



AVENTOS HK top
Lift Systems Reimagined

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Reimagined for Easy Installation

An eye for detail and another on the big picture – that's what's needed to develop a lift system that is not only compact in design but also impresses with easy installation. That is what makes AVENTOS HK top the perfect solution for cabinetry where every detail counts.

 **blum**[®]



Contents

AVENTOS HK top

- 5** Solutions for All Applications
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There are many good reasons why AVENTOS lift systems are an excellent choice for wall cabinets.

Since the cabinet doors open upwards, AVENTOS provides an excellent view into the cabinet interior enabling comfortable and ergonomic access to storage items.

The AVENTOS program opens up a whole new world of design possibilities for kitchen and office spaces. Even the widest and heaviest doors can be accommodated. Wide base cabinet designs can now be mirrored in the wall cabinets above to create a more uniform look.



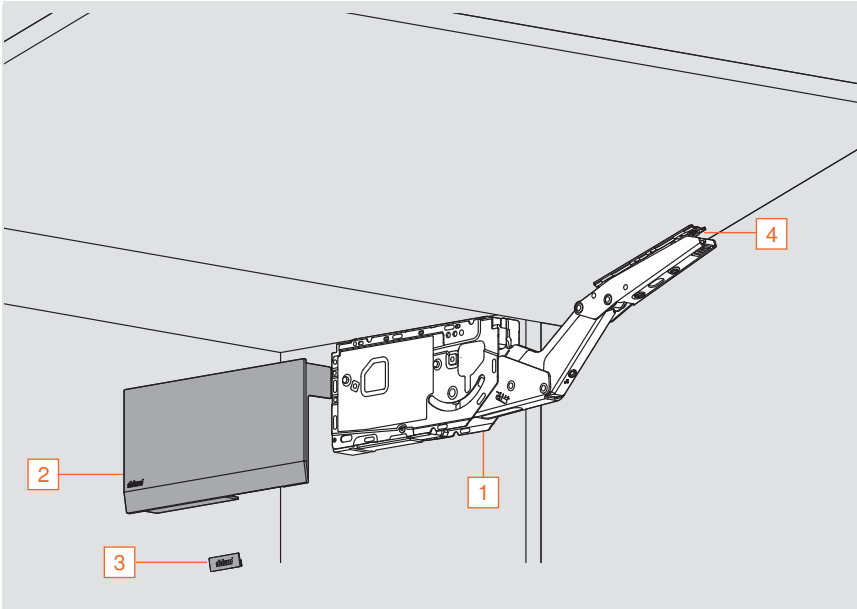
Online Resource for Planning

Easy Planning

Blum offers many online tools to help you with your kitchen planning and ordering. Online Product Configurator (OPC) offers a parts list and planning information based on your specifications. Once complete, your results can then be exported to a shareable document.

OPC is easily accessible on our website at blum.com/configurator





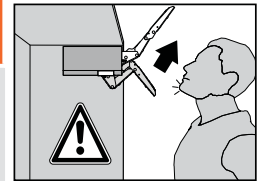
- Self-positioning mechanism with locating template eliminates complicated installation
- Integrated opening angle adjustment between 75° and 107°
- Cabinet height from **250** (10") to **610** (24")
- Interior cabinet depth minimum of **187** (7-3/8")
- Optional: TIP-ON for AVENTOS
- When using a third lift mechanism (a power factor increase of up to 50%), we recommend a trial application.

NOTE: For wide cabinets, we recommend that an additional lift system should be attached to the center panel, to prevent the middle of the front from sagging when open.



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

- Arm has built in safety feature to prevent opening and closing
- Secure lever arm before installing cabinet



Step 1 – Determine the Power Factor for the Application



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

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 multiplied by door weight*

Example:

Cabinet height: 20" (within possible range)

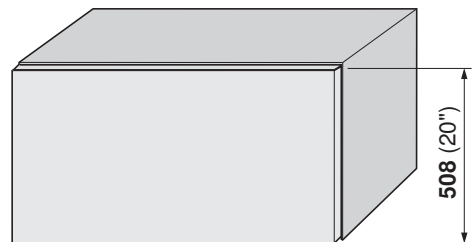
Door weight including twice the handle weight = 13 lb 14 oz (14 oz = .9 lb see chart below)

