# CHROMA
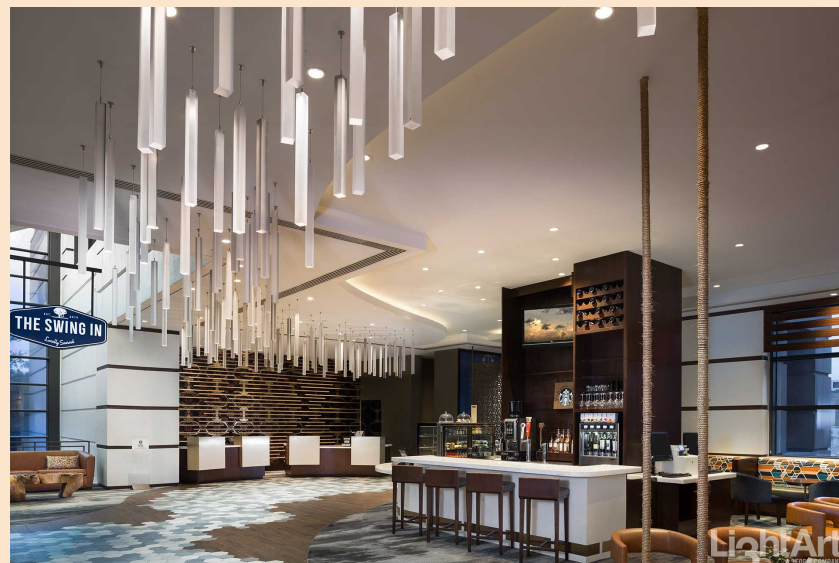
# PEGS

# C H R O M A
# P E G S

EXPLORATION TOPICS

- Sampling

- Chroma Peg Fab Process

- Sanded (matte) Faces

- Polished Faces (machined + hand flamed)

- Minimum + Creative Alternatives + Budget Costs

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## Ordering a Chroma Peg Sample

**\*NOTE\*** Have your sample order indicate that you want it cut into peg dimensions, as you will see in example sample order (next slide).

## SANDED (matte) FACES SAMPLES:

If you plan to have the faces all sanded/matte - order the front + back finishes as **VELLUM** or **RENEWABLE MATTE**.

## POLISHED FACES SAMPLES:

If you plan to have the faces polished - order the front + back finishes to be **PATENT**.
As the cut sample peg faces will be sanded by 3form *(and by LightArt during the actual order fabrication)*.
By ordering your sample this way, we can get the finished Chroma Peg sample to you sooner.

**\*NOTE\*** - An entire Chroma 4x8 sheet CANNOT be ordered with PATENT as front + back finish, due to the inability to repair gouges that occur in the material handling when shipped + moved for manufacturing.

\* Chroma 4x8 sheets can **only** be ordered with **VELLUM** or **RENEWABLE MATTE** front + back finish options. **\***

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## Ordering a Chroma Peg Sample

| Qty | Part ID | Description |
|---|---|---|
| 1 | SC-00-251-000-1000-01-01-008-P CHROMA Style: CMP SOLAR ICED Gauge: 1" \| Size: 8X8 Front Finish: PATENT F03 \| Back Finish: PATENT F03 SO-497797.1 | 1" CMP SOLAR ICED 8X8 Patent 1/2" Chroma .015 TPU Dichroic Solar Iced .015 TPU 1/2" Chroma Patent DUE TO FAB: 9/12 FAB, CUT INTO (7) OR MAXIMUM POSSIBLE 1"W x 1"D x 8"H PEGS. |
| 1 | SC-00-250-000-1000-01-01-008-P CHROMA Style: CMP LUNAR ICED Gauge: 1" \| Size: 8X8 Front Finish: PATENT F03 \| Back Finish: PATENT F03 SO-497797.2 | 1" CMP LUNAR ICED 8X8 Patent 1/2" Chroma .015 TPU Dichroic Lunar Iced .015 TPU 1/2" Chroma Patent DUE TO FAB: 9/12 FAB, CUT INTO (7) OR MAXIMUM POSSIBLE 1"W x 1"D x 8"H PEGS. |

FUN FACT

*If ordering dichroic chroma, it can only be ordered as _iced_, due to the fact that the film crinkles during sheet fabrication.

