

BELT WALL
CORRUGATED SIDEWALL BELTING





Design Data Form

Email Completed Form To: beltwall@beltservice.com

Customer Name: _____
 Street Address: _____
 City / State / Zip: _____
 Reference: _____

Contact Name: _____
 Contact PH / Cell: _____
 Contact Email: _____
 New Project Replacement Belt

Material Data (circle imperial / metric dimensions)

Material: _____
 Max. Design Capacity: _____ STPH / MTPH
 Bulk Density: _____ lb/ft³ / t/m³
 Angle of Repose: _____ °
 Lump Size: Min. _____ Max. _____ (in / mm)

Ambient Temperature: Min. _____ Max. _____ (°F / °C)
 Material Temperature: Min. _____ Max. _____ (°F / °C)
 Oily Condition: YES NO
 Moisture: _____ %
 Belt Width Preference: _____ (in / mm)
 Belt Speed Preference: _____ (ft/min / m/s)

* Provide sieve analysis if available. If sieve analysis not available, indicate % of min/max. Measure max lump size in any dimension.

Conveyor Configuration (New or Existing)

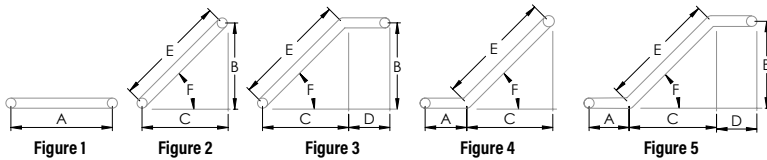
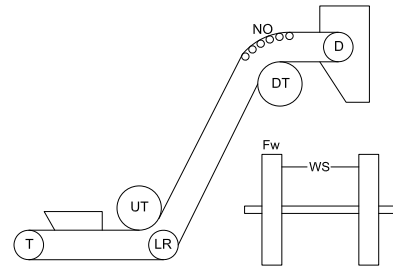


FIG. NO. _____ (Include unit of measure)
 A _____ C _____ E _____
 B _____ D _____ F _____

Existing Conveyor and Belt Information (if applicable)

Conveyor:

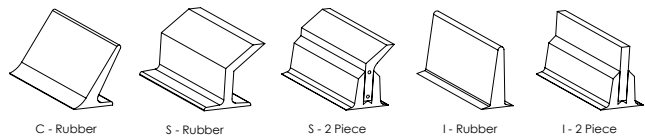
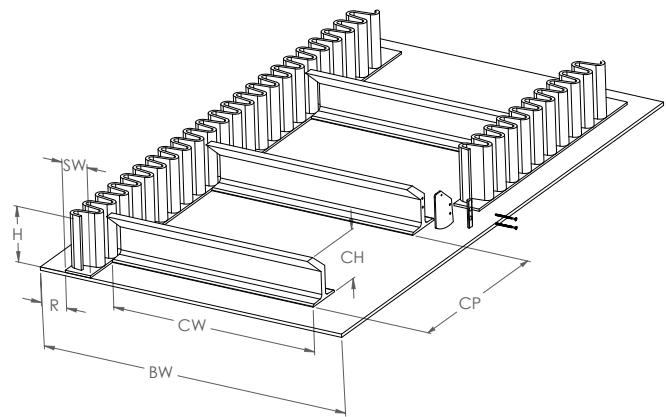
Drive (D): \emptyset _____
 Tail (T): \emptyset _____
 Lower Return Bend (LR): \emptyset _____
 Noseover (NO): \emptyset _____ (Pulley or Roller Curve)
 Downtime Deflection (DT): \emptyset _____ x FW _____ x WS _____
 Upturn Deflection (UT): \emptyset _____ x FW _____ x WS _____



