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# ELECTRICAL DISCHARGE MACHINING OF PARTS

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## Abstract

We review electrical discharge machines designed for manufacturing a broad range of parts. We note specifics, advantages and disadvantages of this type of equipment. We provide guidelines for selecting tools to machine general mechanical engineering parts

## Keywords

Electrical discharge machining, mechanical engineering, performance

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## References

- [1] Saushkin B.P. Electrical discharge in liquid and gas medium is the base of a new generation of methods and technologies in machine-building production. *Elektronnaya obrabotka materialov*, 2004, no. 1, pp. 4–17. (in Russ.)
  - [2] Parshikov O.N., Yakovleva A.P. Electro-mechanic method of steel parts treatment. *Glavnyy mekhanik* [Chief mechanical engineer], 2014, no. 7, pp. 62–64. (in Russ.)
  - [3] URL: <http://galika.ru> (accessed 14.04.2017)
  - [4] URL: <http://www.equipnet.ru> (accessed 04.03.2017)
  - [5] Yakovleva A.P., Omel'chenko I.S. Enhancement of load-carrying capacity of steel parts by combined processing. *Aviatsionnaya promyshlennost'* [Aviation Industry], 2013, no. 2, pp. 62–64. (in Russ.)
  - [6] Yakovleva A.P. Surface hardening by electromechanical processing of steel components of machines. *Aviatsionnaya promyshlennost'* [Aviation Industry], 2014, no. 1, pp. 32–33. (in Russ.)
  - [7] Bol'shagin N.P., Yakovleva A.P. Machining efficiency increase by polishing. *Glavnyy mekhanik* [Chief mechanical engineer], 2014, no. 8, pp. 34–42. (in Russ.)
  - [8] Saushkin B.P., Atanasyants A.G. Electrodischarge processes in machine-building production (the review of references). Part 1: Technological application of the electrodigit phenomena in system «metal-metal». *Metalloobrabotka*, 2006, no. 1, pp. 16–23. (in Russ.)
  - [9] Saushkin B.P., Mitryushin E.A. The review of a condition and prospects of development of electro discharge technologies and the equipment. *Metalloobrabotka*, 2009, no. 2, pp. 20–27. (in Russ.)
  - [10] Yakovleva A.P. Increase of bearing capacity of the parts of solid revolution type by using method of combined treatment. *Glavnyy mekhanik* [Chief mechanical engineer], 2015, no. 1, pp. 46–48. (in Russ.)
  - [11] Bol'shagin N.P., Yakovleva A.P. Assembly of a worm gear. *Aviatsionnaya promyshlennost'* [Aviation Industry], 2015, no. 2, pp. 44–47. (in Russ.)
  - [12] Kravchenko I.I., Yakovleva A.P. Analysis of gear wheels breakage types. *Glavnyy mekhanik* [Chief mechanical engineer], 2015, no. 5–6, pp. 45–50. (in Russ.)
  - [13] Yakovleva A.P. Turning of large module gear wheels. *Glavnyy mekhanik* [Chief mechanical engineer], 2014, no. 6, pp. 40–42. (in Russ.)
  - [14] Yakovleva A.P. Kravchenko I.I. Influence of surface quality onto loading capacity of gear wheels. *Glavnyy mekhanik* [Chief mechanical engineer], 2015, no. 10, pp. 36–38. (in Russ.)
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