

# Blum Aventos HK Top - User Guide

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# Cabinet Vision Training - Blum Aventos HK Top - User Guide



## Introduction

### Overview...

- The *Blum Aventos HK TOP Package* from Solid Setup adds the Blum Aventos HK TOP door lift system to Cabinet Vision Solid and optional Servo Drive or Tip-on
- 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
- Pre-mounted and Screw-on mechs are provided
- Light Grey, Silk White and Dark Grey colours provided
- Three front bracket types provided
- 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
- UCS uses total weight to determine a 'POWER FACTOR' which is displayed as an attribute and can be changed
- The POWER FACTOR determines which Mechanism to use and how many arms are required automatically
- If three arms are required, user can swap the odd arm left to right with an attribute
- If three arms are required, the centre arm will link to a partition if there is one present

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## Included in This Package

### User Created Standards

The Following UCS's are provided

- { DOOR } -- Blum Aventos HK TOP Attributes - *Adds Blum Aventos HK TOP Attributes to DOR*
- { DOOR } -- Blum Aventos HK TOP - *Adds Blum Aventos HK TOP to DOR\_OPEN*

### Parts

- HNGDXF *Hinge type part used for Mechanisms*
- HNGPLT *Hinge type part used for Mech Covers*
- HNGSTAY *Hinge type part used for Arms*
- BRKT *Part used for Servo bumpers or Tip-on Adapters*

### Miscellaneous Materials

Name	Description
Aventos HKTOP Mech 2300	Aventos HKTOP 2300 Mech Set Screwon (pr) #22K2300
Aventos HKTOP Mech 2500	Aventos HKTOP 2300 Mech Set Screwon (pr) #22K2500
Aventos HKTOP Mech 2700	Aventos HKTOP 2300 Mech Set Screwon (pr) #22K2700
Aventos HKTOP Mech 2900	Aventos HKTOP 2300 Mech Set Screwon (pr) #22K2900
Aventos HKTOP Mech 2310	Aventos HKTOP 2300 Mech Set Pre-Mount (pr) #22K2310
Aventos HKTOP Mech 2510	Aventos HKTOP 2300 Mech Set Pre-Mount (pr) #22K2510
Aventos HKTOP Mech 2710	Aventos HKTOP 2300 Mech Set Pre-Mount (pr) #22K2710
Aventos HKTOP Mech 2910	Aventos HKTOP 2300 Mech Set Pre-Mount (pr) #22K2910
Aventos HKTOP Mech 2300T	Aventos HKTOP 2300 Mech Set Tipon (pr) #22K2300T
Aventos HKTOP Mech 2500T	Aventos HKTOP 2300 Mech Set Tipon (pr) #22K2500T
Aventos HKTOP Mech 2700T	Aventos HKTOP 2300 Mech Set Tipon (pr) #22K2700T
Aventos HKTOP Mech 2900T	Aventos HKTOP 2300 Mech Set Tipon (pr) #22K2900T
Aventos HKTOP Cover (3 Colors)	Aventos HKTOP Mech Cover (pr) #22K8000.(SW / HGR / TGR)
Aventos HKTOP Cover Servo (3 Colors)	Aventos HKTOP Mech Cover Servo (pr) #23K8000.SW / HGR / TGR
Aventos HKTOP Servo Drive Set	Aventos HKTOP Servo Drive Set #23KA000
Aventos HKTOP Arm	Aventos HKTOP Arm (hide)
Aventos Front Brkt Wood 20S42E1	Aventos Front Bracket Set Wooden or Wide ALU (pr) 20S42E1
Aventos Front Brkt Wood 20S42E1 Screw	Aventos Front Bracket Set Wooden or Wide ALU (pr) 20S42E1
Aventos Front Brkt Alu 20S4200A	Aventos Front Bracket Set Narrow ALU (pr) 20S4200A
Aventos Front Brkt Exp T 20S42T1	Aventos Front Bracket Set EXPANDO Thin (pr) 20S42T1
Aventos Servo Drive Switch (3 Colors)	Aventos Servo Drive Switch.SW / HGR / TGR
Aventos Servo Bumper (3 Colors)	Aventos Servo Bumper Silk White / Lt Grey / Dk Grey
TIP-ON Set Short (3 Colors)	TIP-ON Set Short #956.1004.SW / R7036 / TB
TIP-ON Set Long (3 Colors)	TIP-ON Set Long #956A1004.SW / R7036 / TB
TIP-ON Adapter Plt Short (3 Colors)	TIP-ON Adapter Plate Short #956.1201.SW / R7036 / TB
TIP-ON Adapter Plt Long (3 Colors)	TIP-ON Adapter Plate Long #956A1201.SW / R7036 / TB

