



**WONIL**

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**Supply water pipe & gaseous 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 pipe extrusion 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

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 supply water pipe & gaseous pipe extrusion

WONIL has everything you need for producing supply water pipe and gaseous pipe from 16 to 1200mm with single-screw extruders and all downstream components supplied either separately or as complete extrusion lines.

The functions of all machine line elements are harmonised and equipped with economic automation systems for producing highest quality products.

These equipments are designed to meet the specific requirements of the products and processes to maximize savings on energy and costs without compromising on product quality as if tailor-made.

These lines will boost your flexibility and support your drive to supply top-quality products at competitive prices.



### Cutting saw devices

- Low noise cutting without generating chips (blades)
- Cutting of very thick-walled PE pipes with material removal using a special sawblade
- Pipe clamping device, optionally as half-shell clamping or as universal central clamping
- Downstroke saws with pneumatic saw blade feed and efficient saw dust exhauster

### Haul-off device

- Equipped with belt type haul-off devices or caterpillar haul-off devices with 2, 3, 4, 6, 8 and 10 caterpillars
- Exact synchronization of the belts/caterpillars by means of the servo drive
- Highly wear-resistant haul-off belts or V-shaped pads

### Cooling bath

- Excellent cooling efficiency
- Spray frame made from stainless steel
- Optimized positioning of spray nozzles offer cooling quickly
- Water temperature display
- Center height is adjustable

### Vacuum calibrators

- Separately designed water circulating pump and vacuum pump
- Double filter unit
- Tank upper section and pipework made from stainless steel with cast aluminum lids
- Reaching vacuum condition quickly
- Outer pipework of stainless steel positioned for optimum flow conditions

### Extrusion base die

- Low pressure build-up and low melt temperature even at high throughputs
- Very good flow properties throughout the entire flow channel
- Consistent product quality from the smallest to the largest pipe size
- A supporting carriage facilitates the assembling and handling of larger dies

### Single-screw extruders

- High performance control system with touch screen for maximized operating comfort
- Excellent pipe quality, minimal stoppages, high productivity
- Wide range of processing applications for different raw materials
- High output and very homogenous melt
- Geometrically designed to achieve maximum working life
- Equipped with a grooved feed bush

## Extruders for supply water pipe & gaseous pipe extrusion

### Single screw extruder

Single-screw extruders from WONIL are the powerful heart of your pipe extrusion line. With a WONIL extruder, you can be sure of high product quality, constant high output.

WONIL offers a complete product range for supply water pipe in diameters ranging up to 1200mm and gaseous pipe in diameters ranging up to 630mm with single-screw extruders with screw diameters ranging between 19mm and 90mm.

For pipe production, we supply tailor-made solutions with its new modular single screw extruder concept. Depending on the requirement, extruder processing lengths of 24L/D to 32 L/D are available.

### Grooved feed bush

For the extrusion of polyolefin pipes, WONIL's extruders are equipped with a grooved feed bush. In combination with a barrier screw, these extruders achieve high plastification rates while delivering an perfectly melted pellet.

### Helical gear box

Our extruders are equipped with effective combination of helical gear box and V-belt drive to meet the requirement for reduced noise levels and automatically controlled air cooling maintains temperature settings thus, ensuring stable production conditions.

### Control system

Our extruders are engineered as automatic control systems with touch screen for optimising and automating pipe extrusion lines.

- Shorter start-up and change-over times
- Continuous product monitoring and avoidance of faulty production
- Simple operation
- Alarm and status display
- Machine operation
  - Extruder
  - Haul-off device



## Extrusion dies for supply water pipe & gaseous pipe extrusion

Extrusion dies are optimally geared to market requirements and provide the basis for producing pipes conforming to industrial standards. They are the result of a successful combination of modern computing technology and many years of practical experience.

Gearing them precisely to extruder throughput capacity and melt flow in the die, allowing for a defined dwell time, is guaranteed to achieve outstanding product quality.



WONIL's extrusion dies are ideally suited to the production of supply water pipe and gaseous pipe.

These are designed and constructed inside the company, made with the most modern processing machines precisely tested and finally subjected to a function test.

Our extrusion dies are designed to accommodate the most common sorts of raw material.

Range

- PO-50 ~ PO-1200

Customer benefits

- Consistent product quality for all pipe sizes
- Fast and easy die set changes, with the pipe head simply moved out of line on the tilt able mounting carriage

## Vacuum calibrators & cooling bath

### Vacuum calibrators

Based on the vacuum calibrating system developed by WONIL, a complete range of vacuum tank calibrating facilities has been created for supply water pipe outer diameters ranging up to 1200mm.

Our equipment gives maximum of production reliability and guarantees constant product quality, optimum dimensional accuracy and high throughput capacity.

Customer benefits

- Special and unique vacuum calibrating systems

- Double filter unit between circulating pump and spray nozzles. The filters can be cleaned during producing.



