TIP-ON for AVENTOS

Opening feature for AVENTOS HK and HK-S lift systems


blum

Opening with a simple touch

TIP-ON for AVENTOS is an excellent solution for handeless doors. The mechanical opening feature allows you to simply push the door front to open. For a secure close, simply press lightly on the front and the catch plate attached to the inside of the door front. It's that easy. TIP-ON for AVENTOS HK and HK-S provides a unique solution for kitchen and office applications.

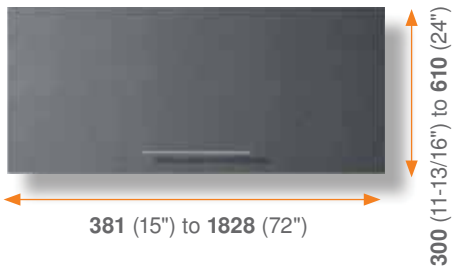
Contents

TIP-ON for AVENTOS HK

BLUMOTION inside

TIP-ON inside

A complete view of the cabinet interior



Few parts – many applications

The AVENTOS HK program has only four lift mechanisms and covers all common door widths and heights. This simplifies planning, ordering and warehousing.

Numerous design options

AVENTOS HK can be used in wall cabinets, in a pantry or above a refrigerator or other appliance.

Easy installation and adjustment

The three-dimensional adjustment feature enables doors to be precisely aligned.

The motion inside

The amount of technology and components placed into each lift mechanism are what provide the unparalleled smooth operation of AVENTOS.

AVENTOS planning tools

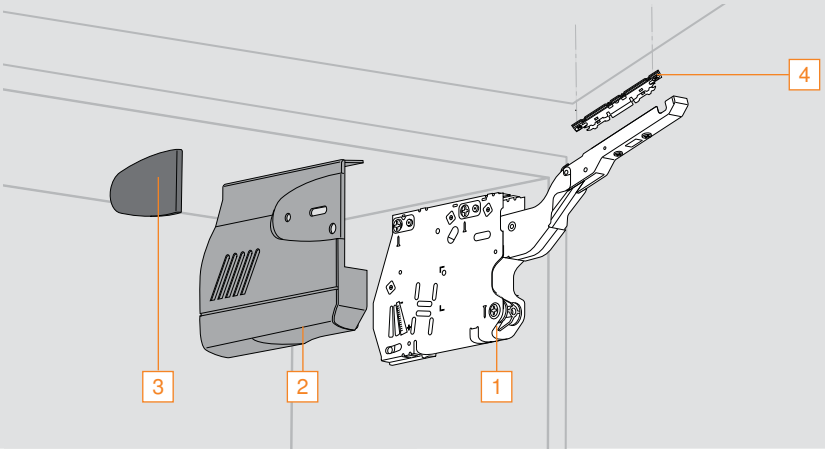
Blum has downloadable Excel® spreadsheets that provide the required parts and calculate the mounting locations for your application. They are available at blum.com/planning.

TIP-ON for AVENTOS HK

A perfect solution for handleless lift applications. TIP-ON mechanical support system makes opening doors effortless.

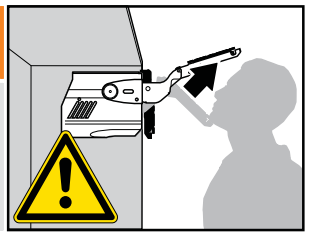
TIP-ON for AVENTOS HK – panel cabinets

Required components



Warning: Risk of injury by spring-loaded lever arm!

- Do not push lever arm down
- Secure lever arm before installing cabinet



Step 1 – Determine the power factor for the application

AVENTOS planning tools available at blum.com/planning

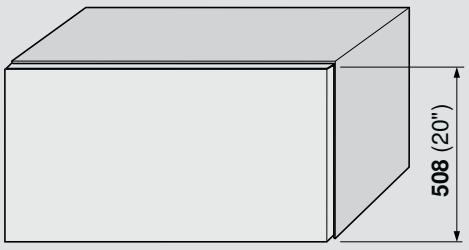
Determine power factor

To select the correct lift mechanism for a given application, the power factor must first be calculated by using the formula below.
Use the table at the bottom of the page to convert ounces into decimal form for easy calculation.

Power factor = cabinet height (inch) x door weight* (lb)

*including twice the handle weight

Example:
Cabinet height: 20 inches (within possible range)
Door weight including twice the handle weight: **13** lb 14 oz (14 oz = **.9** lb see chart below)
Total weight converted to decimal is **13.9** lb
Power factor = cabinet height multiplied by door weight including twice the handle weight
Power factor = 20 x **13.9**
Power factor = 278
A power factor of 278 requires lift mechanism 20K2700.N5



Door weight + twice handle weight = **13** lb 14 oz

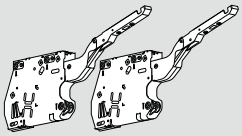
Weight conversion chart

oz	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
lb	.1	.1	.2	.3	.3	.4	.4	.5	.6	.6	.7	.8	.8	.9	.9

Cabinet preparation for wood or wide aluminum doors

Step 2 – Select the required components

Lift mechanism set



Set includes:

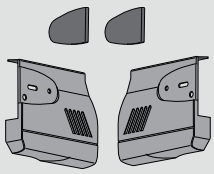
1 Lift mechanism (qty 2)

- #7 x 35 mm (1-3/8") wood screw (qty 10)

NOTE: Trial application recommended when the required power factor is in a borderline area of lift mechanisms. Maximum door weight of 40 lb for two lift mechanisms.

Power factor	Opening angle	Part no.
43 – 99	107°	20K2300TNA
100 – 174	107°	20K2500TNA
175 – 349	107°	20K2700TNA
350 – 792	100°	20K2900TNA

Cover set



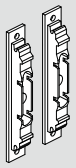
Set includes:

2 Right and left cover plate

3 Non-handed cover cap (qty 2)

	Part no.
Cover set	20K8000.NA

Wood or wide aluminum door hardware set



Set includes:

4 Arm assembly mounting plate (qty 2)

	Part no.
Wood or wide aluminum hardware set	20S4200
Installation screw for wood doors	606N or 606P
Installation screw for wide aluminum doors	7072A

TIP-ON mechanism set

Set includes:

- TIP-ON mechanism
- Self-adhesive, screw-on catch plate and screw

NOTE: Use of screw-on catch plate is required for all applications

- Works for both overlay and inset applications
- Nylon gray

	Part no.
TIP-ON mechanism set for standard doors	955.1004
TIP-ON mechanism set for large doors	955A1004

