

Over 110 years of Quality, Performance and Service

# PRODUCT GUIDE 1105 CONDENSED EDITION



## **TABLE OF CONTENTS**

3
3
4
5
6
8
9
<b>10</b> + <b>10</b> +
11
11
12
13
14
16
17
17
17
17
17
17
18

### **USING THIS CONDENSED PRODUCT GUIDE**

This Condensed Product Guide provides a sampling of DIAMOND<sup>®</sup> Roller Chains. Use it to identify standard Diamond roller chain products, their dimensions and benefits. For a more comprehensive overview, please consult our Product Guide 1004.

# **DIAMOND CHAIN HISTORY**



Diamond Chain has a long history of producing the highest quality roller chain. As one of the oldest roller chain manufacturers in the world, Diamond has a heritage rich in the traditions of improving the quality and ultimately the value of every chain it makes. History has taught us that to continue to make the best roller chain possible, we must provide our customers with high-quality products meeting or exceeding their perfor-

make the best foller chain possible, we must provide our customers with high-quarty products meeting of exceeding their performance, reliability, value and delivery requirements. Continuous improvement in all company functions will ensure our ability to respond to our customers needs and provide them with an acceptable return on investments.

Arthur C. Newby, Edward C. Fletcher, and Glenn Howe used an initial \$5,000 investment to start what was to become the Diamond Chain Company on December 24, 1890. The Indianapolis Chain & Stamping Company (as it was known back then or IC&SC) adopted the diamond as their trademark because it symbolized perfection and acted as a constant reminder of their endeavor. IC&SC, in its humble beginnings, specialized in bicycle chain. As one of the first companies in the

United States to produce bicycle chain, IC&SC prospered, outgrowing its original quarters and moving to larger facilities in 1892.



In 1901, when the bicycle chain business slumped, IC&SC rebounded by developing and introducing to industry a twin-roller roller chain. From December 17, 1903, when Diamond chain was used by the Wright brothers' first flying machine, to the present, Diamond Chain has been a major supplier of chain for aircraft, motorcycles, engines and various other uses. In 1950, Diamond Chain was acquired by American Steel Foundries, Inc. - the largest steel foundry in the world, and in 1962 the name of the parent company was changed to AMSTED Industries Incorporated.

Through value added services, new technologies, quality materials and workmanship as well as attention to detail in every facet of customer service from order entry to product development and ship-

ping, Diamond continues to provide a high-quality product possessing the best balance of performance, reliability, price and delivery that meet or exceed customer requirements. The diamond symbolized perfection and lasting value to our founders and continues to symbolize Diamond Chain Company today, after 115 years of service to the roller chain industry.

### **Chain Performance**

Building high-quality roller chain is a matter of demanding precision - a matter of establishing critical parameters, both in component fabrication and final assembly, and monitoring them to ensure that they are maintained. You could look at two different brands of roller chain and probably not see a difference on the surface. However, where you will see a difference is in their performance. The working load of a roller chain is often its most important characteristic. Contrary to popular belief, there is no consistent relationship between a roller chain's working load capacity and its ultimate tensile strength. Many times chains are selected on their published tensile strengths, which are breaking loads.

Chains must be selected based upon loads that they can transmit repeatedly over millions of cycles. So, chains with equal tensile strengths can, and commonly do, have very different working load capacities. In fact, chains with higher published tensile strengths than Diamond could easily have much lower working load capacities.

### ISO 9001

ISO 9001:2000 certification is awarded to companies that specify requirements for a quality management system and demonstrate their ability to provide products that fulfill customer requirements and aims to enhance customer satisifaction. **Diamond is ISO 9001:2000 certified.** That means you can be sure that Diamond chain is consistently manufactured following detailed processes developed by Diamond and proven to produce some of the world's longest running and best performing roller chains. Each component of a Diamond chain is engineered and produced with optimum performance in mind. Exacting specifications cover critical properties of all component parts and assemblies. Diamond's ISO 9001 certification is proof of the fact that **"we say what we do and do what we say."** 

Nothing outlasts a Diamond<sup>®</sup>.

#### www.diamondchain.com

## TAKE A CLOSER LOOK AT DIAMOND, YOU'LL SEE THE VALUE

If you are looking for the best value in roller chain, take a closer look at Diamond roller chain. Diamond roller chain may look like your everyday chain, but upon closer inspection there are numerous differences that translate into superior performance and better value. From the strict attention to detail to the design of the chain itself, to the extra steps we take during manufacturing, those differences really add up on your bottom line. We build long life, lasting value and enduring customer relationships into every link of chain...and that is the Diamond difference.

Over the years we've produced tens of thousands of types of roller chain for a wide variety of applications from oilfield and deco ovens to conveyors and combines. So if your application calls for some special attention, our application engineers can easily help you find that lasting solution. Please, take a closer look at Diamond roller chain...we do. That closer look is what makes our chain better than other chains. What you can't see, you can experience with improved performance -- which means less downtime, less repair costs and increased productivity.

### THE DIAMOND DIFFERENCE

- Diamond<sup>®</sup> Chain Company is the recognized **world leader** in the design and manufacture of high quality, high performance roller chain.
- Diamond Chain is made in the U.S.A.
- Diamond Chain is **committed to quality.**
- Diamond Chain is proud to have obtained both ISO 9001 and American Petroleum Institute certification.
- **Raw materials** are ordered to rigid specifications and certified to meet Diamond's standards for mechanical strength, dimensions and metallurgical composition.
- The ultimate operating performance of any chain is largely determined by the quality of the **link plate pitch holes.**



- A Multi-stage process is used to assure that the pitch holes have maximum bearing area, are straight, smooth, and burr-free.
  - 1. *Piercing* produces a hole with limited bearing area and poor hole quality.
  - 2. *Shaving* gives the pitch hole greater bearing area and surface quality.
  - 3. *Drifting* extrudes the metal further into the hole, making the final hole smooth and burr-free, with a maximum amount of bearing area.
  - 4. *Redrifting* leaves the hole bright and mirror-smooth with beneficial residual compressive stresses.



- **Beveled link plates** are a distinctive feature found on most #60 and larger Diamond chains. The bevels are positioned during assembly to orient the link plates in order to take maximum advantage of the pitch hole bearing area.
- Link plates are **through-hardened** to achieve maximum hardness, then tempered to resist tensile and impact loads.
- Uniform wall thickness and concentricity of bushings and rollers assure a smooth operating chain drive.
- The roundness of the bushings increases the effective bearing area for the pin extending wear life.
- The roundness of the rollers evenly spreads the impact loads from the sprocket to the chain bushing.
- All of the parts in Diamond standard roller chain are **heat treated** with precise temperature, atmosphere and quench control for strength, durability, and wear resistance.
- The pins, bushings, and rollers used in standard chain are heat treated in **dedicated carburizing furnaces.** Carbon penetrates the surface of the parts, creating a high carbon surface while retaining a lower carbon core.

Medium Carbon / Through Hardened Pin



4

## • Shot peening is another process used by Diamond Chain to increase fatigue resistance. This layer of compressive stress helps resist fatigue failure when chains are subjected to repeated high loads.

- Diamond Chain utilizes **special machinery** to assemble components into finished chain. This precision assembly capability, coupled with thorough product inspection, assures the consistency and uniformity that customers have come to expect in Diamond roller chain.
- Following assembly, the Diamond Difference continues as chains are **preloaded**, or **"prestressed."** The preloading operation firmly seats the pins and bushings in place and reduces the initial run-in, which lower quality chains may experience soon after start-up.
- Qualified inspectors, both during the assembly process and before leaving the assembly department **inspect** Diamond chains. These inspections include:
  - pin and bushing press-out forces,
  - · assembled chain tensile strength, and
  - length tolerance.
- Diamond Chain makes a **wide variety of roller chains** in addition to standard ASME/ANSI single, multiple, and extended pitch chain.
  - DURALUBE® Chain
  - RING LEADER<sup>®</sup> Chain
  - TUF-FLEX® Chain
  - Standard & Specialty Attachment Chain
  - Corrosion Resistant Chain
  - Made-To-Order Chains

Learn why we are proud to say, "we build long life, lasting value, and enduring customer relationships into every link of chain." Insist on the finest roller chain in the world, because

#### THE DIAMOND DIFFERENCE...IS QUALITY.

## A CHAIN IS ONLY WORTH ITS WEAKEST LINK

Let's face it, there are less expensive chains out there, but are they worth it? Probably not in the long run. In most cases, cheap chain doesn't last as long so you have to replace it more often. That means downtime and all of the costs associated with it: idle workers, lost production, repair/replacement cost - it all adds up. Don't be fooled. Initial costs aren't necessarily real costs. Clarifying the real costs associated with less expensive chain can be done very easily. Using chains and costs that reflect your specific drive conditions, use the follwoing worksheet will illustrate the investment in Diamond roller chain is definitely worth it when compared to the long-term repair and replacement costs of a less expensive chain.

#### ANNUAL CHAIN COST ANALYSIS

		BARGAIN CHAIN	DIAMOND CHAIN
Α.	Unit cost of new chain (\$/chain-Ft):		
В.	Length required for application (chain-Ft):		
C.	Chain cost per application, A x B (\$/ chain):		
D.	Chains used per year (chains/Yr):		
E.	Annual cost of chains, C x D (\$/Yr):		
F.	Chain repairs per year (repairs/Yr):		
G.	Average hours of downtime per repair (downtime-Hrs/repair):		
Н.	Costs per downtime-hour, including cost of repair labor, lost efficiency, lost profits, etc. (\$/downtime-Hr):		
I.	Annual dowtime costs, F x G x H (\$/Yr):		
J.	Total annual costs incurred, E + I (\$/Yr):		

#### BENEFIT OF "PRELOADING"





# **STANDARD SERIES CHAIN**

Though it's referred to as standard chain, it's anything but. Our Standard Series chains, built to ASME/ANSI B29.1 standards, are manufactured to very specific requirements. The only thing standard about our chains are their ability to fit many standard applications. From industry to agriculture, our Standard Series chains are designed to last longer than any other manufacturer's roller chain.



── <del>──────────────────────────────────</del>
╶┼┊┼╾┼┊┼╾┼┊┼╾┼┊┼╾┼┊┼╾┤┊╎──┲
-
└┶┿┙└┿┥└┿┥└┿┥╵┍┿┥

Chart continues on next page.

