

CERTIFICAT

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認証証書

CERTIFICATE

ZERTIFIKAT

Member of



Industrie Service

CERTIFICATE

**EC Type - Examination (Module B)
Acc. To Directive 97/23/EC
Pressure Equipment Directive**

Certificate-No.: USA-10-12-003-005 R1

for

**Continental Disc Corporation
3160 West Heartland Drive
Liberty, MO 64068, USA**

We hereby certify, that the type described below meets the provisions of
Directive 97/23/EC

Description of the type:
Tension Acting Scored Bursting Disc Safety Devices
drawing: PEDTASCORED Rev. E
Design Examination Report#: **P- USA-10-10-003-005 R1**

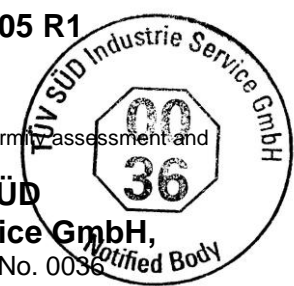
The validity of this certificate expires in 10 years from date of issuance
It may be extended upon request.

A module combination as described in Annex II of Directive 97/23/EC is required for conformity assessment and
CE marking

Austin

December 29, 2010

**TÜV SÜD
Industrie Service GmbH,
Notified body No. 0036**



Test Laboratory for Pressure Equipment

N. Mueller
Nerbert Mueller

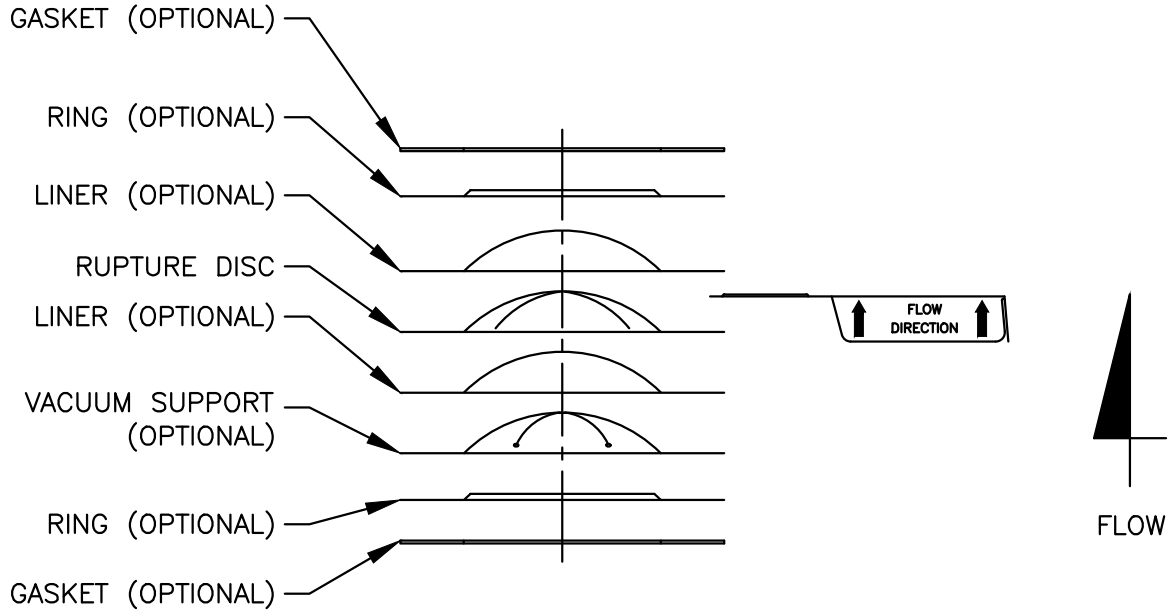
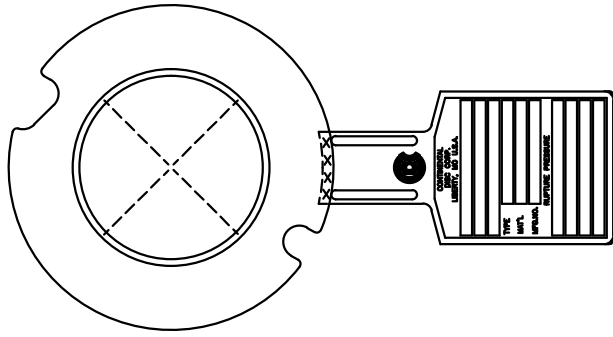
TÜV SÜD
Industrie Service GmbH
Westendstrasse 199
D-80686 München

