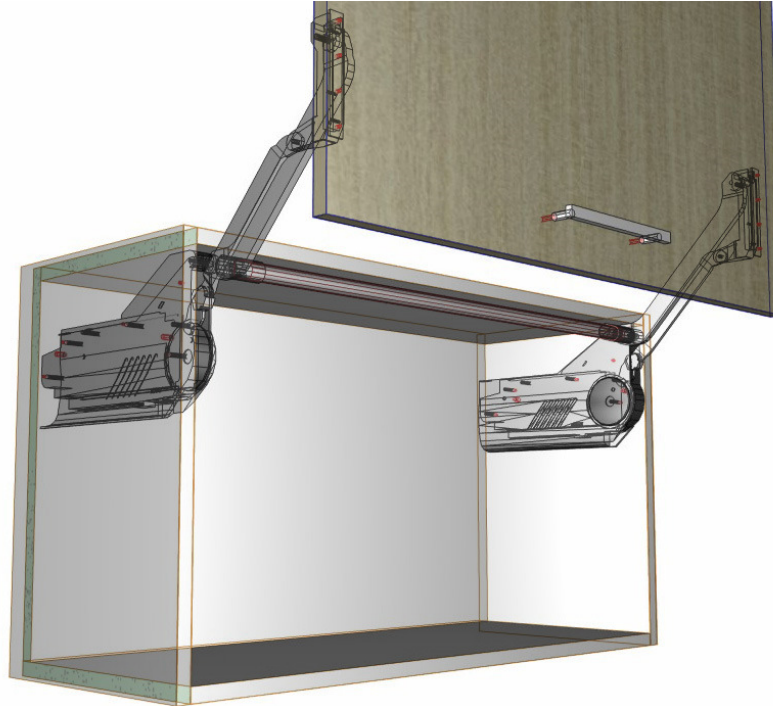


Blum Aventos 'HL' User Guide.



Introduction

Overview

- The 'Blum Aventos HL Package' from Solid Setup adds the Blum Aventos HL door Lift system to Cabinet Vision Solid and optional Servo drive.
- It provides drilling for the Cabinet and Door parts, for CNC output.
- (You can change the drilling diameters and depths to the tools you want to use.)
- It also adds 3d graphics for the Mechanisms and brackets etc.
- The Mechanisms and brackets etc are added as a separate parts and materials for reporting purposes.
- All material descriptions contain the Blum order number after the # symbol.
- UCS calculates weight of Door by using the density of board and handle weight.
- User can adjust density, handle weight or Total weight using attributes.
- The Total weight determines which Lift Mechanism and Arm Assembly to use, automatically.

Included in This Package

User Created Standards

The Following UCS is provided

- { DOOR } -- Blum Aventos HL Attributes -Adds Blum Aventos HL Attributes to DOR
- { DOOR } -- Blum Aventos HL -Adds Blum Aventos HL to DOR_OPEN

Library

- CVS Blum.cvc Cabinet Vision Catalog of Blum Library parts

Parts

- HNGDXF Hinge type part used for Mechanisms
- HNGPLT Hinge type part used for Mech Covers
- HNGSTAY Hinge type part used for Arms
- ROD Assembly type part used for Connecting Rods
- BRKT Part used for Servo bumpers

Miscellaneous Materials:

Name	Description
Aventos HL Arm 3200	Aventos HL 3200 Arm Set (pr) #20L3200
Aventos HL Arm 3500	Aventos HL 3500 Arm Set (pr) #20L3500
Aventos HL Arm 3800	Aventos HL 3800 Arm Set (pr) #20L3800
Aventos HL Arm 3900	Aventos HL 3900 Arm Set (pr) #20L3900
Aventos HL Arm Srv 3200	Aventos HL 3200 Arm Servo Set (pr) #21L3200
Aventos HL Arm Srv 3500	Aventos HL 3500 Arm Servo Set (pr) #21L3500
Aventos HL Arm Srv 3800	Aventos HL 3800 Arm Servo Set (pr) #21L3800
Aventos HL Arm Srv 3900	Aventos HL 3900 Arm Servo Set (pr) #21L3900
Aventos HL Cover Grey	Aventos HL Mech Cover (pr) #20L8000 Light-Grey
Aventos HL Cover Nickel	Aventos HL Mech Cover (pr) #20L8000 Nickel-Laquered
Aventos HL Cover White	Aventos HL Mech Cover (pr) #20L8000 Silk-White
Aventos HL CoverSrv Gry	Aventos HL Mech Cover Servo (pr) #21L8000 Light-Grey
Aventos HL CoverSrv Nkl	Aventos HL Mech Cover Servo (pr) #21L8000 Nickel-Laquered
Aventos HL CoverSrv Wte	Aventos HL Mech Cover Servo (pr) #21L8000 Silk-White
Aventos HL Mech 2100	Aventos HL 2100 Mech Set (pr) #20L2100.NA
Aventos HL Mech 2300	Aventos HL 2300 Mech Set (pr) #20L2300.NA
Aventos HL Mech 2500	Aventos HL 2500 Mech Set (pr) #20L2500.NA
Aventos HL Mech 2700	Aventos HL 2700 Mech Set (pr) #20L2700.NA
Aventos HL Mech 2900	Aventos HL 2900 Mech Set (pr) #20L2900.NA
Aventos HK,HL,HS Brkt	Aventos HK,HL,HS Front Bracket Set (pr) #20S4200
Aventos Oval Rod	Aventos Oval Rod #20Q1061UA
Aventos Rod Conector	Aventos Oval Rod Connector #20Q091ZA
Aventos HF,HL,HS Servo	Aventos HF,HL,HS Servo Drive Set #21FA000
Aventos Servo Bump	Aventos Servo Bumper 5mm (hide)
Aventos Servo Switch	Aventos Servo Switch (hide)

