

FaceClipper 2000

Model # _____

Serial # _____

Vertex Fasteners
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DESCRIPTION OF EQUIPMENT

The FaceClipper 2000 is a specially designed machine used by upholstered furniture manufacturers to quickly and accurately install patented FaceClips into wooden frame rails. This all pneumatic machine accommodates rails from 5/8" to 2 1/2" thick and up to 94" long. In addition, curved rails and one-piece front panels are easily handled with the FaceClipper 2000. The straightforward, innovative design elements have resulted in a productive and versatile machine for all manufacturers.

The FaceClipper 2000 is made up of five main components:

1. Turntable Assembly
 - a. Each turntable holds a coil of FaceClips each containing 625 pieces.
2. Tool Assembly (Clipping Head)
 - a. The Tool Assembly installs FaceClips into wooden furniture rails.
3. Clip Trigger Assembly
 - a. The Clip Trigger Assembly is adjustable giving the operator a center-to-center clip range of 2" to 8".
4. End Stop
 - a. The End Stop, used to install the first clip, is operator adjustable and can accommodate rails from 20" to 94" long.
5. Pneumatic Control Circuit

OPERATION INSTRUCTIONS

Loading a Coil of FaceClips

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 toward tool.
4. Lift Feed Cylinder (VC3006), swing flag forward to support cylinder.
5. Feed clips into Tool.
6. From the front of tool, slide the Loading Tool Hook (VC3096); hook down, through slot in Front Plate (VC3034), pull clips forward.
7. 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 Clip Trigger Assembly

1. Loosen hand knob.
2. Slide assembly to desired location. (Align pointer with scale.)
3. Tighten knob to lock Clip Trigger in place.

Adjusting End Stop

1. Loosen hand knob.
2. Slide assembly to desired location. (Align pointer with tape measure.)
3. Tighten knob to lock End Stop in place.

Set air pressure between 60 – 90 psi for proper operation of the FaceClipper 2000. Hardness of wood will determine setting. After required adjustments have been made and the clips have been loaded you may begin production. To install the first clip:

1. Lay rail on FaceClipper.
2. Push rail back against entry guide.
3. Slide rail against End Stop, press knee switch for placement of first clip.

Once the first clip has been placed, slide the rail away from the End Stop toward the Clip Trigger. The FaceClipper will then install clips the length of the rail according to the spacing that you have set. To insure accuracy, use a consistent speed while running the rail through the machine.

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. Using supplied air gun; blow off woodchips and debris from Tool and Trigger assembly.
2. Add 2-3 drops of 30-weight oil to opening between front plate and top of blade of Tool assembly.

The Trigger assembly should be checked for ease of movement. Lightly lubricate if necessary.

Recommended Weekly Maintenance

Drain Reservoir Tank for condensation.

Recommended Monthly Maintenance

Remove front plate from tool and lubricate driver blade and front plate.

FACECLIPPER 2000
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
VH0030	O'RING, #111	2
VH0069	PUSH-IN FTG 90 DEG	2
VH0135	O'RING, #210	2
VH0483	SWITCH, KNEE	1
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. Incorrect Flow Control Valve setting. Incorrect tool height.	Increase pressure. (Never exceed 90 psi) Turn Flow Control Valve Clockwise. Lower tool.
Clip's hook is overhanging edge of rail (Fig 4).	The board is warped. Rail is not against entry guides.	Operator must run rail against entry guides.
Incorrect clip spacing.	Clip Trigger is set inaccurately.	Reset Clip Trigger to correct location.
Clip driven too far into rail.	Air pressure too high. Incorrect Flow Control Valve setting.	Reduce air pressure. Turn Flow Control Valve Counterclockwise.
Missed clip.	Clips ran out. Valve (VH0387) is closed.	Reload with new coil. Line up rail for correct clip placement. Press button on valve to fire matching tool. Turn lever to vertical position.

EXAMPLES OF INCORRECT CLIP INSTALLATION

FIGURE 3

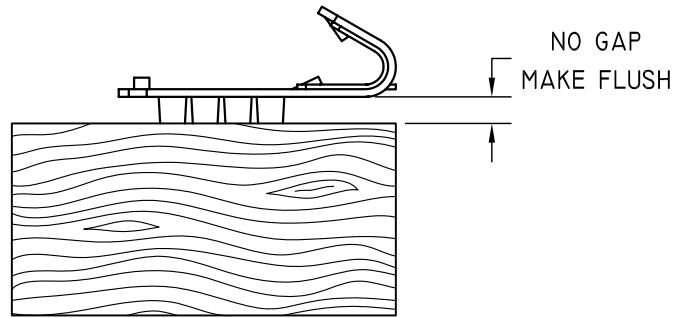
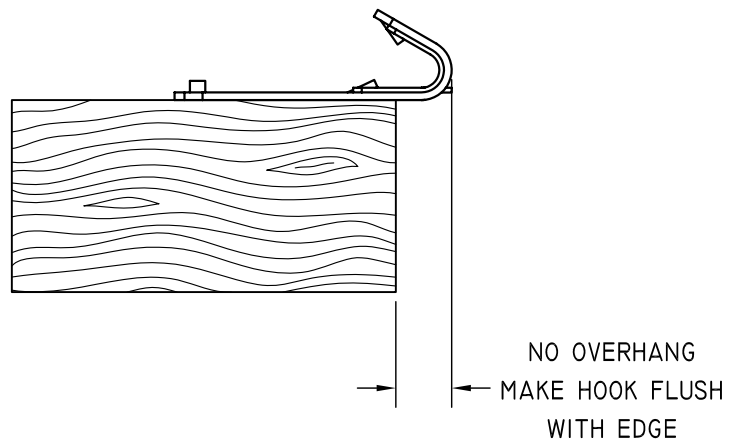


FIGURE 4



Specifications

Air: 60-90 psi, 6 cfm

Machine Size: Depth: Footprint = 58.5", Overall 58.5"

Width: Footprint = 128", Overall 161.5"

