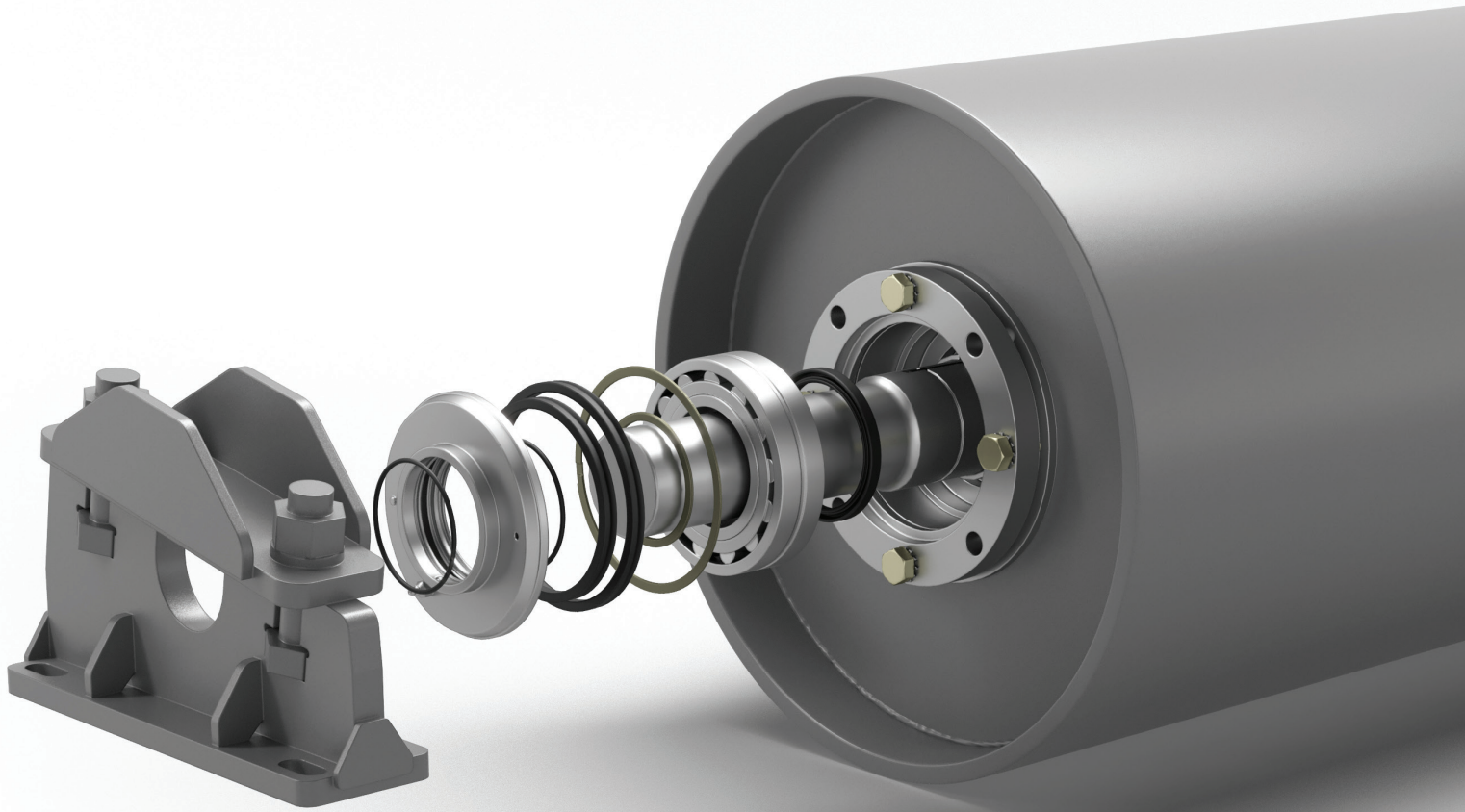


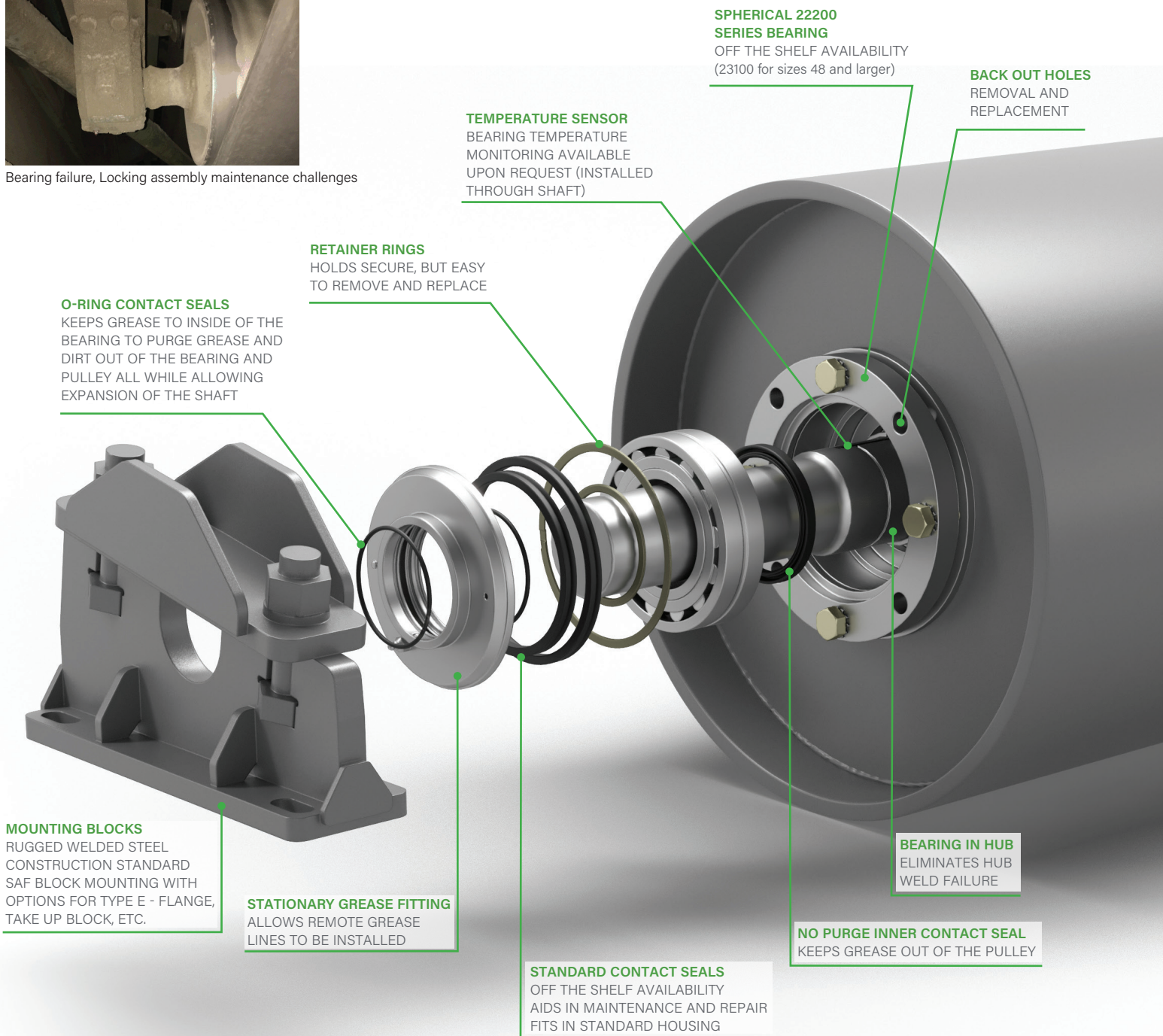
ENGINEERING & DIMENSIONS

STATIC SHAFT PULLEYS (SSP®)





Bearing failure, Locking assembly maintenance challenges



RESULTANT LOAD

RL = Tension (T) _____ *Wrap Factor (WF) _____ = _____

WF is calculated as $= 2 * \sin(\text{wrap}/2)$ or you can use the common values listed below:

Snub (30°) = 0.5176 Bend (75°) = 1.2175 (90°) = 1.4142 (105°) = 1.5867 TU (180°) = 2.0

From page 4/5, determine the SSP size required by comparing the resultant load (RL) to the Shaft Rating for - block centers (BC) minus the facewidth (FW). SSP = _____

POUNDS PER INCH WIDTH (PIW)

PIW = Tension (T) _____ *Bend Factor (BF) _____ / Belt Width (BW) _____ = _____

BF = 1.00 (for 105-210° of belt wrap), 1.33 (for 70-100°), 1.5 (for 60-65°), 2.0 (for 0-55°)

From page 4/5, compare the PIW rating of the pulley versus the actual PIW and increase the SSP size if necessary.

