

WALL INSERTS

Part No. 20-202-XX

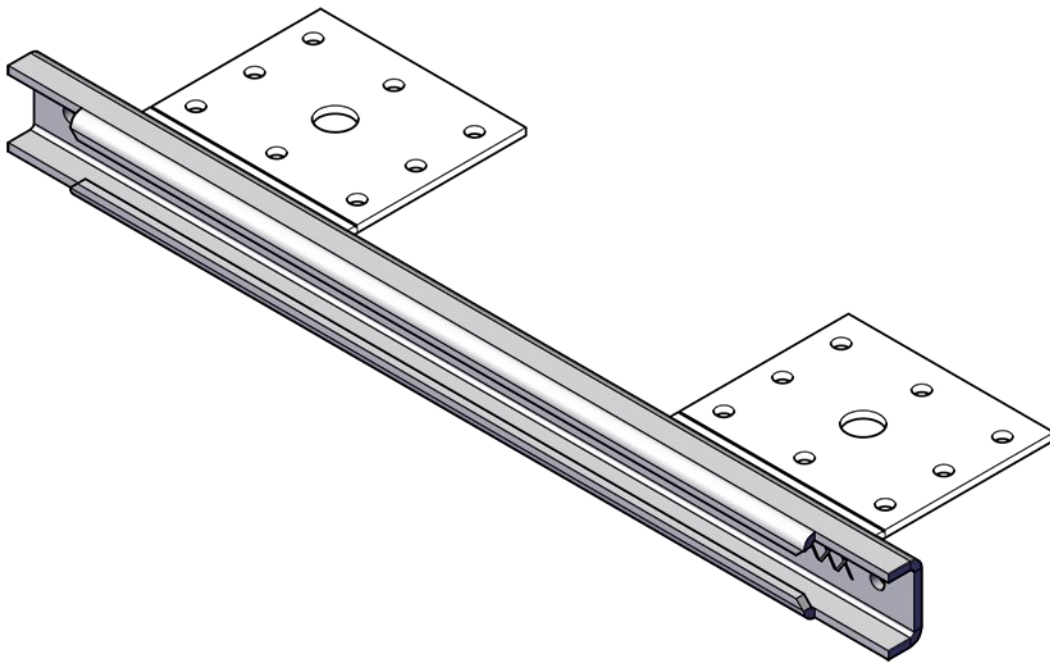


TABLE OF CONTENTS

General Warnings	3
Product Description.....	4
Document Description	4
Counterweight Rail Scenario	5
Cab Rail Scenario	6
Using the Tables	7
Distance Between Bolts Tables.....	8
Distance From Load to Insert Tables.....	30

NOTICE

GENERAL WARNINGS

The equipment covered in this manual should only be installed, used, and serviced by qualified personnel trained in proper work and safety procedures. This manual is intended to assist such trained individuals in the installation and use of this equipment and is not intended as a substitute for proper training and experience.

This document or any other information regarding this equipment is not intended to cover all of the possible situations which may be encountered while using the equipment described herein. Should specific situations arise which are not covered by the information provided, or should the user desire further details, the specifics should be directed to Wurtec, Inc.

Note: In the effort of continuous product improvement, Wurtec, Inc. reserves the right to modify the design and specifications of this product at any time without notice.

WARNING

Failure to comply with the following guidelines can result in death or serious injury:

- Ensure the cab is installed correctly with all parts and hardware.
- Check that the cab walls are square and level.

PRODUCT DESCRIPTION

Wurtec's wall inserts streamline the installation of rail brackets within hoistways, significantly reducing time and effort during construction. Designed for seamless integration during the hoistway build, these inserts come in various sizes to ensure a perfect fit for your specific needs. They are versatile and compatible with wooden walls, drywall finishes, concrete block walls, poured concrete walls, and steel frame buildings.

Rail brackets can be securely mounted into the insert's channel using a 5/8" hex head bolt. The channel design guarantees that the bracket remains firmly in place.

Please note: Wurtec wall inserts are not ICC-ES certified to any IBC standard and should not be used in applications where ICC-ES certification is required.

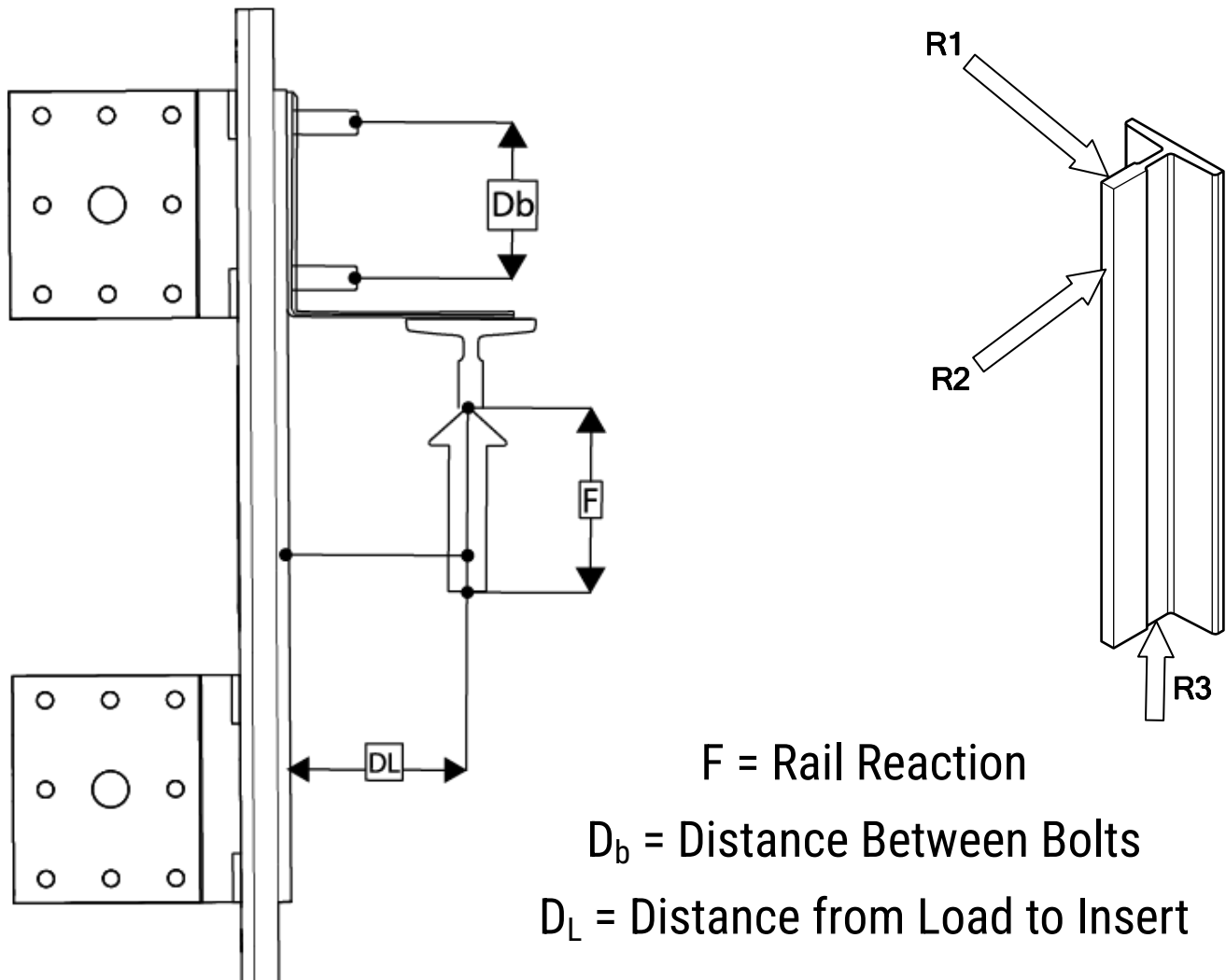
DOCUMENT DESCRIPTION

This document is used to determine whether a particular elevator installation produces forces within the specified range of the Wurtec Inserts.

The three main variables that determine the applicability of the insert are rail reaction forces, distance between rail bracket bolts (where they attach to the insert) and distance between the applied load and the insert.

COUNTERWEIGHT RAIL SCENARIO

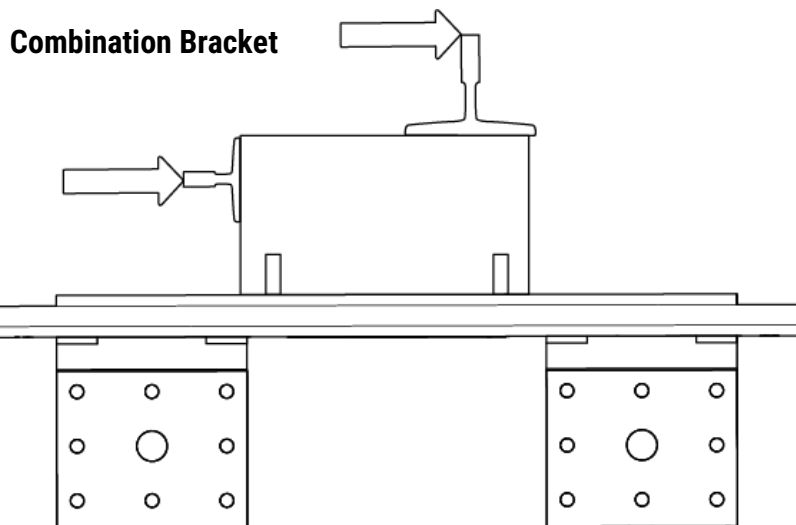
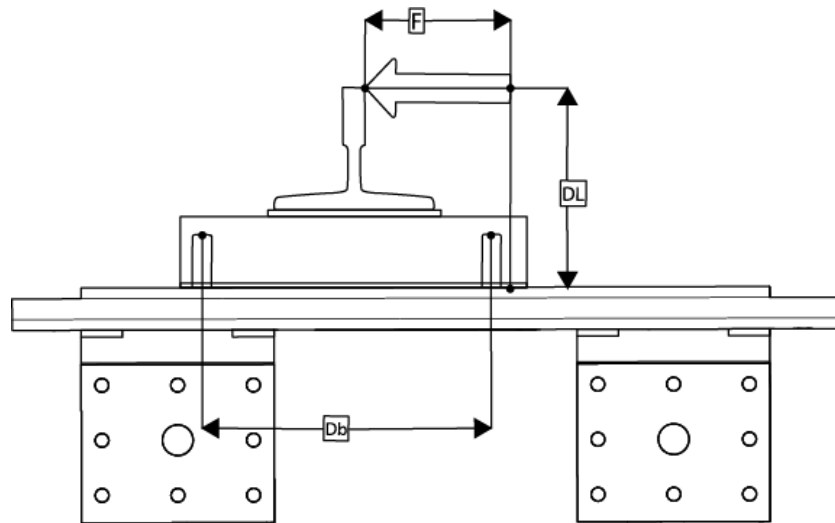
There are several scenarios in which elevator rails are typically employed. The following diagrams depict the most common scenarios and indicate how to determine the applicable rail reactions (F), distance between bracket bolts (D_b) and distance from the applied load to the insert (D_L).



In the first scenario, the counterweight rail is orientated facing parallel to the insert, which means $R2$ is F . Use the centerline of the counterweight rail to insert as D_L . D_b is the last number required to calculate the force on the insert.

CAB RAIL SCENARIO

In the next scenario, the car rail is orientated perpendicular to the insert, which means R_1 is the F . D_L should be the distance from the tip of the rail to the insert. If only the distance from the cab to the wall is available, subtract 3 for a close approximation. D_b is the last number needed to calculate the force on the insert.



USING THE TABLES

When the three variables have been defined, the tables can be used to determine whether the insert is adequate for the application.

The first set of tables has fixed values for D_b listed in the upper left corner. Use the table with the closest conservative value (round down) for distance between bolts. Find the closest conservative value (round up) for D_L across the top row and follow that column down to meet the closest conservative value (round up) for F . If the value is in the green zone, the insert is adequate for the application. If it is in the yellow zone, contact Wurtec customer service for support. If it is in the red zone, the insert must not be used in this application.

The second set of tables has fixed values for D_L listed in the upper left corner. Use the table with the closest conservative value (round up) for D_L . Find the closest conservative value (round down) for D_b across the top row and follow that column down to meet the closest conservative value (round up) for F . If the value is in the green zone, the insert is adequate for the application. If it is in the yellow zone, contact Wurtec customer service for support. If it is in the red zone, the insert must not be used in this application.

If an application has more complex loading (such as combo brackets) or values outside the range of the following tables, please contact Wurtec customer service at +1 (800) 837 - 1066.

