

Technical Documentation



REMONTNA DELATNOST
OVERHAULING ACTIVITY

RU09SREN

Vision



We set your ideas in motion. We do not merely manufacture motors, but instead turn the ambitious concepts of our customers into modern, innovative and reliable products, which are unique and point the way to the future. We bring our customers closer to their goals with reliability, creativity and flexibility.

Business Units



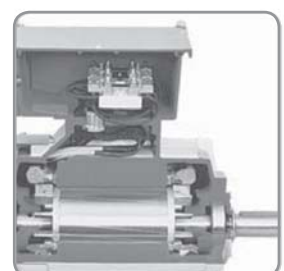
Serial Motors



New Businesses



Home Appliances



Project Motors

USLUGE NA ODRŽAVANJU ELEKTROMOTORNOG POGONA



Na osnovu višegodišnjeg iskustva kao i primene savremenih tehničko-tehnoloških rešenja iz oblasti električnih mašina, regulacije i automatskog upravljanja, ATB SEVER može da obezbedi siguran i pouzdan rad elektromotornih pogona u svim privrednim granama.

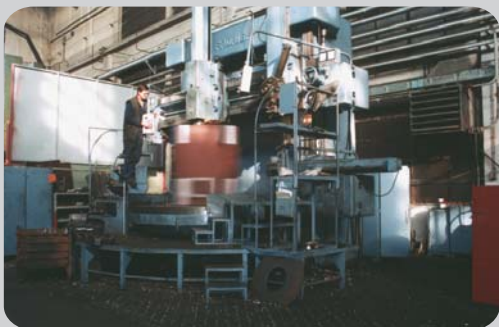
Usluge se nude u vidu snimanja, merenja, defektiranja, rekonstrukcije, remonta, puštanja u rad elektromotornih pogona, kao i obuke kadrova korisnika. Usluge i radovi se vrše u: radionicama, laboratorijama i konstrukciono-tehnološkom birou u fabrici, kao i na licu mesta kod korisnika. Posebno se nude i ugovaraju preventivna održavanja, ispitivanja izolacionog sistema, godišnji i generalni remont. Svi radovi se izvode po važećim jugoslovenskim i međunarodnim standardima uz primenu najkvalitetnijih materijala, o čemu brine služba kontrole kvaliteta ATB SEVER-a. Za izvedene radove i ugrađeni materijal Fabrika Remont daje šestomesečnu garanciju, ako nije drugačije ugovoreno.



USLUGE U OBLASTI ELEKTRIČNIH MAŠINA

U oblasti električnih mašina, obavljaju se različiti zahvati u smislu popravke, osposobljavanja proizvoda i dovođenja u ispravno funkcionalno stanje, već u ovisnosti od postavljenog cilja i to:

- Servisiranje
- Remontovanje
- Merenje i ispitivanje
- Rekonstrukcije
- Revitalizacije
- Upuštanje u rad



