



INSTALLATION MANUAL

ISO RACK

ISOMETRIC STRENGTH RACK · ST0204

PRODUCT CODE
ST0204

DOCUMENT
Installation Manual

STRIDE EUROPE
strideeurope.com

01

SYSTEM OVERVIEW

The STRIDE ISO Rack is an isometric strength testing and training rack built around **VALD ForceDecks**. Two stainless-steel adjustment gears with numbered positions (0–24) give a fixed, exactly repeatable bar height on both sides — the athlete pulls or pushes against an immovable bar while the force plates in the integrated base capture the output.

The rack combines the testing station with a chin-up bar, ø32 mm bar hooks, J-cups and plate storage pins. A **magnetic bar lock** is supplied as an additional safety mechanism: it locks the bar into the adjustment gear so it cannot lift out or come loose during maximal isometric efforts.

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VARIANTS & FORCEDECKS COMPATIBILITY

One product code, three base configurations. The recess in the base construction is matched to the VALD ForceDecks model — specify the ForceDecks model when ordering.

VARIANT	PRODUCT CODE	COMPATIBLE FORCE PLATES	DECK RECESS PER PLATE (W × D)
ISO Rack Mini	ST0204	VALD ForceDecks Mini	294 × 665 mm
ISO Rack Lite	ST0204	VALD ForceDecks Lite	384 × 665 mm
ISO Rack Max	ST0204	VALD ForceDecks Max	384 × 735 mm

Recess dimensions per technical drawings ST0204 (pages 2–4). Force plates are not part of the scope of delivery. Covers for the deck recesses are included so the base can be used as a closed platform without force plates.

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SCOPE OF DELIVERY

COMPONENT	QTY
Base construction	1
Base tube	2
Trapezoidal fixed plate	2
Stainless steel adjustment gear — left / right	1 + 1
Chin-up bar	1
Barbell bar	1
J-cups	1 pair
Plate pin	2
Ring attachment	2
Cover for force-deck recess	2
Magnetic bar lock (safety)	Included

AT A GLANCE

Material / finish	Powder-coated steel
Colour	Black
Product weight	142 kg
Use	Indoor only
Assembly	Required · stackable packaging
Warranty	1 year
Shipping	Wooden case 2200 × 970 × 490 mm · 191 kg

Safety — magnetic bar lock: always fit the magnetic lock before isometric testing. It prevents the bar from lifting out of the adjustment gear under load or on sudden release.

04 DIMENSIONS & CLEARANCE

2367.5 mm

OVERALL HEIGHT †

1084 / 1100 mm

INSIDE WIDTH / UPRIGHT SPACING

1908 × 1305 mm

FOOTPRINT INCL. PLATE PINS (W × D)