DISTANCE BETWEEN BOLTS TABLES

Db 2"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
	600	600	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	700	700	1400	2100	2800	3500	4200	4900	5600	6300	7000	7700	8400
	800	800	1600	2400	3200	4000	4800	5600	6400	7200	8000	8800	9600
	900	900	1800	2700	3600	4500	5400	6300	7200	8100	9000	9900	10800
	1000	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
	1100	1100	2200	3300	4400	5500	6600	7700	8800	9900	11000	12100	13200
	1200	1200	2400	3600	4800	6000	7200	8400	9600	10800	12000	13200	14400
	1300	1300	2600	3900	5200	6500	7800	9100	10400	11700	13000	14300	15600
	1400	1400	2800	4200	5600	7000	8400	9800	11200	12600	14000	15400	16800
	1500	1500	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000
	1600	1600	3200	4800	6400	8000	9600	11200	12800	14400	16000	17600	19200
	1700	1700	3400	5100	6800	8500	10200	11900	13600	15300	17000	18700	20400
	1800	1800	3600	5400	7200	9000	10800	12600	14400	16200	18000	19800	21600

Db 3"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	333	667	1000	1333	1667	2000	2333	2667	3000	3333	3667	4000
	600	400	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	700	467	933	1400	1867	2333	2800	3267	3733	4200	4667	5133	5600
	800	533	1067	1600	2133	2667	3200	3733	4267	4800	5333	5867	6400
	900	600	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	1000	667	1333	2000	2667	3333	4000	4667	5333	6000	6667	7333	8000
	1100	733	1467	2200	2933	3667	4400	5133	5867	6600	7333	8067	8800
	1200	800	1600	2400	3200	4000	4800	5600	6400	7200	8000	8800	9600
	1300	867	1733	2600	3467	4333	5200	6067	6933	7800	8667	9533	10400
	1400	933	1867	2800	3733	4667	5600	6533	7467	8400	9333	10267	11200
	1500	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
	1600	1067	2133	3200	4267	5333	6400	7467	8533	9600	10667	11733	12800
	1700	1133	2267	3400	4533	5667	6800	7933	9067	10200	11333	12467	13600
	1800	1200	2400	3600	4800	6000	7200	8400	9600	10800	12000	13200	14400
	1900	1267	2533	3800	5067	6333	7600	8867	10133	11400	12667	13933	15200
	2000	1333	2667	4000	5333	6667	8000	9333	10667	12000	13333	14667	16000
	2100	1400	2800	4200	5600	7000	8400	9800	11200	12600	14000	15400	16800
	2200	1467	2933	4400	5867	7333	8800	10267	11733	13200	14667	16133	17600
	2300	1533	3067	4600	6133	7667	9200	10733	12267	13800	15333	16867	18400
	2400	1600	3200	4800	6400	8000	9600	11200	12800	14400	16000	17600	19200
	2500	1667	3333	5000	6667	8333	10000	11667	13333	15000	16667	18333	20000
	2600	1733	3467	5200	6933	8667	10400	12133	13867	15600	17333	19067	20800
	2700	1800	3600	5400	7200	9000	10800	12600	14400	16200	18000	19800	21600

DISTANCE BETWEEN BOLTS TABLES

Db 4"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000
	600	300	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
	700	350	700	1050	1400	1750	2100	2450	2800	3150	3500	3850	4200
	800	400	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	900	450	900	1350	1800	2250	2700	3150	3600	4050	4500	4950	5400
	1000	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
	1100	550	1100	1650	2200	2750	3300	3850	4400	4950	5500	6050	6600
	1200	600	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	1300	650	1300	1950	2600	3250	3900	4550	5200	5850	6500	7150	7800
	1400	700	1400	2100	2800	3500	4200	4900	5600	6300	7000	7700	8400
	1500	750	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
	1600	800	1600	2400	3200	4000	4800	5600	6400	7200	8000	8800	9600
	1700	850	1700	2550	3400	4250	5100	5950	6800	7650	8500	9350	10200
	1800	900	1800	2700	3600	4500	5400	6300	7200	8100	9000	9900	10800
	1900	950	1900	2850	3800	4750	5700	6650	7600	8550	9500	10450	11400
	2000	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
	2100	1050	2100	3150	4200	5250	6300	7350	8400	9450	10500	11550	12600
	2200	1100	2200	3300	4400	5500	6600	7700	8800	9900	11000	12100	13200
	2300	1150	2300	3450	4600	5750	6900	8050	9200	10350	11500	12650	13800
	2400	1200	2400	3600	4800	6000	7200	8400	9600	10800	12000	13200	14400
	2500	1250	2500	3750	5000	6250	7500	8750	10000	11250	12500	13750	15000
	2600	1300	2600	3900	5200	6500	7800	9100	10400	11700	13000	14300	15600
	2700	1350	2700	4050	5400	6750	8100	9450	10800	12150	13500	14850	16200
	2800	1400	2800	4200	5600	7000	8400	9800	11200	12600	14000	15400	16800
	2900	1450	2900	4350	5800	7250	8700	10150	11600	13050	14500	15950	17400
	3000	1500	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000
	3100	1550	3100	4650	6200	7750	9300	10850	12400	13950	15500	17050	18600
	3200	1600	3200	4800	6400	8000	9600	11200	12800	14400	16000	17600	19200
	3300	1650	3300	4950	6600	8250	9900	11550	13200	14850	16500	18150	19800
	3400	1700	3400	5100	6800	8500	10200	11900	13600	15300	17000	18700	20400
	3500	1750	3500	5250	7000	8750	10500	12250	14000	15750	17500	19250	21000

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 5"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	600	300	480	720	960	1200	1440	1680	1920	2160	2400	2640	2880
	700	350	560	840	1120	1400	1680	1960	2240	2520	2800	3080	3360
	800	400	640	960	1280	1600	1920	2240	2560	2880	3200	3520	3840
	900	450	720	1080	1440	1800	2160	2520	2880	3240	3600	3960	4320
	1000	500	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	1100	550	880	1320	1760	2200	2640	3080	3520	3960	4400	4840	5280
	1200	600	960	1440	1920	2400	2880	3360	3840	4320	4800	5280	5760
	1300	650	1040	1560	2080	2600	3120	3640	4160	4680	5200	5720	6240
	1400	700	1120	1680	2240	2800	3360	3920	4480	5040	5600	6160	6720
	1500	750	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	1600	800	1280	1920	2560	3200	3840	4480	5120	5760	6400	7040	7680
	1700	850	1360	2040	2720	3400	4080	4760	5440	6120	6800	7480	8160
	1800	900	1440	2160	2880	3600	4320	5040	5760	6480	7200	7920	8640
	1900	950	1520	2280	3040	3800	4560	5320	6080	6840	7600	8360	9120
	2000	1000	1600	2400	3200	4000	4800	5600	6400	7200	8000	8800	9600
	2100	1050	1680	2520	3360	4200	5040	5880	6720	7560	8400	9240	10080
	2200	1100	1760	2640	3520	4400	5280	6160	7040	7920	8800	9680	10560
	2300	1150	1840	2760	3680	4600	5520	6440	7360	8280	9200	10120	11040
	2400	1200	1920	2880	3840	4800	5760	6720	7680	8640	9600	10560	11520
	2500	1250	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
	2600	1300	2080	3120	4160	5200	6240	7280	8320	9360	10400	11440	12480
	2700	1350	2160	3240	4320	5400	6480	7560	8640	9720	10800	11880	12960
	2800	1400	2240	3360	4480	5600	6720	7840	8960	10080	11200	12320	13440
	2900	1450	2320	3480	4640	5800	6960	8120	9280	10440	11600	12760	13920
	3000	1500	2400	3600	4800	6000	7200	8400	9600	10800	12000	13200	14400
	3100	1550	2480	3720	4960	6200	7440	8680	9920	11160	12400	13640	14880
	3200	1600	2560	3840	5120	6400	7680	8960	10240	11520	12800	14080	15360
	3300	1650	2640	3960	5280	6600	7920	9240	10560	11880	13200	14520	15840
	3400	1700	2720	4080	5440	6800	8160	9520	10880	12240	13600	14960	16320
	3500	1750	2800	4200	5600	7000	8400	9800	11200	12600	14000	15400	16800

Revision: 02 | 01/2025| Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 6"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	333	500	667	833	1000	1167	1333	1500	1667	1833	2000
	600	300	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	700	350	467	700	933	1167	1400	1633	1867	2100	2333	2567	2800
	800	400	533	800	1067	1333	1600	1867	2133	2400	2667	2933	3200
	900	450	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
	1000	500	667	1000	1333	1667	2000	2333	2667	3000	3333	3667	4000
	1100	550	733	1100	1467	1833	2200	2567	2933	3300	3667	4033	4400
	1200	600	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	1300	650	867	1300	1733	2167	2600	3033	3467	3900	4333	4767	5200
	1400	700	933	1400	1867	2333	2800	3267	3733	4200	4667	5133	5600
	1500	750	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
	1600	800	1067	1600	2133	2667	3200	3733	4267	4800	5333	5867	6400
	1700	850	1133	1700	2267	2833	3400	3967	4533	5100	5667	6233	6800
	1800	900	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	1900	950	1267	1900	2533	3167	3800	4433	5067	5700	6333	6967	7600
	2000	1000	1333	2000	2667	3333	4000	4667	5333	6000	6667	7333	8000
	2100	1050	1400	2100	2800	3500	4200	4900	5600	6300	7000	7700	8400
	2200	1100	1467	2200	2933	3667	4400	5133	5867	6600	7333	8067	8800
	2300	1150	1533	2300	3067	3833	4600	5367	6133	6900	7667	8433	9200
	2400	1200	1600	2400	3200	4000	4800	5600	6400	7200	8000	8800	9600
	2500	1250	1667	2500	3333	4167	5000	5833	6667	7500	8333	9167	10000
	2600	1300	1733	2600	3467	4333	5200	6067	6933	7800	8667	9533	10400
	2700	1350	1800	2700	3600	4500	5400	6300	7200	8100	9000	9900	10800
	2800	1400	1867	2800	3733	4667	5600	6533	7467	8400	9333	10267	11200
	2900	1450	1933	2900	3867	4833	5800	6767	7733	8700	9667	10633	11600
	3000	1500	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
	3100	1550	2067	3100	4133	5167	6200	7233	8267	9300	10333	11367	12400
	3200	1600	2133	3200	4267	5333	6400	7467	8533	9600	10667	11733	12800
	3300	1650	2200	3300	4400	5500	6600	7700	8800	9900	11000	12100	13200
	3400	1700	2267	3400	4533	5667	6800	7933	9067	10200	11333	12467	13600
	3500	1750	2333	3500	4667	5833	7000	8167	9333	10500	11667	12833	14000

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 7"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	286	429	571	714	857	1000	1143	1286	1429	1571	1714
	600	300	343	514	686	857	1029	1200	1371	1543	1714	1886	2057
	700	350	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	800	400	457	686	914	1143	1371	1600	1829	2057	2286	2514	2743
	900	450	514	771	1029	1286	1543	1800	2057	2314	2571	2829	3086
	1000	500	571	857	1143	1429	1714	2000	2286	2571	2857	3143	3429
	1100	550	629	943	1257	1571	1886	2200	2514	2829	3143	3457	3771
	1200	600	686	1029	1371	1714	2057	2400	2743	3086	3429	3771	4114
	1300	650	743	1114	1486	1857	2229	2600	2971	3343	3714	4086	4457
	1400	700	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	1500	750	857	1286	1714	2143	2571	3000	3429	3857	4286	4714	5143
	1600	800	914	1371	1829	2286	2743	3200	3657	4114	4571	5029	5486
	1700	850	971	1457	1943	2429	2914	3400	3886	4371	4857	5343	5829
	1800	900	1029	1543	2057	2571	3086	3600	4114	4629	5143	5657	6171
	1900	950	1086	1629	2171	2714	3257	3800	4343	4886	5429	5971	6514
	2000	1000	1143	1714	2286	2857	3429	4000	4571	5143	5714	6286	6857
	2100	1050	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	2200	1100	1257	1886	2514	3143	3771	4400	5029	5657	6286	6914	7543
	2300	1150	1314	1971	2629	3286	3943	4600	5257	5914	6571	7229	7886
	2400	1200	1371	2057	2743	3429	4114	4800	5486	6171	6857	7543	8229
	2500	1250	1429	2143	2857	3571	4286	5000	5714	6429	7143	7857	8571
	2600	1300	1486	2229	2971	3714	4457	5200	5943	6686	7429	8171	8914
	2700	1350	1543	2314	3086	3857	4629	5400	6171	6943	7714	8486	9257
	2800	1400	1600	2400	3200	4000	4800	5600	6400	7200	8000	8800	9600
	2900	1450	1657	2486	3314	4143	4971	5800	6629	7457	8286	9114	9943
	3000	1500	1714	2571	3429	4286	5143	6000	6857	7714	8571	9429	10286
	3100	1550	1771	2657	3543	4429	5314	6200	7086	7971	8857	9743	10629
	3200	1600	1829	2743	3657	4571	5486	6400	7314	8229	9143	10057	10971
	3300	1650	1886	2829	3771	4714	5657	6600	7543	8486	9429	10371	11314
	3400	1700	1943	2914	3886	4857	5829	6800	7771	8743	9714	10686	11657
	3500	1750	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000

DISTANCE BETWEEN BOLTS TABLES

Db 8"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	375	500	625	750	875	1000	1125	1250	1375	1500
	600	300	300	450	600	750	900	1050	1200	1350	1500	1650	1800
	700	350	350	525	700	875	1050	1225	1400	1575	1750	1925	2100
	800	400	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	900	450	450	675	900	1125	1350	1575	1800	2025	2250	2475	2700
	1000	500	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000
	1100	550	550	825	1100	1375	1650	1925	2200	2475	2750	3025	3300
	1200	600	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
	1300	650	650	975	1300	1625	1950	2275	2600	2925	3250	3575	3900
	1400	700	700	1050	1400	1750	2100	2450	2800	3150	3500	3850	4200
	1500	750	750	1125	1500	1875	2250	2625	3000	3375	3750	4125	4500
	1600	800	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	1700	850	850	1275	1700	2125	2550	2975	3400	3825	4250	4675	5100
	1800	900	900	1350	1800	2250	2700	3150	3600	4050	4500	4950	5400
	1900	950	950	1425	1900	2375	2850	3325	3800	4275	4750	5225	5700
	2000	1000	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
	2100	1050	1050	1575	2100	2625	3150	3675	4200	4725	5250	5775	6300
	2200	1100	1100	1650	2200	2750	3300	3850	4400	4950	5500	6050	6600
	2300	1150	1150	1725	2300	2875	3450	4025	4600	5175	5750	6325	6900
	2400	1200	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	2500	1250	1250	1875	2500	3125	3750	4375	5000	5625	6250	6875	7500
	2600	1300	1300	1950	2600	3250	3900	4550	5200	5850	6500	7150	7800
	2700	1350	1350	2025	2700	3375	4050	4725	5400	6075	6750	7425	8100
	2800	1400	1400	2100	2800	3500	4200	4900	5600	6300	7000	7700	8400
	2900	1450	1450	2175	2900	3625	4350	5075	5800	6525	7250	7975	8700
	3000	1500	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
	3100	1550	1550	2325	3100	3875	4650	5425	6200	6975	7750	8525	9300
	3200	1600	1600	2400	3200	4000	4800	5600	6400	7200	8000	8800	9600
	3300	1650	1650	2475	3300	4125	4950	5775	6600	7425	8250	9075	9900
	3400	1700	1700	2550	3400	4250	5100	5950	6800	7650	8500	9350	10200
	3500	1750	1750	2625	3500	4375	5250	6125	7000	7875	8750	9625	10500

