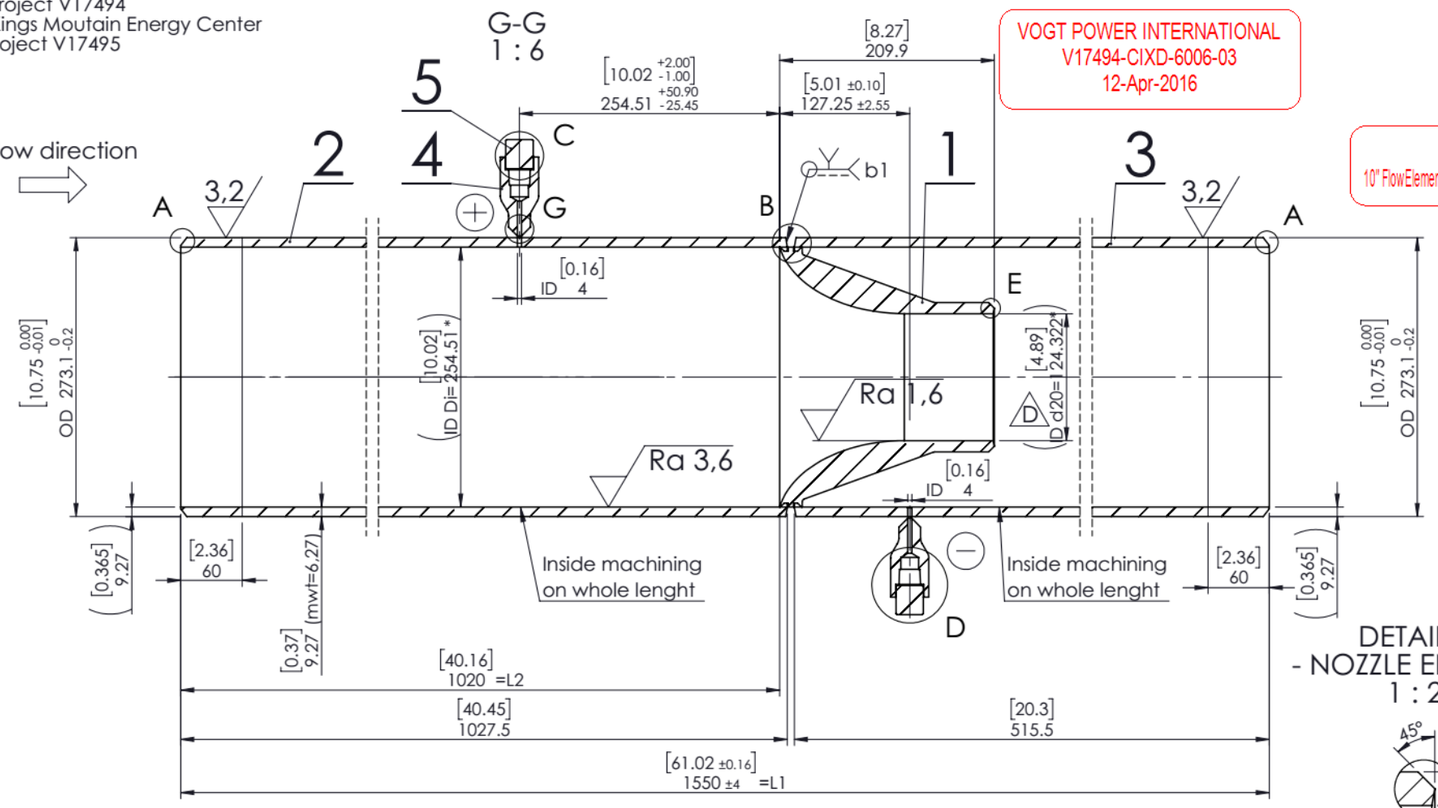
Middletown Energy Center CCPP 475MW
- Project V17494
& Kings Moutain Energy Center
- Project V17495

VOGT POWER INTERNATIONAL
V17494-CIXD-6006-03
12-Apr-2016

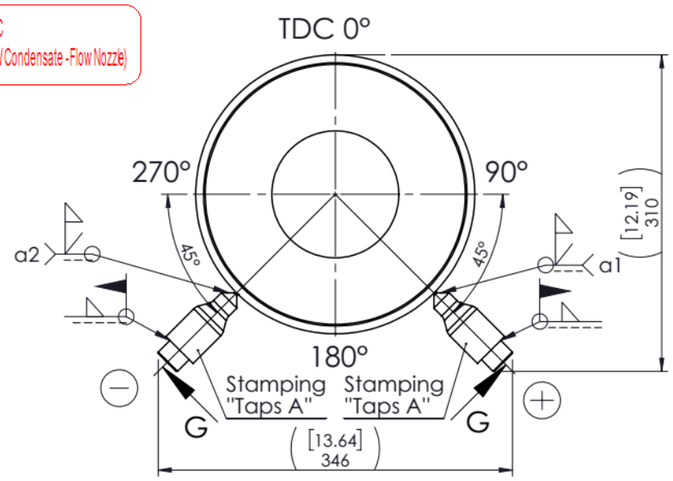
VOGT POWER INTERNATIONAL
Released, Work May Proceed
Bell, Milton | Apr-26-2016