#### **Dimensions in Inches and Pounds**

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	К	Weight Per Foot	Average Tensile Strength
25	1⁄4	1⁄8	*.130	.090	.030	.37	.34		.084	875
25-2	1⁄4	1⁄8	*.130	.090	.030	.63	.59	.252	.163	1750
25-3	1⁄4	1⁄8	*.130	.090	.030	.88	.84	.252	.246	2625
35	3/8	<sup>3</sup> / <sub>16</sub>	*.200	.141	.050	.56	.50		.210	2100
35-2	3⁄8	<sup>3</sup> / <sub>16</sub>	*.200	.141	.050	.96	.90	.399	450	4200
35-3	3/8	<sup>3</sup> / <sub>16</sub>	*.200	.141	.050	1.36	1.31	.399	.680	6300
35-4	3⁄8	<sup>3</sup> / <sub>16</sub>	*.200	.141	.050	1.76	1.70	.399	.910	8400
35-5	3/8	<sup>3</sup> / <sub>16</sub>	*.200	.141	.050	2.16	2.11	.399	1.140	10500
35-6	3/8	<sup>3</sup> / <sub>16</sub>	*.200	.141	.050	2.57	2.51	.399	1.370	12600
40	1⁄2	<sup>5</sup> / <sub>16</sub>	.312	.156	.060	.72	.67		.410	4000
40-2	1⁄2	<sup>5</sup> / <sub>16</sub>	.312	.156	.060	1.29	1.24	.566	.800	8000
40-3	1⁄2	<sup>5</sup> / <sub>16</sub>	.312	.156	.060	1.85	1.80	.566	1.200	12000
40-4	1⁄2	<sup>5</sup> / <sub>16</sub>	.312	.156	.060	2.42	2.37	.566	1.600	16000
40-6	1⁄2	<sup>5</sup> / <sub>16</sub>	.312	.156	.060	3.56	3.51	.566	2.420	24000
41	1⁄2	1⁄4	.306	.141	.050	.65	.57		.260	2400
50	5⁄8	3⁄8	.400	.200	.080	.89	.83		.704	6600
50-2	5⁄8	3⁄8	.400	.200	.080	1.60	1.55	.713	1.399	13200
50-3	5⁄8	3/8	.400	.200	.080	2.31	2.26	.713	2.090	19800
50-4	5⁄8	3⁄8	.400	.200	.080	3.03	2.97	.713	2.784	26400
50-5	5⁄8	3⁄8	.400	.200	.080	3.75	3.69	.713	3.470	33000
50-6	5⁄8	3⁄8	.400	.200	.080	4.46	4.40	.713	4.169	39600
50-8	5⁄8	3⁄8	.400	.200	.080	5.89	5.83	.713	5.555	52800
50-10	5⁄8	3⁄8	.400	.200	.080	7.32	7.26	.713	6.930	66000
60	3⁄4	1⁄2	.469	.234	.094	1.11	1.04		.990	8500
60-2	3⁄4	1⁄2	.469	.234	.094	2.01	1.94	.897	1.950	17000
60-3	3⁄4	1⁄2	.469	.234	.094	2.91	2.84	.897	2.880	25500
60-4	3⁄4	1⁄2	.469	.234	.094	3.81	3.74	.897	3.900	34000
60-5	3⁄4	1⁄2	.469	.234	.094	4.71	4.64	.897	4.970	42500
60-6	3⁄4	1⁄2	.469	.234	.094	5.60	5.53	.897	5.960	51000
60-8	3⁄4	1⁄2	.469	.234	.094	7.40	7.33	.897	7.940	68000
60-10	3⁄4	1⁄2	.469	.234	.094	9.19	9.12	.897	9.920	85000
80	1	5⁄8	.625	.312	.125	1.44	1.32		1.730	14500
80-2	1	5⁄8	.625	.312	.125	2.59	2.47	1.153	3.370	29000

\*Chains are rollerless -- dimension shown is bushing diameter.

ASME/ANSI 60 and larger chains are available as cottered or riveted type design.

Multiple strand chains are available with slip-fit (standard) or press-fit center plates.

## **STANDARD SERIES CHAIN**



7



	the set		174 I I I I I I I I I I I I I I I I I I I	
FF.		" F		кс
T T T				
				-
<u>Sapa</u> '		ع حمد "		

**Dimensions in Inches and Pounds** 

R

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	К	Weight Per Foot	Average Tensile Strength
80-3	1	5⁄8	.625	.312	.125	3.74	3.62	1.153	5.02	43500
80-4	1	5⁄8	.625	.312	.125	4.90	4.79	1.153	6.73	58000
80-5	1	5⁄8	.625	.312	.125	6.06	5.94	1.153	8.40	72500
80-6	1	5⁄8	.625	.312	.125	7.22	7.10	1.153	10.07	87000
80-8	1	5⁄8	.625	.312	.125	9.53	9.40	1.153	13.41	116000
100	1 1⁄4	3⁄4	.750	.375	.156	1.73	1.61		2.51	24000
100-2	1 1⁄4	3⁄4	.750	.375	.156	3.14	3.02	1.408	4.91	48000
100-3	1 1⁄4	3⁄4	.750	.375	.156	4.56	4.43	1.408	7.40	72000
100-4	1 ¼	3⁄4	.750	.375	.156	5.97	5.84	1.408	9.80	96000
100-5	1 ¼	3⁄4	.750	.375	.156	7.38	7.25	1.408	12.20	120000
100-6	1 1⁄4	3⁄4	.750	.375	.156	8.78	8.66	1.408	14.60	144000
100-8	1 ¼	3⁄4	.750	.375	156	11.60	11.48	1.408	19.40	192000
120	1 ½	1	.875	.437	.187	2.14	2.00		3.69	34000
120-2	1 ½	1	.875	.437	.187	3.93	3.79	1.789	7.35	68000
120-3	1 ½	1	.875	.437	.187	5.72	5.58	1.789	11.10	102000
120-4	1 ½	1	.875	.437	.187	7.52	7.38	1.789	14.70	136000
120-5	1 ½	1	.875	.437	.187	9.31	9.17	1.789	18.43	170000
120-6	1 ½	1	.875	.437	.187	11.10	10.96	1.789	22.11	204000
120-8	1 ½	1	.875	.437	.187	14.68	14.54	1.789	29.47	272000
120-10	1 ½	1	.875	.437	.187	18.26	18.12	1.789	36.83	340000
140	1 3⁄4	1	1.000	.500	.219	2.31	2.14		5.00	46000
140-2	1 ¾	1	1.000	.500	.219	4.24	4.07	1.924	9.65	92000
140-3	1 ¾	1	1.000	.500	.219	6.16	6.00	1.924	14.30	138000
140-4	1 3⁄4	1	1.000	.500	.219	8.09	7.93	1.924	18.95	184000
140-6	1 ¾	1	1.000	.500	.219	11.94	11.78	1.924	28.25	276000
160	2	1 1⁄4	1.125	.562	.250	2.73	2.54		6.53	58000
160-2	2	1 1⁄4	1.125	.562	.250	5.04	4.85	2.305	12.83	116000
160-3	2	1 1⁄4	1.125	.562	.250	7.35	7.16	2.305	19.03	174000
160-4	2	1 1⁄4	1.125	.562	.250	9.66	9.47	2.305	25.60	232000
160-6	2	1 1⁄4	1.125	.562	.250	14.27	14.09	2.305	37.78	348000
180	2 ¼	1 <sup>13</sup> / <sub>32</sub>	1.406	.687	.281	3.15	2.88		9.06	76000
180-2	2 1⁄4	1 <sup>13</sup> / <sub>32</sub>	1.406	.687	.281	5.75	5.48	2.592	17.67	152000
180-3	2 ¼	1 <sup>13</sup> / <sub>32</sub>	1.406	.687	.281	8.34	8.07	2.592	26.20	228000
200	2 ½	1 ½	1.562	.781	.312	3.44	3.12		10.65	95000
200-2	2 ½	1 ½	1.562	.781	.312	6.26	5.94	2.817	21.50	190000
200-3	2 ½	1 ½	1.562	.781	.312	9.08	8.76	2.817	32.30	285000
200-4	2 ½	1 ½	1.562	.781	.312	11.90	11.58	2.817	42.90	380000
200-6	2 ½	1 ½	1.562	.781	.312	17.52	17.21	2.817	64.50	570000
240	3	1 7/8	1.875	.937	.375	4.32	3.83		17.03	157600
240-2	3	1 7/8	1.875	.937	.375	7.77	7.27	3.458	33.44	315200
240-3	3	1 7/8	1.875	.937	.375	11.23	10.73	3.458	49.77	472800

#### www.diamondchain.com

# **NON-STANDARD SERIES CHAIN**

Prior to the ASME/ANSI standards, Diamond Chain produced many chains having unique dimensions, often for very specific applications. After industry's adoption of ASME/ANSI standards many of these chains became the current Standard or Heavy Series chains, but some did not. Diamond recognizes that a considerable amount of industrial & oilfield equipment still utilize these unique chains and so whenever possible, we continue to produce them. The information below may be useful in identifying your "non-standard, but still very important" model.





**Dimensions in Inches and Pounds** 

DIAMOND Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	К	Weight Per Foot	Average Tensile Strength
867	1⁄2	<sup>5</sup> / <sub>16</sub>	.335	.174	.060	.73	.68		.43	4200
148 x 1/4	5⁄8	1⁄4	.400	.200	.080	.73	.67		.59	6600
148 x 5/16	5⁄8	<sup>5</sup> / <sub>16</sub>	.400	.200	.080	.86	.74		.64	6600
433 x 3/8	3⁄4	3⁄8	.469	.234	.094	.98	.91		.91	8500
435 x 3/8	1	3⁄8	.562	.281	.125	1.14	1.05		1.11	9000
435 x 1/2	1	1⁄2	.562	.281	.125	1.27	1.18		1.21	9000
472	1½	3⁄4	.875	.437	.187	1.86	1.72		3.40	34000
472-2	1½	3⁄4	.875	.437	.187	3.45	3.30	1.55	6.76	68000
472-3	1½	3⁄4	.875	.437	.187	5.00	4.85	1.55	10.08	102000
472-4	1½	3⁄4	.875	.437	.187	6.55	6.41	1.55	13.40	136000
264	2 ½	1½	1.562	.875	.375	3.71	3.39		13.68	148500
264-3	2 ½	1½	1.562	.875	.375	9.88	9.56	3.083	40.92	445500

#### **Link Plate Height**

Many times chains are contained within guides or extrusions to protect them from contamination. If this is the case, link plate height can be a critical dimension. The following charts represent nominal pin and roller link plate heights for the models shown. If more detailed information is required, please contact Diamond's application engineers.

#### **Dimensions in Inches**

*Link				Mod	el Nu	nber			
Plate Height	25	35	40	41	50	60	60H	80	80H
Е	.205	.308	.410	.310	.512	.615	.615	.820	.820
Н	.238	.356	.475	.383	.594	.713	.713	.950	.950

_	$\Rightarrow \Rightarrow$	⇒ ↓_	
Ĭ H			- E
1			

*Link						I	Model	Numbe	er					
Plate Height	100	100H	120	120H	140	140H	160	160H	180	180H	200	200H	240	240H
E	1.025	1.025	1.230	1.230	1.435	1.435	1.640	1.640	1.845	1.845	2.050	2.050	2.422	2.422
Н	1.188	1.188	1.425	1.425	1.663	1.663	1.900	1.900	2.138	2.138	2.375	2.375	2.806	2.806

\*Nominal values are shown. For information on specific models contact Diamond.

# **HEAVY SERIES CHAIN**



Heavy Series chains, also built in accordance with ASME/ANSI B29.1, are designed using link plate material from the next larger size chain. Heavy Series chains are not necessarily stronger than Standard Series chains, but the thicker link plate material provides an increase in fatigue resistance for those drives subjected to heavy shock loads, multiple stops/starts or reversing.





