

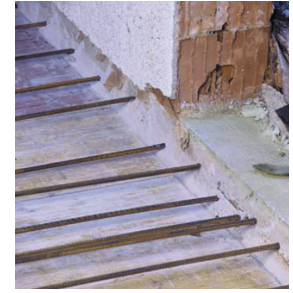
LIQUID ROC® 300 TWIN TUBE

AVAILABLE MATERIALS

- Twin Tube - polyester resin base, benzoyl peroxide hardener
- Square cut rods - A307 steel, zinc plated. Other sizes, materials and finishes available upon request

FEATURES/ADVANTAGES

- Pre-measured adhesive
- Easy to use and can be saved for re-use
- Nozzle included
- Works well in horizontal and overhead applications
- Can be used with screen tubes



CONCERNS

- 9 month shelf life
- For short term loading only

APPROVALS/LISTINGS

- Contact customer service for approvals/listings for state D.O.T.'s

Ultimate Loads in Lbs. Unreinforced Brick Wall			
Anchor Type	Drill Diameter	Embedment	Average Load (lbs)
3/4" shear	1"	8"	7056 shear
3/4" combo 22-1/2"	1"	12-1/2"	8830 tension
5/8" combo	1" / 5/8"	8" / 13"	9292 shear

CURE TIME

Concrete Temperature	Time
Over 80°F.	20-30 min.
80° to 68°F.	30-40 min.
68° to 58°F.	40-50 min.
58° to 48°F.	60 min.
48° to 38°F.	2 hrs.
38° to 28°F.	4 hrs.

WIRE MESH SCREEN

Order Code	Description	O.D.
7706924	3/8" x 6"	1/2"
7706940	3/8" x 10"	1/2"
7708924	1/2" x 6"	5/8"
7708940	1/2" x 10"	5/8"
7710924	5/8" x 6"	3/4"
7710940	5/8" x 10"	3/4"
7712924	3/4" x 6"	1"
7712940	3/4" x 10"	1"



7521095
Manual Tool for 28 oz. Twin Tube



7521096
Pneumatic Gun for 28 oz. Twin Tube

7521020 - Replacement Nozzle

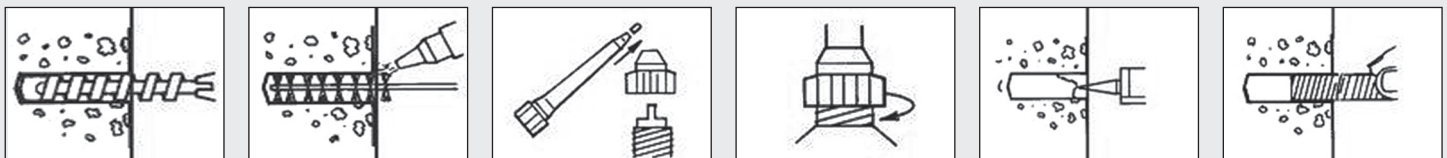
ORDER DETAIL

Twin Tube Order Code	Sq. Cut Rod Diameter	Hole Diameter	Minimum Embedment	Ultimate Tensile & Shear Loads in Lbs.* Concrete Strength (P.S.I.)				Ultimate Tensile & Shear Loads in Lbs.			
				2000 P.S.I.		4000 P.S.I.		Grouted Masonry Block**		Hollow Masonry Block**	
				Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
7521041 28 fl.oz. w/Nozzle 5/Box	3/8"	1/2"	3-1/2"	4,720	6,133	5,920	6,133	4,562	5,997	1,007	2,214
	1/2"	5/8"	4-1/2"	9,067	8,880	9,067	9,520	5,541	9,015	1,071	1,446
	5/8"	3/4"	5-1/2"	11,387	12,160	14,427	14,053	7,222	11,213	858	2,830
	3/4"	1"	6"	—	—	—	—	—	—	1,458	2,249
	3/4"	7/8"	6-1/2"	18,213	19,360	19,973	20,000	9,561	10,993	—	—
	7/8"	1"	7-1/2"	24,107	24,640	26,507	26,827	—	—	—	—
1"	1-1/8"	8-1/2"	24,800	28,800	30,773	34,000	—	—	—	—	

*Load values based on A-193, B7 Rods ** Concrete masonry units meet ASTM C90, Grade N, Type 1

INSTALLATION

- 1 Drill hole to correct diameter and depth.
- 2 Clean dust from hole using a round nylon brush. Use pressurized air to blow dust out of hole.
- 3 Twist off cap on cartridge.
- 4 Screw static mixer nozzle over cartridge opening. Load into dispensing tool.
- 5 Dispense adhesive filling from bottom of hole to avoid air pockets. NOTE: Dispense and discard a bead of material to achieve proper mix, indicated by uniform color.
- 6 Insert anchor rod into hole using slight twisting motion.
- 7 In cases where you are using a screen, first fill the screen completely, then insert screen in the hole, then insert anchor into screen.