SSP = _____ XHD/MD

BEARING RATING (CM FOR C MINIMUM)

CM = RL _____ *Bearing Life Factor (BLF) _____ = _____

BLF is from page 7 or can be calculated as $((B10 * FPM / 4363.7 / OD)^{0.3})/2$

From page 4/5, compare the CM to the C rating for the SSP and increase the SSP size if necessary.

SSP = _____

MINIMUM LOAD RATING NEEDED FOR THE MOUNTING BLOCK

LR = RL _____ / 2 = _____

From the top of page 6, compare the load rating required against the actual AND min/max block at the bottom of page 5.

Mounting Block Size _____

Final SSP Selection = _____ XHD/MD

(use the size that satisfies all criteria)

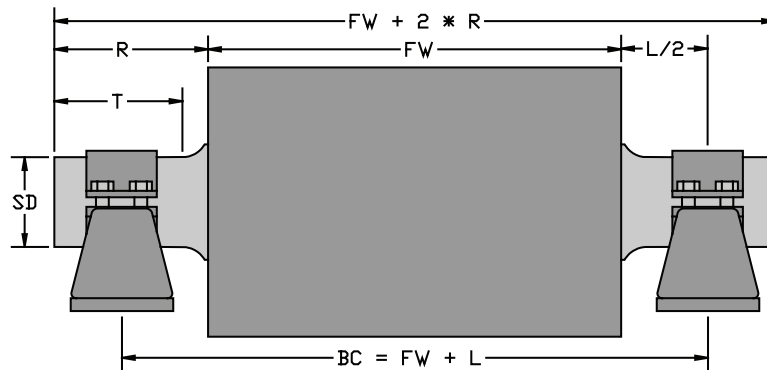
SSP HUB SIZES		
SSP SERIES	PART NUMBER	BORE
SSP015	22215	2.953
SSP020	22220	3.937
SSP022	22222	4.331
SSP024	22224	4.724
SSP026	22226	5.118
SSP028	22228	5.512
SSP030	22230	5.906
SSP032	22232	6.299
SSP034	22234	6.693
SSP036	22236	7.087
SSP038	22238	7.480
SSP044	22244	8.661
SSP148	23148	9.449
SSP152	23152	10.236
SSP156	23156	11.024
SSP160	23160	11.811
SSP268	23268	13.386
SSP276	23276	14.961
SSP284	23284	16.535

For other sizes contact your sales representative

STATIC SHAFT PULLEY (SSP) LOAD RATINGS

SSP SIZE	SHAFT SIZE	DYNAMIC LOAD RATING C	EXTRA HEAVY DUTY PIW RATING	MAX DUTY PIW RATING	BC - FACE (L)	SHAFT RATING (LB)			
						Pulley Face Width			
	(in)	(lb)	(lb / in)	(lb / in)	(in)	51	57	66	78
015	2.953	41,000	200	300	4	14,800	13,100	11,100	9,300
					6	12,300	10,900	9,300	7,800
			OD>=14	OD>=14	8	10,600	9,400	8,000	6,700
			320	500	12	8,300	7,300	6,300	5,200
020	3.937	69,000	300	600	5	33,400	31,300	26,700	22,400
					8	26,100	24,500	20,900	17,500
			OD>=24		11	21,500	20,100	17,200	14,400
			550		14	18,200	17,100	14,600	12,200
022	4.331	91,700	360	700	6	40,300		34,300	28,700
					9	32,200		27,400	22,900
			OD>=24		12	26,800		22,800	19,100
			550		15	22,900		19,500	16,300
024	4.724	105,000	360	700	7	47,800		43,300	36,200
					10	38,800		35,200	29,400
			OD>=24		13	32,700		29,600	24,800
			550		16	28,200		25,600	21,400
026	5.118	123,000	410	700	7	56,400			52,330
					10	46,500			43,096
			OD>=30		13	39,500			36,631
			600		16	34,300			31,853
028	5.512	137,000	530	1,100	8	65,800			63,800
					11	54,800			53,200
			OD>=30		15	44,800			43,500
			710		17	41,100			39,900
030	5.906	166,000	530	1,100	8	75,300			
					11	63,500			
			OD>=30		15	52,500			
			710		17	48,300			
032	6.299	194,000	530	1,100	8	91,300			
					11	77,000			
			OD>=30		15	63,700			
			710		18	56,400			
034	6.693	220,000	615	1,700	8	103,900			
					11	88,300			
			OD>=36		15	73,600			
			720		19	63,100			
036	7.087	227,000	615	1,800	10	110,400			
					14	91,200			
			OD>=36		18	77,700			
			720		22	67,600			
038	7.480	250,000	615	1,800	10	128,100			
					14	106,000			
			OD>=36		18	90,500			
			720		22	78,900			
044	8.661	342,000	1,100	2,400	12	159,500			
					16	136,700			
					20	119,600			
					24	106,300			
148	9.449	402,000	1,100	2,400	14	191,100			
					20	155,300			
					24	138,000			
					28	124,200			