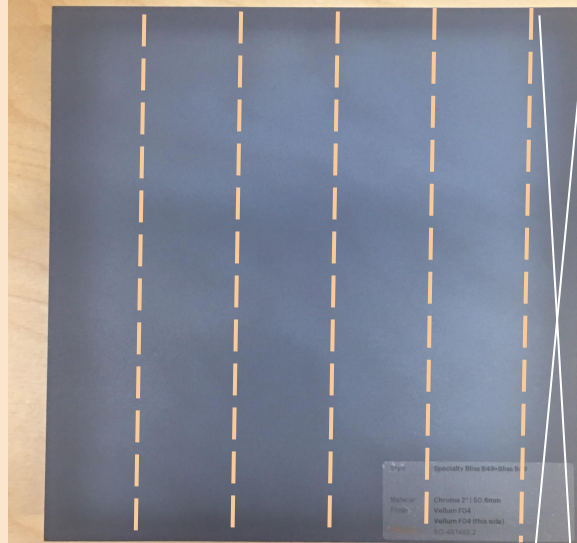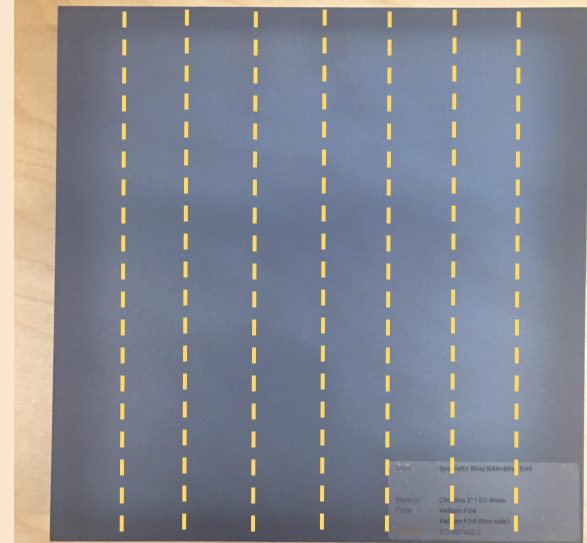*Indication to FAB that the sample is requested to be cut into desired chroma peg width + depth.

Li3htArt
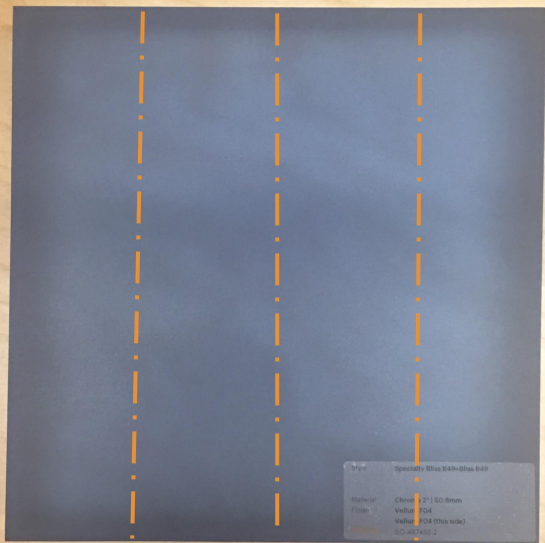
# CHROMA

# PEGS

2"x2" Chroma Pegs cut out of 8"x8"



1.5"x1.5" Chroma Pegs cut out of 8"x8"



1"x1" Chroma Pegs cut out of 8"x8"

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### Ordering a Chroma Peg Sample

**1" x 1" x 12"H Chroma Peg**
-2 Polished fab faces
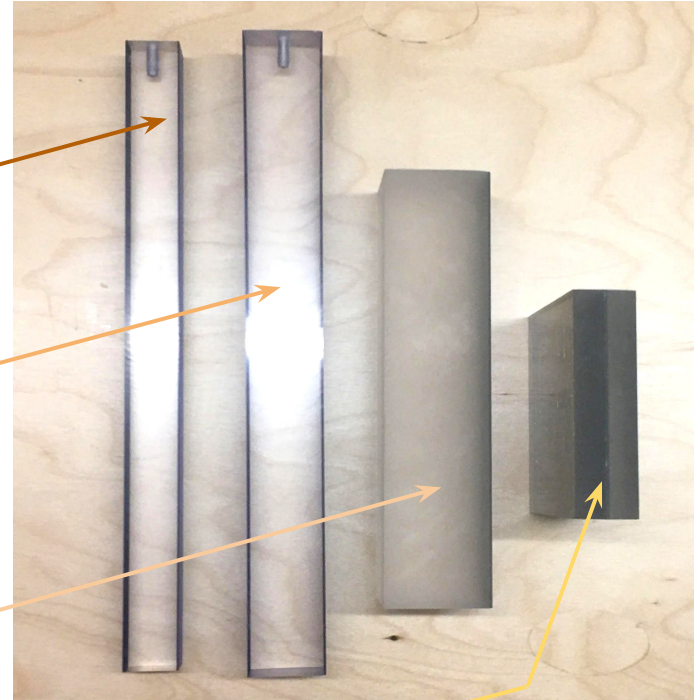-Vellum front + back faces w/ C3