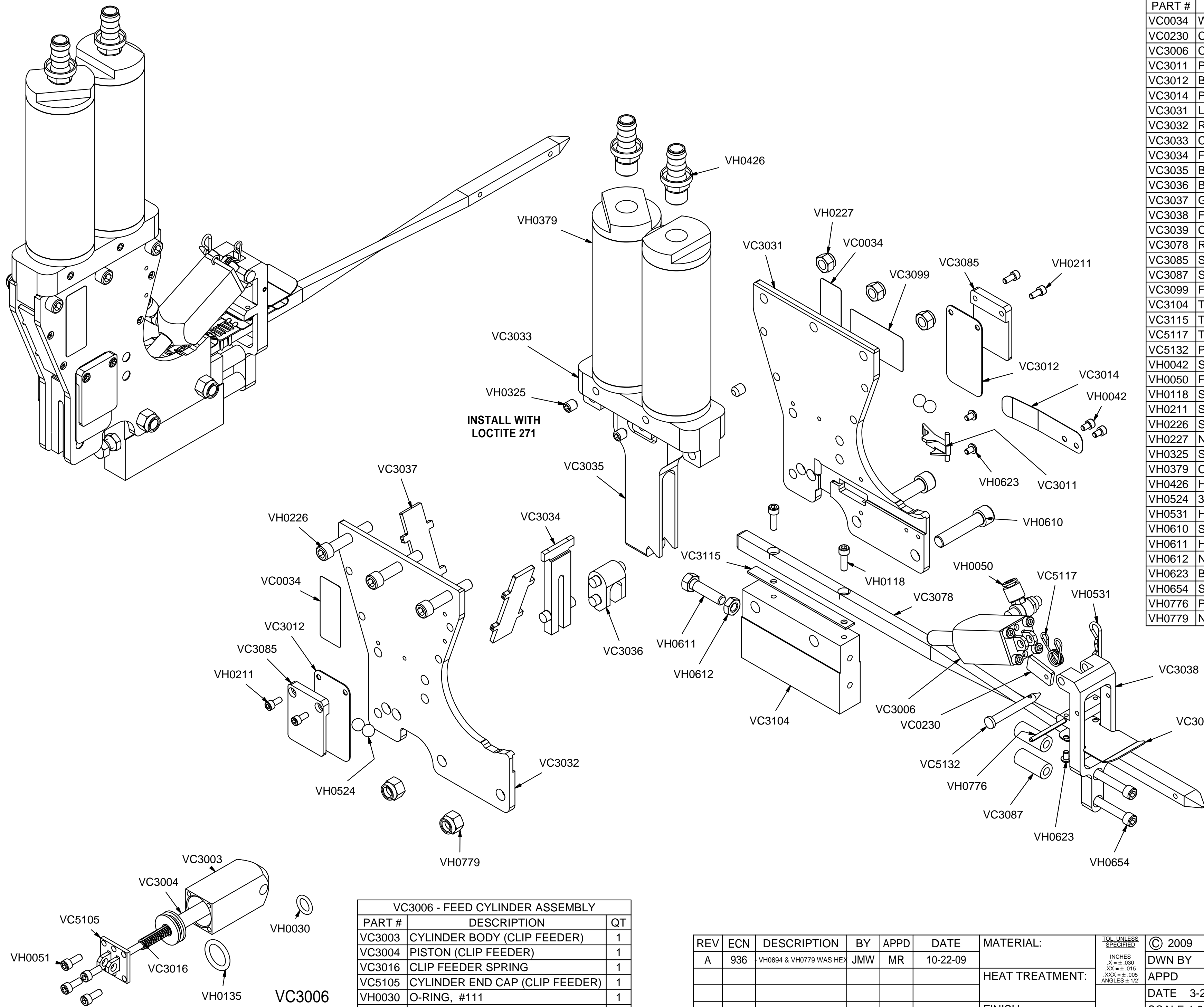
Height: 65"

Weight: 520 lbs

Rail Dimensions: Thickness: 5/8" – 2"

