



WONIL

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Sewage pipe extrusion line



**We are your expert partner
for any type of pipe extrusion lines.**

We supply top-quality pipe extrusion lines at competitive prices.

Whatever you require to process plastic pipes, WONIL is your best partner and the worth company with a variety skills and expertise in the extrusion field.

Thermoplastic technology has been progressing to be higher performance, more competitive prices and fully automatic system to keep pace with customer requirements.

As requirements of customers, WONIL always does our best to supply high performance and economical products, in addition to the knowhow in processing technology.

Our extrusion technology has been steadily developing and we still strive to meet changeable extrusion market.

We always keep in touch with our existing customers and potential customers to have the opportunity to discuss what our unique product can do for you and for your business.

The development of our machines is the result of feedback from our customers.

Needless to say, we appreciate customer feedback and continued interest in our products.

There is a reason why WONIL is acknowledged the reliable market leader in the manufacture of pipe extrusion industries around the world as well as domestic.

Our product portfolio covers complete extrusion pipe lines such as;

- Supply water pipe extrusion lines up to 1200mm o.d
- Gaseous pipe extrusion lines up to 630mm o.d

- Floor heating pipe extrusion lines up to 35mm o.d
Applicable resin PB and PERT (Polyethylene raised temperature)
- Hot & cold water supply pipe extrusion lines up to 63mm o.d

- Sewage pipe extrusion lines up to 3000mm i.d
 - Double wall sewage pipe up to 3000mm i.d
 - Triple wall sewage pipe up to 2000mm i.d
 - Multi wall sewage pipe up to 2000mm i.d
 - Sewage pipe with waved sheet(water proof wall) up to 2000mm i.d

All our components are easy to use and handily maintain and repair with improved productivity. They are also engineered to maximize savings of energy and costs as well as the highest quality products.

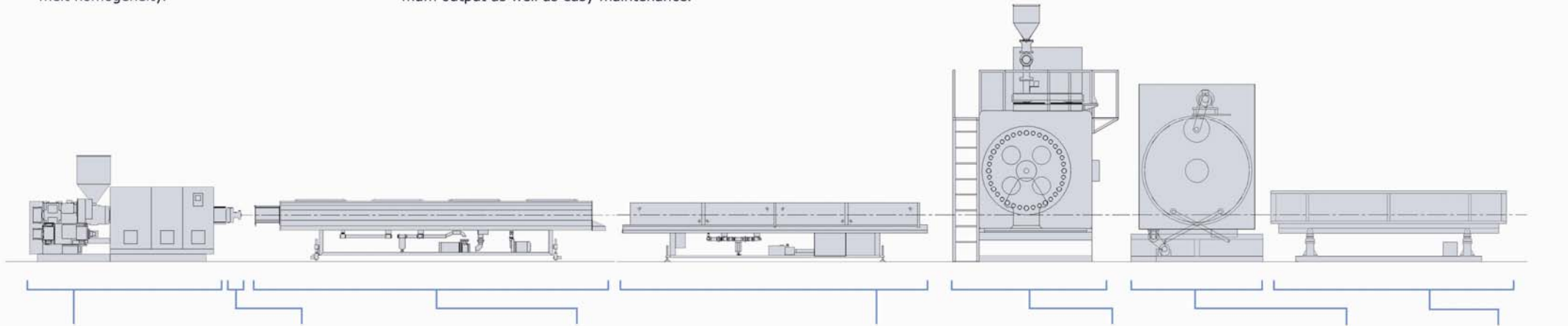
Complete production lines for sewage pipe extrusion

WONIL offers tailor-made solutions for sewage pipe extrusion line with its new modular single screw extruder in diameters ranging up to 3000 mm i.d.

Manufactured by one source, these lines are planned, designed, manufactured and perfectly matched. The lines are equipped with accomplished, cost-efficient automation systems.

Combined with the optimized screw geometry, the machines of this series offer an excellent melt homogeneity.

Our extruders and all downstream components are automatically designed to give you maximum output as well as easy maintenance.



Extruder

- Optimized design of screw to more application raw material character
- Lowest stress, melt with equality temperature, stability processing condition
- High performance control system with touch screen for maximized operating comfort
- Compact extruder drive, low maintenance motor and high performance gearbox
- Equipped with a grooved feed bush

Extrusion base die(die head)

- Optimum design offer low melt temperature, even with high output, high product quality at low energy consumption
- Low extrusion pressure and low temperature losses
- Homogeneous melt distribution with selective temperature control
- Consistent product quality for all pipe sizes

Vacuum calibrators

- Tank upper section and pipework made from stainless steel with cast aluminum lids
- Special and unique vacuum calibrating systems with 2-chambers
- Separately designed water circulating pump and vacuum pump
- Outer pipework of stainless steel positioned for optimum flow conditions
- Reaching vacuum condition quickly

Cooling bathes

- Optimized positioning of spray nozzles offer cooling quickly
- Consist of visible tempered glasses covers
- Line filter unit
- Spray frame made from stainless steel
- Excellent cooling efficiency
- Water temperature display
- Spray cooling with nozzles
- Center height is adjustable

Winding drum devices

- Precise rotating control by special driving system
- Harmonized with auxiliary extruder for welding
- Worker-centered control system
- Easy and quick change-over to suit different winding drums
- Touch screen control system

Cutting saw devices

- Downstroke saws with pneumatic saw blade feed and efficient saw dust exhauster
- Large to very large pipe diameters can be cut
- Adopt special sawblade for smooth cut
- Low noise cutting without generating chips(blades)

Stacker

Extruder for sewage pipe extrusion

Single screw extruder

The single screw extruder is the most important type of extruder used in the polymer industry. Its key advantages are relatively low cost, straightforward design, and reliability, and a favorable performance/cost ratio.

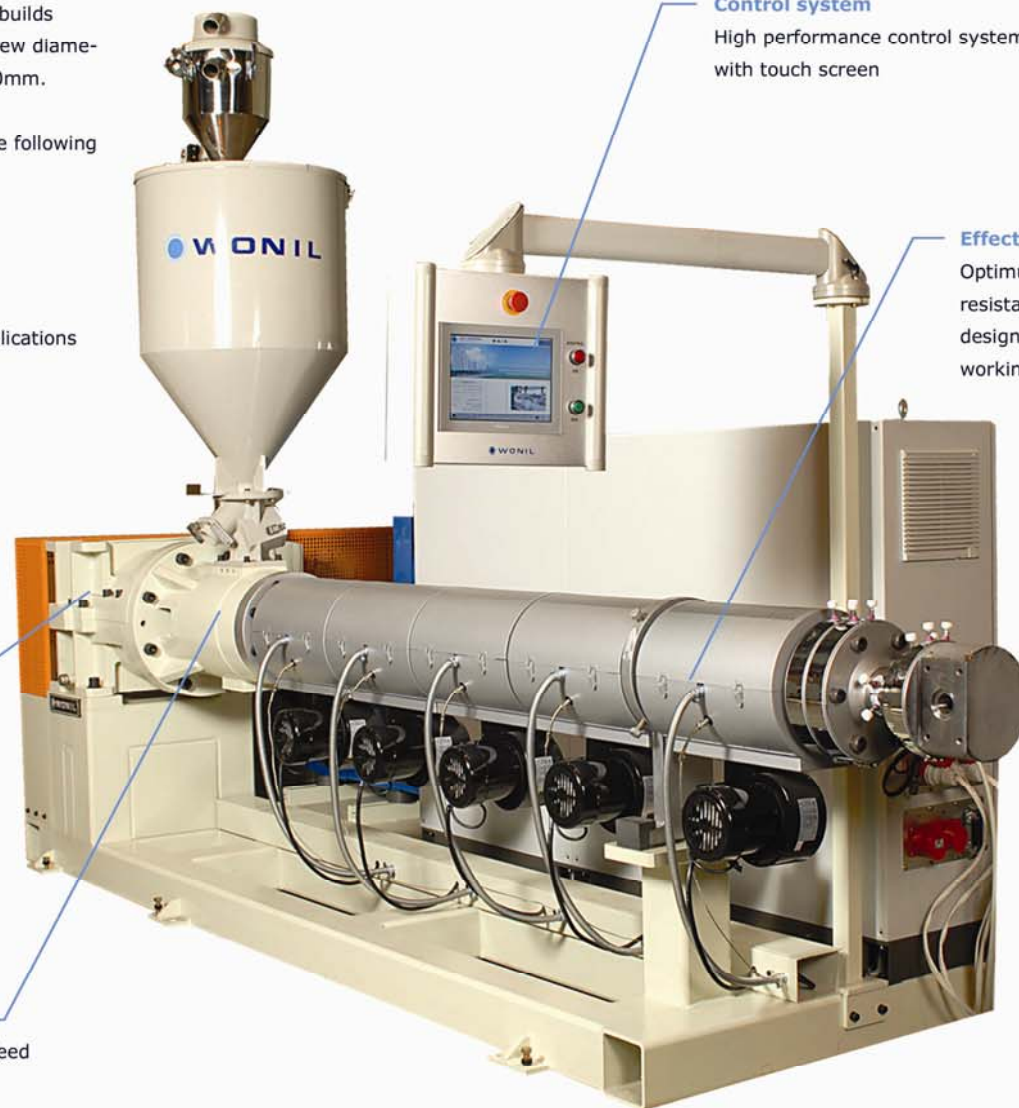
WONIL's single screw extruders are designed to meet the specific requirements of the products and processes as if tailor made and to maximize savings on energy and costs without compromising on product quality.