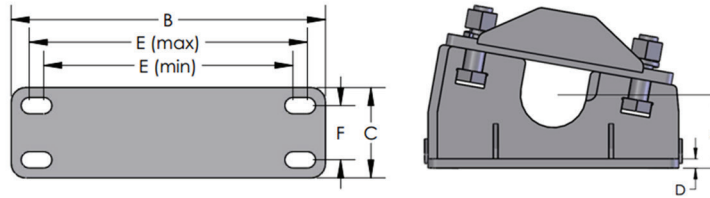
SSP SIZE	SHAFT SIZE (in)	DYNAMIC LOAD RATING C (lb)	EXTRA HEAVY DUTY PIW RATING (lb / in)	MAX DUTY PIW RATING (lb / in)	BC - FACE (L) (in)	SHAFT RATING (LB)			
						Pulley Face Width			
						51	57	66	78
152	10.236	499,000				CONTACT PPI ENGINEERING DEPARTMENT			
156	11.024	517,000				CONTACT PPI ENGINEERING DEPARTMENT			
160	11.811	634,000				CONTACT PPI ENGINEERING DEPARTMENT			



SHAFT DIMENSIONS

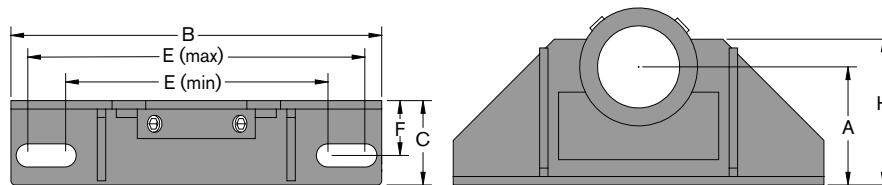
SSP	SHAFT DATA				L			Block Sizes	
Size	R	R-wide	T	SD	min	max	max-wide	min	max
015	7	12	6 1/2	2 7/16	5	11 1/4	21 1/4	See SetScrew Blocks	
020	7 5/8	12 1/8	7 3/16	3 1/2	5	12 1/2	22 1/2	F515	F526
022	8 1/4	13 3/4	7 13/16	4	6 5/8	13 3/4	24 3/4	F517	F528
024	8 3/4	14 1/2	8 3/8	4 1/2	6 5/8	14 3/4	26 1/4	F520	F532
026	8 3/4	14 1/2	8 1/2	5	6 5/8	14 1/4	25 3/4	F522	F534
028	9 1/4	15 1/2	8 11/16	5	7	15 1/4	27 3/4	F522	F534
030	9 1/4	15 1/2	8 11/16	5 1/2	7	15 1/4	27 3/4	F526	F536
032	9 3/4	16 1/4	9 1/4	6	8 1/4	15 1/2	28 1/2	F528	F538
034	10 1/4	17 1/4	9 13/16	6 1/2	8 1/4	16 1/2	30 1/2	F528	F538
036	11 3/4	18 3/4	11 1/2	7	8 1/4	19 1/2	33 1/2	F532	F544
038	11 3/4	18 3/4	11 1/8	7	9	19 1/2	33 1/2	F532	F544
044	14	20	13 1/4	8	11	24	36	F536	F152
148	16	21	15 3/8	9	12 1/2	28	38	F538	F156
152	16	21	15 3/8	9	12 1/2	28	38	F538	F160
156	16	21	15 3/8	10	12 1/2	28	38	F152	F164
160	16	21	15 3/8	11	12 1/2	28	38	F152	F168

