

Element Blocks

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WARNING! Strictly follow all instructions to avoid an accident, damage to your vessel, personal injury, or death. See www.harken.com/manuals for additional safety information.

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Features

Strong durable sideplates are forged aluminum with hardcoat anodizing.

Tough sheaves are made from fiber reinforced nylon.

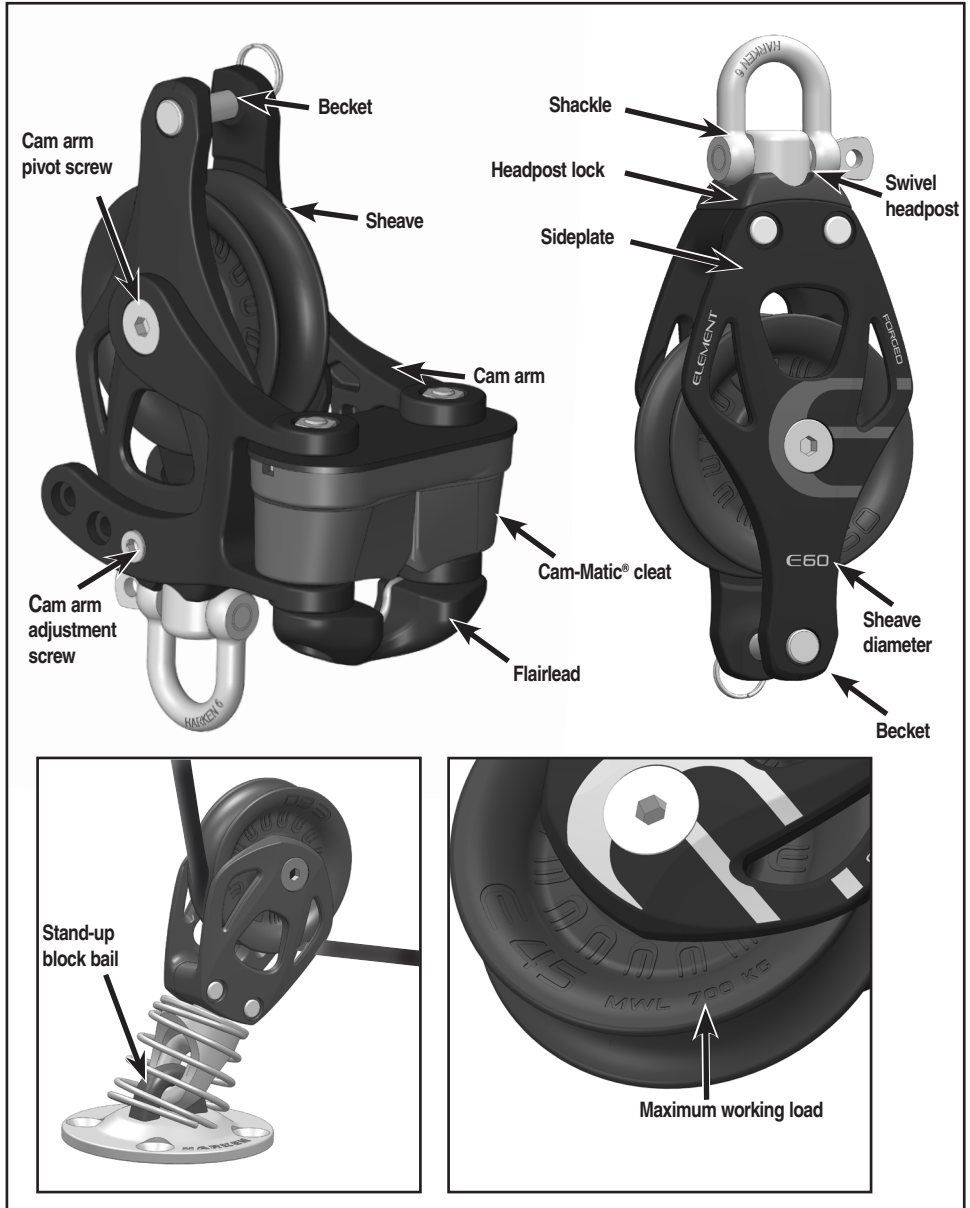
Proven bearing system where sheave spins on a stainless axle.

Versatile cam assembly adjusts and locks in several positions.

Adaptable cam cleat flips around for up or down release.

Multifunctional headpost lock fixes shackle in either direction or swivel position.

