FaceClipper 1000

Model #_____

Serial #_____

Vertex Fasteners
A Subsidiary of Leggett & Platt, Inc.
1798 Sherwin Avenue
Des Plaines, Illinois 60018 U.S.A.
(847) 768-6139

REV. O
1-7-15

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DESCRIPTION OF EQUIPMENT

The FaceClipper 1000, a specially designed machine used by upholstered furniture manufacturers, quickly and accurately installs FaceClips into wooden frame rails. The single-head tool allows you to install clips on straight and curved rails. The straightforward, innovative design elements have resulted in a productive and versatile machine for all manufacturers.

The FaceClipper 1000 is made up of three main components:

1. Turntable Assembly
    a. A turntable holds a coil of FaceClips containing 625 pieces.
2. Tool Assembly (Clipping Head)
    a. The Tool Assembly, which installs FaceClips into wooden furniture rails, can be adjusted to suit the needs of straight or curved rails.
3. Pneumatic Control Circuit

OPERATING INSTRUCTIONS

<u>Loading a Coil of FaceClips</u>

Refer to Coil Illustration (VC3100) drawing.

1. Place coil on hub of Turntable Assembly (VC3049).
2. Place Disk Cap Assembly (VC3073) on top of coil.
3. Run clips off coil, onto Platform (VC3060) and down rail (VC3078) on rear of Tool Head (VC3044).
4. Lift Feed Cylinder (VC3006), swing flag forward to support cylinder.
5. From the front of tool, slide the Loading Tool Hook (VC3096); hook down, through slot in Front Plate (VC3034), pull clips forward.
6. Verify that Feed Cylinder is down.

Removing FaceClips from Tool Assembly

1. Lift Feed Cylinder (VC3006) up, swing flag forward to support cylinder.
2. Spread Pawl (VC3011) away from side plates while removing clips from rear.
   Caution: Do not overspread pawl.

Adjusting Table for Straight Rail

1. Place Rail Backstop (VC3172) in position on Platform (VC3171).
2. Place rail on Platform against Backstop.
3. Set Spacer Gauge (VC3176) on top of rail and below Tool Assembly (VC3118) where clips are applied.
4. Raise Platform until Spacer Gauge touches Tool.
   a. Change height of Platform by loosening FHCS (VH0309) with Hex Key (VH0901) and Set Screw (VH0959) with T-Handle Hex Key (VH0900).
   b. Turn Threaded Rod (VC3174) to appropriate height.
   c. Tighten FHCS and Set Screw.

Adjusting Tool Position for Curved Rail

1. Place rail on Platform (VC3171).
2. Set Spacer Gauge (VC3176) on top of rail and below Tool Assembly (VC3118) where clips are applied.
3. Raise Platform until Spacer Gauge touches Tool.
   a. Change height of Platform by loosening FHCS (VH0309) with Hex Key (VH0901) and Set Screw (VH0959) with T-Handle Hex Key (VH0900).
   b. Turn Threaded Rod (VC3174) to appropriate height.
   c. Tighten FHCS and Set Screw.

Air Pressure

Set air pressure between 60-90 psi for proper operation of the FaceClipper 1000. Hardness of wood will determine setting. After required adjustments have been made you may begin production.

Clipping Rails

Keep hands and fingers away from FaceClip exit point!!

1. Lay rail on Platform.
2. Slide into desired position.
3. Step on Foot Switch (VH0161) to fire Tool.
4. Move rail to next location and repeat.

SAFETY INSTRUCTIONS

1. Operators should ALWAYS wear safety glasses while operating, maintaining or repairing the equipment.
2. NEVER place hands or fingers near clip exit area when operating tool or when connecting air supply to machine.
3. Always shut off air supply when servicing tool.

MAINTENANCE

Recommended Daily Maintenance

1. Add 2-3 drops of 30-weight oil to opening between Front Plate (VC3034) and Guard (VC3037) of Tool assembly.

Self-Lubricating Regulator

Use Air Tool Oil, Almo 525 or equivalent.
Turn knob one full turn (counterclockwise) from closed position for correct lubrication.

FACECLIPPER 1000
RECOMMENDED SPARE PARTS LIST

PART #	DESCRIPTION	QTY
VC0340	AIR LUBE OIL	1
VC3011	PAWL	1
VC3014	PAWL SPRING	2
VC3016	PISTON FEED SPRING	2
VC5117	TORSION SPRING	2
VC5132	PIN, FEED CYLINDER	2
VH0050	FLOW CONTROL VALVE	2
VH0135	O'RING, #210	2
VH0531	HAIR PIN	2

TROUBLESHOOTING INFORMATION

PROBLEM	CAUSE	SOLUTION
Blade does not return.	Obstruction in tool. Cylinder Spring damaged.	Remove obstruction. Replace Spring (VC3016).
Clips not feeding.	Dispenser obstruction. Feed cylinder not engaged.	Remove obstruction. Engage by lifting up cylinder allowing flag to drop.
Clip not seated against rail (Fig. 3).	Low air pressure. Platform too low.	Increase pressure. (Never exceed 90 psi) Place Spacer Gauge (VC3176) on top of rail, raise platform until gap closed between Gauge and Tool.
Clip's hook is overhanging edge of rail (Fig. 4).	Board is warped. Rail is not against tool or Rail Backstop (VC3172).	Operator must hold rail firmly against tool or Rail Backstop.
Tool does not fire.	Air Supply not connected. Main Valve is off.	Connect Air Supply. Turn valve (VH0172) on.
Missed clip.	Clips ran out.	Reload with new coil. Line up rail for correct clip placement. Step on Foot Switch (VH0161) to fire tool.

