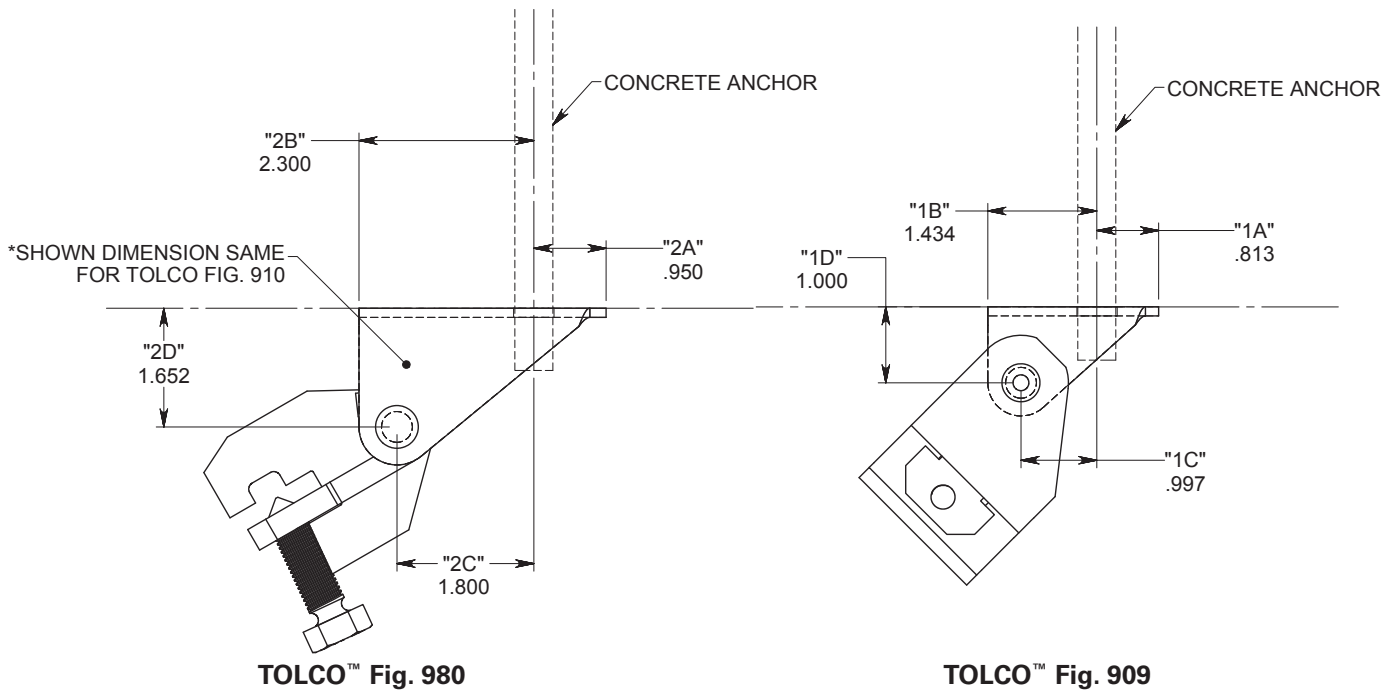


Detail Per NFPA 13, 2013 Figures A.9.3.5.12.1 (a-c) and NFPA 13, 2016 Figures A.9.3.5.12.2 (a-c) & Annex Section E.7.2



Prying Factors Per NFPA 13, 2016 Section 9.3.5.12.8.2 (A) And Fig. 9.3.5.12.1 Designated Angle Category

Tolco Figure 980								
A	B	C	D	E	F	G	H	I
<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
3.275	1.156	0.844	1.461	1.156	1.891	3.478	2.469	2.008

Tolco Figure 909								
A	B	C	D	E	F	G	H	I
<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
2.626	1.002	0.873	1.513	1.002	1.516	2.460	1.740	1.420