REPAIR OF ELECTROMOTIVE DRIVES

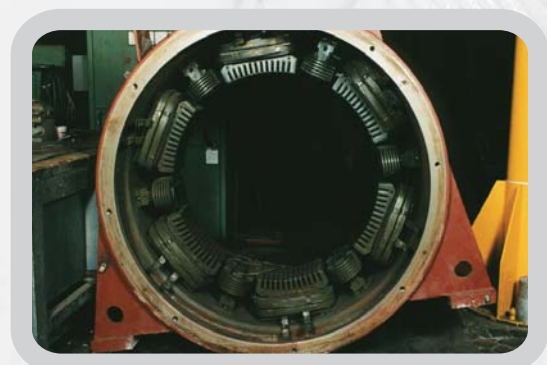
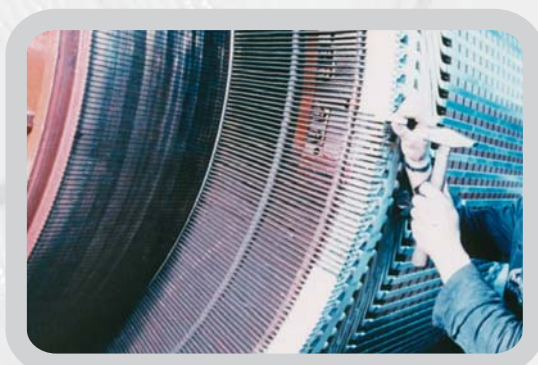
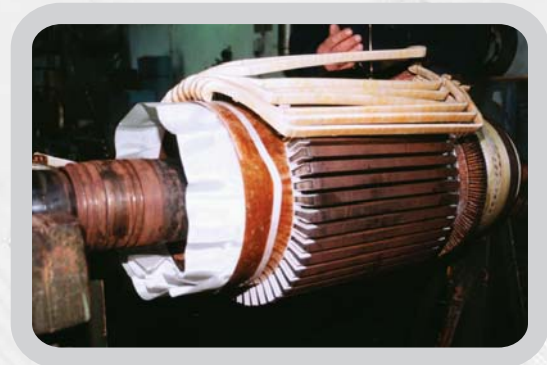
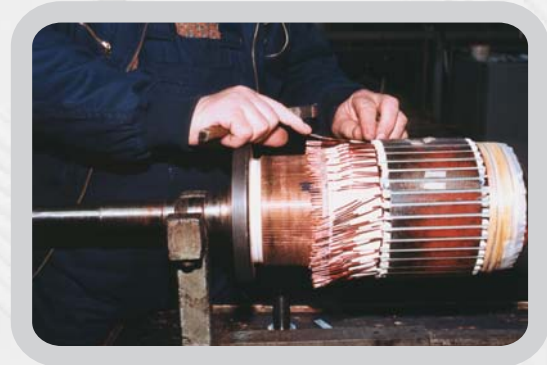
Based on the experience of many years and application of modern technical solutions in the field of modern technical solutions in the field of electrical machines, regulation and automatic control ATB SEVER is capable to provide safe and reliable operation of electromotor drives in all branches of industry.

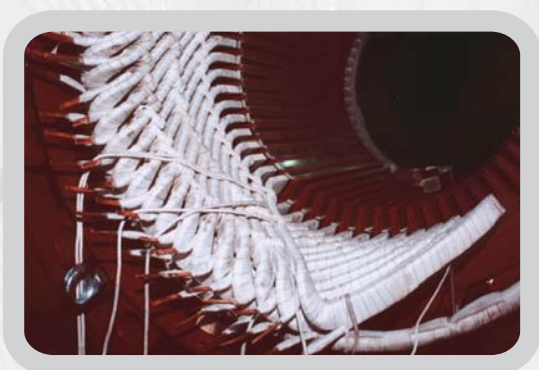
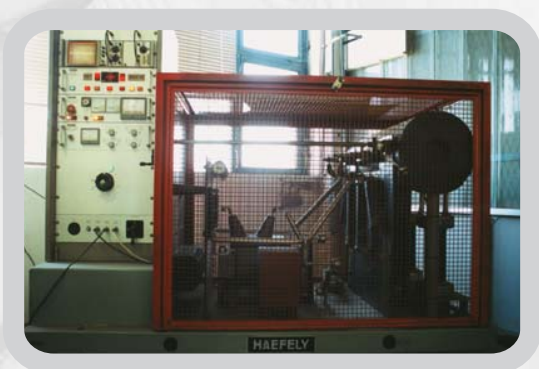
The services can be under the cloak of taking down, measuring, defecation, reconstruction, repair, starting of the elektromotor drives and primary instruction. The works and services can be done in the factory or at the holder. On the request we offer preventive maintenance of the electromotor drives; annual repair and general repair. All works are in accordance with the SRBIAN standards and IEC recommendations with assistance of our control department. For all works and materials six months guaranty is valid except in the cases of special contract.

