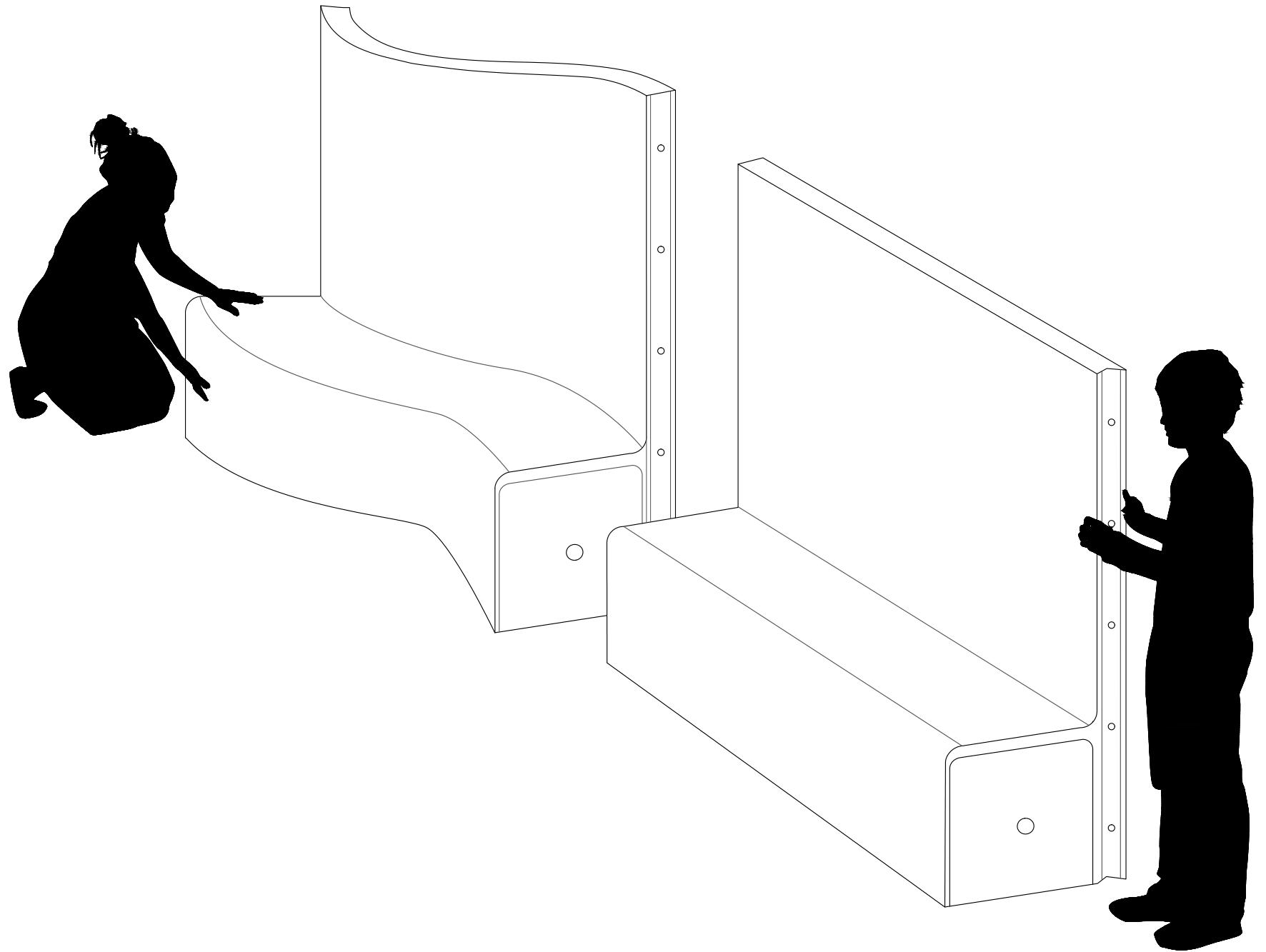


# benchwall

benchwall is a flexible, paper or textile bench with a tall backrest that acts as both acoustic space partition and seating. It is a modern furniture concept which can stretch into straight, high backed seating or sweep into a spontaneous circular meeting room. A modular system with magnetic end panels, benchwall can be used with the larger collection of paper furniture by molo. The brown and blue paper furniture is made from wood harvested from FSC® Certified (FSC® C158591) responsible sources and coated with a non-toxic fire retardant. The textile is a durable, nonwoven polyethylene that is water-and tear-resistant. Both materials are 100% recyclable.

Design by Stephanie Forsythe + Todd MacAllen



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IMPERIAL DRAWING SET

## OVERVIEW

Made from paper or textile, benchwall is a flexible bench with a tall backrest that functions as an acoustic space partition as well as seating. Adaptable in length and placement, benchwall can stretch into straight, high-backed benches or sweep into a circular bench lined room for intimate meetings. The brown and blue paper furniture is made from wood harvested from FSC® Certified (FSC® C158591) responsible sources and coated with a non-toxic fire retardant. The textile is a durable, nonwoven polyethylene that is water- and tear-resistant.

## SUSTAINABILITY

The soft collection follows three core sustainable principles: flexible use of space, efficient use of material, and recyclable/responsible materials.

Flexible use of space · Enabling a space to suit diverse use over time, throughout the day or over its lifespan, is an inherently sustainable practice. The soft collection requires no tools or additional supports to create freestanding structures and is easily folded away for storage. Whether for the temporary division of space in a live / work environment or shaping space for the unpredictable growth of a new business, the soft collection empowers people to change and adapt their spaces.

Efficient use of material · By virtue of its honeycomb cell structure, the soft collection makes highly efficient use of its material and can be easily re-compressed for efficient storage or shipping.

Recyclable/responsible materials · benchwall is designed with the intention of a long, useful life. Nevertheless, the materials can be recycled. After removing the magnets from the end panels, recycle the remaining material. textile benchwall is 100% polyethylene, number "2" in the recycling stream, and paper benchwall can be recycled with any regular paper recycling program.

## PAPER · MATERIAL

The paper is a robust blend of new and recycled fibres, which easily supports people or pets. Acoustically absorbent benchwall is available in brown, black and blue. brown and blue paper furniture is made from wood harvested from FSC® Certified (FSC® C158591) responsible sources. All paper products have been produced with non-toxic fire retardants, adhesives and inks.

We do not recommend using paper products in extreme humidity environments, where benchwall may come into contact with moisture.

## TEXTILE · MATERIAL

Made from non-woven polyethylene, textile is tear- and water-resistant, anti-static to repel dust and has a natural UV protection that prevents yellowing with sunlight or age. The translucent material has a delicate appearance reminiscent of Japanese washi and comes to life when illuminated by sunlight or integrated LED. textile benchwall has a "Class A" rating for flame spread and smoke, developed in accordance with ASTM E84-05. All products made with the textile are easy to maintain and can be dusted, vacuumed or wiped clean with a damp cloth. The textile is 100% recyclable.

## PANTONE CODES FOR STANDARD molo COLOURS

Here is a list of the closest Pantone matches for molo colours and materials:

brown paper: Pantone 7565U

blue paper: Pantone 293 U · blue

deep blue paper: Pantone 19-4053TPG

pale blue paper: Pantone 657 U

black paper: Pantone 19-0000 TPG/TCX · raven

black textile: Pantone 19-0405 TPG/TCX · beluga

white textile: Pantone 11-4001 TPG/TCX · brilliant white (also matches Corian Glacier White)

aluminum textile: Pantone 877 C · metallic

forest green textile: Pantone 7742 U

## PATINA

molo benchwall is intended to crush down and form a patina over time. The top surface will soften and fold into a unique, organic pattern. This patina will not affect the seat's structural integrity.

