



ProCinch™

Series – Operations

Designed to meet your fastening needs.

ProCinch™ 4.5

Applies clips supplied on strips. Weighing a mere 4.5 lbs, this hand held tool provides maximum maneuverability while reducing the risk of repetitive motion injuries. Proven design innovations, including composite materials, investment castings and simple pneumatic logic establish this tool as the world wide standard.

ProCinch™ 5.2

Applies clips supplied on rolls. Same lightweight technology as the ProCinch 4.5, adapted for roll format. Typically used with the Complete System for roll-fed clips or the more compact spool dispenser frame for remotely activated fixed-tool applications. Ideal for use with automated assembly systems.

Lightweight

A full 35% lighter than the competition to reduce operator fatigue.

User-Friendly

Quieter operation and no more morning start-up sluggishness. Easy blade, anvil, and pusher spring replacement.

Easy to Handle

Ergonomically designed handle provides for a more comfortable grip.

Reliable

40% fewer components
40% fewer moving parts
40% fewer "O" rings
Results – few problems



Use the ProCinch tool for:

- Bedding
- Furniture
- Automotive and van seating
- Animal traps and cages

Options and Accessories

- Blade jam release device – utilizes air pressure to release jammed blade
- ProCinch 5.2 complete system – for roll-fed clips
- ProCinch 5.2 "Fish Mouth" system – for clip-ons or soft-edge sinuous springs
- Pivoting anvil option
- Fixtured tools for various levels of automation
- Custom fitting – Vertex engineers will analyze and propose systems for custom applications



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Part No.	Part Description	Qty.
VC0001	Cap	1
VC0002	Main Valve Body	1
VC0003	Main Valve Piston	1
VC0004	Spring, Piston	1
VC0005	Cylinder Body	1
VC0006	Piston	1
VC0007	Pin, Cylinder Body	2
VC0008	Yoke	1
VC0009	Roller	1
VC0010	Pin, Link	2
VC0011	Link	2
VC0012	Side Plate, R.H.	1
VC0013	Side Plate, L.H.	1
VC0014	Top Plate	1
VC0015	Trigger	1
VC0016	Trigger Valve Lever	1
VC0017	Trigger Valve Piston	1
VC0018	Trigger Valve Sleeve	1
VC0019	Front Plate	1
VC0023	Spring, Trigger Valve	1
VC0024	Spring, Pusher	1
VC0025	Pusher Latch	1
VC0026	Spring, Pusher Latch	1
VC0030	Pin, Hanger	1
VC0031	Hanger	1

Part No.	Part Description	Qty.
VC0032	Bearing Bracket	1
VC0033	ProClinch™ 4.5 Label	1
VC0034	Warning Label	1
VC0035	Shoulder Bolt, 5/16 x 1-1/4	4
VC0270	Valve Assembly with Piston	1
VC0271	Hanger Assembly	1
VH0002	1/4-20 Flex Nut	4
VH0003	10-14 x 3/4 Plastite	7
VH0004	1/4-20 x 1/2 BHCS	2
VH0005	O-Ring, Valve Body, 5/8 x 3/4	3
VH0006	O-Ring, Valve Body, 5/16 x 1/2 90D	1
VH0007	O-Ring, Valve Body, 3/8 x 9/16 90D	1
VH0008	O-Ring, Valve Piston, 3/8 x 1/2	1
VH0009	O-Ring, Cap, 2-7/8 x 3	1
VH0010	O-Ring, Piston, 2-3/4 x 3-1/8	1
VH0011	O-Ring, Trigger, 1/8 x 1/4 90D	1
VH0012	Spring Pin, 1/8 x 1-1/4	1
VH0013	Spring Pin, 5/32 x 1	1
VH0014	Dowel Pin, 1/8 x 7/8	2
VH0015	Bearing, Hanger	1
VH0016	1/4-20 x 1 BHCS	1
VH0018	1/4-20 x 3/8 Flange Head	1
VH0019	Retainer Clip	1
VH0101	Dowel Pin, 1/8 x 3/4	1

Safety Instructions

1. Operators should ALWAYS wear safety glasses while operating, maintaining, or repairing a tool.
2. NEVER point the tool toward you or anyone else.
3. ALWAYS disconnect the air supply when the tool is not in use, when mechanically clearing a jam, or when performing maintenance.
4. NEVER place hands or fingers near the blade and anvil area when operating the tool or when connecting the air supply to the tool.

