2024

GUJRANWALA ENGINEERING COMPANY

Gujranwala Engineering Co.(GECO),
Small Industrial Estate No.2, G.T.Road,Gujranwala

055-2031116

www.Gecopk.com

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GUJRANWALA ENGINEERING COMPANY

ACKNOWLEDGMENT OF REGISTRATION OF FIRM

FORM C
RULE 9 (A)

No. GRW/0077 **Year 2023-24**

The Registrar of Firms, Gujranwala hereby acknowledges the receipt of the statement prescribed by Section 58(1) of the Partnership Act, 1932. The statement has been filed and the name of the firm M/S Gujranwala Engineering Co. (GECO), Small Industrial Estate No.2, Estate No.2, G.T.Road, GUJRANWALA
has been entered in the Register of Firms.

Note: The firm may, if it desires or feels necessary to indicate after its name that it is a registered concern, it should add the following wording or vernacular translation thereof "Registered under the partnership Act, 1932."

GUJRANWALA ENGINEERING GECO COMPANY

(Shafique Ahmed),
Registrar of Firms,
Gujranwala

INTRODUCTION

Gujranwala Engineering Company (GECO) introduced the Japanese technical know-how at its disposal from its very inception. In the beginning, it manufactured only steel wire rope and stranding wire from the imported finished high tensile steel wire in limited sizes. Its range of main products includes: Steel Wire Rope, Galvanized/Ungalvanized Galvanized Stranded Stay Wire, ACSR Core wire, Hard Drawn Steel wire, mild Steel Wire, and Spring Wire.

They come in all sizes and are made from the finest wire rods - the basic raw material GECO's phenomenal graduation to the most well-known has been duly accompanied by the rapid development in its manufacturing skills and acquisition of the latest technical know-how and expertise of the highest order. Rightly so, skilled professionals and highly qualified engineers, its Wire Drawing, Patening, Galvanizing, Stranding and Wire Rope Closing Sections.

GECO has one of the most modern and well-equipped laboratories to carry out all the tests according to the relevant specifications and also to ensure effective quality control. With the present manufacturing facilities, the company has the capacity to export with internationally recognized standards.

MAIN PRODUCTS

1. Steel wire ropes
2. Galvanized steel wire
3. Hard drawn steel wire
4. Spring wire
5. Acsr core wire
6. Pc wire
7. Stranded wire
8. Earth wire
9. Stay wire
10. Spiral wire
11. Mild steel wire
12. Acs
13. Aluminium wire rod
14. Aluminium alloy conductors

