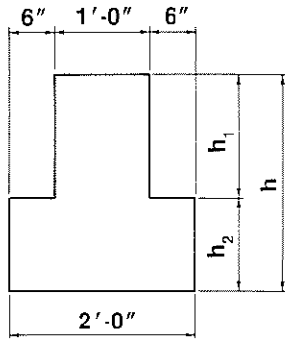


# INVERTED TEE BEAMS



$f'_c = 5,000$  psi  
 $f_{pu} = 270,000$  psi  
 ½ in. diameter  
 low-relaxation strand

Normal Weight Concrete

Section Properties								
Designation	h (in.)	h <sub>1</sub> /h <sub>2</sub> (in.)	A (in. <sup>2</sup> )	I (in. <sup>4</sup> )	y <sub>b</sub> (in.)	Z <sub>b</sub> (in. <sup>3</sup> )	Z <sub>i</sub> (in. <sup>3</sup> )	wt (plf)
24IT20	20	12/8	336	10,981	8.29	1,325	938	350
24IT24	24	12/12	432	19,008	10.00	1,901	1,358	450
24IT28	28	16/12	480	30,131	11.60	2,598	1,837	500
24IT32	32	20/12	528	44,969	13.27	3,389	2,401	550
24IT36	36	24/12	576	63,936	15.00	4,262	3,045	600
24IT40	40	24/16	672	87,845	16.57	5,301	3,749	700
24IT44	44	28/16	720	116,877	18.27	6,397	4,542	750
24IT48	48	32/16	768	151,552	20.00	7,578	5,413	800
24IT52	52	36/16	816	192,275	21.76	8,836	6,358	850
24IT56	56	40/16	864	239,445	23.56	10,163	7,381	900
24IT60	60	44/16	912	293,460	25.37	11,567	8,474	950

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% dead load and 50% live load. 800 psi top tension has been allowed, therefore additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

**Key**

- 7,078 — Safe superimposed service load, plf
- 0.3 — Estimated camber at erection, in.
- 0.1 — Estimated long-time camber, in.

**Table of safe superimposed service load (plf) and cambers**

Designation	No. Strand	e	Span, ft.																	
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
24IT20	9	6.20	7,078 0.3 0.1	5,515 0.4 0.1	4,404 0.4 0.1	3,582 0.5 0.1	2,957 0.6 0.1	2,470 0.7 0.1	2,084 0.7 0.1	1,773 0.8 0.1	1,518 0.9 0.1	1,307 0.9 0.1	1,130 1.0 0.0	980 1.0 0.0						
24IT24	11	7.17		8,107 0.3 0.1	6,489 0.4 0.1	5,289 0.4 0.1	4,376 0.5 0.1	3,666 0.6 0.1	3,102 0.7 0.1	2,647 0.7 0.1	2,275 0.8 0.1	1,966 0.8 0.1	1,708 0.9 0.0	1,489 1.0 0.0	1,302 1.0 -0.1	1,142 1.0 -0.1	1,002 1.1 0.0			
24IT28	13	8.44			8,874 0.3 0.1	7,247 0.4 0.1	6,013 0.5 0.1	5,053 0.6 0.1	4,292 0.6 0.1	3,677 0.7 0.1	3,175 0.8 0.1	2,758 0.8 0.1	2,409 0.9 0.1	2,113 0.9 0.1	1,861 1.0 0.1	1,644 1.0 0.1	1,456 1.1 0.0	1,292 1.1 0.0	1,147 1.1 -0.1	1,020 1.1 -0.1
24IT32	15	9.77				9,574 0.4 0.1	7,957 0.4 0.1	6,698 0.5 0.1	5,700 0.6 0.2	4,894 0.6 0.2	4,238 0.7 0.2	3,694 0.8 0.2	3,239 0.8 0.2	2,853 0.9 0.2	2,524 1.0 0.2	2,241 1.0 0.2	1,996 1.1 0.2	1,752 1.1 0.1	1,594 1.1 0.1	1,428 1.2 0.1
24IT36	16	11.50					8,594 0.4 0.1	7,327 0.5 0.1	6,305 0.6 0.1	5,469 0.6 0.2	4,776 0.7 0.2	4,199 0.8 0.2	3,710 0.8 0.2	3,293 0.9 0.2	2,934 0.9 0.2	2,623 1.0 0.2	2,352 1.0 0.1	2,114 1.1 0.1	1,904 1.1 0.1	
24IT40	19	12.02						9,061 0.5 0.1	7,802 0.5 0.1	6,775 0.6 0.2	5,926 0.6 0.2	5,214 0.7 0.2	4,611 0.8 0.2	4,097 0.8 0.2	3,654 0.9 0.2	3,271 0.9 0.2	2,936 1.0 0.2	2,642 1.0 0.2	2,383 1.1 0.1	
24IT44	20	13.73							9,554 0.5 0.1	8,306 0.5 0.1	7,272 0.6 0.1	6,409 0.6 0.2	5,680 0.7 0.2	5,057 0.8 0.2	4,520 0.8 0.2	4,056 0.9 0.2	3,650 0.9 0.2	3,295 1.0 0.2	2,981 1.0 0.1	
24IT48	22	15.08								9,989 0.5 0.1	8,757 0.6 0.2	7,725 0.6 0.2	6,851 0.7 0.2	6,105 0.7 0.2	5,466 0.8 0.2	4,913 0.8 0.2	4,431 0.9 0.2	4,008 0.9 0.2	3,634 1.0 0.2	
24IT52	24	16.44									9,164 0.6 0.2	8,137 0.6 0.2	7,261 0.7 0.2	6,507 0.7 0.2	5,853 0.8 0.2	5,283 0.8 0.2	4,786 0.9 0.2	4,348 0.9 0.2		
24IT56	26	17.82										9,536 0.6 0.2	8,519 0.7 0.2	7,643 0.7 0.2	6,884 0.8 0.2	6,222 0.8 0.2	5,641 0.9 0.2	5,128 0.9 0.2		
24IT60	28	19.18											9,863 0.6 0.2	8,857 0.7 0.2	7,986 0.7 0.2	7,226 0.8 0.2	6,559 0.9 0.2	5,970 0.9 0.2		