Terms



Specifications - 45 mm Blocks



| Part No. | Description | Max line* Ø | | Maximum working load | | Breaking load | |
|----------|------------------------------------|-------------|------|----------------------|------|---------------|------|
| | | mm | in | kg | lb | kg | lb |
| 6230 | Single/swivel | 12 | 1/2 | 700 | 1543 | 1400 | 3086 |
| 6231 | Single/swivel/becket | 12 | 1/2 | 700 | 1543 | 1400 | 3086 |
| 6232 | Fiddle/swivel | 8 | 5/16 | 700 | 1543 | 1400 | 3086 |
| 6233 | Fiddle/swivel/becket | 8 | 5/16 | 700 | 1543 | 1400 | 3086 |
| 6234 | Fiddle/150 Cam-Matic/swivel/becket | 8 | 5/16 | 550 | 1213 | 1100 | 2426 |
| 6235 | Fiddle/150 Cam-Matic/swivel | 8 | 5/16 | 408 | 900 | 816 | 1800 |
| 6236 | Single/150 Cam-Matic/swivel/becket | 12 | 1/2 | 272 | 600 | 544 | 1200 |
| 6238 | Double/swivel | 12 | 1/2 | 875 | 1929 | 1750 | 3858 |
| 6239 | Double/swivel/becket | 12 | 1/2 | 875 | 1929 | 1750 | 3858 |
| 6240 | Triple/swivel | 12 | 1/2 | 1050 | 2315 | 2100 | 4630 |
| 6241 | Triple/swivel/becket | 12 | 1/2 | 1050 | 2315 | 2100 | 4630 |
| 6242 | Triple/150 Cam-Matic/swivel | 12 | 1/2 | 680 | 1499 | 1360 | 2998 |
| 6243 | Triple/150 Cam-Matic/swivel/becket | 12 | 1/2 | 816 | 1799 | 1632 | 3598 |
| 6250 | Single/swivel/stand-up** | 12 | 1/2 | 700 | 1543 | 1400 | 3086 |
| 6251 | Single/swivel/stand-up/becket** | 12 | 1/2 | 700 | 1543 | 1400 | 3086 |
| 6252 | Single standup w/ boot*** | 12 | 1/2 | 700 | 1543 | 1400 | 3086 |

*Tip: When selecting line diameter, use one size smaller for smooth running blocks

**Mounts using integral U fastener

***Includes padeye. 5 mm (#10) fasteners, fastener circle: 30 mm (1 3/16"), four mounting holes

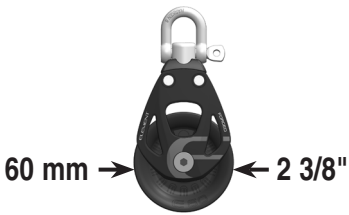
Footblocks



| Part No. | Description | Fasteners (FH) mm | Max line* Ø | | Maximum working load | | Breaking load | |
|----------|------------------|----------------------|-------------|-----|----------------------|------|---------------|------|
| | | | mm | in | kg | lb | kg | lb |
| 6237 | Single footblock | 6 | 12 | 1/2 | 700 | 1543 | 1400 | 3086 |
| 6244 | Double footblock | 6 | 12 | 1/2 | 466 | 1018 | 933 | 2036 |

*Tip: When selecting line diameter, use one size smaller for smooth running blocks

Specifications - 60 mm Blocks

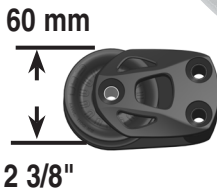


| Part No. | Description | Max line* Ø | | Maximum working load | | Breaking load | |
|----------|--------------------------------------|-------------|------|----------------------|------|---------------|------|
| | | mm | in | kg | lb | kg | lb |
| 6220 | Single mastbase for 8 mm (5/16") pin | 14 | 9/16 | 1100 | 2425 | 2200 | 4850 |
| 6260 | Single/swivel | 14 | 9/16 | 1100 | 2425 | 2200 | 4850 |
| 6261 | Single/swivel/becket | 14 | 9/16 | 1100 | 2425 | 2200 | 4850 |
| 6262 | Fiddle/swivel | 10 | 3/8 | 1100 | 2425 | 2200 | 4850 |
| 6263 | Fiddle/swivel/becket | 10 | 3/8 | 1100 | 2425 | 2200 | 4850 |
| 6264 | Fiddle/150 Cam-Matic/swivel/becket | 10 | 3/8 | 550 | 1213 | 1100 | 2426 |
| 6265 | Fiddle/150 Cam-Matic/swivel | 10 | 3/8 | 408 | 900 | 816 | 1800 |
| 6266 | Single/150 Cam-Matic/swivel/becket | 12 | 1/2 | 272 | 600 | 544 | 1200 |
| 6269 | Double/swivel | 14 | 9/16 | 1375 | 3032 | 2750 | 6064 |
| 6270 | Double/swivel/becket | 14 | 9/16 | 1375 | 3032 | 2750 | 6064 |
| 6272 | Triple/swivel | 14 | 9/16 | 1650 | 3638 | 3300 | 7276 |
| 6273 | Triple/swivel/becket | 14 | 9/16 | 1650 | 3638 | 3300 | 7276 |
| 6274 | Triple/150 Cam-Matic/swivel | 12 | 1/2 | 680 | 1499 | 1360 | 2998 |
| 6275 | Triple/150 Cam-Matic/swivel/becket | 12 | 1/2 | 816 | 1799 | 1632 | 3598 |
| 6277 | Single/swivel/stand-up** | 14 | 9/16 | 1100 | 2425 | 2200 | 4850 |
| 6278 | Single/swivel/stand-up/becket** | 14 | 9/16 | 1100 | 2425 | 2200 | 4850 |