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 9"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	333	444	556	667	778	889	1000	1111	1222	1333
	600	300	300	400	533	667	800	933	1067	1200	1333	1467	1600
	700	350	350	467	622	778	933	1089	1244	1400	1556	1711	1867
	800	400	400	533	711	889	1067	1244	1422	1600	1778	1956	2133
	900	450	450	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	1000	500	500	667	889	1111	1333	1556	1778	2000	2222	2444	2667
	1100	550	550	733	978	1222	1467	1711	1956	2200	2444	2689	2933
	1200	600	600	800	1067	1333	1600	1867	2133	2400	2667	2933	3200
	1300	650	650	867	1156	1444	1733	2022	2311	2600	2889	3178	3467
	1400	700	700	933	1244	1556	1867	2178	2489	2800	3111	3422	3733
	1500	750	750	1000	1333	1667	2000	2333	2667	3000	3333	3667	4000
	1600	800	800	1067	1422	1778	2133	2489	2844	3200	3556	3911	4267
	1700	850	850	1133	1511	1889	2267	2644	3022	3400	3778	4156	4533
	1800	900	900	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	1900	950	950	1267	1689	2111	2533	2956	3378	3800	4222	4644	5067
	2000	1000	1000	1333	1778	2222	2667	3111	3556	4000	4444	4889	5333
	2100	1050	1050	1400	1867	2333	2800	3267	3733	4200	4667	5133	5600
	2200	1100	1100	1467	1956	2444	2933	3422	3911	4400	4889	5378	5867
	2300	1150	1150	1533	2044	2556	3067	3578	4089	4600	5111	5622	6133
	2400	1200	1200	1600	2133	2667	3200	3733	4267	4800	5333	5867	6400
	2500	1250	1250	1667	2222	2778	3333	3889	4444	5000	5556	6111	6667
	2600	1300	1300	1733	2311	2889	3467	4044	4622	5200	5778	6356	6933
	2700	1350	1350	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	2800	1400	1400	1867	2489	3111	3733	4356	4978	5600	6222	6844	7467
	2900	1450	1450	1933	2578	3222	3867	4511	5156	5800	6444	7089	7733
	3000	1500	1500	2000	2667	3333	4000	4667	5333	6000	6667	7333	8000
	3100	1550	1550	2067	2756	3444	4133	4822	5511	6200	6889	7578	8267
	3200	1600	1600	2133	2844	3556	4267	4978	5689	6400	7111	7822	8533
	3300	1650	1650	2200	2933	3667	4400	5133	5867	6600	7333	8067	8800
	3400	1700	1700	2267	3022	3778	4533	5289	6044	6800	7556	8311	9067
	3500	1750	1750	2333	3111	3889	4667	5444	6222	7000	7778	8556	9333

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 10"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	300	400	500	600	700	800	900	1000	1100	1200
	600	300	300	360	480	600	720	840	960	1080	1200	1320	1440
	700	350	350	420	560	700	840	980	1120	1260	1400	1540	1680
	800	400	400	480	640	800	960	1120	1280	1440	1600	1760	1920
	900	450	450	540	720	900	1080	1260	1440	1620	1800	1980	2160
	1000	500	500	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	1100	550	550	660	880	1100	1320	1540	1760	1980	2200	2420	2640
	1200	600	600	720	960	1200	1440	1680	1920	2160	2400	2640	2880
	1300	650	650	780	1040	1300	1560	1820	2080	2340	2600	2860	3120
	1400	700	700	840	1120	1400	1680	1960	2240	2520	2800	3080	3360
	1500	750	750	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
	1600	800	800	960	1280	1600	1920	2240	2560	2880	3200	3520	3840
	1700	850	850	1020	1360	1700	2040	2380	2720	3060	3400	3740	4080
	1800	900	900	1080	1440	1800	2160	2520	2880	3240	3600	3960	4320
	1900	950	950	1140	1520	1900	2280	2660	3040	3420	3800	4180	4560
	2000	1000	1000	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	2100	1050	1050	1260	1680	2100	2520	2940	3360	3780	4200	4620	5040
	2200	1100	1100	1320	1760	2200	2640	3080	3520	3960	4400	4840	5280
	2300	1150	1150	1380	1840	2300	2760	3220	3680	4140	4600	5060	5520
	2400	1200	1200	1440	1920	2400	2880	3360	3840	4320	4800	5280	5760
	2500	1250	1250	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
	2600	1300	1300	1560	2080	2600	3120	3640	4160	4680	5200	5720	6240
	2700	1350	1350	1620	2160	2700	3240	3780	4320	4860	5400	5940	6480
	2800	1400	1400	1680	2240	2800	3360	3920	4480	5040	5600	6160	6720
	2900	1450	1450	1740	2320	2900	3480	4060	4640	5220	5800	6380	6960
	3000	1500	1500	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	3100	1550	1550	1860	2480	3100	3720	4340	4960	5580	6200	6820	7440
	3200	1600	1600	1920	2560	3200	3840	4480	5120	5760	6400	7040	7680
	3300	1650	1650	1980	2640	3300	3960	4620	5280	5940	6600	7260	7920
	3400	1700	1700	2040	2720	3400	4080	4760	5440	6120	6800	7480	8160
	3500	1750	1750	2100	2800	3500	4200	4900	5600	6300	7000	7700	8400

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 11"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	273	364	455	545	636	727	818	909	1000	1091
	600	300	300	327	436	545	655	764	873	982	1091	1200	1309
	700	350	350	382	509	636	764	891	1018	1145	1273	1400	1527
	800	400	400	436	582	727	873	1018	1164	1309	1455	1600	1745
	900	450	450	491	655	818	982	1145	1309	1473	1636	1800	1964
	1000	500	500	545	727	909	1091	1273	1455	1636	1818	2000	2182
	1100	550	550	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	1200	600	600	655	873	1091	1309	1527	1745	1964	2182	2400	2618
	1300	650	650	709	945	1182	1418	1655	1891	2127	2364	2600	2836
	1400	700	700	764	1018	1273	1527	1782	2036	2291	2545	2800	3055
	1500	750	750	818	1091	1364	1636	1909	2182	2455	2727	3000	3273
	1600	800	800	873	1164	1455	1745	2036	2327	2618	2909	3200	3491
	1700	850	850	927	1236	1545	1855	2164	2473	2782	3091	3400	3709
	1800	900	900	982	1309	1636	1964	2291	2618	2945	3273	3600	3927
	1900	950	950	1036	1382	1727	2073	2418	2764	3109	3455	3800	4145
	2000	1000	1000	1091	1455	1818	2182	2545	2909	3273	3636	4000	4364
	2100	1050	1050	1145	1527	1909	2291	2673	3055	3436	3818	4200	4582
	2200	1100	1100	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	2300	1150	1150	1255	1673	2091	2509	2927	3345	3764	4182	4600	5018
	2400	1200	1200	1309	1745	2182	2618	3055	3491	3927	4364	4800	5236
	2500	1250	1250	1364	1818	2273	2727	3182	3636	4091	4545	5000	5455
	2600	1300	1300	1418	1891	2364	2836	3309	3782	4255	4727	5200	5673
	2700	1350	1350	1473	1964	2455	2945	3436	3927	4418	4909	5400	5891
	2800	1400	1400	1527	2036	2545	3055	3564	4073	4582	5091	5600	6109
	2900	1450	1450	1582	2109	2636	3164	3691	4218	4745	5273	5800	6327
	3000	1500	1500	1636	2182	2727	3273	3818	4364	4909	5455	6000	6545
	3100	1550	1550	1691	2255	2818	3382	3945	4509	5073	5636	6200	6764
	3200	1600	1600	1745	2327	2909	3491	4073	4655	5236	5818	6400	6982
	3300	1650	1650	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
	3400	1700	1700	1855	2473	3091	3709	4327	4945	5564	6182	6800	7418
	3500	1750	1750	1909	2545	3182	3818	4455	5091	5727	6364	7000	7636

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 12"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	333	417	500	583	667	750	833	917	1000
	600	300	300	300	400	500	600	700	800	900	1000	1100	1200
	700	350	350	350	467	583	700	817	933	1050	1167	1283	1400
	800	400	400	400	533	667	800	933	1067	1200	1333	1467	1600
	900	450	450	450	600	750	900	1050	1200	1350	1500	1650	1800
	1000	500	500	500	667	833	1000	1167	1333	1500	1667	1833	2000
	1100	550	550	550	733	917	1100	1283	1467	1650	1833	2017	2200
	1200	600	600	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	1300	650	650	650	867	1083	1300	1517	1733	1950	2167	2383	2600
	1400	700	700	700	933	1167	1400	1633	1867	2100	2333	2567	2800
	1500	750	750	750	1000	1250	1500	1750	2000	2250	2500	2750	3000
	1600	800	800	800	1067	1333	1600	1867	2133	2400	2667	2933	3200
	1700	850	850	850	1133	1417	1700	1983	2267	2550	2833	3117	3400
	1800	900	900	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
	1900	950	950	950	1267	1583	1900	2217	2533	2850	3167	3483	3800
	2000	1000	1000	1000	1333	1667	2000	2333	2667	3000	3333	3667	4000
	2100	1050	1050	1050	1400	1750	2100	2450	2800	3150	3500	3850	4200
	2200	1100	1100	1100	1467	1833	2200	2567	2933	3300	3667	4033	4400
	2300	1150	1150	1150	1533	1917	2300	2683	3067	3450	3833	4217	4600
	2400	1200	1200	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
	2500	1250	1250	1250	1667	2083	2500	2917	3333	3750	4167	4583	5000
	2600	1300	1300	1300	1733	2167	2600	3033	3467	3900	4333	4767	5200
	2700	1350	1350	1350	1800	2250	2700	3150	3600	4050	4500	4950	5400
	2800	1400	1400	1400	1867	2333	2800	3267	3733	4200	4667	5133	5600
	2900	1450	1450	1450	1933	2417	2900	3383	3867	4350	4833	5317	5800
	3000	1500	1500	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
	3100	1550	1550	1550	2067	2583	3100	3617	4133	4650	5167	5683	6200
	3200	1600	1600	1600	2133	2667	3200	3733	4267	4800	5333	5867	6400
	3300	1650	1650	1650	2200	2750	3300	3850	4400	4950	5500	6050	6600
	3400	1700	1700	1700	2267	2833	3400	3967	4533	5100	5667	6233	6800
	3500	1750	1750	1750	2333	2917	3500	4083	4667	5250	5833	6417	7000

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 13"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	308	385	462	538	615	692	769	846	923
	600	300	300	300	369	462	554	646	738	831	923	1015	1108
	700	350	350	350	431	538	646	754	862	969	1077	1185	1292
	800	400	400	400	492	615	738	862	985	1108	1231	1354	1477
	900	450	450	450	554	692	831	969	1108	1246	1385	1523	1662
	1000	500	500	500	615	769	923	1077	1231	1385	1538	1692	1846
	1100	550	550	550	677	846	1015	1185	1354	1523	1692	1862	2031
	1200	600	600	600	738	923	1108	1292	1477	1662	1846	2031	2215
	1300	650	650	650	800	1000	1200	1400	1600	1800	2000	2200	2400
	1400	700	700	700	862	1077	1292	1508	1723	1938	2154	2369	2585
	1500	750	750	750	923	1154	1385	1615	1846	2077	2308	2538	2769
	1600	800	800	800	985	1231	1477	1723	1969	2215	2462	2708	2954
	1700	850	850	850	1046	1308	1569	1831	2092	2354	2615	2877	3138
	1800	900	900	900	1108	1385	1662	1938	2215	2492	2769	3046	3323
	1900	950	950	950	1169	1462	1754	2046	2338	2631	2923	3215	3508
	2000	1000	1000	1000	1231	1538	1846	2154	2462	2769	3077	3385	3692
	2100	1050	1050	1050	1292	1615	1938	2262	2585	2908	3231	3554	3877
	2200	1100	1100	1100	1354	1692	2031	2369	2708	3046	3385	3723	4062
	2300	1150	1150	1150	1415	1769	2123	2477	2831	3185	3538	3892	4246
	2400	1200	1200	1200	1477	1846	2215	2585	2954	3323	3692	4062	4431
	2500	1250	1250	1250	1538	1923	2308	2692	3077	3462	3846	4231	4615
	2600	1300	1300	1300	1600	2000	2400	2800	3200	3600	4000	4400	4800
	2700	1350	1350	1350	1662	2077	2492	2908	3323	3738	4154	4569	4985
	2800	1400	1400	1400	1723	2154	2585	3015	3446	3877	4308	4738	5169
	2900	1450	1450	1450	1785	2231	2677	3123	3569	4015	4462	4908	5354
	3000	1500	1500	1500	1846	2308	2769	3231	3692	4154	4615	5077	5538
	3100	1550	1550	1550	1908	2385	2862	3338	3815	4292	4769	5246	5723
	3200	1600	1600	1600	1969	2462	2954	3446	3938	4431	4923	5415	5908
	3300	1650	1650	1650	2031	2538	3046	3554	4062	4569	5077	5585	6092
	3400	1700	1700	1700	2092	2615	3138	3662	4185	4708	5231	5754	6277
	3500	1750	1750	1750	2154	2692	3231	3769	4308	4846	5385	5923	6462

