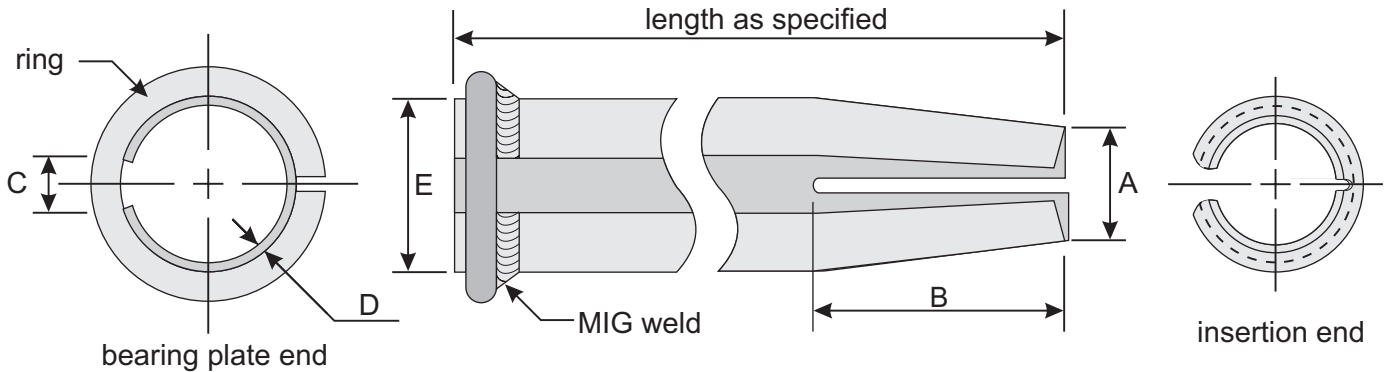


Friction Stabilizers

Nominal sizes 33mm, 39mm and 46mm



DIMENSIONS:

		TS-33	TS-39	TS-46
A	Taper Diameter	1-1/8" (28 mm)	1-3/16" (30 mm)	1-1/2" (38 mm)
B	Taper Length	2-3/8" (60 mm)	2-1/2" (65 mm)	2-1/2" (65 mm)
C	Slot Width	1/2" (13 mm)	5/8" (16 mm)	7/8" (22 mm)
D	Steel Thickness	3/32" (2.5 mm)	3/32" (2.5 mm)	1/8" (3 mm)
E	Bolt Size	1-5/16" (33 mm)	1-1/2" (39 mm)	1-13/16" (46 mm)

All dimensions nominal

TECHNICAL DATA:

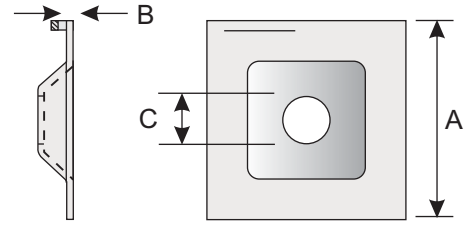
	TS-33	TS-39	TS-46
Recommended Nominal Bit Size	1-3/16" to 1-5/16" (31 to 33 mm)	1-3/8" to 1-1/2" (35 to 38 mm)	1-5/8" to 1-3/4" (41 to 45 mm)
Available Tube Lengths	3' to 8' (0.9 to 2.4 m)	3' to 10' (0.9 to 3.0 m)	3' to 12' (0.9 to 3.7 m)
Typical Breaking Capacity	24,000 lbs (107 kN)	28,000 lbs (124 kN)	40,000 lbs (178 kN)
Minimum Breaking Capacity	16,000 lbs (71 kN)	20,000 lbs (89 kN)	30,000 lbs (133 kN)
Recommended Initial Anchorage	3 to 6 tons (27 to 53 kN)	3 to 6 tons (27 to 53 kN)	6 to 10 tons (53 to 89 kN)
Ultimate Axial Strain	Typical 16%		

18" & 24" (0.46 m & 0.61 m) utility hangers also available - not intended for ground support
Also available hot dip galvanized to ASTM A123, CSA G164 specifications

