



## Architectural Specifications

### **NuMax™ Air-Powered Door Operator**

Provide NuMax™ Pneumatic Door Operators as manufactured by American Garage Door Supply, Inc. 1225 Industrial Park Dr., Bemidji, MN 56601. (1-800-233-1487) Operators to have the following specifications.

#### **Operation:**

Operator to use a magnetically coupled, chainless trolley type design and attach to the door section with arm assembly. Operator to open and close door smoothly and safely with optimum speed using 70-95 PSI regulated air pressure. Product will accelerate and decelerate at top and bottom of cycle to maintain minimum shock to door. Operator to interface with existing car wash or other specified equipment.

#### **Cylinder Construction:**

Operator(s) shall consist of a single 2-1/4" O.D aluminum cylinder with 1/8" wall thickness. Cylinder body to be constructed of high strength aluminum alloy hard-coated to 68 Rockwell Hardness. Both exterior and interior surfaces to be anodized finish for maximum corrosion resistance and long life. Cylinders to be pre-lubricated from the factory.

#### **Trolley Slide/Piston:**

Operator to be externally guided with hard-coated aluminum trolley slide with built in tube wiper blade to prevent debris and contamination build-up. Trolley slide to consist of a magnetically coupled design and couple to piston through cylinder wall for decoupling force of 440 lbs.

#### **End Caps:**

End caps to be to be constructed with aluminum alloy and hard-coated for maximum durability. End cap/cylinder design to provide easy means of removal and seal replacement.

#### **Open Limit/Cushioning Spring:**

Open limit of door travel to be adjustable through the means of a cushioning spring consisting of aluminum clamp, stainless steel spring and UHMW stop. Cushioning spring to provide smooth deceleration.

#### **Stainless Steel Mounting Brackets/Door Arm:**

Adjustable mounting brackets to be manufactured with heavy duty 12 Ga. 304 grade stainless steel and will mount to header and back-hanger material. Arm to be adjustable and constructed of 304 grade stainless steel with disconnect for manual emergency use of door.

#### **Quick Dump Exhaust Valves:**

Quick dump exhaust valves with noise mufflers to be provided for each end of the cylinder for easy adjustment and optimum performance.

#### **Control Box:**

Control box to be constructed of tough, NEMA-4X water resistant enclosure to prevent moisture damage to valve and electrical components. Control Box will have 115V. Primary power with fused 24 V. control circuit with momentary dry contacts for ease of integration with carwash and other equipment. Terminal strip to provide multiple connections for accessories and equipment tie-in's. Photoeye socket pre-wired for easy installation of photoeyes.

#### **Fittings:**

All fittings to be of quick connect type for easy installation, service and maintenance.

#### **Push Buttons:**

NEMA-4 Push buttons to be mounted on the face of the control box with double sealed construction for moisture resistance. Open push button to be dual electrical/pneumatic for actuation as emergency open button in case of emergency.

#### **Valve:**

To be lube free type for low maintenance and service with quick connect fittings for easy air hook-up. Noise mufflers to be provided for outside control box installation to dampen exhaust noise through the valve. Valve coils to provide lifetime warranty.

#### **Shut-Off Valve:**

Shut-off valve to be provided for safe service of unit and provide manual operation of door for power-off and emergency use.

#### **Installation:**

Installation to be performed in a workmanlike manner in accordance with American Garage Door Supply's standards and instructions.

#### **Serviceability:**

Operator to be field serviceable for replacement of piston and end seals, as well as trolley slide, piston components and magnet stack.

**Warranty:**

Opener units to have a 36 Month, limited warranty.

**Optional Specifications:****Photo-eyes:**

Provide synchronized NEMA-4 Waterproof through-beam photoelectric using separate amplifier for non-impact reversal of doors when object is under doorway. Stainless steel mounting brackets are adjustable for diagonal mounting.

**Inline Dryer:**

Include point of equipment dryer to remove moisture build up in airlines.

**Timers:**

Provide adjustable timer in control box for timed signaling of operator

**Control Stations:**

Select from NEMA-1 standard or NEMA-4 waterproof control stations with 1, 2, or 3-button capability.