Power factor = 20 x 13.9

Power factor = 278

A power factor of 278 requires lift mechanism 22K2700

*Including twice the handle weight



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

NOTE: AVENTOS planning tools available at blum.com/planning

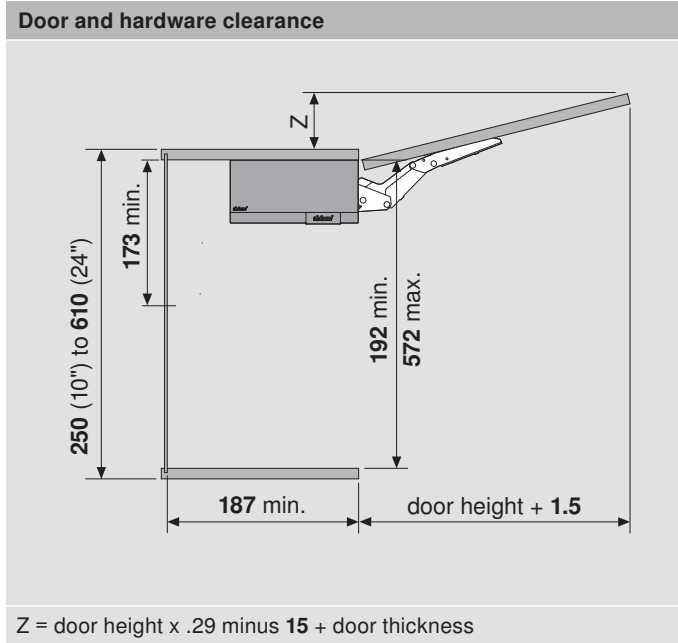
Weight conversion chart

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

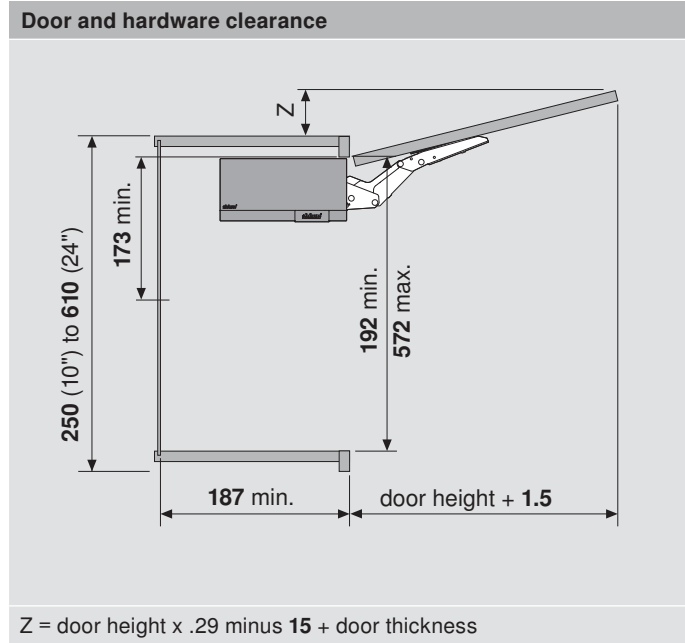
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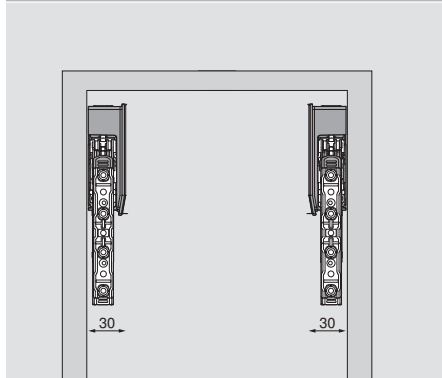
Frameless Application



Face Frame Application

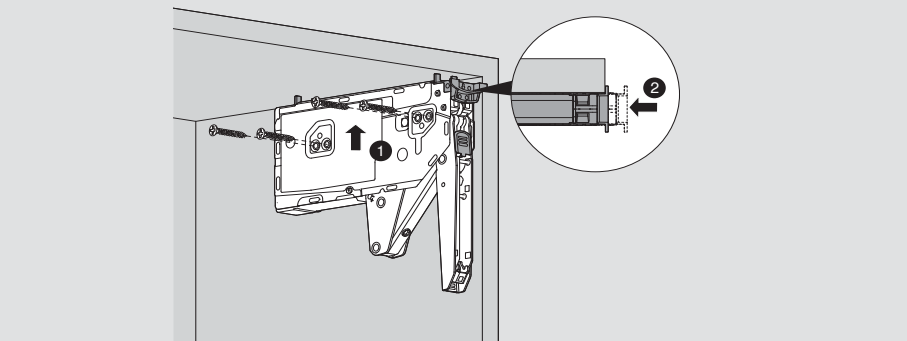


Lift mechanism clearance

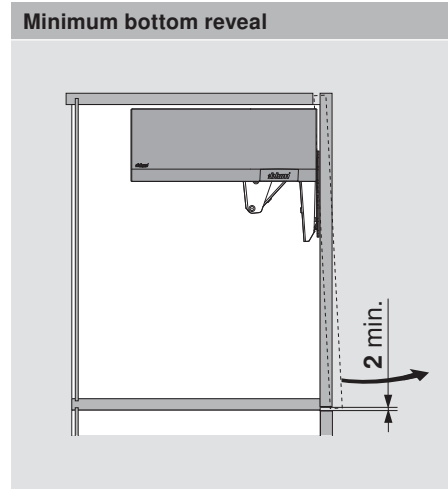
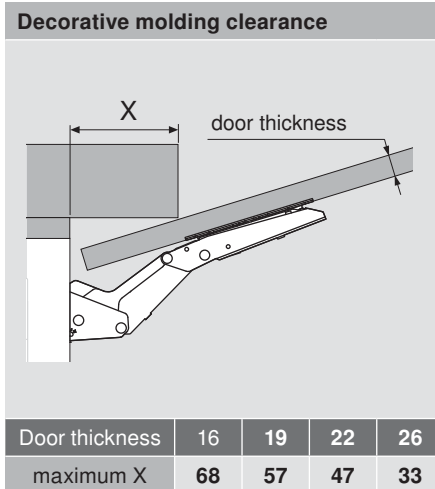
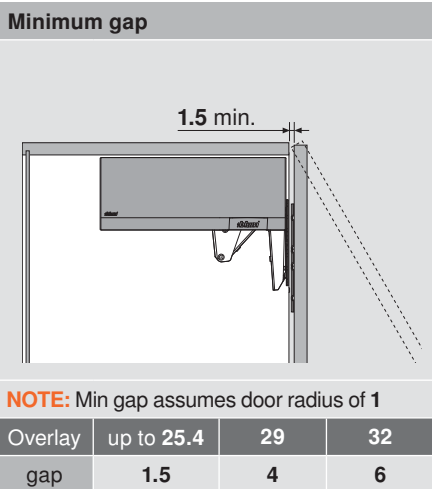


Lift mechanism positioning

Attachment for lift mechanism for wood screws including positioning template.