## Aventos HK TOP Usage

### Door Requirements

For the *Aventos HK TOP* 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
- The door height must be in size range 205-600 High and doors must be 200-1800 Wide
- The *Aventos HK TOP* ? Attribute will then appear on the Top Door to switch on *Aventos HK TOP*

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💡 You must be in the orthographic or “Smiley” views to click on the door and see the attributes

NOTE: If the Door is not within the above size ranges, or is too heavy for any Mechanism the Aventos HK TOP parts will not be added to the Door

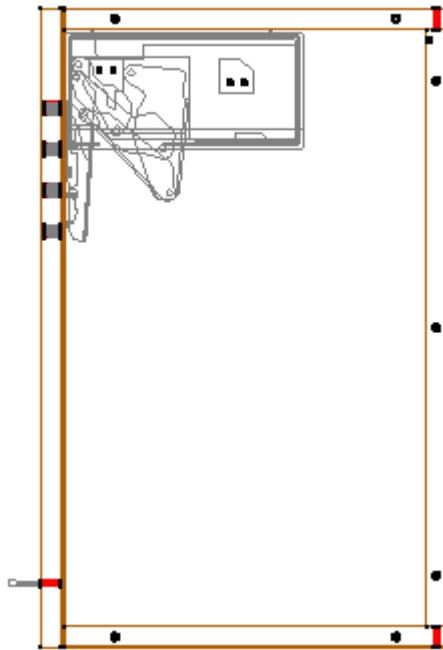
The power factor must be between 420 and 13500

## Attributes

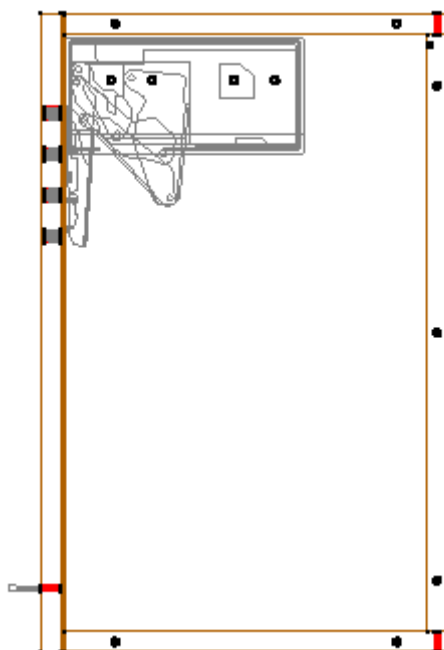
- If the *Aventos HK TOP?* attribute is set to *Pre-Mounted* or *Screwon* the following attributes will appear on the door, along with the Aventos mechanisms and arm

Attributes	
Aventos HK TOP ?	Pre-Mounted
Aventos HK TOP Cen Offset	0
Aventos HK TOP Colour	Light Grey
Aventos HK TOP Dor Kg/m3	800
Aventos HK TOP Dor Pull gm	200
Aventos HK TOP Dors Kg	5.1
Aventos HK TOP Dors Total Kg	5.5
Aventos HK TOP Front Brackets	Wooden, Wide ALU
Aventos HK TOP Open?	False
Aventos HK TOP Pos Lh	16.5
Aventos HK TOP Pos Rh	16.5
Aventos HK TOP Pos Top	16.5
Aventos HK TOP Power Factor	2747.2
Aventos HK TOP Servo	False
Aventos HK TOP Swap Sides?	False
Aventos HK TOP Tip on	.Off