**1.5" x 1.5" x 12"H Chroma Peg**
-2 Polished fab faces
-Vellum front + back faces w/ C3

**2" x 2" x 8"H Chroma Peg**
-2 Sanded fab faces
-Vellum + C3 front and Renewable Matte back

**1" x 1" x 4"H Chroma Peg**
-2 Sanded fab faces // Dichroic Iced film centered
-Patent front + back faces (mimic polished fab)

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## Defining the Sample Layup

*** *Layups are now in the 3form approved material matrix!* ***

Clear + Color + **1" Chroma** + Color + Clear
Clear + Color + **1.5" Chroma** + Color + Clear
Clear + Color + **2" Chroma** + Color + Clear

## LightArt Double-Faced Color Chroma Layup
Clear + < insert color choice > + < insert gauge choice > + < insert color choice > + Clear (vellum / vellum)

*Add note to Sampling* = Reference "Chroma Clear, + C3 Film Front + C3 Film Back + Clear" layup in 3form LightArt Chroma layup matrix.

*Add note to Fabrication* = Please cut into maximum amount of < gauge > x < gauge > x 8" pieces as possible prior to sending

*Customize with a single color on each size (one of any of the 250+ colors).*

*Customize your gauge with 1", 1.5" or 2" options.* Add fabricating instructions if desired. Additionally, if hardware is desired send fabricated pieces to LightArt from 3form Sampling for hardware application.

> **Google Doc updated!**
> "LightArt Layups - Rep Sampling Reference" has been updated with this info!

C H R O M A
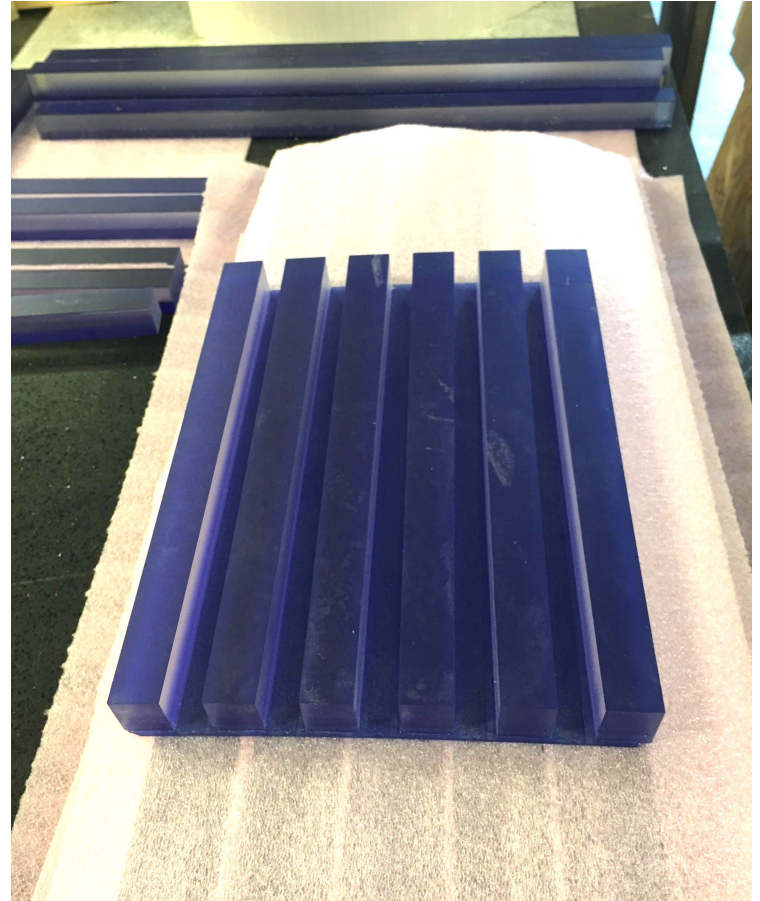
P E G S

Chroma Peg Fab Process

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## Chroma Peg Fab Process

**Chroma 48"x96" Sheet Weights**

- 1/2" gauge =  100 lbs.

- 1" gauge =  200 lbs.

- 1.5" gauge =  300 lbs.

- 2" gauge =  400 lbs.

The Chroma sheets are *very heavy*.

In order to effectively and safely manufacture the sheets, it is necessary to cut them into quarters, or even smaller manageable pieces to create routed bricks on the 5-axis *(in photo shown right)*.



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## Chroma Peg Fab Process

**The Chroma Routed Brick**
- The brick is cut into singular pegs on the table saw.
- The single pegs are then sanded to remove all of the route marks from the routed faces = *2-faces + top + bottom.* This creates a nearly flush surface, prior to final finishing options.