GECO AT WORK

PROCESS

1 Rod Yard

2 Patenting

5 Galvanizing

6 Stranding

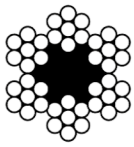
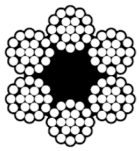
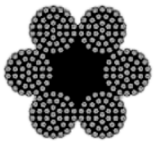
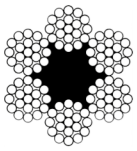
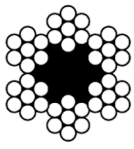
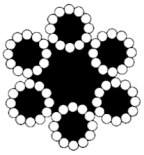
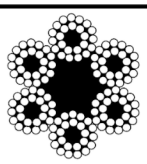
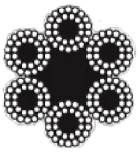
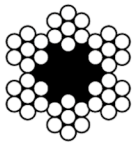
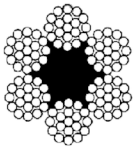
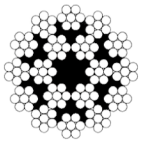
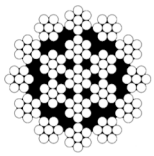
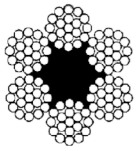
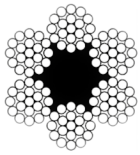
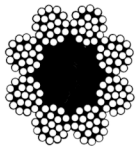
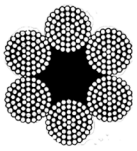
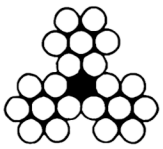
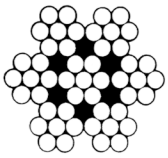
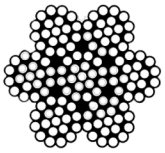
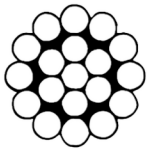
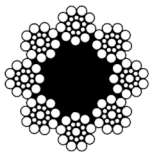
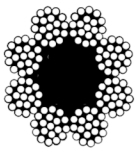
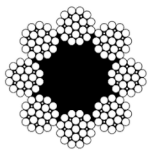
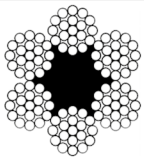
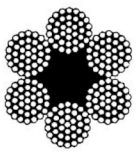
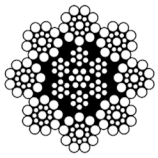
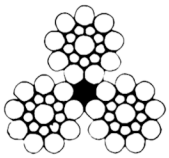
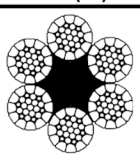
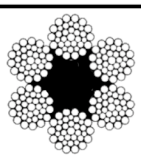
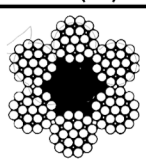
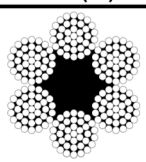
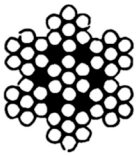
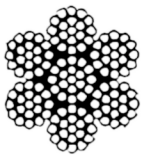
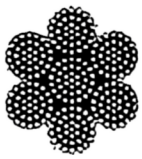
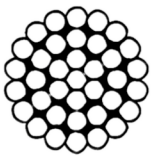
3 Pickling

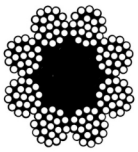
4 Drawing

7 Laboratory

8 Store House

WIRE ROPE APPLICATIONS

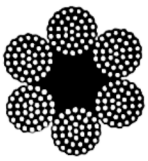
MINING 	 6x7	 6x19	 6x37	 6xW(19)
MARINE 	 6x7	 6x12	 6x24	 6x30
CABLE 	 6x7	 6x5(19)	 18x17	 19x7
DRILLING 	 6x5(19)	 6xW(19)	 6xFI(19)	 6x61
AIR CRAFT 	 6x5(19)	 7x7	 7x19	 19PLY
ELEVATOR 	 6x8(19)	 8xFI(19)	 8xW(19)	 6x42 Tillor
LOGGING 	 6xW(19)	 6x37	 6xWS(26)	 3x5(19)
CONSTRUCTION 	 6xWS(31)	 6xWS(36)	 6xSF(36)	 6xS S(37)
BRIDGE 	 7X7	 7X19	 7X37	 37PLY



6x19 FC
(12/6+1)

