

GUIDING OUR CUSTOMERS TO
THE LATEST TECHNOLOGIES AND
INNOVATIONS TO HELP THEM BE MORE
PRODUCTIVE AND PROFITABLE.



HURCO
TECHNOLOGIES, INC.®

Money Saving Solutions for
Pipeline Testing and Repairs

HURCOTECH.com

Deflection Test in Seconds, Laser Precision, Lightning Fast!

You'll never have to crawl into a manhole again using the Hurco Whistle Gauge™ and Ripcord®!

- 5 days work in one.
- Manhole to manhole in approximately 17 seconds! (Using Hurco's Ripcord)
- No need to enter the manhole.
- Never worry about a stuck gauge with the patented TKO.
- Laser precise deflection gauge construction.

Made from super lightweight, aircraft quality aluminum.

Steps to Deflection Testing

- Put Hurco's Ripcord on downstream manhole.
- Utilizing Hurco's parachute and rope reel, lower the Whistle Gauge with TKO into the upstream manhole.
- Ripcord pulls the Whistle Gauge to the downstream manhole in approximately 17 seconds!
- Remove the Ripcord from the manhole and snag the Whistle Gauge with a rope and hook.

Steps for removing a stuck gauge with TKO®

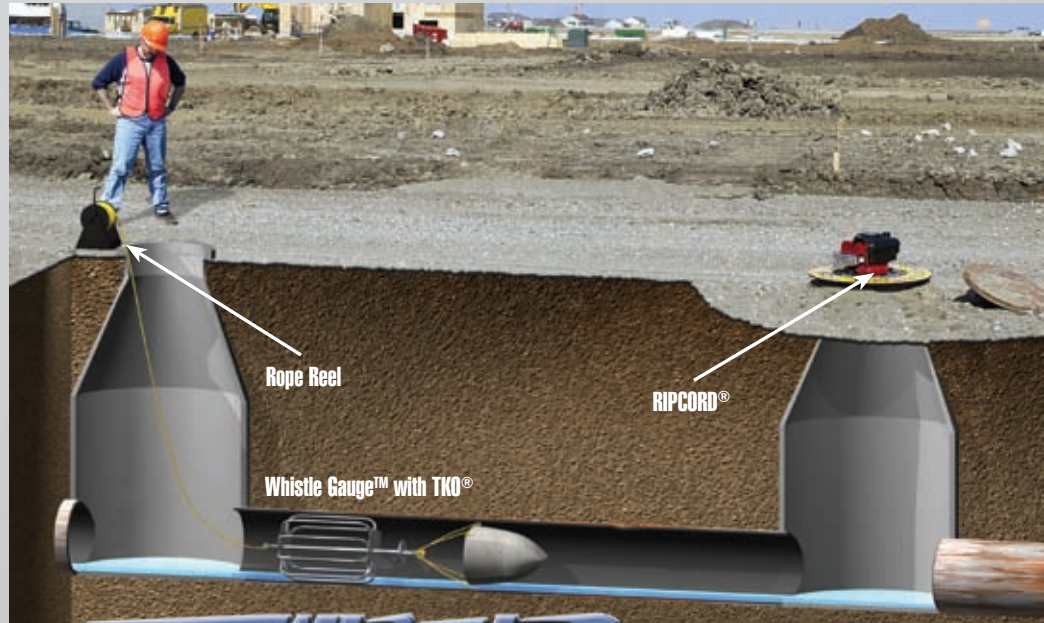
- Turn off the Ripcord.
- Grab the rope and give it a quick snap. Bang! It's loose.
- Mark the bad spot and move on to the next section.

Contractors – Save days of labor!

