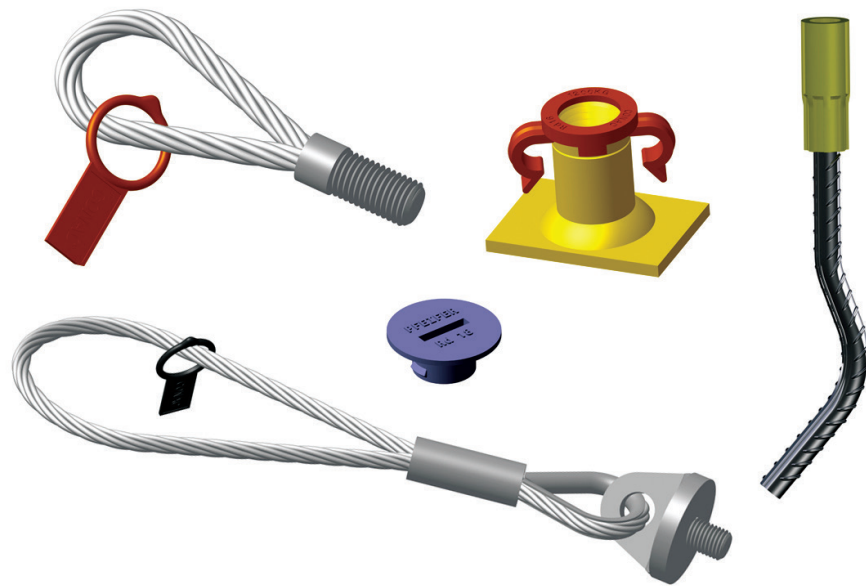


Threaded

Lifting System



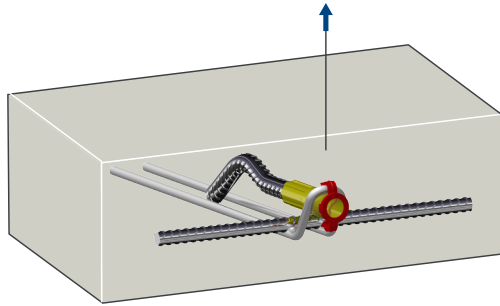
Uses innovative engineering to provide superior performance for edge lifting and tilting thin precast panels, with minimal or no patching. Supplied with color coded reinforcement clip for easy identification. Shear loading requires the use of one shear bar and one shear bow per anchor. Upper section of anchor is plated.

Threaded Lifting System

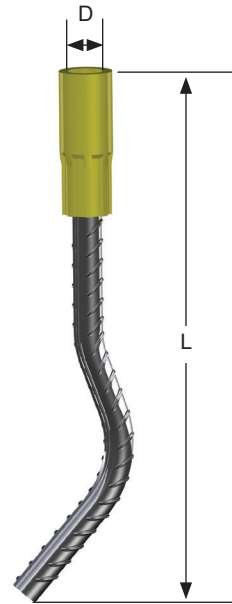


Waved Tail Anchors

Extended waved tail provides exceptional tensile capacity in thin panels. Can also be used in shear with addition of a shear bow.



Shear Bow reinforcing must be used to achieve the listed shear capacities.



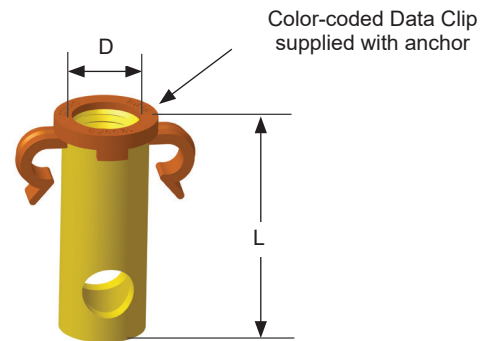
PART NUMBER	COLOR CODE	SWL TENSION (LBS)	SWL SHEAR* (LBS)	THREAD SIZE (D)	ANCHOR LENGTH (L)	MIN. END DISTANCE	MIN. PANEL THICKNESS TENSION	MIN. PANEL THICKNESS SHEAR
WTA005	Orange	1000	500	Rd12	5-3/8"	6"	2-1/4"	3"
WTA008	White	1600	800	Rd14	6-5/8"	8"	2-1/2"	3-1/4"
WTA012	Red	2400	1200	Rd16	7-3/4"	8"	2-3/4"	3-3/4"
WTA016	Pink	3200	1600	Rd18	9-1/4"	10"	3-1/4"	4"
WTA020	Light Green	4000	2000	Rd20	10-1/8"	11"	3-1/2"	4-1/2"
WTA025	Dark Grey	5000	2500	Rd24	13-3/4"	12"	4"	5"
WTA040	Emerald Green	8000	4000	Rd30	17-3/4"	14"	4-3/4"	6"
WTA063	Light Blue	12600	6300	Rd36	22-3/8"	16"	6-1/4"	8"
WTA080	Light Grey	16000	8000	Rd42	24-3/8"	20"	7"	9-1/2"
WTA125	Yellow	25000	12500	Rd52	34-5/8"	24"	8"	11"

Safe working loads based on approximate 4:1 Safety Factor in 2,200 psi normal weight concrete.

