

# SHANK'S® B.P. 360° ROTARY LIVESTOCK CONTAINMENT CHUTE HYDRAULIC MODEL TECHNICAL INFORMATION

## General Information

The Shank's® B.P. 360° Rotary Livestock Containment Chute was first built in 1985 and was designed by a practicing veterinarian. The concept combines the features of a squeeze chute housed within channel iron rings that can rotate the Chute to any position within those rings. This rolling concept provides versatility to lay the animal on either side, while providing protection for the Chute operator. The Hydraulic Model of the Chute is made in two different sizes. The Chute is covered by U.S. Patent No.4,567,854.

## Regular and XL Size

The overall size of the **Regular Chute** is 101" long x 100" wide x 113" high (with the power unit mounted on top of the Chute). If the power unit is removed, the height is 99". The Chute main frame inside dimensions are 82" long x 30" wide x 72" high. The Chute alley when fully squeezed is 14" wide. The operating height inside the Chute with the backrest fully raised is approximately 68".

The overall size of the **XL Chute** is 102" long x 104" wide x 116" high (with the power unit mounted on top of the Chute). If the power unit is removed, the height is 102". The Chute main frame inside dimensions are 84" long x 48" wide x 79" high. The Chute alley when fully squeezed is 14" wide. However, if the Squeeze Bottom option is ordered, the alley is narrowed to 9". The operating height inside the Chute with the backrest fully raised is approximately 72".

## Hydraulic Model

The Hydraulic B.P. Chute system consists of a single phase 2 HP motor/1725 rpm/60 Hz/230 volts/850 PSI pump with 3 gallon reservoir tank; 10 micron filter with service gauge. The 2 HP motor requires single phase power, and runs at 9.5 amps at 220V or 8.5 amps at 230V. The power hydraulic rollover system is equipped with a 40 to 1 worm gear speed reducer driven by a Char Lynn Motor. The power unit needs to be wired directly to the power source, and an electrical control switch needs to be installed on site. The Chute is operated by a hydraulic control valve which has the capability of running at full open speed or at various slower speeds depending upon the speed at which the operator manipulates the handles. The hydraulic system is connected via 1/4" thermoplastic hose and related heavy duty crimp fittings.

The Chute is rated for 3,000 lbs.

## Headgate/Tailgate

The headgate on the Hydraulic Model Chute is fully hydraulic. Headgate dimensions are 25" wide x 64" high when fully open, and 4" wide when closed.

The tailgate is a manual operated chain/ladder system that can be raised or lowered and covers the entire back entrance to the Chute.

## Main Frame

The Chute main frame consists of 3" x 3/16" wall square tube and 1/8" sheet steel. The top portion of the

removable sides are square tube bars that can be lowered in pairs, and unlatch on top with pins and springs, and fold down to rest against the bottom portion of the sides. The bottom portion of the side is a solid sheet steel panel. The middle section of each of these panels is also removable via handle and pin/latch mechanism. The removable panel, when removed, provide a 22" x 38" access area to the animal. The removable floor is 3" x 3/16" square tubing outside frame with .3754" x 1.5" opening galvanized wire floor mesh.

The rotation rings are 4" channel iron with .320" web thickness - flange wall thickness of 1.885". A smaller drive ring is the moving force behind the Chute. A roller chain is fastened to the drive ring and to the electrical or hydraulic power source. The rotation wheels that roll in the channel iron rings are 3" x 6" phenolic wheels complete with roller bearings.

The Chute backrest is completely padded (with -1-1/2" ensolite foam and 3/16" vinyl) for support of the animal when the Chute is rolled. The backrest is 16" wide and 87½" long and is raised and lowered by mechanical hand crank and cable. The backrest is attached to the top of the Chute main frame.

### **Operation**

The Chute is designed to be incorporated into some type of on site alley system and is designed to be used for surgery or hoof trimming. Controls can be mounted on either side of the Chute to accommodate the facility layout.

### **Standard equipment**

The Chute comes equipped with four manual hand-crank operated winches which are attached to the bottom of the Chute main frame for securing legs/feet during procedures. Two hand cranks are also furnished for use with these four winches.

Leg hobbles are made of 1 3/4" nylon webbing with 4 1/2' of 4/0 machine twist link chain. A complete set of four is furnished.

A set of four rubber leg blocks is also supplied to act as a cushion between the animal's feet and the steel frame of the Chute when the legs are winched tight. Blocks are made of molded 60 durometer rubber and are 5" wide x 7" long x 3" thick with a center hole for attachment of the leg hobble and chain.

A vinyl covered flat head extension is also supplied to act as head support when the restrained animal is rolled on its side. The head extension fastens to the Chute headgate with pins and chains and is adjustable.

### **Optional Accessories**

Below are the name and accompanying description of all optional accessories:

**De-horning table** - Steel de-horning table (manufactured by Hagie Mfg.) is available to be attached to headgate.

**Bottom Squeeze**- Bottom squeeze capability allows for the frame of the Chute to squeeze at the floor level. Two additional 2" bore-8" stroke cylinders are affixed to the bottom of one side of the Chute main

frame. One side of Chute frame is pushed in to provide a squeezed alley width of 9" at the bottom.

**Hinged headgate-** Headgate can be made to hinge and open to either side for easy removal of a down animal. If the headgate is swung fully open, it adds approximately 38" to the overall length of the Chute. This option is available on the XL size only.



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