EXAMPLES OF
INCORRECT CLIP INSTALLATION

FIGURE 3

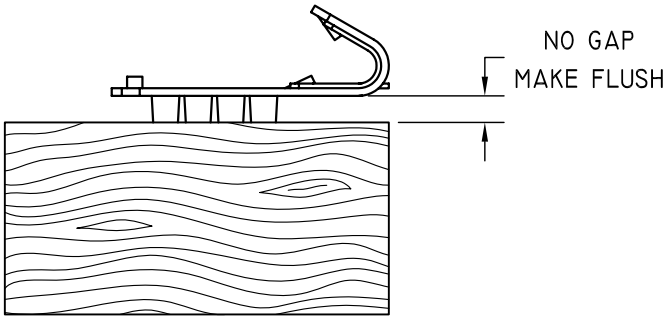
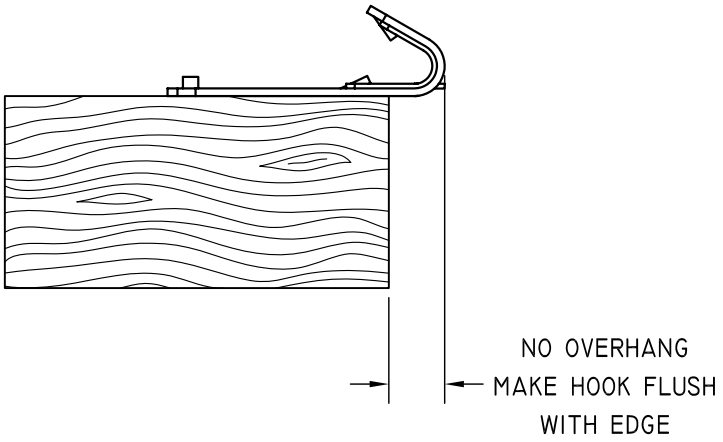


FIGURE 4



REV A 10-10-07

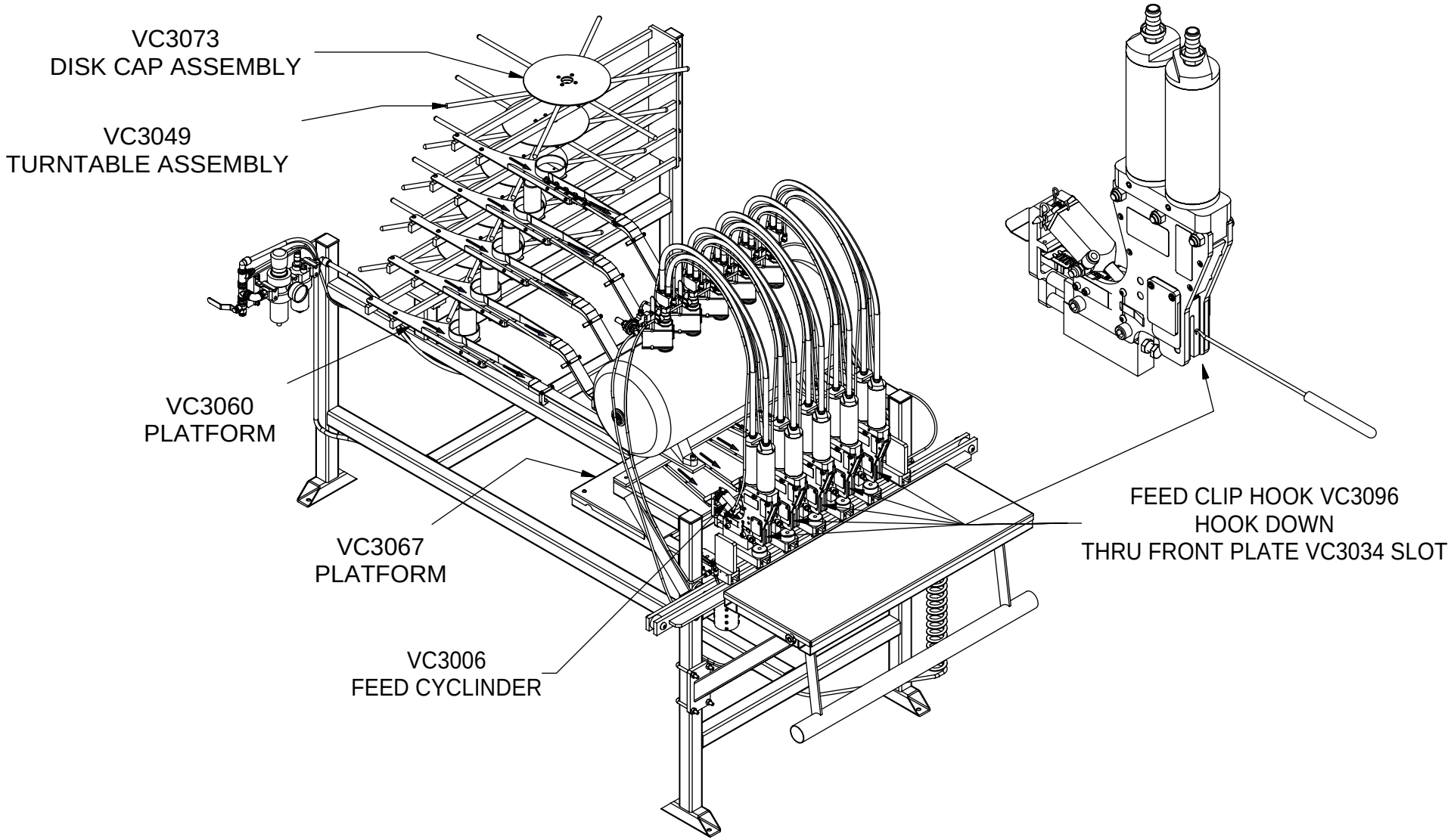
Specifications

Air: 60-90 psi, 6 cfm

Machine Size: Depth: Footprint = 49", Overall 53"
Width: Footprint = 38", Overall 42"
Height: 60"

Rail Dimensions: Thickness: 5/8" – 2"

Clip Coil Capacity: 625 FaceClips



REV	ECN	DESCRIPTION	BY	APPD	DATE

MATERIAL:

HEAT TREATMENT:

FINISH:

TOL. UNLESS SPECIFIED
INCHES
.X = ± .030
.XX = ± .015
.XXX = ± .005
ANGLES ± 1/2'

