



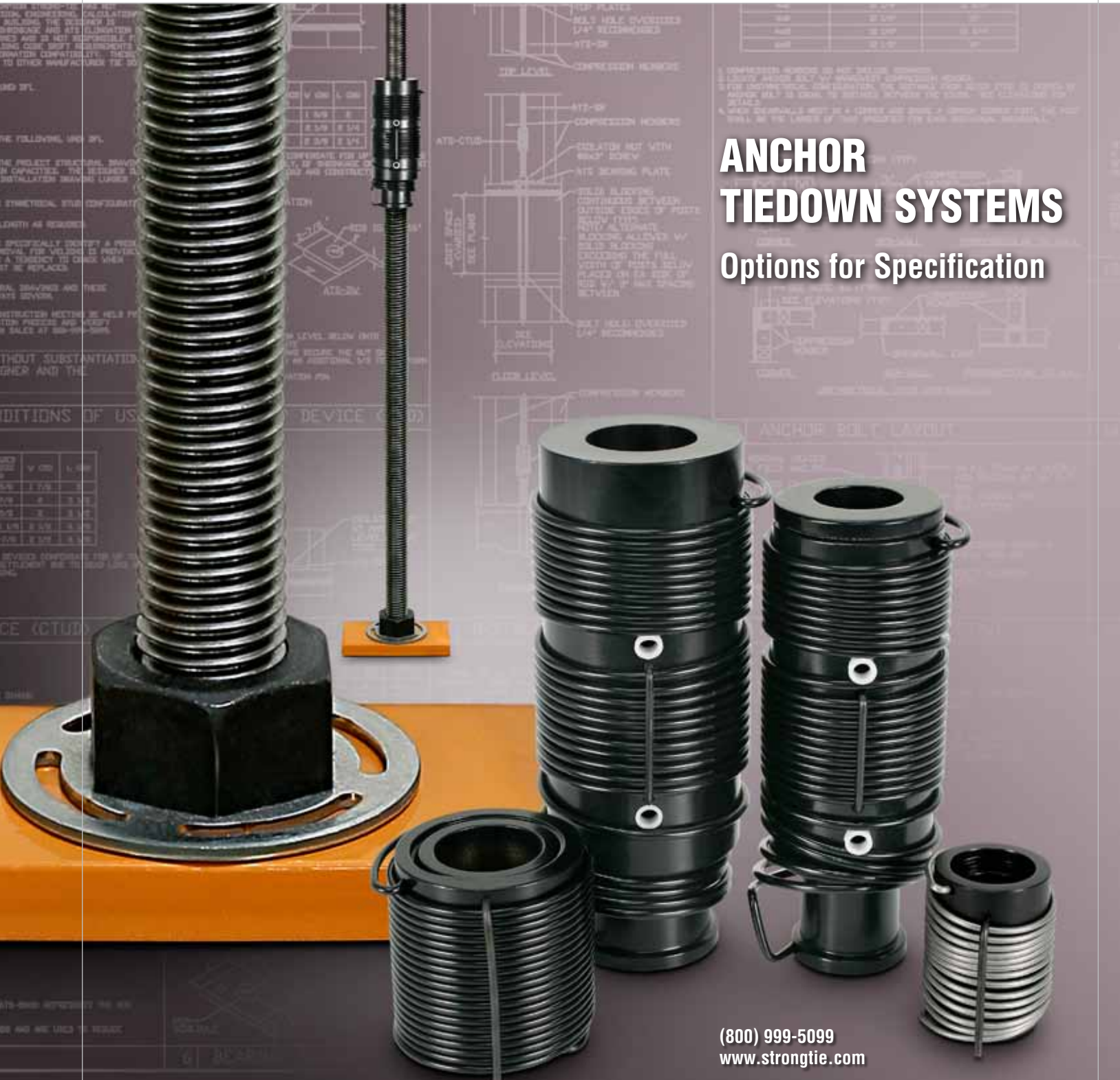
**SIMPSON**

**Strong-Tie**

®

# ANCHOR TIEDOWN SYSTEMS

Options for Specification



(800) 999-5099  
www.strongtie.com

## Leadership in Structural Systems Research and Technology

At Simpson Strong-Tie we take our role as an industry leader seriously. Every year we work to develop new products and enhance existing products with one goal in mind, helping our customers design and build safer structures cost effectively. We draw on more than 50 years of experience in the industry and on state-of-the-art knowledge gained through continual testing at our world-class test facilities. We actively seek out feedback from engineers and installers, and consistently find new ways to improve our product offerings.