## Finished Fab Face Options:

- Sanded (matte) Faces

- Polishes Faces (machined + hand flamed)

* Top + Bottom will <u>ALWAYS</u> be sanded (matte).
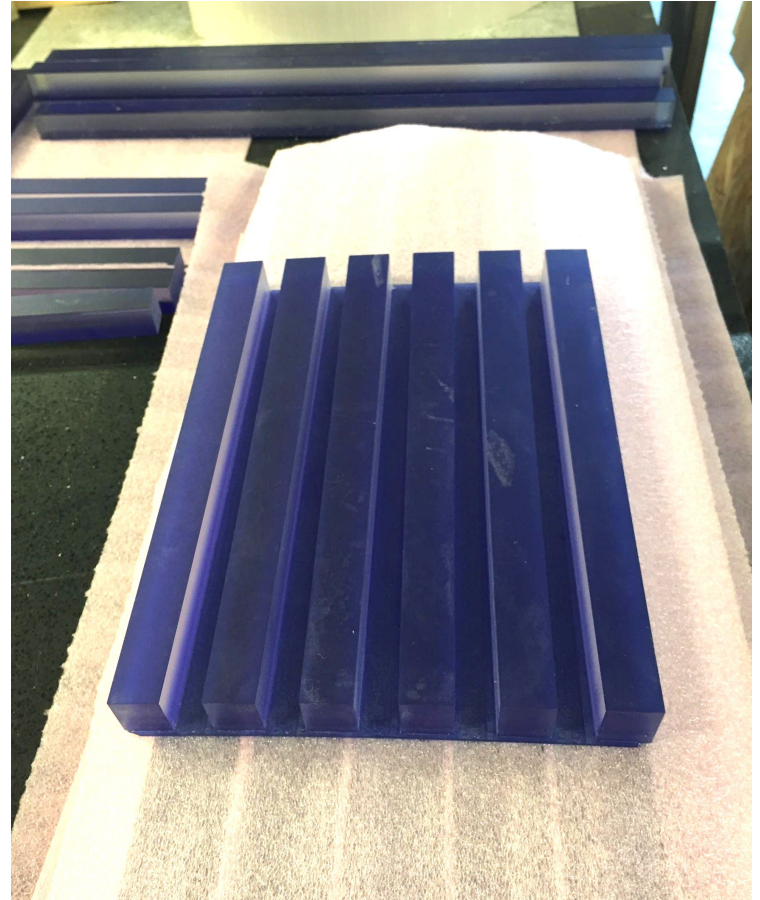
# C H R O M A
# P E G S

## Chroma Peg Fab Process

Don has a jig composed of a 2"L chroma piece with centered thru hole to stop the drill bit at the correct tap length.

Next he drills the hole with a threaded rod bit, to create threads for manually screwing in and securing the top articulating gripper hardware.

A quick blow of pressurized air in the threaded hole, to remove drilled remnants is necessary for a clean hardware attachment. Now repeat 300 times . . .
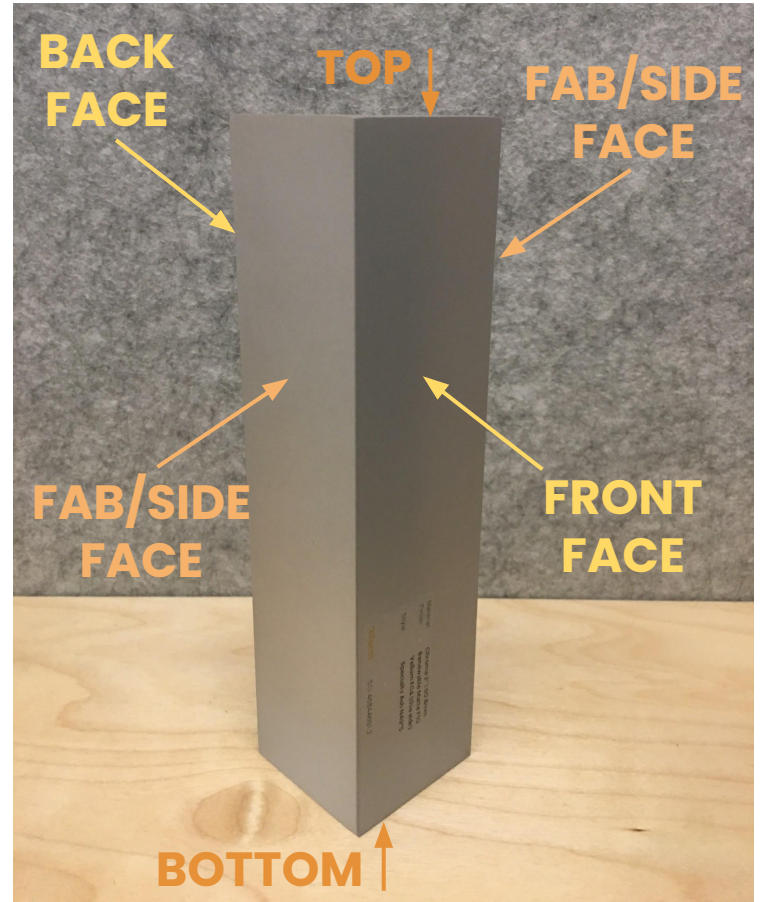Or however many pegs are on the order.