## FIRE CERTIFICATIONS

M1 · France	<ul style="list-style-type: none"> <li>· all paper products</li> <li>· FR textile (standard textile is Class A — see below)</li> </ul> <p>French NF P 92 503-507 (M1) 504 rate of flame spread test. The test material is classified into 5 categories that define the fire resistance of materials: M0: non-combustible, M1: combustible (non-flammable), M2: combustible (flame retardant), M3: combustible (moderately flammable), M4: combustible (highly flammable), NC: not classified.</p>
B1 · Germany	<ul style="list-style-type: none"> <li>· all paper products</li> <li>· FR textile (standard textile is Class A — see below)</li> </ul> <p>German DIN 4102-1 defines fire behavior classes for building materials and specifies requirements and test methods for each class. The test material is classified into 5 categories that define the fire resistance of materials: A1 + A2: fireproof materials, B1: not easily flammable, B2: flammable, B3: easily flammable. B1 (Brandschacht) is the main test method in Germany which measures reaction to fire and is considered the highest flammability standard in the country.</p>
NFPA 701 · United States	<ul style="list-style-type: none"> <li>· all paper products</li> <li>· FR textile (standard textile is Class A — see below)</li> </ul> <p>NFPA 701 testing measures the ignition resistance of a fabric after it is exposed to a flame for 12 seconds.</p>
ASTM E84-05 · Class A · United States	<ul style="list-style-type: none"> <li>· all textile products — if M1 or B1 is required, please inquire</li> </ul> <p>Class A fire rating represents the highest rating achievable, indicating a flame spread of 0 - 25 and smoke developed between 0 - 450. A designation of Class A, or Class I, is considered superior fire protection.</p>

## ACOUSTICS

There are two ways that benchwall improves acoustics. First, their pleated forms break up a room's flat, typically parallel surfaces, reducing sound reflection and standing waves. Second, the sound is absorbed by its honeycomb structure, reducing sound transmission through the partitions.

See NRC test results for softwall + softblock and cloud softlight below. benchwall will similarly absorb sound in a space as they all share the same type of honeycomb structure and pleated form.

NRC stands for Noise Reduction Coefficient. It is a rating system that explains how much sound an acoustic product can absorb. Ratings range from 0 to 1. An acoustic product with a 0.95 NRC rating means that 95% of the space's noise is absorbed, while 5% is reflected. molo softwall + softblock modular system has an average absorption range of 0.25 - 0.50.

NRC = 0.25 · 9.25" (23.5 cm) wide softwall + softblock

NRC = 0.30 · 13.3" (34 cm) wide softwall + softblock

NRC = 0.50 · 17.75" (45 cm) wide softwall + softblock

NRC = 0.45 · cloud softlight

\* softwall + softblock NRC tests have been completed in textile and paper materials, resulting in the same NRC values.

Other soft collection products, such as partitions, lighting, and cantilever table, will absorb sound in a space as they all share the same type of honeycomb structure and pleated form.

## FSC® CERTIFIED

molo brown and blue paper furniture is made from wood harvested from FSC® Certified (FSC® C158591) responsible sources and coated with a non-toxic fire retardant.

The Forest Stewardship Council GmbH is an international non-profit, multistakeholder organization established in 1993 that promotes responsible management of the world's forests via timber certification. The FSC certification is considered the "gold standard" designation for wood harvested from forests that are responsibly managed, socially beneficial, environmentally conscious, and economically viable.

## LIGHTFASTNESS · OVERVIEW

Lightfastness is a property of a colourant such as dye or pigment that describes its resistance to fading when exposed to light.		
<b>LIGHTFASTNESS LEVEL (BLUE WOOL SCALE)</b>	<b>DIRECT EXPOSURE SUMMER / WINTER</b>	<b>NORMAL CONDITIONS OF DISPLAY *</b>
1	-	less than 2 years
2	-	2 - 15 years
3	4 - 8 days / 2 - 4 weeks	2 - 15 years
4	2 - 3 weeks / 2 - 3 months	15 - 50 years
5	3 - 5 weeks / 4 - 5 months	15 - 50 years
6	6 - 8 weeks / 5 - 6 months	50 - 100 years
7	3 - 4 months / 7 - 9 months	over 100 years
8	over 1.5 years	over 100 years
8+	exceeds performance of blue wool scale number 8	

## molo MATERIAL LIGHTFASTNESS

COLOUR · MATERIAL	LIGHTFASTNESS LEVEL (BLUE WOOL SCALE)
brown paper	5 - 6 (fades to a slightly lighter shade of brown with prolonged sun exposure)
black paper	5 (very slight reduction of the intensity of black with prolonged sun exposure)
blue paper	3 - 4
deep blue paper	7
pale blue paper	7
heavyweight white textile	8
aluminum textile	8+
forest green textile	8+

