***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
  - Electroplated zinc with yellow chromate
  - Ramguard

## APPROVALS/LISTINGS

- **ICC Evaluation Service, Inc.**

  #ESR-2579 TrakFast Pins

  #ESR-1955 T3 Fasteners

- **City of Los Angeles**

  #RR-25739 T3 pins

  #RR-25264 TrakFast pins

## COLLATED GAS FASTENERS IN CONCRETE (TRAKFAST, T2 AND T3)

| PART NUMBER SERIES | SHANK DIAMETER (INCH) | MINIMUM PENETRATION (INCH) | INSTALLED IN STONE AGGREGATE CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - *Ultimate Load* | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2000 PSI | | 3000 PSI | | 4000 PSI | |
| | | | TENSION (LBS) | SHEAR (LBS) | TENSION (LBS) | SHEAR (LBS) | TENSION (LBS) | SHEAR (LBS) |
| FPP - Straight Shank | 0.109 | 5/8 | **60** *434* | **55** *546* | **55** *453* | **75** *615* | **55** *472* | **95** *685* |
| | | 3/4 | **60** *595* | **80** *650* | **55** *583* | **95** *699* | **55** *571* | **115** *749* |
| FPP - Step Shank | 0.104/0.118 | 3/4 | ..... ..... | ..... ..... | ..... ..... | ..... ..... | **51** *256* | **83** *418* |

| | | | 2000 PSI | | 4000 PSI | | 6000 PSI | |
|---|---|---|---|---|---|---|---|---|
| | | | TENSION (LBS) | SHEAR (LBS) | TENSION (LBS) | SHEAR (LBS) | TENSION (LBS) | SHEAR (LBS) |
| T3 Straight Shank | 0.125 | 5/8 | **83** *414* | **109** *611* | **78** *426* | **80** *574* | ..... ..... | ..... ..... |
| | | 3/4 | **107** *541* | **156** *855* | **104** *593* | **195** *977* | ..... ..... | ..... ..... |
| T3 Step Shank | 0.104/0.125 | 5/8 | ..... ..... | ..... ..... | **60** *357* | **117** *587* | **107** *533* | **191** *957* |

| PART NUMBER SERIES | SHANK DIAMETER (INCH) | MINIMUM PENETRATION (INCH) | INSTALLED IN STONE AGGREGATE CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - *Ultimate Load* | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 3000 PSI LIGHT WEIGHT CONCRETE | | 3000 PSI LIGHT WEIGHT CONCRETE WITH METAL DECK | | 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** *234* | **55** *403* | **30** *239* | **205** *1025* | **35** *347* | **50** *435* |
| | | 3/4 | **80** *630* | **100** *756* | **40** *330* | **235** *1248* | ..... ..... | ..... ..... |
| FPP - Step Shank | 0.104/0.118 | 3/4 | ..... ..... | ..... ..... | ..... ..... | ..... ..... | **36** *184* | **58** *290* |
| T3 Straight Shank | 0.125 | 5/8 | **84** *418* | **108** *540* | **72** *361* | **242** *1210* | **20** *243* | **34** *264* |
| | | 3/4 | **108** *540* | **173** *864* | **93** *470* | **288** *1442* | ..... ..... | ..... ..... |
| T3 Step Shank | 0.104/0.125 | 5/8 | ..... ..... | ..... ..... | **54** *269* | **230** *1150* | **71** *357* | **123** *613* |

**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 straight shank allowable tension value in face shell of hollow CMU is 133 lbs.

## FASTENERS IN CONCRETE

| | FASTENER PART NUMBER | SHANK DIA. (INCH) | MINIMUM PENETRATION (INCH) | INSTALLED IN STONE AGGREGATE CONCRETE CONCRETE COMPRESSIVE STRENGTH ALLOWABLE LOAD - *Ultimate Load* | | | | | | HOLLOW BLOCK Grade N, Type 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 4000 PSI | | 6000 PSI | | 3000 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* | 0.125 | 5/8 | **78** *426* | **80** *574* | **62** *308* | .... ..... | **72** *361* | **242** *1210* | **133** *691* | ..... ..... |
| | | | 3/4 | **104** *593* | **195** *977* | **132** *658* | **206** *1057* | **93** *470* | **288** *1442* | **84** *444* | **84** *446* |
| | 14STUD | 0.125 | 5/8 | **91** *454* | ..... ..... | **57** *373* | ..... ..... | ..... ..... | ..... ..... | ..... ..... | ..... ..... |
| | M034BB | 0.104/.118 | 3/4 | **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, 38HSSS10 12HSSS10, 34HSSS10 10HSSS10, 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.

## GAS FASTENERS IN STEEL

| PART NUMBER | SHANK DIAMETER (INCH) | TYPE OF SHANK | INSTALLED IN A36 STRUCTURAL STEEL STEEL THICKNESS INCHES ALLOWABLE LOAD - *Ultimate Load* | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 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] |
| M012 FPP012S | 0.104/0.118 | SMOOTH | ..... ..... | ..... ..... | **148** *744* | **157** *787* | **166** *832* [7] | **157** *787* [7] |
| T3012 | 0.125 | SMOOTH | **63** *676* | **162** *1356* | **239** *1285* | **211** *1417* | **113** *914* [8] | **197** *1327* [8] |
| T3012S | 0.125 | TAPER SMOOTH | ..... ..... | ..... ..... | **237** *1184* | **356** *1782* | **189** *943* [10] | **392** *1960* [7] |
| | | | INSTALLED IN ASTM A 572 GRADE 50 STEEL STEEL THICKNESS INCHES | | | | | |
| T3012 | 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