Aventos HL Usage

Door Requirements.

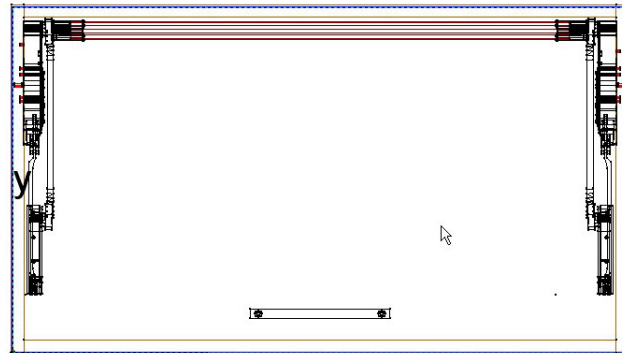
For the Aventos HL to appear on a door the following conditions must be met

- Door must be hinged at top.
- Door must have its hinge quantity set to zero.
- Door height **must** be in size range **300-580 High** and door must be **260-1800 Wide**
- The “**Aventos HL?**” Attribute will then appear on the Door to switch on Aventos HL.
- (You must be in the orthographic or “Smiley” views to click on the door and see the attributes)

Attributes

- If the “Aventos HL?” attribute is changed to “True” the following attributes will appear on the Door, along with the Aventos Mechanisms and Arms.
- **NOTE:** - If the Door is not within the above size ranges, or is too heavy for any Mechanism the Aventos HL parts will **not** be added to the Door.

Attributes	
Aventos HL ?	True
Aventos HL Colour	Light Grey
Aventos HL Dor Kg/m3	800
Aventos HL Dor Kg	4.19
Aventos HL Dor Pull gm	200
Aventos HL Dor Total Kg	4.39
Aventos HL Open?	False
Aventos HL Pos Lh	16
Aventos HL Pos Rh	16
Aventos HL Pos Top	104
Aventos HL Servo	True
Aventos HL Servo Bck Dia	10
Aventos HL Servo Bump Bot	8
Aventos HL Servo Bumpers	True
Aventos HL Switch Pos	50



- **Aventos HL Dor Kg/m3** This value is the density of the door measured in kilograms per cubic meter and is used to calculate the weight of the door – **change this to the density of the board you are using if known (If you are using MDF its density varies between 680 and 830 Kg/m3)**
- **Aventos HL Dor Kg** -This is the weight of the door as calculated by the **density** value you entered multiplied by the door size and thickness. – **(If you already know the door weight you can change this value rather than using the density calculated weight.)**
- **Aventos HL Dor Pull gm** -This value is the weight of the handle in grams and is used to calculate the total weight of the door plus handle – **(change this to the total weight of the handle(s) you are using.)**
- **Aventos HL Dors Total Kg** -This is the total weight of the door and handle added together and is used to select the correct Lift Mechanism **(If you already know the total door weight plus handle you can change this value rather than using the density calculated weight.)**
- **Aventos HL Colour?** -Changes the Cover Colour (**Light Grey, Silk White, Nickel**)
- **Aventos HL Open?** -Shows the door in the open position.
- **Aventos HL Pos Lh** -Can be used to move the x position of the left Arm.
- **Aventos HL Pos Rh** -Can be used to move the x position of the right Arm.
- **Aventos HL Pos Top** - **CRITICAL DIMENSION – You must ensure this value is correct or the AVENTOS will NOT WORK!!! So read the following CAREFULLY**
 - **When the top of the door is at the top of the cabinet, this value is the distance from the top of the cabinet to the 5mm Lug holes in the ends.**
 - **The Lug holes must be 88mm below the bottom of the top!**
 - **So, for a 16mm top this value must be 104mm (this is our default value)**
 - **For a 19mm top this value must be 107mm (88 + 19)**
 - **When this door has another door above it, this is then the distance from the center of the door gap to the 5mm Lug holes in the ends.**
 - **You must adjust this value until the 5mm Lug holes in the ends are 88mm below the bottom of the shelf.**
 -