STATIC SHAFT PULLEY (SSP) LOAD RATINGS



4 BOLT MOUNTING BLOCK DIMENSIONS AND LOAD RATINGS

BLOCK SIZE	LOAD RATING	A	B	C	D	E		F	BOLT SIZE
						MAX	MIN		
F515CH	9000	3 1/4	10 7/8	3 1/8	1/2	9 5/8	8 5/8	1 7/8	1/2
F517CH	12000	3 3/4	12 1/2	3 1/2	1/2	11	9 5/8	2 1/8	5/8
F520CH	15000	4 1/2	14 3/4	4	3/4	13 5/37	11 5/8	2 3/8	3/4
F522CH	20000	4 15/16	16 1/8	4 3/8	3/4	14 1/2	12 5/8	2 3/4	3/4
F524CH	TBD	5 1/4	16 1/8	4 3/8	3/4	14 1/2	12 5/8	2 3/4	3/4
F526CH	28000	6	18	5 1/8	1	16	14 5/8	3 1/4	7/8
F528CH	33000	6	19 1/4	5 7/16	1	17 1/8	16	3 3/8	1
F530CH	TBD	6 5/16	20 3/8	5 7/8	1	18 1/4	17	3 3/4	1
F532CH	40000	6 11/16	21 3/8	5 7/8	1	19 1/4	17	3 3/4	1
F534CH	45000	7 1/16	23 3/4	6 3/8	1	21 5/8	19 3/8	4 1/4	1
F536CH	50000	7 1/2	25 3/4	6 3/4	1	23 5/8	20 7/8	4 5/8	1
F538CH	55000	7 7/8	26 7/8	7	1	24 3/8	21 5/8	4 1/2	1 1/4
F540CH	55000	8 1/4	27 1/2	7 1/2	1	25	22 1/2	5	1 1/4
F544CH	65000	9 1/2	31 1/8	8 1/2	1	27 7/8	24 3/4	5 1/4	1 1/2
F048CH	TBD	8 1/4	29 1/2	8	1	25	22 1/2	5	1 1/4
F052CH	TBD	9 1/2	32 3/4	8 3/4	1	27 7/8	24 3/4	5 1/4	1 1/2
F056CH	TBD	9 7/8	34 1/4	9	1	29 1/2	26 1/4	5 1/2	1 1/2
F148CH	80000	9 1/2	32	10 1/2	1	27 7/8	25 5/8	7 1/4	1 1/2
F152CH	95000	10 1/4	35	12 1/4	1	30 1/2	29	8 3/4	1 5/8
F156CH	125000	12	38 1/4	12 1/2	1	33 1/2	32 3/4	9	1 5/8
F164CH	TBD	12 13/16	41 3/4	14 1/4	1 1/4	36 1/2	35	10 1/2	1 7/8
F168CH	TBD	14	43 3/4	14 5/8	1 1/4	38 1/4	36 3/4	10 3/4	2
F172CH	TBD	14 1/2	46	15	1 1/4	40 3/4	39 1/4	11	2
F268CH	TBD	14 1/2	46	17 1/8	1 1/4	40 3/4	39 1/4	11	2



SETSCREW MOUNTING BLOCK FOR SSP15 - 2 7/16 SHAFT EXTENSION DIAMETER

ORIGINAL PILLOW BLOCK		PART NUMBER	BOLT DIA.	A	B	C	BOLT SPACING (E)		F	H
TYPE	BORE						MIN	MAX		
SCM	2 7/16	SOPB121207300	3/4	3	10 3/4	3 1/2	7 1/2	9 3/4	2 1/4	4
	2 15/16	SOPB141207308	7/8	3 1/2	12 3/16	4 1/8	8 3/8	11 5/16	2 7/8	4 1/8
E	2 7/16	SOPB103207212	5/8	2 3/4	11	2 3/8	7 13/16	10 3/8	1 1/2	4 1/2
	2 15/16	SOPB121207302	3/4	3 1/8	10 3/4	3 1/2	7 1/2	9 3/4	2 1/4	4
SAF	2 7/16	SOPB103207304	5/8	3 1/4	11	2 3/8	7 13/16	10 3/8	1 1/2	4 1/2
	2 15/16	SOPB122207312	3/4	3 3/4	12 5/8	3 1/2	9	11 7/8	2 1/4	4 1/2