FOR
HOST, CRANE
DRILLING
SHIPPING
ROPE WAY
ENGINEERING

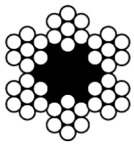
ROPE DIAMETER (mm)	MINIMUM BREAKING LOAD IN METRIC TON				STANDARD WEIGHT (kg/m)
	GALVANIZED	UNGALVANIZED			
			180kg/mm		
	150kg/mm²	165kg/mm²	Ordinary	Lang	
4	0.81	0.88	0.94	0.96	0.058
5	1.27	1.38	1.46	1.50	0.091
6.3	2.01	2.18	2.33	2.38	0.144
8	3.24	3.52	3.75	3.84	0.233
9	4.11	4.46	4.74	4.86	0.295
10	5.07	5.50	5.86	6.00	0.364
11.2	6.36	6.90	7.35	7.53	0.457
(12)	(7.30)	7.92	8.43	8.64	0.524
12.5	(7.92	8.59	9.15	9.38	0.569
14	9.93	10.8	11.5	11.8	0.713
16	13.0	14.1	15.0	15.4	0.932
18	16.4	17.8	19.0	19.4	1.18
20	20.3	22.0	23.4	24.0	1.46
22.4	25.4	27.6	29.4	30.1	1.83
(24)	(29.2)	(31.7)	33.7	(34.6)	(2.10)
25	31.7	34.4	36.6	37.5	2.28
(26)	(34.3)	(37.2)	39.5	(40.6)	(2.46)
28	39.7	43.1	45.9	47.0	2.85
30	45.6	49.5	52.7	54.0	3.28
31.5	50.3	54.6	58.1	59.5	3.61
(32)	(51.9)	(56.3)	60.0	(61.4)	(3.73)
33.5	56.9	61.7	65.7	67.3	4.08
(34)	58.7	(63.6)	67.7	(69.4)	(4.21)
35.5	63.9	69.3	73.8	75.6	4.59
(36)	65.8	(71.3)	73.9	(77.8)	(4.72)
37.5	71.3	77.3	82.4	64.4	5.12
(38)	73.2	(79.4)	84.3	(86.6)	(5.26)
40	81.1	88.0	93.7	96.0	5.82



6x37 FC
(18/12/6+1)

FOR HOIST
CRANE
SHIPPING
ENGINEERING
PURPOSE

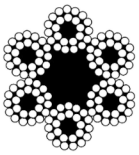
ROPE DIAMETER (mm)	MINIMUM BREAKING LOAD IN METRIC TON			STANDARD WEIGHT (kg/m)
	GALVANIZED	UNGALVANIZED		
	150kg/mm²	165kg/mm²	180kg/mm²	
10	4.99	5.41	5.76	0.359
11.2	6.26	6.79	7.23	0.451
12.5	7.80	8.45	9.00	0.561
14	9.81	10.6	11.3	0.704
16	12.8	13.8	14.7	0.920
18	16.2	17.5	18.7	1.16
20	19.9	21.6	23.0	1.44
22.4	25.0	27.1	28.9	1.80
25	31.2	33.8	36.0	2.25
(26)	(33.7)	36.5	38.8	(2.43)
28	39.0	42.4	45.2	2.82
30	44.8	48.7	51.8	3.23
31.5	49.5	53.7	57.2	3.57
33.5	56.0	60.7	64.6	4.03
35.5	62.9	68.2	72.6	4.53
37.5	70.2	76.1	81.0	5.05
40	79.7	86.6	92.2	5.75



6x7 FC
(6+1)

FOR
MINING
ROPE WAY
STAY
SHIPPING

ROPE DIAMETER (mm)	MINIMUM BREAKING LOAD IN METRIC TON			STANDARD WEIGHT (kg/m)
	GALVANIZED 150kg/mm²	UNGALVANIZED		
		165kg/mm²	160kg/mm²	
3.15	0.53	0.60	0.66	0.037
4	0.85	0.97	1.06	0.059
5	1.34	1.52	1.65	0.093
5.3	2.12	2.41	2.62	0.147
8	3.42	3.88	4.23	0.237
9	4.33	4.91	5.35	0.300
10	5.34	6.06	6.61	0.371
11.2	6.70	7.60	8.29	0.467
12.5	8.34	9.47	10.3	0.579
14	10.5	11.9	13.0	0.727
16	13.7	15.5	16.9	0.950
18	17.3	19.6	21.4	1.20
20	21.4	24.2	26.4	1.48
22.4	26.8	30.4	33.2	1.86
(24)	30.8	(34.9)	(38.1)	(2.14
25	33.4	37.9	41.3	2.32
(26)	36.2	(41.0)	(44.7)	(2.51)
28	41.9	47.5	51.8	2.91
30	48.1	54.5	59.5	3.34
31.5	53.0	60.1	65.6	3.68
(32)	54.8	(62.1)	(67.7)	(3.80)
33.5	59.9	68.0	74.2	4.16
(34)	61.8	(70.1)	(76.4)	(4.29)
35.5	67.3	76.4	83.4	4.67
(36)	69.3	(78.5)	85.7	(4.91)
37.5	75.1	85.3	92.8	5.21
40	85.5	96.8	106	5.93



