

# ACROBAT

## SPARE PARTS

METAL DOOR PRE-HANGING

OPERATOR'S COPY

**Interior**

**Door Feeder**

**Jamb Routers**

**Exterior**

**Architectural**

**Patio Door Line**

**Automatic Saws**

**Entry Door Line**

**Pre-Fit Jamb**

**Bi-fold**





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## About KVAL Machinery

KVAL was started in the mid 1940's by AA Kvalheim. A Norwegian trained furniture maker, who turned to cabinetmaking and carpentry, and eventually machinery manufacturing after immigrating to the United States. One product produced in the mid 40's was a panel saw which helped expand the fledgling flush door industry that was developing around the Walled Lake, Michigan area. Early door sizing systems were supplied to companies like Young Door, Walled Lake, Arrow Door, and out on the west coast to Cal Wood Door.

In the mid 1950's, sons Andy and Irv Kvalheim joined in the business. As the company grew, so did the line of products. Door pre-hanging equipment was designed for distributors and high production equipment was designed for manufacturers producing pre-fit units. During the growth years of the 60's, the company continued as an innovator in the industry with automatic machines for jamb processing, casing trimmers and updated door sizers. As the 70's began, customers began demanding even more automation to cut labor costs and improve product quality. Kval responded with bi-fold door assembly and pre-hanging machines featuring fully automatic screw driving systems.

Today, Jerry, David, and Mark Kvalheim...the three grandsons of AA Kvalheim have joined the firm. The company family has also grown to include George Kameoka as head engineer, and Mark Smith as one of the managing partners.

KVAL products have continued to evolve and are now faster than ever, but are easier to set up, and produce higher quality doors than ever before. Recent technical innovations include CNC controls and the complete replacement of air logic control systems with solid state programmable controllers. Fully automatic positioning and sequencing for door and jamb equipment. Digital readouts with touchscreen controls to guarantee accurate setup and operation. When looking for quality door, jamb, casing, and related machines, look to the leader in the industry for over six decades!

Look to KVAL!!!

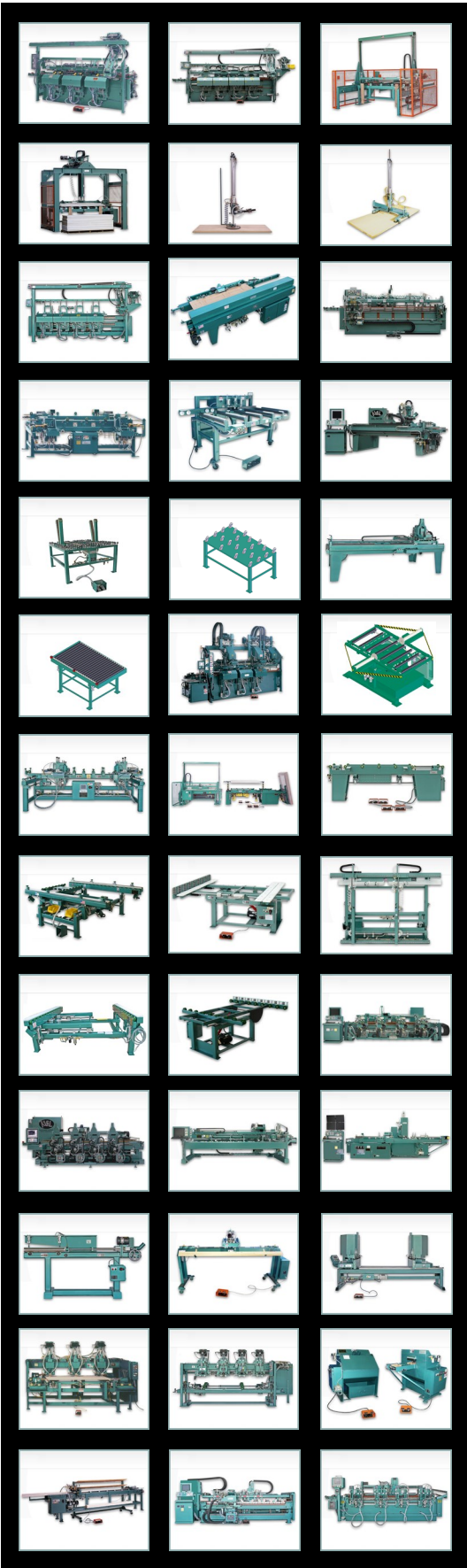


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ACROBAT

## Acrobat

KVAL's innovative Acrobat Metal Door Pre-Hanging Machine is designed for inserting door lights into metal doors and for attaching brick moulding and assembling door frame.

