



Cock stage valve

PSP-No.	DTI
5780	CT

WEG-0122-89044916	Rev. 00	1	4
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Project Title	Krško SFP Alternative Cooling Design
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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

SF10200038
SF10200039
SF10200040
SF10200041
SF10200042
SF10200043
SF10200044
SF10200045

 Westinghouse		Cock stage valve			
Project number EE-15-3002		PSP-No. 5780	DTI CT	Document identification number:	
Project Title Krško SFP Alternative Cooling Design		WEG-0122-89044916		Rev. 00	2
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		*6	
Building	FHB	Seismic class			Category I
Floor/level	el. 115.55 m	Test Group		*7	Non Active
Room number	01	Test category			-
Related cover sheet	not applicable	Nominal width inlet		*3	3"
Related P&ID	WEG-0180-05648804	Nominal pressure inlet			# 300
Related drawing	*1	Nominal width outlet		*3	3"
Related system	SFP Spray System	Nominal pressure outlet			# 300
Safety Requirement	Yes	Actuator model			manual
Safety devices	*1	Type of drive			-
Design Data					
Design Pressure	16	bar	Design against External impact	*8	Yes
Design temperature	100	°C	Design against Internal impact	*9	Yes
Ambient temperature min.	16	°C	Design against LOCA		No
Ambient temperature max.	100		Design against cutoff failure		-
Design mass flow	15.4	kg/s	Proof: Stability		Yes
Test Pressure	20	bar	Proof: Integrity		Yes
Test Temperature	RT	°C	Proof: Functionality	*10	Yes
Operating Data					
Operating pressure (gauge)	1.15	bar	Function at Δ p / basic position		1-2 bar / closed
Operating temperature min.	0.6	°C	Pressure below / above cones	*11	bar
Operating temperature max.	35		Safety valve opening pressure		bar
Operating mass flow	*21	kg/s	Pressure (gauge) supply of compressed air for actuator		bar
Max. differential pressure Δp	16	bar			
Technical Data					
Weight excluding actuator	*1	kg	Dimensions (L/H/W)		*1
Weight including actuator	*1	kg	mm	mm	mm
Valve stiffness			Seat hard facing available	*1	
Material Data					
Housing	*12	SS	Spindle seal	*1	
Housing coating internal			Obturator	*1	SS
Housing coating external			Shutoff element / armor plate	*1	
Vessel head	*12	SS	Seat hard facing		
Gasket ring (body/cover)	*1		Weld-on / shoed butt weld ends		
Spindle	*1		Actuator housing	*1	
Spindle nut					

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Power plant / unit KRK - KRSKO 1		Number of Modification/ Action 1028-SF-L		Tag number See TAG list on page 1	
Medium Data					
Medium	*15	WF-8/WF-9	Dynamic viscosity	1	mPa*s
Activity	-	Bq/m3	Density	994	kg/m³
Solids content	-	%	Hazard class	-	
Steam content	-	%	Water hazard class	-	
Conductivity	-	S/m	Additive	-	
Test medium		Water			
Acceptance					
Acceptance test according to		*2 Sec. 6.0			
Accessory					
Additional accessories		*1	Housing rupture protection	*1	
Construction Data					
Connection inlet	*16	but weld	Permitted leakage to the outside	*17	mbar*/s
Connection outlet	*16	but weld	Seating tightness	*18	
Installation position	*20		Middle seat diameter / seat width	*1	mm
Suspension	-		Spindle diameter/pitch/number of gears	*1	
Spindle seal / shaft seal	*1		Insulation type	-	
Spindle stroke	*1	mm	Insulation thickness	-	mm
Gland leak off		without	Coating inside	-	µm
Locking		Yes	Coating on the outside	-	µm
Limit switch		without	Safety devices-version	-	
Resistance value (Zeta-Value)		fully open < 0.1			
Actuator					
Manufacturer	*1		Voltage	-	V
Manufacturer - type	*5	hand operated	Frequency	-	Hz
Connection type	*1		Nominal power	-	kW
Installation position (motor shaft)	*19		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)	-	mm
Set torque CLOSE	-	N*m	Revolutions per stroke (rotation angle)	90	°
Shut off OPEN		Not defined	Torque tolerance	-	%
Shut off CLOSE		Not defined	Actuating time	-	s
Shutdown failure moment OPEN	-	N*m	Speed of drive	-	1/min
Shutdown failure moment CLOSE	-	N*m	Remote drive parts available	No	
Cut-off delay	-	ms	Slip clutch	No	
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)	-	

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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							
<div> <div>Annotations</div> <div> <p>*1 - To be provided by the Supplier</p> <p>*2 - WEG-0122-60669672 valve specification</p> <p>*3 - Connected Piping: Material ASTM A312 Grade TP304, Dimensions ASME B36.19, Sch. 40S, 88.9 x 5.49 mm (3.5 x 0.216 in)</p> <p>*4 - *2, Section 5.1.6 shall be considered</p> <p>*5 - With removable hand lever</p> <p>*6 - Acc. to *2 App. C</p> <p>*7 - Acc. to *2 Section 3.4.3.4</p> <p>*8 - See *2 Sec. 3.4.3</p> <p>*9 - See *2 Sec. 3.3</p> <p>*10 - After earthquake</p> <p>*11 - 0 bar / 1-2 bar</p> <p>*12 - See *2 Sec. 5.2)</p> <p>*13 - N/A</p> <p>*14 - N/A</p> <p>*15 - Acc. to *2 App. D</p> <p>*16 - See *2 Sec. 5.1.1.1/2</p> <p>*17 - *2 Sec. 6.3.1.1</p> <p>*18 - *2 Sec. 6.3.1.2</p> <p>*19 - Angled</p> <p>*20 - 60° angled to horizontal</p> <p>*21 - 6.6 - 15.4 kg/s</p> </div> </div>							
Creator				Reviewed WEG			Release / Certification mark
Rev.	Prepared	Review QA	Reason for revision				WEG
00	EEC F. Steiner 23.05.2016	ZQ E. Mauermann 24.05.2016	Revision object for workflow-based revisioning	EEC R. Gonzalez 24.05.2016			EEC R. Gonzalez 24.05.2016