



Structural Prestressed Industries, Inc.  
11405 N.W. 138<sup>th</sup> ST Medley, Florida 33178  
Ph: (305) 556-6699 Fax: (305) 556-9696  
[www.spimiami.com](http://www.spimiami.com)

# DOUBLE TEES

# LOAD TABLES

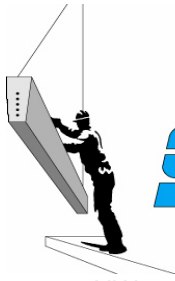
# 2005

## About This Publication

To the best of our knowledge and understanding, the information given in this reference book is complete and accurate. This document is intended to guide the design professional while making his or her own preliminary evaluations of approximate depth, span, spacing and connections. The information given represents typical installations and applications for Structural Prestressed Industries Inc. (SPI) products. For applications requiring special loadings and or special serviceability requirements please contact SPI.

These guidelines are specific to Structural Prestressed Industries (SPI) precast/prestressed members and should never be used to evaluate members from other precast producers. These guidelines are not expressed nor implied warranties for other applications.

SPI encourages the Design and Construction Professionals to contact our Engineering Department for value engineering solutions and design build projects. Our team of experienced engineers, designers and project managers are available to assist you with all your needs.

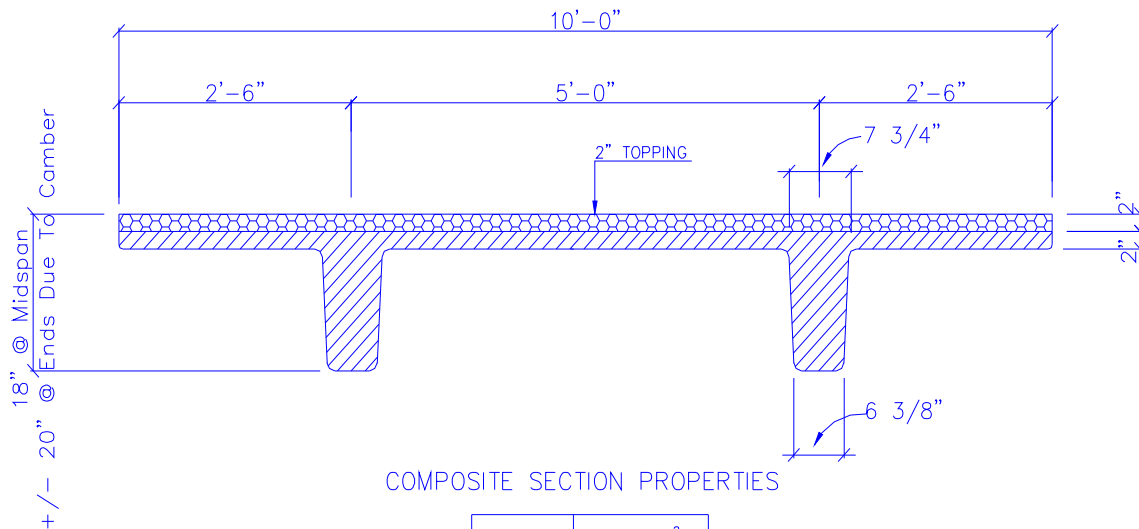


FOR SPANS AND LOADS NOT SHOWN IN TABLES  
AND FOR FIRE RATING CONTACT SPI.

CAMBER IS INHERENT TO PRESTRESSED  
MEMBERS. HEAVY LOADING AND LONG  
SPANS MAY RESULT IN HIGHER CAMBERS.  
CONTACT SPI WITH ANY CAMBER CONCERNS.

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### 16" PRESTRESSED FLOOR DOUBLE TEE 10'-0" WIDE"

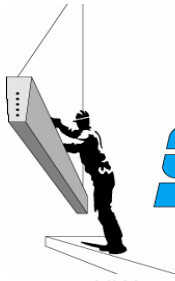


AREA	608 IN <sup>2</sup>
IC	14033 IN <sup>4</sup>
YBC	13.03 IN
WT	706 P.L.F.