Length: Consult factory

Clip Coil Capacity: 625 FaceClips



INSTALL WITH
LOCTITE 271

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

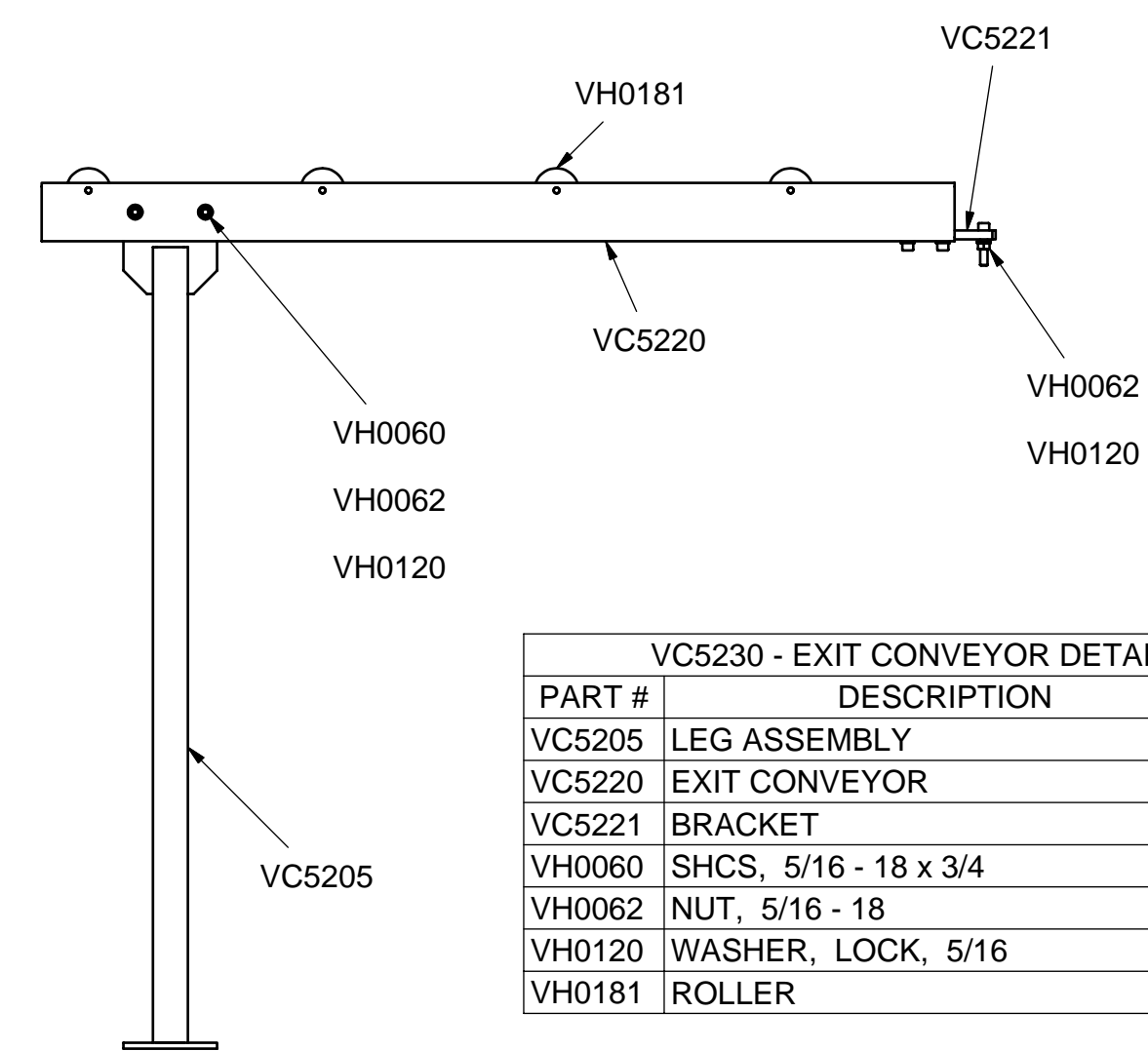
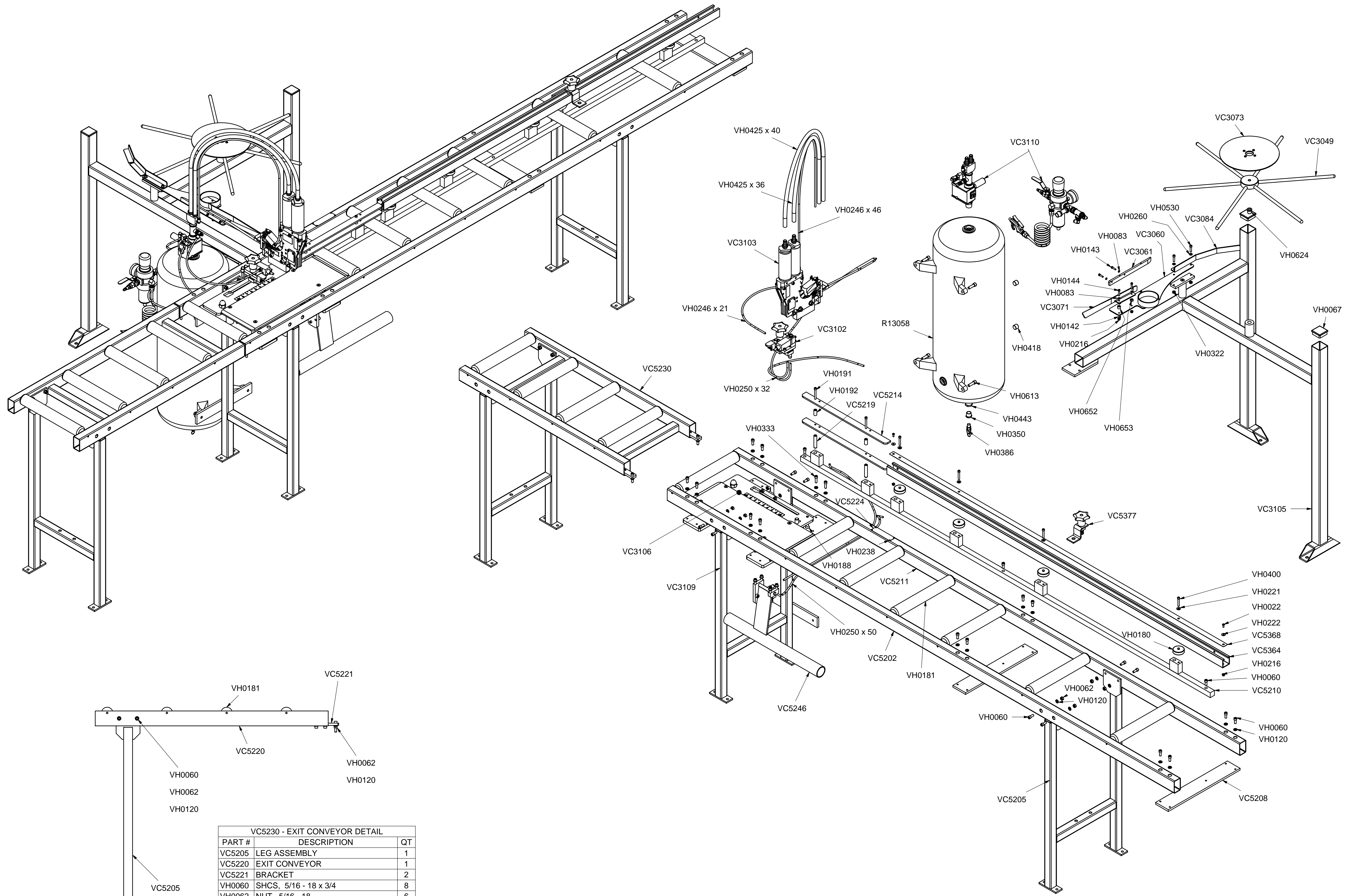
PART #	DESCRIPTION	QT
VC0034	WARNING LABEL	2
VC0230	CLIP FEEDER STOP	1
VC3006	CLIP FEEDER ASSEMBLY	1
VC3011	PAWL	1
VC3012	BALL BEARINGS SPRING	2
VC3014	PAWL SPRING	1
VC3031	LEFT-HAND SIDE PLATE	1
VC3032	RIGHT-HAND SIDE PLATE	1
VC3033	CYLINDER MOUNT	1
VC3034	FRONT PLATE	1
VC3035	BLADE	1
VC3036	BLADE GUIDE	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
VC3104	TOOL MOUNT 2K/3K	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
VH0611	HHCS, 5/16 - 18 x 1 1/4	1
VH0612	NUT, JAM, 5/16 - 18, GR5	1
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

(A)

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						HEAT TREATMENT:		APPD	FACECLIPPER 2K/3K TOOL ASSEMBLY
						FINISH:		DATE	
								SCALE	
								DWG. NO.	