Opening angle restriction clip

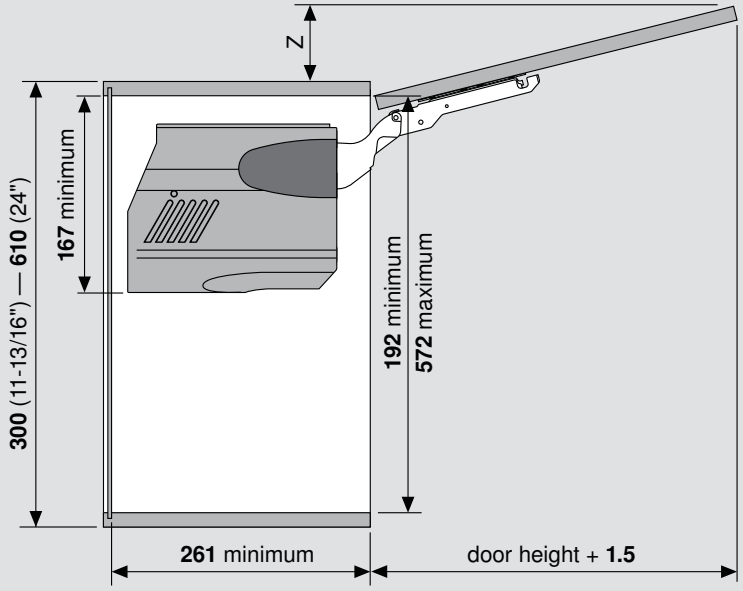
	Part no.
Opening angle restriction clip 100°	20K7041
Opening angle restriction clip 75°	20K7011

TIP-ON for AVENTOS HK – panel cabinets

Step 1 – Check clearances

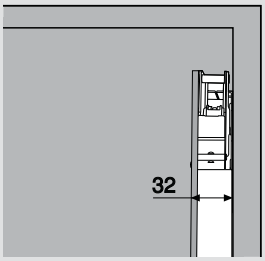
Space requirements

Door and hardware clearance

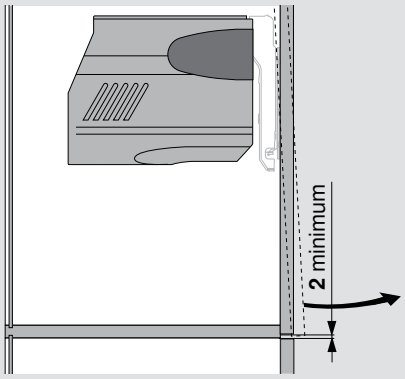


Z = Door height x .29 minus **23** + door thickness

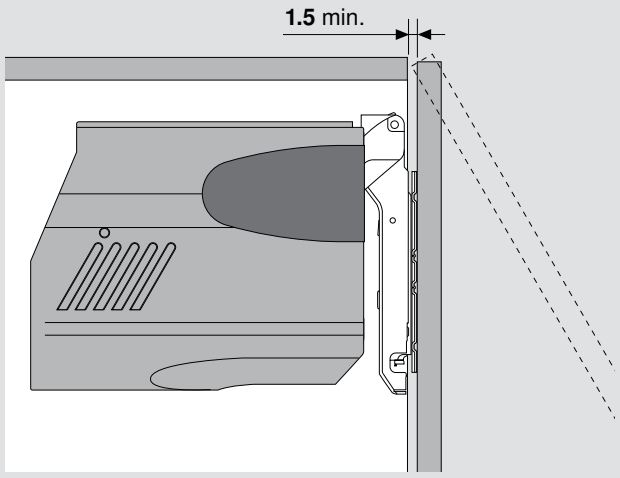
Lift mechanism clearance



Minimum bottom reveal

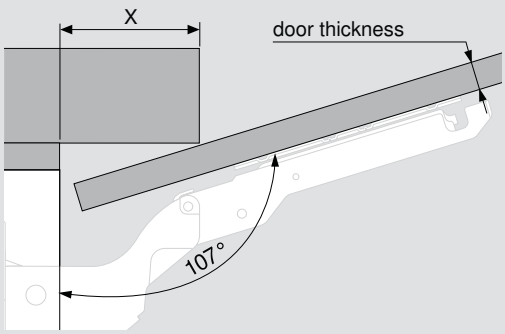


Minimum gap



NOTE: Minimum gap assumes door radius of 1 mm

Decorative molding clearance

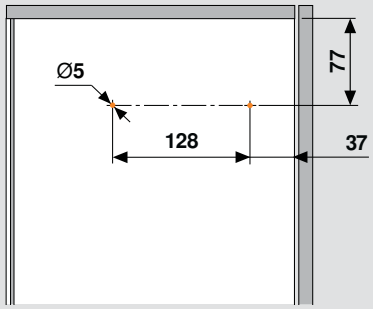


Door thickness	16	19	22	26
Maximum X	70	59	49	35

Cabinet preparation for wood or wide aluminum doors

Step 2 – Mount the lift mechanisms

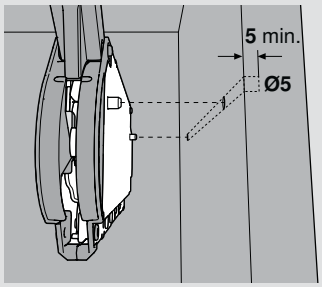
Boring for the locating pins



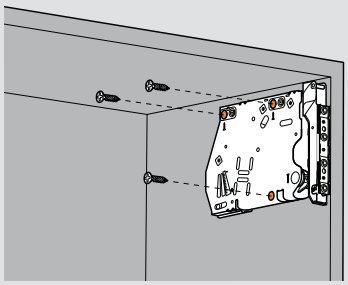
NOTE: Locating pin holes shown in orange

Lift mechanism positioning

Two locating pins fit into Ø5 mm x 5 mm holes bored in the side of cabinet for proper positioning.

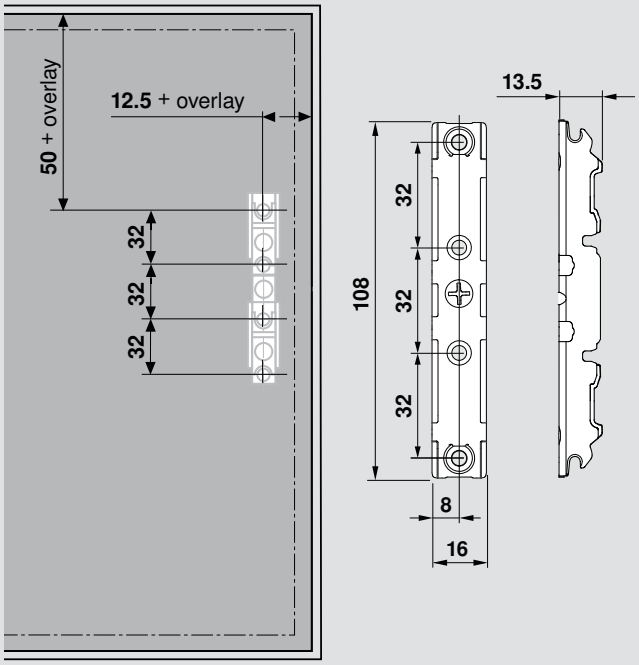


The included #7 x 35 mm (1-3/8") wood screws are required in the three holes marked in orange.



