HANS
Climbing Co.

HANS Climbing Co.
Crag Bag Tech Pack

Gustavo Escobedo, Jake Larson, Rachel Schnoebelen, Jazz Scott, Jen Southall

HANS Climbing Co.

BRIEF

Opportunity

The approach can require a boulderer to trek through thick forest, walk along cliffs, and maneuver over or around obstacles, all whilst carrying a giant crash pad in addition to your climbing gear.

Boulderers don't have a secure, comfortable way to transport gear on their approach, leading to a uncomfortable, frustrating hike that takes time and energy away from their climb.

Product

The Crag Bag is a novel bouldering chest bag that attaches to any crash pad.

Product Creation Team

PLM: Jake Larson
Designer: Gustavo Escobedo
Developer: Rachel Schnoebelen
Materials: Jen Southall
Maker & Pattern Tech: Jazz Scott
Sourcing/Costing: Jake Larson

Brand	HANS Climbing Co.
Product Name	Crag Bag
Season	Spring 2027
Forecast	2,000 units
Distribution	DTC / Wholesale
Tier	Good / Better / Best (Best)
Pricing	Retail: $180
	Wholesale: $90
	TFOB: $45



Product Heroes

- Attachment system with crash pad
- Comfortable and stable on chest
- Durable



Attributes

- Technical
- Lightweight
- Sleek
- Comfortable
- Accessible

Challenges

- Integrating with all standard crash pads
- Weight
- Sustainable

Competition

Crash Pad Taco Stuff (Free)

Pros: No extra gear, convenient
Cons: Unstable, gear can fall out, can't access water/ gear during the approach



Backpack (worn on chest) ($35-$200)

Pros: Gear accessible on approach
Cons: Extra straps on shoulders, rides up into neck or hangs too loose



Organic Climbing Boulder Roll ($100)

Pros: Gear is stable, attaches behind the crash pad
Cons: Gear not accessible on approach, sticks out further behind you





Consumer

The outdoor boulderer is an irrational climber. They would rather borderline free solo a 25 ft highball than take a whipper on a sport climb. They willingly trek miles with the equivalent of two mattresses on their back just to complain that their project is sandbagged. Hearing them talk about their sport would make you think they hate it, but it is their favorite thing in the world.

- 20-30 years old
- Shops online, at REI, and climbing gyms/ specialty stores
- Income ranges from $65,000-125,000
  - Various types of working professionals

Inspiration

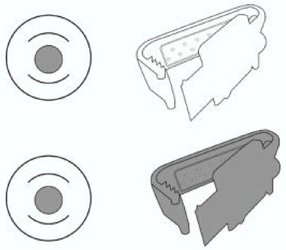




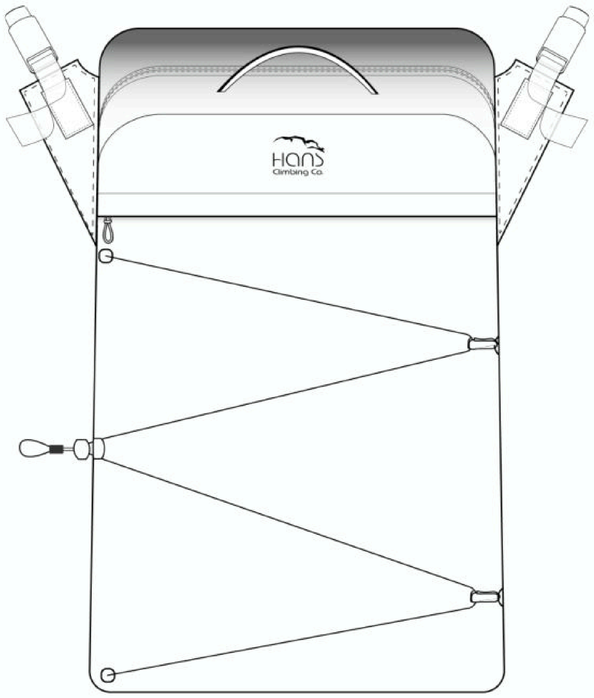


Company	HANS Climbing Co.	Model Name	Crag Bag	**Blank CADs**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Gustavo Escobedo
Size Range	One Size	Status	Rev A		

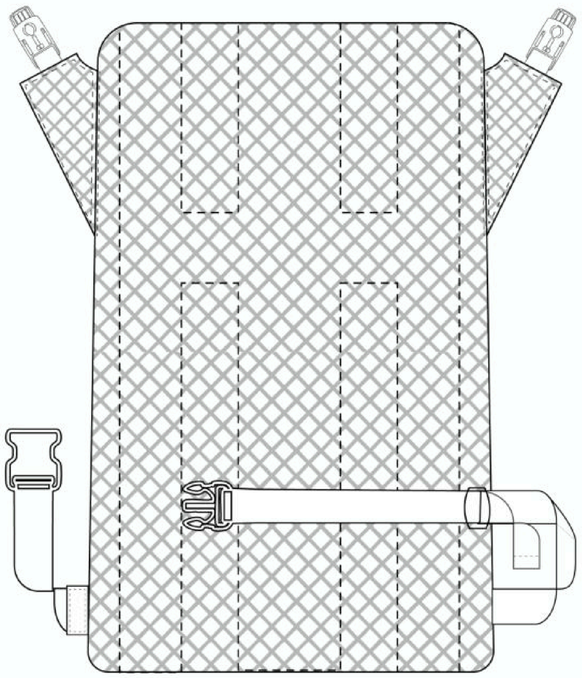
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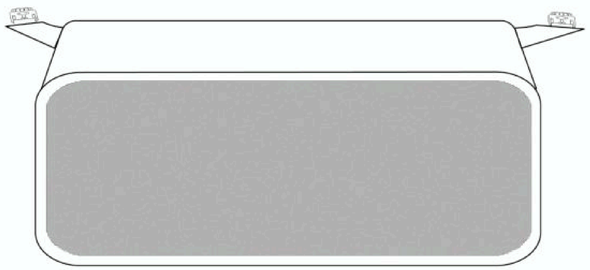
Front View



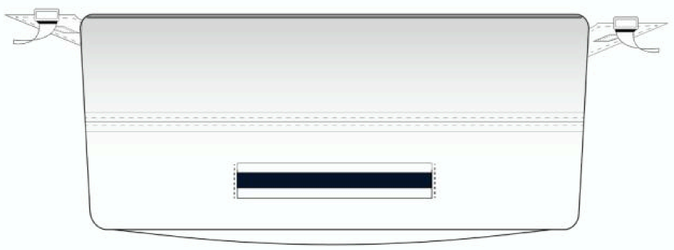
Back View

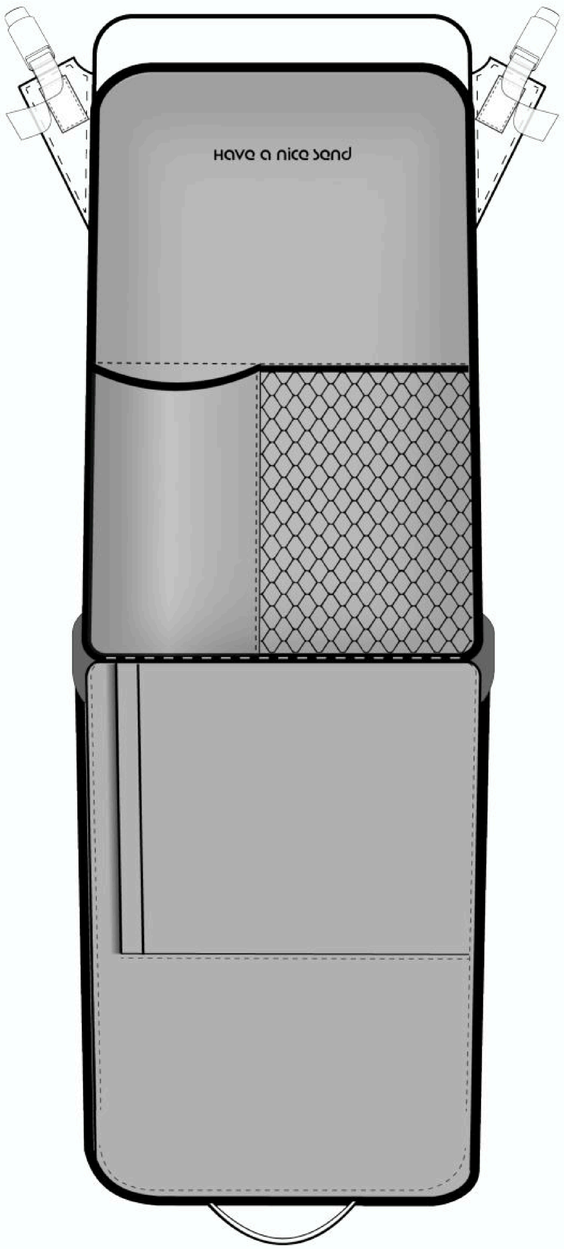


Bottom View

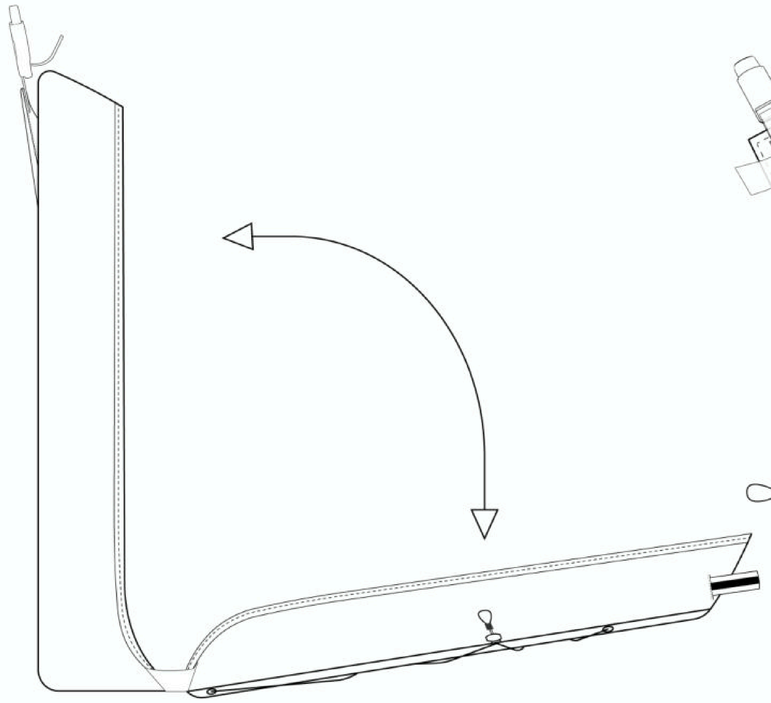


Top View



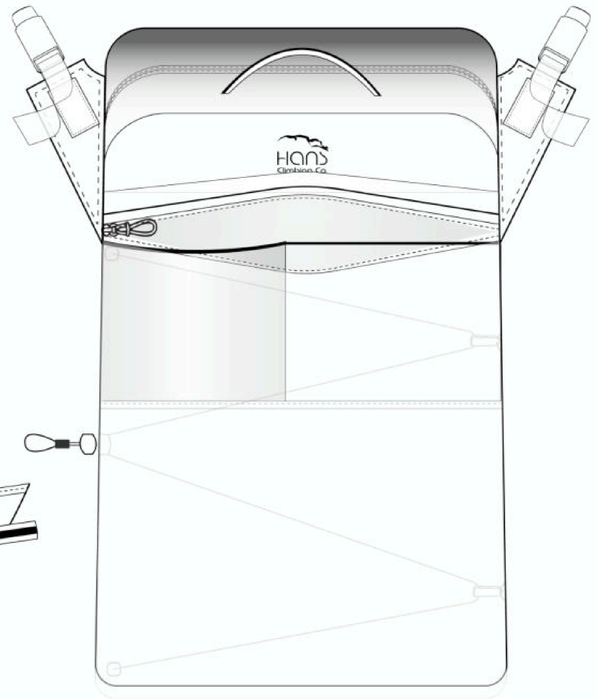


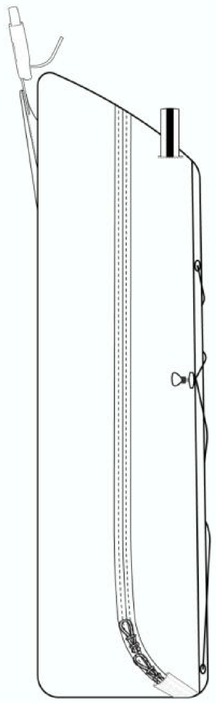
Open Front View



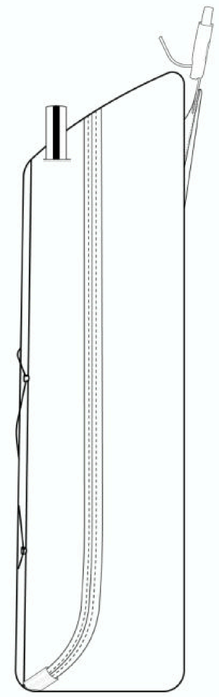
Open Side View

Front Pocket View





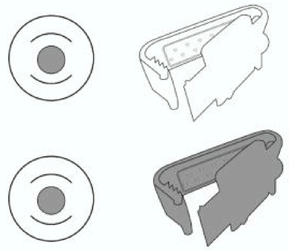
Wearer's Right View



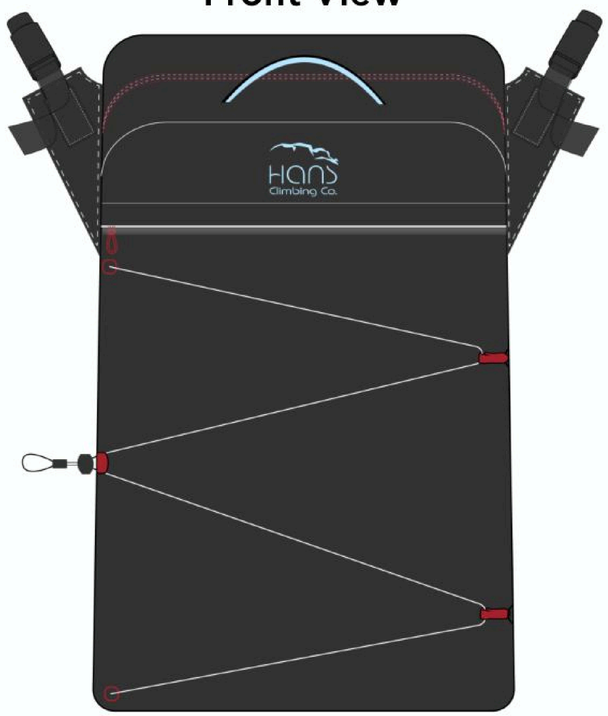
Wearer's Left View

Company	HANS Climbing Co.	Model Name	Crag Bag	**Color CADs**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Gustavo Escobedo
Size Range	One Size	Status	Rev A		