Belt:

include units of measure

Belt Endless Length: _____
 Belt Width (BW): _____
 Belt rating (PIW, N/mm): _____
 Top Cover Gauge: _____
 Bottom Cover Gauge: _____
 Cover Compound: _____
 No. of Tension Plies: _____
 Type of Cross Rigid Plies: _____
 Cut Edge or Molded Edge: _____
 Splice Type: _____
 End Preparation: _____
 Sidewall Height (H): _____
 Sidewall Base Width (SW): _____
 Sidewall Recess (R): _____
 Cleat Type (C, I, S, 2 Piece): _____
 Cleat Height (CH): _____
 Cleat Pitch (CR): _____
 Cleat Width (CW): _____
 Sidewall bolted to cleat (Y/N): _____
 Spill Plate Installed (Y/N): _____
 Spill Plate Material: _____



Notes: _____

HIGH-INCLINE CONVEYING

Beltwall has over 40 years of design and fabrication experience producing the highest quality steep incline conveyor belts in the market. Large savings make steep incline conveyors an economical alternative to conventional trough conveyors.



Beltwall's engineering team reviews each application to ensure efficiency and the lowest cost per ton conveyed. Optimum service and support are provided for new projects including:

- ▶ Initial Layout and design review
- ▶ Belt specification and calculations
- ▶ Top of foundation budget cost studies

Site surveys are commonly performed on existing systems. Recommendations can be made for enhancing the belt specification as well methods to improve the system's performance.

Features:

- ▶ Increased splice service factor through the use of two high strength, low stretch cross-rigid plies
- ▶ Reduced sidewall crack propagation through special fiber loaded compound
- ▶ Strongest cleat and sidewall bond through vulcanization.
- ▶ Replaceable urethane cleat blades that maintain carrying capacity under heavy loads for the life of the belt

COMPOUNDS

SBR

Black Standard High Abrasion Resistant (SBR) Rubber

HR

Black Heat Resistant (HR) Rubber

OR

Black Moderately Oil Resistant (MOR) and Super Oil Resistant (SOR) Rubber

FDA

White FDA Rubber

FR

Black Flame Retardant (FR) Rubber

OTHER

Other compounds meeting specific DIN standards available

BASE BELTS

BWX-MI

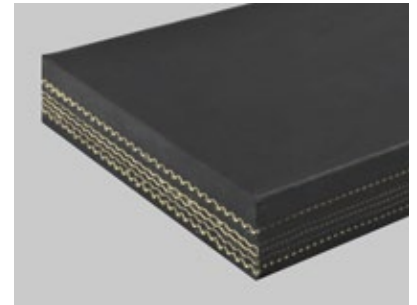
Fabric PP(EE) or PN(EP) tension plies with monofilament or fiberglass cross rigid plies.
Typical belt ratings: 220PIW - 1000PIW (EP400-EP1750).

Stocked Specs:

BWX2222MI - 220PIW, 2+2 Ply - SBR, MOR, HR

BWX3332MI - 330PIW, 3+2 Ply - SBR, MOR, HR

BWX4442MI - 440PIW, 4+2 Ply - SBR

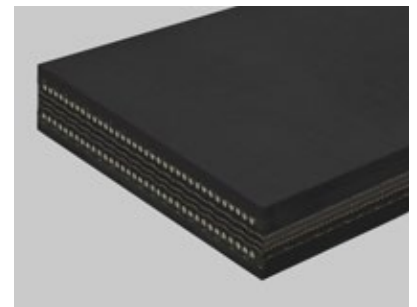


BWX-SC

Fabric PP(EE) or PN(EP) tension plies with special steel breaker (SC) cross rigid plies.
Typical belt ratings: 220PIW - 1000PIW (EP400-EP1750).

For applications involving wider belts yet still within the tension demand of an EE/EP belt. Also used in harsh applications for cut and puncture resistance.

