	2 3/4	350	1000
#11 [36]	11ZFXA	27	21 1/2	3 1/4	1 3/4	1 1/2	1 1/4	2 15/16		
#14 [43]	14ZFXA	42	20 1/8	3 7/8	2 1/4	1 13/16	1 1/2	3 3/4	21	
#18 [57]	18ZFXA*	79	29 1/2	4 5/8	2 1/2	2 3/8	1 7/8	4 3/8		

ZAP SCREWLOK® FX TRANSITIONS



REBAR SIZE (lg/sm)	PRODUCT CODE* FX SERIES	COUPLER WEIGHT (lb)	DIMENSIONS (in)				NUMBER SCREWS PER BAR	AVERAGE SCREW TORQUE (lb-ft)	MIN. IMPACT WRENCH RATING (lb-ft)	
			LENGTH 'L'	HEIGHT 'H'	'A'	'B'				'C'
5/4	05/04ZFXA	2.63	7	1 7/8	1 3/16	3/4	5/8	1 5/8	60	250
6/4 6/5	06/04ZFXA 06/05ZFXA	3.84	9	1 1/8	1 5/16	15/16	11/16	1 3/4		
7/5 7/6	07/05ZFXA 07/06ZFXA	6.60	10 3/4	2 1/2	1 1/2	1 1/16	13/16	2 1/16	105	500
8/5 8/6 8/7	08/05ZFXA 08/06ZFXA 08/07ZFXA	9.24	13	2 5/8	1 5/8	1 1/16	7/8	2 1/4		
9/6 9/7 9/8	09/06ZFXA 09/07ZFXA 09/08ZFXA	14.3	13 7/8	3 1/8	1 7/8	1 1/4	1 1/16	2 5/8	215	750
10/7 10/8 10/9	10/07ZFXA 10/08ZFXA 10/09ZFXA	18.3	16 1/2	3 3/8	2	1 7/16	1 3/16	2 3/4		
11/7 11/8	11/07ZFXA 11/08ZFXA	18.3	16 1/2	3 7/16	2 1/16	1 1/2	1 1/4	2 3/4	350	1000
11/9 11/10	11/09ZFXA 11/10ZFXA	23.7	19 1/8	3 1/2	2 1/8	1 3/8	1 1/4	2 15/16		
14/10 14/11 18/11	14/10ZFXA 14/11ZFXA 18/11ZFXA	32 37 56	15 3/8 18 18 9/16	4 1/8 3 7/8 4 5/8	2 1/2 2 1/4 2 1/2	1 7/8 1 3/4 2 1/2	1 1/2 1 9/16 1 3/4	3 3/4 3 3/4 4 1/2		
18/14	18/14ZFXA	63	23 1/2	4 3/4	2 5/8	2 1/4	1 7/8	4 1/2	16	

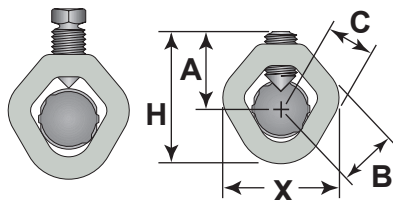
* WHILE SUITABLE FOR USE ON A1035 REINFORCEMENT, COUPLER IS NOT MADE FROM ASTM A1035 STEEL.

* EPOXY ZAP FX COUPLER ALSO AVAILABLE - SUBSTITUTE 'ZFXEA' FOR 'ZFXA' IN PART CODE.

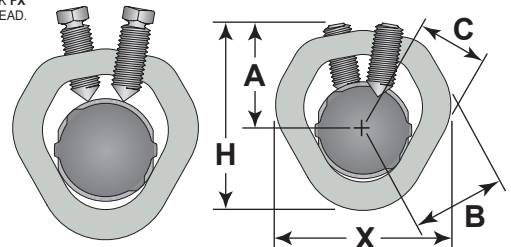
• ITEM CODE 18ZFXA FOR USE ON A1035 GRADE 100 ONLY. FOR ZAP SCREWLOK FX ON UNCOATED GRADE 80 REINFORCEMENT, USE ITEM CODE '18ZFXA80' INSTEAD.

ALL DIMENSIONS ARE APPROXIMATE

**SINGLE ROW
ZAP SCREWLOK®
(SIZES #4 – #11)
BEFORE AND
AFTER ASSEMBLY**



**DOUBLE ROW
ZAP SCREWLOK®
(SIZES #14 – #18)
BEFORE AND
AFTER ASSEMBLY**



ZAP SCREWLOK® FX SERIES MECHANICAL SPLICES FOR GRADE 100 REINFORCING BAR

ZAP SCREWLOK® FX mechanical splices are strength-based devices compatible with ASTM A1035 Grade 100 reinforcing bars as well as ASTM A615 Grade 80 and ASTM A706 Grade 80 bars.

- ♦ The ZAP SCREWLOK® FX mechanical splice is a positive tension and compression splice system whose strength is independent of the concrete that surrounds it, thereby providing true structural continuity.
- ♦ Each coupler consists of smooth, specially formed, steel sleeves with converging sides. A series of cone-pointed hex-head shear screws with specially hardened tips are arranged along the longitudinal axis in one or two rows depending on the bar size. Reinforcing bars are easily inserted from each side, stopping at the correct insertion amount by a center stop pin.
- ♦ Specially designed and hardened shear screws are used that snap off at a prescribed torque ensuring full interlock of the bar.
- ♦ As the shear screws are tightened during assembly, they embed themselves into the rebar surface, and force the rebar deformations into the specially designed wedge. This DUAL mechanical interlocking action results in a full, positive connection for transferring tension or compression forces from bar to bar.
- ♦ No special bar-end preparation is required – reinforcement can be sheared, saw-cut or flame-cut. To preserve linear alignment, reinforcing bars should have straight ends and be secured in the desired position at time of assembly.
- ♦ When a splice is required between fixed points, or the rebar cannot be moved easily, the center pin can be knocked out completely allowing the coupler sleeve to be slipped entirely onto one bar and subsequently repositioned over both bar ends being spliced.
- ♦ Ideal in remote areas with limited access since no specialized equipment is required, minimal clearance is needed, they have a positive center stop, and proper installation can be determined from a simple visual inspection.
- ♦ ZAP SCREWLOK® FX mechanical splices are suitable for new construction, retrofit applications or repair situations such as field splicing of column steel, beam reinforcement, concrete piles, structural rehab projects, retrofit strengthening/upgrading, bridge decks, highway patch/repair projects and closure pours.



HOW TO SPECIFY ZAP SCREWLOK® FX SPLICES

	By Name:	By Generic Description:
BAR-TO-BAR Mechanical butt splice	Zap Screwlok® FX Series** by Barsplice Products, Inc., Dayton OH	<i>Mechanical butt splices shall be the tension-compression shear screw and wedge coupling sleeve type, with smooth converging sides and cone-pointed hex-head screws, to develop at least 1.25 x fy of [state bar grade required] reinforcement bar.</i>

** Include bar size(s), bar type and bar grade. Include statement: "Parts shall be manufactured to the quality requirements of ISO 9001."

Field splicing of reinforcing bars by the Zap Screwlok® method is most popular because of the systems simplicity, cost effectiveness and adaptability. Instructions provided with Zap Screwlok® splices and connectors explain step-by-step installation and safety information.

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