Strand Pattern	Span (ft)															
	20	22	24	26	28	30	32	34	35	36	37	38	39	40	41	42
4- PL	150	120	90	60												
6- PL		170	145	120	95	70										
6-1PT		205	160	130	105	85	65									
8-1PT				180	150	130	95	80	70	65						
10-1PT					185	160	125	115	105	95	90	85	75	70	65	60

These tables provide allowable superimposed service loads (in psf) on the Double Tee based on the following assumptions:

- 1- Prestressed Concrete:  $f'_c=6000$  psi
- 2- Composite Concrete Topping:  $f'_c=4000$  psi
- 3- Service loads in the shaded boxes represent members with  $f'_c > 4000$  psi and cambers over 2.25".
- 4- 30 psf of the allowable superimposed service load is considered dead load on the composite system
- 5- Loads are based on ACI 318-02



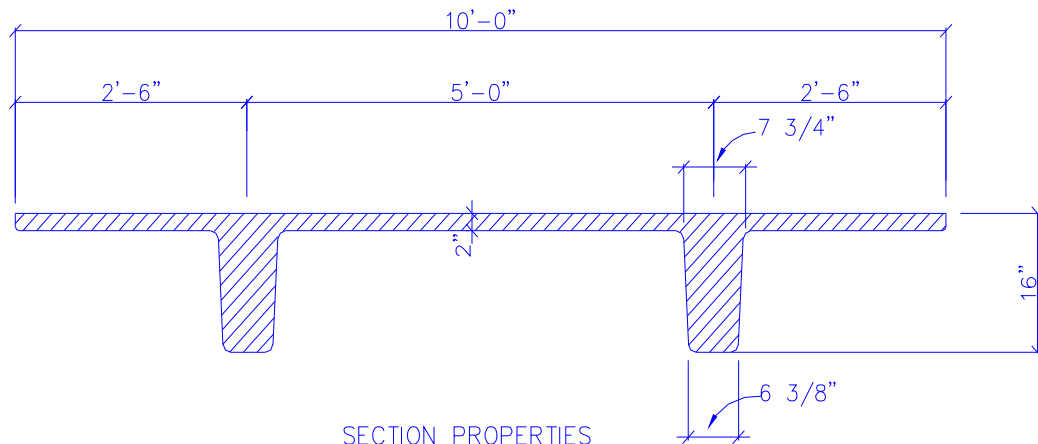
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### 16" PRESTRESSED ROOF DOUBLE TEE 10'-0" WIDE"



#### SECTION PROPERTIES

AREA	438 IN <sup>2</sup>
I	9850 IN <sup>4</sup>
YB	11.5 IN
WT	456 P.L.F.

Strand Pattern	Span (ft)															
	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52
4- PL + TOP	115	85	60	55	50											
6-1PT + TOP					90	75	60	55	50							
8-1PT + TOP								75	65	60	50					
10-1PT + TOP											65	55	50			
12-1PT + TOP													65	55	50	
12-2PT + TOP															55	50

These tables provide allowable superimposed service loads (in psf) on the Double Tee based on the following assumptions:

- 1- Prestressed Concrete:  $f'c=6000$  psi
- 2- Service loads in the shaded boxes represent members with  $f'ci > 4000$  psi and cambers over 2.75".
- 3- 20 psf of the allowable superimposed service load is considered dead load.
- 4- Loads are based on ACI 318-02.

