


| | | |
|---|--|--|
|  | TECHNICAL SPECIFICATION FOR SPARE PARTS SUPPLY AND SERVICES OF FD/ID FANS ON UNIT 6 | Rev. 1 Date. 27.6.22 Page 1 of 7 |
|---|--|--|

TECHNICAL SPECIFICATION FOR SPARE PARTS SUPPLY AND SERVICES OF FD/ID FANS ON UNIT 6

Content

| | | |
|----------|---|----------|
| 1 | OBJECTIVE..... | 2 |
| 2 | BACKGROUND | 2 |
| 3 | SCOPE OF SUPPLY | 5 |
| 3.1 | Set of spare parts for impeller and main bearing of FD fan 29/16-1 (LOT 1)..... | 5 |
| 3.2 | Set of spare parts for impeller and main bearing of ID fan 37/20-2 (LOT 2)..... | 5 |
| 4 | SCOPE OF SERVICES..... | 5 |
| 4.1 | Appraisal and repair of hydraulic blade adjustment G3 Ø200/71 HD and G3 Ø280-140 (LOT 3) | 5 |
| 4.2 | Supervision service (LOT 4) | 6 |
| 4.3 | Commissioning and balancing of the rotor (LOT 4) | 6 |
| 4.4 | Repairs (LOT 5) | 6 |
| 5 | PROVIDER REFERENCES | 7 |
| 6 | WARRANTY | 7 |
| 7 | ATTACHMENTS..... | 7 |

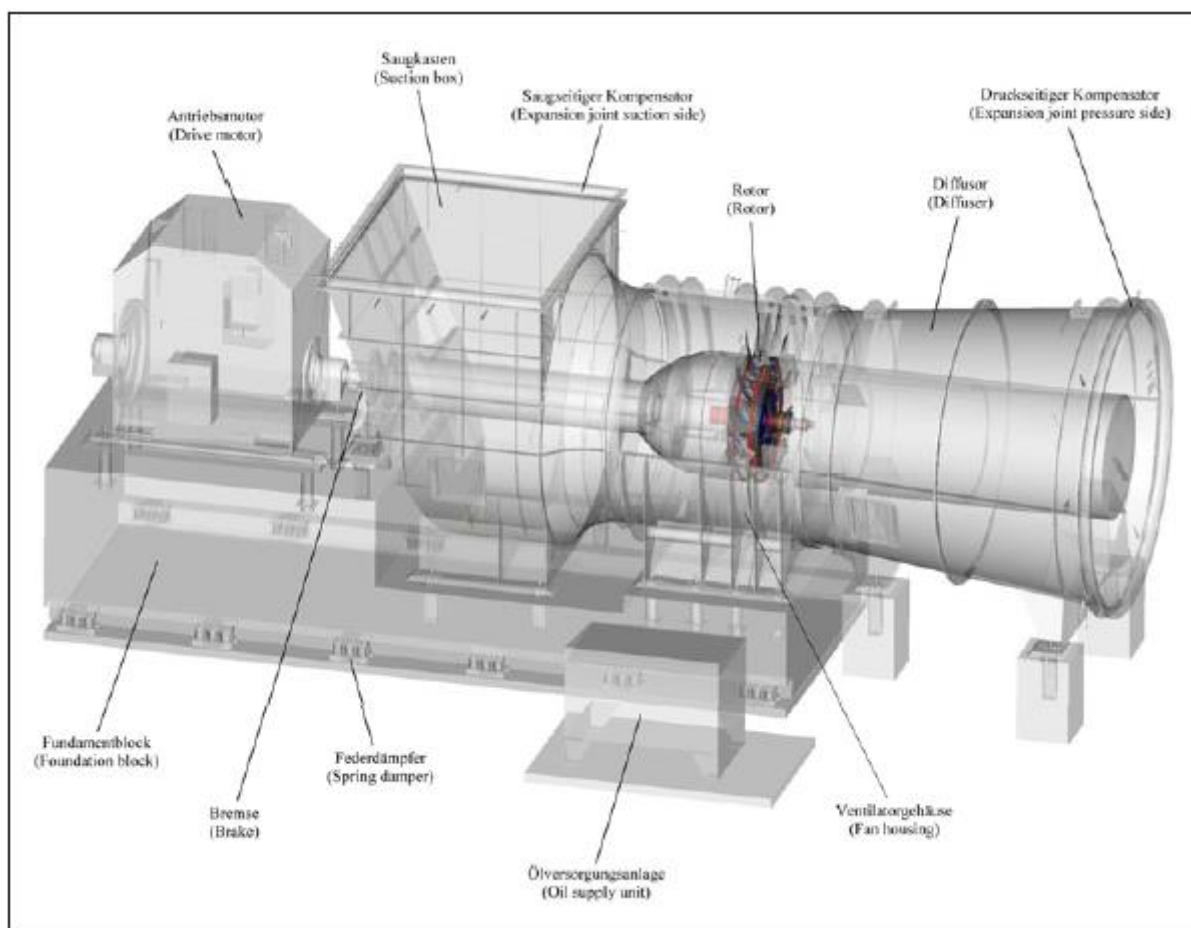
Actual specification includes **7** pages

1 OBJECTIVE

This specification includes minimal requirements for the supply of spare parts and services for Forced Draught (FD) and Induced Draught (ID) fans on Unit 6 of the Šoštanj thermal power plant for major overhaul in May-July 2024.

2 BACKGROUND

The Forced Draught Fan serves the provision of combustion air for the fuel boiler and for the provision of precompressed primary air for the coal pulveriser fans. It has been designed with the appropriate parameters for pressure increase and pump volume.



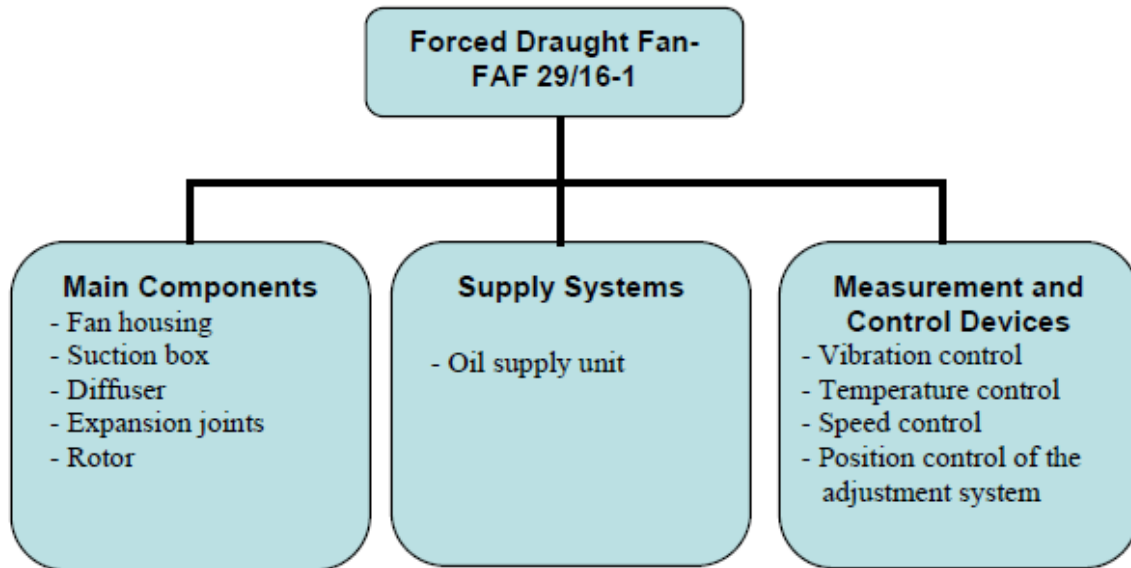


Figure 1: Forced draught fan 29/16-1

The ID Fan pumps cooled flue gases from the boiler to the downstream FGD. The system of the ID Fan starts with the expansion joint at the suction side in front of the suction box and ends at the air side with the expansion joint at the diffuser outlet. Cooling water is pumped into the oil cooler to cool the control oil or lube oil. The oil cooler is integrated into the oil supply unit.