Attachment Pieces



Front View



Back View

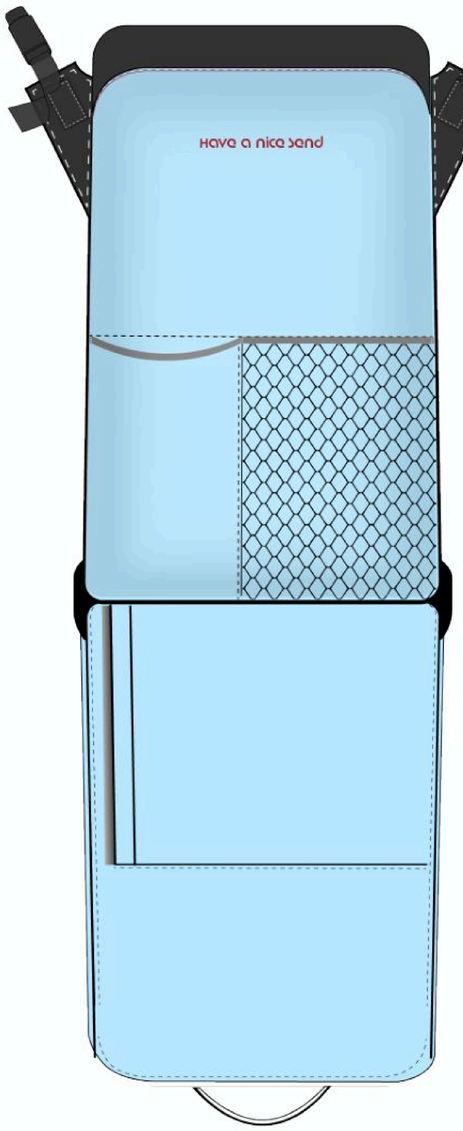




Wearer's Right View



Wearer's Left View



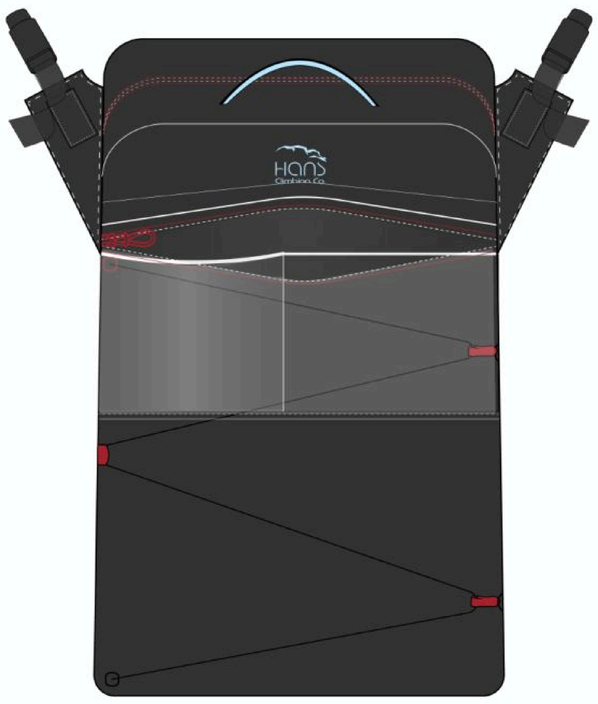
Open Front View

Black
Pantone: 19-4100 TCX
RGB: 51, 51, 51
CMYK: 0%, 0%, 0%, 80%
HEX: #333333

Red
Pantone: 19-1662 TCX
CMYK : 0%, 80%, 73%, 35%
RGB: 167, 34, 45
HEX: #a7222e

Light Blue
Pantone: 13-4401 TCX
RGB: 186, 230, 251
CMYK: 26%, 8%, 0%, 2%
HEX: #bae6fb

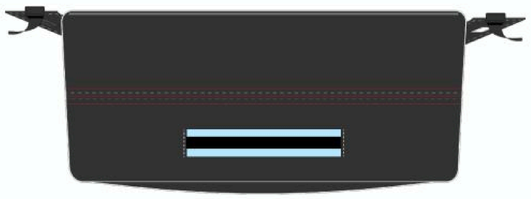
Front Pocket View



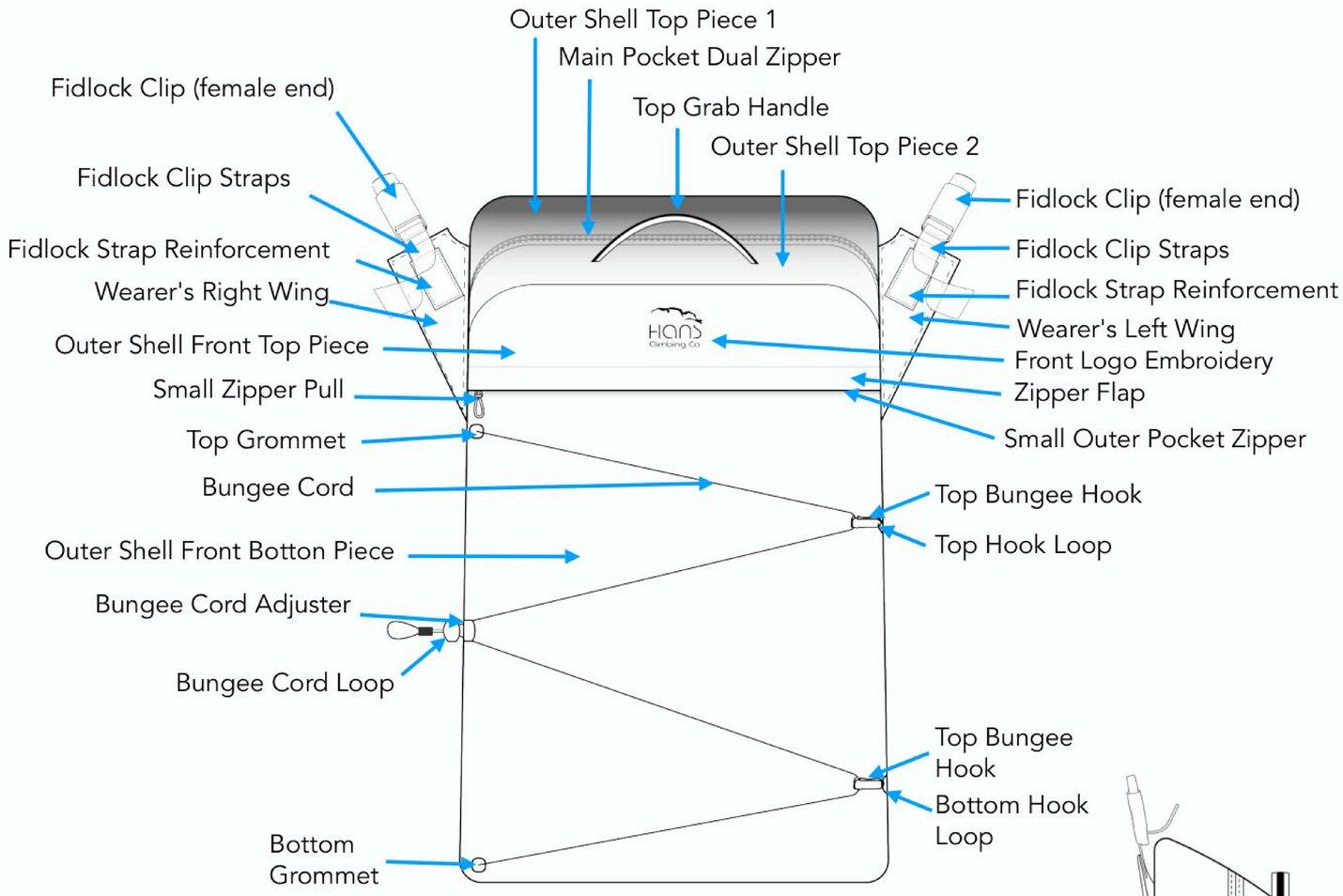
Bottom View



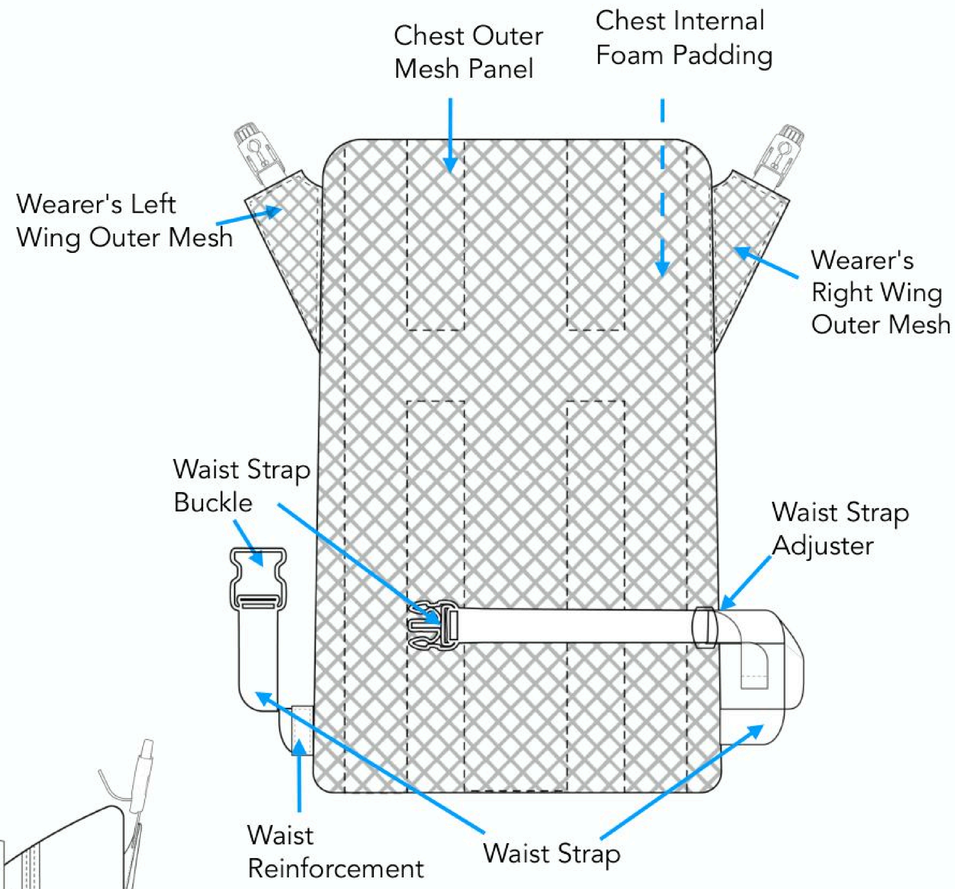
Top View



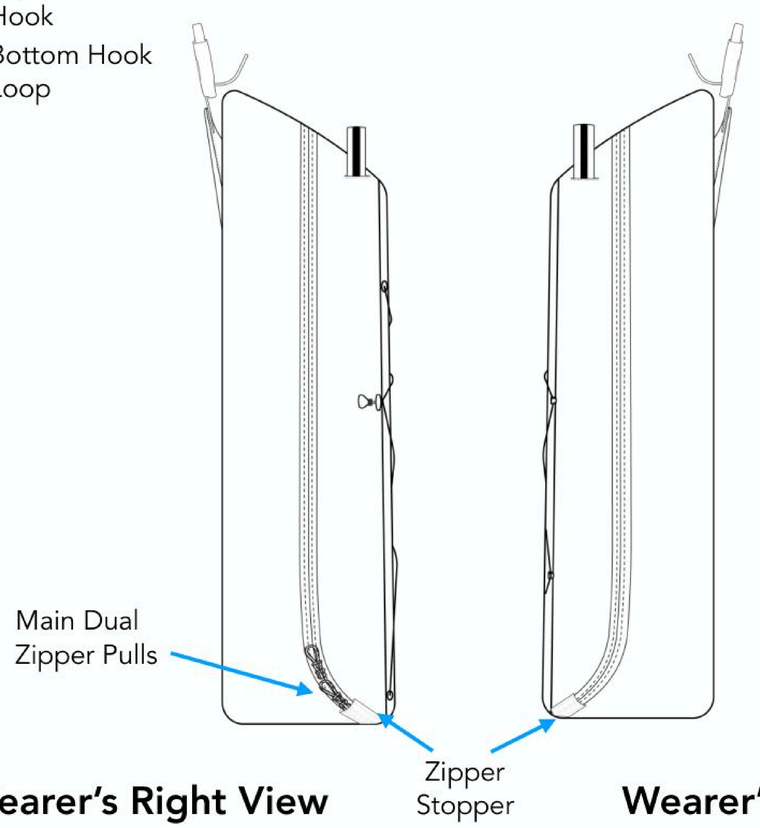
Company	HANS Climbing Co.	Model Name	Crag Bag	**Component Callouts 1**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Rachel Schnoebelen
Size Range	One Size	Status	Rev A		



