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Saving Time Money & Injuries

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QUATTROLIFTS

Nomad & Rotating Head
Operators Manual

Operation, Safety and Maintenance Instructions

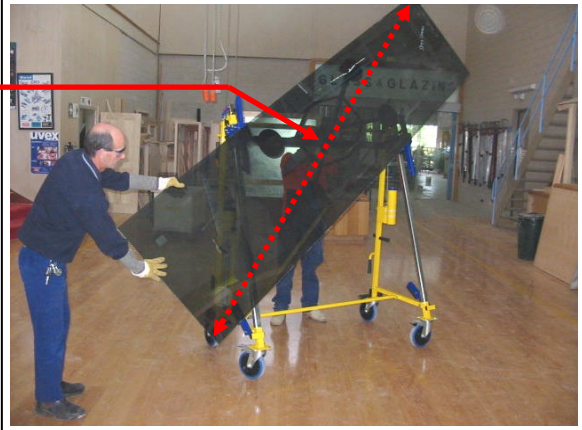
READ THIS BOOKLET BEFORE USE
KEEP IN A SAFE PLACE

CONTENTS

NOTE: Nomad on front cover has four optional 250mm All Terrain Wheels - the Nomad normally sold with standard 200mm wheels with the

QUATTROLIFTS SITE CHECKLIST - Examples

Glass Rotation - Measure the diagonal length of the glass – for glass up to 120" (300cm) in diagonal length at least 2 trained people and the standard rotating head is required. For 120" (300cm) to 180" (450cm) in diagonal length use the extension arm on the Rotating Head and at provide an extra 2 people to rotate the glass as it will be off-set and heavier on one side.



Ceiling / Veranda Height - The Nomad requires 90% of the glass height to pass through a doorway (this can be reduced to 80% by flipping the top extension wheels backwards).

Pathway / Door Width - The Nomad requires a minimum of 36" (90cm) to pass through a doorway or gate

QUATTROLIFTS SITE CHECKLIST - Examples

Sill Depth - The Nomad and Rotating Head can install glass into a frame with a sill depth of 9" (23 cm) - the Nomad can install glass up to 16" (58 cm) by back flipping back the top extension arm wheels

Height of Lower Edge of Window Frame - The Nomad and Rotating Head can install glass up to 48" (120 cm) off the ground.

If the top edge of the glass will be above 120" (300 cm) then provide at least one extra person with a ladder to support the glass at the top extension arm wheels)

Working Area in Front of a Window - A minimum of 48" (120 cm) in front of a window are required for the Nomad & operator to install glass

Unloading Glass of a Truck - at least 60" (150 cm) from the side of the truck is required to unload glass

OVERVIEW

The Quattrolifts Nomad and Rotating Head are designed to assist glaziers handle glass weighing up to 400kg (880 pounds).

DO NOT USE THE NOMAD AND ROTATING HEAD TO LIFT GLASS THAT IS UNSTABLE OR MAY BREAK potentially injuring a person.

After the operators have been trained and are competent in its use, the functions listed in this manual can be performed using the Quattrolifts Nomad and Rotating Head. The appropriate procedures should be read and understood before using the Nomad and Rotating Head in any situation. Each job needs to be assessed to determine if the Nomad and Rotating Head are suitable (a sample Site Checklist is located on pages 32 and 33).

As a minimum, the employer must allocate at least two trained people for each glazing job using the Nomad and Rotating Head. For glass weighing more than 150 kg (300 pounds) an extra trained person per 50kg (100 pounds) of glass being handled must be available to assist the glaziers using the Nomad and Rotating Head.

DISCLAIMER

The Nomad, Rotating Head and Glazing Guides MUST be used in accordance with these Standard Operating Procedures.

Quattrolifts recommends that prior to the use of the Quattrolifts Nomad that all operators MUST undertake ALL of the following:

- Read carefully and understand the Quattrolifts Nomad Standard Operating Procedures.
- View the Training Video available from the Quattrolifts website (www.quattrolifts.com) under the CUSTOMERS Tab.

If available it is recommended that operators undertake and obtain a Certificate of Completion of a Quattrolifts Nomad training course with a Quattrolifts certified trainer.

Quattrolifts will not be liable for any personal injury or property damage if the Nomad and Rotating Head are not used strictly in accordance with the procedures as set out in the training DVD, Standard Operating Procedures and training course.

CONTENTS OF THE NOMAD

Check that the following items have been included with the Nomad crate:

- Nomad (two frames)
- Four vacuum cups with plate and safety locking pins
- Two hand grips with thread for the sliding head to act as a brake
- Two short braces (one sliver and one blue)
- Two wheel chocks (one attached to the bottom of each Nomad frame)
- Operators Manual
- Two glazing guides
- Rotating Head with Extension Arm
- Training DVD can be viewed at www.quattrolifts.com and downloaded from: http://www.quattrolifts.com/press-room/all-videos/75-watch-training-dvd.html

If any of the above items are missing from your Nomad, notify your distributor immediately.

Perform a *"PRE-USE CHECK OF THE QUATTROLIFT NOMAD"* as directed on page 29 before using the Nomad daily. If you identify any problems notify your distributor immediately.

