



## APPLICATION GUIDE

The T3ss is the most versatile gas technology tool in the industry. It provides contractors with a revolutionary new way to fasten to concrete, hollow block, pan deck and steel.....without the need to change power levels or color loads.

The T3ss is a complete fastening system, including a variety of preassembled fasteners, clips, washered pins and threaded studs.

The following pages list just some of the applications contractors can use this versatile system for and includes the best accessory for the fastening.



### ELECTRICAL CONTRACTORS

APPLICATION	BASE MATERIAL	ACCESSORY	PART NO.
Conduit Attachment	Concrete and masonry	One-hole strap	38HSMP034 – 3/8" Strap 12HSMP034 – 1/2" Strap 34HSMP034 – 3/4" Strap 10HSMP034 – 1" Strap 114HSMP034 – 1-1/4" strap
		Conduit clamp	12CCMP034L – 1/2" strap 34CCMP034L – 3/4" strap
Junction Box Attachment	Concrete and masonry	Threaded stud	14STUD – 1/4-20 threaded stud
		"M" pin w/washer	M034 – 3/4" pin M100 – 1" pin
		Top hat pin	MP034TH – 3/4" top hat pin
	Hard concrete	"M" pin w/washer	M034BB – premium 3/4" pin
	Steel	"M" pin w/washer	M012 – 1/2" pin
Temporary Lighting & Data/Com Low Voltage Attachment	Concrete and masonry	Tie-strap holder	TSHMP034
Uni-strut Attachment	Concrete and masonry	"M" pin w/washer	M034 – 3/4" pin M100 – 1" pin
	Hard concrete	"M" pin w/washer	M034BB – premium 3/4" pin
	Steel	"M" pin w/washer	M012 – 1/2" pin
Ceiling Fixture Attachment & Conduit Drop Supports	Concrete and masonry	Threaded rod hanger	4TRHMP034 – 1/4-20 rod hanger 38TRHMP034 – 3/8-16 rod hanger
		Ceiling clip assembly	34CLIP – 90 degree angle clip w/ pin
		Threaded Stud	14STUD – 1/4-20 threaded stud
Low voltage, datacom, signal and control cable attachment	Concrete, masonry and steel	Bridle Ring and Bridle Ring Saddle	BR2 – 2" ring w/fastener assembly BR2S - saddle for bridle ring





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**HVAC CONTRACTORS**

APPLICATION	BASE MATERIAL	ACCESSORY	PART NO.
Duct Strap Attachment	Concrete and masonry	"M" pin w/washer	M034 – ¾" pin M100 – 1" pin
	Hard Concrete	"M" pin w/washer	M034BB – premium ¾" pin
	Steel	"M" pin w/washer	M012 – ½" pin
HVAC Control Boxes	Concrete and masonry	Threaded stud	14STUD – ¼-20 threaded stud
		"M" pin w/washer	M034 – ¾" pin M100 – 1" pin
		Top hat pin	MP034TH – ¾" top hat pin
	Hard concrete	"M" pin w/washer	M034BB – premium ¾" pin
	Steel	"M" pin w/washer	M012 – ½" pin





## PERFORMANCE SUBMITTAL

### 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 – <i>Ultimate Load</i>						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	MPO34TH*, M034* M100*, BR2*	5/8	<b>78</b> 426	<b>80</b> 574	<b>62</b> 308	----	----	<b>72</b> 361	<b>242</b> 1210	<b>133</b> 691	----	----										
		3/4	<b>104</b> 593	<b>195</b> 977	<b>132</b> 658	<b>206</b> 1057	<b>93</b> 470	<b>288</b> 1442	<b>84</b> 444	<b>87</b> 446												
	14STUD	5/8	<b>91</b> 454	----	----	<b>57</b> 373	----	----	----	----	----	----										
M034BB	0.104/.118	3/4	<b>51</b> 256	<b>83</b> 418	----	----	----	----	<b>36</b> 184	<b>58</b> 290												
34CLIP	0.104/.125	5/8	<b>62</b> 310	----	----	<b>106</b> 528	----	----	<b>44</b> 220	----	----	----										
POWDER ASSEMBLIES	M100BB, 38HSS10 12HSS10, 34HSS10 10HSS10, TSHSS10 14TRHSS10, 38TRHSS10	0.104/.125	5/8	<b>60</b> 357	<b>117</b> 587	<b>107</b> 533	<b>191</b> 957	<b>54</b> 269	<b>230</b> 1150	<b>71</b> 357	<b>123</b> 613											
												0.125/.150	3/4	<b>107</b> 559	<b>213</b> 1067	<b>161</b> 803	<b>248</b> 1240	<b>96</b> 478	<b>231</b> 1156	<b>102</b> 512	<b>166</b> 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 – <i>Ultimate Load</i>							
			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	----	----	----	----	<b>148</b> 744	<b>157</b> 787	<b>166</b> 832 <sup>7</sup>	<b>157</b> 787 <sup>7</sup>

\*\* 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.