6x24 7HC
(15/9+FC)

FOR
MARINE
ENGINEERING
PURPOSE

ROPE DIAMETER (mm)	MINIMUM BREAKING LOAD IN METRIC TON		STANDARD WEIGHT (kg/m)
	GALVANIZED 150kg/mm²	GALVANIZED 165kg/mm²	
8	2.97	3.21	0.212
9	3.75	4.06	0.269
10	4.64	5.02	0.332
11.5	5.82	6.29	0.416
(12)	(6.68)	7.22	(0.478)
12.5	7.25	7.84	0.519
14	9.09	9.83	0.651
16	11.9	12.8	0.850
18	15.0	16.2	1.08
20	18.5	20.1	1.33
22.4	23.3	25.2	1.67
(24)	(26.7)	28.9	(1.91)
25	29.0	31.3	2.08
(26)	(31.4)	33.9	(2.24)
28	36.4	39.3	2.60
30	41.8	45.1	2.99
31	46.0	49.8	3.29
(32)	(47.5)	51.4	(3.40)
33.5	52.1	56.3	3.73
35.5	58.5	63.2	4.18
37.5	65.2	70.5	4.67
40	74.2	80.2	5.31

BRITISH STANDARD SPECIFICATION

6x7

GROUP ROUND STRAND
CONSTRUCTION WITH FIBER CORE

6 BY 7

Rope Dia. In.	Approx. weight per 100ft Lb.	Nominal Breaking Strength in Tons of 2240 Lb		
		80/90 tons per sq. In.	100/110 tons per sq. In.	110/110 tons per sq. In.
5/16	16	2.9	3.4	3.7
3/8	22	4.1	4.9	5.4
7/16	30	5.6	6.7	7.3
1/2	40	7.4	8.8	9.6
9/16	50	9.3	11.1	12.1
5/8	62	11.5	13.7	14.9
11/16	75	13.8	16.6	18.1
3/4	88	16.7	20.0	21.5
13/16	104	19.1	23.0	25.0
7/8	121	22.5	27.0	29.0
15/16	139	25.5	31.0	33.5
1	158	29.0	35.0	38.0
1 1/8	200	37.0	44.5	48.0
1 1/4	246	45.5	55.0	60.0
1 3/8	298	55.5	66.5	72.0

B.S. 236 & 330

6x19

CROSS LAY
ROUND STRAND
CONSTRUCTIONS WITH FIBER-CORE OR I.W.R.C.

6 BY 19

Rope Dia. In.	Approx.weight per 100ft Lb.		Minimum Breaking Load at 115 ton f/in (180 f/mm²)	
	F.C.	I.W.R.C.	R.C.	I.W.R.C.
5/16	14.4	15.8	3.48	3.76
3/8	18.3	20.1	4.41	4.77
7/16	27.3	30.1	6.58	7.12
1/2	38.2	42.0	9.20	9.94
9/16	44.2	48.6	10.6	11.5
5/8	57.8	63.7	14.0	15.1
11/16	65.2	71.8	15.8	18.2
3/4	81.5	89.7	19.8	21.4
13/16	99.5	109	24.1	26.0
7/8	109	120	26.5	28.7
15/16	130	143	31.5	34.1
1	141	155	34.2	37.0
1 1/8	190	209	46.0	49.7
1 1/4	231	254	56.0	60.5
1 3/8	276	304	67.0	72.4
1 1/2	326	359	79.0	85.3
1 5/8	380	418	92.0	99.4
1 3/4	437	481	106.0	114.5
1 1/8	520	572	126.0	136.0
2	587	646	142.0	153.0
2 1/8	658	724	159.0	172

