

SPECIFICATIONS FOR AIR-FLO HOPPER SPREADERS

MODEL AF-2000-STAINLESS STEEL

It is the intent of these specifications to describe a "V" type hopper sand, cinder, and chemical spreader to be mounted on a truck frame or slipped into a dump body.

HOPPER BODY

The body inside length shall be _____ feet with a capacity of not less than _____ cubic yards struck. The body width shall be 82". The side slope shall be not less than 45 degrees for ease of material flow. The hopper body shall be constructed of 12 gauge 304 stainless steel. The topsides and top end gates shall be channel formed for added strength 2 1/4" x 1-1/8". The bottom of the hopper sides shall cover the drag chain links for protection. The front and rear panel shall have a 23 degree interior slope for ease of material flow. There will be a minimum of 4 external side supports (gussets) made of 12 gauge 304 stainless steel extending the full length of the sloped sides to give added strength and stability to the hopper body. The gussets shall be welded on both edges full length. These gussets shall be welded to steel 1 Y2" x 3" tubing for added bracing. The upper edge of hopper shall be tied together with a 4" channel cross member. There shall be 4 lift hooks welded to the upper body. The rear feed gate shall be controlled by a heavy duty, replaceable bolt in 304 stainless steel feed gate door that is easily adjustable to a maximum opening of 12" high x 18" wide by a means of curbside self- locking handle.

CONVEYOR

The overall width of the conveyor shall be 24". The conveyor side channels will be made up of 10 gauge 304 stainless steel. The sides of the spreader body shall protect the conveyor chain links. The conveyor bedplate shall be constructed of a minimum of 10 gauge 304 stainless steel.

CONVEYOR CHAIN

The conveyor chain will be pintle-type #D667X with a pitch of 2-1/4", and an average tensile strength of 42,000 lbs. The chain barflights shall be made of 3/8" x 1-1/2" steel.

GEARBOX

The 8 tooth drive sprockets shall be welded to a 2" drive shaft, which in turn shall be driven by a fully enclosed and lubricated 6:1 gear type gearbox. At the opposite end of the gearbox, the shaft shall be mounted in a 2" cast iron housed flange bearing. This speed reducer shall have bronze gears with double lip spring-loaded oil seals encased in a rugged cast iron housing.

FRONT CHAIN TAKE-UP IDLER:

The 8 tooth idler sprockets shall be welded to a 1-1/2" shaft. The bearing shall be mounted to a spring loaded 1/4" plate for chain adjustment.

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MATERIAL CHUTE:

The spinner disc shall be powered by a hydraulic high-speed motor direct mounted to the spinner disc. The spinner shall be made of 3/16" stainless steel plate, 20" in diameter. There will be 6 removable fins bolted to the spinner disc. The material chute shall be constructed of 12 gauge 304 stainless steel. It will be fully enclosed, two pieces and bolted to the conveyor. The upper chute shall be mounted inside the conveyor channels. The spinner chute and spinner shall be vertically adjustable 12", providing a 20" to 32" spinner position in 3" increments for precise control of spinner to ground height and for varying truck heights. There will be internal and external adjustable baffles for precise spreading control. The deflectors shall be controlled by a sliding flat bar assembly easily adjustable without tools. For easy and convenient ground storage, the material chute will be constructed so as to swing above the bottom of the conveyor.

HYDRAULIC SYSTEM:

The system shall be a dual hydraulic motor drive system. Two hydraulic motors permit separate spinner and conveyor speeds. A heavy-duty hydraulic motor shall be integrally mounted to the conveyor gearbox and the spinner disc shall be mounted directly below a heavy duty hydraulic motor. There will be a dual flow cab control valve to independently control the spinner and conveyor speed. This valve will have a built in pressure relief valve set at 1500 PSI, and a master on/off control for spot spreading.

SCREENS (OPTION):

The screens shall be a minimum of 4 sections and hinged. The screens shall be made of 3/8" diameter high tensile steel rod. Screen frames are constructed of 2x2 angle. The steel rod is woven into 2-1/2" squares. The screens will be supported by a center mounted top rail made of heavy-duty 6" I-beam.

INVERTED "V" (OPTION):

The inverted "V" type conveyor bridge shall be supplied and placed inside the hopper and located to keep material weight off the conveyor chain. The inverted "V" shall be constructed of 12 gauge 304 stainless steel.

DUMP BODY MOUNTING - (OPTION):

The spreader shall have four clamps made of 3/8" x 3" steel with treaded rod take-up to lock it to the dump body sides. There shall be a tailgate latch bar made of 1" shaft welded to 3/8" angle iron to secure the rear of the spreader to the dump body tailgate latch.

CATWALKS - (OPTION):

The catwalks shall be constructed of 12 gauge stainless steel with skid strips on top. They will be 18" wide and run the entire length of the spreader hopper on each side. The catwalks shall be supported by 1/4" flat stock bolted to each of the hopper supporting gussets.

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TELESCOPING SHAFT DRIVE MATERIAL CHUTE (OPTION):

The spinner disc shall be powered by a hydraulic high-speed motor, direct mounted to the spinner disc with a dual U-joint expandable 1" x 1 1/8" shaft. The spinner shall be made of 3/16" stainless steel plate, 20" in diameter. There will be 6 removable fins bolted to the spinner disc. The material chute shall be constructed of 12 gauge 304 stainless steel. It will be fully enclosed, two pieces and bolted to the conveyor. The upper chute shall be mounted inside the conveyor channels. The spinner chute and spinner shall be vertically adjustable 12", providing a 20" to 32" spinner position in 3" increments for precise control of spinner to ground height and for varying truck heights. There will be internal and external adjustable baffles for precise spreading control. The deflectors shall be controlled by a sliding flat bar assembly easily adjustable without tools. For easy and convenient ground storage, the material chute will be constructed so as to swing above the bottom of the conveyor.

RUBBER BELT OVER CONVEYOR (OPTION)

An 18" wide rubber belt shall be riveted to the drag bars of the conveyor. This belt shall be a 2 ply belt, 1/8" thick of a #150 agricultural belting. It shall have 1/32" top cover with a friction surface bottom. The belt will then be fastened together with a lacing type fastener similar to a flexible steel lacing #125J24NC.

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