Blum AVENTOS ‘HKi’ User Guide.



Introduction

Overview

- The ‘Blum AVENTOS HKi Package’ from Solid Setup Plus adds the Blum AVENTOS HKi door lift system to Cabinet Vision and optional TIP-ON.
- It provides drilling for the Cabinet and Door parts, for CNC output
- Semi-Integrated Pocket Routes in Cabinet End can be turned on/off if you prefer to use the routing template.
- Fully-Integrated - No machining provided for Fully-Integrated you can order end panels from Blum.
- It also adds 3d graphics for the mechanisms and brackets etc.
- EXPANDO and Screwon front brackets are provided.
- *(You can change the drilling diameters and depths to the tools you*
- Light Grey, Silk White, Dark Grey colours for cover caps.
- Light Grey, Silk White, Carbon Black and Nickel colours for TIP-ON.
- 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 and Vendor SKU.
- 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.
- User can swap 3rd arm from left to right with an attribute.
- Door can be displayed fully open or closed.
- Frameless Only – not suitable for Face Frame cabinets.

Included in This Package

User Created Standards

The Following UCS's are provided

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

Miscellaneous Materials:

Name	Description
Aventos Front Brkt EXPANDO 24K42E1	Aventos Front Bracket Set EXPANDO #24K42E1
Aventos Front Brkt Screwon 24K4201A	Aventos Front Bracket Set Screwon #24K4201A
Aventos HKi Arm	Aventos HKi Arm (hide)
Aventos HKi Cover Dk grey	Aventos HKi Mech Cover #24K8000.TGR
Aventos HKi Cover Lt Grey	Aventos HKi Mech Cover #24K8000.HGR
Aventos HKi Cover S White	Aventos HKi Mech Cover #24K8000.SW
Aventos HKi Mech	Aventos HKi Mech Model
Aventos HKi Mech 2300	Aventos HKi 2300 Mech Set #24K2300
Aventos HKi Mech 2500	Aventos HKi 2500 Mech Set #24K2500
Aventos HKi Mech 2700	Aventos HKi 2700 Mech Set #24K2700
Aventos HKi Mech 2800	Aventos HKi 2800 Mech Set #24K2800
Aventos HKi Mech Routed	Aventos HKi Mech Model with Routes
Aventos HKi Mech TIP-ON 2300T	Aventos HKi 2300 Mech Set #24K2300T
Aventos HKi Mech TIP-ON 2500T	Aventos HKi 2500 Mech Set #24K2500T
Aventos HKi Mech TIP-ON 2700T	Aventos HKi 2700 Mech Set #24K2700T
Aventos HKi Mech TIP-ON 2800T	Aventos HKi 2800 Mech Set #24K2800T
TIP-ON Set Short Mag C.Black	TIP-ON Set Short Magnet #956.1004.CS
TIP-ON Set Short Mag Grey	TIP-ON Set Short Magnet #956.1004.R7036
TIP-ON Set Short Mag S.White	TIP-ON Set Short Magnet #956.1004.SW
TIP-ON Set Short Mag T.Black	TIP-ON Set Short Magnet #956.1004.TS
TIP-ON Adapter Plt Short C.Black	TIP-ON Adapter Plate Short #956.1201.CS
TIP-ON Adapter Plt Short Grey	TIP-ON Adapter Plate Short #956.1201.R7036
TIP-ON Adapter Plt Short Nickel	TIP-ON Adapter Plate Short #956.1201.NI-L
TIP-ON Adapter Plt Short S.White	TIP-ON Adapter Plate Short #956.1201.SW

Aventos HKI Usage

Door Requirements.

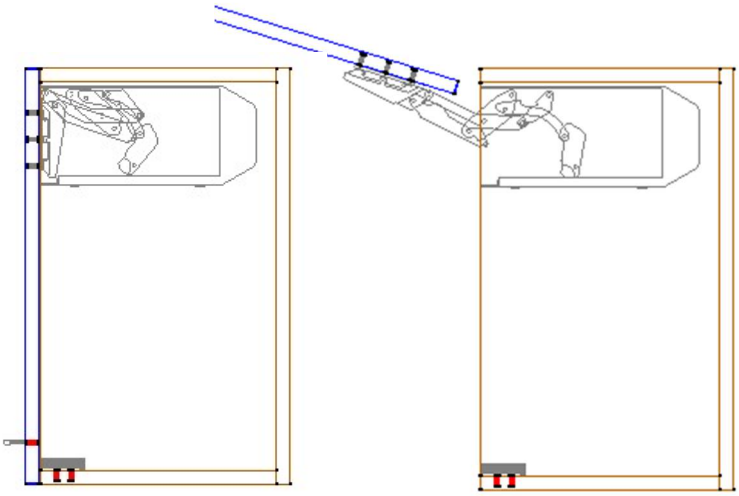
For the Aventos HKI to appear on a door the following conditions must be met