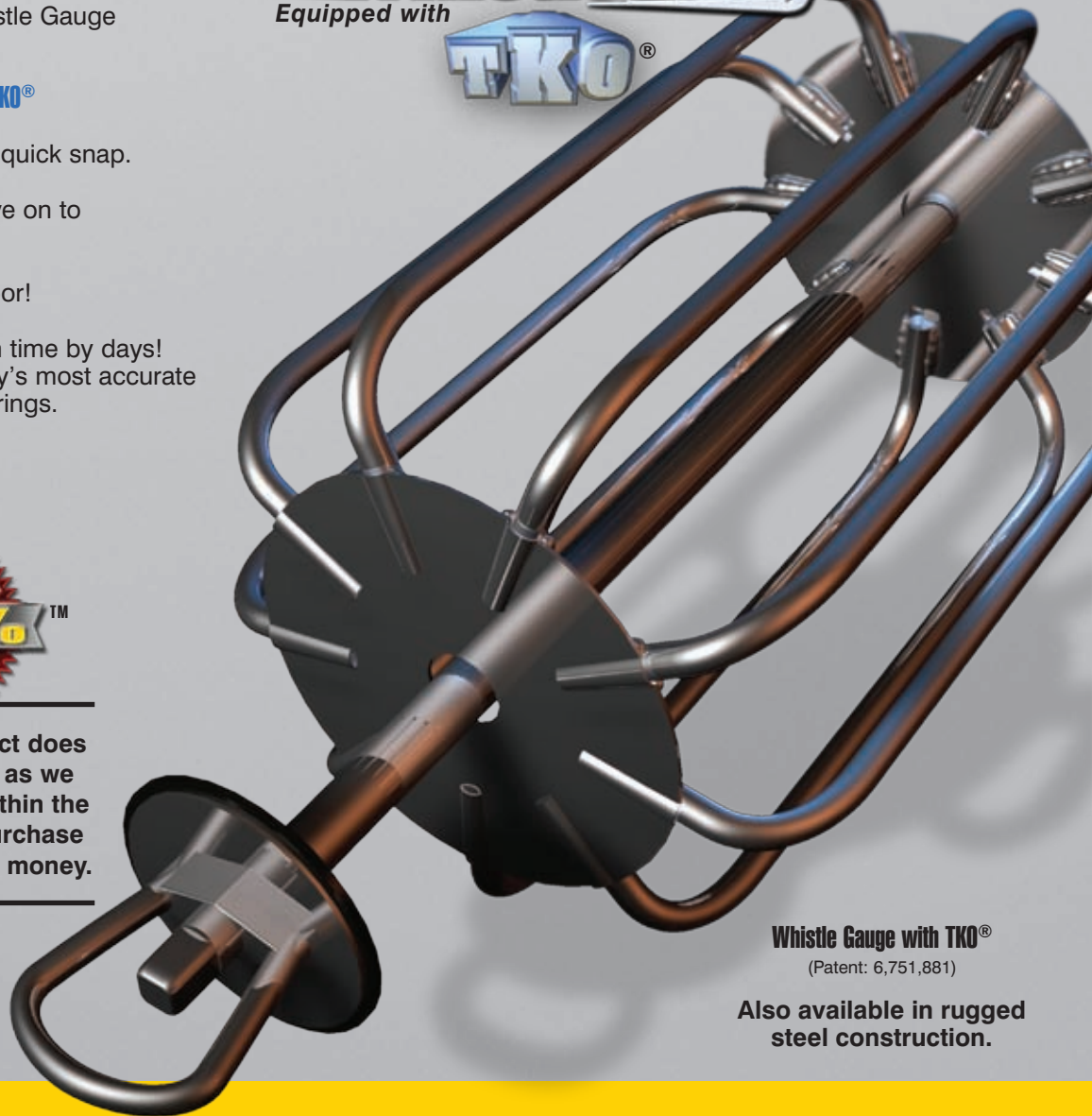
Engineers – Reduce inspection time by days!
Know you are using the industry's most accurate deflection gauges and proving rings.



If any HURCO product does not perform exactly as we claim, let us know within the first 10 days after purchase and we'll refund your money.



