

### TRANSMITTAL OF CERTIFICATES

LESER GmbH & Co. KG · Postfach 26 16 51 · 20506 Hamburg, Germany

ARMATEC DENMARK A/S  
Mjølnersvej 4-8  
2600 Glostrup

Customers Order-No.:	29443-68972-FL
LESER-Job-Nr.:	20072753 / 10
LESER-Doc.-Nr.:	
LESER-Customers-No.:	116581
LESER-Contact:	Alexandra Ledebuhr
For:	040 25 165 113
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#### 1 LESER Product designation

Compact Performance Safety Relief Valve, Type 437,  
closed bonnet, gaslight cap H2,  
for steam, gas and liquid service

Art.-No.	cold differential test pressure		Option Code: H03X00V54V65N72J85			
4373.2602	10,50 barg	152,29 psig	Further SV-Info: GOST Nr.: 1854-07 SV4373H2-D10			
Tag-No.:	LESER-Job-No.	Pos.No.	Serial-No.	Inlet body material	Nominal size: Inlet   Outlet	Pressure rating: Inlet   Outlet
	20072753	10	10296297	1.4104 430F	G 1/2"   G 1/2"	PN 250   PN 160

#### 2 Inspection certificates

Name	Description	Standard	Edition
LESER CGA	Inspection Certificate 3.1	DIN EN 10204	2004

#### 4 Additional certificates and documents

special documentation acc.GOST

# LESER

## The Safety Valve

### LESER CERTIFICATE FOR GLOBAL APPLICATION

Inspection certificate 3.1 according to DIN EN 10204

Declaration of conformity according to Pressure Equipment Directive 97/23/EC

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Customers Order No.: 29443-68972-FL  
LESER-Job-No.: 20072753 / 10  
LESER-Customers-No.: 116561

LESER-Contact: Alexandra Ledebuhr  
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This LESER CGA confirms that the undermentioned LESER safety valves are manufactured and certified according to the rules world-wide. LESER makes the world-wide employment possible of the safety valves by the reference on these regulations.

#### 1 Test object

Compact Performance Safety Relief Valve, Type 437,  
closed bonnet, gaslight cap H2,  
for steam, gas and liquid service

Art.-No.	Cold differential test pressure		Option Code: H03X00V54V69H72J65			
4373.2602	10,50 barg	152,29 psig	Further SV-Info: GOST Nr.: 1854-07 SV4373H2-010			
Tag-No.:	LESER-Job-No.	Pos No.	Serial-No.:	Inlet body material	Nominal size: Inlet   Outlet	Pressure rating: Inlet   Outlet
	20072753	10	10296297	1.4104 430F	G 1/2"   G 1/2"	PN 250   PN 160
Kind of certification	VdTUEV-Type test approval			EC Type-examination		ASME certification
Rules	AD 2000-Merkblatt A2:			DIN EN ISO 4126-1:		ASME-Code Sec.VIII, Div.1:
Certification No./ valid until	D/G:	TÜV-SV 04-980	31.07.09	G/S: 072020111Z0008/0/21-2 01.09.10		G/S: M37213 22.02.12
	F:	TÜV-SV 04-980	31.07.09	L: 072020111Z0008/0/21-2 01.09.10		L: M37189 23.01.12
Flow diameter	d <sub>0</sub>	10 [mm]	-	10 [mm]	-	0,394 [in.]
Flow area	A	78,5 [mm <sup>2</sup> ]	A	78,5 [mm <sup>2</sup> ]	A	0,122 [sq.in.]
Certified orated coefficient of discharge	a <sub>w</sub>	D/G: 0,50	K <sub>dr</sub>	G/S: 0,50	K	G/S: 0,458
Certified capacity	F:	0,35	L:	0,35	L:	0,333
Lift	H	1,4 [mm]	h	1,4 [mm]	I	0,06 [in.]
Overpressure	c	D/G: 10 [%]	c	G/S: 10 [%]	-	G/S: 10[%]
	F:	10 [%]	L:	10 [%]	-	L: 10[%]
Cold differential test pressure	p	10,50 [bar g]	p <sub>e</sub>	10,50 [bar g]	cdtp	152,3 [psig]
Temperature correction	-	0,00 [bar g]	-	0,60 [bar g]	-	0,00 [psig]
Backpressure correction	-	0,00 [bar g]	-	0,60 [bar g]	-	0,00 [psig]
Set pressure	-	10,50 [bar g]	p	10,50 [bar g]	p	152,3 [psig]