PART #	DESCRIPTION	QT
R13058	TANK	1
VC3049	TURNTABLE ASSEMBLY	1
VC3060	PLATFORM	1
VC3061	PLATFORM RAIL BASE	1
VC3071	ANGLE IRON COVER	1
VC3073	DISK CAP ASSEMBLY	1
VC3084	CLIP DISK GUARD	1
VC3102	FACECLIP CLIP TRIGGER ASSY	1
VC3103	FACECLIP 2K/3K TOOL ASSEMBLY	1
VC3105	FC 2K/3K CLIP DISPENSER FRAME	1
VC3106	CLIPPING HEAD FIXED HEIGHT DETAIL	1
VC3109	LEG ASSY W/ TANK MNTG BRKT	1
VC3110	CONTROL VALVE DETAIL - 2 ASSYS	1
VC5202	FRONT RAIL	1
VC5205	LEG ASSEMBLY	1
VC5208	STRUT	2
VC5210	CENTER RAIL	1
VC5211	REAR RAIL	1
VC5214	ENTRY GUIDE RAIL	2
VC5219	ENTRY GUIDE RAIL STUD	2
VC5224	VC NAMEPLATE	1
VC5230	EXIT CONVEYOR DETAIL	1
VC5246	KNEE KNOCKER ASSEMBLY	1
VC5364	UNI-STRUT RAIL	1
VC5368	TAPE MEASURE	1
VC5377	END STOP - SIMPLE	1
VH0022	BHCS, 10 - 32 x 1/2	2
VH0060	SHCS, 5/16 - 18 x 3/4	25
VH0062	NUT, 5/16 - 18	8
VH0067	CAP	2
VH0083	WASHER, LOCK, 10	6
VH0120	WASHER, LOCK, 5/16	24
VH0142	SHCS, 10 - 24 x 1/2	2
VH0143	SHCS, 10 - 32 x 3/4	2
VH0144	SHCS, 10 - 32 x 1	2
VH0180	SKATE WHEEL	4
VH0181	ROLLER	7
VH0188	FHCS, 3/8 - 16 x 7/8	1
VH0191	SHCS, 1/4 - 20 x 2 1/4	2
VH0192	SPACER 1/2 OD 1/4 ID 1 LONG	2
VH0216	NUT, NYLOCK, 10 - 32	4
VH0221	WASHER, SAE, 1/4	4
VH0222	WASHER, FENDER #8	2
VH0238	DRIVE SCREW	4
VH0246	TUBING, 1/4 OD POLYETHYLENE, BLK x 21	1
VH0246	TUBING, 1/4 OD POLYETHYLENE, BLK x 46	1
VH0250	DUAL TUBING, 1/4 OD, BLK & CLR x 32	1
VH0250	DUAL TUBING, 1/4 OD, BLK & CLR x 50	1
VH0260	WASHER, LOCK, 1/4	2
VH0322	NUT, HEX, 1/4 - 20	2
VH0333	SHCS, 5/16 - 18 x 1	2
VH0350	BUSHING, HEX REDUCER, 1/2 x 1/4	1
VH0386	SAFETY VALVE	1
VH0400	SHCS, 1/4 - 20 x 1 1/2	4
VH0418	PLUG, 1/2 NPT	2
VH0425	HOSE, 1/2 ID, BLUE x 36	1
VH0425	HOSE, 1/2 ID, BLUE x 40	1
VH0443	BUSHING, HEX REDUCER, 3/4 x 1/2	1
VH0530	SHCS, 1/4 - 20 x 1	2
VH0613	SHCS, 3/8 - 16 x 1 1/4	4
VH0624	DRILL BUSHING	1
VH0652	SPACER, 1/2 OD x 3/8, #10	1
VH0653	SPACER, 1/2 OD x 1/4, #10	1

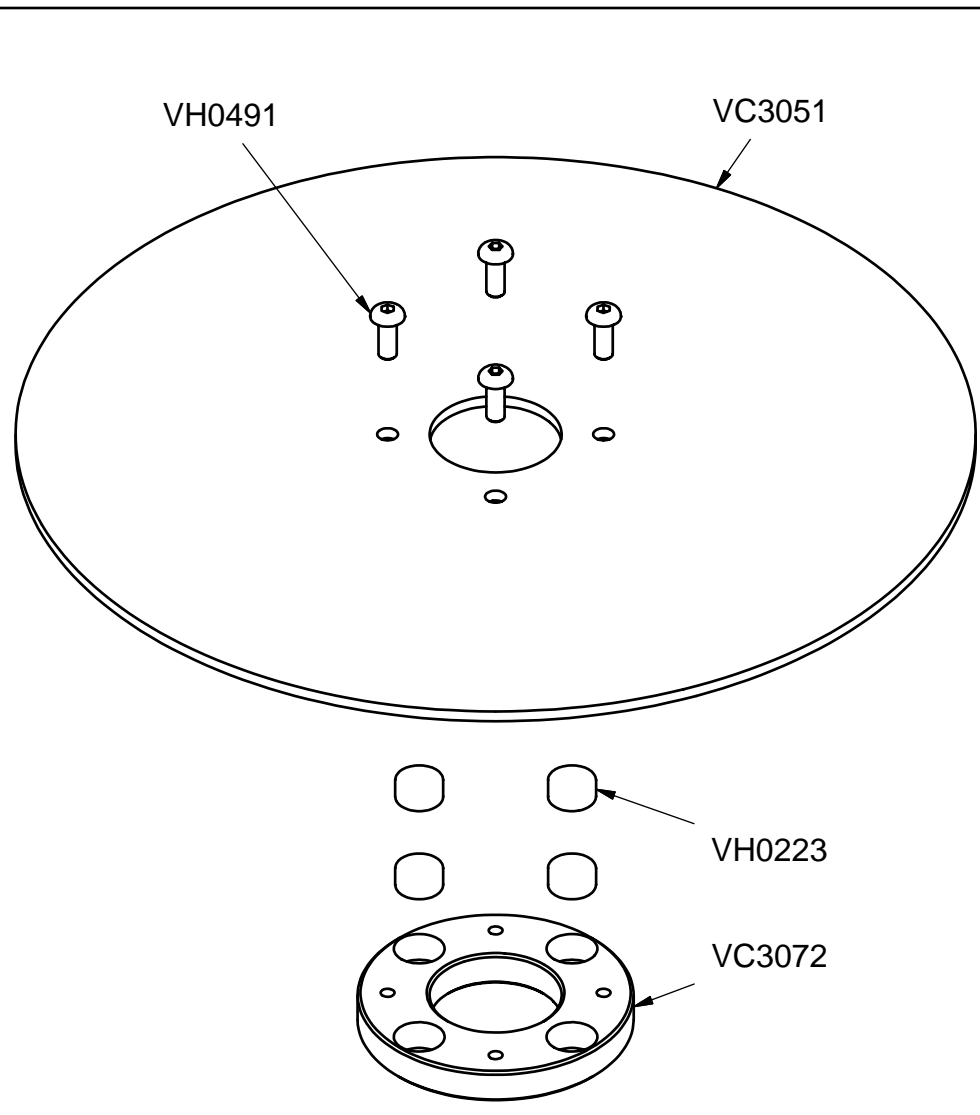


VC5230 - EXIT CONVEYOR DETAIL		
PART #	DESCRIPTION	QT
VC5205	LEG ASSEMBLY	1
VC5220	EXIT CONVEYOR	1
VC5221	BRACKET	2
VH0060	SHCS, 5/16 - 18 x 3/4	8
VH0062	NUT, 5/16 - 18	6
VH0120	WASHER, LOCK, 5/16	10
VH0181	ROLLER	4

