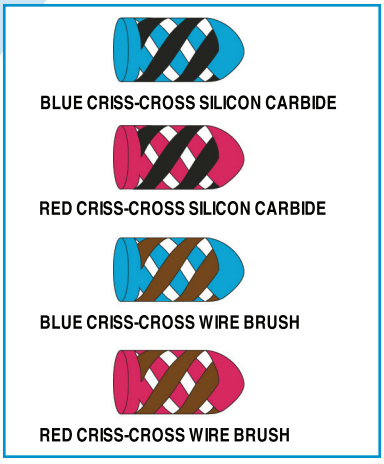
PolyEurope

Dedicated Partner of
Pigging and Pipeline Products

POLYEUROPE DECADES OF MANUFACTURING AND FIELD EXPERIENCE OFFERS YOU THE BEST ENGINEERED POLY FOAM PIG ON THE MARKET.

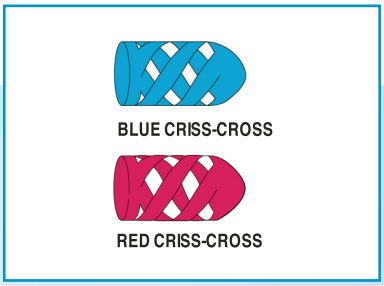
FOR TOUGHEST CLEANING & SCRAPING OPERATIONS

Mill scale, pipeline corrosion, even rock-hard mineral deposits are no match for rugged PolyEurope poly foam pig cleaners equipped with silicon carbide straps or flame – hardened wire brushes. Made from tough polyurethane foam, the Blue Series (5-7 lbs. cu. ft. density) feature a hard polyurethane criss cross pattern with spirally applied silicon carbide straps. Use this type for removing hard encrustations in all pipe sizes over medium length runs.The Red Series (8 – 10 lbs. cu. ft. density) criss cross silicon carbide and wire brush PolyEurope poly foam pigs are recommended for longest runs, multiple turns and toughest cleaning action. The Special Series studded PolyEurope poly foam pigs are used for removal of hardest encrustations and used for decoking of industrial lines.



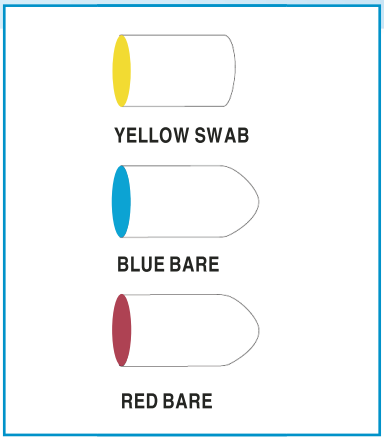
FOR EFFICIENT PIPELINE WIPING

Blue or red criss cross PolyEurope poly foam pigs feature hard polyurethane bands spirally applied on tough polyurethane foam cores. Density ranges are 5 – 7 lbs. cu. ft. (Blue) and 8-10 lbs. cu. ft. (). Both types easily turn 90 ells, cross tees and slip through valves. The Blue criss cross is ideal for new construction and on-stream cleaning. The Scarlet criss cross models are recommended for extra cleaning or wiping and for long pipeline runs.



FOR DRYING PIPELINES

When your pipeline maintenance calls for mild scraping, final drying or water removal after hydrostatic testing, select a Yellow Swab, Blue Bare or Red Bare poly foam pig. PolyEurope bare poly foam pigs are made of durable, resilience flexible polyurethane foam ranging in density from 1 up to 10 lbs. cu. ft. PolyEurope poly foam pigs resist mild acids, caustic solutions and hydrocarbons. The cylindrical Yellow Swab has a vapor seal on one end. The Blue Bare and Red Bare models are cylindrical with a bullet nose and dished end.



SPECIFICATIONS

PolyEurope poly foam pigs are industrial pipeline and municipal water main cleaners and product recovery devices. The basic design consists of a flexible, bullet shaped polyurethane foam cylinder. The rear end of the PolyEurope poly foam pig is concave in order to allow more pressure to be exerted and create a tighter seal against the pipe wall. This helps to prevent “by-pass” of the propelling agent (water, air or product) and virtually eliminates product contamination.

Overall length of PolyEurope poly foam pigs (Blue and Red Series) are approx 2 times the diameter of the pipeline and oversize of the bare pigs varies between 0.25”and 0.75” depending on size of pig and pipe grade.

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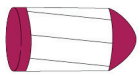
		MODEL	
LOW DENSITY SERIES 1 1/2 - 2 lbs. cu. Ft. density (Can be hand launched)		**PE/LD/PL** (Yellow Swab)	Drying Flow test Line test
		**PE/LD/CC** (Yellow Swab Criss Cross)	Light Cleaning
MEDIUM DENSITY SERIES 5-7 lbs. cu. Ft. density		**PE/MD/PL** (Blue Bare)	Drying
		**PE/MD/CC** (Blue Criss Cross)	Cleaning
		**PE/MD/FC** (Blue Fully Coated)	Cleaning
		**PE/MB/CWB - Carbon Wire Brush** **/HWB - Heavy Wire Brush** **/NWB - Nylon Wire brush** **/SSWB - Stainless Steel Wire Brush** (Blue Wire Brush)	Scraping
		**RCC/SC** (Blue Silicon Carbide)	Scraping
HIGH DENSITY SERIES 8-10 lbs. cu. Ft. density		**PE/HD/PL** (Red Bare)	Drying
		**PE/HD/CC** (Red Criss Cross)	Cleaning
		**PE/HD/FC** (Red Fully Coated)	Cleaning
		**PE/HD/CWB - Carbon Wire Brush** **/HWB - Heavy Wire Brush** **/NWB - Nylon Wire brush** **/SSWB - Stainless Steel Wire Brush** (Red Criss Cross Wire Brush)	Scraping
		**PE/HD/SC** (Red Silicon Carbide)	Scraping
		**PE/HD/FWB** (Red Full Wire Brush)	Maximum Scraping

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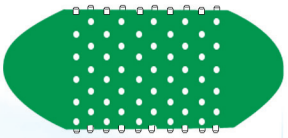
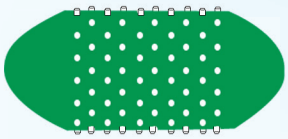
SPECIAL SERIES

Available in 3 different grades of hardness and percentage of studcoverage.

STUDPIG



STUD/SC
(Soft Core)



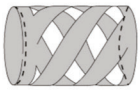
STUD/S
(Solid)

Decoking Pigs
(Full details see what we do)

OPTIONS AVAILABLE

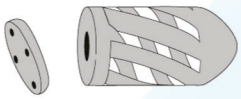
(Applicable on all models except Swab and Stud pigs)

Handling rope
(Single or double)



Double dish

Double nose



Cavity

(For mounting transmitters, diameter + length, model to be specified with order).

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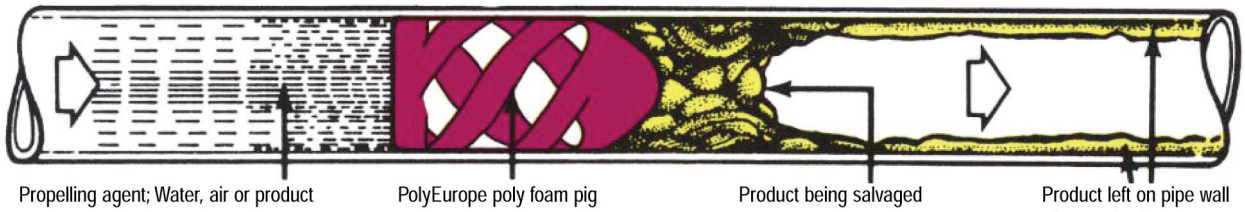

PIPELINE PROBLEMS ?

Fast, safe and economical restoration of flow and pressure within pipelines and tubular systems by the use of versatile PolyEurope poly foam pigs to remove unwanted " build-ups" causing restriction of the pipe's internal diameter.

FAST

- Excavations kept to a minimum, PolyEurope poly foam pigs can clean long distances in a single run, without the need for numerous cut-ins that other cleaning systems require.
- PolyEurope poly foam pigs can clean lines, traveling at speeds up to 3 meter per second.

SAFE

- Contract work or technical supervision is carried out in compliance with Government regulations.
- Progressive PolyEurope cleaning technique used, ensures that there is virtually no chance of a PolyEurope poly foam pig become plugged.
- Low pressures for propulsion of PolyEurope poly foam pigs.

ECONOMICAL

- Very short downtime.
- Relative low cost of PolyEurope poly foam pigs.
- No overtime, weekend, or surcharges.
- Little or no disruption to normal production process since time taken is a fraction of all other cleaning methods eg. Water jetting, rodding, chemical etc.
- Occasional cleaning prolongs the working life-span of pipes.
- Cost of water main and supply line cleaning can be reduced by up to 80% mainly as a result of the reduced number of " cut-ins".

ENERGY SAVINGS

Approximately **20%** of the energy requirements in the industries at present are wasted.
It is common knowledge to pipe work designers and hydraulic engineers that if the "C" value of any fluid line drops from **140** (new pipe) down to **70** (restricted pipe), almost four times, as much horsepower for pumped fluid will be required to maintain the same flow.
Periodic pipeline cleaning can help your company reduce its overheads by lowering pumping costs and reducing wear and tear on pump motors.

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Unlike most new innovations which always appear prone to teething troubles, PolyEurope poly foam pigs have had over decades of experience through trials, modifications and improvements worldwide the best engineered poly foam pig.

PolyEurope poly foam pigs are now extensively used worldwide as the most economical method for all types of pipe cleaning.

If product wastage, lost production time, or local authority bills for illegal discharge of trade effluents, are reducing your company's profits, PolyEurope poly foam pig can help!

BACKGROUND

Prior to the use of PolyEurope poly foam pigs in the process industries, removal of residual product from transfer tubes was a long, tedious and expensive operation.The principal methods and their associated problems may be summarized;

METHOD

A) Blow down, using compressed air.
B) Manual brushing.
C) Flushingwithwaterorsolvent.

DISADVANTAGES

Method A most of the product still remaining adhered to the pipe wall and method B or C had to be used also.

Pipe work had to be dismantled to accomplish this task, involving many man-hours and substantial lost of production time.

Time consuming and due to the mixing of product with water or solvent, the residue was diluted beyond use and subsequently dumped into rivers, sewages or drainage systems.

In certain industries, this waste would create BOD (Biological Oxygen Demand), leading to problems with Water Authorities, River Purification Boards, Environmentalist Groups, etc.

By contrast, industries which have made a small investment by using PolyEurope poly foam pigs, not only operate far more efficiently than their competitors, but can also save thousands of Euros each year.

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CHECK THESE BENEFITS

- Save up to 100% product salvage.
- Reduce lost time on product changeovers.
- Increase production capacity.
- Eliminate BOD fines or bills.

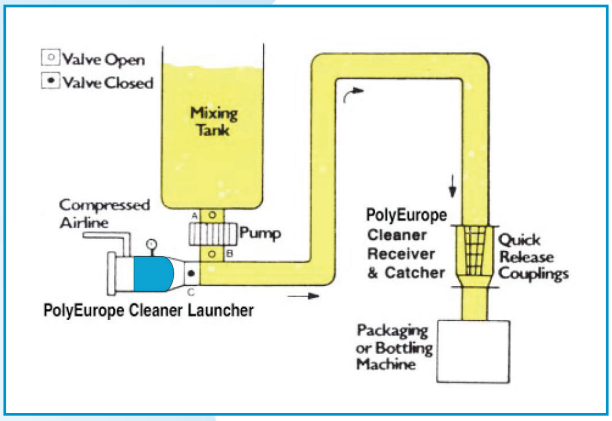


FIGURE 1 Single Point Distribution

- When the mixing tank is empty, valve "B" is closed and "C" is opened.
- Clear compressed air propels the PolyEurope poly foam pig through the line, salvaging product as it travels.
- PolyEurope poly foam pig is then recovered from receiver / catcher.

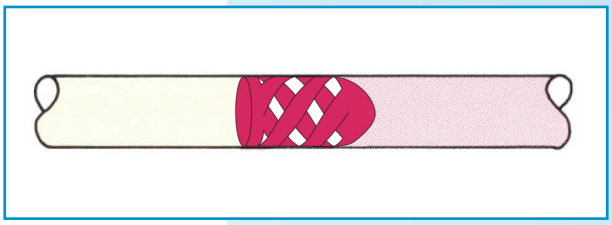
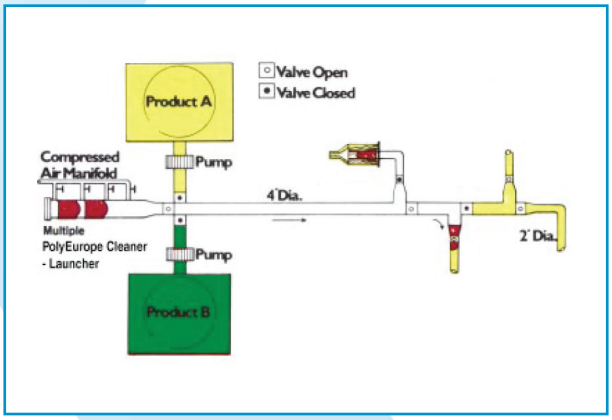


FIGURE 2 Batching

With certain products it is not necessary to empty the line before running the next product.
This can be achieved by means of batching.

FIGURE 3 Multiple Point Distribution

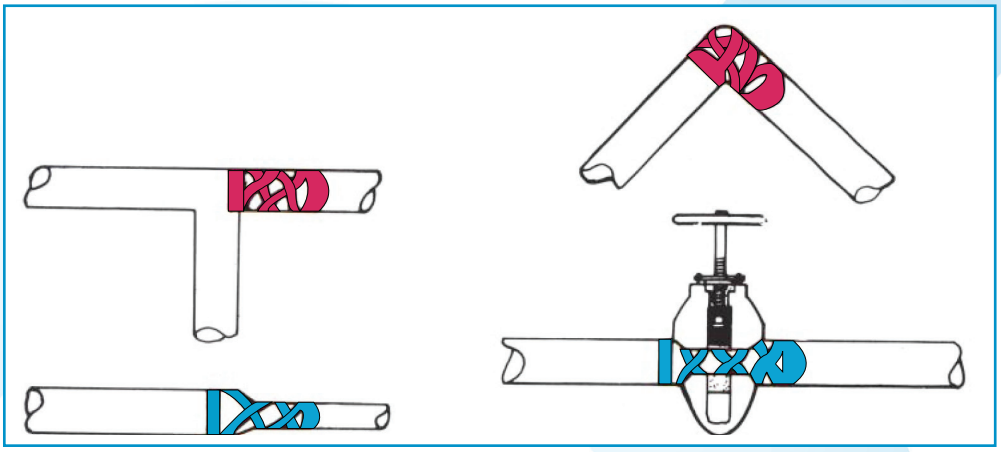


Sequence of events.

- Production run of product "A" has finished.
- 1st. PolyEurope poly foam pig has salvaged product through 1st lateral distribution line.
- 2nd PolyEurope poly foam pig is salvaging product through 2nd distribution line.
- Once the 4th. PolyEurope poly foam pig is located in the catcher, product "B" is ready to be pumped.