# Anchor Load Charts

## NFPA 13-16 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 3000 psi Sand Lightweight Concrete

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Sand Lightweight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.469	<i>Pr</i> 2.008
3/8	2.375	101	222	270	156	222	175	84	118	145
1/2	3.750	216	491	605	349	491	374	182	257	315
5/8	3.875	252	594	741	428	594	437	216	306	375
3/4	4.500	311	728	907	523	728	539	266	376	461

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Sand Lightweight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 2.626	<i>Pr</i> 1.002	<i>Pr</i> 0.873	<i>Pr</i> 1.513	<i>Pr</i> 1.002	<i>Pr</i> 1.516	<i>Pr</i> 2.460	<i>Pr</i> 1.740	<i>Pr</i> 1.420
3/8	2.375	121	243	265	153	243	210	107	151	185
1/2	3.750	161	541	592	342	541	452	235	333	407
5/8	3.875	306	658	724	418	658	530	283	401	491
3/4	4.500	378	806	886	512	806	654	348	492	602

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Sand Lightweight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.459	<i>Pr</i> 2.008
3/8	2.375	101	222	270	156	222	175	84	118	145
1/2	3.750	216	491	605	349	491	374	182	257	315
5/8	3.875	252	594	741	428	594	437	216	306	375
3/4	4.500	311	728	907	523	728	539	266	376	461

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt

## NFPA 13-16 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 3000 psi Normal Weight Cracked Concrete

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2.375	145	310	373	215	310	251	118	167	205
1/2	3.750	299	632	756	436	632	517	242	342	419
5/8	3.875	353	777	945	545	777	611	292	413	506
3/4	4.500	434	950	1151	664	950	752	358	506	620

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2.375	173	338	366	211	338	300	149	211	259
1/2	3.750	356	687	742	428	687	617	304	430	526
5/8	3.875	423	852	926	534	852	733	373	527	646
3/4	4.500	521	1039	1128	651	1039	902	456	645	790

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2.375	145	310	373	215	310	251	118	167	205
1/2	3.750	299	632	756	436	632	517	242	342	419
5/8	3.875	353	777	945	545	777	611	292	413	506
3/4	4.500	434	950	1151	664	950	752	358	506	620

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt

# Anchor Load Charts

## NFPA 13-16 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 4000 psi Normal Weight Cracked Concrete

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 4000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.469	<i>Pr</i> 2.008
3/8	2.375	157	329	393	227	329	271	126	179	219
1/2	3.750	335	688	813	470	688	581	267	377	462
5/8	3.875	398	852	1025	592	852	689	324	458	561
3/4	4.500	489	1040	1247	720	1040	847	397	561	688

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 4000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 2.626	<i>Pr</i> 1.002	<i>Pr</i> 0.873	<i>Pr</i> 1.513	<i>Pr</i> 1.002	<i>Pr</i> 1.516	<i>Pr</i> 2.460	<i>Pr</i> 1.740	<i>Pr</i> 1.420
3/8	2.375	187	358	386	223	358	323	158	224	274
1/2	3.750	398	744	800	462	744	689	332	469	574
5/8	3.875	475	929	1005	580	929	823	410	579	709
3/4	4.500	584	1132	1224	706	1132	1011	500	707	866

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 4000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.459	<i>Pr</i> 2.008
3/8	2.375	157	329	393	227	329	271	126	179	219
1/2	3.750	335	688	813	470	688	581	267	377	462
5/8	3.875	398	852	1025	592	852	689	324	458	561
3/4	4.500	489	1040	1247	720	1040	847	397	561	688

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt

## NFPA 13-16 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 5000 psi Normal Weight Cracked Concrete

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 5000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2.375	166	344	408	235	344	288	133	188	230
1/2	3.750	366	732	858	495	732	634	287	406	497
5/8	3.875	435	912	1087	628	912	754	350	496	607
3/4	4.500	536	1112	1322	763	1112	928	429	607	743