Front View

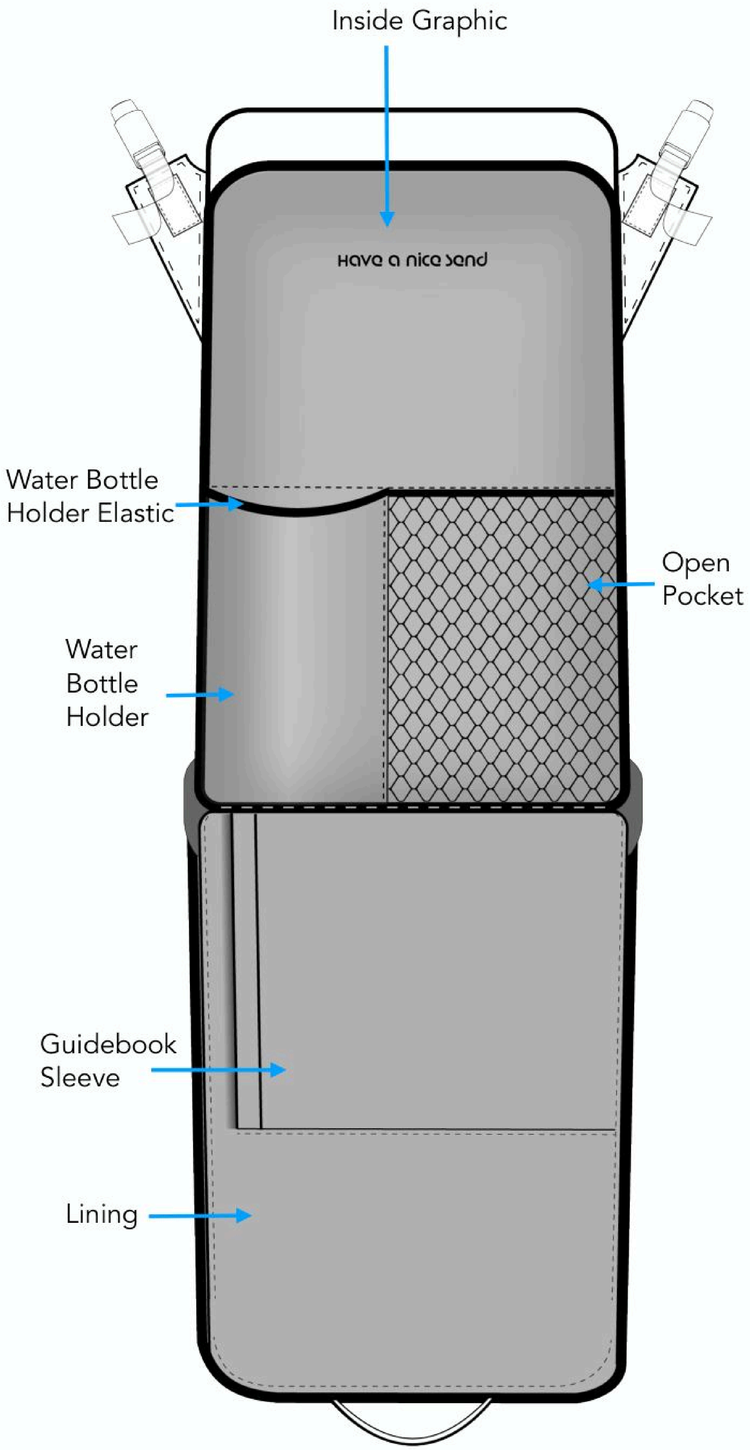


Back View



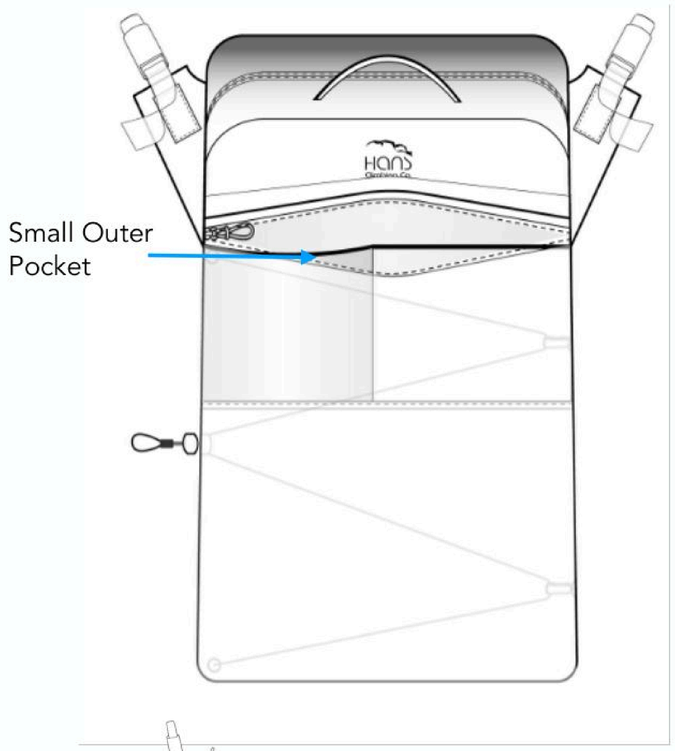
Wearer's Right View **Wearer's Left View**

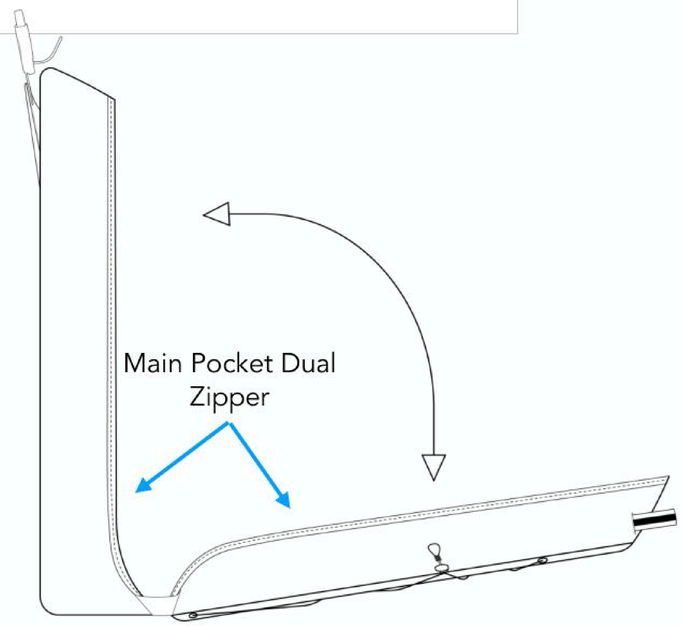
Company	HANS Climbing Co.	Model Name	Crag Bag	**Component Callouts 2**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Rachel Schnoebelen
Size Range	One Size	Status	Rev A		



Open Front View

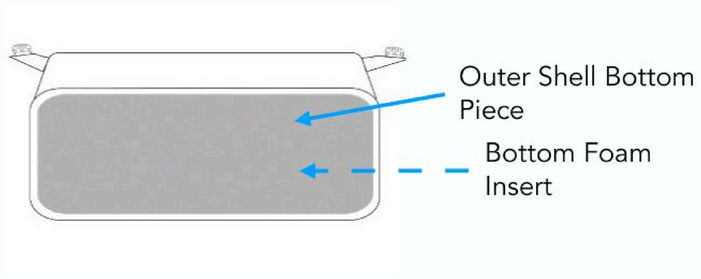
Small Pocket View



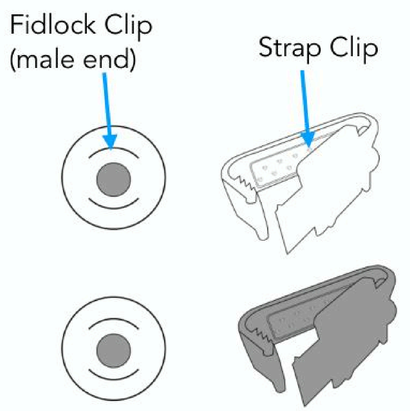


Open Side View

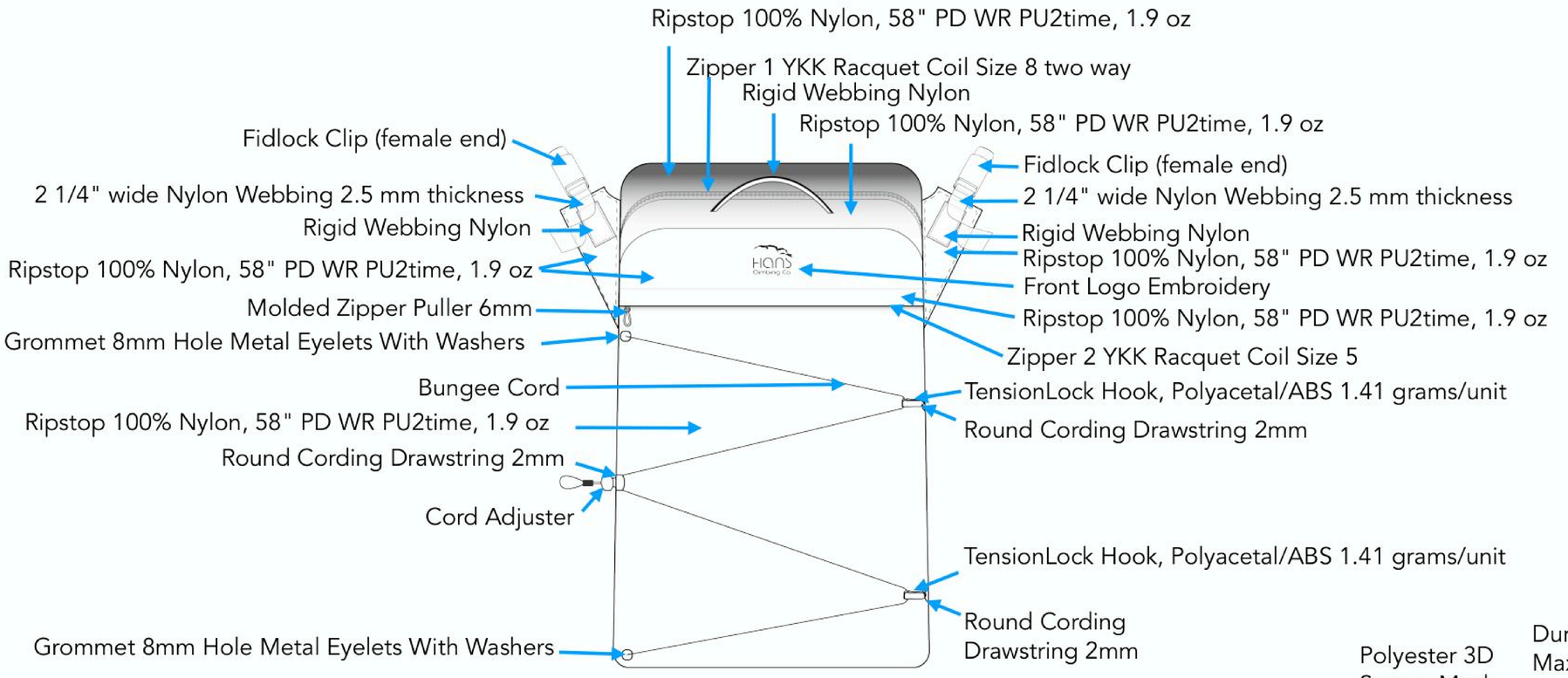
Bottom View



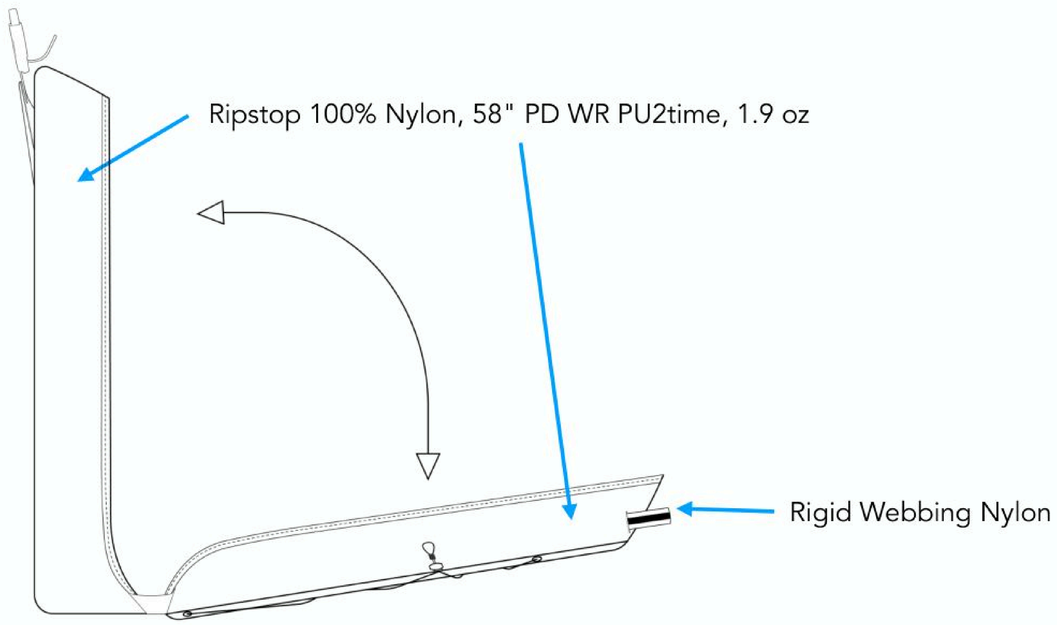
Attachment Pieces



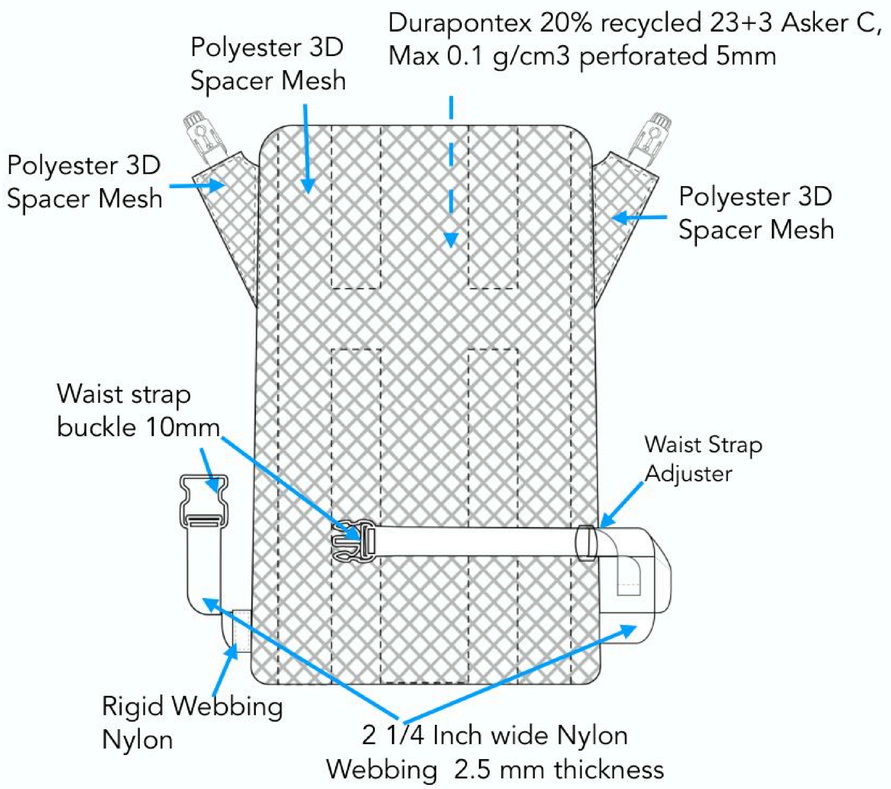
Company	HANS Climbing Co.	Model Name	Crag Bag	**Materials Callouts 1**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Rachel Schnoebelen
Size Range	One Size	Status	Rev A		



