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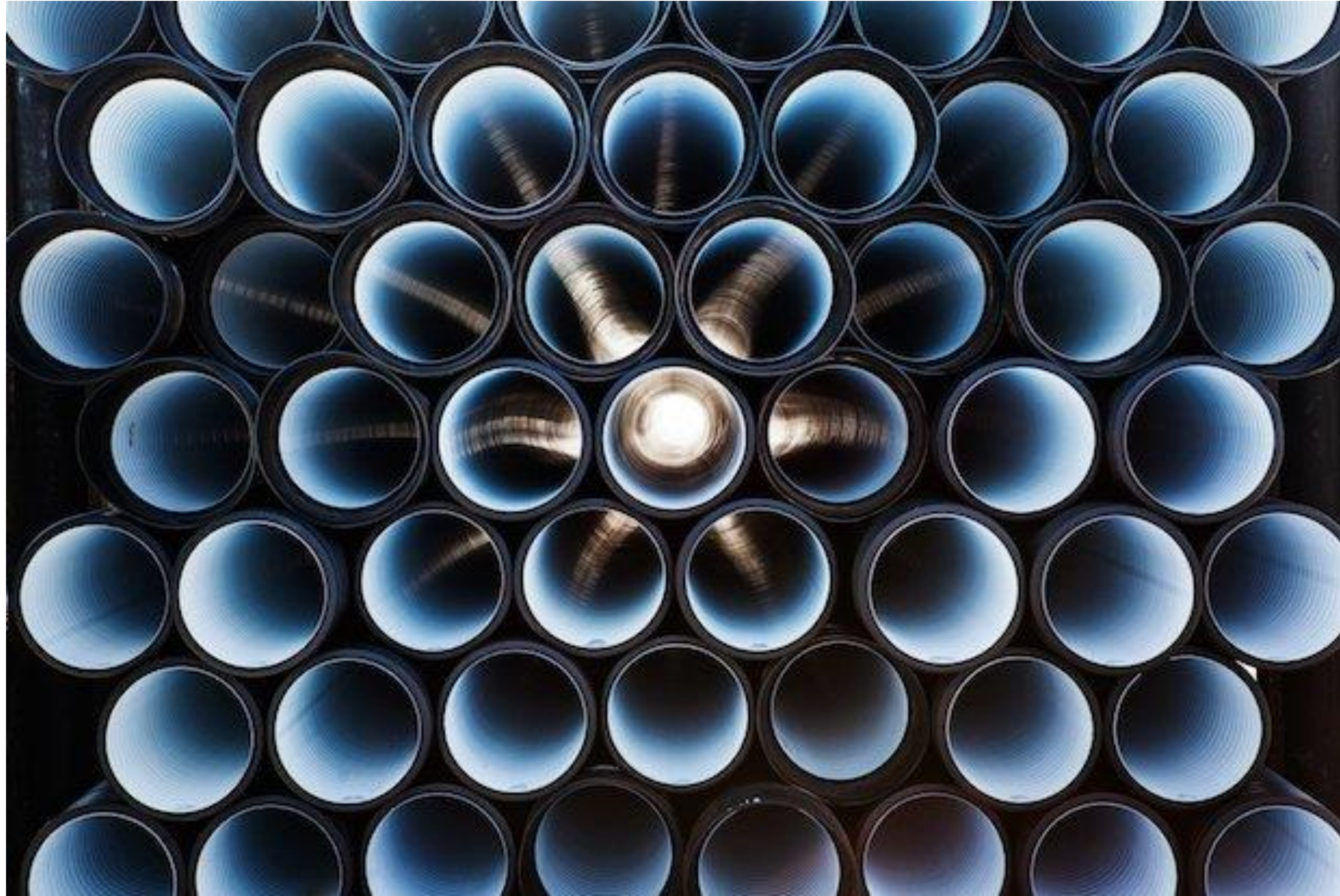
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UNIVERSITY OF LISBON
INTERDISCIPLINARY STUDIES
ON SUSTAINABLE ENVIRONMENT AND SEAS