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Pre-Mounted Mech



Screwon Mech

- Aventos HK TOP Bracket? -Wooden,Wide ALU/Wooden Screwon/Expando Thin/Narrow ALU
- Aventos HK TOP Colour? -Changes the Colour, Light Grey, Silk White, Dark Grey

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- Aventos HK TOP Dor Kg/m<sup>3</sup> -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 830kg/m<sup>3</sup>*
- Aventos HK TOP 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 HK TOP Dors 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 HK TOP Dors Total Kg -This is the total weight of the door and handle added together and is used to calculate the *Power Factor*- *If you already know the total door weight plus handle you can change this value rather than using the density calculated weight*
- Aventos HK TOP Open? -Shows the door in the open position.
- Aventos HK TOP Pos Lh -Can be used to move the x position of the left arm.
- Aventos HK TOP Pos Rh -Can be used to move the x position of the right arm.
- Aventos HK TOP Pos Top -Can be used to move the y position of the mechs/Arms up or down
- Aventos HK TOP Power Factor -This is the value used to select the correct lift mechanism and how many to use based on the value- *If you have already calculated the power factor yourself you can change this to your value instead*
- Aventos HK TOP Third Arm LHS? -You can swap the third arm from right to left of partition
- Aventos HK TOP Third Arm Offset -Offsets the third arm left or right if required

The following table shows which lift mechanism is used, and how many arms based on the Power Factor. Because Blum uses overlapping ranges, we have adjusted the ranges so that the stronger mechanism and arm quantity is chosen where the ranges overlap

		Lif Mechanism	Lif Mechanism	Lif Mechanism	
Blum Power Factor	Used Power Factor	Pre-Mounted	Screwon	Tipon(Screwon)	Arm Quantity
420 - 1610	420 - 930	22K2310	22K2300	22K2300T	(1 set)
930 - 2800	930 - 1730	22K2510	22K2500	22K2500T	(1 set)
1730 - 5200	1730 - 3200	22K2710	22K2700	22K2700T	(1 set)
3200 - 9000	3200 - 9000	22K2910	22K2900	22K2900T	(1 set)
9000 - 13500	9000 - 13500	22K2910	22K2900	22K2900T	(3 pieces)



## Servo Attributes

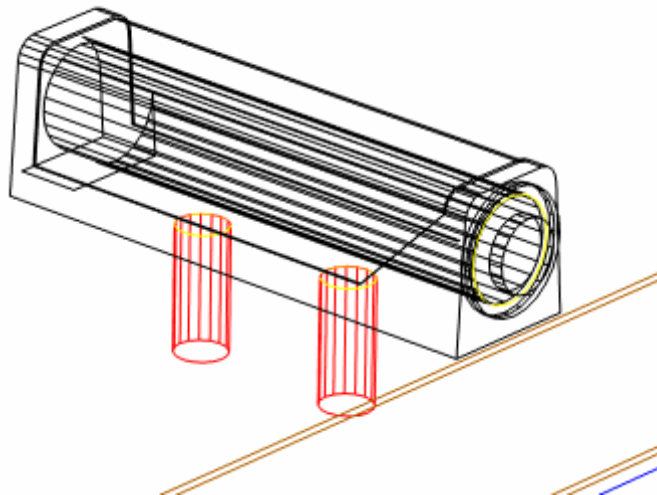
- Aventos HK TOP Servo -Turns on Servo Drive and following 4 attributes