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 5000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2.375	197	373	401	231	373	342	166	234	287
1/2	3.750	432	789	844	488	789	748	354	500	612
5/8	3.875	518	991	1068	617	991	898	439	621	761
3/4	4.500	637	1206	1298	750	1206	1103	536	758	928

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 5000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2.375	166	344	408	235	344	288	133	188	230
1/2	3.750	366	732	858	495	732	634	287	406	497
5/8	3.875	435	912	1087	628	912	754	350	496	607
3/4	4.500	536	1112	1322	763	1112	928	429	607	743

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt

# Anchor Load Charts

## NFPA 13-16 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 6000 psi Normal Weight Cracked Concrete

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 6000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.469	<i>Pr</i> 2.008
3/8	2.375	174	356	420	243	356	302	138	196	240
1/2	3.750	392	768	895	517	768	680	304	430	527
5/8	3.875	468	962	1139	658	962	811	373	527	646
3/4	4.500	576	1172	1383	798	1172	997	456	645	790

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 6000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 2.626	<i>Pr</i> 1.002	<i>Pr</i> 0.873	<i>Pr</i> 1.513	<i>Pr</i> 1.002	<i>Pr</i> 1.516	<i>Pr</i> 2.460	<i>Pr</i> 1.740	<i>Pr</i> 1.420
3/8	2.375	207	385	413	238	385	358	172	243	297
1/2	3.750	462	826	881	509	826	799	372	526	644
5/8	3.875	556	1042	1119	646	1042	963	464	656	804
3/4	4.500	682	1267	1360	785	1267	1181	566	800	979

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 6000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.459	<i>Pr</i> 2.008
3/8	2.375	174	356	420	243	356	302	138	196	240
1/2	3.750	392	768	895	517	768	680	304	430	527
5/8	3.875	468	962	1139	658	962	811	373	527	646
3/4	4.500	576	1172	1383	798	1172	997	456	645	790

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt

## NFPA 13-16 Wood-Knocker® In 3000 psi Sand Lightweight Concrete

### Wood-Knocker™ in 3000 psi Sand Lightweight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2	160	310	359	207	310	277	123	174	213
1/2	2	174	366	438	253	366	301	140	198	243
5/8	2	174	366	438	253	366	301	140	198	243
3/4	2	174	366	438	253	366	301	140	198	243

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 3000 psi Sand Lightweight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2	187	332	354	204	332	325	150	212	260
1/2	2	207	399	430	248	399	358	176	249	305
5/8	2	207	399	430	248	399	358	176	249	305
3/4	2	207	399	430	248	399	358	176	249	305

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 3000 psi Sand Lightweight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2	160	310	359	207	310	277	123	174	213
1/2	2	174	366	438	253	366	301	140	198	243
5/8	2	174	366	438	253	366	301	140	198	243
3/4	2	174	366	438	253	366	301	140	198	243

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt

# Anchor Load Charts

## NFPA 13-16 Wood-Knocker® In 3000 psi Normal Weight Cracked Concrete

### Wood-Knocker™ in 3000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.469	<i>Pr</i> 2.008
3/8	2	180	335	384	222	335	312	135	192	235
1/2	2	204	431	516	298	431	354	165	233	286
5/8	2	204	431	516	298	431	354	165	233	286
3/4	2	204	431	516	298	431	354	165	233	286

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 3000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 2.626	<i>Pr</i> 1.002	<i>Pr</i> 0.873	<i>Pr</i> 1.513	<i>Pr</i> 1.002	<i>Pr</i> 1.516	<i>Pr</i> 2.460	<i>Pr</i> 1.740	<i>Pr</i> 1.420
3/8	2	210	358	379	219	358	363	163	230	282
1/2	2	243	469	506	292	469	422	208	293	359
5/8	2	243	469	506	292	469	422	208	293	359
3/4	2	243	469	506	292	469	422	208	293	359

