



VALCO®

VALLEY TOOL & DIE, INC.

**Fully Registered
to ISO 9001:2008,
including design**



Made in the U.S.A. by VALCO® /Valley Tool & Die, Inc.

10020 York Theta Drive | North Royalton, OH 44133

Phone: 440.237.0160 | Fax: 440.237.0089 | Website: www.valcocleve.com/

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"CC" Solid Head Assembled Snap Buttons



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"J" Style Snap Buttons
Drawn T-316 Stainless Steel

"JJ" Style Snap Buttons
T-300 Series Stainless Steel
Dog-Leg Spring w/Solid Button



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"K" Style Snap Button
 Drawn T-316 Stainless Steel Double End
 "KK" Style Snap Buttons
 T-300 Series Stainless Steel
 Double End Spring w/Solid Button



"L" Style Snap Buttons
 Latch Style



Ramp Style Snap Buttons

"W" Style Snap Buttons
 Wire Spring w/ solid button
 Mining Bit Retaining Clips & V Clips



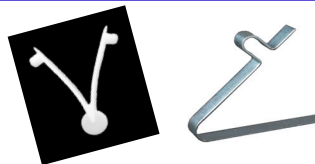
Cube Stops & Round Stops

T-Joint Fasteners
 -Weldnuts for round & square tubing



Plastic Snap Buttons

Loop Spring



Level-Rite Mounting Hangers

Level-Rite Arrow Head Plaques



Spring Plungers

Collet Locks



Cord Clip

Sign Hangers



About Us

Terms of Sales

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National Tooling &
 Machining Association
NTMA
 PRECISION
 Member



**In addition to the VALCO® Snap-Button,
We offer you:**

- **METAL STAMPING** for any metal up to 200 ton capacity.
- An **ENGINEERING DEPARTMENT** ready to aid you in developing any stamping and screw machine assembly.
- A **RESEARCH & DEVELOPMENT DEPARTMENT** helps your vision become reality.
- A **COMPLETE TOOL ROOM** to manufacture progressive and four slide dies.
- **AUTOMATIC SCREW MACHINES**, working up to 1 5/8" diameter.
- **SECONDARY OPERATIONS** including drilling, tapping, O.D. threading, spot welding, milling, heat treating, and plating.
- A **FOUR SLIDE DEPARTMENT** allows us to produce intricately shaped stampings and wire forms up to 3/16" diameter in wire or 2" wide from coil stock.
- **COMPUTERIZED** production control for maximum efficiency.
- **WIRE EDM** capabilities with vertical heights up to 15 inches.
- **CAD/CAM** capabilities that are fully IGES and DXF-30 compatible. We can easily and conveniently receive drawings and instructions from you electronically via the internet.
- **CNC** capabilities complete with turning and milling capabilities.



Glossary of Terms Relating to VALCO® Snap-Buttons

VALCO®
SNAP-BUTTON

- MATERIAL**
- 1.) For general use VALCO® SNAP BUTTONS are made from Spring Steel, heat treated, and zinc plated, unless otherwise noted.
 - 2.) VALCO® SNAP BUTTONS can also be manufactured from T-410 stainless steel for added corrosion resistance.
 - 3.) For saltwater or corrosive environments our type 300 stainless steel VALCO® SNAP BUTTONS are recommended. For extreme conditions T-316 stainless is recommended. (See I, J,K, Drawn head buttons and II, JJ, KK for solid button assemblies.)
 - 4.) Plastic VALCO® SNAP BUTTONS are generally molded from delrin.

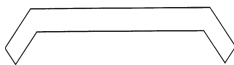
PLATING General purpose VALCO® SNAP BUTTONS are Zinc plated unless otherwise noted.

For other types of plating:

Specify -B for Zinc, with black chromate finish, e.g. A-130-B
-G for Zinc, with gold dichromate finish, e.g. A-130-G
-N for Nickle plated finish, e.g. A-103-N

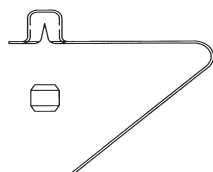
OPTIONS

STIFFENER



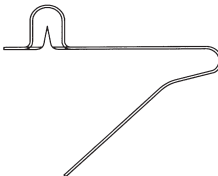
Edges of material on Button leg are formed at approx. 45 deg. chamfers to reduce flexing.
(Buttons with a stiffner are offer on select labeled buttons)

(S)



Recommended for higher load applications.
As a suffix indicates a solid steel insert is crimped in the Button Head. e.g. A-130-S

(D)
DOME HEAD



Has a spherical radius on top of the button head, as opposed to the flat surface on a standard VALCO® SNAP BUTTON head. It can be furnished on special order in production quantities.

(X)

As a suffix indicates that a part is made from 410 stainless steel.
e.g. A-130-X



A STYLE- Drawn Head - SINGLE END STRAIGHT SPRING LEG

OPTIONS KEY:

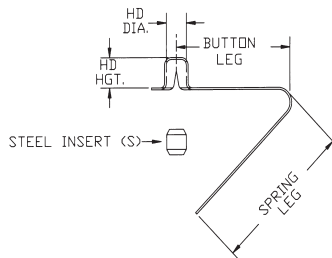
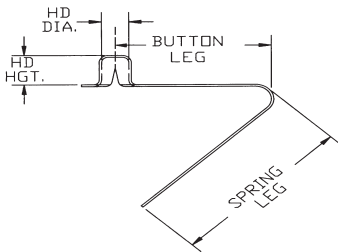
B- Zinc/Black chromate finish

D- Dome Head

G- Zinc/Gold dichromate finish

S- Standard item w/ steel inserts crimped in button head

X- Standard item in 410 Stainless Steel



General Information:

Standard VALCO® SNAP-BUTTONS are Spring Steel and Zinc plated, unless otherwise noted. Please see the key above for some of the features we have to offer. e.g.: A-120-X would be a part number A-120 in 410 Stainless Steel with bright heat treat.

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	SPECIAL FEATURES	TUBING I.D.'S	
					ROUND	SQUARE
A-050	.125	.16	.012 x .170		.24/.44	.19/.44
A-051	.125	.16	.012 x .170	Stiffener	.24/.44	.17/.44
A-052	.125	.29	.012 x .170		.35/.50	.35/.50
A-070	.156	.29	.018 x .210	Dome Head	.40/.65	.37/.65
A-071	.156	.29	.018 x .210	Dome head	.50/1.25	.50/1.25
A-072	.156	.205	.018 x .210	Dome Head	.37/.65	.31/.65
A-073	.156	.35	.018 x .210	Dome Head	.43/.70	.43/.70
A-100	.187	.24	.018 x .255		.43/.62	.37/.62
A-101	.187	.24	.018 x .255	Small V	.32/.50	.31/.44
A-102	.187	.21	.018 x .220		.37/.75	.31/.75
A-103	.187	.28	.018 x .255		.36/.50	.35/.44
A-104	.187	.24	.018 x .255	1 Short Leg	.50/.65	.50/.65
A-105	.187	.430	.018 x .260	Dome Head	.56/.80	.53/.80
A-107	.187	.360	.018 x .255	Stiffener	.56/.80	.50/.80
A-109	.187	.210	.015 x .220	Narrow Spring	.35/.65	.28/.65
A-110	.219	.22	.018 x .325		.41/.62	.32/.62
A-111	.219	.28	.018 x .325		.43/.75	.40/.75
A-112	.219	.30	.018 x .325	W/Stiffener	.42/.62	.39/.62
A-113	.219	.29	.018 x .325	Small V	.40/.45	.40/.45
A-114	.219	.21	.015 x .325	.820 Spring Leg	.37/.50	.25/.45
A-115	.219	.30	.018 x .325	Small V	.42/.42	.42/.42
A-116	.219	.28	.018 x .325	Small V	.40/.62	.40/.62
A-117	.219	.22	.018 x .325	10° bend by head	.56/.88	.56/.88
A-118	.219	.22	.018 x .325	Small V	.56/.88	.56/.80
A-218	.219	.355	.015 x .325	Light Touch	.65/.88	.50/.88
A-119	.219	.355	.018 x .325		.65/.88	.50/.88
A-219	.219	.355	.018 x .325	Bend in spring leg	.87/1.13	.85/1.13
A-120	6mm(.237)	.28	.018 x .350		.45/.87	.42/.87
A-121	.240	.39	.025 x .335	1.87 Spring Leg	.50/1.25	.45/1.25
A-122	.250	.39	.025 x .355		.80/1.38	.80/1.38
A-130	.250	.28	.018 x .365		.45/.87	.42/.87
A-230	.250	.22	.018 x .365		.44/.62	.30/.62
A-131	.250	.28	.020 x .365		.65/1.37	.58/1.37
A-231	.250	.28	.018 x .365	Small V	.42/.62	.42/.62
A-132	.250	.28	.025 x .350		.70/1.37	.60/1.37
A-133	.250	.27	.018 x .365		.45/.87	.42/.87
A-233	.265	.30	.020 x .365		.50/1.25	.50/1.25
A-134	.250	.39	.018 x .350	1.87 Spring Leg	.50/1.25	.42/1.25
A-234	.250	.312	.018 x .365	Short Legs	.60/.70	.44/.56
A-135	.250	.28	.025 x .350	1.87 Spring Leg	.87/1.37	.87/1.37
A-235	.250	.390	.018 x .365	Large Radius	.87/1.37	.75/1.25
A-136	.250	.28	.018 x .365	.94 Legs	.50/.68	.42/.68
A-137	.250	.37	.018 x .365	.94 Legs	.50/.68	.42/.68
A-237	.250	.345	.025 x .350	Large Radius	1.00/2.00	1.00/2.00
A-138	.250	.28	.018 x .350	.94	.50/.68	.42/1.00
A-238	.250	.44	.018 x .350		.75/1.00	.62/1.00
A-139	.250	.28	.025 x .350	2.37 Legs	1.10/1.75	1.10/1.75
A-140	.302	.37	.020 x .440		.59/1.25	.49/1.25
A-143	.302	.37	.020 x .440	W/Stiffener	.59/1.25	.49/1.25
A-144	.302	.37	.020 x .440	Short Legs	.56/1.25	.46/1.25
A-145	.302	.375	.025 x .420		.68/1.37	.55/1.37
A-245	.302	.625	.020 x .440		.89/1.50	.89/1.50
A-146	.302	.320	.015 x .440	Short Leg	.59/1.25	.50/1.25
A-147	.302	.37	.020 x .440		.75/1.00	.75/1.00



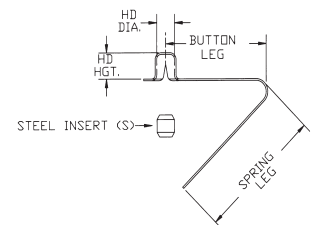
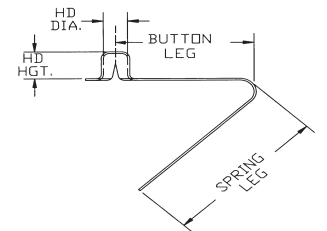
A STYLE- Drawn Head - SINGLE END STRAIGHT SPRING LEG

VALCO®
SNAP-BUTTON

OPTIONS KEY:

B- Zinc/Black chromate finish
D- Dome Head
G- Zinc/Gold dichromate finish
S- Standard item w/ steel inserts crimped in button head
X- Standard item in 410 Stainless Steel

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	SPECIAL FEATURES	TUBING I.D.'S	
					ROUND	SQUARE
A-148	.302	.32	.020 x .440	Small V	.50	.45/.50
A-149	.302	.23	.020 x .440	Small V	.48/.50	.48/.50
A-249	.300	.23	.020 x .440	Hooked End	.48/.50	.48/.50
A-150	.312	.37	.020 x .440		.59/1.25	.49/1.25
A-151	.312	.50	.020 x .440	2.17 Sping Leg	.68/1.50	.62/1.50
A-153	.312	.37	.020 x .440	Dome Head	.59/1.25	.49/1.25
A-154	.312	.27	.020 x .440	Short Leg	.58/1.00	.50/1.00
A-155	.312	.50	.020 x .440		1.00/1.50	.87/1.50
A-255	.340	.38	.025 x .530		.70/1.37	.70/1.31
A-156	.312	.37	.020 x .440	Small V	.57/.80	.57/.80
A-157	.310	.45	.020 x .440		.86/1.40	.86/1.40
A-158	.310	.375	.020 x .440		.55/1.00	.45/1.00
A-160	.365	.31	.025 x .510		.60/1.37	.52/1.37
A-260	.365	.44	.025 x .510	Dome Head	1.10/1.50	.87/1.50
A-161	.365	.37	.025 x .510		.68/1.37	.52/1.37
A-261	.365	.44	.025 x .510	DM HD/SM/V	.62/1.12	.62/1.12
A-162	.365	.37	.025 x .510		.70/1.37	.56/1.37
A-262	.365	.37	.025 x .510	Dome Head	.87/1.37	.87/1.37
A-163	.365	.44	.025 x .510		.70/1.37	.57/1.37
A-263-D	.365	.44	.025 x .510	Dome Head	.70/1.37	.57/1.37
A-164	.365	.37	.025 x .510	W/ Stiffener	1.50/2.50	1.50/2.50
A-264	.365	.375	.025 x .530		1.50/2.50	1.50/2.50
A-165	.365	.37	.025 x .510	2.0 Spring Legs	.75-1.00	.62/1.00
A-166	.365	.37	.025 x .510	2.37 Button Leg	.75/1.37	.52/1.37
A-167	.365	.37	.025 x .510	W/Stiffener	.75/1.37	.52/1.37
A-267	.365	.37	.025 x .510	Stiffener	.50/1.50	.50/1.50
A-168	.365	.56	.025 x .510		.80/1.50	.80/1.50
A-169	.365	.31	.025 x .510	Dome Head	.60/1.37	.52/1.37
A-170	.365	.37	.025 x .530		1.25/1.75	1.12/1.75
A-171	.365	.37	.025 x .510		.70/1.50	.62/1.50
A-172	.365	.50	.025 x .530		1.25/1.75	1.12/1.75
A-173	.365	.50	.020 x .510	1.80 Leg	.90/1.37	.87/1.37
A-174	.365	.56	.020 x .510	Light Touch	1.00/1.50	1.00/1.50
A-175	.365	.56	.020 x .510	Light Touch	.95/1.40	.95/1.40
A-176	.365	.31	.025 x .510	Small V	.62/.95	.62/.95
A-177-X	.365	.50	.025 x .530		1.19/2.25	1.19/2.25
A-180	.375	.37	.025 x .510		.70/1.37	.55/1.37
A-181	.375	.37	.025 x .510	2.37 Button Leg	.75/1.37	.52/1.37
A-182	.375	.37	.025 x .510	1.63 Button Leg	.70/1.50	.58/1.50
A-183	.375	.25	.025 x .530	Dome Head	.50/1.00	.50/1.00
A-184	.375	.37	.020 x .510	Short Legs	.75/1.00	.75/1.00
A-185	.375	.405	.025 x .530	Small V	.85/1.50	.85/1.50
A-186	.375	.500	.025 x .530	Stiffener	1.50/2.00	2.50
A-190	.500	.56	.030 x .680		1.14/2.25	.82/2.25
A-191	.502	.56	.030 x .680	Sheared Tab	1.14/2.25	.82/2.25
A-192	.500	.59	.030 x .680		1.14/2.25	.87/2.25
A-193	.500	.55	.030 x .680	Dome Head	1.10/2.25	.87/2.25
A-194	.500	.59	.030 x .680	Double Stiffener	1.10/2.25	.87/2.25
A-195	.500	.59	.030 x .680		1.30/2.15	1.30/2.15
A-196-D-X	.502	.50	.025 x .680		1.14/2.25	.82/2.25
A-210	.500	.40	.025 x .680		1.00/1.60	1.00/1.60
A-675	.750	.625	.030 x .850		1.45/2.50	1.30/2.50



Optional Steel Inserts:

Many of these snap buttons are available with steel inserts assembled into the button head for heavier loads. Please ask for availability. e.g.: A-130-S has a steel insert.

tel. 440.237.0160 fax. 440.237.0089 www.valcocleve.com

Made in the U.S.A. by VALCO® /Valley Tool & Die, Inc. 10020 York Theta Drive, Cleveland, OH 44133





OPTIONS KEY:
 AA-Aluminum
 AB-Brass
 AC-Cold Drawn Steel
 *Optional head material also available

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	FEATURES	TUBING I.D.'S	
					ROUND	SQUARE
AC-100	.187	.375	.030 X .350		1.50/2.00	1.50/2.00
AC-101	.187	.15	.018 X .255		.30/.50	.30/.50
AC-102	.187	.149	.020 X .180	Short Button Leg	.26/.44	.24/.44
AC-120	.236	.24	.020 X .250	Metric	.40/.75	.40/.75
AC-121	.238	.375	.025 X .375		1.25/2.50	1.25/2.50
AC-130	.250	.28	.022 X .250		.43/.87	.41/.87
AC-131	.250	.22	.022 X .250		.38/.87	.38/.87
AC-132	.250	.37	.025 X .312	Dome Head	.55/.87	.43/.87
AB-133	.250	.300	.020 X .250		.75/.87	.75/.87
AB-134	.250	.300	.020 X .250		.60/1.27	.60/1.27
AC-135	.240	.275	.030 X .350		1.05/1.88	1.05/1.88
AC-140	.302	.375	.025 X .312		.55/1.00	.50/1.00
AC-141	.300	.50	.025 X .350		1.25/1.75	1.25/1.75
AC-142	.300	.50	.018 X .350		.87/1.50	.87/1.50
AC-143	.300	.50	.020 X .350		.87/1.50	.87/1.50
AC-150	.312	.37	.025 X .312		.55/1.00	.50/1.00
AC-151	.312	.625	.020 X .365		.88/1.50	.85/1.50
AC-152	.312	.50	.025 X .350	Dome Head	1.05/1.75	1.50/1.78
AC-153	.310	.281	.036 X .440		.87/1.25	.87/1.25
AC-154	.312	.281	.036 X .440		.75/1.25	.75/1.25
AC-155	.312	.50	.020 X .440		.67/1.25	.62/1.25
AC-156	.316	.32	.025 X .375	2" ID Tube	1.50/2.50	1.50/2.50
AC-170	.365	.37	.025 X .530		1.05/2.62	1.00/2.62
AC-171	.365	.56	.025 X .530		1.05/2.62	1.00/2.62
AC-172	.365	.56	.025 X .530	Flanged Heads	1.05/2.62	13.00/2.62
AC-173	.365	.56	.020 X .440		.72/1.10	.67/1.10
AC-174	.365	.37	.020 X .788		.95/1.20	.81/1.20
AC-180	.375	.37	.030 X .375		.60/1.12	.55/1.12
AC-181	.375	.37	.025 X .375		1.18/1.62	1.25/1.65
AC-281	.375	.375	.020 X .788			
AC-182	.375	.33	.022 X .440		.60/1.38	.55/1.38
AC-183	.375	.33	.025 X .510		.65/1.40	.55/1.40
AC-184	.375	.375	.040 X .375		1.65/1.87	1.50/1.87
AC-185	.375	.375	.030 X .500		1.50/2.12	1.50/2.12
AC-186	.375	.375	.020 X .365		1.00/1.50	1.00/1.50
AC-187	.375	.440	.030 X .500	Full Radius Head	.85/1.62	.75/1.62
AC-188	.365	.500	.030 X .500		2.15/3.25	2.15/3.25
AC-189	.373	.400	.030 X .500	Flanged Head	1.50/2.00	1.50/2.00
AC-190	.500	.56	.030 X .500		1.14/2.25	.87/2.25
AC-190-D	.500	.610	.030 X .500	Full Radius Head	1.00/1.12	.90/1.12
AC-191	.500	.56	.030 X .500		1.50/2.50	1.50/2.50
AC-300	.750	.60	.030 X .680			

Springs General Information:

Standard Springs are Zinc plated, unless otherwise noted. Please see the key above for some of the features we have to offer. e.g.:AA-130
 A=Style, A=Aluminum, 130=Size

***Button Heads General Information:

Solid button heads can be made from Stainless Steel, Brass, or Aluminum. Standard Finish on springs are Zinc plated. Springs material can be changed to type stainless. Spring Thickness and width may be varied to fit the applications.