Pathway / Door Width	The Nomad requires a minimum of 90cm (36") to pass through a doorway or gate	
Working Area in Front of a Window	A minimum of 120 cm (48") in front of a window are required for the Nomad & operator to install glass	
Obstacles in the Way	Is there anything in front of the window to prevent access by the Nomad – can these be removed / overcome?	
Ceiling / Veranda Height	The Nomad requires 90% of the glass height to pass through a doorway (this can be reduced to 80% by flipping the top extension wheels backwards).	
Ground Surfaces	Is the pathway smooth and firm? Consider using the steel U channels to overcome soft or muddy ground and also traversing steps up to 30cm (12") off the ground.	
Unloading Glass	Can the glass be unloaded safely from the truck using the Nomad (consider street traffic, at least 60" from the side of the truck is required to unload glass).	
Deglazing	Existing cracks in the glass may prevent the vacuum cups from holding. Can the vacuum cups be repositioned on the Rotating Head or will using a plastic contact adhesive allow the cups to attach safely?)	
Other Comments - What extra equipment and how many people are required for this job?		

QUATTROLIFTS SITE CHECKLIST - Make multiple copies

COMPLETE THIS CHECKLIST TO ASSIST YOU DETERMINING IF THE NOMAD AND ROTATING HEAD CAN BE USED ON A GLAZING JOB

Date: _____ Job Number: _____ Assessed by: _____ Manager: _____

Specifications	Details	Comments
Glass weight	Two people to operate the Nomad & Rotating Head and then one extra person per 100 pounds (50kg) over 300 pounds (150kg).	
Glass dimensions	For glass up to 96" (240 cm) in height at least two people trained in the use of the Nomad & Rotating Head are required – from 96" (240 cm) to 180" (450 cm) extra trained people are required with ladders	
Window Frame Type	Describe the type of frame – and if it can be glazed from the front or reverse glazing is required (extra trained people are required)	
Glass Rotation	Measure the diagonal length of the glass – for glass up to 120" (300 cm) in diagonal length at least 2 trained people and the standard rotating head is required. For 120" (300 cm) to 180" (450 cm) in diagonal length use the extension arm on the Rotating Head and at provide an extra 2 people to rotate the glass as it will be off-set and heavier on one side.	
Height of Lower Edge of Window Frame	The Nomad and Rotating Head can install glass up to 48" (120cm) off the ground. If the top edge of the glass is above 120" (300 cm) then at least one extra person with a ladder to support the glass at the top.	

NOMAD & ROTATING HEAD COMPONENTS

LEGEND

1. Top extension arm & wheel with glass buffer
2. Top extension arm lock
3. Sliding head & head lock
4. Side movement adjuster on diagonal brace (for glass installation)
5. Lower glass supports
6. Lockable front and rear wheels (these are 250mm OPTIONAL All Terrain Wheels - the Nomad is normally fitted with 200mm wheels).
7. Foot peg
8. Cross braces, clamps and safety pins (two horizontal and one diagonal brace)
9. Wheel chocks (over rear wheel on each side)
10. Winch and 4mm cable (glass height adjustors)
11. Vacuum cup (one of four) which can be interchanged with the Nomad Rotating Head
12. Nomad Handles
13. Rotating Head
14. Rotating Head locking pin and pull cord (on operators side of Rotating Head)
15. Rotating Head side bracket pins (both sides)
16. Rotating Head extra vacuum cup (to be used for glass longer than 300cm (120")
17. Nomad vacuum cup arms

LIMITED WARRANTY

The Quattrolifts Nomad and its associated components (referred to as the "Product") are carefully constructed, thoroughly inspected at various stages of production, and individually tested. They are warranted to be free from defects in workmanship and materials for one year from the date of purchase. If a problem develops during the warranty period, the complete product and/or component **must** be returned to the Quattrolifts Distributor *(at customers expense)* as directed below, in item 4. If inspection shows that the problem is due to defective workmanship or materials, the product will be repaired or replaced without charge and returned at the expense of Quattrolifts.

WARRANTY WILL ONLY APPLY WHEN:
The Product is operated in strict accordance with "Quattrolifts Nomad Safe Operating Procedure".
The Product is serviced and maintained as recommended in the "Quattrolifts Nomad Safe Operating Procedure" and that the appropriate service records are maintained.

WARRANTY DOES NOT APPLY WHEN:
2.1 Repairs are required due to abnormal wear and tear.
2.2 The product has been abused, misused or neglected.
2.3 Alterations have been made to the Product.

WARRANTY DOES NOT APPLY TO:
3.1 The vacuum lifters and cables.
3.2 Any defect which is caused by any modifications made to the Product without the written consent of Quattrolifts.

A problem not covered under warranty *(see items 2 and 3)* will be corrected automatically, unless the customer includes a written request for notification of costs prior to repair. Otherwise the customer assumes all responsibility for repair costs and agrees to receive the repaired Product on a 'fee-for-service' basis.

