



## Needle Valves MANUAL - 033160 & 033165

PLEASE READ AND FOLLOW THESE INSTRUCTIONS BEFORE YOU USE STRONGARM VALVES.

Carefully inspect all components for shipping damage. If shipping damage is found, please notify carrier at once. The carrier is responsible for any damage resulting from shipment.

### 1. SAFETY

To avoid personal injury or property damage, please follow all safety precautions. JET Equipment and Tools Ltd. is not responsible for injury or damage resulting from unsafe or incorrect product and system operation, or lack of maintenance.

- ⚠ **DANGER** is used when your action or lack of action will cause serious injury or even death.
- ⚠ **WARNING** indicates a potential danger that requires correct action to avoid personal injury.
- ⚠ **IMPORTANT** indicates correct action to prevent damage or equipment failure.
- ⚠ **DANGER**
  - The hydraulic equipment operator must be a qualified person with correct training and work experience with hydraulic equipment. Lack of knowledge in any of these areas can lead to equipment damage or personal injury.
  - To avoid personal injury, please do not modify or weld hydraulic equipment.
  - Never lift more than the capacity of the cylinder(s), overloading causes equipment failure and risks serious personal injury.
  - Keep hands and feet away from cylinder(s) and items being moved during operation to avoid personal injury.
- ⚠ **WARNING**
  - Wear safety glasses, hard hat and other necessary personal protective equipment when operating hydraulic equipment.
  - Install a pressure gauge on the system to monitor the operating pressure. The gauge must have the same pressure rating as the pump and cylinder(s) in the system. The wrong gauge may cause equipment failure and possible personal injury.
  - The system operating pressure must be lower than the lowest rated item in the system.
  - Carefully inspect the threads before connecting. Never connect the valve or hose with damaged port threads. The damaged port threads may cause equipment failure and possible personal injury.
  - Prevent dirt or debris from getting into the valve or hose when installing valve. Dirt or debris will damage the seals and result in equipment failure and possible personal injury.
  - Before removing or tightening hose(s) or valve(s), release hydraulic pressure in system.
  - Never handle pressurized hoses; escaping oil under high

pressure can penetrate the skin causing serious injury. Seek medical aid immediately if injured.

- For hydraulic technical help or repair service, please contact the authorized STRONGARM Service Centre in your area. STRONGARM has no obligations under any warranty with respect to products that have been repaired by unauthorized personnel, modified, or damaged through misuse, abuse, accident, neglect, or mishandling.

#### ⚠ **IMPORTANT**

- Please keep hydraulic valve clean at all times.
- Do not use equipment in temperatures of 65°C (150°F) or higher. Overheating will soften seals and weakens hose materials, resulting in oil leakage or other equipment failure.

### 2. DESCRIPTION

- **033165 (HV11)** two-way manual needle valve  
Designed to manually control the speed of the cylinder and can be used as shut-off valve for temporary load holding.
- **033160 (HV23)** two-way manual flow control check valve  
Used to hold a load with a single or double action cylinder. Manually opened it will allow oil to flow back to the oil reserve when cylinder retracts.

### 3. INSTALLATION

- 3.1 Install the valve so that the load pressure acts against the seat, not the valve stem seals. This will increase safety and protect the life of the valve. Install 033165 valve so that the direction of flow is the same as the direction of the arrow on the side of the valve. Install 033160 valve so that the fitting from the check ball port is plumbed directly into the cylinder port.
- 3.2 Use correct fittings. Valves have 3/8" - NPT male fittings.
- 3.3 Use two wraps of Teflon tape or thread sealant on fittings, leaving the first complete thread free of tape or sealant to prevent sealant from entering the hydraulic system. Tighten fittings securely.
  - ⚠ **WARNING:** Shut-off and safety valves should be attached as close as possible to cylinders. NEVER allow pressurized hoses in a load-holding circuit.
  - ⚠ **IMPORTANT:** Connections should be snug and leak-free. Over tightening connections promotes thread failure and may cause high pressure fittings to rupture at less than rated capacity.
- 3.4 Tighten handle to close valve. Loosen handle to open valve.
  - ⚠ **WARNING:** Use only fingers to tighten knurled knobs, turn handle only as far as the stop. Never use extension handle, over tightening will damage internal spindle threads, creating oil leaks.