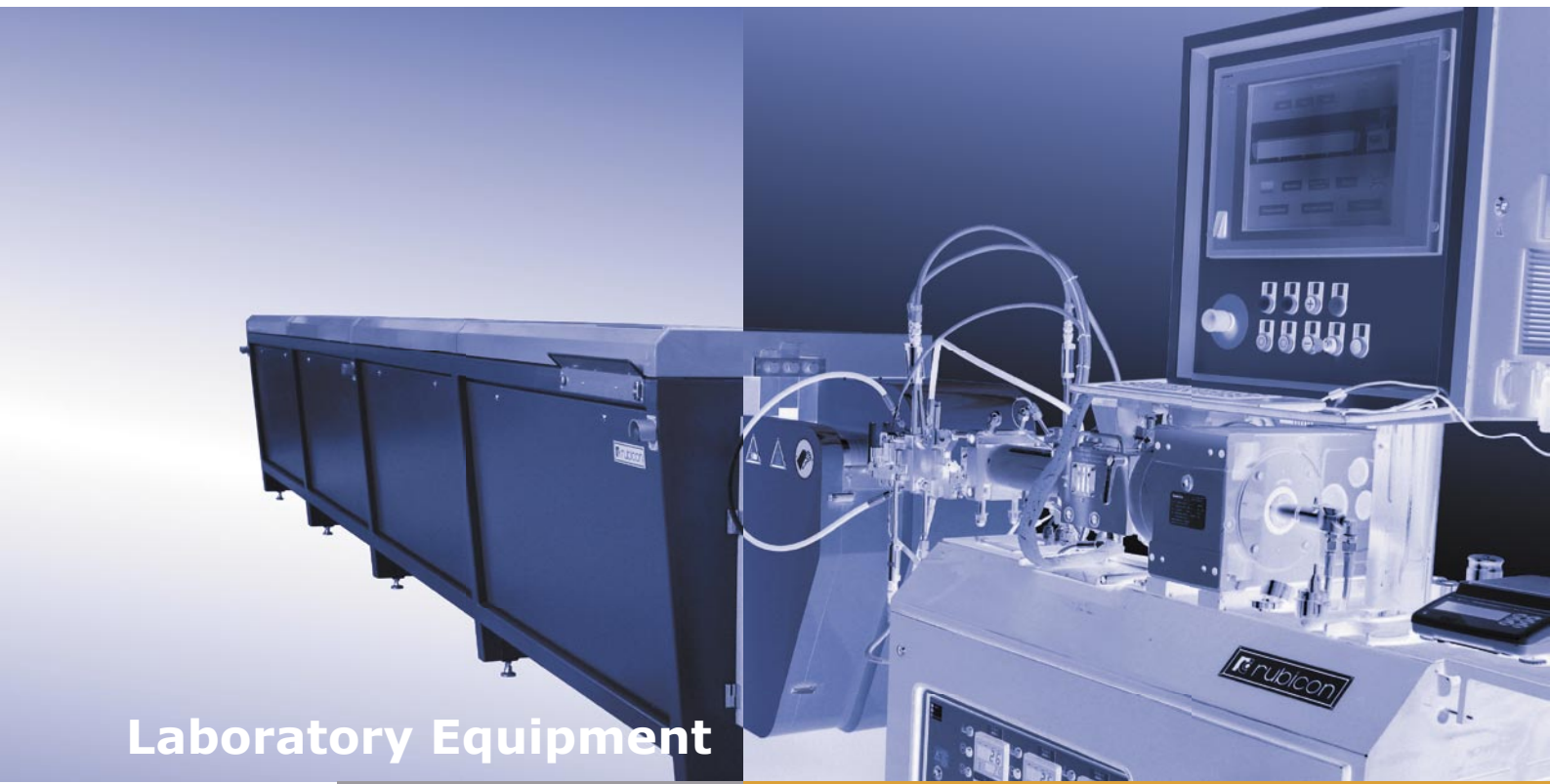




## Tailor-made Rubber Extrusion



Laboratory Equipment

# Laboratory Equipment

Particularly for the development, testing and control of rubber products in operating laboratories or scientific institutes rubicon manufactures equipment with all technical characteristics of large production machines.

