#### PROUDLY MANUFACTURED IN THE U.S.A.

# SMARTER · FASTER · SAFER

# GOLD SERIES SIX SHOOTER





Product Manual

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#### Welcome

Congratulations on your purchase of the Gold Series Six Shooter Customer Package. The Gold Series Six Shooter is the latest in manhole repair technology, specifically crafted for high-volume repairs with increased power, speed, and durability.

This product manual contains complete instructions for unpacking and setting up the Six Shooter and the included components, as well as a parts and accessories guide for the optional items available for use with the Six Shooter.

It is extremely important to be aware of the precautions necessary for safe and proper use of this equipment. The Safety Summary contains an explanation of the warning and caution statements found throughout the manual, a list of general precautions, and a guide to recommended lifting methods.

Make sure that all operators study this manual carefully and keep it on file for future reference. Operators should also view the training instructions in the Video Resources section of <a href="https://www.mrmanhole.com">www.mrmanhole.com</a>.

#### Contact Us

We strive to provide superior products and the highest level of customer service. If you have any questions about your Gold Series Six Shooter purchase, or any of our products, please contact Mr. Manhole.

Phone: 567-242-2221 | Fax: 419-692-1600 | Email: info@mrmanhole.com

You may also visit the Video Resources section of <u>www.mrmanhole.com</u> for demos of the Mr. Manhole parts and accessories.

#### Mr. Manhole Parts Warranty

The following Platinum Series Six Shooter, Gold Series Six Shooter and B-52 Cutter components will be warranted to be free from structural defects for a period of One Year from the Date of Purchase:

Part Description	Platinum Series Six Shooter Part #	Gold Series Six Shooter Part #	B-52 Cutter Part #	
Top Drive	K-MM0369	K-MM0374	K-MM0371	
Main Frame K-MM0550		K-MM0549	K-MM0551	
Bottom Drive K-MM0370		K-MM0370	K-MM0370	
Arms	P-MM0107	P-MM0018	N/A	
Legs	A-MM0118	A-MM0013	A-MM0013	

The above list includes all the Mr. Manhole parts that are warranted. All other products carry no warranty. All components that are to be replaced under warranty must be returned to the manufacturer in an unrepaired state. If the component has been repaired or modified in any way, the warranty is void. It is the responsibility of the purchaser to return defective parts to the manufacturer at: 125 South Canal Street, Delphos, Ohio 45833. You will be invoiced for the replacement item(s) and a credit will be issued upon receipt of the defective item.

Warranties are valid only for the original owner of the equipment and are non-transferable. Warranties apply from the Date of Purchase from Mr. Manhole and/or authorized distributors. The Product Registration Form must be received within 30 days of the purchase date, accompanied by the original sales receipt.

#### Safety Summary

#### Warnings and Cautions

Warning and caution statements are placed throughout this manual prior to procedures, practices, and/or conditions that could be hazardous to operators or could cause damage to equipment.

Operators must understand and apply the applicable safety precautions during all phases of equipment assembly and operation.

Be sure to review all warning and caution statements prior to set up and operation of the Six Shooter.

Warning and Caution Statement Definitions



**WARNING:** Operating procedures, practices, or conditions which could result in injury and/or loss of life if not strictly observed.



**CAUTION:** Operating procedures, practices, or conditions which could result in damage to, or destruction of equipment if not strictly observed.

#### Note Statements

Note statements are placed throughout the manual prior to procedures, practices, and/or conditions with information that is necessary for the operator to know before proceeding.

Note Statement Definition

**NOTE:** Information pertaining to operating procedures, conditions, and other factors that is necessary to know before proceeding.

#### General Safety Precautions

You must read and understand the entire manual before unpacking and assembling the Six Shooter and its components. Follow industry safety precautions and pay particular attention to Warning and Caution statements. See your supervisor for guidance if any questions arise.



WARNING: The following general safety precautions are to be followed at all times while operating the Six Shooter. These precautions will ensure personal safety and protection of the equipment. Failure to observe these safety precautions can result in death, serious injury, or serious equipment damage.

- Keep bystanders a minimum of 20 feet away from the working area of the Six Shooter. Stop operation immediately if anyone enters this perimeter.
- Locate underground electrical wires, telephone cables, and gas, water, and sewer lines before digging. Maintain safe clearance and avoid contact with any underground or overhead utility lines or electrically-charged conductors.
- Wear protective clothing and equipment (gloves, eye protection, and other items as appropriate) approved for the equipment and tools being used. Contact your supervisor for quidance.
- Do not wear any loose-fitting items such as clothing or jewelry. Moving parts can catch on loose fitting items.
- Operators must not use drugs or alcohol prior to use of this equipment. An operator taking prescription or over the counter drugs should seek medical advice before operation.
- Never alter or remove any safety decals or safety shields. Check the equipment for location of these items and replace immediately if damaged or illegible.
- Do not attempt service or adjustment of equipment unless another person capable of rendering aid is present.
- Whenever changing or installing any component of the Six Shooter, make sure all connections are securely fastened.
- Avoid steep hillside operation, which could cause the vehicle carrying the Six Shooter to overturn. Consult the vehicle operation and safety manuals for the maximum incline allowable.
- This manual covers the safe unpacking, set up, and installation instructions for the Six Shooter only. Always read the operation and safety manuals prepared for the vehicle and any other attachments before using them.

#### Lifting Precautions

You must read and understand the entire manual before unpacking and assembling the Six Shooter and its components. Follow industry safety precautions and pay particular attention to Warning and Caution statements. See your supervisor for guidance if any questions arise.



WARNING: Failure to follow recommended handling/moving procedures could result in serious personal injury, death, or damage to the equipment. Improper handling of the Six Shooter is a lifting hazard. Failure to use the proper lifting method may result in serious personal injury.

