

Single seated valve

6H8-L1

DN 100 PN 160

Design acc. to AD 2000-Regelwerk/DIN3840

Valve design 49 bar, 400°C

Medium Steam

KVS 100 lin

Order-No. 4500018365

Project Zonguldak/SES Timace, P-10714.17

Serial-No. Identification

3000224

ARCA Order-No. 2519488-BE

Item-No. 101

Drawing-No. 262133

1 Konformitätserklärung/ Declaration of Conformity

Konformitätserklärung/ Declaration of Conformity

gemäß Richtlinie/acc. to directive 97/23 EG

und Herstellererklärung/ and Declaration of Manufacturer

nach Richtlinie/ acc. to directive 98/37 EG



Die/ The	ARCA Regler GmbH, D-47918 Tönisvorst		
erklärt, dass die Produkte/ declares that the products	<ul style="list-style-type: none"> • Regelventile / Control Valves Globe Type • Schaltventile / On/off Valves • Dreiwegeventile / 3-Way Valves • mit freiem Spindelende (ohne Antrieb) / with free stem end (without actuator) • mit Membran-/Elektroantrieb / with Diaphragm/ Electric Actuators 		
ARCA Auftrags-Nr./Order No.	2519488-BE	Serial Nr./ No.	3000224
<p>1. drucktragende Ausrüstungsteile im Sinne der EG-Druckgeräte-Richtlinie 97/23 EG und mit den Anforderungen dieser Richtlinie konform sind <i>are pressure containing equipment as per PED 97/23 EG and meet all requirements of this directive</i></p> <p>2. nicht vollständige Maschinen im Sinne der EG-Maschinenrichtlinie 98/37 EG sind, aber zutreffende Anforderungen dieser Richtlinie erfüllen <i>are no self-operating machines as per Machinery Directive 98/37 EG but meet all requirements referring to this directive</i></p> <p>3. nur unter Beachtung der Betriebsanleitung für die entsprechende Serial-Nummer betrieben werden dürfen <i>are only allowed for operation by observing the operating instructions for the respective serial No.</i></p> <p>Die Inbetriebnahme dieser Armaturen ist erst zugelassen, wenn die Armatur beidseits an die Rohrleitung angeschlossen und eine Verletzungsgefahr damit ausgeschlossen ist. <i>The start of operation is only permitted, when the valve is connected to the pipework on both sides and danger of injuries is excepted.</i></p>			
Angewendete Regelwerke und Standards/ Applied regulations and standards:			
AD 2000 Regelwerk	Vorschriften für druckführende Gehäuseteile / <i>Directive for pressure containing body parts</i> Sicherheit von Maschinen, Teil 2: Technische Anforderungen/ <i>Safety of Machines, Part 2: Technical requirements</i>		
Typbeschreibung und technische Merkmale/ Description of type and technical characteristics:			
Baureihe/Series 8C, 6N, 6H, 100, 110, 120, 130, 140, 160, 170, 180, 200, 220, 230, 250, 260, 340, 350, 380, 391-813, 400, 410, 430, 440, 510, 520, 540, 550, 560, 570, 580, 811, 812, 813, 830, 840 und Betriebsanleitungen für entsprechende Serial-Nummern / and operating instructions for respective serial No. ANMERKUNG: Diese Herstellererklärung gilt für alle Typenvarianten der genannten Baureihen REMARK: This Declaration of Manufacturer is valid for all versions of the mentioned series			
Angewendetes Konformitätsbewertungsverfahren/ Applied conformity assessment procedure:			
nach Anhang II der Druckgeräte-Richtlinie 97/23 EG, Modul "H" / as per annex II of PED 97/23 EG, module "H"			
Benannte Stelle/ Notified Body:	Kenn-Nr./ Identification No. :	EG-Bewertungsbericht Nr./ EG-Evaluation Report No.:	
Germanischer Lloyd AG D-20416 Hamburg	0098	16383-02 HH / dated 2002-02-15	
<p>Anderungen an Stellventilen und/oder Baugruppen, die Auswirkungen auf die technischen Daten des Stellventils, auf die <Bestimmungsgemäße Verwendung> gemäß Abschnitt 1 der Betriebsanleitung haben und die Armatur oder eine mitgelieferte Baugruppe wesentlich verändern, machen diese Erklärung ungültig. <i>In case of modifications on valves and/or assembled parts, that effect on the technical data of valves and <use as directed> acc. to paragraph 1 of operating instruction and alter the valve or assembled part in essence, this declaration becomes invalid.</i></p>			

Tönisvorst, 07.07.2005



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Page 3 of 13

9 Starting up

Warning



Follow instructions under section Safety Instructions on page 5.