**Dimensions in Inches and Pounds** 

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	К	Weight Per Foot	Average Tensile Strength
60H	3⁄4	1⁄2	.469	.234	.125	1.24	1.17		1.18	8500
60H-2	3⁄4	1⁄2	.469	.234	.125	2.27	2.20	1.028	2.33	17000
60H-3	3⁄4	1⁄2	.469	.234	.125	3.31	3.24	1.028	3.47	25500
60H-4	3⁄4	1⁄2	.469	.234	.125	4.34	4.26	1.028	4.61	34000
80H	1	5⁄8	.625	.312	.156	1.57	1.45		2.02	14500
80H-2	1	5⁄8	.625	.312	.156	2.84	2.72	1.283	3.93	29000
80H-3	1	5⁄8	.625	.312	.156	4.14	4.02	1.283	5.92	43500
80H-4	1	5⁄8	.625	.312	.156	5.42	5.30	1.283	7.87	58000
100H	1 ¼	3⁄4	.750	.375	.187	1.86	1.74		2.82	24000
100H-2	1 ¼	3⁄4	.750	.375	.187	3.41	3.28	1.539	5.58	48000
100H-3	1 ¼	3⁄4	.750	.375	.187	4.95	4.82	1.539	8.32	72000
100H-4	1 ¼	3⁄4	.750	.375	.187	6.49	6.37	1.539	11.04	96000
120H	1 ½	1	.875	.437	.219	2.27	2.13		4.08	34000
120H-2	1 ½	1	.875	.437	.219	4.20	4.06	1.924	8.04	68000
120H-3	1 ½	1	.875	.437	.219	6.13	5.99	1.924	11.99	102000
120H-4	1 ½	1	.875	.437	.219	8.06	7.92	1.924	15.94	136000
120H-6	1 ½	1	.875	.437	.219	11.91	11.77	1.924	23.84	204000
140H	1 3⁄4	1	1.000	.500	.250	2.44	2.28		5.40	46000
140H-2	1 3⁄4	1	1.000	.500	.250	4.50	4.34	2.055	10.65	92000
140H-3	1 3⁄4	1	1.000	.500	.250	6.56	6.39	2.055	15.90	138000
140H-4	1 3⁄4	1	1.000	.500	.250	8.62	8.45	2.055	21.10	184000
160H	2	1 1⁄4	1.125	.562	.281	2.86	2.68		7.03	58000
160H-2	2	1 1⁄4	1.125	.562	.281	5.30	5.12	2.436	13.88	116000
160H-3	2	1 ¼	1.125	.562	.281	7.75	7.56	2.436	20.68	174000
160H-4	2	1 1⁄4	1.125	.562	.281	10.17	10.00	2.436	27.62	232000
180H	2 ¼	1 <sup>13</sup> / <sub>32</sub>	1.406	.687	.312	3.28	3.01		9.59	76000
180H-2	<b>2</b> ¼	1 <sup>13</sup> / <sub>32</sub>	1.406	.687	.312	6.00	5.73	2.723	18.86	152000
180H-3	2 ¼	1 <sup>13</sup> / <sub>32</sub>	1.406	.687	.312	8.73	8.46	2.723	28.14	228000
200H	2 ½	1½	1.562	.781	.375	3.71	3.39		13.38	110000
200H-2	2 ½	1½	1.562	.781	.375	6.79	6.48	3.083	26.38	220000
200H-3	2 ½	1½	1.562	.781	.375	9.88	9.56	3.083	40.85	330000
240H	3	1 7⁄8	1.875	.937	.500	4.85	4.35		21.08	157600

ASME/ANSI 60 and larger chains are available as cottered or riveted type design. Multiple strand chains are available with slip-fit (standard) or press-fit center plates.

## **HIGH STRENGTH/LIFT CHAIN**

Produced in accordance with ASME/ANSI B29.1, these chains are designed for the rigors of heavy loads and lifting. Depending on your specific application, Diamond offers three options from which to choose:

#### High Strength Drive Chain, Hoist Chain or Rollerless Lift Chain

### **High Strength (HS) Drive Chain**

HS Series Drive chains are built in accordance with ASME/ANSI B29.1 and are dimensionally identical to Heavy series Drive chains, but are specially designed and incorporate pins produced from medium carbon alloy steel. These pins are through-hardened to give the chain a higher working load capacity and additional resistance to fatigue in high load and pulsating type applications. Users of these chains shuld remember that wear life may be slightly reduced due to the material and heat treatment of the chain pins. Slip-fit type connecting links and offset links are not available for these chains.

Note: Offset links and slip fit connecting links are not recommended for any High Strength or Lift Chain.



		F
	┊┑╶┍╪┑┍╪┑┍┊┑╓┊┑┍╪┑	
Ţ		
		ċ
I		
لے		
	└──╈──╈╵┶━─╈╴╒ <del>╢┲╺╟╒</del> ───╷	Ł

**Dimensions in Inches and Pounds** 

DIAMOND Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	Weight Per Foot	Average Tensile Strength
60HS	3⁄4	1⁄2	.469	.234	.125	1.24	1.17	1.18	12000
80HS	1	5⁄8	.625	.312	.156	1.57	1.45	2.02	21000
100HS	1 ¼	3⁄4	.750	.375	.187	1.86	1.74	2.82	30000
120HS	1 1⁄2	1	.875	.437	.219	2.27	2.13	4.08	41000
140HS	1 3⁄4	1	1.000	.500	.250	2.44	2.28	5.40	56000
160HS	2	1 ¼	1.125	.562	.281	2.86	2.68	7.03	70000
180HS	2 ¼	1 <sup>13</sup> / <sub>32</sub>	1.406	.687	.312	3.28	3.01	9.59	95000
200HS	<b>2</b> ½	1 ½	1.562	.781	.375	3.71	3.39	13.75	136000
200HS-2	<b>2</b> ½	1 ½	1.562	.781	.375	6.79	6.48	26.38	270000
200HS-3	<b>2</b> ½	1 ½	1.562	.781	.375	9.88	9.56	40.85	405000
240HS	3	1 7/8	1.875	.937	.500	4.85	4.35	21.08	157600

#### High Strength (HSOC) Oval Contour Drive Chains:

For the ultimate in Diamond Chain High Strength performance, consider Diamond HS Oval Contour chains. Specially designed with pins produced from medium carbon alloy steel and FULL Oval Contour pin and roller link plates, providing the maximum link plate rigidity for high load fatigue applications.



Note: *Offset links and slip fit connecting links are not recommended for any High Strength or Lift Chain.* 

**Dimensions in Inches and Pounds** 

DIAMOND Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	Weight Per Foot	Average Tensile Strength
60HSOC	3⁄4	1⁄2	.469	.234	.125	1.24	1.17	1.42	12000
80HSOC	1	5⁄8	.625	.312	.156	1.57	1.45	2.38	21000
100HSOC	1 ¼	3⁄4	.750	.375	.187	1.86	1.74	3.29	30000

# **HIGH STRENGTH/LIFT CHAIN**



### **Hoist Chain**

These chains are built in accordance with ASME/ANSI B29.24 and are dimensionally identical to Standard Series Drive chains, but also incorporate pins produced from medium carbon alloy steel, through-hardened, to give the chains higher working load capacity and additional resistance to fatigue. Additionally, these chains are produced with solid rollers for increased performance when loading is high, but speeds are slow. Users of these chains should be aware that wear life may be slightly reduced due to the material and heat treatment of the chain pins.

Note: Slip fit connecting links and offset links are not available for these chains.



Dimensions in Inches and Pounds						

DIAMOND Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	Weight Per Foot	Average Tensile Strength
625	5⁄8	3⁄8	.400	.200	.080	.89	.83	.68	8000
750	3⁄4	1/2	.469	.234	.094	1.11	1.04	.99	10500

### **Rollerless Lift Chain**

These chains are specifically designed for tension linkages where frequent articulation requires the increased bearing area of a roller chain. Rollerless Lift chains are dimensionally identical to Standard Series Drive chains but are produced without rollers.

Note: Slip fit connecting links and offset links are not available for these chains.



#### Dimensions in Inches and Pounds

DIAMOND Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	Weight Per Foot	Average Tensile Strength
55S	5⁄8	3⁄8	*.280	.200	.080	.89	.83	.55	†8000
65S	3⁄4	1⁄2	*.332	.234	.094	1.11	1.04	.81	†10500
85	1	5⁄8	*.442	.312	.125	1.44	1.32	1.41	14500
105	1 ¼	3⁄4	*.532	.375	.156	1.73	1.61	2.08	24000
125	1½	1	*.620	.437	.187	2.14	2.00	3.04	34000

\*Chains are rollerless -- dimension shown is bushing diameter.

†Numbers 55S amd 65S are assembled with medium carbon through-hardened pins.

## **Terminal Fittings**

Diamond does not provide terminal fittings. We recommend that fittings be made of through-hardened steel, heat treated to RC 40-45. They should be machined accurately to ensure proper mating with chain link plates and to provide uniform loading across the width of the chain. Chains should always be attached to the terminal fittings using a press-fit style connecting link. Terminal fittings should be inspected regularly and the above conditions maintained. Worn, damaged or corroded chains and/or terminal fittings can lead to chain failure which may result in either personal injury or property damage.

<b>Dimensions in</b>	Inches and	Pounds
----------------------	------------	--------

Diamond Number	Pitch Inches	W +.000031	Pin Dia.	Hole Dia.	A (max.)
60 H or HS	3⁄4	.764	.234	.237	.375
80 H or HS	1	.955	.312	.315	.500
100 H or HS	1 1⁄4	1.141	.375	.378	.625
120 H or HS	1 ½	1.458	.437	.440	.750
140 H or HS	1 ¾	1.523	.500	.503	.875
160 H or HS	2	1.838	.562	.565	1.000
180 H or HS	2 1⁄4	2.058	.687	.690	1.125
200 H or HS	2 ½	2.285	.781	.784	1.250
625	5⁄8	.542	.200	.203	.312
750	3⁄4	.696	.234	.237	.375
55 S*	5⁄8	.542	.200	.203	.312
65 S*	3⁄4	.696	.234	.237	.375
85*	1	.886	.312	.315	.500
105*	1 1⁄4	1.076	.375	.378	.625
125*	1 ½	1.390	.437	.440	.750



\*Chains are rollerless

## **Oilfield Chain**

Roller chains used in the oil and gas industries are subjected to some of the greatest loads and harshest environments. These conditions are far more sever than usually found in industrial applications. These "Oilfield" chains can be either single strand or multiple strand and are typically constructed using Heavy Series components.



We produce our Oilfield chains with the same attention to detail that goes into all our products, but additionally these models are subjected to the most up to date API (American Petroleum Institute) Specification 7F performance testing. By examining the label on the box which proudly displays the API logo, users of our chains can be certain that are receiving the highest quality, best-performing product available. Only those companies which have established quality systems, approved and routinely audited, are authorized to display this symbol.

It is highly recommended that multiple strand chains used in oilfield applications be constructed with press-fit center plates. More information about press-fit construction is available online at www.diamondchain.com or in the Diamond Oilfield Brochure or the Diamond Product Guide 1004. Diamond also produces a narrow width 1-1/2" pitch roller chain for some of the older rigs and associated equpment as well as 2-1/2" pitch chain with a special larger pin diameter. These chains do not fall under the ASME/ANSI standards and therefore are not covered by API. Diamond still produces these non-standard chains to the highest quality standards, ensuring its superior performance.

# CORROSION/MOISTURE RESISTANT CHAIN



Diamond Chain produces a full line of corrosion/moisture resistant chains for a variety of uses in environments where the chains are exposed to moisture or corrosive materials. Common uses for Nickel-Plated chains and Diamond ACE chains include applications exposed to the weather, high humidity or those on machines that are frequently washed down with water. Standard attachments are available with quick delivery.

**Moisture Resistance:** Moisture resistance is the chain's ability to resist iron oxidation (red rust). This oxidation attacks the base material of the chain and can weaken it, ultimately resulting in premature chain drive failure. Stainless steel chains offer the optimum in moisture resistance, but may be too costly. For many of these applications, either Nickel-Plated or ACE may offer the user an acceptable solution.

**Corrosion Resistance:** Corrosion resistance is a measure of the chain's ability to resist attack from caustic chemicals or acids, and stainless steel chains are most often recommonded for applications such as these.

*Note:* The Nickel-Plated and ACE chains are not intended to resist corrosion from caustic chemicals or acids; however, depending upon the <u>specific chemicals or concentrations</u>, Nickel-Plated or ACE may offer an acceptable alternative to higher priced stainless steel chain. For those types of applications not suitable to Nickel-Plated or ACE, stainless steel chain is recommended.

The Diamond Product Guide 1004 Corrosion/Moisture Resistant Chain section includes a table of corrosion/moisture resistant chains and their relational resistance to certain substances or chemicals. Contact Diamond's Application Engineers at 1-800 US CHAIN (1-800-872-4246) for assistance in selecting the proper chain for your application.

#### **Nickel-Plated Chain**

Diamond Nickel-Plated chain is different from many rust-resistant chains because Diamond electroless nickel plates all of the components before assembly, virtually eliminating the possibility of stress-corrosion cracking. Pre-assembly plating also ensures all components are plated, which prevents internal rust from seeping out and causing contamination. Standard attachments are available with quick delivery. See the standard attachment chain section on the Diamond website at www.diamondchain.com or the Product Guide 1004 for dimensional information.