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 14"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	286	357	429	500	571	643	714	786	857
	600	300	300	300	343	429	514	600	686	771	857	943	1029
	700	350	350	350	400	500	600	700	800	900	1000	1100	1200
	800	400	400	400	457	571	686	800	914	1029	1143	1257	1371
	900	450	450	450	514	643	771	900	1029	1157	1286	1414	1543
	1000	500	500	500	571	714	857	1000	1143	1286	1429	1571	1714
	1100	550	550	550	629	786	943	1100	1257	1414	1571	1729	1886
	1200	600	600	600	686	857	1029	1200	1371	1543	1714	1886	2057
	1300	650	650	650	743	929	1114	1300	1486	1671	1857	2043	2229
	1400	700	700	700	800	1000	1200	1400	1600	1800	2000	2200	2400
	1500	750	750	750	857	1071	1286	1500	1714	1929	2143	2357	2571
	1600	800	800	800	914	1143	1371	1600	1829	2057	2286	2514	2743
	1700	850	850	850	971	1214	1457	1700	1943	2186	2429	2671	2914
	1800	900	900	900	1029	1286	1543	1800	2057	2314	2571	2829	3086
	1900	950	950	950	1086	1357	1629	1900	2171	2443	2714	2986	3257
	2000	1000	1000	1000	1143	1429	1714	2000	2286	2571	2857	3143	3429
	2100	1050	1050	1050	1200	1500	1800	2100	2400	2700	3000	3300	3600
	2200	1100	1100	1100	1257	1571	1886	2200	2514	2829	3143	3457	3771
	2300	1150	1150	1150	1314	1643	1971	2300	2629	2957	3286	3614	3943
	2400	1200	1200	1200	1371	1714	2057	2400	2743	3086	3429	3771	4114
	2500	1250	1250	1250	1429	1786	2143	2500	2857	3214	3571	3929	4286
	2600	1300	1300	1300	1486	1857	2229	2600	2971	3343	3714	4086	4457
	2700	1350	1350	1350	1543	1929	2314	2700	3086	3471	3857	4243	4629
	2800	1400	1400	1400	1600	2000	2400	2800	3200	3600	4000	4400	4800
	2900	1450	1450	1450	1657	2071	2486	2900	3314	3729	4143	4557	4971
	3000	1500	1500	1500	1714	2143	2571	3000	3429	3857	4286	4714	5143
	3100	1550	1550	1550	1771	2214	2657	3100	3543	3986	4429	4871	5314
	3200	1600	1600	1600	1829	2286	2743	3200	3657	4114	4571	5029	5486
	3300	1650	1650	1650	1886	2357	2829	3300	3771	4243	4714	5186	5657
	3400	1700	1700	1700	1943	2429	2914	3400	3886	4371	4857	5343	5829
	3500	1750	1750	1750	2000	2500	3000	3500	4000	4500	5000	5500	6000

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 15"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	267	333	400	467	533	600	667	733	800
	600	300	300	300	320	400	480	560	640	720	800	880	960
	700	350	350	350	373	467	560	653	747	840	933	1027	1120
	800	400	400	400	427	533	640	747	853	960	1067	1173	1280
	900	450	450	450	480	600	720	840	960	1080	1200	1320	1440
	1000	500	500	500	533	667	800	933	1067	1200	1333	1467	1600
	1100	550	550	550	587	733	880	1027	1173	1320	1467	1613	1760
	1200	600	600	600	640	800	960	1120	1280	1440	1600	1760	1920
	1300	650	650	650	693	867	1040	1213	1387	1560	1733	1907	2080
	1400	700	700	700	747	933	1120	1307	1493	1680	1867	2053	2240
	1500	750	750	750	800	1000	1200	1400	1600	1800	2000	2200	2400
	1600	800	800	800	853	1067	1280	1493	1707	1920	2133	2347	2560
	1700	850	850	850	907	1133	1360	1587	1813	2040	2267	2493	2720
	1800	900	900	900	960	1200	1440	1680	1920	2160	2400	2640	2880
	1900	950	950	950	1013	1267	1520	1773	2027	2280	2533	2787	3040
	2000	1000	1000	1000	1067	1333	1600	1867	2133	2400	2667	2933	3200
	2100	1050	1050	1050	1120	1400	1680	1960	2240	2520	2800	3080	3360
	2200	1100	1100	1100	1173	1467	1760	2053	2347	2640	2933	3227	3520
	2300	1150	1150	1150	1227	1533	1840	2147	2453	2760	3067	3373	3680
	2400	1200	1200	1200	1280	1600	1920	2240	2560	2880	3200	3520	3840
	2500	1250	1250	1250	1333	1667	2000	2333	2667	3000	3333	3667	4000
	2600	1300	1300	1300	1387	1733	2080	2427	2773	3120	3467	3813	4160
	2700	1350	1350	1350	1440	1800	2160	2520	2880	3240	3600	3960	4320
	2800	1400	1400	1400	1493	1867	2240	2613	2987	3360	3733	4107	4480
	2900	1450	1450	1450	1547	1933	2320	2707	3093	3480	3867	4253	4640
	3000	1500	1500	1500	1600	2000	2400	2800	3200	3600	4000	4400	4800
	3100	1550	1550	1550	1653	2067	2480	2893	3307	3720	4133	4547	4960
	3200	1600	1600	1600	1707	2133	2560	2987	3413	3840	4267	4693	5120
	3300	1650	1650	1650	1760	2200	2640	3080	3520	3960	4400	4840	5280
	3400	1700	1700	1700	1813	2267	2720	3173	3627	4080	4533	4987	5440
	3500	1750	1750	1750	1867	2333	2800	3267	3733	4200	4667	5133	5600

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 16"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	250	313	375	438	500	563	625	688	750
	600	300	300	300	300	375	450	525	600	675	750	825	900
	700	350	350	350	350	438	525	613	700	788	875	963	1050
	800	400	400	400	400	500	600	700	800	900	1000	1100	1200
	900	450	450	450	450	563	675	788	900	1013	1125	1238	1350
	1000	500	500	500	500	625	750	875	1000	1125	1250	1375	1500
	1100	550	550	550	550	688	825	963	1100	1238	1375	1513	1650
	1200	600	600	600	600	750	900	1050	1200	1350	1500	1650	1800
	1300	650	650	650	650	813	975	1138	1300	1463	1625	1788	1950
	1400	700	700	700	700	875	1050	1225	1400	1575	1750	1925	2100
	1500	750	750	750	750	938	1125	1313	1500	1688	1875	2063	2250
	1600	800	800	800	800	1000	1200	1400	1600	1800	2000	2200	2400
	1700	850	850	850	850	1063	1275	1488	1700	1913	2125	2338	2550
	1800	900	900	900	900	1125	1350	1575	1800	2025	2250	2475	2700
	1900	950	950	950	950	1188	1425	1663	1900	2138	2375	2613	2850
	2000	1000	1000	1000	1000	1250	1500	1750	2000	2250	2500	2750	3000
	2100	1050	1050	1050	1050	1313	1575	1838	2100	2363	2625	2888	3150
	2200	1100	1100	1100	1100	1375	1650	1925	2200	2475	2750	3025	3300
	2300	1150	1150	1150	1150	1438	1725	2013	2300	2588	2875	3163	3450
	2400	1200	1200	1200	1200	1500	1800	2100	2400	2700	3000	3300	3600
	2500	1250	1250	1250	1250	1563	1875	2188	2500	2813	3125	3438	3750
	2600	1300	1300	1300	1300	1625	1950	2275	2600	2925	3250	3575	3900
	2700	1350	1350	1350	1350	1688	2025	2363	2700	3038	3375	3713	4050
	2800	1400	1400	1400	1400	1750	2100	2450	2800	3150	3500	3850	4200
	2900	1450	1450	1450	1450	1813	2175	2538	2900	3263	3625	3988	4350
	3000	1500	1500	1500	1500	1875	2250	2625	3000	3375	3750	4125	4500
	3100	1550	1550	1550	1550	1938	2325	2713	3100	3488	3875	4263	4650
	3200	1600	1600	1600	1600	2000	2400	2800	3200	3600	4000	4400	4800
	3300	1650	1650	1650	1650	2063	2475	2888	3300	3713	4125	4538	4950
	3400	1700	1700	1700	1700	2125	2550	2975	3400	3825	4250	4675	5100
	3500	1750	1750	1750	1750	2188	2625	3063	3500	3938	4375	4813	5250

DISTANCE BETWEEN BOLTS TABLES

Db 17"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	250	294	353	412	471	529	588	647	706
	600	300	300	300	300	353	424	494	565	635	706	776	847
	700	350	350	350	350	412	494	576	659	741	824	906	988
	800	400	400	400	400	471	565	659	753	847	941	1035	1129
	900	450	450	450	450	529	635	741	847	953	1059	1165	1271
	1000	500	500	500	500	588	706	824	941	1059	1176	1294	1412
	1100	550	550	550	550	647	776	906	1035	1165	1294	1424	1553
	1200	600	600	600	600	706	847	988	1129	1271	1412	1553	1694
	1300	650	650	650	650	765	918	1071	1224	1376	1529	1682	1835
	1400	700	700	700	700	824	988	1153	1318	1482	1647	1812	1976
	1500	750	750	750	750	882	1059	1235	1412	1588	1765	1941	2118
	1600	800	800	800	800	941	1129	1318	1506	1694	1882	2071	2259
	1700	850	850	850	850	1000	1200	1400	1600	1800	2000	2200	2400
	1800	900	900	900	900	1059	1271	1482	1694	1906	2118	2329	2541
	1900	950	950	950	950	1118	1341	1565	1788	2012	2235	2459	2682
	2000	1000	1000	1000	1000	1176	1412	1647	1882	2118	2353	2588	2824
	2100	1050	1050	1050	1050	1235	1482	1729	1976	2224	2471	2718	2965
	2200	1100	1100	1100	1100	1294	1553	1812	2071	2329	2588	2847	3106
	2300	1150	1150	1150	1150	1353	1624	1894	2165	2435	2706	2976	3247
	2400	1200	1200	1200	1200	1412	1694	1976	2259	2541	2824	3106	3388
	2500	1250	1250	1250	1250	1471	1765	2059	2353	2647	2941	3235	3529
	2600	1300	1300	1300	1300	1529	1835	2141	2447	2753	3059	3365	3671
	2700	1350	1350	1350	1350	1588	1906	2224	2541	2859	3176	3494	3812
	2800	1400	1400	1400	1400	1647	1976	2306	2635	2965	3294	3624	3953
	2900	1450	1450	1450	1450	1706	2047	2388	2729	3071	3412	3753	4094
	3000	1500	1500	1500	1500	1765	2118	2471	2824	3176	3529	3882	4235
	3100	1550	1550	1550	1550	1824	2188	2553	2918	3282	3647	4012	4376
	3200	1600	1600	1600	1600	1882	2259	2635	3012	3388	3765	4141	4518
	3300	1650	1650	1650	1650	1941	2329	2718	3106	3494	3882	4271	4659
	3400	1700	1700	1700	1700	2000	2400	2800	3200	3600	4000	4400	4800
	3500	1750	1750	1750	1750	2059	2471	2882	3294	3706	4118	4529	4941

DISTANCE BETWEEN BOLTS TABLES

Db 18"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	250	278	333	389	444	500	556	611	667
	600	300	300	300	300	333	400	467	533	600	667	733	800
	700	350	350	350	350	389	467	544	622	700	778	856	933
	800	400	400	400	400	444	533	622	711	800	889	978	1067
	900	450	450	450	450	500	600	700	800	900	1000	1100	1200
	1000	500	500	500	500	556	667	778	889	1000	1111	1222	1333
	1100	550	550	550	550	611	733	856	978	1100	1222	1344	1467
	1200	600	600	600	600	667	800	933	1067	1200	1333	1467	1600
	1300	650	650	650	650	722	867	1011	1156	1300	1444	1589	1733
	1400	700	700	700	700	778	933	1089	1244	1400	1556	1711	1867
	1500	750	750	750	750	833	1000	1167	1333	1500	1667	1833	2000
	1600	800	800	800	800	889	1067	1244	1422	1600	1778	1956	2133
	1700	850	850	850	850	944	1133	1322	1511	1700	1889	2078	2267
	1800	900	900	900	900	1000	1200	1400	1600	1800	2000	2200	2400
	1900	950	950	950	950	1056	1267	1478	1689	1900	2111	2322	2533
	2000	1000	1000	1000	1000	1111	1333	1556	1778	2000	2222	2444	2667
	2100	1050	1050	1050	1050	1167	1400	1633	1867	2100	2333	2567	2800
	2200	1100	1100	1100	1100	1222	1467	1711	1956	2200	2444	2689	2933
	2300	1150	1150	1150	1150	1278	1533	1789	2044	2300	2556	2811	3067
	2400	1200	1200	1200	1200	1333	1600	1867	2133	2400	2667	2933	3200
	2500	1250	1250	1250	1250	1389	1667	1944	2222	2500	2778	3056	3333
	2600	1300	1300	1300	1300	1444	1733	2022	2311	2600	2889	3178	3467
	2700	1350	1350	1350	1350	1500	1800	2100	2400	2700	3000	3300	3600
	2800	1400	1400	1400	1400	1556	1867	2178	2489	2800	3111	3422	3733
	2900	1450	1450	1450	1450	1611	1933	2256	2578	2900	3222	3544	3867
	3000	1500	1500	1500	1500	1667	2000	2333	2667	3000	3333	3667	4000
	3100	1550	1550	1550	1550	1722	2067	2411	2756	3100	3444	3789	4133
	3200	1600	1600	1600	1600	1778	2133	2489	2844	3200	3556	3911	4267
	3300	1650	1650	1650	1650	1833	2200	2567	2933	3300	3667	4033	4400
	3400	1700	1700	1700	1700	1889	2267	2644	3022	3400	3778	4156	4533
	3500	1750	1750	1750	1750	1944	2333	2722	3111	3500	3889	4278	4667

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 19"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	250	263	316	368	421	474	526	579	632
	600	300	300	300	300	316	379	442	505	568	632	695	758
	700	350	350	350	350	368	442	516	589	663	737	811	884
	800	400	400	400	400	421	505	589	674	758	842	926	1011
	900	450	450	450	450	474	568	663	758	853	947	1042	1137
	1000	500	500	500	500	526	632	737	842	947	1053	1158	1263
	1100	550	550	550	550	579	695	811	926	1042	1158	1274	1389
	1200	600	600	600	600	632	758	884	1011	1137	1263	1389	1516
	1300	650	650	650	650	684	821	958	1095	1232	1368	1505	1642
	1400	700	700	700	700	737	884	1032	1179	1326	1474	1621	1768
	1500	750	750	750	750	789	947	1105	1263	1421	1579	1737	1895
	1600	800	800	800	800	842	1011	1179	1347	1516	1684	1853	2021
	1700	850	850	850	850	895	1074	1253	1432	1611	1789	1968	2147
	1800	900	900	900	900	947	1137	1326	1516	1705	1895	2084	2274
	1900	950	950	950	950	1000	1200	1400	1600	1800	2000	2200	2400
	2000	1000	1000	1000	1000	1053	1263	1474	1684	1895	2105	2316	2526
	2100	1050	1050	1050	1050	1105	1326	1547	1768	1989	2211	2432	2653
	2200	1100	1100	1100	1100	1158	1389	1621	1853	2084	2316	2547	2779
	2300	1150	1150	1150	1150	1211	1453	1695	1937	2179	2421	2663	2905
	2400	1200	1200	1200	1200	1263	1516	1768	2021	2274	2526	2779	3032
	2500	1250	1250	1250	1250	1316	1579	1842	2105	2368	2632	2895	3158
	2600	1300	1300	1300	1300	1368	1642	1916	2189	2463	2737	3011	3284
	2700	1350	1350	1350	1350	1421	1705	1989	2274	2558	2842	3126	3411
	2800	1400	1400	1400	1400	1474	1768	2063	2358	2653	2947	3242	3537
	2900	1450	1450	1450	1450	1526	1832	2137	2442	2747	3053	3358	3663
	3000	1500	1500	1500	1500	1579	1895	2211	2526	2842	3158	3474	3789
	3100	1550	1550	1550	1550	1632	1958	2284	2611	2937	3263	3589	3916
	3200	1600	1600	1600	1600	1684	2021	2358	2695	3032	3368	3705	4042
	3300	1650	1650	1650	1650	1737	2084	2432	2779	3126	3474	3821	4168
	3400	1700	1700	1700	1700	1789	2147	2505	2863	3221	3579	3937	4295
	3500	1750	1750	1750	1750	1842	2211	2579	2947	3316	3684	4053	4421

