

Request for Proposal

RMG Group

Modernization of the thickening section of
Enrichment Factory



Valves

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1 INTRODUCTION AND PROJECT DESCRIPTION

JSC RMG Group is carrying out the detailed engineering of its new Tailings Storage Facility (TSF) and is requesting the proposals for procuring the valves needed within tailings thickening area. The site is located in southern Georgia (Eastern Europe), approximately 80 km southwest from capital Tbilisi, near the town of Bolnisi. Site access will be via paved local roads. Refer to figure 1 for general site location



Figure 1: JSC RMG Group, Site location

The present document covers and provides the minimum requirements and specifications needed for manual, butterfly, pinch, gate, flow-control and back-flow valves for tailings thickening areas.

All communications with respect to the RFP are to be directed to RMG Group by email to the below list of recipients:

Recipient	Position	Contact email
Davit Gogishvili	Procurement Specialist	DGogishvili@richmetalsgroup.com
Ivan Sobolev	Equipment batching and scheduling engineer	ISobolev@richmetalsgroup.com

Complete, technical and commercial proposals to be submitted in electronic format.

2 CLOSING DATE

Technical and Commercial Proposals to be sent no later than 5:00PM EET on March 29, 2024.

3 SUBMISSIONS

The documents and all drawings, design, specifications and other data appended or related to it are the property of JSC RMG Group and are supplied only for the purpose of enabling each potential bidder to prepare and submit a proposal package. The information contained or referred to in the RFP documents or appended to it is not to be disclosed or released for any other use or purpose.

4 PRICING

A lump sum with fixed and firm prices, in USD (\$) or Euros (€), without subjected price escalation and exclusive of local taxes must be furnished for all items included in chapter 5 – Scope of delivery.

Prices for all valves should consider for body material of Valves to be carbon steel (CS), internal parts of Valves to be stainless steel (SS) or polytetrafluorethylene (PTFE).

Price detail must be incorporated in the corresponding cells of the attached annex 1.

5 SCOPE OF DELIVERY

The offer will cover the provision of complete packages of manual, butterfly, pinch, gate, flow-control and back-flow valves. The valves should be selected to be used in one of the following applications:

- Slurry (PFT);
- Flocculant (LFR);
- Gland Seal Water (WFR);
- Process water (WPR).

All automatic valves should be complete with the control loop including the signal transmitter and positioner, as well as all automatic valves with local control to allow DCS connection if needed.

All valves are pneumatic actuated.

Detailed tables including valve type, process medium, Pressure class (PN), Diameter (DN), Tags among other relevant technical requirements are attached in appendix 1.

6 TECHNICAL SPECIFICATION

6.1 Slurry (PFT)

- Ball valves:
 - Diameter 50 mm, PN10, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS);

- Gate valves:
 - Diameter from 50 to 600 mm, PN10, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS), AISI316 or PTFE;
- Pinch valves:
 - Diameter 100 mm, PN10, PN 16, body material - carbon steel (CS), internal parts - stainless steel (SS).

6.2 Flocculant (LFR)

- Back-flow valve:
 - Diameter 80 mm, PN10, body material - carbon steel (CS), internal parts - stainless steel (SS).
- Ball valve or butterfly valve:
 - Diameter 80 mm, PN10, body material - carbon steel (CS), internal parts - stainless steel (SS) or AISI316.

6.3 Gland Seal Water (WFR)

- Ball valves:
 - Diameter from 15 to 65 mm, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS);
- Ball or butterfly valve:
 - Diameter 65 mm, PN16, body material - carbon steel (CS), internal parts - AISI316.
- Butterfly valve:
 - Diameter 80 mm, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS).
- Back-flow valves:
 - Diameter from 25 to 65 mm, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS).
- Flow-control valve:
 - Diameter 65 mm, PN16, body material - carbon steel (CS), internal parts - AISI316.
- Gate valves:
 - Diameter from 200 to 250 mm, PN10, body material - carbon steel (CS), internal parts - stainless steel (SS).
- Pressure control valves:
 - Diameter 32 mm, PN 16, body material - carbon steel (CS), internal parts - AISI316.

6.4 Process water (WPR)

- Ball valves:
 - Diameter from 15 to 50 mm, PN10, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS);
- Ball or butterfly valve:
 - Diameter from 80 to 250 mm, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS), AISI316.
- Back-flow valves:
 - Diameter from 100 to 250 mm, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS).

- Butterfly valve:
 - Diameter from 100 to 200 mm, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS).
- Flow-control valve:
 - Diameter from 200 to 300 mm, PN10, PN16, body material - carbon steel (CS), internal parts - AISI316.
- Gate valves:
 - Diameter from 125 to 500 mm, PN10, PN16, body material - carbon steel (CS), internal parts - stainless steel (SS), AISI316.

Specification given bellow are minimum requirement to be considered by the vendor. Equivalent or better specification should be adopted by the vendor. More process information is given in the appendix 1 to determine chemical compatibility, physical design specifications and sizing. European Standards should be used for flanges and couplings.

Each valve should be tagged as given in the appendices.

7 DESIGN INFORMATION

7.1 Site and Operation Conditions

General Data		
Latitude	° / min / sec	41°22'35" N
Longitude		44°25'30" E
Altitude approx. in m (MSL)	m	742
Maximum temperature, celcius degrees	°C	40
Minimum temperature, celcius degrees	°C	-25
Rainfall (snow+water), mm H ₂ O	mm	740
Average snow cover approx. in cm	cm	12
Relative humidity	%	76 (average)

Seismicity Parameters

Annual Exceedance Probability (AEP)	MSK-64	PGA (g)
1:1,000 year (5% in 50 years)	8	0.20 - 0.30
1:2,500 year (2% in 50 years)	9	0.20 - 0.30
1:5,000 year (1% in 50 years)	9	0.30 - 0.40

General Operation Values

Annual operation time	h	8200
Annual throughput	t/a	3000000
Average throughput		366

8 SUBMISSION REQUEST

It is obligatory to fill in the enclosed appendices, including links to proposed valves datasheets along with submitting summary proposal covering the following required information.

The technical proposal must include the following documentation:

- Technical specification;
- Installation, Operations and Maintenance Manuals;
- List of equipment;
- General arrangement drawings for offered equipment;
- List of Certifications and tests to be performed during the delivery of valves.

The commercial proposal must include but not limited to:

- Validity of proposal
- References of the mining companies where the vendor's products were installed by indicating the company/project name, year of installation.
- Total summary of proposed budget by valve types
- Priced to be added to individual valve line in the attached valve lists (appendices)
- Spare parts lists (including price breakdown) needed for commissioning/start-up and 2 years maintenance (at vendor's discretion).
- Support in installation and commissioning (ideally anticipated budget with indication of daily rate if not only daily rate).
- Delivery terms (no ex-works terms accepted) and general sales conditions.
- Guaranty terms
- Payment terms

9 ATTACHMENT TO THIS REQUEST FOR PROPOSAL

Appendix 1: valve list.