Whistle Gauge™
Equipped with **TKO®**



Whistle Gauge with TKO®
(Patent: 6,751,881)

Also available in rugged steel construction.

Alternatives - Options - Specifications

Multi-Size Deflection Gauge

- Small Multi-Size covers a range of 8" to 15", comes standard with 8", 10" and 12" end plates.
- Large Multi-Size covers a range of 15" to 27", comes standard with 18", 21" and 24" end plates.
- 9 Skid design, all steel construction.
- Self storing – no carrying case required.

Proving Rings – Engineers and Inspectors – Quickly certify any deflection gauge with machine tolerance precision. Each proving ring is cut using high tech, computerized laser cutting equipment.

Rope Reels – Heavy duty steel and roller bearing construction – These reels are designed for hard pulling and are available in 1/8", 1/4" and 3/8". Tough construction means years of service.



Specifications for Multi-Size gauges can be found at www.hurcotech.com

Mandrel Dimensions ASTM D-3034 SDR 35

Nominal Pipe Size		Base I.D.	7.5% Mandrel Size	5% Mandrel Size	Length of Skids	Number of Skids For Single Size Gauge
(in.)	(mm)	(in.)	(in.)	(in.)	Flat Portion (in.)	Degree x number
4	100	3.909	3.62	3.71	7	51.34 x 7
6	150	5.742	5.31	5.45	7	51.34 x 7
8	200	7.665	7.09	7.28	9	40 x 9
10	250	9.563	8.85	9.08	11	40 x 9
12	300	11.361	10.51	10.79	15	40 x 9
15	375	13.898	12.86	13.20	15	40 x 9

Mandrel Dimensions ASTM D-3034 SDR 26

Nominal Pipe Size		Base I.D.	7.5% Mandrel Size	5% Mandrel Size	Length of Skids	Number of Skids For Single Size Gauge
(in.)	(mm)	(in.)	(in.)	(in.)	Flat Portion (in.)	Degree x number
6	150	5.33	5.19	5.63	7	51.43 x 7
8	200	7.488	6.93	7.11	9	40 x 9
10	250	9.341	8.64	8.87	11	40 x 9
12	300	11.102	10.27	10.55	15	40 x 9
15	375	13.575	12.56	12.90	15	40 x 9
18	450	16.688	15.44	15.85	18	24 x 15
21	525	19.666	18.19	18.86	21	24 x 15
24	600	22.102	20.44	21.00	24	18.95 x 19

Other Pipe specifications are available at www.hurcotech.com.

DEFINITIONS

BASE INSIDE DIAMETER: Mandrel is sized from the base inside diameter so that a statistical average of the manufacturing tolerances are accounted for so that the deflections measured reflect the quality of the installation and are not influenced by the manufacturing tolerances recognized in the pipe standard.

AVERAGE INSIDE DIAMETER: For solid wall pipe, the average inside diameter is calculated using the average wall thickness rather than the minimum wall thickness. The average wall is 6% thicker than the minimum wall thickness. For profile pipe, the average inside diameter is the intended inside diameter.

REQUIRED NUMBER OF SKIDS AND DEGREE LOCATION: The number of skids required for each mandrel size are to insure a proper deflection test. Hurco has determined that 9 skids spaced evenly at 40° intervals will not give an accurate deflection test on larger diameter pipes. For example, if you were to do a deflection test on a 36" pipe with a 9 skid mandrel, this mandrel could position itself creating a gap between the skids at the top of the pipe, wide enough to allow deflection in excess of the required test. On smaller diameter mandrels, an odd number of skids should be used to insure an accurate mandrel test. On larger diameter gauges, because of the large number of skids, it is unnecessary for an uneven number of skids to assure an accurate test.

LENGTH OF SKIDS: The length of the skid will usually be equal to the nominal pipe size. This is to insure that there is no alignment deflection at the pipe joints.