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 20"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	250	250	300	350	400	450	500	550	600
	600	300	300	300	300	300	360	420	480	540	600	660	720
	700	350	350	350	350	350	420	490	560	630	700	770	840
	800	400	400	400	400	400	480	560	640	720	800	880	960
	900	450	450	450	450	450	540	630	720	810	900	990	1080
	1000	500	500	500	500	500	600	700	800	900	1000	1100	1200
	1100	550	550	550	550	550	660	770	880	990	1100	1210	1320
	1200	600	600	600	600	600	720	840	960	1080	1200	1320	1440
	1300	650	650	650	650	650	780	910	1040	1170	1300	1430	1560
	1400	700	700	700	700	700	840	980	1120	1260	1400	1540	1680
	1500	750	750	750	750	750	900	1050	1200	1350	1500	1650	1800
	1600	800	800	800	800	800	960	1120	1280	1440	1600	1760	1920
	1700	850	850	850	850	850	1020	1190	1360	1530	1700	1870	2040
	1800	900	900	900	900	900	1080	1260	1440	1620	1800	1980	2160
	1900	950	950	950	950	950	1140	1330	1520	1710	1900	2090	2280
	2000	1000	1000	1000	1000	1000	1200	1400	1600	1800	2000	2200	2400
	2100	1050	1050	1050	1050	1050	1260	1470	1680	1890	2100	2310	2520
	2200	1100	1100	1100	1100	1100	1320	1540	1760	1980	2200	2420	2640
	2300	1150	1150	1150	1150	1150	1380	1610	1840	2070	2300	2530	2760
	2400	1200	1200	1200	1200	1200	1440	1680	1920	2160	2400	2640	2880
	2500	1250	1250	1250	1250	1250	1500	1750	2000	2250	2500	2750	3000
	2600	1300	1300	1300	1300	1300	1560	1820	2080	2340	2600	2860	3120
	2700	1350	1350	1350	1350	1350	1620	1890	2160	2430	2700	2970	3240
	2800	1400	1400	1400	1400	1400	1680	1960	2240	2520	2800	3080	3360
	2900	1450	1450	1450	1450	1450	1740	2030	2320	2610	2900	3190	3480
	3000	1500	1500	1500	1500	1500	1800	2100	2400	2700	3000	3300	3600
	3100	1550	1550	1550	1550	1550	1860	2170	2480	2790	3100	3410	3720
	3200	1600	1600	1600	1600	1600	1920	2240	2560	2880	3200	3520	3840
	3300	1650	1650	1650	1650	1650	1980	2310	2640	2970	3300	3630	3960
	3400	1700	1700	1700	1700	1700	2040	2380	2720	3060	3400	3740	4080
	3500	1750	1750	1750	1750	1750	2100	2450	2800	3150	3500	3850	4200

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 21"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	250	250	286	333	381	429	476	524	571
	600	300	300	300	300	300	343	400	457	514	571	629	686
	700	350	350	350	350	350	400	467	533	600	667	733	800
	800	400	400	400	400	400	457	533	610	686	762	838	914
	900	450	450	450	450	450	514	600	686	771	857	943	1029
	1000	500	500	500	500	500	571	667	762	857	952	1048	1143
	1100	550	550	550	550	550	629	733	838	943	1048	1152	1257
	1200	600	600	600	600	600	686	800	914	1029	1143	1257	1371
	1300	650	650	650	650	650	743	867	990	1114	1238	1362	1486
	1400	700	700	700	700	700	800	933	1067	1200	1333	1467	1600
	1500	750	750	750	750	750	857	1000	1143	1286	1429	1571	1714
	1600	800	800	800	800	800	914	1067	1219	1371	1524	1676	1829
	1700	850	850	850	850	850	971	1133	1295	1457	1619	1781	1943
	1800	900	900	900	900	900	1029	1200	1371	1543	1714	1886	2057
	1900	950	950	950	950	950	1086	1267	1448	1629	1810	1990	2171
	2000	1000	1000	1000	1000	1000	1143	1333	1524	1714	1905	2095	2286
	2100	1050	1050	1050	1050	1050	1200	1400	1600	1800	2000	2200	2400
	2200	1100	1100	1100	1100	1100	1257	1467	1676	1886	2095	2305	2514
	2300	1150	1150	1150	1150	1150	1314	1533	1752	1971	2190	2410	2629
	2400	1200	1200	1200	1200	1200	1371	1600	1829	2057	2286	2514	2743
	2500	1250	1250	1250	1250	1250	1429	1667	1905	2143	2381	2619	2857
	2600	1300	1300	1300	1300	1300	1486	1733	1981	2229	2476	2724	2971
	2700	1350	1350	1350	1350	1350	1543	1800	2057	2314	2571	2829	3086
	2800	1400	1400	1400	1400	1400	1600	1867	2133	2400	2667	2933	3200
	2900	1450	1450	1450	1450	1450	1657	1933	2210	2486	2762	3038	3314
	3000	1500	1500	1500	1500	1500	1714	2000	2286	2571	2857	3143	3429
	3100	1550	1550	1550	1550	1550	1771	2067	2362	2657	2952	3248	3543
	3200	1600	1600	1600	1600	1600	1829	2133	2438	2743	3048	3352	3657
	3300	1650	1650	1650	1650	1650	1886	2200	2514	2829	3143	3457	3771
	3400	1700	1700	1700	1700	1700	1943	2267	2590	2914	3238	3562	3886
	3500	1750	1750	1750	1750	1750	2000	2333	2667	3000	3333	3667	4000

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 22"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	250	250	273	318	364	409	455	500	545
	600	300	300	300	300	300	327	382	436	491	545	600	655
	700	350	350	350	350	350	382	445	509	573	636	700	764
	800	400	400	400	400	400	436	509	582	655	727	800	873
	900	450	450	450	450	450	491	573	655	736	818	900	982
	1000	500	500	500	500	500	545	636	727	818	909	1000	1091
	1100	550	550	550	550	550	600	700	800	900	1000	1100	1200
	1200	600	600	600	600	600	655	764	873	982	1091	1200	1309
	1300	650	650	650	650	650	709	827	945	1064	1182	1300	1418
	1400	700	700	700	700	700	764	891	1018	1145	1273	1400	1527
	1500	750	750	750	750	750	818	955	1091	1227	1364	1500	1636
	1600	800	800	800	800	800	873	1018	1164	1309	1455	1600	1745
	1700	850	850	850	850	850	927	1082	1236	1391	1545	1700	1855
	1800	900	900	900	900	900	982	1145	1309	1473	1636	1800	1964
	1900	950	950	950	950	950	1036	1209	1382	1555	1727	1900	2073
	2000	1000	1000	1000	1000	1000	1091	1273	1455	1636	1818	2000	2182
	2100	1050	1050	1050	1050	1050	1145	1336	1527	1718	1909	2100	2291
	2200	1100	1100	1100	1100	1100	1200	1400	1600	1800	2000	2200	2400
	2300	1150	1150	1150	1150	1150	1255	1464	1673	1882	2091	2300	2509
	2400	1200	1200	1200	1200	1200	1309	1527	1745	1964	2182	2400	2618
	2500	1250	1250	1250	1250	1250	1364	1591	1818	2045	2273	2500	2727
	2600	1300	1300	1300	1300	1300	1418	1655	1891	2127	2364	2600	2836
	2700	1350	1350	1350	1350	1350	1473	1718	1964	2209	2455	2700	2945
	2800	1400	1400	1400	1400	1400	1527	1782	2036	2291	2545	2800	3055
	2900	1450	1450	1450	1450	1450	1582	1845	2109	2373	2636	2900	3164
	3000	1500	1500	1500	1500	1500	1636	1909	2182	2455	2727	3000	3273
	3100	1550	1550	1550	1550	1550	1691	1973	2255	2536	2818	3100	3382
	3200	1600	1600	1600	1600	1600	1745	2036	2327	2618	2909	3200	3491
	3300	1650	1650	1650	1650	1650	1800	2100	2400	2700	3000	3300	3600
	3400	1700	1700	1700	1700	1700	1855	2164	2473	2782	3091	3400	3709
	3500	1750	1750	1750	1750	1750	1909	2227	2545	2864	3182	3500	3818

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 23"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	250	250	261	304	348	391	435	478	522
	600	300	300	300	300	300	313	365	417	470	522	574	626
	700	350	350	350	350	350	365	426	487	548	609	670	730
	800	400	400	400	400	400	417	487	557	626	696	765	835
	900	450	450	450	450	450	470	548	626	704	783	861	939
	1000	500	500	500	500	500	522	609	696	783	870	957	1043
	1100	550	550	550	550	550	574	670	765	861	957	1052	1148
	1200	600	600	600	600	600	626	730	835	939	1043	1148	1252
	1300	650	650	650	650	650	678	791	904	1017	1130	1243	1357
	1400	700	700	700	700	700	730	852	974	1096	1217	1339	1461
	1500	750	750	750	750	750	783	913	1043	1174	1304	1435	1565
	1600	800	800	800	800	800	835	974	1113	1252	1391	1530	1670
	1700	850	850	850	850	850	887	1035	1183	1330	1478	1626	1774
	1800	900	900	900	900	900	939	1096	1252	1409	1565	1722	1878
	1900	950	950	950	950	950	991	1157	1322	1487	1652	1817	1983
	2000	1000	1000	1000	1000	1000	1043	1217	1391	1565	1739	1913	2087
	2100	1050	1050	1050	1050	1050	1096	1278	1461	1643	1826	2009	2191
	2200	1100	1100	1100	1100	1100	1148	1339	1530	1722	1913	2104	2296
	2300	1150	1150	1150	1150	1150	1200	1400	1600	1800	2000	2200	2400
	2400	1200	1200	1200	1200	1200	1252	1461	1670	1878	2087	2296	2504
	2500	1250	1250	1250	1250	1250	1304	1522	1739	1957	2174	2391	2609
	2600	1300	1300	1300	1300	1300	1357	1583	1809	2035	2261	2487	2713
	2700	1350	1350	1350	1350	1350	1409	1643	1878	2113	2348	2583	2817
	2800	1400	1400	1400	1400	1400	1461	1704	1948	2191	2435	2678	2922
	2900	1450	1450	1450	1450	1450	1513	1765	2017	2270	2522	2774	3026
	3000	1500	1500	1500	1500	1500	1565	1826	2087	2348	2609	2870	3130
	3100	1550	1550	1550	1550	1550	1617	1887	2157	2426	2696	2965	3235
	3200	1600	1600	1600	1600	1600	1670	1948	2226	2504	2783	3061	3339
	3300	1650	1650	1650	1650	1650	1722	2009	2296	2583	2870	3157	3443
	3400	1700	1700	1700	1700	1700	1774	2070	2365	2661	2957	3252	3548
	3500	1750	1750	1750	1750	1750	1826	2130	2435	2739	3043	3348	3652

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE BETWEEN BOLTS TABLES

Db 24"		DL (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	250	250	250	250	250	250	292	333	375	417	458	500
	600	300	300	300	300	300	300	350	400	450	500	550	600
	700	350	350	350	350	350	350	408	467	525	583	642	700
	800	400	400	400	400	400	400	467	533	600	667	733	800
	900	450	450	450	450	450	450	525	600	675	750	825	900
	1000	500	500	500	500	500	500	583	667	750	833	917	1000
	1100	550	550	550	550	550	550	642	733	825	917	1008	1100
	1200	600	600	600	600	600	600	700	800	900	1000	1100	1200
	1300	650	650	650	650	650	650	758	867	975	1083	1192	1300
	1400	700	700	700	700	700	700	817	933	1050	1167	1283	1400
	1500	750	750	750	750	750	750	875	1000	1125	1250	1375	1500
	1600	800	800	800	800	800	800	933	1067	1200	1333	1467	1600
	1700	850	850	850	850	850	850	992	1133	1275	1417	1558	1700
	1800	900	900	900	900	900	900	1050	1200	1350	1500	1650	1800
	1900	950	950	950	950	950	950	1108	1267	1425	1583	1742	1900
	2000	1000	1000	1000	1000	1000	1000	1167	1333	1500	1667	1833	2000
	2100	1050	1050	1050	1050	1050	1050	1225	1400	1575	1750	1925	2100
	2200	1100	1100	1100	1100	1100	1100	1283	1467	1650	1833	2017	2200
	2300	1150	1150	1150	1150	1150	1150	1342	1533	1725	1917	2108	2300
	2400	1200	1200	1200	1200	1200	1200	1400	1600	1800	2000	2200	2400
	2500	1250	1250	1250	1250	1250	1250	1458	1667	1875	2083	2292	2500
	2600	1300	1300	1300	1300	1300	1300	1517	1733	1950	2167	2383	2600
	2700	1350	1350	1350	1350	1350	1350	1575	1800	2025	2250	2475	2700
	2800	1400	1400	1400	1400	1400	1400	1633	1867	2100	2333	2567	2800
	2900	1450	1450	1450	1450	1450	1450	1692	1933	2175	2417	2658	2900
	3000	1500	1500	1500	1500	1500	1500	1750	2000	2250	2500	2750	3000
	3100	1550	1550	1550	1550	1550	1550	1808	2067	2325	2583	2842	3100
	3200	1600	1600	1600	1600	1600	1600	1867	2133	2400	2667	2933	3200
	3300	1650	1650	1650	1650	1650	1650	1925	2200	2475	2750	3025	3300
	3400	1700	1700	1700	1700	1700	1700	1983	2267	2550	2833	3117	3400
	3500	1750	1750	1750	1750	1750	1750	2042	2333	2625	2917	3208	3500