If possible, operators should limit lifting to no more than 50 pounds. When lifting loads heavier than 50 pounds, use two or more people to lift the load.

The following table lists the major components of the Gold Series Six Shooter Customer Package, with equipment weights and recommended lifting methods:

Equipment Weights and Lifting Methods				
Part Name	Weight (lbs)	Recommended Lift Method		
Gold Series Six Shooter	1,200	Mechanical lift		
Heavy Duty Auger Drive Model 40 2.5" Hex Drive	485	Mechanical lift		
Standard Speedplate	85	2-person/mechanical		
Standard Guideshaft	42.5	1-person		
Casting Lifter	14	1-person		
Extended Guide Shaft Gold Series 47"	57	2-person/mechanical		

Table 1

# Overview and Specifications

The Gold Series Six Shooter Customer Package [K-MM0001] contains (See Figure 1):

- · Gold Series Six Shooter
- Heavy Duty Auger Drive Model 40 2.5" Hex Drive [P-MM0070]
- · Standard Speedplate [A-MM0130]
- · Lifting Magnet [A-MM0045]
- · Casting Lifter Bracket [A-MM0078]
- · Quick Change Teeth Gun Kit [A-MM0084]
- · Debris Shield [A-MM0363]
- Extended Guide Shaft Gold Series 47" [K-MM0511]
- · Safety Bar [A-MM0065]
- · 1 Bag Of Carbide Teeth And Roll Pins (24) [P-MM0026]

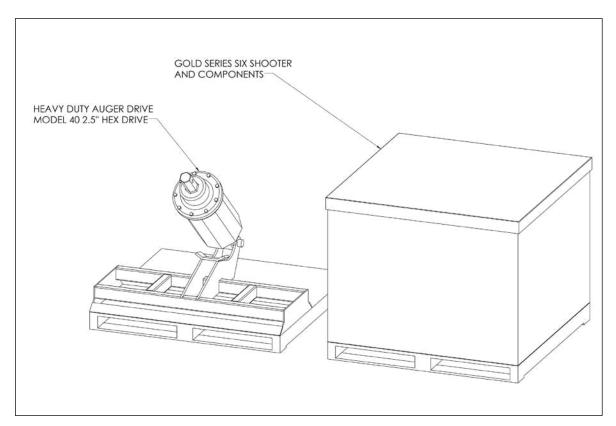


Figure 1. Gold Series Six Shooter Package

#### Six Shooter Operation Overview

The Six Shooter cutting system runs on a heavy-duty auger drive, which is fed through the auxiliary hydraulic circuit of a skid steer loader with the included hydraulic hoses. As the Six Shooter rotates, six Cutting Arms, each equipped with four replaceable carbide teeth, cut through concrete and asphalt without requiring water or coolant. The carbide teeth can be replaced in seconds, even on the job site.

**NOTE:** The Six Shooter is designed to bounce up and down during operation, similar to a hammer drill. This motion increases its cutting ability.

The Six Shooter features an adjustable cutting diameter from 44 to 60 inches. The Cutting Arms are easily adjusted on the job site without extra tools. For larger jobs, the optional Arm Adapter 6" Kit - Gold Series [K-MM0532] allows a cutting diameter up to 72 inches. The blades have a cutting depth of 14 inches, or up to 20 inches with the optional Extended Blades - Gold Series (Teeth Included) [A-MM0469]. If necessary, use the Water Valve Rebuild Package [K-MM0325] to cut out water valve boxes.

For a complete list of the optional accessories available for the Six Shooter, see the Optional Parts and Accessories section in this manual, or visit www.mrmanhole.com.

#### Skid Steer Loader Requirements

The Six Shooter attaches to your skid steer loader via a custom-built Heavy Duty Auger Drive Model 40 2.5" Hex Drive [P-MM0070]. The use of a skid steer loader allows the operator to see the work in progress during use of the Six Shooter. See Figure 2 below.

The skid loader must have 2,500 lbs minimum lifting capacity.

The skid loader must be capable of providing at least 20 gpm hydraulic flow. The flow determines the rpm of the Six Shooter, so a higher gpm flow translates to faster cutting speed. It is a plus for the skid loader to have a high flow hydraulic circuit generating 30-45 gpm flow.

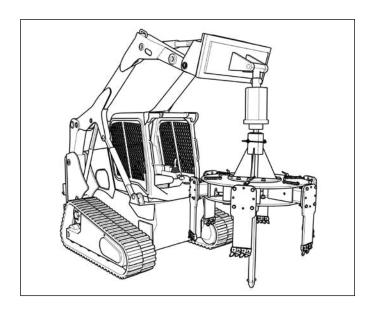


Figure 2. Skid Loader With Six Shooter Attached

#### Gold Series Six Shooter

The Six Shooter unit is the heart of the Mr. Manhole system.

The Six Shooter has six Cutting Arms and six Cutting Blades that are each armed with four teeth, mounted to the circular Main Frame. The Six Shooter attaches to a heavy-duty auger drive via the Top Drive 2 1/2" Kit [K-MM0374].

See Figure 3 for a detailed illustration of the components of the Six Shooter.