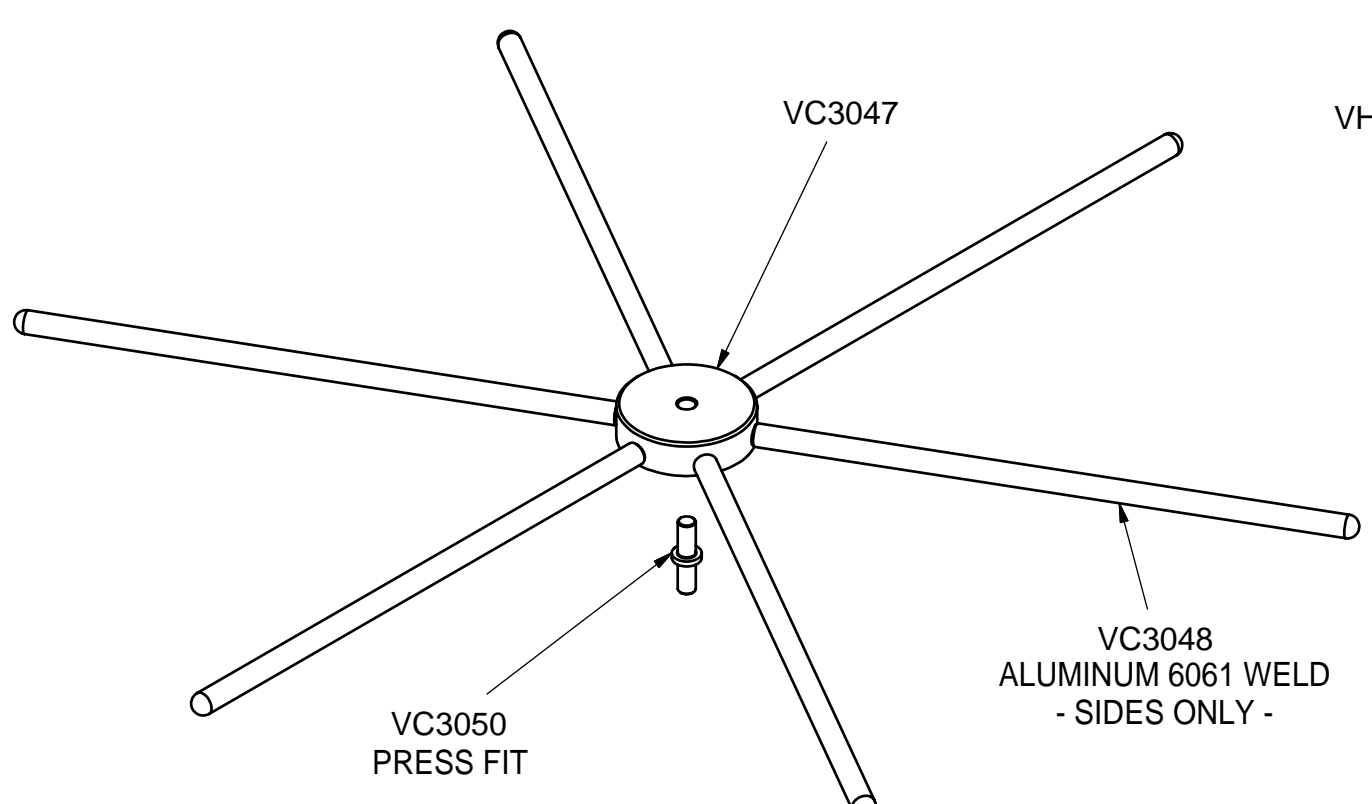
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						FINISH:		APPD MR	FACECLIPPER 2000 - FIXED HEIGHT
								DATE 3-11-09	
								SCALE 1:8	
								DWG. NO. VC3116	PAGE 1 OF 2
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VC5246 - KNEE KNOCKER ASSEMBLY		
PART #	DESCRIPTION	QT
VC5242	KNEE KNOCKER	1
VC5243	HINGE BRKT W/ SWITCH	1
VC5244	HINGE BRACKET	1
VC5245	MOUNT BLOCK	1
VH0032	SHCS, 10 - 24 x 1	3
VH0069	PUSH-IN FTG.	2
VH0120	WASHER, LOCK, 5/16	4
VH0333	SHCS, 5/16 - 18 x 1	4
VH0483	SWITCH	1
VH0512	SPRING, DIE, 1/2 x 2	1
VH0513	SHCS, 3/8 - 16 x 1/2	1
VH0530	SHCS, 1/4 - 20 x 1	2

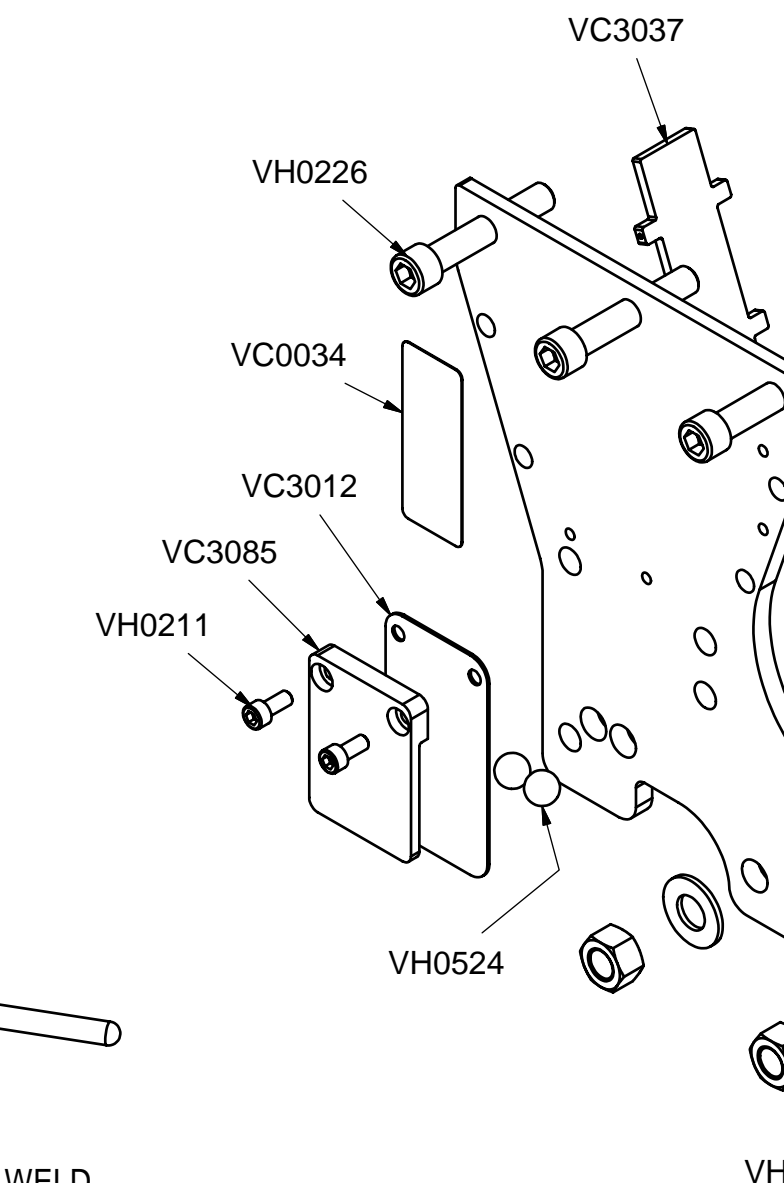
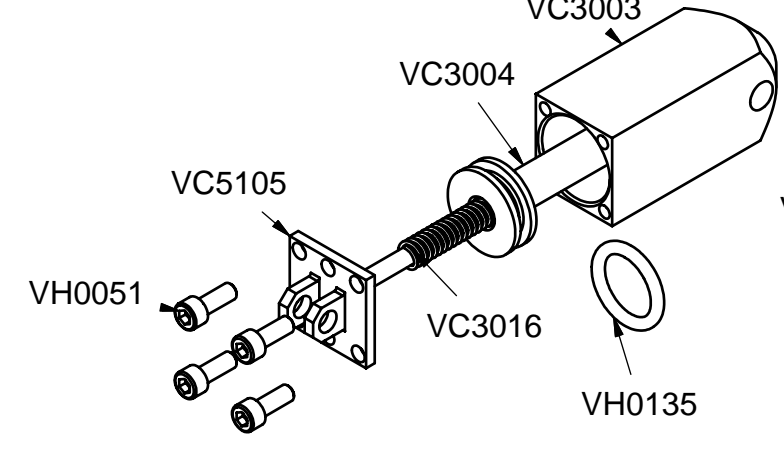