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 3000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.459	<i>Pr</i> 2.008
3/8	2	180	335	384	222	335	312	135	192	235
1/2	2	204	431	516	298	431	354	165	233	286
5/8	2	204	431	516	298	431	354	165	233	286
3/4	2	204	431	516	298	431	354	165	233	286

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt



## NFPA 13-16 Wood-Knocker® In 4000 psi Normal Weight Cracked Concrete

### Wood-Knocker™ in 4000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2	199	358	406	234	358	345	147	208	254
1/2	2	232	480	570	329	480	401	185	262	321
5/8	2	236	498	595	344	498	408	191	270	330
3/4	2	236	498	595	344	498	408	191	270	330

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 4000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2	230	380	401	231	380	399	174	246	302
1/2	2	275	521	560	323	521	477	231	327	401
5/8	2	281	542	585	337	542	487	240	339	415
3/4	2	281	542	585	337	542	487	240	339	415

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 4000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2	199	358	406	234	358	345	147	208	254
1/2	2	232	480	570	329	480	401	185	262	321
5/8	2	236	498	595	344	498	408	191	270	330
3/4	2	236	498	595	344	498	408	191	270	330

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt

# Anchor Load Charts

## NFPA 13-16 Wood-Knocker® In 5000 psi Normal Weight Cracked Concrete

### Wood-Knocker™ in 5000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.469	<i>Pr</i> 2.008
3/8	2	215	375	422	244	375	372	156	220	269
1/2	2	253	512	602	348	512	438	200	282	346
5/8	2	264	557	666	384	557	457	213	301	369
3/4	2	264	557	666	384	557	457	213	301	369

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 5000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 2.626	<i>Pr</i> 1.002	<i>Pr</i> 0.873	<i>Pr</i> 1.513	<i>Pr</i> 1.002	<i>Pr</i> 1.516	<i>Pr</i> 2.460	<i>Pr</i> 1.740	<i>Pr</i> 1.420
3/8	2	247	397	417	241	397	428	183	259	317
1/2	2	299	553	593	342	553	519	247	349	428
5/8	2	314	605	654	377	605	544	268	379	464
3/4	2	314	605	654	377	605	544	268	379	464

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 5000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.459	<i>Pr</i> 2.008
3/8	2	215	375	422	244	375	372	156	220	269
1/2	2	253	512	602	348	512	438	200	282	346
5/8	2	264	557	666	384	557	457	213	301	369
3/4	2	264	557	666	384	557	457	213	301	369

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt

## NFPA 13-16 Wood-Knocker® In 6000 psi Normal Weight Cracked Concrete

### Wood-Knocker™ in 6000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2	228	389	435	251	389	394	163	230	282
1/2	2	271	538	629	363	538	470	212	299	367
5/8	2	289	610	729	421	610	500	233	330	404
3/4	2	289	610	729	421	610	500	233	330	404

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 6000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2	261	410	430	248	410	452	190	269	329
1/2	2	320	579	619	357	579	554	260	368	450
5/8	2	344	663	716	413	663	596	293	415	508
3/4	2	344	663	716	413	663	596	293	415	508

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 6000 psi Normal Weight Concrete (lbs.) <sup>1,2</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2	228	389	435	251	389	394	163	230	282
1/2	2	271	538	629	363	538	470	212	299	367
5/8	2	289	610	729	421	610	500	233	330	404
3/4	2	289	610	729	421	610	500	233	330	404

<sup>1</sup> Values calculated in accordance with NFPA 13-16 Annex E.7 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$   
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt

# Anchor Load Charts

## ASCE 7-10 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 3000 psi Sand Lightweight Concrete

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Sand Lightweight Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.469	<i>Pr</i> 2.008
3/8	2.375	81	178	216	125	178	140	67	94	116
1/2	3.750	173	393	484	279	393	299	145	206	252
5/8	3.875	202	475	593	342	475	350	173	245	300
3/4	4.500	249	582	725	419	582	431	213	301	369