INVENTOR

DWN BY JMW

APPD DA

DATE 10-10-07

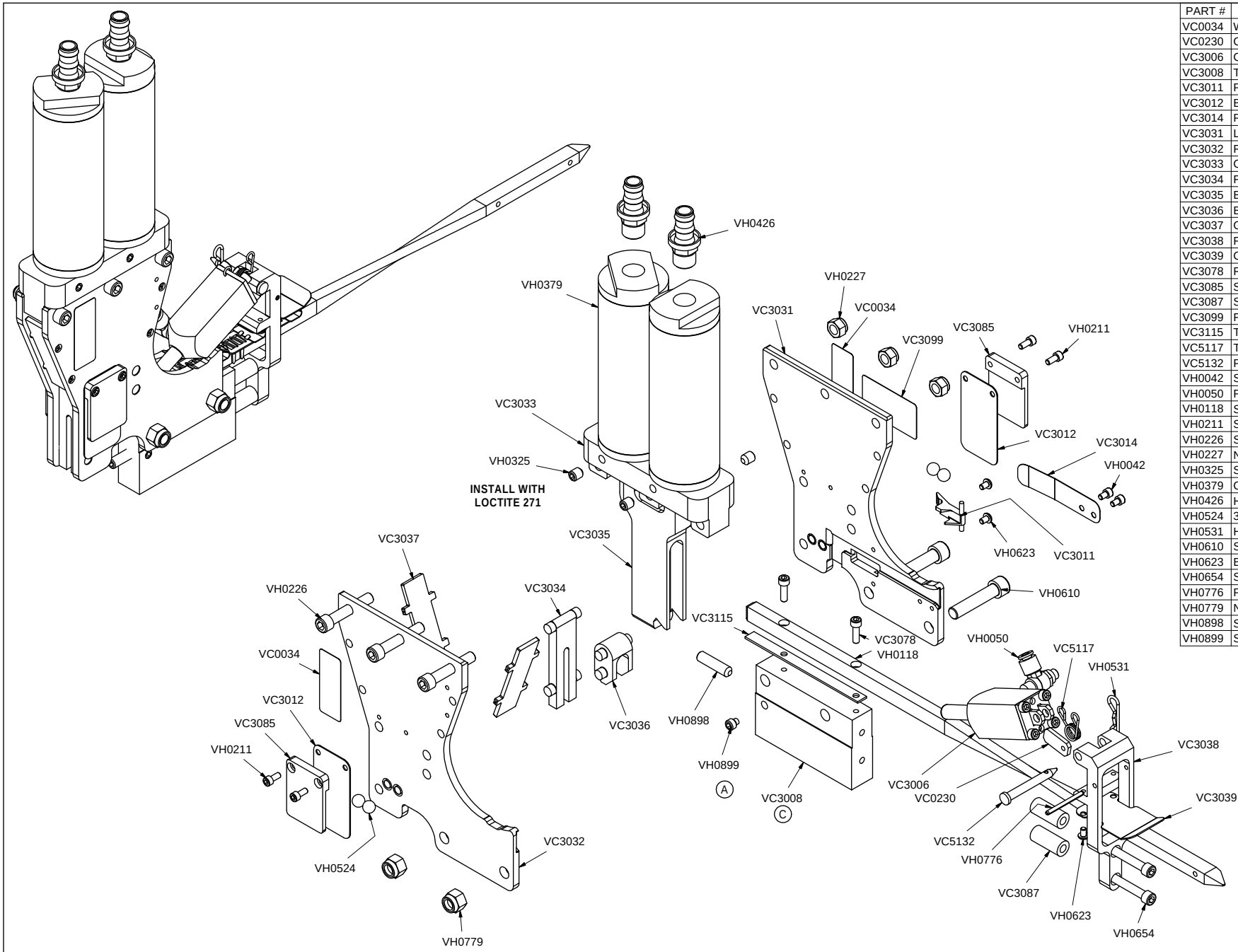
SCALE

VERTEX FASTENERS
3714 JARVIS AVENUE
SKOKIE, IL 60076 U.S.A.

COIL ILLUSTRATION

DWG. NO. VC3100

A



PART #	DESCRIPTION	QT
VC0034	WARNING LABEL	2
VC0230	CLIP FEEDER STOP	1
VC3006	CLIP FEEDER ASSEMBLY	1
VC3008	TOOL MOUNT	1
VC3011	PAWL	1
VC3012	BALL BEARINGS SPRING	2
VC3014	PAWL SPRING	1
VC3031	LEFT-HAND SIDE PLATE	1
VC3032	RIGHT-HAND SIDE PLATE	1
VC3033	CYLINDER MOUNT	1
VC3034	FRONT PLATE	1
VC3035	BLADE	1
VC3036	BLADE GUIDE	1
VC3037	GUARD	2
VC3038	FEEDER BRACKET	1
VC3039	COVER	1
VC3078	RAIL 1000	1
VC3085	SPRING RESTRICTOR	2
VC3087	SPACER, 1/2 x 1 1/8, 1/4	2
VC3099	FACECLIPPER LABEL	1
VC3115	TOOL RAIL SHIM - 1K, 2K & 3K	1
VC5117	TORSION SPRING	1
VC5132	PIN, FEED CYLINDER	1
VH0042	SHCS, 8 - 32 x 1/4	2
VH0050	FLOW CONTROL	1
VH0118	SHCS, 10 - 32 x 5/8	2
VH0211	SHCS, 8 - 32 x 3/8	4
VH0226	SHCS, 5/16 - 24 x 1 3/4	3
VH0227	NUT, NYLOCK, 5/16 - 24	3
VH0325	SET SCREW, 5/16 - 18 x 3/8	4
VH0379	CYLINDER	2
VH0426	HOSE BARB, 1/2 x 3/8 NPT	2
VH0524	3/8 CHROME BALL	4
VH0531	HAIR PIN	1
VH0610	SHCS, 3/8 - 24 x 1 3/4	2
VH0623	BHCS, 8 - 32 x 1/4	4
VH0654	SHCS, 1/4 - 20 x 1 3/4	2
VH0776	PIN, ROLL, 1/8 x 1 1/2	1
VH0779	NUT, NYLOCK, 3/8 - 24	2
VH0898	SET SCREW, 5/16 - 18 x 1 1/4	1
VH0899	SET SCREW, NYLON TIP	1

REV	ECN	DESCRIPTION	BY	APPD	DATE
A	1304	WAS VC3008 & VH0611, - VH0612, +VH0899	JMW	RP	4-23-13
B	1324	VC3115 WAS RECT PLATE	JMW	RP	5-23-13
C	1319	WAS VC3175 (NOW OBSOLETE)	JMW		5-29-13
D	VC3044-130730	SIDE PLATES, DRIVER & FRONT PLATE REVISED. VC3115 WAS 2 WASHERS	JMW		7-30-13