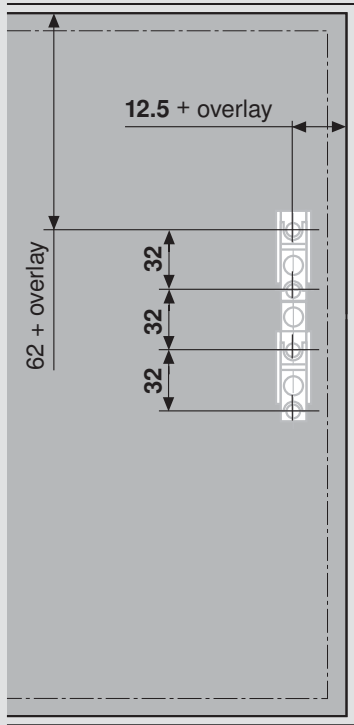


Door and Hardware Clearance



Arm assembly mounting plate location

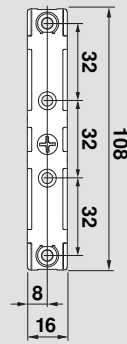
Frameless and face frame applications



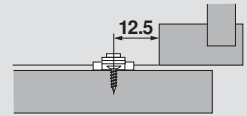
NOTE: Attach mounting plate with four 606N or 606P wood screw for wood doors or 7072A for wide aluminum doors

Arm assembly mounting plate choices

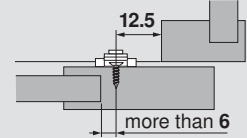
Mounting plate



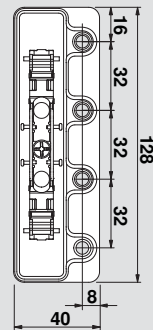
Slab door



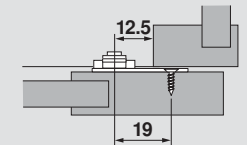
Five-piece door



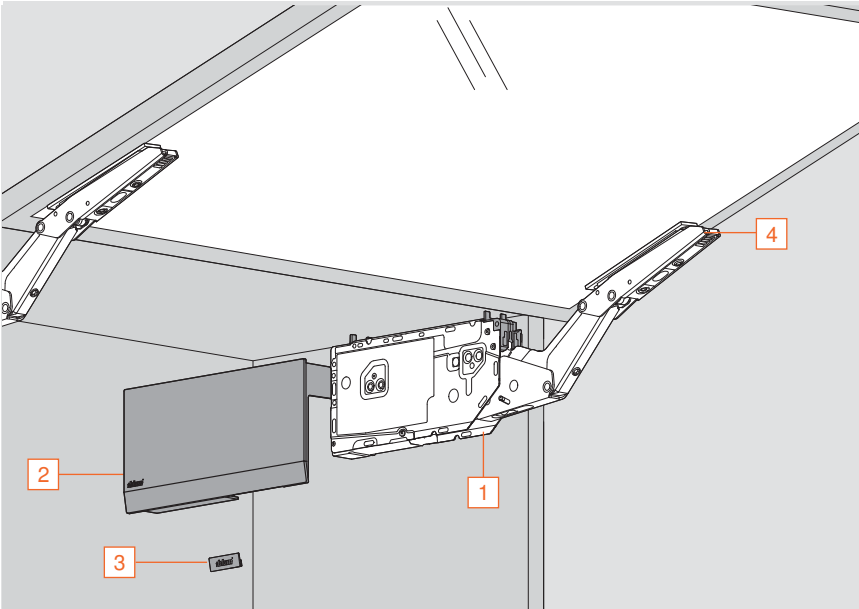
Mounting plate with bracket for large overlay five-piece doors



Five-piece door



NOTE: Hole locations offset by 19 (example: 12.5 + overlay - 19 = hole location from side)



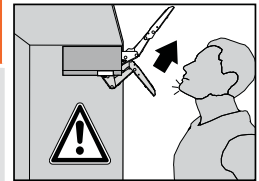
- Self-positioning mechanism with locating template eliminates complicated installation
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- Interior cabinet depth minimum of **187** (7-3/8")
- Optional: TIP-ON for AVENTOS
- When using a third lift mechanism (a power factor increase of up to 50%), we recommend a trial application.

NOTE: For wide cabinets, we recommend that an additional lift system should be attached to the center panel, to prevent the middle of the front from sagging when open.



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

- Arm has built in safety feature to prevent opening and closing
- Secure lever arm before installing cabinet



Step 1 – Determine the Power Factor for the Application



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

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 multiplied by door weight*

Example:

Cabinet height: 20" (within possible range)

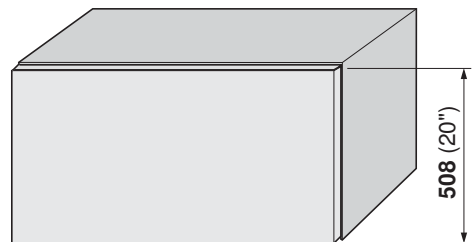
Door weight including twice the handle weight = 13 lb 14 oz (14 oz = .9 lb see chart below)

Power factor = 20 x 13.9

Power factor = 278

A power factor of 278 requires lift mechanism 22K2700

*Including twice the handle weight



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

NOTE: AVENTOS planning tools available at blum.com/planning

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

Step 2 – Select the Required Components

Lift mechanism set

Set includes:

- 1 Lift mechanism (qty 2)
- #7 x 35 (1-3/8") wood screw (qty 8)

NOTE: Symmetrical with wood screws including positioning template. Max front weight 39 lb for two lift mechanisms.

Power factor range	Opening angle	Part no.
36 – 139	107°	22K2300
80 – 240	107°	22K2500
150 – 450	107°	22K2700
270 – 781	107°	22K2900

Cover set

Set includes:

- 2 Right and left cover plate
- 3 Non-handed cover cap (qty 2)

NOTE: Light and Dark Gray options available

	Part no.
Cover set	22K8000.NA

Narrow aluminum door hardware set

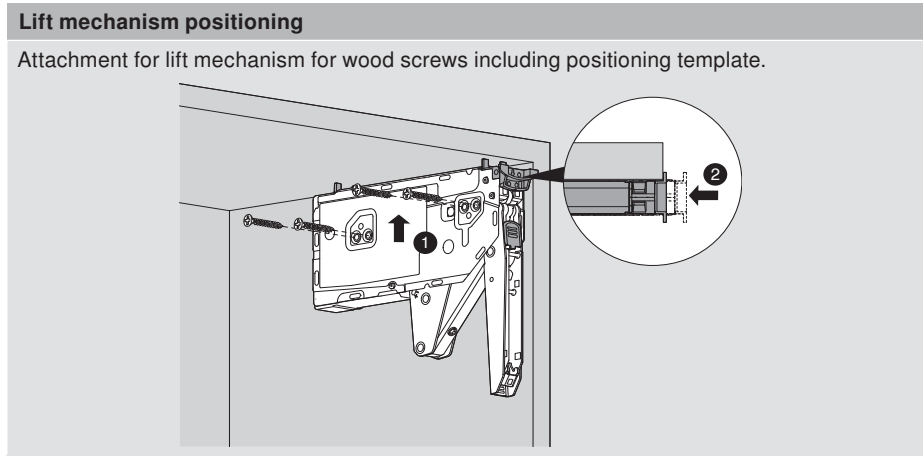
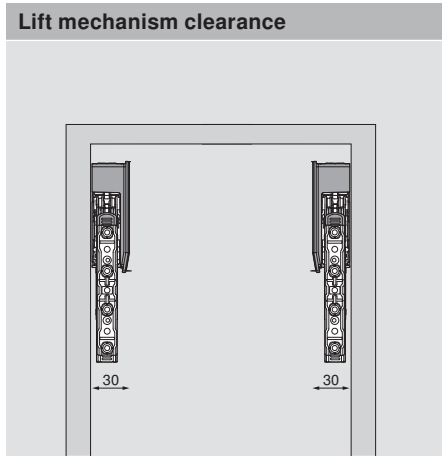
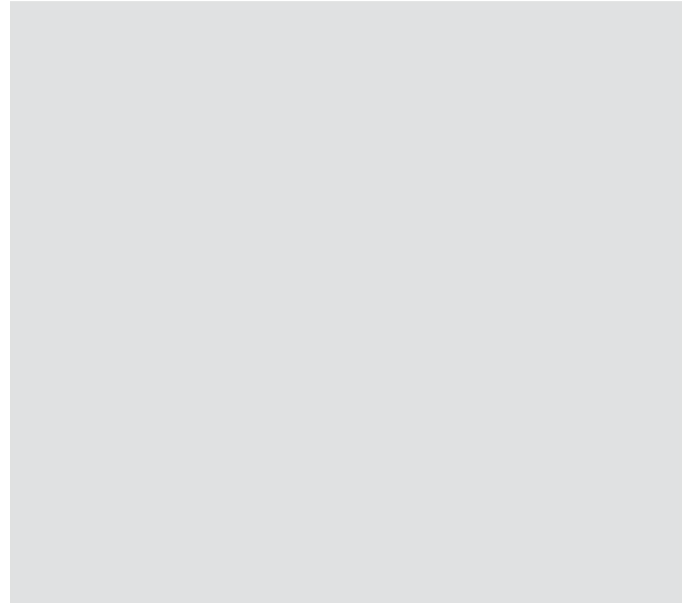
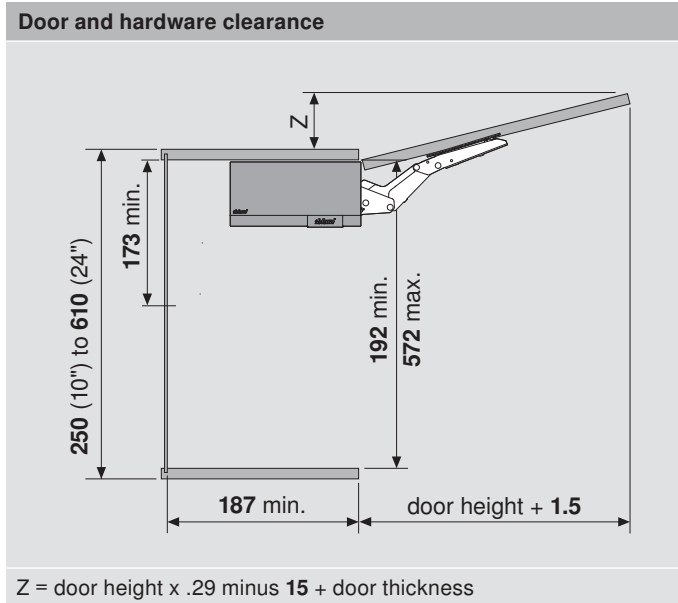
Set includes:

- 4 Arm assembly mounting plate (qty 2)
- 699.110 – Aluminum screw for narrow aluminum lever arm mounting plate (qty 8)

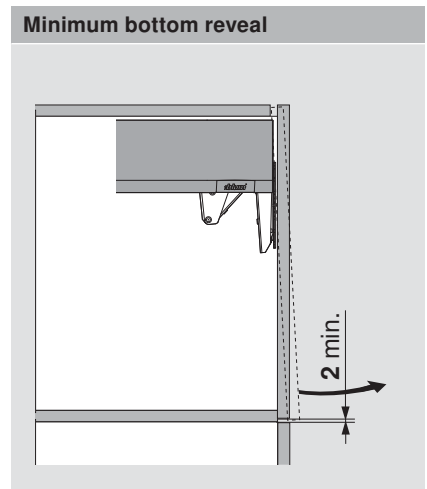
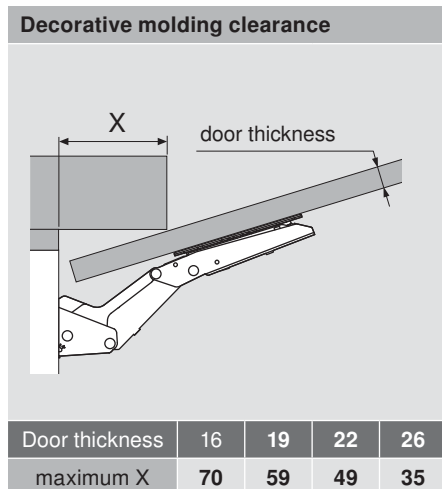
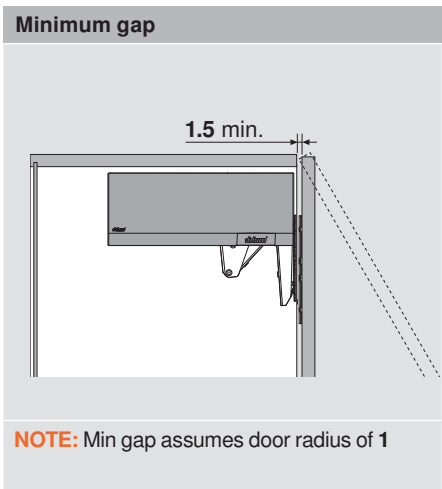
NOTE: Light and Dark Gray options available

	Part no.
Narrow aluminum door hardware set	20S4200A

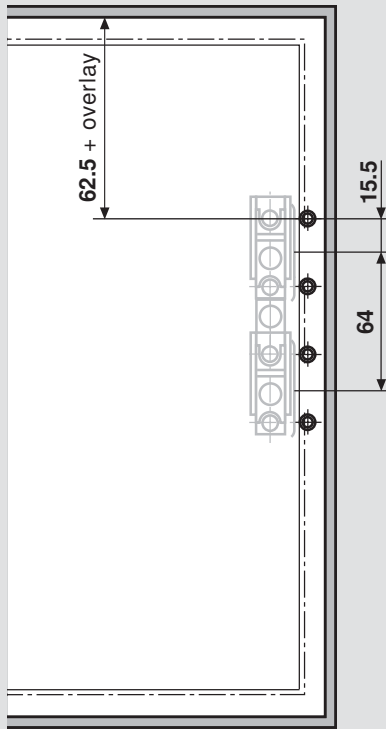
Door and Hardware Clearance and Positioning



Door and Hardware Clearance

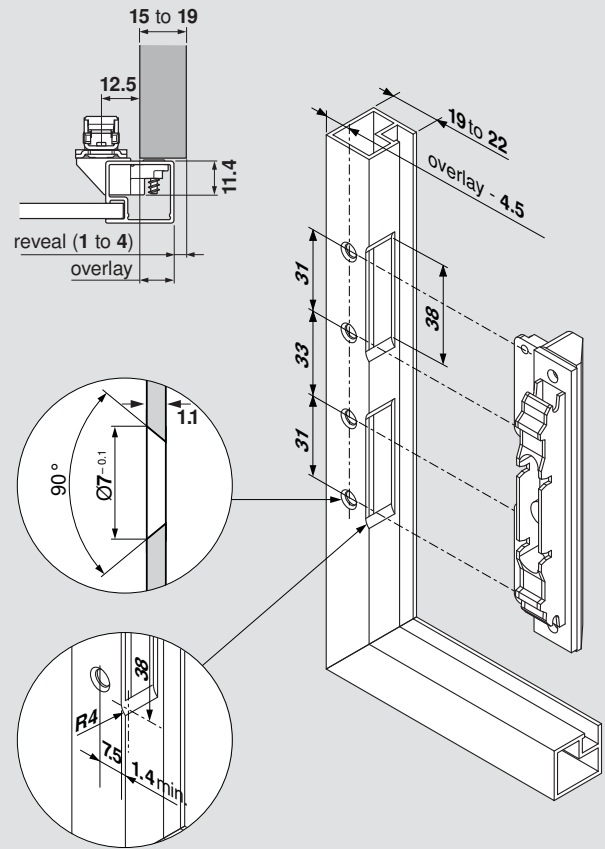


Telescopic arm mounting plate location



NOTE: Three lifts are required for cabinet widths over 1219 (48")

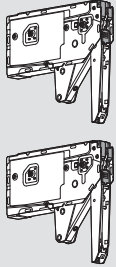
Hinge and mounting plate attachment



Follow the assembly instructions on page 16



Lift mechanism set



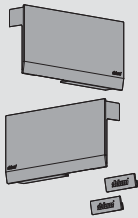
Set includes:

- Lift mechanism (qty 2)
- #7 x 35 mm (1-3/8") wood screw (qty 8)

NOTE: Symmetrical with wood screws including positioning template. Max front weight 39 lb for two lift mechanisms.

Power factor	Opening angle	Part no.
36 – 139	107°	22K2300T
80 – 240	107°	22K2500T
150 – 450	100°	22K2700T
270 – 781	100°	22K2900T

Cover set



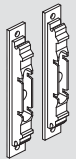
Set includes:

- Right and left cover plate
- Non-handed cover cap (qty 2)

NOTE: Light and Dark Gray options available.

	Part no.
Cover set	22K8000.NA

Wood or wide aluminum door hardware set



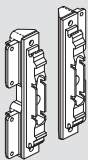
Set includes:

- 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

NOTE: Refer to pages 8-9 for installation specifications

Narrow aluminum door hardware set



Set includes:

- 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

NOTE: Refer to pages 12-13 for installation specifications

AVENTOS HK top Ordering Information for TIP-ON

AVENTOS

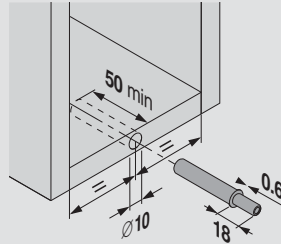


TIP-ON set for standard doors



- White
- Gray
- Black

Use of screw-on catch plate required for all applications



- Nylon unit with magnet tip
- Adjustment range +4 mm to -1 mm
- For door heights up to 400 (15-3/4")
- Works for overlay and inset applications
- Can be bored into the panel or used with an adapter plate

Set includes:

- TIP-ON unit
- Self-adhesive catch plate
- Screw-on catch plate
- Wood screw

Part no.

NOTE: Due to various door weights and sizes, trial application recommended

Standard door set

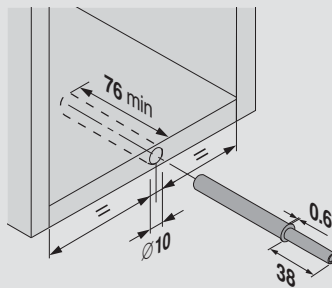
956.1004

TIP-ON set for large doors



- White
- Gray
- Black

Use of screw-on catch plate required for all applications



- Nylon unit with magnet tip
- Adjustment range +4 mm to -1 mm
- For door heights greater than 400 (15-3/4")
- Works for overlay and inset applications
- Can be bored into the panel or used with an adapter plate

Set includes:

- TIP-ON unit
- Self-adhesive catch plate
- Screw-on catch plate
- Wood screw

Part no.