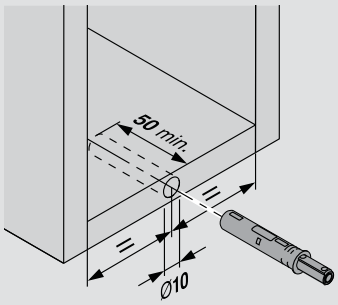
Step 3 –Determine the lever arm mounting plate position and attach to the door

Arm assembly mounting plate location

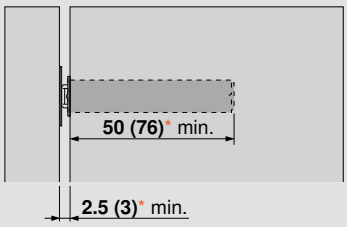


NOTE: Attach mounting plate with four 606N or 606P wood screw for wood doors or 7072A for wide aluminum doors

TIP-ON for AVENTOS specifications

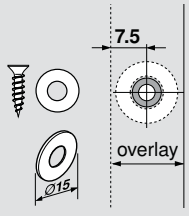


NOTE: For wider applications, two TIP-ON devices may be needed to insure an ideal opening



*for large doors

Screw-on catch plate



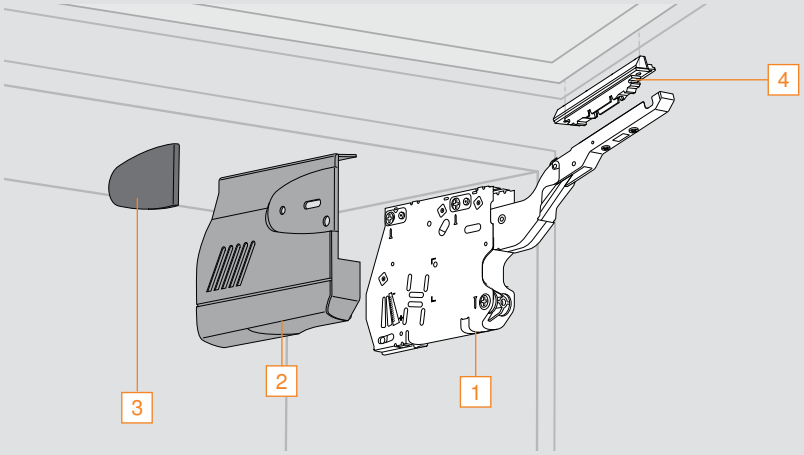
Pre-boring Ø2.5 mm countersunk pilot holes are required

Step 4 – Assemble the cabinet

Follow the assembly instructions included in the lift mechanism set or on www.blum.com

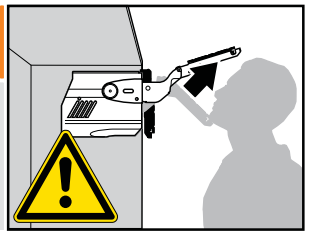
TIP-ON for AVENTOS HK – panel cabinets

Required components



Warning: Risk of injury by spring-loaded lever arm!

- Do not push lever arm down
- Secure lever arm before installing cabinet



Step 1 –Determine the power factor for the application

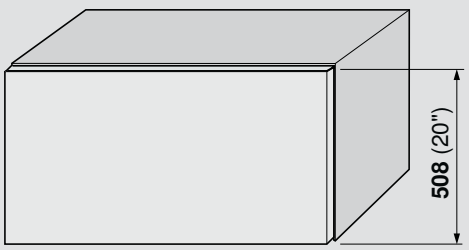
AVENTOS planning tools available at http://www.blum.com/us/planning

Determine power factor

To select the correct lift mechanism for a given application, the power factor must first be calculated by using the formula below.
Use the table at the bottom of the page to convert ounces into decimal form for easy calculation.

Power factor = cabinet height (inch) x door weight* (lb)

* including twice the handle weight



Door weight + twice handle weight = **13** lb 14 oz

Example:
Cabinet height: 20 inches (within possible range)
Door weight including twice the handle weight: **13** lb 14 oz (14 oz = **.9** lb see chart below)
Total weight converted to decimal is **13.9** lb
Power factor = cabinet height multiplied by door weight including twice the handle weight
Power factor = 20 x **13.9**
Power factor = 278
A power factor of 278 requires lift mechanism 20K2700.N5

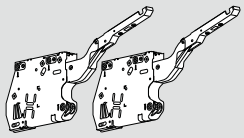
Weight conversion chart

oz	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
lb	.1	.1	.2	.3	.3	.4	.4	.5	.6	.6	.7	.8	.8	.9	.9

Ordering parts for narrow aluminum doors

Step 2 – Select the required components

Lift mechanism set



Set includes:

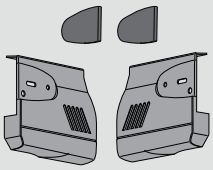
1 Lift mechanism (qty 2)

- #7 x 35 mm (1-3/8") wood screw (qty 10)

NOTE: Trial application recommended when the required power factor is in a borderline area of lift mechanisms

Power factor	Opening angle	Part no.
43 – 99	107°	20K2300TNA
100 – 174	107°	20K2500TNA
175 – 349	107°	20K2700TNA
350 – 792	100°	20K2900TNA

Cover set



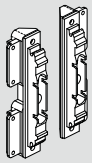
Set includes:

2 Right and left cover plate

3 Non-handed cover cap (qty 2)

	Part no.
Cover set	20K8000.NA

Narrow aluminum door hardware set



Set includes:

4 Arm assembly mounting plate (qty 2)

- 669.110 aluminum screw for narrow aluminum lever arm mounting plate (qty 8)

	Part no.
Narrow aluminum door hardware set	20S4200A

TIP-ON mechanism set

Set includes:

- TIP-ON mechanism
- Self-adhesive, screw-on catch plate and screw

NOTE: Use of screw-on catch plate is required for all applications

- Works for both overlay and inset applications
- Nylon gray

	Part no.
TIP-ON mechanism set for standard doors	955.1004
TIP-ON mechanism set for large doors	955A1004

Opening angle restriction clip

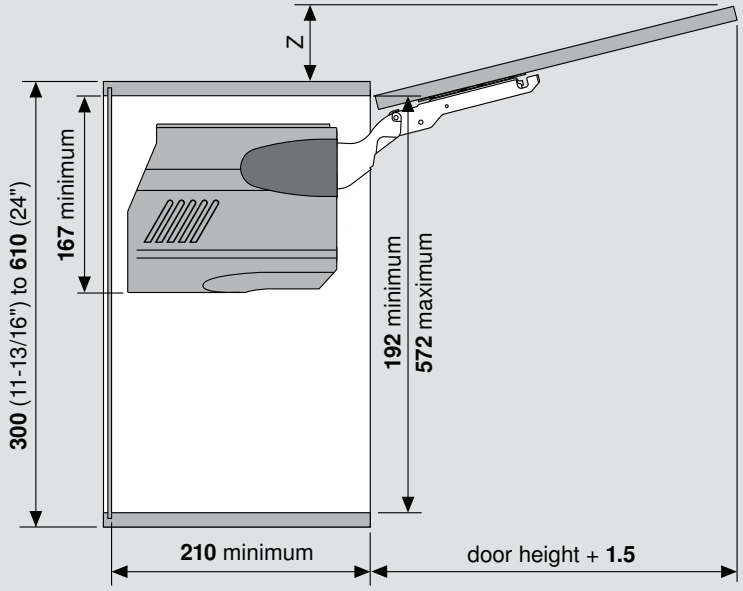
	Part no.
Opening angle restriction clip 100°	20K7041
Opening angle restriction clip 75°	20K7011