TO OBTAIN WARRANTY SERVICE:
Call your Distributor and notify them of the defect
On returning the products please include your name, address and phone number.
1.Indicate WARRANTY RETURN and Ship the product - *DIRECTLY TO YOUR DISTRIBUTOR*

PRE-USE CHECK OF THE QUATTROLIFT NOMAD - Make multiple copies

IMPORTANT: CHECK THE FOLLOWING ITEMS BEFORE EACH USE
Please place a tick against each *item to check* and make comments where necessary regarding corrective action.

DO NOT USE THE MACHINE IF ANY OF THE FOLLOWING ITEMS ARE DAMAGED	OK	Not OK	Comments
Vacuum cups - the cup edges for damage (i.e. cut or bent) & the locking pins are working			
Vacuum cups - the vacuum plunger is working (attach each cup to a small piece of glass to ensure vacuum is maintained for a reasonable time without the plunger moving out). If the plunger slides open and the red line is seen on the plunger, then the cup has lost vacuum.			
Vacuum cups - the filter on the rubber cup is in place			
Vacuum cups - the plunger slides easily and is well lubricated			
Vacuum cups - the arms holding the cups (for weld fractures or dents)			
Braces - each brace must slide easily, safety pins attached & working & the clamps lock firmly			
Castors - the brakes work effectively (engage the brake and move the Nomad to see if the wheel locks; make sure the castor brake locks securely and does not disengage; tilt the Nomad on its front wheel and use your knee to push forward on the lower foot peg to see if the castor moves easily)			
Winch - Unwind the cable completely & make sure the cable is firmly attached to the winch.			
Winch - Inspect the cable for damage or fraying then rewind the cable back onto the winch drum with the cable under hand held tension			
Winch - Handle (general inspection for damage)			
Sliding head - Head slides up and down easily when winding the winch.			
Rotating head – Inspect that the locking pins lock into each of the holes on the rotating head bracket attached to the Quattrolifts nomad (Note: ensure that when rotating head is in use that all locking pins are attached to vacuum lifters and working)			
Rotating Head Extension arm (5th Vac Cup) – Inspect that the locking pins are present and work and the vacuum cup holds vacuum by attaching it to a plate of glass and the vacuum release lever works			

EMPLOYER TO COMPLETE WITH EACH EMPLOYEE LIKELY TO USE THE NOMAD & ROTATING HEAD

Prior to allowing any employee to use the Nomad and Rotating Head, you and the employee should sign and file a copy of this page to help ensure that the Nomad and Rotating Head is used and maintained as outlined in the **Quattrolifts Nomad & Rotating Head Standard Operating Procedure**.

The Nomad will only be used and maintained as stated in the "Quattrolifts Nomad Standard Operating Procedure"

If you or your employees are unsure of any facet of the use of the Nomad contact your distributor or Quattrolifts directly or via their website for further information.

I _____
(Employee's Name)

have read and understand the "Quattrolifts Nomad & Rotating Head Standard Operating Procedure" and will use the Nomad & Rotating Head as stated in the "Quattrolifts Nomad Standard Operating Procedure"

_____
Employer to Sign

_____
Employee to Sign

_____
Date

WORKING LIMITS OF THE NOMAD & ROTATING HEAD

The Nomad and Rotating Head…

- Requires a minimum of two trained people for its safe operation
- One person can occasionally be used if the Nomad is reduced in width (see page 11) and the glass is less than 80 inches wide and the ground is smooth.
- Can lift 880 pounds or 400kg
- Can lift laminated glass up to 180 inches (450 cm) high with the rotating head and extension arm. Lifting glass in excess of these dimensions may cause the Nomad to become unstable and may cause the glass and machine to tip.
- Do not lift any glass or material that the vacuum cups cannot attach to securely (see page 8).
- DO NOT USE THE NOMAD AND ROTATING HEAD OVER GROUNDS THAT ARE SOFT OR CAUSE THE NOMAD WHEELS TO SINK OR MAKE THE NOMAD AND GLASS UNSTABLE. If the ground is uneven or soft lay wooden boards or C purlins (also known as C channels) on the ground to act as a firm base for the Nomad wheels to travel over (see page 14).
- All operators of the NOMAD AND ROTATING HEAD must read the Standard Operating Procedures in this manual carefully and have received certification by a certified trainer. The NOMAD AND ROTATING HEAD SHOULD ONLY BE USED BY CERTIFIED USERS.
- THE NOMAD AND ROTATING HEAD SHOULD NOT BE USED TO CARRY GLASS ON OR OVER INCLINES OF GREATER THAN 10 DEGREES IF THE GLASS IS BEING CARRIED ON THE LOW SIDE OF THE INCLINED SLOPING GROUND. The operators using Nomad and Rotating Head should always transport the glass on the high side of the inclined ground otherwise the glass will be unstable and may tip away from the operators.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Consult with your employer to identify what PPE you must wear when handling and installing glass using the Quattrolifts Nomad.

As a minimum all users must wear:

Safety glasses; Glaziers Gloves; Safety shoes; Wrist cuffs.