B STYLE- Drawn Head- DOG LEG

Typically used in smaller tubing applications



VALCO®
SNAP-BUTTON

OPTIONS KEY:

B- Zinc/Black chromate finish

G- Zinc/Gold dichromate finish

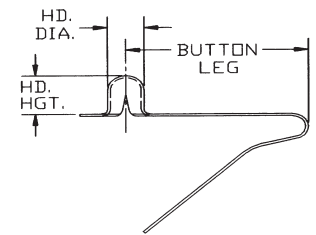
D- Dome Head

S- Standard item w/ steel inserts crimped in button head

X- Standard item in 410 Stainless Steel

*The B Style button is generally used in smaller tube applications.

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	FEATURES	TUBING I.D.'S	
					ROUND	SQUARE
B-100	.187	.23	.018 X .260		.35/.70	.30/.70
B-101	.187	.23	.018 X .260	1.40 Btn. Leg	.35/.75	.30/.75
B-102-S	.187	.25	.018 X .260	W/Stiffener	.35/.75	.30/.75
B-103	.187	.25	.018 X .260	Dome Head	.35/.65	.30/.75
B-104	.187	.28	.018 X .260	Dome Head	.37/.65	.37/.82
B-105	.187	.23	.018 X .260	Dome Head	.35/.65	.32/.65
B-111	.219	.29	.018 X .325		.45/.80	.37/.80
B-120	.240	.29	.018 X .350		.50/.80	.37/.80
B-121	.240	.32	.018 X .350		.50/.80	.40/.80
B-122	.240	.39	.018 X .350		.50/.70	.45/.70
B-123	.240	.39	.018 X .350	Long Tab	.62/.825	.62/.82
B-130	.250	.28	.018 X .365	Button Leg	.45/.80	.37/.80
B-131	.250	.28	.018 X .365	W/Stiffener	.45/.80	.37/.80
B-132	.250	.28	.018 X .365	Smaller Form	.42/.80	.37/.80
B-134	.250	.39	.020 X .350		.55/1.00	.55/1.00
B-135	.250	.28	.015 X .365	1.0 Spring Legs	.38/.62	.38/.62
B-136	.250	.33	.018 X .365		.55/.70	.55/.70
B-137-D	.250	.315	.018 X .350	Dome Head	.50/.88	.38/.88
B-138	.248	.250	.020 X .255			
B-140	.302	.32	.020 X .440		.52/1.00	.45/1.00
B-141	.302	.37	.020 X .440		.54/1.00	.45/1.00
B-142	.302	.30	.020 X .440	Dome Head	.50/1.00	.37/1.00
B-143	.302	.325	.020 X .440	Short Spring Leg	.62/1.00	.52/1.00
B-144	.302	.500	.020 X .440	Dome Head	.75/1.00	.70/1.00
B-145	.302	.625	.020 X .440		.75/1.00	.70/1.00
B-146-D	.302	.625	.020 X .440	Dome Head	.82/.88	.75/.88
B-150	.312	.37	.020 X .440	2.00 Leg	.55/1.00	.45/1.00
B-255	.330	.37	.025 X .490		.70/.82	.70/.82
B-160	.365	.37	.025 X .510	Button Leg 1.80	.60/1.12	.52/1.12
B-161	.365	.44	.025 X .510	Button Leg 2.12	.60/1.12	.52/1.12
B-162	.365	.28	.025 X .510		.60/1.12	.52/1.12
B-163	.365	.375	.025 X .510	Small Radius in V	.60/.87	.62/.62
B-164	.365	.375	.025 X .510		.62/1.25	.62/1.25
B-170	.365	.37	.025 X .510		.90/1.95	.90/1.95
B-172	.365	.50	.025 X .530	Dome Head	1.00/1.95	1.00/1.95
B-173	.365	.62	.025 X .530	Dome Head	.78/2.00	.78/2.00
B-180	.375	.37	.025 X .510		.62/1.12	.52/1.12
B-190	.500	.62	.030 X .680		1.25/1.87	1.12/1.87
B-191	.500	.62	.030 X .680	W/Stiffener	1.00/1.62	.87/1.62
B-192	.500	.75	.030 X .680		1.12/2.00	1.12/2.00
B-200	.435	.31	.025 X .625		.70/1.50	.62/1.37
B-201	.427	.50	.025 X .600	Dome Head	.75/1.15	.68/1.18
B-202	.437	.42	.025 X .625		.80/1.50	.65/1.50
B-210	.500	.42	.030 X .680		.90/1.70	.75/1.70
B-211	.500	.42	.030 X .680	Notched Spring	.90/1.70	.75/1.70



General Information:

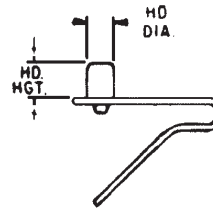
Standard VALCO® SNAP-BUTTONS are Spring Steel and Zinc plated, unless otherwise noted. Please see the key above for some of the features we have to offer. e.g.: B-120-X would be a part number B-120 in 410 Stainless Steel with bright heat treat.

Optional Steel Inserts:

Snap buttons are available with steel inserts assembled into the button head for heavier loads. Please ask for availability. e.g.: B-130-S has a steel insert.



Feature Solid Button Heads Riveted to Heat Treated Leaf Spring



B -130

Options Key:
BA=Aluminum
BB=Brass
BC=Cold Drawn Steel
*Optional head material also available.

General Information:
Standard button assemblies are Zinc plated, unless otherwise noted. Please see the key above for some of the features we have to offer. e.g.:BC-130
B=Style, C=Cold Drawn Steel, 130=Size

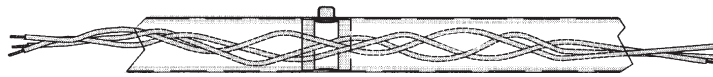
P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	FEATURES	TUBING I.D.'S	
					ROUND	SQUARE
BB-100	.187	.200	.012 X .260		.40/.75	.40/.75
BR-100	.187	.275	.018 X .250		.50/.75	.50/.75
BB-101	.187	.200	.020 X .250		.45/.75	.45/.75
BC-120	.236	.236	.012 X .260			
BC-130	.250	.28	.020 X .250		.43/.62	.40/.62
BC-141	.302	.375	.020 X .440	Hard Button	.62/.75	.62/.75
BC-142	.302	.37	.020 X .440	Hard Button	.55/.87	.45/.87
BC-150	.312	.37	.025 X .312		.55/.87	.45/.87
BC-151	.312	.37	.020 X .440		.60/.93	.56/.87
BC-160	.365	.500	.025 X .375		.80/1.00	.75/1.00
BC-161	.365	.255	.025 X .375		.43/.87	.40/.87
BC-180	.375	.37	.025 X .375		.60/.93	.56/.87
BC-200	.437	.500	.020 X .440	Dome Head	.70/1.50	.70/1.50

C STYLE ASSEMBLIES

Solid Button Heads



OUR INTERNAL TYPE FIT AROUND THE INSIDE DIAMETER



Options Key:
CA=Aluminum
CB=Brass
CC=Cold Drawn Steel
CD=Double Button
CP=Plastic Button
CR=Ramp Button
CX=Type 300 Stainless Steel
*Optional head material also available

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	FITS TUBING I.D.	FEATURES
CC-120	.156	.148	.010 X .440	.55	Solid Button
CP-130	.250	.20	.010 X .365	.90	Plastic Button
CX-130	.250	.19	.012 X .365	1.28	Solid Stainless
CC-132	.250	.219	.012 X .365	.875	Solid Button
CC-339	.275	.230	.012 X .625	1.03	
CX-160	.365	.500	.010 X .900	2.00	
CC-170	.365	.37	.012 X .625	1.31	Solid Button
CC-171	.365	.375	.012 X .625	1.37	Solid Head
CC-180	.365	.37	.012 X .625	1.45	Steel Button
CR-160	.373	.31	.012 X .625	1.28	Contoured Ramp
CD-160	.375 (2X)	.51 (2X)	.025 X .530	4.31	Double Button
CX-182	.375	.215	.012 X .625	1.25	SS Solid Head
CC-181	.375	.215	.012 X .625	1.37	Solid Button
CX-181	.375	.375	.012 X .530	1.00	SS Solid Head
CC-185	.437	.50	.015 X .750	1.28	Solid Button

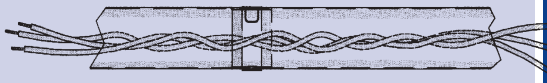
General Information:

Solid button heads can be made from Stainless Steel, Brass, or Aluminum. Standard Finish on Steel button heads is Zinc plating. Spring Thickness and width may be varied to fit the applications.



C STYLE

Unobstructed Tube Applications



OUR EXTERNAL TYPE CLIP ON THE OUTER CIRCUMFERENCE

VALCO®
SNAP-BUTTON

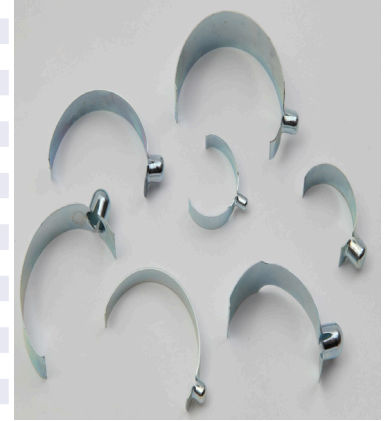
P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	FITS TUBING I.D.
C-100	.125	.187	.010 X .240	.75
C-110	.187	.19	.018 X .260	1.25
C-111-X	.187	.18	.018 X .255	.50
C-130	.250	.18	.012 X .365	.75
C-230	.250	.31	.012 X .365	1.28
C-131	.250	.25	.012 X .365	.75
C-231	.250	.25	.012 X .365	.75/.87
C-132	.250	.25	.012 X .365	.87
C-232	.250	.25	.012 X .365	.75
C-133	.250	.19	.012 X .365	.88
C-233	.247	.200	.010 X .365	.625
C-134	.250	.18	.012 X .365	1.12
C-234-X	.250	.205	.012 X .365	1.00
C-135	.250	.19	.018 X .365	1.25
C-235-X	.250	.205	.012 X .365	1.30
C-136	.250	.25	.012 X .365	1.25
C-236	.250	.290	.012 X .365	.875
C-137	.250	.19	.012 X .365	1.25
C-237	.250	.35	.012 X .365	1.42
C-138	.250	.25	.018 X .365	1.25
C-139	.250	.25	.012 X .365	1.00/1.12
C-150	.219	.25	.015 X .600	1.25
C-151	.219	.25	.015 X .600	1.50
C-152	.240	.25	.012 X .600	1.00
C-153	.250	.25	.012 X .500	1.00
C-154	.250	.31	.012 X .600	1.04
C-155-X	.250	.20	.010 X .625	1.19
C-156-X	.250	.200	.010 X .750	1.19
C-240	.302	.266	.030 X .680	2.00
C-255	.307	.187	.012 X .440	1.00-1.125
C-250	.310	.34	.012 X .440	1.25/1.50
C-251	.310	.34	.012 X .440	1.00/1.50
C-253	.310	.25	.012 X .440	1.00/1.25
C-254	.310	.38	.012 X .625	1.00/1.125
C-180	.375	.37	.020 X .510	1.45
C-182	.375	.37	.018 X .530	2.00/2.12

Options Key:

X-Standard item in 410 Stainless Steel

CI- C type w/ inverted button

*All snap buttons are Spring Steel and Zinc plated unless otherwise specified.



Optional Steel Inserts:

Many of these snap buttons are available with steel inserts assembled into the button head for heavier loads. Please ask for availability. e.g.: C-180-S has a steel insert.

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	FITS TUBING O.D.	FEATURES
CI-100	.125	.125	.018 X .170	.50	Inverted Head
CI-101	.125	.150	.018 X .170	.50	Inverted Head
CI-110	.187	.23	.018 X .260	.87	Inverted Head
CI-111	.187	.22	.018 X .265	1.00	Inverted Head
CI-112	.187	.25	.018 X .260	1.25	Inverted Head
CI-113	.187	.332	.018 X .255	1.75/1.9	Inv.Hd. w/pull tab
CI-130	.250	.20	.018 X .365	1.25	Inverted Head
CI-131	.250	.28	.020 X .365	1.50	Inverted Head
CI-132	.250	.250	.020 X .365	1.50	Inverted Head
CI-133	.250	.250	.020 X .365	1.50	Inverted Head
CI-168	.310	.375/.43	.015 X .440	1.25	Spec. Dimple Button
CI-169	.163	.250	.020 X .197	.88	Inverted Head



P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	FITS TUBING O.D.	FEATURES
CCI-135-G-P	.281	1.25	.025 X .510	1.00	External Clip On
CCI-150	.295/.312	.32	.030 X .680	1.50	Stepped Head
CCI-151	.295	.36	.030 X .680	1.50	Stepped Head
CCI-164	.188	.095	.020 X .260	.90	O.D.Invert,Solid Bnt.
CC-169	.157	.25	.020 X .197	.90	O.D.scroll type legs



tel. 440.237.0160 fax. 440.237.0089 www.valcocleve.com

Made in the U.S.A. by VALCO® /Valley Tool & Die, Inc. 10020 York Theta Drive, Cleveland, OH 44133

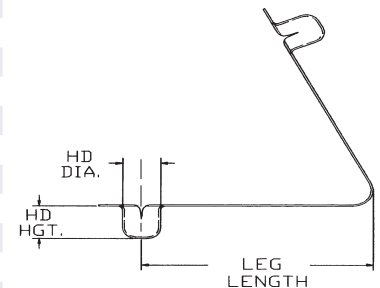


D STYLE- Double End

OPTIONS KEY:

B- Zinc/Black chromate finish
 G- Zinc/Gold chromate finish
 D- Dome Head
 S- Standard item w/ steel inserts crimped in button head
 X- Standard item in 410 Stainless Steel
 *All snap buttons are Spring Steel and Zinc plated unless otherwise specified.

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	LEG LENGTH/ FEATURES	TUBING I.D.'S	
					ROUND	SQUARE
D-050	.125	.14	.012 X .170	.775	.31/.50	.31/.50
D-051	.125	.12	.012 X .170	.45	.38/.48	.38/.48
D-100	.187	.20	.018 X .260	1.30	.50/.87	.50/.87
D-101	.187	.20	.012 X .260	Dome Head	.50/.87	.50/.87
D-102	.187	.20	.012 X .260	1.31	.50/.87	.50/.87
D-103	.187	.20	.018 X .255	1.31	.42/.87	.42/.87
D-104-X	5mm(.194)	.285	.025 X .300	Dome Head	.75/1.25	.75/1.25
D-105	5mm(.194)	.275	.025 X .300	Special	.75/1.00	.75/1.00
D-120	.240	.41	.025 X .350	5.50 Flat	1.90/3.25	1.90/3.25
D-121	.240	.30	.025 X .335	1.42	1.50/1.62	1.37/1.50
D-122	6mm(.237)	.281	.018 X .350	1.54	.75/1.00	.75/1.00
D-130	.250	.28	.012 X .365	1.52	.62/.75	.62/.87
D-131	.250	.28	.018 X .365	1.52	.62/.75	.62/.87
D-132	.250	.28	.020 X .365	1.52	.62/.75	.62/.87
D-232	.250	.28	.018 x .365	1.54	.70/.87	.68/.87
D-133	.250	.28	.018 X .365	1.13	.65/.70	.70/.87
D-134	.250	.281	.020 X .365	2.63/1.05	.700	.650
D-234	.250	.31	.018 x .365	2.05	.68/.94	.68/.94
D-135	.250	.28	.018 X .365	1.05/1.05	.75/.77	.75/.77
D-235	.250	.23	.018 X .365	1.75 (Special)	.70/.75	.70/.75
D-136	.250	.30	.025 X .350	1.42	1.50/1.62	1.37/1.50
D-137	.250	.25	.018X .350	Uneven Legs	.62/1.25	.62/1.25
D-138	.250	.31	.018 X .350	Uneven Legs	.62/1.25	.62/1.25
D-139	.250	.22	.018 X .365	1.54	.56/.87	.52/.87
D-239	.250	.22	.018 X .365	1.54(Stiffener)	.56/.87	.52/.87
D-230	.261	.28	.020 X .365	Small V	.75/1.15	.75/1.15
D-231	.261	.25	.020 X .365	1.56 (Small V)	.70/1.20	.70/1.20
D-140	.302	.37	.020 X .440	2.05	.82/1.12	.82/1.12
D-150	.312	.37	.020 X .440	2.05	.82/1.12	.82/1.12
D-250	.312	.31	.020 X .440	1.38	.75/.80	.75/.80
D-151	.312	.31	.020 X .440	2.05	.78/1.12	.75/1.12
D-152	.310	.25	.020 X .440	2.05	.85/1.00	.85/1.00
D-153	.310	.37	.020 X .440	2.05	.87/1.12	.87/1.12
D-154-X	.310	.33	.020 X .440	1.76	.85/1.30	.85/1.30
D-155	.310	.37	.020 X .440	2.71	1.15/2.50	1.15/2.50
D-156	.310	.37	.020 X .440	1.50	1.00/1.25	1.00/1.25
D-157	.310	.56	.020 X .440	2.85	1.20/2.00	1.20/2.00
D-158	.310	.37	.018 X .440	1.50	1.00/1.25	1.00/1.25
D-159	.310	.37	.018 X .440	1.11	1.20 /1.31	1.20/1.31
D-160	.365	.44	.025 X .510	2.82	1.00/1.87	1.00/1.87
D-161	.365	.37	.025 X .510	2.00/2.00	1.00/1.37	1.00/1.37
D-162	.365	.44	.025 X .510	3.63	1.12/2.75	1.12/2.75
D-163-X	.363	.37	.025 X .510	2.02	.98/1.35	.98/1.35
D-164	.363	.37	.025 X .510	2.82	1.00/2.00	1.00/2.00



Optional Steel Inserts:

Most snap buttons are available with steel inserts assembled into the button head for heavier loads. Please ask for availability. e.g.: D-130-S has a steel insert.

D STYLE- Double End Cont...