Installation Accessories (Friction Stabilizers)

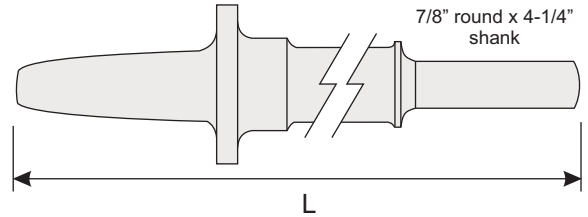
PLATE WASHERS

- minimum A-36 material (36,000 psi yield)
- A = 6" square
- B = TS-33 & TS-39: 3/16" thick; TS-46: 1/4" thick
- C = TS-33: 36mm (1-7/16") diameter
TS-39: 41mm (1-5/8") diameter
TS-46: 48mm (1-7/8") diameter



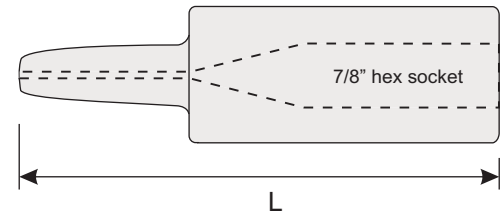
STANDARD DRIVER TOOL - for stopers/jacklegs

- with 7/8" round x 4-1/4" long shanked end
- available in low profile design (9-1/4" long)
- L = TS-33: 13", 24", 36" and 42" overall
TS-39: 13", 24", 36" and 48" overall
TS-46: 13", 24" and 36" overall



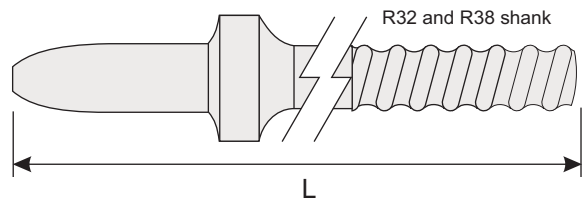
FEMALE DRIVER TOOL - for stopers/jacklegs

- with 7/8" hex socket
- available in 12° and 11° tapers
- L = TS-33: 9-1/4" overall
TS-39: 9-1/4" overall
TS-46: 9-1/4" overall



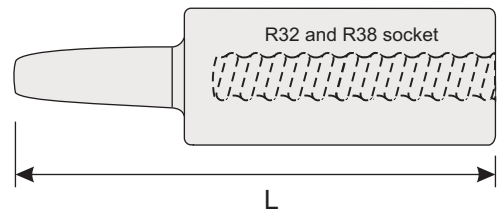
THREADED DRIVER TOOL - for mechanized bolters

- with R32 and R38 rope thread
- available in low profile design (9-1/4" long)
- L = TS-33: 18", 24" and 32" overall
TS-39: 18", 24" and 32" overall
TS-46: 18", 24" and 32" overall



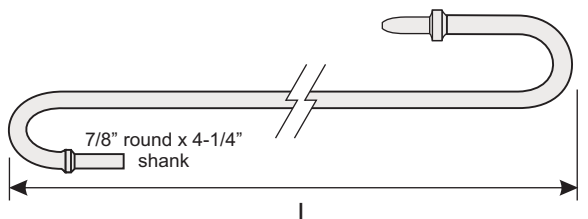
FEMALE THREADED DRIVER TOOL - for mechanized bolters

- with R32 and R38 rope thread socket
- L = TS-33: 7-1/2", 9-1/4" and 14" overall
TS-39: 7-1/2", 9-1/4" and 14" overall
TS-46: 7-1/2", 9-1/4" and 14" overall



OFFSET DRIVER TOOL - for stopers

- for use in low back height situations
- with 7/8" round x 4-1/4" long shanked end
- L = TS-33: 18", 24", 36" and 48" overall
TS-39: 18", 24", 36" and 48" overall



Plates meet or exceed ASTM F432 specifications for deflection, available galvanized
Custom sizes and/or alternate thread types available upon request