*Shear Bow reinforcing must be used to achieve the listed shear capacities.

Threaded Socket Anchors

Can be used for a wide range of precast construction applications such as for lifting beams, grinders, wall panels and floor slabs, etc. To develop the safe working load (SWL), a bent reinforcement bar must be used through the cross hole. Stocked in plated finish.

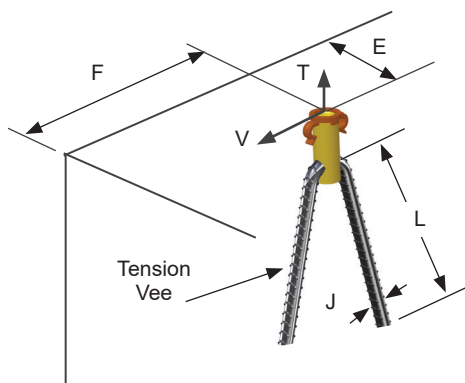


Minimum panel thickness = $2 \times E$.

If two or more anchors are used, minimum spacing = $2 \times F$.
 Allowable Shear Capacity is valid for loads in any direction, parallel to the face of the concrete with shear bows.
 Additional shear capacity can be achieved by reinforcing Threaded Socket Anchors in the ways shown on the following page.

ITEM CODE	SYSTEM LOAD CODE	SWL (LBS)	THREAD SIZE (D)	ANCHOR LENGTH (L)	MIN. PANEL THICKNESS (2 X E)	MIN EDGE DISTANCE (F)
TSA005	Orange	1000	Rd12x1.75	1-9/16"	2-1/2"	6"
TSA008	White	1600	Rd14x2.0	1-7-8"	2-3/4"	8"
TSA012	Red	2400	Rd16x2.0	2-1/8"	3-1/4"	8"
TSA016	Pink	3200	Rd18x2.5	2-9/16"	3-3/4"	10"
TSA020	Light Green	4000	Rd20x2.5	2-3/4"	4-1/2"	11"
TSA025	Dark Gray	5000	Rd24x3.0	3-1/16"	5"	12"
TSA040	Emerald Green	8000	Rd30x3.5	4-1/16"	5-1/2"	14"
TSA063	Light Blue	12600	Rd36x4.0	4-7/8"	8-3/4"	16"
TSA080	Light Gray	16000	Rd42x4.5	5-3/4"	9-1/2"	20"
TSA125	Yellow	25000	Rd52x5.0	7-5/8"	11"	24"

Safe working loads based on approximate 4:1 Safety Factor in 2,200 psi normal weight concrete.



Note: Threaded Socket Anchor requires Tension Vee to develop tension capacity.

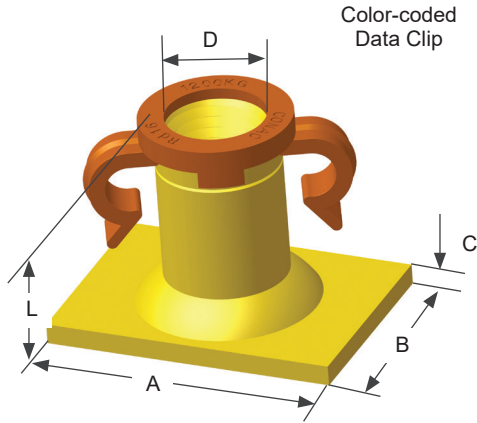
Use with Threaded Socket Anchor	Wire or Bar Size J [in]	Length for 2,200 psi concrete K22 [in] (L)	Length for 3,600 psi concrete K36 [in] (L)	Bend Diameter [in]
TSA 005	D-5	8-1/2	6-3/4	1
TSA 008	D-8	10	8	1-1/4
TSA 012	# 3	12	9-1/2	1-1/2
TSA 016	# 3	16-1/2	12-1/2	1-1/2
TSA 020	# 4	17	13-1/2	2
TSA 025	# 4	18-1/2	14	2
TSA 040	# 5	25-1/2	19-1/2	2-1/2
TSA 063	# 6	32	24-3/4	5-1/2
TSA 080	# 8	33	25-1/2	7
TSA 125	# 9	46	35-1/2	8