ø32 mm

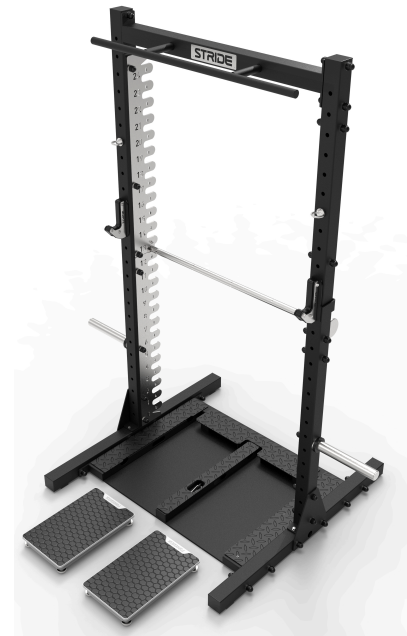
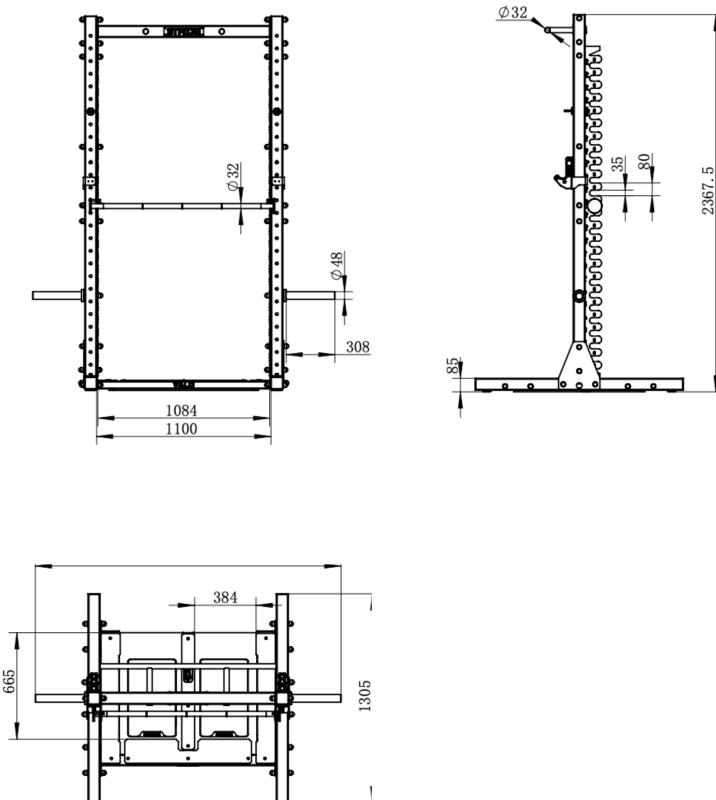
BAR HOOK / CHIN-UP BAR

ø48 × 308 mm

PLATE STORAGE PINS

85 mm

BASE FRAME HEIGHT



STRIDE ISO RACK · TECHNICAL DRAWING ST0204 (LITE BASE SHOWN)

† Dimensions per technical drawings ST0204. The commercial spec sheet lists product dimensions 1250 × 1305 × 2270 mm (L × W × H) — the technical drawings are taken as authoritative in this manual; discrepancy to be confirmed.

Important — Clearance: keep a free zone of at least **1 m** around the rack. Position the rack so the athlete can enter and exit the platform safely, and keep the test area free of walkways during measurement sessions.

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BEFORE YOU BEGIN

■ REQUIRED TOOLS

- Metric hex key and socket set (M16 / M10 / M6)
- Torque wrench
- Spirit level (≥ 600 mm) and tape measure
- Rubber mallet
- Step ladder for the top frame

■ PERSONNEL

- **Minimum two installers** — the base construction and uprights are heavy (142 kg total) and must be positioned by two people
- Keep the packaging crate (191 kg) on a pallet until unpacked at the installation location

■ SAFETY

- Wear safety shoes and gloves during assembly
- Never leave the uprights unsupported before they are bolted to the base
- Do not load or test on the rack before final torque and inspection are complete
- Always fit the **magnetic bar lock** before isometric testing
- Indoor use only — the rack is not suitable for outdoor installation or storage

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SITE & FLOOR REQUIREMENTS

■ FLOOR

- Level, rigid, load-bearing floor — structural concrete recommended
- A level base is **essential for valid force-plate data**: compensate any unevenness with shims before final tightening
- Avoid soft or floating floors under the platform — they distort force measurements

