



CERTIFICATE OF FINDINGS DATED 20.12.2000

VSh-3/40M compressor: capacity increase no teardown, no shutdown

JSC Dniproenergo, structural unit Prydniprovskia TES · certificate approved by the plant chief engineer,
signed by the head of the production and engineering department and the head of the electrical
shop · treatment performed by Azurit LLC
Ukraine · measurements 03.11.2000 and 19.12.2000 · certificate dated 20.12.2000

PRODUCT	TREATED OBJECT	DOCUMENT TYPE
XADO Technology® repair-and-restoration treatment of the fully assembled unit	VSh-3/40M air compressor electrical shop, ORU-154, KSTs No. 2, VK-3	Certificate of findings with signatures and the company seal

EQUIPMENT	CONDITION AND WORKING SETUP	WHAT WAS MEASURED
VSh-3/40M air compressor	In-service compressor of the plant; treated under normal operating conditions, without teardown and without taking the equipment out of service	Air receiver filling time, current draw, oil temperature

Measurement before treatment — 03.11.2000, after — 19.12.2000. The test mode was identical in both cases: filling the air receivers from 38 to 41 kgf/cm².

Key results

↑ **58.3 %**

capacity by air receiver filling, 19 → 12 min

↓ **15.2 %**

oil temperature at 41 kgf/cm², 59 → 50°

Measurements on the VSh-3/40M compressor before and after treatment

PARAMETER	BEFORE · 03.11.2000	AFTER · 19.12.2000	CHANGE
Air receiver filling time from 38 to 41 kgf/cm ²	19 min	12 min	-7 min · capacity +58.3 %
Oil temperature at a pressure of 41 kgf/cm ²	59°	50°	-15.2 %
Current draw	70 A	74 A	+5.7 %

The certificate attributes the higher current to the increased capacity: the compressor reaches the same 41 kgf/cm² noticeably faster. The temperature scale is reproduced as in the original.

Findings and recommendations of the certificate

The commission of Prydniprovskia TES recorded: «The use of XADO Technology® makes it possible to raise the output of equipment, thereby extending its service life and lengthening the intervals between overhauls, to prevent wear of new equipment, and to treat compressors by XADO Technology® successfully under normal operation, with guaranteed savings on energy». The certificate recommends «introducing into the scheduled equipment repair system a planned preventive treatment of machines and mechanisms by XADO Technology, which provides a significant increase in service life»; the technology is «recommended for further roll-out at Prydniprovskia TES». In a letter to a member of the management board of JSC Dniproenergo, the plant chief engineer confirmed the increased compressor output, the shorter running time and the reduced noise, and asked for support in treating the remaining compressors of the plant.

XADO

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The results relate to the VSh-3/40M air compressor of Prydniprovskia TES, treated under normal operation without teardown; on other equipment and in other operating modes the figures may differ. The original certificate of findings with signatures and seal is published in full and available for download.