Threaded Lifting System



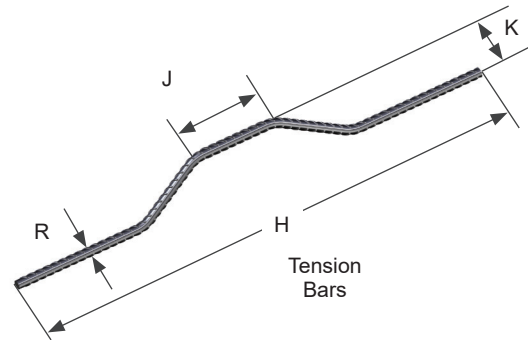
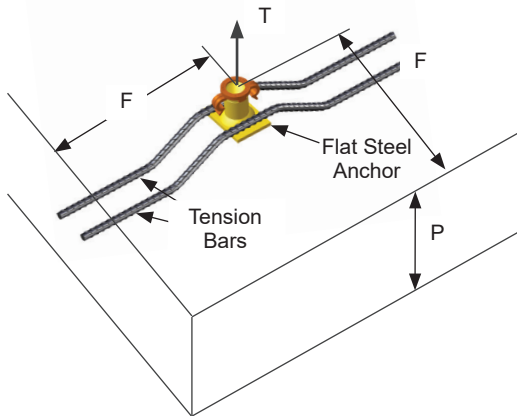
Flat Steel Anchors

Ideal for backstripping or face lifting thin precast panels. Supplied with color coded reinforcement clip for easy identification. Tension loads require the use of two Tension Bars per anchor. Shear loads require the use of two Tension Bars and one Shear Vee per anchor. Stocked in plated finish.



ITEM CODE	SWL (LBS)	THREAD SIZE (D)	ANCHOR DEPTH (L)	BASE LENGTH (A)	BASE WIDTH (B)	BASE THICK. (C)
FSA005	1000	Rd12x1.75	1-3/16"	1-3/8"	1"	1/8"
FSA008	1600	Rd14x2.0	1-5/16"	1-3/8"	1-3/8"	1/8"
FSA012	2400	Rd16x2.0	1-3/8"	2"	1-3/8"	1/8"
FSA016	3200	Rd18x2.5	1-3/4"	2-3/8"	1-3/4"	3/16"
FSA020	4000	Rd20x2.5	1-7/8"	2-3/8"	2-3/8"	3/16"
FSA025	5000	Rd24x3.0	2-1/8"	3-1/8"	2-3/8"	3/16"
FSA040	8000	Rd30x3.5	2-7/8"	3-7/8"	3-1/8"	1/4"
FSA063	12600	Rd36x4.0	3-5/16"	5-1/8"	3-7/8"	1/4"
FSA080	16000	Rd42x4.5	3-7/8"	5-1/8"	5-1/8"	5/16"
FSA125	25000	Rd52x5.0	4-5/8"	5-7/8"	5-1/8"	5/16"

Safe working loads based on approximate 4:1 Safety Factor in 2,200 psi normal weight concrete.



Note: FTB Tension Bars and FSV Shear Vees are made from Grade 60 reinforcing rod.

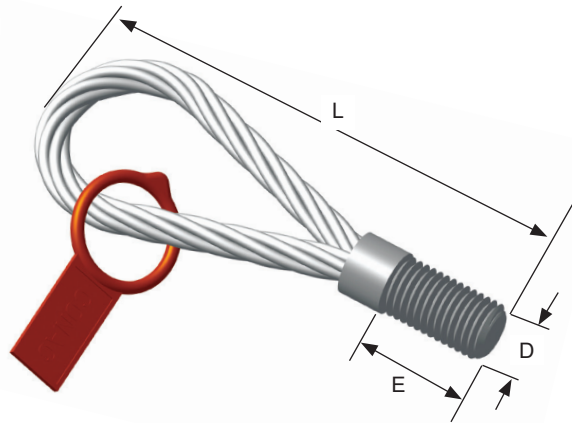
TENS. BAR PART NO	USE W/ FLAT STEEL ANCHOR	REINF. SWL TENSION (LBS)	MINIMUM EDGE DISTANCE (F)	MINIMUM PANEL THICK. (P)	DIA. (R)	OVERALL LENGTH (H)	CROWN LENGTH (J)	OFFSET (K)
FTB005	FSA005	1060	7"	2-3/4"	1/4"	10"	2-3/8"	1-1/8"
FTB008	FSA008	1720	7"	3-1/8"	1/4"	14"	2-3/8"	1-3/8"
FTB012	FSA012	2580	9-7/8"	3-3/8"	5/16"	16-1/2"	3-1/2"	1-3/8"
FTB016	FSA016	3440	11-3/4"	3-3/4"	5/16"	21"	3-1/2"	1-1/2"
FTB020	FSA020	4300	11-3/4"	4"	5/16"	25-1/4"	3-1/2"	1-1/2"
FTB025	FSA025	5360	15-3/4"	4-1/2"	3/8"	25-1/4"	3-1/2"	2"
FTB040	FSA040	8600	19-5/8"	5-1/2"	7/16"	32-3/4"	3-1/2"	2-1/8"
FTB063	FSA063	13540	25-1/2"	6-3/8"	9/16"	45"	5-1/2"	2-3/8"
FTB080	FSA080	17180	25-1/2"	6-7/8"	5/8"	49"	5-1/2"	2-3/8"
FTB125	FSA125	26860	25-1/2"	8-1/2"	3/4"	60"	5-1/2"	3"