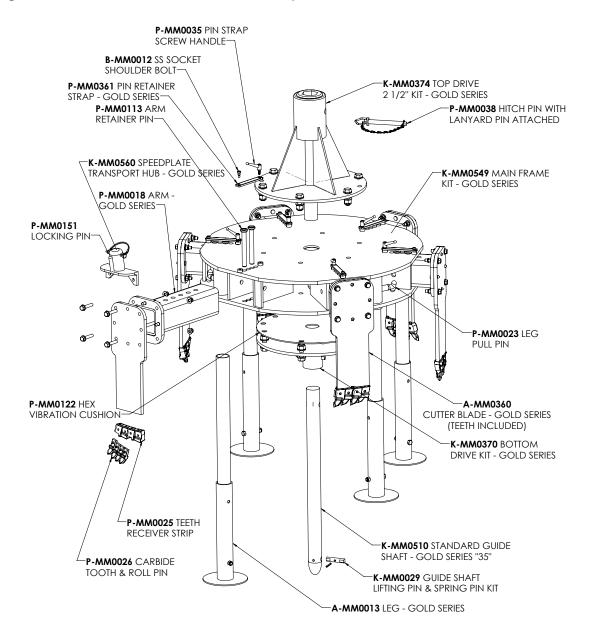


Figure 3. Six Shooter Components

#### Six Shooter Parts

Following are the components of the Gold Series Six Shooter with part numbers and weights:

Six Shooter Parts List				
Part Name	Part Number	Weight (lbs)		
Top Drive 2 ½" Kit – Gold Series	K-MM0374	129 lbs		
Main Frame Kit – Gold Series	K-MM0549	555 lbs		
Arm – Gold Series (6)	P-MM0018	210 lbs		
Cutter Blade – Gold Series (6) (Teeth Included)	A-MM0360	147 lbs		
Carbide Tooth And Roll Pin (24)	P-MM0026	10 lbs		
Arm Retainer Pin (12)	P-MM0113	12 lbs		
Leg – Gold Series	A-MM0013	96 lbs		
Standard Guide Shaft Gold Series 35"	K-MM0510	42.5 lbs		
Bottom Drive Kit – Gold Series	K-MM0370	56.5 lbs		
Pin Retainer Strap – Gold Series (6)	P-MM0361	3 lbs		
Pin Strap Screw Handle (6)	P-MM0035	4 oz		
Speedplate Transport Hub – Gold	K-MM0560	9 lbs		
SS Socket Shoulder Bolt (6)	B-MM0012	1.5 lbs		
Teete Receiver Strip	P-MM0025	2 lbs		
Guide Shaft Lifting Pin & Spring Pin Kit	K-MM0029	.5 lbs		
Leg Pull Pin	P-MM0023	.25 lbs		
Hitch Pin with Lunch Pin Attached	P-MM0038	1.5 lbs		
Locking Pin	P-MM0151	.083 lbs		
Hex Vibration Cushion	P-MM0122	3 lbs		

#### Standard Speedplate Parts

See Figure 4 for a detailed illustration of the parts on the Standard Speedplate.

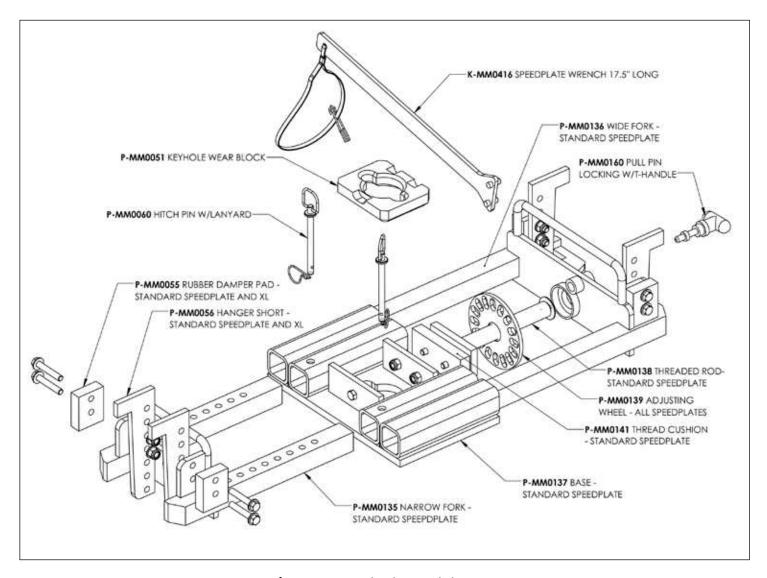


Figure 4. Standard Speedplate Parts

#### Before You Start

Clear the area around the Six Shooter shipping container for the unpacking and set-up process. You will need a forklift capable of lifting up to 2,500 pounds. You will also need the skid steer loader with the auger drive attached.

**NOTE:** The Heavy Duty Auger Drive Model 40 2.5" Hex Drive [P-MM0070], included in the Gold Series Six Shooter system, is shipped on a pallet. See the Hydraulic Drive Unit Operator's Manual for the complete instruction for attaching the auger drive to the skid steer loader.

#### Unpacking and Assembling Instructions

This section contains instructions for unpacking and assembling the Six Shooter. After completing these instructions, the Six Shooter will be ready for use.



**WARNING:** Some components/elements of the Gold Series Six Shooter system present a lifting hazard if not handled correctly. Failure to use the proper lifting method may result in serious personal injury. Refer to Table 1, Equipment Weights and Lifting Methods.



**CAUTION:** Be sure to wear protective clothing, such as gloves and steel-toed boots, approved for the equipment and tools used when unpacking and setting up the Six Shooter.

**NOTE:** You will need the following tools to unpack and set up the Six Shooter:

Required Tools List			
Battery-powered screw gun with a Phillips-head bit			
Heavy-duty lifting strap with 2,000 lb. lifting capacity			
1-1/16 inch wrench			
1-1/8 inch socket			
1/2 inch socket			
1/2 inch wrench			
Banding cutter (to cut packing bands)			

# Unpacking the Gold Series Six Shooter

Unpack the Six Shooter in a central area where a forklift and skid steer loader can be used. Before proceeding with assembly, inspect the package and check the packing sheet/inventory of contents. Contact Mr. Manhole immediately if anything is missing. See Figure 5.