VC3073 - DISK CAP ASSEMBLY		
PART #	DESCRIPTION	QT
VC3051	DISK CAP	1
VC3072	DISK CAP HUB	1
VH0223	MAGNET	4
VH0491	BHCS, 10 - 24 x 1/2	4



VC3049 - TURNTABLE ASSEMBLY		
PART #	DESCRIPTION	QT
VC3047	HUB	1
VC3048	SPOKE	6
VC3050	SPINDLE	1

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



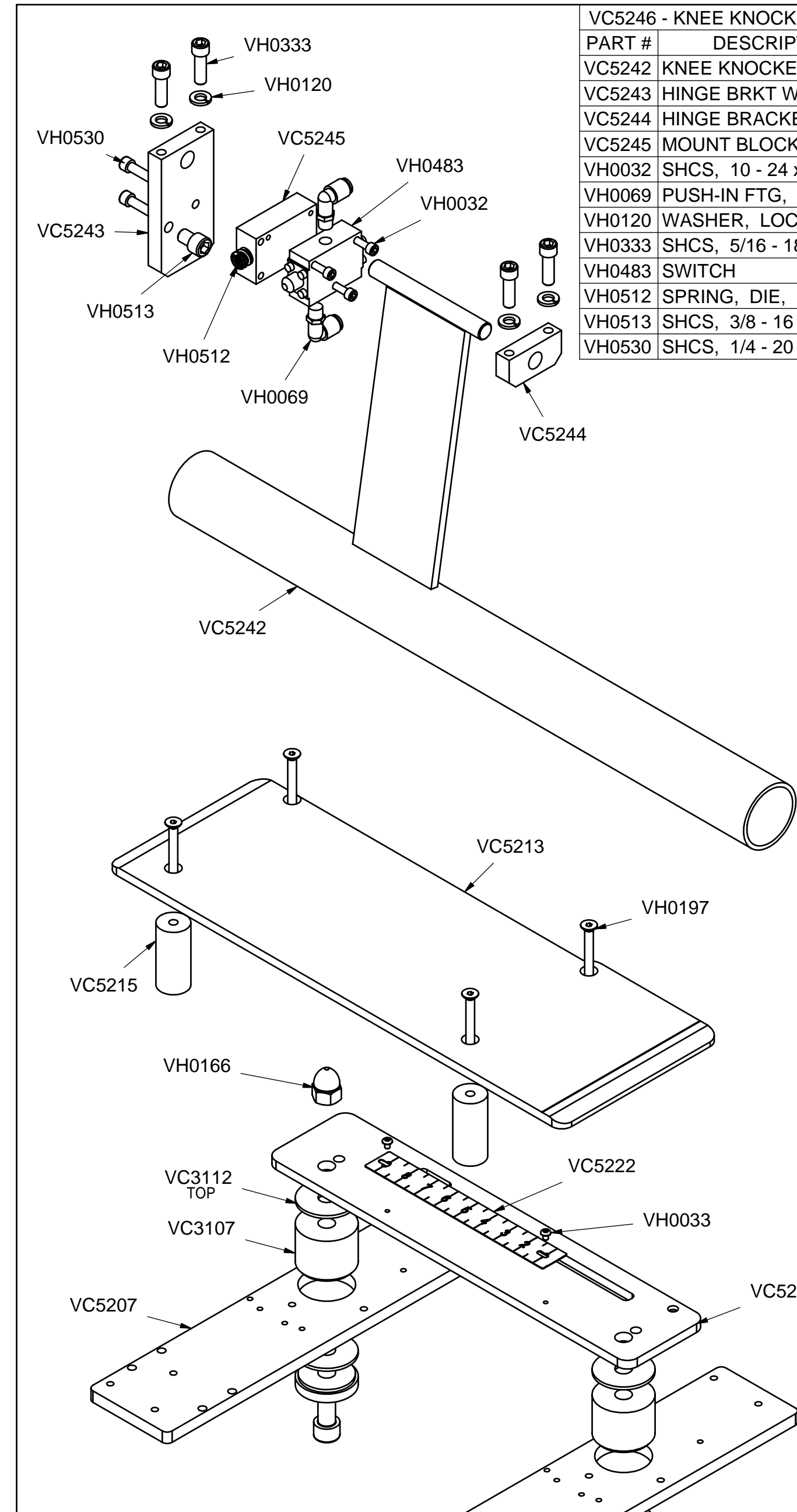
VC3110 - CONTROL VALVE DETAIL		
PART #	DESCRIPTION	QT
VC3075	Y FITTING	1
VH0050	FLOW CONTROL	1
VH0069	PUSH-IN FTG, 90 1/4 OD x 1/8 NPT	2
VH0361	HEX REDUCER BUSHING, 1/4 x 1/8	1
VH0391	BRASS FTG, 90, 1/4 x 1/8 NPT	1
VH0405	NIPPLE, 1/2 NPT x 1	3
VH0416	TEE, REDUCER, 1/2 x 1/4 x 1/2	1
VH0426	HOSE BARB, 1/2 x 3/8 NPT	2
VH0443	BUSHING, HEX REDUCER, 3/4 x 1/2	1
VH0469	VALVE	1
VH0471	SHUTTLE VALVE	1
VH0472	NIPPLE 1/8	1
VH0504	MUFFLER, 3/4 NPT	1

VC3110 - CONTROL VALVE DETAIL		
PART #	DESCRIPTION	QT
VH0020	RETRACTABLE HOSE	1
VH0023	ELBOW, BRASS STREET, 1/4 NPT	1
VH0036	PLUG, MALE, 1/4 - 1/4	1
VH0079	BUSHING, HEX REDUCER, 3/8 x 1/4	3
VH0100	BUSHING, HEX REDUCER, 1/2 x 3/8	1
VH0163	FILTER/REGULATOR W/ GAUGE	1
VH0172	VALVE, VENTED SHUT-OFF BALL	1
VH0173	AIR GUN	1
VH0203	PUSH-IN FTG, 90 1/4 OD x 1/4 NPT	2
VH0230	NIPPLE, 3/8 NPT	3
VH0343	TEE, 3/8	2
VH0826	NIPPLE, 3/8 NPT x 2	1

