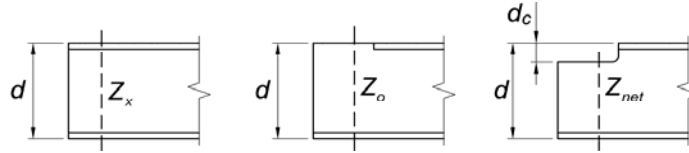


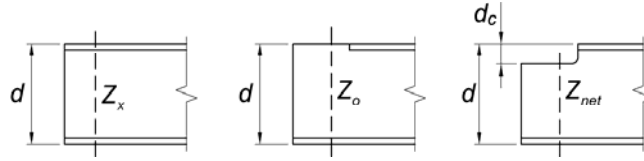
**Table IV-11
Plastic Section Modulus for Coped W-Shapes**



Shape	d, in.	t _f , in.	Z _x , in. ³	Z _o , in. ³	Z _{net} , in. ³									
					d _c , in.									
					2	3	4	5	6	7	8	9	10	
W44×335	44.0	1.77	1620	886	816	781	747	713	680	648	616	585	554	
×290	43.6	1.58	1410	746	685	656	627	598	570	542	515	488	461	
×262	43.3	1.42	1270	670	615	588	562	536	511	486	461	437	413	
×230	42.9	1.22	1100	591	543	519	496	473	451	429	407	385	364	
W40×655	43.6	3.54	3080	1640	–	–	1370	1310	1240	1180	1120	1060	996	
×593	43.0	3.23	2760	1460	–	–	1220	1160	1100	1050	989	934	880	
×503	42.1	2.76	2320	1220	–	1060	1010	961	912	864	817	771	725	
×431	41.3	2.36	1960	1020	–	892	849	807	766	725	685	645	606	
×397	41.0	2.20	1800	928	–	807	768	729	691	653	617	580	545	
×372	40.6	2.05	1680	866	–	752	715	679	643	608	574	540	507	
×362	40.6	2.01	1640	839	–	728	693	658	623	589	555	522	490	
×324	40.2	1.81	1460	740	674	641	610	578	547	517	487	458	429	
×297	39.8	1.65	1330	674	614	584	555	526	498	470	443	416	390	
×277	39.7	1.58	1250	609	554	526	499	473	447	421	396	372	348	
×249	39.4	1.42	1120	545	494	470	446	422	399	376	353	331	309	
×215	39.0	1.22	964	465	422	401	380	359	339	319	300	281	263	
×199	38.7	1.07	869	447	407	387	367	348	329	310	292	274	257	
W40×392	41.6	2.52	1710	1020	–	893	852	812	773	734	696	659	622	
×331	40.8	2.13	1430	848	–	741	706	673	639	607	575	543	513	
×327	40.8	2.13	1410	826	–	722	688	655	623	591	559	529	499	
×294	40.4	1.93	1270	734	671	640	610	580	551	523	495	467	440	
×278	40.2	1.81	1190	702	641	612	583	555	527	500	473	447	421	
×264	40.0	1.73	1130	653	597	569	542	516	490	464	439	414	390	
×235	39.7	1.58	1010	568	519	494	471	447	424	402	380	358	337	
×211	39.4	1.42	906	507	462	441	419	399	378	358	338	319	300	
×183	39.0	1.20	774	431	393	375	356	338	321	304	287	270	254	
×167	38.6	1.03	693	407	371	354	337	320	303	287	271	256	241	
×149	38.2	0.830	598	369	336	320	305	290	275	260	246	232	218	

– Indicates that cope depth is less than flange thickness

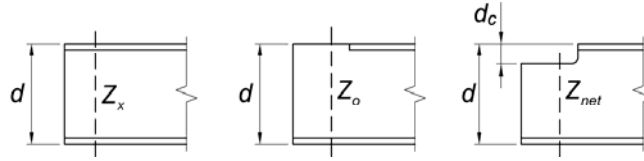
Table IV-11 (continued)
Plastic Section Modulus for Coped W-Shapes



