

Ramset fasteners may be specified by their type or catalog number to satisfy fastening requirements.

PIN SPECIFICATIONS

- Made from AISI 1060-1065 steel. Austempered to a core hardness of 52-56 Rc
- Typical tensile strength: 270,000 psi
- Typical shear strength: 162,000 psi
- **STANDARD FINISHES**
Proprietary black
Mechanical zinc plate to a minimum thickness of .0002 meets requirements of ASTM B695—Class 5 Type I

APPROVALS/LISTINGS

- **ICC Evaluation Service, Inc.**
#ESR-2579 TrakFast Pins #ESR-1955 T3/T4 Fasteners
- **City of Los Angeles**
#RR-25264 TrakFast pins #RR-25739 T3/T4 pins



Collated Gas Fasteners in Concrete (TrakFast and T3/T4)

PART NUMBER SERIES	SHANK DIA (INCH)	MINIMUM PENETRATION (INCH)	INSTALLED IN SOLID CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - <i>Ultimate Load</i>					
			2,000 PSI		3,000 PSI		4,000 PSI	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
FPP - Straight Shank	0.109	5/8	60 <i>434</i>	55 <i>546</i>	55 <i>453</i>	75 <i>615</i>	55 <i>472</i>	95 <i>685</i>
		3/4	60 <i>595</i>	80 <i>650</i>	55 <i>583</i>	95 <i>699</i>	55 <i>571</i>	115 <i>749</i>
FPP - Step Shank	0.104/0.118	3/4	— —	— —	— —	— —	51 <i>256</i>	83 <i>418</i>

			2,000 PSI		4,000 PSI		6,000 PSI	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
T3/T4 Straight Shank	0.125	5/8	83 <i>414</i>	109 <i>611</i>	78 <i>426</i>	80 <i>574</i>	95 <i>545</i>	128 <i>686</i>
		3/4	107 <i>541</i>	156 <i>855</i>	104 <i>593</i>	195 <i>977</i>	132 <i>658</i>	206 <i>1057</i>
T3/T4 Step Shank	0.104/0.125	5/8	— —	— —	102 <i>525</i>	138 <i>795</i>	101 <i>511</i>	119 <i>634</i>

PART NUMBER SERIES	SHANK DIA (INCH)	MINIMUM PENETRATION (INCH)	INSTALLED IN LIGHTWEIGHT CONCRETE / DECK / BLOCK ALLOWABLE LOAD - <i>Ultimate Load</i>					
			3,000 PSI LIGHT WEIGHT CONCRETE		3,000 PSI LIGHT WEIGHT CONCRETE WITH METAL DECK - LOWER FLUTE		HOLLOW CONCRETE MASONRY UNITS (CMU ANY LOCATION)	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
FPP - Straight Shank	0.109	5/8	35 <i>234</i>	55 <i>403</i>	30 <i>239</i>	205 <i>1,025</i>	35 <i>347</i>	50 <i>435</i>
		3/4	80 <i>630</i>	100 <i>756</i>	40 <i>330</i>	235 <i>1,248</i>	— —	— —
FPP - Step Shank	0.104/0.118	3/4	— —	— —	— —	— —	36 <i>184</i>	58 <i>290</i>
T3/T4 Straight Shank	0.125	5/8	84 <i>418</i>	108 <i>540</i>	72 <i>361</i>	242 <i>1,210</i>	20 <i>243</i>	34 <i>264</i>
		3/4	108 <i>540</i>	173 <i>864</i>	93 <i>470</i>	288 <i>1,442</i>	— —	— —
T3/T4 Step Shank	0.104/0.125	5/8	109 <i>543</i>	181 <i>904</i>	95 <i>473</i>	219 <i>1,096</i>	71 <i>357</i>	123 <i>613</i>

Note 1: ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190. **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Values shown in concrete are for the fastener only. Connected members must be investigated separately. **Note 5:** Cyclic, fatigue, shock loads, and other design criteria may require a different safety factor. **Note 6:** Job site testing may be required to determine actual job site values. **Note 7:** Minimum edge distance in concrete is 3 inches unless otherwise approved. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa. **Note 9:** T3/T4 straight shank allowable tension value in face shell of hollow CMU is 133 lbs.