IMPORTANT SAFETY PRECAUTIONS WHEN USING THE NOMAD & ROTATING HEAD

VACUUM CUPS

Recheck the vacuum cups often by ensuring the plunger is always in the compressed position (photo A)

A

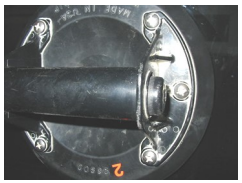
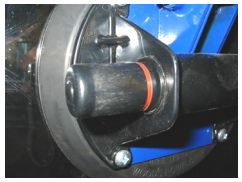


Photo B represents a vacuum cup that is not adequately secured to the glass. The red line is visible meaning that the plunger is in the uncompressed position. This is UN-SAFE AS UNSECURED GLASS CAN DETACH. Take the following steps immediately: check that the glass is clean and attempt to pump the plunger to secure the glass; if the plunger releases again then lower the glass onto the lower glass supports and report this to your manager so alternative methods can be used to move the glass safely.

B



Report any damaged components to your manager to be repaired by the approved Quattrolifts distributor

INCLINED GROUND

IMPORTANT NOTE: The Nomad and Rotating Head is designed to work on flat smooth surfaces, however, if transporting glass along a sloping or inclined ground AL-WAYS have the glass on the high side of the inclined ground otherwise the glass will be unstable and may tip - The Nomad MUST NOT transport glass over an inclined ground if the glass is on the lower side of the inclined ground

C

Talking between the two operators is essential to transport and handle the glass safely. Operators need to let each other know what they intend to do with the Nomad and Rotating Head before they do it so both operators can work safely together.

Ensure that the clamps on the braces that connect each half of the Nomad are firmly locked and the safety pins inserted before transporting the glass (see photo C)

D

To determine if the Nomad with glass is stable, mark half way up the side of the glass and drop a plumb line (use your tape measure) – the glass is stable on the Nomad if the plumb line falls between the front and rear wheels of the Nomad (see red arrow in photo D). If the plumbline falls outside the front or rear wheels then the Nomad and Rotating Head should not be used to handle the glass.

IMPORTANT NOTICE REGARDING THE USE OF THE QUATTROLIFTS NOMAD & ROTATING HEAD

We at Quattrolifts have worked extensively to ensure that the risk of injury from using the Nomad is minimised as far as practicable. The Nomad should always be used and maintained (see page 31 for daily checks and page 28 for routine maintenance) as indicated in this Standard Operating Procedure.

All people that use the Nomad and Rotating Head must be trained by Quattrolifts trainer (contact your distributor or Quattrolifts direct) to be competent in the use of the Nomad.

All people using the Nomad and Rotating Head MUST wear their Personal Protective Equipment (PPE) - see page 7.

We also recommend that initially the employer sends extra operators until all trained operators are confident to handle the Nomad and Rotating Head.

As a minimum, the employer must allocate at least two trained people for each glazing job using the Nomad and Rotating Head.

For glass weighing more than 300 pounds (150kg) an extra trained person per 100 pounds (50kg)of glass being handled must be available to assist the glaziers using the Nomad and Rotating Head.

ROUTINE MAINTENANCE OF THE QUATTROLIFT NOMAD PERFORMED BY AN ACCREDITED REPAIRER

CONTACT YOUR RETAILER – The Nomad and Rotating Head should be inspected every 6 months to ensure all critical components are in good working order and is safe to use. Failure to check these items could result in the Nomad and Rotating Head failing and causing an injury.

The following items MUST to be checked:

Frame

- Inspect the frame for weld fractures or rust or dents
- All bolts and nuts are in place and in good condition
- Top extension arm and wheel moves freely and locks
- Pulleys are in good condition

Braces

- Inspect and ensure that the braces slide
- Ensure the brace clamps and safety locking pins work well
- Ensure that the diagonal adjuster winds easily
- Inspect to ensure that the snap locks on the end of each brace are in good working order
- Inspect the bolts holding the braces to the frame are tight

Vacuum cups

- the cup edges for damage (i.e. cut or bent)
- the vacuum plunger is working (each vacuum cup attached to a small piece of glass to ensure vacuum is maintained for at least 30 minutes)
- the arm holding the vacuum cups (for weld fractures or dents)

Castors

- the wheels for damage (cut or worn)
- the brakes work effectively (with a sheet of glass on the Nomad lock each castor and push the frame to ensure the wheel doesn't turn)
- Axle bolts are tight and in good condition

Winch

- While pulling on the cable unwind the winch handle (counter clockwise) and inspect the cable for fraying or damage
- Handle (general inspection for damage)
- Winch winds easily

Sliding head

- Head slides up and down easily when winding the winch (check the rollers moving up and down the mast)
- Rubber bushes supporting the vacuum cup arm are in good working order
- Head locks are in good working order

Rotating Head

- Inspect the frame for weld fractures or rust or dents
- Inspect each of the rubber bushes on the arms to ensure they are not worn
- Test the lock to ensure it works well when rotating a load
- Test each of the side locking pins secure the Rotating Head to the Nomad and all pins and lynch pins are present

IMPORTANT SAFETY PRECAUTIONS WHEN USING THE QUATTROLIFT NOMAD & ROTATING HEAD

GLASS OVERHANG

The amount of allowable overhang of glass once the vacuum cups are attached to the glass will depend on the glass thickness and whether the glass has been damaged. Always thoroughly check the glass edges for chips or damage that may cause the glass to break as it is being handled by the Nomad & Rotating Head.

If the glass is not damaged then the maximum overhang from the top edge of the glass to the nearest vacuum cup edge is 50 inches (125 cm) see photo E – this distance MUST NOT exceed 50 inches (125 cm).

DO NOT USE THE NOMAD AND ROTATING HEAD TO LIFT GLASS THAT IS UNSTABLE OR MAY BREAK.

E

ASSEMBLING THE QUATTROLIFT NOMAD FOR GLASS WIDER THAN 80” (200 CM)

Assembling the Nomad and attaching to Glass can be performed by one or two operators wearing appropriate PPE.

- Make sure the glass is clean of dust so the vacuum cups will attach
- Attach each Nomad frame to the glass about 200 cm (80”) apart
- Position each frame so that both vacuum cups will attach to the glass surface evenly
- IMPORTANT – engaging the brake on each of the front castor wheels ensures that the Nomad does not move while you attach the glass.
- Lean each of the Nomad frames against the glass (see photo A)
- Position the sliding head at or above the horizontal centreline of the glass
- Place the vacuum cups about 30 cm (12”) in from the edge of the glass
- Pump each of the vacuum cups until they are firmly attached to the glass as seen in photo B
- Make sure the top extension wheel on each frame is flipped forwards to support the glass
- Release all three brace clamps
- Attach top & bottom cross-braces first then the diagonal brace with the parrot beaks facing down
- Use the clamps to secure all three cross-braces firmly

- Photo C shows the Nomad attached to the glass with the cross-braces in position and being locked.
- For taller glass, greater than 200cm (80”) high, raise the top extension wheel on each frame about 30 cm (12”) from the top of the glass

A

B

C

EXAMPLES OF THE NOMAD & ROTATING HEAD IN USE

Use C purlins or boards when transporting the Nomad over uneven ground

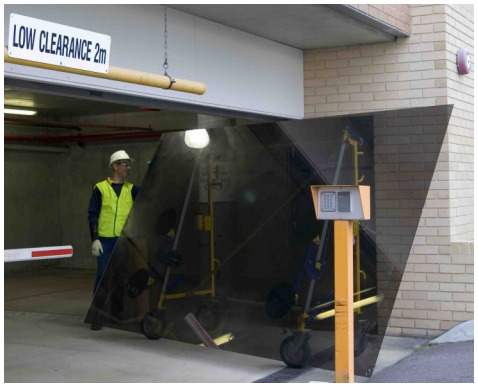
Using the Nomad behind shopping centre hoardings

Using boards to assist installing glass

Transporting glass

EXAMPLES OF THE NOMAD & ROTATING HEAD IN USE

Transporting glass under a low awning



Rotating a shop front

Using 2 Nomads to install a heavy plate of glass

Use appropriate safety equipment

ASSEMBLING THE QUATTROLIFT NOMAD FOR GLASS NARROWER THAN 80”

Assembling the Nomad and attaching to Glass can be performed by one operator wearing their appropriate PPE.

- Make sure the glass is clean
- Attach the first Nomad frame to the glass
- Position the frame so that the glass will be well balanced when both frames are attached
- Engage the brake on the front castor of each frame with your foot
- Lean each of the frames against the glass as seen in photo A

A

- Position the sliding head at or above the horizontal centre line of the glass
- Pump each of the vacuum cups until they are firmly attached to the glass
- Make sure the top extension wheel on each frame is flipped forwards to support the glass
- Attach top & bottom short cross-braces as seen in photo B
- The bottom brace needs to be secured into its locating hole on each Nomad frame by tightening the hand nut on each side of the bottom brace
- Release the diagonal brace clamp and attach it to the other Nomad frame and lock the clamp firmly to secure the diagonal cross-brace
- For taller glass (i.e. greater than 200cm or 80” high) raise the top extension wheel on each frame about 12” from the top of the glass
- One person can move narrow glass if it is safe to do so (less than 200cm or 80 “ wide and the ground is smooth) otherwise two people are required to unload and transport the glass (see photo C)

B

C

UNLOADING GLASS FROM A RACK TRUCK or GLASS CART

Two people are now required to unload the glass with one person at each frame. Talking between the two operators is essential to unload the glass safely

- Make sure the glass is clean so the vacuum cups can attach safely
- With the front castors locked, tilt the Nomad forward. As an additional safety precaution to prevent the Nomad from sliding out when lifting glass, use wheel chocks behind the front castors.
- Attach the cups to the glass
- Flip the top extension wheel forward and then raise the extension wheel so it is about 30 cm to 60 cm (12” to 24”) from the top of the glass to stop tall glass “flapping” while the glass is being unloaded – relock the top extension wheel.
- Using the winches on each frame, each operator is required to raise the glass about 1 cm (1/2”) off the truck ledge which will protect the lower edge of the glass from shelling as it is being removed from the truck / A-frame
- Each operator must place one hand on the Nomad’s hand grip located at the top of the frame (as seen in photo B)
- One foot on the foot-peg located on the inside at the bottom of each frame (as seen in photo A)
- Operators must talk to each other as they slowly push down on the foot-peg and pull back on the handgrip
- The glass will slowly pivot backwards until all 4 wheels are on the ground
- Using the winches both operators need to raise the glass high enough so the lower glass supports can be lowered by foot (as seen in photo C)
- Using the Nomad winches, both operators can now position the glass about 1 cm (½”) above the lower glass support