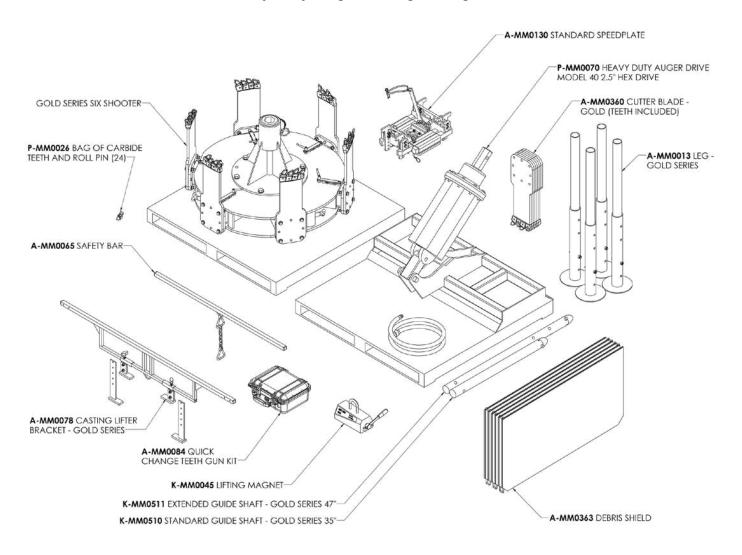


Figure 5. Package Contents

1. Remove the items from the top of the shipping container. Pull the hitch pin out of the Top Drive on the Six Shooter and insert the lifting strap into the hole in the top of the Drive Unit. Reinsert the hitch pin through the strap. Loop the lifting strap onto the blades of the fork lift. See Figure 6.



**CAUTION:** The Six Shooter presents a lifting hazard if not handled correctly. Use the proper lifting methods for handling all components of the Six Shooter System.

- 2. Using the lifting device, lift the Six Shooter straight up out of the shipping container and back away from the container.
- **3.** Remove the four Supporting Legs from the box.
- 4. If using the Standard Guide Shaft Gold Series 35" [K-MM0510], proceed to Step 5. If using the Extended Guide Shaft Gold Series 47" [K-MM0511], the Supporting Legs will need adjusted to the lowest height. Loosen and remove the nut and bolt from the base of the Supporting Leg and extend it fully then replace and tighten the nut and bolt. Repeat for each leg. See Figure 7.
- The Six Shooter must remain suspended to attach the Supporting Legs [A-MM0013]. See Figure 8.

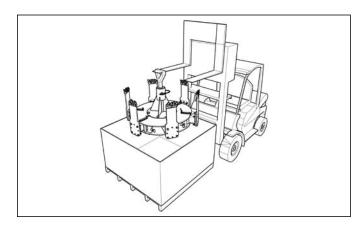


Figure 6. Lifting Six Shooter

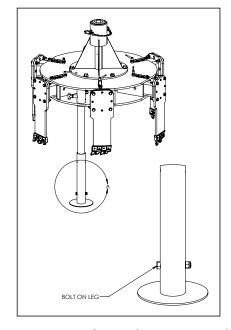


Figure 7. Loosening Bolt On Supporting Leg

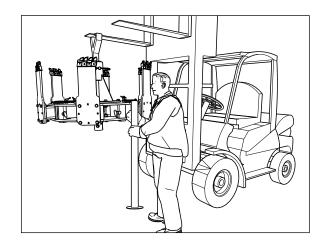


Figure 8. Attaching Supporting Legs to Six Shooter

**6.** Line up the bolt head with the slot in the leg sleeve, as shown in. See Figure 9.

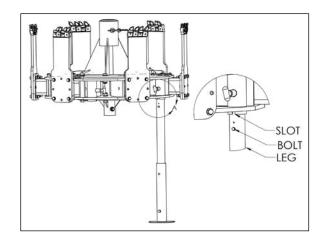


Figure 9. Close Up Of Bolt On Supporting Leg

7. Pull the Leg Pull Pin [P-MM0023] outward and slide the leg into the sleeve until the Leg Pull Pin is able to snap into the leg hole. See Figure 10.



**CAUTION:** Check to make sure the legs are fully attached and seated before lowering the Six Shooter. The Leg Pull Pins must be locked in place.

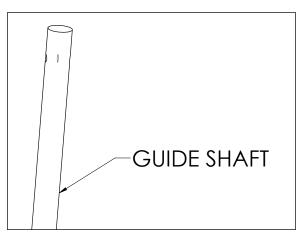


Figure 10. Leg Pull Pin For Leg Locked in Place

8. While the Six Shooter remains suspended, attach the Supporting Legs. Lower the Six Shooter to the ground until it is supported by the legs as shown in Figure 11.



WARNING: The Six Shooter is heavy and could cause severe injury if it falls. Leave the lifting strap attached to the Six Shooter while performing the remaining steps. The Leg Pull Pins must be locked in place.

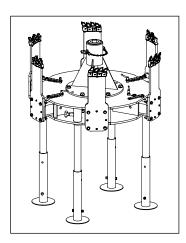


Figure 11. Six Shooter Resting On The Ground

Remove the Standard Guide Shaft Gold Series 35"
 [K-MM0510] or Extended Guide Shaft Gold Series 47" [K-MM0511] from the shipping container. See Figure 12.

- 10. Remove the bolt from one end of the Bottom Drive. Insert the Guide Shaft into the Bottom Drive of the Cutter being careful to line up the hole in the Guide Shaft with the hole in the Bottom Drive. See Figure 13.
- 11. Insert the bolt and securely tighten.
- 12. Using a 1-1/8 inch socket and a 1-1/16 inch wrench, fasten the bolt through the Bottom Drive and Guide Shaft.
- 13. To maximize space in the shipping container, the Six Shooter is shipped with its Cutting Arms turned upwards. The Cutting Arms must be removed and replaced in operational position before use.
- 14. Support the Cutting Arm from below as you remove the Arm Retainer Pin [P-MM0113] and carefully invert the arm before replacing it.

  See Figure 14.