D STYLE- SPECIAL APPLICATIONS

VALCO®
SNAP-BUTTON

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	LEG LENGTH/ FEATURES	TUBING I.D.'S	
					ROUND	SQUARE
D-165	.365	.75	.025 X .530	2.98	1.80/2.12	1.80/2.12
D-170	.375	.31	.025 X .510	1.75	.80/1.00	.75/1.00
D-171	.375	.27	.025 X .510	1.75	.75/1.00	.70/1.00
D-180	.375	.31	.025 X .530	2.82	.72/1.87	.70/1.87
D-280	.375	.33	.020 X .500	2.12	1.00/1.50	.87/1.50
D-181	.375	.37	.025 X .530	2.82	.87/1.87	.87/1.87
D-281	.365	.37	.025 X .510	Large Radius	1.75	1.75
D-182	.375	.44	.025 X .530	2.82	1.00/1.87	1.00/1.87
D-183	.375	.50	.025 X .530	2.77	1.12/1.75	1.10/1.75
D-283	.375	.25	.025 X .530	2.90	.87/1.37	.87/1.37
D-184	.375	.44	.025 X .530	4.93	1.00/2.50	1.00/2.50
D-284	.375	.445	.025 X .530	2.80	U-Channel	1.0W/1.12H
D-185	.375	.50	.025 X .530	3.62	1.50/2.50	1.50/2.50
D-285	.375	.35	.018 X .530	1.73	.87/1.12	.85/1.12
D-186	.375	.50	.025 X .530	3.63	1.50/2.62	1.50/2.62
D-286	.375	.371	.025 X .530	1.75	3.62/4.25	3.62/4.25
D-287	.375	.62	.025 X .530	3.62	1.50/2.88	1.50/2.88
D-187	.375	.35	.018 X .530	1.71/1.71	.90/1.50	.90/1.50
D-188	.375	.37	.025 X .530	2.85/2.85	.95/2.00	.95/2.00
D-189	.375	.31	.025 X .530	3.63	1.50/2.62	1.50/2.62
D-289	.375	.63	.025 X .530	2.76	1.43/1.50	1.43/1.50
D-190	.430	.56	.025 X .625	1.10	2.50/2.75	2.37/2.75
D-191	.430	.50	.025 X .625	1.40	3.00/3.50	3.00/3.50
D-200	.500	.52	.030 X .680	3.09	1.25/1.50	1.25/1.50
D-656-B	.625	.56	.020 X .850	2.70	1.65/2.50	1.65/2.50
D-675	.625	.75	.030 X .850	4.75	2.50/4.12	2.50/4.12

Double Assembled Solid Head Buttons

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	LEG LENGTH	TUBING I.D.'S	
					ROUND	SQUARE
DC-130	.250	.28	.020 X .250		.71/1.00	.68/1.00
DC-131	.250	.281	.025 X .250		.75/1.12	.75/1.12
DB-132	.250	.330	.020 X .250		.87/1.25	.87/1.25
DC-133	.250	.437	.030 X .350	Large Radius	2.50/3.50	2.50/3.50
DC-134	.236	.284	.020 X .250		.62/1.00	.62/1.00
DC-140	.305	.36	.025 X .312		.90/1.12	.90/1.12
DC-141	.305	.36	.035 X .312		.87/1.12	.87/1.12
DC-150	.312	.37	.025 X .312		.95/1.25	.95/1.25
DC-151	.312	.56	.030 X .500	Large Radius	2.35/2.75	2.35/2.75
DC-160	.365	.56	.025 X .530		1.30/1.62	.95/1.50
DC-161	.365	.255	.025 X .312		.70/1.25	.70/1.25
DC-171	.365	.560	.025 X .530		1.50/2.25	1.50/2.25
DC-180	.375	.37	.030 X .375		.92/2.00	.95/2.00
DC-181	.375	.50	.030 X .500		1.60/2.00	1.60/2.00
DC-182	.375	.215	.030 X .500	Large Radius	1.25/2.00	1.25/2.00
DC-183	.375	.375	.030 X .500	Large Radius	1.25/2.00	1.25/2.00
DC-184	.375	.200	.025 X .510		.80/1.25	.80/1.25
DC-186	.375	.75	.030 X .500	Large Radius	1.95/3.00	1.95/3.00
DC-200	.500	.37	.030 X .680		1.00/1.62	1.00/1.62
DC-201	.500	.56	.030 X .500		1.75/2.12	1.57/2.37



Key:
DA-Aluminum
DB-Brass
DC-Cold Drawn Steel
DI-Double Ended w/inverted buttons

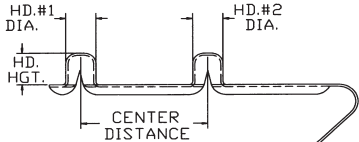


OPTIONS KEY:

B- Zinc/Black chromate finish
G- Zinc/Gold chromate finish
D- Dome Head
S- Standard item w/ steel inserts
crimped in button head
X- Standard item in 410 Stainless Steel

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	LEG LENGTH
DI-130	.250	.28	.018 X .365	1.69
DI-131	.250	.32	.020 X .365	1.73
DI-132	.250	.32	.025 X .350	1.73
DI-140	.300	.37	.020 X .440	1.14
DI-141	.300	.50	.020 X .440	1.14
DI-150	.312	.32	.025 X .440	1.73

DI-131-X



For higher load applications
steel inserts may be added to
the button.



E-STYLE- Dual Button

P/N	BUTTON HEAD DIA.		BUTTON HEAD HGTS.		CENTER DISTANCE	TUBING I.D.'S	
	#1	#2	#1	#2		ROUND	SQUARE
E-070	.154	.154	.25	.25	.75	.45/.62	.45/.62
E-071	.154	.154	.305	.250	.75		
E-100	.187	.187	.25	.25	1.0	.50/.87	.50/.87
E-110	.219	.219	.28	.28	1.0	.44/.75	.44/.75
E-112	.219	.219	.27	.27	1.0	.50/.75	.50/.75
E-130	.240	.240	.28	.28	1.0	.50/.75	.44/.75
E-131	.250	.250	.31	.20	1.0	.50/.75	.44/.75
E-132	.240	.240	.37	.28	1.0	.50/.75	.50/.75
E-133	.240	.240	.28	.28	1.5	.62/.87	.62/.87
E-135	.240	.240	.37	.37	1.0	.68/.87	.68/.87
E-140	.302	.302	.37	.29	1.0	.52/1.00	.52/1.00
E-141	.302	.302	.37	.37	1.0	.62/1.00	.62/1.00
E-142	.302	.302	.39	.32	1.0	.80/1.25	.75/1.25
E-143	.302	.302	.37	.25	1.0	.52/1.00	.52/1.00
E-144	.300	.300	.37	.37	.625	.52/1.00	.45/1.00
E-145	.300	.300	.37	.37	1.50	.87/1.25	.87/1.25
E-146	.302	.302	.31	.31	1.0	.50/1.00	.50/1.00
E-147	.187	.300	.22	.29	.75	.69/1.00	.62/1.00
E-148	.300	.300	.28	.28	1.0	.80/1.40	.80/1.40
E-149	.187	.300	.25	.29	.75	.62/.90	.62/.90
E-150	.302	.302	.37	.29	1.50	.62/.90	.62/.90
E-152	.300	.300	.375	.375	1.50		
E-160	.365	.365	.37	.37	1.00	.67/1.37	.67/1.37
E-161	.365	.365	.31	.39	1.0	.67/1.37	.67/1.37
E-162	.365	.365	.37	.37	1.0	1.00/1.35	.75/1.35
E-163	.365	.365	.43	.43	1.0	1.00/1.31	.93/1.31
E-165	.375	.375	.375	.375	3.75	.75/1.25	.75/1.25
E-166	.375	.375	.375	.375	3.75	.75/1.25	.72/1.25
E-181	.250	.365	.30	.37	.75	.67/1.37	.67/1.37

Springs General Information:

Standard Springs are Zinc plated, unless otherwise noted. Please see the key above for some of the features we have to offer. e.g.:EB-130
E=Style, B=Black, 130=Size

***Button Heads General Information:

Solid button heads can be made from Stainless Steel, Brass, or Aluminum. Standard Finish on springs are Zinc plated. Springs material can be changed to type stainless. Spring Thickness and width may be varied to fit the applications.

E Style - Special Assemblies

VALCO®
SNAP-BUTTON

OPTIONS KEY:
B- Zinc/Black chromate finish
C- Cold Drawn Steel
D- Dome Head
P- Plastic
*- Flange Based Head

P/N	BUTTON HEAD DIA.		BUTTON HEAD HGTS.		CENTER DISTANCE	TUBING I.D.'S	
	#1	#2	#1	#2		ROUND	SQUARE
ED-100	.196	.196	.22	.22	1.00	.700	.700
ED-130	.250	.250	.28	.28	1.75	1.00	1.00
ED-131	.250	.250	.25	.22	1.75	.625	.750
ED-132	.250	.250	.25	.22	2.88	.750	.750
ED-133	.238	.238	.27	.27	1.5		
ED-134	.250	.250	.25	.22	1.00	.625	.625
ED-135	.250	.250	.31	.31	1.75	1.00	1.00
ED-136	.250	.250	.31	.28	1.75	1.20	1.20

P/N	BUTTON HEAD DIA.		BUTTON HEAD HGTS.		CENTER DISTANCE	TUBING I.D.'S		SPECIAL
	#1	#2	#1	#2		ROUND	SQUARE	
EX-110	.218	.218	.28	.24	1.00	.50/.90	.50/.90	T-300-SS
EC-120	.240	.365	.37	.37	3.00	.85/1.10	.85/1.10	
EC-121	.240	.365	.37	.37	1.50	.87/1.12	.87/1.12	
ECP-130	.240	.320	.35	.30	1.00	.60/1.00	.60/1.00	
EX-130	.250	.250	.28	.28	1.00	.44/.87	.44/.87	T-300-SS
EX-131	.250	.250	.42	.42	1.00	N/A	1.53 special	T-300-SS
EX-133	.250	.250	.31	.31	1.50	.63/.93	.63/.93	
EDX-135	.250	.250	.31	.19	1.00	.70/.90	.70/.90	T-300-SS
EDX-136	.250	.250	.37	.37	1.12	.87	.87	T-300-SS
EX-137	.250	.250	.32	.375	1.13	.75/1.20	.75/1.12	T-300-SS
EC-144	.300	.300	.37	.37	.625	.80/1.12	.67/1.12	
EC-145	.300	.300	.40	.40	.625	.94/1.10	.84/1.10	
EX-141	.300	.300	.375	.375	1.50	1.18/1.80	1.10/1.80	T-300-SS
EDX-141	.300	.300	.375	.375	1.50	1.12/1.44	1.12/1.37	T-300-SS
EC-147	.300	.300	.37	.46	.625	.88/.95	.88/.95	
EX-180	.375	.375	.375	.312	1.70			T-300-SS
EC-183	.375	.375	.420	.375	1.50	1.12/1.75	1.12/1.62	



ED-135



P/N	BUTTON HEAD DIA.		BUTTON HEAD HGTS.		CENTER DISTANCE	TUBING I.D.'S		SPECIAL
	#1	#2	#1	#2		ROUND	SQUARE	
ERX-130	.250	.250	.375	.19	1.00	.65/1.15	.65/1.15	T-300-SS
ERB-140	.302	.312	.425	.305	.945	.65/1.30	.65/1.30	Spring steel & brass ramp
ER-180	.375	.375	.44	.31	.695	1.00/1.75	1.00/1.75	
ER-182	.375	.375	.42	.31	1.00	.80/1.40	.80/1.40	



ER-180



ER-182

OPTIONS KEY:
R- Ramp button head
X- Standard Item in 410
Stainless Steel
B- Zinc/Black chromate finish

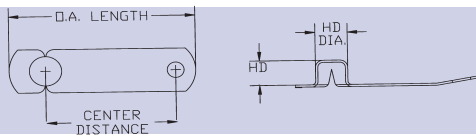
General Information:

Solid button heads can be made from any free machining type material; generally Steel, Brass, or Aluminum. Standard Finish on Steel button heads is Zinc plating. Spring Thickness and width may be varied to fit the applications.

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F Style -Flat

For higher load applications
steel inserts may be added to
the button.

OPTIONS KEY:

- B- Zinc/Black chromate finish
- G- Zinc/Gold chromate finish
- D- Dome Head
- M- Mushroom Head
- S- Spring w/ steel inserts crimped in button head
- X- Standard item in 410 Stainless Steel

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	HOLE DIA.	CENTER DISTANCE	OVERALL LENGTH	ILLUSTRATION NUMBER
F-100-D	.180	.28	.018 X .260	.129	1.50	1.96	1
FM-100	.185	.19	.020 X .255	.131	.995	1.56	31
F-101	.180	.28	.018 X .260	.129	1.50	1.96	1
F-102	.180	.28	.018 X .260	N/A	N/A	1.95	53
F-103	.185	.142	.018 X .255	.131	.995	1.56	2
F-104	.185	.19	.018 X .255	.065	.995	1.45	1
F-110	.219	.18	.012 X .325 / .018 X .325	.128	.85	1.33	2
F-111	.219	.32	.020 X .500	.265	1.56 in flat	2.44	3
F-112	.219	.37	.020 X .500	.265	2.5 in flat	3.35	4
F-113	.219	.37	.020 X .500	.141	2.5 in flat	3.35	4
F-114	.216	.32	.020 X .500	.265	1.562	2.44	5
F-115	.217	.28	.020 X .325	.130	2.00	5.00	6
F-116	.216	.32	.020 X .500	.256	1.562	2.25	4
F-117	.219	.29	.018 X .325	.156	1.375	1.88	
F-120	.250	.21	.018 X .365	.141	1.00	1.43	8
F-220	.250	.500	.020 X .365	.144	.840	1.25	43
F-121	.250	.25	.018 X .365	.141	.97	1.43	8
F-221	.250	.500	.020 X .365	.162	.840	1.25	43
F-321	.250	.480	.018 X .365	.162	.840	1.25	
F-122	.250	.31	.018 X .365	.141	.97	1.39	8
F-222	.247	.330	.018 X .365	.141	.968	1.62	10
F-322	.247	.312	.018 X .365	.141	.968	1.385	
F-123	.250	.18	.018 X .365	.128	1.5	2.00	8
F-124	.250	.28	.018 X .365	.128	1.5	2.00	8
F-224	.248	.310	.025 X .350	.144	1.00	1.62	52
F-125	.250	.35	.018 X .365	.104	.84	1.25	8
F-225	.248	.440	.025 X .350	.144	1.50	2.15	52
F-126	.250	.35	.018 X .365	.141	.84	1.25	8
F-226	.240	.22	.018 X .350	.203	.50	1.00	
F-127	.250	.25	.018 X .365	.219	.97	1.43	8
F-227	.250	.375	.020 X .350	.190	1.00/1.31	1.80	
F-128	.250	.28	.018 X .365	.128	1.10	1.53	2
F-228	.248	.280	.020 X .365	.128	1.10	1.53	2
F-129	.250	.18	.018 X .365	.128	1.00/1.50	2.00	8
F-229-B	.240	.187	.012 X .355	.203	.50	1.00	9
F-130	.250	.21	.018 X .365	.128	.844 in flat	1.25	9
F-130M	.250	.21	.018 X .365	.218	.844 in flat	1.25	9
F-230	.250	.28	.020 X .500	.204	2.00	2.00	10
FM-130	.250	.31	.018 X .365	.128	.840	1.30	55
F-330	.250	.207	.012 X .365	.128	.840	1.25	9
F-530	.250	.25	.018 X .365	.172	2.00	3.00	
F-131	.250	.21	.018 X .365	.128	1.18	2.00	13
F-231	.250	.20	.018 X .365	.130	1.375	2.00	13
F-331	.250	.300	.018 X .365	.130	1.375	2.25	
F-431-B	.250	.440	.018 X .365	.128	1.500	2.00	
F-132	.250	.31	.018 X .250	N/A	N/A	2.50	11
F-232	.250	.28	.018 X .365	.128	1.50	2.25	19
F-332	.250	.406	.018 X .365	1.25	1.50	2.22	10
F-432	.250	.41	.018 X .365	.128	1.25	1.98	
F-133	.250	.28	.018 X .365	.128	1.50	2.25	10
F-233	.247	.375	.020 X .365	.128	1.50	2.15	10
F-333-B	.250	.280	.018 X .365	.130(2X)	.30/.80	1.25	40
F-134	.250	.28	.018 X .365	N/A	N/A	2.92	11
F-234	.250	.21	.018 X .365	.133	.844 IN FLAT	1.25	7
F-334	.250	.500	.020 X .365	.140	1.975	3.225	24
F-135	.281	.37	.030 X .560	.250/.500	2.250	3.00	12
F-235	.250	.30	.016 X .375	.133	1.37	2.00	26
F-435	.250	.200	.018 X .365	.130(2X)	1.00/1.66	2.16	42



General Information:

Standard VALCO® SNAP-BUTTONS are Spring Steel and .0002 Zinc plated minimum, unless otherwise noted. Please see the key above for some of the features we have to offer.
e.g.: F-155-B
F=Style, 155=Size, B=Zinc/Black chromate finish

Optional Steel Inserts:

Many of these snap buttons are available with steel inserts assembled into the button head for heavier loads. Please ask for availability. e.g.: F-130-S has a steel insert.



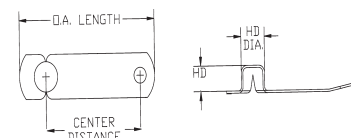
F Style -Flat

VALCO®
SNAP-BUTTON

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	HOLE DIA.	CENTER DISTANCE	OVERALL LENGTH	ILLUSTRATION NUMBER
F-136	.250	.30	.018 X .365	.128	1.37	2.00	13
F-236	.250	.30	.018 X .365	.096	1.375	2.00	13
F-336	.250	.375	.025 X .350	.128	1.50	2.48	10
F-137	.250	.20	.018 X .365	.095	1.37	2.00	13
F-237	.250	.210	.018 X .350	.128	1.00	2.02	21
F-337	.250	.625	.018 X .365	.128	1.50	2.22	10
F-138	.250	.34	.018 X .365	N/A		3.13	11
F-238	.247	.375	.018 X .365	.128(2X)	1.5/2.00(F)	2.96	33
F-438	.250	.25	.018 X .365	.128(2X)	1.50/2.00	2.96	33
F-139	.250	.34	.018 X .365	.128(2)	1.00/1.812	3.12	14
F-239	.247	.300	.018 X .365	.128	1.5(FLAT)	2.96	33
F-339	.250	.207	.012 X .365	.128	.844 in Flat	1.25	9
F-439	.250	.350	.018 X .380	.128	.850	1.25	
F-140	.302	.38	.020 X .440	N/A		3.87	11
F-141	.302	.37	.020 X .440	.190	1.75	3.00	15
F-241	.302	.500	.025 X .440	.191	1.75	.304	8
F-142	.302	.30	.020 X .440	.203	1.50	2.38	8
F-143	.302(2)	.37(2)	.020 X .440	.141(2)		4.60	16
F-243-X	.297	.50	.020 X .440	.203	1.781	3.00	
F-144	.302	.37	.020 X .440	.190	1.75	2.31	17
F-145	.302	.43	.020 X .440	.203	1.50	2.38	8
F-146	.302	.50	.020 X .440	.203	1.78	2.51	18
F-246	.300	.50	.020 X .440	.203	1.781	2.50	23
F-147	.300	.50	.020 X .440	.203	1.781	2.50	23
F-247	.300	.50	.025 X .440	.203	1.781	1.50	23
F-148	.302	.37	.020 X .440	.144	1.875	2.50	11
F-149-X	.302	.50	.020 X .440	.172	1.270	1.86	
F-150	.312	.25	.020 X .440	.141	.97	1.43	8
F-250	.344	.26	.018 X .500	.128	1.125	1.88	19
F-151	.312	.37	.020 X .440	.172(2X)	A-1.41/B-1.78	2.50	14
F-251	.312	.375	.020 X .440	.172(2X)	1.406/1.78	2.50	34
F-152	.312	.25	.020 X .400	.130	.625	1.06	18
F-252	.312	.375	.020 X .440	.265	1.78(flat)	2.50	8
F-153	.312	.50	.020 X .440	.172(2X)	A-1.41/B-1.78	2.50	14
F-156	.315	.205	.020 X .440		CLIP	2.56	29
F-256	.312	.375	.020 X .440	Clip On	1.78	2.50	
F-157	.312	.375	.020 X .440	.191	1.50	2.00	1
F-158	.310	.200	.018 X .440		CLIP	2.55	29
F-159	.310	.625	.020 X .400	.191	2.00	2.81	22
F-160	.365	.25	.025 X .510	.128	1.28	2.15	8
F-260	.365	.440	.025 X .510	.128	1.28	2.15	2
F-161	.365	.50	.025 X .510	.128	2.00	2.87	8
F-162	.365	.50	.025 X .510	.128	2.00	3.00	10
F-163	.365	.28	.025 X .510	.130	2.00	3.14	18
F-164	.365	.50	.025 X .510	.128	2.00	3.00	21
F-165	.365	.625	.025 X .510	.156	2.00	2.50	8
F-166	.365	.44	.025 X .510	.261	1.500 in flat	2.12	30
F-167	.365	.44	.025 X .510	.320	1.250	2.00	18
F-168	.365	.440	.025 X .510	.144	1.50 in flat	2.12	30
F-169	.365	.510	.025 X .510	.128	2.00	2.87	19
F-180	.375	.30	.025 X .510	.187	2.00	2.78	22
F-181	.375	.37	.025 X .510	.130(2X)	A-2.81 / B-3.69	4.37	14
F-182	.375	.37	.025 X .510	.281	2.50	3.27	22
F-183	.375	.37	.025 X .510	.190(2X)	1.313	2.87	14
F-184	.375	.44	.025 X .530			1.52	27
F-185	.375	.375	.025 X .510	.128	2.19	2.88	32
F-186	.375	.30	.025 X .510	.19 X .31	2.00	2.77	
F-190	.500	.31	.030 X .680	.260	1.375	2.25	
F-431-B	.250	.440	.018 X .365	.128	1.500	2.00	
F-435	.250	.200	.018 X .365	.130(2X)	1.00/1.66	2.16	42
F-438	.250	.25	.018 X .365	.128(2X)	1.50/2.00	2.96	33
F-530	.250	.25	.018 X .365	.172	2.00	3.00	

OPTIONS KEY:

B- Zinc/Black chromate finish
G- Zinc/Gold chromate finish
D- Dome Head
M- Mushroom Head
S- Spring w/ steel inserts crimped in button head
X- Standard item in 410 Stainless Steel



General Information:

Standard VALCO® SNAP-BUTTONS are Spring Steel and .0002 Zinc plated minimum, unless otherwise noted.