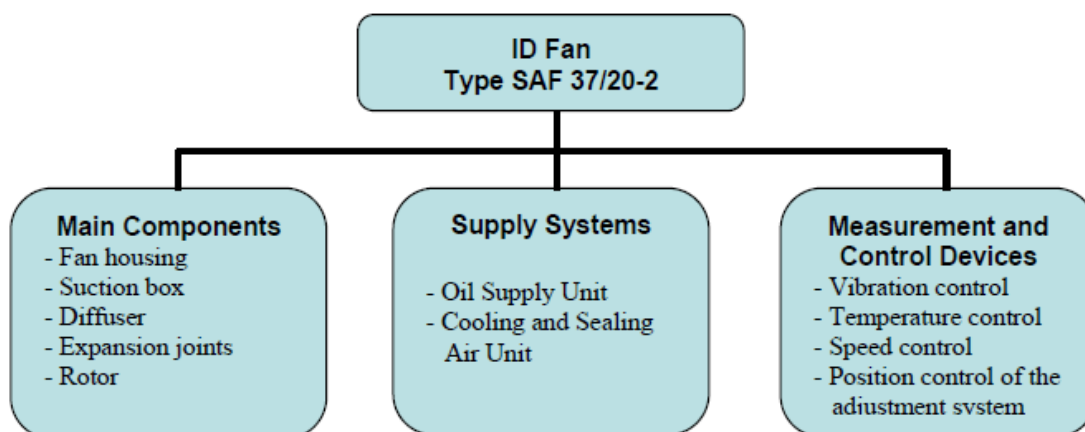
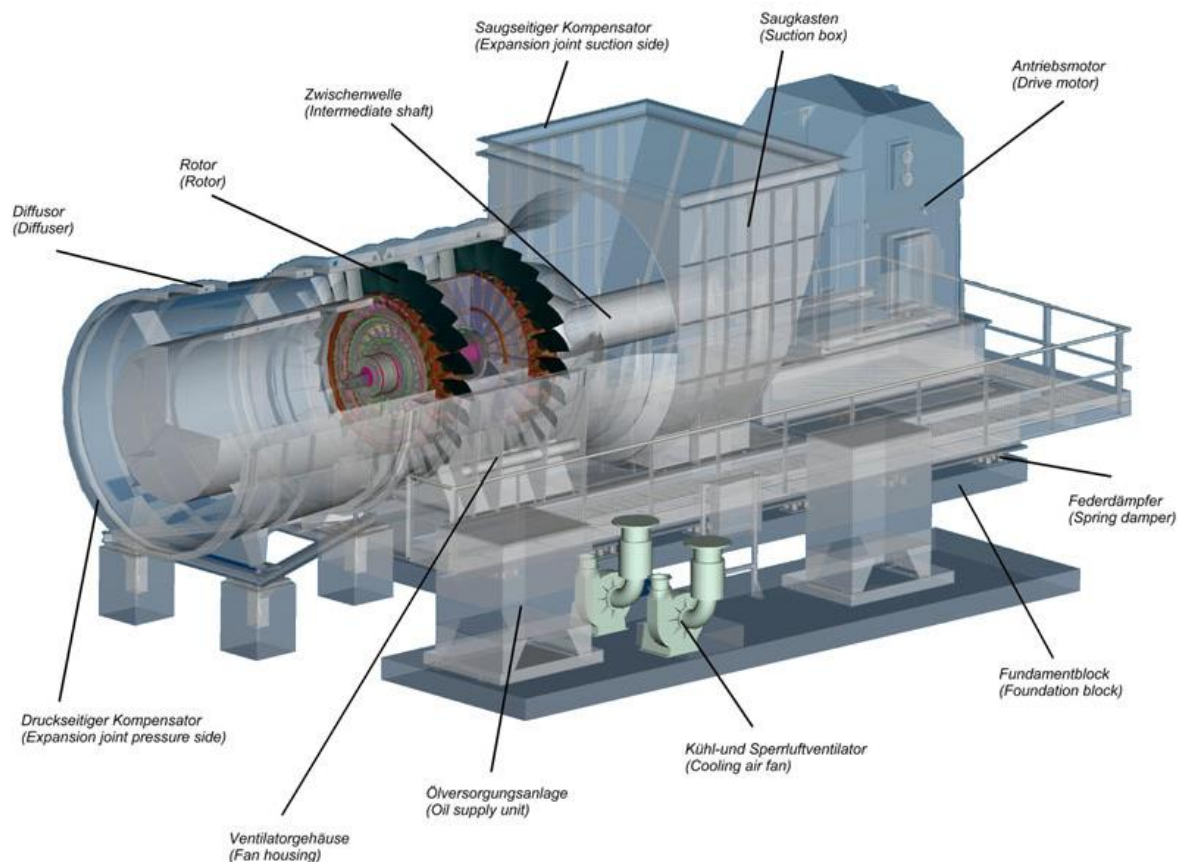



Figure 2: Induced draught fan 37/20-2

To warrant the safety and operational capability of the plant a revision is required for the following items:

- ID/FD fan rotor unit every 3 years or after 24 000 operating hours,
- ID/FD fan bearing unit every 3 years or after 24 000 operating hours.

| | | |
|---|--|--|
|  | TECHNICAL SPECIFICATION FOR SPARE PARTS SUPPLY AND SERVICES OF FD/ID FANS ON UNIT 6 | Rev. 1 Date. 27.6.22 Page 5 of 7 |
|---|--|--|

Operating hours for rotor and bearing unit will be reached, therefore a revision is required.