Shape	d, in.	t _f , in.	Z _x , in. ³	Z _o , in. ³	Z _{net} , in. ³									
					d _c , in.									
					2	3	4	5	6	7	8	9	10	
W36×925	43.1	4.53	4130	2350	—	—	—	1870	1780	1690	1600	1510	1420	
×853	43.1	4.53	3920	2040	—	—	—	1610	1520	1440	1360	1290	1210	
×802	42.6	4.29	3660	1890	—	—	—	1490	1410	1330	1260	1190	1120	
×723	41.8	3.90	3270	1670	—	—	1380	1310	1240	1170	1110	1040	979	
×652	41.1	3.54	2910	1480	—	—	1220	1150	1090	1030	971	913	858	
×529	39.8	2.91	2330	1150	—	994	942	891	841	792	745	699	654	
×487	39.3	2.68	2130	1050	—	906	858	811	765	719	676	633	592	
×441	38.9	2.44	1910	942	—	809	766	723	682	641	601	563	526	
×395	38.4	2.20	1710	829	—	710	672	634	597	561	526	492	459	
×361	38.0	2.01	1550	749	—	641	606	571	537	504	472	442	412	
×330	37.7	1.85	1410	675	609	577	545	514	483	453	424	396	369	
×302	37.3	1.68	1280	615	554	524	495	466	438	411	384	358	333	
×282	37.1	1.57	1190	571	514	487	459	433	406	381	356	332	309	
×262	36.9	1.44	1100	535	482	456	431	406	382	357	334	311	289	
×247	36.7	1.35	1030	504	454	430	406	382	359	336	314	293	272	
×231	36.5	1.26	963	473	426	404	381	359	337	316	295	275	255	
W36×256	37.4	1.73	1040	584	530	503	477	452	427	402	378	354	331	
×232	37.1	1.57	936	523	474	450	427	404	381	359	338	316	295	
×210	36.7	1.36	833	481	436	414	392	371	350	330	310	291	272	
×194	36.5	1.26	767	440	398	378	358	339	320	301	283	265	248	
×182	36.3	1.18	718	412	373	354	336	318	300	282	265	248	232	
×170	36.2	1.10	668	384	348	330	313	296	279	263	247	231	216	
×160	36.0	1.02	624	362	327	311	294	278	262	247	232	217	203	
×150	35.9	0.940	581	343	310	294	279	264	249	234	220	206	193	
×135	35.6	0.790	509	313	283	269	255	241	227	214	201	189	176	
W33×387	36.0	2.28	1560	752	—	636	599	562	526	492	459	427	396	
×354	35.6	2.09	1420	681	—	574	540	507	474	443	412	383	355	
×318	35.2	1.89	1270	601	537	506	475	445	416	388	361	336	311	
×291	34.8	1.73	1160	544	486	457	429	402	375	350	325	302	279	
×263	34.5	1.57	1040	487	434	409	384	359	335	312	290	268	248	
×241	34.2	1.40	940	455	406	382	359	336	314	292	271	251	231	
×221	33.9	1.28	857	417	372	351	329	308	287	267	248	229	211	
×201	33.7	1.15	773	380	339	319	300	281	262	244	226	209	192	

— Indicates that cope depth is less than flange thickness

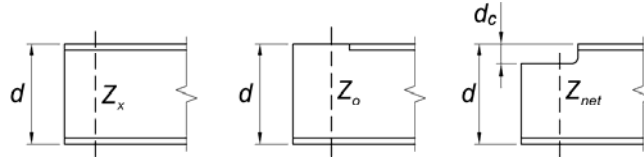
Table IV-11 (continued)
Plastic Section Modulus for Coped W-Shapes