Caution



- Avoid thermal shocks!
 - Bring valve slowly to operating temperature
- From temperature differences of approximately 300 K the temperature change velocity of max. 2 K/min has to be kept
- Check tightness of the flange connections
- Setting of gaskets: see also under DIN 2505 / 4.5
 - Tighten screw connections crosswise. (Table(s) of torque moments See page 12)
- Check tightness of stuffing box packing
 - tighten stuffing box screw (152)
 - avoid excessive force → deteriorated control quality

10 Maintenance

10.1 Servicing

Warning



- Clean spindle (50) regularly
 - Move actuator in its upper end position and secure it.
 - Clean spindle (50) with a soft cloth, but **never use grinding paper.**

10.2 Maintenance

The valve is mainly maintenance-free.

After a longer period of operation or under very changing operating conditions, the valve should be serviced according to section **Starting up** on page 7

10.3 Stuffing box package

The complete stuffing box set is interchangeable if leakage occurs.

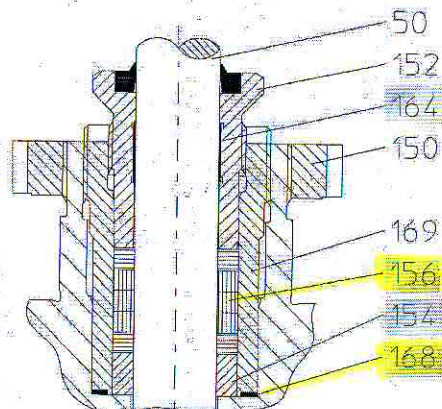
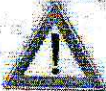


Fig. 1 -Stuffing box package- Detail X

11 Dismantling and remounting the valve

Warning



Follow instructions under section Safety Instructions on page 5

11.1 How to proceed

- Dismantling the valve
 - Dismantled parts have to be secured thoroughly against falling down (risk of injury or damage).
- Cleaning of all components.
- Remounting in the reverse order
 - by using the new parts.
 - Replacement of gaskets and packings.
 - insert - if provided - dynamically loaded O-rings and form-rings with O-ring grease, unless process conditions do not allow its use.
 - dynamically loaded gaskets of pure graphite -if provided -are greased with a thin layer of „Joudol-Grease“ (product of Messr. Burgmann) unless process conditions do not allow its use.
 - Pay attention to torque moments for screw connections. See under section **Table(s) of torque moments** on page 12
 - After mounting, the plug is to be moved into its upper and lower end positions by means of the actuator or manually. It must be made sure during this procedure that the plug should neither jerk nor scrape. If required, loosen the flange connections, centre the flange position and re-tighten the flange screws.
 - Take the valve into operation according to section **Starting up** on page 12
 - When ordering spare parts, please copy and complete form at the end of the operating instructions and send or fax it to the a.m. address.

11.2 Actuator

Warning



- **Move actuator in a medium position and secure it.**
- Disconnect actuator and take it off
 - Follow mounting instructions of the manufacturer of the actuator!

11.3 Top flange

Caution



- Unscrew stuffing box screw (152)
 - See also under **Fig. 1** on page 7
- Loosen screw-connection between body (1) and top flange (2).
- Take-off top flange (2).
 - The plug (26) is eventually taken off together with the top flange (2). Pull plug (26) out of the top flange (2).
 - **Attention ! Do not bend the spindle (50)!**

11.4 Stuffing box packing

- Remove packing set (156) and bottom ring (154).
 - See also under **Fig. 1** on page 7

11.5 Slide bearing

Note



- take the slide bearing (164) from the stuffing box screw (152). At the mounting of the slide bearing (164) you have to consider:
 - turn the coated side towards the spindle (50)
 - turn the tissue side towards the stuffing box screw (152)

11.6 Cylinder Tube

- Pull out cylinder tube (60).
 - Use mounting threads, depending on size and execution of valve.

11.7 Valve plug

- Depending on the valve type, the plug (26) has already been dismantled. Otherwise
- Pull plug (26) with spindle (50) out of the body (1).

11.8 Spindle

The spindle (50) is interchangeable.

- Beat out the border of hex. nut (57)
- Unscrew and replace hex. nut (57)
- Pull spindle (50) out of the plug (26)