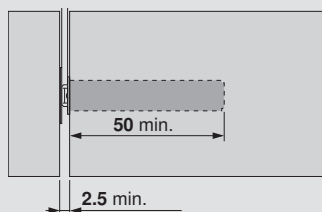
NOTE: Due to various door weights and sizes, trial application recommended

Large door set

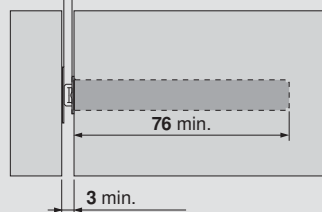
956A1004

TIP-ON for AVENTOS specifications

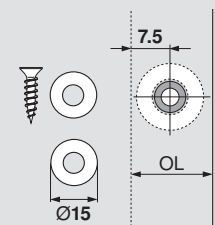
Standard doors



Large doors



Screw-on catch plate specifications

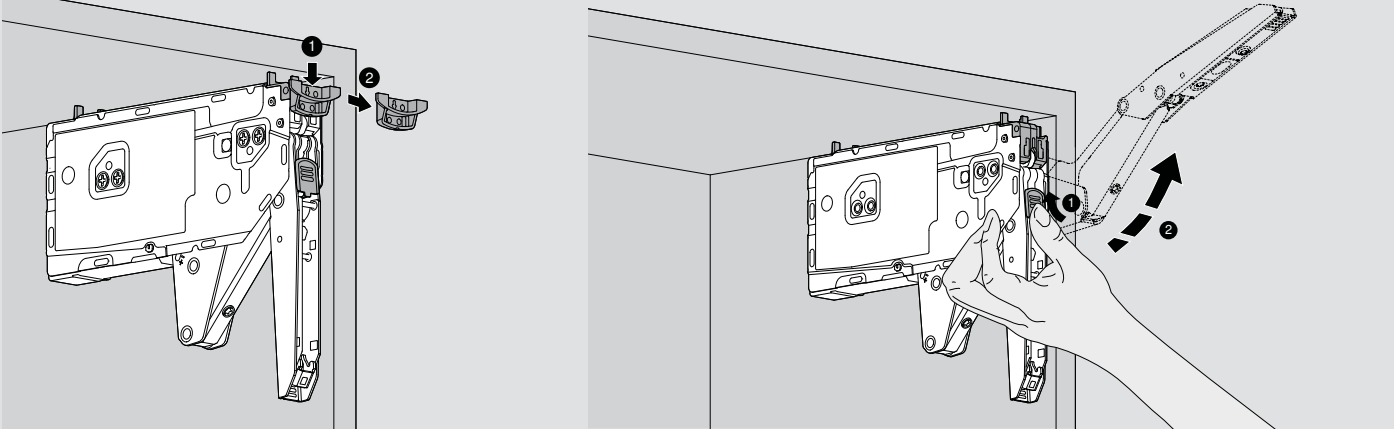


Pre-boring Ø2.5 countersunk pilot holes are required

For TIP-ON adapter plate mounting please refer to the Concealed hinges brochure.

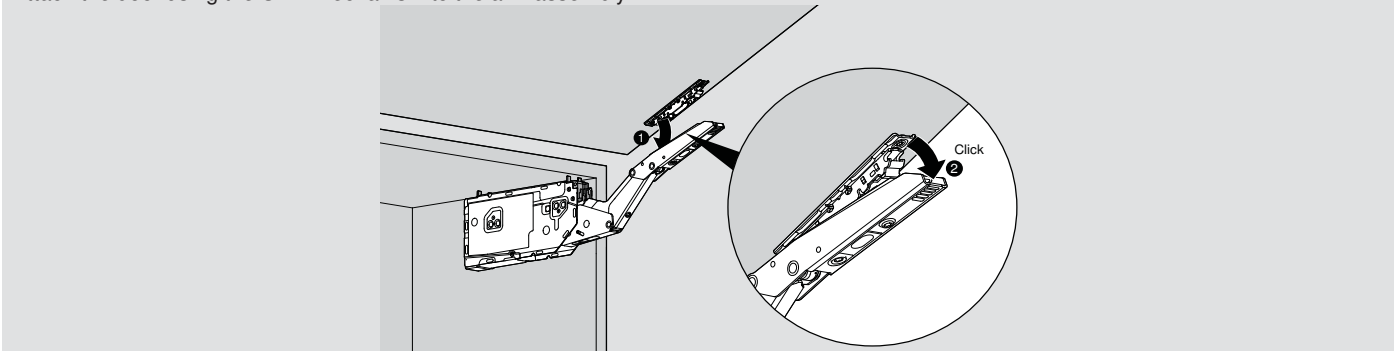
Remove positioning template

- 1 Push the setback template down to remove.
- 2 Slowly raise the arm to the upright position.



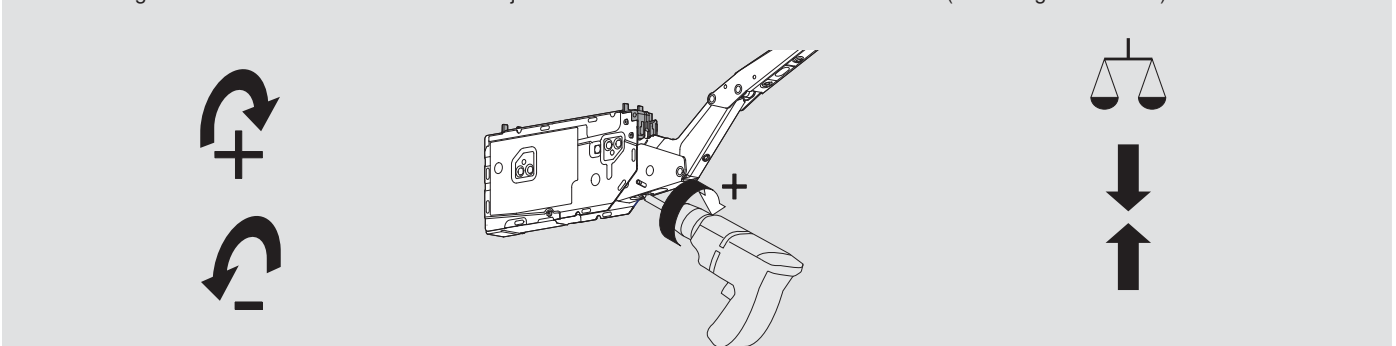
Attaching AVENTOS HK top doors

Attach the door using the CLIP mechanism to the arm assembly.