VC3103 - FACECLIP 2K/3K TOOL ASSY		
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
VC3104	TOOL MOUNT 2K/3K	1
VC3115	TOOL RAIL SHIM - 1K, 2K & 3K	1
VC5117	TORSION SPRING	1
VH5132	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
VH0611	HHCS, 5/16 - 18 x 1 1/4	1
VH0612	NUT, JAM, 5/16 - 18	1
VH0623	BHCS, 8 - 32 x 1/4	4
VH0654	SHCS, 1/4 - 20 x 1 3/4	2
VH0694	WASHER, 3/8	2
VH0776	PIN, ROLL, 1/8 x 1 1/2	1
VH0779	NUT, HEX, 3/8 - 24	2

RAIL #	# VC3114	SHCS
5/8	0	VH0226 (1 3/4" LENGTH)
3/4	1	VH0226
7/8	2	VH0828 (2" LENGTH)
1	3	VH0828

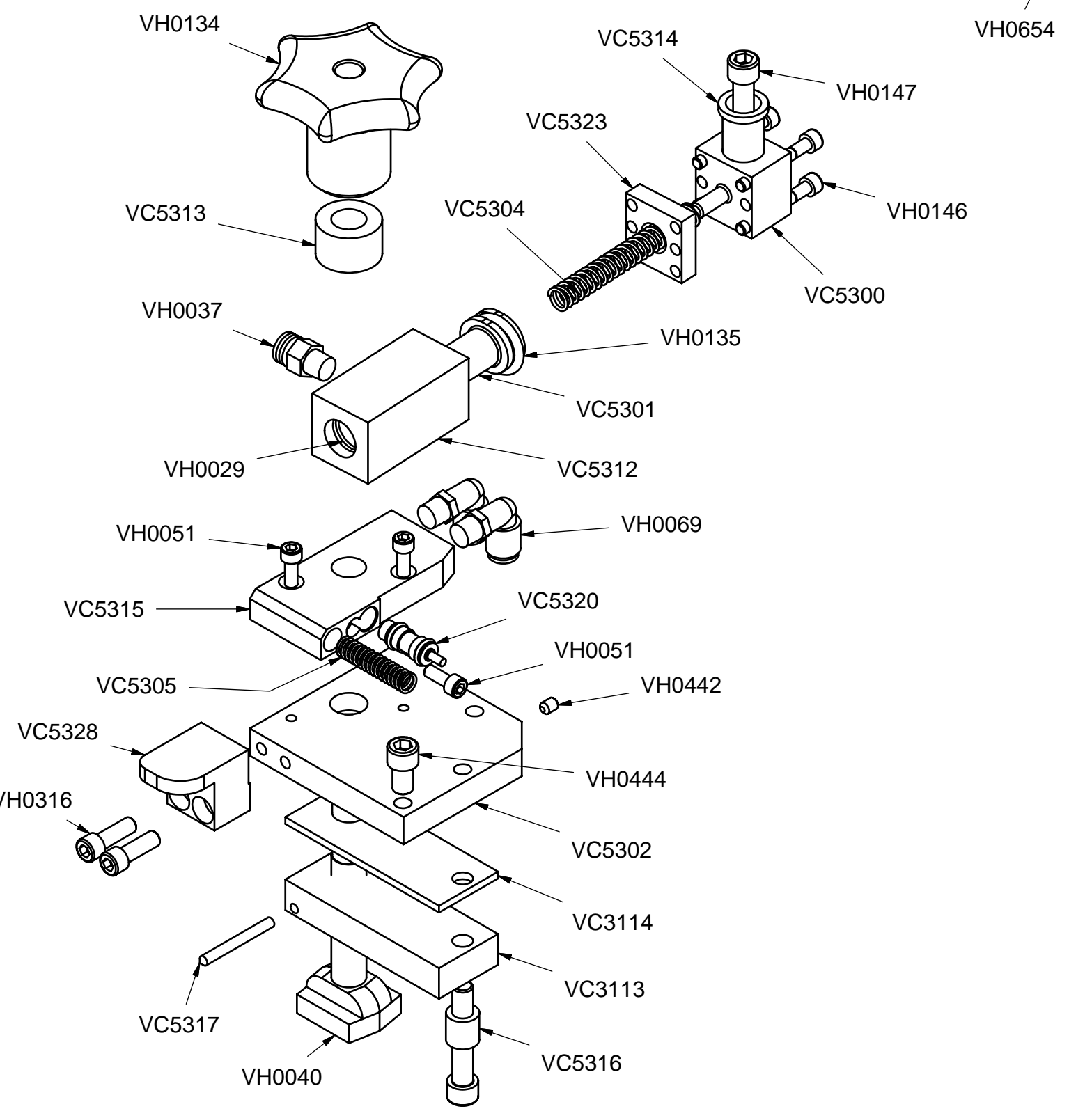
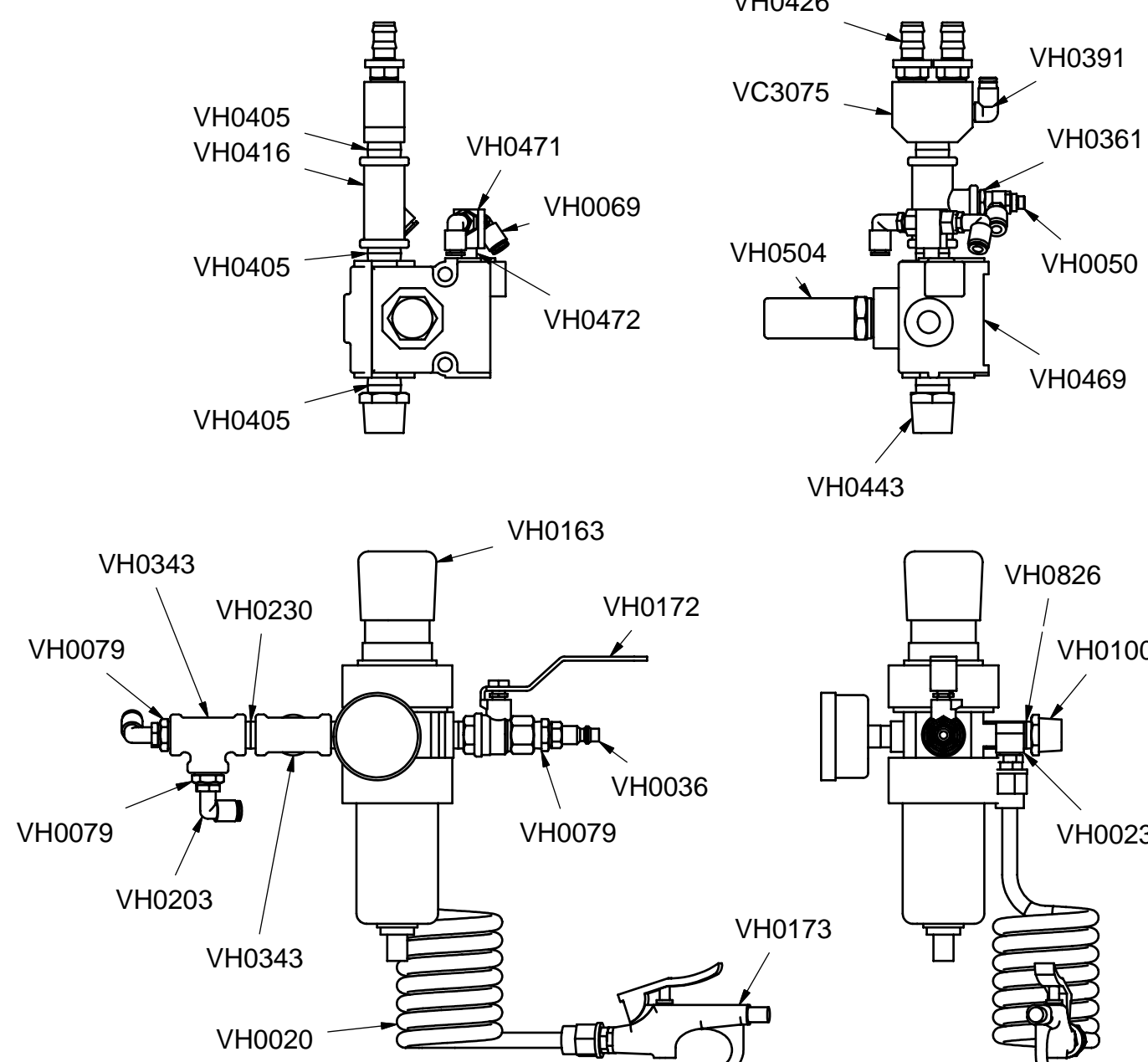
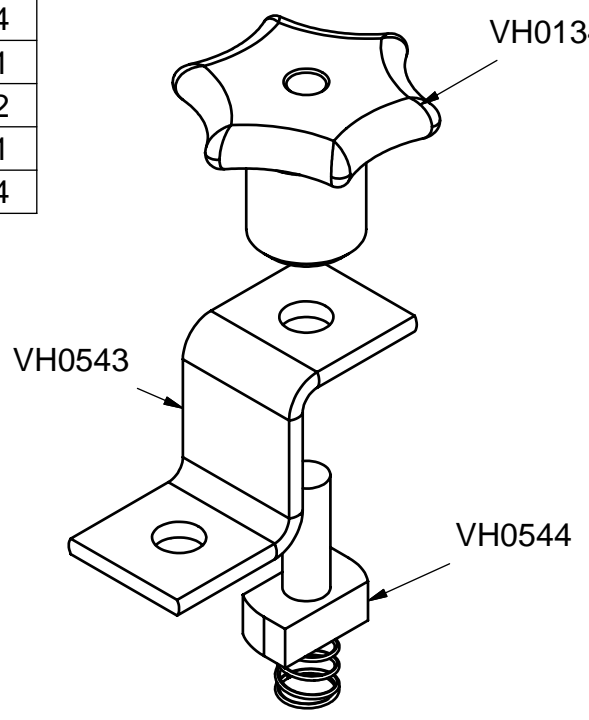
VC3102 - FACECLIP CLIP TRIGGER ASSY		
PART #	DESCRIPTION	QT
VC3113	RISER - BASE HEIGHT	1
VC3114	RISER SHIM	-
VC5300	CYLINDER END CAP	1
VC5301	TRIGGER PISTON	1
VC5302	MOUNTING PLATE	1
VC5304	SPRING	1
VC5305	SPRING	1
VC5312	CYLINDER BODY	1
VC5313	SPACER	1
VC5314	BUSHING	1
VC5315	MANIFOLD	1
VC5316	SPACER	1
VC5317	POINTER	1
VC5320	AIR VALVE, CARTRIDGE	1
VC5323	CYLINDER SPACER	1
VC5328	RAIL GUIDE	1
VH0029	O-RING, #114	-
VH0037	PUSH-IN FTG, 1/4 x 1/8 NPT	1
VH0040	1/2 - 13 x 4 T-BOLT	1
VH0051	SHCS, 10 - 32 x 1/2	3
VH0069	PUSH-IN FTG, 90, 1/4 x 1/8 NPT	2
VH0134	KNOB	1
VH0135	O-RING, #210	-
VH0146	SHCS, 10 - 32 x 1 1/2	4
VH0147	SHCS, 5/16 - 24 x 1 1/4	1
VH0316	SHCS, 1/4 - 20 x 3/4	2
VH0442	SET SCREW, 10 - 32 x 1/4	1
VH0444	SHCS, 5/16 - 24 x 1/2	1