Fastener Assemblies in Concrete

PART NUMBER SERIES	SHANK DIA. (INCH)	MINIMUM PENETRATION (INCH)	INSTALLED IN SOLID CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - <i>Ultimate Load</i>						HOLLOW BLOCK Grade N, Type 1		
			4,000 PSI		6,000 PSI		3,000 PSI LIGHT WEIGHT LOWER FLUTE		FACE SHELL Min 1-1/4" face thickness		
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	
GAS ASSEMBLIES	MP034TH*, M034* M100*, BR2*	5/8	78 426	80 574	95 545	128 686	72 361	242 1210	133 691	— —	
		3/4	104 593	195 977	132 658	206 1057	93 470	288 1442	84 444	84 446	
	M034BB	0.104/.118	5/8	51 256	83 418	— —	— —	— —	— —	36 184	58 290
	34 CLIP	0.104/.125	5/8	62 310	— —	106 528	— —	44 220	— —	— —	— —
	38HSMP034, 12HSMP034 34HSMP034, 10HSMP034 114HSMP034, 14TRHMP034 38TRHMP034, TSHMP034 12CCMP034L, 34CCMP034L	0.104/.125	5/8	60 357	117 587	107 533	191 957	54 269	230 1150	71 357	123 613
POWDER ASSEMBLIES	M100BB, 38HSS10 12HSS10, 34HSS10 10HSS10, 14TRHSS10, 38TRHSS10	0.125/.150	3/4	107 559	213 1067	161 803	248 1240	96 478	231 1156	102 512	166 831

* ESR-1955 pin data applies. **Note 1:** ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190 **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Values shown in concrete are for fastener only. Connected members must be investigated separately. **Note 5:** Cyclic, fatigue, shock loads and other design criteria may require a different safety factor. **Note 6:** Job-site testing may be required to determine actual job site values. **Note 7:** Minimum edge distance is 3 inches unless otherwise approved. In hollow block applications, no more than one fastener per cell. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa. **Note 9:** 20 ga metal deck.

Gas Fasteners in Steel

PART NUMBER	SHANK DIA (INCH)	TYPE OF SHANK	INSTALLED IN A36 STRUCTURAL STEEL STEEL THICKNESS INCHES ALLOWABLE LOAD - <i>Ultimate Load</i>					
			3/16 (.1875)		1/4 (.250)		3/8 (.375)	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
FPP012	0.109	SMOOTH	195 1047	292 1570	223 1220	278 1526	181 1048 ⁷	186 1076 ⁷
FPP012S	0.104/0.118	SMOOTH	— —	— —	148 744	157 787	166 832 ⁷	157 787 ⁷
T3012 /T4012	0.125	SMOOTH	63 676	162 1356	239 1285	211 1417	113 914 ⁸	197 1327 ⁸
T3012S /T4012S	0.125	TAPER SMOOTH	183 958	332 1660	237 1184	356 1782	189 943 ¹⁰	392 1960 ⁷
			INSTALLED IN ASTM A 572 GRADE 50 STEEL					
T3012 /T4012	0.125	SMOOTH	103 733	222 1682	147 950	119 973	147 856 ⁹	112 1014 ⁹

Note 1: ALLOWABLE loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *smaller italic* font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190. **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Cyclic, fatigue, shock loads and other design criteria may require a different safety factor. **Note 5:** Job site testing may be required to determine actual job site values. **Note 6:** Values shown are for fastenings that have the entire pointed end of the fastener driven through the steel plate; except as noted below. **Note 7:** Fastener penetration is .31" minimum. **Note 8:** Fastener penetration is .29" minimum. **Note 9:** Fastener penetration is .27" minimum. **Note 10:** Fastener penetration is .25" minimum. **Note 11:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa