

Asepro Group

- For a world without contamination
- For a city without "ditches".
- The last robotic technology under our feet.
- The hidden work, of down... it is the one that... it guarantees the external Comfort, of above



Works without ditches, without disturbances, without barred streets.



Traditional work symbol



works in the street

Pipe with equip y grupo Asepro (como en Taima)
 Pipe with equipment and Asepro group (like in Taima)



Pipes damaged by different reasons

- 1) - Installation and Construction
- 2) - The problems appear all... in the same way
 - Collapses and Deformation
 - Clogging by obstruction,
 - Cracks, Corrosion, Incrustations, Penetrating attacks,
 - Disarranged joints, leakages and roots, etc...
- 3) - But the solutions are applied... of two very different ways

A form (the traditional)

- 1°- Open ditches, from where it appears the symptom to where the problem takes place.
- 2°- Replace the affected section, by a new one
- 3°- Close ditches

Another way (Technical of ASEPRO):

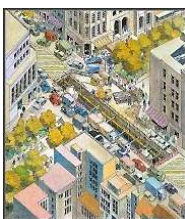
- The underground, from the inside...robotized performance, through the interior of the pipe
- From the outside, in the street...only a van, with monitor of controls and execution.



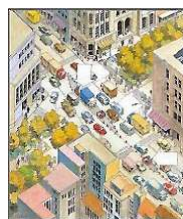
Let us say to him to good-bye to it ditches Milling robots in action.



Rehabilitated pipe and finalized work



Traditional work crossing altered circulation



Work crossing by rehabilitation system circulation without alteration

The robotized technique, today, is prevailing

- Why
- Undeniable advantages and benefits:
Rather technical's than socials.
- Your accounts too:
Not only the amount of its work will be until a 50% from the traditional one, but moreover... in 10 % of time.

So many advantages make you doubt?

- However, the problem is elsewhere.
- Whose is going to give us the requested guarantee?
That is ours,
What we are ASEPRO CONSULTING?

The only one CONSULTING that can...

- 1°- Studies your problem urgently.
- 2°- Diagnoses with accuracy
and it prescribes - the type of specific solution
- and the exact cost of execution
- 3°- Selects, with the client, the suitable executor (if there is one)
- 4°- Controls, supervises and guarantees the work

taking responsibility (itself) in the result.

Not enough? See what is coming next:

- We will always put at your disposal a qualified executor, prepared and responsible
because in case of a specific problem
We will be able to solve it directly

We have the best equipment and the most specialized team
for any kind of solution.

We act on any type...

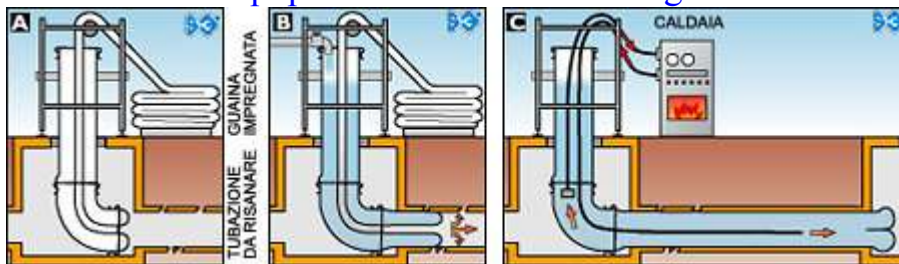
- **of Pipes**
Circulars, ovoid's, rectangular or culverts, verticals or horizontals, etc.
- **of Elements:**
Drinkwater, Draining, Industries, Gas, Rainwater, etc.
- **of Materials:**
Concrete, fibrocement, stoneware, smelting, PVC, etc.



Streets without works



Installation of equipment without obstructing the circulation



Sketch of operation



Positioning in-situ total sleeve including superior space for other conductions

Summary of the ADVANTAGES of the “without ditches” system

Technical advantages:

- Nothing can remain hidden. Exact knowledge of the problem: (where it is, of what it consists, what degree of badly, what type of solution).
- For that reason, previous calculation (with fixed prices) of time and costs.
- Guarantee of result, with previous robotic verification to the work delivery.
- There is no risk to see reappearing the damage. The solution operates in the

- long term.
- Recovery of the integrity of the structure, surpassing the initial one by a new one.
- The hydraulic fluidity improved by the internal finishing (hard and smooth, made of polyester).

Social benefits:

- The pavement, the traffic, pedestrians and shopkeepers...
You will not see anything! Alternatively, maybe a van parked in the street!
- No dust, no sound, no risks for both pedestrians and traffic.

Economic benefits:

- Work done very quickly. Approximately 10% of the traditional system.
- The cost, in fees, is the most economical (up to 50% less expensive).
- Time: there is no other way of doing it so quickly! This is the difference (you win up to 90%)

ASEPRO CONSULTING is...

the group which:

- has gathered the most highly qualified specialists pioneers able to deal with those matters.
- has the most sophisticated updated means.

Regarding both basis, our group is...

the only one, which can develop the following, functions:

1st FUNCTION:

Technical Televised – Monitoring Reconnaissance

- Color camera, with rotary heads, radio-controlled.
- Transmission from the section to the monitor (in the van) and recording it in CD, with specific photo of resalable points
- Preciseness, measurements and detailed reports of concrete situations.

2nd FUNCTION:

Exact and Detailed technical report.

Not the "mere Diagnosis", on simple "symptoms", however, "the exact" Report, with "comprisable facts".

- The whole journey is recorded on the CD showing all that must be seen.
- Technical prescription of...
 - the best way of managing specifically your case and
 - the exact calculation in costs and time.

3rd FUNCTION

- Selection with the client of the best-qualified executor and the best technical means to use.
- Control, supervision and responsibility in results.

4th FUNCTION

Not always, there will be an executor, technically prepared for each technique, HOWEVER, ASEPRO for sure can execute it.

Carrying out of all type of technical work, by specialists that is how we operate...

- directly,
- with our own means,
- with our own qualified staff,

Various rehabilitation systems

- Each problem and circumstance require a specific system of rehabilitation

- Each one of them are taken delivery of... - with total safety in service and execution

- with a total guarantee of the long-term results

1. - Punctually situations located, in each section

- Seals

By acrylic resin injections.

Point Liner System or similar, flexible sealing. Internal rings squeezing towards the outside.

- Multi-function robot

- « KA-TE » and « PRIMO » Process

- Cutter robot (Connections, concrete, engraving, roots, etc.)

-Punctual structural pipe repair (Fiber Point Liner) Cracks, breaks, roots, etc.

Margin of error: no more than 2 meters.

2. - Report over the whole section

- Complete structural pipe repair (Reversible sheath)

Process: by water or air

Steel and cast iron pipes (Corrosion and coloring of water)

Projection of mortar per centrifugation and posterior polishing.

4. - Necessary structuring resistance

Shaped of PVC. New manufacture pipe by helicoids rolling up.

(manufactures itself from the interior of the manhole. Annular space is subsequently filled by a purée of mortar or liquid concrete)

5. - Pipes rehabilitation with multi-function robot

« KA-TE » process. Milling and polishing and finishing with resins époxis.

6. - Drinkwater and gas

Tubing by pre pipe deformed out of polyethylene in U which recovers its form at the end of the process.