Shape	d, in.	t _f , in.	Z _x , in. ³	Z _o , in. ³	Z _{net} , in. ³									
					d _c , in.									
					2	3	4	5	6	7	8	9	10	
W33×169	33.8	1.22	629	341	306	289	272	256	240	224	209	194	179	
×152	33.5	1.06	559	313	281	266	250	235	221	206	192	178	165	
×141	33.3	0.960	514	292	262	247	233	219	205	192	179	166	154	
×130	33.1	0.855	467	272	244	230	217	204	191	179	167	155	144	
×118	32.9	0.740	415	249	224	211	199	187	176	164	153	143	132	
W30×391	33.2	2.44	1450	687	—	570	533	498	463	430	398	367	338	
×357	32.8	2.24	1320	616	—	510	476	444	413	383	354	326	300	
×326	32.4	2.05	1190	555	—	459	428	399	370	343	316	291	267	
×292	32.0	1.85	1060	488	430	402	375	349	323	299	276	254	232	
×261	31.6	1.65	943	436	384	358	334	310	287	265	244	224	205	
×235	31.3	1.50	847	384	338	315	293	272	252	232	214	196	179	
×211	30.9	1.32	751	349	307	287	267	247	229	211	193	177	161	
×191	30.7	1.19	675	316	278	260	242	224	207	190	175	160	145	
×173	30.4	1.07	607	287	252	235	219	202	187	172	158	144	131	
W30×148	30.7	1.18	500	273	242	227	212	198	184	170	157	144	131	
×132	30.3	1.00	437	246	218	205	192	179	166	154	142	130	119	
×124	30.2	0.930	408	232	206	193	181	168	157	145	134	123	112	
×116	30.0	0.850	378	219	194	182	170	159	148	137	126	116	106	
×108	29.8	0.760	346	205	181	170	159	148	138	128	118	108	99.2	
×99	29.7	0.670	312	190	169	158	148	138	129	119	110	101	92.6	
×90	29.5	0.610	283	170	151	141	132	123	115	106	98.1	90.1	82.4	
W27×539	32.5	3.54	1890	921	—	—	709	661	614	569	526	485	445	
×368	30.4	2.48	1240	582	—	474	440	407	376	346	318	290	264	
×336	30.0	2.28	1130	522	—	423	392	363	335	308	282	257	234	
×307	29.6	2.09	1030	470	—	380	352	325	299	275	251	229	208	
×281	29.3	1.93	936	424	368	342	316	292	268	246	225	204	185	
×258	29.0	1.77	852	385	334	310	287	264	243	222	203	184	167	
×235	28.7	1.61	772	351	305	282	261	240	221	202	184	167	150	
×217	28.4	1.50	711	316	273	253	233	215	197	180	164	148	133	
×194	28.1	1.34	631	281	242	224	207	190	174	159	144	130	117	
×178	27.8	1.19	570	264	229	212	195	179	164	149	135	122	110	
×161	27.6	1.08	515	238	206	191	176	161	147	134	121	109	97.9	
×146	27.4	0.975	464	216	187	173	159	146	133	121	109	98.3	88.0	

— Indicates that cope depth is less than flange thickness

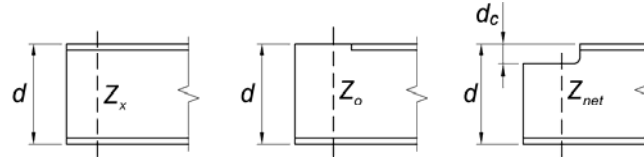
Table IV-11 (continued)
Plastic Section Modulus for Coped W-Shapes