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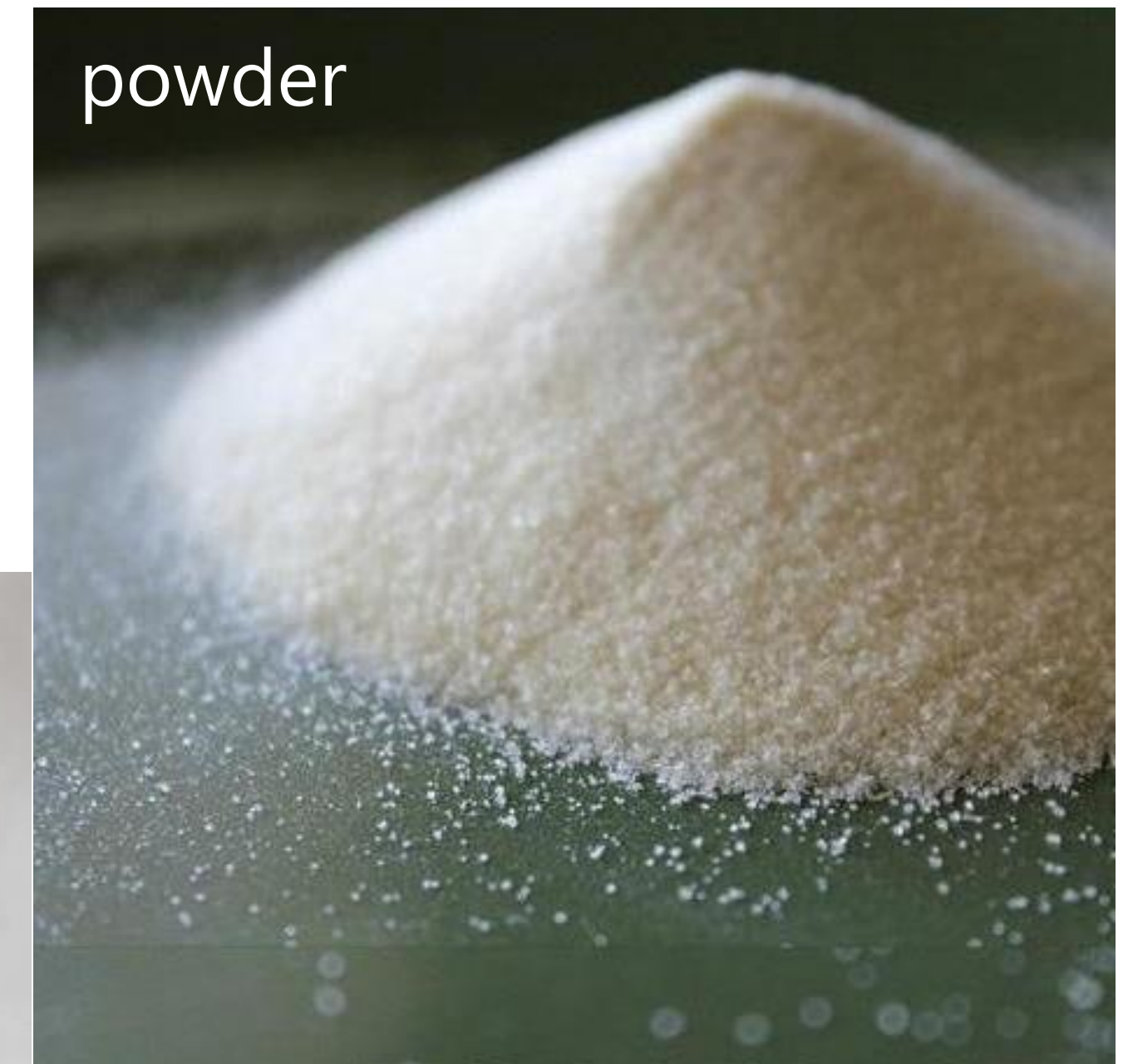
Extrusion is a process of manufacturing long products with constant cross-section, such as tubing, pipes, hose, rods, structural complex shapes, sheet and film, continuous filaments, and coated electrical wire and cable.

Widely used for thermoplastics and elastomers (but rarely for thermosets).