MATERIAL:

HEAT TREATMENT:

FINISH:

TOL. UNLESS SPECIFIED
INCHES
.X = ± .030
.XX = ± .015
.XXX = ± .005
ANGLES ± 1/2'

INVENTOR

DWN BY JMW

APPD MR

DATE 10-23-09

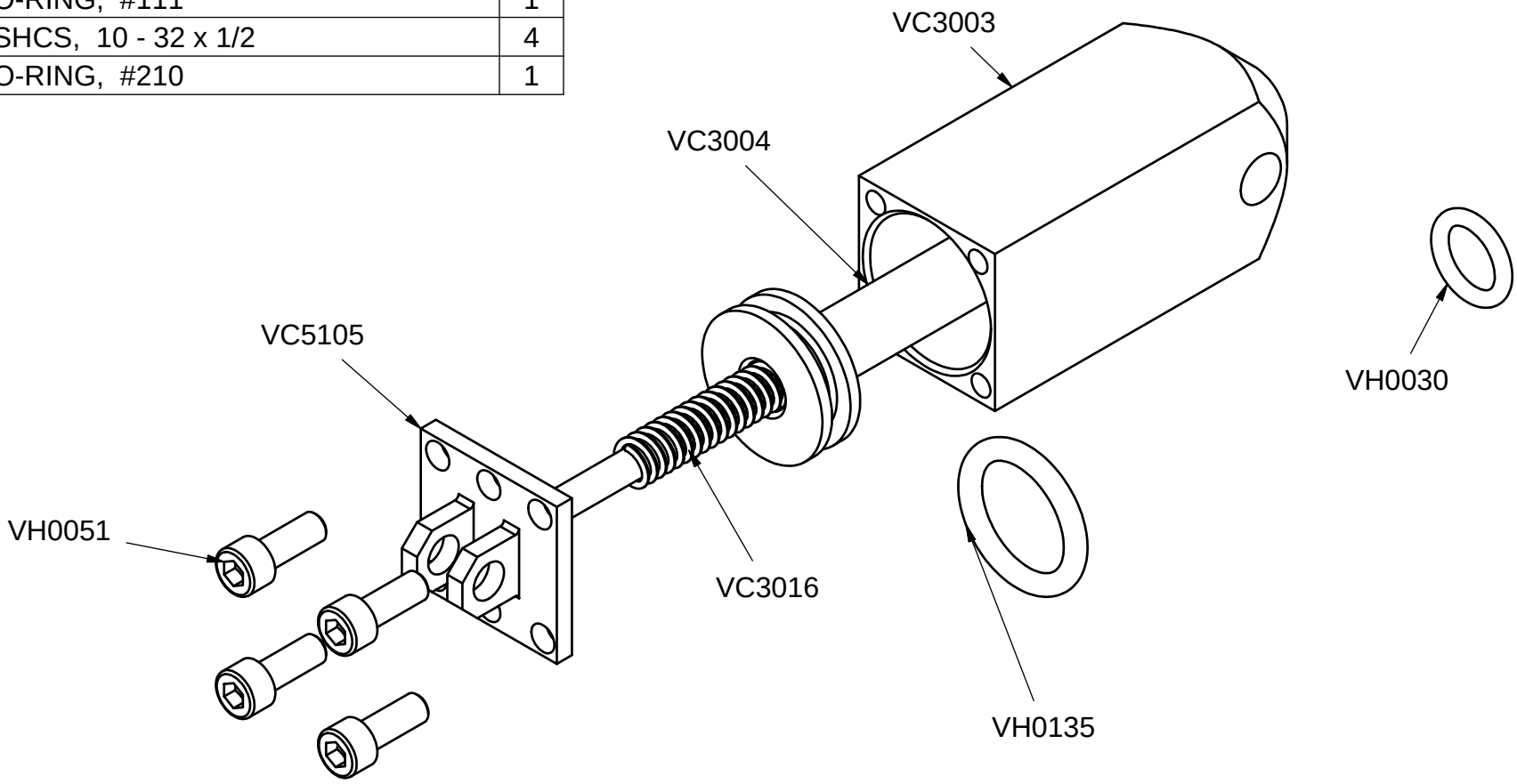
SCALE 1:2

VERTEX FASTENERS
1798 SHERWIN AVENUE
DES PLAINES, IL 60018 U.S.A.

FACECLIPPER 1000
TOOL ASSEMBLY

DWG. NO. VC3118 C

PART #	DESCRIPTION	QT
VC3003	CYLINDER BODY (CLIP FEEDER)	1
VC3004	PISTON (CLIP FEEDER)	1
VC3016	CLIP FEEDER SPRING	1
VC5105	CYLINDER END CAP (CLIP FEEDER)	1
VH0030	O-RING, #111	1
VH0051	SHCS, 10 - 32 x 1/2	4
VH0135	O-RING, #210	1



REV	ECN	DESCRIPTION	BY	APPD	DATE

MATERIAL:

HEAT TREATMENT:

FINISH:

TOL. UNLESS SPECIFIED
INCHES
.X = ± .030
.XX = ± .015
.XXX = ± .005
ANGLES ± 1/2'

INVENTOR

DWN BY JMW

APPD DA

DATE 10-26-05

SCALE FULL

VERTEX FASTENERS
3714 JARVIS AVENUE
SKOKIE, IL 60076 U.S.A.

