TECHNOLOGY FOR LOW-PRESSURE DIE CASTING





Set of hydraulic clutch components (a) and car wheels (b) obtained by the low-pressure casting method using ALUT-3 machine



ALUT-3 machine for casting under controlled low pressure

Areas of Application

Production of cast articles from aluminum alloys for aerospace industry, machine- and shipbuilding, instrument engineering, etc

Specification

Automated full-cycle manufacturing process, from pouring into molds to obtaining ready cast articles

IPR Protection

IPR3

Advantages

Enhancement of mechanic properties ($\sigma_{_{\rm B}}$, δ , HB) and operating parameters (vacuum density, cyclic strength) by 15–30%; decrease in power consumption down to 100–300 kW/h per 1 ton castings; decrease in metal consumption by the feeding system 3–19 times

Stage of Development. Suggestions for Commercialization

IRL6, TRL8

Technology transfer to enterprises with individual, serial and mass production; supply of ready cast articles

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