DRESSER Flow Control

Consolidated Safety Relief Valve Sizing and Selection Report
SRVS6.0, June 15, 2001 Serial No.: 0011 10/21/2003
Dresser Flow Control - Alexandria, LA, USA

FRED ZUEGEL
DRESSER VALVES EUROPE
Windenboden 23 , Neuheim , Witzerland
Prepared by FRED ZUEGEL
Checked by: _____
Spec. Sheet No.
Revision 02

Customer Information

Name UNIS, spol.s.r.o.
Location BRNO, Czech Republic
Contract 70 000
Project HYDROGEN - NOVOPOLOTSK

Tag Number	PRV-20310			
P&ID Number - Location	- HP STEAM DRUM			
Valve Type	**1811KB0-6-X1-22**			
Gag Required				
Inlet Connection				
Specified	2.00	Flg	600#	Rf
Selected	2.00	Flg	600#	Rf
Outlet Connection				
Specified	3.00	Flg	150#	Rf
Selected	3.00	Flg	150#	Rf
Sizing Data				
Design Code	ASME Section I			
Sizing Basis	Required Flow Rate			
Fluid	STEAM			
Fluid State	Steam			
M				
Z	0.9700			
k	1.300			
C	347			
Kd (vapor) Kd (liquid)	0.877			
Kb Kw	1.0000			
Ksh Kn	1.0000		1.0000	
G Density @ P1				
Viscosity Kv				
Acc	3.00 %			
Kc				
Pressure				
Operating Set	43.98		49.00	Kg/cm2g
MAWP	49.00			Kg/cm2g
Flowing	51.50			Kg/cm2a
Superimposed Minimum	0.00			Kg/cm2g
Superimposed Maximum	0.00			Kg/cm2g
Builtup Total BP	0.00		0.00	Kg/cm2g
Barometric	1.03			Kg/cm2a
Temperature				
Operating	256.00 C			
Relieving	263.00 C			
Design	370.00 C			
Flow Area				
Required	1,027.7399 mm^2			
Selected	1,187.0944 mm^2			
Standard	ASME Certified			
Capacity				
Required	23,900.0 Kg/hr			
Selected	27,606.1 Kg/hr			
Nameplate	59,337 Lb/hr			
Reaction Force	1,339 Lbs			
Noise Level	139 DBa @ 3 ft.			

Valve Number 1

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P&ID Number - Location

Tag Number PRV-20310 **Valve Number** 1

PART NAME	MATERIAL
BASE 1811B	SA216 WCC CARBON STEEL
BASE STUDS	B7 ALLOY STEEL
BOTTOM SPRING WASHER	CARBON STEEL
CAP KLMNPQ	MALLEABLE IRON
CAP SET SCREW	CARBON STEEL
COMPRESSION SCREW	BRASS
COMPRESSION SCREW NUT	BRASS
DISC	410 STAINLESS STEEL
LEVER	MALLEABLE IRON
LEVER PIN	CARBON STEEL
LOWER ADJUSTING RING	304 STAINLESS STEEL
LOWER ADJUSTING RING PIN	416 STAINLESS STEEL
RELEASE NUT	CARBON STEEL
SEAT BUSHING	410 STAINLESS STEEL
SPINDLE	410 STAINLESS STEEL
SPRING	ALLOY STEEL
STUD NUTS	2H CARBON STEEL
TOP SPRING WASHER	CARBON STEEL
UPPER ADJUSTING RING 1811B	316 STAINLESS STEEL (SURFACE TREATED)
UPPER ADJUSTING RING PIN	616 STAINLESS STEEL
YOKE	ASME SA216 GRADE WCC CARBON STEEL

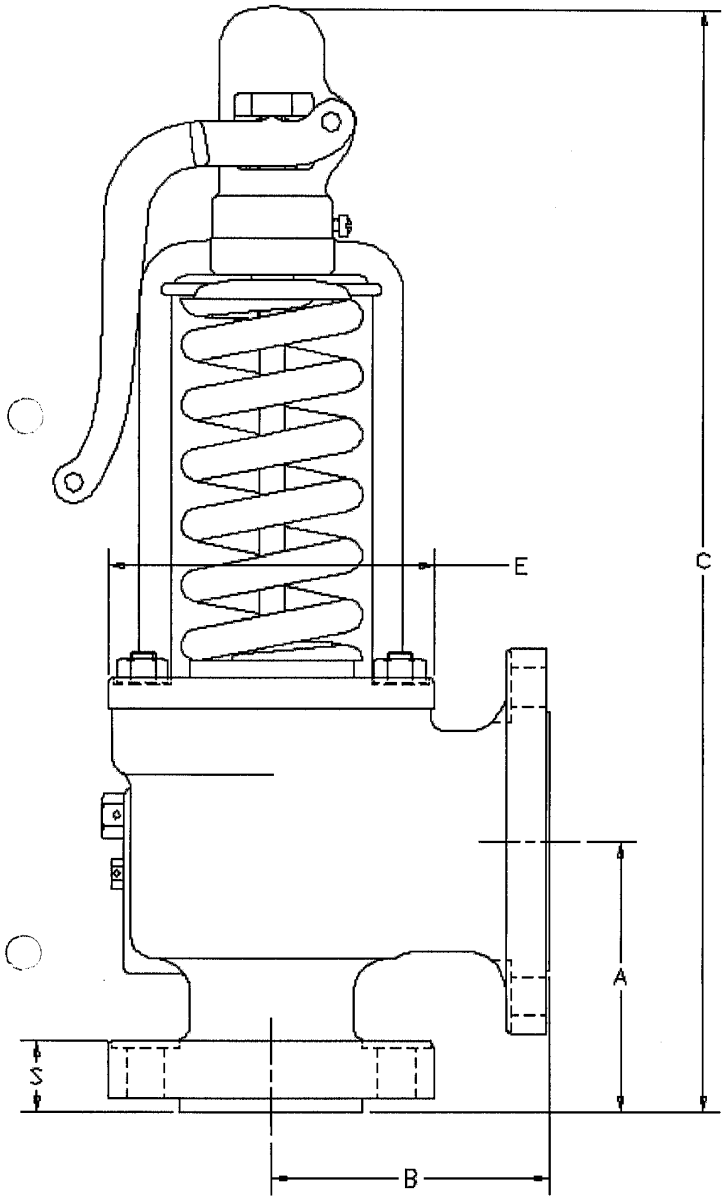
DRESSER
Flow Control

10/21/2003

Certified by Dresser Flow Control

Tag Number PRV-20310
Valve Type 1811KB0-6-X1-22
Gag Required

Valve Number 1
Area ,187.0944



A - 133.4 mm - 5-1/4 in
B - 141.3 mm - 5-9/16 in
C - 549.3 mm - 21-5/8 in
E - 165.1 mm - 6-1/2 in
S - 33.3 mm - 1-5/16 in
NPT DRAIN SIZE - 3/8 NPT
Weight - 37 kg - 80 lb

Inlet Size	2.00	Inches	Flg	600#	Rf
Outlet Size	3.00	Inches	Flg	150#	Rf