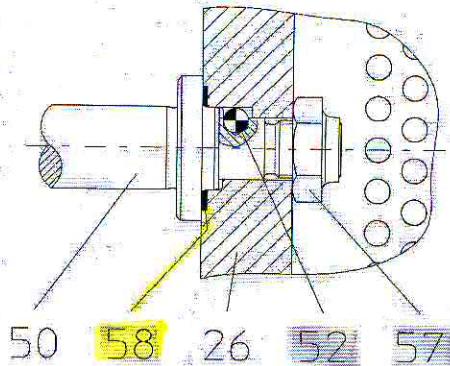


Fig. 2 -Mounting of plug and spindle

Picture shows example with perforated plug

11.9 Balance gasket

- Dismantle piston rings (177) by means of tongs

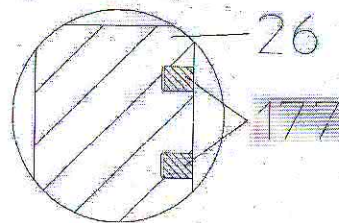
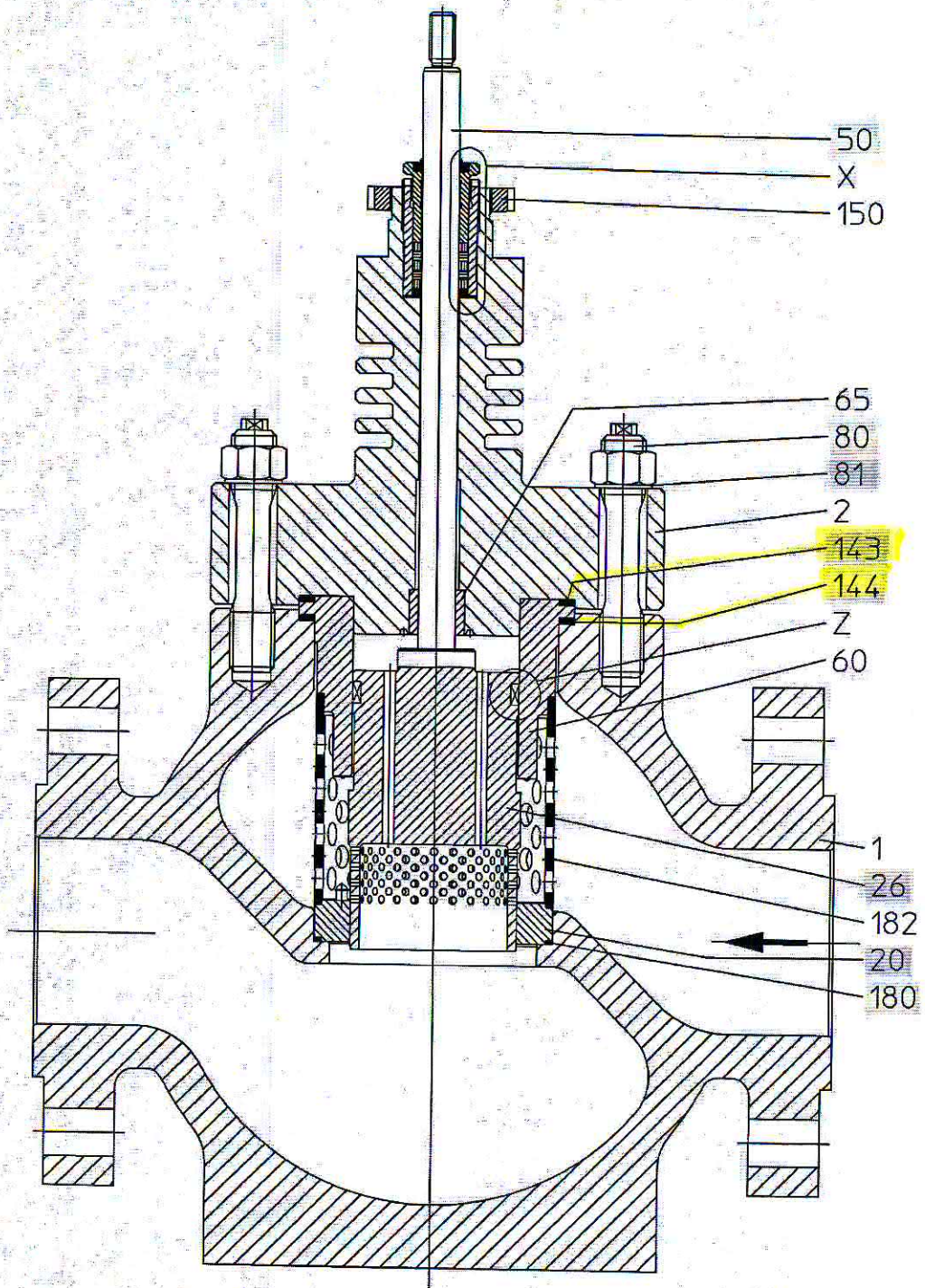


Fig. 3 -balancing gasket - Detail Z

11.10 Spacer & seat

- Take spacer (182) and seat (20) out of the valve body (1).
– Both sides of the seat (20) can be used.
- Replace sealing element (180).

12 Sectional Drawing No.262133



13 Parts List

Recommended spare parts are marked with an asterisk (*)

Item No.	Part Name	
1	valve body	
2	top flange	
20	* seat	✓
26	* valve plug (complete)	✓
50	* spindle	✓
52	* steel ball	✓
57	* hex. nut	✓
58	* gasket	✓
60	cylinder tube	
65	guide bushing	
80	* screw bolt	✓
81	* nut	✓
143	* gasket	✓
144	* gasket	✓
150	slotted nut	
152	stuffing box screw	
154	* bottom ring	✓
156	* packing set	✓
164	* slide bearing	✓
168	* gasket	✓
169	sleeve	
177	* piston ring	✓
180	* sealing element	✓
182	spacer	