## OPTIONAL ACCESSORIES

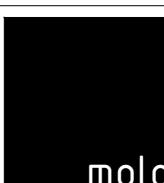
wool felt pad	Each diameter of fanning stool has a corresponding wool felt pad, which may be used as an optional cushion or soft table surface.
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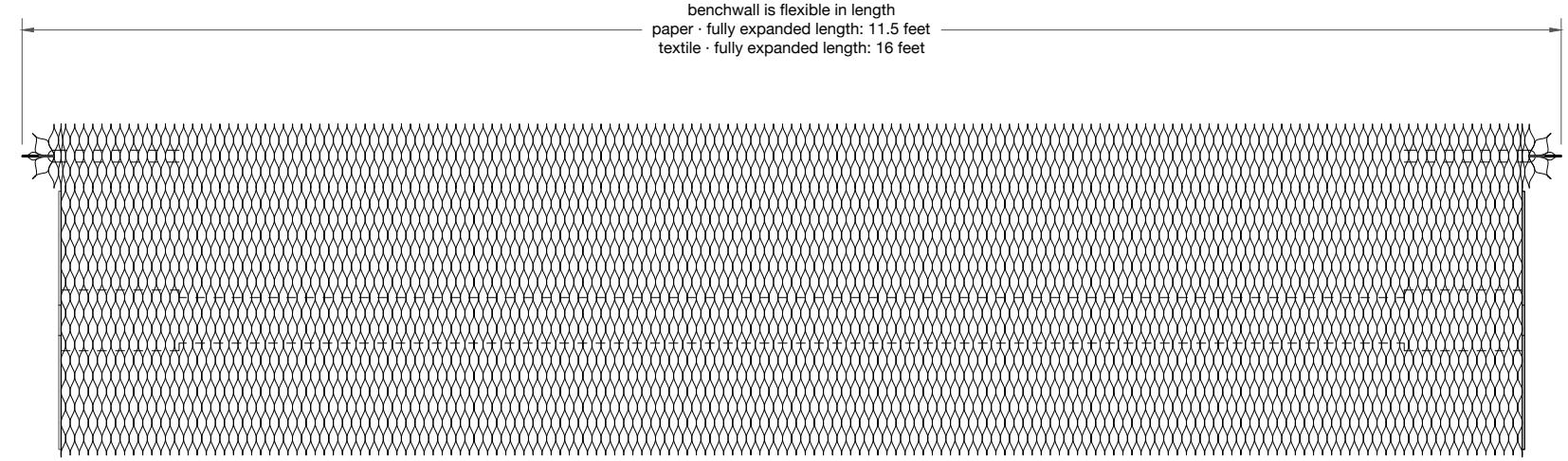
## 2D + 3D DRAWING FILES

AutoCAD, Sketchup, Revit, 3DS and Rhino drawing files for the entire softseating collection are available for download at <https://molodesign.com/documentation/product-drawings/>

## DOWNLOAD CERTIFICATES

Download all certificates at <https://molodesign.com/documentation/certifications/>