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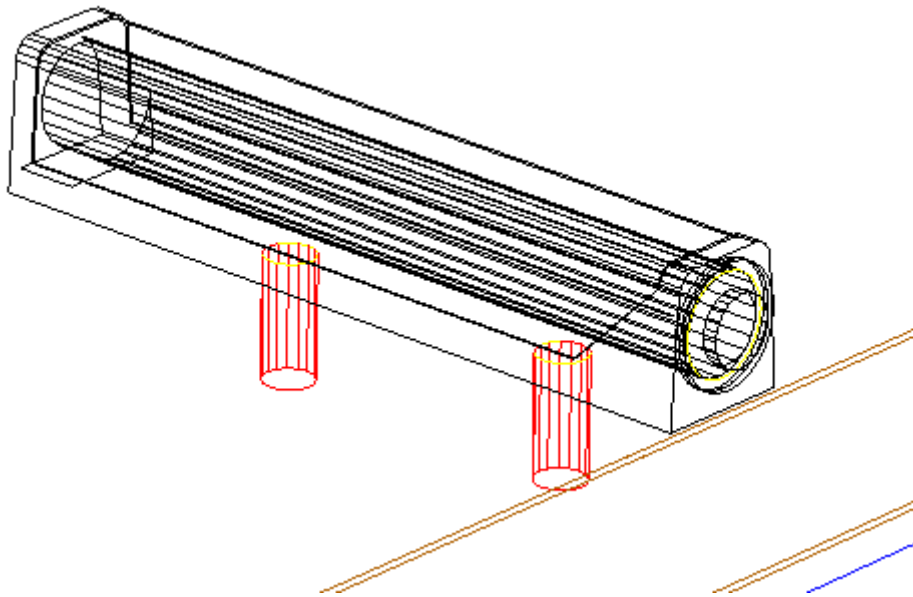
- Aventos HK TOP Servo Bck Dia - Changes Servo Back Hole diameter - set to 0 to delete hole
- Aventos HK TOP Servo Bumpers - Turns off bumpers if not required
- Aventos HK TOP Servo Switch Pos - Can be used to move the servo switches up or down
- Colours will match mech color selection

## Tip-On Attributes

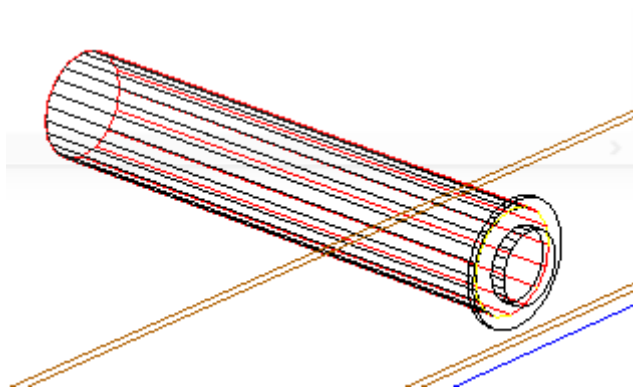
- Aventos HK TOP Tipon -Select from Adapter Plate/Edge No Hole/Edge With Hole
- Aventos HK TOP Tipon X - Allows X position of adapter to be changed, default is center of opening
- Aventos HK TOP Tipon Y Adj - Allows Y position adjustment of adapter when required to attach to bottom or shelf on modified cabinets
- Colours will match mech color selection
- Short Tip-ons - for Door Height up to 500mm
- Long Tip-ons - for doors 500mm to 605mm high