Special Order



BWX-ST+SC

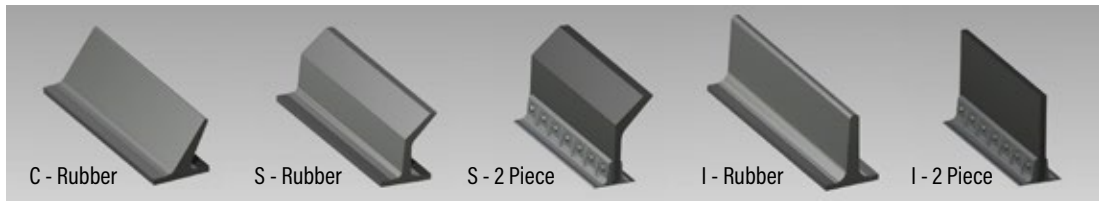
Steel Cords with special steel breaker (SC) cross rigid plies.
Typical belt ratings: ST1600 to ST4000.

For high vertical lift applications requiring ST belt ratings.

Special Order



CLEATS



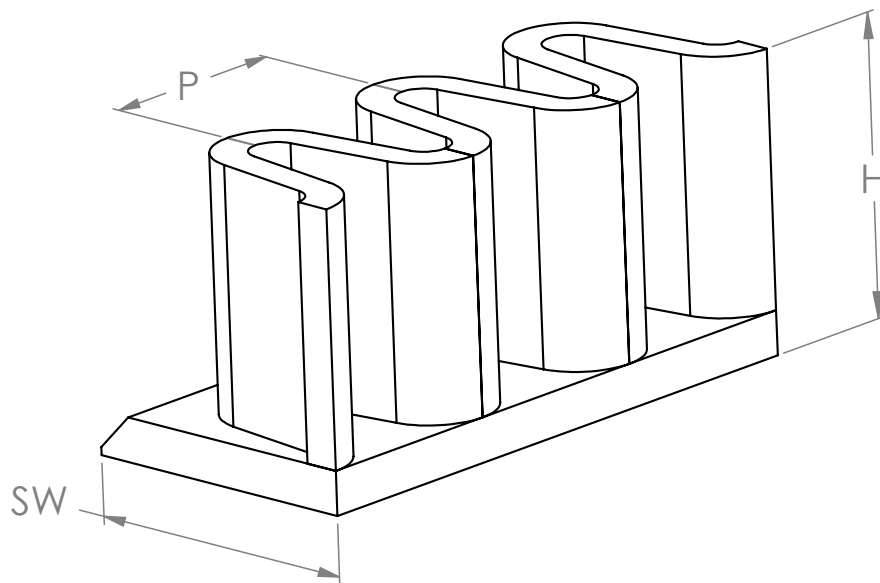
| | Height | | I-Cleat | C-Cleat | S-Cleat | Minimum Pulley | |
|---|--------|-----|---------|---------|---------|----------------|-----|
| | in. | mm. | | | | in. | mm. |
| Single Piece Rubber Cleat | 0.5 | 13 | ✓ | | | 3 | 75 |
| | 1 | 25 | ✓ | ✓ | | 4 | 100 |
| | 1.5 | 38 | ✓ | ✓ | | 6 | 150 |
| | 2 | 51 | ✓ | ✓ | | 6 | 150 |
| | 2.5 | 64 | ✓ | ✓ | | 8 | 200 |
| | 3 | 76 | ✓ | ✓ | | 10 | 255 |
| | 3.5 | 89 | ✓ | ✓ | ✓ | 10 | 255 |
| | 4 | 102 | ✓ | ✓ | | 10 | 255 |
| | 4.5 | 114 | ✓ | | ✓ | 12 | 305 |
| | 5 | 127 | ✓ | | | 12 | 305 |
| | 5.5 | 140 | | | ✓ | 16 | 400 |
| | 6 | 152 | ✓ | | | 20 | 500 |
| | 7 | 178 | ✓ | | ✓ | 20 | 500 |
| | 9 | 229 | ✓ | | ✓ | 24 | 610 |
| 11 | 279 | | | ✓ | 36 | 915 | |
| Two Piece Rubber Base Urethane Blade | 5.5 | 140 | ✓ | | ✓ | 16 | 400 |
| | 7 | 178 | ✓ | | ✓ | 16 | 400 |
| | 7.5 | 191 | ✓ | | ✓ | 16 | 400 |
| | 9 | 229 | ✓ | | ✓ | 16 | 400 |
| | 9.5 | 241 | ✓ | | ✓ | 16 | 400 |
| | 11 | 279 | ✓ | | ✓ | 16 | 400 |
| | 11.25 | 286 | ✓ | | ✓ | 36 | 915 |
| | 14.5 | 368 | ✓ | | ✓ | 36 | 915 |
| | 15.25 | 387 | ✓ | | ✓ | 36 | 915 |