## rubicon Laboratory Extruder



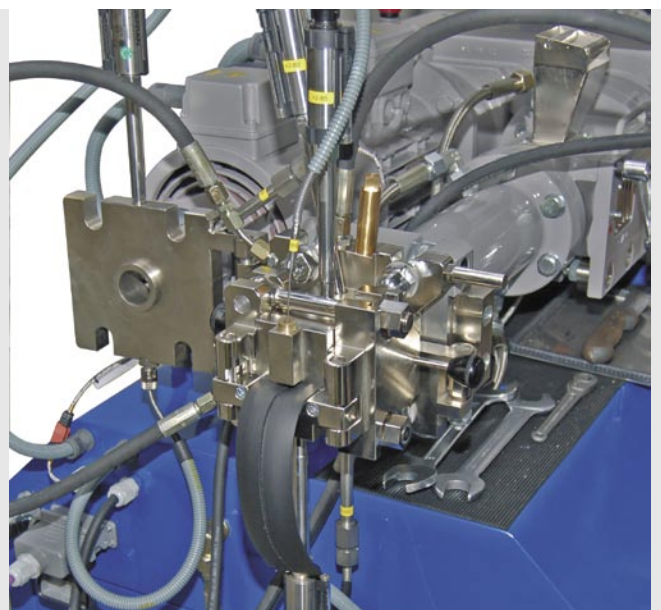
Laboratory extruder EEK 32.12 L

The compact and place saving design makes the rubicon - laboratory extruder universally applicable:

- For recipe development and processing inspection
- For release inspection in quality control
- For the production of samples and small batch series
- For the production of blanks for compression forms

### Characteristics

- Special feed roll design allowing easy cleaning during the change of material
- Temperature control for screw, barrel and extrusion head
- Rheometer head for determination of rheological characteristics of rubber compounds
- Straight head with Garvey die
- Equipment with touch screen and special software for data recording and evaluation possible



Straight and rheometer head

Equipped with the latest measuring technology and the appropriate software the laboratory extruder is used for the determination of the extruding behaviour of rubber compounds.

## Application

- Determination of shear and strain viscosity of the rubber compound
- Testing of extrudability of compounds with the Garvey die
- Measuring of compound temperature and pressure flow depending on the extruder settings



Laboratory extruder with conveyor

### Technical Data Laboratory Extruder

Screw diameter	32 mm
Screw length L/D	12 D, effective
Screw speed	3...90 min <sup>-1</sup>
Max. output	approx. 25 kg/h
Max. power	4 kW

# rubicon Laboratory Extrusion Line

The laboratory extrusion line is used for recipe development and processability testing at the rubber test laboratory. The line also became established for quality control in release testings.

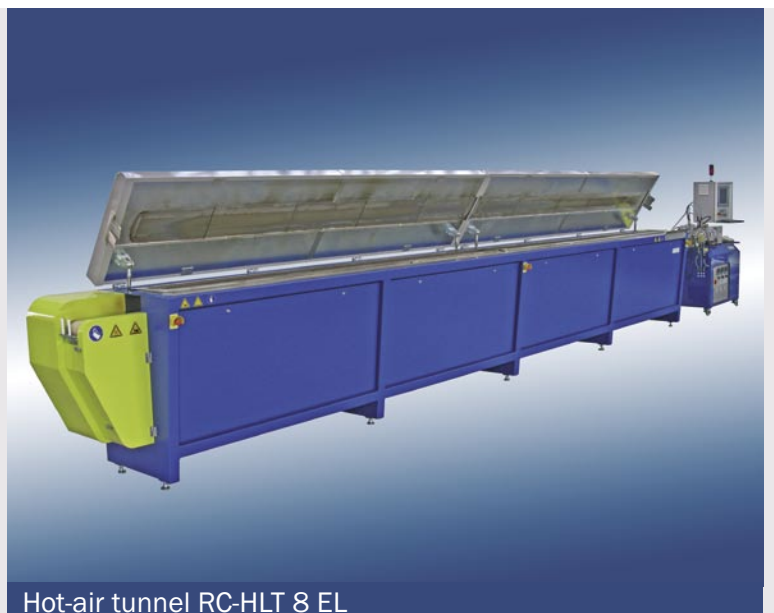
## Laboratory Extruder



- Preferably as vent, but also as standard extruder, with a screw diameter of 32 or 45 mm
- Completed with straight, cross or on-line rheometer head
- Straight head with Garvey die allows the determination of the extrudability according to ASTM D 2230-96
- Rheometer head allows the determination of shear and strain viscosity in practical conditions

## Hot-air Tunnel

- 8 m hot-air section for the continuous vulcanization of the rubber extrudates
- Efficient heat transmission by reverse flow method
- High air speed by variable hot-air fan
- Optimal energy efficiency by recirculating-air operation
- Conveyor speed infinitely adjustable



Hot-air tunnel RC-HLT 8 EL

The laboratory extrusion line can also be used for the production of samples or small batch series of profiles and hoses of different rubber compounds.