*Tip: When selecting line diameter, use one size smaller for smooth running blocks

**Use 6 mm (1/4") flathead fasteners

Footblocks



| Part No. | Description | Fasteners (FH) | Max line* Ø | | Maximum working load | | Breaking load | |
|----------|---------------------|----------------|-------------|------|----------------------|------|---------------|------|
| | | mm | mm | in | kg | lb | kg | lb |
| 6267 | Single | 8 | 14 | 9/16 | 1100 | 2425 | 2200 | 4850 |
| 6268 | Single/lockoff | 8 | 14 | 9/16 | 1100 | 2425 | 2200 | 4850 |
| 6271 | Double | 8 | 14 | 9/16 | 725 | 1600 | 1450 | 3200 |
| 6276 | Single/lockoff/left | 8 | 14 | 9/16 | 1100 | 2425 | 2200 | 4850 |

*Tip: When selecting line diameter, use one size smaller for smooth running blocks

Specifications - 80 mm Blocks

80 mm → ← 3 1/8"



| Part No. | Description | Max line* Ø | | Maximum working load | | Breaking load | |
|----------|--------------------------------------|-------------|------|----------------------|------|---------------|-------|
| | | mm | in | kg | lb | kg | lb |
| 6221 | Single Mastbase for 10 mm (3/8") pin | 16 | 5/8 | 2200 | 4850 | 4400 | 9700 |
| 6290 | Single/swivel | 16 | 5/8 | 2200 | 4850 | 4400 | 9700 |
| 6291 | Single/swivel/becket | 16 | 5/8 | 2200 | 4850 | 4400 | 9700 |
| 6292 | Fiddle/swivel | 14 | 9/16 | 2200 | 4850 | 4400 | 9700 |
| 6293 | Fiddle/swivel/becket | 14 | 9/16 | 2200 | 4850 | 4400 | 9700 |
| 6296 | Double/swivel | 16 | 5/8 | 2750 | 6064 | 5500 | 12128 |
| 6297 | Double/swivel/becket | 16 | 5/8 | 2750 | 6064 | 5500 | 12128 |
| 6280 | Single/swivel/stand-up** | 16 | 5/8 | 2200 | 4850 | 4400 | 9700 |
| 6281 | Fiddle/swivel/stand-up** | 14 | 9/16 | 2200 | 4850 | 4400 | 9700 |
| 6282 | Fiddle/swivel/becket/stand-up** | 14 | 9/16 | 2200 | 4850 | 4400 | 9700 |

*Tip: When selecting line diameter, use one size smaller for smooth running blocks

**Use 8 mm (5/16") flathead fasteners

Footblocks

80 mm



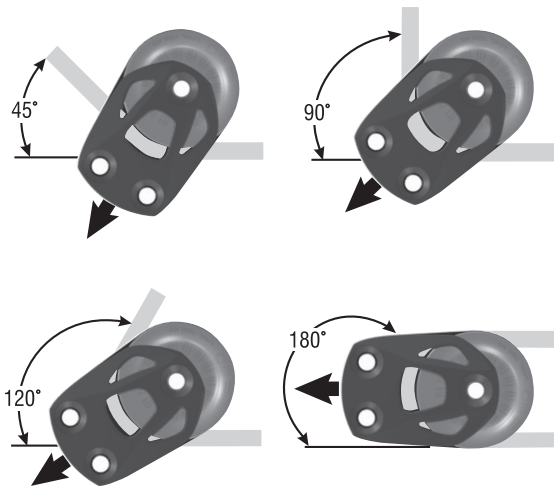
3 1/8"

| Part No. | Description | Fasteners (FH) mm | Max line* Ø | | Maximum working load | | Breaking load | |
|----------|---------------------|----------------------|-------------|-----|----------------------|------|---------------|------|
| | | | mm | in | kg | lb | kg | lb |
| 6294 | Single | 10 | 16 | 5/8 | 2200 | 4850 | 4400 | 9700 |
| 6295 | Single/lockoff | 10 | 16 | 5/8 | 2200 | 4850 | 4400 | 9700 |
| 6298 | Double | 10 | 16 | 5/8 | 1450 | 3197 | 2900 | 6394 |
| 6299 | Single/lockoff/left | 10 | 16 | 5/8 | 2200 | 4850 | 4400 | 9700 |