A

B

C

OUT RIGGER LEGS FOR THE NOMAD (Accessory)

The Outrigger Legs are used to:

- **Provide more stability when rotating long plates of glass on uneven or sloping ground**
- **Allow long plates of glass to be rotated in area with low roof clearance**

ATTACHING THE OUTRIGGER LEGS

Remove the three locking pins and attach each Outrigger leg to each half of the Nomad by:

- Remove the wheel chock above the Nomad’s rear castor
- Slide the top U bracket over the top of the vertical member of the Nomad frame under the spirit level and insert the locking pin (see photo A);
- Slide the lower U bracket over the lower vertical section of the Nomad frame where it intersects with the horizontal section (above the rear castor) and you can insert the two locking pins—one above and one below the horizontal sections (see photo B).

USING THE OUTRIGGER LEGS—EXTRA STABILITY

If using the Outrigger legs for extra stability, extend the wheels on the Outrigger Legs all the way down until they make contact with the ground and insert the locking pins, then handle the glass (as seen in photo C).

USING THE OUTRIGGER LEGS—ROTATING GLASS

If using the Outrigger legs to rotate glass indoors, retract the wheels on the Outrigger Legs all the way and insert the locking pins.

Attach the glass to the Nomad and lower it as far as possible without the glass hitting the ground. Then extend the top extension arms on the Nomad.

Lock the rear castors on the Nomad with them facing back towards the operator. Together with the second operator the Nomad with glass can now be lent backwards (as seen in photo C).

The glass can now be rotated as directed on page 24.

A

B

C

D

ROTATING GLASS USING THE NOMAD & ROTATING HEAD

- Make sure that the glass is clean for the vacuum cups to attach
- For glass with a diagonal length less than 420cm (164”) mark the middle of the glass.
- For glass with a diagonal length of 420cm (164”) or greater, measure and mark a point 210 cm (82”) from the lower corner of the glass to be rotated – this will allow the glass to be rotated without the bottom corner of the glass striking the ground.
- Position the Nomad so the middle position of the Rotating Head is aligned with the mark on the glass.
- Lock the front castors and adjust the height of the cups so the centre of the Rotating Head is aligned with the mark on the glass
- Tilt the Nomad forward so the vacuum cups of the Rotating Head are flush with the glass (photo A)
- Attach the cup to the glass by pressing on the vacuum cup arm with one hand and pumping the plunger with the other hand
- Once all the 4 vacuum cups are attached raise the glass by winding the Nomad winches to their top position – avoid forcing the winch handles after the top position has been reached
- Move the Nomad with glass to a safe area where it can be rotated
- Recheck that all the vacuum cups are attached
- With one operator standing behind the Nomad controlling the locking pin on the Rotating Head, the second operator can move the glass slightly so the first operator can release the pin (photo B).
- Once the pin is released, the second operator can rotate the glass.
- Using only the Rotating Head with 4 vacuum cups, glass with a diagonal length of up to 300 cm (120”) can be rotated
- **Plates of glass with a diagonal length of up to 196” (500cm) can be rotated using the extension arm with 5th vacuum cup on the rotating head (see photo C)**

A

B

C

TRANSPORTING GLASS USING THE NOMAD

SAFETY NOTE: Whilst the Nomad has some capacity to travel over uneven ground, the ground must be firm so the Nomad wheels do not sink or cause the Nomad to be unstable

Move the truck as close as possible to the destination for delivering glass

DO NOT TRANSPORT THE GLASS WITH ONE PERSON – TWO PEOPLE ARE REQUIRED TO MOVE THE NOMAD WITH GLASS.

Talking between the two operators is essential to transport the glass safely

- Recheck the cross-braces to ensure that the safety pins are inserted and the clamps are firmly locked to prevent the cross-braces sliding when transporting the glass
- The top extension wheel needs to be slid up to about 30 cm to 60 cm (12” – 24”) from the top of the glass to stop tall glass “flapping” while the glass is being transported
- Make sure the glass is raised about 1 cm (½”) above the lower glass support
- Lock the Head Lock on the side of the sliding head
- Unlock the castor brakes with your foot and remove the wheel chocks if they are used.
- The operator pushing from behind places one hand on the glass edge and the other hand on the frame handle (as seen in photo A)
- The glass is now ready for transporting
- The front operator also uses the frame handles to push the glass (as seen in photo B)

A

B

TRANSPORTING GLASS OVER SOME UNEVEN GROUNDS USING THE QUATTROLIFT NOMAD

SAFETY NOTE: Whilst the Nomad has some capacity to travel over uneven ground, the ground must be firm so the Nomad wheels do not sink or cause the Nomad to be unstable

Move the truck as close as possible to the destination for delivering glass

DO NOT TRANSPORT THE GLASS WITH ONE PERSON – TWO PEOPLE ARE REQUIRED TO MOVE THE NOMAD WITH GLASS.