### **Diamond ACE®**

Diamond ACE (Anti-Corrosion Exterior) chain is uniquely designed with a special protective exterior coating that is applied to the component parts prior to assembly. Pre-assembly coating ensures all component parts are thoroughly treated, which prevents internal rust from seeping out and causing contamination. The protective coating serves as an insulating barrier that actually oxides <u>before</u> the carbon steel base chain, thus protecting and preserving the chain's physical and structural integrity. Common uses for Diamond ACE include applications exposed to weather, high humidity or on machinery that is routinely washed down with water. Standard attachments are available with quick delivery. See standard attachment chain section on the Diamond website at www.diamondchain.com or the Product Guide 1004 for dimensional information.

#### **Stainless Steel Chain**

Diamond produces a wide range of Single-Pitch Drive and Double Pitch Conveyor chains manufactured in four combinations of stainless steel depending upon the specific application.

**AP Stainless Chain:** This chain is assembled using 300 Series (austenitic stainless) link plates, bushings and rollers along with a precipitation-hardened stainless steel pin. This combination increases the wear life of this chain over those constructed entirely of 300 Series components. AP Stainless chains are well suited for food processing and are approved by the Food and Drug Administration. AP Stainless will be supplied unless otherwise specified.

To learn more about the various resistance levels of these chains against certain substances, please consult the Diamond Corrosion/Moisture Resistant Chain Brochure or the Diamond Product Guide 1004. Infomation on this subject may also be found on our website at www.diamondchain.com or by contacting a Diamond Application Engineer at 1-800 US CHAIN (1-800-872-4246).

#### www.diamondchain.com

## **SPECIAL LUBRICATED CHAIN**

When the environment or location of your roller chain drive is such that regular lubrication is not possible or practical, consider Diamond Chain's Special Lubricated chains. Diamond offers three types of chain designed specifically to deliver the highest level of performance - even in applications that can't or don't receive proper lubrication.

### **DURALUBE®** Chain

For applications where regular lubrication is a challenge, DURALUBE can offer a longer lasting solution. This chain is constructed using a one-piece powdered metal bushing/roller combination which has lubricant drawn in under vacuum. In service, this lubricant is released and provides supplemental lubrication to the pin/bushing joint between regularly scheduled maintenance. Generally, the wear life of DURALUBE chain can be five times that of standard (initially lubricated only) chain.



DIAMOND Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	к	Weight Per Foot	Average Tensile Strength
40-DL	1⁄2	<sup>5</sup> / <sub>16</sub>	.312	.156	.060	.72	.67		.40	3300
40-2-DL	1⁄2	<sup>5</sup> / <sub>16</sub>	.312	.156	.060	1.29	1.24	.566	.81	6600
50-DL	5⁄8	3/8	.400	.200	.080	.89	.83		.65	5200
50-2-DL	5⁄8	3⁄8	.400	.200	.080	1.60	1.55	.713	1.27	10400
60-DL	3⁄4	1⁄2	.469	.234	.094	1.11	1.04		.95	7400
60-2-DL	3⁄4	1⁄2	.469	.234	.094	2.01	1.94	.897	1.85	14800
80-DL	1	5⁄8	.625	.312	.125	1.44	1.32		1.60	13000
2040-DL	1	<sup>5</sup> / <sub>16</sub>	.312	.156	.060	.76	.68		.30	3300
2050-DL	1 ¼	3/8	.400	.200	.080	.92	.84		.47	5200
2060-DL	1½	1⁄2	.469	.234	.094	1.11	1.05		.70	7400

Attachments for pin link only. Consult Diamond for standard attachment availability.

Due to to the nature of DURALUBE chain's construction, the following speed and temperature limitations should be considered prior to the chain's selection or installation.

Single-Pitch	Max. Speed
40	1300 ft/min
50	1000 ft/min
60	850 ft/min
80	650 ft/min

Double-Pitch	Max. Speed
2040	600 ft/min
2050	600 ft/min
2060	600 ft/min

Ambient temperature should not exceed 120° F.

Ambient temperature should not exceed 120° F.

# **SPECIAL LUBRICATED CHAIN**



### **RING LEADER® O-ring Chain**

Diamonds's RING LEADER O-ring chain is specifically designed for applications that don't permit regular lubrication, requiring the chain to depend entirely upon initial factory lubrication throughout its service life. Depending upon the specific conditions, RING LEADER can provide up to ten times the wear life of standard chain.

Industries such as agriculture, food processing, packaging, printing, textile and chemical porcessing can introduce contaminants that damage standard chain. Dirt, mud, food particles, paper fines, dust and moisture can cause buildup on the chain and clog the openings on standard roller chain where lubrication enteres the pin/bushing area. These contaminants can even get inside the chain, actually damaging the surface of pins and bushings.

RING LEADER O-ring chain is constructed with O-rings that seal a specially formulated lubricant into every joint. This sealed in lubricant is essential for the chain's optimum wear life and the O-rings also help to seal out and protect the internal surfaces from dirt, contaminants and moisture. Diamond recommends that RING LEADER O-ring chain receive periodic external lubrication to maintain moisture on the external O-ring surfaces and to lubricate roller/sprocket contact surfaces.

Note: Standard RING LEADER O-ring chain can routinely operate in ambient temperatures up to 150° F. For higher temperature requirements, special O-rings can be substituted, allowing operation in temperatures of 400° F or greater.



Because the RING LEADER chain lasts up to ten times longer than regular chain, overall economy of operation is improved. With lubrication already

sealed into the chain, maintenance expense is lowered. RING LEADER O-ring chain experiences less wear elongation during normal operation, thus providing a longer service life. Life cycle costs of RING LEADER chain can be dramatically less than for standard chain in certain applications which translates into longer lasting roller chain and a real cost savings.



Dimensions in	Inches and	Pounds	
			_

DIAMOND Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	Weight Per Foot	Average Tensile Strength
50 XLO	5⁄8	3⁄8	.400	.200	.080	.95	.89	.72	6500
50H XLO	5⁄8	3⁄8	.400	.214	.094	1.02	.96	.93	9300
60 XLO	3⁄4	1⁄2	.469	.234	.094	1.21	1.13	1.01	7700
80 XLO	1	5⁄8	.625	.312	.125	1.51	1.41	1.77	13500
100 XLO	1 ¼	3⁄4	.750	.375	.156	1.83	1.74	2.55	22000
120 XLO	1 ½	1	.875	.437	.187	2.24	2.12	3.76	30000
140 XLO	1 ¾	1	1.000	.500	.219	2.49	2.35	5.10	42000
160 XLO	2	1 1⁄4	1.125	.562	.250	2.96	2.82	6.66	52000
C2050 XL0	1 ¼	3/8	.400	.200	.080	.95	.89	.59	6500
C2060H XL0	1 ½	1⁄2	.469	.234	.125	1.27	1.21	1.17	7700

## **SPECIAL LUBRICATED CHAIN**

### DUST STOPPER<sup>™</sup> Chain

For applications which require the combined benefits of DURALUBE design construction and RING LEADER style O-rings and a specially formulated lubricant, DUST STOPPER offers the utmost in specialized protection.

- · Seals dust, dirt and debris out
- Seals lubrication in
- · Very minimal, if any, secondary lubrication required
- Improved wear resistance and toughness
- Combines the advantages of two proven Diamond products:
  - ♦ Ring Leader<sup>®</sup> O-Ring Chain and
  - ♦ Duralube<sup>®</sup> Self-lubrication Chain

DUST STOPPER uses a one piece powdered metal bushing/roller combination which has lubricant drawn in under vacuum and is constructed with O-rings that seal a specially formulated lubricant into every joint. Wear life of DUST STOPPER chain is significantly greater than that of standard (initially lubricated only) chain. Due to the nature of DUST STOPPER chain's design and construction, ambient temperature should not exceed 120 F and maximum speed limitations should be considered prior to the chain's selection or installation.



#### **Dimensions in Inches and Pounds**

Diamond Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	С	R	Weight Per Foot	Average Tensile Strength	Max. Speed ft/min
40 XDLO	1⁄2	<sup>5</sup> / <sub>16</sub>	.312	.156	.060	.78	.73	.43	3300	1300
50 XDLO	5⁄8	3/8	.400	.200	.080	.95	.59	.68	5200	1000
60 XDLO	3⁄4	1⁄2	.469	.234	.094	1.21	1.13	.95	7400	850
80 XDL0	1	5⁄8	.625	.312	.125	1.51	1.41	1.59	13000	650

## **ATTACHMENT CHAIN**

Single-Pitch and Double-Pitch chains are available assembleed with either attachment link plates or extended pins. Some attachments, while considered "standard," may not be a part of the 48-Hour CODE BLUE or 5-Day Intensive Care Shipping Programs. Contact Diamond to learn more about our various expedited shipping program details or if you have any questions when designing or specifying attachment chains.

#### 48-Hour CODE BLUE Shipping Program\*

Carbon Steel attachments fall with the 48-Hour Shipping Program as follows:

- Ship in 48 hours for quantities of 10 to 100 feet
- Ship in 3-5 working days for quantities of 101 to 300 feet
- Ship in 5-7 working days for quantities of 301 to 500 feet

#### 5-Day Intensive Care Shipping Program\*

Provides special attention for:

- Stainless steel attachments for quantities of 10 to 200 feet
- Nickel-plated attachments for quantities of 10 to 200 feet
- ACE® Coated attachments for quantities of 10 to 200 feet



# **DOUBLE-PITCH ROLLER CHAIN**



### **Double-Pitch Power Transmission Roller Chain**

These chains, produced to ASME/ANSI B29.3, have figure-eight style link plates. Their dimensions are similar to Standard Series chains with the exception of the pitch, which is twice that of the Standard Series chains. The increase in pitch means that only half the number of component parts are required per foot which can significantly lower the cost. Typical uses for these types of chains include light load drives commonly found in agricultural machinery.

### **Double-Pitch Conveyor Roller Chain**

Produced to ASME/ANSI B29.4, these chains are used in conveyor applications when loads are low and speeds are moderate. They are similar to the Double-Pitch Power Transmission chains, but with link plates that have an oval contour, and can be produced with either standard or over-sized rollers. They are most often found working on conveyors of all shapes and sizes and can be supplied with one or more of our many attachments to carry or convey products.

## **Length Matching of Roller Chains**

Many applications require two or more chains, normally with attachments, to run in parallel with "flights" joining the chains together forming a conveyor or transfer type system. In these cases, it is critical to have the chains ordered as a set, matched for length and installed on the machinery with the same relationship to one another as when they were manufactured. Diamond offers two degrees of matching for parallel operation: Class 1 and Class 2.

- **Class 1** match assures that the longest and the shortest chain in a given set will not vary in overall length by more than .006"/ft. Class 1 matching is most often accomplished by assembling the chains from selected lots of component parts.
- Class 2 match is much more stringent and assures that the longest and the shortest chain in a given set will not vary in overall length by more than .002"/ft. Class 2 matching is quite difficult and requires some very unique procedures.

## **SPECIALTY/MADE-TO-ORDER CHAINS**

Can't find a standard series chain or standard attachment to fit your application needs? Give Diamond a call. Our applications engineers stand ready to assist you in designing or selecting the Diamond chain to best suit your application. Some but not all of the special application chains available include:

- Pin Oven Chains
- RING LEADER® O-ring Attachment Chains
- Bindery Chains
- Plastic Film Feeder Chains
- Serrated Top Chains
- POWER CURVE® Chains
- TUF-FLEX® Chains
- Straight Running and Side-Flexing Roller Chains
- Coupling Chains
- Micropitch<sup>®</sup> Chains
- Powersports Chains
- plus many custom-designed attachments for Made-To-Order Attachment Chains

## **CHAIN TOOLS**

Roller chain connecting tools and pin extractor tools come in a variety of sizes to fit your application and help make chain repair or replacement safe and easy. Pin Extractor Tools come in 3 varieties: small - PE113 for chain models 25-60H; large - PE135 for chain models 80 - 100H; and extra-large - PERE157 for chain models 120-160. Chain Connecting Tools come in 3 varieties as well: small - CT35 for chain models 35-60H; large - CT80 for chain models 80-240; and large cable style - CT80-CABLE for chain models 80-240.