BELT SPEED (FPM)	PULLEY OD	BEARING LIFE FACTOR (BLF)							
		LIFE HOURS							
		10,000	20,000	30,000	40,000	50,000	60,000	80,000	100,000
100	12	1.211	1.491	1.684	1.836	1.963	2.074	2.260	2.417
	14	1.157	1.424	1.608	1.753	1.874	1.980	2.158	2.308
	16	1.111	1.368	1.545	1.684	1.801	1.902	2.074	2.217
	18	1.073	1.321	1.491	1.626	1.738	1.836	2.002	2.140
	20	1.039	1.279	1.445	1.575	1.684	1.779	1.939	2.074
	24	0.984	1.211	1.368	1.491	1.595	1.684	1.836	1.963
	30	0.920	1.133	1.279	1.395	1.491	1.575	1.717	1.836
	36	0.871	1.073	1.211	1.321	1.412	1.491	1.626	1.738
	42	0.832	1.024	1.157	1.261	1.348	1.424	1.552	1.660
	48	0.799	0.984	1.111	1.211	1.295	1.368	1.491	1.595
	54	0.771	0.950	1.073	1.169	1.250	1.321	1.440	1.539
	60	0.747	0.920	1.039	1.133	1.211	1.279	1.395	1.491
300	12	1.684	2.074	2.342	2.553	2.730	2.883	3.143	3.360
	14	1.608	1.980	2.236	2.437	2.606	2.753	3.001	3.209
	16	1.545	1.902	2.148	2.342	2.504	2.645	2.883	3.083
	18	1.491	1.836	2.074	2.260	2.417	2.553	2.783	2.976
	20	1.445	1.779	2.009	2.190	2.342	2.473	2.696	2.883
	24	1.368	1.684	1.902	2.074	2.217	2.342	2.553	2.730
	30	1.279	1.575	1.779	1.939	2.074	2.190	2.387	2.553
	36	1.211	1.491	1.684	1.836	1.963	2.074	2.260	2.417
	42	1.157	1.424	1.608	1.753	1.874	1.980	2.158	2.308
	48	1.111	1.368	1.545	1.684	1.801	1.902	2.074	2.217
	54	1.073	1.321	1.491	1.626	1.738	1.836	2.002	2.140
	60	1.039	1.279	1.445	1.575	1.684	1.779	1.939	2.074
500	12	1.963	2.417	2.73	2.976	3.182	3.360	3.663	3.917
	14	1.874	2.308	2.606	2.841	3.038	3.209	3.498	3.740
	16	1.801	2.217	2.504	2.730	2.919	3.083	3.360	3.593
	18	1.738	2.140	2.417	2.635	2.817	2.976	3.244	3.468
	20	1.684	2.074	2.342	2.553	2.730	2.883	3.143	3.360
	24	1.595	1.963	2.217	2.417	2.584	2.730	2.976	3.182
	30	1.491	1.836	2.074	2.260	2.417	2.553	2.783	2.976
	36	1.412	1.738	1.963	2.140	2.288	2.417	2.635	2.817
	42	1.348	1.660	1.874	2.043	2.185	2.308	2.516	2.690
	48	1.295	1.595	1.801	1.963	2.099	2.217	2.417	2.584
	54	1.250	1.539	1.738	1.895	2.026	2.140	2.333	2.495
	60	1.211	1.491	1.684	1.836	1.963	2.074	2.260	2.417
750	12	2.217	2.730	3.083	3.360	3.593	3.795	4.137	4.424
	14	2.117	2.606	2.943	3.209	3.431	3.624	3.950	4.224
	16	2.034	2.504	2.828	3.083	3.296	3.481	3.795	4.058
	18	1.963	2.417	2.730	2.976	3.182	3.360	3.663	3.917
	20	1.902	2.342	2.645	2.883	3.083	3.256	3.549	3.795
	24	1.801	2.217	2.504	2.730	2.919	3.083	3.360	3.593
	30	1.684	2.074	2.342	2.553	2.730	2.883	3.143	3.360
	36	1.595	1.963	2.217	2.417	2.584	2.730	2.976	3.182
	42	1.523	1.874	2.117	2.308	2.467	2.606	2.841	3.038
	48	1.463	1.801	2.034	2.217	2.371	2.504	2.730	2.919
	54	1.412	1.738	1.963	2.140	2.288	2.417	2.635	2.817
	60	1.368	1.684	1.902	2.074	2.217	2.342	2.553	2.730



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