Troubleshooting Information

Problem	Cause	Solution
Blade does not return.	Sticky main valve.	Lubricate main valve; check that main valve piston moves.
Sluggish tool.	Dry main valve.	Lubricate main valve.
Clips not feeding.	Obstruction in magazine. Broken pusher spring.	Remove obstruction. Replace pusher spring.
Loose clips.	Low air pressure. Worn blade or anvil.	Increase pressure to 80 psi. Replace blade or anvil.
Clip-jamming.	Clips are loaded backward into the magazine.	Check that single ear on clip is loaded forward into the magazine.
Tool not cycling.	Clogged trigger valve.	Clean trigger valve assembly.



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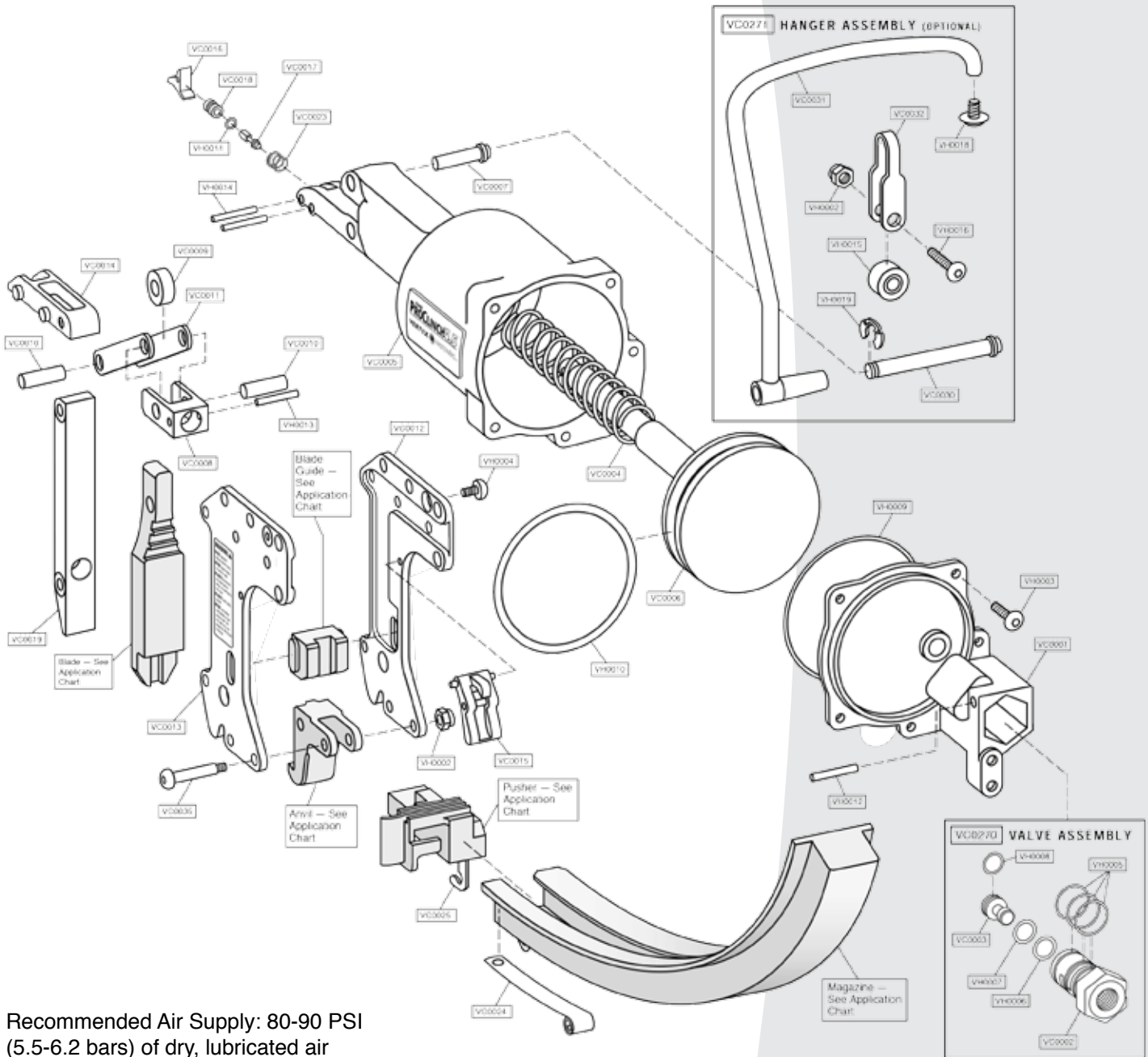
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Des Plaines, IL 60018 U.S.A.

