



Energy & Transportation Design Appraisal Document

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Date
16 August 2007

Quote this reference on all future communications
NAO 0202032/001/Sleeved Plug Valve/issue 2/BRG

Manufacturer:
FluoroSeal, Inc.
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Montreal, Quebec H8T 2N8, Canada.

Authorised Representative within the Community:
FluoroSeal Europe B.V.
Lars Olde Heuvel, Managing Director
P.O. Box 40075, NL-7504 RB Enschede, The Netherlands

Subject:
Sleeved Plug Valves
Size: 1 ½" through 18" pressure rating: ASME class 150, 300 and 600.
20" and 24": Pressure Rating Class 150 & 300.
Temperature range: minus 29 deg C thru. 316 deg C

This appraisal does not include actuators.

1. The documents listed below have been examined for compliance with the requirements of the pressure equipment directive 97/23/EC for the design conditions stated on the submitted document:

All equipment: Pressure Accessory: *Category III*
Conformity assessment: Module H

Primary Design Code:

ASME B 16.34 2004
ASME B 31.3 2004
ASME B & PV Code 2004 Addenda 2006
(Pressure temperature limits as per material group, per respective code).

All materials of construction must comply with Annex I of the directive.

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Document No.	Revision	Title	Status	Date
E-TCF-0001	A	Sleeved Plug Valve	B	16 Aug 2007

The information submitted has been taken as an example design package for the pressure equipment of the range covered by this PED (97/23/EC) / PER (SI 1999: 2001 & SI 2002: 1267) application. Based on the content of the package it is considered that the client's design process output complies with the requirements of the PED (97/23/EC) / PER (SI 1999: 2001 & SI 2002: 1267) for Module H.

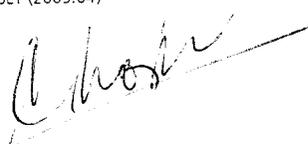
PARTICULAR MATERIAL APPRAISAL

Under the provisions of the directive particular material appraisals have been carried out for the following materials and are considered acceptable:

Material Specification revision level ()	ASME code/ material group B	Temp. °C		Notes
		Maxi	Mini	
	16.34			
ASTM A395 60-40-18 (A)	ASME B31.3	316	-29	
ASTM A216 WCB (A)	1.1	316	-29	
ASTM A352 LCB (A)	1.3	316	-29	
ASTM A351 CF8 (A)	2.1	316	-29	
ASTM A351 CF3 (A)	2.1	316	-29	
ASTM A351 CF8M (A)	2.2	316	-29	
ASTM A351 CF3M (A)	2.2	316	-29	
ASTM A351 CG8M (A)	2.2	316	-29	
ASTM A351 CN7M (A)	3.17	316	-29	Solution annealed, 600 max 600 max
ASTM A351 CD4MCu (A)	2.8	316	-29	Solution annealed
ASTM A351 CN3MN (0)	3.12	316	-29	Solution annealed
ASTM A494 N-12MV (A)	3.15	316	-29	Solution annealed
ASTM A494 CW6M (A)	ASME B31.3	316	-29	
ASTM B367 C3 UNS R50550 (A) Ti Casting	ASME VIII Div.1	260	-29	UNF-65 temp limited minus 75 F thro 500 F
ASTM A193 B7, B7M (A)	4	316	-29	
ASTM A193 B8, B8M (A)	4	316	-29	
ASTM A494 CW-12MW (0)	3.15	316	-29	
ASTM A494 CZ-100 (0)	Code Case 1750-20	316	-29	Code case ASME cl 600, mat.gr 3.2
ASTM A494 M-35-1 (0)	Code Case 1750-20	316	-29	Code case ASME cl 600, mat.gr 3.4
ASTM A352- LCC (0)	1.2	343	-46	Impact tested
ASTM A995 CD4MCuN (0)	Code Case 1750-20	260	-29	

DESIGN TECHNICAL CONSTRUCTION FILE CONTENTS

- Scope & General description
- Categorization
- Drawings
- Design Calculation
- Risk Assessment
- Bill of Material



Particular material appraisal
Sample Declaration of conformity
Operating & maintenance instructions
Essential safety requirements



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Appraisal Status Key

Industry

B

Examined

Lloyd's Register Verification Ltd.: Notified Body No. 0038

Distribution:

FluoroSeal, Inc., Montreal Canada
LRNA, Inc., Houston, TX

DAD

Tech File + DAD

This document supersedes NAO 0202032/001/BRG issue 1 dated 8 April 2003.