

Annexure C3.2:

1. Scope of work

The request to Remove, Refurbish, Install and Commission Valves, Pneumatic Actuators at Zuikerbosch Water Treatment Plant Station 4 Filter House

1. Remove, Install and Commission 30 x valves with actuators
Valves to be refurbish on the supplier workshop.

2. Refurbish 12 x Butterfly valves – Filter Outlet
Valve specification:

Valve size 400mm

Working Pressure 300 kPa

Blade and seal test pressure 1200 kPa

Body test pressure 1500 kPa

3. Refurbish 12 x Butterfly valve – Filter Air Scour
Valve specification:

Valve size: 250mm

Working Pressure: 1000 kPa

Blade and test pressure: 1500 kPa

Body test pressure:1500 kPa

4. Refurbish 6 x Butterfly valves -Up Wash
Valve specification:

Valve size: 700mm

Working Pressure: 250 kPa

Blade and seal test pressure: 1200 kPa

Body test pressure: 1500 kPa

5. Replace 6 x pneumatic actuators – Up wash valves
Supply and Install new pneumatic valves
Pneumatic Actuator – RC280 DA F16-46



6. Replace 12 x pneumatic actuators – Air scour valves
Supply and Install new pneumatic valves (double acting)



Scope of work specification:

Rand Water representative to visit the area before work commence.

Safety file with a risk assessment to be submitted and induction attended before work commences.

The workplace is surrounded by system with water flow.

Working time is from 7h00 to 16h00 Mondays – Thursdays, Fridays 07h00 to 14h00

The successful supplier to submit quality control plan (QCP) and schedule plan before task execution for approval

Removal of valves:

Supplier will be given one filter at a time to remove Outlet and Air Scour Valves

Shutdown to be arranged to remove Up wash

Supplier to remove valve on site and transport into their workshop

During removal safe rigging procedure and tested lifting equipment to be used- supplier to provide

After removing the butterfly valves, the supplier will also have to put a blank plate on the pipeline

After stripping valves Rand Water representative to be informed to inspect spares and valve condition

Submit failure report for every valve.

Refurbishment of Valves:

Repair valves body, seating, blades and shaft

Replace blade seals, drive pins, gland seals and bearing bush

Install aluminium name plate with pressure rating, size and flow direction arrow

Valves to be neatly painted with the original paint colour

Valves to be pressure tested, ensure its properly sealing and open & close easy

Pressure test certificate to be submitted

Rand Water representative must be invited to witness the pressure test for all the butterfly valves

Installation of Valves:

During installation supplier to supply

1. Bolts and nuts
2. Gaskets
3. New pipe couplings for outlet valves
4. Safe lifting equipment

Commission:

1. Outlet valves torque to correspond with electric actuators on site
2. During filter commissioning Inspect water, air leaks and be correct.
3. Ensure Pneumatic actuators are closing & opening properly
4. Warrantee to be granted after hand over.
5. Data pack to be submitted

Annexure C4: Site Information

Site Briefing 13.02.2024 @ 09:00

Please bring along ID/Drivers for access purposes, wear safety shoes as we will be entering the plant, plant access will be denied to person/s not wearing safety shoes.

Zuikerbosch Water Treatment Plant (Rand Water)
Vischgat Road, Three Rivers East, Vereeniging
S26 41 520 E28 00 061