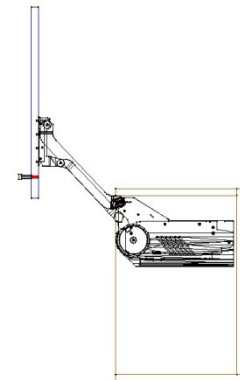
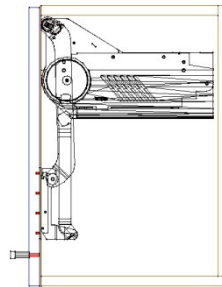
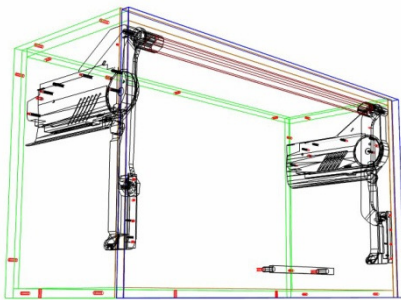
Servo Attributes

- **Aventos HL Servo** -Turns on Servo Drive and following 4 attributes.
- **Aventos HL Servo Bck Dia** -Changes Servo Back Hole diameter – set to 0 to delete hole.
- **Aventos HL Bumpers** -Turns off bumpers if not required.
- **Aventos HL Bump Bot** -Can be used to move the bottom 2 bumpers up if base is scribed up etc.
- **Aventos HL Switch Pos** -Can be used to move the servo switches up or down.

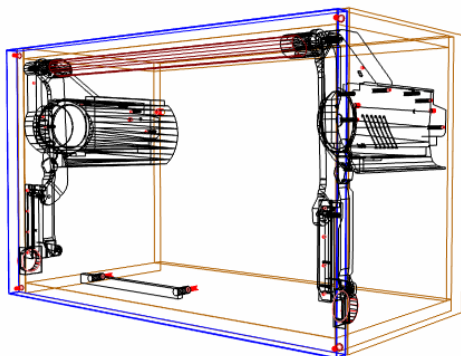
The following table shows which Lift Mechanism and Arm Assembly are used, for different total door weights:

Door Height	Arm Assembly	Lift Mechanism (for door weights including handle in Kg)				
		20L2100.NA	20L2300.NA	20L2500.NA	20L2700.NA	20L2900.NA
300 - 349	20L3200	1.25 - 4.25	3.50 - 7.25	6.50 - 12.00	11.00 - 20.00	
350 - 399	20L3500	1.25 - 2.50	1.75 - 5.00	4.25 - 9.00	8.00 - 14.75	13.50 - 20.00
400 - 550	20L3800		1.75 - 3.50	2.75 - 6.75	5.75 - 11.75	10.50 - 20.00
450 - 580	20L3900			2.00 - 5.25	4.25 - 9.25	8.25 - 16.50

Some Example Images:



A 450mm high cabinet with a Door Weight of 5Kg.

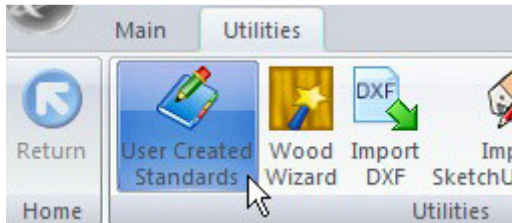


Aventos HL with Servo Drive

Drilling Setup

UCS Public Variables

- To change these variables go to the Utilities – Edit User Created Standards from the Room Plan or Elevation views



- Then click on the “{ DOOR } -- Blum Aventos HL Attributes” UCS. The Public Variables are at the top right of the screen.

Public Variables	
V6 Attributes Metric?	1
Servo Switch Position	Imp(50)

- V6 attributes metric?** If you are using **imperial** units the variable must be set to **zero** but if you are using **metric** units it must be set to **1**.
- Servo Switch Position** This sets the default servo switch position from the bottom of the door.
- Now click on the “{ DOOR } -- Blum Aventos HL” UCS. Here we set the various drilling sizes.

Public Variables	
Door Bracket Holes Depth	Imp(3)
Door Bracket Holes Diam	Imp(3)
Mech Peg Holes Depth	Imp(7)
Mech Peg Holes Diam	Imp(5)
Mech Pilot Holes Depth	Imp(3)
Mech Pilot Holes Diam	Imp(3)

- Edit the **Imp()** values to the diameter and depths you require.
- If you are using imperial sizes simply replace the whole **imp()** with the imperial measurement instead.
- E.g.: **Imp(3)** might become **1/8**
- Change the **Mech Pilot Holes** value to **0** if you normally do not want to drill the Aventos Mechanism screw pilot holes in the cabinet ends or leave it as **1** if you normally do drill them.
- Please note the servo buffers drill at 5mm diameter and 11mm deep.

Once you have changed these values to your requirements, close the UCS editor.

Tools Required

- The drill diameters you choose in the UCS User Definable Variables above are all required for this package to work. You must have these tool diameters in your tool catalog and in your machine.

Package Exclusions

There may be some items shown in various images contained in this document which are not included in this Package. Any items such as cabinet screw holes, etc are part of our other packages which are sold separately.

See our website for more detailed information on these packages.