- Door must be hinged at top.
- Door must have its hinge quantity set to zero.
- The door height **must** be in size range **200-600 High** and doors must be **200-1800 Wide**
- The **"Aventos HKI?"** Attribute will then appear on the Top Door to switch on Aventos HKI.
- (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 HKI parts will **not** be added to the Door. (The power factor **must** be between **420** and **11700**)

Attributes

- If the **"Aventos HKI ?"** attribute is set to "**Fully-Integrated**" or "**Semi-Integrated**" or "**Semi-Integrated Routed**" the following attributes will appear on the Door, along with the Aventos mechanisms and arms.

Attributes	
Aventos HKI ?	Fully-Integrated
Aventos HKI Bracket	Expando
Aventos HKI Colour	Light Grey
Aventos HKI Dor Kg/m3	800
Aventos HKI Dor Pull gm	200
Aventos HKI Dors Kg	5.1
Aventos HKI Dors Total Kg	5.5
Aventos HKI Open?	False
Aventos HKI Pos Lh	16.5
Aventos HKI Pos Rh	16.5
Aventos HKI Pos Top	16.5
Aventos HKI Power Factor(L	2753.6
Aventos HKI Third Arm LHS	False
Aventos HKI Third Arm Offse	0
Aventos HKI Tipon	.Off



- **Aventos HKI Bracket?** **-(Expando/Screwon)**
- **Aventos HKI Colour?** -Changes the Colour **(Light Grey, Silk White, Dark Grey)**
- **Aventos HKI 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 HKI 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 HKI 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 HKI 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 HKI Open?** -Shows the door in the open position.
- **Aventos HKI Pos Lh** -Can be used to move the x position of the left arm.
- **Aventos HKI Pos Rh** -Can be used to move the x position of the right arm.

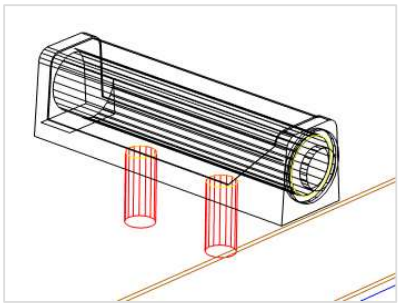
- **Aventos HKI Pos Top** -Can be used to vary the top thickness (moves the mechs/Arms up or down) – **keep value between 0 and 50mm only**
- **Aventos HKI Power Factor** -This is the value used to select the correct lift mechanism and how many arms to use based on the value. – ***(If you have already calculated the power factor yourself you can change this to your value instead)***
- **Aventos HKI Third Arm LHS?** -You can swap the third arm from right to left of part
- **Aventos HKI Third Arm Offset** -Offsets the third arm left or right if not linked to a PT or DIV

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)

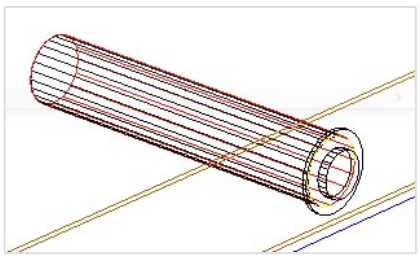
Power Factor (LF)		Lift Mechanism	Lift Mechanism	
Blum Values	Used Values	Screwon	Tipon	Arm Quantity
420 - 1610	420 - 930	24K2300	24K2300T	(1 pair)
930 - 2800	930 - 1730	24K2500	24K2500T	(1 pair)
1730 - 5200	1730 - 3200	24K2700	24K2700T	(1 pair)
2600 - 7800	3200 - 7800	24K2800	24K2800T	(1 pair)
7800 - 11700	7800 - 11700	24K2800	24K2800T	(3 Arms)