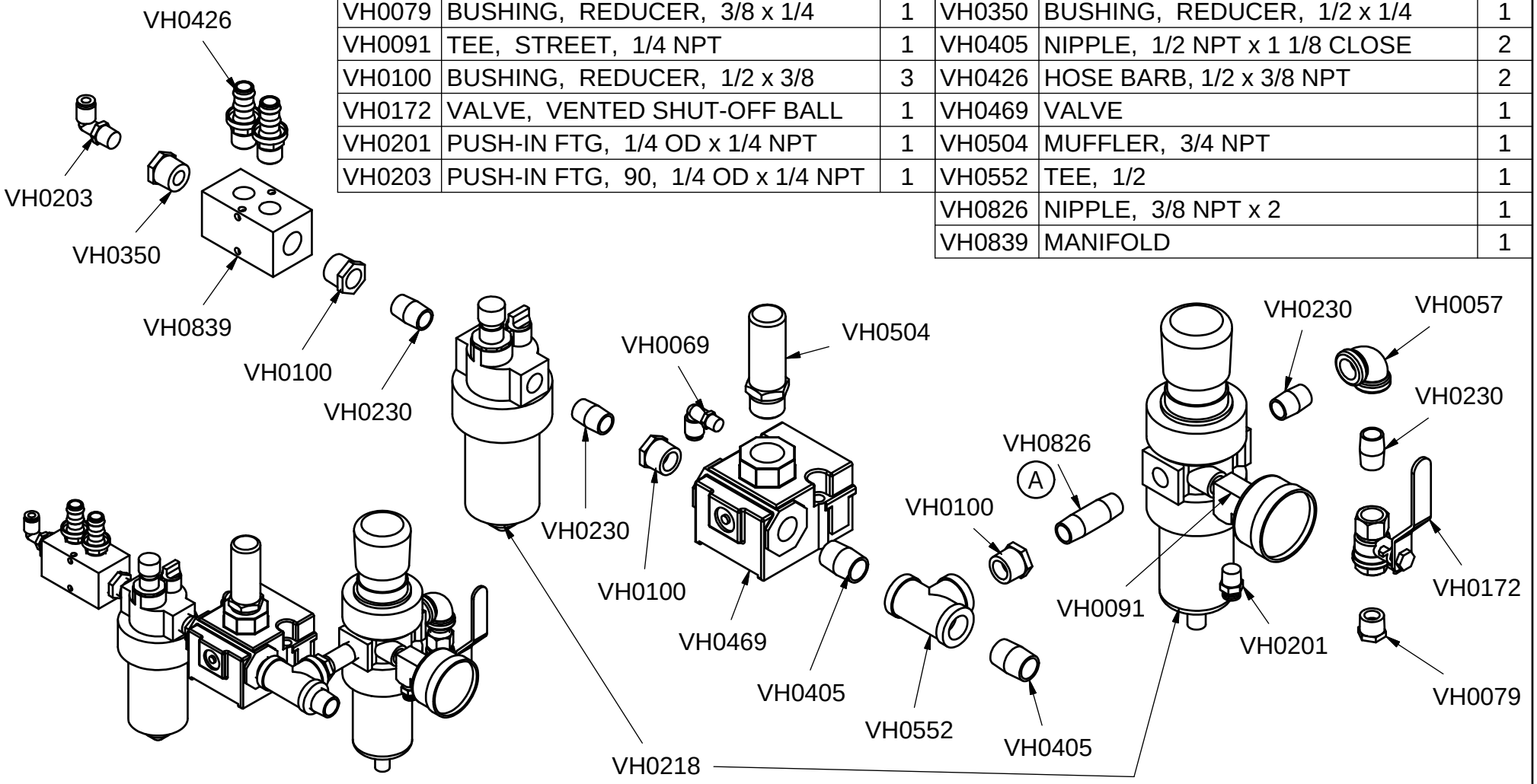
CLIP FEEDER ASSEMBLY, FACE CLIP

DWG. NO. VC3006

A

PART #	DESCRIPTION	QT
VH0057	ELBOW, 3/8	1
VH0069	PUSH-IN FTG, 90, 1/4 OD x 1/8 NPT	1
VH0079	BUSHING, REDUCER, 3/8 x 1/4	1
VH0091	TEE, STREET, 1/4 NPT	1
VH0100	BUSHING, REDUCER, 1/2 x 3/8	3
VH0172	VALVE, VENTED SHUT-OFF BALL	1
VH0201	PUSH-IN FTG, 1/4 OD x 1/4 NPT	1
VH0203	PUSH-IN FTG, 90, 1/4 OD x 1/4 NPT	1

PART #	DESCRIPTION	QT
VH0218	FILTER/REGULATOR W/ GAUGE	1
VH0230	NIPPLE, 3/8 NPT x 1 CLOSE	4
VH0350	BUSHING, REDUCER, 1/2 x 1/4	1
VH0405	NIPPLE, 1/2 NPT x 1 1/8 CLOSE	2
VH0426	HOSE BARB, 1/2 x 3/8 NPT	2
VH0469	VALVE	1
VH0504	MUFFLER, 3/4 NPT	1
VH0552	TEE, 1/2	1
VH0826	NIPPLE, 3/8 NPT x 2	1
VH0839	MANIFOLD	1



REV	ECN	DESCRIPTION	BY	APPD	DATE
A	1234	WAS VH0230	JMW	MR	9-26-12

MATERIAL:

HEAT TREATMENT:

FINISH:

TOL. UNLESS SPECIFIED
INCHES
.X = ± .030
.XX = ± .015
.XXX = ± .005
ANGLES ± 1/2'