PLAN · COMPRESSED

PLAN · EXPANDED

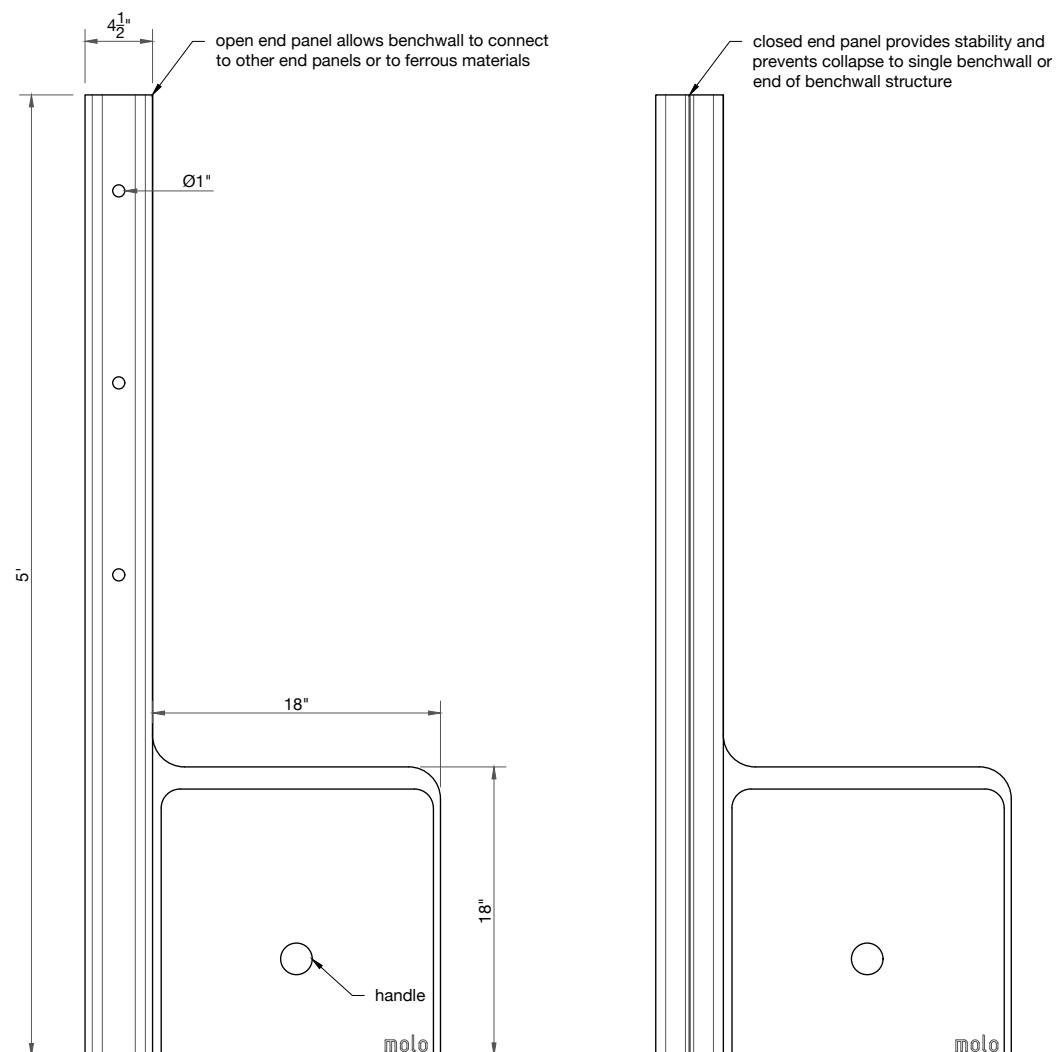


ELEVATION · COMPRESSED

ELEVATION · EXPANDED

benchwall · 5' tall			
COLOUR · MATERIAL	PRODUCT WEIGHT	SHIPPING WEIGHT	SKU
brown · paper	72.3 lb	92.6 lb	M-BW-P-FSC-BR-05-11
black · paper	69.9 lb	90.2 lb	M-BW-P-BK-05-11
blue · paper	69.9 lb	90.2 lb	M-BW-P-FSC-BU-05-11
deep blue · paper	69.9 lb	90.2 lb	M-BW-P-FSC-DB281-05-11
pale blue · paper	69.9 lb	90.2 lb	M-BW-P-FSC-PB296-05-11
white · textile	75.8 lb	96.1 lb	M-BW-T-WH-05-16
aluminum · textile	76.4 lb	96.7 lb	M-BW-T-AL-05-16
forest green · textile	76.4 lb	96.7 lb	M-BW-T-GRN-05-16

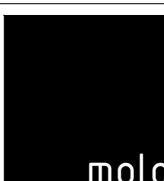
\* small amount of length lost when benchwall is placed in curved configurations



ELEVATION · OPEN END PANEL

ELEVATION · CLOSED END PANEL

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benchwall · 5' tall · SPECIFICATIONS  
SCALE · 1:12

DATE: 260106

**benchwall · CUSTOM HEIGHT**

The standard height of benchwall is 5 feet tall. Custom height benchwall is available as a made-to-order item. The maximum height available for benchwall is 6 feet. Custom orders have a 12 - 24 week lead time.

\* made to order heights



ELEVATION · benchwall · 6' (TALLEST HEIGHT) \*

ELEVATION · benchwall · STANDARD HEIGHT

ELEVATION · benchwall · CUSTOM HEIGHT \*

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benchwall · CUSTOM HEIGHT · SPECIFICATIONS  
SCALE · 1:15

DATE: 260106