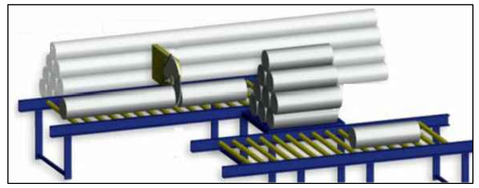
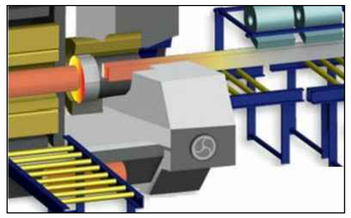
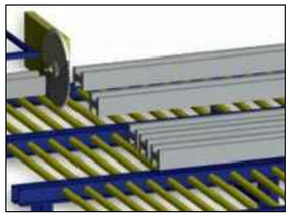
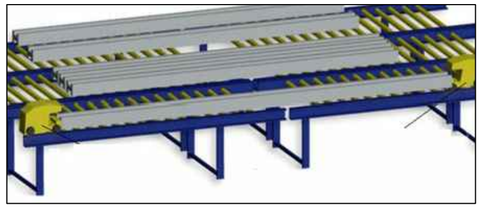
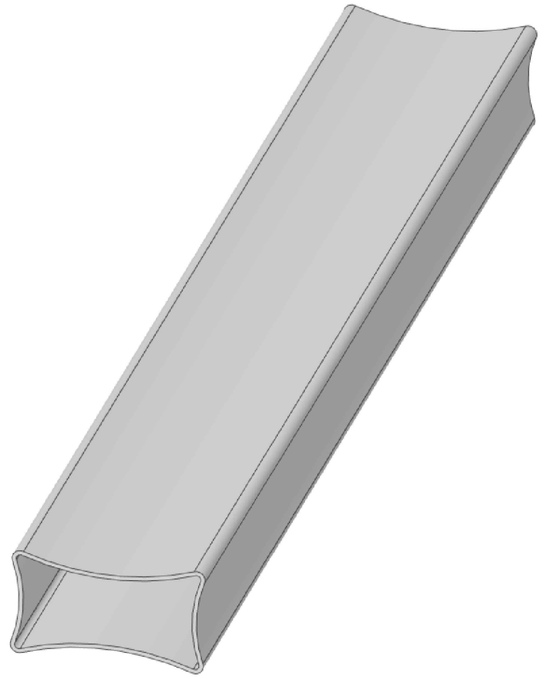
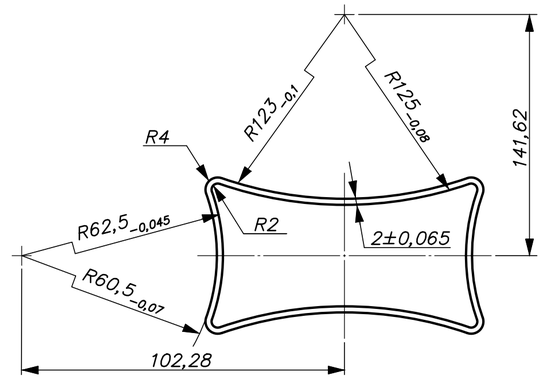
Operation N⁰	Operation Name	Equipment	Operation parameters	Illustration
1	Billet heating	Open gas furnace	Heating temperature: 480°C	
2	Billet cutting	Hot shears	Load ≈ 150 kN	
3	Boron nitriding	Equipment for hot boron notriding		
4	Extrusion	Horizontal extrusion press 20 MN	Ram velocity – 5 mm/s Cooling: Fans or water mist quenching	
5	Shearing	Circular saw		
6	Stretching	Stretching machine		
7	Artificial aging	Aging furnace	Aging temperature: 200°C Aging time: 6 hours	





TOLERANCES UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ±0,05
ALL DIMENSIONS ARE IN MILLIMETERS

Cross-sectional area (mm^2)	Theoretical mass of 1m of product (gr)	Circumscribed circle diameter (mm)	Outside perimeter (mm)
560.05	1490.6	101.57	282.3

1. Other requirements according to GOST 22233–2001
2. Temper designation – T5

The International Students Olympiad in Extrusion Technologies 2021

AA6061