INVENTOR

DWN BY JMW

APPD MR

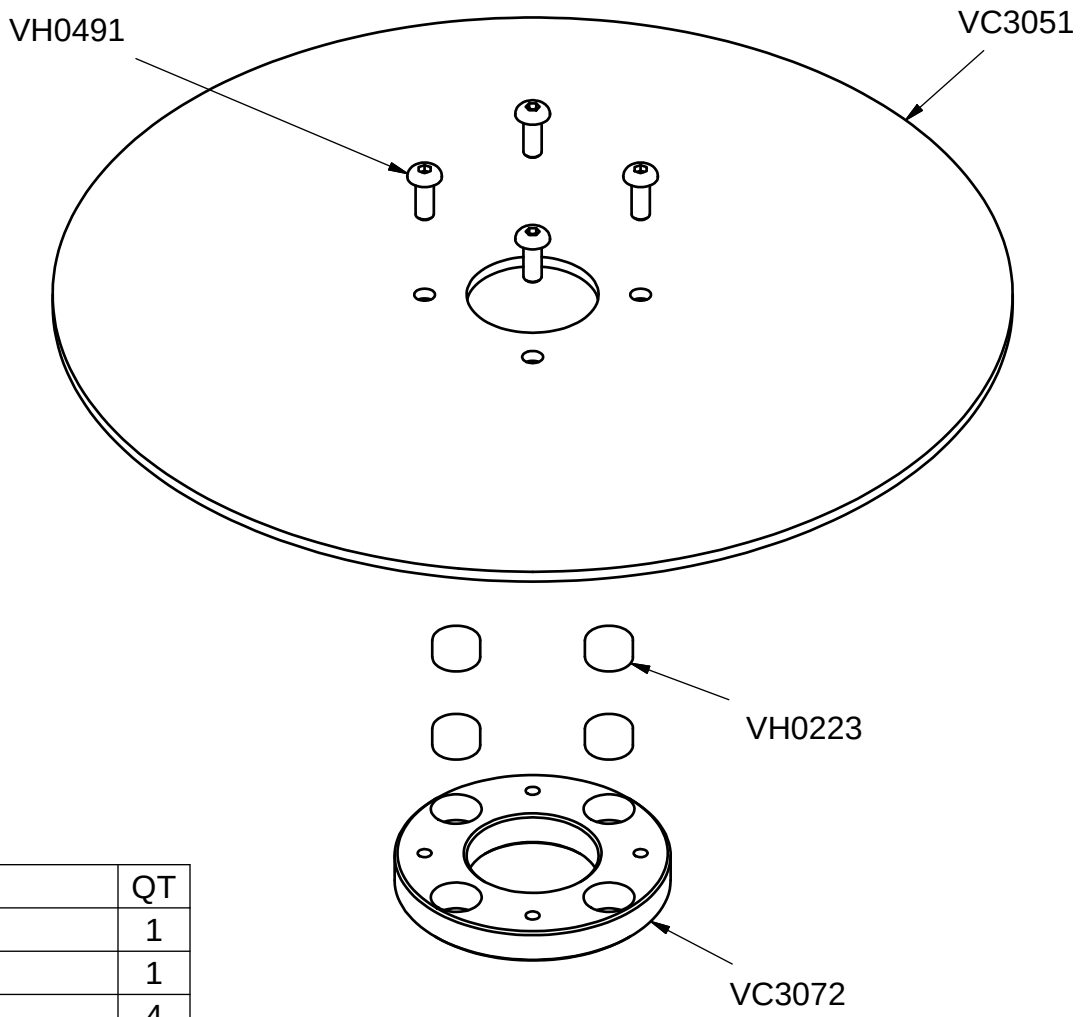
DATE 11-5-09

SCALE 1:4

VERTEX FASTENERS
1798 SHERWIN AVENUE
DES PLAINES, IL 60018 U.S.A.

CONTROL VALVE DETAIL

DWG. NO. VC3119 A



PART #	DESCRIPTION	QT
VC3051	DISK CAP	1
VC3072	DISK CAP HUB	1
VH0223	MAGNET	4
VH0491	BHCS, 10 - 24 x 1/2	4

REV	ECN	DESCRIPTION	BY	APPD	DATE

MATERIAL:

HEAT TREATMENT:

FINISH:

TOL. UNLESS SPECIFIED
INCHES
.X = ± .030
.XX = ± .015
.XXX = ± .005
ANGLES ± 1/2'

INVENTOR

DWN BY JMW

APPD DA

DATE 3-8-07

SCALE 1:2

VERTEX FASTENERS
3714 JARVIS AVENUE
SKOKIE, IL 60076 U.S.A.

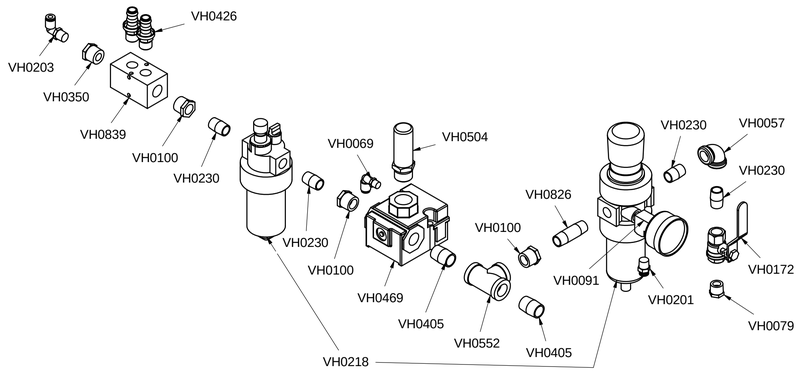
DISK CAP ASSEMBLY

DWG. NO. VC3073

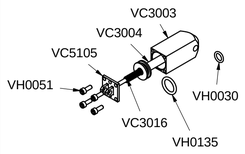
A

VC3119 - CONTROL VALVE DETAIL		
PART #	DESCRIPTION	QT
VH0057	ELBOW, 3/8	1
VH0069	PUSH-IN FTG, 90, 1/4 OD x 1/8 NPT	1
VH0079	BUSHING, REDUCER, 3/8 x 1/4	1
VH0091	TEE, STREET, 1/4 NPT	1
VH0100	BUSHING, REDUCER, 1/2 x 3/8	3
VH0172	VALVE, VENTED SHUT-OFF BALL	1
VH0201	PUSH-IN FTG, 1/4 OD x 1/4 NPT	1
VH0203	PUSH-IN FTG, 90, 1/4 OD x 1/4 NPT	1

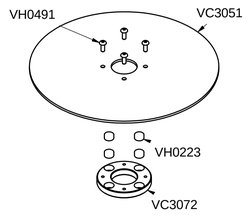
VC3119 - CONTROL VALVE DETAIL		
PART #	DESCRIPTION	QT
VH0218	FILTER/REGULATOR W/ GAUGE	1
VH0230	NIPPLE, 3/8 NPT x 1 CLOSE	4
VH0350	BUSHING, REDUCER, 1/2 x 1/4	1
VH0405	NIPPLE, 1/2 NPT x 1 1/8 CLOSE	2
VH0426	HOSE BARB, 1/2 x 3/8 NPT	2
VH0469	VALVE	1
VH0504	MUFFLER, 3/4 NPT	1
VH0552	TEE, 1/2	1
VH0826	NIPPLE, 3/8 NPT x 2	1
VH0839	MANIFOLD	1