*Tip: When selecting line diameter, use one size smaller for smooth running blocks

Block Loading vs Angle of Deflection

Block load increases when the line turns at a greater angle. See examples below. Select blocks carefully.

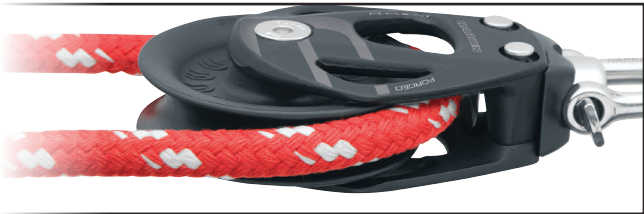


| Angle of deflection | Load factor | Angle of deflection | Load factor | Angle of deflection | Load factor |
|---------------------|-------------|---------------------|-------------|---------------------|-------------|
| 30° | 52% | 90° | 141% | 150° | 193% |
| 45° | 76% | 105° | 159% | 160° | 197% |
| 60° | 100% | 120° | 173% | 180° | 200% |
| 75° | 122% | 135° | 185% | — | — |

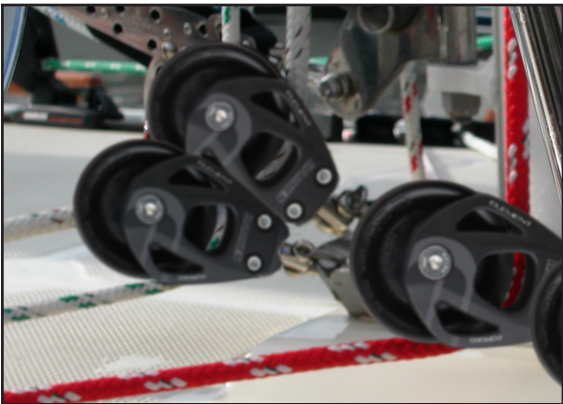


WARNING! Block loads increase when the line turns at a greater angle. Block loads double when the line turns 180 degrees. Use block loading factors. Select blocks and application carefully.

180° angle of deflection



90° angle of deflection

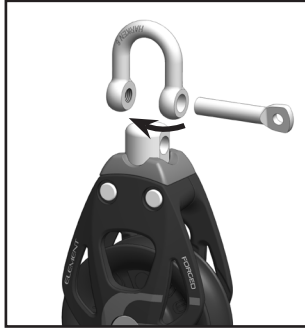


Shackle Rotation

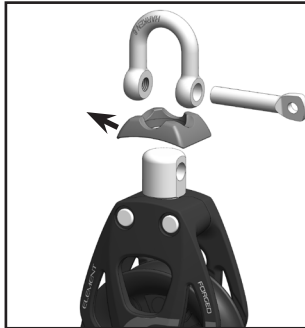
Shackle blocks lock in two directions, or swivel, to keep line from twisting. Removable headpost lock allows shackle to be fixed or to swivel.



Fixed shackle, rotating 90° - Remove shackle, rotate headpost 90°, and reinstall shackle.



Swivel shackle - To change shackle from locked to swivel, remove headpost lock, and reinstall shackle.



Adjusting Cam Arm Angle

To adjust cam arm angle:

1. Loosen center screws.
2. Remove cam arm adjuster screws.
3. Rotate cam arm to desired position and reinstall screws.

Note: Use threadlocking solution, such as blue Loctite® adhesive, on screws.

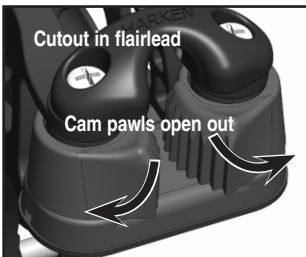


Flipping Cam for Up Release

The cam can flip to change from down release to up release.