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Sand Lightweight Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 2.626	<i>Pr</i> 1.002	<i>Pr</i> 0.873	<i>Pr</i> 1.513	<i>Pr</i> 1.002	<i>Pr</i> 1.516	<i>Pr</i> 2.460	<i>Pr</i> 1.740	<i>Pr</i> 1.420
3/8	2.375	97	195	212	122	195	168	85	121	148
1/2	3.750	209	433	473	273	433	361	188	266	326
5/8	3.875	245	526	579	334	526	424	227	321	393
3/4	4.500	302	645	709	409	645	523	278	393	482

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Sand Lightweight Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> 3.275	<i>Pr</i> 1.156	<i>Pr</i> 0.844	<i>Pr</i> 1.461	<i>Pr</i> 1.156	<i>Pr</i> 1.891	<i>Pr</i> 3.478	<i>Pr</i> 2.459	<i>Pr</i> 2.008
3/8	2.375	81	178	216	125	178	140	67	94	116
1/2	3.750	173	393	484	279	393	299	145	206	252
5/8	3.875	202	475	593	342	475	350	173	245	300
3/4	4.500	249	582	725	419	582	431	213	301	369

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt

## ASCE 7-10 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 3000 psi Normal Weight Cracked Concrete

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2.375	116	248	299	172	248	201	95	134	164
1/2	3.750	239	505	604	349	505	414	193	273	335
5/8	3.875	282	622	756	436	622	489	234	330	404
3/4	4.500	347	760	921	532	760	602	286	405	496

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2.375	139	271	293	169	271	240	119	169	207
1/2	3.750	285	550	593	343	550	494	243	344	421
5/8	3.875	339	681	741	428	681	587	298	422	517
3/4	4.500	417	831	903	521	831	722	365	516	632

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 3000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2.375	116	248	299	172	248	201	95	134	164
1/2	3.750	239	505	604	349	505	414	193	273	335
5/8	3.875	282	622	756	436	622	489	234	330	404
3/4	4.500	347	760	921	532	760	602	286	405	496

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt

# Anchor Load Charts

## ASCE 7-10 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 4000 psi Normal Weight Cracked Concrete

<b>AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 4000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup></b>										
<b>Tolco Figure 980</b>										
Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> <b>3.275</b>	<i>Pr</i> <b>1.156</b>	<i>Pr</i> <b>0.844</b>	<i>Pr</i> <b>1.461</b>	<i>Pr</i> <b>1.156</b>	<i>Pr</i> <b>1.891</b>	<i>Pr</i> <b>3.478</b>	<i>Pr</i> <b>2.469</b>	<i>Pr</i> <b>2.008</b>
3/8	2.375	125	263	314	181	263	217	101	143	175
1/2	3.750	268	550	651	376	550	465	213	302	370
5/8	3.875	318	682	820	473	682	551	259	367	449
3/4	4.500	391	832	997	576	832	678	318	449	550

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information  
<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3  
 A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

<b>AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 4000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup></b>										
<b>Tolco Figure 909</b>										
Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> <b>2.626</b>	<i>Pr</i> <b>1.002</b>	<i>Pr</i> <b>0.873</b>	<i>Pr</i> <b>1.513</b>	<i>Pr</i> <b>1.002</b>	<i>Pr</i> <b>1.516</b>	<i>Pr</i> <b>2.460</b>	<i>Pr</i> <b>1.740</b>	<i>Pr</i> <b>1.420</b>
3/8	2.375	149	286	308	178	286	259	127	179	220
1/2	3.750	318	595	640	369	595	551	265	375	460
5/8	3.875	380	743	804	464	743	658	328	463	568
3/4	4.500	391	906	979	565	906	809	400	566	693

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information  
<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3  
 A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

