

Crimp Specifications for

PIRANHA FLEX™ HYDRAULICS



Using the *KuriKrimp*™ KD100 AND KD200 Series Crimping Systems



KuriKrimp™ KD160SH & SP
Light and powerful (60 ton) to go anywhere you need to go; makes hydraulic hose assemblies up to 1 1/4" ID 100R12 four-spiral hose!



KuriKrimp™ KD165
Has a 60 ton press, crimps 2 and 4 wire hose up to 1 1/4" and 6 wire up to 1" ID.



KuriKrimp™ KD2-30
Has 155 ton of crimping force and averages 1,415 crimps/hour for -8 100R2AT.



KuriKrimp™ KD2-50
Has 340 ton crimping force. Ideal fit for small shops; crimps a wide variety of hose and fittings as needed.

Or using the *P400 Crimping System*



NOTE: Date shown in brackets and in bold italic type indicates newest changes on succeeding pages.



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KuriKrimp™ Tool Selection Guide

Glossary of Terms:

Skive — Removal of the hose cover by way of knife hand tool, brush wheel or other method, exposing the uppermost layer of reinforcement prior to crimping.

Skive Length — Area to be skived prior to crimping.

Crimp Diameter — The measured outside diameter of the ferrule or shell - measuring the FLAT SURFACES of the crimped ferrule or shell. Acceptable range of tolerance for Alfagomma and Piranhaflex is +/- .005 inches.



Crimping specifications for this unit and these instructions were developed using ALFAGOMMA® hydraulic hose and couplings. Kuriyama of America and ALFAGOMMA® recommend using only the hose and coupling combinations specified in the current Kuriyama of America ALFAGOMMA® catalog and the crimp specifications for these KuriKrimp™ units. Be sure to read and follow the instructions in the KuriKrimp™ Operations Guide, the instructions beneath the

word “Important” below, and the specifications in the KuriKrimp™ Tool Selection Guide which appear on the following pages. Failure to act consistent with any of the above can result in serious bodily injury or damage.

Important!

The Micro Crimp adjuster setting values shown on this chart are APPROXIMATE SETTINGS only and should be used only as a starting point. Due to differences in calibration and metal surface machining tolerances, the Micro Crimp setting may require adjustment. It is highly recommended that the finished crimp diameter of each assembly made be measured with calipers to determine if adjustment is necessary. To determine actual setting, measure the crimp diameter of the crimped assembly end. To tighten the crimp diameter, adjust the setting to a higher value. To increase (enlarge) the finished crimp diameter, adjust the setting to a lower value.

The column labeled “Actual” adjacent to the “Approx” column in the tables has been provided to give the user a place to record his own ideal Micro Crimp setting.



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Piranhaflex™ Tool Selector Guide

Refer to the Piranhaflex™ Tool Selector Chart to choose the correct Die Size, Spacer along with the Main Pusher Plate for the correct size Piranhaflex™ hose you are going to crimp.

Piranhaflex™ T400

PF354/PF354/PF354NC/PFP354/PFP354NC/PF367/PF367NC/PF267/ PF267NC/PFAN388NC/PFLT364 – 2 PIECE

	PFR-03	PFR-04	PFR-05	PFR-06	PFR-08
Crimp Spec	12.07	14.22	15.75	17.78	22.23
Die Size	12	14.2	14.2	17.4	22.2
Die Color	Purple	Yellow	Yellow	Orange	Blue
Spacer	None	None	#2	#1	None
Pusher Plate	Nose Up	Nose Up	Nose Down	Nose Down	Nose Up

PF628/PF628NC/PF321TC – 2 PIECE

	PFR-03	PFR-04	PFR-06	PFR-08
Crimp Spec	12.01	13.84	17.4	22.48
Die Size	12	12	17.4	22.2
Die Color	Purple	Purple	Orange	Blue
Spacer	None	#2	None	#1
Pusher Plate	Nose Up	Nose Down	Nose Up	Nose Down

PF427/PF427NC – 2 PIECE

	PFR-04	PFR-06	PFR-08
Crimp Spec	14.22	17.78	22.48
Die Size	14.2	17.4	22.2
Die Color	Yellow	Orange	Blue
Spacer	None	#1	#1
Pusher Plate	Nose Up	Nose Down	Nose Down

PF344LMT – 2 PIECE

	PFR-04	PFR-06	PFR-08
Crimp Spec	14.22	17.78	22.23
Die Size	14.2	17.4	22.2
Die Color	Yellow	Orange	Blue
Spacer	None	#1	#1
Pusher Plate	Nose Up	Nose Down	Nose Up

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One-Piece Fitting – Tool Selection Guide

Piranhaflex PF354/PF354NC-02 (USING ONE-PIECE FITTING)