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## Sanded (matte) Faces

- The 2-side faces + top + bottom are sanded with finer grit sandpaper to create the finished peg to match the vellum or renewable matte front and back faces.

- If there is a scratch in the vellum or renewable matte front and back faces, we are able to refinish to match.

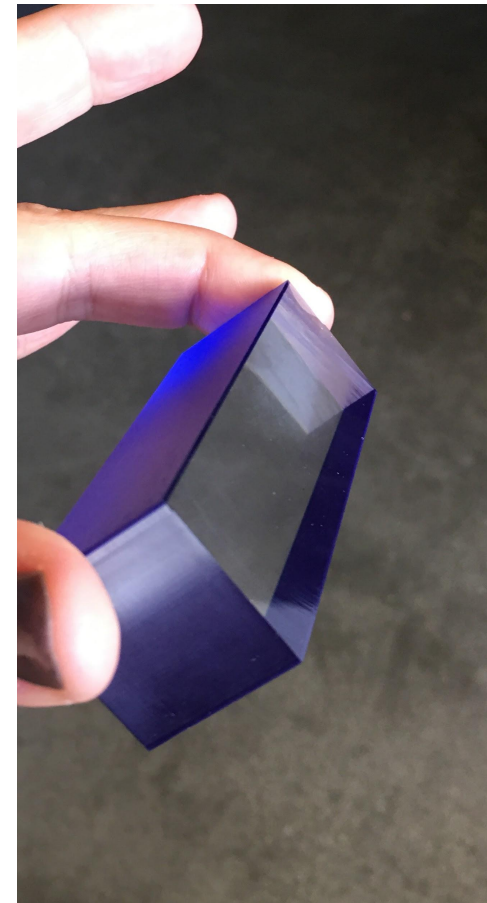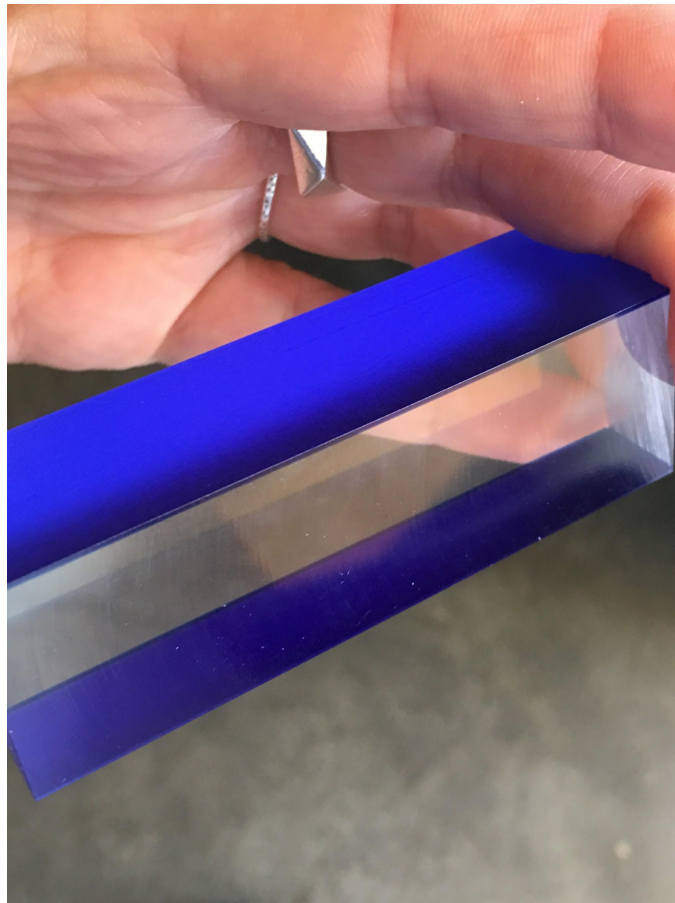\* Top + Bottom will <u>ALWAYS</u> be sanded (matte).