Note: All Cleats are hot vulcanized, 6" I-Cleat available in standard and heavy duty

SIDEWALL

| | | | | | | | SBR / HR | | OR / FR / FDA | |
|------------------------------|------------|-----|-----------------|-----|-----------|-----|-------------|------|---------------|------|
| | Height (H) | | Base Width (SW) | | Pitch (P) | | Min. Pulley | | Min. Pulley | |
| | in. | mm. | in. | mm. | in. | mm. | in. | mm. | in. | mm. |
| Non-Fabric Reinforced | 1 | 25 | 1.5 | 38 | 1 | 25 | 4 | 102 | 8 | 203 |
| | 1.5 | 38 | 1.5 | 38 | 1 | 25 | 4 | 102 | 8 | 203 |
| | 2 | 51 | 1.5 | 38 | 1 | 25 | 6 | 152 | 8 | 203 |
| | 2.5 | 64 | 1.5 | 38 | 1 | 25 | 8 | 203 | 12 | 305 |
| | 2.5 | 64 | 2.0 | 51 | 1.5 | 38 | 8 | 203 | 12 | 305 |
| | 3 | 76 | 2.0 | 51 | 1.5 | 38 | 10 | 254 | 12 | 305 |
| | 4 | 102 | 2.0 | 51 | 1.5 | 38 | 10 | 254 | 14 | 356 |
| | 5 | 127 | 2.0 | 51 | 1.5 | 38 | 12 | 305 | 16 | 406 |
| | 6 | 152 | 2.0 | 51 | 1.5 | 38 | 16 | 406 | 20 | 508 |
| Fabric Reinforced | 6 | 152 | 3.125 | 79 | 2.5 | 64 | 16 | 406 | 20 | 508 |
| | 8 | 203 | 3.125 | 79 | 2.5 | 64 | 20 | 508 | 24 | 610 |
| | 10 | 254 | 3.125 | 79 | 2.5 | 64 | 24 | 610 | 30 | 762 |
| | 12 | 305 | 3.125 | 79 | 2.5 | 64 | 36 | 914 | 48 | 1219 |
| | 12 | 305 | 4.125 | 105 | 3.5 | 89 | 36 | 914 | 48 | 1219 |
| | 16 | 406 | 4.125 | 105 | 3.5 | 89 | 42 | 1067 | 54 | 1372 |

Notes: White FDA available in 1.5" and 2.1875" base widths and 1" - 5" heights. | Fabric reinforcement available in 2.0" base width and metric heights 60mm, 80mm, 100mm, and 120mm. | Fabric reinforcement available in 3.0" base width and metric heights 160mm, 200mm, and 240mm.



SIDEWALL BOLTED TO CLEATS

Sidewalls can be bolted to the ends of the cleats using an insert and two screws. This minimizes gaps between the sidewall and cleat thus reducing potential for product entrapment. For taller sidewall and cleat combinations, bolting prevents sidewall from leaning outward and cleats flexing backwards under heavy loads. Standard hardware: galvanized, stainless, and Grade 8. Standard inserts: aluminum and plastic.



SPILL PLATES

Designed to contain small, granular, or free-flowing materials conveyed at steep incline angles. Spill plates are installed on each end of the cleat, effectively blocking the adjacent sidewall convolution and preventing flow past the cleat into the following cleat pocket.