Shape	d, in.	t _f , in.	Z _x , in. ³	Z _o , in. ³	Z _{net} , in. ³									
					d _c , in.									
					2	3	4	5	6	7	8	9	10	
W27×129	27.6	1.10	395	209	183	170	157	145	133	122	110	99.5	89.1	
×114	27.3	0.930	343	189	165	153	142	131	120	110	100	90.2	80.7	
×102	27.1	0.830	305	168	147	136	126	117	107	97.8	88.8	80.1	71.6	
×94	26.9	0.745	278	156	136	126	117	108	99.3	90.8	82.5	74.4	66.6	
×84	26.7	0.640	244	141	123	115	106	98.2	90.3	82.6	75.1	67.8	60.8	
W24×370	28.0	2.72	1130	536	—	428	394	362	332	303	275	249	225	
×335	27.5	2.48	1020	473	—	376	346	317	290	264	240	216	194	
×306	27.1	2.28	922	423	—	335	308	282	257	234	211	190	171	
×279	26.7	2.09	835	380	—	300	275	252	229	208	188	169	151	
×250	26.3	1.89	744	333	285	262	240	219	199	180	162	146	130	
×229	26.0	1.73	675	302	258	237	217	198	179	162	146	130	116	
×207	25.7	1.57	606	269	229	210	192	175	159	143	128	115	102	
×192	25.5	1.46	559	248	211	193	176	160	145	131	117	105	92.6	
×176	25.2	1.34	511	225	191	175	159	145	131	118	105	93.7	82.7	
×162	25.0	1.22	468	209	177	162	148	134	121	109	97.0	86.1	75.9	
×146	24.7	1.09	418	188	159	146	133	120	108	97.1	86.6	76.6	67.3	
×131	24.5	0.960	370	172	146	134	121	110	98.9	88.6	78.8	69.6	61.1	
×117	24.3	0.850	327	154	131	120	109	98.2	88.3	79.0	70.2	61.9	54.1	
×104	24.1	0.750	289	138	117	107	97.2	87.8	78.8	70.4	62.4	55.0	48.0	
W24×103	24.5	0.980	280	149	128	117	107	97.8	88.4	79.3	70.6	62.3	54.5	
×94	24.3	0.875	254	136	117	108	98.6	89.7	81.1	72.8	64.7	57.0	49.9	
×84	24.1	0.770	224	122	105	96.2	88.0	80.1	72.5	65.1	57.9	50.9	44.4	
×76	23.9	0.680	200	111	95.2	87.6	80.2	73.1	66.1	59.4	52.8	46.6	40.5	
×68	23.7	0.585	177	101	86.6	79.7	73.0	66.5	60.2	54.2	48.3	42.7	37.2	
W24×62	23.7	0.590	153	96.6	82.9	76.4	70.1	64.1	58.2	52.6	47.1	41.9	36.9	
×55	23.6	0.505	134	86.5	74.2	68.4	62.8	57.3	52.1	47.0	42.2	37.5	33.1	

— Indicates that cope depth is less than flange thickness

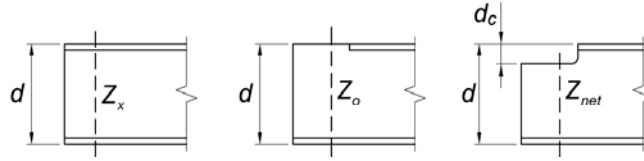
Table IV-11 (continued)
Plastic Section Modulus for Coped W-Shapes