phone | 847.768.6139
fax | 847.768.7192

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Parts Identification



Recommended Air Supply: 80-90 PSI
(5.5-6.2 bars) of dry, lubricated air



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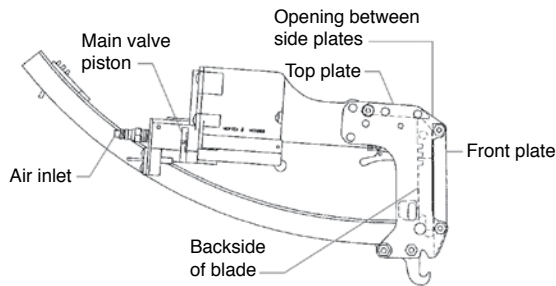
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Maintenance

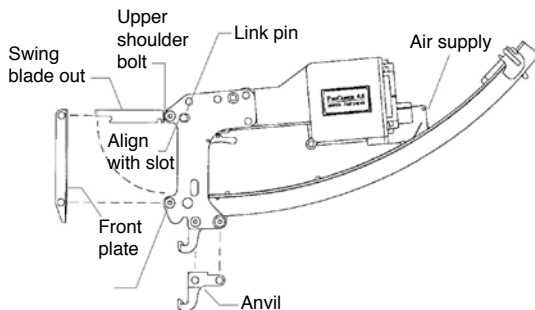


Recommended daily maintenance

Add 2-3 drops of oil (recommend 30W) to:

1. Air inlet
2. Main valve piston
3. Opening between the side plates at these two locations:
 - between the front plate and top of blade
 - between the top plate and top of blade

Blade and anvil replacement

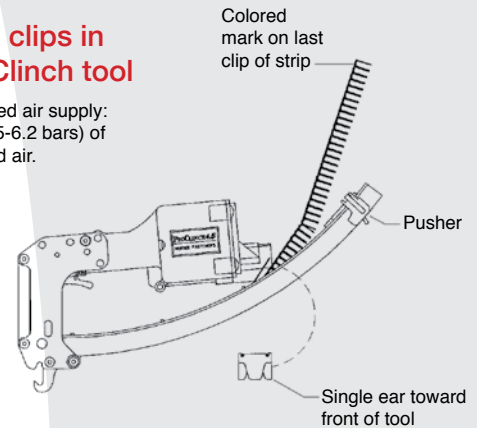


Blade replacement

1. Disconnect air. Remove clips from tool.
2. Remove upper and lower shoulder bolts; remove front plate.
3. Swing blade from tool and align link pin with slot in side plates. Remove pin through slot and remove blade.
4. Lubricate new blade. Align mounting hole in links and blade with slot; assemble link pin through slot to secure blade and links.
5. Position blade into tool. Re-lubricate front plate and assemble back into tool with upper and lower shoulder bolts.

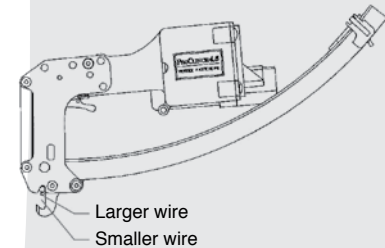
Loading clips in the ProClinch tool

Recommended air supply:
80-90 psi (5.5-6.2 bars) of
dry, lubricated air.



Loading strips

1. Pull pusher back until it latches at end of magazine.
2. Remove strip of clips from box. Load to magazine with last clip toward back of tool (last clip is identified with a colored line).
3. Load entire strip into magazine. Push clips completely forward by un-latching pusher.