RAIL # VC3112 EACH SIDE SHCS		
TOP	BOTTOM	SHCS
5/8	0	2 VH0549 (4" LENGTH)
3/4	1	1 VH0549
7/8	2	0 VH0549
1	3	1 VH0827 (4 1/4" LENGTH)

VC3106 - CLIPPING HEAD FIXED HEIGHT DETAIL		
PART #	DESCRIPTION	QT
SCHS	SHCS, 5/8 - 11 x ?	2
VC3107	BASE HEIGHT SPACER	2
VC3108	FIXED HEIGHT WASHER	2
VC3112	SPACER SHIM	X2
VC5201	SUB-PLATE	1
VC5207	FIXED PLATE	2
VC5213	BASE PLATE	1
VC5215	SPACER	4
VC5222	SCALE	1
VH0033	BHCS, 10 - 32 x 1/4	2
VH0166	NUT, ACORN, 5/8 - 11	1
VH0197	FHCS, 5/16 - 18 x 3.5	4

VC5377 - END STOP - SIMPLE		
PART #	DESCRIPTION	QT
VH0134	KNOB	1
VH0543	Z-BRACKET	1
VH0544	NUT, STUD, 1/2 - 13	1



REV	ECN	DESCRIPTION	BY	APPD	DATE	MATERIAL:

TOL UNLESS SPECIFIED		© 2009		VERTEX FASTENERS	
XX = ± .050	XX = ± .015	DWN BY	JMW	3714 JARVIS AVENUE	
XXX = ± .005	ANGLES ± 1/2	APPD	MR	SKOKIE, IL 60076 U.S.A.	
INVENTOR		DATE	3-12-09	FACECLIPPER 2000 - FIXED HEIGHT	
SCALE		DWG. NO.	VC3116	PAGE 2 OF 2	
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