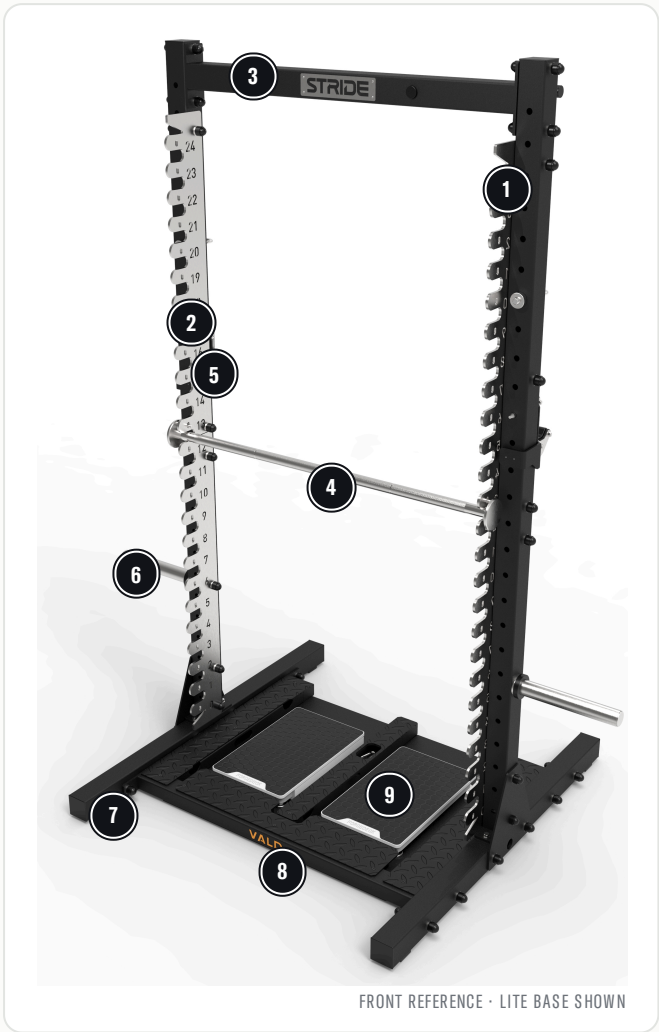
■ ENVIRONMENT

- Indoor, dry environment only
- Allow cable routing for the ForceDecks to the analysis device without crossing the athlete zone
- Keep at least 1 m clearance around the rack for safe entry, exit and spotting

Specifications to confirm: tightening torques for the M16 / M10 / M6 fasteners are not included in this revision — confirm with STRIDE Europe before installation.

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PARTS & TECHNICAL DRAWING



FRONT REFERENCE · LITE BASE SHOWN

- 1 Upright**
2× · numbered hole grid
- 2 Stainless Steel Adjustment Gear**
Left + right · positions 0-24
- 3 Chin-Up Bar / Top Frame**
ø32 mm
- 4 Barbell Bar**
Fixed isometric bar
- 5 J-Cups**
1 pair
- 6 Plate Pin**
2× · ø48 × 308 mm
- 7 Base Tube**
2×
- 8 Base Construction**
Incl. trapezoidal fixed plates (2×)
- 9 Force-Deck Recess Covers**
2× · force plates not included
- 10 Ring Attachment**
2× · not shown in this view
- 11 Magnetic Bar Lock**
Safety · not shown in this view

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FASTENER KIT

FASTENER	SIZE	TOTAL QTY	USED IN
Hex bolt	M16 × 110	20	Base frame (12) · uprights (4) · top frame (4)
Washer	M16	42	Base frame (24) · uprights (8) · top frame (10)
Aircraft nut	M16	22	Base frame (12) · uprights (4) · top frame (6)
Cap-head bolt + spring washer + washer	M10 × 20 / M10	2 + 2 + 2	Adjustment gear to base
Hexagon socket countersunk screw	M6	6	Force-deck recess covers

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ASSEMBLY SEQUENCE

1

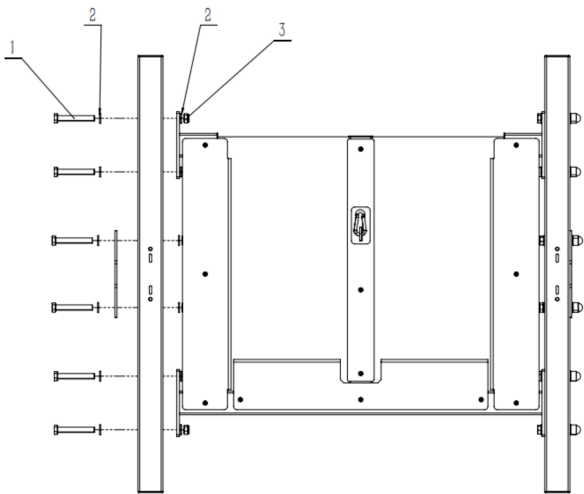
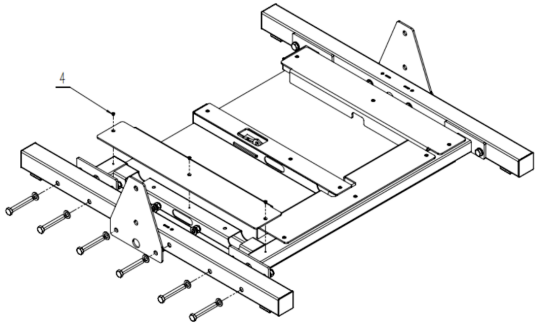
UNPACK & INVENTORY