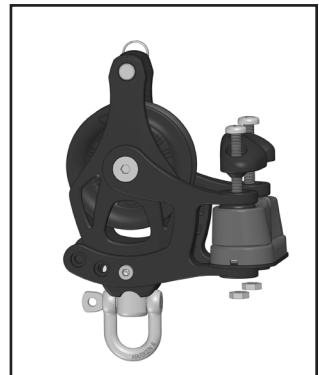
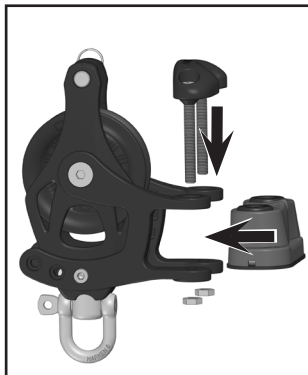
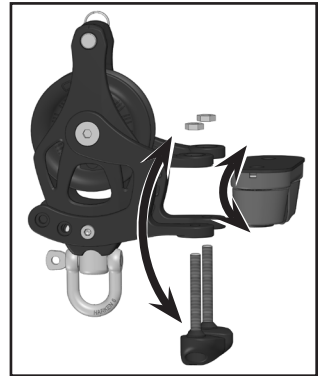
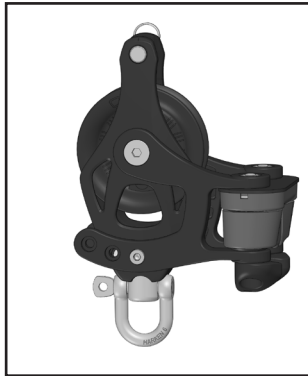
1. Remove nuts and cam arm screws, keeping them in flairlead. Slip cam out.
2. Flip the cam and fasteners around as shown.

Note: Make sure that cam pawls open out from the block and cutout in flairlead faces away from block.



3. Slip fasteners and flairlead through arms and cam. Secure with nuts.

Note: Use threadlocking solution, such as blue Loctite adhesive, on screws.

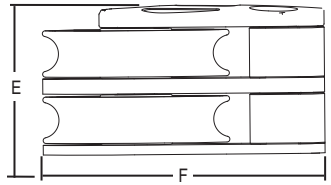
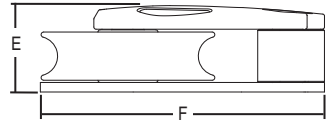
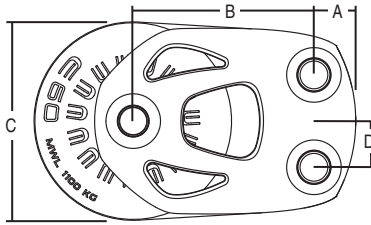


Mounting Footblock



WARNING! You must mount to solid deck construction using specified fasteners in all mounting holes and nuts, washers, or backing plates to achieve correct maximum working load to avoid a failure leading to an accident.

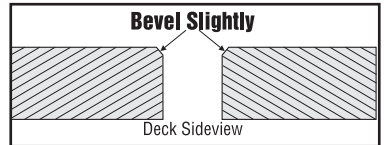
Refer to dimensions below for planning location of block. Make sure block bisects the angle as shown in line deflection images on page 6.



| Size | Part No. | A | | B | | C | | D | | E | | F | |
|-------|----------|------|------|------|---------|------|-------|------|-------|------|--------|------|---------|
| | | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in |
| 45 mm | 6237 | 11 | 7/16 | 41.5 | 1 5/8 | 45 | 1 3/4 | 9.5 | 3/8 | 24.5 | 15/16 | 74.5 | 2 15/16 |
| | 6244* | 11 | 7/16 | 41.5 | 1 5/8 | 45 | 1 3/4 | 9.5 | 3/8 | 45 | 1 3/4 | 74.5 | 2 15/16 |
| 60 mm | 6267 | 12.5 | 1/2 | 54.5 | 2 5/32 | 60.0 | 2 3/8 | 14.0 | 9/16 | 29.5 | 1 3/16 | 97.5 | 3 13/16 |
| | 6268 | | | | | | | | | | | | |
| | 6276 | | | | | | | | | | | | |
| | 6271* | 12.5 | 1/2 | 54.5 | 2 5/32 | 60.0 | 2 3/8 | 14.0 | 9/16 | 55 | 2 3/16 | 97.5 | 3 13/16 |
| 80 mm | 6294 | 19.5 | 3/4 | 61.0 | 2 13/32 | 80.0 | 3 1/8 | 19.8 | 25/32 | 34.5 | 1 3/8 | 121 | 4 3/4 |
| | 6295 | | | | | | | | | | | | |
| | 6299 | | | | | | | | | | | | |
| | 6298* | 19.5 | 3/4 | 61.0 | 2 13/32 | 80.0 | 3 1/8 | 19.8 | 25/32 | 61 | 2 3/8 | 121 | 4 3/4 |

*Double blocks

Install using sealant in holes. **Tip:** Put slight bevel at top of hole to allow sealant to mass around upper part of hole.