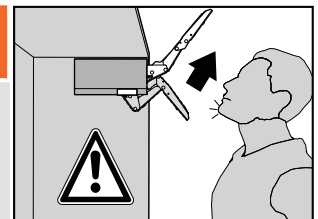
Adjust the lift mechanism

Use a screw gun and a #2 x 2 TORX driver bit to adjust the lift mechanism to the desired tension (door weight balanced).



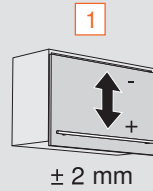
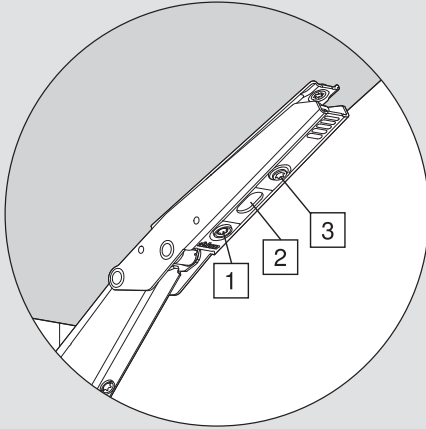
Warning: Risk of injury by spring-loaded lever arm!

- Arm has built in safety feature to prevent opening and closing
- Secure lever arm before installing cabinet



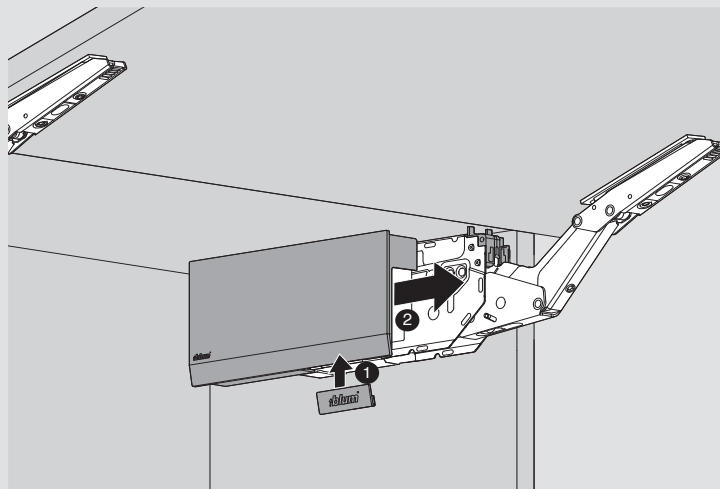
AVENTOS HK top door adjustment

Use a TORX screwdriver to perform cam adjustments for each of the three-dimensional door adjustments.



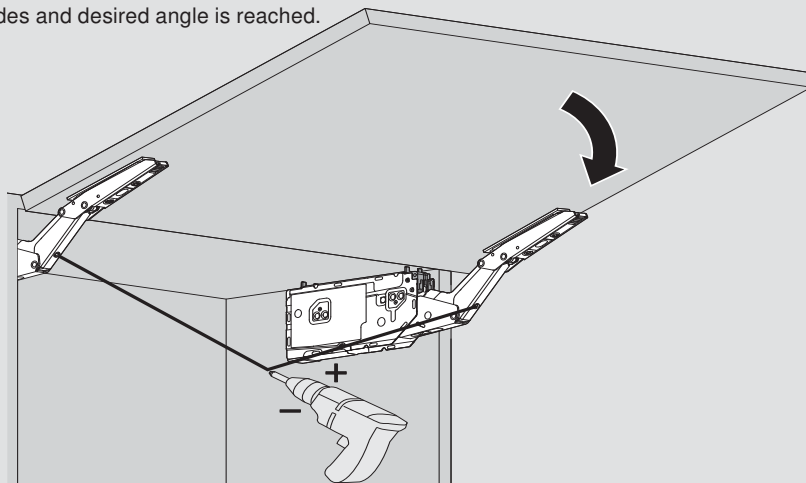
Attaching cover caps

Place the left and right cover plates over the appropriate lift mechanisms, and snap them in place.



Adjust opening angle

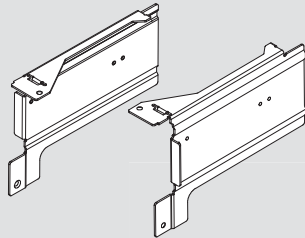
Turn adjustment screw until tight on both sides and desired angle is reached.



NOTE: Adjustments can be made with the cap on

AVENTOS HK top face frame mounting bracket set

- Brackets for mounting AVENTOS HK top in face frame cabinet
- Minimum recess of **12.5** (1/2")
- Provides accurate mounting position for lift mechanism



Set includes:

- Right and left brackets
- M4 x 30 lift mounting screws (qty 12)

Part no.