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 6"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	1500	750	500	375	300	250	250	250	250	250	250	250
	600	1800	900	600	450	360	300	300	300	300	300	300	300
	700	2100	1050	700	525	420	350	350	350	350	350	350	350
	800	2400	1200	800	600	480	400	400	400	400	400	400	400
	900	2700	1350	900	675	540	450	450	450	450	450	450	450
	1000	3000	1500	1000	750	600	500	500	500	500	500	500	500
	1100	3300	1650	1100	825	660	550	550	550	550	550	550	550
	1200	3600	1800	1200	900	720	600	600	600	600	600	600	600
	1300	3900	1950	1300	975	780	650	650	650	650	650	650	650
	1400	4200	2100	1400	1050	840	700	700	700	700	700	700	700
	1500	4500	2250	1500	1125	900	750	750	750	750	750	750	750
	1600	4800	2400	1600	1200	960	800	800	800	800	800	800	800
	1700	5100	2550	1700	1275	1020	850	850	850	850	850	850	850
	1800	5400	2700	1800	1350	1080	900	900	900	900	900	900	900
	1900	5700	2850	1900	1425	1140	950	950	950	950	950	950	950
	2000	6000	3000	2000	1500	1200	1000	1000	1000	1000	1000	1000	1000
	2100	6300	3150	2100	1575	1260	1050	1050	1050	1050	1050	1050	1050
	2200	6600	3300	2200	1650	1320	1100	1100	1100	1100	1100	1100	1100
	2300	6900	3450	2300	1725	1380	1150	1150	1150	1150	1150	1150	1150
	2400	7200	3600	2400	1800	1440	1200	1200	1200	1200	1200	1200	1200
	2500	7500	3750	2500	1875	1500	1250	1250	1250	1250	1250	1250	1250
	2600	7800	3900	2600	1950	1560	1300	1300	1300	1300	1300	1300	1300
	2700	8100	4050	2700	2025	1620	1350	1350	1350	1350	1350	1350	1350
	2800	8400	4200	2800	2100	1680	1400	1400	1400	1400	1400	1400	1400
	2900	8700	4350	2900	2175	1740	1450	1450	1450	1450	1450	1450	1450
	3000	9000	4500	3000	2250	1800	1500	1500	1500	1500	1500	1500	1500
	3100	9300	4650	3100	2325	1860	1550	1550	1550	1550	1550	1550	1550
	3200	9600	4800	3200	2400	1920	1600	1600	1600	1600	1600	1600	1600
	3300	9900	4950	3300	2475	1980	1650	1650	1650	1650	1650	1650	1650
	3400	10200	5100	3400	2550	2040	1700	1700	1700	1700	1700	1700	1700
	3500	10500	5250	3500	2625	2100	1750	1750	1750	1750	1750	1750	1750

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 7"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	1750	875	583	438	350	292	250	250	250	250	250	250
	600	2100	1050	700	525	420	350	300	300	300	300	300	300
	700	2450	1225	817	613	490	408	350	350	350	350	350	350
	800	2800	1400	933	700	560	467	400	400	400	400	400	400
	900	3150	1575	1050	788	630	525	450	450	450	450	450	450
	1000	3500	1750	1167	875	700	583	500	500	500	500	500	500
	1100	3850	1925	1283	963	770	642	550	550	550	550	550	550
	1200	4200	2100	1400	1050	840	700	600	600	600	600	600	600
	1300	4550	2275	1517	1138	910	758	650	650	650	650	650	650
	1400	4900	2450	1633	1225	980	817	700	700	700	700	700	700
	1500	5250	2625	1750	1313	1050	875	750	750	750	750	750	750
	1600	5600	2800	1867	1400	1120	933	800	800	800	800	800	800
	1700	5950	2975	1983	1488	1190	992	850	850	850	850	850	850
	1800	6300	3150	2100	1575	1260	1050	900	900	900	900	900	900
	1900	6650	3325	2217	1663	1330	1108	950	950	950	950	950	950
	2000	7000	3500	2333	1750	1400	1167	1000	1000	1000	1000	1000	1000
	2100	7350	3675	2450	1838	1470	1225	1050	1050	1050	1050	1050	1050
	2200	7700	3850	2567	1925	1540	1283	1100	1100	1100	1100	1100	1100
	2300	8050	4025	2683	2013	1610	1342	1150	1150	1150	1150	1150	1150
	2400	8400	4200	2800	2100	1680	1400	1200	1200	1200	1200	1200	1200
	2500	8750	4375	2917	2188	1750	1458	1250	1250	1250	1250	1250	1250
	2600	9100	4550	3033	2275	1820	1517	1300	1300	1300	1300	1300	1300
	2700	9450	4725	3150	2363	1890	1575	1350	1350	1350	1350	1350	1350
	2800	9800	4900	3267	2450	1960	1633	1400	1400	1400	1400	1400	1400
	2900	10150	5075	3383	2538	2030	1692	1450	1450	1450	1450	1450	1450
	3000	10500	5250	3500	2625	2100	1750	1500	1500	1500	1500	1500	1500
	3100	10850	5425	3617	2713	2170	1808	1550	1550	1550	1550	1550	1550
	3200	11200	5600	3733	2800	2240	1867	1600	1600	1600	1600	1600	1600
	3300	11550	5775	3850	2888	2310	1925	1650	1650	1650	1650	1650	1650
	3400	11900	5950	3967	2975	2380	1983	1700	1700	1700	1700	1700	1700
	3500	12250	6125	4083	3063	2450	2042	1750	1750	1750	1750	1750	1750

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 8"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	2000	1000	667	500	400	333	286	250	250	250	250	250
	600	2400	1200	800	600	480	400	343	300	300	300	300	300
	700	2800	1400	933	700	560	467	400	350	350	350	350	350
	800	3200	1600	1067	800	640	533	457	400	400	400	400	400
	900	3600	1800	1200	900	720	600	514	450	450	450	450	450
	1000	4000	2000	1333	1000	800	667	571	500	500	500	500	500
	1100	4400	2200	1467	1100	880	733	629	550	550	550	550	550
	1200	4800	2400	1600	1200	960	800	686	600	600	600	600	600
	1300	5200	2600	1733	1300	1040	867	743	650	650	650	650	650
	1400	5600	2800	1867	1400	1120	933	800	700	700	700	700	700
	1500	6000	3000	2000	1500	1200	1000	857	750	750	750	750	750
	1600	6400	3200	2133	1600	1280	1067	914	800	800	800	800	800
	1700	6800	3400	2267	1700	1360	1133	971	850	850	850	850	850
	1800	7200	3600	2400	1800	1440	1200	1029	900	900	900	900	900
	1900	7600	3800	2533	1900	1520	1267	1086	950	950	950	950	950
	2000	8000	4000	2667	2000	1600	1333	1143	1000	1000	1000	1000	1000
	2100	8400	4200	2800	2100	1680	1400	1200	1050	1050	1050	1050	1050
	2200	8800	4400	2933	2200	1760	1467	1257	1100	1100	1100	1100	1100
	2300	9200	4600	3067	2300	1840	1533	1314	1150	1150	1150	1150	1150
	2400	9600	4800	3200	2400	1920	1600	1371	1200	1200	1200	1200	1200
	2500	10000	5000	3333	2500	2000	1667	1429	1250	1250	1250	1250	1250
	2600	10400	5200	3467	2600	2080	1733	1486	1300	1300	1300	1300	1300
	2700	10800	5400	3600	2700	2160	1800	1543	1350	1350	1350	1350	1350
	2800	11200	5600	3733	2800	2240	1867	1600	1400	1400	1400	1400	1400
	2900	11600	5800	3867	2900	2320	1933	1657	1450	1450	1450	1450	1450
	3000	12000	6000	4000	3000	2400	2000	1714	1500	1500	1500	1500	1500
	3100	12400	6200	4133	3100	2480	2067	1771	1550	1550	1550	1550	1550
	3200	12800	6400	4267	3200	2560	2133	1829	1600	1600	1600	1600	1600
	3300	13200	6600	4400	3300	2640	2200	1886	1650	1650	1650	1650	1650
	3400	13600	6800	4533	3400	2720	2267	1943	1700	1700	1700	1700	1700
	3500	14000	7000	4667	3500	2800	2333	2000	1750	1750	1750	1750	1750

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 9"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	2250	1125	750	563	450	375	321	281	250	250	250	250
	600	2700	1350	900	675	540	450	386	338	300	300	300	300
	700	3150	1575	1050	788	630	525	450	394	350	350	350	350
	800	3600	1800	1200	900	720	600	514	450	400	400	400	400
	900	4050	2025	1350	1013	810	675	579	506	450	450	450	450
	1000	4500	2250	1500	1125	900	750	643	563	500	500	500	500
	1100	4950	2475	1650	1238	990	825	707	619	550	550	550	550
	1200	5400	2700	1800	1350	1080	900	771	675	600	600	600	600
	1300	5850	2925	1950	1463	1170	975	836	731	650	650	650	650
	1400	6300	3150	2100	1575	1260	1050	900	788	700	700	700	700
	1500	6750	3375	2250	1688	1350	1125	964	844	750	750	750	750
	1600	7200	3600	2400	1800	1440	1200	1029	900	800	800	800	800
	1700	7650	3825	2550	1913	1530	1275	1093	956	850	850	850	850
	1800	8100	4050	2700	2025	1620	1350	1157	1013	900	900	900	900
	1900	8550	4275	2850	2138	1710	1425	1221	1069	950	950	950	950
	2000	9000	4500	3000	2250	1800	1500	1286	1125	1000	1000	1000	1000
	2100	9450	4725	3150	2363	1890	1575	1350	1181	1050	1050	1050	1050
	2200	9900	4950	3300	2475	1980	1650	1414	1238	1100	1100	1100	1100
	2300	10350	5175	3450	2588	2070	1725	1479	1294	1150	1150	1150	1150
	2400	10800	5400	3600	2700	2160	1800	1543	1350	1200	1200	1200	1200
	2500	11250	5625	3750	2813	2250	1875	1607	1406	1250	1250	1250	1250
	2600	11700	5850	3900	2925	2340	1950	1671	1463	1300	1300	1300	1300
	2700	12150	6075	4050	3038	2430	2025	1736	1519	1350	1350	1350	1350
	2800	12600	6300	4200	3150	2520	2100	1800	1575	1400	1400	1400	1400
	2900	13050	6525	4350	3263	2610	2175	1864	1631	1450	1450	1450	1450
	3000	13500	6750	4500	3375	2700	2250	1929	1688	1500	1500	1500	1500
	3100	13950	6975	4650	3488	2790	2325	1993	1744	1550	1550	1550	1550
	3200	14400	7200	4800	3600	2880	2400	2057	1800	1600	1600	1600	1600
	3300	14850	7425	4950	3713	2970	2475	2121	1856	1650	1650	1650	1650
	3400	15300	7650	5100	3825	3060	2550	2186	1913	1700	1700	1700	1700
	3500	15750	7875	5250	3938	3150	2625	2250	1969	1750	1750	1750	1750

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 10"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	2500	1250	833	625	500	417	357	313	278	250	250	250
	600	3000	1500	1000	750	600	500	429	375	333	300	300	300
	700	3500	1750	1167	875	700	583	500	438	389	350	350	350
	800	4000	2000	1333	1000	800	667	571	500	444	400	400	400
	900	4500	2250	1500	1125	900	750	643	563	500	450	450	450
	1000	5000	2500	1667	1250	1000	833	714	625	556	500	500	500
	1100	5500	2750	1833	1375	1100	917	786	688	611	550	550	550
	1200	6000	3000	2000	1500	1200	1000	857	750	667	600	600	600
	1300	6500	3250	2167	1625	1300	1083	929	813	722	650	650	650
	1400	7000	3500	2333	1750	1400	1167	1000	875	778	700	700	700
	1500	7500	3750	2500	1875	1500	1250	1071	938	833	750	750	750
	1600	8000	4000	2667	2000	1600	1333	1143	1000	889	800	800	800
	1700	8500	4250	2833	2125	1700	1417	1214	1063	944	850	850	850
	1800	9000	4500	3000	2250	1800	1500	1286	1125	1000	900	900	900
	1900	9500	4750	3167	2375	1900	1583	1357	1188	1056	950	950	950
	2000	10000	5000	3333	2500	2000	1667	1429	1250	1111	1000	1000	1000
	2100	10500	5250	3500	2625	2100	1750	1500	1313	1167	1050	1050	1050
	2200	11000	5500	3667	2750	2200	1833	1571	1375	1222	1100	1100	1100
	2300	11500	5750	3833	2875	2300	1917	1643	1438	1278	1150	1150	1150
	2400	12000	6000	4000	3000	2400	2000	1714	1500	1333	1200	1200	1200
	2500	12500	6250	4167	3125	2500	2083	1786	1563	1389	1250	1250	1250
	2600	13000	6500	4333	3250	2600	2167	1857	1625	1444	1300	1300	1300
	2700	13500	6750	4500	3375	2700	2250	1929	1688	1500	1350	1350	1350
	2800	14000	7000	4667	3500	2800	2333	2000	1750	1556	1400	1400	1400
	2900	14500	7250	4833	3625	2900	2417	2071	1813	1611	1450	1450	1450
	3000	15000	7500	5000	3750	3000	2500	2143	1875	1667	1500	1500	1500
	3100	15500	7750	5167	3875	3100	2583	2214	1938	1722	1550	1550	1550
	3200	16000	8000	5333	4000	3200	2667	2286	2000	1778	1600	1600	1600
	3300	16500	8250	5500	4125	3300	2750	2357	2063	1833	1650	1650	1650
	3400	17000	8500	5667	4250	3400	2833	2429	2125	1889	1700	1700	1700
	3500	17500	8750	5833	4375	3500	2917	2500	2188	1944	1750	1750	1750