## **Chain Length in Pitches to Feet Conversion Table**

Chain Pitch–Inches													
No. of Pitches	1/4	3/8	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	3
						Chain L	ength–Feet						
1	0.02	0.03	0.04	0.05	0.06	0.08	0.10	0.13	0.15	0.17	0.19	0.21	0.25
2	0.04	0.06	0.08	0.10	0.13	0.17	0.21	0.25	0.29	0.33	0.38	0.42	0.50
3	0.06	0.09	0.13	0.16	0.19	0.25	0.31	0.38	0.44	0.50	0.56	0.63	0.75
4	0.08	0.13	0.17	0.21	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.83	1.00
5	0.10	0.16	0.21	0.26	0.31	0.42	0.52	0.63	0.73	0.83	0.94	1.04	1.25
6	0.13	0.19	0.25	0.31	0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.25	1.50
7	0.15	0.22	0.29	0.36	0.44	0.58	0.73	0.88	1.02	1.17	1.31	1.46	1.75
8	0.17	0.25	0.33	0.42	0.50	0.67	0.83	1.00	1.17	1.33	1.50	1.67	2.00
9	0.19	0.28	0.38	0.47	0.56	0.75	0.94	1.13	1.31	1.50	1.69	1.88	2.25
10	0.21	0.31	0.42	0.52	0.63	0.83	1.04	1.25	1.46	1.67	1.88	2.08	2.50
11	0.23	0.34	0.46	0.57	0.69	0.92	1.15	1.38	1.60	1.83	2.06	2.29	2.75
12	0.25	0.38	0.50	0.63	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	3.00
13	0.27	0.41	0.54	0.68	0.81	1.08	1.35	1.63	1.90	2.17	2.44	2.71	3.25
14	0.29	0.44	0.58	0.73	0.88	1.17	1.46	1.75	2.04	2.33	2.63	2.92	3.50
15	0.31	0.47	0.63	0.78	0.94	1.25	1.56	1.88	2.19	2.50	2.81	3.13	3.75
16	0.33	0.50	0.67	0.83	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	4.00
17	0.35	0.53	0.71	0.89	1.06	1.42	1.77	2.13	2.48	2.83	3.19	3.54	4.25
18	0.38	0.56	0.75	0.94	1.13	1.50	1.88	2.25	2.63	3.00	3.38	3.75	4.50
19	0.40	0.59	0.79	0.99	1.19	1.58	1.98	2.38	2.77	3.17	3.56	3.96	4.75
20	0.42	0.63	0.83	1.04	1.25	1.67	2.08	2.50	2.92	3.33	3.75	4.17	5.00
21	0.44	0.66	0.88	1.09	1.31	1.75	2.19	2.63	3.06	3.50	3.94	4.38	5.25
22	0.46	0.69	0.92	1.15	1.38	1.83	2.29	2.75	3.21	3.67	4.13	4.58	5.50
23	0.48	0.72	0.96	1.20	1.44	1.92	2.40	2.88	3.35	3.83	4.31	4.79	5.75
24	0.50	0.75	1.00	1.25	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	6.00
25	0.52	0.78	1.04	1.30	1.56	2.08	2.60	3.13	3.65	4.17	4.69	5.21	6.25
26	0.54	0.81	1.08	1.35	1.63	2.17	2.71	3.25	3.79	4.33	4.88	5.42	6.50
27	0.56	0.84	1.13	1.41	1.69	2.25	2.81	3.38	3.94	4.50	5.06	5.63	6.75
28	0.58	0.88	1.17	1.46	1.75	2.33	2.92	3.50	4.08	4.67	5.25	5.83	7.00
29	0.60	0.91	1.21	1.51	1.81	2.42	3.02	3.63	4.23	4.83	5.44	6.04	7.25
30	0.63	0.94	1.25	1.56	1.88	2.50	3.13	3.75	4.38	5.00	5.63	6.25	7.50
31	0.65	0.97	1.29	1.61	1.94	2.58	3.23	3.88	4.52	5.17	5.81	6.46	7.75
32	0.67	1.00	1.33	1.67	2.00	2.67	3.33	4.00	4.67	5.33	6.00	6.67	8.00
33	0.69	1.03	1.38	1.72	2.06	2.75	3.44	4.13	4.81	5.50	6.19	6.88	8.25
34	0.71	1.06	1.42	1.77	2.13	2.83	3.54	4.25	4.96	5.67	6.38	7.08	8.50
35	0.73	1.09	1.46	1.82	2.19	2.92	3.65	4.38	5.10	5.83	6.56	7.29	8.75
36	0.75	1.13	1.50	1.88	2.25	3.00	3.75	4.50	5.25	6.00	6.75	7.50	9.00
37	0.77	1.16	1.54	1.93	2.31	3.08	3.85	4.63	5.40	6.17	6.94	7.71	9.25
38	0.79	1.19	1.58	1.98	2.38	3.17	3.96	4.75	5.54	6.33	7.13	7.92	9.50
39	0.81	1.22	1.63	2.03	2.44	3.25	4.06	4.88	5.69	6.50	7.31	8.13	9.75
40	0.83	1.25	1.67	2.08	2.50	3.33	4.17	5.00	5.83	6.67	7.50	8.33	10.00
41	0.85	1.28	1.71	2.14	2.56	3.42	4.27	5.13	5.98	6.83	7.69	8.54	10.25
42	0.88	1.31	1.75	2.19	2.63	3.50	4.38	5.25	6.13	7.00	7.88	8.75	10.50
43	0.90	1.34	1.79	2.24	2.69	3.58	4.48	5.38	6.27	7.17	8.06	8.96	10.75
44	0.92	1.38	1.83	2.29	2.75	3.67	4.58	5.50	6.42	7.33	8.25	9.17	11.00
45	0.94	1.41	1.88	2.34	2.81	3.75	4.69	5.63	6.56	7.50	8.44	9.38	11.25
46	0.96	1.44	1.92	2.40	2.88	3.83	4.79	5.75	6.71	7.67	8.63	9.58	11.50
47	0.98	1.47	1.96	2.45	2.94	3.92	4.90	5.88	6.85	7.83	8.81	9.79	11.75
48	1.00	1.50	2.00	2.50	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	12.00
49	1.02	1.53	2.04	2.55	3.06	4.08	5.10	6.13	7.15	8.17	9.19	10.21	12.25
50	1.04	1.56	2.08	2.60	3.13	4.17	5.21	6.25	7.29	8.33	9.38	10.42	12.50