Please see the key above for some of the features we have to offer.

e.g.: F-155-B

F=Style, 155=Size, S=Zinc/Black dichromate finish

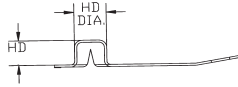
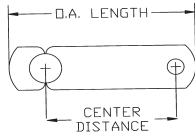
Optional Steel Inserts:

Many of these snap buttons are available with steel inserts assembled into the button head for heavier loads. Please ask for availability. e.g.: F-130-S has a steel insert.



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OPTIONS KEY:

C-Cold drawn steel

D- Dome Head

L- Latch style

P-Plastic Head

S- Standard item w/ steel inserts crimped in button head

X- Standard item in 300 Stainless Steel

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	HOLE DIA.	CENTER DISTANCE	OVERALL LENGTH	ILLUSTRATION NUMBER
FC-040	.100	.31	.020 X .312	.144	1.063	1.62	37
FC-041	.100	.56	.018 X .365	.130	1.150	1.87	
FC-050	.125	.160	.018 X .165	.094	.500	.810	
FC-070	.156	.29	.018 X .365	.130	2.000	2.62	51
FC-116	.218	.75	.020 X .500	.141	2.500	3.38	44
FC-117	.219	.32	.020 X .500	.265	1.560	2.38	7
FC-118	.218	.32	.020 X .500	.265	1.562	2.38	35
FC-119	.218	.32	.020 X .500	.200	1.562	2.46	7
FC-120	.240	.31	.025 X .375	.188	1.500 in flat	1.87	28
FC-132	.250	.37	.020 X .440	.190	1.625	2.88	24
FC-133	.250	.56	.020 X .440	.190	1.625	2.88	24
FC-134	.248	.28	.020 X .250	N/A	N/A	2.75	36
FC-135	.250	.375	.025 X .510	.187	2.00	2.78	37
FC-136	.300	.500	.020 X .440	.190	1.630	2.88	24
FC-137	.250	.415	.018 X .500	.130	1.060	1.56	54
FC-139	.250	.375	.020 X .440	Clip On	1.78	3.00	
FC-151	.312	.50	.020 X .440	.190	1.750	3.15	25
FC-152	.312	.62	.020 X .440	.191	1.75	3.04	25
FC-153	.310	.312	.020 X .440	.191	1.75	3.04	25
FC-154	.310	.375	.020 X .440	.191	1.750	3.04	25
FC-155	.310	.44	.025 X .440	.191	1.250	2.08	45
FC-156	.313	.344	.025 X .656	.128	1.250	2.00	38
FC-180	.375	.440	.030 X .500	.188(2X)	1.313/2.00	2.885	46
FC-181	.375	.50	.025 X .530	N/A	N/A	5.80	39
FC-182	.375	.200	.025 X .510	.128	1.312	2.00	50
FC-250	.345	.25	.020 X .500	.095	1.12	1.88	28



P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	HOLE DIA.	CENTER DISTANCE	OVERALL LENGTH
FPB-130(Plastic)	.250	.320	.020 X .365	.128(2X)	1.500/2.000	2.50
FP-130 (Plastic)	.250	.320	.020 X .365	.128(2X)	1.500/2.000	2.50

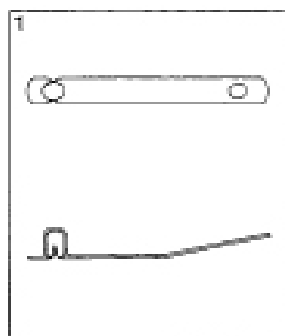
P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	HOLE DIA.	CENTER DISTANCE	OVERALL LENGTH	ILLUSTRATION NUMBER
FX-130	.250	.215	.020 X .350	.128	.840	1.35	9
FX-132	.250	.215	.020 X .350	.128	.840	1.35	13
FX-150	.310	.375	.025 X .530	.190	1.964	2.46	8
FX-152	.335	.410	.020 X .500	.191	1.76	2.26	
FX-252	.310	.500	.020 X .440	.190	1.750	2.38	18
FX-253	.335	.50	.020 X .440	.190	1.750	2.38	14
FX-254	.310	.50	.020 X .440	.191	1.75	2.38	
FX-282	.375	.375	.025 X .510	.190	2.50	3.275	22
FX-283	.375	.594	.025 X .530	.190	1.750	2.38	14
FX-285	.378	.75	.020 X .530	.191	1.750	2.38	



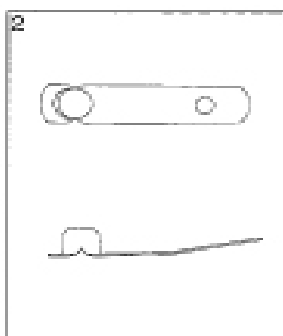
P/N	BUTTON HEAD DIA.		BUTTON HEAD HGTS.		HOLE DIAMETER	CENTER DISTANCE	OVERALL LENGTH	ILLUSTRATION NUMBER
	#1	#2	#1	#2				
FE-135	.250	.250	.43	.43	.200	1.625	3.50	
FE-136	.250	.250	.43	.38	.158	1.125	3.01	
FE-145	.300	.300	.38	.38		1.500	4.48	

P/N	BUTTON HEAD DIA.		BUTTON HEAD HGTS.		HOLE DIAMETER	CENTER DISTANCE	OVERALL LENGTH	ILLUSTRATION NUMBER
	#1	#2	#1	#2				
FEC-160	.250	.365	.300	.375	.128	1.100	2.26	
FEC-180	.250	.370	.281	.310	.128	1.125	3.06	
FLX-180	.250	.375	.400	.59	.130	1.875	4.82	

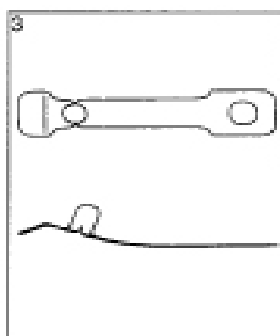
P/N	BUTTON HEAD DIA.		BUTTON HEAD HGTS.		HOLE DIAMETER	CENTER DISTANCE	OVERALL LENGTH	ILLUSTRATION NUMBER
	#1	#2	#1	#2				
FD-140	.300	.300	.43	.43	.158	1.500	2.25	
FDC-181	.375	.375	.50	.50		5.05	5.8	



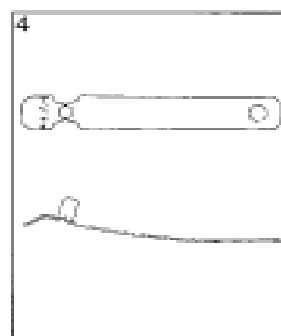
F-100, F-101
F-157



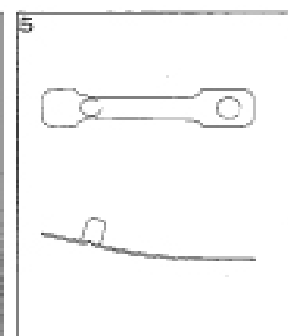
F-110, F-128



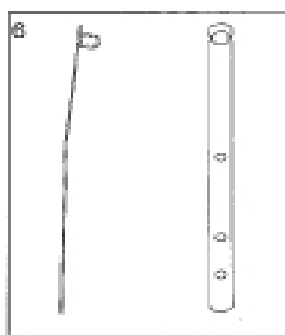
F-111



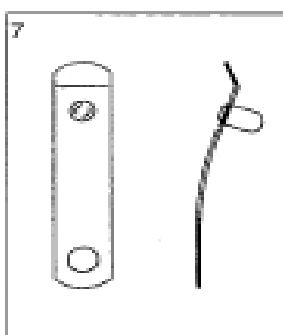
F-112, F-113
F-116



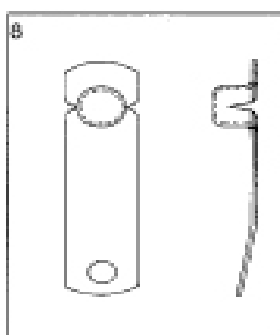
F-114



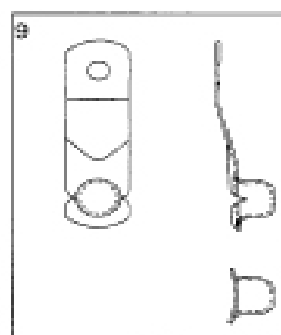
F-115



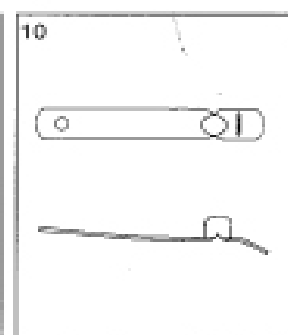
FC-117, FC-133



F-120, F-121, F-122
F-123, F-124, F-125
F-126, F-127, F-128
F-142, F-145, F-150
F-154, F-160, F-161

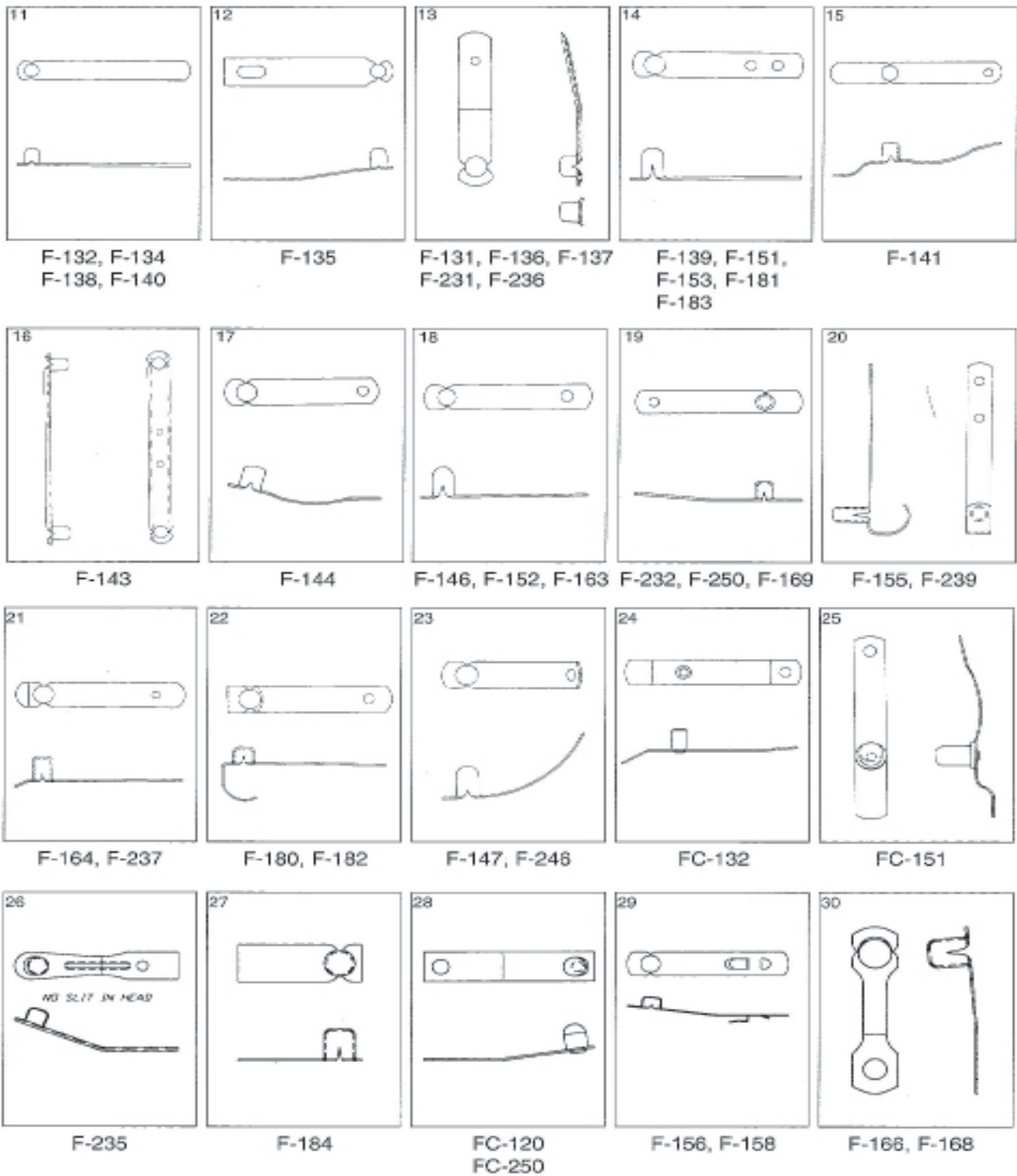


F-130

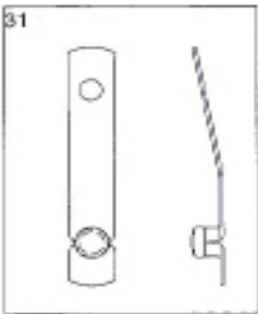


F-133, F-162
F-222, F-230
F-233

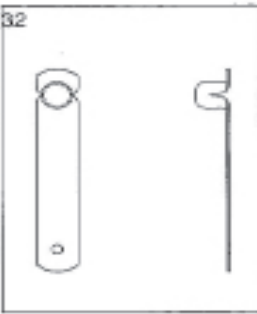




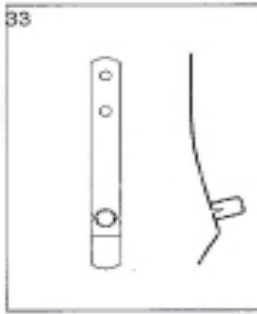
Please Note: Above drawings illustrate contours only. They are not to scale.