This design eliminates manual lifting of doors during the assembly process. Doors are rolled into the machine on non-marking wheels. Lights are inserted from the bottom up simply by depressing a foot switch. The door is then raised to spin over in order to assemble the door frame and attach exterior casing. The assembled door unit is then rolled onto the tilt arm and raised to a vertical position for easy off-loading.

Pneumatic hand tools can be attached to air supplies underneath the light table. Acro Bins, surrounding the under-edges of the Acrobat, conveniently hold hardware and supplies.

### DOOR SIZE SPECIFICATIONS

Door height: 6'-8" to 8'-0"

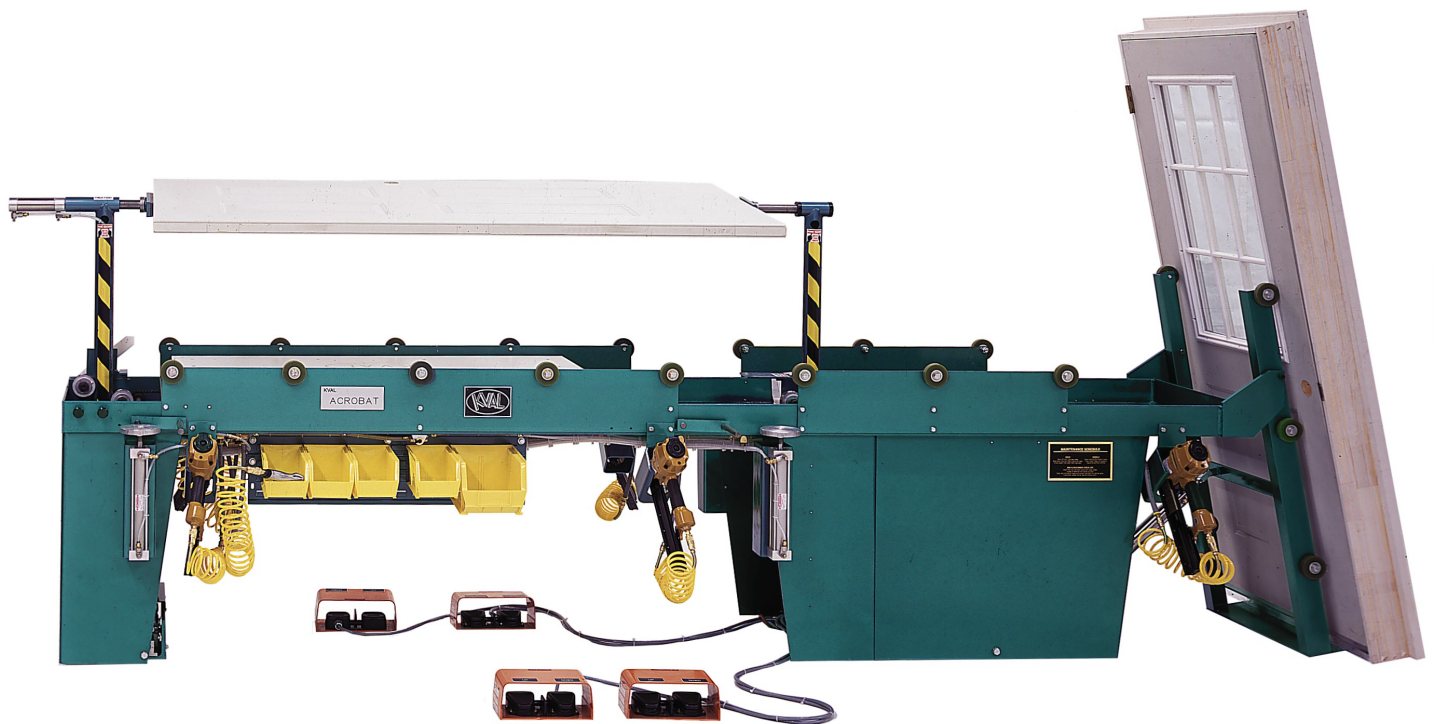
Door width: 2'-6" to 3'-0"

Door thickness: 1-3/4"

Maximum door weight 100 lbs.