## **Chain Length in Pitches to Feet Conversion Table**

NameYetYetYetYetYetYetYetYetYetYetYetUU <th colspan="12">Chain Pitch–Inches</th>	Chain Pitch–Inches													
prome         j<	No. of	1⁄4	3/8	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3⁄4	2	2 1/4	2 1/2	3
1         1.9         2.1         2.00         1.90         4.23         5.41         6.30         7.44         8.60         9.60         10.31         10.32           52         1.08         1.05         2.17         2.11         2.25         2.31         4.21         5.41         6.39         7.64         8.67         9.31         0.031         1.03           54         1.13         1.66         2.23         2.81         2.48         4.55         5.71         6.40         7.61         8.10         0.01         1.12         1.03           55         1.15         1.72         2.20         2.66         2.64         4.50         5.71         6.40         7.01         8.10         0.00         1.12         1.03         2.24         1.05         4.57         5.04         5.01         5.01         5.01         6.01         1.01         1.02														
1         1	51	1.06	1.50	2.12	2.66	2 10	4.25	5 21	6.28	7.44	8 50	0.56	10.62	12.75
12         13 <th13< th="">         13         13         13<!--</th--><th>52</th><th>1.00</th><th>1.59</th><th>2.13</th><th>2.00</th><th>2.25</th><th>4.23</th><th>5.31</th><th>6.50</th><th>7.59</th><th>0.50</th><th>9.50</th><th>10.05</th><th>12.75</th></th13<>	52	1.00	1.59	2.13	2.00	2.25	4.23	5.31	6.50	7.59	0.50	9.50	10.05	12.75
B         B	52	1.00	1.05	2.17	2.71	2.21	4.55	5.52	6.62	7.56	0.07	9.75	11.04	12.25
A.B.         L.B.         L.B. <thl.b.< th="">         L.B.         L.B.         <thl< th=""><th>55</th><th>1.10</th><th>1.00</th><th>2.21</th><th>2.70</th><th>2.29</th><th>4.42</th><th>5.52</th><th>6.75</th><th>7.00</th><th>0.00</th><th>9.94</th><th>11.04</th><th>12.50</th></thl<></thl.b.<>	55	1.10	1.00	2.21	2.70	2.29	4.42	5.52	6.75	7.00	0.00	9.94	11.04	12.50
bit         bit <th>54</th> <th>1.15</th> <th>1.09</th> <th>2.23</th> <th>2.01</th> <th>2.44</th> <th>4.50</th> <th>5.05</th> <th>6.75</th> <th>/.00</th> <th>9.00</th> <th>10.15</th> <th>11.25</th> <th>12.75</th>	54	1.15	1.09	2.23	2.01	2.44	4.50	5.05	6.75	/.00	9.00	10.15	11.25	12.75
38         1.11         1.23         2.24         3.39         1.30         8.17         2.30         0.03         1.18         1.42           38         1.21         1.11         2.72         3.32         3.54         4.57         5.44         7.13         8.11         9.30         0.03         1.188         1.42           39         1.21         1.14         2.44         3.07         3.04         4.25         7.30         8.81         9.70         1.08         1.20         1.23         1.20         1.23         1.20         1.23         1.21         1.11         1.12         1.13         1.21         1.23         1.23         1.23         1.23         1.23         1.23         1.23         1.23         1.23         1.23         1.23         1.23         1.23         1.23 <th1.23< th=""> <th1.23< th=""> <th1.23< th=""></th1.23<></th1.23<></th1.23<>	55	1.15	1.72	2.29	2.80	3.44	4.38	5.75	7.00	8.02	9.17	10.51	11.40	13.73
1         1.19         1.31         2.34         2.34         7.35         7.	50	1.17	1.75	2.55	2.92	3.50	4.07	5.85	7.00	8.17	9.55	10.50	11.0/	14.00
B         LA         LA <thla< th="">         LA         <thla< th="">         LA         <thla< th="">         LA</thla<></thla<></thla<>	57	1.19	1.78	2.38	2.97	3.50	4.75	5.94	7.13	8.51	9.50	10.09	11.88	14.25
9         1.3         1.3         1.3         1.3         1.3         1.3         1.30         1.30         1.32         1.30         1.30         1.30         1.30         1.30         1.30         1.30         1.30         1.30         1.30         1.30         1.30         1.30         1.30         1.30         1.31         1.31         1.34         1.32         1.31         1.30 <th1.30< th=""> <th1.30< th=""> <th1.30< th=""></th1.30<></th1.30<></th1.30<>	58	1.21	1.81	2.42	3.02	3.63	4.83	6.04	7.25	8.46	9.67	10.88	12.08	14.50
ib         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.3         1.34         1.32         1.32         1.32         1.32         1.32         1.32         1.32         1.33         6.6         7.35         9.04         1.03         1.14         1.22         1.53           64         1.31         1.30         2.60         1.33         6.61         1.33         6.61         1.31         9.04         1.03         1.23         1.24         1.25           65         1.30         2.60         2.71         1.34         4.14         5.51         6.63         1.31         9.04         1.33         1.25         1.30         1.25         1.30         1.31 <th1.31< th=""> <th1.31< th=""> <th1.31< th=""></th1.31<></th1.31<></th1.31<>	59	1.23	1.84	2.40	3.07	3.09	4.92	0.15	7.38	8.00	9.83	11.06	12.29	14.75
10         137         138         138         138         138         138         139         130	60	1.25	1.88	2.50	3.13	3.75	5.00	6.25	7.50	8.75	10.00	11.25	12.50	15.00
16.         1.19         1.29         1.24         2.53         5.31         5.41         5.45         5.54         5.64         7.88         9.19         10.33         11.31         15.55           64         1.33         2.00         2.47         3.33         4.00         5.33         6.67         8.80         9.33         10.07         12.00         13.31         15.57           64         1.35         2.00         2.77         3.39         4.00         5.35         6.68         8.23         9.40         11.00         12.28         13.40         15.75         16.97           64         1.42         2.09         2.79         3.44         4.19         5.57         7.06         8.43         9.77         11.17         12.50         13.45         12.75           70         1.44         2.16         2.28         3.54         4.53         5.57         7.06         8.53         10.50         11.30         14.50         12.55           70         1.44         2.16         2.34         3.55         4.59         7.00         10.31         10.45         12.17         13.49         14.51         15.55           71         1.45         2.35	61	1.27	1.91	2.54	3.18	3.81	5.08	6.35	7.63	8.90	10.17	11.44	12./1	15.25
A.1         L.1         L.13         L.24         J.24         J.24         J.25         L.55         L.55         L.56         L.93         L.10         L.103         L.113         L.113         L.133         L.103         L.114         L.115         L.116         L.116 <thl.116< th=""> <thl.116< th=""></thl.116<></thl.116<>	62	1.29	1.94	2.58	3.23	3.88	5.17	6.46	7.75	9.04	10.33	11.63	12.92	15.50
ial         1.33         2.60         5.33         4.60         5.40         8.00         9.01         0.05         0.13         0.13         0.13           66         1.33         2.00         2.71         3.30         4.60         5.42         6.77         8.13         9.43         0.03         0.23         0.134         0.53           67         1.40         2.00         2.75         3.44         4.21         5.58         6.68         8.38         9.70         1.117         0.726         1.34         1.75           69         1.44         2.10         2.88         3.97         4.79         8.83         1.90         1.157         1.131         1.430         1.33         1.43         1.75           70         1.46         2.10         2.28         3.00         3.75         4.70         4.80         7.90         8.83         1.031         1.131         1.433         1.431         1.431           71         1.52         2.28         3.00         3.75         4.50         6.01         7.90         9.01         1.031         1.034         1.034         1.034         1.034         1.034         1.034         1.03           71	63	1.31	1.97	2.63	3.28	3.94	5.25	6.56	7.88	9.19	10.50	11.81	13.13	15.75
68         1.33         2.30         2.71         3.39         4.40         5.50         6.77         8.13         9.83         10.30         12.39         13.34         16.35           64         1.40         2.09         2.79         3.49         4.19         5.58         6.98         8.38         9.77         11.17         12.56         13.35         14.75           66         1.42         2.13         2.83         3.54         4.35         5.67         7.08         8.30         9.27         11.31         12.55         14.75           70         1.46         2.19         2.22         3.65         4.38         5.53         7.29         8.75         10.21         11.67         13.31         14.78         17.75           71         1.48         2.22         3.64         3.57         4.50         6.07         7.09         8.80         10.50         11.81         13.31         14.79         17.75           71         1.48         2.28         3.04         3.50         4.50         6.07         7.01         9.25         10.70         12.33         18.38         15.24         18.33           75         1.58         2.28         3.13<	64	1.33	2.00	2.67	3.33	4.00	5.33	6.67	8.00	9.33	10.67	12.00	13.33	16.00
66         1.38         2.09         2.79         3.44         4.13         5.58         6.83         8.23         9.03         1.107         1.238         1.337         16.36           68         1.44         2.01         2.33         3.54         4.25         5.57         7.08         8.59         9.92         11.33         11.07         12.48         13.69         14.68           60         1.44         2.16         2.88         3.59         4.41         5.57         7.19         8.63         10.60         11.30         14.48         17.50           71         1.44         2.22         3.00         3.77         4.40         6.00         7.60         9.00         10.50         12.07         13.50         15.00         15.00           73         1.52         2.28         3.00         3.75         4.50         6.01         7.60         9.13         16.50         12.07         13.50         15.30         15.30         18.30         15.20         18.30         15.20         18.30         15.20         18.30         15.20         18.30         15.20         18.30         15.20         18.30         16.30         15.30         16.30         15.30         16.	65	1.35	2.03	2.71	3.39	4.06	5.42	6.77	8.13	9.48	10.83	12.19	13.54	16.25
67         1.40         2.90         2.90         3.49         4.19         5.82         6.93         8.83         9.77         11.17         12.56         13.90         16.73           60         1.44         2.16         2.83         3.59         4.11         5.75         7.19         8.63         10.06         11.50         12.91         14.48         17.50           70         1.46         2.19         2.22         3.66         4.88         5.83         7.29         8.75         10.21         11.67         13.31         14.78         17.50           71         1.46         2.22         3.00         3.75         4.50         6.00         7.50         9.00         10.50         12.00         13.50         15.50         15.50         18.51         18.55           74         1.54         2.28         3.04         3.80         4.56         6.08         7.60         9.13         10.65         12.17         13.69         15.51         18.55           75         1.56         2.34         3.13         3.06         4.75         6.33         7.22         9.50         11.66         12.67         4.425         18.58         19.50         13.58	66	1.38	2.06	2.75	3.44	4.13	5.50	6.88	8.25	9.63	11.00	12.38	13.75	16.50
6.8         1.42         1.33         2.33         2.34         4.33         5.77         7.08         8.80         9.02         11.33         12.73         1.17         17.07           0         1.46         2.19         2.82         3.65         4.38         5.73         7.19         8.83         10.20         11.64         1.33         14.57         17.57           71         1.48         2.22         2.06         3.70         4.44         5.92         7.60         9.00         10.59         12.00         13.50         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         14.0         4.0         6.25         7.81         9.38         10.94         12.50         14.06         18.21           75         1.56         2.34         3.13         3.01         4.09         6.23         7.81         9.38         11.23         12.30         14.06         18.25           76         1.56         2.44         3.25         4.06         4.83         6.02         9.33         11.23         13.0         1.06         12.	67	1.40	2.09	2.79	3.49	4.19	5.58	6.98	8.38	9.77	11.17	12.56	13.96	16.75
09         1,44         2,16         2,85         3,99         4,31         5,75         7,19         8,85         10,08         11,47         11,33         14,38         17,75           70         1,46         2,22         2,06         3,70         4,44         5,92         7,40         8,88         10,55         11,43         14,35         15,30         15,00         15,00         15,00         15,00         15,00         15,00         15,00         15,00         18,00           73         1,52         2,28         3,04         3,80         4,56         6,08         7,00         9,00         10,60         12,10         13,60         15,21         18,25           74         1,52         2,34         3,13         3,91         4,69         6,25         7,81         9,38         10,40         12,07         14,38         15,42         18,30           75         1,56         2,44         3,13         3,91         4,69         6,53         7,92         9,50         11,88         14,25         18,43         16,02         15,30         16,52         19,50           76         1,58         2,47         3,29         4,11         4,44         6,58	68	1.42	2.13	2.83	3.54	4.25	5.67	7.08	8.50	9.92	11.33	12.75	14.17	17.00
70         1.48         2.19         2.90         3.65         4.38         7.39         8.75         10.21         11.67         13.33         14.38         13.33         14.39         7.37           72         1.50         2.25         3.00         3.75         4.59         6.00         7.50         9.00         10.50         1.20         1.340         1.54         1.54           73         1.52         2.28         3.04         3.80         4.65         6.08         7.00         9.13         10.05         1.217         13.69         15.21         18.52           74         1.54         2.31         3.04         3.85         4.63         6.17         7.10         9.25         11.08         12.07         14.25         18.60         13.53         10.40         12.57         16.33         15.40         18.53         18.57           76         1.58         2.44         3.21         4.01         4.81         6.42         8.02         9.63         11.23         12.33         14.25         15.63         18.57           76         1.63         2.44         3.21         4.50         6.57         8.40         10.25         11.61         13.50	69	1.44	2.16	2.88	3.59	4.31	5.75	7.19	8.63	10.06	11.50	12.94	14.38	17.25