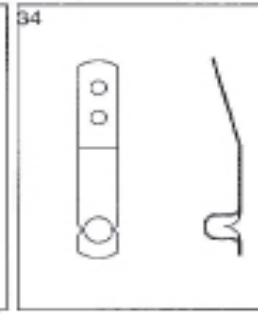
FM-100



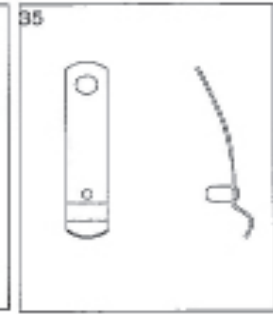
F-185



F-238



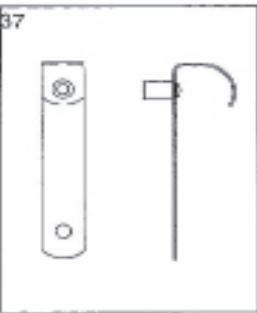
F-251



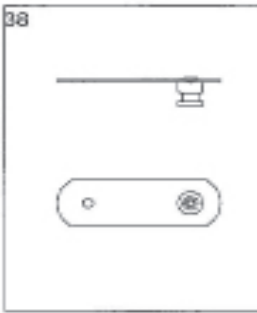
FC-118



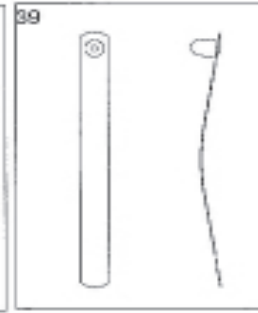
FC-134



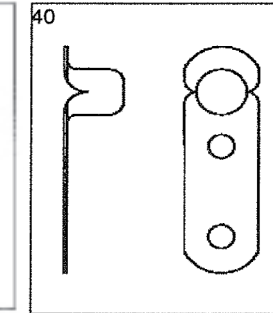
FC-135



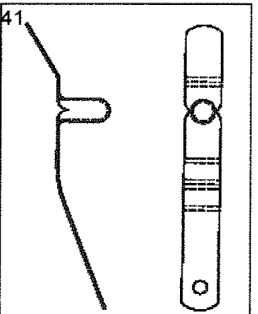
FC-156



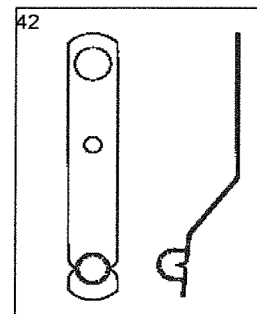
FC-181



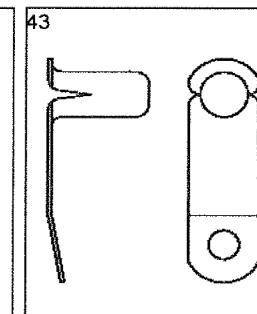
F-333



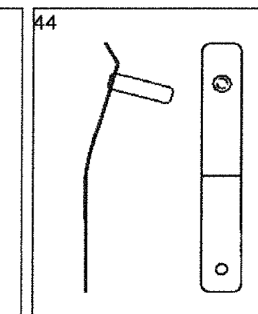
F-334



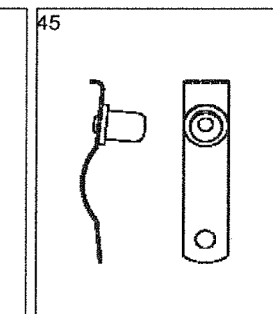
F-335



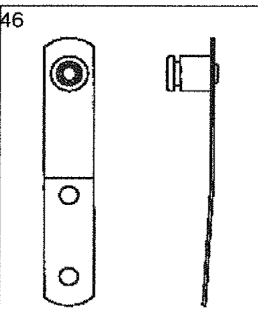
F-221



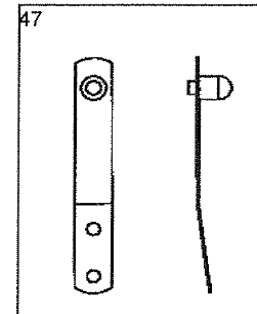
FC-116



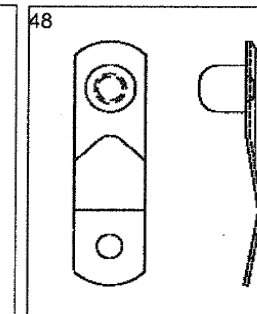
FC-155



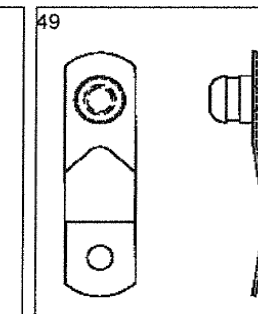
FC-180



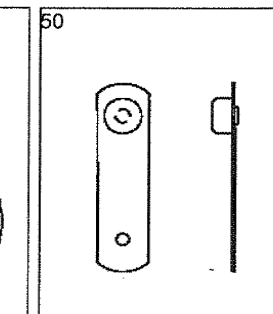
FP-130



FX-130

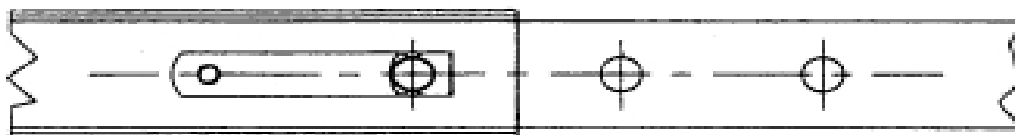
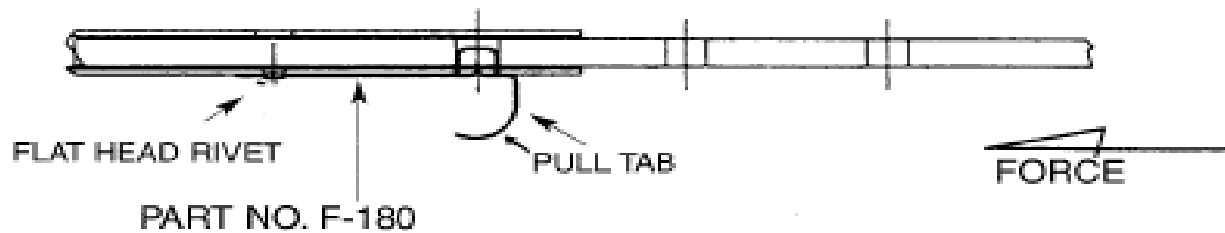
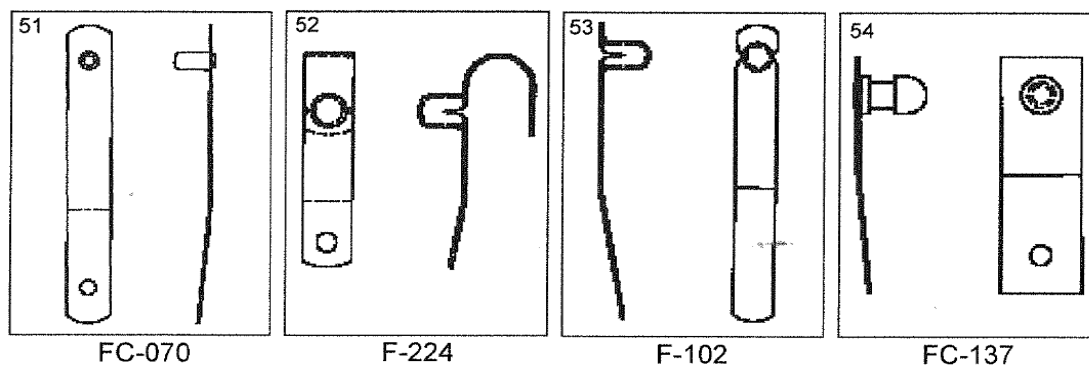


FX-132



FC-182





Please Note: Above drawings illustrate contours only. They are not to scale.

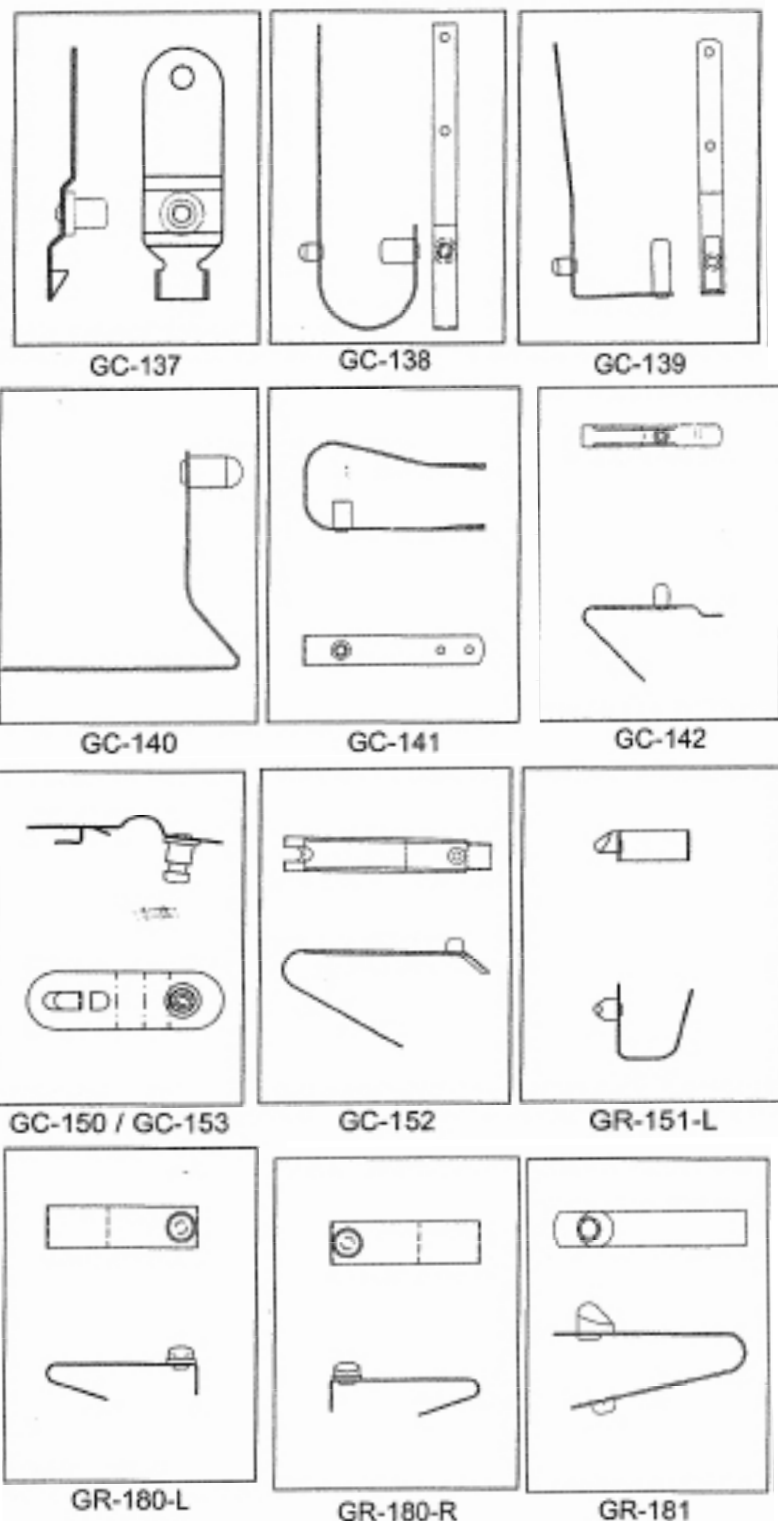
G Style -Special

VALCO®
SNAP-BUTTON

P/N	HEAD DIAMETER	HEAD HEIGHT
G-100	.220	.28
G-102	.187	.28
G-120	.250	.50
G-121	.250	.500
G-122	.236	.28
G-123	.240	.275
G-124-X	.250	.390
G-130	.250	.270
G-230	.250	.281
G-131	.250	.25
G-231	.250	.31
G-132	.250	.31
G-133	.250	.187
G-134	.250	.38
G-135	.250	.20
G-136	.250	.270
G-137	.280	.375
G-150	.312	.375
G-151	.312	.375
G-152	.312	.38
G-153	.310	.30
G-154	.312	.38
G-155	.312	.38
G-156	.310	.375
G-157-X	.312(2X)	.25(2X)
G-160	.365	.562
G-161	.365	.125/.396
G-163	.365	.440

P/N	HEAD DIAMETER	HEAD HEIGHT
GX-110	.218	.28
GC-233	.250	.437
GC-137	.250	.37
GC-138	.250/.365	.281/.500
GC-139	.250/.250	.281/.800
GC-140	.300	.50
GC-141	.312	.46
GC-142	.300	.44
GC-144	.300(2X)	.100/.41
GC-150	.310	.56
GC-152	.328	.28
GC-153	.310	.56
GC-154-UNP	.312	.44
GC-180	.375	.50

P/N	BUTTON HEAD DIA.		BUTTON HEAD HGTS.	
	#1	#2	#1	#2
GRX-130	.250		.225	
GRX-131	.250		.187	
GR-132	.25	.312	.22	.375
GR-151-L	.312		.305	
GR-151-R	.312		.305	
GR-180	.375		.191	
GR-181	.250	.375	.125	.310
GR-182	.375		.310	



General Information:

Standard VALCO® SNAP-BUTTONS are 1050 Spring Steel and .0002 Zinc plated minimum, unless otherwise noted.

Please see the key above for some of the features we have to offer. e.g.:GC-137

G=Style, C=Cold Drawn Steel, 137=Size

tel. 440.237.0160 fax. 440.237.0089 www.valcocleve.com

Made in the U.S.A. by VALCO® /Valley Tool & Die, Inc. 10020 York Theta Drive, Cleveland, OH 44133



OPTIONS KEY:

B- Zinc/Black chromate finish

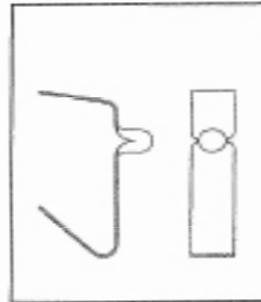
D- Dome Head

G- Zinc/Gold dichromate finish

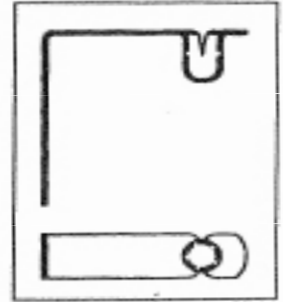
S- Standard item w/ steel inserts crimped in button head

X- Standard item in 410 Stainless Steel

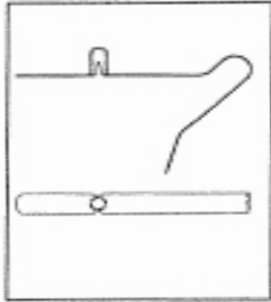
Please note: The illustrations are not to scale.



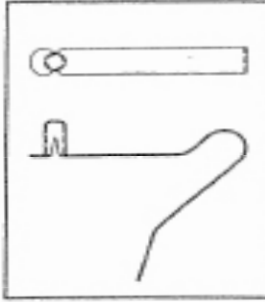
G-100



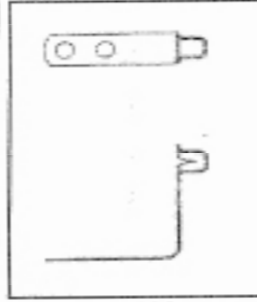
G-102



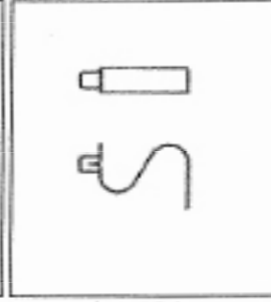
G-120



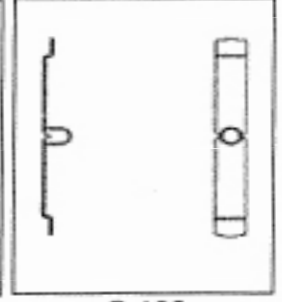
G-121



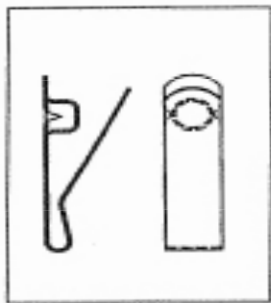
G-123



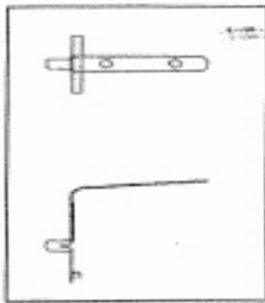
G-131



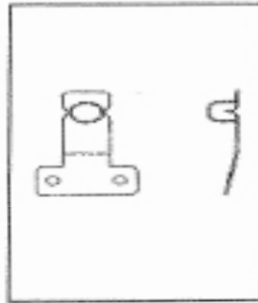
G-132



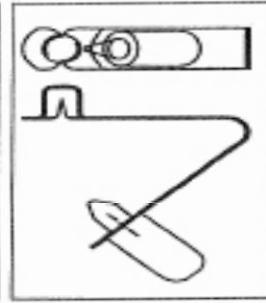
G-133



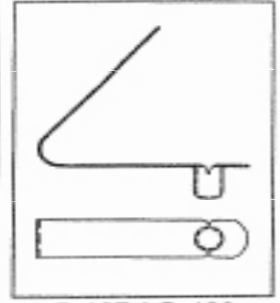
G-134



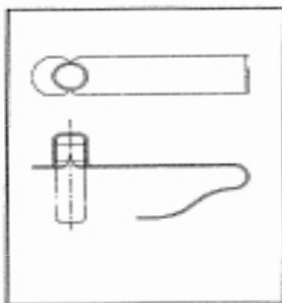
G-135



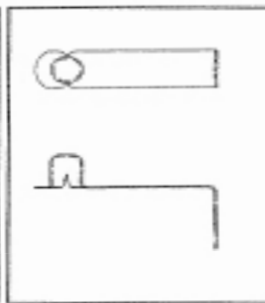
G-136



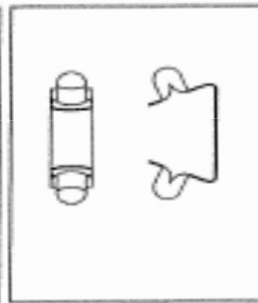
G-137 / G-163



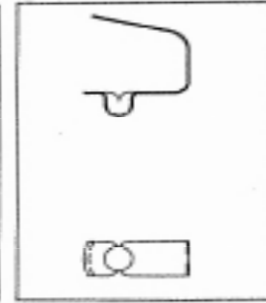
G-150



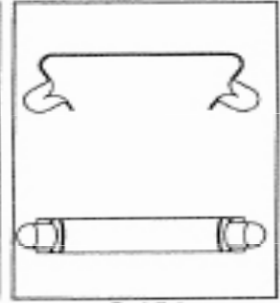
G-151



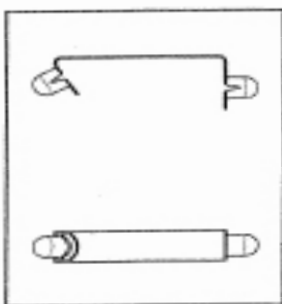
G-152



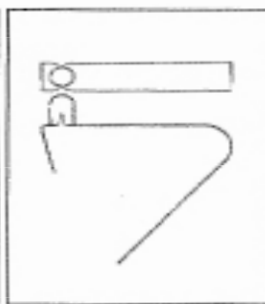
G-153



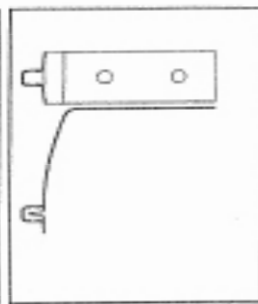
G-154



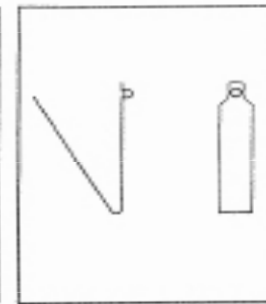
G-155



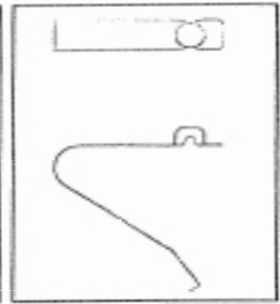
G-160



G-230



G-231



G-300-B

H Leaf Style-Drawn Button


KEY:

- B- Zinc/Black chromate finish
- G- Zinc/Gold chromate finish
- D- Dome Head
- S- Standard item w/ steel inserts crimped in button head
- X- Standard item in 300 Stainless Steel

For higher load applications
steel inserts may be added to
the button.