Our Anchor Tiedown System (ATS) product line benefited significantly from this commitment to improvement since it was first introduced in 2000. We have simplified installation, for example, by reducing the number of components required in each run, labeling the components for easy field identification and providing installation packages with every project.

Moreover, we support this product line with unparalleled, on-site field support. This continued improvement has also resulted in design modifications that have reduced costs without reducing structural performance.

Simpson Strong-Tie also continues to support the design community in many ways. Our ATS Selector software allows for easy specification of our ATS runs with support calculations. Prior to quoting our team reviews every project to identify any potential field issues which are then relayed to the Designer before construction starts. Simpson Strong-Tie® products are manufactured to the highest standards under strict quality control for consistent structural performance. We stand behind our products like no other company does, with on-site teams to lead pre-construction meetings and address issues that come up in the field so that specifiers can focus on other tasks.



**A full-scale, seven-story, wood-framed condominium tower** – secured with Simpson Strong-Tie® products, including steel special moment frames and 63 Anchor Tiedown System runs and structural connectors – withstood a 7.5 magnitude simulated earthquake with only minor drywall damage in the world's largest earthquake shake table test. The 2009 NEESWood Capstone project was developed to test new design methods for multi-story, wood-frame buildings during large seismic events, and highlight the importance of earthquake-resistant construction around the world.

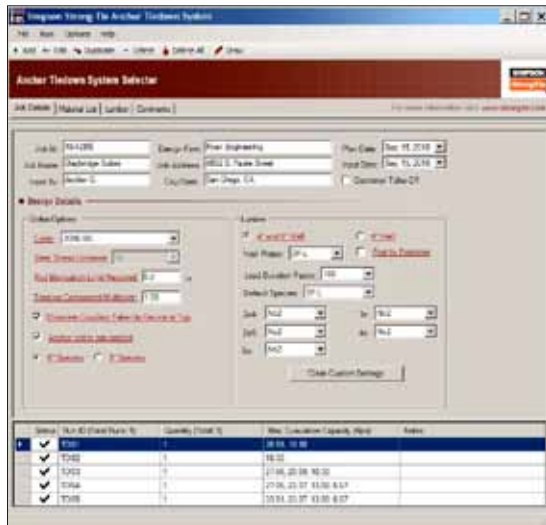
## Lower-Cost ATS Solutions

In an effort to provide a more cost-effective system, Simpson Strong-Tie has expanded our line of shrinkage compensating devices. Because our ATS product line is configured to address the shrinkage that occurs at each level of a multi-story structure, take-up devices are critical components in our system. As such they have experienced several design improvements over the years. In addition to coupling take-up devices (CTUDs), we have added multiple, expanding take-up devices made from steel or aluminum (TUDs and ATUDs). We recently began incorporating these new components into designs to create customized runs using combinations of our take-up devices that are tailored to specific framing conditions. These customized solutions can result in significant cost reductions while still providing the shrinkage take-up required. While these improvements are not reflected in the current version of the Simpson Strong-Tie *Anchor Tiedown Systems for Multi-Story Overturning Restraint* catalog (C-ATS07), or in the current ATS Selector software (v1.80), they are code-listed and available for your projects.



## Four Methods for Specifying ATS

We recognize that specifying Simpson Strong-Tie® ATS is unlike choosing any other product we offer. You must first address several design questions and considerations to ensure that the system will be configured to meet the design intent. These considerations might include whether to use ATS, or conventional holdowns and strapping; determining the project's incremental and cumulative loads; or, specification of elongation limits, for example. For more on these issues and many others, please visit [www.strongtie.com/ats](http://www.strongtie.com/ats). We currently offer the following four methods of specifying ATS:



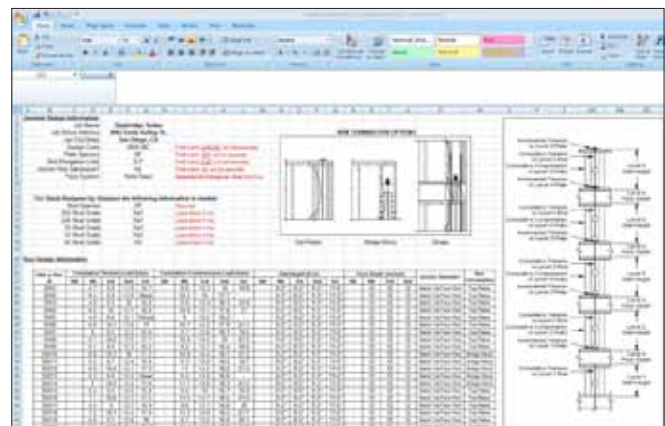
ATS Selector Software

### 1. Use our ATS Selector software for customized runs

Many Designers find it convenient to use our free ATS Selector software to design custom runs to meet their exact demand loads. With this method of specification the ATS Selector software creates drawings of the custom runs for placement in the construction documents. Since the runs are customized, they are less expensive than comparable catalog runs. The current ATS Selector software does not yet optimize the runs with the latest improvements in the ATS product line, but Simpson Strong-Tie can review these jobs to ensure the most cost-effective solutions are specified on the construction documents; this service is provided at no additional cost. For this review, the Designer need only e-mail the ATS design file to [engineering@strongtie.com](mailto:engineering@strongtie.com). Our team will optimize the runs to include the most cost-effective ATS products, and quickly return installation drawings and calculations to the Designer.

### 2. Send us your loads and we'll optimize the runs

Designers who do not use the ATS Selector software can also receive customized run drawings that incorporate the cost-savings from the expanded ATS product line. After sending us your project loads and criteria in a spreadsheet, we will customize the runs and quickly return installation drawings and calculations. To utilize this free service, please download a copy of the spreadsheet at [www.strongtie.com/ats](http://www.strongtie.com/ats). E-mail the completed spreadsheet to [engineering@strongtie.com](mailto:engineering@strongtie.com). Our team will optimize the runs to include the most cost-effective ATS products, and quickly return installation drawings and calculations to the Designer.