<b>AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 4000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup></b>										
<b>Tolco Figure 910</b>										
Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i> <b>3.275</b>	<i>Pr</i> <b>1.156</b>	<i>Pr</i> <b>0.844</b>	<i>Pr</i> <b>1.461</b>	<i>Pr</i> <b>1.156</b>	<i>Pr</i> <b>1.891</b>	<i>Pr</i> <b>3.478</b>	<i>Pr</i> <b>2.459</b>	<i>Pr</i> <b>2.008</b>
3/8	2.375	125	263	314	181	263	217	101	143	175
1/2	3.750	268	550	651	376	550	465	213	302	370
5/8	3.875	318	682	820	473	682	551	259	367	449
3/4	4.500	391	832	997	576	832	678	318	449	550

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information  
<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef  
<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3  
 A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt

## ASCE 7-10 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 5000 psi Normal Weight Cracked Concrete

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 5000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2.375	133	275	326	188	275	230	106	150	184
1/2	3.750	293	585	687	396	585	507	230	325	398
5/8	3.875	348	730	870	502	730	603	280	396	486
3/4	4.500	428	890	1057	610	890	742	343	485	594

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 5000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2.375	158	298	321	185	298	274	133	187	230
1/2	3.750	346	631	676	390	631	599	283	400	490
5/8	3.875	415	793	854	493	793	718	351	497	609
3/4	4.500	509	965	1039	600	965	882	429	606	742

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 5000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2.375	133	275	326	188	275	230	106	150	184
1/2	3.750	293	585	687	396	585	507	230	325	398
5/8	3.875	348	730	870	502	730	603	280	396	486
3/4	4.500	428	890	1057	610	890	742	343	485	594

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt

# Anchor Load Charts

## ASCE 7-10 AWSD / Power-Stud+® SD2 Seismic Wedge Anchors In 6000 psi Normal Weight Cracked Concrete

<b>AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 6000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup></b>										
<b>Tolco Figure 980</b>										
Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2.375	139	285	336	194	285	242	111	156	192
1/2	3.750	314	615	716	413	615	544	243	344	421
5/8	3.875	375	770	911	526	770	649	298	422	517
3/4	4.500	461	938	1106	639	938	798	365	516	632

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

<b>AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 6000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup></b>										
<b>Tolco Figure 909</b>										
Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2.375	165	308	330	191	308	286	137	194	238
1/2	3.750	369	661	705	407	661	640	297	421	515
5/8	3.875	445	833	896	517	833	770	371	525	643
3/4	4.500	546	1014	1088	628	1014	945	452	640	784

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

<b>AWSD (Power -Stud+® SD2) Seismic Wedge Anchor in 6000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup></b>										
<b>Tolco Figure 910</b>										
Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2.375	139	285	336	194	285	242	111	156	192
1/2	3.750	314	615	716	413	615	544	243	344	421
5/8	3.875	375	770	911	526	770	649	298	422	517
3/4	4.500	461	938	1106	639	938	798	365	516	632

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 2502 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq$  Cac, slab thickness  $\geq$  hmin, spacing  $\geq$  3hef

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Power-Stud+® is a registered trademark used by DeWalt



## ASCE 7-10 Wood-Knocker® In 3000 psi Sand Lightweight Concrete

### Wood-Knocker™ in 3000 psi Sand Lightweight Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2	128	248	288	166	248	221	98	139	170
1/2	2	139	293	351	202	293	240	112	159	194
5/8	2	139	293	351	202	293	240	112	159	194
3/4	2	139	293	351	202	293	240	112	159	194

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 3000 psi Sand Lightweight Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2	150	266	283	164	266	260	120	170	208
1/2	2	165	319	344	199	319	287	141	200	244
5/8	2	165	319	344	199	319	287	141	200	244
3/4	2	165	319	344	199	319	287	141	200	244

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 3000 psi Sand Lightweight Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2	128	248	288	166	248	221	98	139	170
1/2	2	139	293	351	202	293	240	112	159	194
5/8	2	139	293	351	202	293	240	112	159	194
3/4	2	139	293	351	202	293	240	112	159	194