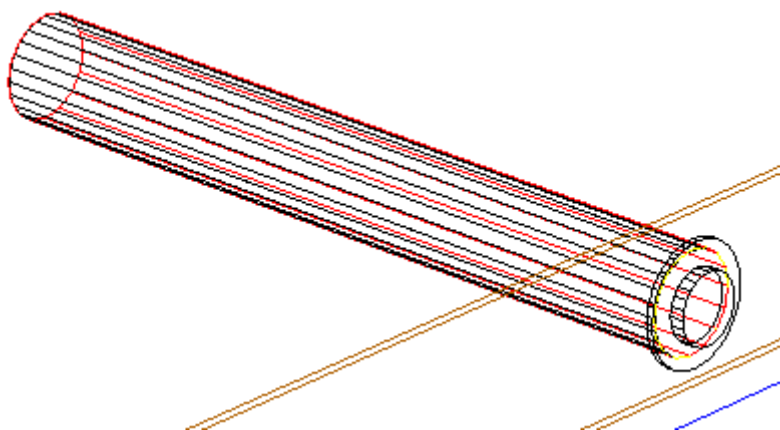
Tip-on Adapter Plate Short



Tip-on Adapter Plate Long



Tip-on Edge Short

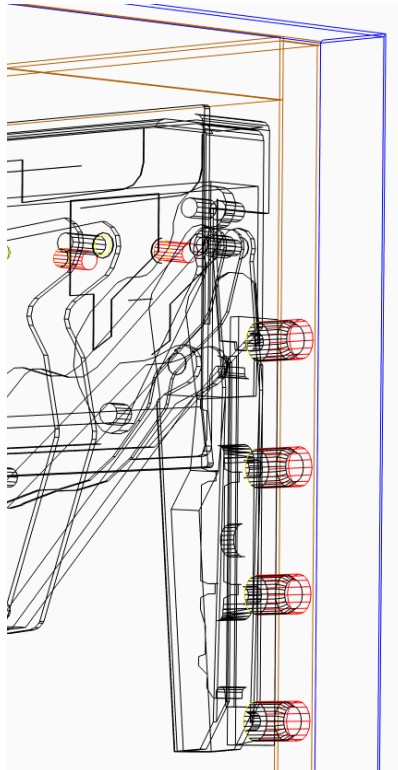




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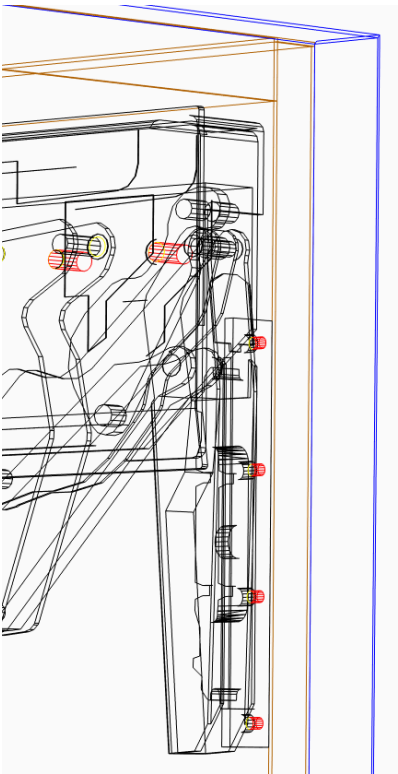
## Tip-on Edge Long