### SPECIFICATIONS

Footprint Size: 19'-1"x 3'10"



## Standard

## Mechanical



Spring 1-3/16-OD X 7/8-ID X 12 Long, .162 Wire Hooked Ends

**KVAL P/N: 381200H**



Spring, 1-1/4" OD X 7/8" ID X 12" Long, .162 Wire, Double Loop Each End

**KVAL P/N: 401200LD**



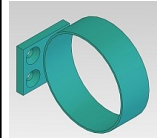
Mfg, Acrobat, Door Stop, Delrin, 3/4 x 1-1/2 x 8-15/16

**KVAL P/N: 45-00-F16**



Mfg, Acrobat, Lift Adjustable End Pivot Plate Pad, Green Belting, 2-1/2" X 7"

**KVAL P/N: 45-00-HD**



Screw Gun Holder Mount Assembly, Includes spiral wrap encasement & (2) 1/4-20 X 5/8LG FH

**KVAL P/N: 536A**



Flanged Wheel Bearing, Regular Duty, 1/2 ID - 1 3/8 OD, Flange Width 7/16, Flange OD 1 1/2

**KVAL P/N: BAI150050**



Bearing, 1" Closed Super Linear Pillow Block

**KVAL P/N: INASPBC160**



Chain, Connecting Link, 50 Chain

**KVAL P/N: LIN500001**



Fastener, Washer, 1-3/8" I.D. 1-7/8" O.D., .025, Steel

**KVAL P/N: MC3088A419**



Handle, Zinc-Plated Steel Weld-in Pull Pin Non Locking With T-Handle, 1/2" Pin Dia., 1-1/2" Barrel L

**KVAL P/N: MC90222A116**



Chrome Steel Ball, 1/2" Dia.

**KVAL P/N: MC9528K24**



Pad, 60 Duro Green, 3-15/16 X 1-7/8 Molded with Steel Insert.

**KVAL P/N: P633006-N**



Pad, Aluminum, 6" Dia, 5/8 Thick, 3/8 NC Thread

**KVAL P/N: P961012CA**



Split Collar, One Piece, 1-1/4" Dia., Steel

**KVAL P/N: SC120F**



Bearing 5203ZZ, 17mm Bore, 40mm OD X 17.5 Width

**KVAL P/N: SNR5203ZZ**



Cam Follower, 7/8 Dia, With Stud

**KVAL P/N: TORCRS14**



Roller Green Polytube 3 Dia X 3/4 Wide 1-3/8-ID 60 Duro

**KVAL P/N: WESPT7612**

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## Standard

## Pneumatic



Cylinder, Advance, 300 X 9"

**KVAL P/N: ADV300A22**



Safety Exhaust Ball Valves; 1/4" NPT

**KVAL P/N: BBVALVE04**



Safety Exhaust Ball Valves; 1/2" NPT

**KVAL P/N: BBVALVE08**



Cylinder, Bimba 242DP 2" Double Acting Rear Pivot Mount 1-3/4 Bore.

**KVAL P/N: BIM242DP**



Cylinder, Bimba 242DXDE 2" Double Acting Double End Rod Mount 1-3/4 Bore.

**KVAL P/N: BIM242DXD**



Cylinder, Bimba 243DP 3" Double Acting Rear Pivot Double End Mount 1-3/4 Bore.

**KVAL P/N: BIM243DP**



Cylinder, Bimba 3120DXP, 20" Stroke, Double Acting Rear Pivot Mount, 2" Bore.

**KVAL P/N: BIM3120DXP**



Cylinder, Bimba 3121DXP, 21" Stroke, Double Acting Rear Pivot Mount, 2" Bore.

**KVAL P/N: BIM3121DXP**



Cylinder, Bimba 313DXP, 3" Stroke, Double Acting Rear Pivot Mount, 2" Bore.

**KVAL P/N: BIM313DXP**



Cylinder Hardware, Bimba 240 Foot Mount Bracket 1.037 Bore, 3" Long Slotted Base

**KVAL P/N: BIMC1337**



Cylinder Hardware, Bimba, Clevis, 240,310,050, 1/2-20 National Fine Thread 1.69 Long .38 Pin.