Front View

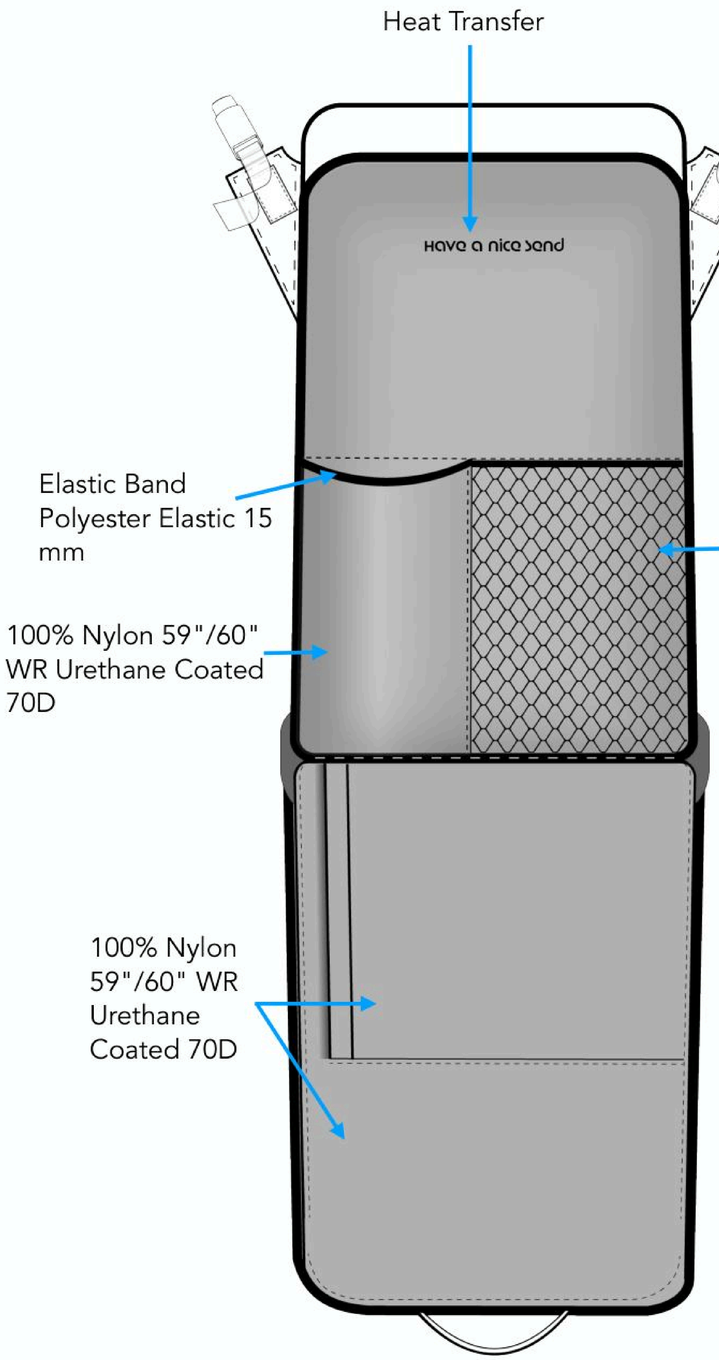


Open Side View

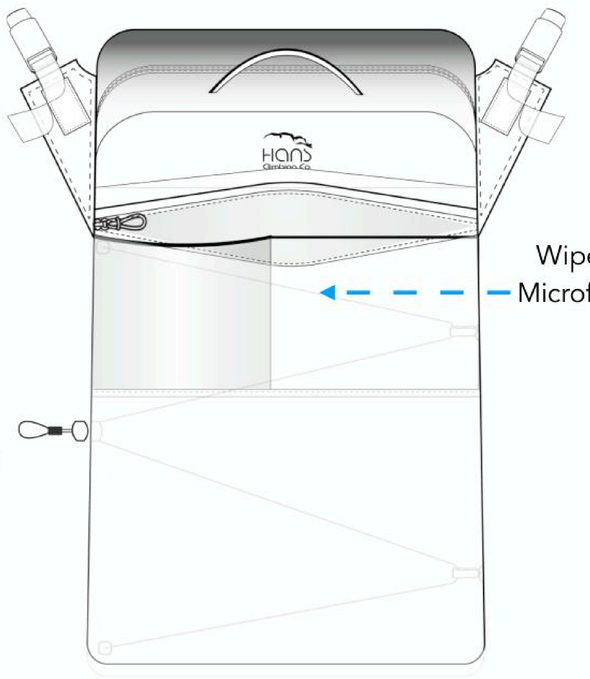


Back View

Company	HANS Climbing Co.	Model Name	Crag Bag	**Materials Callouts 2**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Rachel Schnoebelen
Size Range	One Size	Status	Rev A		



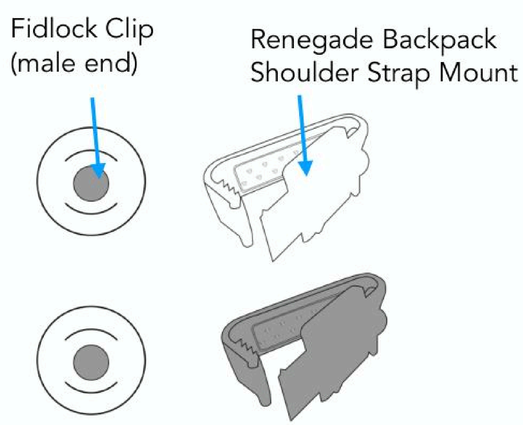
Open Front View



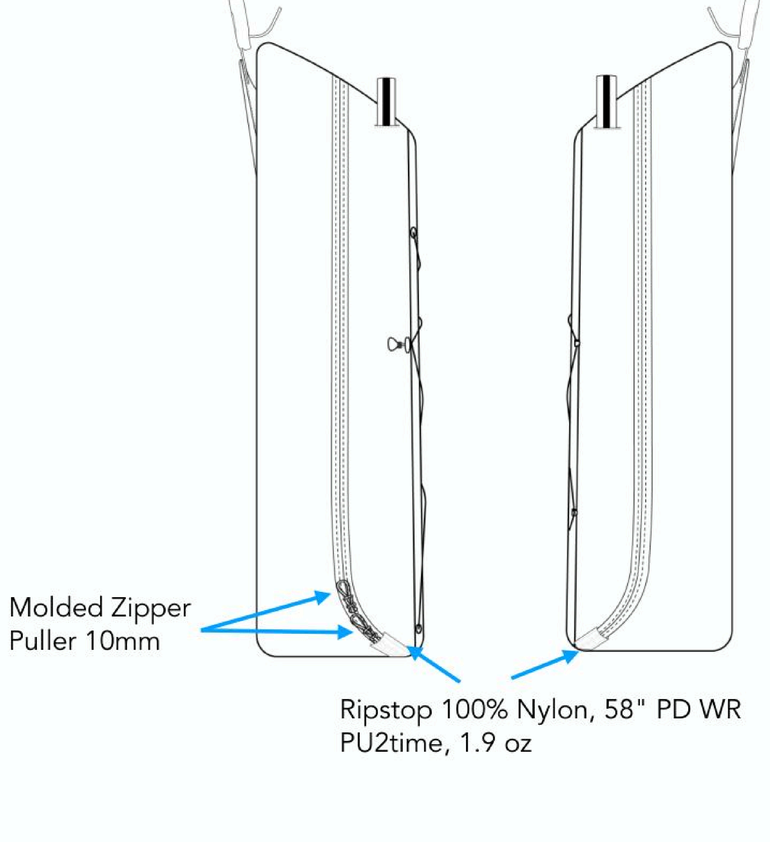
Small Pocket View



Bottom View



Attachment Pieces

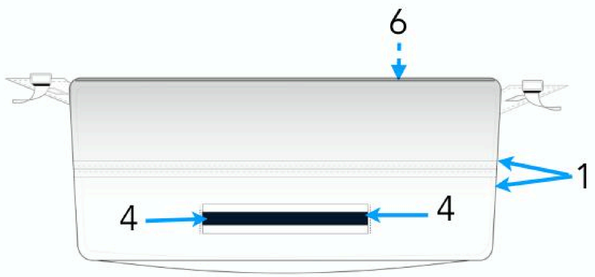


Wearer's Right View

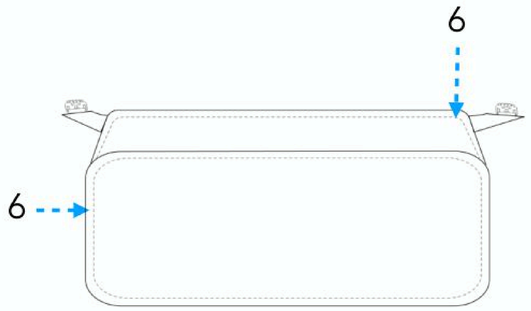
Wearer's Left View

Company	HANS Climbing Co.	Model Name	Crag Bag	Construction Callouts	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Rachel Schnoebelen
Size Range	One Size	Status	Rev A		

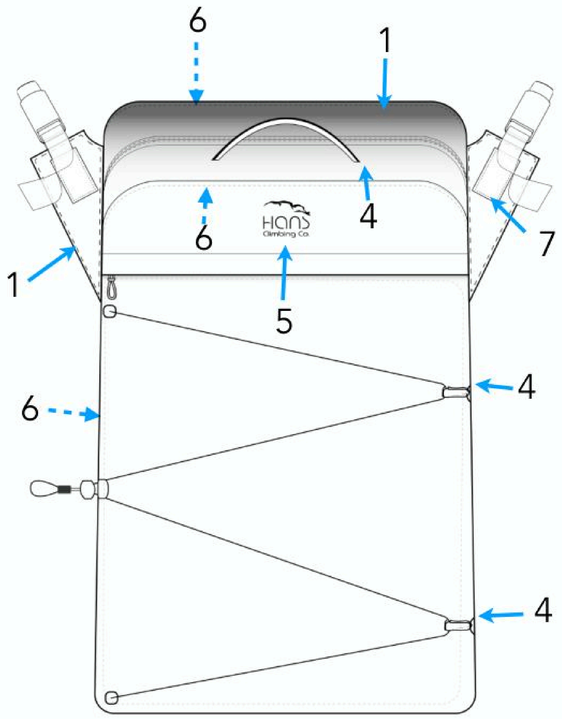
Construction Type	
Single-needle Stitch	1
Overlock Stitch	2
Heat Press	3
Bar Tack	4
Embroidery	5
Internal Lockstitch	6
Zigzag	7
Adhesive	8



