



Universal Splicing System



Dextra

Product features

Unitec is a shear-bolt coupling system for the connection of concrete reinforcement bars Ø12 to 50 mm (ASTM #4 to #14).



Splice dimensions

Bar size			Coupler product code	Coupler dimensions				Screw size
USA & Mexico	Canada	Europe		Outside Diameter		Length		
				in	mm	in	mm	
#4		12, 12.5	FPUS0400002	1 ⅞"	48	5 ½"	140	M12
#5	15M	14, 16, 18	FPUS0500002	1 ⅞"	48	5 ½"	140	M12
#6	20M	20	FPUS0600002	2"	51	8"	200	M12
#7		22, 24	FPUS0700002	2 ¼"	58	7"	180	M16
#8	25M	25, 26	FPUS0800002	2 ½"	62	9 ½"	240	M16
#9		28	FPUS0900002	3"	76	8 ⅝"	220	M20
#10	30M	30, 32	FPUS1000002	3 ¼"	82	11"	280	M20
#11	35M	34, 36	FPUS1100002	3 ½"	89	14 ⅞"	360	M20
#12		38, 40	FPUS1200002	3 ¾"	95	16 ¾"	425	M20
#14	45M	43	FPUS1400002	3 ¾"	95	21 ⅞"	555	M20
		50	FPUS5000002	4 ⅞"	107	24 ¾"	620	M20

Installation instructions

Safety tip: Wear goggles and ear plugs when using the impact wrench.



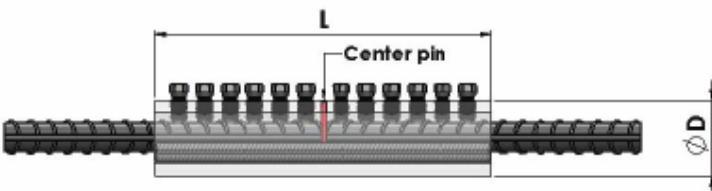
Insert the Unitec coupler over the end of the first bar until contact with the centre pin. Strongly hand tighten the bolts from centre to outside with a wrench to pre-position the coupler progressively in order to maintain its alignment with the bar.



Tighten the bolts, from centre to outside, with a power drive (pneumatic wrench) until the heads of the screws shear off.



Insert the second bar into the coupler until contact with the centre pin and repeat the operation. Check the bar alignment when hand tightening the bolts with a wrench : at a distance of 25cm the misalignment should not exceed 5mm (or not more than 1/4" at a distance of 1ft).



Benefits

- Site assembly with standard impact wrench.
- No need of bar end preparation.
- Readily available off the shelf.
- Ideal for concrete-embedded bars, repair and retrofit works, bent bars, etc...
- Type 2 splice as per ACI 318 requirements. Complies with BS 8110 and NF A35-020 standards.

Installation Instructions

Bar size			Coupler weight		Total number of bolts per coupler	Bolt size	Average torque to shear bolt heads		Airgun socket size	
USA & Mexico	Canada	Europe	lbs	kg			ft-lb	Nm	Hexagonal dimension mm	Square drive in
#4		12, 12.5	3.5	1.6	6	M12	100	140	13	3/4"
#5	15M	14, 16, 18	3.5	1.6	6					
#6	20M	20	5.5	2.5	8					
#7		22, 24	6.2	2.8	6	M16	185	250	15	3/4" or 1"
#8	25M	25, 26	8.4	3.8	8					
#9		28	15	6.8	6					
#10	30M	30, 32	18.7	8.5	8	M20	500	680	19	1"
#11	35M	34, 36	26.8	12.2	10					
#12		38, 40	33.9	15.4	12					
#14	45M	43	41.8	19	16					
		50	51.7	23.5	18					

Recommended brand & model for impact wrench:

- We recommend to use one of the Toku & Metabo pneumatic impact wrenches listed below. If another brand or another model is used, the proper speed should be determined before starting the job.
- The requirement for air flow is 100 psig (7 bar) of operating pressure and 185 cfm (5.2m/min) of delivered air to the pneumatic impact wrench through a 3/4" or 1" air hose.

Barsize	Brand	Model	Square drive	Weight		Airconsumption under load		Airinlet thread	Speed
			in	lbs	kg	cfm	(L/min)		
#4 to #8 12 to 26	Toku	MI-20P	3/4"	8.6	3.9	39	1104	3/8"	4
	Ingersoll Rand	2141P	3/4"	7	3.2	40	1132	3/8"	-
	Atlas Copco	LMS61 HR20	3/4"	11.2	5.1	25	707	3/8"	-
#4 to #14 12 to 50	Toku	MI-5000GS	1"	31.2	14.2	66	1868	1/2"	4
	Metabo	RS-4900L	1"	23.3	10.6	22	622	1/2"	2
	Ingersoll Rand	2940 B2	1"	22	10	58	1641	1/2"	-
	Atlas Copco	LMS86 GIR38	1 1/2"	36	16.4	61	1726	1/2"	-

Some major references



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