FITTING NUMBER	SIZE ID (IN.)	CRIMP DIAMETER (IN.) ± 0.003"	CRIMP DIAMETER (MM) ± 0.080	DIE & COLOR	METRIC MICROMETER APPROX	KD100/200 STANDARD MICROMETER APPROX	KD100/200 SERIES DIE SELECTION
F02NPT2	1/8	0.365	9.27	9	0.40	98	KD/D100/200-9/BLACK

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Two-Piece Fitting – Tool Selection Guide

Piranhaflex™ PF354/PF354NC/PFP354/PFP354NC/PF367/PF367NC/ PF267/PF267NC/PFAN388NC/PFLT364 (USING TWO-PIECE) H12 / (A) INSERT + PFR FERRULE

FERRULE NUMBER	SIZE ID (IN.)	CRIMP DIAMETER (IN.) ± 0.005"	CRIMP DIAMETER (MM)	DIE & COLOR	METRIC MICROMETER APPROX	KD100/200 STANDARD MICROMETER APPROX	KD100/200 SERIES DIE SELECTION
PFR-03	3/16	0.475	12.07	12	0.07	99	KD/D100/200-12/Purple
PFR-04	1/4	0.560	14.22	14	0.22	98	KD/D100/200-14/Yellow
PFR-05	5/16	0.620	15.75	14	1.75	85	KD/D100/200-14/Yellow
PFR-06	3/8	0.700	17.78	16	1.78	85	KD/D100/200-16/Orange
PFR-08	1/2	0.875	22.23	22	0.23	98	KD/D100/200-22/Blue
PFR-12	3/4	1.150	29.21	27	2.21	81	KD/D100/200-27/Brown

Piranhaflex™ PF151R3/PF415CP (USING TWO-PIECE) H12 / (A) INSERT + PFR FERRULE

FERRULE NUMBER	SIZE ID (IN.)	CRIMP DIAMETER (IN.) ± 0.005"	CRIMP DIAMETER (MM)	DIE & COLOR	METRIC MICROMETER APPROX	KD100/200 STANDARD MICROMETER APPROX	KD100/200 SERIES DIE SELECTION
PFR3-04	1/4	0.500	12.70	12	0.70	94	KD/D100/200-12/Purple
PFR3-05	5/16	0.600	15.24	14	1.24	89	KD/D100/200-14-Yellow
PFR3-06	3/8	0.665	16.89	16	0.89	92	KD/D100/200-16/Orange
PFR3-08	1/2	0.780	19.81	19	0.81	93	KD/D100/200-19/Black

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Two-Piece Fitting – Tool Selection Guide

PIRANHAFLEX™ PF628/PF628NC/PF321TC (USING TWO-PIECE) H12 / (A) INSERT + PFR FERRULE

FERRULE NUMBER	SIZE ID (IN.)	CRIMP DIAMETER (IN.) ± 0.005"	CRIMP DIAMETER (MM)	DIE & COLOR	METRIC MICROMETER APPROX	KD100/200 STANDARD MICROMETER APPROX	KD100/200 SERIES DIE SELECTION
PFR-03	3/16	0.473	12.01	12	0.01	100	KD/D100/200-12/Purple
PFR-04	1/4	0.545	13.84	12	1.84	84	KD/D100/200-12/Purple
PFR-06	3/8	0.685	17.40	16	1.40	88	KD/D100/200-16/Orange
PFR-08	1/2	0.885	22.48	22	0.48	96	KD/D100/200-22/Blue
PFR-12	3/4	1.150	29.21	27	2.21	81	KD/D100/200-27/Brown

PIRANHAFLEX™ PF427/PF427NC (USING TWO-PIECE) H12 / (A) INSERT + PFR FERRULE

FERRULE NUMBER	SIZE ID (IN.)	CRIMP DIAMETER (IN.) ± 0.005"	CRIMP DIAMETER (MM)	DIE & COLOR	METRIC MICROMETER APPROX	KD100/200 STANDARD MICROMETER APPROX	KD100/200 SERIES DIE SELECTION
PFR-04	1/4	0.560	14.22	14	0.22	95	KD/D100/200-14/Yellow
PFR-06	3/8	0.700	17.78	16	1.78	85	KD/D100/200-16/Orange
PFR-08	1/2	0.885	22.48	22	0.48	96	KD/D100/200-22/Blue

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One-Piece Fitting – Tool Selection Guide

PIRANHAFLEX™ PF321TC (USING ONE-PIECE STAINLESS STEEL FITTINGS)