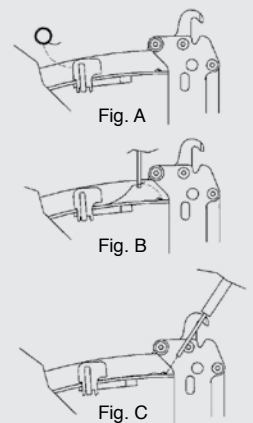
Loading wire

For best results, smaller wires should be on bottom

Pusher spring (VC0024) replacement

Loading strips

1. Remove damaged pusher spring from magazine.
2. Insert spring into pusher (Fig. A).
3. Pull out spring by inserting a pin or rod through hole in spring. Be careful not to deform spring (Fig. B).
4. Pull spring over mounting tab to secure in place (Fig. C). Pull pusher back and latch at end of magazine.



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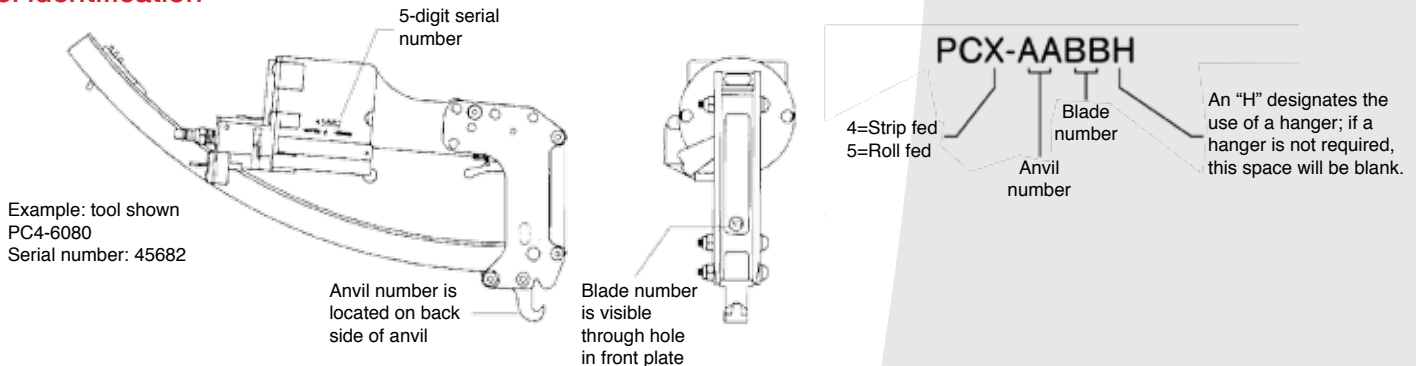
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Vertex Clip Size	Replaces Clip Size	ProClinch Tool for Strips	Anvil #VC01	Blade #VC01	Blade Guide #VC006	Side Plates	Magazine Assembly &	Pusher Assembly
64A18S	CL-15	PC4-1020	10	20	VC0298	VC0012 & 13	VC0037 &	VC0101
68H18S	CL-22	PC4-6080	60	80	0	VC0012 & 13	VC0021 &	VC0022
71A18S	CL-13, WD-3V	PC4-1020	10	20	VC0298	VC0012 & 13	VC0037 &	VC0101
72E18S	CL-20	PC4-3236	32	36	8	VC0012 & 13	VC0021 &	VC0022
74F18S	CL-73	PC4-6080	60	80	0	VC0012 & 13	VC0021 &	VC0022
74H18S	CL-23	PC4-6080	60	80	0	VC0012 & 13	VC0021 &	VC0022
76A18S	CL-26	PC4-1020	10	20	VC0298	VC0012 & 13	VC0037 &	VC0101
76A22S	WD-2V	PC4-1022	10	22	1	VC0012 & 13	VC0037 &	VC0101
80F18S		PC4-6080	60	80	0	VC0012 & 13	VC0021 &	VC0022
80H18S	CL-25	PC4-6080	60	80	0	VC0012 & 13	VC0021 &	VC0022
80F23S	CL-71, CL-312	PC4-6181	61	81	0	VC0012 & 13	VC0021 &	VC0022
80H23S	CL-3	PC4-6181	61	81	0	VC0012 & 13	VC0021 &	VC0022
85A18S	CL-30	PC4-1020	10	20	1	VC0012 & 13	VC0037 &	VC0101
85A22S	CL-33, WD-1V	PC4-1022	10	22	1	VC0012 & 13	VC0037 &	VC0101
88A22S	CL-32, WD-OV	PC4-1022	10	22	1	VC0012 & 13	VC0037 &	VC0101
88F23S	CL-72, CL-412	PC4-6181 Furniture	61	81	0	VC0012 & 13	VC0021 &	VC0022
88F23S	CL-72, CL-412	PC4-6185 Bedding	61	85	0	VC0012 & 13	VC0021 &	VC0022
88H23S	CL-4	PC4-6181 Furniture	61	81	0	VC0012 & 13	VC0021 &	VC0022
88H23S	CL-4	PC4-6181 Bedding	61	85	0	VC0012 & 13	VC0021 &	VC0022
90F18S	CL-24N, CL-74	PC4-6082	60	82	3	VC0012 & 13	VC0021 &	VC0022
90H17S	CL-24H	PC4-6082	60	82	3	VC0012 & 13	VC0021 &	VC0022
90H18S	CL-24	PC4-6082	60	82	3	VC0012 & 13	VC0021 &	VC0022
91A23S	CL-14	PC4-1121	11	21	1	VC0012 & 13	VC0037 &	VC0101
91F23S	CL-72L	PC4-6185	61	85	0	VC0012 & 13	VC0021 &	VC0022
95F23S	CL-75S	PC4-6185	61	85	0	VC0012 & 13	VC0021 &	VC0022
96A23S	CL-9, WD-00V	PC4-1121	11	21	1	VC0012 & 13	VC0037 &	VC0101
97F18S		PC4-6082	60	82	3	VC0012 & 13	VC0021 &	VC0022
97H18S	CL-24L	PC4-6082	60	82	3	VC0012 & 13	VC0021 &	VC0022
101H22S	CL-5	PC4-6183	61	83	3	VC0012 & 13	VC0021 &	VC0022
101H23S	CL-34	PC4-6183	61	83	3	VC0012 & 13	VC0021 &	VC0022
102A25S	WD-000V	PC4-1125	11	25	1	VC0012 & 13	VC0037 &	VC0101
109H22S		PC4-6183	61	83	3	VC0012 & 13	VC0021 &	VC0022
109H23S		PC4-6183	61	83	3	VC0012 & 13	VC0021 &	VC0022
110A18S		PC4-1024	10	24	7	VC0285 & 286	VC0037 &	VC0101
110H25S	CL-36	PC4-6189	61	89	3	VC0012 & 13	VC0021 &	VC0022
112D25S	CL-3610	PC4-3135	31	35	2	VC0012 & 13	VC0021 &	VC0022
116F33S	CL-77S	N/A	N/A	N/A	N/A	N/A	N/A &	N/A
120H23S		PC4-6193	61	93	3	VC0012 & 13	VC0021 &	VC0022
135H31S	CL-38	PC4-6788	67	88	6	VC0012 & 13	VC0021 &	VC0022
N/A		PC4-4157W	41	57	4	VC0012 & 13	VC0021 &	VC0022
N/A		PC4-6187W	61	87	3	VC0012 & 13	VC0021 &	VC0022