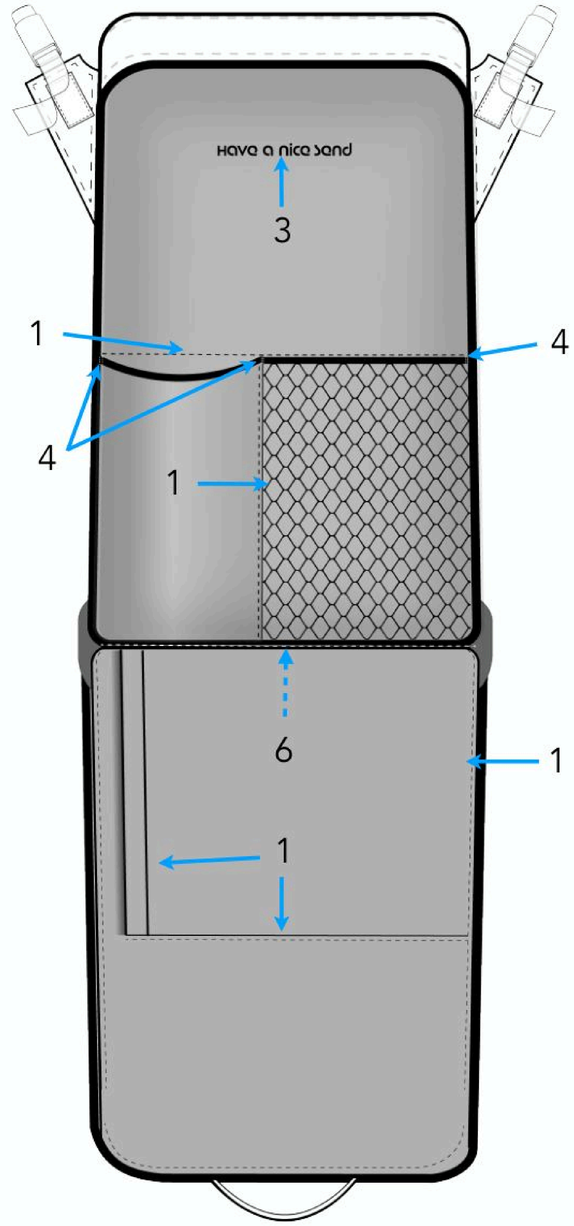
Top View



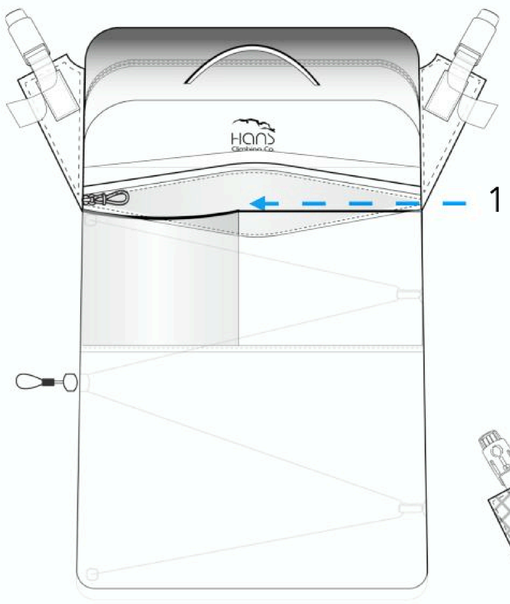
Bottom View



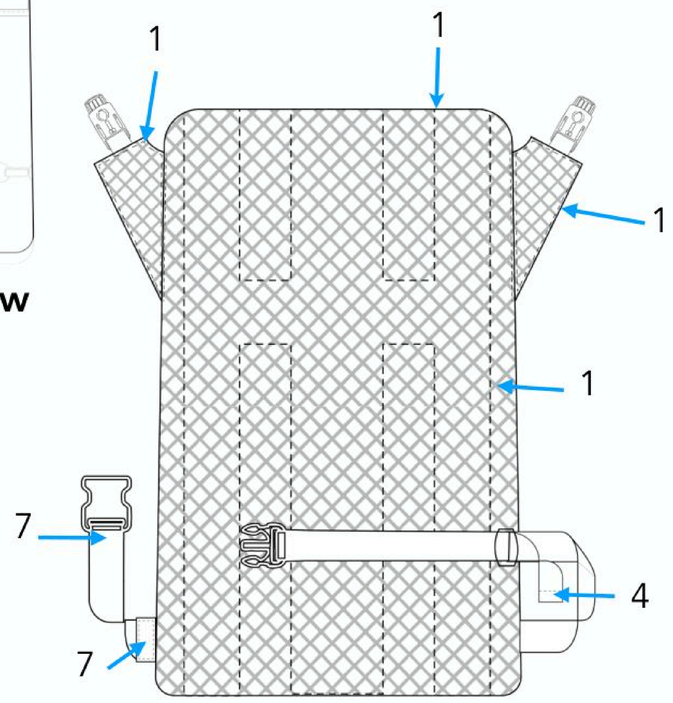
Front View



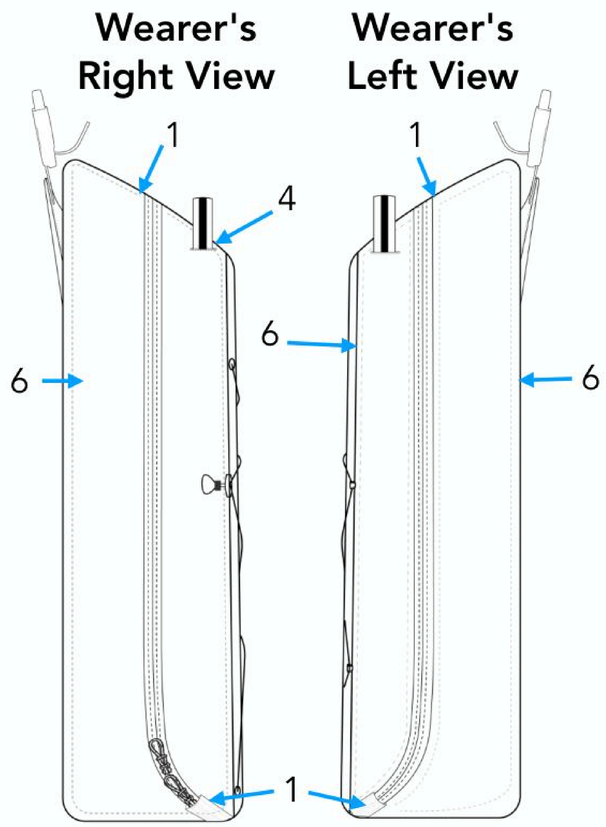
Open Front View



Small Pocket View

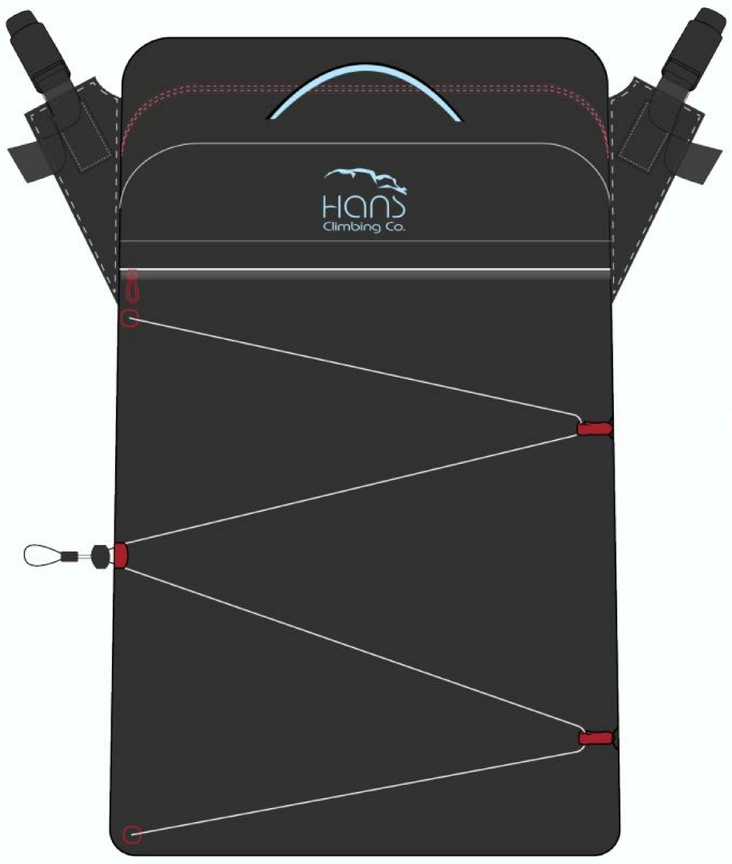


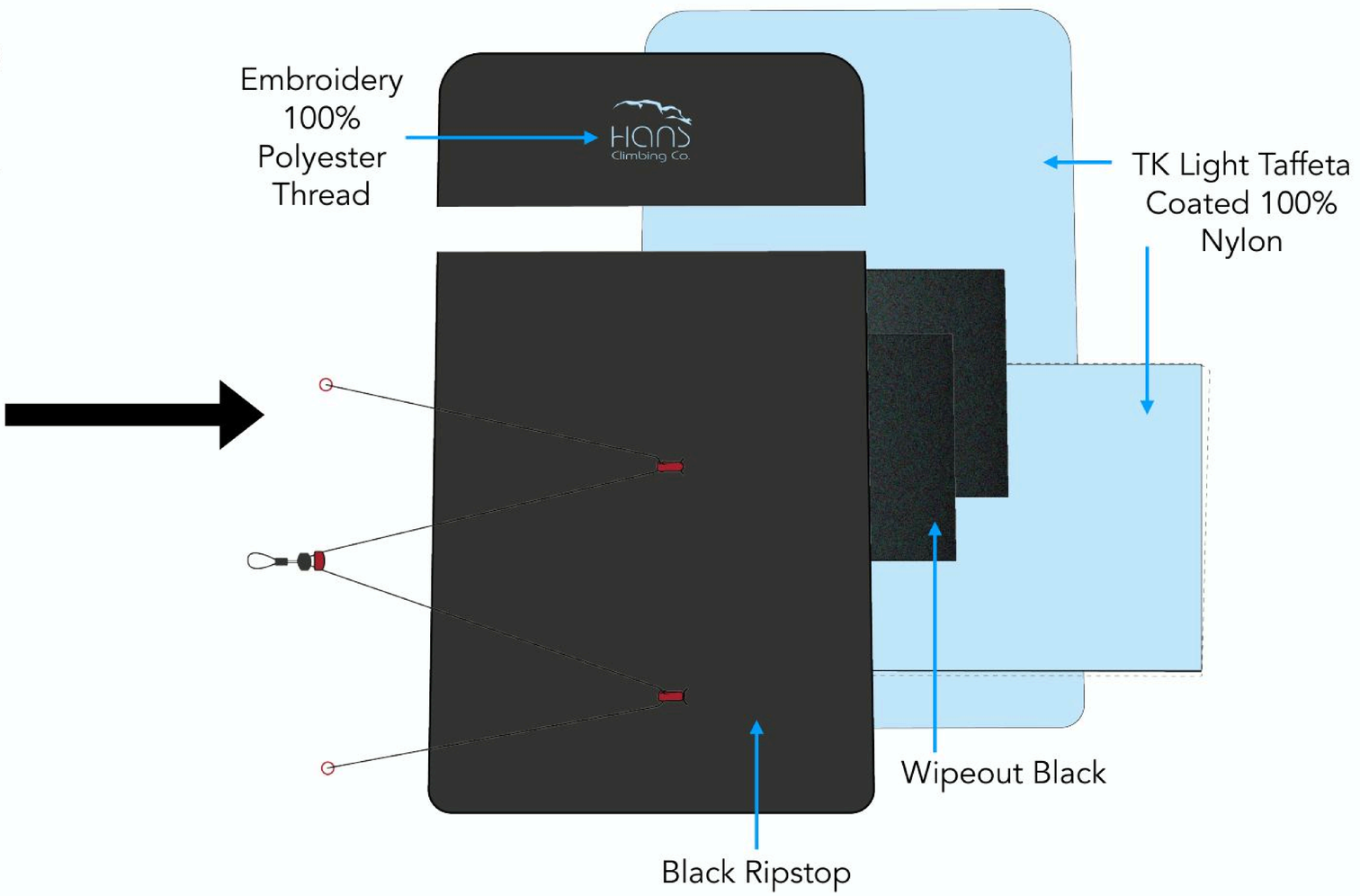
Back View



Company	HANS Climbing Co.	Model Name	Crag Bag	**Layering Callouts 1**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jazz Scott
Size Range	One Size	Status	Rev A		