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 11"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	2750	1375	917	688	550	458	393	344	306	275	250	250
	600	3300	1650	1100	825	660	550	471	413	367	330	300	300
	700	3850	1925	1283	963	770	642	550	481	428	385	350	350
	800	4400	2200	1467	1100	880	733	629	550	489	440	400	400
	900	4950	2475	1650	1238	990	825	707	619	550	495	450	450
	1000	5500	2750	1833	1375	1100	917	786	688	611	550	500	500
	1100	6050	3025	2017	1513	1210	1008	864	756	672	605	550	550
	1200	6600	3300	2200	1650	1320	1100	943	825	733	660	600	600
	1300	7150	3575	2383	1788	1430	1192	1021	894	794	715	650	650
	1400	7700	3850	2567	1925	1540	1283	1100	963	856	770	700	700
	1500	8250	4125	2750	2063	1650	1375	1179	1031	917	825	750	750
	1600	8800	4400	2933	2200	1760	1467	1257	1100	978	880	800	800
	1700	9350	4675	3117	2338	1870	1558	1336	1169	1039	935	850	850
	1800	9900	4950	3300	2475	1980	1650	1414	1238	1100	990	900	900
	1900	10450	5225	3483	2613	2090	1742	1493	1306	1161	1045	950	950
	2000	11000	5500	3667	2750	2200	1833	1571	1375	1222	1100	1000	1000
	2100	11550	5775	3850	2888	2310	1925	1650	1444	1283	1155	1050	1050
	2200	12100	6050	4033	3025	2420	2017	1729	1513	1344	1210	1100	1100
	2300	12650	6325	4217	3163	2530	2108	1807	1581	1406	1265	1150	1150
	2400	13200	6600	4400	3300	2640	2200	1886	1650	1467	1320	1200	1200
	2500	13750	6875	4583	3438	2750	2292	1964	1719	1528	1375	1250	1250
	2600	14300	7150	4767	3575	2860	2383	2043	1788	1589	1430	1300	1300
	2700	14850	7425	4950	3713	2970	2475	2121	1856	1650	1485	1350	1350
	2800	15400	7700	5133	3850	3080	2567	2200	1925	1711	1540	1400	1400
	2900	15950	7975	5317	3988	3190	2658	2279	1994	1772	1595	1450	1450
	3000	16500	8250	5500	4125	3300	2750	2357	2063	1833	1650	1500	1500
	3100	17050	8525	5683	4263	3410	2842	2436	2131	1894	1705	1550	1550
	3200	17600	8800	5867	4400	3520	2933	2514	2200	1956	1760	1600	1600
	3300	18150	9075	6050	4538	3630	3025	2593	2269	2017	1815	1650	1650
	3400	18700	9350	6233	4675	3740	3117	2671	2338	2078	1870	1700	1700
	3500	19250	9625	6417	4813	3850	3208	2750	2406	2139	1925	1750	1750

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 12"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	3000	1500	1000	750	600	500	429	375	333	300	273	250
	600	3600	1800	1200	900	720	600	514	450	400	360	327	300
	700	4200	2100	1400	1050	840	700	600	525	467	420	382	350
	800	4800	2400	1600	1200	960	800	686	600	533	480	436	400
	900	5400	2700	1800	1350	1080	900	771	675	600	540	491	450
	1000	6000	3000	2000	1500	1200	1000	857	750	667	600	545	500
	1100	6600	3300	2200	1650	1320	1100	943	825	733	660	600	550
	1200	7200	3600	2400	1800	1440	1200	1029	900	800	720	655	600
	1300	7800	3900	2600	1950	1560	1300	1114	975	867	780	709	650
	1400	8400	4200	2800	2100	1680	1400	1200	1050	933	840	764	700
	1500	9000	4500	3000	2250	1800	1500	1286	1125	1000	900	818	750
	1600	9600	4800	3200	2400	1920	1600	1371	1200	1067	960	873	800
	1700	10200	5100	3400	2550	2040	1700	1457	1275	1133	1020	927	850
	1800	10800	5400	3600	2700	2160	1800	1543	1350	1200	1080	982	900
	1900	11400	5700	3800	2850	2280	1900	1629	1425	1267	1140	1036	950
	2000	12000	6000	4000	3000	2400	2000	1714	1500	1333	1200	1091	1000
	2100	12600	6300	4200	3150	2520	2100	1800	1575	1400	1260	1145	1050
	2200	13200	6600	4400	3300	2640	2200	1886	1650	1467	1320	1200	1100
	2300	13800	6900	4600	3450	2760	2300	1971	1725	1533	1380	1255	1150
	2400	14400	7200	4800	3600	2880	2400	2057	1800	1600	1440	1309	1200
	2500	15000	7500	5000	3750	3000	2500	2143	1875	1667	1500	1364	1250
	2600	15600	7800	5200	3900	3120	2600	2229	1950	1733	1560	1418	1300
	2700	16200	8100	5400	4050	3240	2700	2314	2025	1800	1620	1473	1350
	2800	16800	8400	5600	4200	3360	2800	2400	2100	1867	1680	1527	1400
	2900	17400	8700	5800	4350	3480	2900	2486	2175	1933	1740	1582	1450
	3000	18000	9000	6000	4500	3600	3000	2571	2250	2000	1800	1636	1500
	3100	18600	9300	6200	4650	3720	3100	2657	2325	2067	1860	1691	1550
	3200	19200	9600	6400	4800	3840	3200	2743	2400	2133	1920	1745	1600
	3300	19800	9900	6600	4950	3960	3300	2829	2475	2200	1980	1800	1650
	3400	20400	10200	6800	5100	4080	3400	2914	2550	2267	2040	1855	1700
	3500	21000	10500	7000	5250	4200	3500	3000	2625	2333	2100	1909	1750

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 13"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	3250	1625	1083	813	650	542	464	406	361	325	295	271
	600	3900	1950	1300	975	780	650	557	488	433	390	355	325
	700	4550	2275	1517	1138	910	758	650	569	506	455	414	379
	800	5200	2600	1733	1300	1040	867	743	650	578	520	473	433
	900	5850	2925	1950	1463	1170	975	836	731	650	585	532	488
	1000	6500	3250	2167	1625	1300	1083	929	813	722	650	591	542
	1100	7150	3575	2383	1788	1430	1192	1021	894	794	715	650	596
	1200	7800	3900	2600	1950	1560	1300	1114	975	867	780	709	650
	1300	8450	4225	2817	2113	1690	1408	1207	1056	939	845	768	704
	1400	9100	4550	3033	2275	1820	1517	1300	1138	1011	910	827	758
	1500	9750	4875	3250	2438	1950	1625	1393	1219	1083	975	886	813
	1600	10400	5200	3467	2600	2080	1733	1486	1300	1156	1040	945	867
	1700	11050	5525	3683	2763	2210	1842	1579	1381	1228	1105	1005	921
	1800	11700	5850	3900	2925	2340	1950	1671	1463	1300	1170	1064	975
	1900	12350	6175	4117	3088	2470	2058	1764	1544	1372	1235	1123	1029
	2000	13000	6500	4333	3250	2600	2167	1857	1625	1444	1300	1182	1083
	2100	13650	6825	4550	3413	2730	2275	1950	1706	1517	1365	1241	1138
	2200	14300	7150	4767	3575	2860	2383	2043	1788	1589	1430	1300	1192
	2300	14950	7475	4983	3738	2990	2492	2136	1869	1661	1495	1359	1246
	2400	15600	7800	5200	3900	3120	2600	2229	1950	1733	1560	1418	1300
	2500	16250	8125	5417	4063	3250	2708	2321	2031	1806	1625	1477	1354
	2600	16900	8450	5633	4225	3380	2817	2414	2113	1878	1690	1536	1408
	2700	17550	8775	5850	4388	3510	2925	2507	2194	1950	1755	1595	1463
	2800	18200	9100	6067	4550	3640	3033	2600	2275	2022	1820	1655	1517
	2900	18850	9425	6283	4713	3770	3142	2693	2356	2094	1885	1714	1571
	3000	19500	9750	6500	4875	3900	3250	2786	2438	2167	1950	1773	1625
	3100	20150	10075	6717	5038	4030	3358	2879	2519	2239	2015	1832	1679
	3200	20800	10400	6933	5200	4160	3467	2971	2600	2311	2080	1891	1733
	3300	21450	10725	7150	5363	4290	3575	3064	2681	2383	2145	1950	1788

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 14"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	3500	1750	1167	875	700	583	500	438	389	350	318	292
	600	4200	2100	1400	1050	840	700	600	525	467	420	382	350
	700	4900	2450	1633	1225	980	817	700	613	544	490	445	408
	800	5600	2800	1867	1400	1120	933	800	700	622	560	509	467
	900	6300	3150	2100	1575	1260	1050	900	788	700	630	573	525
	1000	7000	3500	2333	1750	1400	1167	1000	875	778	700	636	583
	1100	7700	3850	2567	1925	1540	1283	1100	963	856	770	700	642
	1200	8400	4200	2800	2100	1680	1400	1200	1050	933	840	764	700
	1300	9100	4550	3033	2275	1820	1517	1300	1138	1011	910	827	758
	1400	9800	4900	3267	2450	1960	1633	1400	1225	1089	980	891	817
	1500	10500	5250	3500	2625	2100	1750	1500	1313	1167	1050	955	875
	1600	11200	5600	3733	2800	2240	1867	1600	1400	1244	1120	1018	933
	1700	11900	5950	3967	2975	2380	1983	1700	1488	1322	1190	1082	992
	1800	12600	6300	4200	3150	2520	2100	1800	1575	1400	1260	1145	1050
	1900	13300	6650	4433	3325	2660	2217	1900	1663	1478	1330	1209	1108
	2000	14000	7000	4667	3500	2800	2333	2000	1750	1556	1400	1273	1167
	2100	14700	7350	4900	3675	2940	2450	2100	1838	1633	1470	1336	1225
	2200	15400	7700	5133	3850	3080	2567	2200	1925	1711	1540	1400	1283
	2300	16100	8050	5367	4025	3220	2683	2300	2013	1789	1610	1464	1342
	2400	16800	8400	5600	4200	3360	2800	2400	2100	1867	1680	1527	1400
	2500	17500	8750	5833	4375	3500	2917	2500	2188	1944	1750	1591	1458
	2600	18200	9100	6067	4550	3640	3033	2600	2275	2022	1820	1655	1517
	2700	18900	9450	6300	4725	3780	3150	2700	2363	2100	1890	1718	1575
	2800	19600	9800	6533	4900	3920	3267	2800	2450	2178	1960	1782	1633
	2900	20300	10150	6767	5075	4060	3383	2900	2538	2256	2030	1845	1692
	3000	21000	10500	7000	5250	4200	3500	3000	2625	2333	2100	1909	1750

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 15"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	3750	1875	1250	938	750	625	536	469	417	375	341	313
	600	4500	2250	1500	1125	900	750	643	563	500	450	409	375
	700	5250	2625	1750	1313	1050	875	750	656	583	525	477	438
	800	6000	3000	2000	1500	1200	1000	857	750	667	600	545	500
	900	6750	3375	2250	1688	1350	1125	964	844	750	675	614	563
	1000	7500	3750	2500	1875	1500	1250	1071	938	833	750	682	625
	1100	8250	4125	2750	2063	1650	1375	1179	1031	917	825	750	688
	1200	9000	4500	3000	2250	1800	1500	1286	1125	1000	900	818	750
	1300	9750	4875	3250	2438	1950	1625	1393	1219	1083	975	886	813
	1400	10500	5250	3500	2625	2100	1750	1500	1313	1167	1050	955	875
	1500	11250	5625	3750	2813	2250	1875	1607	1406	1250	1125	1023	938
	1600	12000	6000	4000	3000	2400	2000	1714	1500	1333	1200	1091	1000
	1700	12750	6375	4250	3188	2550	2125	1821	1594	1417	1275	1159	1063
	1800	13500	6750	4500	3375	2700	2250	1929	1688	1500	1350	1227	1125
	1900	14250	7125	4750	3563	2850	2375	2036	1781	1583	1425	1295	1188
	2000	15000	7500	5000	3750	3000	2500	2143	1875	1667	1500	1364	1250
	2100	15750	7875	5250	3938	3150	2625	2250	1969	1750	1575	1432	1313
	2200	16500	8250	5500	4125	3300	2750	2357	2063	1833	1650	1500	1375
	2300	17250	8625	5750	4313	3450	2875	2464	2156	1917	1725	1568	1438
	2400	18000	9000	6000	4500	3600	3000	2571	2250	2000	1800	1636	1500
	2500	18750	9375	6250	4688	3750	3125	2679	2344	2083	1875	1705	1563
	2600	19500	9750	6500	4875	3900	3250	2786	2438	2167	1950	1773	1625
	2700	20250	10125	6750	5063	4050	3375	2893	2531	2250	2025	1841	1688
	2800	21000	10500	7000	5250	4200	3500	3000	2625	2333	2100	1909	1750

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 16"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	4000	2000	1333	1000	800	667	571	500	444	400	364	333
	600	4800	2400	1600	1200	960	800	686	600	533	480	436	400
	700	5600	2800	1867	1400	1120	933	800	700	622	560	509	467
	800	6400	3200	2133	1600	1280	1067	914	800	711	640	582	533
	900	7200	3600	2400	1800	1440	1200	1029	900	800	720	655	600
	1000	8000	4000	2667	2000	1600	1333	1143	1000	889	800	727	667
	1100	8800	4400	2933	2200	1760	1467	1257	1100	978	880	800	733
	1200	9600	4800	3200	2400	1920	1600	1371	1200	1067	960	873	800
	1300	10400	5200	3467	2600	2080	1733	1486	1300	1156	1040	945	867
	1400	11200	5600	3733	2800	2240	1867	1600	1400	1244	1120	1018	933
	1500	12000	6000	4000	3000	2400	2000	1714	1500	1333	1200	1091	1000
	1600	12800	6400	4267	3200	2560	2133	1829	1600	1422	1280	1164	1067
	1700	13600	6800	4533	3400	2720	2267	1943	1700	1511	1360	1236	1133
	1800	14400	7200	4800	3600	2880	2400	2057	1800	1600	1440	1309	1200
	1900	15200	7600	5067	3800	3040	2533	2171	1900	1689	1520	1382	1267
	2000	16000	8000	5333	4000	3200	2667	2286	2000	1778	1600	1455	1333
	2100	16800	8400	5600	4200	3360	2800	2400	2100	1867	1680	1527	1400
	2200	17600	8800	5867	4400	3520	2933	2514	2200	1956	1760	1600	1467
	2300	18400	9200	6133	4600	3680	3067	2629	2300	2044	1840	1673	1533
	2400	19200	9600	6400	4800	3840	3200	2743	2400	2133	1920	1745	1600
	2500	20000	10000	6667	5000	4000	3333	2857	2500	2222	2000	1818	1667
	2600	20800	10400	6933	5200	4160	3467	2971	2600	2311	2080	1891	1733
	2700	21600	10800	7200	5400	4320	3600	3086	2700	2400	2160	1964	1800

