

# Annex No. 1 Technical specification - TRSCSSV

## Technical specification – PART I and II

### Content:

1. Total estimated quantity of TRSCSSV
2. Delivery place of documentation with supply of the goods
3. Technical Requirements
4. Other Requirements for each individual order
5. Documentation for delivery

### 1. Total estimated quantity of TRSCSSV

<b>Part I.</b>	2 7/8"	22 pc I.D. 2,313"	O.D. max. 4,610"
<b>Part II.</b>	3 1/2"	38 pc I.D 2,813"	O.D. max. 5,700"

#### 2 7/8" TRSCSSV

2015	4 pc
2016	8 pc
2017	10 pc

#### 3 1/2" TRSCSSV

2015	13 pc
2016	15 pc
2017	10 pc

### 2. Delivery place of documentation with supply of the goods:

RWE Gas Storage, stock Hrusky, Tvrdonice, district Breclav, CZ

To the hands of Mr. Peter Židišin, [peter.zidisin@rwe.cz](mailto:peter.zidisin@rwe.cz), M + 420 737 200 922

### 3. 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 (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, crossover to VAGT must be make-up with TRSCSSV before delivery),
- Piston assembly – nonelastomeric, metal-to-metal seals,
- Equalizer system in flapper (equalizer system through flapper),

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- Profile for hold open sleeve on the top,
- Pressure rating 5,000 psi (test pressure 7,500 psi),
- Material grade 9Cr1Mo or higher grade
- 60 m 1/4" control line each TRSCSSV
- 7 pc cross-coupling protectors (VAGT) each TRSCSSV
- Fully assembled and pressure tested
- Control line connection (Jam nut – 2pc for each TRSCSSV )– integral dual-ferrule swage connection, with fitting receptacle machined directly into the valve body.

### **4. Other Requirements for each individual order**

- 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.

### **5. Documentation for delivery**

- Technical documentation (technical unit) 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

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- Drawings all major components especially with details of Flapper Sealing, Piston assembly; Equalizer system; Jam nut; 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, Tvrdonice to the hands of Mr. Židišin;
- 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 SUCCESSFUL WITHOUT THESE DOCUMENTS. ALL PRODUCTS MUST BE READY FOR TECHNICAL INSPECTION IN CONDITION REQUESTED ABOVE PRIOR TO THE SHIPMENT.