ELECTRONIC MACHINES REPAIR AND SERVICE

In the field of electrical machines, the various works can be done to enable a quality repair, service and test. Depending from the intention the following works are possible:

- Service
- Repair
- Measurements and testings
- Reconstruction
- Revitalisation
- Preliminary starting





Navedene usluge se vrše na svim vrstama električnih mašina bez obzira na: izvedbu, proizvođača, snagu, napon i klasu izolacije i to:

- Sinhronne mašine
- Asinhronne mašine
- Kolektorske mašine (jednosmerne naizmjenične)
- Električne mašine u Ex zaštiti
- Pretvarači učestanosti
- Rotacioni električni aparati za varenje
- Elektro agregati
- Zakretni transformatori
- Statički aparati za varenje
- Suvi energetske transformatori
- Prigušnice
- Rotorski i statorski pokretači
- Hidrogeneratori
- Turbogeneratori

MERENJA, ISPITIVANJA I PUŠTANJA U POGON ELEKTROMOTORNIIH POSTROJENJA

Problemi u vezi elektromotornih pogona su često multidisciplinarne prirode. U tu svrhu merenje i ispitivanje vrše naše specijalizovane ekipe. Na osnovu izvršenih merenja i ispitivanja, tj. ekspertize daje se konkretno rešenje za dovođenje elektromotornog pogona u ispravno i funkcionalno stanje. Zahvaljujući savremenoj opremi kao i obučenom kadru sa kojim raspolažemo, većinu merenja i ispitivanja obavljamo na licu mesta kod korisnika.

MERENJE I ISPITIVANJA U FABRICI

Pored navedenih merenja i ispitivanja, u fabrici se obavljaju i sledeća ispitivanja i merenja:

- Ogled opterećenja
- Ogled zagrevanja
- Oscilografska snimanja električnih veličina
- Snimanje momentne krive

Na zahtev i po potrebi kupca vršimo upuštanje u pogon elektromotornih postrojenja, bez obzira da li su remontovana ili novo proizvedena, iz ATB SEVER-ovog proizvodnog programa ili programa drugih proizvođača.

USLUGE U OBLASTI ELEKTRIČNIH MAŠINA ELECTRONIC MACHINES REPAIR AND SERVICE

All these works can be done on the all kinds of electric machines regardless of the execution, manufacturer, output, voltage and class of insulation.

- Hydro generators
- Turbogenerators
- Synchronous machines
- Asynchronous machines
- Collector machines
- Direct current (traction motors, generators, large d.c. motors)
- Alternating current (commutators)
- Rotating welding sets
- Frequency convertors
- Dry power transformers
- Stationary welding apparatus
- Induction regulators
- Reactors and electromagnets
- Generating sets
- Rotor and stator starters

MEASUREMENTS, TESTINGS AND FIRST STARTING OF ELECTROMOTIVE PLANTS

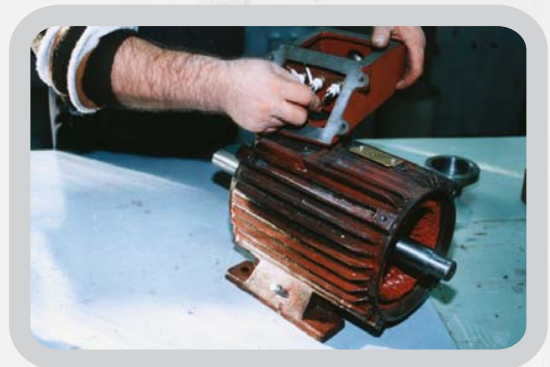
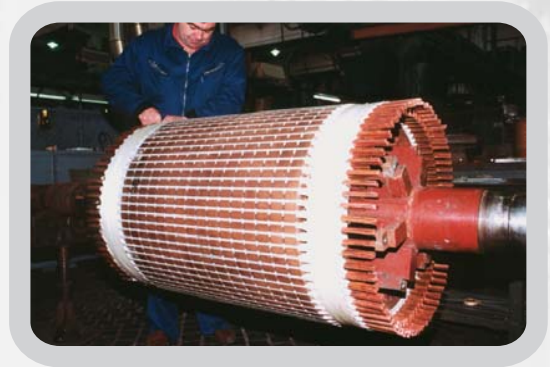
The problems with electromotive drives are in many cases very complex. For these reasons the testings must be done by our specialists. On the basis of these measurements the experts will give a correct solution for the electromotive drive and its operation. Due to the modern own equipments, the most measurements and testings may be done on the operating site.