TIP-ON for AVENTOS HK – panel cabinets

Step 1 – Check clearances

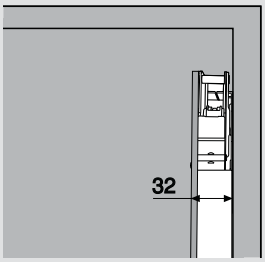
Space requirements

Door and hardware clearance

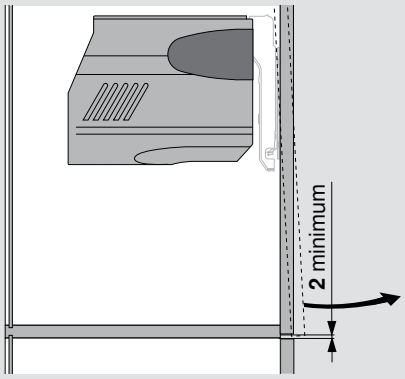


Z = door height x .29 minus **23** + door thickness

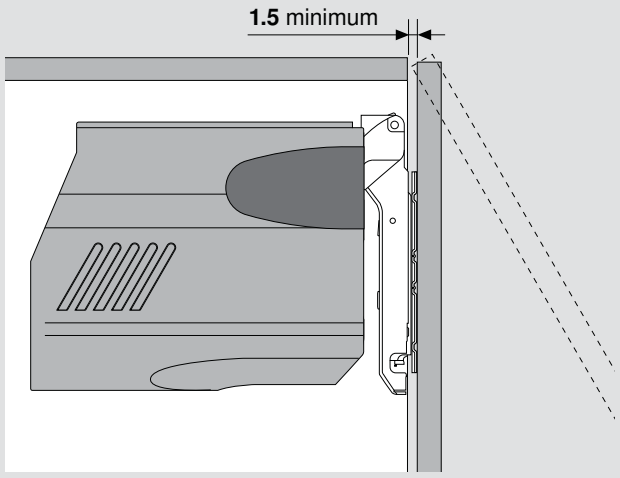
Lift mechanism clearance



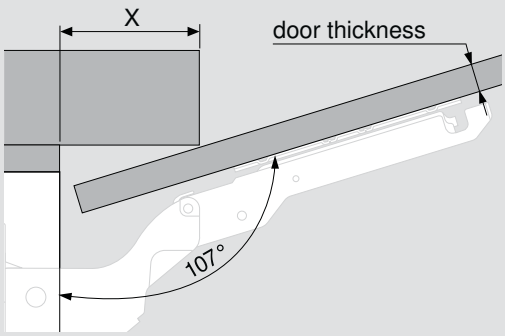
Minimum bottom reveal



Minimum gap



Decorative molding clearance



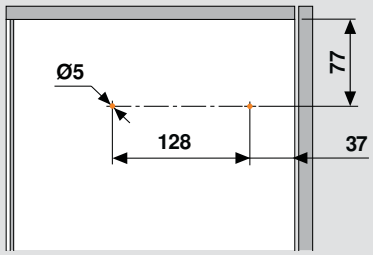
Door thickness	16	19	22	26
Maximum X	70	59	49	35

NOTE: Minimum gap assumes door radius of 1 mm

Cabinet preparation for narrow aluminum doors

Step 2 – Mount the lift mechanisms

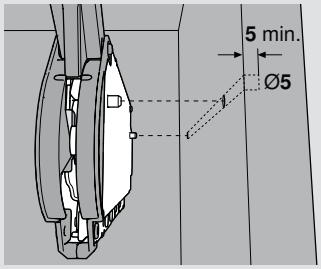
Boring for the locating pins



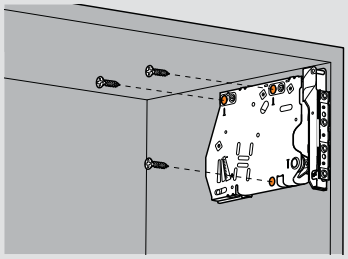
NOTE: Locating pin holes shown in orange

Lift mechanism positioning

Two locating pins fit into Ø**5** x **5** holes bored in the side of cabinet for proper positioning.

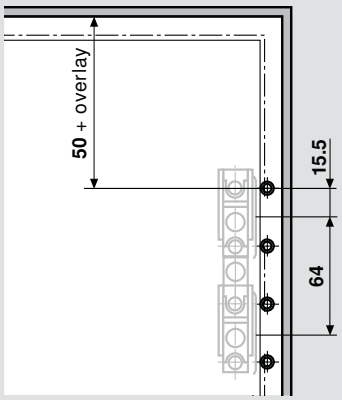


The included #7 x 35 mm (1-3/8") wood screws are required in the three holes marked in orange.

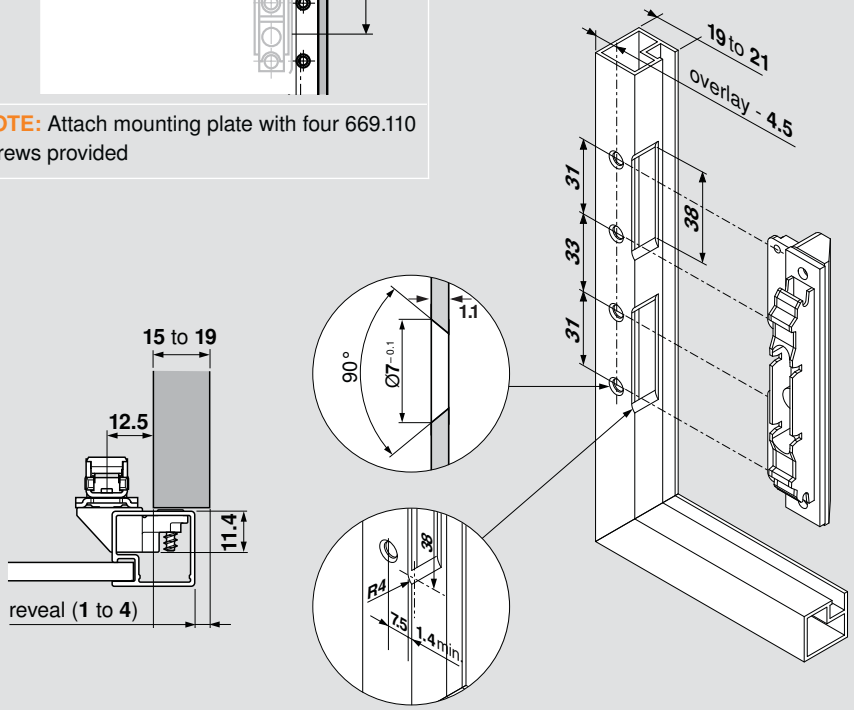


Step 3 – Determine the Lever arm mounting plate position and attach to the door

Arm assembly mounting plate location and boring dimensions

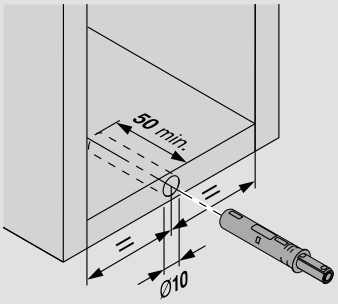


NOTE: Attach mounting plate with four 669.110 screws provided

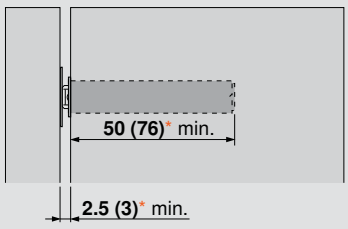


NOTE: When changing material thickness, adjust assembly dimensions accordingly

TIP-ON for AVENTOS specifications

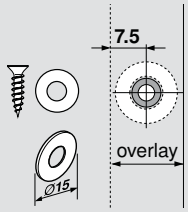


NOTE: For wider applications, two TIP-ON devices may be needed to insure an ideal opening



*for large doors

Screw-on catch plate specifications



Pre-boring Ø2.5 mm countersunk pilot holes are required

Step 4 – Assemble the cabinet

Follow the assembly instructions included in the lift mechanism set or on blum.com

TIP-ON for AVENTOS HK-S

BLUMOTION inside

TIP-ON inside

Stay lift for the smallest of cabinets

Few parts – many applications

The AVENTOS HK-S program has only three lift mechanisms and covers smaller door heights. This simplifies planning, ordering and warehousing.