### Front Brackets

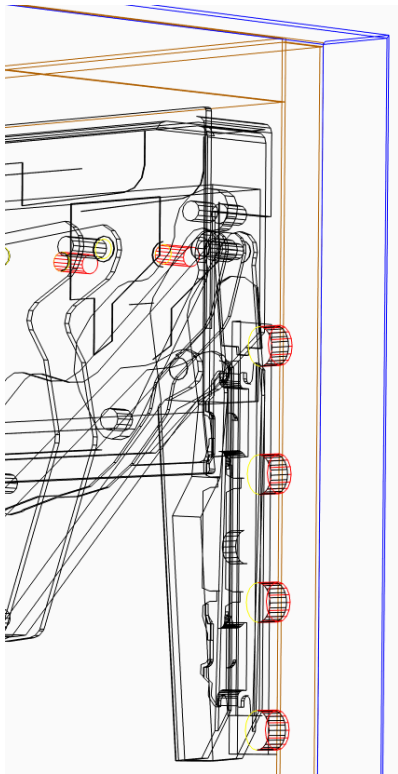


Wooden, Wide ALU
20S42E1
10mm Dia x 13mm

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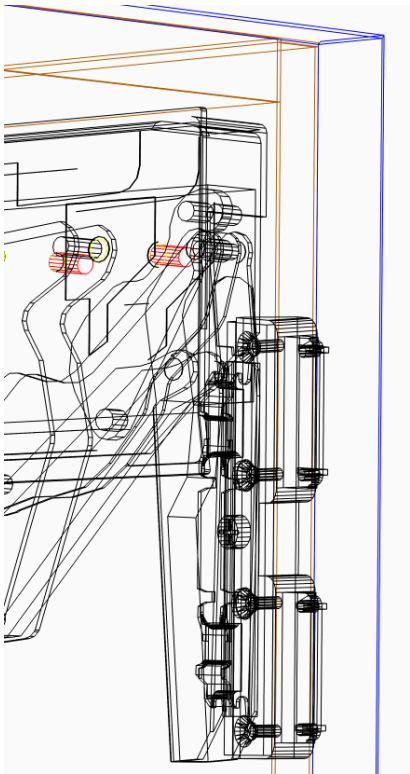


Wooden, Screwon
20S42E1
3mm Dia x 3mm

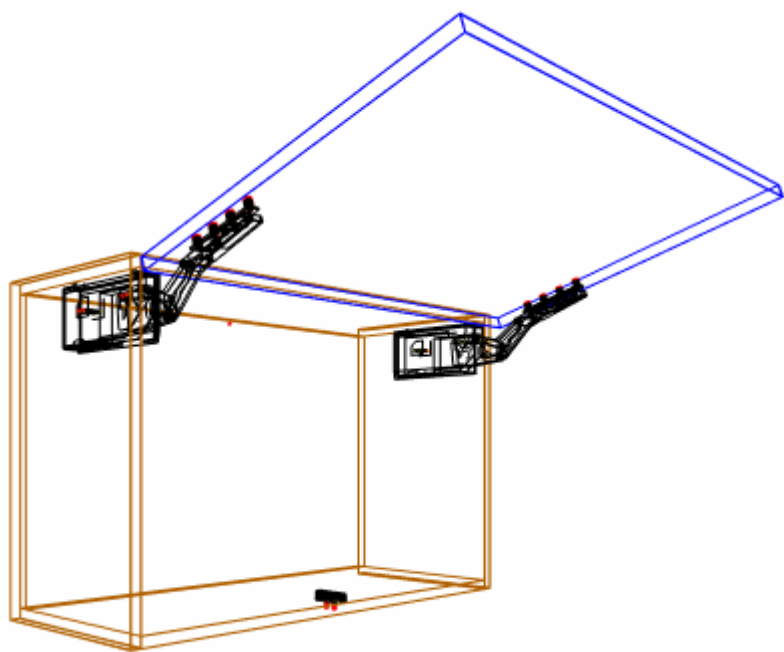
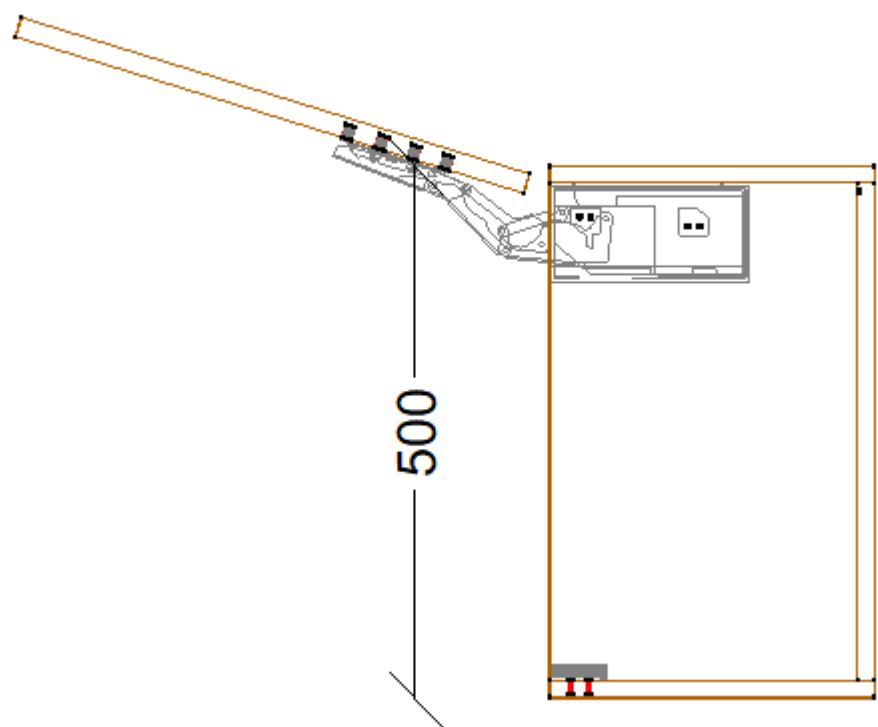