Tipon Attributes

- **Aventos HKI Tipon** -Select from -- **Adapter Plate/Edge No Hole/Edge With Hole**
- **Aventos HKI Tipon X** -Allows X position of adapter to be changed (default is center of opening).
- **Aventos HKI Tipon Y Adj** -Allows Y position adjustment of adapter when required to attach to bottom or shelf on modified cabinets.
- **Aventos HKI Tipon Colour** --Changes the Tipon Colour **(Auto,Light Grey, Silk White, Black or Nickel)**
- **Note – if colour is set to auto, tipon colour will match Aventos Cover colour as follows:**
- Cover – Light Grey = TIP-ON Light Grey
- Cover – Silk White = TIP-ON Silk White
- Cover – Dark Grey = TIP-ON Carbon Black
- (TIP-ON Nickel – can only be selected manually)



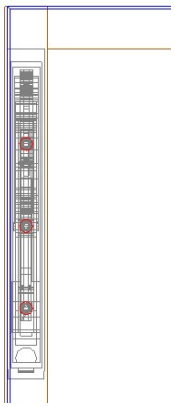
Tipon Adapter Plate Short



Tipon Edge Short

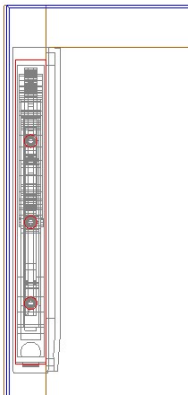
Fully or Semi-Integrated

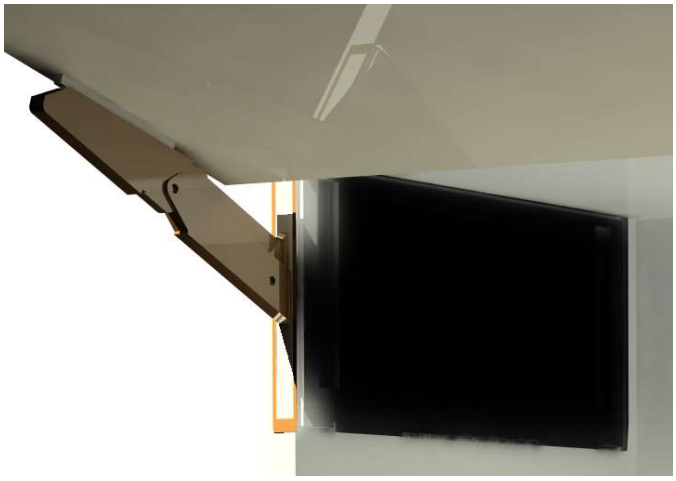
A fully integrated Aventos HKi will place the mech and bracket in the center of the panel with no cover cap and no machining. The panels can be ordered from BLUM with the correct recess machined for the mechanism. Please contact your local BLUM distributor to order.



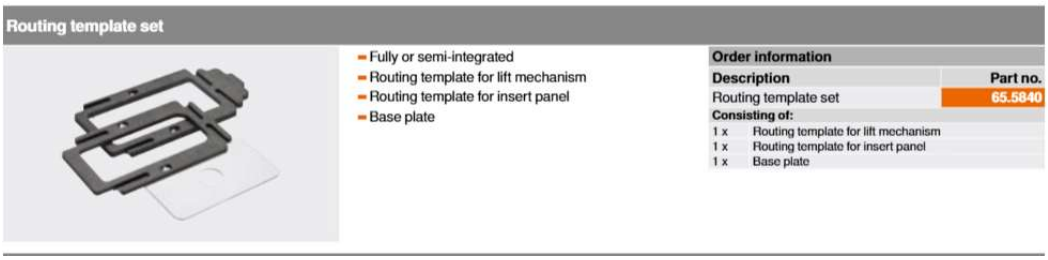


A Semi integrated Aventos HKi will place the mech so that its center is 6mm in from the face of the panel and adds a cover cap.





- Selecting the Semi-integrated Routed option will add a dado to the panel that is 12mm deep and 265x120mm which extends outside the front edge by 10mm – see Drilling Setup section below for Tool selection information.
- Selecting the Semi integrated option will not add any machining to the panel and will require that you use the routing template set which you can order from BLUM. Please contact your local BLUM distributor to order this.