Contact:
TUV SUD America
Industry Service
5 Cherry Hill Drive
Danvers, MA 01923

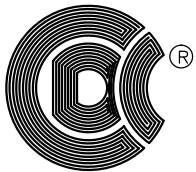
Member of
CONFÉDÉRATION EUROPÉEN



D'ORGANISMES DE CONTROLE



NAME	SIZE	PRESSURE	HOLDER
SCORED	1/4"-22"	300-60,000 PSIG	TITE-SEAL
			SCREW TYPE
			WELDED
MICRO X	1"-36"	15-3,600 PSIG	UNISERT
			RHI
			CLEAN SWEEP
			QUICK CHANGE
FAS	1"-36"	15-3,600 PSIG	FA
ICON	65MM & 80MM	3.67-35 BARG	NA



Continental Disc Corporation

3160 West Heartland Drive
Liberty, Missouri 64068

LOG NUMBER: PEDITASCORED

2-10-11	DATE	UNLESS OTHERWISE NOTED: INCHES DIMENSIONS ARE IN [MILLIMETERS]	
ADB	APPR.	WE CERTIFY TO THE BEST OF OUR KNOWLEDGE THIS DRAWING MEETS THE SPECIFICATIONS SET FORTH	
		PREP. BY	B. HICKS 6-6-01
		CHKD. BY	K. ADKINS 6-14-01
E	REV.	APPR. BY	R. DOELLING 6-15-01

TITLE
TENSION ACTING SCORED BURSTING
DISC SAFETY DEVICE

P.O. # _____
S.O. # _____

SHEET
1 OF 1



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EC Type-Examination Module B <input checked="" type="checkbox"/>		EC Design-Examination Module B ₁ <input type="checkbox"/> , Module H ₁ <input type="checkbox"/>		Examination of Design Module G <input type="checkbox"/>	
Manufacturer:		Manufacturing plant:		For:	
Continental Disc Corporation 3160 W. Heartland Drive Liberty, MO 64068, USA		3160 W. Heartland Drive Liberty, MO 64068, USA			
Drawing	PEDTASCORED	Rev:	E	Category:	IV
Intended use:	Tension acting scored bursting disk safety devices				
Name / model	MICRO X	FAS	ICON		
Allowable range of operating pressure PS [bar]	1 - 248	1 - 248	3.67- 35		
Nominal Diameter [DN]	25 to 800	25 to 800	65 to 80		
Fluid/Fluid Group	Gas, liquid / 1	Gas, liquid / 1	Gas, liquid / 1		
Name / model	Scored				
Allowable range of operating pressure PS [bar]	20.7 - 4138				
Nominal Diameter [DN]	6 to 558				
Fluid/Fluid Group	Gas, liquid / 1				
SPECIFICATIONS – DIRECTIVE 97/23/EC:					
1. Regulations/Codes:	AD 2000	TRD	ASME / ANSI B 31.B		
Applied in full	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Applied in part	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Parts applied:	AD 2000 Merkblatt A1				
2. Standards/other Specifications:	EN ISO 4126-2:2003				
Requirements: Directive 97/23/EC, Annex I, 2.11					
APPLICATION:					
Written declaration, that the application has not been lodged with any other notified body	<input checked="" type="checkbox"/>	Complete technical documentation (Paragraph 3 of the relevant module)	<input checked="" type="checkbox"/>	Drawing #, and Rev PEDTASCORED REV. E	<input checked="" type="checkbox"/>



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Comments:

The stipulations of the test plan (# P-USA-10-05-003-005.) shall be fulfilled

The burst discs are manufactured without permanent joining processes.