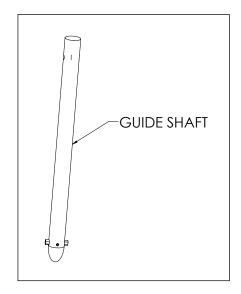


Figure 12. Remove Guide Shaft from Shipping Container

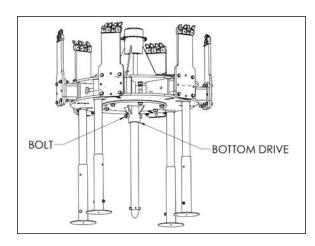


Figure 13. Inserting Guide Shaft into Bottom Drive

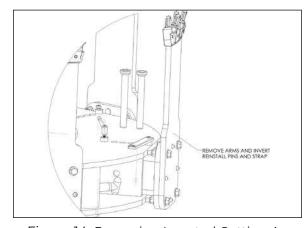


Figure 14. Removing Inverted Cutting Arm

- 15. The cutting diameter of the standard Cutting Arms is between 44 and 60 inches. Smaller diameter cuts between 22-34 inches require the use of the optional Water Valve Rebuild Package [K-MM0325]. See Figure 15.
- 16. Repeat Step 14 for each arm, being certain to adjust all arms to the same cutting diameter. See Figure 16.

NOTE: Because the Six Shooter is designed to bounce up and down during operation, similar to a hammer drill, the Cutting Arms will be able to move slightly after being attached.

- 17. Bring the skid steer loader with the Heavy Duty Auger Drive Model 40 2.5" Hex Drive [P-MM0070] attached to the Six Shooter.
- 18. Attach the Top Drive Assembly of the Six Shooter to the Auger Drive, securing it with the provided Hitch Pin with Lynch Pin Attached [P-MM0038]. See Figure 17.



CAUTION: The Hitch Pin with Lynch Pin Attached must be a Grade 8 pin to withstand the stress from picking up the road overcut and the manhole frames. Inspect the pin before every use and frequently during use. Replace Hitch Pins as they become worn or severe equipment damage may result.

19. Once the Six Shooter is securely attached to the Auger Drive on the skid steer loader, remove the Supporting Legs. See Figure 18.

**CAUTION:** The Supporting Legs must be removed before using the Six Shooter or severe equipment damage may result.

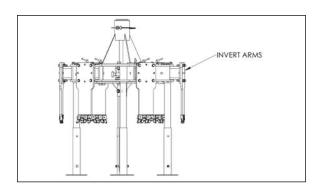


Figure 15. Replacing Cutting Arm

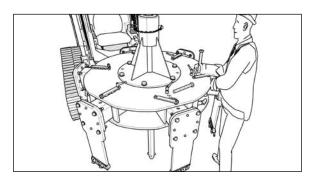


Figure 16. Setting Cutter Diameter

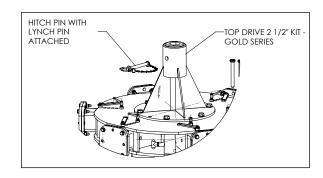


Figure 17. Hitch Pin With Lynch Pin Attached

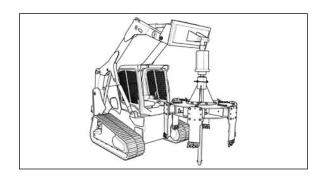


Figure 18. Cutter Attached To Skid Steer

#### Using the Standard Speedplate

The following paragraphs contain brief descriptions and set up instructions for the Standard Speedplate. Visit the Video section of <a href="https://www.mrmanhole.com">www.mrmanhole.com</a> for further training instructions and demos of the Mr. Manhole parts and accessories.

#### Standard Speedplate

Part Number: A-MM0130

Weight: 85 lbs

The Gold Series Six Shooter Package ships with a Standard Speedplate. See Figures 19 and 20.

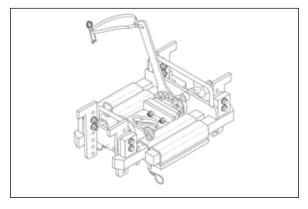


Figure 19. Speedplate And Components

The Standard Speedplate is used to repair and replace lid undercut style manhole frames with lid seat diameters from 19 to 25.5 inches.

- 1. Insert the speedplate into the manhole opening and adjust to center it within the lid seat.
- 2. Securely tighten the speedplate using the wrench provided in the Six Shooter Package.

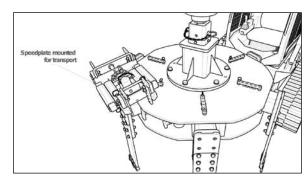


Figure 20. Speedplate can be transported on the built in Speedplate Transport Hub, located on the cutter arm



**CAUTION:** Do not overextend the Standard Speedplate to fit a larger manhole diameter. Doing so can bend or break the unit. Use the XL Speedplate for lid seat diameters greater than 25.5 inches.

#### **Cutting And Removing**

To begin, define your frame style. See Figures 21 and 22.

The two major manhole frame types are the Lid Undercut, (the most popular), and the Smooth Wall. The Standard Speedplate [A-MM0130] is designed to work with the lid undercut manhole frames.

For Smooth Wall frames use the Smooth Wall Speedplate [A-MM0330], which is sold separately. For large diameter manhole frames (over  $25 \frac{1}{2}$ " use the XL Speedplate [A-MM0331], which is also sold separately.

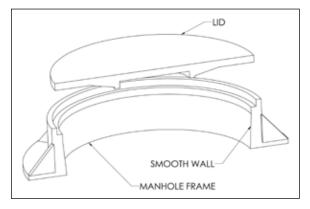


Figure 21. Smooth Wall Style

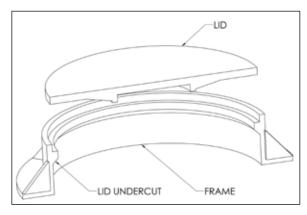


Figure 22. Lid Undercut

To begin the cutting process, select and insert the appropriate Speedplate. Tighten the Speedplate securely in place. Insert the Cutter Guide Shaft through the centering hole in the Speedplate. Erect the Debris Shield. Gently lower the Cutter towards the road and slowly initiate rotation counterclockwise. Engage the road surface and slowly increase rotation speed.

