# NeXgen Single Acting Adapter

## Installation & Operation Guide

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# Contents

# Warning

The NeXgen Single Acting Adapter is designed to be used in trailer applications only in conjunction with the Stillwell Atlas Hydraulic Jack. Any other use of this product is prohibited. Stillwell, Inc. will not be responsible for damages resulting from improper use, installation, or care of this product.

Using the NeXgen Single Acting Adapter incorrectly can result in serious injuries or accidents. It is essential to follow safety guidelines to ensure your well-being and the proper functioning of your Atlas Hydraulic Jacks with the NeXgen Single Acting Adapter.

1. Do not allow children or inexperienced individuals to operate or fill the Atlas.
2. Never operate the Atlas while a person is underneath the trailer.
3. Avoid operating the jack on unlevel surfaces.
4. Do not adjust or alter any parts of the Atlas.
5. Do not fill the NeXgen Single Acting Adapter beyond the max PSI listed in this manual.

Engaging in improper use of the NeXgen Single Acting Adapter may result in severe injuries, including but not limited to broken bones, amputations, and death. Additionally, it can damage the Atlas and the attached trailer leading to costly repairs or replacements.

To ensure safe operation, please follow these safety measures:

- Always read and follow the manufacturer's instruction manual.
- Wear appropriate safety gear.
- Keep a safe distance from the Atlas foot and trailer when in operation.
- Routinely check system for any leaking oil to prevent failure of worn-out hoses or adapters.
- Test the pressure levels to make sure the NeXgen Single Acting Adapter measures within the approved range.

If you have any questions or concerns regarding the safe use of your Atlas, please contact our customer support at 612-248-1110 or visit our website www.stillwellinc.com.

Ignoring these safety precautions can lead to serious consequences. Please use your Atlas responsibly and ensure the safety of yourself and others.

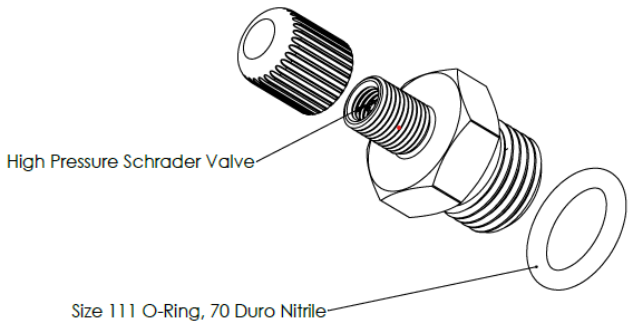
# Before You Begin

The NeXgen Single Acting Adapter (patent-pending) is designed to be used in trailer applications only. Any other use of this product is prohibited. Stillwell Inc. will not be responsible for damages resulting from improper use, installation, or care of this product. DO NOT load or unload trailer while the Atlas Hydraulic Jack is supporting the load and the trailer is not attached to a tow vehicle. ONLY load and unload a trailer when the trailer coupler is attached to a tow vehicle and the trailer is supported by the tow vehicle. Not following these instructions will void the warranty and can cause serious damage to persons and property.

## Tools Required for Installation

11/16 wrench or socket

¼ Heavy Duty Air Chuck




## Supplies Required for Installation

Air Compressor – min. 80 PSI max. 125 PSI

## Hydraulic Pump Requirements

The NexGen Single Acting Adapter (patent-pending) is designed to be use with the Stillwell Atlas Hydraulic Jack in conjunction with a Single Acting Power Unit (HPU).

To determine what pump pressure (psi) is needed:

1. Determine the trailer tongue weight the jack will be required to lift.
   *The trailer tongue weight is often 10-15% of the gross vehicle weight of the trailer the jack will be mounted to.*

2. Find the weight in the "**Load at Jack**" column below and purchase a single acting pump with a minimum pressure rating shown in the "**Pump Pressure**" column of Table 1 below.

| Required Pump Pressure vs. Load at Jack | |
|---|---|
| **Load at Jack (lbs)** | **Pump Pressure (psi)** |
| Up to 1,571 | 500 |
| Up to 3,142 | 1000 |
| Up to 4,712 | 1500 |
| Up to 6,283 | 2000 |
| Up to 7,854 | 2500 |
| Up to 9,425 | 3000 |
| Up to 10,053 | 3200 |

**Table 1. Pump Pressure vs. Load at Jack**

Note:
Stillwell Inc.'s hydraulic jacks should not be used with pumps that exceed 3200 PSI. The Atlas jack leg has #6 SAE female ports.

The Atlas is designed to operate quickly and safely. Table 2 below shows how much pressure (psi) is required to lift various tongue loads and the amount of time it will take for the jack to extend under specific loads. This will help in deciding which pump to choose.

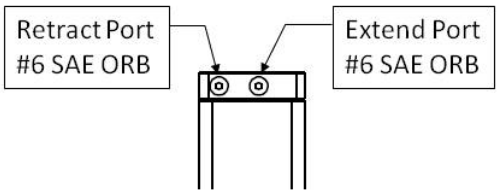
| Lift Speed vs. Lift Load at Jack | | | |
|---|---|---|---|
| **Load at Jack (lbs.)** | **Pump Pressure (psi)** | **Lift Speed (in/sec)** | **Time to Full 26" Extension (sec)** |
| 1000 | 318 | 1.47 | 17 |
| 2500 | 796 | 1.23 | 21 |
| 5000 | 1592 | 0.98 | 26 |
| 7500 | 2387 | 0.86 | 30 |
| 10000 | 3183 | 0.74 | 35 |

**Table 2. Lift Speed vs. Load at Jack**

# Installation

**Caution:** Completely bleed off pressure before removing adapter. Misuse of compressed air is HIGHLY DANGEROUS and may cause permanent INJURY or DEATH.

1. Tighten to retract port using an 11/16 wrench or socket.
    a. Required Assembly Torque 300-340 in-lb or 25-29 ft-lb. Do not overtighten.




2. Remove included air valve cap.
3. Pressurize Single Acting Adapter using air chuck.
    a. Min. PSI 80
    b. Max. PSI 125

| Filled Pressure vs. Pressure at Full Extension | |
|---|---|
| **Filled Pressure (psi)** | **Pressure at Full Extension (psi)** |
| 80 | 1692 |
| 95 | 2009 |
| 110 | 2327 |
| 125 | 2644 |

**Table 3. Filled Pressure vs. Pressure at Full Extension**

4. Verify PSI using pressure gauge with at least 150 PSI Maximum (heavy duty truck tire pressure gauge 10 – 150 PSI).
5. Use a leak locator liquid or a soap and water mixture to verify there are no leaks.
6. If applicable: tighten core with Valve Core Tool
    a. 4 in-lb torque spec. Do not overtighten.
7. Re-install air valve cap. Hand tighten, do not overtighten.

# Operation

## To Extend the Jack Leg

**CAUTION:** Before operating the hydraulic jack leg, ensure that the trailer is in a location with a flat, even surface below it which is capable of holding the weight of your trailer.

1. Using the control systems that came with your hydraulic pump, extend the hydraulic leg 1/4 of the total length (6.5”) then retract the jack leg. Next, extend the jack leg to 1/2 the total length (13”) then retract the jack leg. Extend the leg to 3/4 the total length (19.5”) then retract the jack leg. Finally, fully extend the jack leg (26”) then retract. This will bleed the leg of any air that may be trapped in the jack leg or hoses.
2. Extend the hydraulic leg to the desired height.
3. Confirm the trailer load weight has been relieved from your vehicle and the trailer’s coupler has cleared your hitch before driving the vehicle away from the trailer.
4. DO NOT load or unload the trailer without the trailer being supported 100% by a tow vehicle.

## To Retract the Jack Leg

**CAUTION:** Before operating the hydraulic jack leg, be sure that your trailer has been properly aligned to a vehicle’s hitch capable of holding the trailer’s weight.

1. Position your vehicle (or appropriate jack stand) into alignment with the trailer coupler.
2. Using the control systems that came with your hydraulic pump, retract the hydraulic leg completely.
3. Confirm the trailer load weight has been fully transferred to your vehicle.