ATS Design Load Spreadsheet

# Lower-Cost ATS Solutions (cont.)

TYPE	LOADS	HEIGHT	WIND	SEISMIC	WIND	SEISMIC	WIND	SEISMIC	WIND	SEISMIC
1	15,750 Lbs	4.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5
2	15,750 Lbs	6.0	2.0	0.75	2.0	0.75	2.0	0.75	2.0	0.75
3	15,750 Lbs	7.5	2.25	0.85	2.25	0.85	2.25	0.85	2.25	0.85
4	15,750 Lbs	9.0	2.5	0.95	2.5	0.95	2.5	0.95	2.5	0.95
5	15,750 Lbs	10.5	2.75	1.05	2.75	1.05	2.75	1.05	2.75	1.05
6	15,750 Lbs	12.0	3.0	1.15	3.0	1.15	3.0	1.15	3.0	1.15
7	15,750 Lbs	13.5	3.25	1.25	3.25	1.25	3.25	1.25	3.25	1.25
8	15,750 Lbs	15.0	3.5	1.35	3.5	1.35	3.5	1.35	3.5	1.35
9	15,750 Lbs	16.5	3.75	1.45	3.75	1.45	3.75	1.45	3.75	1.45
10	15,750 Lbs	18.0	4.0	1.55	4.0	1.55	4.0	1.55	4.0	1.55
11	15,750 Lbs	19.5	4.25	1.65	4.25	1.65	4.25	1.65	4.25	1.65
12	15,750 Lbs	21.0	4.5	1.75	4.5	1.75	4.5	1.75	4.5	1.75
13	15,750 Lbs	22.5	4.75	1.85	4.75	1.85	4.75	1.85	4.75	1.85
14	15,750 Lbs	24.0	5.0	1.95	5.0	1.95	5.0	1.95	5.0	1.95
15	15,750 Lbs	25.5	5.25	2.05	5.25	2.05	5.25	2.05	5.25	2.05
16	15,750 Lbs	27.0	5.5	2.15	5.5	2.15	5.5	2.15	5.5	2.15
17	15,750 Lbs	28.5	5.75	2.25	5.75	2.25	5.75	2.25	5.75	2.25
18	15,750 Lbs	30.0	6.0	2.35	6.0	2.35	6.0	2.35	6.0	2.35
19	15,750 Lbs	31.5	6.25	2.45	6.25	2.45	6.25	2.45	6.25	2.45
20	15,750 Lbs	33.0	6.5	2.55	6.5	2.55	6.5	2.55	6.5	2.55
21	15,750 Lbs	34.5	6.75	2.65	6.75	2.65	6.75	2.65	6.75	2.65
22	15,750 Lbs	36.0	7.0	2.75	7.0	2.75	7.0	2.75	7.0	2.75
23	15,750 Lbs	37.5	7.25	2.85	7.25	2.85	7.25	2.85	7.25	2.85
24	15,750 Lbs	39.0	7.5	2.95	7.5	2.95	7.5	2.95	7.5	2.95
25	15,750 Lbs	40.5	7.75	3.05	7.75	3.05	7.75	3.05	7.75	3.05
26	15,750 Lbs	42.0	8.0	3.15	8.0	3.15	8.0	3.15	8.0	3.15
27	15,750 Lbs	43.5	8.25	3.25	8.25	3.25	8.25	3.25	8.25	3.25
28	15,750 Lbs	45.0	8.5	3.35	8.5	3.35	8.5	3.35	8.5	3.35
29	15,750 Lbs	46.5	8.75	3.45	8.75	3.45	8.75	3.45	8.75	3.45
30	15,750 Lbs	48.0	9.0	3.55	9.0	3.55	9.0	3.55	9.0	3.55
31	15,750 Lbs	49.5	9.25	3.65	9.25	3.65	9.25	3.65	9.25	3.65
32	15,750 Lbs	51.0	9.5	3.75	9.5	3.75	9.5	3.75	9.5	3.75
33	15,750 Lbs	52.5	9.75	3.85	9.75	3.85	9.75	3.85	9.75	3.85
34	15,750 Lbs	54.0	10.0	3.95	10.0	3.95	10.0	3.95	10.0	3.95
35	15,750 Lbs	55.5	10.25	4.05	10.25	4.05	10.25	4.05	10.25	4.05
36	15,750 Lbs	57.0	10.5	4.15	10.5	4.15	10.5	4.15	10.5	4.15
37	15,750 Lbs	58.5	10.75	4.25	10.75	4.25	10.75	4.25	10.75	4.25
38	15,750 Lbs	60.0	11.0	4.35	11.0	4.35	11.0	4.35	11.0	4.35
39	15,750 Lbs	61.5	11.25	4.45	11.25	4.45	11.25	4.45	11.25	4.45
40	15,750 Lbs	63.0	11.5	4.55	11.5	4.55	11.5	4.55	11.5	4.55
41	15,750 Lbs	64.5	11.75	4.65	11.75	4.65	11.75	4.65	11.75	4.65
42	15,750 Lbs	66.0	12.0	4.75	12.0	4.75	12.0	4.75	12.0	4.75
43	15,750 Lbs	67.5	12.25	4.85	12.25	4.85	12.25	4.85	12.25	4.85
44	15,750 Lbs	69.0	12.5	4.95	12.5	4.95	12.5	4.95	12.5	4.95
45	15,750 Lbs	70.5	12.75	5.05	12.75	5.05	12.75	5.05	12.75	5.05
46	15,750 Lbs	72.0	13.0	5.15	13.0	5.15	13.0	5.15	13.0	5.15
47	15,750 Lbs	73.5	13.25	5.25	13.25	5.25	13.25	5.25	13.25	5.25
48	15,750 Lbs	75.0	13.5	5.35	13.5	5.35	13.5	5.35	13.5	5.35
49	15,750 Lbs	76.5	13.75	5.45	13.75	5.45	13.75	5.45	13.75	5.45
50	15,750 Lbs	78.0	14.0	5.55	14.0	5.55	14.0	5.55	14.0	5.55
51	15,750 Lbs	79.5	14.25	5.65	14.25	5.65	14.25	5.65	14.25	5.65
52	15,750 Lbs	81.0	14.5	5.75	14.5	5.75	14.5	5.75	14.5	5.75