After penetrating the road, ensure the lift pin in the Guide Shaft is transverse to the key shaped centering hole and lift the frame and overcut from the road. Rotate the Cutter to disengage from the frame.

The Casting Lifter Bracket - Gold Series [A-MM0078] is used to lift manhole frames during the rebuilding process. It can be used by two or four men to lift heavy castings. See Figure 23.

The Lifting Magnet [A-MM0045] is used to lift manhole lids on and off the frame. See Figure 24.

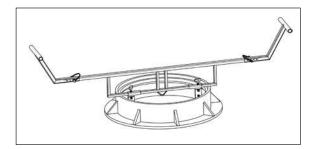


Figure 23. Casting Lifter Bracket - Gold Series

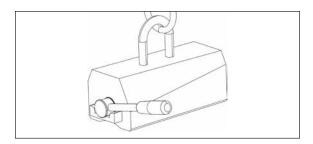


Figure 24. Lifting Magnet

#### Optional Parts and Accessories

The Gold Series Six Shooter is a versatile tool with optional parts and accessories designed to handle a variety of manhole and valve box repairs. Contact Mr. Manhole to order any of the optional parts and accessories.

Phone: 567-242-2221 Fax: 419-692-1600

Email: info@mrmanhole.com Website: <u>www.mrmanhole.com</u>

#### 2 1/2" Excavator Top

Part Number: K-MM0564

Weight: 130 lbs.

When mounting the cutter on an Excavator, this top drive reduces the overall height of the Gold Series Cutter to accommodate the limited reach of smaller excavators.

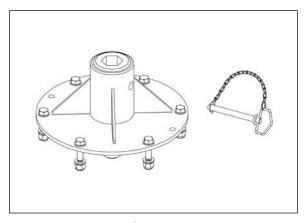


Figure 25. 2 1/2" Excavator Top

#### Arm Adapter 6" Kit - Gold Series

Part Number: K-MM0532

Weight: 24.5 lbs.

The arm extender is a quick and easy way to increase the cutting diameter of your cutter by 12".

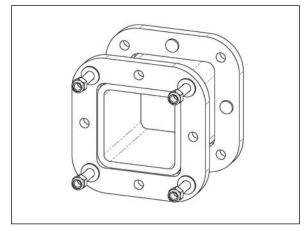


Figure 26. Arm Adapter 6" Kit - Gold Series

#### Cut, Pull and Plate Package

Part Number: K-MM0559

Weight: 200 lbs.

This is a starter package for the Cut, Pull, and Plate Method. (This package includes the 3/8" Newcon Plate. The 1/4" Newcon Plate can be purchased separately.)

Newcon Plate 3/8" [P-MM0193] 117 lbs. Newcon Plate 1/4" [P-MM0588] 78 lbs. Pipe Guide [P-MM0589] 1.5 lbs. T-Stop [K-MM0563] 2 lbs. Newcon Auger [A-MM0194] 33.5 lbs.

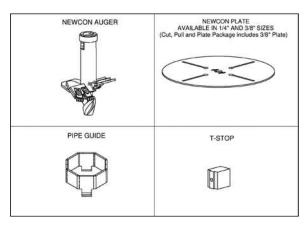


Figure 27. Cut, Pull and Plate Package

#### Newcon Wood Plate Kit

Part Number: K-MM0609

Weight: 65 lbs.

Parts also sold separately:

P-MM0607 - Newcon Plate 3/4" Wood

P-MM0605 - Newcon Plate 11.5"

The Newcon Plate 3/4" (Wood) is an alternative to the steel plates that are used to cover the manhole temporarily while road construction is in process. The center includes two 11.5" steel plates, one on each side, that have a key shaped hole. This acts as a centering point for the Mr. Manhole Cutter. After cutting, the plate and all the material above the plate can be lifted by the cutter.

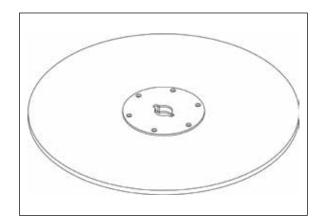


Figure 28. Newcon Plate Kit (Wood Edition)

#### Newcon Lift Shaft

Part Number: K-MM0474

Weight: 35.5 lbs.

This assembly is for the storage and transport of up to fifteen of the Newcon steel plates.

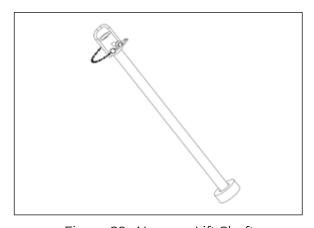


Figure 29. Newcon Lift Shaft

#### Debris Prevention System Package

Part Number: K-MM0404

Weight: 109 lbs.

The Debris Prevention System is used to prevent any debris entering the manhole structure during repair. It consists of a round top and a foot and a series of extension poles that reach the bottom of the manhole structure. There is a rubber sheet that the customer cuts to the the specific diameter of their manhole.

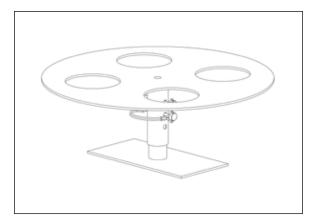


Figure 30. Debris Prevention System Package

#### Easyslope Marking Tool

Part Number: A-MM0342

Weight: 4.5 lbs.

The Easy-Slope Tool is used during the manhole rebuild process to mark the insert liner for cutting at the appropriate height and slope.