- Recheck the cross-brace clamps to ensure that they are firmly secured (especially the diagonal brace)
- Make sure the glass is raised about 1 cm (½") above the lower glass support
- Flip the top extension wheel backwards so the glass can tilt slightly resting on the glass buffer (as seen in photo A)
- Lock the Head Lock on the side of the sliding head
- Unlock the castor brakes with your foot
- The operator pushing from behind places one hand on the glass edge and the other hand on the frame handle
- The glass is now ready for transporting
- When approaching uneven ground always proceed at a slow walking pace and
- The front operator uses the frame handles to pull the glass and assist the rear wheel over the uneven ground (as seen in photo B).
- If there is a step or soft ground to push the Nomad over, lay down a steel U channel to make the ground as smooth and stable to travel on (see photo C)

A

B

C

ASSEMBLING THE ROTATING HEAD TO THE NOMAD

Assembling the Rotating Head onto the Nomad

- Lock one of the wheel brakes on each of the Nomad frames (Photo A)
- Move each of the Nomad frames apart – there is an engraved indicator on the top and bottom braces indicating the correct position
- Wind the Nomad sliding heads to about waist height
- Release the side bracket pins on the inside of the Nomad sliding head
- Rest the Rotating Head on the bracket on the inside of the Nomad sliding head (Photo B)
- Ask fro assistance to lift the Rotating Head if you find it too heavy or awkward to handle

A

B

C

- Slide the pins into the bracket and Rotating Head and insert the lynch pin to make sure that the side bracket pin will not slide out (Photo C)
- Once the Rotating Head is secured onto the Nomad, check that the braces are firmly secured and the safety pins inserted.

D

- Each of the vacuum cups can be transferred from the Nomad to the Rotating Head by depressing the button at the top of the pin which will allow the pin to slide out (Photo D)

STORING THE QUATTROLIFT NOMAD

STORING THE NOMAD IN A FACTORY

- When leaning the Nomad against a wall / rail, ALWAYS lock **both** castors to ensure the Nomad does not fall
- The Nomad frames can be hung on a hook as long as there is no direct pressure on the moving components of the Nomad frame (such as the cable, pulleys or vacuum cups)
- Fold and push the winch handles into their storage clip

A

STORING THE NOMAD ON A TRUCK

- Two people are required to load and unload the Nomad frames from the truck
- When transporting the Nomad on a truck or vehicle ensure that the moving components (such as the cable, pulleys or vacuum cups) are protected from damage
- It is preferable to transport the Nomad frames standing upright and securely tied to the vehicle
- **The storage location of the Nomad on a truck must allow safe and easy access for two people**

LOADING GLASS FROM THE QUATTROLIFT NOMAD ONTO A RACK TRUCK OR GLASS CART

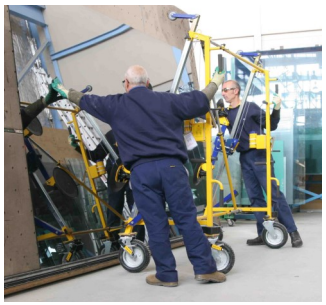
Two people are required to load the glass each at one end of the Nomad.

- Each operator is required to wind the Nomad winches up to raise the glass sufficiently to clear the ledge on the A-frame or glass trolley
- Once the glass is raised sufficiently, operators must retract the lower glass support on each Nomad frame using their foot
- The Nomad can now be slowly moved forward by both operators until the bottom edge of the glass is over the ledge on the A-frame or glass trolley
- Once the glass is positioned over the ledge, both operators need to unwind the winches on their Nomad frames so the glass is resting on the ledge – you'll notice the Nomad move backwards when the glass is resting on the ledge.
- **The back brakes need to be locked** (see photo A)
- The lower Vacuum cup can now be released by depressing the release valve on the side of the vacuum cup (see photo B)
- Both operators now place one hand on the edge of the glass and with their second hand release the upper cup
- Both operators working together can SLOWLY push the glass away from the Nomad against the A-frame or glass trolley
- (SEE PAGE 21 - REMOVING THE QUATTROLIFT NOMAD AFTER INSTALLING GLASS)

A

B

C



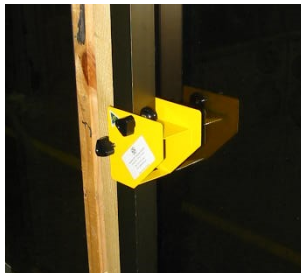
FRAME PREPARATION & ATTACHING GLAZING GUIDES

- Clean any glass and dirt on the frame
- Make sure any screw heads inside the channels are recessed
- Attach the Quattrolifts Glazing Guides to each corner if accessible (as seen in photo A) otherwise as close as possible to the corners.
- The glazing guides can also be attached to any other section of the frame if required
- Recheck the frame dimensions and the glass size to ensure that the glass will fit inside the frame
- If the glass is too large, the edges can be nipped while supported by the Nomad. Make sure the glass is resting on the lower glass support