VERSATLITY

PolyEurope poly foam pig unique ability to cross tees, turn short radius ells, travel through multi-dimensional lines and pass through reduced openings (up to 65% reductions) such as valves, fittings, etc., make it the ultimate cleaning tool, even for complex pipe work systems.



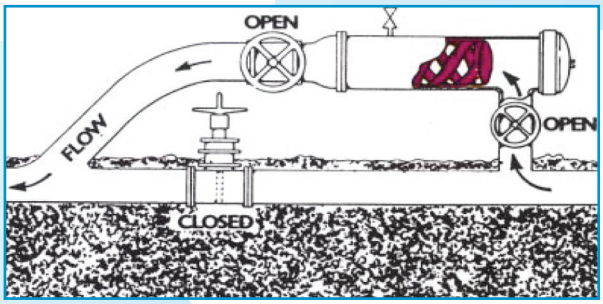
CONTROLS

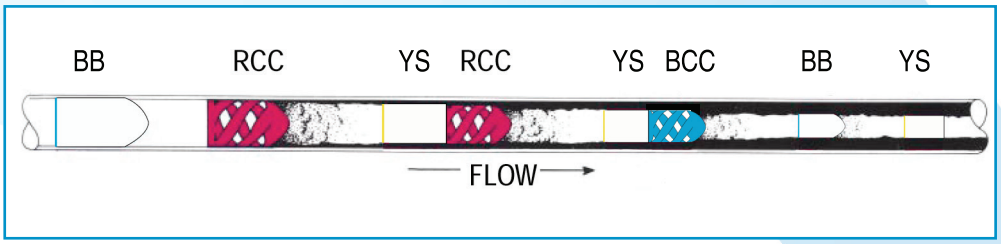
These may be manually operated, or fully automated systems incorporating state of the art electronic and actuator valves.

FIGURE 4 SINGLE PRODUCT TRANSFER LINE

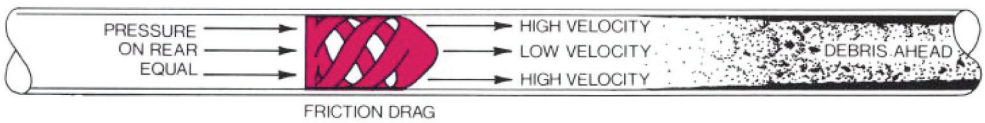
This type of arrangement is mainly used in constant production lines where build-up soccur quickly because of the nature of the product.

Optimum hydraulic capacity can be maintained using PolyEurope poly foam pigs without stopping production.





The diagram above shows schematically how the “progressive cleaning technique” works shaving off successive layers of encrustation gradually, so avoiding “plugged” line, while the diagram below illustrates the forces at work enabling the Red poly foam pig to clean efficiently and keep debris ahead is a state of suspension.



1. Isolate the section to be cleaned.
2. Open all valves in the system.
3. Check direction of flow with Red Swab.
4. Run full size Red Bare; Measure it to determine true size of opening.
5. Run Red Criss Cross that will just fit opening in build-up with full line size Red Swab behind to ensure seal.
6. Graduate Red Criss Cross diameters in increments until full I.D. is accomplished.
7. Flush system with full sized Red Bare and examine. It should be undamaged and re-usable.