WORKS IN THE FACTORY

Beside the quoted measurements on the operation site the following testings can be made in the factory:

- Load test
- Heating test
- Oscillography of the electric characteristics
- Speed-torque test

On the request the starting of the electromotive plants can be done by our specialists regardless of the plants. It is valid for new and for the repaired electromotive plants.





MERENJA I ISPITIVANJA NA LICU MESTA

- Ispitivanje faktora dielektričnih gubitaka i kapaciteta
- Merenje otpora izolacije
- Određivanje faktora apsorpcije
- Određivanje faktora polarizacije
- Ispitivanje dielektrične čvrstoće
- Ispitivanje nivoa parcijalnih pražnjenja
- Ispitivanje visokim naizmeničnim naponom
- Ispitivanje visokim istosmernim naponom
- Zagrevanje limpaketa
- Merenje vibracije i šuma
- Lasersko centriranje postrojenja



REZERVNI DELOVI

Na zahtev kupca izrađujemo rezervne delove za sve vrste električnih mašina iz SEVER-ovog proizvodnog programa kao i drugih proizvođača, ako za to ima tehno-ekonomskog opravdanja.

UNIFIKACIJA ELEKTROMOTORNIH POGONA

Na zahtev i po potrebi kupaca koji imaju heterogene elektromotorne pogone, vršimo projektovanje unifikacije, prema konceptu permanentnog planskog svođenja broja tipskih izvedbi elektromotora na najmanju moguću meru i od što manjeg broja proizvođača. Ovo je prvi uslov za prelazak sa stihijskog na plansko preventivni model održavanja elektromotornih pogona.

Projektovanje unifikacije vršimo prema konkretnom ugovoru, a realizaciju projekta putem zamene starih motora novim, prema konkretnim narudžbama kupca.



OBUKA KADROVA

Za naše poslovne partnere koji imaju remontne radionice zatvorenog tipa za održavanje elektromotornog pogona, prema posebnom zahtevu i ugovoru, vršimo obuku kadrova za održavanje elektromotornih pogona.



WORKS ON THE OPERATION SITE

- Loss- tangent testing
- Insulation resistance measurement
- Measurement of absorption coefficient
- Measurement of polarization index
- Dielectric strength testing
- Testing of partial discharging
- AC High voltage test
- DC High voltage test
- Heating of stator core
- Noise and vibration test
- Laser centering

SPARE PARTS

On the request we produce the spare parts for very important electromotive drives even they are not in our production programme.

UNIFICATION OF ELECTROMOTIVE DRIVES

On the request of the customers which have heterogenous electromotive drives we make a project for permanent reduction of the big number of various electromotive drives. This project minimizes the existing number of electromotive drives and manufactures. It is the first condition for the preventive maintenance.

Projection of the unification will be done on the basis of the special contract. The realization of the project can be done by replacing the old motors with new ones in accordance with the contract.

PRIMARY INSTRUCTION

For ours special costumers which have their own workshop for maintenance of electromotive drives and on their special request we organize the primary instruction for theirs workers in ours factories. On this way the workers will be skilled for repairs and services



HE Bajina Bašta Bajina Bašta

Manufacturer: Rade Končar
Number of pieces: 1
Type: S 9507-44
Nominal Power: 100 MVA
Voltage: 15600 V
Rev. per min.: 136 min⁻¹
Works done: – Separating stator into 4 segments
– Replacing insulation cores

TE Morava Svilajnac

Manufacturer: Rade Končar
Number of pieces: 1
Type: S 2466-2
Nominal Power: 150 MVA
Voltage: 13800 V
Rev. per min.: 300 min⁻¹
Works done: – Stator rewinding
– Making new rings for head fixing

HE Djerdap Kladovo

Manufacturer: Rade Končar
Number of pieces: 3
Type: S 14938-84
Nominal Power: 190 MVA
Voltage: 15750 V
Rev. per min.: 71.5 min⁻¹
Works done: – High-voltage tests