ADHESIVE VOLUME ESTIMATING GUIDE

Type Package	Liquid Roc 200 Single Tube	Liquid Roc 200 Twin Tube	Liquid Roc 300 Pouch	Liquid Roc 300 Twin Tube	Liquid Roc 500+ Single Tube	Liquid Roc 500+ Twin Tube	VME Twin Tube	VMZ Internal Thread Injection System	Liquid Roc 700+ Single Tube	Liquid Roc 700+ Twin Tube
Net Contents	10 fl. oz.	28 fl. oz.	5.5 fl. oz.	28 fl. oz.	8.5 fl. oz.	22 fl. oz.	13oz.	20 oz.	10 fl. oz.	28 fl. oz.
Useable Vol.	15 cu. in.	45 cu. in.	10 cu. in.	45 cu. in.	13 cu. in.	34 cu. in.	20 cu. in.	31 u. in.	15 cu. in.	45 cu. in.
Rod Diameter	Linear inches of embedment into solid base material									
3/8"	63	133	105	312	91	237	140	215	63	133
1/2"	45	95	75	225	65	169	100	153	45	95
5/8"	35	73	38	172	50	130	76	118	35	73
3/4"	28	58	30	137	40	104	61	94	28	58
7/8"	23	49	25	115	33	87	51	79	23	49
1"	19	40	21	92	27	71	42	64	19	40
1-1/4"	14	30	16	71	20	54	32	49	14	30
Rod Diameter	Linear inches of embedment using screens into hollow base material									
3/8"	-	-	-	296	-	-	-	-	-	-
1/2"	-	-	-	172	-	-	-	-	-	-
5/8"	-	-	-	112	-	-	-	-	-	-
3/4"	-	-	-	62	-	-	-	-	-	-

ENGINEERING DATA

HOW TO SPECIFY

- 1 Select anchor diameter based on loading requirements.
- 2 Determine thickness of material to be anchored (if grout or shimming is to be used between material and concrete surface, add thickness of grout/shims to thickness of material to obtain total thickness of material to be anchored.)
- 3 Select anchor length that will satisfy total thickness of material, head clearance and embedment of anchor diameter selected.

SPECIFICATIONS, LIQUID ROC 200, 300, 500+, 700+

B Nominal Diameter (in.)						
Bolt Size (in.)	Capsule or Pouch	Single or Twin Tube	E - Min Embedment (in.)	S - Anchor Spacing (in.)	M - Edge Distance (in.)	T - Maximum Tightening Torque (ft. lbs.)
3/8"	7/16"	1/2"	3-1/2"	3-1/2"	3-1/2"	13
1/2"	9/16"	5/8"	4-1/2"	4-1/2"	4-1/2"	22
5/8"	11/16"	3/4"	5-1/2"	5-1/2"	5-1/2"	55
3/4"	7/8"	7/8"	6-1/2"	6-1/2"	6-1/2"	106
7/8"	1"	1"	8"	8"	8"	135
1"	1-1/8"	1-1/8"	9"	9"	9"	184

REDUCTION FACTORS

Tension		Shear		
Spacing (S) and Edge Dist. (M)	Factor (F)	Spacing (S) and Edge Dist. (M)	Direction of load	Factor (F)
S min. = 0.50S	0.7	S min. = 0.50S	toward edge not toward edge	0.6 1.0
M min. = 0.50M	0.7	M min. = 0.50M	toward edge not toward edge	0.4 0.5

GENERAL SPECIFICATIONS

Adhesive resin anchor shall be (polyester) (epoxy) (acrylic) as manufactured by MKT Fastening, LLC, #1 Gunnebo Dr., Lonoke, AR 72086

INSTALLATION

Adhesive resin anchors shall be installed in holes drilled with carbide tipped bits conforming to ANSI specification B212.15-94. Minimum installation depth and hole preparation shall be as recommended by manufacturer.

LIQUID ROC 300 CAPSULE ANCHORS

Anchor Diameter	Hole Diameter	Embedment Depth	Capsules Required
3/8"	7/16"	3-1/2"	(1) 3/8"
3/8"	7/16"	5-1/4"	(2) 3/8"
3/8"	7/16"	7"	(2) 3/8"
1/2"	9/16"	4-1/2"	(1) 1/2"
1/2"	9/16"	6-3/4"	(1) 3/8" & (1) 1/2"
1/2"	9/16"	9"	(2) 1/2"
5/8"	11/16"	5"	(1) 5/8"
5/8"	11/16"	7-1/2"	(1) 1/2" & (1) 5/8"
5/8"	11/16"	10"	(2) 5/8"
3/4"	7/8"	6-1/2"	(1) 3/4"
3/4"	7/8"	9-3/4"	(1) 5/8" & (1) 3/4"
3/4"	7/8"	13"	(2) 3/4"
7/8"	1"	7-1/2"	(1) 7/8"
7/8"	1"	11-1/4"	(2) 3/4"
7/8"	1"	15"	(2) 7/8"
1"	1-1/8"	8-1/2"	(1) 1"
1"	1-1/8"	12-3/4"	(1) 3/4" & (1) 1"
1"	1-1/8"	17"	(2) 1"
1-1/4"	1-3/8"	7-1/4"	(2) 3/4"
1-1/4"	1-3/8"	11"	(1) 3/4" & (1) 1"

FOR REDUCED SPACING AND EDGE DISTANCES

- 1 Linear interpolation is allowed for edge distances falling between 0.50M and 1.00M, and anchor spacing falling between 0.50S and 1.00S.
- 2 Load reduction factors should be combined where applicable. Where three or more anchors are used, spacing reduction factors must be multiplied together. Where two or more edge distances affect performance, edge reduction factors must be multiplied together. When a group of anchors is affected by both reduced spacing and reduced edge distances, the edge and spacing reduction factors must be multiplied together.