Numerous design options

AVENTOS HK-S can be used in small wall cabinets, above a refrigerator or in a pantry.

Easy installation and adjustment

The three-dimensional adjustment feature enables doors to be precisely aligned.

The motion inside

The amount of technology and components placed into each lift mechanism are what provide the unparalleled smooth operation of AVENTOS.

AVENTOS planning tools

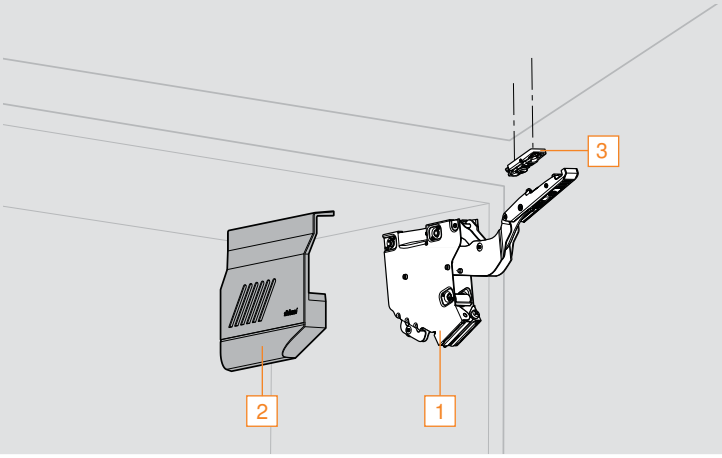
Blum has downloadable Excel® spreadsheets that provide the required parts and calculate the mounting locations for your application. They are available at blum.com/planning.

TIP-ON for AVENTOS HK-S

A perfect solution for handleless lift applications. TIP-ON mechanical support system makes opening doors effortless.

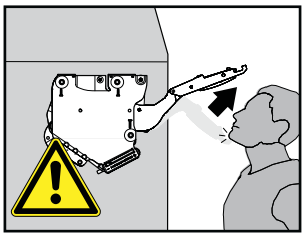
TIP-ON for AVENTOS HK-S – panel cabinets

Required components



Warning: Risk of injury by spring-loaded lever arm!

- Do not push lever arm down
- Secure lever arm before installing cabinet



Step 1 – Determine the power factor for the application

AVENTOS planning tools available at blum.com/planning

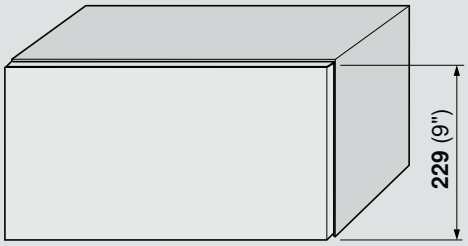
Determine power factor

To select the correct lift mechanism for a given application, the power factor must first be calculated by using the formula below.
Use the table at the bottom of the page to convert ounces into decimal form for easy calculation.

Power factor = cabinet height (inch) x door weight* (lb)

* Including twice the handle weight

Example:
Cabinet height: 9 inches (within possible range)
Door weight including twice the handle weight: **5** lb 14 oz (14 oz = **.9** lb see chart below)
Total weight converted to decimal is **5.9** lb
Power factor = cabinet height multiplied by door weight including twice the handle weight
Power factor = 9 x **5.9**
Power factor = 53.1
A power factor of 53.1 requires lift mechanism 20K2C00.N1



door weight + twice handle weight = **5** lb 14 oz

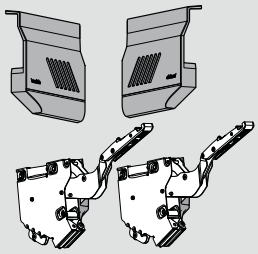
weight conversion chart

oz	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
lb	.1	.1	.2	.3	.3	.4	.4	.5	.6	.6	.7	.8	.8	.9	.9

Ordering parts for wood or wide aluminum doors

Step 2 – Select the required components

Lift mechanism set



Set includes:

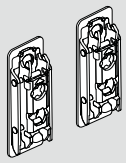
1 Lift mechanism (qty 2)

2 Right and left cover plate

- #7 x 35 mm (1-3/8") wood screw (qty 10)

Power factor	Opening angle	Part no.
19 – 39	107°	20K2B00TNA
40 – 85	107°	20K2C00TNA
86 – 177	107°	20K2E00TNA

Wood or wide aluminum door mounting plate set



Set includes:

3 Wood or wide aluminum arm assembly mounting plate (qty 2)

	Part no.
Wood or wide aluminum mounting plate	175H3100
Installation screw for wood doors	606N or 606P
Installation screw for wide alum doors	7072A

TIP-ON mechanism set

Set includes:

- TIP-ON mechanism
- Self-adhesive, screw-on catch plate and screw

- Works for both overlay and inset applications
- Nylon gray

NOTE: Use of screw-on catch plate is required for all applications

	Part no.
TIP-ON mechanism set for standard doors	955.1004
TIP-ON mechanism set for large doors	955A1004

Opening angle restriction clip

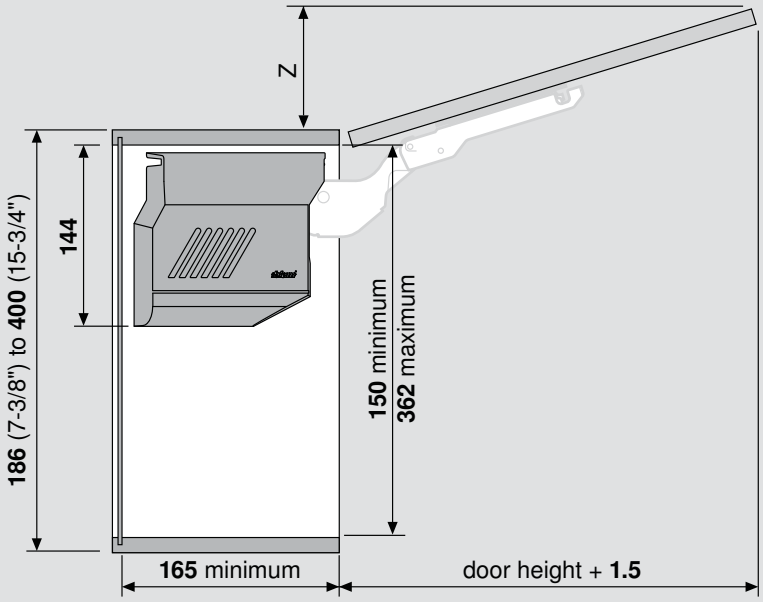
	Part no.
Opening angle restriction clip 100°	20K7A41
Opening angle restriction clip 75°	20K7A11

TIP-ON for AVENTOS HK-S – panel cabinets

Step 1 – Check clearances

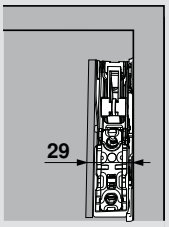
Space requirements

Door and hardware clearance

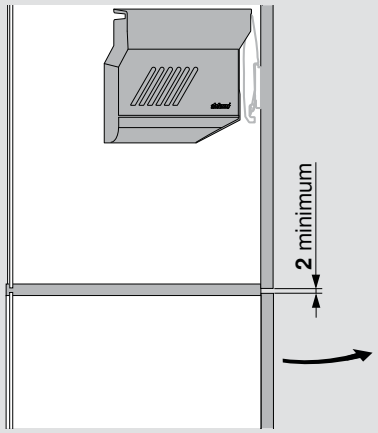


Z = door height x .29 minus **23** + door thickness

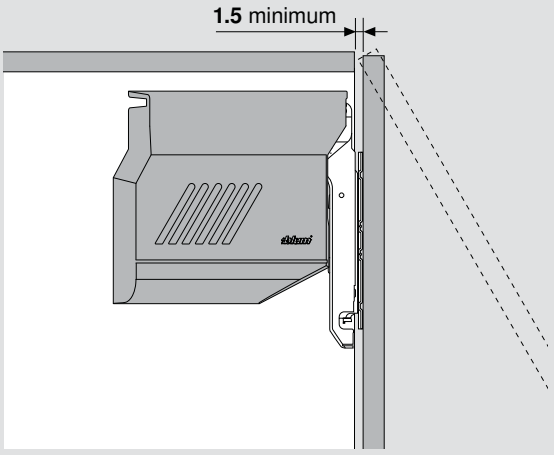
Lift mechanism clearance



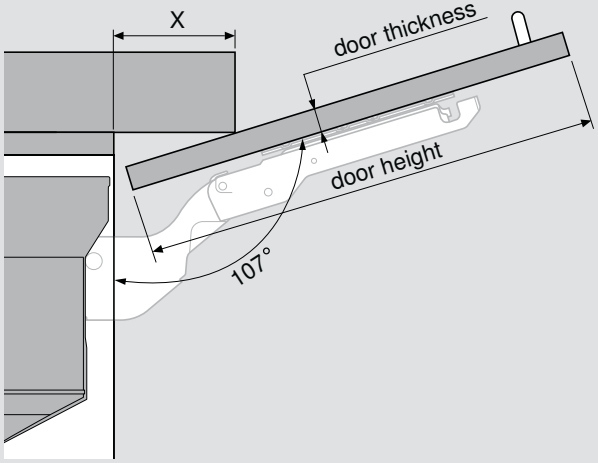
Minimum reveals



Minimum gap



Decorative molding clearance



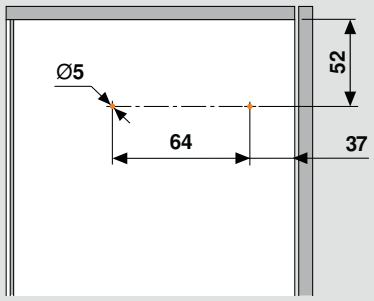
door thickness	16	19	22	26
maximum X	70	59	49	35

NOTE: Minimum gap assumes door radius of 1 mm

Cabinet preparation for wood or wide aluminum doors

Step 2 – Mount the lift mechanisms

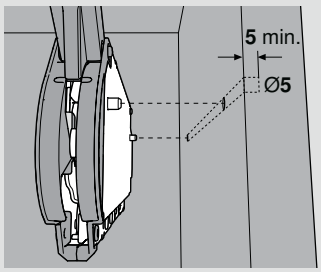
Boring for the locating pins



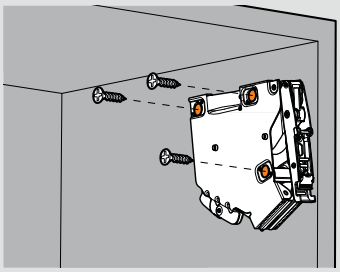
NOTE: Locating pin holes shown in orange

Lift mechanism positioning

Two locating pins fit into Ø**5** x **5** holes bored in the side of cabinet for proper positioning.

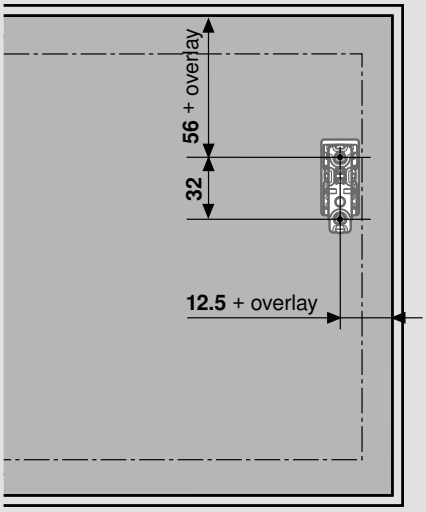


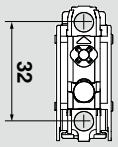
The included #7 x 35 mm (1-3/8") wood screws are required in the three holes marked in orange.



Step 3 – Determine the Lever arm mounting plate position and attach to the door

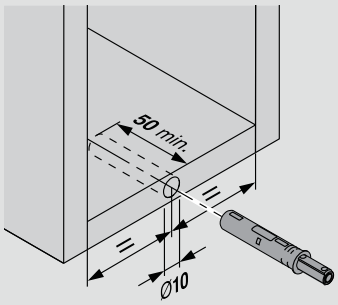
Arm assembly mounting plate location



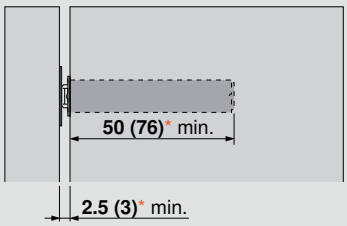


NOTE: Attach mounting plate with four 606N or 606P wood screw for wood doors or 7072A for wide aluminum doors

TIP-ON for AVENTOS specifications

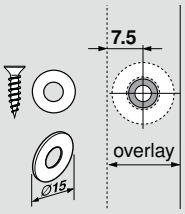


NOTE: For wider applications, two TIP-ON devices may be needed to insure an ideal opening



