

Annex No. 1 to the TD

Technical specification

Total estimated quantity of TRSCSSV

Part I

a) 2 3/8"	2 pcs I.D. 1,875	O.D. max. 4,500"
b) 2 7/8"	5 pcs I.D. 2,313"	O.D. max. 4,610"
c) 4 1/2"	5 pcs I.D. 3,812"	O.D. max. 5,982"

Part II

a) 3 1/2"	20 pcs I.D. 2,813"	O.D. max. 5,170"
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* further description is in tender documentation especially in Annex 3 of the TD

Delivery place of documentation with supply of the goods:

RWE Gas Storage, s.r.o., Prosecká 855/68, 190 00 Prague, CZ

To the hands of Mr. Lukas Svozil

Technical Requirements:

- Tubing retrievable surface controlled subsurface safety valve TRSCSSV,
- 100% Metal-to-metal Flapper Sealing,
- 100% Metal-to-metal well containment in closed position,
- API 14A Validation & Monogramming,
- Gas thigh thread VAGT BOX UP x PIN DOWN(in case you cannot cut VAGT, TRSCSSV has to be equipped by another premium thread plus **crossovers to VAGT must be covered in total price**),
- Piston assembly – nonelastomeric, metal-to-metal seals,
- Equalizer system in flapper (no other technical solution is possible) ,
- Profile for hold open sleeve on the top,
- Pressure rating 3.000 psi or higher,
- Material grade 9Cr1Mo or higher grade,
- 80 m 1/4" control line for each TRSCSSV,
- 7 pc cross-coupling protectors (VAGT) for each TRSCSSV (14 pcs 2 3/8", 35 pcs 2 7/8", 105 pcs 3 1/2" and 35 pcs 4 1/2"),
- 5 litres of hydraulic oil for each pc
- Fully assembled and pressure tested,
- Thread with plastic protector,

Other Requirements for each individual delivery:

- Time schedule of production with milestones. For technical inspection purposes
 - Main required milestones
 1. Material ordering
 2. Incoming inspection of material
 3. Starting production
 4. Finalization of produced parts
 5. Assembly
 6. Pressure tests & export inspection
 7. Documentation completion
 8. Packing & shipping
- Invitation for the inspection (pressure test and assembly) at least 14 days ahead.
- Country of origin state for every major part in the offer
- Performance report about the production on two week basis
- TRSCSSV must be labelled by unique serial number for every assembled pc and on documentation supplied to this pc must be also this serial number written for clear identification. Final assembled TRSCSSV serial number must be easy to identify and from this number must be understandable, that it is a final number.

Documentation for tender bid submission

- Technical documentation according API with type name of the valve
- Traceability report (sample)
- Material certificates (sample)
- API certificates original (can be colour copy)
- Declaration of conformity sign by responsible person of supplier (sample)
- Test reports (sample)
- Operating and maintenance manual original
- Stocking condition original
- Drawings (all dimensions must be marked on the drawings in SI units or inches)
 - Assembly drawing scale 1:5 (Cross section of TRSCSSV) with description of major parts (ID, OD details)
 - Top sub, middle sub and bottom sub drawings
 - Flapper , Flapper Sealing and Equalizer system,
 - Piston assembly,

Delivered goods must be identical to the offered and delivered Drawings in the bid documentation.

The Bidder is obliged to submit the above specified documents in its bid for Public Tender, otherwise it will be excluded from the participation on the tender.

Documentation for delivery

- Technical documentation with type name of the valve
- Traceability report
- Material certificates
- API certificates
- Declaration of conformity signed by responsible person of supplier
- Test reports approved and signed
- Operating and maintenance manual
- Stocking condition
- Drawings all major components especially with details of Flapper Sealing, Piston assembly; Equalizer system; Cross section of TRSCSSV. Drawings must be identical to your offer and what will be delivered.
- Documents must be in Czech or English language.
- Counterparts 1x original in paper form and 1 CD (or USB Flash disk) send to premises RWE Gas Storage, Prague to the hands of Mr. Svozil;
- 1x hard copy including 1 CD (or USB Flash disk) with material shipment in plastic box

ALL DOCUMENTS MUST BE DELIVERED AT THE SAME TIME WITH MATERIAL DELIVERY. THE DOCUMENTS MUST BE PLACED IN PLASTIC BOX SECURED BEFORE ANY DAMAGE DURING THE TRANSPORT. PLASTIC BOXES WILL BE PLACED INSIDE THE WOODEN BOX WITH TRSCSSV. TAKE OVER OF THE MATERIAL WILL NOT BE SUCCESFULL WITHOUT THESE DOCUMENTS. ALL PRODUCTS MUST BE READY FOR TECHNICAL INSPECTION IN CONDITION REQUESTED ABOVE PRIOR TO THE SHIPMENT.