The permanent joining procedures and the personnel involved with the manufacturing of the holders shall be approved by a notified body for the PED



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Drawing No.: PEDTASCORED		Rev.: E			
	EXAMINATIONS AND RESULTING EVALUATIONS (CHECKLIST)	Acceptable	Not applicable	Remarks	
1.	Design Code / calculation method	X		EN ISO 4126-2:2003	
2.	Design for adequate strength <ul style="list-style-type: none"> Internal/external pressure Min/Max operational temperatures Corrosion, erosion, wear, fatigue 	X X X		Compatibility with process operational conditions is the responsibility of the user	
3.	Suitability of materials for main pressure bearing parts <ul style="list-style-type: none"> Particular material appraisal(s) PMA 		X	Compatibility with process fluids is to be determined in the responsibility of the user	
4.	Testing In compliance with the standard requirements	X		MP-7006 Rev. MK MP-7003 Rev. H	
5.	Marking and labeling	X		Conformance with EN ISO 4126-2 MP-7007 Rev. M	
6.	Installation manuals	X		GEP-6047, 6050, 6068	
<p>Manufacturing:</p> <p>Manufacturing shall be performed in such a way, that the discs have uniform chemical and physical properties and shall be free from defects. If corrosion protection is applied, the corrosion protection shall not impair the performance of the bursting disc safety device. The manufacturing facility and the manufacturing procedures shall be subject to surveillance by TÜV SÜD Industrie service GmbH.</p> <p>Materials:</p> <p>The selection of materials used for the bursting discs shall take into account the suitability with regard to manufacture and the compatibility with the process fluid and the operational chemical and physical conditions.</p> <p>Material of the same specification coming from the same heat number and heat treatment batch with a specified thickness shall be defined as material lot.</p>					



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The materials listed in table A1 and B1 of EN ISO 4126-2 and other materials*) can be selected for bursting discs and holders.

*) The suitability of a material for a specific application can be ensured by a particular material appraisal (PMA) by the notified body in charge.

Testing:

A quantity of bursting discs from the same type and size manufactured from the same material lot shall be defined as "batch".
 Rupture disc burst testing shall be performed in conformance to CDC Procedure MP-7006, Rev. M.

Tests previously performed:

DISC MODEL	Disc material	Lot/Batch No.	Ambient breaks [bar]	Breaks at temperature [°C]
3" MICRO X (FS)	316L ss	8170765	17.24, 17.24	
2" FAS (TG)	316 ss	8167372	30.69, 31.03	
2" FAS (TG)	316 ss	8150474	30.69, 31.27	
80mm ICON (FS)	NICKEL	8159363	7.31, 7.24	
1/4 " SCORED	316L ss	8159504A	3172, 3068	
1 " SCORED	Ti	8023197A	27.6, 29.1	

The tested burst discs comply with the drawing in essence.



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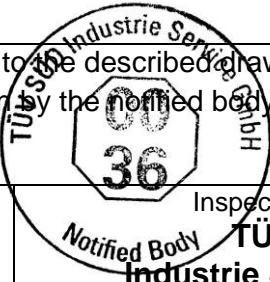

Marking:

The marking shall be performed in conformance to CDC Procedure MP-7007, Rev. M and shall include the following:

- Manufacturers name or trade mark
- Model / type
- Nominal size (DN)
- Material identification
- Specified minimum and maximum burst pressure and temperature
- Performance tolerance
- Flow direction
- Standard if applicable
- Batch identification
- Reference to specified holder
- Year of manufacture



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Result:			
The above-mentioned examinations were performed in accordance with the provisions of the stated requirements/specifications. The requirements of the Directive 97/23/EC are met.			
Declaration of Conformity :	CE marked product shall be accompanied by a Declaration of Conformity in conformance to Appendix A of CDC Procedure MP-7007, Rev. M		
Notes:	The examination results relate exclusively to the described drawing(s). Partial copies of this report without a written authorization by the notified body is not permitted.		
Location:	Palo Alto	Date:	December 23, 2010
		 Inspection Body of TÜV SÜD Industrie Service GmbH	
		Dr. U. Rohlfis 	
Attachments:	<ul style="list-style-type: none"> • Drawing PEDTASCORED REV. E • Sample declaration of conformity • GEP-6047 Rev. E, GEP-6050 Rev. D. GEP-6068 Rev. A • MP-7006 Rev. M • MP-7007 Rev. M 		