- Free access to the extrudate over lids which can be opened pneumatically
- Control and visualization offer all preconditions both for the practical evaluation of the extrusion and vulcanization behaviour of the compounds and the industrial manufacturing of small products

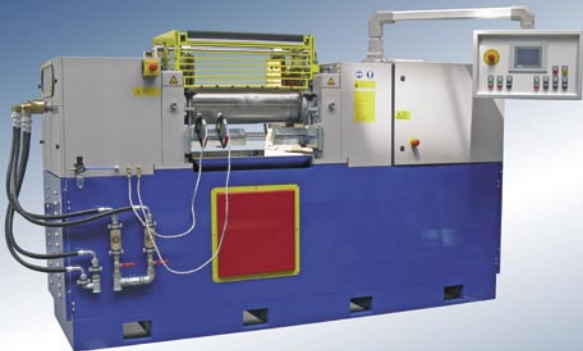


**Technical Data Hot-air Tunnel**

Heating	36.6 kW electric air heater
Air circulation	Hot-air fan
Temperature range	100 - 250 °C
Air speed	approx. 15 m/s
Belt speed	0.5 - 15 m/min

# rubicon Laboratory Mill

The customized scope of design as well as a high safety standard are characteristics of the rubicon laboratory mills. In their design they fulfil all the requirements of a modern test laboratory.



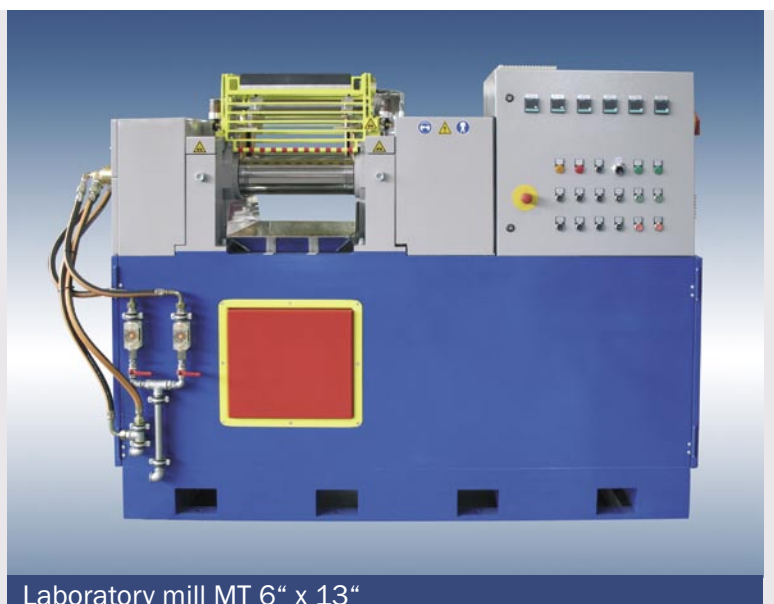
Laboratory mill MT 8" x 20"

The rubicon - laboratory mills are universally applicable:

- For recipe development and finish testing
- For quality control
- For preheating, mixing, plasticizing and sheeting
- For manufacturing of compound strips
- For taking up, cooling and rolling out of the compound loads discharged by the rubber kneader

## Characteristics

- Compact and place saving design
- High safety standard
- Customized scope of design
- Cooled or heated rolls
- Equipment with touch screen and special software for data recording and evaluation possible



Laboratory mill MT 6" x 13"

A multiplicity at equipment variants allows the use of the laboratory mill within different ranges.

## Equipment

- With single drive of the rolls or main drive with firm friction
- Fixed or infinitely variable roll speed
- Motorized roll nip adjustment
- Periphery drilled or bottle-neck type rolls
- Strip cutting devices
- Roll pressure measurement



Strip cutting device

### Technical Data Laboratory Mill

	MT 6" x 13"	MT 8" x 20"
Roll diameter	150 mm / 6"	200 mm / 8"
Roll length	330 mm / 13"	500 mm / 20"
Max. motor power	5.5 kW	7.5 kW
Roll speed, front	19.3 min <sup>-1</sup> *	21 min <sup>-1</sup> *
Roll speed, rear	22.5 min <sup>-1</sup> *	24 min <sup>-1</sup> *
Batch weight	0.5 - 1 kg	1 - 2 kg

\* with firm friction or at individual operation in the setting range of 1:4 of the rolls to each other

## Contact

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