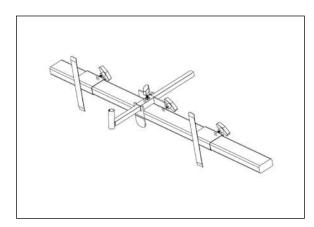


Figure 31. Easyslope Marking Tool

# Extended Blade - Gold Series (Teeth Included)

Part Number: A-MM0469

Weight: 37 lbs.

This is the longer blade and the cutting teeth that bolts directly on the arm of the Gold Series Cutter. It allows cutting to a 20" depth.

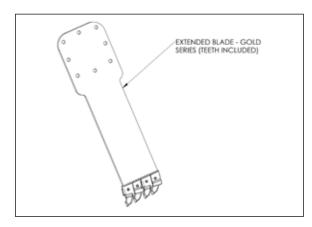


Figure 32. Extended Blade - Gold Series (Teeth Included)

#### Lifting Device

Part Number: A-MM0603

Weight: 15.5 lbs.

The lifting device is used to lift out the manhole frame and road overcut at some point after the cutting has been done.

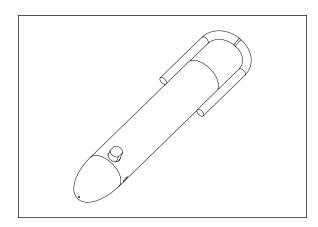


Figure 33. Lifting Device

#### Manhole Rebuild Package

Part Number: K-MM0332

Weight: 81 lbs.

This package contains all the major items needed to rebuild manholes. You receive the Battery Powered Sealant Gun with battery and charger for applying the Mr. Manhole sealant to the liner, the Battery Powered Saw with battery and charger for cutting the liner, the Battery Powered Concrete Vibrator with battery and charger, the Wire Tie Tool for fastening the rebar circles together, the Mark-Rite Tool for marking the Mr. Manhole insert liner (form for concrete), a Concrete Float to smooth the concrete, a Concrete Edger for creating the joint between the repair and the road surface, and a Concrete Brush to texture the surface of the repair.

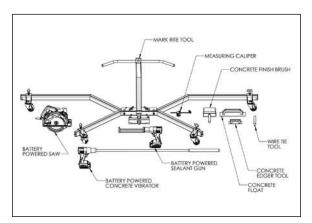


Figure 34. Manhole Rebuild Package

#### Mark Rite Tool

Part Number: A-MM0304

Weight: 50 lbs.

The Mark-Rite Tool is used to mark the Mr.Manhole liner material for cutting to the proper height and slope during the manhole rebuild process.

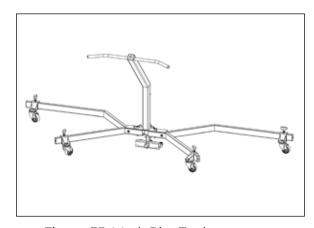


Figure 35. Mark Rite Tool

#### Material Packages

The Mr Manhole Material Package contains all the material needed (minus the ready mix concrete) to complete a Mr. Manhole repair.

#### 27" Material Package

(Materials for Approx. 20 Manholes)

Part Number: A-MM0333

Weight: 750 lbs.

#### 30" Material Package

(Materials for Approx. 20 Manholes)

Part Number: A-MM0334

Weight: 825 lbs.



Figure 36. Material Packages

#### Mr. Mister Silica Control

Part Number: A-MM0328

Weight: 21 lbs.

The Mr. Mister is a water misting system that blankets the cutter with a mist of water while cutting is in progress. This mist mitigates the silica particals that are in the dust produced by cutting. The unit bolts directly to the Mr. Manhole drive motor. The unit ships with all hardware needed. The unit requires water from a dealer supplied water tank.

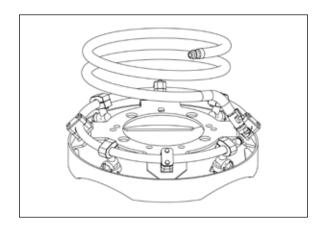


Figure 37. Mr. Mister Silica Control

#### Mr. Valve Blaster Unit

Part Number: A-MM0480

Weight: 95 lbs.

The Blaster is used to break the top section of a water valve box and the surrounding pavement for removing and replacing the casting. It is powered by the auxillary hydraulic circuit of a skid steer loader or an excavator.

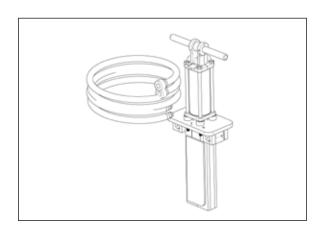


Figure 38. Mr. Valve Blaster Unit

#### Smooth Wall Speedplate

Part Number: A-MM0330

Weight: 131.5 lbs.

The Smoothwall Speedplate is the centering device for the cutter when working with smooth wall manhole frames. The Speedplate expands to lock into the manhole frame and can be used to pull the frame and road overcut. The Smoothwall Speedplate works by expanding laterally when lifted. The sharp barbed grippers engage the smooth inner wall of the manhole frame.

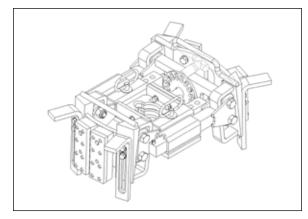


Figure 39. Smooth Wall Speedplate

#### XL Speedplate

Part Number: A-MM0331

Weight: 120 lbs.

The XL Speedplate is the centering device for the cutter when working with oversized lid undercut manhole frames. The Speedplate expands to lock into the manhole frame and can be used to pull the frame and road overcut.

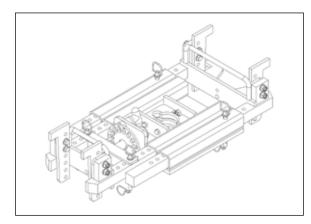


Figure 40. XL Speedplate

#### Water Valve Rebuild Package

Part Number: K-MM0325

Weight: 470 lbs.