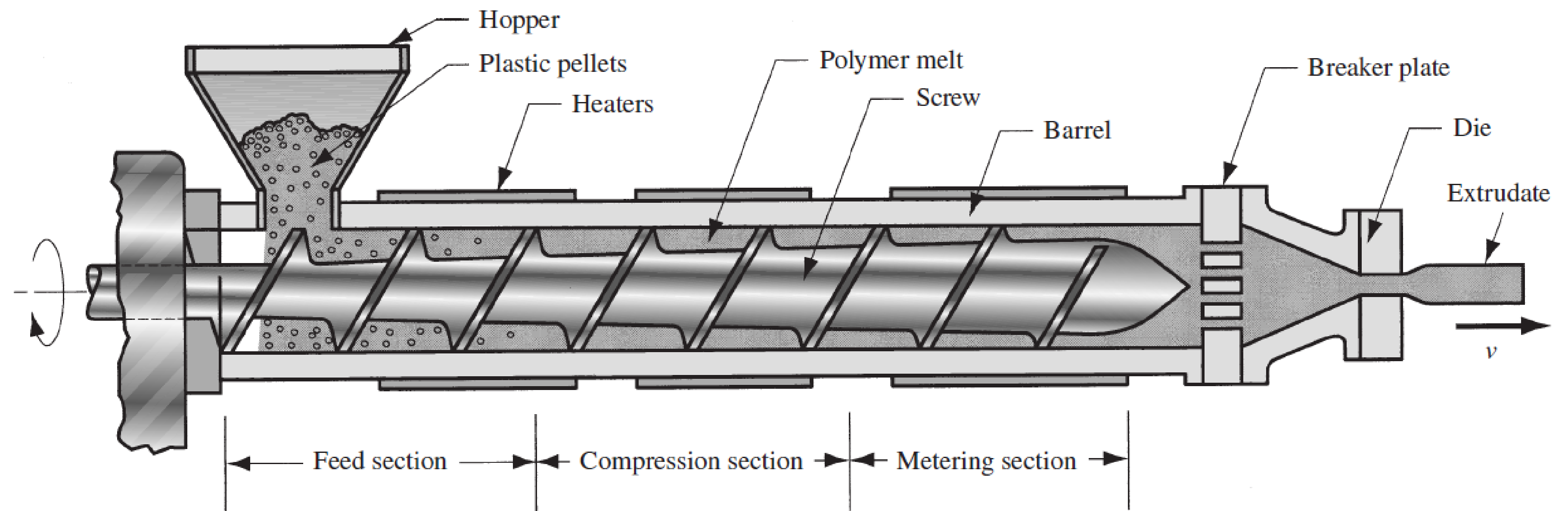


1. Feeding

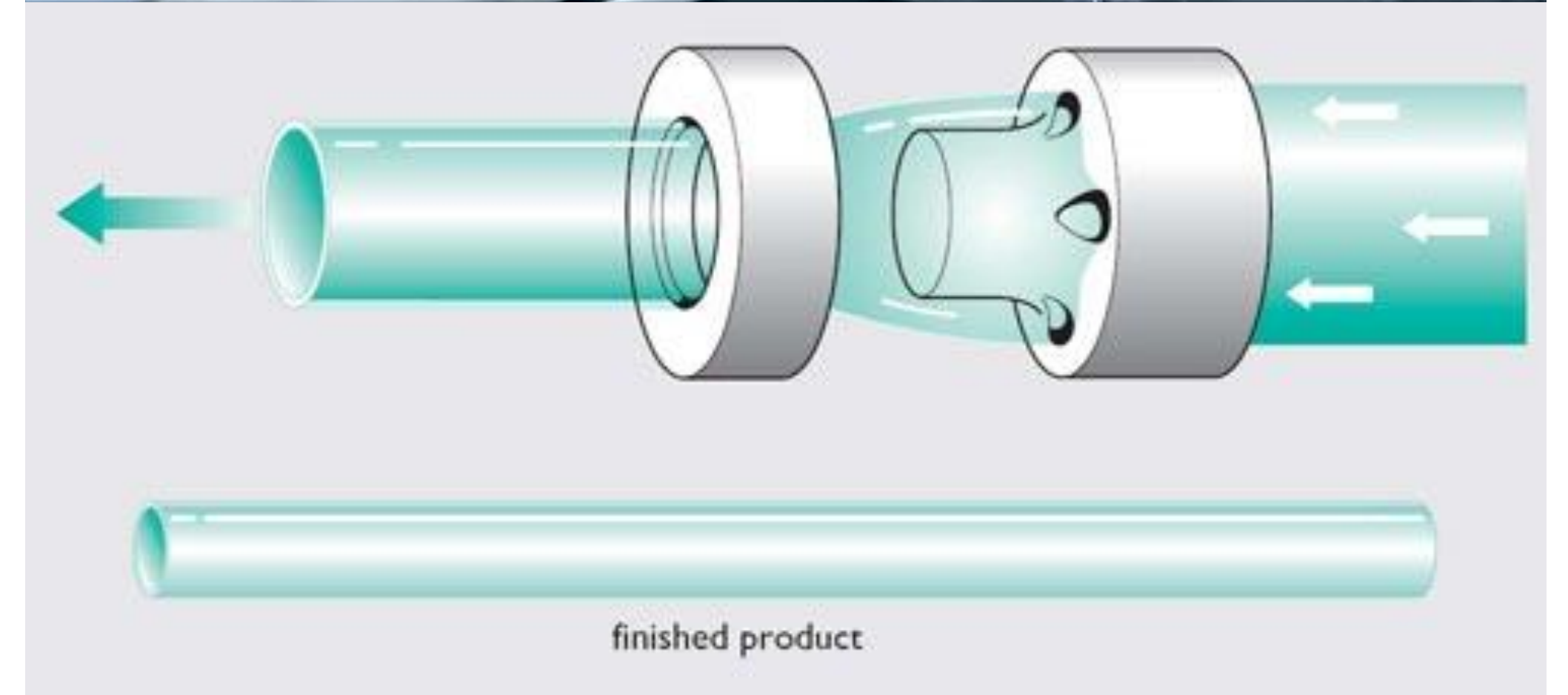
- 2. Melting
- 3. Shaping
- 4. Cooling



1. Feeding
- 2. Melting**
3. Shaping
4. Cooling



1. Feeding
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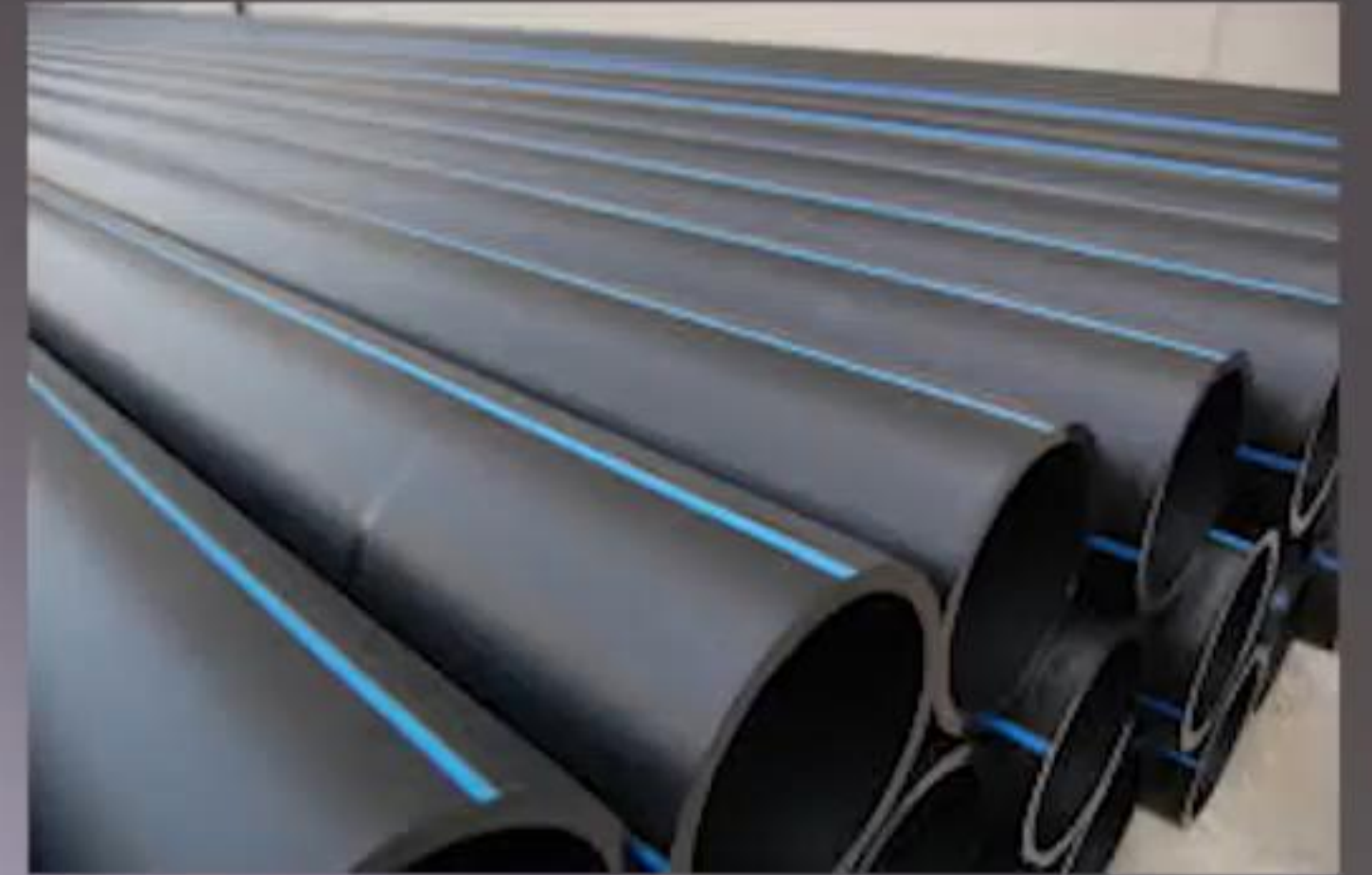


1. Feeding
2. Melting
3. Shaping
- 4. Cooling**



The **Extrusion** process

For CONTINUOUS production of product



Advantages

- Low cost (tool and part)
- Flexibility
- Uniform cross-section
- Continuous process
- No length limit
- High productivity

Disadvantages

- Dimension deviation due to expansion
- Limited type of products

An underwater scene with a sea turtle swimming towards the left. The water is filled with various types of plastic pollution, including bags, bottles, and debris. The scene is dimly lit, with a blueish tint.

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