The tender comprises five separate lots (for two FD and two ID fans):

LOT 1: Set of spare parts for impeller and main bearing of FD fan 29/16-1.

LOT 2: Set of spare parts for impeller and main bearing of ID fan 37/20-2.

~~**LOT 3:** Appraisal and repair of hydraulic blade adjustment G3 Ø200/71 HD and G3 Ø280-140.~~

LOT4: Supervision service for inspection and commissioning service.

LOT 5: Additional repairs.

3 SCOPE OF SUPPLY

3.1 Set of spare parts for impeller and main bearing of FD fan 29/16-1 (LOT 1)

- Set of bearings, seals, sliding blocks for the blade shaft bearing.
- Set of bearings and seals for the main bearing.

3.2 Set of spare parts for impeller and main bearing of ID fan 37/20-2 (LOT 2)

- Set of bearings, seals, sliding blocks for the blade shaft bearing.
- Set of bearings and seals for the main bearing.


4 SCOPE OF SERVICES

~~4.1 Appraisal and repair of hydraulic blade adjustment G3 Ø200/71 HD and G3 Ø280-140 (LOT 3)~~

Main tasks:

- ~~a) Disassembly and cleaning of all parts for inspection.~~
- ~~b) Inspection of all parts for wear and reusability.~~
- ~~c) Check of axial true run and concentricity of the rotary joint and if necessary, of the piston rod.~~
- ~~d) Assembly according to drawing.~~
- ~~e) Test run on specific test bench.~~

~~Client is responsible for transport.~~

| | | |
|---|--|---|
|  | <p align="center">TECHNICAL SPECIFICATION FOR SPARE PARTS SUPPLY AND SERVICES OF FD/ID FANS ON UNIT 6</p> | <p>Rev. 1 Date. 27.6.22 Page 6 of 7</p> |
|---|--|---|

4.2 Supervision service (LOT 4)

During the inspection of the fans the supplier must provide the supervisor technical assistance and guide the local personnel. All special tools needed to perform the intended erection work will be provided by TEŠ (hydraulic units for dismantling the rotor, rack for the rotor, special tools, etc.).

Main tasks:

- Rotor removal
- Rotor transport to workshop
- Rotor disassembly
- Main bearing dis- and reassembly
- Rotor adjusted
- Clean rotor parts
- Reassemble rotor
- Transport rotor back
- Install the rotor
- Fit the blower housing
- Close compensator

4.3 Commissioning and balancing of the rotor (LOT 4)

After the inspection is finished, commissioning of all fans must be done with commissioning staff (engineer). The rotor must be balanced if necessary. After commissioning all operating parameters must be according to the designed operation of the fans.


4.4 Repairs (LOT 5)

If necessary (based on findings after fan disassembly and crack tests) the supplier must provide all the services described below:

- Blade shaft repair (coating with HVOF)
- Thrust rod repair (coating with foam spraying)

IMPORTANT!

The contractor must own appropriate and original workshop drawings for FD/ID fans.

| | | |
|---|--|---|
|  | <p align="center">TECHNICAL SPECIFICATION FOR SPARE PARTS SUPPLY AND SERVICES OF FD/ID FANS ON UNIT 6</p> | <p>Rev. 1 Date. 27.6.22 Page 7 of 7</p> |
|---|--|---|

5 PROVIDER REFERENCES

The client requires two (2) inspections of FD/ID fans in the last five (5) years. Each reference must be verified by the provider's client.

6 WARRANTY

In the case of deviation from guaranteed performance, poor quality and application of inadequate material, the manufacturer or distributor must immediately take appropriate action to remedy the deficiencies or deliver adequate new part of the relevant material (within 2 months). The cost of correcting shortcomings shall be borne by the manufacturer or distributor.

All assembled parts must ensure designed operation of the ID/FD fan unit according to the original operation and maintenance manual.

For the parts which will be replaced during the warranty period the new warranty period has to be at least 36 months after the original equipment delivery date.

7 ATTACHMENTS

- ID fan drawings.pdf
- FD fan drawings.pdf