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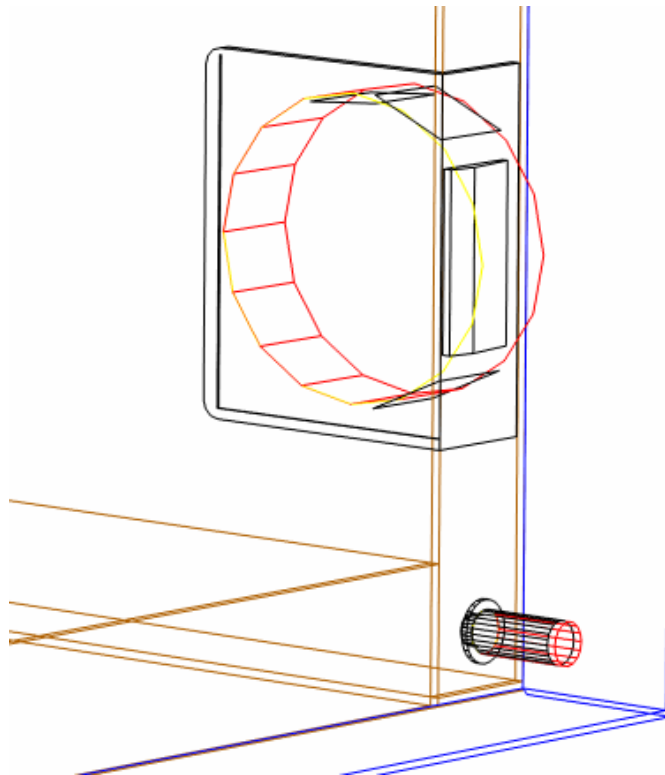
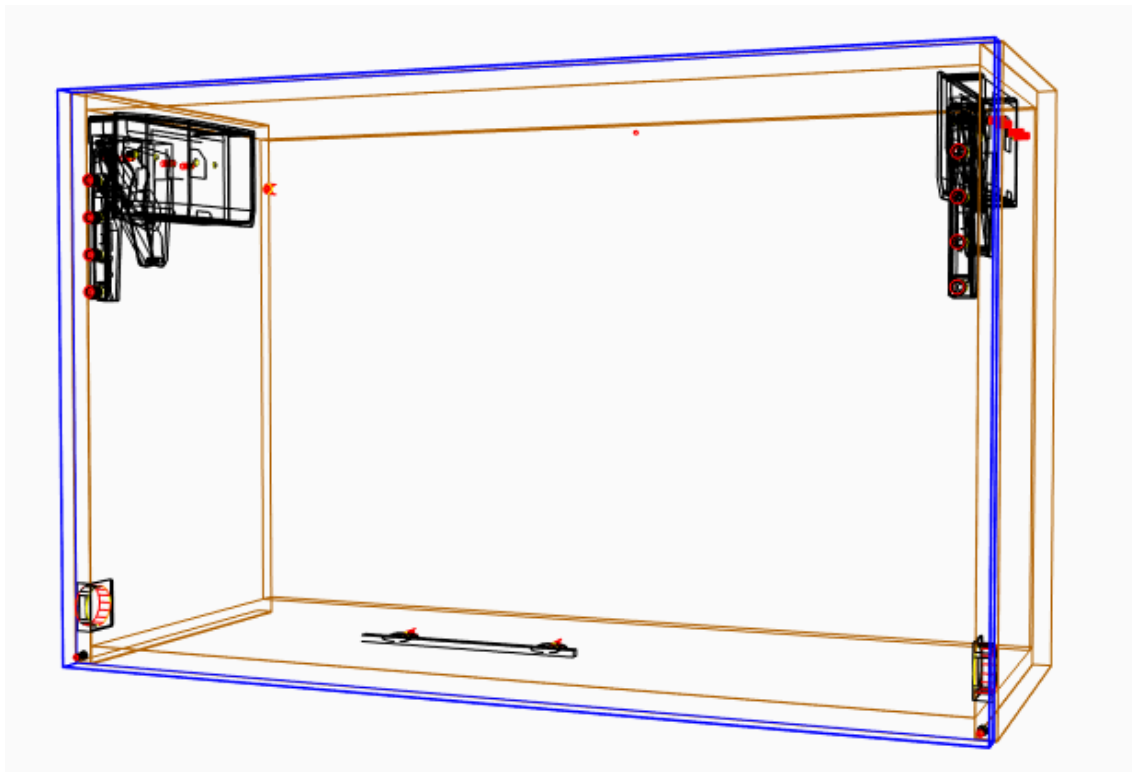
<a href="#">EXPANDO Thin</a>
<a href="#">20S42E1</a>
<a href="#">10mm Dia x 6mm</a>