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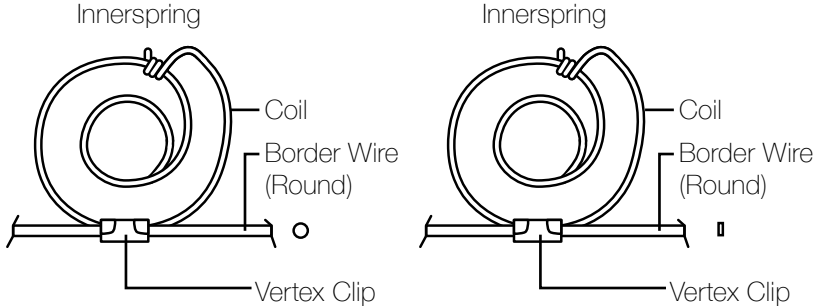
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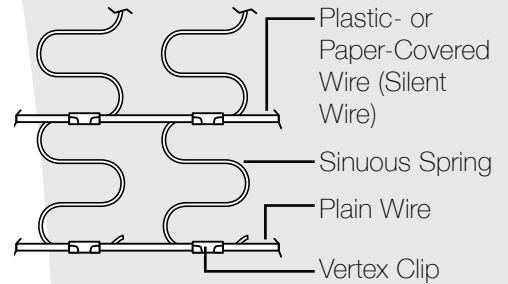
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ProClinch™ Series – Operations