B.S. 302 / 1968

Independent Wire Core. Strength - Add 71/2%. Weight - Add 11% to Fiber Core Ropes

6x24

ROUND STRAND CONSTRUCTION WITH FIBER CORE

6 BY 24

Rope Dia. In.	Approx. weight per 100ft Lb.	Nominal Breaking Strength in Tons of 2240 Lb	
		100/110 tons per sq. In.	110/110 tons per sq. In.
5/16	14	3.0	3.2
3/8	20	4.1	4.5
7/16	26	5.4	6.0
1/2	36	7.5	8.2
9/16	45	9.3	10.2
5/8	54	11.3	12.4
11/16	67	13.9	15.3
3/4	80	16.5	18.2
13/16	95	19.7	21.6
7/8	110	22.0	25.0
15/16	125	26.0	28.0
1	140	29.0	31.5
1 1/8	180	37.0	40.5
1 1/4	218	45.0	49.5
1 3/8	266	55.0	60.5
1 1/2	320	66.5	72.5
1 5/8	370	76.5	84.0
1 3/4	432	89.5	98.0
1 7/8	500	103.0	113.0
2 -	562	117.0	128.0
2 1/8	640	132.0	145.0

B.S. 302 & 621

6x37

CROSS LAY ROUND STRAND
CONSTRUCTIONS WITH FIBER-CORE OR I.W.R.C.

6 BY 37

Rope Dia. In.	Approx.weight per 100ft Lb.		Minimum Breaking Load at 115 ton f/in (180 f/mm²)	
	F.C.	I.W.R.C.	R.C.	I.W.R.C.
3/8	18.3	20.2	4.23	4.58
7/16	27.3	30.0	6.32	6.84
1/2	38.2	42.1	8.83	9.53
9/16	44.2	48.7	10.2	11.0
5/8	57.8	63.6	13.4	14.7
11/16	73.2	80.7	16.9	18.2
3/4	81.3	89.5	18.9	20.4
13/16	90.0	99.0	20.9	22.6
7/8	110	121	25.3	27.4
15/16	130	143	30.1	32.5
1	153	168	35.3	38.2
1 1/8	177	195	40.9	44.2
1 1/4	231	245	53.4	57.7
1 3/8	276	304	64.0	69.2
1 1/2	326	359	75.4	81.3
1 5/8	380	418	87.6	94.6
1 3/4	437	481	101.0	109
1 1/8	520	572	120.0	129
2	587	646	130.0	147
2 1/8	658	725	163.0	164
2 1/4	733	807	170.0	183
2 1/2	925	104.0	214.0	231
2 3/4	1110	1240	265.0	277

B.S. 302 & 1968

ZINC COATED STEEL WIRE AND STRAND

A.C.S.R. SPECIFICATION

Diameter (mm)	Tolerance (mm)	Min. Tensila Strength (Kg/mm)^2	Min. Elon-gation (%)	No. of Torsion (100xd)	ZN COAT			Standard Weight (kg/km)
					WT (g/m)	Dip Test	Winding	
4.5	± 0.08	125	5.0	16	275	4		124
3.5	± 0.07	130	4.5	16	260	4	d x 15	75.04
3.2	± 0.06	130	4.5	16	245	4	No.	62.73
3.1	± 0.06	130	4.5	16	245	4		58.87
2.9	± 0.05	135	4.0	20	245	4	Crack	51.52
2.6	± 0.05	135	4.0	20	230	3		41.41

