Blum AVENTOS ‘HK TOP’ User Guide.



Introduction

Overview

- The ‘Blum AVENTOS HK TOP Package’ from Solid Setup Plus adds the Blum AVENTOS HK TOP door lift system to Cabinet Vision 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.
- Premounted and Screwon mechs are provided.
- Light Grey, Silk White and Dark Grey colours provided.
- Four front bracket types provided.
- The mechanisms and brackets etc are added as a separate parts and materials for reporting purposes.
- All materials for ordering contain the Blum order number in the SKU and material description.
- 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.

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

Miscellaneous Materials:

Name	Description
Aventos HKTOP Arm	Aventos HKTOP Arm (hide)
Aventos HKTOP Cover Dk Grey	Aventos HKTOP Cover Model Dk Grey
Aventos HKTOP Cover Lt Grey	Aventos HKTOP Cover Model Lt Grey
Aventos HKTOP Cover S.White	Aventos HKTOP Cover Model S.White
Aventos HKTOP Cover Servo Dk Grey	Aventos HKTOP Cover Model Servo Dk Grey
Aventos HKTOP Cover Servo Lt Grey	Aventos HKTOP Cover Model Servo Lt Grey
Aventos HKTOP Cover Servo S.White	Aventos HKTOP Cover Model Servo S.White
Aventos HKTOP Cover Set Dk Grey	Aventos HKTOP Mech Cover Set #22K8000.TGR
Aventos HKTOP Cover Set Lt Grey	Aventos HKTOP Mech Cover Set #22K8000.HGR
Aventos HKTOP Cover Set S.White	Aventos HKTOP Mech Cover Set #22K8000.SW
Aventos HKTOP Cover Set Servo Dk Grey	Aventos HKTOP Mech Cover Set Servo #23K8000.TGR
Aventos HKTOP Cover Set Servo Lt Grey	Aventos HKTOP Mech Cover Set Servo #23K8000.HGR
Aventos HKTOP Cover Set Servo S.White	Aventos HKTOP Mech Cover Set Servo #23K8000.SW
Aventos HKTOP Mech 2300	Aventos HKTOP 2300 Mech Set Screwon #22K2300
Aventos HKTOP Mech 2300T	Aventos HKTOP 2300 Mech Set Tipon Screwon #22K2300T
Aventos HKTOP Mech 2310	Aventos HKTOP 2300 Mech Set Pre-Mount #22K2310
Aventos HKTOP Mech 2310T	Aventos HKTOP 2300 Mech Set Tipon Pre-Mount #22K2310T
Aventos HKTOP Mech 2500	Aventos HKTOP 2500 Mech Set Screwon #22K2500
Aventos HKTOP Mech 2500T	Aventos HKTOP 2500 Mech Set Tipon Screwon #22K2500T
Aventos HKTOP Mech 2510	Aventos HKTOP 2500 Mech Set Pre-Mount #22K2510
Aventos HKTOP Mech 2510T	Aventos HKTOP 2500 Mech Set Tipon Pre-Mount #22K2510T
Aventos HKTOP Mech 2700	Aventos HKTOP 2700 Mech Set Screwon #22K2700
Aventos HKTOP Mech 2700T	Aventos HKTOP 2700 Mech Set Tipon Screwon #22K2700T
Aventos HKTOP Mech 2710	Aventos HKTOP 2700 Mech Set Pre-Mount #22K2710
Aventos HKTOP Mech 2710T	Aventos HKTOP 2700 Mech Set Tipon Pre-Mount #22K2710T
Aventos HKTOP Mech 2900	Aventos HKTOP 2900 Mech Set Screwon #22K2900
Aventos HKTOP Mech 2900T	Aventos HKTOP 2900 Mech Set Tipon Screwon #22K2900T
Aventos HKTOP Mech 2910	Aventos HKTOP 2900 Mech Set Pre-Mount #22K2910
Aventos HKTOP Mech 2910T	Aventos HKTOP 2900 Mech Set Tipon Pre-Mount #22K2910T
Aventos HKTOP Mech Pre Mounted	Aventos HKTOP Mech Model Pre Mounted
Aventos HKTOP Mech Screwon	Aventos HKTOP Mech Model Screwon
Aventos HKTOP Servo Drive Set	Aventos HKTOP Servo Drive Set #23KA000
Aventos Front Brkt EXPANDO	Aventos Front Bracket Wood EXPANDO #20S42E1
Aventos Front Brkt EXPANDO T	Aventos Front Bracket Wood EXPANDO Thin #20S42T1
Aventos Front Brkt Narrow Alu	Aventos Front Bracket Narrow Alu #20S4200A
Aventos Front Brkt Screwon	Aventos Front Bracket Wood or Wide Alu #20S4200
Aventos Servo Drive Switch S.White	Aventos Servo Drive Switch.SW
Aventos Servo Drive Switch Lt Grey	Aventos Servo Drive Switch.HGR
Aventos Servo Drive Switch Dk Grey	Aventos Servo Drive Switch.TGR
Aventos Servo Bumper S.White	Aventos Servo Bumper Silk White
Aventos Servo Bumper Lt Grey	Aventos Servo Bumper Lt Grey
Aventos Servo Bumper Dk Grey	Aventos Servo Bumper Dk Grey

AVENTOS HK top Usage

Door Requirements.

