



BOCO
PARDUBICE



BOCO PARDUBICE MACHINES
MANUFACTURING AND RENOVATION OF
SCREWS AND BARRELS

We manufacture and renovate screws and barrels for all types of processes – **EXTRUSION, RECYCLING, REGRANULATION, RUBBER, INJECTION** in the following variants:

MANUFACTURING OF SCREWS



EXTRUSION SCREWS	NITRIDED	HARDENED (CPM)	ARMOURED EXTRA	ARMOURED EXTREM *
Diameter in mm	20 ÷ 750	20 ÷ 750	20 ÷ 750	40 ÷ 750
Lenght (max.) in mm	6000	2800	6000	6000
Nitrided layer depth in mm	0.5 ÷ 0.7	-	0.5-0.7 on the nitrided surfaces of the sides and core	
Weld thickness in mm	-	Hardened throughout the whole cross-section		1.5 ÷ 2.5
Hardness	950 ± 80 HV	58 ÷ 61 HRC	50 ÷ 55 HRC	50 ÷ 55 HRC

* Contains tungsten carbide grains with hardness up to 2400 HV.

INJECTION SCREWS	NITRIDED	HARDENED EXTRA	HARDENED EXTREM	CPM
Diameter in mm	20 ÷ 380	20 ÷ 380	20 ÷ 380	20 ÷ 380
Lenght (max.) in mm	6000	2800	2800	2800
Nitrided layer depth in mm	0.5 ÷ 0.7	-	-	-
Weld thickness in mm	-	Hardened throughout the whole cross-section		
Hardness	950 ± 80 HV	56 ÷ 60 HRC	60 ÷ 64 HRC	58 ÷ 61 HRC

MANUFACTURING OF BARRELS



	NITRIDED	BIMETALLIC EXTRA	BIMETALLIC EXTREM*
Inner diameter in mm	20 ÷ 500	20 ÷ 500	20 ÷ 500
Lenght (max.) in mm	6000	6000	6000
Nitrided layer depth in mm	0.5 ÷ 0.7	-	-
Thickness of hardmetal layer in mm	-	1.5 ÷ 2.5	1.5 ÷ 2.5
Hardness	950 ± 80 HV	58 ÷ 64 HRC	60 ÷ 64 HRC

* Contains tungsten carbide grains (20 % - 60 %).

MANUFACTURING OF CHECK VALVES (Assembly: screw tip, backflow ring, support ring)

	NITRIDED	HARDENED	CPM
Diameter in mm	20 ÷ 500	20 ÷ 500	20 ÷ 500
Nitrided layer depth in mm	0.5 ÷ 0.7	-	-
Weld thickness in mm	-	Hardened throughout the whole cross-section	
Hardness	950 ± 80 HV	60 ÷ 64 HRC	58 ÷ 61 HRC

PRODUCTION OF EXTRUSION HEADS

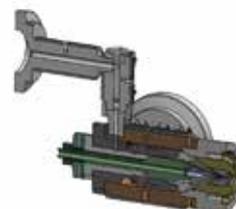
1. Flat extrusion heads

We design and manufacture flat extrusion heads for the extrusion of varying widths of foil thermoplastic materials (max. width up to 8 m) with a thickness of 0.4 mm up to 40 mm. The heads are made of nitrided steels or tool steels with surface treatments such as hard chrome or PVD plating.



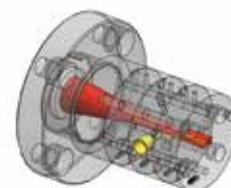
2. Spiral extrusion heads

We manufacture the extrusion heads for the production of various types of tubes and hoses with a diameter according to the customer's request. These tools are optimized precisely for thermoplastic materials used by the customer.



3. Heads for extrusion of profiles

We design and manufacture the extrusion heads for the production of various shaped profiles according to the customer's request. Head design is always individual and considered according to a specific demand.



4. Casing heads (cross heads)

These are mostly used to apply additional layers of material to products such as cables, steel cables, hoses, etc. We design the size of these devices according to the customer's request.

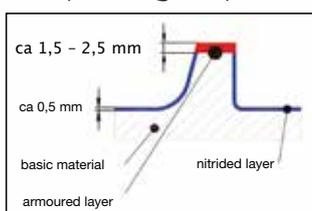
RENOVATION OF SCREWS

	ARMOURED EXTRA	ARMOURED EXTREM*	ARMOURED STANDARD	ARMOURED STELIT
Diameter in mm	20 ÷ 750	40 ÷ 750	20 ÷ 750	20 ÷ 750
Length (max.) in mm	6000	6000	6000	6000
Weld thickness in mm	1.5 ÷ 2.5	1.5 ÷ 2.5	1.5 ÷ 2.5	1.5 ÷ 2.5
Hardness	50 ÷ 55 HRC	50 ÷ 62 HRC	900 ÷ 1000 HV	40 ÷ 50 HRC

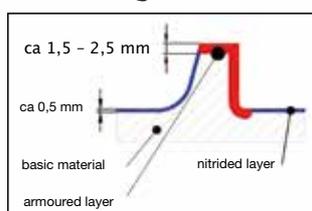
* Contains tungsten carbide grains with hardness up to 2400 HV (30 % - 40 % in welded on layer).

Materials EXTRA and EXTREM were specially designed for welding on extrusion and injection screws.

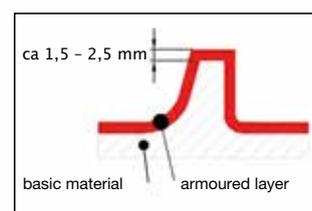
Methods of welding on of the armoured layers when renovating the screws:



armoring of the upper part of the screw thread



armoring of the upper part and compressive edge of the screw thread



armoring the entire surface of the screw

RENOVATION OF BARRELS

GRINDING - HONING - NITRIDATION (in the case of nitrided variants)

Inner diameter in mm	25 ÷ 500
Outer diameter (max.) in mm	950
Length (max.) in mm	6000



RENOVATION OF EXTRUSION HEADS AND BLOWING HEADS

Surface treatment of work surfaces for new and renovated heads is done by precise grinding, polishing and surface finishing - hard chrom plating or nickel plating, nitriding, hardening and various kinds of spray coatings of choice.

Damaged and worn work surfaces of heads can be renovated by welding-on special high strength materials and hard materials based on tungsten carbide as required.



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The company BOCO PARDUBICE machines, s.r.o. has more than 25 years of tradition with a focus on the production of machinery and equipment for the plastics and rubber industry.

Its technological background and range of offered professional services make from this firm one of the leading manufacturing companies in the plastics and rubber industry in the Czech Republic and the EU.

Contact details are available on our website

www.boco-extruders.eu/contact

We also produce:



Recycling lines



Regranulation lines



Compounding lines



Extrusion lines



Single-screw extruders



Twin-screw extruders



Laboratory extruders



Thermal insulation covers for machines



Design and production of tools for extrusion (heads, nozzles, etc.)



Wheel clamps for cars and trucks