Footblock Torque Specifications

| Block Size | Nm | Ft-lb |
|------------|------|-------|
| 45 mm | 7.6 | 5.6 |
| 60 mm | 13.5 | 10.0 |
| 80 mm | 36.6 | 27.0 |



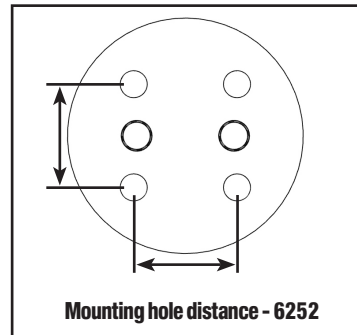
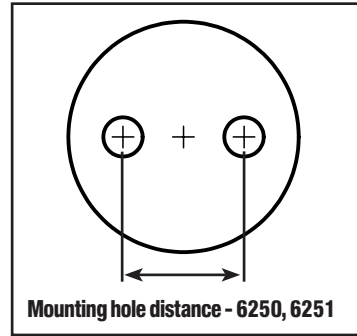
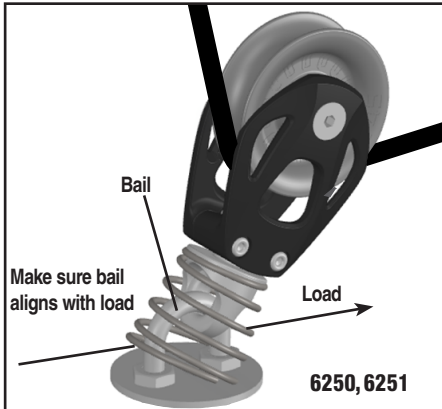
IMPORTANT! Do not exceed the torque specifications. Overtightening can cause the sheave to bind and may damage the block.

Mounting Stand-up Blocks - 45 mm

Planning installation - Make sure the bail of the padeye is aligned with the load. See image below.

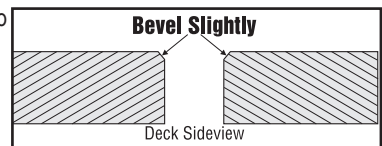


WARNING! You must mount to solid deck construction using supplied nuts, washers, or backing plates to achieve correct maximum working load to avoid a failure leading to an accident.



| Stand-up block | Bail thread size | Drill size for clearance hole | Mounting hole distance |
|----------------------------|------------------|-------------------------------|------------------------|
| 6250, 6251 45 mm | 6 mm (1/4") | 6.25 mm (17/64") | 20 mm (13/16") |
| 6252 45 mm | N/A | 5.6 mm (7/32") | 21.2 mm (53/64") |

Install using sealant in holes. **Tip:** Put slight bevel at top of hole to allow sealant to mass around upper part of hole.

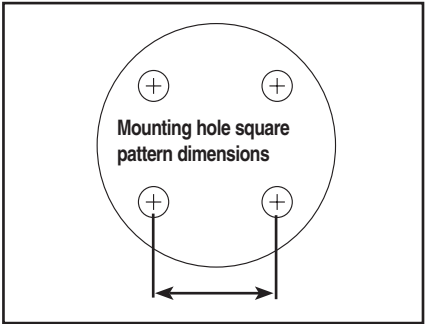
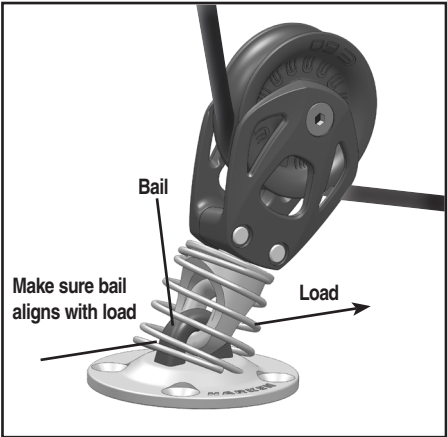


Mounting Stand-up Blocks - 60 mm and 80 mm

Planning installation - Make sure the bail of the padeye is aligned with the load. See image below.