Shape	d, in.	t _f , in.	Z _x , in. ³	Z _o , in. ³	Z _{net} , in. ³									
					d _c , in.									
					2	3	4	5	6	7	8	9	10	
W21×275	24.1	2.19	749	324	–	249	226	204	184	165	146	130	114	
×248	23.7	1.99	671	285	239	217	197	178	160	143	127	112	97.7	
×223	23.4	1.79	601	254	212	193	175	158	141	126	111	97.8	85.3	
×201	23.0	1.63	530	225	187	170	154	138	123	110	96.7	84.7	73.5	
×182	22.7	1.48	476	201	167	151	136	122	109	96.7	85.1	74.3	64.2	
×166	22.5	1.36	432	179	149	135	121	109	96.8	85.7	75.2	65.5	56.5	
×147	22.1	1.15	373	166	138	124	112	99.7	88.5	77.9	68.1	59.0	50.6	
×132	21.8	1.04	333	147	121	109	97.9	87.3	77.3	67.9	59.2	51.1	43.6	
×122	21.7	0.960	307	135	111	100	89.7	79.9	70.7	62.1	54.0	46.6	39.7	
×111	21.5	0.875	279	122	100	90.1	80.7	71.8	63.4	55.5	48.2	41.5	35.3	
×101	21.4	0.800	253	110	90.4	81.4	72.8	64.7	57.1	50.0	43.4	37.2	31.6	
W21×93	21.6	0.930	221	120	101	91.7	82.8	74.2	65.9	57.8	50.2	43.1	36.6	
×83	21.4	0.835	196	105	88.4	80.3	72.4	64.8	57.4	50.3	43.6	37.3	31.6	
×73	21.2	0.740	172	92.0	77.0	69.8	62.9	56.2	49.7	43.5	37.6	32.1	27.1	
×68	21.1	0.685	160	85.9	71.9	65.2	58.7	52.5	46.5	40.6	35.1	29.9	25.2	
×62	21.0	0.615	144	78.7	65.9	59.8	53.9	48.2	42.6	37.3	32.2	27.5	23.1	
×55	20.8	0.522	126	70.9	59.4	53.9	48.6	43.5	38.6	33.9	29.3	25.0	20.9	
×48	20.6	0.430	107	62.9	52.7	47.8	43.2	38.7	34.4	30.2	26.3	22.5	18.9	
W21×57	21.1	0.650	129	76.1	64.0	58.2	52.6	47.3	42.1	37.2	32.4	27.8	23.5	
×50	20.8	0.535	110	67.3	56.5	51.4	46.4	41.7	37.2	32.8	28.6	24.6	20.8	
×44	20.7	0.450	95.4	60.0	50.4	45.8	41.4	37.2	33.2	29.3	25.6	22.1	18.7	
W18×311	22.3	2.74	754	336	–	252	227	204	182	161	142	124	107	
×283	21.9	2.50	676	300	–	224	202	180	160	142	124	108	93.3	
×258	21.5	2.30	611	267	–	198	178	159	141	124	108	93.6	80.4	
×234	21.1	2.11	549	235	–	174	155	138	122	107	93.1	80.3	68.6	
×211	20.7	1.91	490	208	170	153	136	121	106	92.8	80.4	69.0	58.6	
×192	20.4	1.75	442	184	150	135	120	106	93.0	81.0	69.9	59.7	50.5	
×175	20.0	1.59	398	165	134	120	106	93.6	81.8	71.0	60.9	51.7	43.4	
×158	19.7	1.44	356	147	119	106	93.6	82.2	71.7	61.9	52.9	44.7		
×143	19.5	1.32	322	130	105	93.6	82.7	72.6	63.1	54.4	46.4	39.1		
×130	19.3	1.20	290	118	94.7	84.2	74.3	65.1	56.5	48.5	41.2	34.6		
×119	19.0	1.06	262	112	89.5	79.3	69.8	60.9	52.7	45.0	38.0	31.7		
×106	18.7	0.940	230	98.0	78.2	69.1	60.7	52.8	45.5	38.7	32.5	26.9		
×97	18.6	0.870	211	88.3	70.4	62.2	54.5	47.4	40.7	34.7	29.1	24.0		
×86	18.4	0.770	186	77.9	61.9	54.6	47.8	41.4	35.6	30.1	25.2	20.7		
×76	18.2	0.680	163	67.8	53.7	47.3	41.3	35.7	30.6	25.9	21.5	17.6		

– Indicates that cope depth is less than flange thickness
 Note: Values are omitted when cope depth exceeds d/2.

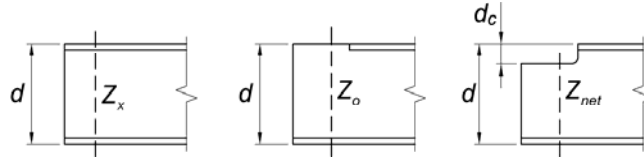
Table IV-11 (continued)
Plastic Section Modulus for Coped W-Shapes