P/N	HD DIA.	HD HGT.	MATERIAL SIZE	OVERALL LENGTH	ROUND	TUBING I.D.'S	
						SQUARE	RECTANGLE
H-140	.300	.22	.020 X .440	2.0	.50/.55	-	.45 X .40
H-160	.365	.31	.025 X .530	6.0	.55/1.25	.55/1.25	.50 X .55-1.00
H-161	.365	.31	.020 X .510	4.25	.38/.75	.38/.75	.38 X .53-.75
H-170	.365	.31	.020 X .510	7.0	.55/.70	.55/.70	.55 X .55-.70
H-180	.375	.44	.025 X .530	5.62	.75/1.25	.75/1.25	.55 X .75-1.25
H-181	.375	.44	.025 X .530	4.62	.70/1.00	.70/1.00	.55 X .70-1.00
H-182	.375	.44	.020 X .510	2.62	.50/.60	.50/.60	.55 X .50-.62
H-190	.321	.44	.025 X .530	5.36			

HC-Type Solid Steel Button Assembled to Spring

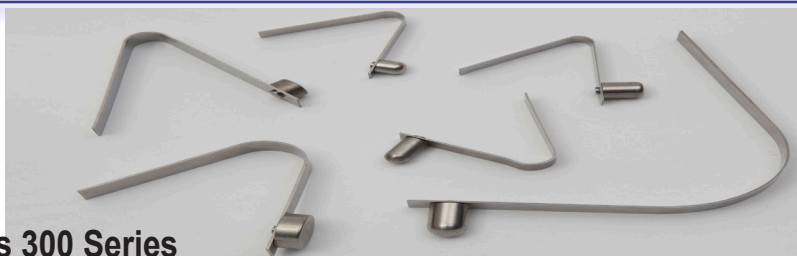


P/N	HD DIA.	HD HGT.	MATERIAL SIZE	OVERALL LENGTH	ROUND	TUBING I.D.'S	
						SQUARE	RECTANGLE
HC-130	.250	.28	.025 X .350	5.75	.75/1.50	.75/1.50	.37 X .75-1.50
HC-131	.250	.38	.025 X .350	5.375	.75/1.50	.75/1.50	.37 X .75-1.50
HC-132	.250	.38	.020 X .350	5.75	.75/1.50	.75/1.50	.37 X .75-1.50
HC-133	.250	.28	.015 X .350	5.75	.50/1.25	.50/1.25	.38 X .50-1.25
HC-134	.250	.37	.020 X .325	3.25	.62/1.25	.62/1.25	.38 X .62-1.25
HX-134	.250	.28	.025 X .375	3.31			
HC-140	.300	.50	.020 X .345	4.50	.75/1.50	.75/1.50	.37 X .75-1.50
HXX-140	.300	.240	.020 X .375	2.82			
HC-141	.300	.50	.020 X .325	4.50	.75/1.25	.75/1.25	.37 X .75-1.25
HC-142	.300	.50	.020 X .312	5.05	.75/1.50	.75/1.50	.32 X .75-1.50
HC-150	.312	.37	.020 X .350	5.75	.75/1.50	.75/1.50	.37 X .75-1.50
HC-151	.312	.37	.025 X .350	5.75	.75/1.50	.75/1.50	.37 X .75-1.50
HC-152	.312	.37	.015 X .350	5.75	.75/1.50	.75/1.50	.37 X .75-1.50
HC-180	.375	.37	.015 X .420	2.96	.60/.62	.60/.62	.50 X .60-.62
HC-181	.375	.25	.012 X .420	2.96	.43/.62	.43/.62	.43 X .43-.62
HC-182	.375	.37	.025 X .350	5.75	.75/1.40	.75/1.40	.37 X .75-1.40
HC-183	.375	.75	.025 X .350	4.65			
HC-184	.365	.50	.025 X .350	5.75	1.00/1.40	1.00/1.40	.37 X 1.00-1.40
HC-185	.375	.375	.020 X .350	4.55	.65/1.50	.65/1.50	.50 X .65-1.50
HX-186	.375	.375	.020 X .375	2.75	.50/1.00	.50/1.00	.38 X .50-1.00





P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	TUBING I.D.'S	
				ROUND	SQUARE
I-130	.250	.280	.018 X .340	.45/1.00	.45/1.00
I-137	.250	.375	.018 X .340	.50/.68	.45/.68
I-140	.300	.375	.020 X .400	.75/1.00	.75/1.00
I-150	.310	.375	.020 X .415	.65/1.62	.65/1.62
I-180	.375	.375	.020 X .485	.75/1.75	.75/1.75



Snap Button Assemblies 300 Series

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	TUBING I.D.'S	
				ROUND	SQUARE
II-050	.125	.16	.012 X .170	.25/.60	.25/.60
II-071	.156	.29	.018 X .210	.57/.63	.57/.63
II-130	.250	.28	.022 X .250	.43/.87	.41/.87
II-132	.250	.37	.025 X .312	.55/.87	.43/.87
II-232(T-316)	.250	.37	.025 X .312	.55/.87	.43/.87
II-133	.250	.37	.025 X .375	.58/1.00	.55/1.00
II-134	.250	.50	.025 X .312	.75/1.00	.75/1.00
II-135	.250	.62	.025 X .312	.875/1.50	.80/1.50
II-136	.250	.38	.018 X .365	.75/1.45	.75/1.45
III-140(T-316)	.300	.375	.025 X .312	.55/1.00	.50/1.00
II-150	.312	.37	.025 X .312	.55/1.00	.50/1.00
II-151	.312	.50	.025 X .375	.90/1.90	.90/1.90
II-152	.312	.40	.022 X .250	.62/.80	.62/.80
II-153	.312	.37	.030 X .375	1.42/2.75	1.42/2.75
II-174	.375	.59	.020 X .440	1.00/1.75	1.00/1.75
II-175	.365	.375	.020 X .440	.80/1.40	.80/1.40
II-176	.375	.59	.030 X .375	.98/2.25	.98/2.25
II-180	.375	.37	.030 X .375	.60/1.12	.55/1.12
II-181	.375	.21	.030 X .375	.75/1.50	.75/1.50
III-181(T-316)	.375	.215	.030 X .375	.75/1.12	.75/1.12
II-182	.375	.25	.030 X .375	.70/1.40	.70/1.40
II-183	.375	.59	.030 X .375	.87/1.30	.87/1.30
II-184	.375	.31	.030 X .375	.67/1.38	.67/1.38
II-186	.375	.375	.020 X .375		
II-200	.500	.20	.030 X .375	.75/1.50	.75/1.50
II-201	.500	.375	.030 X .375	.75/1.40	.75/1.40
II-210	.625	.230	.030 X .375	.78/1.10	.78/1.10
II-211	.625	.491	.030 X .375	1.00/1.50	1.00/1.50

P/N	RAMP DIA.	RAMP HGT.	MATERIAL SIZE	SQUARE TUBING I.D. RANGE
IR-184	.373	.34	.030x.375	.70/1.40

Button Head-T303 Stainless
 Spring-T301 Stainless



IR-184

J-Style 316 Stainless Drawn Head Single End Dog Leg Snap Button

VALCO®
SNAP-BUTTON



P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	TUBING I.D.'S	
				ROUND	SQUARE
J-140	.300	.250	.020 X .400	.60/1.00	.60/1.00
J-160	.365	.375	.020 X .485	.65/1.20	.65/1.20
J-160-B	.362	.375	.020 X .485	.65/1.20	.65/1.20



Snap Button Assemblies 300 Series Stainless Steel

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	TUBING I.D.'S	
				ROUND	SQUARE
JJ-100	.187	.15	.018 X .188	.65/.75	.65/.75
JJ-101	.187	.175	.018 X .188	.30/.40	.30/.40
JJ-103	.187	.22	.018 X .188	.35/.45	.35/.45
JJ-104	.187	.28	.018 X .188	.40/.87	.40/.87
JJ-130	.250	.28	.022 X .250	.43/.62	.40/.62
JJ-131	.250	.28	.022 X .250	.70/.88	.70/.88
JJ-132	.250	.31	.022 X .250	.50/.80	.50/.80
JJ-133	.250	.31	.022 X .250	.50/.88	.50/.88
JJ-134	.250	.375	.022 X .250	.50/.87	.55/.88
JJ-135	.250	.281	.018 X .210	.50/.80	.50/.80
JJ-150	.312	.37	.025 X .312	.60/1.20	.45/1.20
JJ-151(Tapered Hd)	.300	.325	.025 X .375	.60/1.20	.50/1.12
JJ-180	.375	.37	.025 X .375	.60/1.20	.56/1.20
JJ-181(Tapered Hd)	.365	.325	.025 X .375	.60/1.20	.60/1.20
JJ-182	.375	.400	.025 X .375	.60/1.20	.60/1.20
JJ-183	.375	.46	.025 X .375	.65/1.00	.60/1.00
JJ-184	.365	.375	.025 X .375	.75/1.20	.75/1.20
JJM-160	.365/.320	.50	.020 X .375	.83/1.87	.83/1.87

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	TUBING I.D.'S	
				ROUND	SQUARE
K-140	.300	.375	.020 X .400	1.00/1.25	1.00/1.25
K-141	.300	.250	.020 X .400	.75/1.12	.75/1.12
K-142	.300	.250	.020 X .400	1.00/1.25	1.00/1.25

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	TUBING I.D.'S	
				ROUND	SQUARE
KK-130	.250	.28	.022 X .250	.71/1.00	.68/1.00
KK-131	.250	.25	.022 X .312	.62/1.00	.62/1.00
KK-132	.250	.28	.018 X .365	.75/.80	.75/.80
KK-133	.250	.34	.022 X .250	.85/1.00	.85/1.00
KK-134	.250	.34	.025 X .312	.85/1.25	.85/1.25
KK-150	.312	.37	.025 X .312	.96/1.35	.96/1.35
KK-151	.312	.28	.025 X .312	.78/1.25	.78/1.25
KK-152	.312	.23	.022 X .312	.67/1.25	.67/1.25
KK-153	.310	.50	.030 X .375	1.20/1.44	1.20/1.44
KK-180	.375	.37	.030 X .375	.95/2.00	.95/2.00
KK-181	.375	.31	.030 X .375	1.12/1.20	1.12/1.20
KK-182	.375	.31	.030 X .375	.86/2.00	.86/2.00
KK-183	.375	.42	.030 X .375	1.07/2.00	1.07/2.00
KK-187	.375	.59	.030 X .375	1.30/1.75	1.30/1.75
KRR-136	.250 (ramp)	.266	.025 X .312	3.00/3.50	3.00/3.50
KRR-166	.375 (ramp)	.34	.030 X .375	1.15/2.20	1.15/2.20
KRR-167	.375 (ramp)	.406	.030 X .375	1.00/1.87	1.00/1.87



tel. 440.237.0160 fax. 440.237.0089 www.valcocleve.com

Made in the U.S.A. by VALCO® /Valley Tool & Die, Inc. 10020 York Theta Drive, Cleveland, OH 44133




KEY:

B- Zinc/Black chromate finish

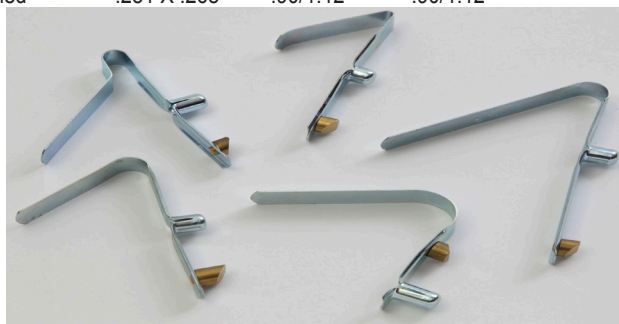
G- Zinc/Gold dichromate finish

D- Dome Head

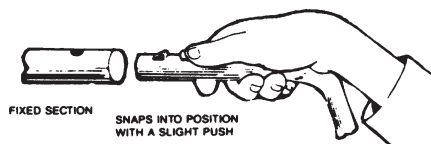
S- Standard item w/ steel inserts crimped in button head

X- Standard item in 410 Stainless Steel

P/N	HD. DIA.	HD. HGT.	CENTER DISTANCE	RAMP TYPE	RAMP SIZE DIA. WDTx HGT	TUBING I.D.'S	
						ROUND	SQUARE
L-130	.250	.425	.725	Formed	.250 X .200	.55/1.12	.52/1.12
L-135	.250	.375	.875	Formed	.180 X .250	.62/.75	.62/.75
L-180	.365	.375	1.000	Formed	.281 X .270	.62/1.25	.52/1.25
L-181	.365	.375	1.75	Formed	.281 X .268	.90/1.12	.90/1.12



P/N	HD. DIA.	HD. HGT.	CENTER DISTANCE	RAMP TYPE	RAMP SIZE DIA. WDTx HGT	TUBING I.D.'S	
						ROUND	SQUARE
LL-130	.250	.425	.750	Solid Brass	.250 X .187	.55/1.12	.52/1.12
LL-230	.250	.425	.750	Solid Brass	.250 X .203	.62/1.20	.60/1.20
LL-131	.250	.425	.750	Solid Brass	.250 X .200	.55/1.12	.52/1.12
LL-132	.250	.425	.750	Solid Brass	.250 X .250	.55/1.12	.52/1.12
LL-133	.250	.425	.750	Solid Brass	.250 X .312	.62/1.12	.62/1.12
LL-134	.250	.425	.750	Solid Brass	.250 X .187	.70/1.12	.70/1.12
LL-135	.250	.375	.870	Solid Brass	.250 X .187	.62/.75	.59/.75
LL-136	.250	.312	1.625	Solid Brass	.250 X .187	.87/1.87	.87/1.87
LL-137	.250	.250	1.000	Solid Brass	.250 X .187	.50/.87	.50/.87
LL-138	.250	.330	.875	Solid Brass	.250 X .312	.50/.87	.50/.87


LL-137

LFC-250

P/N	HD. DIA.	HD. HGT.	FEATURES	RAMP TYPE	RAMP SIZE DIA. WDTx HGT	TUBING I.D.'S	
						ROUND	SQUARE
LD-100-X	.260	.195	Double End	Formed 2X	.180 X .180	.50/.72	.46/.72
LD-136	.250	.312	Double End	Drawn 2X	.250 X .250	.62/1.40	.62/1.40
LFC-250	.250	.406	Solid Flat Button Contoured Rano	Formed	.250 X .278	.50 min.	.50 min.
LR-180	.365	.375		Solid Steel	.375 X .310	.62/.87	.50/.87

FOR ONE-WAY LOCKING SELF-DEPRESSING OPERATION IN SQUARE OR RECTANGULAR TUBING APPLICATIONS

Turned Ramp Heads

P/N	RAMP DIA.	RAMP HGT.	MATERIAL SIZE	SQUARE TUBING I.D. RANGE
RR-130	.250	.220	.012 X .265	.45/.75
RR-131	.250	.290	.018 X .365	.60/1.20
RR-150	.312	.305	.020 X .365	.50/1.00
RR-151	.312	.305	.020 X .365	.75/1.38
RR-152	.312	.305	.025 X .440	1.00/1.25
RR-153-L	.312	.305	.020 X .365	.70/1.25
RR-154	.312	.450	.020 X .440	.70/1.15
RR-155	.312	.400	.025 X .440	.78/1.50
RR-158	.312	.400	.025 X .550	
RR-160	.375	.315	.020 X .365	.50/1.00
RR-161-AL	.375	.315	.015 X .312	.50/.75
RR-162	.375	.315	.020 X .510	.75/1.25
RR-163	.375	.315	.020 X .365	.43/1.00
RR-164	.375	.315	.020 X .365	.43/1.00
RR-165	.375	.315	.020 X .365	.43/1.00
RR-166	.375	.312	.018 X .365	.80/1.25
RR-167	.373	.340	.020 X .510	.75/1.25
RR-168	.375	.312	.020 X .365	.75/1.25
RR-169	.375	.312	.020 x .365	.75/1.25
RR-170	.406	.290	.020 X .375	.50/1.00
RR-171	.375	.440	.025 X .510	.82/1.87
RR-172	.375	.440	.025 X .510	1.06/2.38



HR-281

Milled Ramp Heads

P/N	RAMP DIA.	RAMP HGT.	MATERIAL SIZE	SQUARE TUBING I.D. RANGE
RAA-130	.250	.33	.018 X .365	.75/1.38
RAA-180	.375	.25	.025 X .510	.75/1.25
RAA-181	.375	.25	.020 X .510	.75/1.25
RAA-182	.375	.25	.020 X .510	.75/1.25
RAA-183	.375	.36	.020 X .510	.80/1.38
HR-150	.312	.305	.025 X .350	.75/1.20
HR-151	.312	.305	.020 X .350	.75/1.12
HR-160	.375	.315	.015 X .420	.46/.63
HR-182	.375	.25	.015 X .420	.46/.63
HR-183	.375	.36	.015 X .420	.43/.63
HR-184	.375	.25	.012 X .420	.46/.63
HR-185	.375	.25	.012 X .420	.40/.48
HR-186	.375	.25	.025 X .510	Special Application
HR-280	.406	.315	.015 x .420	.50/.75
HR-281	.406	.315	.015 X .420	.56/.75
HR-282	.406	.315	.020 X .510	.60/.87
HR-283	.406	.315	.025 X .510	.80/1.50
HR-284	.406	.315	.025 X .510	Special Application





DRR-165

KEY:
 DRA= Aluminum
 DRB=Brass
 DRR=Cold Drawn Steel
 DRX=Type 410 Stainless Steel

D- Double End Solid Ramp Button

P/N	HEAD DIA.	HEAD HGT.	MATERIAL SIZE	TUBING I.D.'S		SPECIAL FEATURES
				ROUND	SQUARE	
DRB-130	.250	.187	.012 X .365	.55/.68	.55/.68	Uneven lg Length
DRR-150	.312	.305	.020 X .440	1.25/1.75	1.25/1.75	Large Radius
DRR-165	.375	.310	.020 X .365	.95/1.62	.95/1.62	Ramp Heads

D- Double End Ramp Button

P/N	HEAD DIA.	HEAD HGT.	MATERIAL SIZE	TUBING I.D.'S		SPECIAL FEATURES
				ROUND	SQUARE	
D-131-R	.250	.275	.018x.365	.70/1.00	.70/1.00	Drawn Ramp Heads

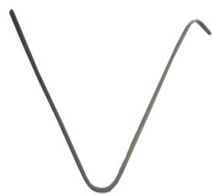


Flat Type Ramp Button

P/N	RAMP DIA.	RAMP HGT.	MATERIAL SIZE	HOLE DIA.	CENTER DISTANCE
FR-110	.219	.16	.020 X .420	.145	1.56 in Flat
FR-111	.218	.16	.020 X .420	.145	1.56
FR-130	.250	.18	.025 X .325	.128	1.500
FR-131	.250	.33	.025 X .500	.265	2.000
FR-132	.250	.33	.025 X .495	.265	2.000
FR-133	.250	.415	.030 X .500	.128	1.060
FR-134	.250	.312	.025 X .500	.25	1.250
FRC-140	.300	.460	.025 X .510	.128	1.00
FR-150	.312	.40	.025 X .365	.204	1.500
FRX-151 (T-300)	.312	.305	.018 X .365	.144 (2X)	1.00
FR-160	.373	.310	.025 X .510	.130	1.735
FRX-161 (T-300)	.373	.28	.018 X .365	.187	1.375
FR-162	.373	.95	.025 X .510	.128 (2X)	1.145
FR-163	.373	.200	.020 X .510	.128	1.500
FR-180	.375	.36	.025 X .510	.130	1.78
FR-181	.375	.36	.025 X .510	.130	1.805
FR-182	.360	.375	.020 X .440	.191	1.750
FR-184	.375	.625	.020 X .440	.191	1.630
FRC-140	.300	.460	.025 X .510	.128	1.000

W- With Solid Button Heads and Galvanized Music Wire Spring

VALCO®
SNAP-BUTTON



No Button Attached



Spring w/ button

KEY:
WA= Aluminum
WB= Brass
WC= Cold Drawn Steel
WX= Stainless Steel
WN= Nylon

BUTTON P/N	SPRING P/N	HEAD DIA.	HEAD HGT.	TUBING I.D.'S ROUND	STANDARD SPRING DIAMETER	VALCO P/N
1932	WS-100	.187	.21	.32/.56	.036	W-100
1892	WS-100	.219	.22	.33/.56	.036	W-120
1921	WS-100	.250	.18	.33/.56	.036	W-125
1933	WS-100	.250	.28	.40/.56	.036	W-130
1933	WS-101	.250	.28	.62/.87	.036	W-132
2281	WS-102	.250	.22	.39/.65	.036	W-133
2037-B	WS-200	.312	.31	.53/1.25	.060	W-150
2201	WS-150	.312	.31	.65/1.02	.048	W-151
1934	WS-200	.312	.37	.83/1.20	.060	W-152
1817	WS-200	.360	.35	.54/1.00	.060	W-160
1991-B	WS-200-X	.362	.35	.54/1.00	.060	WB-161
2036-N	WS-200-X	.365	.54	1.10/1.30	.060	WN-161
1935	WS-200	.375	.37	.55/1.00	.060	W-180

Special Wire Springs

P/N	HEAD DIA.	HEAD HGT.	TUBING I.D.'S ROUND	STANDARD SPRING DIAMETER	SPRING P/N	BUTTON P/N
WA-131	.25	.544	.86/1.31	.060	WS-210	2096
WA-140	.30	.28	.50/1.12	.060	WS-200	2214
WSB-050	.13	.21	.38/.80	.048	One Piece	N/A
WS-200	.062	.25		.062	WS-200	N/A
WS-202	.062	.25		.062	WS-202	N/A

Double Wire Buttons

P/N	HEAD DIA.	HEAD HGT.	TUBING I.D.'S ROUND	STANDARD SPRING DIAMETER	SPRING P/N	BUTTON P/N
WDA-125	.250	.19	.59/1.00	.036	WDS-100	1921-A
WDA-130	.250	.28	.77/1.00	.036	WDS-100	1933-A
WDA-131	.250	.28	.75/1.12	.036	WDS-101	1933-A
WDB-231	.250	.26	.73/1.12	.060	WDS-201	2046-B
WDC-255	.250	.18	.56/.75	.060	WDS-200	1930-C