Repair Pipes Without Digging

Repair Deflected PVC or Polyethylene pipe without excavation and save thousands of dollars!

Re•rounder™

RE-Rounder™

- Consolidates and re-compacts material around the pipe with high frequency, directional vibration.
- Rubber cleaners help prevent damage to the pipe.
- Two man operation.
- Set up to Finish – Approximately 1 Hour!
- Permanent results in pipe that has been installed for more than 30 days.

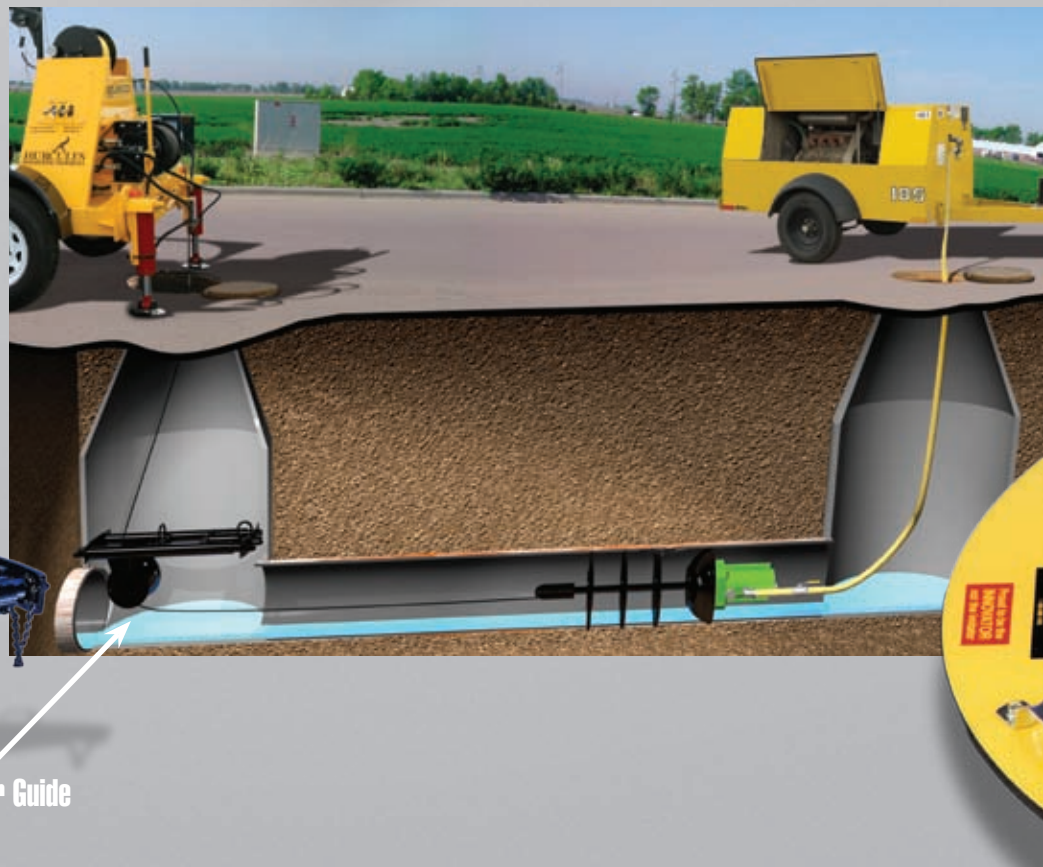
Heavy Duty Roller Guides

- Heavy Duty Cross Roller Guide – used in the bottom of the manhole to guide the pulling cable, rated up to 12,000 pounds.
- Heavy Duty Top Roller Guide – used in the top section of the manhole to guide the pulling cable, rated up to 12,000 pounds.
- Lower Rope Roller Guide – used when retrieving the steel pulling cable through the pipe.

To see the complete system, go to our website at www.hurcotech.com.