MEC/KMEC
10" FlowElement 1CD-FE3001 (LPFW Condensate - Flow Nozzle)



Ansicht in Durchflussrichtung! View in flow-direction!

SCALE 1 : 6



DETAIL E - NOZZLE ENDING 1 : 2

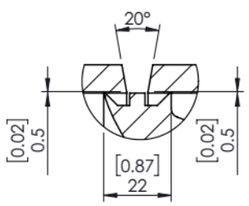
DETAIL A - BW ENDING OF PIPE 1 : 2

BW in accordance with ASME B16.25 Fig. 2a, Sch. 40

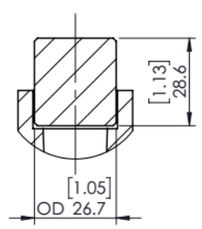
DETAIL Y 1 : 12

max. misalignment acc. Fig. 127.3 max. 2mm
max. thickness of reinforcement acc. Table 127.4. 4mm

DETAIL B - NOZZLE DETAIL 1 : 2

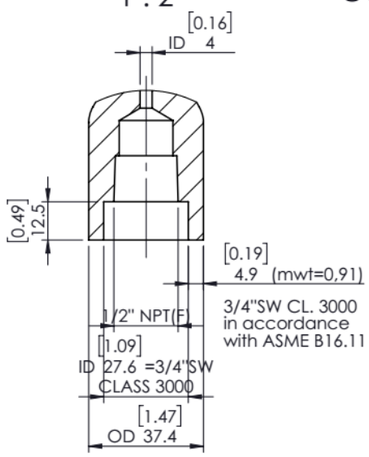


DETAIL C - PLUGGED TAP 1 : 2



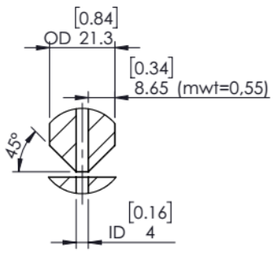
3/4"SW CL. 3000 in accordance with ASME B16.11

DETAIL D - TAP DETAIL 1 : 2

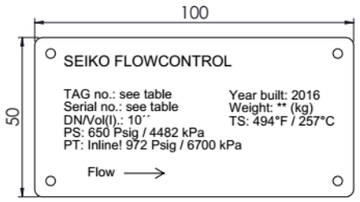


3/4"SW CL. 3000 in accordance with ASME B16.11

DETAIL G - DETAIL OF IMPULSE CONNECTION 1 : 2



Pos. 6 TAG-Plate mounted with lacing cord



*dimension will be change

ASME PTC 19.5-2004				
Target	254.508	mm ±	0.764	mm
ID Di:	10.020	in ±	0.030	in
Target	124.322	mm ±	0.062	mm
ID d20:	4.895	in ±	0.0024	in

Untolerierte Maße nach/ Untolarate Dimensions acc. DIN 7168-mittel	
bis/to 6	±0,1
über/over 6 bis/to 30	±0,2
über/over 30 bis/to 100	±0,3
über/over 100 bis/to 300	±0,5
über/over 300 bis/to 1000	±0,8
über/over 1000 bis/to 2000	±1,2

Untolerierte Maße nach/ Untolarate Dimensions acc. EN ISO 13920- class/Klasse B	
über/over 2 bis/to 30	±1
über/over 30 bis/to 120	±2
über/over 120 bis/to 400	±2
über/over 400 bis/to 1000	±3
über/over 1000 bis/to 2000	±4
über/over 2000 bis/to 4000	±6
über/over 4000 bis/to 8000	±8
über/over 8000 bis/to 12000	±10
über/over 12000 bis/to 16000	±12
über/over 16000 bis/to 20000	±14
über/over 20000	±16