A.S.T.M. B497 CLASS A

Diameter (in)	Tolerance (in)	Tensile Strength (1,000 PSI)	1.0 % Y.S. (1,000 PSI)	Elongation (%)	ZN COAT		
					WT (Oz/ft)	WINDING	
0.050-0.0599	+0.0015-0.001	210	190	3.0	0.60		d x 3
0.060-0.0749	+0.0015-0.001	210	190	3.0	0.65		d x 3
0.075-0.0899	}	205	185	3.5	0.70	No	d x 3
0.090-0.1039	±0.002	205	185	3.5	0.75		d x 4
0.104-0.1199		205	180	4.0	0.80	Crack	d x 4
0.120-0.1399	+0.003-0.002	205	180	4.0	0.85		d x 4
0.140-0.1799	+0.004-0.003	200	170	4.0	0.90		d x 5
0.180-0.1900	+0.004-0.003	200	170	4.0	1.00		d x 5

ZINC COATED STEEL WIRE STRAND (ASTM A 475)

PHYSICAL PROPERTIES								
Nominal Dia. of the Strand (in)	Number Of Wires in Strand (in)	Dia. of Coated Wires in Strand	Approx. Wt. of Strand (lb/1,000ft)	MIN. BREAKING STRENGTH OF STRAND (lb)				
				Utilities Grade	Common Grade	Siemens-Martin Grade	High Strength Grade	Extra-High Strength Grade
1/8	7	0.041	31.8		540	910	1,330	1,830
5/32	7	0.052	51.8		870	1,470	2,140	2,940
3/16	7	0.062	72.9		1,150	1,900	2,850	3,990
3/16	7	0.065	80.3					
7/32	7	0.072	98.3		1,540	2,560	3,850	5,400
1/4	3	0.120	116.7					
1/4	3	0.120	116.7		1,900		4,750	6,650
1/4	7	0.080	121	2,400(1)	2,570	3,150	6,400	8,950
9/32	7	0.093	164			4,250		
5/16	3	0.145	170.6	3,150(2)	3,209		8,000	11,200
5/16	7	0.104	205	4,500(3)		5,350		
5/16	7	0.109	225				10,800	15,400
3/3	3	0.165	220.3	4,600(1)	4,259		14,500	20,800
3/8	7	0.120	273	6,500(3)	5,700	6,950	18,800	26,900
7/16	7	0.145	399		7,400	9,350	19,100	26,700
1/2	7	0.165	517	6,000(1)	7,620	12,100	24,500	35,000
1/2	19	0.100	504	8,500(3)	9,600	12,700	24,100	33,700
9/16	7	0.188	671	11,500(4)	9,640	15,700	29,600	42,400
9/16	19	0.113	637	18,000(4)	11,600	16,100	28,100	40,200
5/8	7	0.207	813	25,000(4)	11,000	19,100	40,800	58,300
5/8	19	0.125	796		16,000	18,100	55,800	79,700
3/4	19	0.150	1,155		21,900	26,200	73,200	104,600
7/8	19	0.177	1,581		28,700	35,900	71,900	102,700
1	19	0.200	2,073		28,300	47,000	91,600	130,800
1	37	0.143	2,057		36,000	46,200	113,600	162,200
1 1/8	37	0.161	2,691		44,600	58,900		
1 1/4	37	0.179	3,248			73,000		

PLACING AN ORDER

Specification

Which International Specifications is to be followed i.e. BS, JIS, ASTM, ISO, or others please specify.

Diameter

Diameter of the Wire Rope in millimeters (mm) or inch

Construction of Wire Rope

There are a number of different constructions of Wire Rope. Specifying the constructions of the Wire Rope is very important.

Galvanized or Un-Galvanized

The Wire Rope you need Galvanized (Zinc Coating) or Un-Galvanized.

Lay Ratio of the Wire Rope

The lay Ratio are Right hand regular lay (Z) (RHRL) or right hand Lang's lay (Z) (RHLL) or left hand regular lay (S) (LHRL) or left hand lay (S) (LHLL). This has to be specified which lay you need.

Core

The Inner Core of the Wire Rope you need i.e. Strand Core (SC), Fiber Core (FC) or Steel Core (IWRC).

Tensile strength of wire (T/S)

You can use "N/mm?" or "KG/mm?".