With their perfected leading-edge technology and their smooth interaction with all modules, single-screw extruders by WONIL always deliver an outstanding performance in all areas of application.

For sewage pipe extrusion, we build single-screw extruders with screw diameters ranging between 50 to 120mm.

Single screw extruders offer the following benefits:

- High throughput rates
- Low melt temperatures
- Good melt homogeneity
- Wide range of processing applications



Gear box[gear reducer]

Helical gear box and V-belt drive to achieve maximum working life with lower noise
Efficient cooling system with lowest oil lubrication

Grooved feed bush

Equipped with a grooved feed bush for the extrusion of polyolefin pipes

Control system

High performance control system with touch screen

Effective screw

Optimum and high wear resistant screw with geometrically designed to achieve maximum working life

Downstream for sewage pipe extrusion

As a system supplier, WONIL supplies all downstream components such as base dies, vacuum calibrators, cooling bathes, winding drum devices, cutting saw devices, staker and etc. supplied either separately or as complete extrusion lines for sewage pipe extrusion.

Vacuum calibrators

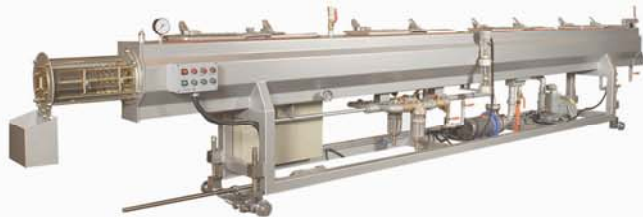
Never before in the history of pipe extrusion has an idea been taken up as quickly as the WONIL development of vacuum calibrators.

Almost every pipe manufacturer in Korea as well as many elsewhere in Asia and beyond have in a short time replaced the traditional method of floating plug calibration by the modern vacuum calibrators.

The picture shows the design and operating principle. The vacuum is formed in the chamber by a water ring pump and is independent of the circulation cooling and the cooling water exchange system.

The vacuum calibrators supplied with the following easy-to-operate components as standard.

- Special and unique vacuum calibrating systems with 2-chambers
- Double filter unit between circulating pump and spray nozzles.
The filters can be cleaned during producing.
- Electromotive longitudinal adjustment



VT-125/6 vacuum calibrators for sewage pipe extrusion

Winding drum devices

WONIL offers a new generation of winding drum devices to suit all user's requirement and a comprehensive range of winding drum devices for sewage pipes.

- High performance control system with touch screen for maximized operating comfort
- High production reliability
- Low energy consumption



WD-600 winding drum devices for sewage pipe extrusion

Cutting saw devices

Whereas our tried-and tested cutting saw devices are used for medium pipes and large pipes with any wall thicknesses.

We use our newly developed automatic cutting saw and we have increased the service life of devices and the operational reliability

- Pneumatic saw blade
- Tow type of cutting saw devices
 - Vertical type for small and medium size pipes
 - Horizontal type for large size pipes



CS-600 cutting saw devices(vertical type) for sewage pipe extrusion

Specification for sewage pipe extrusion

Extrusion line up

Product range	150-600mm	300-1000mm	400-1500mm	1400-2000mm	2000-3000mm
Max. Output (kg/h)	400	500	600	800	1000

Single screw extruders

Model	EX-50/28	EX-70/28	EX-80/30	EX-90/30	EX-120/30
Max. Output (kg/h)	160	200	300	500	700
Screw diameter (mm)	50	70	80	90	120

Extrusion base die (Die head)

Model	PO-63	PO-125	PO-150	PO-250
Pipe diameter range (mm)	150-1000	400-1500	1400-2000	2000-3000
Max. throughput rate (kg/h)	450	650	900	1000

Vacuum calibrators

Model	VT-125/6	VT-150/6	VT-250/6
Pipe diameter range (mm)	150-1000	400-1500	1400-3000

Cooling baths

Model	CB-125/3	CB-150/6	CB-250/6
Pipe diameter range (mm)	150-1000	400-1500	1400-3000

Winding drum devices

Model	WD-150/600	WD-300/1000	WD-400/1500	WD-1400/2000	WD-2000/3000
Pipe diameter range (mm)	150-600	300-1000	400-1500	1400-2000	2000-3000

Cutting saw devices

Model	CS-150/600	CS-300/1000	CS-400/1500	CS-1400/2000	CS-2000/3000
Pipe diameter range (mm)	150-600	300-1000	400-1500	1400-2000	2000-3000

* Performance data depending on pipe dimension and material type