HE PIVA Plužine

Prizvođač: Rade Končar
Broj jedinica: 1
Tip: S6787-24
Snaga: 120 MVA
Napon: 15750 V
Brzina obrtaja: 250 min⁻¹
Radovi: – vađenje svih štapova statora
– reparacija štapova statora
– ispitivanje repariranih štapova
– rastavljanje paketa statora na četvrtke
– zamena izolacionih uložaka između četvrtki paketa statora
– sanacija dodirnih površina četvrtki paketa statora
– montaža paketa statora posle sanacije
– namotavanje statora
– potrebna ispitivanja

HE Žirovnica Slovenija

Prizvođač: AEG-Germania
Broj jedinica: 1
Tip: S 1 MVA
Snaga: 1 MVA
Napon: 10000 V
Brzina obrtaja: 1000 min⁻¹
Radovi: – Pravljenje statorskih namotaja
– Premotavanje statora

HE Bistrica Nova Varoš

Manufacturer: Rade Končar
Number of pieces: 1
Type: S 3906
Nominal Power: 254 MVA
Voltage: 10500 V
Rev. per min.: 600 min⁻¹
Works done: – Highvoltage tests

RHE Bajna Bašta

Manufacturer: Tochiba-Rade Končar
Number of pieces: 1
Type: TASK
Nominal Power: 315 MVA
Voltage: 11000 V
Rev. per min.: 428.6 min⁻¹
Works done: – Partial replacing stator slot-lattices
– Replacing get over halfcoil

HE Vrela Surdulica

Manufacturer: Rade Končar
Number of pieces: 2
Type: S 345/93-12
Nominal Power: 14.0 MVA
Voltage: 6300 V
Rev. per min.: 500 min⁻¹
Works done: – Making stator coils
– Stator rewindings

HE Globočica Struga

Prizvođač: Rade Končar
Broj jedinica: 1+1
Tip: S 4264-16
Snaga: 26 MVA
Napon: 10500 V
Brzina obrtaja: 375 min⁻¹
Radovi: – Servisiranje statorskog i rotorskog namotaja
– Kompletno preklinjavanje statora

TENT A Obrenovac

Prizvođač: Elektrotjažmaž
Broj jedinica: 2
Tip: TVG-200E
Snaga: 210 MW
Napon: 15700 V
Brzina obrtaja: 3000 min⁻¹
Radovi: – Servis sa zamenom klinova
– Servis provodnih izolatora

NIS Rafinerija nafte Pančevo

Prizvođač: English Electric
Broj jedinica: 2
Tip: GG 1412/1414
Snaga: 12.5 MVA
Napon: 6300 V
Brzina obrtaja: 375/745 min⁻¹
Radovi: – Visokonaponsko ispitivanje
– Servisiranje statorskog namotaja i preklinjavanje statora

TE Kolubara Veliki Crljeni

Manufacturer: Chkoda-Ceska
Number of pieces: 1
Type: S 140 MVA
Nominal Power: 140 MVA
Voltage: 10500 V
Rev. per min.: 3000 min⁻¹
Works done: – Signifying stator coils
– Servicing stator coils

HE Dosnice Negotin

Manufacturer: Rade Končar
Number of pieces: 1
Type: S205/46-10
Nominal Power: 2.2 MVA
Voltage: 6300 V
Rev. per min.: 600 min⁻¹
Works done: – Making stator coils
– Stator rewinding

HE Mali Zvornik Mali Zvornik

Manufacturer: Rade Končar
Number of pieces: 1
Type: S 700/105-40
Nominal Power: 40 MW
Voltage: 11000 V
Rev. per min.: 150/340 min⁻¹
Works done: – Servicing stator coils and replacing stator slot-lattices

HE Bočac Mrkonjić Grad

Prizvođač: Rade Končar
Broj jedinica: 2
Tip: S 7707-40
Snaga: 65 MVA
Napon: 10500 V
Brzina obrtaja: 150 min⁻¹
Radovi: – Visokonaponsko ispitivanje
– Servis

HE Uvac Nova Varoš

Prizvođač: Rade Končar
Broj jedinica: 1
Tip: S 5394-20
Snaga: 40 MVA
Napon: 10500 V
Brzina obrtaja: 300 min⁻¹
Radovi: – Visokonaponsko ispitivanje