The Water Valve Rebuild Package includes the items you will need to cut and remove water valves for rebuilding. You receive the underslung arms for reduced diameter cutting, as well as, the water valve cutting blades which are reduced diameter blades.

They can cut a diameter from 22" to 34" when mounted on a Gold Series Cutter. It includes a hardware package for attaching the blades to the Underslung Arms. The package also includes the Mr. Valve Centering Cone and Reducer Ring.

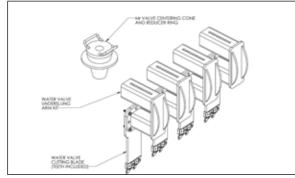


Figure 41. Water Valve Rebuild Package

#### Maintenance Instructions

- 1. CLEAN HYDRAULIC OIL IS ESSENTIAL! 80% of all hydraulic component failures are caused by contamination of the hydraulic oil. Always keep all dirt and other contaminants from entering the hydraulic system during disconnect and connect operations. Always use dust caps and plugs on all quick disconnects when not in use. Tightly cap all hydraulic openings to hold oil in and keep dirt and other contaminants from entering hydraulic systems.
- 2. CHECK ALL HYDRAULIC OIL DAILY FOR CONTAMINATION. If contamination is present, determine the source of the problem.
- 3. INSPECT ALL HYDRAULIC HOSE ASSEMBLIES DAILY for cracked and brittle covers caused by excessive heat. Reduced viscosity of hydraulic oil occurs at higher operating temperatures and causes a breakdown of fluid additives such as wear inhibitors. Excessive heat will cause higher internal leakage in the drive unit motor to become brittle and crack. Replacement of hoses before failure will prevent loss of hydraulic oil, time consuming "bleeding" of the system, hydraulic oil contamination, and component damage caused by cavitations. It will also reduce the chance of personal injury caused by hydraulic fluid.
- 4. CHECK CUTTER DAILY for loose, worn or broken cutting teeth. Worn teeth can drastically affect cutter penetration and greatly reduce cutter life expectancy. Always keep spare teeth on hand. Some digging conditions may require checking teeth at more frequent intervals. 5. CHECK DRIVE UNIT AND ALL ACCESSORIES DAILY for loose, bent, cracked, or worn, bolts and fasteners. Always use grade 5 or better replacement bolts. Always use lock washers with standard hex nuts or self locking nuts.
- 5. CHECK ALL CONNECTING PINS DAILY for bends, cracks, breaks, or wear. Replace if any of these conditions exist.
- 6. CHECK DRIVE UNIT OUTPUT SHAFT DAILY for bends, cracks, breaks, or wear. Replace if any of these conditions exist.
- 7. CHANGE PLANETARY GEAR REDUCTION OIL AFTER FIRST 50 HOURS OF OPERATION, THEN EVERY 1000 HOURS OR IN ONE YEAR, WHICHEVER COMES FIRST. Use mild extreme pressure lubricant API-GL-5 number 80 or 90 for filling planetary gear reduction under normal temperature ranges between 0 degrees and 120 degrees. Approximate oil capacity for MM-SUPER DUTY is two quarts. Check oil level daily to assure proper lubrication is maintained.
- 8. When storing Drive Unit for any length of time be sure Drive Unit motor and hoses are full of clean oil. Also, be sure that Planetary Gear Reduction is full to the recommended capacity for each model as outlined in number 8 above. 10. Drive Unit Output Shaft, inside of Cutter Collar, and all Connecting Pins should be coated liberally with grease as required to prevent rust and reduce wear.
- 9. Check Planetary Gear oil as follows. Lie Drive Unit horizontal with ground place bottom drain plug straight up. Remove plug, tilt drive unit at 2:00 or 10:00. Fill until oil leaks out from hole at one of these positions.

# Product Registration Form

Please complete the Product Registration Card and return WITH ORIGINAL PURCHASE RECEIPT to Mr. Manhole at 125 S. Canal St., Delphos, OH 45833 by mail WITHIN 30 DAYS OF PURCHASE in order to validate this warranty. You can also register on our website www.mrmanhole.com.

For Parts and Customer Service, please ca	ll 567-242-2221, fax 4	-19-692-1600 or en	nail <u>info@mrmanhole.com</u>
Business Name:			
Name (Last, First):			
Street Address:			
City:	_ State:		Zip:
Phone:			
Gold Series Six Shooter: Serial Number	*		
I have received the training material inclu operate the equipment safely in its intend		uct(s) and have re	viewed such material as to
Signature:			
Place of Purchase:		Date of Purchas	se:

<sup>\*</sup> The serial number for the Platinum Series Six Shooter is located inside the main disc of the Six Shooter along the side, where the cutting arms slide in and out. The serial number is also included with your paperwork.



Thank you for purchasing the Mr. Manhole tools. It is my sincere hope that you use the tools and methods to become even more successful in the field of manhole rebuilding.

We have invested thousands of hours designing and building these tools and methods so you don't have to spend your valuable time doing so. You can get out there and focus on serving your customer with the very best technology on the planet.

It is my desire to offer you the very best tools, service, and support as you pursue your business goals. You will find all of us at Mr. Manhole are committed to helping you succeed.

Any needs or questions you have, please reach out and let us help you. Thanks again for joining the Mr. Manhole team!



Designer and Developer of The Mr. Manhole System

Michael K. Crites

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# Contact Mr. Manhole

Phone: 567-242-2221

Address: 125 S. Canal Street Delphos, OH 45833

Email: Info@MrManhole.com

# Ready to get started? Visit your Customer Portal





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Fax: 419-692-1600

Email: info@mrmanhole.com
Website: www.mrmanhole.com

Address: 125 S Canal St.

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