Revision: 02 | 01/2025 | Document No.: Applications_20-202-XX

DISTANCE FROM LOAD TO INSERT TABLES

DL 17"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	4250	2125	1417	1063	850	708	607	531	472	425	386	354
	600	5100	2550	1700	1275	1020	850	729	638	567	510	464	425
	700	5950	2975	1983	1488	1190	992	850	744	661	595	541	496
	800	6800	3400	2267	1700	1360	1133	971	850	756	680	618	567
	900	7650	3825	2550	1913	1530	1275	1093	956	850	765	695	638
	1000	8500	4250	2833	2125	1700	1417	1214	1063	944	850	773	708
	1100	9350	4675	3117	2338	1870	1558	1336	1169	1039	935	850	779
	1200	10200	5100	3400	2550	2040	1700	1457	1275	1133	1020	927	850
	1300	11050	5525	3683	2763	2210	1842	1579	1381	1228	1105	1005	921
	1400	11900	5950	3967	2975	2380	1983	1700	1488	1322	1190	1082	992
	1500	12750	6375	4250	3188	2550	2125	1821	1594	1417	1275	1159	1063
	1600	13600	6800	4533	3400	2720	2267	1943	1700	1511	1360	1236	1133
	1700	14450	7225	4817	3613	2890	2408	2064	1806	1606	1445	1314	1204
	1800	15300	7650	5100	3825	3060	2550	2186	1913	1700	1530	1391	1275
	1900	16150	8075	5383	4038	3230	2692	2307	2019	1794	1615	1468	1346
	2000	17000	8500	5667	4250	3400	2833	2429	2125	1889	1700	1545	1417
	2100	17850	8925	5950	4463	3570	2975	2550	2231	1983	1785	1623	1488
	2200	18700	9350	6233	4675	3740	3117	2671	2338	2078	1870	1700	1558
	2300	19550	9775	6517	4888	3910	3258	2793	2444	2172	1955	1777	1629
	2400	20400	10200	6800	5100	4080	3400	2914	2550	2267	2040	1855	1700
	2500	21250	10625	7083	5313	4250	3542	3036	2656	2361	2125	1932	1771
DL 18"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	4500	2250	1500	1125	900	750	643	563	500	450	409	375
	600	5400	2700	1800	1350	1080	900	771	675	600	540	491	450
	700	6300	3150	2100	1575	1260	1050	900	788	700	630	573	525
	800	7200	3600	2400	1800	1440	1200	1029	900	800	720	655	600
	900	8100	4050	2700	2025	1620	1350	1157	1013	900	810	736	675
	1000	9000	4500	3000	2250	1800	1500	1286	1125	1000	900	818	750
	1100	9900	4950	3300	2475	1980	1650	1414	1238	1100	990	900	825
	1200	10800	5400	3600	2700	2160	1800	1543	1350	1200	1080	982	900
	1300	11700	5850	3900	2925	2340	1950	1671	1463	1300	1170	1064	975
	1400	12600	6300	4200	3150	2520	2100	1800	1575	1400	1260	1145	1050
	1500	13500	6750	4500	3375	2700	2250	1929	1688	1500	1350	1227	1125
	1600	14400	7200	4800	3600	2880	2400	2057	1800	1600	1440	1309	1200
	1700	15300	7650	5100	3825	3060	2550	2186	1913	1700	1530	1391	1275
	1800	16200	8100	5400	4050	3240	2700	2314	2025	1800	1620	1473	1350
	1900	17100	8550	5700	4275	3420	2850	2443	2138	1900	1710	1555	1425
	2000	18000	9000	6000	4500	3600	3000	2571	2250	2000	1800	1636	1500
	2100	18900	9450	6300	4725	3780	3150	2700	2363	2100	1890	1718	1575
	2200	19800	9900	6600	4950	3960	3300	2829	2475	2200	1980	1800	1650
	2300	20700	10350	6900	5175	4140	3450	2957	2588	2300	2070	1882	1725
	2400	21600	10800	7200	5400	4320	3600	3086	2700	2400	2160	1964	1800

DISTANCE FROM LOAD TO INSERT TABLES

DL 19"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	4750	2375	1583	1188	950	792	679	594	528	475	432	396
	600	5700	2850	1900	1425	1140	950	814	713	633	570	518	475
	700	6650	3325	2217	1663	1330	1108	950	831	739	665	605	554
	800	7600	3800	2533	1900	1520	1267	1086	950	844	760	691	633
	900	8550	4275	2850	2138	1710	1425	1221	1069	950	855	777	713
	1000	9500	4750	3167	2375	1900	1583	1357	1188	1056	950	864	792
	1100	10450	5225	3483	2613	2090	1742	1493	1306	1161	1045	950	871
	1200	11400	5700	3800	2850	2280	1900	1629	1425	1267	1140	1036	950
	1300	12350	6175	4117	3088	2470	2058	1764	1544	1372	1235	1123	1029
	1400	13300	6650	4433	3325	2660	2217	1900	1663	1478	1330	1209	1108
	1500	14250	7125	4750	3563	2850	2375	2036	1781	1583	1425	1295	1188
	1600	15200	7600	5067	3800	3040	2533	2171	1900	1689	1520	1382	1267
	1700	16150	8075	5383	4038	3230	2692	2307	2019	1794	1615	1468	1346
	1800	17100	8550	5700	4275	3420	2850	2443	2138	1900	1710	1555	1425
	1900	18050	9025	6017	4513	3610	3008	2579	2256	2006	1805	1641	1504
	2000	19000	9500	6333	4750	3800	3167	2714	2375	2111	1900	1727	1583
	2100	19950	9975	6650	4988	3990	3325	2850	2494	2217	1995	1814	1663
	2200	20900	10450	6967	5225	4180	3483	2986	2613	2322	2090	1900	1742
	2300	21850	10925	7283	5463	4370	3642	3121	2731	2428	2185	1986	1821
DL 20"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	5000	2500	1667	1250	1000	833	714	625	556	500	455	417
	600	6000	3000	2000	1500	1200	1000	857	750	667	600	545	500
	700	7000	3500	2333	1750	1400	1167	1000	875	778	700	636	583
	800	8000	4000	2667	2000	1600	1333	1143	1000	889	800	727	667
	900	9000	4500	3000	2250	1800	1500	1286	1125	1000	900	818	750
	1000	10000	5000	3333	2500	2000	1667	1429	1250	1111	1000	909	833
	1100	11000	5500	3667	2750	2200	1833	1571	1375	1222	1100	1000	917
	1200	12000	6000	4000	3000	2400	2000	1714	1500	1333	1200	1091	1000
	1300	13000	6500	4333	3250	2600	2167	1857	1625	1444	1300	1182	1083
	1400	14000	7000	4667	3500	2800	2333	2000	1750	1556	1400	1273	1167
	1500	15000	7500	5000	3750	3000	2500	2143	1875	1667	1500	1364	1250
	1600	16000	8000	5333	4000	3200	2667	2286	2000	1778	1600	1455	1333
	1700	17000	8500	5667	4250	3400	2833	2429	2125	1889	1700	1545	1417
	1800	18000	9000	6000	4500	3600	3000	2571	2250	2000	1800	1636	1500
	1900	19000	9500	6333	4750	3800	3167	2714	2375	2111	1900	1727	1583
	2000	20000	10000	6667	5000	4000	3333	2857	2500	2222	2000	1818	1667
	2100	21000	10500	7000	5250	4200	3500	3000	2625	2333	2100	1909	1750

DISTANCE FROM LOAD TO INSERT TABLES

DL 21"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	5250	2625	1750	1313	1050	875	750	656	583	525	477	438
	600	6300	3150	2100	1575	1260	1050	900	788	700	630	573	525
	700	7350	3675	2450	1838	1470	1225	1050	919	817	735	668	613
	800	8400	4200	2800	2100	1680	1400	1200	1050	933	840	764	700
	900	9450	4725	3150	2363	1890	1575	1350	1181	1050	945	859	788
	1000	10500	5250	3500	2625	2100	1750	1500	1313	1167	1050	955	875
	1100	11550	5775	3850	2888	2310	1925	1650	1444	1283	1155	1050	963
	1200	12600	6300	4200	3150	2520	2100	1800	1575	1400	1260	1145	1050
	1300	13650	6825	4550	3413	2730	2275	1950	1706	1517	1365	1241	1138
	1400	14700	7350	4900	3675	2940	2450	2100	1838	1633	1470	1336	1225
	1500	15750	7875	5250	3938	3150	2625	2250	1969	1750	1575	1432	1313
	1600	16800	8400	5600	4200	3360	2800	2400	2100	1867	1680	1527	1400
	1700	17850	8925	5950	4463	3570	2975	2550	2231	1983	1785	1623	1488
	1800	18900	9450	6300	4725	3780	3150	2700	2363	2100	1890	1718	1575
	1900	19950	9975	6650	4988	3990	3325	2850	2494	2217	1995	1814	1663
	2000	21000	10500	7000	5250	4200	3500	3000	2625	2333	2100	1909	1750
DL 22"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	5500	2750	1833	1375	1100	917	786	688	611	550	500	458
	600	6600	3300	2200	1650	1320	1100	943	825	733	660	600	550
	700	7700	3850	2567	1925	1540	1283	1100	963	856	770	700	642
	800	8800	4400	2933	2200	1760	1467	1257	1100	978	880	800	733
	900	9900	4950	3300	2475	1980	1650	1414	1238	1100	990	900	825
	1000	11000	5500	3667	2750	2200	1833	1571	1375	1222	1100	1000	917
	1100	12100	6050	4033	3025	2420	2017	1729	1513	1344	1210	1100	1008
	1200	13200	6600	4400	3300	2640	2200	1886	1650	1467	1320	1200	1100
	1300	14300	7150	4767	3575	2860	2383	2043	1788	1589	1430	1300	1192
	1400	15400	7700	5133	3850	3080	2567	2200	1925	1711	1540	1400	1283
	1500	16500	8250	5500	4125	3300	2750	2357	2063	1833	1650	1500	1375
	1600	17600	8800	5867	4400	3520	2933	2514	2200	1956	1760	1600	1467
	1700	18700	9350	6233	4675	3740	3117	2671	2338	2078	1870	1700	1558
	1800	19800	9900	6600	4950	3960	3300	2829	2475	2200	1980	1800	1650
	1900	20900	10450	6967	5225	4180	3483	2986	2613	2322	2090	1900	1742
	2000	22000	11000	7333	5500	4400	3667	3143	2750	2444	2200	2000	1833

DISTANCE FROM LOAD TO INSERT TABLES

DL 23"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	5750	2875	1917	1438	1150	958	821	719	639	575	523	479
	600	6900	3450	2300	1725	1380	1150	986	863	767	690	627	575
	700	8050	4025	2683	2013	1610	1342	1150	1006	894	805	732	671
	800	9200	4600	3067	2300	1840	1533	1314	1150	1022	920	836	767
	900	10350	5175	3450	2588	2070	1725	1479	1294	1150	1035	941	863
	1000	11500	5750	3833	2875	2300	1917	1643	1438	1278	1150	1045	958
	1100	12650	6325	4217	3163	2530	2108	1807	1581	1406	1265	1150	1054
	1200	13800	6900	4600	3450	2760	2300	1971	1725	1533	1380	1255	1150
	1300	14950	7475	4983	3738	2990	2492	2136	1869	1661	1495	1359	1246
	1400	16100	8050	5367	4025	3220	2683	2300	2013	1789	1610	1464	1342
	1500	17250	8625	5750	4313	3450	2875	2464	2156	1917	1725	1568	1438
	1600	18400	9200	6133	4600	3680	3067	2629	2300	2044	1840	1673	1533
	1700	19550	9775	6517	4888	3910	3258	2793	2444	2172	1955	1777	1629
	1800	20700	10350	6900	5175	4140	3450	2957	2588	2300	2070	1882	1725
	1900	21850	10925	7283	5463	4370	3642	3121	2731	2428	2185	1986	1821
DL 24"		Db (in)											
		2	4	6	8	10	12	14	16	18	20	22	24
F (lbs)	500	6000	3000	2000	1500	1200	1000	857	750	667	600	545	500
	600	7200	3600	2400	1800	1440	1200	1029	900	800	720	655	600
	700	8400	4200	2800	2100	1680	1400	1200	1050	933	840	764	700
	800	9600	4800	3200	2400	1920	1600	1371	1200	1067	960	873	800
	900	10800	5400	3600	2700	2160	1800	1543	1350	1200	1080	982	900
	1000	12000	6000	4000	3000	2400	2000	1714	1500	1333	1200	1091	1000
	1100	13200	6600	4400	3300	2640	2200	1886	1650	1467	1320	1200	1100
	1200	14400	7200	4800	3600	2880	2400	2057	1800	1600	1440	1309	1200
	1300	15600	7800	5200	3900	3120	2600	2229	1950	1733	1560	1418	1300
	1400	16800	8400	5600	4200	3360	2800	2400	2100	1867	1680	1527	1400
	1500	18000	9000	6000	4500	3600	3000	2571	2250	2000	1800	1636	1500
	1600	19200	9600	6400	4800	3840	3200	2743	2400	2133	1920	1745	1600
	1700	20400	10200	6800	5100	4080	3400	2914	2550	2267	2040	1855	1700
	1800	21600	10800	7200	5400	4320	3600	3086	2700	2400	2160	1964	1800