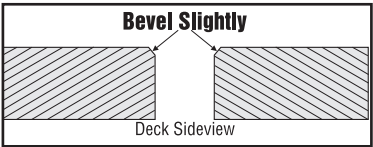


WARNING! You must mount to solid deck construction using specified fasteners in all mounting holes and nuts, washers, or backing plates to achieve correct maximum working load to avoid a failure leading to an accident.



| Stand-up block | Flathead screw size | Drill size for clearance hole | Mounting hole square pattern dimension |
|---|---------------------|-------------------------------|--|
| 6277, 6278 60 mm | 6 mm 1/4" | 6.25 mm 17/64" | 41 mm 1 5/8" |
| 6280, 6281, 6282 80 mm | 8 mm 5/16" | 8.25 mm 21/64" | 46 mm 1 13/16" |

Install using sealant in holes. **Tip:** Put slight bevel at top of hole to allow sealant to mass around upper part of hole.

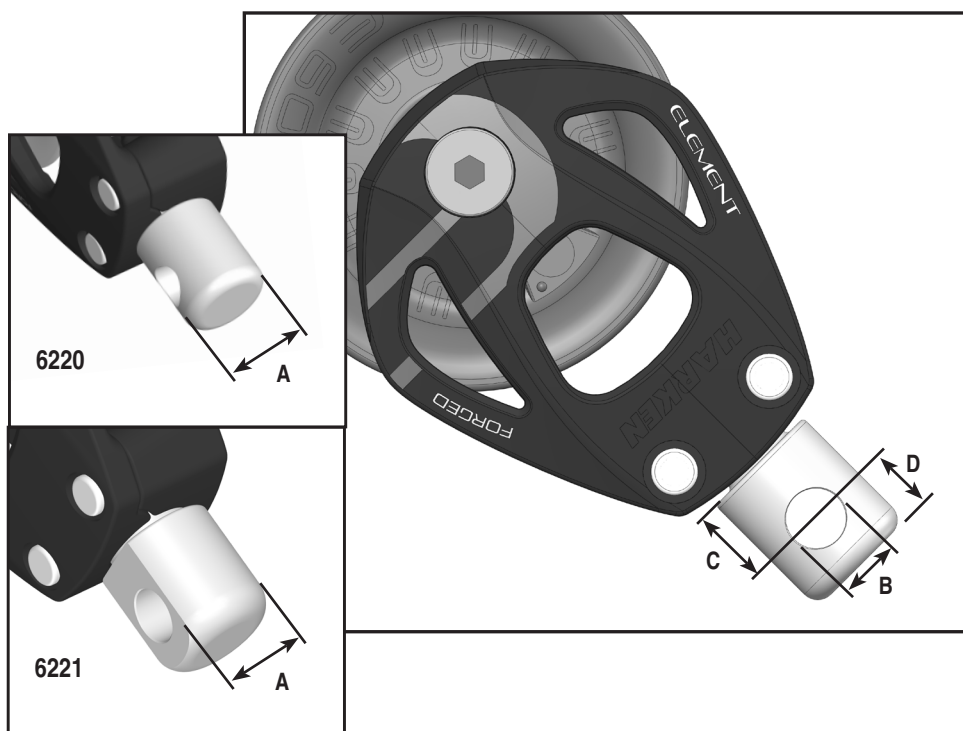


Masbase Blocks for Forkhead Fittings

Use with mastbase forkhead mastbase fittings. Examples include fittings supplied by Z-Spars and Sparcraft.



Forkhead fitting



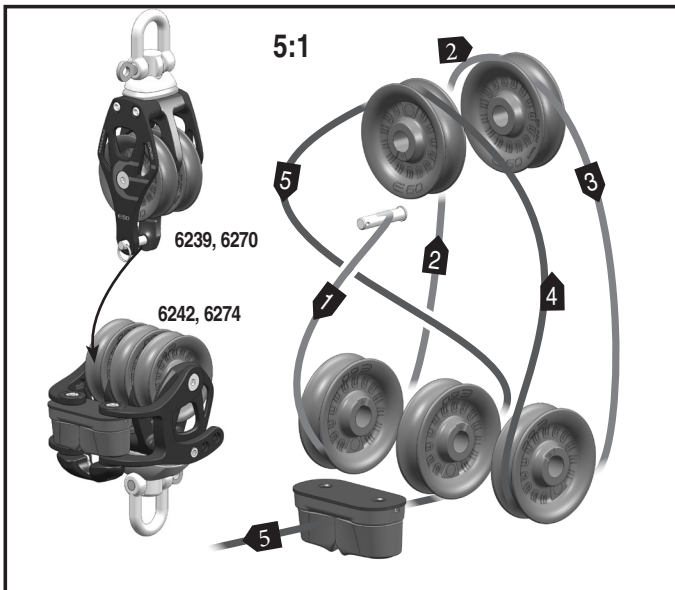
| Block | Pin sized used | A Fit Dimension | B Hole Ø | C Ø CL to top | D Ø CL to bottom |
|-------------------|----------------|--------------------|-------------|------------------|---------------------|
| 6220 60 mm | 8 mm | 16.76 mm | 8.2 mm | 11.15 mm | 8.71 mm |
| | 5/16" | .660" | .323" | .439" | .343" |
| 6221 80 mm | 10 mm | 18.29 mm | 10.31 mm | 13.31 mm | 10.67 mm |
| | 3/8" | .720 | .406" | .524" | .420" |