Open the wooden case at the installation location. Check all components against the scope of delivery (p. 02) and the fastener kit (p. 05) before starting. Keep all fasteners sorted per step.

2

ASSEMBLE THE BASE FRAME

Bolt both base tubes to the base construction through the trapezoidal fixed plates, exactly as shown — part numbers in the drawing match the table. Fit the force-deck recess covers with the M6 countersunk screws. Leave all bolts hand-tight.



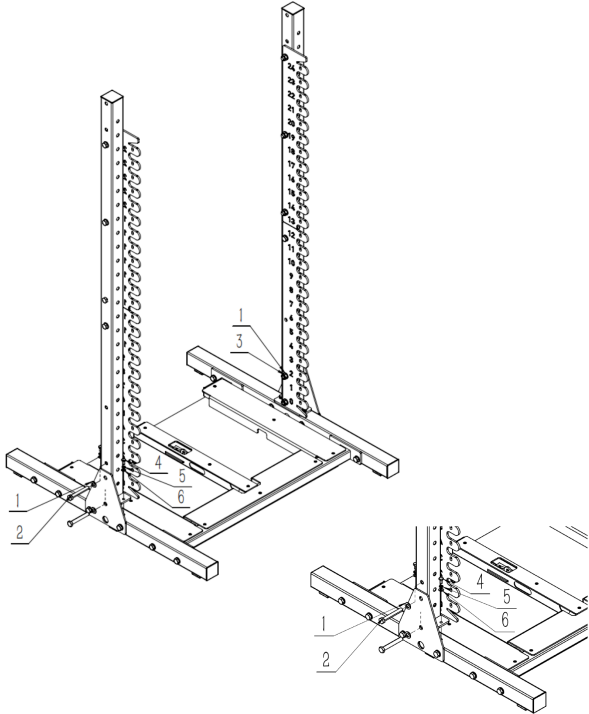
STEP 2 · BASE FRAME

#	HARDWARE	SIZE	QTY
1	Hex bolt	M16 × 110	12
2	Washer	M16	24
3	Aircraft nut	M16	12
4	Countersunk screw	M6	6

Each bolt runs through base tube, trapezoidal plate and base construction: washer under head and under nut. The M6 screws (4) fix the recess covers flush into the platform.

3 RAISE THE UPRIGHTS

With two people, position each upright with its stainless adjustment gear on the base and bolt through as shown. Secure the bottom of each adjustment gear to the base with the M10 cap-head bolts, spring washers and washers. Support each upright until fully bolted.

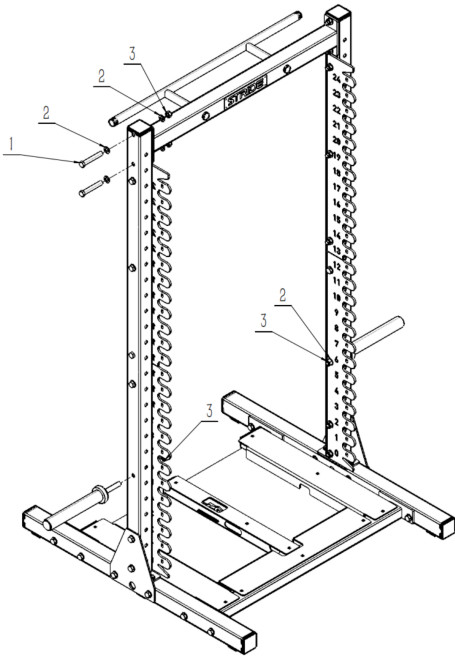


STEP 3 · UPRIGHTS & ADJUSTMENT GEARS

#	HARDWARE	SIZE	QTY
1	Hex bolt	M16 × 110	4
2	Washer	M16	8
3	Aircraft nut	M16	4
4	Cap-head bolt	M10 × 20	2
5	Spring washer	M10	2
6	Washer	M10	2

