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
- All clips are electroplated zinc with yellow cromate and meet ASTM B633 requirements

APPROVALS/LISTINGS

- **ICC Evaluation Service, Inc.**
  #ESR-1955 T3 Fasteners

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 Lightweight 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*	**87** *446*
	14STUD	0.125	5/8	**91** *454*	---- ----	**57** *373*	---- ----	---- ----	---- ----	---- ----	---- ----
	M034BB	0.104/ .118	3/4	**51** *256*	**83** *418*	---- ----	---- ----	---- ----	---- ----	**36** *184*	**58** *290*
	34CLIP	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, TSHSS10 12CCSS10L, 34CCSS10L 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 specs apply. Note 1: **ALLOWABLE** loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *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: Jobsite testing may be required to determine actual jobsite 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. Tables converted to metric are available on our website.

GAS FASTENERS IN STEEL

PART NUMBER	SHANK DIA. (INCH)	TYPE OF SHANK	INSTALLED IN A36 STRUCTURAL STEEL STEEL THICKNESS INCHES **ALLOWABLE LOAD** – *Ultimate Load*							
			11 Gauge (.119)		3/16 (.1875)		1/4 (.250)		3/8 (.375)	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
M012	0.104/.118	SMOOTH	----- -----	----- -----	----- -----	----- -----	**148** *744*	**157** *787*	**166** *832*[7]	**157** *787*[7]

** Fasteners shall have minimum 0.32-inch penetration when installed into 3/8-inch thick steel.

Note 1: **ALLOWABLE** loads are shown in the **LARGE BOLD** font, *Ultimate* loads are shown in *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: Jobsite testing may be required to determine actual jobsite 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 inch minimum. Note 8: For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa. Tables converted to metric are available on our website.