Shape	d, in.	t _f , in.	Z _x , in. ³	Z _o , in. ³	Z _{net} , in. ³									
					d _c , in.									
					2	3	4	5	6	7	8	9	10	
W18×71	18.5	0.810	146	76.6	62.2	55.3	48.7	42.4	36.3	30.8	25.7	21.1		
×65	18.4	0.750	133	69.4	56.2	50.0	43.9	38.1	32.7	27.6	23.0	18.9		
×60	18.2	0.695	123	63.0	50.9	45.1	39.6	34.3	29.3	24.7	20.5	16.7		
×55	18.1	0.630	112	58.3	47.1	41.8	36.7	31.8	27.1	22.9	18.9	15.4		
×50	18.0	0.570	101	52.6	42.5	37.7	33.1	28.6	24.4	20.5	17.0	13.8		
W18×46	18.1	0.605	90.7	51.4	41.8	37.3	32.9	28.7	24.7	20.9	17.3	14.1		
×40	17.9	0.525	78.4	44.1	35.8	31.9	28.1	24.5	21.1	17.8	14.7			
×35	17.7	0.425	66.5	39.5	32.1	28.6	25.3	22.1	19.0	16.1	13.4			
W16×100	17.0	0.985	198	80.0	62.4	54.4	47.0	40.2	33.9	28.2	23.1			
×89	16.8	0.875	175	70.5	54.8	47.7	41.1	35.0	29.5	24.4	19.9			
×77	16.5	0.760	150	59.3	45.9	39.8	34.2	29.0	24.3	20.0	16.2			
×67	16.3	0.665	130	50.5	38.9	33.7	28.9	24.4	20.4	16.7	13.4			
W16×57	16.4	0.715	105	53.1	41.7	36.3	31.2	26.4	22.0	18.0	14.4			
×50	16.3	0.630	92.0	46.6	36.5	31.8	27.3	23.0	19.1	15.6	12.5			
×45	16.1	0.565	82.3	41.4	32.4	28.1	24.1	20.3	16.8	13.7	10.9			
×40	16.0	0.505	73.0	36.3	28.4	24.6	21.0	17.7	14.6	11.9	9.40			
×36	15.9	0.430	64.0	33.9	26.6	23.2	19.9	16.8	13.9	11.2				
W16×31	15.9	0.440	54.0	30.4	24.0	21.0	18.1	15.4	12.8	10.4				
×26	15.7	0.345	44.2	26.0	20.5	18.0	15.6	13.3	11.1	9.02				

Note: Values are omitted when cope depth exceeds d/2.

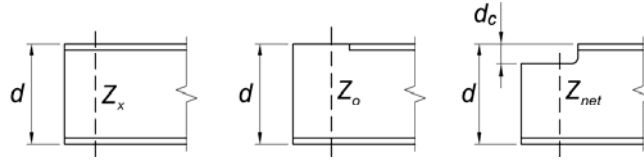
**Table IV-11 (continued)
Plastic Section Modulus for Coped W-Shapes**



Shape	d, in.	t _f , in.	Z _x , in. ³	Z _o , in. ³	Z _{net} , in. ³									
					d _c , in.									
					2	3	4	5	6	7	8	9	10	
W14×873	23.6	5.51	2030	916	–	–	–	–	532	480	432	387	346	
×808	22.8	5.12	1830	817	–	–	–	–	463	416	372	332	295	
×730	22.4	4.91	1660	669	–	–	–	421	380	341	306	273	243	
×665	21.6	4.52	1480	579	–	–	–	358	321	287	256	227	201	
×605	20.9	4.16	1320	503	–	–	–	305	272	242	214	189	166	
×550	20.2	3.82	1180	434	–	–	289	258	229	203	179	157	137	
×500	19.6	3.50	1050	379	–	–	248	221	195	172	150	131		
×455	19.0	3.21	936	331	–	–	213	189	166	145	126	109		
×426	18.7	3.04	869	301	–	–	193	170	149	130	113	97.0		
×398	18.3	2.85	801	273	–	195	172	152	132	115	99.0	84.8		
×370	17.9	2.66	736	246	–	174	154	134	117	101	86.5			
×342	17.5	2.47	672	219	–	154	135	118	102	87.6	74.7			
×311	17.1	2.26	603	193	–	134	117	102	87.5	74.6	63.1			
×283	16.7	2.07	542	169	–	117	101	87.5	74.9	63.5	53.3			
×257	16.4	1.89	487	150	117	102	88.8	76.3	64.9	54.7	45.6			
×233	16.0	1.72	436	130	101	87.9	75.9	64.8	54.8	45.9	37.9			
×211	15.7	1.56	390	115	88.9	77.1	66.2	56.3	47.3	39.3				
×193	15.5	1.44	355	103	78.8	68.1	58.3	49.4	41.4	34.2				
×176	15.2	1.31	320	92.2	70.3	60.6	51.6	43.5	36.2	29.7				
×159	15.0	1.19	287	81.0	61.5	52.8	44.9	37.6	31.2	25.4				
×145	14.8	1.09	260	72.2	54.5	46.7	39.6	33.1	27.2	22.1				
W14×132	14.7	1.03	234	67.4	50.7	43.4	36.6	30.5	25.0	20.1				
×120	14.5	0.940	212	60.2	45.1	38.4	32.3	26.8	21.9	17.5				
×109	14.3	0.860	192	52.3	39.0	33.2	27.8	23.0	18.6	14.8				
×99	14.2	0.780	173	47.7	35.5	30.1	25.2	20.7	16.8	13.3				
×90	14.0	0.710	157	42.2	31.2	26.4	22.0	18.0	14.5	11.4				
×82	14.3	0.855	139	49.7	36.9	31.2	26.1	21.4	17.2	13.6				
×74	14.2	0.785	126	43.5	32.2	27.3	22.7	18.6	15.0	11.7				
×68	14.0	0.720	115	39.1	28.8	24.3	20.2	16.5	13.2	10.2				
×61	13.9	0.645	102	35.0	25.7	21.6	17.9	14.6	11.6					
W14×53	13.9	0.660	87.1	34.2	25.1	21.1	17.4	14.2	11.2					
×48	13.8	0.595	78.4	31.1	22.7	19.1	15.7	12.7	10.1					
×43	13.7	0.530	69.6	27.6	20.1	16.9	13.9	11.2	8.83					
W14×38	14.1	0.515	61.5	29.1	21.7	18.3	15.1	12.3	9.77	7.54				
×34	14.0	0.455	54.6	26.3	19.7	16.5	13.7	11.1	8.78	6.75				
×30	13.8	0.385	47.3	23.8	17.9	15.1	12.5	10.1	7.91					

