

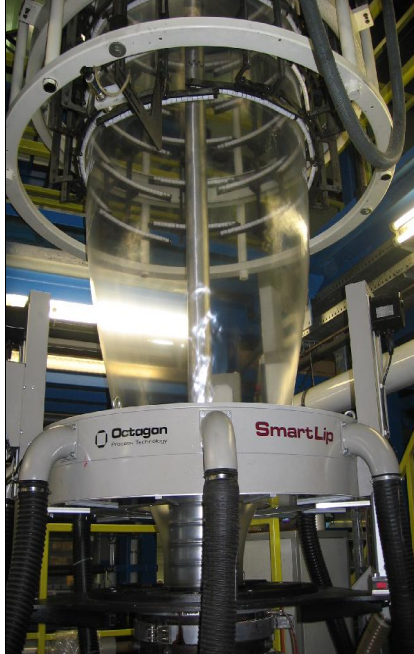
# Extrusion line optimisation SmartLip mc<sup>8</sup> for dual-lip and triple-lip air rings

## Increase in output and optimisation of film quality

SmartLip mc<sup>8</sup> is an on-line system for continuous control of the gauge profile on blown film lines.

SmartLip mc<sup>8</sup> focuses on two fundamental production targets, the increase of film being produced, and its improved quality at the same time.

The SmartLip mc<sup>8</sup> control system may be fitted not only to any new line but is also an optimal solution when it comes to retrofitting older lines.

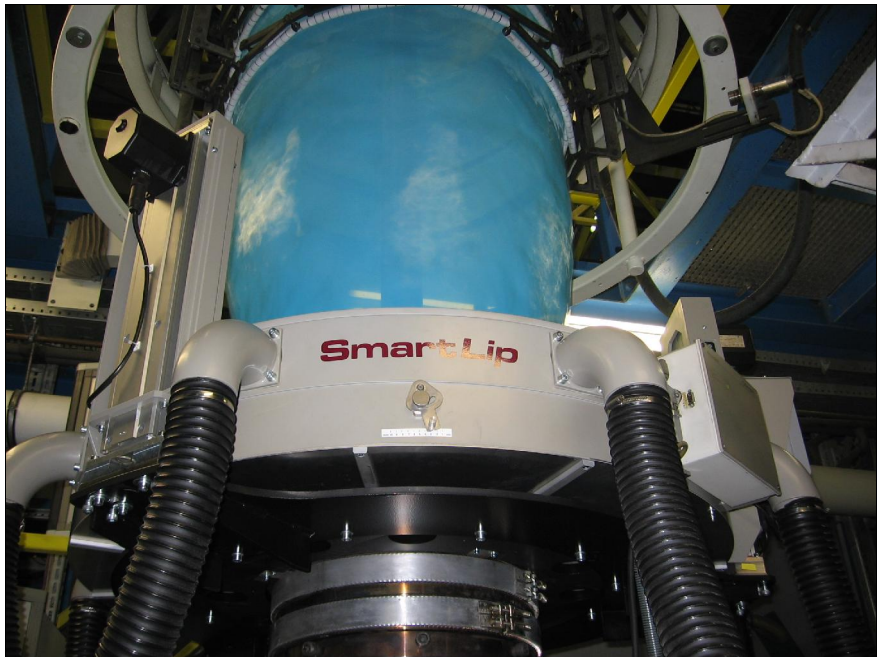


## Possible limitations of the extrusion line:

- extruder rpm
- die head pressure limit
- spiral distributor marks
- limited line speed
- limited winder speed
- film that tends to block
- blower power
- melt temperature
- lay-flat width fluctuations

## Function principal:

The shape of the film bubble can be adjusted perfectly for various film products. A lip design that is tailored to the requirements given, supports a significant increase in output. By firmly fixing the bubble at a greater diameter the initial tolerances are improved usually. Particular mechanical properties, such as dardrop and shrink properties in machine and transversal direction for instance, can be influenced with the height adjustment.



### Better quality

- Reduced gauge tolerances by 50 - 70 % of usual values
- Improved film properties for the downstream confection
- Even geometry of finished reels
- Improved production plan
- Reduced customer complaints

### Reduced costs

- Increase in extruder output with dual-lip air ring
- Savings in raw materials by down-gauging
- Considerably less stoppages with downstream confection
- Reduced waste during start-up
- Faster return on investment

### Automation

- Safer production process
- Post-centring of die unnecessary
- Automatic correction of gauge profile during production process
- Simple to extend with other Octagon control systems

# Octagon gauge profile control: For improved profitability and best quality

## Performance facts:

- Customer oriented consulting for process technology
- The height adjustment allows the bubble shape to be adjusted to the process requirement
- Taylor-made lip design for every customer
- Significant increase in output
- By firmly fixing the bubble at a greater diameter the initial tolerances are improved usually
- Particular mechanical properties, such as shrink properties in machine and transversal direction for instance, can be influenced with the height adjustment.



Height adjustment and die head support plate

|  |   |  |   |   |   |   |   |  |
|--|---|--|---|---|---|---|---|--|
| throughput<br><b>150,00</b><br>kg/h                | x | operating hours<br><b>24,00</b><br>h/day     | x | operating days<br><b>300,00</b><br>days/year      | x | raw material price<br><b>1,00</b><br>€/kg | = | annual throughput<br><b>1.080.000,00</b><br>€/year |
| annual throughput<br><b>1.080.000,00</b><br>€/year | x | increase in output<br><b>20,00</b><br>%/100  | = | production surplus<br><b>216.000,00</b><br>€/year |   |   |   |  |
| production surplus<br><b>216.000,00</b><br>€/year  | x | profit<br><b>10,00</b><br>%/100              | = | profit surplus<br><b>21.600,00</b><br>€/year      |   |   |   |  |
| investment<br><b>80.000,00</b><br>€                | : | profit surplus<br><b>21.600,00</b><br>€/year | = | amortisation time<br><b>3,70</b><br>years         |   |   |   |  |

Example for amortisation by SmartLip mc<sup>8</sup>

## Extent of delivery:

- Controlled or uncontrolled dual- or triple-lip air ring
- Integrated height adjustment
- Taylor-made die head support plate
- Process technology support



SmartLip TL mc<sup>8</sup>

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SmartLip-mc8\_e V1.odt / 05.12

Technical details subject to alteration