Contractors: Save thousands of dollars over re-excavation. Keep your crews working on profit making jobs instead of doing costly repairs.

Engineers: Be assured of a quality repair while not disturbing adjacent property. Re-rounding will have an everlasting effect as long as the pipe has been installed for at least 30 days prior to re-rounding.



Cross Roller Guide

Ventilation for A Safer Manhole, Faster Stringer

OSHA requires continuous ventilation when working in a manhole, Ripcord helps you comply. When you need to get a rope or string through a pipe, Ripcord does it faster!

- Up to 8,700 CFM (depending on model).
- Doesn't dilute dangerous gases, it removes them!
- Fast ventilation means your crew can enter the manhole quicker.
- The cross ventilation method eliminates the need for a hose, making access to the manhole unobstructed – a safety must!
- Creates a comfortable dust free work environment by pulling fresh air into the manhole and pulling dust away through the pipe.
- The noise of the Ripcord is away from the work area making communication better.
- Pull a string manhole to manhole in approximately 17 seconds!

Setup only takes minutes – a small price to pay to ensure the safety of your workers.

- Set the Ripcord on the next manhole upstream or downstream from the manhole you will be working in. The Ripcord is so powerful, that the direction of air flow is not critical.
- Be sure that all other manholes in the immediate area are closed to insure fast and proper ventilation of the workspace.
- Start the Ripcord and in seconds the workspace will be free of dangerous gasses. There will be a steady flow of fresh air for the comfort and safety of the worker.
- If you are line stringing, simply attach a Hurco

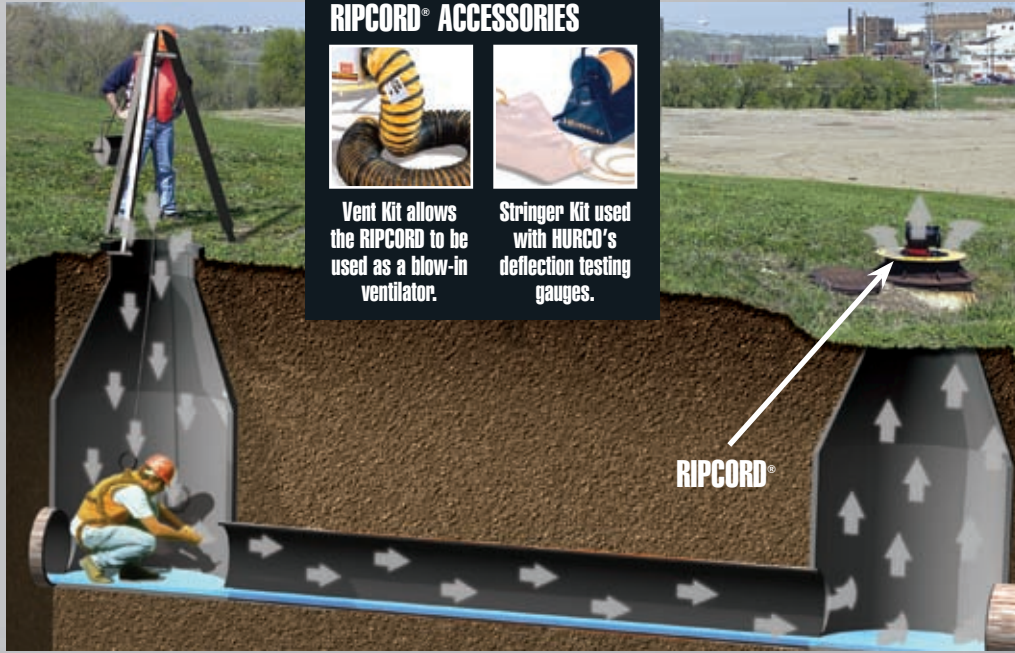
RIPCORD® ACCESSORIES



Vent Kit allows the RIPCORD to be used as a blow-in ventilator.