– Indicates that cope depth is less than flange thickness
 Note: Values are omitted when cope depth exceeds d/2.

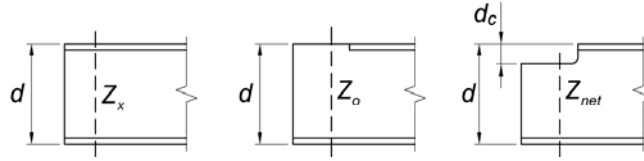
Table IV-11 (continued)
Plastic Section Modulus for Coped W-Shapes



Shape	d, in.	t _f , in.	Z _x , in. ³	Z _o , in. ³	Z _{net} , in. ³									
					d _c , in.									
					2	3	4	5	6	7	8	9	10	
W14×26	13.9	0.420	40.2	21.9	16.6	14.1	11.8	9.61	7.58					
	×22	13.7	0.335	33.2	18.7	14.2	12.1	10.1	8.26	6.52				
W12×336	16.8	2.96	603	225	–	156	136	118	101	86.2	73.1			
	×305	16.3	2.71	537	195	–	133	116	99.6	85.1	72.0	60.5		
	×279	15.9	2.47	481	175	–	118	102	87.1	73.8	61.9			
	×252	15.4	2.25	428	152	–	101	86.3	73.3	61.6	51.2			
	×230	15.1	2.07	386	135	–	88.9	75.8	64.1	53.5	44.1			
	×210	14.7	1.90	348	118	89.3	76.6	65.0	54.5	45.2	37.0			
	×190	14.4	1.74	311	103	77.2	65.9	55.7	46.5	38.3	31.1			
	×170	14.0	1.56	275	88.4	65.8	55.9	46.9	38.8	31.6	25.4			
	×152	13.7	1.40	243	77.1	56.9	48.1	40.1	32.9	26.6				
	×136	13.4	1.25	214	67.3	49.3	41.4	34.3	27.9	22.3				
	×120	13.1	1.11	186	58.1	42.1	35.2	28.9	23.4	18.5				
	×106	12.9	0.990	164	48.8	35.2	29.3	24.0	19.3	15.2				
	×96	12.7	0.900	147	42.8	30.7	25.5	20.8	16.6	12.9				
	×87	12.5	0.810	132	38.9	27.7	22.8	18.5	14.7	11.3				
	×79	12.4	0.735	119	35.0	24.8	20.4	16.5	13.0	10.0				
	×72	12.3	0.670	108	31.6	22.3	18.3	14.7	11.6	8.85				
×65	12.1	0.605	96.8	27.8	19.5	15.9	12.8	9.96	7.54					
W12×58	12.2	0.640	86.4	26.0	18.3	15.0	12.0	9.39	7.13					
	×53	12.1	0.575	77.9	24.5	17.2	14.0	11.2	8.69	6.55				
W12×50	12.2	0.640	71.9	26.4	18.5	15.1	12.1	9.38	7.07					
	×45	12.1	0.575	64.2	23.6	16.5	13.4	10.7	8.28	6.20				
	×40	11.9	0.515	57.0	20.2	14.0	11.3	8.99	6.92					
W12×35	12.5	0.520	51.2	22.4	15.8	13.0	10.4	8.13	6.15					
	×30	12.3	0.440	43.1	18.9	13.3	10.8	8.64	6.70	5.03				
	×26	12.2	0.380	37.2	16.5	11.6	9.41	7.48	5.79	4.31				
W12×22	12.3	0.425	29.3	16.9	12.3	10.3	8.32	6.50	4.85					
	×19	12.2	0.350	24.7	14.7	10.8	8.96	7.28	5.71	4.27				
	×16	12.0	0.265	20.1	12.6	9.23	7.68	6.25	4.93	3.71				
	×14	11.9	0.225	17.4	11.1	8.10	6.74	5.48	4.31					