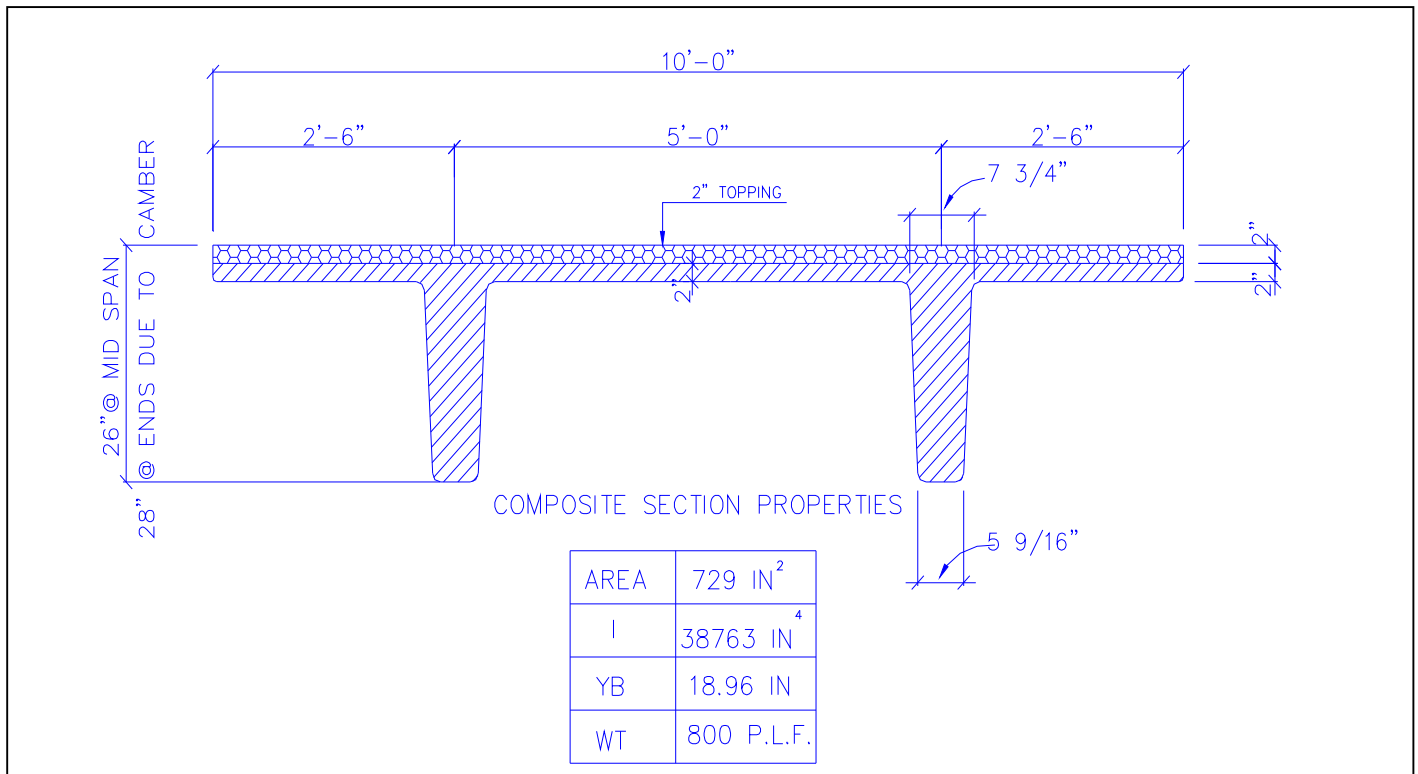


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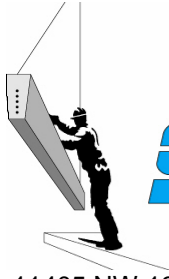
### 24" PRESTRESSED FLOOR DOUBLE TEE 10'-0" WIDE"



Strand Pattern	Span (ft)															
	30	32	34	36	38	40	42	44	46	48	50	52	53	54	55	56
6-1PT	150	125	100	80	70											
8-1PT			155	130	110	90	75	60								
10-1PT					150	130	110	95	75							
12-1PT						165	140	120	100	85	65					
14-1PT							170	145	125	110	95	80	75	70	65	60

These tables provide allowable superimposed service loads (in psf) on the Double Tee based on the following assumptions:

- 1- Prestressed Concrete:  $f'_c=6000$  psi
- 2- Composite Concrete Topping:  $f'_c=4000$  psi
- 3- Service loads in the shaded boxes represent members with  $f'_ci > 4000$  psi and cambers over 2.25".
- 4- 30 psf of the allowable superimposed service load is considered dead load on the composite system
- 5- Loads are based on ACI 318-02

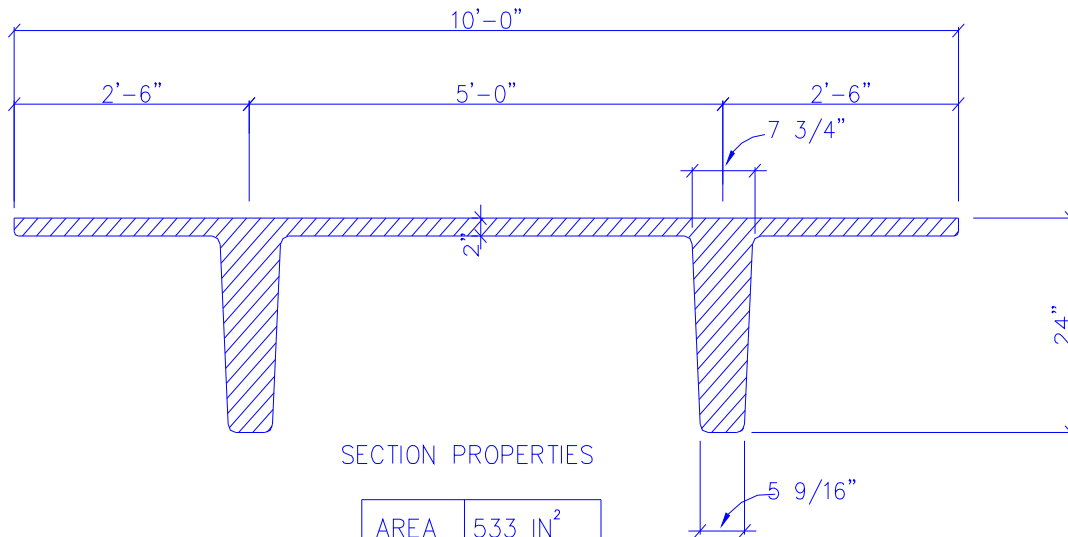


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### 24" PRESTRESSED ROOF DOUBLE TEE 10'-0" WIDE"



SECTION PROPERTIES

AREA	533 IN <sup>2</sup>
I	28915 IN <sup>4</sup>
YB	16.74 IN
WT	555 P.L.F.

Strand Pattern	Span (ft)															
	50	52	54	56	58	60	62	64	66	68	70	72	73	74	75	76
8-1PT + TOP	55	50														
10-1PT + TOP		65	60	55	50											
12-1PT + TOP					60	55	50									
14-1PT + TOP							60	55	50							
16-2PT + TOP								60	55	50						
18-2PT + TOP										65	60					
18-2PT + TOP*												55	50	45		
18-2PT + TOP**												65	60	55	50	45

These tables provide allowable superimposed service loads (in psf) on the Double Tee based on the following assumptions:

- 1- Prestressed Concrete:  $f'_c=6000$  psi,  $*f'_c=7000$ psi,  $**f'_c=8000$ psi
- 2- Service loads in the shaded boxes represent members with  $f'_ci > 4500$  psi and cambers over 2.75".
- 3- 20 psf of the allowable superimposed service load is considered dead load.
- 4- Loads are based on ACI 318-02.

## **Disclaimer**

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As far as the load tables provided in this web site, the information and data illustrated are intended to assist the designer in determining applicable prestressed members. They should not be construed as expressed nor implied warranties of suitability. The data is not reflective for unusual loads and stresses. Designers are encouraged to consult with S.P.I.'s Engineering Department for information on their specific project.