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt

# Anchor Load Charts

## ASCE 7-10 Wood-Knocker® In 3000 psi Normal Weight Cracked Concrete

### Wood-Knocker™ in 3000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2	144	268	308	178	268	249	108	153	188
1/2	2	163	345	412	238	345	283	132	187	229
5/8	2	163	345	412	238	345	283	132	187	229
3/4	2	163	345	412	238	345	283	132	187	229

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 3000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2	168	286	303	175	286	290	130	184	226
1/2	2	195	375	405	234	375	337	166	235	288
5/8	2	195	375	405	234	375	337	166	235	288
3/4	2	195	375	405	234	375	337	166	235	288

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 3000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2	144	268	308	178	268	249	108	153	188
1/2	2	163	345	412	238	345	283	132	187	229
5/8	2	163	345	412	238	345	283	132	187	229
3/4	2	163	345	412	238	345	283	132	187	229

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt

## ASCE 7-10 Wood-Knocker® In 4000 psi Normal Weight Cracked Concrete

### Wood-Knocker™ in 4000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2	159	286	325	187	286	276	117	166	203
1/2	2	185	384	456	263	384	321	148	210	257
5/8	2	189	398	476	275	398	327	152	216	264
3/4	2	189	398	476	275	398	327	152	216	264

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 4000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2	184	304	321	185	304	319	139	197	241
1/2	2	220	417	448	259	417	381	185	262	321
5/8	2	225	433	468	270	433	389	192	271	332
3/4	2	225	433	468	270	433	389	192	271	332

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 4000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2	159	286	325	187	286	276	117	166	203
1/2	2	185	384	456	263	384	321	148	210	257
5/8	2	189	398	476	275	398	327	152	216	264
3/4	2	189	398	476	275	398	327	152	216	264

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt

# Anchor Load Charts

## ASCE 7-10 Wood-Knocker® In 5000 psi Normal Weight Cracked Concrete

### Wood-Knocker™ in 5000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2	172	300	338	195	300	297	124	176	216
1/2	2	202	409	482	278	409	351	160	226	277
5/8	2	211	445	532	307	445	365	170	241	295
3/4	2	211	445	532	307	445	365	170	241	295

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 5000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2	198	318	334	193	318	342	146	207	253
1/2	2	240	442	474	274	442	415	198	280	342
5/8	2	251	484	523	302	484	435	214	303	371
3/4	2	251	484	523	302	484	435	214	303	371

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 5000 psi Normal Weight Cracked Concrete (lbs.) <sup>1,2,3</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2	172	300	338	195	300	297	124	176	216
1/2	2	202	409	482	278	409	351	160	226	277
5/8	2	211	445	532	307	445	365	170	241	295
3/4	2	211	445	532	307	445	365	170	241	295

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt

## ASCE 7-10 Wood-Knocker® In 6000 psi Normal Weight Cracked Concrete

### Wood-Knocker™ in 6000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 980

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.469</b>	<b>2.008</b>
3/8	2	182	311	348	201	311	315	130	184	226
1/2	2	217	430	503	290	430	376	169	240	293
5/8	2	231	488	583	337	488	400	187	264	323
3/4	2	231	488	583	337	488	400	187	264	323

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 6000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 909

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>2.626</b>	<b>1.002</b>	<b>0.873</b>	<b>1.513</b>	<b>1.002</b>	<b>1.516</b>	<b>2.460</b>	<b>1.740</b>	<b>1.420</b>
3/8	2	209	328	344	199	328	361	152	215	263
1/2	2	256	463	495	286	463	443	208	294	360
5/8	2	275	531	573	331	531	477	235	332	407
3/4	2	275	531	573	331	531	477	235	332	407