Lubrication

Type A (Very Light), Type B (Light Duty) "Tight Wipe", Type C (Heavy Duty) "Light Wipe", Type D (Post Lubrication) "No Wipe Length:
The Required length of the Wire Rope per wooden reel or coil.

Package

You need the Wire Rope on Wooden reel or in coil Strapped and wrapped.

CHEMICAL AND MECHANICAL PROPERTIES OF HARD DRAWN STEEL WIRE

Classification	Chemical Composition %				
	C	Si	Mn	P	S
SWRH 62A	0.59~0.66	0.15~0.35	0.30~0.60	Max 0.030	Max 0.030
SWRH 67A	0.64~0.71	0.15~0.35	0.30~0.60	Max0.030	Max 0.030
SWRH 67B	0.64~0.71	0.15~0.35	0.60~0.90	Max 0.030	Max 0.030
SWRH 72A	0.69~0.76	0.15~0.35	0.30~0.60	Max 0.030	Max 0.030
SWRH 72B	0.69~0.76	0.15~0.35	0.60~0.90	Max 0.030	Max 0.030
SWRH 77A	0.74~0.81	0.15~0.35	0.30~0.60	Max 0.030	Max 0.030
SWRH 77B	0.74~0.81	0.15~0.35	0.60~0.90	Max 0.030	Max 0.030
SWRH 82A	0.79~0.86	0.15~0.35	0.30~0.60	Max 0.030	Max 0.030
SWRH 82B	0.79~0.86	0.15~0.35	0.60~0.90	Max 0.030	Max 0.030

NO.	Diameter	Tensile Strength (N/mm2)					
		SWA		SWB		SWC	
	mm	Min	Max	Min	Max	Min	Max
1	0.20	1910	2210	2210	2500	2500	2790
2	0.23	1860	2160	2160	2450	2450	2750
3	0.26	1810	2110	2110	2400	2400	2700
4	0.29	1770	2060	2060	2350	2350	2650
5	0.32	1720	2010	2010	2300	2300	2600
6	0.35	1720	2010	2010	2300	2300	2600
7	0.40	1670	1960	1960	2260	2260	2550
8	0.45	1620	1910	1910	2210	2210	2500
9	0.50	1620	1910	1910	2210	2210	2500
10	0.55	1570	1860	1860	2160	2160	2450
11	0.60	1570	1810	1810	2110	2110	2400
12	0.65	1570	1810	1810	2110	2110	2400
13	0.70	1520	1770	1770	2060	2060	2350
14	0.80	1520	1770	1770	2010	2010	2300
15	0.90	1520	1770	1770	2010	2010	2260
16	1.00	1470	1720	1720	1960	1960	2210
17	1.20	1420	1670	1670	1910	1910	2160
18	1.40	1370	1620	1620	1860	1830	2110
19	1.60	1320	1570	1570	1810	1810	2060
20	1.80	1270	1520	1520	1770	1770	2010
21	2.00	1270	1470	1470	1720	1720	1960
22	2.30	1230	1420	1420	1670	1670	1910
23	2.60	1230	1420	1420	1670	1670	1910
24	2.90	1180	1370	1370	1620	1620	1860
25	3.20	1180	1370	1370	1570	1570	1810
26	3.50	1180	1370	1370	1570	1570	1770
27	4.00	1180	1370	1370	1570	1570	1770
28	4.50	1130	1320	1320	1520	1520	1720
29	5.00	1130	1320	1320	1520	1520	1720
30	5.50	1080	1270	1270	1470	1470	1670
31	6.00	1030	1230	1230	1420	1420	1620
32	6.50	1030	1230	1230	1420	1420	1620
33	7.00	980	1180	1180	1370	1370	1570
34	8.00	980	1180	1180	1370	1370	1570
35	8.50	930	1130	1130	1320	1320	1520
36	9.00	930	1130	1130	1320	1320	1520
37	10.00	930	1130	1130	1320	1320	1520
38	11.00	-	-	1080	1270	1270	1470

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