Clip Guide for Bedding Applications



Clip Guide for Furniture Applications



Steel Wire Gauge – US

Gauge (Inches)	Coil Wire Diameter										
	17 (.054)	16-1/2 (.058)	16 (.062)	15-1/2 (.067)	15 (.072)	14-1/2 (.076)	14 (.080)	13-1/2 (.086)	13 (.091)	12-1/2 (.098)	
Round Border Wire Diameter – Gauge (Inches)	9 (.148)	71A18 74F18	71A18 74F18	71A18 74F18	71A18 74F18	71A18 74F18	76A18 74F18	76A18 74F18	76A18 74F18	76A18 74F18	76A18 74F18
	8 (.162)	71A18 74F18	71A18 74F18	71A18 74F18	71A18 74F18	76A18 74F18	76A18 74F18	76A18 74F18	76A18 80F23	76A18 80F18 80F23	76A18 80F18 80F23
	6 (.192)	85A22 80F23	85A22 80F23	85A22 80F23	85A22 80F23	85A22 80F23	85A22 88F23	88A22 88F23	88A22 88F23	88A22 88F23	88A22 88F23
	5 (.207)	88A22 88F23	88A22 88F23	88A22 88F23	88A22 88F23	88A22 88F23	96A23 91F23	96A23 91F23	96A23 91F23	96A23 95F23	96A23 95F23
	4 (.225)	96A23 91F23	96A23 91F23	96A23 91F23	96A23 91F23	96A23 91F23	96A23 95F23	96A23 95F23	96A23 95F23	96A23 95F23	96A23 95F23
	3 (.244)							102A25	102A25	102A25	102A25

Steel Wire Gauge – US

Gauge (Inches)	Sinuous Spring Wire Diameter					
	12 (.106)	11 (.121)	10 (.135)	9 (.148)	8 (.162)	
Plastic- or Paper-Covered Wire	16 (.156)	74F18 80F23	74F18 80F23	74F18 80F23	74F18 80F23	74F18 80F23
	12 (.156)	74F18 80F23	74F18 80F23	74F18 80F23	80F23 90F18	88F23 90F18
Plain Wire	9 (.148)				88F23 or 88H23 90F18 or 90H18	

Metric

Metric	Coil Wire Diameter										
	1.6 mm	1.7 mm	1.8 mm	1.9 mm	2.0 mm	2.1 mm	2.2 mm	2.3 mm	2.4 mm	2.5 mm	
Round Border Wire Diameter	4 mm	71A18 74F18	71A18 74F18	71A18 74F18	76A18 74F18	76A18 74F18	76A18 74F18	76A18 74F18	76A18 80F18 80F23	76A18 80F18 80F23	76A18 80F18 80F23
	5 mm	85A22 80F23	85A22 80F23	85A22 80F23	85A22 88F23	88A22 88F23	88A22 88F23	88A22 88F23	88A22 88F23	88A22 91F23	88A22 91F23
Flat Border Wire Diameter	6 mm	96A18	96A18	96A18	96A18	96A18	96A18	96A18	96A18	96A18	96A18
	10 mm	110A18	110A18	110A18	110A18	110A18	110A18	110A18	110A18	110A18	110A18

Metric

Wire Diameter	Sinuous Spring Wire Diameter					
	3.86 mm	3.66 mm	3.25 mm	2.95 mm	2.65 mm	
Silent Wire	4.0 mm	80H18 80H23	80H18 80H23	80H18 80H23	80H18 80H23	80H18 80H23
Plain Wire	12 (.156)	90H18 88H23	90H18 88H23	90H18 88H23	90H18 88H23	90H18 88H23

Clip Widths: "A" Series = 11.0 mm (maximum value)
 "F" Series = 19.0 mm (maximum strength)

Note: Please contact Vertex Fasteners prior to ordering for complete technical assistance



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