Wire Spring can be made from Stainless Steel. Special Sizes and shapes can be made to your print.
Standard finish on steel button heads is Zinc plating.
e.g. WC-130 = A steel button head, Zinc plated, is accompanied along with a galvanized music spring wire



Material: Spring Steel

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	LENGTH
M-100	.180	.24	.018x.260	.55
M-101	.180	.24	.018x.260	.48
M-102	.180	.24	.018x.260	.56
M-103	.180	.24	.018x.255	.47
M-104	.185	.24	.018x.255	.64
M-105	.185	.24	.018x.255	.65
M-106	.180	.28	.018x.260	1.24

KEY:

B- Zinc/Black dichromate finish

G- Zinc/Gold dichromate finish

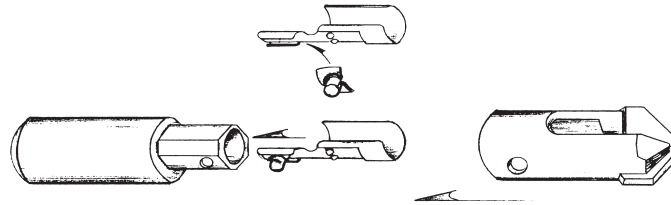
P-Plastic

S- Standard item w/ steel inserts crimped in button head



M-101

VALCO® "Piggy Back" Drill Bit Retainer



P/N	SPRING PIN	BUTTON P/N	BUTTON DIA.	BUTTON HGT.
M-112	M-111	M-110	.187	.182



P/N	SPRING PIN	BUTTON P/N	BUTTON DIA.	BUTTON HGT.
M-115	M-114	M-113	.187	.217
M-116	M-114	M-118	.188	.280

M-112, M-115, M-116
Patent #
US-4615402
CAN-1245213



M-120

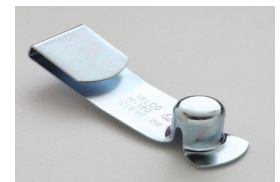
Valco® Dust Hog "V" Clip

Material: Spring Steel

P/N	DRILL STEEL	MATERIAL SIZE
M-120	7/8	.020x.260
M-121	1-1/8	.020x.350

Valco® Clip On Snap Button

P/N	HD. DIA.	HD. HGT.	MATERIAL SIZE	LENGTH
M-180	.370	.370	.025x.510	1.50
MR-181	.375	.360	.020x.510	1.89



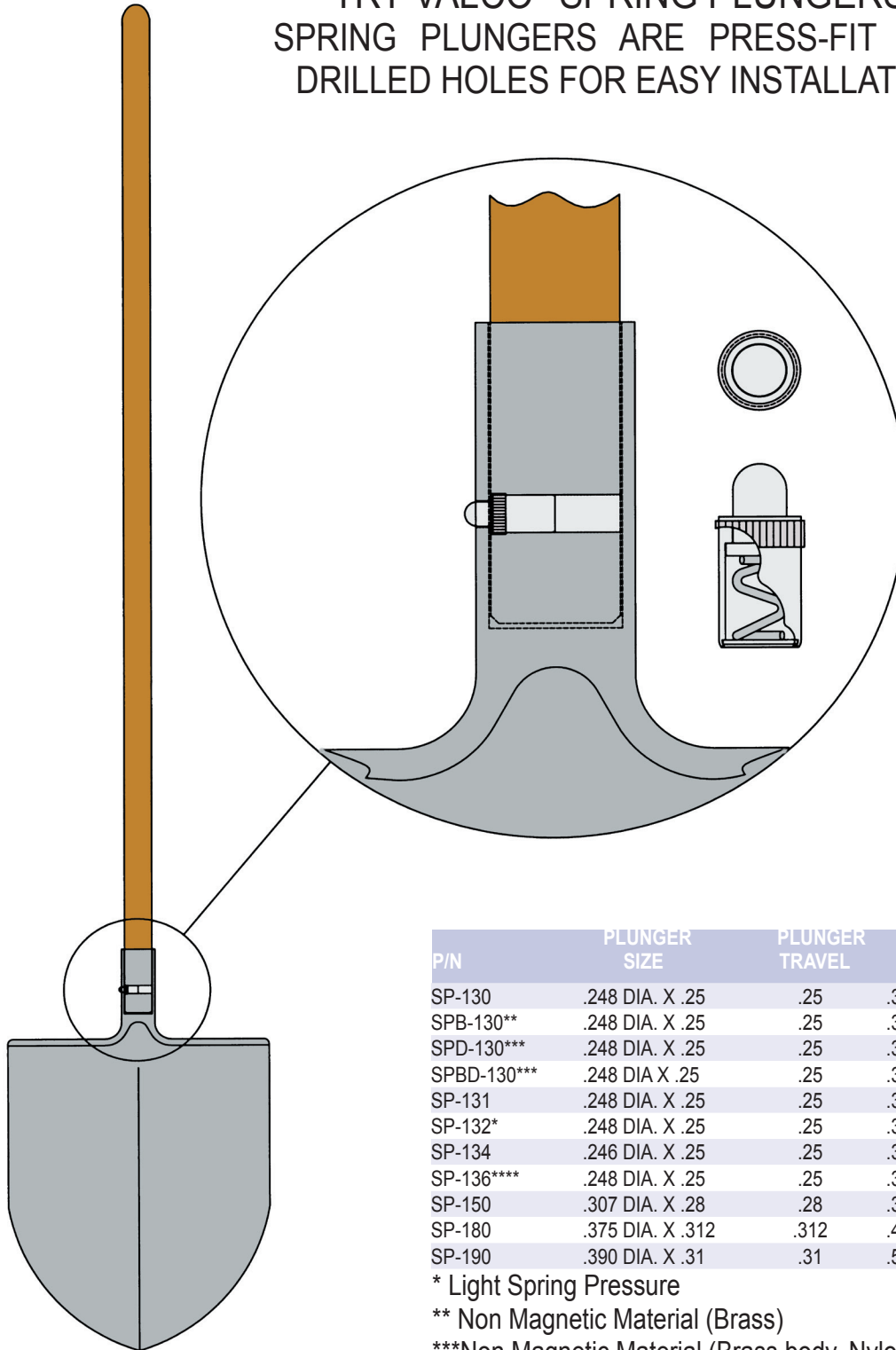
M-180

Drill Steel Chuck Wedding Band Spring Clips

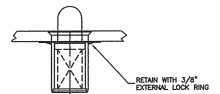
P/N	DRILL STEEL	I.D.	MATERIAL SIZE
M-150	7/8"	9/16"	.025x.380
M-151	7/8"	9/16"	.025x.250
M-200	1 1/8"	3/4"	.030x.500
M-201	1 1/8"	3/4"	.025x.250



WHERE TUBING IS NOT APPLICABLE
TRY VALCO® SPRING PLUNGERS!
SPRING PLUNGERS ARE PRESS-FIT INTO
DRILLED HOLES FOR EASY INSTALLATION



SP-136



SP-134
MOUNTS TO SHEET METAL
WITH COUNTER SUNK HOLE.
RETAIN WITH 3/8" EXTERNAL
LOCK RING.

P/N	PLUNGER SIZE	PLUNGER TRAVEL	BODY SIZE	SPRING RATE INITIAL/FINAL
SP-130	.248 DIA. X .25	.25	.375 DIA. X .62	1 lb. / 3 lb.
SPB-130**	.248 DIA. X .25	.25	.375 DIA. X .62	1 lb. / 3 lb.
SPD-130***	.248 DIA. X .25	.25	.375 DIA. X .62	1 lb. / 3lb.
SPBD-130***	.248 DIA X .25	.25	.375 DIA. X .62	1 lb. / 3 lb.
SP-131	.248 DIA. X .25	.25	.375 DIA. X .56	1 lb. / 3 lb.
SP-132*	.248 DIA. X .25	.25	.375 DIA. X .62	.5 lb. / 1.5 lb.
SP-134	.246 DIA. X .25	.25	.375 DIA. X .62	1 lb. / 4 lb.
SP-136****	.248 DIA. X .25	.25	.375 DIA. X .62	1 lb. / 4 lb.
SP-150	.307 DIA. X .28	.28	.397 DIA. X .87	1 lb. / 4lb
SP-180	.375 DIA. X .312	.312	.464 DIA. X .985	1 lb. / 5 lb
SP-190	.390 DIA. X .31	.31	.500 DIA. X .75	1 lb. / 5 lb.

* Light Spring Pressure

** Non Magnetic Material (Brass)

***Non Magnetic Material (Brass body, Nylon Plunger)

****Zinc plated Body with nylon insert Plunger



Key:
 NWP- No Weld Projection
 WP- Weld Projection
 WPLN- Weld Projection and Legs Notched
 WPLDN- Weld Projection and Legs and Drain Notched

To Fit 3/4" O.D. Square Tubing



0375-B

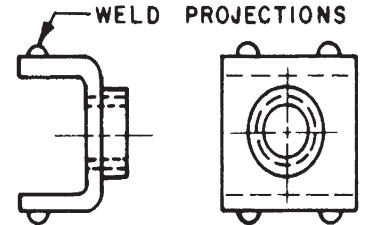
P/N	THREAD SIZE	TUBING WALL GAGE	FEATURES
0375-A	1/4-20	3/4" O.D. X 16 GA	NWP
0375-B	1/4-20	3/4" O.D. X 18 GA	NWP
0375-C	1/4-20	3/4" O.D. X 16 GA	WP
0375-D	1/4-20	3/4" O.D. X 18 GA	WP

To Fit 1" O.D. Square Tubing

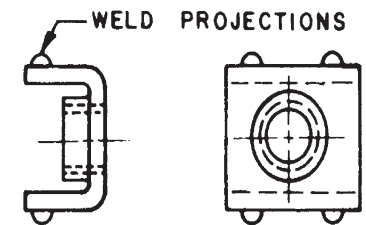


0310-B

		TUBING WALL		
P/N		THREAD SIZE	GAGE	FEATURES
0310-A	0410-A	1/4-20	16	NWP
0310-B	0410-B	1/4-20	18	NWP
0310-C	0410-C	1/4-20	16	WP
0310-D	0410-D	1/4-20	18	WP
0310-E	0410-E	5/16-18	16	NWP
0310-F	0410-F	5/16-18	18	NWP
0310-G	0410-G	5/16-18	16	WP
0310-H	0410-H	5/16-18	18	WP
0310-I	0410-I	5/16-18	16	WPLN
0310-J	0410-J	5/16-18	16	WPDN
0310-K	0410-K	5/16-18	16	WPLDN
0310-L	0410-L	3/8-16	16	NWP
0310-M	0410-M	3/8-16	18	NWP
0310-N	0410-N	3/8-16	16	WP
0310-O	0410-O	3/8-16	18	WP
0310-P	0410-P	3/8-16	18	WPLN



0310 - EXTERNAL EXTRUSION



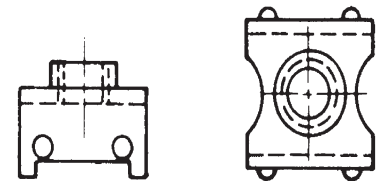
0410 - INTERNAL EXTRUSION

To Fit 1 1/4" O.D. Square Tubing



0712-G

P/N	THREAD SIZE	TUBING WALL GAGE	FEATURES
0712-A	1/4-20	16	NWP
0712-B	1/4-20	18	NWP
0712-C	1/4-20	16	WP
0712-D	1/4-20	18	WP
0712-E	5/16-18	16	NWP
0712-F	5/16-18	18	NWP
0712-G	5/16-18	16	WP
0712-H	5/16-18	18	WP
0712-L	3/8-16	16	NWP
0712-M	3/8-16	18	NWP
0712-N	3/8-16	16	WP
0712-O	3/8-16	18	WP



LEG NOTCHED DRAIN NOTCHED

To Fit Rectangular Tubing

P/N	THREAD SIZE	TUBE SIZE O.D.	TUBING WALL GAUGE
0315-31	5/16-18	1" X 1-1/2"	16
0320-31	5/16-18	1" X 2"	16
0320-25	1/4-20	1" X 2"	16
0318-31	5/16-18	1" X 2"	16
0318-37	3/8-16	1" X 1-7/8"	16
0418-31	5/16-18	1" X 1-7/8"	16
0428-25	1/4-20	1" X 2"	18
0428-31	5/16-18	1" X 2"	18



0315-31



0318-31
0318-37

To Fit 3/4" O.D. Round Tubing

P/N	THREAD SIZE	TUBING WALL GAGE	FEATURES
0275-A	1/4-20	16	NWP
0275-B	1/4-20	18	NWP



0275-A, 0275-B,
0287-A, 0287-B

To Fit 7/8" O.D. Round Tubing

P/N	THREAD SIZE	TUBING WALL GAGE	FEATURES
0287-A	1/4-20	16	NWP
0287-B	1/4-20	18	NWP

To Fit 1" O.D. Round Tubing

P/N	THREAD SIZE	TUBING WALL GAGE
0516-25	1/4-20	16
0516-25-X	1/4-20	16
0518-25	1/4-20	18
0518-25-X	1/4-20	18
0516-31	5/16-18	16
0518-31	5/16-18	18
0516-37	3/8-16	16

X-Type 304 Stainless Steel



0516-37



0516-25

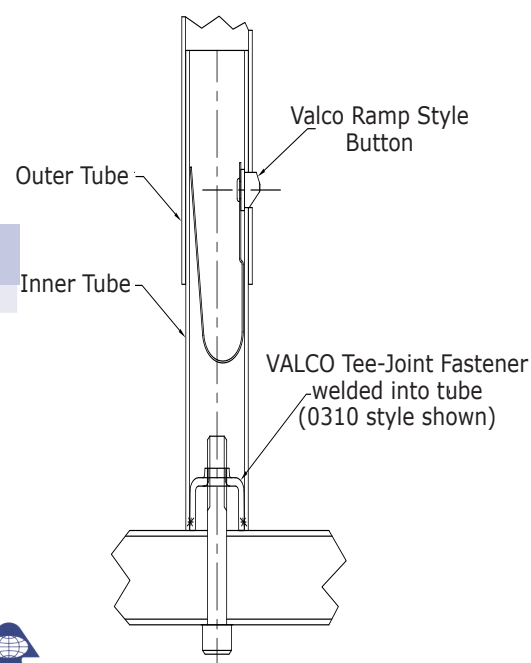


0620-25

To Fit 1 1/8" O.D. Round Tubing

P/N	THREAD SIZE	TUBING WALL GAGE
0620-25	1/4-20	20
0618-25	1/4-20	18

Key:
NWP- No Weld Projection
WP- Weld Projection
WPLN- Weld Projection and Legs Notched
WPLDN- Weld Projection and Legs and Drain Notched



WILL NOT RUST
SMOOTH QUIET OPERATION
EASIER INSTALLATION
FOR USE IN LIGHTER LOAD APPLICATIONS
LIGHTER IN WEIGHT

VALCO® PLASTIC SNAP BUTTONS are available in Delrin Nylon and PVC material. Custom Colors are available per your request at an additional charge.

VALCO® PLASTIC SNAP BUTTONS are produced with the same precision and quality that our customers receive from our steel products. The versatility and flexibility of this product line allow VALCO® to provide its customers with a wider range of products to fulfill their needs.

Here at VALCO® our Engineering staff is always willing to consult and assist with your individual application needs.

Please call our sales department for price quotes.



DP-130

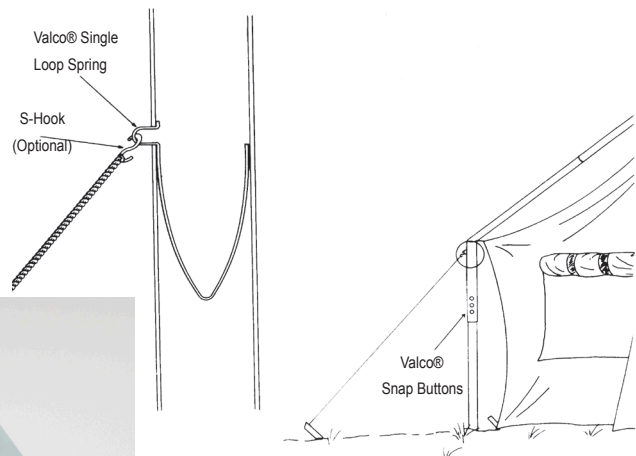
P/N	BUTTON HEAD DIAMETER	BUTTON HEAD HEIGHT	TUBING I.D.	
			ROUND	SQUARE
DP-122	.236	.230	.63/.80	.62/.80
DPB-122(Black)	.236	.230	.63/.80	.62/.80
DP-130	.250	.230	.63/.80	.62/.80

- **SIMPLIFY YOUR TUBULAR PRODUCT, TIE- DOWN OR ATTACHMENT NEEDS.**
- **ELIMINATE EXPENSIVE EYEBOLTS.**
- **INSTALLS QUICKLY WITH A SNAP!**
- **MADE OF SPRING STEEL — HEAT TREATED AND ZINC PLATED.**
- **WILL ACCEPT UP TO 1/4" ROPE OR HOOK FASTENERS.**

Valco® Single Loop Spring P/N LPS-250

Fits: 1 1/8" to 1 3/4" I.D.
Round or Square Tubing

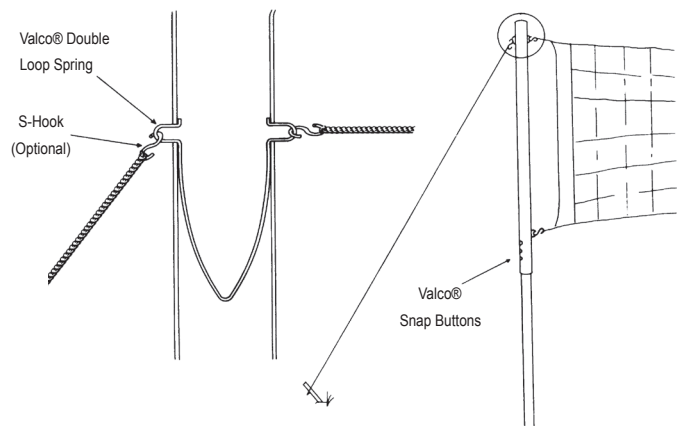
One 1/2" Round or 3/8" Square
Hole Required for Loop



Valco® Double Loop Spring P/N LPD-250

Fits: 1 1/8" to 1 3/4" I.D.
Round or Square Tubing

Two 1/2" Round or 3/8" Square
Hole Required for Loop.



Light Duty Thru Heavy Duty Designs

1001



1" X 1-5/16"

USES INCLUDE(BUT NOT LIMITED TOO):

- ART WORK
- TAXIDERMY
- SIGNS
- PHOTO FRAMES

1002



2" X 2-1/4"

4" X 3-3/4"



1005
HEAVY DUTY

4" X 4-5/8"



1006

1003



2" X 1-3/4"

1004



3-1/4" X 3-3/4"

HEAVY DUTY

- SPECIAL OFFSET DESIGN CLEARS SCREW HEADS. NO MORE BENDING HANGERS BY HAND.
- PERFECTLY FLUSH WALL MOUNT EVERY TIME!
- LEVEL-RITE SAVES YOU TIME, MONEY, AND AGGRAVATION.

2" X 3"



1007

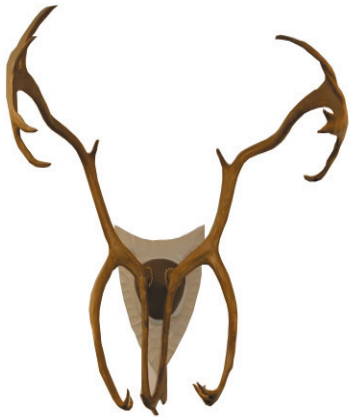
2" X 2"



1008

The 1008 is a universal hanger that can be mounted either way for your hanging application.