A

- If required attach an extra Glazing Guide half way along the top or side of the frame (as seen in photo B)

B



- Make sure the area around the frame has a firm base otherwise lay down some boards (as seen in photo C)

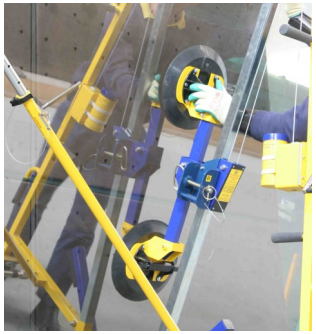
C

REMOVING THE NOMAD AFTER INSTALLING GLASS

- The Nomad can now be disassembled
- Ensure the front castor on each Nomad frame is locked
- Lower the top extension wheels on each of the Nomad frames
- With the Nomad still attached to the glass unlock each of the cross-braces and fold them away into their respective Nomad frames as seen in photo A (start with releasing the diagonal brace, then the lower brace followed by the top brace)

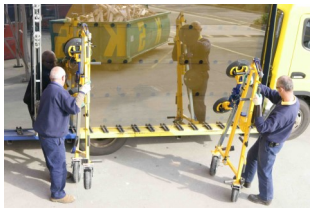
A

B



- Removing one Nomad frame at a time, release the vacuum cups by depressing the release valve (as seen in photo B) and allow the Nomad frame to tilt backwards on two wheels
- Unlock the front castor brake and wheel the Nomad frame away as seen in photo C
- The Glazing Guides can also be disassembled
- Loosen the knobs and slowly slide the Glazing Guide away from the frame (if required gently push the glass forward to allow the Glazing Guides to slide out easily)

C



INSTALLING THE GLASS USING THE NOMAD - Continued

- The second edge of the glass can now be moved into the frame channel by winding the side movement adjuster on the diagonal brace – winding the adjuster forwards (up) will move the glass to the left and winding the adjuster backwards (down) will move the glass to the right

A

- Once the glass is secure in both frame channels, both operators need to wind their winches at the same time to raise the glass into the top channel

B

- The glass needs to be raised sufficiently to allow the blocks to be installed under the lower edge of the glass. Position the block as seen in photo C
- Both operators can now lower the glass onto the blocks and the front beading attached to the frame to secure the glass in place

C

POSITIONING THE GLASS FOR INSTALLATION USING THE NOMAD

A

- **A minimum of two people are required to position the glass**
- Move the Nomad with glass in front of the frame with the castors pointing forward towards the frame (as seen in photo A)

B

- Examine the lateral adjuster on the diagonal brace to ensure that you have at least ½” (1 cm) of thread to allow for sufficient lateral movement of the glass into the frame channel - this can be achieved by winding the winder open as seen in photo B

C

- Next ensure the glass is square to the frame.
- One operator needs to stand about 90 cm (36”) behind the leading edge of the glass and observe if the vertical edge of the glass is parallel to the frame (as seen in photo C)
- The glass can be adjusted by either operator raising or lowering the glass using either winch

INSTALLING THE GLASS USING THE NOMAD

- **Glass MUST be installed with a minimum of two certified operators who have completed the Nomad training course.**
- **The Nomad can install glass into a frame with the lower sill up to 120 cm (48") off the ground.**

A

- When the glass is in the correct position, the front castors MUST be locked with the castors pointing forwards
- Raise the glass so the lower glass supports can be retracted by foot (as seen in photo A)
- Being satisfied with the position of the Nomad to the frame, both operators need to slowly tilt the Nomad forward - **with front castors locked** - until the glass is vertical (as seen in photo B)

B

- Once the glass is tilted forward ensure that the top edge of the glass is leaning against the Glazing Guides
- Ensure that the lower edge of the glass clears the bottom of the frame
- If the glass height needs to be adjusted, each operator can wind the glass up or down using the winches – when adjusting the glass height the glass must be kept square to the frame at all times during the installation
- Using your knee and Nomad frame handle, the glass can be moved in or out the prescribed distance (see photo C).

C

- **CAUTION is required to complete this step.** With practice, while the Nomad and glass is tilted forward, each operator places one knee behind the foot-peg to control their Nomad frame while with their other foot releases the castor brake (as seen in photo C). **The operator must first observe this on the accompanying training DVD and be trained by a competent person.**
- The side of the glass needs to be aligned with the frame channel

INSTALLING THE GLASS USING THE NOMAD - Continued

A

- The glass can be moved sideways into the glass channel by winding the side movement adjuster on the diagonal brace – winding the adjuster forwards (up) will move the glass to the left and winding the adjuster backwards (down) will move the glass to the right (see photo A)
- Once the leading edge is inside the frame channel, the other edge of the glass needs to be moved forwards

B

- The second operator must place a knee behind the foot-peg and with their other foot unlock the brake on the front castor (see photo B)
- Using their hands on the Nomad frame handle and the glass, the second operator can move the glass forward until it meets the Quattrolifts Glazing Guides

C

- If required adjust the height of the glass by using the winch (see photo C).