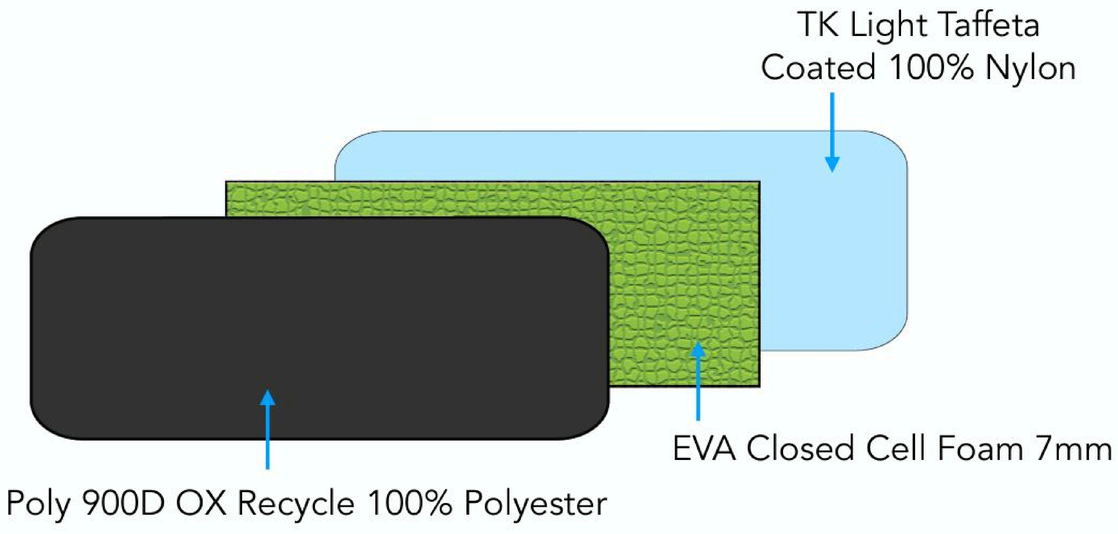
Front View





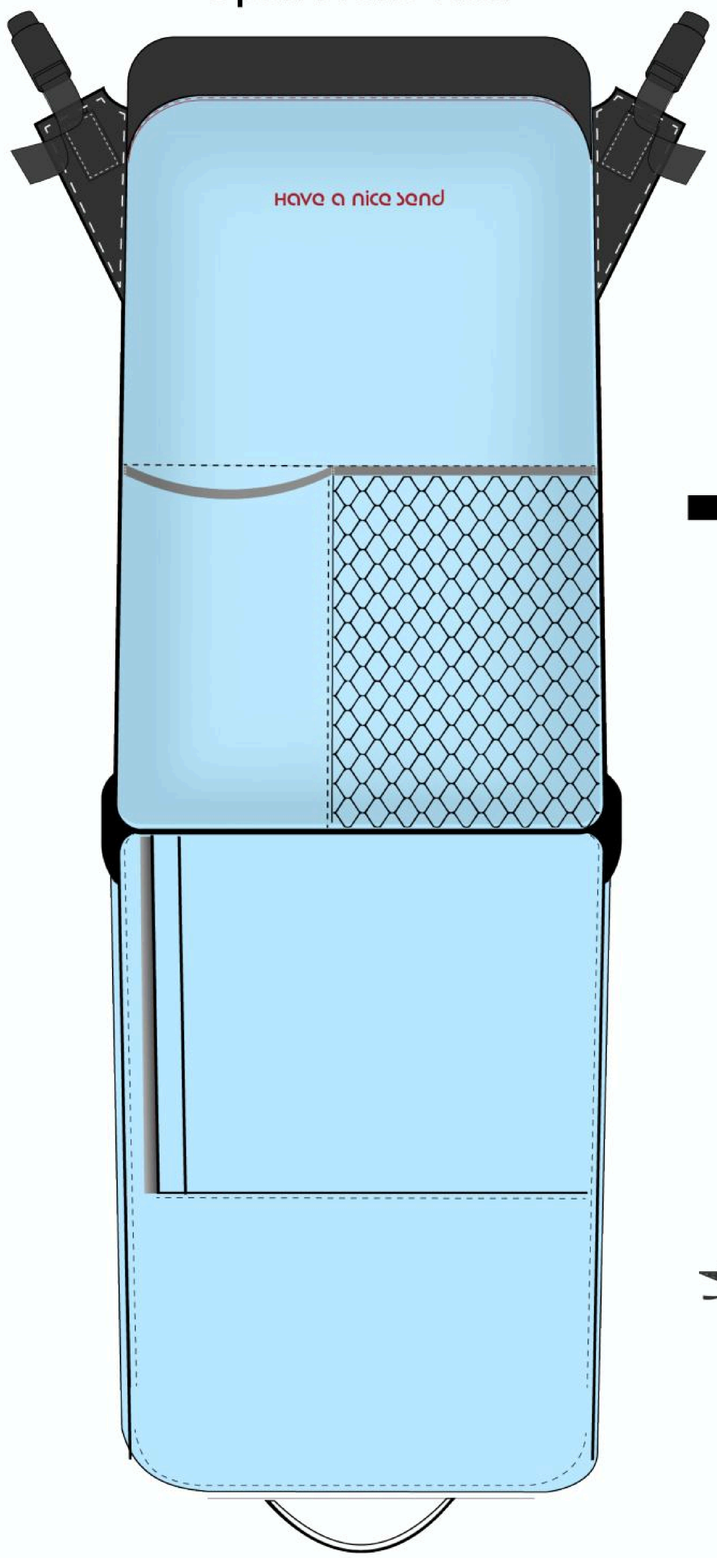
Bottom View

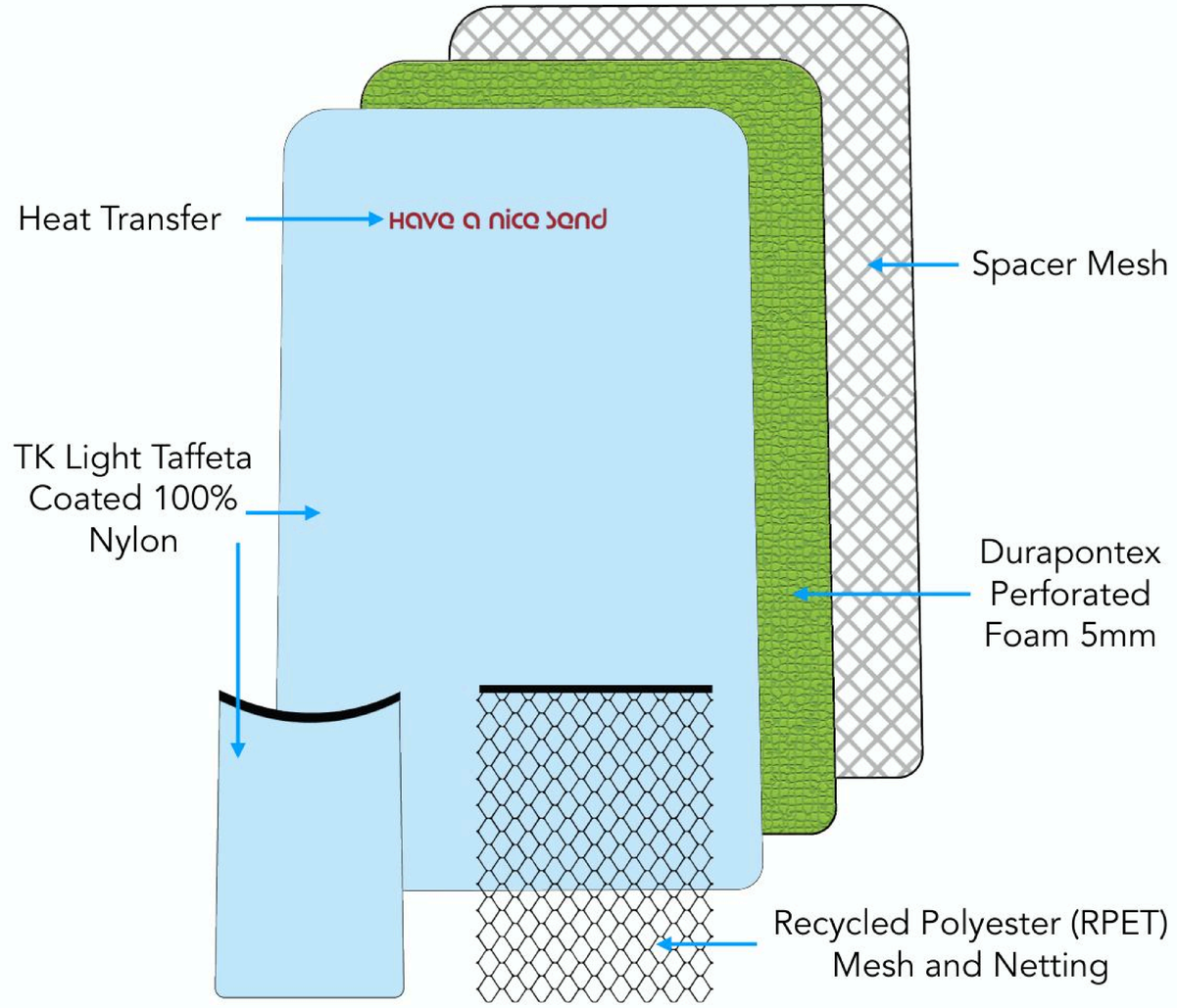




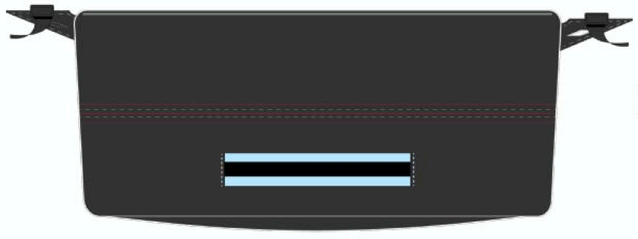
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Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jazz Scott
Size Range	One Size	Status	Rev A		

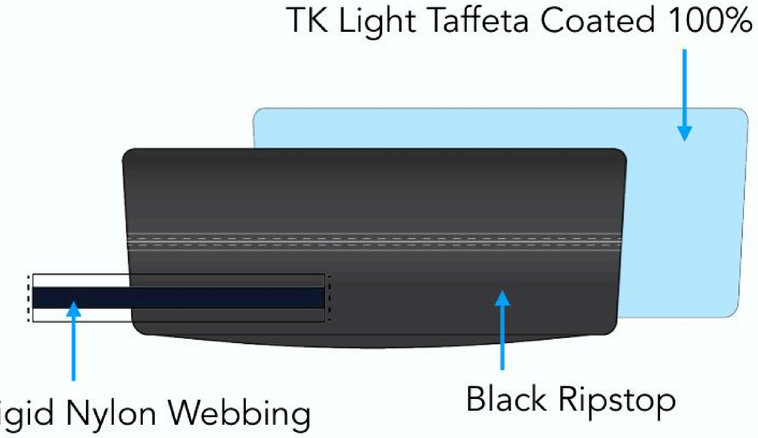
Open Front View





Top View





Company	HANS Climbing Co.	Model Name	Crag Bag	**Bill of Materials 1**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Rachel Schnoebelen
Size Range	One Size	Status	Rev A		

BOM

Stock #	Description	Quantity	Placement/ Component	Supplier	Color	Comments
FABRICS / FOAM						
OR-19W-1-9	Ripstop 100% Nylon, 58" PD WR PU2time, 1.9 oz	1.5 yards	Outer Shell: Top, Side and Front Pieces, Left and Right Wings, Zipper Stopper	Daehyun Textile Co.	Black	
N/A	100% Nylon 59"/60" WR Urethane Coated 70D, 1.7 oz	1 yard	Inside Lining, Book Sleeve, Bottle Holder	Brookwood Companies	Light Blue	
SP-3D27	Polyester 3D Spacer Mesh PFP, Weight 370–275 GSM, Width 55–56 inches	0.4 yards	Chest Outer Mesh Panel	Sportek Inc.	Black	
94-19W-2-94	Poly 900D OX Recycle 100% polyester, 58" PD WR PU 1500mm	0.3 yards	Outer Shell Bottom Piece	Daehyun Textile Co.	Black	
Wipeout Black	Wipeout™ Black Microfiber Polyester Fabric. Width 57″/58″	0.2 yards	Small Pocket Lining	Brookwood Companies	Black	
HL19IM0118	Recycled Polyester (RPET) Mesh Netting	0.1 yards	Open Pocket	HUI LIANG Industrial Co.	Black	
3R S23	Durapontex 20% Recycled 23+3 Asker C, Max 0.1 g/cm3 perforated 5mm	7"x16"	Chest Internal Foam Padding	DSC DAHSHENG	Gray	Color may vary based on recycled content
DSC240624-1V	EVA Closed Cell Foam 7mm	10”x7" inches	Bottom Foam Insert	DSC DAHSHENG	White	Color may vary
THREAD / ELASTIC / RIB BINDING / TRIMS						
	Thread 100% Polyester 70D		Outer Shell, Zippers, Straps, Open Pocket Seams	Factory Vendor	Black	
	Thread 100% Polyester 70D		Lining Seam, Front Logo Embroidery	Factory Vendor	Light Blue	
RC	Zipper 1 YKK Racquet Coil Size 8 two way	1	Main Zipper	YKK	Red A-19 #819	Color from YKK catalog
RC	Zipper 2 YKK Racquet Coil Size 5	1	Small Outer Pocket	YKK	Red A-19 #819	Color from YKK catalog
FL-F5120	Fidlock Snap Push Female M 25	2	Top of Left and Right Wings	Fidlock	Black	
FL-05453	Fidlock Snap Male M Sewable	2	Shoulder Strap Mount	Fidlock	Black	
PSC2446	Rigid Webbing Nylon	10 inches	Top Grab Handle and Fidlock Strap	Pro Stretch LTD	Black	
PS-8360	Elastic Band Polyester Elastic 15 mm	15 inches	Top of Water Bottle Pocket and Mesh Pocket	K and K	Black	
PS-8823	Front Bungee Cord 3mm Rubber Wire/Nylon	42 inches	Front Bungee Cord	K and K	Black	
3956K	Molded Zipper Puller 10mm	2	Main Zipper Pulls	K and K	Red	
3956K	Molded Zipper Puller 6mm	1	Small Zipper Pulls	K and K	Red	
PS-6448-R1	Round Cording Drawstring 2mm	4 inches	Cord Loops	K and K	Red	
LC05RW	Cord Adjuster	1	Bungee Cord Adjuster	YKK	Black	
t-420-1.0-N-BLK	Inside Seam Protection Nylon Binding Tape width 1 inch, 0.15 inches thickness, STYLE 420	36 inches	Inside Bag along Lining Seams	Elastic Cord and Webbing Inc.	Black	
PA3160	2.25 inch wide Nylon Webbing For Belt 2.5 mm thickness	32 inches	Waist Strap and Fidlock Strap	Weaver Textile	Black	
LB 10GVP	Waist Strap Buckle 10mm 304N (31.0kgf : 68.3lbf)	1	End of Waist Straps	YKK	Black	
1357335	Grommet 8mm Hole Metal Eyelets With Washers	2	Top and Bottom Grommets	Harfington	Black	Factory substitute
N/A	TensionLock Hook, Polyacetal/ABS 1.41 grams/unit	2	Front of Bag on Wearer's Left	Ripstop by the Roll	Black	
CL01010	Renegade Backpack Shoulder Strap Mount	2	Attached to Male End of Fidlock Buckle	OX Bow Gear	Black	Piece modified to Fidlock Male End
LK-EA	Strap Adjuster	1	Waist Strap	YKK	Black	

Company	HANS Climbing Co.	Model Name	Crag Bag	**Bill of Materials 2**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Rachel Schnoebelen
Size Range	One Size	Status	Rev A		

BOM CONTINUED

Stock #	Description	Quantity	Placement/ Component	Supplier	Color	Comments
GRAPHICS						
N/A	Logo Embroidered, 2.5”x2”, 100% Polyester Thread 70D	1	Outer Shell Front Top Piece	Factory Supplier	Light Blue	"HANS Climbing Co. Logo.ai"
N/A	"Have a Nice Send!" Heat Transfer (1-color), 5”x1”	1	Inside on Lining above Water Bottle Pocket	Factory Supplier	Red	"HaveANiceSend.ai"
HANG TAG						
10001	120# Silk Coated Cover 2.5”x4.5” Recycled Hang Tag	1	Hangs from Center Top Handle	Greenprinter	White	
10002	Natural String 3.5"	1	Insert through Center Top Handle	Greenprinter	Black	
PACKAGING						
11001	14”x17” Suffocating Warning Polybag	1	Encloses Crag Bag	Ecoenclose	Clear	
11002	18”x12”x8” Cardboard Box	1	Polybag with Crag Bag placed inside	L& E International Ltd.	Gray	Recyclable cardboard with HANS Climbing Co. Logos

Company	HANS Climbing Co.	Model Name	Crag Bag	POM	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jazz Scott
Size Range	One Size	Status	Rev A		

POM

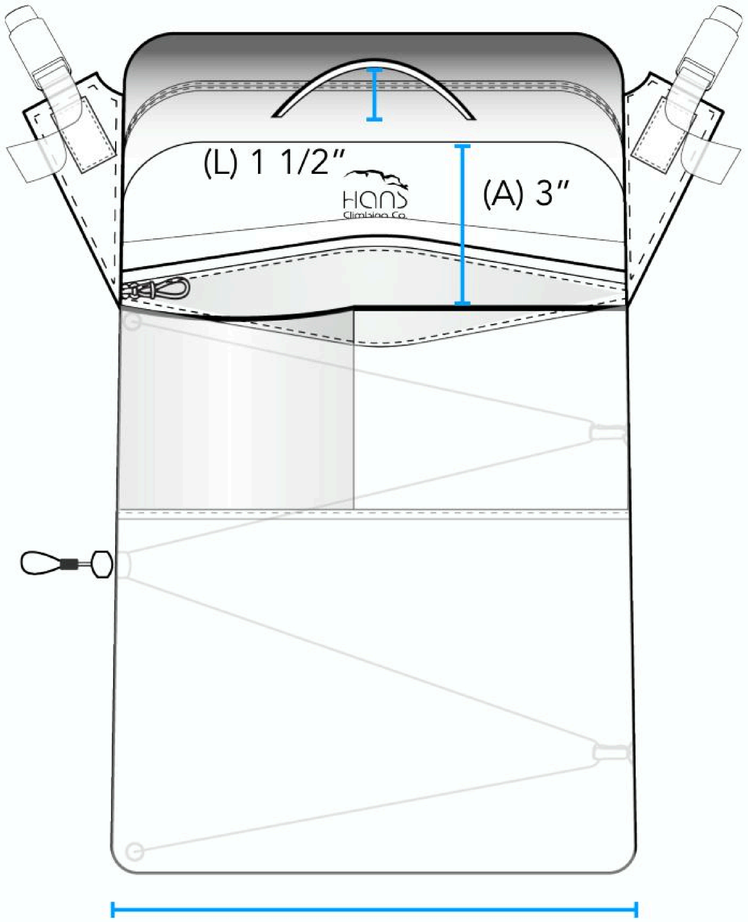
Ref	Description	Comment	Tolerance +/-	Spec / Inches	Proto #1	Proto #2	Proto #3
A	Outershell Front Top Piece		1/4"	3"			
B	Bottom Width		1/4"	10 3/8"			
C	Bottom Depth		1/4"	7 1/4"			
D	Chest Height		1/2"	16 1/2"			
E	Front Height		3/8"	13 7/8"			
F	Top Front to Back Difference		7/8"	2 5/8"			
G	Top Depth		1/4"	7 1/4"			
H	Angled Top Depth		1/2"	7 3/4"			
I	Top Zipper Depth		1/8"	3 5/8"			
J	Top Piece 2 Handle Width	Entire length is 7"	1/4"	6"			
K	Top Piece 2 Handle Depth		1/8"	1 1/4"			
L	Top Piece 2 Handle Height		1/8"	1 1/2"			
M	Wing Top Width		1/8"	1 7/8"			
N	Wing Inner Height		1/4"	4"			
O	Wing Outter Height		1/4"	4 3/4"			
P	Water Bottle Holder Width	Pattern circumference is 13"	3/8"	4"			
Q	Water Bottle Holder Height		5/8"	8 1/2"			
R	Mesh Pocket Height		5/8"	8 1/2"			
S	Mesh Pocket Width		3/8"	6 3/8"			
T	Guidebook Sleeve Height		1/2"	8 1/2"			
U	Guidebook Sleeve Width		1/2"	10 1/4"			