Spill plates can also minimize product entrapment in the sidewall convolutions and subsequent carryback. The plates are available in mild steel, stainless steel, and polyethylene (*Tivar*®, *UHMW*)



PACKAGING

STANDARD



Best if belt will be installed within one year from shipment.

Recommended for indoor storage.

Standard diameter tubes and reels and Styrofoam used to support the belt laps on the skid.

Can be stacked/lapped double wide on the skid if necessary and if overall belt width permits.

Optional export grade wood panels installed on sides and top to protect the belt during shipment.

OPTIONAL LONG TERM INDOOR / OUTDOOR



Best if belt will be stored for greater than one year from shipment.

Oversized tubes and reels and Styrofoam are used to support the belt laps on the skid and prevent sidewall deformation.

Belt stack is wrapped in heat shrink black UV protection film.

Belt stack should be single wide in order to avoid belt twist that is necessary if stacked double wide.

Certain belt configurations may dictate that double wide stack is more practical.

Export grade wood panels are installed on sides and top to protect the belt and custom fitted tarp is installed over the top of the skid. (*Outdoor Only*)

REPLACEMENT BELTS

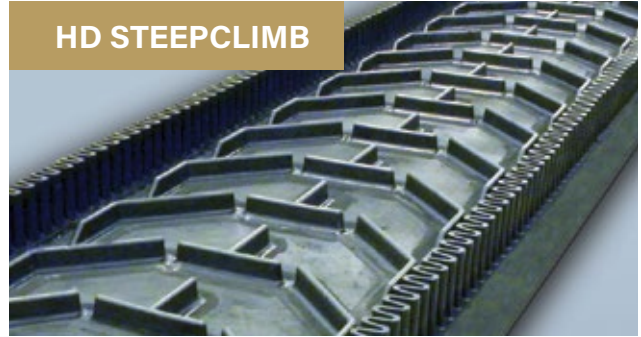
OEM and replacement sidewall belts for the frac sand industry are available in cross rigid and non-cross rigid multi-ply construction with vulcanized sidewalls and cleats. Below are several of the more common configurations.

SIDEWALL ONLY



- Belt: 2-ply 220PIW Black Standard, 1/8" x 1/16"
- Widths: 24", 30", and 36"
- Sidewall: 2-1/2" or 3" tall and flush to belt edge
- Min. pulley diameter 10"

HD STEEPCLIMB



- Belt: 4-ply 220PIW Black Standard cross rigid, 1/8" x 1/16"
- Widths: 24", 30", and 36"
- Sidewall: 3" or 4" tall and recessed from belt edge
- Min. pulley diameter 12"

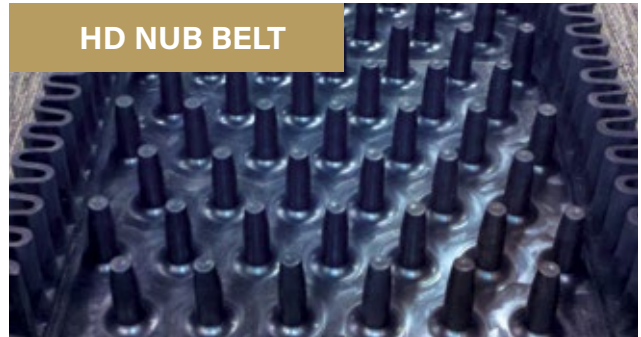
(call for dimensions)

I-CLEAT



- Belt: 4-ply 220PIW Black Standard cross rigid, 1/8" x 1/16"
- Widths: 24", 30", and 36"
- Sidewall: 3" or 4" tall and recessed from belt edge
- Min. pulley diameter: 10"

HD NUB BELT



- Belt: 2-ply 220PIW Black Standard, 3/16" x 1/16"
- Widths: 24", 30", and 36"
- Sidewall: 3" tall and hot bonded to belt edge
- Min. pulley diameter 10"



beltservice.com

314-344-8500 | 800-365-2358

Fax: 314-344-8511 | beltwall@beltservice.com