BACK FACE

TOP

FAB/SIDE FACE

FAB/SIDE FACE

FRONT FACE

BOTTOM

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Polished Faces



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Polished Faces

1"x1" Peg Test - Machine

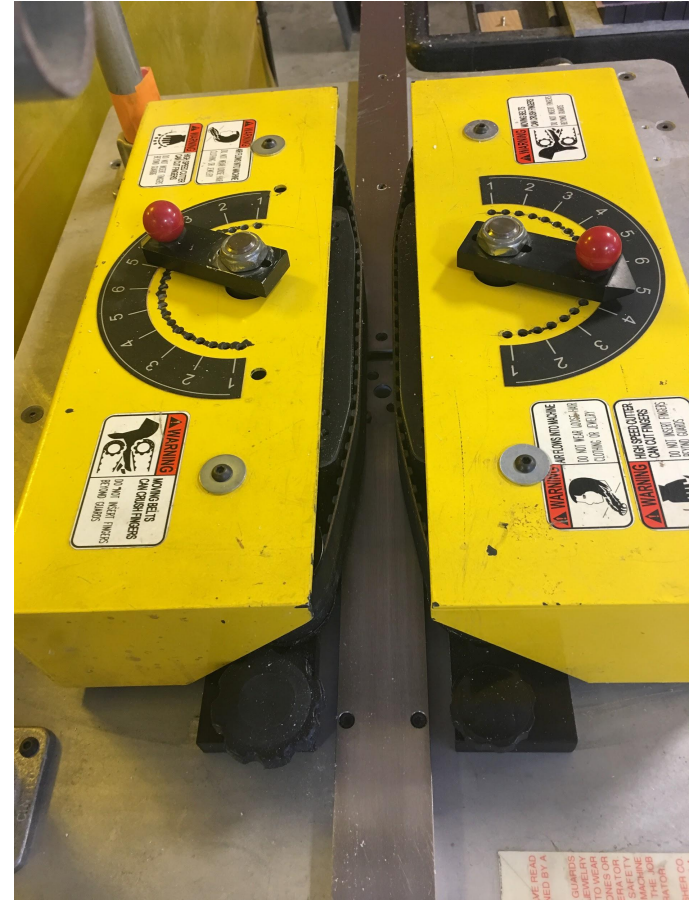Polished Chroma Faces



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<u>Polished Faces</u>
The chroma peg polishing machine can run a maximum width of 2" material. However, we have discovered that the polishing machine is **only** acceptable for polished faces on <u>*1"x1" gauge pegs*</u>.

Two very sharp blades on a spinning metal disk in the center of the feed plank, rotate and remove an estimated 1/64" of material to create the polished face.

This method takes one pass (to each face) to polish, the faces on 1"x1" gauge pegs.

MOVIE

BREAK

Polished Faces

1"x1" Example Machine
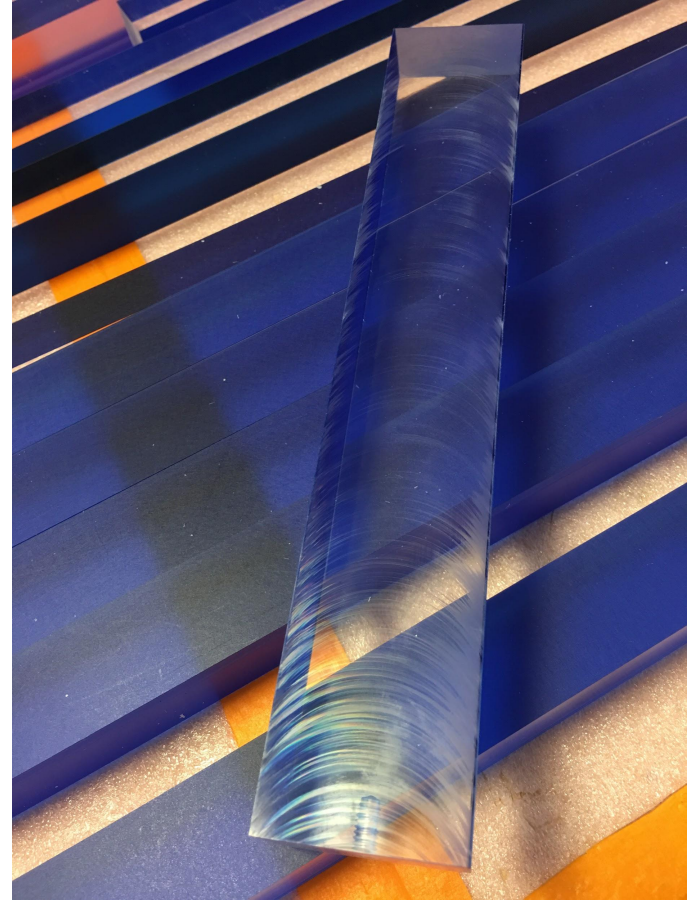
Polished Chroma Peg Faces