Review Notes

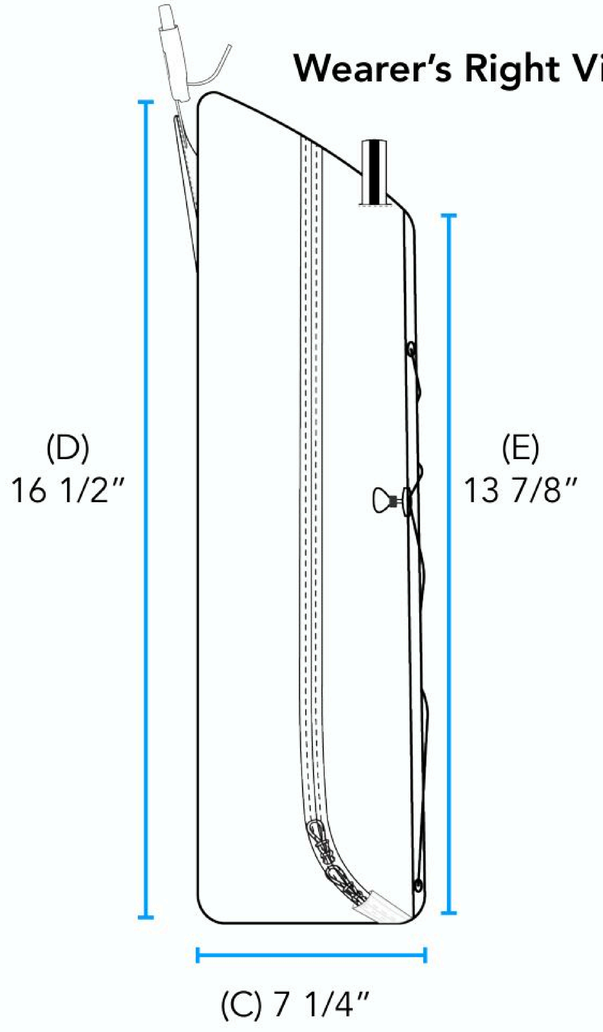
Date	Proto #	POM Description	Comment

Company	HANS Climbing Co.	Model Name	Crag Bag	**Measuring Guide 1**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jazz Scott
Size Range	One Size	Status	Rev A		

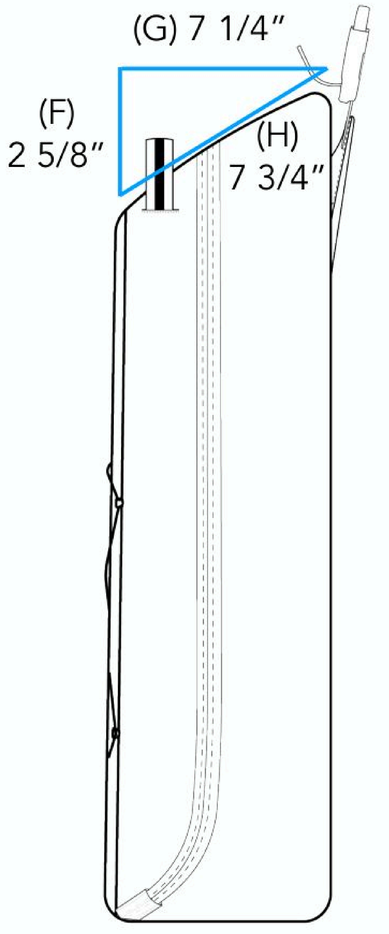
Front View



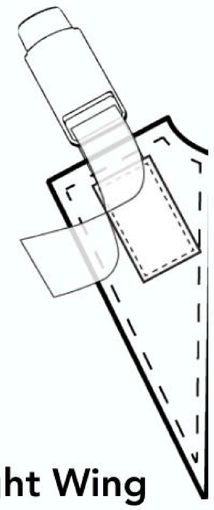
Wearer's Right View



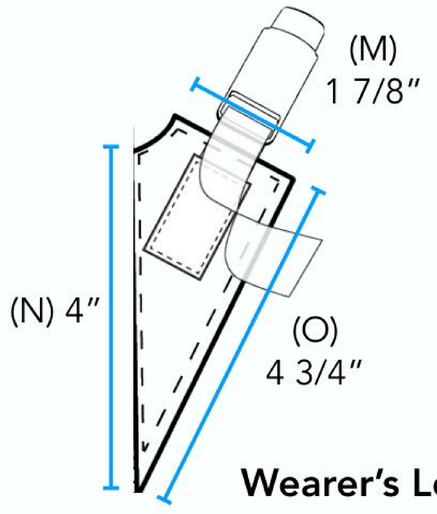
Wearer's Left View



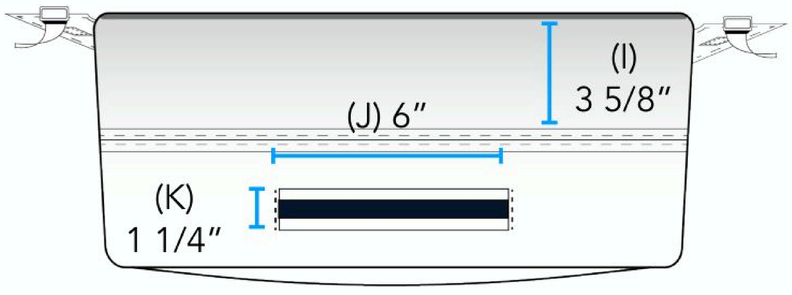
Wearer's Right Wing



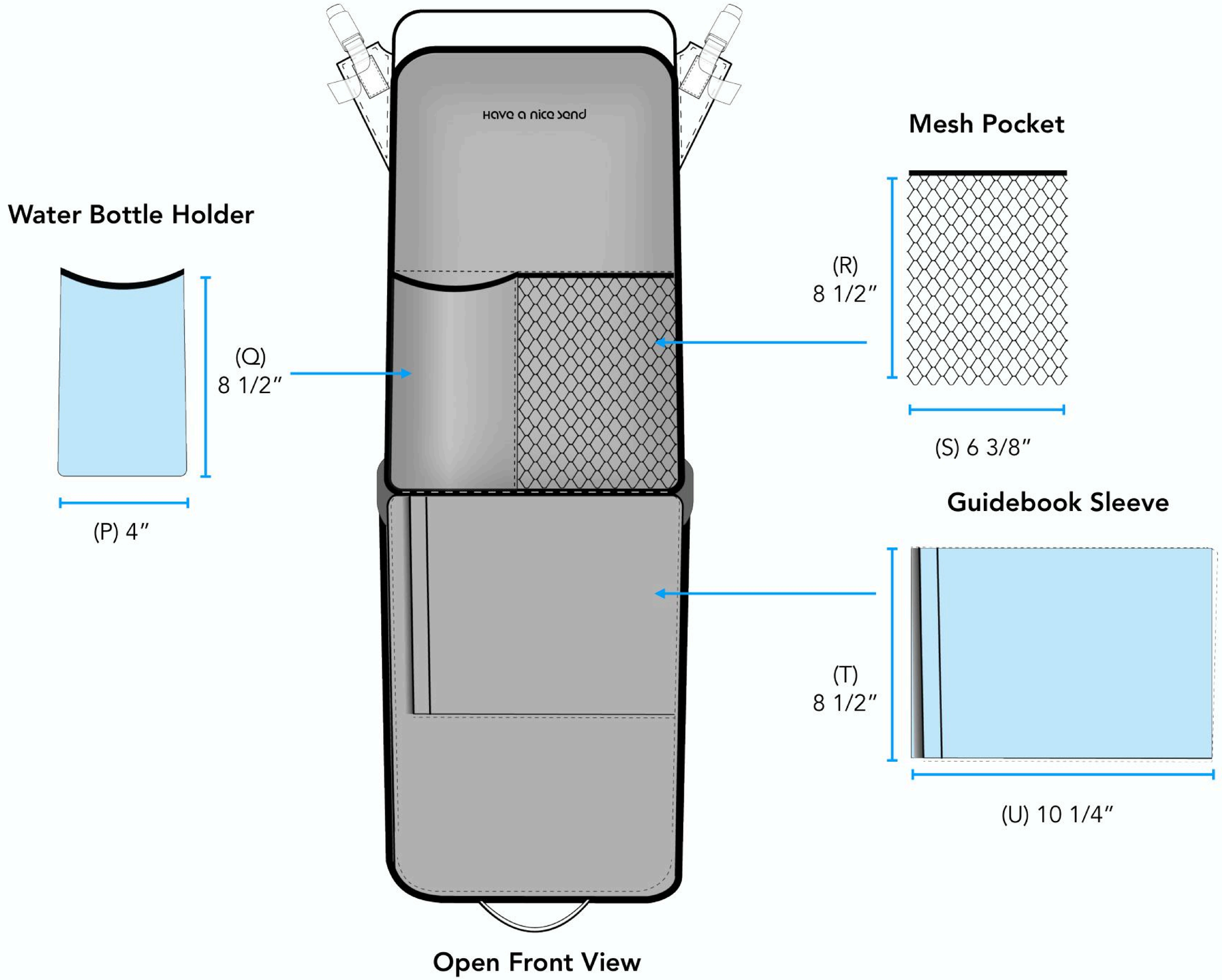
Wearer's Left Wing



Top View



Company	HANS Climbing Co.	Model Name	Crag Bag	**Measuring Guide 2**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jazz Scott
Size Range	One Size	Status	Rev A		



Company	HANS Climbing Co.	Model Name	Crag Bag	**Budget**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jake Larson
Size Range	One Size	Status	Rev A		

TFOB: $45

Budget	Estimated Cost	Percentage
Materials	$15.75	35%
Trims	$16.20	36%
Packaging	$1.35	3%
Labor	$4.05	9%
Overhead	$3.60	8%
Profit	$4.05	9%
Total	**$45**	**100%**

HTS Code: 4202.92.31.20
Country of Manufacturing: China

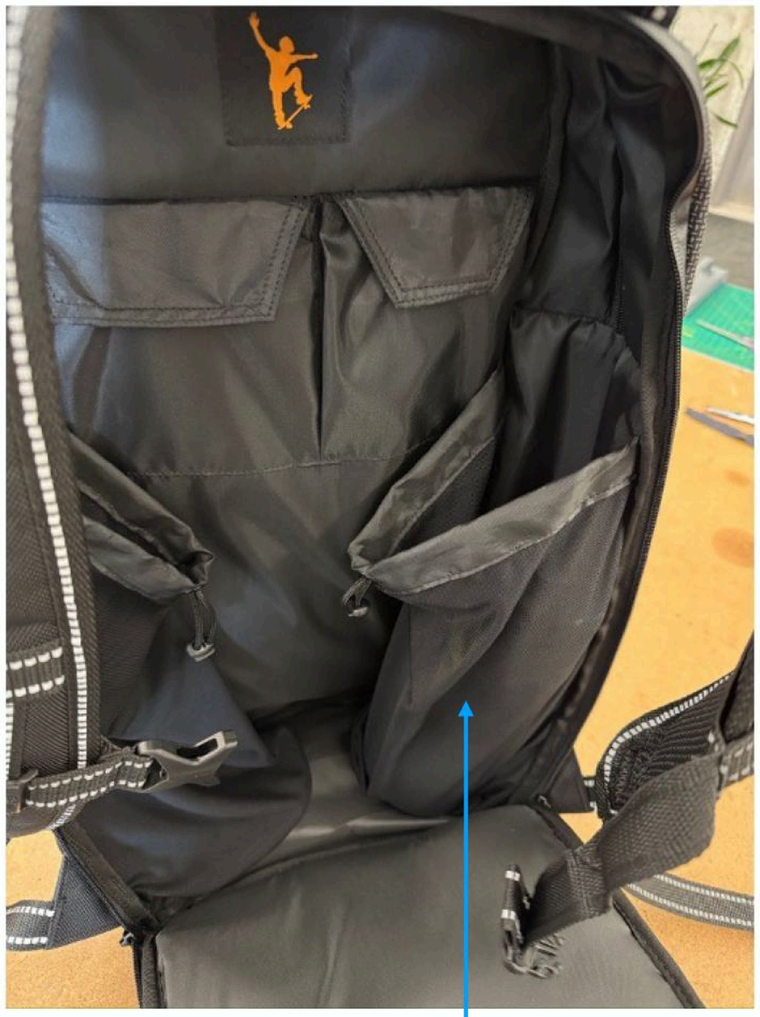
Company	HANS Climbing Co.	Model Name	Crag Bag	**References**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jen Southall
Size Range	One Size	Status	Rev A		

Klaw Gear Front Pack



Hip belt should buckle on
the side of the hip like this

Skago Skating Backpack



Water bottle holder design
should look similar to this

Company	HANS Climbing Co.	Model Name	Crag Bag	**Graphics**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Gustavo Escobedo
Size Range	One Size	Status	Rev A		