HE Zavoj Piroat

Prizvođač: Rade Končar
Broj jedinica: 1
Tip: S 4414-12
Snaga: 44.5 MW
Napon: 10500 V
Brzina obrtaja: 500 min⁻¹
Radovi: – Visokonaponsko ispitivanje
– Preklinjavanje statora

Company locations

HEAD OFFICE AUSTRIA

ATB Austria Antriebstechnik AG

Renngasse 6-8
1010 Wien, Austria

T: +43 1 90 250 - 0
F: +43 1 90 250 110

info@atb-motors.com
www.atb-motors.com

AUSTRIA

ATB Motorenwerke GmbH

G.-Bauknecht-Str. 1
8724 Spielberg
T: +43 3577 757-323
F: +43 3577 757-182
info@atb-motors.com

ATB Technologies GmbH

Millenium Park 11
6890 Lustenau
T: +43 5577 9010-0
F: +43 5577 9010-110
info@atb-motors.com

ASIA

ATB Motorentechnik GmbH

141 Market Street,
07-01 International Factors
Building
Singapore 048944
T: +65 63721174
F: +65 62253524
dennis.tan@atbs.com.sg

BAHREIN

ATB Austria Antriebstechnik Aktiengesellschaft, Rep. Office Bahrain

Almoayyed Tower
21st Floor c/o Regus
Seef District, Manama
Kingdom of Bahrain
T: +973 175 68 160
F: +973 175 67 901

BENELUX

ATB BeNeLux B.V.

Tasveld 14
8271 RW IJsselmuiden
T: +31 38 443 2110
F: +31 38 443 2111
verkoop@nl.atb-motors.com

GERMANY

ATB Antriebstechnik GmbH

Silcherstraße 74
73642 Welzheim
T: +49 7182 14-535
F: +49 7182 14 590
info@de.atb-motors.com

ATB Motorentechnik GmbH

Helgoländer Damm 75
26954 Nordenham
T: +49 4731 365-0
F: +49 4731 365-159
info@de.atb-motors.com

Schorch Elektrische Maschinen und Antriebe GmbH

Breite Straße 131
41238 Mönchengladbach
T: +49 2166 925-0
T: +49 2166 925-100
mail@schorch.de

POLAND

Fabryka Silników Elektrycznych Tamel S.A.

ul. Elektryczna 6
33 100 Tarnow
T: +48 14 632 11 00
F: +48 14 632 11 02
officetamel@tamel.pl

RUSSIA

ATB Rus 000

Petrovka ul. 27
107031 Moscow
T: +7 495 95 66 326
vyacheslav.mikheyev@a-tecindustries.com

SERBIA

ATB SEVER D00 SUBOTICA

Magnetna polja 6
24000 Subotica
T: +381 24 665 100
F: +381 24 546 893
sever@rs.atb-motors.com

ATB FOD d.o.o.

Dorda Vajferta 16
19210 Bor
T: +381 30 423 147
fod@fod.co.rs

SWITZERLAND

ATB Schweiz AG

Industriestraße 28
5600 Lenzburg
T: +41 62 885 70-10
info@ch.atb-motors.com

UK & IRELAND

ATB Laurence Scott Ltd.

PO Box 25 Hardy Road, Norwich NR1 1JD
Norfolk
T: +44 1603 628 333
hvm.sales@laurence-scott.com

ATB Morley Limited

Bradford Road
Leeds LS28 6QA
West Yorkshire
T: +44 113 257 1734
sales@uk.atb-motors.com

Brook Crompton UK

St. Thomas Road, Huddersfield HD1 3LJ
West Yorkshire
T: +44 1484557200
F: +44 1484557201
csc@brookcrompton.com

CANADA

Brook Crompton

North America
264 Attwell Drive
M9W 5B2 Toronto, Ontario
T: +1 416 675-3844
ramzi.mallouk@brookcromptonna.com

ATB SEVER DOO SUBOTICA

Magnetna polja 6

24 000 Subotica

Serbia

Tel. +381 24 665-124

Fax +381 24 665-125

www.atb-motors.com

sever@rs.atb-motors.com