FERRULE NUMBER	SIZE ID (IN.)	CRIMP DIAMETER (IN.) ± 0.005"	CRIMP DIAMETER (MM)	DIE & COLOR	METRIC MICROMETER APPROX	KD100/200 STANDARD MICROMETER APPROX	KD100/200 SERIES DIE SELECTION	#1) Pre Crimp - Crimp position from bottom of Ferrule measured up	#2) Post Crimp Length (INCHES) (+/- 0.010)
* P-03XX	3/16	0.515	* 13.1	13	0.10	99	* KD/D100-13/Purple	0.750	0.900
P-04XX	1/4	0.590	14.99	14	0.99	92	KD/D100-14/Yellow	1.125	1.250

* PF321TC-03 "MUST" be crimped using a KD/D100-13/Purple die or a true 13mm die to achieve a proper crimp

- This is "NOT" a full ferrule crimp and the crimp location is measured from the ferrule bottom up towards the connection (see figures 1 & 2)
- Refer to the above crimp table for proper crimp diameter and set up crimper accordingly. NOTE: the -03 size "MUST" be crimped using a KD/D100-13/Purple die.
- Measure finished crimp length as shown in figure 3. The finish crimp length should be within the +/- tolerances called out in the table above.
- Measure finished crimp diameter (across the flats/roots) (see figure 4). The finish crimp should be within +/- tolerances called out in the table above.
- Both the "post crimp diameter" and "post crimp length" must be measured and within tolerances to assure a proper crimp.

Figure 1



Figure 2

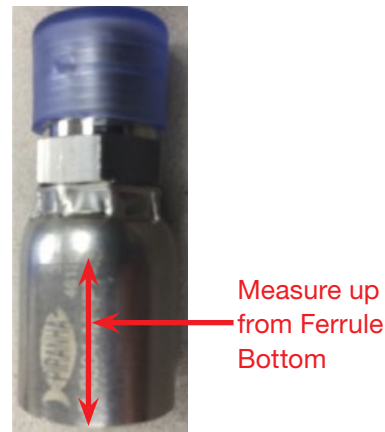


Figure 3

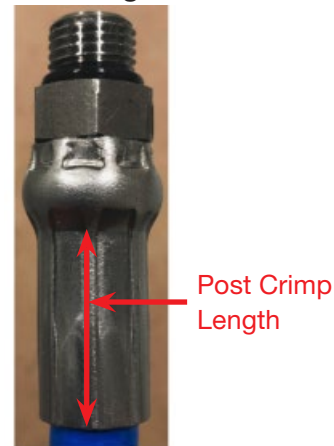
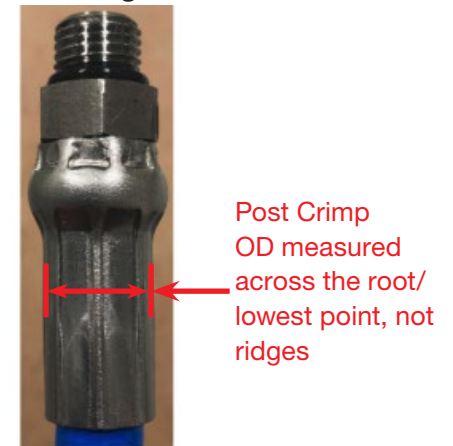


Figure 4



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Two-Piece Fitting – Tool Selection Guide

PIRANHAFLEX PF344LMT (USING 2-PIECE) H12 / (A) INSERT + PFR/AFX FERRULE

FERRULE NUMBER (FORMER)	FERRULE NUMBER (CURRENT/NEW)	SIZE ID (IN.)	SKIVE LENGTH (If Req.)	SKIVE TOOL NUMBER (If Req.)	CRIMP DIAMETER (IN.) ± 0.005"	CRIMP DIAMETER (MM)	DIE & COLOR	METRIC MICROMETER APPROX	KD100 STANDARD MICROMETER APPROX	KD100/200 SERIES DIE SELECTION
	PFR-04	1/4	N/R	N/R	0.560	14.22	14	0.22	98	KD/D100/200-14/Yellow
	PFR-06	3/8	N/R	N/R	0.700	17.78	16	1.78	85	KD/D100/200-16/Orange
	PFR-08	1/2	N/R	N/R	0.875	22.23	22	0.32	98	KD/D100/200-22/Blue
H1200TX2-12	AFX-12	3/4	N/R	N/R	1.225	31.12	31	0.12	99	KD/D100/200-31/Yellow
H1200TX2-16	AFX-16	1	N/R	N/R	1.600	40.64	39	1.64	86	KD/D100/200-39/Red

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Purchasers or users of the Products should frequently and consistently undertake inspections and protective measures with respect to the use and application of Products, which should include the examination of tube and cover, conditions of the hose or tubing, and the identification, repair or replacement of sections showing cracking, blistering, separations, internal and external abrasions, leaking or slipped couplings or connections and make proper proof tests.

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