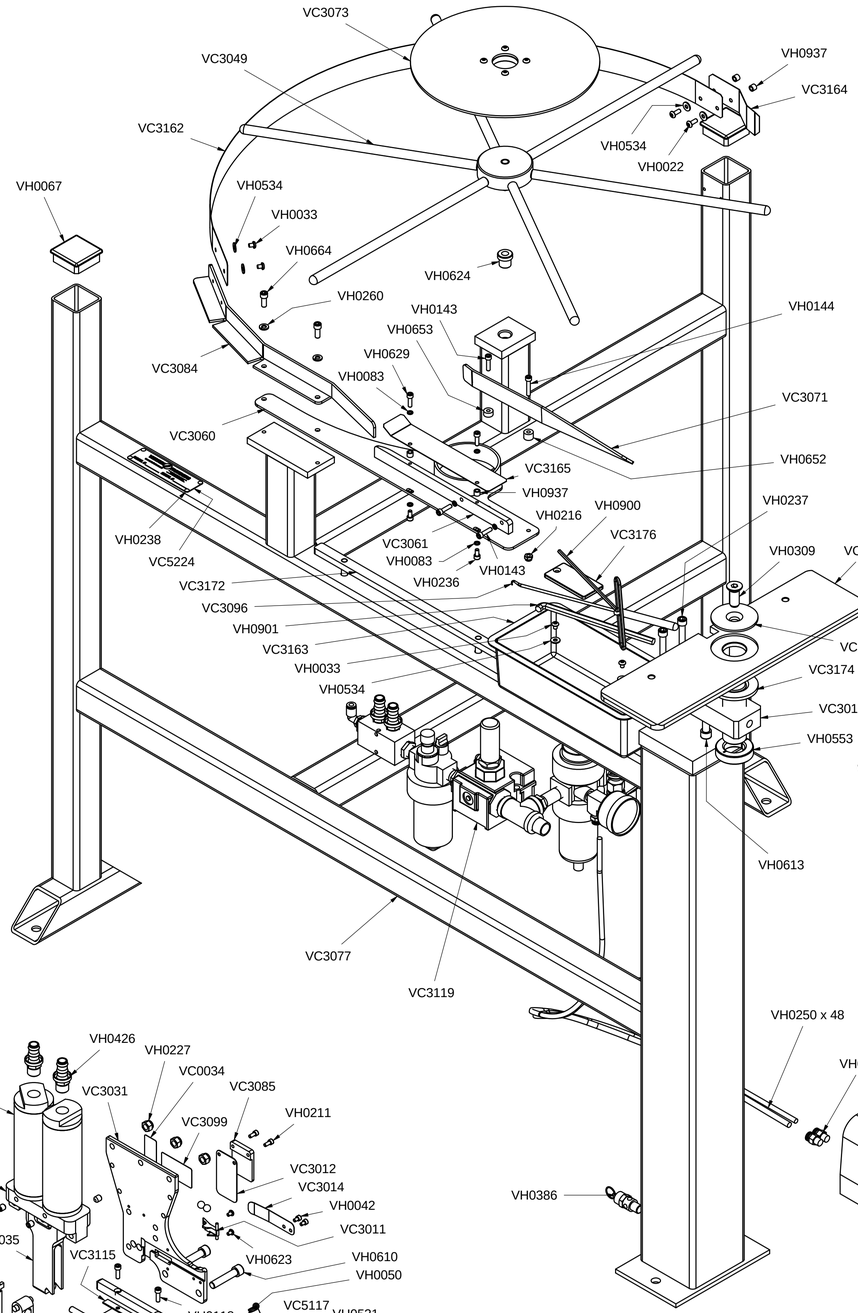


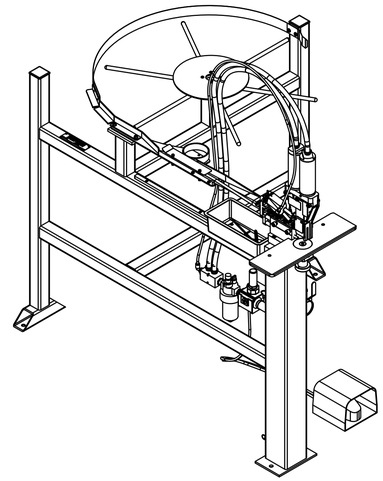
VC3006 - FEED CYLINDER ASSEMBLY		
PART #	DESCRIPTION	QT
VC3003	CYLINDER BODY (CLIP FEEDER)	1
VC3004	PISTON (CLIP FEEDER)	1
VC3016	CLIP FEEDER SPRING	1
VC5105	CYLINDER END CAP (CLIP FEEDER)	1
VH0030	O-RING, #111	1
VH0051	SHCS, 10 - 32 x 1/2	4
VH0135	O-RING, #210	1

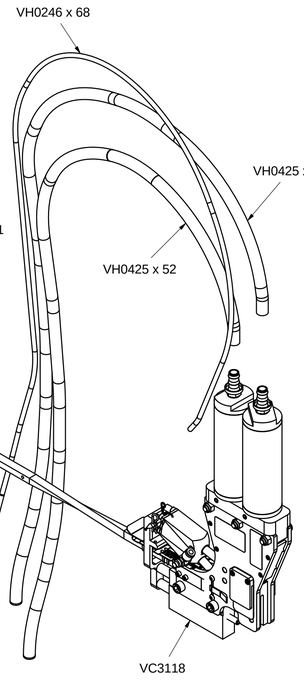


VC3073 - DISK CAP ASSEMBLY		
PART #	DESCRIPTION	QT
VC3051	DISK CAP	1
VC3072	DISK CAP HUB	1
VH0223	MAGNET	4
VH0491	BHCS, 10 - 24 x 1/2	4