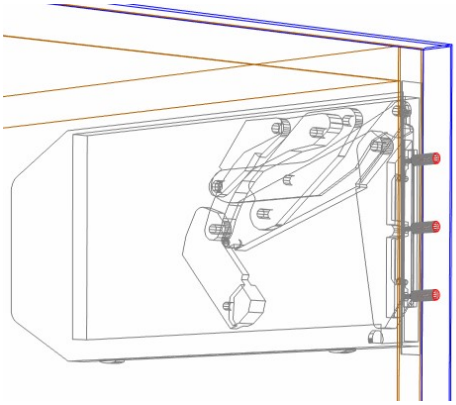
Routing template set

- Fully or semi-integrated
- Routing template for lift mechanism
- Routing template for insert panel
- Base plate

Order information

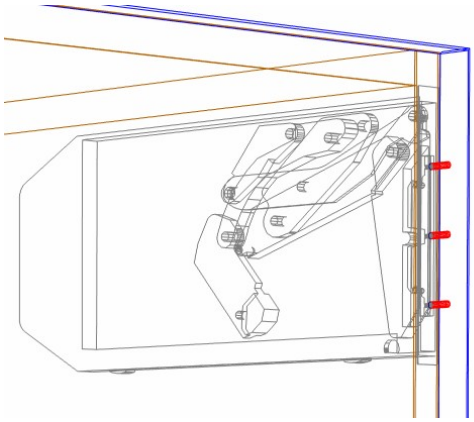
Description	Part no.
Routing template set	65.5840
Consisting of:	
1 x Routing template for lift mechanism	
1 x Routing template for insert panel	
1 x Base plate	

Front Brackets:



Expando Front Bracket

24K42E1



Screwon Front Bracket

24K4201A

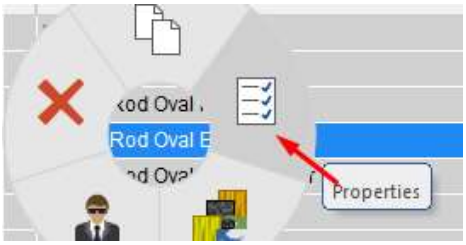
Drilling Setup

Material Parameters

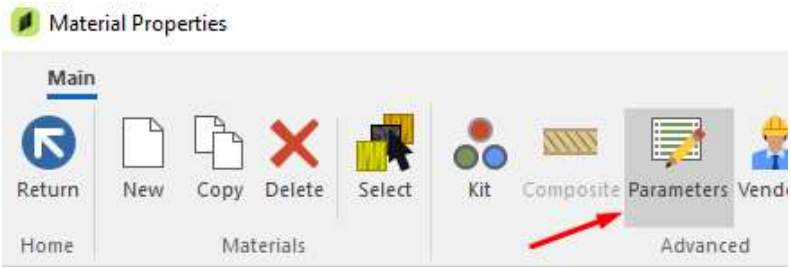
The drilling sizes for the front brackets and Tool ID for the semi-integrated dado are provided as material parameters.

To edit the values, in the Material Manager, right click on the following materials and select properties:

- Aventos Front Brkt EXPANDO 24K42E1 (has 5mm Diameter x 13mm Deep holes)
- Aventos Front Brkt Screwon 24K4201A (has 3mm Diameter x 10mm Deep holes)
- Aventos HKi Mech Routed (has a Tool ID for the semi-integrated dado machining)



Click the parameters button:



Change the following values to your requirements:

Parameters - Aventos Front Brkt EXPANDO 24K42E1

Name	Description	Type	Value
VBORE_DX	Hole Diameter	Measurement	5mm
VBORE_DZ	Hole Depth	Measurement	13mm

Parameters - Aventos Front Brkt Screwon 24K4201A

Name	Description	Type	Value
VBORE_DX	Hole Diameter	Measurement	3mm
VBORE_DZ	Hole Depth	Measurement	10mm

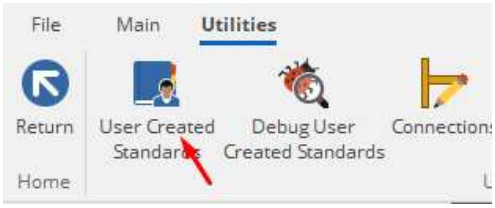
Parameters - Aventos HKi Mech Routed

Name	Description	Type	Value
DADO_TOOL	Dado Tool ID	Integer	0

NOTE: Please select a flat router tool that is 10mm in diameter or less for the semi-integrated dado machining, as the dado only protrudes past the front edge of the cabinet by 10mm. This is to avoid part interference in a nested sheet.

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

- **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.**

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.