Pos. Part	Benennung/Denomination Abmessung/Dimension	MA/ pcs	Werkst. Nr./ Material	Zeugnis/ EN10204 certificate	Norm / Standard	Schmelze Nr. / Charge
6	TAG plate 100 x 50 x min.1.5) [3,94x1,97xmin.0,06in]	1	SA-240 304	-		
5	Plug OD26,7x28,6 [OD1,05x1,13in]	2	SA-105	3.1		
4	Pressure tap OD37,4x80 [OD1,47x3,15in]	2	SA-105	3.1		
3	Downstream pipeOD273,1x9,27x515,5 [OD10,75x0,365x20,3in]	1	SA-106 Gr. B	3.1		
2	Upstream pipe OD273,1x9,27x1027,5 [OD10,75x0,365x40,45in]	1	SA-106 Gr. B	3.1		
1	Nozzle OD254,51x209,9 [OD10,02x8,27in]	1	SA-105	3.1		

Construction Code: ASME Section I, Ed. 2013 Clasification: NBEP Supporting Code: ASME B31.1 Edition 2014 + 2012	
Stamping:	N.A. (not required by customer)
NB Registration:	N.A. (not required by customer)
appl. Code cases:	None
Medium:	Water
PWHT:	NO
Baujahr/Year built:	2016
Gew./Weight: (kg)	~232 lb / 105 kg
Abmessungen./Dimensions: (mm) L: 1550 mm 61,02 in W: 346 mm 13,64 in H: 310 mm 12,19 in	
PS (max. Pressure):	650Psig/ 4482kPa /44,8 bar(g)
TS (max. Temp.):	494°F/ 257 °C
PT (Testpressure):	Inline! 972Psig/ 6700kPa/ 67 bar(g)
Isolierstärke/ Insulation thickness	0 mm
Corrosion allowance:	0 mm

No SILICA used on pressure parts.

Index rev.	Änderungshinweis / Details of revision	Datum Date	Name
D	Modification of diameter d20.	13.04.16	LB
C	Modification of pressure class.	07.04.16	LB
B	Implementation of customer comments	03.02.16	LB
A	For release	02.01.15	LB

Revisions

Inspector:	SEIKO
Einbaulage/mounting pos.:	horizontal
Druckentnahmestutzen/taps:	1 pair
Corrosion protection:	Remosil
Oberflächenbeh./Surface treatment:	SA2,5

KKS-Nr./TAG-No.:	Fabr. Nr./Serial No.:
1CD-FE3001	SEI15_2821

Kunde/Customer: Vogt Power International

Projekt/Project.:
V17494 - Middletown Energy Center & V17495 -Kings Moutain Energy Center

PO: V0009647 Item #7

HO: A16020088-150712

Benennung/Title:
10" Sch. 40
Flow device with lolg radius nozzle Cl. 300
LP Condensate Feedwater Inlet Flow Element

Zeichnungs-Nr./Drawing-No.: Seiko: A16020088-150712/07

Type: HVLD

Kunde: Vogt Power International (VPI)

1/2

EXCERPT FROM ASME PTC 19.5-2004, TABLE 7-1.2-1 REQUIRED STRAIGHT LENGTHS FOR ORIFICE PLATES AND NOZZLES

BETA RATIO	Single 90° bend or tee		Several 90° bends, same plane		Several 90° bends, different planes		Reducer 2D to D over length of 1.5D to 3 D		Expander 0.5D to D over length of D to 2D		Globe Valve Fully Open		Gate Valve Fully Open		Abrupt diameter reduction		Thermometer-pocket, Ø ≤ 0,03 Di		Thermometer-pocket, Ø > 0,03 Di		Downstream (Outlet) section	
1	2A	2B	3A	3B	4A	4B	5A	5B	6A	6B	7A	7B	8A	8B	9A	9B	10A	10B	11A	11B	12A	12B
0.488	140.32	70.16	200.45	100.23	400.90	200.45	60.14	50.11	180.41	90.20	220.50	110.25	120.27	60.14	300.68	150.34	50.11	30.07	200.45	100.23	60.14	60.14

GENERAL NOTES:

(a) Values expressed are expressed in INCHES.

(b) The pipe roughness shall not exceed that of a smooth, commercially available pipe approximately k/D < 10-3.

(c) Column A for each fitting gives lengths corresponding to “zero additional uncertainty” values.

(d) Column B for each fitting gives lengths corresponding to “0.5% additional uncertainty” values.

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Kunde/Customer: Vogt Power International

Projekt/Project.: V17494 - Middletown Energy Center & V17495 -Kings Moutain Energy Center

SEIKO FLOWCONTROL

Benennung/Title: 10" Sch. 40 Cl. 300 C

Flow device with lolg radius nozzle

LP Condensate Feedwater Inlet Flow Element

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Zeichnungs-Nr./Drawing-No.: Seiko: A16020088-150712/07	Type: HVLD
Kunde: Vogt Power International (VPI)	2/2