Front Logo Embroidery

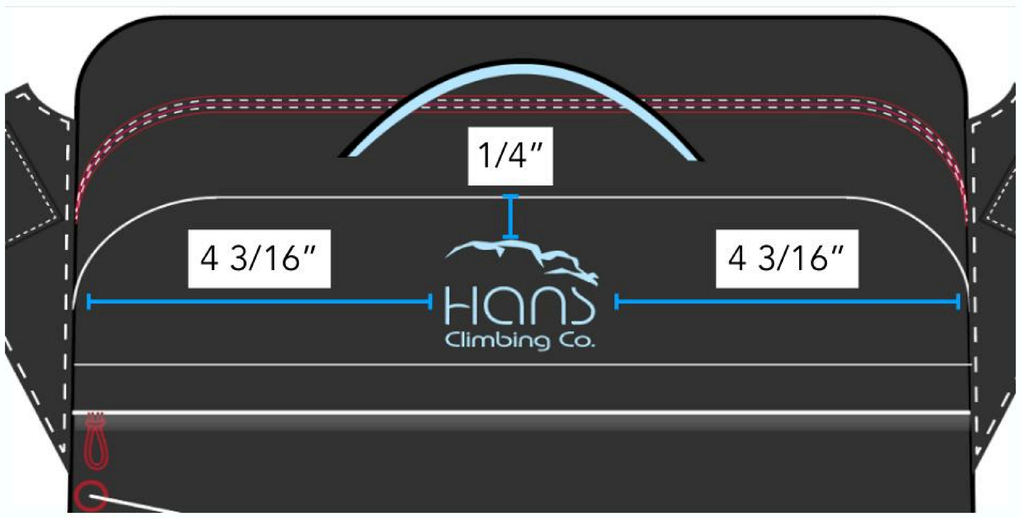


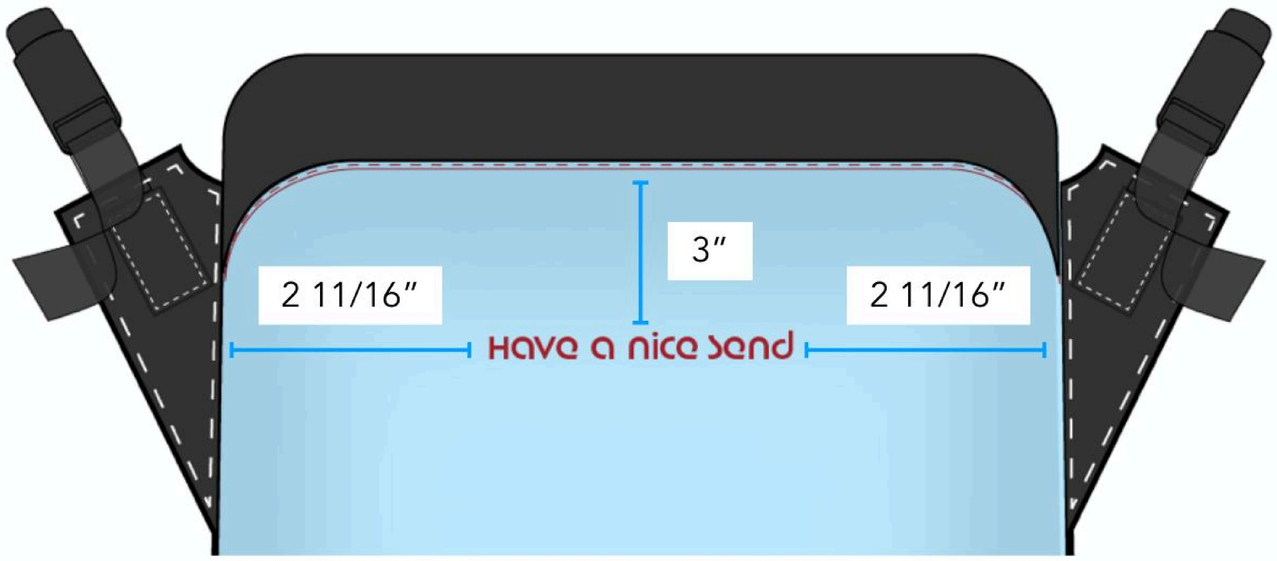
"HANS Climbing Co. Logo.ai"
"HANS Climbing Co. Logo.png"
DO NOT Distort

Inside Graphic



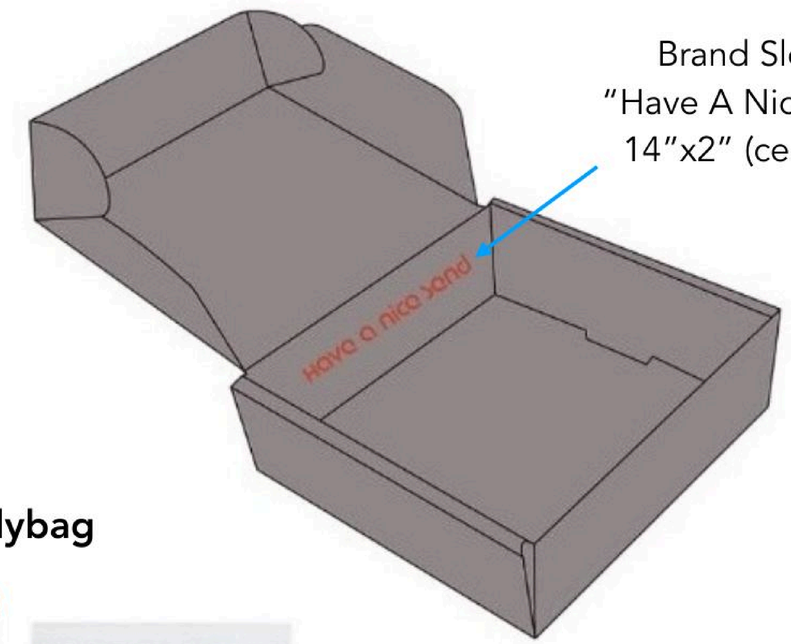
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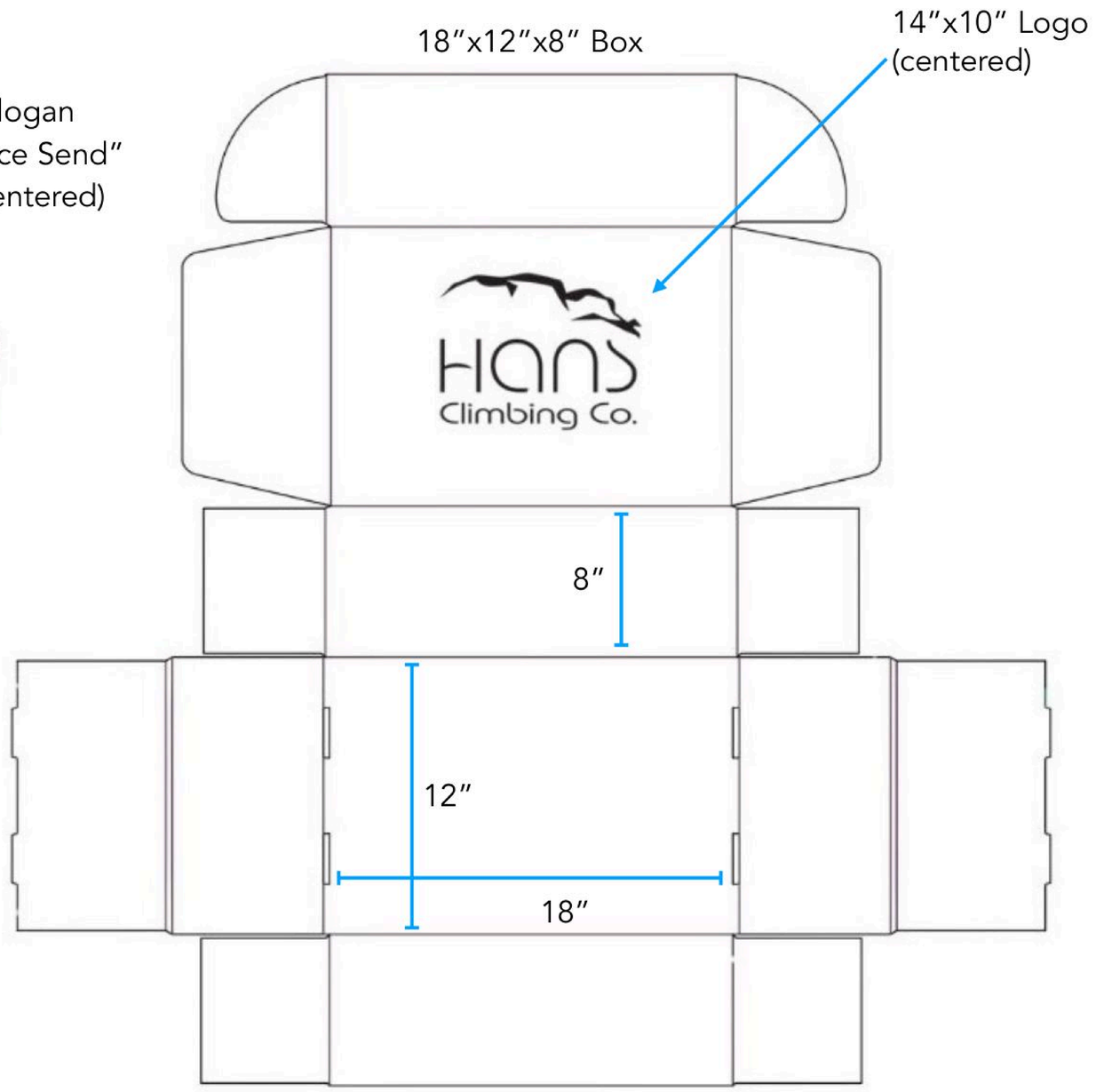


Company	HANS Climbing Co.	Model Name	Crag Bag	**Packaging**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jen Southall/ Jake Larson
Size Range	One Size	Status	Rev A		

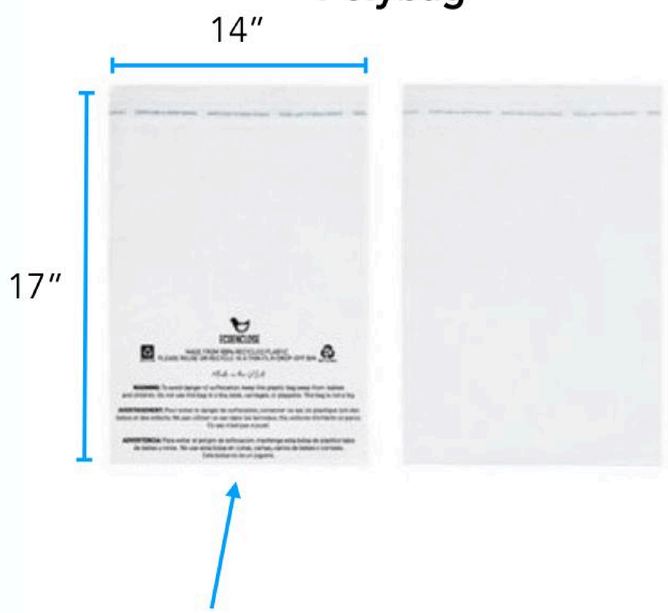
Assembled Box



Deconstructed Box



Polybag



Company	HANS Climbing Co.	Model Name	Crag Bag	**Workback Calendar**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jake Larson
Size Range	One Size	Status	Rev A		

Milestone	Start	End
Product brief creation		9/13/25
Initial design phase	9/13/25	10/20/25
Designed handed off to development		10/20/25
Tech Pack creation	10/20/25	11/10/25
Tech Pack release to factory		11/10/25
Parcel shipped to factory		11/10/25
Pull over sample shipped	11/26/25	12/1/25
Pull over sample revisions released		12/8/25
Round 1 sample shipped	1/7/26	1/12/26
Fit and feel wear test		1/13/26
Dynamic wear test		1/16/26
Round 1 scrutiny meeting		1/19/26
Round 1 revisions sent to factory		1/26/26
Short term wear test	2/9/26	3/11/26
Revisions released		3/18/26
Round 2 sample shipped	4/28/26	5/1/26
Round 2 scrutiny meeting		5/4/26
Round 2 revisions sent to factory		5/11/26
Long term wear test	5/20/26	7/17/26
Revisions released		7/23/26
Round 3 sample shipped	9/3/26	9/8/26
Round 3 scrutiny meeting		9/14/26
Round 3 revisions released		9/21/26
Product confirmation sample sent	9/28/26	10/2/26
Product confirmed		10/7/26
Product code released		10/14/26
Order window open	10/14/26	11/10/26
Materials ordered		11/10/26
Initial production week		12/8/26
Production window	12/8/26	1/5/27
X-factory		1/12/27
Shipping	1/12/27	2/26/27
Launch date		3/13/27

Company	HANS Climbing Co.	Model Name	Crag Bag	**Wear Test Plan**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jake Larson
Size Range	One Size	Status	Rev A		

Goal: to test fit and comfort of Crag Bag, as well as the ease of use with a crash pad.

Fit and Feel Testing

Test fit and feel with coworkers once sample is received. Test with a crash pad and have participants walk around the office, go up stairs, and maneuver around tight spaces. Take note of feedback.
1 sample needed. Date: 1/13/26

Dynamic Testing

Find a group of 4 outdoor boulders in Boulder, CO, and join them for a day of bouldering (triad and wear testing analyst). Give them each a bag and see how it performs. Ask them to share their thoughts at the end of the trip. No disguise needed.
4 samples needed. Date: 1/16/26

Short Term Test

Participants

- Amount of wear testers: 24
- Samples needed: 24
- Gender: 12 male identifying, 12 female identifying
- Size: N/A - One size
- Requirements: Must outdoor boulder at least 1x a week
- Recruiting: Online posting and climbing gyms
- Locations: Ideally in different environments (Boulder, CO; Joshua Tree, CA; Leavenworth, WA; Chattanooga, TN)

Duration

- 4 weeks, with an aim to get at least 4 bouldering sessions in (the more the better)
- Distributed on 2/9/26
- Returned on 3/11/26

Data Collection

Initial fitting when participants receive test samples. Document first impressions and any feedback.

Throughout were test, boulders will complete digital logs that includes:

- Date
- Weather conditions
- Noting any visible wear (image uploads)
- Fit and feel call outs
- Performance call outs
- Additional thoughts (image uploads)

Bags are returned at the end of the test for inspection. Participants will complete a survey asking them for their final thoughts on the bag and feedback of testing process.

Note: No washing instructions other than spot cleaning are given to participants, as the bag should not be machine washed.

Long Term Test

Participants

- Amount of wear testers: 24
- Samples needed: 24
- Gender: 12 male identifying, 12 female identifying
- Size: N/A - One size
- Requirements: Must outdoor boulder at least 1x a week
- Recruiting: Online posting and climbing gyms
- Locations: Ideally in different environments (Boulder, CO; Joshua Tree, CA; Leavenworth, WA; Chattanooga, TN)

Duration

- 8 weeks, with an aim to get at least 8 bouldering sessions in (the more the better)
- Distributed on 5/20/26
- Returned on 7/17/26

Data Collection

Initial fitting when participants receive test samples. Document first impressions and any feedback.

Throughout were test, boulders will complete digital logs that includes:

- Date
- Weather conditions
- Noting any visible wear (image uploads)
- Fit and feel call outs
- Performance call outs
- Additional thoughts (image uploads)

Bags are returned at the end of the test for inspection. Participants will complete a midpoint survey 4 weeks in, and another survey at the end of 8 weeks asking them for their final thoughts on the bag and feedback of testing process.

Note: No washing instructions other than spot cleaning are given to participants, as the bag should not be machine washed.

Company	HANS Climbing Co.	Model Name	Crag Bag	**Document Review Notes**	
Season	Spring 2027	Dev #	001	Date/Revision	3/16/2026
Collection	Bouldering Bags	Factory	Global Cases	Editor	Jake Larson
Size Range	One Size	Status	Rev A		

Document Review Notes

Version	Date	Note
Rev A	3/16/26	Tech Pack created