11         1.48         2.22         2.29         3.70         4.44         5.92         7.40         8.88         0.035         11.33         11.31         14.79         17.79           1.50         2.28         3.00         3.75         4.50         6.00         7.90         9.013         10.65         12.17         13.69         15.21         18.80           74         1.54         2.31         3.08         3.85         4.63         6.17         7.71         9.25         10.79         12.33         13.88         15.42         18.50           75         1.56         2.24         3.13         3.91         4.69         6.25         7.81         9.38         10.94         12.50         14.62         18.53           76         1.58         2.34         3.21         4.61         4.62         8.02         9.63         11.23         13.44         16.04         10.57           77         1.63         2.44         3.21         4.61         4.63         6.50         8.13         9.75         11.38         13.50         16.67         2.005           78         1.67         2.50         3.33         4.17         5.13         6.67         8	70	1.46	2.19	2.92	3.65	4.38	5.83	7.29	8.75	10.21	11.67	13.13	14.58	17.50
72         1.50         2.23         3.00         3.73         4.50         6.00         7.70         9.00         10.50         12.00         13.20         15.00         15.00         18.00           73         1.54         2.21         3.04         3.80         4.66         6.08         7.01         9.25         10.79         12.33         13.88         15.42         18.55           74         1.54         2.34         3.13         3.91         4.69         6.25         7.81         9.38         10.94         12.50         14.66         15.63         18.75           76         1.58         2.34         3.21         4.60         4.83         6.32         7.92         9.50         11.88         12.67         14.25         15.81         19.00           77         1.60         2.41         3.21         4.60         4.88         6.50         8.13         9.75         11.38         13.00         14.63         16.64         19.75           78         1.63         2.47         3.29         4.11         4.94         6.58         8.23         9.08         11.57         13.00         14.63         16.50         16.20         13.33         16.50	71	1.48	2.22	2.96	3.70	4.44	5.92	7.40	8.88	10.35	11.83	13.31	14.79	17.75
73         1.52         2.28         3.04         3.80         4.56         6.08         7.00         9.13         10.05         12.17         13.09         15.09         18.25           74         1.54         2.31         3.08         3.85         4.63         6.17         7.71         9.25         10.79         12.33         13.88         15.42         18.50           75         1.58         2.34         3.11         3.96         4.75         6.33         7.92         9.50         11.08         12.67         14.45         16.04         19.25           78         1.63         2.44         3.21         4.01         4.88         6.50         8.13         9.75         11.38         13.00         14.64         16.04         19.25           78         1.65         2.47         3.29         4.00         4.88         6.50         8.13         9.80         11.67         13.33         15.00         16.67         2.00           81         1.09         2.53         3.38         4.22         5.06         6.75         8.44         10.13         11.81         13.50         15.19         16.88         2.02           82         1.71         2.	72	1.50	2.25	3.00	3.75	4.50	6.00	7.50	9.00	10.50	12.00	13.50	15.00	18.00
74         1.34         2.31         3.38         3.83         4.63         6.77         7.71         9.25         10.79         12.33         13.88         15.8         18.89           75         1.56         2.34         3.13         3.91         4.69         6.23         7.81         9.98         10.08         12.50         14.06         15.63         18.70           76         1.60         2.41         3.21         4.01         4.81         6.42         8.02         9.63         11.23         12.33         14.44         16.04         19.25           78         1.63         2.44         3.25         4.06         4.88         6.50         8.13         9.75         11.38         13.00         14.63         16.25         19.90           79         1.65         2.47         3.29         4.11         4.94         6.58         8.23         9.88         11.52         13.17         14.63         16.25         19.90           70         1.65         3.38         4.22         5.10         6.67         8.33         10.00         11.61         13.50         15.6         17.29         2.05           81         1.71         2.56         3.4	73	1.52	2.28	3.04	3.80	4.56	6.08	7.60	9.13	10.65	12.17	13.69	15.21	18.25
75         1.56         2.34         3.13         3.91         4.69         6.25         7.81         9.38         10.44         12.20         14.66         15.63         18.75           76         1.58         2.38         3.17         3.96         4.75         6.33         7.92         9.95         11.08         12.47         14.25         14.64         19.25           78         1.63         2.44         3.25         4.06         4.88         6.50         8.13         9.75         11.38         13.00         14.63         16.25         19.50           79         1.65         2.47         3.29         4.11         4.94         6.68         8.23         9.88         11.52         13.17         14.81         16.66         19.75           80         1.67         2.50         3.33         4.12         5.13         6.83         8.44         10.25         11.66         13.67         15.88         10.68         20.20           81         1.69         3.50         4.32         5.19         6.92         8.65         10.35         13.60         15.75         17.90         2.05           84         1.75         2.63         3.50         4	74	1.54	2.31	3.08	3.85	4.63	6.17	7.71	9.25	10.79	12.33	13.88	15.42	18.50
76         1.58         2.38         3.17         3.96         4.75         6.33         792         9.50         11.08         12.67         14.25         15.83         19.00           77         1.60         2.41         3.21         4.01         4.81         6.42         8.02         9.63         11.23         12.83         14.44         16.04         19.25           78         1.65         2.47         3.29         4.11         4.94         6.58         8.23         9.88         11.52         13.17         14.81         16.66         19.75           80         1.67         2.50         3.33         4.17         5.00         6.67         8.33         10.00         11.67         13.33         15.00         16.67         20.00           81         1.69         2.53         3.38         4.22         5.06         6.75         8.44         10.13         11.81         13.50         15.19         16.88         20.25           82         1.71         2.66         3.42         4.22         5.06         6.55         10.50         12.25         14.00         15.75         17.50         21.00           83         1.75         2.66 <td< th=""><th>75</th><th>1.56</th><th>2.34</th><th>3.13</th><th>3.91</th><th>4.69</th><th>6.25</th><th>7.81</th><th>9.38</th><th>10.94</th><th>12.50</th><th>14.06</th><th>15.63</th><th>18.75</th></td<>	75	1.56	2.34	3.13	3.91	4.69	6.25	7.81	9.38	10.94	12.50	14.06	15.63	18.75
77       1.60       2.41       3.21       4.01       4.81       6.42       8.02       9.63       11.23       11.23       14.43       16.04       19.25         78       1.63       2.44       3.25       4.06       4.88       6.50       8.13       9.75       11.38       13.00       14.63       16.26       19.50         79       1.65       2.47       3.29       4.11       4.94       6.58       8.33       10.00       11.67       13.33       15.00       16.67       2.00         80       1.67       2.53       3.38       4.22       5.06       6.75       8.44       10.13       11.81       13.50       15.19       16.67       20.50         81       1.69       2.53       3.44       4.27       5.13       6.83       8.54       10.25       11.96       13.67       15.38       17.08       20.50         83       1.73       2.66       3.44       4.32       5.19       6.92       8.65       10.38       12.10       13.33       15.56       17.29       20.75         84       1.75       2.66       3.54       4.43       5.31       7.08       8.85       10.63       12.44	76	1.58	2.38	3.17	3.96	4.75	6.33	7.92	9.50	11.08	12.67	14.25	15.83	19.00
//8         1.63         2.44         3.25         4.06         4.88         6.50         8.13         9.75         11.38         13.00         14.81         16.25         193.0           79         1.65         2.47         3.29         4.11         4.94         6.58         8.23         9.88         11.52         13.17         14.81         16.66         19.75           80         1.67         2.50         3.33         4.17         5.00         6.67         8.44         10.13         11.81         13.50         15.19         16.68         20.05           82         1.71         2.56         3.42         4.27         5.13         6.83         8.54         10.25         11.96         13.67         15.38         17.08         20.50           83         1.73         2.63         3.50         4.38         5.25         7.00         8.75         10.50         12.25         14.00         15.75         17.50         21.00           84         1.75         2.63         3.54         4.33         5.31         7.08         8.85         10.63         12.40         14.17         15.41         13.13         17.10         21.25           86	77	1.60	2.41	3.21	4.01	4.81	6.42	8.02	9.63	11.23	12.83	14.44	16.04	19.25
79         1.63         2.44         3.29         4.11         4.94         6.58         8.23         9.88         11.22         13.17         14.81         16.49         17.5           80         1.67         2.50         3.33         4.17         5.00         6.67         8.33         10.00         11.67         13.33         15.00         16.67         20.00           81         1.69         2.53         3.38         4.22         5.06         6.75         8.44         10.13         11.86         13.67         15.18         16.88         20.25           83         1.73         2.59         3.46         4.32         5.19         6.92         8.65         10.38         12.10         13.83         15.56         17.29         20.75           84         1.75         2.63         3.50         4.38         5.25         7.00         8.75         10.50         12.25         14.00         15.75         17.50         21.00           85         1.77         2.66         3.54         4.43         5.31         7.78         8.85         10.63         12.44         14.33         16.13         18.13         21.75           86         1.79         <	/8	1.63	2.44	3.25	4.06	4.88	6.50	8.13	9.75	11.38	13.00	14.63	16.25	19.50
80         1.67         2.50         3.33         4.17         5.00         6.67         8.33         10.00         11.67         13.33         15.00         16.67         20.00           81         1.69         2.53         3.38         4.22         5.06         6.75         8.44         10.13         11.81         13.50         15.19         16.88         20.25           82         1.71         2.56         3.42         4.27         5.13         6.83         8.54         10.25         11.96         15.38         17.29         2.00           83         1.75         2.63         3.50         4.38         5.25         7.00         8.75         10.50         12.25         14.00         15.75         17.50         21.00           85         1.77         2.66         3.54         4.43         5.31         7.08         8.85         10.63         12.40         14.17         15.94         17.71         21.50           86         1.79         2.69         3.58         4.48         5.38         7.17         8.96         10.75         12.54         14.33         16.13         18.13         21.75           87         1.81         2.72         <	/9	1.65	2.47	3.29	4.11	4.94	6.58	8.23	9.88	11.52	13.17	14.81	16.46	19.75
81         1.69         2.33         3.38         4.22         5.06         6.75         8.44         10.13         11.81         13.50         15.19         16.88         20.25           82         1.71         2.56         3.42         4.27         5.13         6.83         8.54         10.25         11.96         13.67         15.38         17.08         20.50           83         1.73         2.59         3.46         4.32         5.19         6.92         8.65         10.38         12.10         13.83         15.56         17.29         20.75           84         1.75         2.63         3.50         4.48         5.31         7.00         8.85         10.63         12.40         14.17         15.94         17.71         17.71         2.66         3.54         4.48         5.38         7.17         8.96         10.75         12.44         14.33         16.13         18.13         21.75           86         1.79         2.69         3.56         4.53         5.50         7.33         9.17         11.00         12.83         14.67         16.50         18.33         22.00           89         1.85         2.78         3.71         4.64	80	1.67	2.50	3.33	4.17	5.00	6.67	8.33	10.00	11.67	13.33	15.00	16.67	20.00
82         1.1         2.56         3.42         4.27         5.13         6.83         8.54         10.25         11.96         15.67         15.38         17.08         20.50           83         1.73         2.59         3.46         4.32         5.19         6.92         8.65         10.38         12.10         13.83         15.56         17.29         20.75           84         1.75         2.63         3.50         4.43         5.31         7.00         8.75         10.50         12.25         14.00         15.75         17.00         21.50           85         1.77         2.66         3.54         4.43         5.31         7.08         8.85         10.63         12.40         14.17         15.94         17.1         21.55           86         1.79         2.69         3.58         4.48         5.38         7.17         8.96         10.63         12.54         14.53         16.13         17.92         21.50           87         1.81         2.75         3.67         4.58         5.50         7.33         9.17         11.00         12.83         14.67         16.50         18.33         22.05           90         1.88         <	81	1.69	2.53	3.38	4.22	5.06	6.75	8.44	10.13	11.81	13.50	15.19	16.88	20.25
83       1.73       2.59       3.46       4.32       5.19       6.92       8.65       10.38       12.10       13.83       15.56       17.29       20.75         84       1.75       2.63       3.50       4.38       5.25       7.00       8.75       10.50       12.25       14.00       15.75       17.50       21.00         85       1.77       2.66       3.54       4.43       5.31       7.08       8.85       10.63       12.40       14.17       15.94       17.71       21.25         86       1.79       2.69       3.58       4.48       5.38       7.17       8.96       10.75       12.54       14.33       16.13       17.92       21.50         87       1.81       2.72       3.63       4.53       5.44       7.25       9.06       10.88       12.69       14.50       16.31       18.13       21.75         88       1.83       2.75       3.67       4.58       5.50       7.33       9.17       11.00       12.83       14.67       16.50       18.33       22.00         89       1.85       2.78       3.71       4.64       5.56       7.42       9.277       11.13       14.83	82	1./1	2.56	3.42	4.27	5.13	6.83	8.54	10.25	11.96	13.67	15.38	17.08	20.50