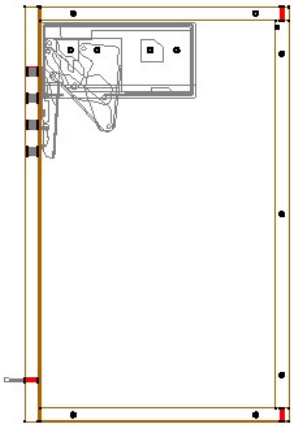
For the AVENTOS HK top to appear on a door the following conditions must be met

- 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.
- (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**)

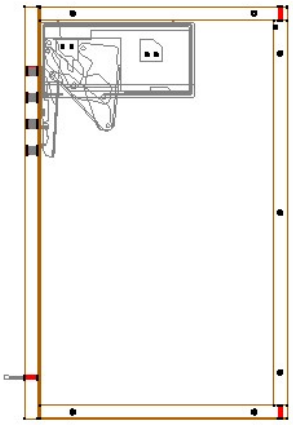
Attributes

- 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 arms.

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 K	5.5
Aventos HK TOP Front Bracke	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 Facto	2747.2
Aventos HK TOP Servo	False
Aventos HK TOP Swap Sides?	False
Aventos HK TOP Tipon	.Off



Pre-Mounted Mech



Screwon Mech

- **AVENTOS HK top Bracket?** -Changes the Front Brackets:
  1. Screwon = Screwon front brackets (5mm Dia x 3mm Deep)
  2. Expando = Expando front brackets (10mm Dia x 13mm Deep)
  3. Expando Thin = Expando front brackets for Thin Fronts (10mm Dia x 6mm Deep)
  4. Narrow ALU = Aluminium Narrow Frame Door (No Drilling)
- **AVENTOS HK top Colour?** -Changes the Colour **(Light Grey, Silk White, Dark Grey)**
- **AVENTOS HK top 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 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 Pos In/Out** -Can be used to move the in/out position **only if required**.
- **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)

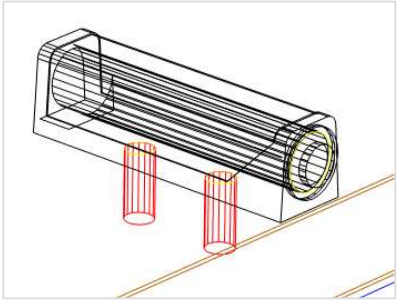


Servo Attributes

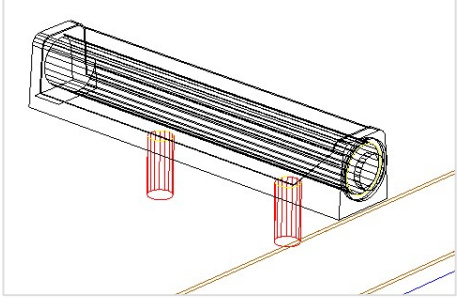
- **AVENTOS HK top Servo** -Turns on Servo Drive and following 4 attributes.
- **AVENTOS HK top Servo Bck Dia** -Changes Servo Back Hole diameter – set to 0 to delete hole.
- **AVENTOS HK top Servo Bumpers** -Turns off bumpers if not required.
- **AVENTOS HK top Bump Bot** -Can be used to move the bottom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

Tipon Attributes

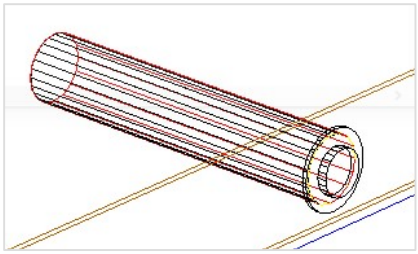
- **AVENTOS HK top Tipon** -Select from -- **Adapter Plate/Edge No Hole/Edge With Hole**
- **AVENTOS HK top Tipon X** -Allows X position of adapter to be changed (default is center of opening).
- **AVENTOS HK top Tipon Y Adj** -Allows Y position adjustment of adapter when required to attach to bottom or shelf on modified cabinets.
- **Colours will match mech color selection**
- **Short Tipons are for Door Height up to 500m, Long Tipons are for Doors 500mm to 605mm high**:



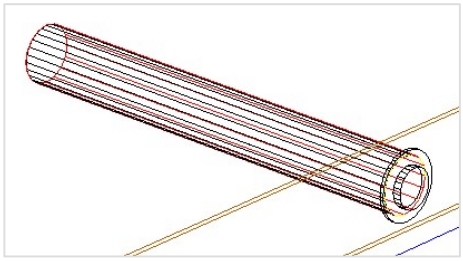
Tipon Adapter Plate Short



Tipon Adapter Plate Long

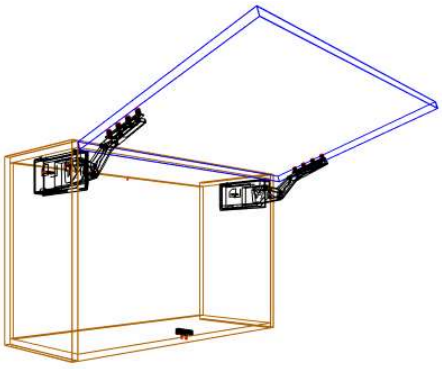


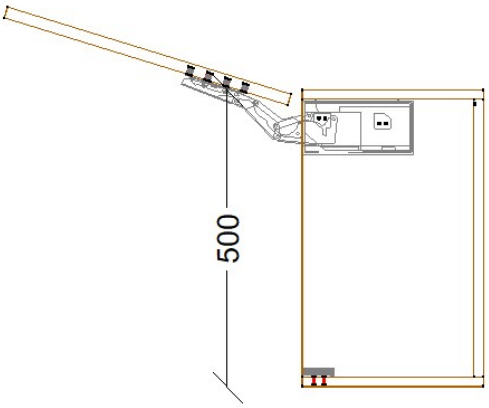
Tipon Edge Short

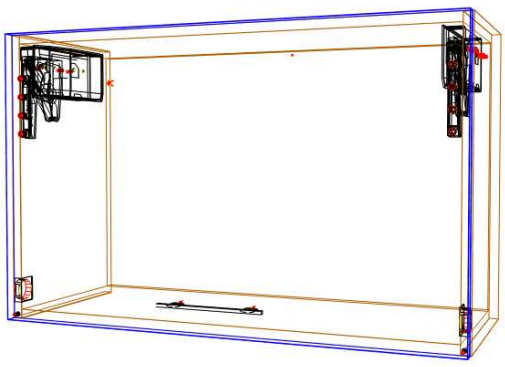


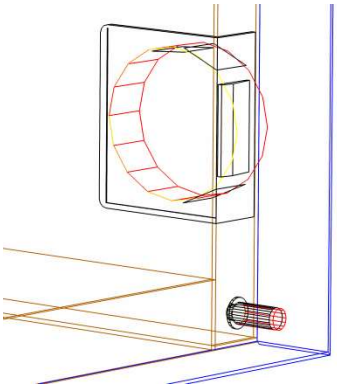
Tipon Edge Long

Some Example Images:

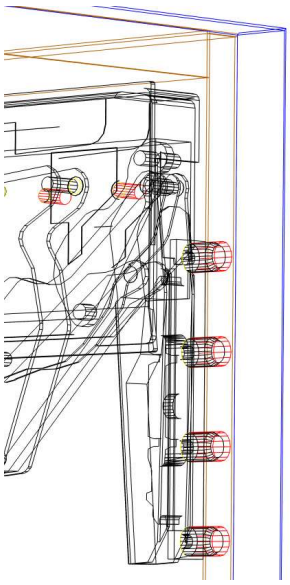




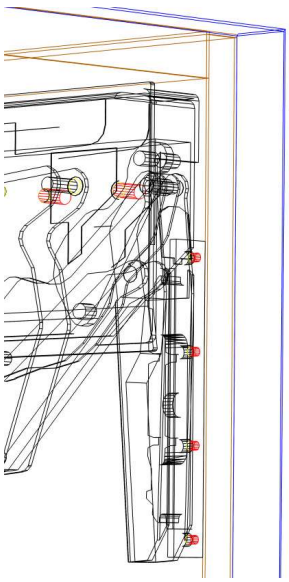




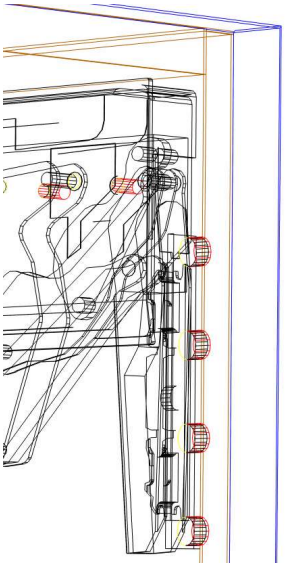
Front Brackets:



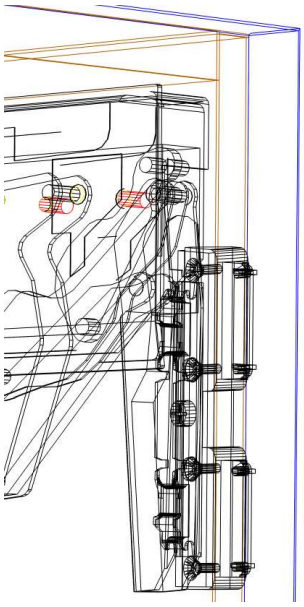
Aventos Front Bracket Wood EXPANDO #20S42E1



Aventos Front Bracket Wood or Wide Alu #20S4200



Aventos Front Bracket Wood EXPANDO Thin #20S42T1



Aventos Front Bracket Narrow Alu #20S4200A

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 HK top Attributes"** UCS. The Public Variables are at the top right of the screen.

Public Variables	
Attributes Metric?	1
Servo Switch Position	50mm

- **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 Mech drilling sizes.

Public Variables	
Mech Pre Mount Depth	12mm
Mech Pre Mount Diam	5mm
Mech Screwon Holes Depth	3mm
Mech Screwon Holes Diam	3mm

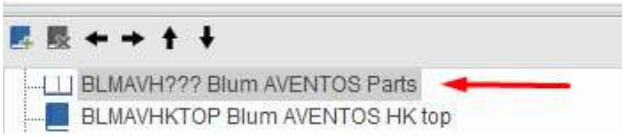
- Edit the values to the diameter and depths you require.
- Mech Pre Mount holes are for the predrilled lug mounted mechs
- Mech Screwon Holes are for the self locating mechs to assist with the screw locations.

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

Front Bracket Drilling – Hole sizes

There are material parameters on the front bracket materials to set the drilling diameter and depths

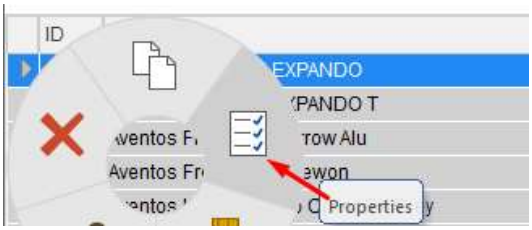
- In the Material Manager, find the **BLMAVH??? Blum AVENTOS Parts** folder:



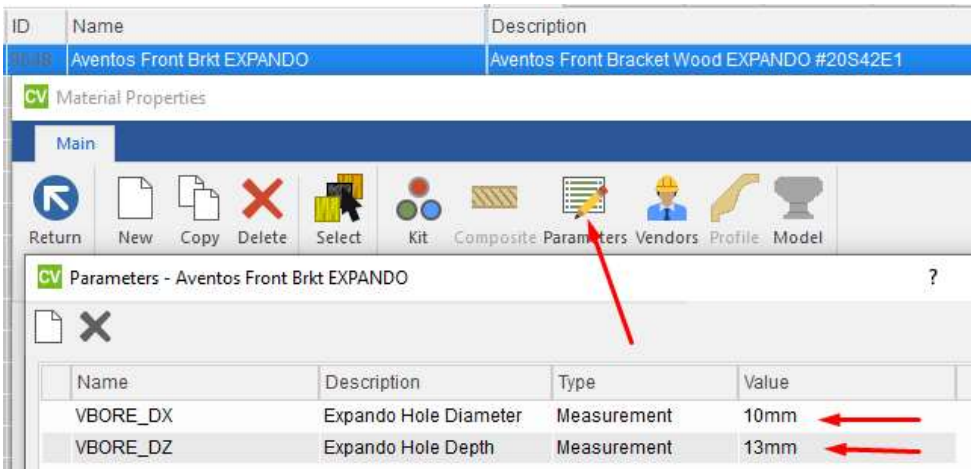
- This folder contains the following four Aventos Front Bracket materials:

Name	Description
Aventos Front Brkt EXPANDO	Aventos Front Bracket Wood EXPANDO #20S42E1
Aventos Front Brkt EXPANDO T	Aventos Front Bracket Wood EXPANDO Thin #20S42T1
Aventos Front Brkt Narrow Alu	Aventos Front Bracket Narrow Alu #20S4200A
Aventos Front Brkt Screwon	Aventos Front Bracket Wood or Wide Alu #20S4200

- For each material, right-click on it to select its properties.



- In the Properties click the Parameters Menu and change the parameters if required:



The hole sizes as provided are listed here:

- Aventos Front Brkt Screwon = Screwon front brackets (5mm Dia x 3mm Deep)
- Aventos Front Brkt EXPANDO = Expando front brackets (10mm Dia x 13mm Deep)
- Aventos Front Brkt EXPANDO T = Expando front brackets for Thin Fronts (10mm Dia x 6mm Deep)
- *Aventos Front Brkt Narrow Alu* = *Aluminium Narrow Frame Door (No Drilling)*

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 our website for more detailed information on these packages.