Stringer Kit used with HURCO's deflection testing gauges.



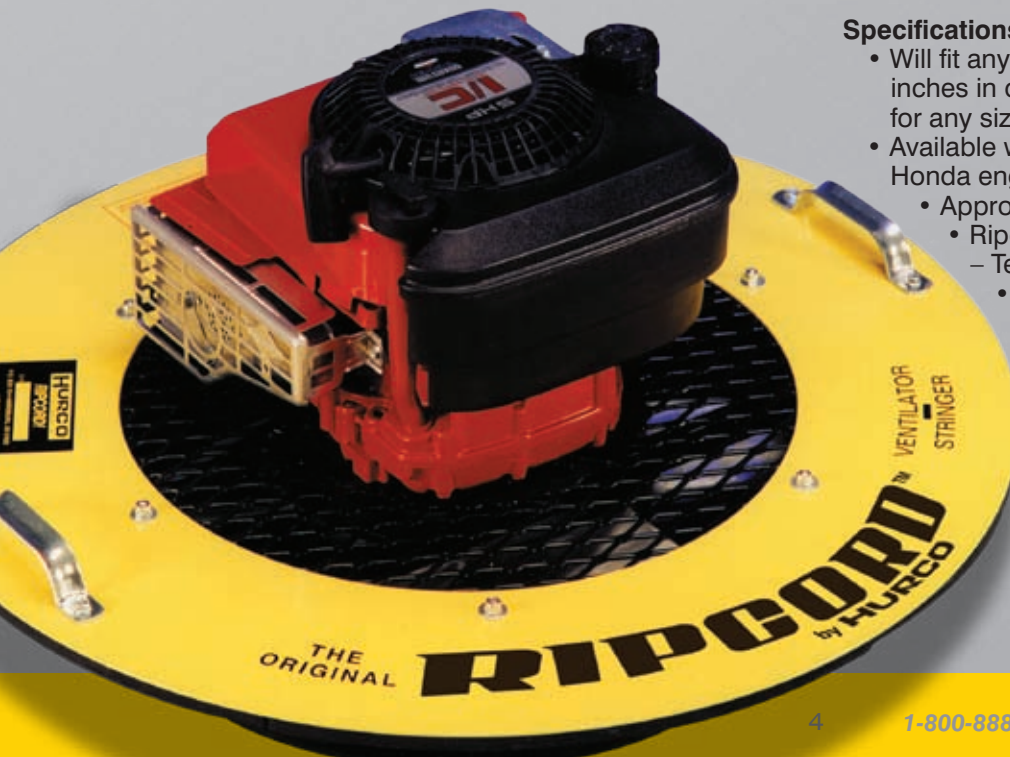
parachute to the end of your string and lower it into the manhole. It will quickly inflate and shoot through the pipe to the manhole where the Ripcord is located in approximately 17 seconds!

RIPCORD® Super RIPCORD® Ventilator/Stringer

The Ripcord is constructed of a rugged steel frame and a solid aluminum impeller. This construction reduces the chance for static discharge and will insure years of dependable service. Plastic impellers flex and break easily when impacted by loose gravel and dirt often found on the rim of a manhole.

Specifications:

- Will fit any manhole opening from 18 inches to 30 inches in diameter. Larger diameter rings are available for any size manhole.
- Available with Briggs and Stratton, Tecumseh or Honda engines.
- Approximate weight – 70 pounds.
- Ripcord - CFM @ 3.0 Static Pressure = 4,130 – Tested in accordance with AMICA standards.
- Super Ripcord - CFM @ 3.0 Static Pressure = 8,761 – Tested in accordance with AMICA standards.
- Blow-in Ventilation kit for Ripcord – CFM = up to 2100.
- Blow-in Ventilation kit for Super Ripcord – CFM = up to 4200.