LAUNCHING

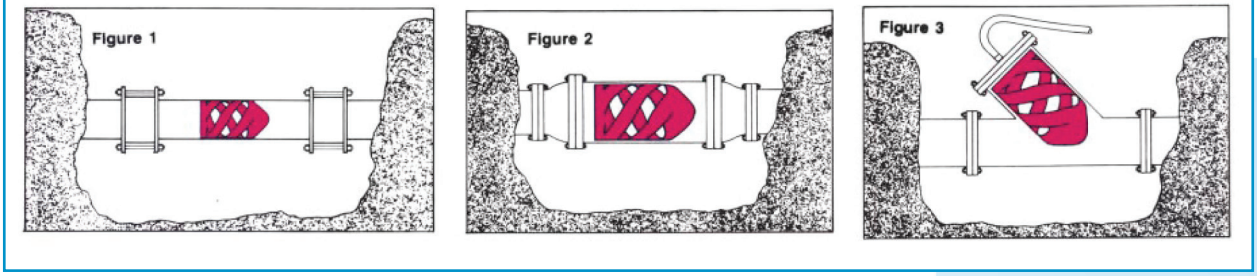


Figure 1

In the small diameter mains, the actual section of pipe that has been removed can be used to launch the PolyEurope poly foam pig. As the cleaner is manufactured from resilience polyurethane foam, it can be banded down and forced into the removed section of the line. This eliminates the need for a spool piece and reducers. The pipe section can be left in the line and used at the next cleaning operation.

Figure 2

This figure illustrates how the PolyEurope poly foam pig can be launched with the aid of two reducers which are at least one pipe size larger the the O.D. of the PolyEurope poly foam pig. One spool approximately bearing the same length as the PolyEurope poly foam pig and two couplings. A portion of the line is simply removed and replaced by the spool piece containing the PolyEurope poly foam pig. When the pressure behind the cleaning device becomes great enough, it will reduce itself in diameter and pass into the line.

Figure 3

Shows how a PolyEurope poly foam pig can be launched using a typical “Y”. Equipment required includes only a pressure flange, coupling and the “Y” itself. The flexibility of the PolyEurope poly foam pig pays off here. It can be placed in the top side of the “Y” and pressure applied through the flange. When the required volume of pressure is reached, the PolyEurope poly foam pig will make the turn at the base of the”Y” and enter the main line.

Hydraulic capacity can be restored quickly and economically with little or no disruption to normal production. The type of build-ups does not matter as PolyEurope poly foam pigs remove even the hardest deposits. An additional benefit where the pipe's medium is pumped, will be a substantial reduction of energy costs.

WATER DISCOLOURATION

If "bleeding" is causing consumer complaints, the line can be brought back to bare metal, using wire brush or silicon carbide Red or Scarlet poly foam pigs.

LINE REFURBISHMENT

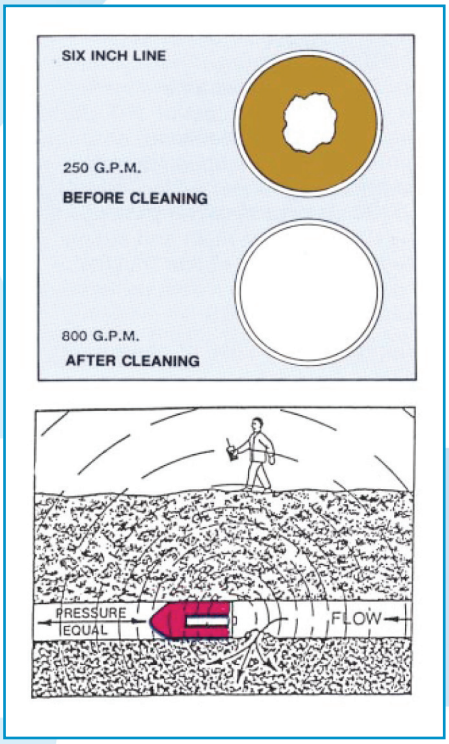
The same technique can be used to speed up the cleaning aspect of mortar or epoxy re-lining contracts.

LEAK LOCATION

A miniature transmitter, housed with a PolyEurope poly foam pig, enables serious leaks to be located accurately using a hand held receiver.

CLEANER TRACKING

When cleaning a problem line, the PolyEurope foam pigs progress can be monitored by a similar technique, using two receivers.



COMMISSIONING OF NEW PIPEWORK

PolyEurope poly foam pigs are an ideal way of removing construction debris before a new line is commissioned. In this case of industries where prevention of bacterial contamination is of prime importance, the internal weld seams should be "smoothed" using a PolyEurope poly foam pig with silicon carbide straps to remove nodules and eliminates fissures where bacteria can grow.