53	15,750 Lbs	82.5	14.75	5.85	14.75	5.85	14.75	5.85	14.75	5.85
54	15,750 Lbs	84.0	15.0	5.95	15.0	5.95	15.0	5.95	15.0	5.95
55	15,750 Lbs	85.5	15.25	6.05	15.25	6.05	15.25	6.05	15.25	6.05
56	15,750 Lbs	87.0	15.5	6.15	15.5	6.15	15.5	6.15	15.5	6.15
57	15,750 Lbs	88.5	15.75	6.25	15.75	6.25	15.75	6.25	15.75	6.25
58	15,750 Lbs	90.0	16.0	6.35	16.0	6.35	16.0	6.35	16.0	6.35
59	15,750 Lbs	91.5	16.25	6.45	16.25	6.45	16.25	6.45	16.25	6.45
60	15,750 Lbs	93.0	16.5	6.55	16.5	6.55	16.5	6.55	16.5	6.55
61	15,750 Lbs	94.5	16.75	6.65	16.75	6.65	16.75	6.65	16.75	6.65
62	15,750 Lbs	96.0	17.0	6.75	17.0	6.75	17.0	6.75	17.0	6.75
63	15,750 Lbs	97.5	17.25	6.85	17.25	6.85	17.25	6.85	17.25	6.85
64	15,750 Lbs	99.0	17.5	6.95	17.5	6.95	17.5	6.95	17.5	6.95
65	15,750 Lbs	100.5	17.75	7.05	100.5	7.05	100.5	7.05	100.5	7.05
66	15,750 Lbs	102.0	18.0	7.15	102.0	7.15	102.0	7.15	102.0	7.15
67	15,750 Lbs	103.5	18.25	7.25	103.5	7.25	103.5	7.25	103.5	7.25
68	15,750 Lbs	105.0	18.5	7.35	105.0	7.35	105.0	7.35	105.0	7.35
69	15,750 Lbs	106.5	18.75	7.45	106.5	7.45	106.5	7.45	106.5	7.45
70	15,750 Lbs	108.0	19.0	7.55	108.0	7.55	108.0	7.55	108.0	7.55
71	15,750 Lbs	109.5	19.25	7.65	109.5	7.65	109.5	7.65	109.5	7.65
72	15,750 Lbs	111.0	19.5	7.75	111.0	7.75	111.0	7.75	111.0	7.75
73	15,750 Lbs	112.5	19.75	7.85	112.5	7.85	112.5	7.85	112.5	7.85
74	15,750 Lbs	114.0	20.0	7.95	114.0	7.95	114.0	7.95	114.0	7.95
75	15,750 Lbs	115.5	20.25	8.05	115.5	8.05	115.5	8.05	115.5	8.05
76	15,750 Lbs	117.0	20.5	8.15	117.0	8.15	117.0	8.15	117.0	8.15
77	15,750 Lbs	118.5	20.75	8.25	118.5	8.25	118.5	8.25	118.5	8.25
78	15,750 Lbs	120.0	21.0	8.35	120.0	8.35	120.0	8.35	120.0	8.35
79	15,750 Lbs	121.5	21.25	8.45	121.5	8.45	121.5	8.45	121.5	8.45
80	15,750 Lbs	123.0	21.5	8.55	123.0	8.55	123.0	8.55	123.0	8.55
81	15,750 Lbs	124.5	21.75	8.65	124.5	8.65	124.5	8.65	124.5	8.65
82	15,750 Lbs	126.0	22.0	8.75	126.0	8.75	126.0	8.75	126.0	8.75
83	15,750 Lbs	127.5	22.25	8.85	127.5	8.85	127.5	8.85	127.5	8.85
84	15,750 Lbs	129.0	22.5	8.95	129.0	8.95	129.0	8.95	129.0	8.95
85	15,750 Lbs	130.5	22.75	9.05	130.5	9.05	130.5	9.05	130.5	9.05
86	15,750 Lbs	132.0	23.0	9.15	132.0	9.15	132.0	9.15	132.0	9.15
87	15,750 Lbs	133.5	23.25	9.25	133.5	9.25	133.5	9.25	133.5	9.25
88	15,750 Lbs	135.0	23.5	9.35	135.0	9.35	135.0	9.35	135.0	9.35
89	15,750 Lbs	136.5	23.75	9.45	136.5	9.45	136.5	9.45	136.5	9.45
90	15,750 Lbs	138.0	24.0	9.55	138.0	9.55	138.0	9.55	138.0	9.55
91	15,750 Lbs	139.5	24.25	9.65	139.5	9.65	139.5	9.65	139.5	9.65
92	15,750 Lbs	141.0	24.5	9.75	141.0	9.75	141.0	9.75	141.0	9.75
93	15,750 Lbs	142.5	24.75	9.85	142.5	9.85	142.5	9.85	142.5	9.85
94	15,750 Lbs	144.0	25.0	9.95	144.0	9.95	144.0	9.95	144.0	9.95
95	15,750 Lbs	145.5	25.25	10.05	145.5	10.05	145.5	10.05	145.5	10.05
96	15,750 Lbs	147.0	25.5	10.15	147.0	10.15	147.0	10.15	147.0	10.15
97	15,750 Lbs	148.5	25.75	10.25	148.5	10.25	148.5	10.25	148.5	10.25
98	15,750 Lbs	150.0	26.0	10.35	150.0	10.35	150.0	10.35	150.0	10.35
99	15,750 Lbs	151.5	26.25	10.45	151.5	10.45	151.5	10.45	151.5	10.45
100	15,750 Lbs	153.0	26.5	10.55	153.0	10.55	153.0	10.55	153.0	10.55

1. ALL DIMENSIONS SHOWN ARE FOR THE SYSTEM.   
 2. ALL DIMENSIONS SHOWN ARE FOR THE SYSTEM.