### Cooling bath

Cooling with the vacuum calibrators is in most cases inadequate. Depending on extrusion speed or wall thickness, one or more cooling sections must be installed.

Our cooling baths are equipped with cost-saving water circulation pump, line filter units.

Customer benefits

- Bath frame made from stainless steel for high wear resistance

- Sprayed at relatively high speed onto the products and thus prevent a warmer boundary layer developing.



## Haul-off devices

WONIL supplies newly designed haul-off devices for producing supply water pipe & gaseous pipe. These equipments are engineered as automatic control systems with touch screen.

WONIL has two basic types of haul-off devices: Belt haul-off devices suitable for small diameters and caterpillar haul-off devices suitable for small and medium diameters.



Our all haul-off devices are designed to give our customers following features:

- Drawing the pipe with constant speed
- High production reliability
- Improvement efficiency

### Caterpillar haul-off devices

The range of WONIL caterpillar haul-off devices is geared to meet every demand. The machines are equipped with 2, 3, 4, 6, 8 and 10 caterpillars and are suitable for pipes with outside diameters ranging from 50 to 1200mm.

Differential clutches on each caterpillar ensure a uniform distribution of the haul-off force to all the caterpillars, avoiding strains in the drive chain and preventing overloading of the gearboxes.

### Belt haul-off devices

WONIL offers a belt haul-off devices for pipe with outside diameters ranging up to 63mm.

- Twin belt haul-off units, suitable for small pipes with high production speeds
- Exact synchronization of the belts by means of the servo drive
- V-shaped rubber pads with high friction factor and wear-resistance



## Cutting saw devices

WONIL offers our newly developed automatic cutting saw and we have increased the service life of devices and the operational reliability.

We have two basic types of cutting saw devices: vertical cutting saw device suitable for small diameters and planetary cutting saw devices suitable for small and medium diameters.

Our all cutting saw devices are designed to give our customers following features:

- Cutting of pipes with special saw blade (tungsten tipped circular blade)
- Precise and consistent cutting with even high speed
- Automatic synchronization with the haul-off speed



### Vertical cutting saw devices

Whereas our tried-and tested vertical cutting saw devices are used for pipes with outside diameter ranging from 50 to 160mm with any wall thicknesses.

- Pneumatic sawblade feed vertically from top to bottom
- Efficient saw dust exhauster

### Planetary cutting saw devices

The planetary cutting saw devices from WONIL are geared to meet every demand and are suitable for pipes with outside diameters ranging from 90 to 1200mm.

- Very large pipe diameters can be cut

Pipe extrusion systems

## Specification for supply water pipe & gaseous pipe extrusion

### Extrusion line up

Product range	16-50	50-160	90-315	90-450	200-630	315-1000	400-1200
Max. Output (kg/h)	200	300	500	800	1000	1300	1300

### Single screw extruders

Model	EX-45/32	EX-50/30	EX-70/30	EX-80/30	EX-90/30	EX-90/32	EX-120/32	EX-150/32
Max. Output (kg/h)	150	200	250	300	500	800	1000	1300
Screw diameter (mm)	45	50	70	80	90	90	120	150
Installed driving rating (kw)	55	45-55	55-75	75-90	110-132	185	257	257-295

### Extrusion base die (Die head)

Model	PO-50	PO-160	PO-315	PO-450	PO-630	PO-1000	PO-1200
Pipe diameter range (mm)	16-50	50-160	90-315	90-450	200-630	315-1000	400-1200
Max. throughput rate (kg/h)	250	400	600	900	1200	1500	1800

### Vacuum calibrators

Model	VT-50/6	VT-160/6	VT-315/9	VT-450/9	VT-630/9	VT-1000/6	VT-1200/6
Pipe diameter range (mm)	16-50	50-160	90-315	90-450	200-630	315-1000	400-1200

### Cooling bathes

Model	CB-50/6	CB-160/6	CB-315/6	CB-450/6	CB-630/6	CB-1000/6	CB-1200/6
Pipe diameter range (mm)	16-50	50-160	90-315	90-450	200-630	315-1000	400-1200

### Haul-off devices

Model	HO-50/2B	HO-160/2C	HO-200/3C	HO-315/4C	HO-450/4C	HO-630/6C	HO-1000/8C	HO-1200/10C
Pipe diameter range (mm)	16-50	50-160	50-200	90-315	90-450	200-630	315-1000	400-1200
Max. Haul-off speed (m/min)	40	8	8	5	5	3	2	1

### Cutting saw devices

Model	CS-32/S	CS-50/K	CS-160/DS	CS-315/PK	CS-450/PK	CS-630/PC	CS-1000/PC	CS-1200/PC
Pipe diameter range (mm)	16-32	16-50	50-160	90-315	90-450	200-630	315-1000	400-1200

\* Performance data depending on pipe dimension and material type