Dependable, Long Lasting Hydrostatic Test Pumps

With proper maintenance and normal operating practices, HURCO's Old Faithful hydrostatic test pumps will out-last and out-perform other pumps by a wide margin.

Hydrostatic testing insures the quality installation of new or repaired water mains and sewer force mains.

Like its namesake, the "Old Faithful" line of hydrostatic test pumps are engineered for reliability and durability, with low cost maintenance and nearly "wear free" operation:

- Pumps can handle up to 10% chlorine solution.

- Unique manifold system eliminates leak points and reduces the amount of work required to repair the pump or replace the diaphragms.
- Bypass relief valve takes pressure off the pump during engine start-up and safeguards against valve seat sticking that could cause pump damage.
- Utilizes a damper diaphragm to eliminate "bursting" damage when pressure is introduced to the inlet side of the pump. HURCO pumps can run completely dry!

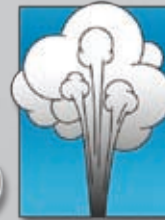
HURCO offers the best available diaphragm pumps with Honda or Briggs & Stratton engines:

- Twin diaphragm pumps deliver up to 580 PSI and up to 9.8 GPM.

- Four diaphragm pumps deliver up to 725 PSI and up to 27.6 GPM.



OLD
FAITHFUL
PUMPER



Old Faithful Pumper
(pictured with Water Reservoir)

The two diaphragm model offers an optional Float Controlled Water Reservoir that can be used instead of a bar-rel and allows attachment of a pressure water source. It can also be used to mix chlorine solutions.



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Old Faithful
Super Pumper

Safest and Most Economical Smoke Testing System

Efficient and cost effective, smoke testing has become a worldwide standard for finding leaks in sewer and plumbing systems. HURCO provides all you need to manage a complete smoke testing program better and more profitably.

LiquiSmoke®

Teamed with HURCO's Power Smoker, LiquiSmoke is the only laboratory tested safe smoke for testing sewer and plumbing lines. LiquiSmoke costs less than smoke bombs and is the most economical smoke available. One gallon will last up to 3 hours with HURCO's patented SuperJet™.

LiquiSmoke DOES NOT contain toxic compounds like "zinc chloride", the active ingredient in smoke bombs. LiquiSmoke has an indefinite shelf life and can be shipped year-round without a hazardous shipping document.

Produce More Smoke Faster

The Power Smoker and the Super Power Smoker feature HURCO's patented SuperJet™ smoke generator to produce more smoke, with less waste, saving you money.

HURCO's Power Smoker does not require continual monitoring while smoke testing.

Power Smoker produces up to 4,130 CFM at 3.0 static pressure and Super Power Smoker produces up to 8,761 CFM at 3.0 static pressure.



By forcing safe and clean LiquiSmoke through sewer and plumbing systems, leaks can be detected quickly as smoke escapes through the problem areas.

Power Smoker™

with LiquiSmoke®



(Patents: 6,865,341, 7,050,709)



THE PERFECT TOOLS FOR IMPERFECT UTILITIES

HURCO's Performance Guarantee

It has long been our mission to provide you with the right tools and techniques to make your efforts productive, profitable and free from risk. We feel so strongly about the quality and reliability of our products we have developed and manufactured, that we have now added the assurance of the HURCO Performance Guarantee.

We will continue to strive to set the bar high and provide the highest quality and safest products while always keeping productivity and ease of use foremost in mind.



If any HURCO product in this catalog does not perform exactly as we claim, let us know within the first 10 days after purchase and we'll refund your money.* ** *When You Want The Original!*

HURCOTECH.com

1-800-888-1436

Proudly Manufactured in The United States of America in Harrisburg, South Dakota

Hurco Technologies products are covered by several United States Patents and other Patents Pending.

See our Virtual Patent Marking on-line for more information.



*Warranty issues with engines must be handled by engine manufacturers certified service centers.

**HURCO Technologies is not responsible for shipping cost of returned items.