4 FIT THE TOP FRAME

Lift the chin-up bar assembly onto both uprights and bolt as shown. The top frame squares the rack — keep all connections hand-tight until the frame is aligned, then verify both adjustment gears are parallel.

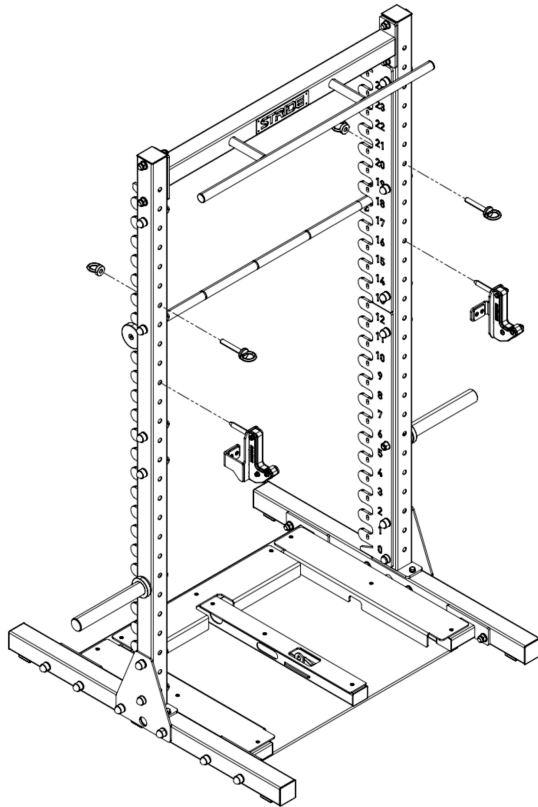


STEP 4 · CHIN-UP BAR / TOP FRAME

#	HARDWARE	SIZE	QTY
1	Hex bolt	M16 × 110	4
2	Washer	M16	10
3	Aircraft nut	M16	6

5 INSTALL THE ATTACHMENTS

Hook the J-cups into the adjustment gears, slide the plate pins into position and mount the ring attachments as shown in the exploded view. All attachments seat without additional fasteners.



STEP 5 · J-CUPS, RING ATTACHMENTS & PLATE PINS

6 FIT THE MAGNETIC BAR LOCK

Place the supplied magnetic bar lock at the bar position on the adjustment gear. The lock secures the bar so it cannot lift out or come loose during isometric pulls — always in place before testing.

7 LEVEL & POSITION THE FORCE PLATES

Level the rack in both directions and shim where needed — a level platform is essential for valid data. Place the VALD ForceDecks in the base recesses and route the cabling clear of the athlete zone.

8 FINAL TORQUE & INSPECTION

Tighten all M16, M10 and M6 fasteners to specification, re-check level and plumb, verify both adjustment gears read the same position, and complete the checklist below.

FINAL INSPECTION CHECKLIST

- | | |
|---|---|
| ☐ All fasteners tightened to specification | ☐ Magnetic bar lock present and functioning |
| ☐ Rack level and plumb in both directions | ☐ Force plates seated flush in the base recesses |
| ☐ Left and right adjustment gears aligned at the same number | ☐ Recess covers fitted when plates are removed |
| ☐ Bar seats correctly at every test height | ☐ 1 m clearance zone around the rack is free |

Maintenance: re-check all fasteners one week after installation and monthly thereafter. Keep the adjustment gears clean and dry, inspect the magnetic bar lock before every test session, and wipe surfaces with a mild detergent — no aggressive solvents.