*for large doors

Screw-on catch plate



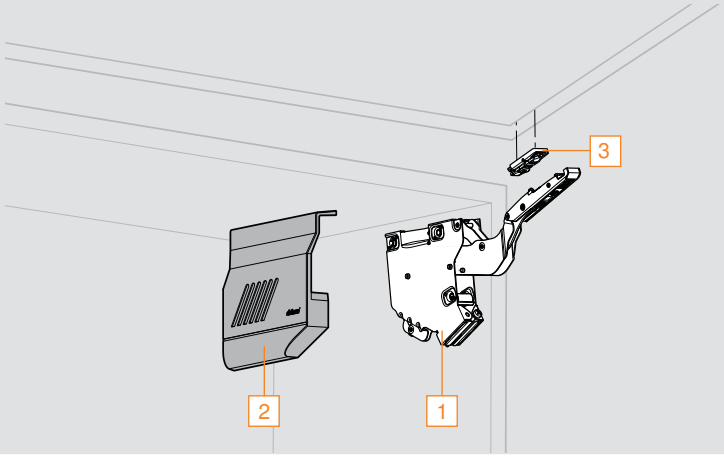
Pre-boring Ø2.5 mm countersunk pilot holes are required

Step 4 – Assemble the cabinet

Follow the assembly instructions included in the lift mechanism set or on blum.com

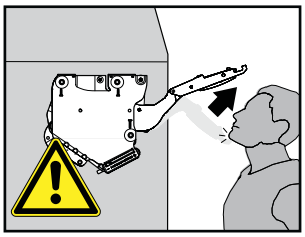
TIP-ON for AVENTOS HK-S – panel cabinets

Required components



Warning: Risk of injury by spring-loaded lever arm!

- Do not push lever arm down
- Secure lever arm before installing cabinet



Step 1 – Determine the power factor for the application

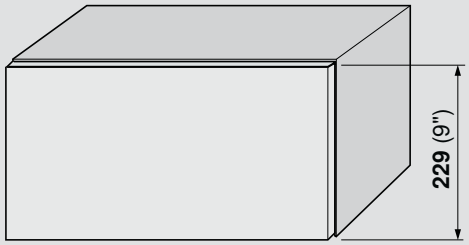
AVENTOS planning tools available at blum.com/planning

Determine power factor

To select the correct lift mechanism for a given application, the power factor must first be calculated by using the formula below.
Use the table at the bottom of the page to convert ounces into decimal form for easy calculation.

Power factor = cabinet height (inch) x door weight* (lb)

* Including twice the handle weight



door weight + twice handle weight = **5** lb 14 oz

Example:
Cabinet height: 9 inches (within possible range)
Door weight including twice the handle weight: **5** lb 14 oz (14 oz = **.9** lb see chart below)
Total weight converted to decimal is **5.9** lb
Power factor = cabinet height multiplied by door weight including twice the handle weight
Power factor = 9 x **5.9**
Power factor = 53.1
A power factor of 53.1 requires lift mechanism 20K2C00.N1

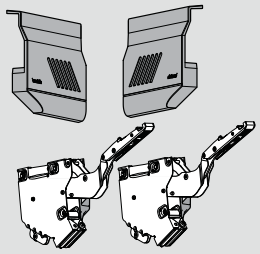
weight conversion chart

oz	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
lb	.1	.1	.2	.3	.3	.4	.4	.5	.6	.6	.7	.8	.8	.9	.9

Ordering information for narrow aluminum doors

Step 2 – Select the required components

Lift mechanism set



Set includes:

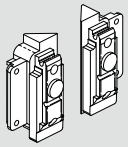
1 Lift mechanism (qty 2)

2 Right and left cover plate

■ #7 x 35 mm (1-3/8") wood screw (qty 10)

Power factor	Opening angle	Part no.
19 – 39	107°	20K2B00TNA
40 – 85	107°	20K2C00TNA
86 – 177	107°	20K2E00TNA

Narrow aluminum door mounting plate



Set includes:

3 Narrow aluminum arm assembly mounting plate (qty 2)

■ 699.110 – Aluminum screw for mounting plate attachment (qty 4)

Mounting plate for use with AVENTOS HK-S only

	Part no.
Narrow aluminum door mounting plate	20K4A00A01

TIP-ON mechanism set

Set includes:

■ TIP-ON mechanism

■ Self-adhesive, screw-on catch plate and screw

NOTE: Use of screw-on catch plate is required for all applications

■ Works for both overlay and inset applications

■ Nylon gray

	Part no.
TIP-ON mechanism set for standard doors	955.1004
TIP-ON mechanism set for large doors	955A1004

Opening angle restriction clip

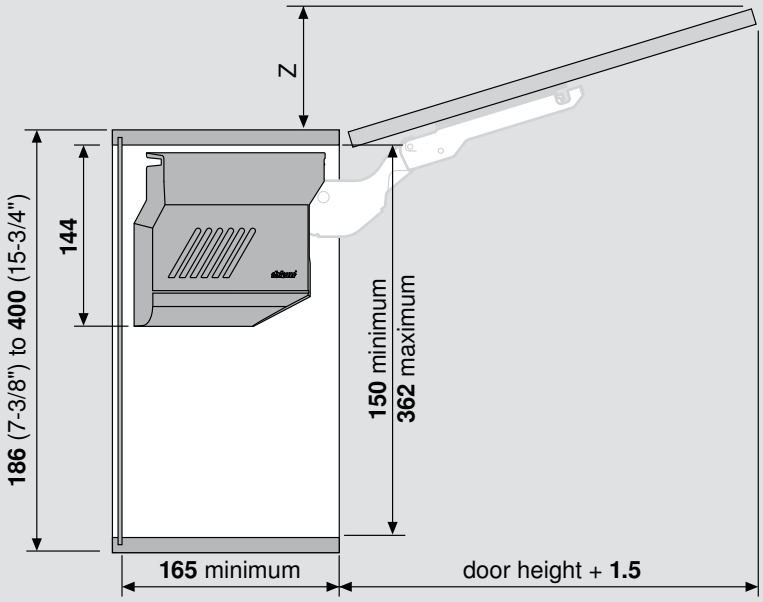
	Part no.
Opening angle restriction clip 100°	20K7A41
Opening angle restriction clip 75°	20K7A11