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

### Wood-Knocker™ in 6000 psi Normal Weight Cracked Concrete (lbs.)<sup>1,2,3</sup>

#### Tolco Figure 910

Dia. (in.)	Embedment (in.)	A	B	C	D	E	F	G	H	I
		<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>	<i>Pr</i>
		<b>3.275</b>	<b>1.156</b>	<b>0.844</b>	<b>1.461</b>	<b>1.156</b>	<b>1.891</b>	<b>3.478</b>	<b>2.459</b>	<b>2.008</b>
3/8	2	182	311	348	201	311	315	130	184	226
1/2	2	217	430	503	290	430	376	169	240	293
5/8	2	231	488	583	337	488	400	187	264	323
3/4	2	231	488	583	337	488	400	187	264	323

<sup>1</sup> Values calculated in accordance with ASCE 7-10 See ICC-ESR 3657 for complete product installation information

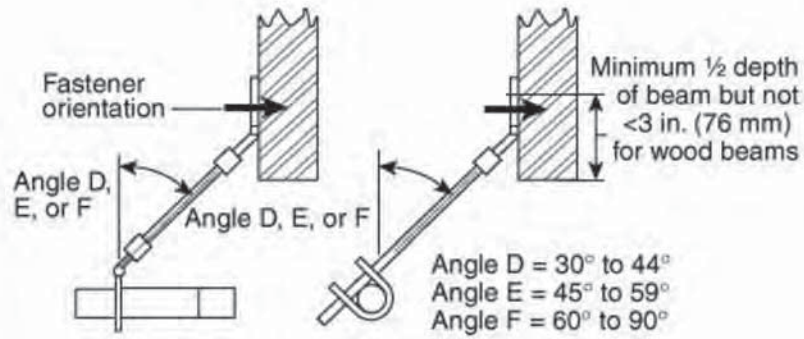
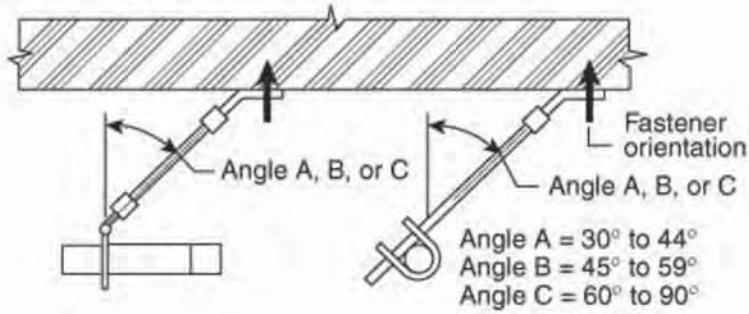
<sup>2</sup> Assumptions for table: seismic anchoring conditions, edge distance  $\geq 8"$ , slab thickness  $\geq h_{min}$ , spacing  $\geq 3h_{ef}$

<sup>3</sup> Anchor capacities increased by a factor of 1.2 per ASCE 7-10 Section 12.4.3.3

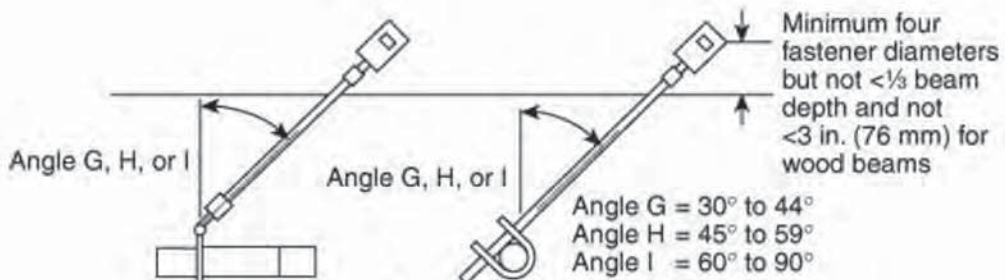
A thru I corresponds to fastener orientation (shown on page AL21) from Table Figure 9.3.5.9.1 NFPA 13 2016.

Wood Knocker® is a registered trademark used by DeWalt

**Table Figure 9.3.5.12.1**  
**NFPA 13 2016**



**Load Perpendicular to Structural Member**



**Load Parallel to Structural Member**