84         1.75         2.63         3.30         4.38         5.25         7.00         8.75         10.50         12.25         14.00         15.75         17.50         21.00           85         1.77         2.66         3.54         4.43         5.31         7.08         8.85         10.63         12.40         14.17         15.94         17.71         21.25           86         1.79         2.69         3.58         4.48         5.38         7.17         8.96         10.75         12.54         14.33         16.13         17.92         21.50           87         1.81         2.72         3.63         4.53         5.44         7.25         9.06         10.88         12.69         14.50         16.31         18.13         21.75           88         1.83         2.75         3.67         4.58         5.50         7.33         9.17         11.00         12.83         14.67         16.50         18.33         22.00           89         1.85         2.78         3.71         4.64         5.56         7.42         9.27         11.13         12.98         14.83         16.69         18.54         22.50           91         1.90	83	1.73	2.59	3.46	4.32	5.19	6.92	8.65	10.38	12.10	13.83	15.56	17.29	20.75
b5         1.77         2.06         3.54         4.43         5.51         7.08         8.85         10.65         12.40         14.17         15.94         17.71         21.25           86         1.79         2.69         3.58         4.48         5.38         7.17         8.96         10.75         12.54         14.33         16.13         17.92         21.50           87         1.81         2.72         3.63         4.53         5.44         7.25         9.06         10.88         12.69         14.50         16.31         18.13         21.75           88         1.83         2.75         3.67         4.58         5.50         7.33         9.17         11.00         12.83         14.67         16.50         18.33         22.00           89         1.85         2.78         3.71         4.64         5.56         7.42         9.27         11.13         12.98         14.83         16.69         18.54         22.50           90         1.88         2.81         3.75         4.69         5.63         7.50         9.38         11.25         13.13         15.00         16.88         12.75           91         1.90         2.88	84	1.75	2.63	3.50	4.38	5.25	7.00	8.75	10.50	12.25	14.00	15./5	17.50	21.00
88       1.19       2.89       3.38       4.48       5.38       7.17       8.90       10.73       12.34       14.33       10.13       17.92       21.30         87       1.81       2.72       3.63       4.53       5.44       7.25       9.06       10.88       12.69       14.50       16.31       18.13       21.75         88       1.83       2.75       3.67       4.58       5.50       7.33       9.17       11.00       12.83       14.67       16.50       18.33       22.00         89       1.85       2.78       3.71       4.64       5.56       7.42       9.27       11.13       12.98       14.83       16.69       18.54       22.25         90       1.88       2.81       3.75       4.69       5.63       7.50       9.38       11.25       13.13       15.00       16.88       18.57       22.50         91       1.90       2.84       3.79       4.74       5.69       7.58       9.48       11.38       13.27       15.17       17.06       18.96       22.75         92       1.92       2.88       3.83       4.79       5.75       7.67       9.58       11.50       13.42       <	85	1.77	2.00	2.59	4.43	5.31	7.08	8.85	10.05	12.40	14.17	16.12	17.02	21.25
87       1.81       2.12       3.63       4.35       5.44       7.23       9,06       10.88       12.69       14.50       16.51       18.13       21.75         88       1.83       2.75       3.67       4.58       5.50       7.33       9,17       11.00       12.83       14.67       16.50       18.33       22.00         89       1.85       2.78       3.71       4.64       5.56       7.42       9.27       11.13       12.98       14.83       16.69       18.54       22.25         90       1.88       2.81       3.75       4.69       5.63       7.50       9.38       11.25       13.13       15.00       16.88       18.75       22.50         91       1.90       2.84       3.79       4.74       5.69       7.58       9.48       11.30       13.42       15.33       17.25       19.17       23.00         93       1.94       2.91       3.88       4.84       5.81       7.75       9.69       11.63       13.56       15.50       17.44       19.38       23.25         94       1.96       2.94       3.92       4.90       5.88       7.83       9.79       11.75       13.71       <	80	1.79	2.09	3.58	4.48	5.38	7.17	8.90	10.75	12.54	14.55	16.13	17.92	21.50
88       1.83       2.73       3.07       4.36       5.30       7.33       9.17       11.00       12.83       14.07       16.30       16.30       16.33       22.00         89       1.85       2.78       3.71       4.64       5.56       7.42       9.27       11.13       12.98       14.83       16.69       18.54       22.25         90       1.88       2.81       3.75       4.69       5.63       7.50       9.38       11.25       13.13       15.00       16.88       18.75       22.50         91       1.90       2.84       3.79       4.74       5.69       7.58       9.48       11.38       13.27       15.17       17.06       18.96       22.75         92       1.92       2.88       3.83       4.79       5.75       7.67       9.58       11.50       13.42       15.33       17.25       19.17       23.00         93       1.94       2.91       3.88       4.84       5.81       7.75       9.69       11.63       13.56       15.50       17.44       19.38       23.25         94       1.96       2.94       3.92       4.90       5.88       7.83       9.79       11.75       <	0/	1.01	2.72	2.67	4.35	5.50	7.23	9.00	11.00	12.09	14.50	16.50	10.15	21.75
851.632.783.714.043.367.429.2711.1312.9814.6316.0918.3422.23901.882.813.754.695.637.509.3811.2513.1315.0016.8818.7522.50911.902.843.794.745.697.589.4811.3813.2715.1717.0618.9622.75921.922.883.834.795.757.679.5811.6313.4215.3317.2519.1723.00931.942.913.884.845.817.759.6911.6313.5615.5017.4419.3823.25941.962.943.924.905.887.839.7911.7513.7115.6717.6319.5823.50951.982.973.964.955.947.929.9011.8813.8515.8317.8119.7923.75962.003.004.005.006.008.0010.0012.0014.0016.0018.0020.0024.00972.023.034.045.056.068.0810.1012.1314.1516.1718.1920.2124.25982.043.064.085.106.138.1710.2112.2514.2916.3318.3820.4224.50992.063.094.135.166.198	80	1.05	2.75	2.71	4.50	5.50	7.55	0.27	11.00	12.03	14.07	16.60	10.55	22.00
90         1.88         2.81         3.73         4.09         5.03         7.50         5.38         11.23         13.13         15.00         10.88         18.73         22.30           91         1.90         2.84         3.79         4.74         5.69         7.58         9.48         11.38         13.27         15.17         17.06         18.96         22.75           92         1.92         2.88         3.83         4.79         5.75         7.67         9.58         11.50         13.42         15.33         17.25         19.17         23.00           93         1.94         2.91         3.88         4.84         5.81         7.75         9.69         11.63         13.56         15.50         17.44         19.38         23.25           94         1.96         2.94         3.92         4.90         5.88         7.83         9.79         11.75         13.71         15.67         17.63         19.58         23.50           95         1.98         2.97         3.96         4.95         5.94         7.92         9.90         11.88         13.85         15.83         17.81         19.79         23.75           96         2.00	00	1.05	2.70	2.75	4.04	5.50	7.42	0.28	11.15	12.50	15.00	16.09	18.54	22.23
91       1.50       2.64       5.75       4.14       5.65       7.67       9.58       11.50       13.27       15.17       17.60       16.05       22.15         92       1.92       2.88       3.83       4.79       5.75       7.67       9.58       11.50       13.42       15.33       17.25       19.17       23.00         93       1.94       2.91       3.88       4.84       5.81       7.75       9.69       11.63       13.56       15.50       17.44       19.38       23.25         94       1.96       2.94       3.92       4.90       5.88       7.83       9.79       11.75       13.71       15.67       17.63       19.58       23.50         95       1.98       2.97       3.96       4.95       5.94       7.92       9.90       11.88       13.85       15.83       17.81       19.79       23.75         96       2.00       3.00       4.00       5.00       6.00       8.00       10.00       12.00       14.00       16.00       18.00       20.00       24.00         97       2.02       3.03       4.04       5.05       6.06       8.08       10.10       12.13       14.15	91	1.00	2.01	3 70	4.09	5.69	7.50	9.56	11.25	13.15	15.00	17.06	18.96	22.50
93       1.92       2.86       3.89       4.19       5.19       1.60       9.36       11.30       13.42       13.53       11.23       11.12       15.11       12.00         93       1.94       2.91       3.88       4.84       5.81       7.75       9.69       11.63       13.56       15.50       17.44       19.38       23.25         94       1.96       2.94       3.92       4.90       5.88       7.83       9.79       11.75       13.71       15.67       17.63       19.58       23.50         95       1.98       2.97       3.96       4.95       5.94       7.92       9.90       11.88       13.85       15.83       17.81       19.79       23.75         96       2.00       3.00       4.00       5.00       6.00       8.00       10.00       12.00       14.00       16.00       18.00       20.00       24.00         97       2.02       3.03       4.04       5.05       6.06       8.08       10.10       12.13       14.15       16.17       18.19       20.21       24.25         98       2.04       3.06       4.08       5.10       6.13       8.17       10.21       12.25	02	1.90	2.04	3.83	4.79	5.75	7.50	0.58	11.50	13.42	15.33	17.00	10.17	23.00
1.2         1.2.1         1.0.3         1.0.4         1.1.5         1.0.5         11.0.5	03	1.72	2.00	3.89	4.84	5.75	7 75	9.50	11.50	13.56	15.55	17.23	19.17	23.00
94       1.50       2.94       3.52       4.50       5.68       7.65       5.79       11.75       13.71       13.71       13.67       17.65       19.58       22.30         95       1.98       2.97       3.96       4.95       5.94       7.92       9.90       11.88       13.85       15.83       17.81       19.79       23.75         96       2.00       3.00       4.00       5.00       6.00       8.00       10.00       12.00       14.00       16.00       18.00       20.00       24.00         97       2.02       3.03       4.04       5.05       6.06       8.08       10.10       12.13       14.15       16.17       18.19       20.21       24.25         98       2.04       3.06       4.08       5.10       6.13       8.17       10.21       12.25       14.29       16.33       18.38       20.42       24.50         99       2.06       3.09       4.13       5.16       6.19       8.25       10.31       12.38       14.44       16.50       18.56       20.63       24.75         100       2.08       3.13       4.17       5.21       6.25       8.33       10.42       12.50	04	1.74	2.71	3.00	4.04	5.01	7.02	0.09	11.05	13.50	15.50	17.44	19.30	23.23
20         1.00         2.01         3.00         4.00         5.00         6.00         8.00         10.00         12.00         14.00         16.00         18.00         20.00         24.00           96         2.00         3.00         4.00         5.00         6.00         8.00         10.00         12.00         14.00         16.00         18.00         20.00         24.00           97         2.02         3.03         4.04         5.05         6.06         8.08         10.10         12.13         14.15         16.17         18.19         20.21         24.25           98         2.04         3.06         4.08         5.10         6.13         8.17         10.21         12.25         14.29         16.33         18.38         20.42         24.50           99         2.06         3.09         4.13         5.16         6.19         8.25         10.31         12.38         14.44         16.50         18.56         20.63         24.75           100         2.08         3.13         4.17         5.21         6.25         8.33         10.42         12.50         14.58         16.67         18.75         20.83         25.00	05	1.50	2.74	3.92	4.50	5.00	7.03	9.19	11.75	13.71	15.83	17.05	19.30	23.30
97         2.02         3.03         4.04         5.05         6.06         8.08         10.10         12.05         14.05         16.07         18.06         20.00         24.00           97         2.02         3.03         4.04         5.05         6.06         8.08         10.10         12.13         14.15         16.17         18.19         20.21         24.25           98         2.04         3.06         4.08         5.10         6.13         8.17         10.21         12.25         14.29         16.33         18.38         20.42         24.50           99         2.06         3.09         4.13         5.16         6.19         8.25         10.31         12.38         14.44         16.50         18.56         20.63         24.75           100         2.08         3.13         4.17         5.21         6.25         8.33         10.42         12.50         14.58         16.67         18.75         20.83         25.00	96	2.00	3.00	4.00	5.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	23.75
98         2.04         3.06         4.08         5.10         6.13         8.17         10.21         12.25         14.29         16.33         18.38         20.42         24.50           99         2.06         3.09         4.13         5.16         6.19         8.25         10.31         12.38         14.44         16.50         18.56         20.63         24.75           100         2.08         3.13         4.17         5.21         6.25         8.33         10.42         12.50         14.58         16.67         18.75         20.83         25.00	97	2.00	3.03	4.04	5.05	6.06	8.08	10.00	12.00	14.15	16.17	18.19	20.00	24.00
99         2.06         3.09         4.13         5.16         6.19         8.25         10.31         12.38         14.44         16.50         18.56         20.63         24.75           100         2.08         3.13         4.17         5.21         6.25         8.33         10.42         12.50         14.58         16.67         18.75         20.83         25.00	98	2.04	3.06	4.08	5.10	6.13	8.17	10.21	12.25	14.29	16.33	18.38	20.42	24.50
100         2.08         3.13         4.17         5.21         6.25         8.33         10.42         12.50         14.58         16.67         18.75         20.83         25.00	99	2.06	3.09	4.13	5.16	6.19	8.25	10.31	12.38	14.44	16.50	18.56	20.63	24.75
20100 20100 20100	100	2.08	3.13	4.17	5.21	6.25	8.33	10.42	12.50	14.58	16.67	18.75	20.83	25.00

#### Nothing Outlasts a Diamond.®

402 Kentucky Avenue P.O. Box 7045 Indianapolis, IN 46207 1-800 US CHAIN 1-800-872-4246

www.diamondchain.com

#### Dallas 9120 Premier Row Dallas, TX 75356 877-453-9128 fax: 214-631-2374

#### Edmonton 15802-116 Avenue

Edmonton, AB T5M 3S5 Canada

Mississauga 80 Hale Road Unit #1

Brampton, ON L6W 3N9 Canada

#### Sacramento

1075 Triangle Court W. Sacramento, CA 95605 877-453-9127 fax: 916-372-5801

**United Kingdom** 

Unit 7-9 Blaydon Industrial Park Chainbridge Road Blaydon on Tyne NE21 5AB United Kingdon 44-191-414-8822 fax: 44-191-414-8877