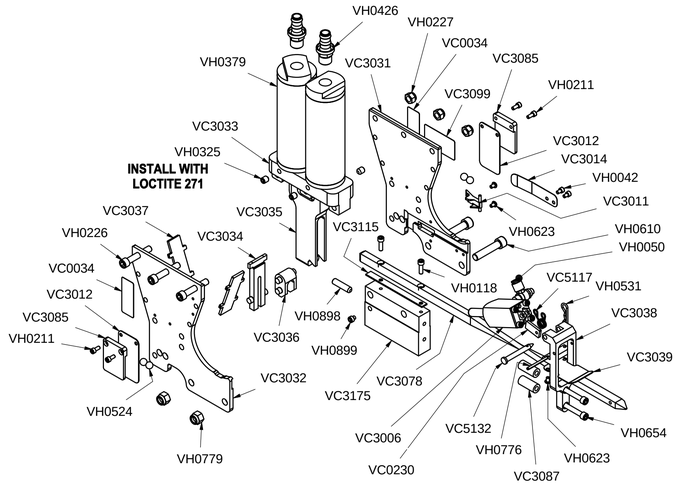






VC3118 - TOOL ASSEMBLY		
PART #	DESCRIPTION	QT
VC0034	WARNING LABEL	2
VC0230	CLIP FEEDER STOP	1
VC3006	CLIP FEEDER ASSEMBLY	1
VC3011	PAWL	1
VC3012	BALL BEARINGS SPRING	2
VC3014	PAWL SPRING	1
VC3031	LEFT-HAND SIDE PLATE	1
VC3032	RIGHT-HAND SIDE PLATE	1
VC3033	CYLINDER MOUNT	1
VC3034	FRONT PLATE	1
VC3035	BLADE	1
VC3036	BLADE GUIDE	1
VC3037	GUARD	2
VC3038	FEEDER BRACKET	1
VC3039	COVER	1
VC3078	RAIL 1000	1
VC3085	SPRING RESTRICTOR	2
VC3087	SPACER, 1/2 x 1 1/8, 1/4	2
VC3099	FACECLIPPER LABEL	1
VC3115	TOOL RAIL SHIM - 1K, 2K & 3K	1

VC3118 - TOOL ASSEMBLY		
PART #	DESCRIPTION	QT
VC3175	TOOL MOUNT - PLATFORM 1000	1
VC5117	TORSION SPRING	1
VC5132	PIN, FEED CYLINDER	1
VH0042	SHCS, 8 - 32 x 1/4	2
VH0050	FLOW CONTROL	1
VH0118	SHCS, 10 - 32 x 5/8	2
VH0211	SHCS, 8 - 32 x 3/8	4
VH0226	SHCS, 5/16 - 24 x 1 3/4	3
VH0227	NUT, NYLOCK, 5/16 - 24	3
VH0325	SET SCREW, 5/16 - 18 x 3/8	4
VH0379	CYLINDER	2
VH0426	HOSE BARB, 1/2 x 3/8 NPT	2
VH0524	3/8 CHROME BALL	4
VH0531	HAIR PIN	1
VH0610	SHCS, 3/8 - 24 x 1 3/4	2
VH0623	BHCS, 8 - 32 x 1/4	4
VH0654	SHCS, 1/4 - 20 x 1 3/4	2
VH0776	PIN, ROLL, 1/8 x 1 1/2	1
VH0779	NUT, NYLOCK, 3/8 - 24	2
VH0898	SET SCREW, 5/16 - 18 x 1 1/4	1
VH0899	SET SCREW, NYLON TIP	1



REV	ECN	DESCRIPTION	BY	APPD	DATE
A	1235	ADDED 2 VH0037	JMW	MR	9-26-12
B	1248	ADDED VH0624	JMW	MR	10-2-12
C	1306	PLATFORM ADDED	JMW	RP	4-24-13

MATERIAL:

HEAT TREATMENT:

FINISH:

TOL. UNLESS SPECIFIED
INCHES
.X = ± .030
.XX = ± .015
.XXX = ± .005
ANGLES ± 1/2°
INVENTOR

VERTEX FASTENERS
1798 SHERWIN AVENUE
DES PLAINES, IL 60018 U.S.A.

DWN BY JMW
APPD MR
DATE 10-30-09
SCALE 1:4
DWG. NO. VA0340 D

FACECLIPPER 1000

PART #	DESCRIPTION	QT
VC3018	TOOL MOUNT	1
VC3049	TURNTABLE ASSEMBLY	1
VC3060	PLATFORM	1
VC3061	PLATFORM RAIL BASE	1
VC3071	ANGLE IRON COVER	1
VC3073	DISK CAP ASSEMBLY	1
VC3077	FACE CLIP 1000 FRAME ASSEMBLY	1
VC3084	CLIP DISK GUARD	1
VC3096	FEED CLIP HOOK	1
VC3118	TOOL ASSEMBLY	1
VC3119	CONTROL VALVE DETAIL	1
VC3162	PLATTER EDGE	1
VC3163	BREAD PAN	1
VC3164	BRAKE	1
VC3165	CLIP DISK GUARD COVER	1
VC3171	PLATFORM 1000	1
VC3172	RAIL BACKSTOP	1
VC3173	BUSHING HEAD - 1000 PLATFORM	1
VC3174	THREADED ROD - PLATFORM	1
VC3176	SPACER GAUGE	1
VC5224	MODEL AND SERIAL NUMBER TAG	1
VH0022	BHCS, 10 - 32 x 1/2	2
VH0033	BHCS, 10 - 32 x 1/4	4
VH0037	PUSH-IN FTG, STR, 1/4 OD x 1/8 NPT	2
VH0067	CAP	2
VH0083	WASHER, HI-COLLAR, #10	6
VH0143	SHCS, 10 - 32 x 3/4	3
VH0144	SHCS, 10 - 32 x 1	1
VH0161	SWITCH, FOOT	1
VH0162	GUARD, FOOT SWITCH	1
VH0216	NUT, NYLOCK, 10 - 32	2
VH0236	SHCS, 10 - 24 x 3/8	2
VH0237	SHCS, 5/16 - 18 x 1 1/2	2
VH0238	DRIVE SCREW	4
VH0246 x 68	TUBING, 1/4 OD	1
VH0250 x 48	TUBING, 1/4 DUAL	1
VH0260	WASHER, LOCK, 1/4	2
VH0309	FHCS, 1/2 - 13 x 1 1/4	1
VH0386	SAFETY VALVE	1
VH0425 x 52	HOSE, 1/2 ID, BLUE	1
VH0425 x 56	HOSE, 1/2 ID, BLUE	1
VH0534	WASHER, FENDER, #10	6
VH0553	CLAMP COLLAR	1
VH0613	SHCS, 3/8 - 16 x 1 1/4	2
VH0624	DRILL BUSHING	1
VH0629	SHCS, 10 - 24 x 5/8	2
VH0652	SPACER, 1/2 OD x 3/8, #10	1
VH0653	SPACER, 1/2 OD x 1/4, #10	1
VH0664	SHCS, 1/4 - 20 x 5/8	2
VH0900	HEX KEY, T-HANDLE, 5/32	1
VH0901	HEX KEY, STUBBY, 5/16	1
VH0937	SPACER, 5/16 OD x 1/4, #10	4