TIP-ON for AVENTOS HK-S – panel cabinets

Step 1 – Check clearances

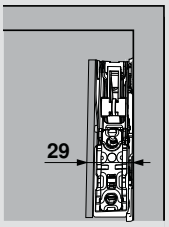
Space requirements

Door and hardware clearance

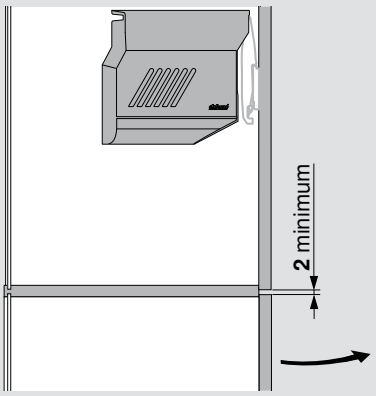


Z = door height x .29 minus **23** + door thickness

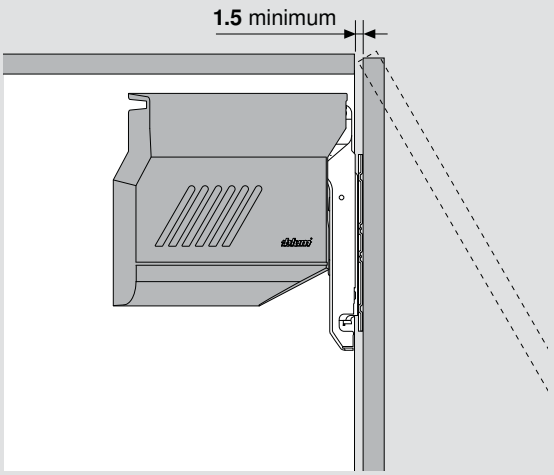
Lift mechanism clearance



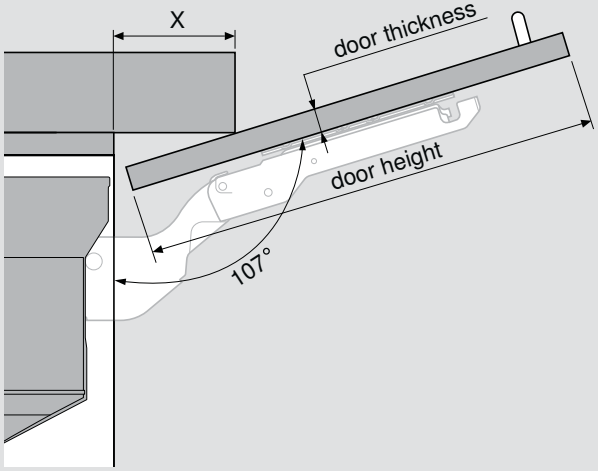
Minimum reveals



Minimum gap



Decorative molding clearance



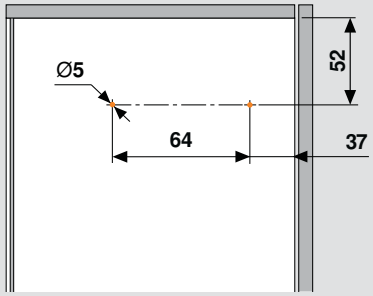
door thickness	16	19	22	26
maximum X	70	59	49	35

NOTE: Minimum gap assumes door radius of 1 mm

Cabinet preparation for narrow aluminum doors

Step 2 – Mount the lift mechanisms

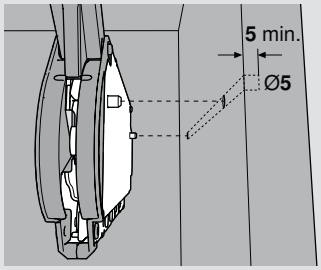
Boring for the locating pins



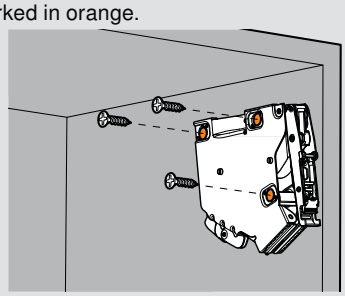
NOTE: Locating pin holes shown in orange

Lift mechanism positioning

Two locating pins fit into Ø**5** x **5** holes bored in the side of cabinet for proper positioning.

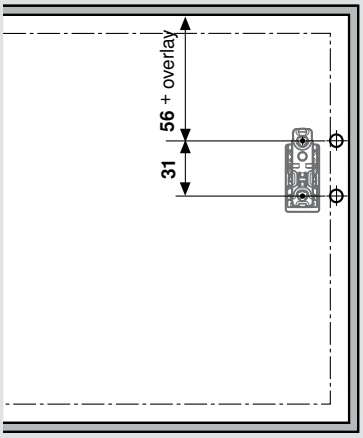


The included #7 x 35 mm (1-3/8") wood screws are required in the three holes marked in orange.

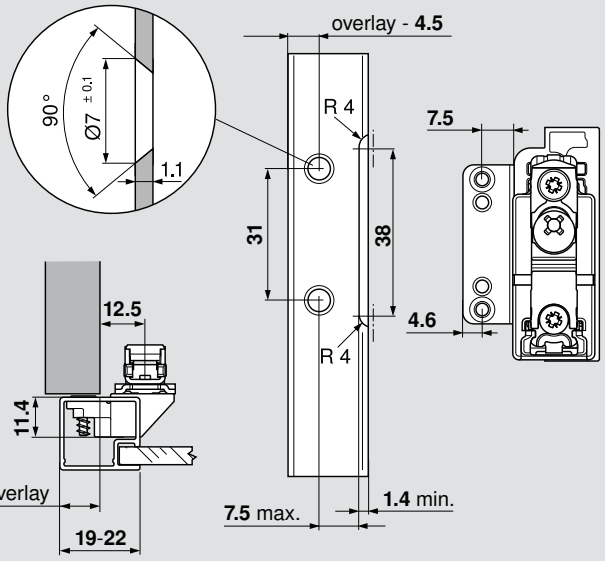


Step 3 – Determine the Lever arm mounting plate position and attach to the door

Arm assembly mounting plate location

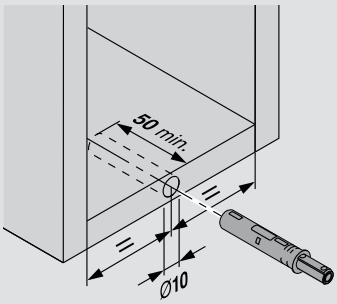


NOTE: Attach mounting plate with two 699.110 aluminum screws

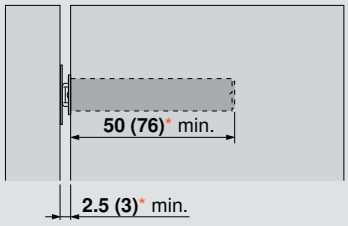


NOTE: When changing material thickness, adjust assembly dimensions accordingly

TIP-ON for AVENTOS specifications

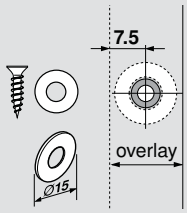


NOTE: For wider applications, two TIP-ON devices may be needed to insure an ideal opening



*for large doors

Screw-on catch plate specifications



Pre-boring Ø2.5 mm countersunk pilot holes are required

Step 4 – Assemble the cabinet

Follow the assembly instructions included in the lift mechanism set or on blum.com

Part number index

Notes

Blum, Inc. Headquarters, Stanley NC

Why choose Blum

Blum, Inc. is a leading manufacturer of functional hardware for the kitchen cabinet and commercial casework industries specializing in lift systems, concealed hinges and drawer runner systems. Virtually all of the hardware needed to assemble and make cabinets functional is available within the wide range of quality Blum products. Blum supports the U.S. market with a network of more than 150 dependable distributors, 40+ knowledgeable Blum sales representatives and an experienced customer service department.

Commitment to manufacturing in the U.S.

Blum manufactures many of its products in our 450,000 sq ft manufacturing, logistics and warehouse facility located in Stanley, North Carolina. Manufacturing closer to the customer allows Blum to react quickly to changing customer needs including unexpected surges in demand. Customer pickups and deliveries can be timed to better match their production schedules. Blum is committed to manufacturing in the U.S. for the U.S. market.

Product development at Blum considers all of the various customers who will come in contact with our products. With this “Global Customer Benefits” philosophy we strive to create advantages for all users.

ISO 9001
Certified Quality System

Blum, Inc. is ISO 9001 certified which means that you are assured of consistent quality in every Blum product. What’s more they exceed the requirements of ANSI/ BHMA standards for cycle life, static load and self-closing performance.

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