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## Polished Faces

Image example of what happens with trying to machine polish chroma pegs larger than 1"x1" = very apparent machining marks.
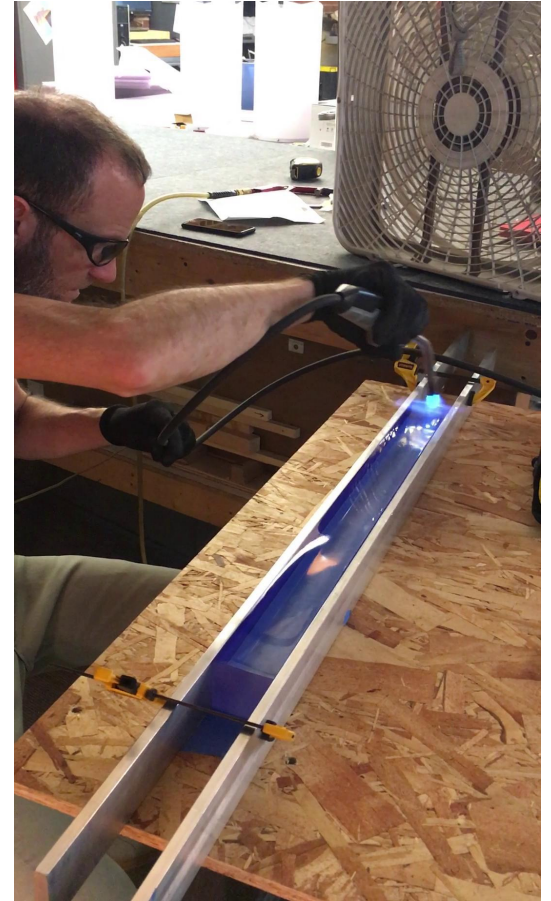
M O V I E

B R E A K

Polished Faces



2"x2" Example Hand Flame

Polished Chroma Peg Faces

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## Minimum + Creative Alternatives

If a Specifier or Customer is interested in Chroma pegs, it is good to set the pricing expectations up front since the material and manufacturing is expensive.
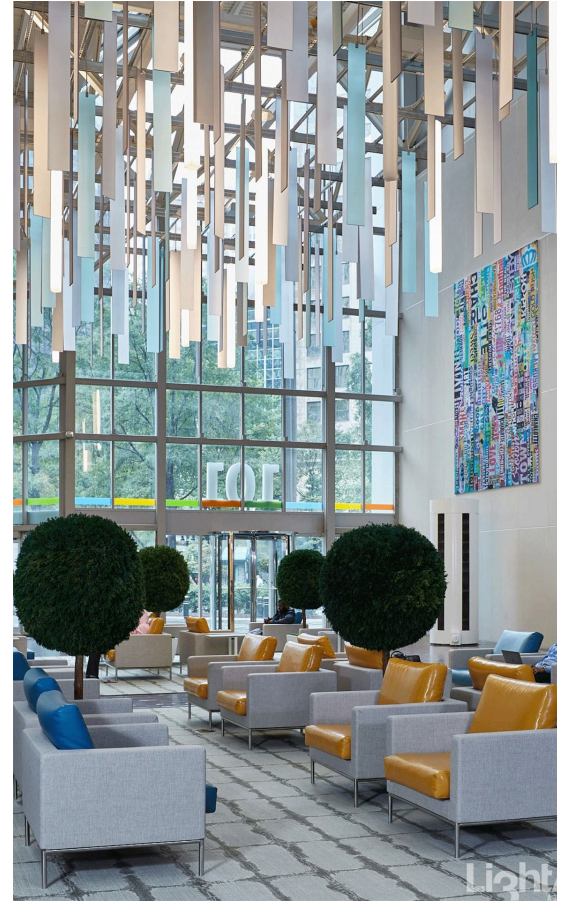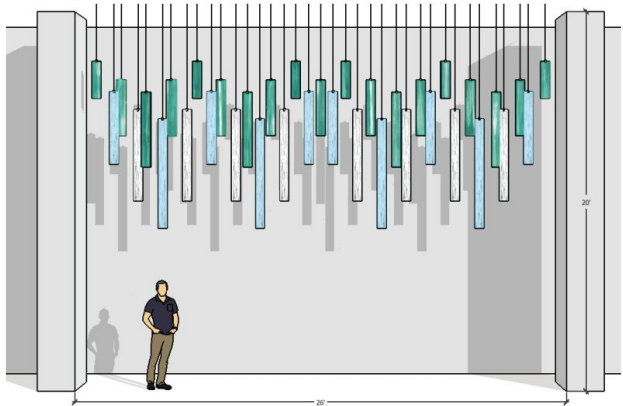
- (1) - 4x8 Sheet of Clear Chroma is more than $6,000.
- Adding C3 films, reflect, iced dichroic will create more expensive sheets.
- Polishing faces is an added step at the end of the manufacturing process + will be an upcharge finish on ANY gauge size of Chroma pegs - whether machined or hand flamed.
- 20% of (1) Chroma sheet is average loss in the routing from the bit and errors in material/machining such as chips or gouges that cannot be refinished.