All Level-Rite plaques include a 1003 mounting hanger for a straight and sturdy wall mount.



Uses include (but are not limited too):

- Awards
- Taxidermy Mounts
- Clocks
- Signs
- Team Logos
- Native American Artwork



Our patented 3 dimensional gives an authentic look and feel of real stone.

Two integrated mounting points for bolt on applications.

Antler mounting kits also available.



Multiple colors available. Contact us for more information.

OVERALL DIMENSIONS: 1" X 11" X 16"
FACE DIMENSIONS: 6-1/2" X 7-1/8"

Part # CL-1210



The VALCO® Collet Lock is a tube adjusting system that uses compression to lock 1" O.D. and 1-1/4" O.D. adjustable tubing together.

Made from Nylon material. Will not chip, break, or fade. Resistant to most common chemical cleaners, gasoline, oil, etc. Standard color is in black. Color matching available for an additional charge.

Achieving your desired tube length is as easy as 1-2-3 with the VALCO® Collet Lock

Step 1: Twist the Locking Collar to loosen the Collet.



Step 2: Adjust your tube to desired length.



Step 3: Simply re-tighten the locking collar.



VALCO® can help you maintain your standards of quality with a comprehensive range of screw machine parts and service including: MILLING, DRILLING, TAPPING, COUNTERSINKING, BRAZING, POINTING, KNURLING, HEAT TREAT, AND PLATING.

A variety of our screw machine products are illustrated below.



VALCO® is fully staffed and equipped to design and manufacture any combination of a screw machine part and a metal or plastic assembly. Let us quote you on your requirements.



The VALCO® Cord Clip is a snap to install and remove. Order our Cord Clips and clean up your camper! You won't be bothered with any more cords hanging in your way. These versatile clips can be used for a multitude of uses including extension cords, outside lights, and decorations. Designed for camper awnings from 1" to 1-1/4" outside diameter. Plated with corrosion resistant zinc, the VALCO® Cord Clip is an all weather fastener. The perfect solution for organizing all types of cords. The VALCO® Cord Clip is a must-have for all campers and outdoorsmen.

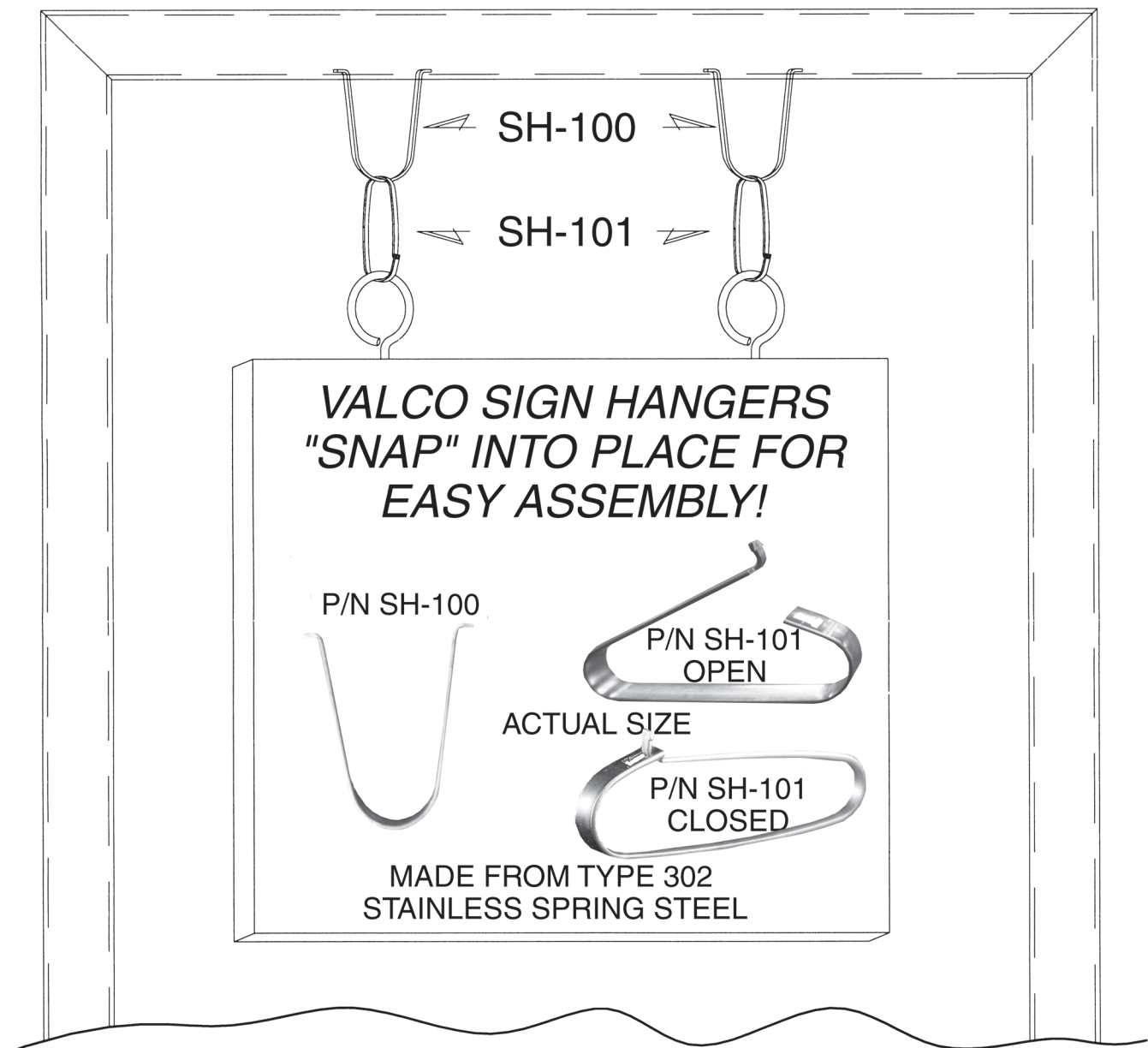


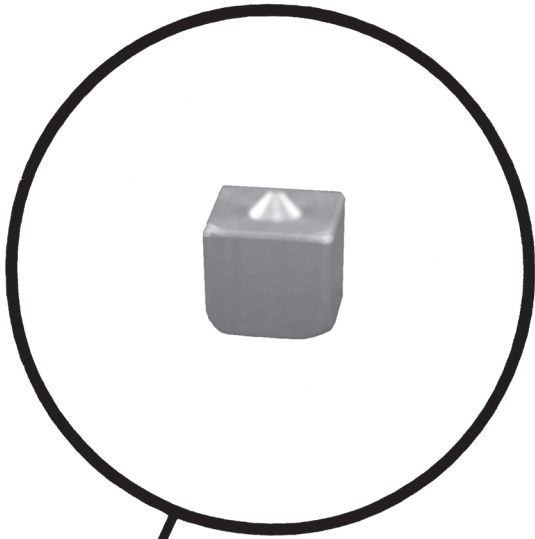
Part # CHC-137



PUT AN END TO “FLY AWAY” SIGNS!

VALCO® has a clasp lock design that prevents our hangers from opening up in extreme wind conditions. This two part system will be a solution to all of your “fly away” problems.





P/N #1740 .375 X .375 CUBE STOP

P/N #2339 .375 X .375 CUBE STOP W/O WELD TIP

P/N #2569 .375 DIA. X .375 ROUND STOP

- WELDS EASILY TO TUBING
- MADE FROM COLD DRAWN STEEL
- TUMBLE POLISHED FOR BETTER FINISH



P/N #2867 .500 X .840 BALL STOP W/WELD PROJECTION

ALSO USE VALCO® SNAP BUTTONS
FOR YOUR TUBING ADJUSTMENT
NEEDS!

COMPANY NAME _____

ADDRESS _____

CITY, STATE, ZIP _____

TELEPHONE NUMBER _____ FAX _____

HOW LONG IN BUSINESS _____ FEDERAL TAX I.D. _____

ESTIMATED ANNUAL SALES \$ _____ NUMBER OF EMPLOYEES _____

NAME OF OWNER OR OFFICERS

NAME _____ TITLE _____

NAME _____ TITLE _____

TRADE REFERENCES

COMPANY NAME _____

TELEPHONE NUMBER _____ FAX _____

COMPANY NAME _____

TELEPHONE NUMBER _____ FAX _____

COMPANY NAME _____

TELEPHONE NUMBER _____ FAX _____

COMPANY NAME _____

TELEPHONE NUMBER _____ FAX _____

BANK REFERENCES

BANK NAME _____ ACCOUNT # _____

CONTACT _____ TELEPHONE _____

We verify that all information is correct and that we fully understand your credit terms are **NET 30 DAYS** and agree to the proper payment in consideration of extended credit. If a violation of these terms persists, the applicant agrees to pay any collection costs incurred to collect the amount of balance, including reasonable attorney's fees.

SIGNATURE _____ DATE _____

PRINTED NAME _____ TITLE _____

Please return to:

Valco®/Valley Tool & Die, Inc.
10020 York Theta Drive
North Royalton, OH 44133
Attention: Accounting

Phone: (440) 237-0161
Fax: (440) 237-0089
Web: [Http://www.valcocleve.com](http://www.valcocleve.com)



VALCO®/VALLEY TOOL & DIE, INC.

TERMS OF SALES

VALCO®
SNAP-BUTTON

Any Agreement, order of Sale of goods or services referenced is expressly limited to and made conditional upon the terms and conditions herein, and any of the Buyer's terms in addition to or different from those contained herein, whether added to this form or contained in any purchase order, acknowledgement or confirmation prepared by Buyer, sent to Valco®/Valley Tool & Die, Inc. ("Valco"), are hereby objected to and shall be of no effect.

(1) **Cancellation.** Any order placed for the goods or services listed may not be canceled by Buyer, except upon terms agreeable to Valco® that will fully compensate Valco® for all expenses incurred by Valco® to the date of cancellation, together with any lost profits Valco® would have realized on such canceled order.

(2) **Prices.** All prices are quoted without consideration of taxes, and all taxes applicable to any order placed hereunder, including, but not limited to, Ohio or other applicable sales or use taxes, are additional and shall be paid by Buyer. All prices are F.O.B. Valco's plant, North Royalton, Ohio. All freight and shipping shall be the responsibility of the Buyer.

(3) **Payment.** Payment in full is due net within 30 days from the date of the invoice.

(4) **Delivery Date.** The delivery dates are approximate. Valco® can take no responsibility and shall not be deemed to be in default of any of its obligations due to delays caused by acts of God, fires, floods, strikes, work stoppages, equipment failure, accidents, allocation, or other controls or regulations, of federal, state or local government, shortages of cars, fuels, materials or labor, or any other cause beyond reasonable control.

(5) **Claims.** All claims of any nature shall be barred unless notice thereof is given to Valco® at its address set forth in writing by certified or registered mail, postmarked within ten days after receipt of the goods, and the goods relating to such claims are held intact and properly protected, unless instructed otherwise by Valco®, pending inspection by Valco's authorized inspector.

(6) **Transportation and Risk of Loss.** Upon Delivery to a common carrier or to Buyer or Buyer's agent or representative of any material goods owned by or made for Buyer, risk of loss or damage to such material or goods shall pass to Buyer, and Valco® shall have no further liability therefor.

(7) **Insolvency.** Valco® shall have the unrestricted right to cancel, withhold or delay its performance or delivery hereunder in the event of the happening of any of the following or any other comparable events, in which event Valco® shall have no liability for any losses or damages claimed by Buyer: (i) Buyer's insolvency or commission of an act of bankruptcy; (ii) commencement of proceedings by, for or against the Buyer under any law relating to bankruptcy or the relief of debtors; (iii) the appointment of a receiver or trustee for Buyer; (iv) the execution of Buyer of an assignment for the benefit of the creditors; (v) the determination by Valco® in its sole judgement, that Buyer's financial condition is such as to endanger its performance hereunder.

(8) **Limited Warranty.** Valco® warrants that all goods sold pursuant hereto shall conform to the specification set forth or to Valco's printed specifications for such goods, where applicable, or, where applicable, to written plans and specifications approved by both Valco® and the Buyer. THE AFORESAID IS THE SOLE WARRANTY GIVEN BY VALCO®, AND THERE ARE NO WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE, WHICH EXTEND BEYOND THE AFORESAID WARRANTY.

(9) **Limitations of Remedy.** BUYER'S SOLE REMEDY FOR AN ALLEGED BREACH OF ANY OF VALCO'S WARRANTIES OR OBLIGATIONS HEREUNDER SHALL BE FOR VALCO®, AT VALCO'S SOLE OPTION, TO REPLACE OR REPAIR ANY DEFECTIVE OR NON-CONFORMING GOODS OR TO REFUND TO BUYER THE PURCHASE PRICE FOR ANY DEFECTIVE OR NON-CONFORMING GOODS.

(10) **Limitations of Liability.** VALCO'S LIABILITY WITH RESPECT TO ANY BREACH HEREUNDER OR RELATING TO ANY GOODS SOLD PURSUANT HERETO SHALL BE LIMITED TO THE AMOUNT PAID BY BUYER FOR ANY DEFECTIVE OR NON-CONFORMING GOODS. UNDER NO CIRCUMSTANCES SHALL VALCO® BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR ANY CLAIMS FOR LOST PROFITS.

(11) **Complete Agreement.** Any dispute which may arise from any agreement, order, or sale based upon a quotation shall be governed by laws of the State of Ohio.

(12) **Governing Law.** Any dispute which may arise from any agreement, order or sale based upon a quotation shall be governed by laws of the State of Ohio.

(13) **Disputes.** No litigation arising from or relating to the manufacture, delivery, sale, or performance of the goods or services referred to may be prosecuted against Valco® in any courts other than those located in Cuyahoga County, OH. Buyer consents to jurisdiction and venue in Cuyahoga County, OH.

In no event may any claim by Buyer for breach of any agreement or order of sale arising be brought in any court more than one year after the date of delivery of the date of any alleged breach, whichever shall be earlier.

(14) **Headings.** The headings used in this agreement are solely for the convenience of the parties and shall have no force or effect upon the interpretation of any provision hereof.



tel. 440.237.0160 fax. 440.237.0089 www.valcocleve.com

Made in the U.S.A. by VALCO®/Valley Tool & Die, Inc. 10020 York Theta Drive, Cleveland, OH 44133

About Us

In business for over 40 years, Valley Tool & Die, Inc., is a complete metal parts manufacturing house with a proud history of quality products, service and performance. Since its inception in 1967, Valley Tool & Die, Inc.'s, commitment to modern facilities, dedicated personnel, and assured quality products have provided our customers with the quality on time deliveries they demand.

The cornerstone of Valley Tool & Die, Inc., is the VALCO® Snap Button product line. Consisting of over 1000 variations, we are certain we can provide the right product to fit your application - whatever it might be.

In the event your application is extremely unique, our Product Development Department is always ready to assist you in obtaining the perfect fit. Our professional engineering staff utilizes state-of-the-art technology prototyping to take your product from concept to reality. Add to that a complete tool room staffed by journeyman tool and die makers capable of producing both progressive dies and four-slide dies and our own innovative tools used in secondary operations and assemblies located only a few steps away, and coordination is quick and easy.

We operate some of the most sophisticated equipment available at our facility, our fully state of the art capabilities will exceed your expectations.

Special emphasis is always placed on quality here at Valley Tool & Die, Inc. We continually monitor all aspects of our business employing such techniques as Statistical Process Control and the use of coordinate measuring machines and optical comparators to ensure the highest quality and performance of our products.

Valco® is also RoH's and REACH Compliant. We are active members in both the NTMA (National Tooling & Machining Association) and the PMA (Precision Metalforming Association).

Fully registered to
ISO 9001:2008, including design



National Tooling &
Machining Association



Member



tel. 440.237.0160 fax. 440.237.0089 www.valcocleve.com

Made in the U.S.A. by VALCO® /Valley Tool & Die, Inc. 10020 York Theta Drive, Cleveland, OH 44133

FRACTIONS—DECIMALS—MILLIMETERS

		DECIMAL	MM			DECIMAL	MM
	$\frac{1}{64}$	.0156	0.396		$\frac{33}{64}$	.5156	13.096
	$\frac{1}{32}$	.0312	0.793		$\frac{17}{32}$	.5312	13.493
	$\frac{3}{64}$	.0468	1.190		$\frac{35}{64}$	.5468	13.890
$\frac{1}{16}$	$\frac{5}{64}$	.0625	1.587	$\frac{9}{16}$	$\frac{37}{64}$	.5625	14.287
	$\frac{3}{32}$	.0781	1.984		$\frac{19}{32}$	.5781	14.684
	$\frac{7}{64}$	.0937	2.381		$\frac{39}{64}$	.5937	15.081
$\frac{1}{8}$	$\frac{9}{64}$	.1093	2.778	$\frac{5}{8}$	$\frac{41}{64}$	.6093	15.478
	$\frac{11}{64}$	.125	3.175		$\frac{43}{64}$	.625	15.875
	$\frac{5}{32}$	.1406	3.571		$\frac{21}{32}$	.6406	16.271
	$\frac{13}{64}$	.1562	3.968		$\frac{45}{64}$	.6562	16.668
$\frac{3}{16}$	$\frac{15}{64}$	.1718	4.365	$\frac{11}{16}$	$\frac{47}{64}$	.6718	17.065
	$\frac{7}{32}$	.1875	4.762		$\frac{49}{64}$	.6875	17.462
	$\frac{17}{64}$	.2031	5.159		$\frac{23}{32}$	.7031	17.859
	$\frac{19}{64}$	.2187	5.556		$\frac{47}{64}$	.7187	18.256
$\frac{1}{4}$	$\frac{21}{64}$	.2343	5.953	$\frac{3}{4}$	$\frac{49}{64}$	.7343	18.653
	$\frac{23}{64}$	.250	6.350		$\frac{51}{64}$	.750	19.050
	$\frac{9}{32}$	.2656	6.746		$\frac{53}{64}$	.7656	19.446
	$\frac{11}{16}$	.2812	7.143		$\frac{25}{32}$	.7812	19.843
$\frac{5}{16}$	$\frac{13}{32}$	.2968	7.540	$\frac{13}{16}$	$\frac{55}{64}$	.7968	20.240
	$\frac{25}{64}$	.3125	7.937		$\frac{57}{64}$	.8125	20.637
	$\frac{27}{64}$	.3281	8.334		$\frac{27}{32}$	.8281	21.034
	$\frac{11}{8}$	.3437	8.731	$\frac{7}{8}$	$\frac{59}{64}$	.8437	21.431
	$\frac{23}{32}$	.3593	9.128		$\frac{61}{64}$	.8593	21.828
$\frac{3}{8}$	$\frac{25}{32}$	.375	9.525		$\frac{63}{64}$	.875	22.225
	$\frac{13}{16}$	.3906	9.921		$\frac{29}{32}$	.8906	22.621
	$\frac{27}{64}$	.4062	10.318		$\frac{59}{64}$	.9062	23.018
$\frac{7}{16}$	$\frac{29}{64}$	.4218	10.715	$\frac{15}{16}$	$\frac{61}{64}$	.9218	23.415
	$\frac{31}{64}$	.4375	11.112		$\frac{63}{64}$	.9375	23.812
	$\frac{15}{32}$	.4531	11.509		$\frac{31}{32}$	.9531	24.209
	$\frac{31}{64}$	.4687	11.906		$\frac{63}{64}$	.9687	24.606
$\frac{1}{2}$		.4843	12.303			.9843	25.003
		.500	12.700			1.000	25.400



This is the symbol of the Highest Quality stampings, assemblies and made-to-order punch press and screw machine products.

VALCO®/VALLEY TOOL & DIE, INC.