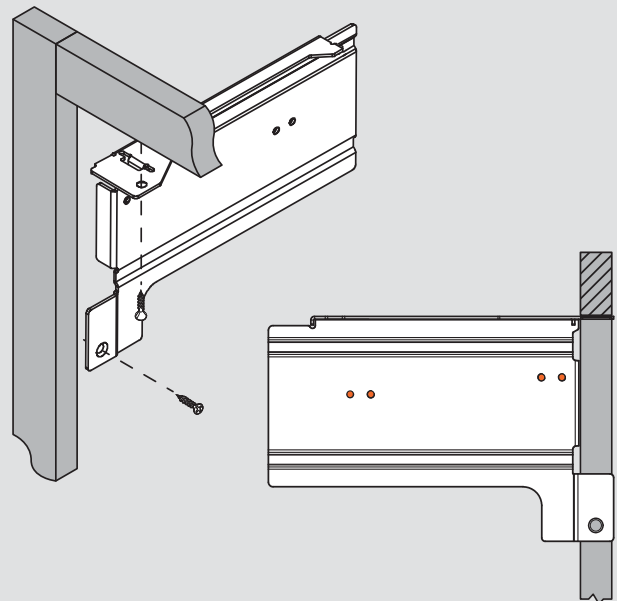
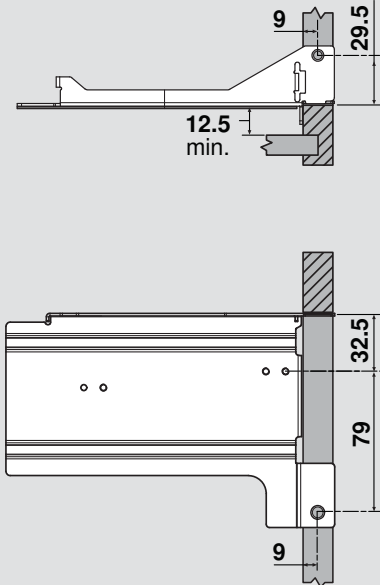
HK top frame mounting bracket set

22K6001

AVENTOS HK top face frame bracket mounting locations

Due to mounting bracket position, the door mounting plate will need to be moved **1.5** lower on the door to maintain proper mounting position. Fixed setback allowing for up to **25.4** top overlay.

Attach bracket to face frame with two #7 x 3/4" (7074N) wood screws. Attach lift mechanism to bracket with four M4 x 30 machine screws (included).



NOTE: Machine screw mounting locations marked in orange

Assembly Aids

AVENTOS



TORX DRIVER

- For AVENTOS HK top and LEGRABOX adjustments
- TORX size 20 (T20)
- Blade length **100**
- Total length **210**



Part no.

T20 TORX DRIVER

TORX DRIVER

Short TORX DRIVER

- For AVENTOS HK top and LEGRABOX adjustments
- TORX size 20 (T20)
- Blade length **35**



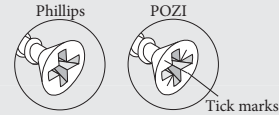
Part no.

T20 TORX DRIVER

SHORT TORX DRIVER

POZI DRIVER

A POZI screwdriver (different from Phillips) is the most crucial tool you can use to assure that full torque is applied to all Blum mounting screws. POZI screws can be identified by the distinctive "tick" marks located in the center of the screwhead recess.



Part no.

#2 POZI DRIVER

POZI DRIVER

1/4" Magnetic bit holder

BIT HOLDER

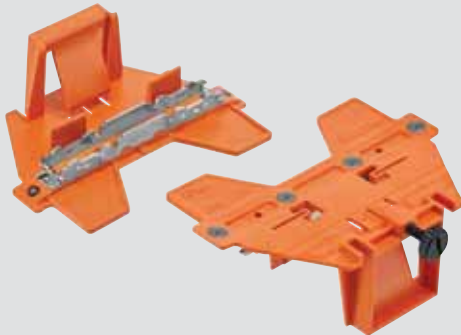
#2 x 1" POZI bit insert

POZI BIT #2X1

#2 x 2" POZI bit insert

POZI BIT #2X2

Front marking template for HK top



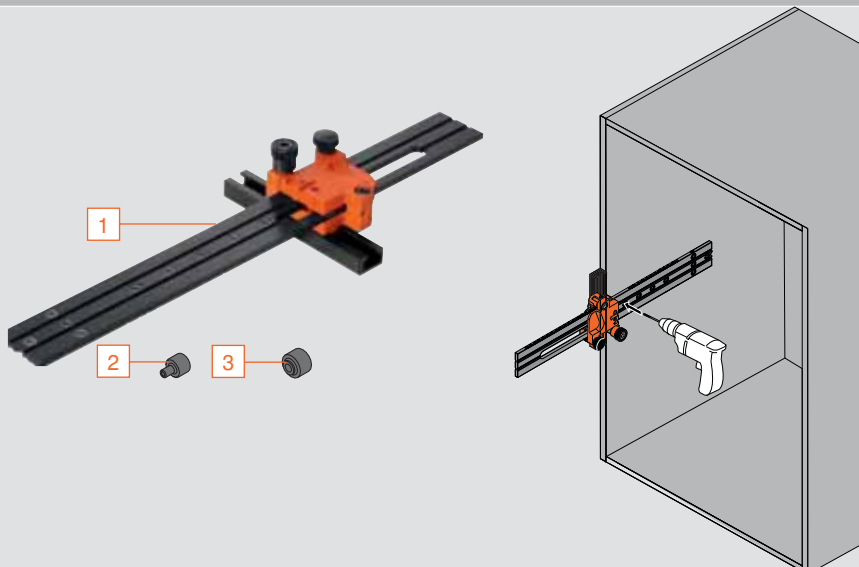
- Used to easily determine the location for the arm assembly mounting plate
- Side overlay adjustable from **12** to **21**
- Calibrated scale for accurate setting

Part no.

Template

ZML.2200

Universal individual template



- Used to pre-bore for AVENTOS lift mechanism locating pins
- Also used for pre-boring for cabinet profiles and BLUMOTION for doors and TIP-ON for doors adapter plates
- Calibrated scale for accurate setting

Set includes:

- Universal individual template
- Ø2.5 stop collar
- Ø5 stop collar

Part no.

Template

65.1051.02

Ø2.5 drill bit

DB-2.5mm R

Ø5 drill bit

DB-5mm R



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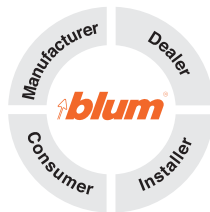
Why Choose Blum



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, 50+ 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.



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



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Blum, Inc.
7733 Old Plank Rd.
Stanley, NC 28164
800-438-6788
blum.com