**KVAL P/N: BIMD2313**



Cylinder, Bimba, Hardware, 2" & 2-1/2" Bore Cylinder, 2-Piece Pivot Bracket .375 Pin 3.00 Long Slotted Base.

**KVAL P/N: BIMD620**



Cylinder, Bimba, Hardware, 2-Piece Pivot Bracket .375 Pin 2.88 Long Slotted Base

**KVAL P/N: BIMD6201**



Air Hose, 2 Bonded Coiled Hose, 6 FT, Tube .375 OD X .245 ID, With 8" Tails

**KVAL P/N: BUCM31508**



Pneumatic Quick Coupling, 1/4", Female Pipe Thread

**KVAL P/N: DYNASW340A**



Directional Control Valve, Fabco 18 Series, PMD-4, 1/8" NPT, 4-WAY, Detented (Push-Pull), Panel Mount Button

**KVAL P/N: FAB18PMD4**





## Standard

## Pneumatic



Valve, Fabco, Repair Kit, 1800-944, Spool With O-Rings, For Push Pull Valve

**KVAL P/N: FAB18PMD4-RK**



Speed Controller, One-touch Fitting, 1/4 NPT - 1/4" OD, Elbow & Universal Types, NAS2201F-N02-07S

**KVAL P/N: SMCAS2201F2**



Regulator, 1/4" Mini With Check Valve (1/8" Body with 1/4" Ports)

**KVAL P/N: SMC20001R**



Pressure Gauge, SMC, K40, 1/8 NPT Thread, 160 PSI

**KVAL P/N: SMCK10**



Regulator, Bracket, 1/4" Mini

**KVAL P/N: SMC20001Y**



Valve, VQC4100-5 or VQC4101-5 SMC Valve Without Base, Single Acting 24VDC.

**KVAL P/N: SMCVQC4100-5**



Filter, 1/2" With Auto Drain, SMC, AF40-N04D-Z

**KVAL P/N: SMC40004F**



Valve, VQC4200-5 SMC Valve Without Base, Double Acting, 24VDC

**KVAL P/N: SMCVQC4200-5**



Speed Controller, Standard, 1/4" Right Angle, 1/4 NPT, Metal Body Elbow Style

**KVAL P/N: SMCAS2102**

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## Standard

## Electrical



End Plate For Grounding Terminal Block, Entelec 01036221

**KVAL P/N: 01036221**



Cord M12 Conn 4 Wire DC 5 Meters

**KVAL P/N: M12-4PIN-DC-5M**



Terminal Block, 6mm, 30A, Grey, Screw  
30A/600V Max., Accepts 24-10 AWG Wire  
M4/6, Screw Terminal

**KVAL P/N: 011511607**



Disconnect Shaft Stromburg 3/16" X 3/16" X  
10-1/2" OAL

**KVAL P/N: OETLZS49**



Grounding Terminal Block Entelec, Green/  
Yellow, 24-10 AWG, 6mm Width Electrically  
Connected to Rail, 016580901

**KVAL P/N: 016580901**



Pistol Handle, Red/ Black, Nema 1, 3R, 12  
Accepts 6mm SQ Shaft, 65mm Handle Pad-  
lockable

**KVAL P/N: OHB65J6**



Terminal End Section, Entelec 11836816

**KVAL P/N: 11836816**



Disconnect Switch, 80 Amp, 3 Poles, ABB,  
OT80F3, 1SCA105798R1001

**KVAL P/N: OT80F3**



Twin Foot Switch Linemaster 632-S

**KVAL P/N: 632S-TWIN**



Disconnect, Neutral For OT63E3

**KVAL P/N: OTPN63EP**



Sensor, Fixed Range, 2" Fixed Field, 24 Volts  
DC, 18mm Dia.

**KVAL P/N: DIFUSEFF2-M12**



Disconnect 6mm Shaft, 290mm long.

**KVAL P/N: OXP6X290**



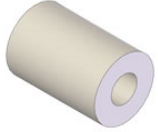
PLC, IDEC MicroSmart, 24 I/O PLC

**KVAL P/N: FC4A-C24R2**





## Option B - Outswing



Mfg, Acrobat/Acro, Opt-B, Roller for Outswing Door Support, Delrin, 2" Dia. X 3"

**KVAL P/N: 10-0B-XC**









**Parts Department**

**Monday thru Thursday  
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**Friday  
6:00 a.m. to 1:00 p.m.**

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