<a href="#">Narrow ALU</a>
<a href="#">20S4200A</a>
<a href="#">No Drilling</a>



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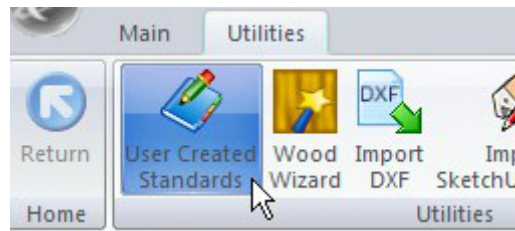


## Drilling Setup

UCS Public Variables

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- 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 HK TOP Attributes** UCS. The Public Variables are at the top left of the screen

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

- 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 HK TOP** UCS. Here we set the various drilling sizes

Public Variables	
Door Screwon Holes Depth	Imp(3)
Door Screwon Holes Diam	Imp(3)
Mech Pre Mount Depth	Imp(12)
Mech Pre Mount Diam	Imp(5)
Mech Screwon Holes Depth	Imp(3)
Mech Screwon 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
- Eg. *Imp(3)* might become 1/8
- Door Screw-on hole sizes are for the *Wooden, Screwon* front bracket with the lugs manually removed
- Mech Pre Mount holes are for the pre-drilled lug mounted mechs
- Mech Screwon Holes are for the self locating mechs to assist with the screw locations

*Other drilling sizes are part of the material models and can be edited in the material manager as follows*

- Front Bracket -*Wooden, Wide ALU* – Diameter 10mm Depth 13mm

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- Front Bracket -*Expando Thin* - Diameter 10mm Depth 6mm
- Tipon Adapter Plates - Diameter 5mm Depth 12mm
- Tipon Edge - Diameter 10mm Depth 51mm
- Servo Switches - Diameter 35mm Depth 11.5mm
- Servo Buffers - Diameter 5mm Depth 11mm

*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 and provided on the material models 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 not specifically mentioned in this guide are part of our other packages which are sold separately

See the apt store for more detailed information on these packages