– Indicates that cope depth is less than flange thickness
 Note: Values are omitted when cope depth exceeds d/2.

Table IV-11 (continued)
Plastic Section Modulus for Coped W-Shapes



Shape	d, in.	t _f , in.	Z _x , in. ³	Z _o , in. ³	Z _{net} , in. ³															
					d _c , in.															
					2	3	4	5	6	7	8	9	10							
W10×112	11.4	1.25	147	46.3	32.1	26.0	20.7	16.1												
×100	11.1	1.12	130	39.8	27.2	21.9	17.3	13.3												
×88	10.8	0.990	113	33.7	22.8	18.2	14.2	10.8												
×77	10.6	0.870	97.6	28.6	19.1	15.2	11.7	8.80												
×68	10.4	0.770	85.3	24.5	16.2	12.8	9.79	7.26												
×60	10.2	0.680	74.6	21.2	13.9	10.8	8.22	6.01												
×54	10.1	0.615	66.6	18.4	12.0	9.32	7.03	5.11												
×49	10.0	0.560	60.4	16.6	10.7	8.33	6.25	4.50												
W10×45	10.1	0.620	54.9	17.2	11.2	8.66	6.51	4.69												
×39	9.92	0.530	46.8	15.0	9.61	7.40	5.50													
×33	9.73	0.435	38.8	13.3	8.41	6.41	4.70													
W10×30	10.5	0.510	36.6	15.7	10.3	8.05	6.08	4.40												
×26	10.3	0.440	31.3	13.2	8.58	6.65	4.98	3.56												
×22	10.2	0.360	26.0	11.9	7.75	5.98	4.45	3.15												
W10×19	10.2	0.395	21.6	11.6	7.80	6.09	4.52	3.19												
×17	10.1	0.330	18.7	10.6	7.16	5.62	4.21	2.95												
×15	9.99	0.270	16.0	9.56	6.47	5.10	3.85													
×12	9.87	0.210	12.6	7.63	5.15	4.05	3.05													
W8×67	9.00	0.935	70.1	21.9	13.5	10.2	7.44													
×58	8.75	0.810	59.8	18.6	11.3	8.40	6.00													
×48	8.50	0.685	49.0	13.9	8.34	6.13	4.31													
×40	8.25	0.560	39.8	11.8	6.90	4.98	3.40													
×35	8.12	0.495	34.7	9.91	5.73	4.10	2.77													
×31	8.00	0.435	30.4	8.86	5.06	3.58	2.38													
W8×28	8.06	0.465	27.2	8.90	5.09	3.60	2.39													
×24	7.93	0.400	23.1	7.44	4.21	2.95														
W8×21	8.28	0.400	20.4	8.18	4.72	3.36	2.24													
×18	8.14	0.330	17.0	7.30	4.16	2.93	1.92													
W8×15	8.11	0.315	13.6	7.22	4.29	3.02	1.96													
×13	7.99	0.255	11.4	6.38	3.82	2.70														
×10	7.89	0.205	8.87	4.74	2.79	1.95														

Note: Values are omitted when cope depth exceeds d/2.