Safe working loads based on approximate 4:1 Safety Factor in 2,200 psi normal weight concrete.

Threaded Lifting System

Lifting Loops

Most economical lifting units for this system. Manufactured from flexible wire rope and tagged with a color code to match the capacity of the anchors. For tension only - limited to 45 degrees from vertical. Galvanized cable loop with mill finished threaded stud.

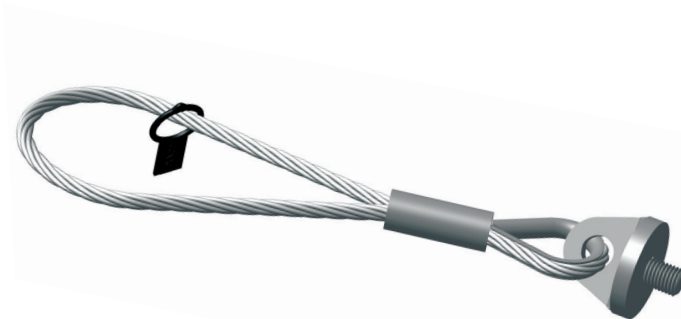


PART NUMBER	COLOR CODE	SWL TENSION (LBS)	THREAD SIZE (D)	THREAD LENGTH (E)	LENGTH (L)
TLL005	Orange	1000	Rd12x1.75	3/4"	6-1/8"
TLL008	White	1600	Rd14x2.0	7/8"	6-1/8"
TLL012	Red	2400	Rd16x2.0	1"	6-1/8"
TLL016	Pink	3200	Rd18x2.5	1-1/8"	7-1/2"
TLL020	Light Green	4000	Rd20x2.5	1-1/4"	8-1/2"
TLL025	Dark Grey	5000	Rd24x3.0	1-9/16"	10"
TLL040	Emerald Green	8000	Rd30x3.5	2-3/16"	12"
TLL063	Light Blue	12600	Rd36x4.0	2-5/8"	13-1/3"
TLL080	Light Grey	16000	Rd42x4.5	3-1/8"	17"
TLL125	Yellow	25000	Rd52x5.0	3-3/4"	19"

Safe working loads based on approximate 5:1 Safety Factor.

Lifting Loop with Pressure Plates

Most versatile lifting units for Waved Tail and Flat Steel Plate Anchors. Tagged with a color code to match the capacity of the anchors. Retain the flexibility of the regular Lifting Loops w/o the need for Distribution Basins when used in extreme shear conditions. Stocked in plated finish.

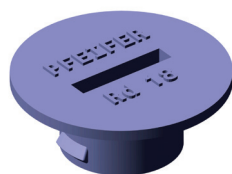


ITEM CODE	COLOR CODE	SWL (LBS)	THREAD SIZE
TLP005	Orange	1000	Rd12
TLP008	White	1600	Rd14
TLP012	Red	2400	Rd16
TLP016	Pink	3200	Rd18
TLP020	Light Green	4000	Rd20
TLP025	Dark Grey	5000	Rd24
TLP040	Emerald Green	8000	Rd30
TLP063	Light Blue	12600	Rd36
TLP080	Light Grey	16000	Rd42
TLP125	Yellow	25000	Rd52

Safe working loads based on approximate 5:1 Safety Factor.

Plastic Cap

Used after casting to plug the threaded opening in the anchors. Grey plastic.



ITEM CODE	SYSTEM CAPACITY TONS	THREAD SIZE	SURFACE DIA. OF CAP
TCS005	0.5	Rd12	3/4"
TCS008	0.8	Rd14	7/8"
TCS012	1.2	Rd16	1"
TCS016	1.6	Rd18	1-1/8"
TCS020	2	Rd20	1-1/4"
TCS025	2.5	Rd24	1-3/8"
TCS040	4	Rd30	1-3/4"
TCS063	6.3	Rd36	2-1/16"
TCS080	8	Rd42	2-3/8"
TCS125	12.5	Rd52	2-7/8"