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## Minimum + Creative Alternatives

If the budget doesn't allow for Chroma Pegs an alternative can be:
- ¼" varia or ½" Chroma (matte finishes) cut into rectangular pieces + suspended like the projects shown.
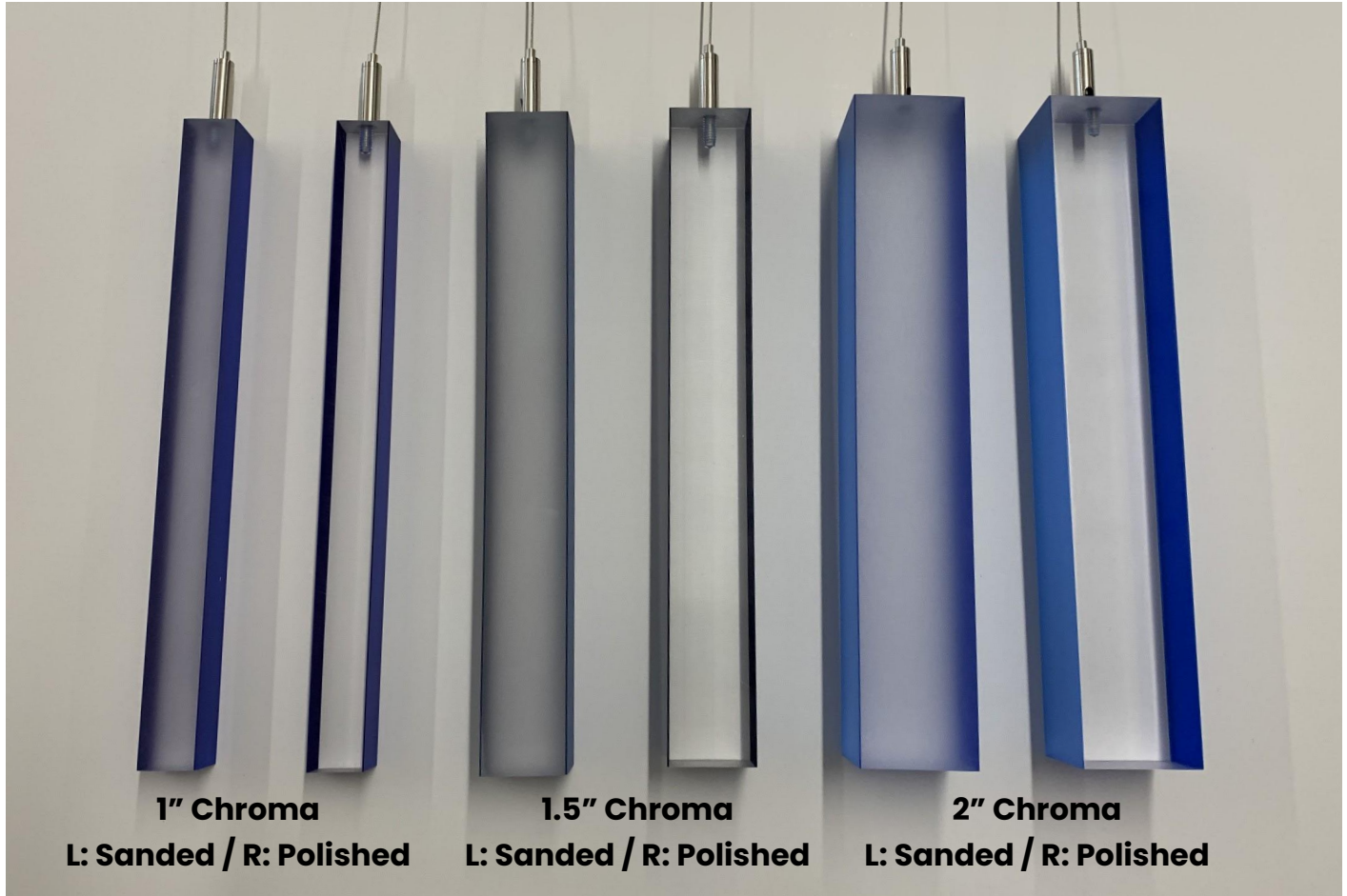
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P E G S

Budget Costs

Project / Peg
cost increases
as you move
right

$ ⟷ $$$

1" Chroma
L: Sanded / R: Polished

1.5" Chroma
L: Sanded / R: Polished

2" Chroma
L: Sanded / R: Polished

CHROMA
PEGS

Budget Costs

Project / Peg
cost increases
as you move
right

$ ⟷ $$$



**1" Chroma**
**L: Sanded / R: Polished**

**1.5" Chroma**
**L: Sanded / R: Polished**

**2" Chroma**
**L: Sanded / R: Polished**