Reeving Blocks

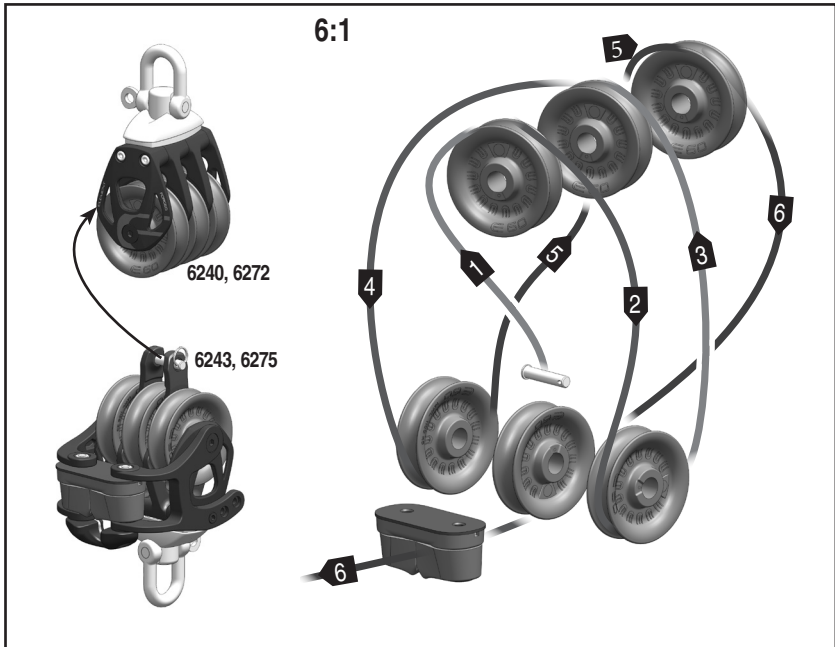
Use splice or knot to deadend sheet to becket. Use the sequences below to reeve blocks.

Note: Upper and lower blocks will be at right angles to each other.

Reeving diagrams shown without block structure for clarity.

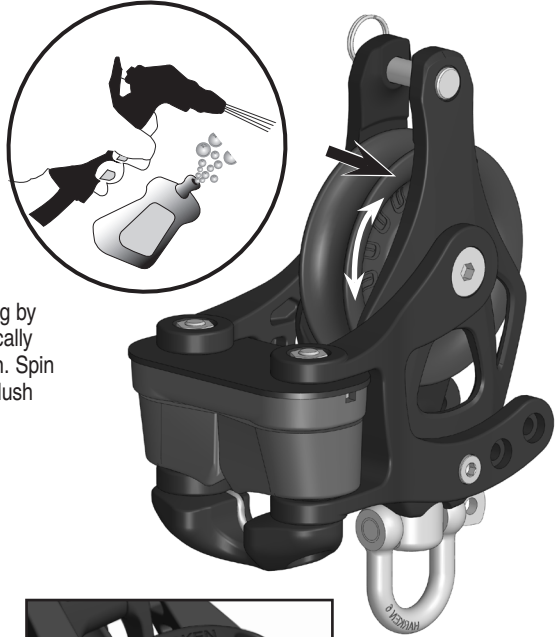


Reeving diagrams shown without block structure for clarity.



Maintenance

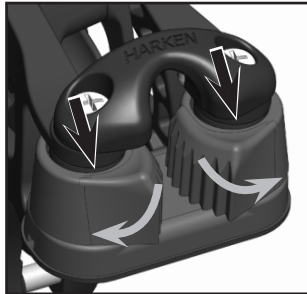
Periodically inspect all fasteners and shackles to make sure they are secure.



Keep your equipment clean and free-running by frequently flushing with fresh water. Periodically clean with mild detergent and water solution. Spin sheave to distribute soap solution evenly. Flush with fresh water.

Note: Sheave is not removable.

If block has cam cleat, flush balls in cam cleat while rotating pawls.



IMPORTANT! Exposure to some teak cleaners and other caustic solutions can result in discoloration of part and is not covered under the Harken warranty.



Warranty

For additional safety, maintenance and warranty information see www.harken.com/manuals or the Harken catalog.