



Cock stage valve

Project number
EE-15-3002

PSP-No. DTI
5780 CT

Document identification number:

Project Title
Krško SFP Alternative Cooling Design

WEG-0122-10088313 Rev. 00

1

4

Power plant / unit

KRK - KRSKO 1

Number of Modification/ Action

1028-SF-L

Tag number

See TAG list on page 1

Referenced identical Components - List of TAGs

SF10200032

SF10200033



Cock stage valve

Project number EE-15-3002		PSP-No. 5780	DTI CT	Document identification number:			
Project Title Krško SFP Alternative Cooling Design				WEG-0122-10088313	Rev. 00	2	4
Power plant / unit KRK - KRSKO 1		Number of Modification/ Action 1028-SF-L			Tag number See TAG list on page 1		
General Data							
Valve model (funct.)	on/off	Related specification		ASME Sect. III, ND			
Valve type (constr.)	ball valve	Additional specification		*2			
Manufacturer - type	*1	Component class / performance level		SC3			
Supplier	*1	Load level		*5			
Building	FHB	Seismic class		Category I			
Floor/level	100.3	Test Group		*6			
Room number	13	Test category		-			
Related cover sheet	not applicable	Nominal width DN		*3 1/2"			
Related P&ID	WEG-0180-05648804	Nominal pressure PN		300			
Related drawing	*1	Nominal width DN Exit		*3 1/2"			
Related system	SFP Spray System	Nominal pressure PN Exit		300			
Safety Requirement	Yes	Actuator model		manual			
Safety devices	-	Type of drive		-			
Design Data							
Design Pressure	232	psi (g)	Design against External impact	*7			
Design temperature	212	°F	Design against Internal impact	*8			
Ambient temperature min.	61	°F	Design against LOCA	No			
Ambient temperature max.	212		Design against cutoff failure	-			
Design mass flow	12.7	kg/s	Proof: Stability	Yes			
Test Pressure	290	psi (g)	Proof: Integrity	Yes			
Test Temperature	RT	°F	Proof: Functionality	*9			
Operating Data							
Operating pressure (gauge)	1.45	psi (g)	Function at Δp / basic position	16 bar / open			
Operating temperature min.	33.1	°F	Pressure below / above cones	*10 psi (g)			
Operating temperature max.	176		Safety valve opening pressure	- psi (g)			
Operating mass flow	0	kg/s	Pressure (gauge) supply of compressed air for actuator	- psi (g)			
Max. differential pressure Δp	232	psi (g)					
Technical Data							
Weight excluding actuator	*1	kg	Dimensions (L/H/W)	*1			
Weight including actuator	*1	kg		in in in			
Valve stiffness	-		Seat hard facing available	*1			
Material Data							
Housing	*11		Spindle seal	*12			
Housing coating internal	-		Obturator	*13			
Housing coating external	-		Shutoff element / armor plate	*1			
Vessel head	*11		Seat hard facing	-			
Gasket ring (body/cover)	*1		Weld-on / shoed butt weld ends	-			
Spindle	*1		Actuator housing	*1			
Spindle nut	-						



Cock stage valve

Project number EE-15-3002		PSP-No. 5780	DTI CT	Document identification number:			
Project Title Krško SFP Alternative Cooling Design				WEG-0122-10088313	Rev. 00	3	4
Power plant / unit KRK - KRSKO 1		Number of Modification/ Action 1028-SF-L			Tag number See TAG list on page 1		
Medium Data							
Medium	*14			Dynamic viscosity	1	mPa*s	
Activity	-	Bq/m3		Density	972	kg/m³	
Solids content	-	%		Hazard class	-		
Steam content	-	%		Water hazard class	-		
Conductivity	-	S/m		Additive	Boric Acid		
Test medium	Water			Resistance value (Zeta-Value)	-		
Acceptance							
Acceptance test according to		*2 Sec. 6.0					
Accessory							
Additional accessories		*1		Housing rupture protection	*1		
Construction Data							
Connection inlet	*15			Permitted leakage to the outside	*16	mbar*U/s	
Connection outlet	*15			Seating tightness	*17		
Installation position	vertical			Middle seat diameter / seat width	*1	in	
Suspension	-			Spindle diameter/pitch/number of gears	*1		
Spindle seal / shaft seal	*1 *4			Insulation type	-		
Spindle stroke	*1	in		Insulation thickness	-	in	
Gland leak off	-			Coating inside	-	µm	
Locking	No			Coating on the outside	-	µm	
Limit switch	No			Safety devices-version	-		
Actuator							
Manufacturer	*1			Voltage	-	V	
Manufacturer - type	hand operated			Frequency	-	Hz	
Connection type	*1			Nominal power	-	hp	
Installation position (motor shaft)	horizontal			Nominal current	-	A	
Output shaft version	-			Starting current	-	A	
Adjustment range OPEN min. /max.	- -	N*m		Start-up suppression OPEN	-	%	
Adjustment range CLOSE min. /max.	- -	N*m		Start-up suppression CLOSE	-	%	
Set torque OPEN	-	N*m		Revolutions per stroke (stroke)	-	in	
Set torque CLOSE	-	N*m		Revolutions per stroke (rotation angle)	-	°	
Shut off OPEN	-			Torque tolerance	-	%	
Shut off CLOSE	-			Actuating time	-	s	
Shutdown failure moment OPEN	-	N*m		Speed of drive	-	1/min	
Shutdown failure moment CLOSE	-	N*m		Remote drive parts available	-		
Cut-off delay	-	ms		Slip clutch	-		
Self-locking	Yes						
Gearing							
Manufacturer	-			Permitted torque (input)	-	N*m	
Manufacturer - type	-			Permitted torque (output)	-	N*m	
Gear ratio (i)	-			Remote drive angle	-	°	
Transmission efficiency	-			Remote drive (construction)	-		



Cock stage valve

Project number EE-15-3002	PSP-No. 5780	DTI CT	Document identification number:		
Project Title Krško SFP Alternative Cooling Design			WEG-0122-10088313	Rev. 00	4 4
Power plant / unit KRK - KRSKO 1	Number of Modification/ Action 1028-SF-L		Tag number See TAG list on page 1		

Reference to calculations and applicable codes and/or standards

Annotations

- *1 - To be provided by supplier /
- *2 - WEG-0122-60669672 valve specification /
- *3 - Connected Piping: Material ASTM A312 Grade TP304, Dimensions ASME B36.19, Sch. 40S, 21.3 x 2.77 mm (0.840 x 0.109 in) /
- *4 - Sections 5.1.1 - 5.1.10 shall be considered as applicable /
- *5 - acc. to *2 App. C /
- *6 - Nonactive (acc. to *2 Section 3.4.3.4) /
- *7 - Yes (see *2 Sec. 3.4.3) /
- *8 - Yes (see *2 Sec. 3.3) /
- *9 - Yes (after earthquake) /
- *10 - 16 / 0 bar /
- *11 - SS, *2 Sec. 5.2 /
- *12 - *1 consider *2 Sec. 3.2.11 /
- *13 - SS *1 /
- *14 - WF-2/WF-3 (acc. to *2 App. D) /
- *15 - Flanged (see *2 Sec. 4.2.1) /
- *16 - *2 Sec. 6.3.1.1 /
- *17 - *2 Sec. 6.3.1.2 /

Creator				Reviewed WEG			Release / Certification mark
Rev.	Prepared	Review QA	Reason for revision				WEG
00	EEC F. Steiner 22.09.2015	ZQ E. Mauermann 25.09.2015	Revision object for workflow-based revis ioning	EEC T. Schuler 22.09.2015			EEP M. Postleb 28.09.2015