#### 2 Conformity assessment procedure and LESER Management Systems

Conformity assessment procedure: Category IV according to PED 97/23/EC Modul B D/D1  
Notified Body: TÜV NORD Systems GmbH & Co. KG, Große Bahnstraße 31, D-22525 Hamburg  
Certification No.: 0045

LESER Management Systems: Quality Management System DIN EN ISO 9001:2000 Certification No. 07 100 0068  
Environmental Management System DIN EN ISO 14001:2005 Certification No. 07 104 0068  
Production Quality Assurance PED 97/23/EC Modul D/D1 Certification No. 07 2020111 Z 0008/0/01  
ASME Certificate of Authorization ASME Code Sec.VIII, Div.1 27,805

#### 3 Regulations

LESER certifies with this CGA that design, marking, production and approval of this pressure equipment corresponds to the requirements of the following regulations (directives, codes, rules and standards).

Harmonized standards:

Other regulations:  
DIN EN ISO 4126-1 PED 97/23/EC VdTÜV SV 100 ASME-Code Sec. II API RP 521  
DIN EN ISO 4126-7 AD 2000-Merkblatt A2 TRD 110 ASME-Code Sec. VIII Div. 1 API Std. 526  
DIN EN 12266-1 AD 2000-Merkblatt A4 TRD 421 ASME PTC 25 API Std. 527  
DIN EN 12266-2 AD2000-Merkblatt HP0 TRD 721 API RP 520 API RP 578

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LESER - The Safety Valve

# LESER

## The Safety Valve

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	Directive	DIN EN ISO	DIN EN 12256		ASME CODE	API			AD2000 Merkblatt			TRD	LESER Standard
	97/23/EC Annex 1	4126-1	Teil 1	Teil 2	Sec.VIII Div.1	526	527	576	A2	A4	HPD	TRD 110	LWN
Cdip test	3.2.3	6.5			UG 136(d)(4)	4.2	2/3/4	6.2.14	11.1 11.4				331-12-E
Seat tightness test		6.6	4.4 (P12)		UG 136(d)(5)	4.3	2/3/4	6.2.17					331-13-E 331-18-E
Back seat tightness test				4. (P21)	UG 136(d)(3)								331-15-E
Test of operability		7		4. (F20)					11.3				221-17-E
Design review										6.1 (1)		4.2.1(1)	300.00-E
Shell tightness test			4.4 (P11)									4.2.1(4)	331-14-E
Hydrostatic testing	3.2.2 7.4	6.3.1 6.3.2	4.4 (P10)		UG 136(d)(2)					6.1 (4)		4.2.1(5)	331-09-E 331-18-E
Nondestructive testing					UG 136(f)					6.1 (5)		4.2.1(5)	331-03 bis 331-06-E
Material identification										6.1 (6)		4.2.1(7)	331-07-E
Marking					UG 77				8	7.1	4	5	201.04-E

#### 4 Material suitability and marking

4.1. LESER certifies that the suitability of the used materials corresponds to the regulations quoted in chapter 3.

4.2. The marking of the materials as well as their transmission took place as follows:

Pos	Description	Material	Manufacturer	Cast	LESER-Code
1	Base/inlet body	1.4104 430F	Ugitech	810107	7322

#### 5 Tests

The tests specified in the following one were realized on basis of the stated LESERs works standard (LWN) without any objection:

<b>5.1. Shell test</b>	
Design review in respect of stresses and technical safety:	LWN 300.00-E
Shell tightness test:	LWN 331-14-E
Hydrostatic testing:	LWN 331-09-E; 331-18-E
Nondestructive testing:	LWN 331-03-E bis 331-06-E
Material identification check for alloyed materials:	LWN 331-07-E
The realization of the test took place through:	LESER GmbH & Co KG
<b>5.2. Valve setting and testing</b>	
Seal tightness	LWN 331-13-E; 331-16-E
Back seat tightness	LWN 331-15-E
Operability	LWN 221-17-E
Cold differential test pressure	LWN 331-12-E

Setting at  
with ☒ air ☐ water ☐ 10,50 [X] barg ☐ psig  
at ☒ ambient temperature ☐ saturated steam temperature ☐ saturated steam temperature ☐ °C ☐ °F

according to LWN 220.04.

The safety valve is protected by a seal marked with:

Setting and testing were done by. LESER GmbH &amp; Co. KG

#### 6 CERTIFICATE OF SHOP COMPLIANCE

By the signature of the Certified Individual (CI) noted below, we certify that the statements made in this report are correct and that all details for design, material, construction, and workmanship of the pressure relief devices conform with the requirements of Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code

UV Certificate of Authorization No. 27.806  
Expires June 16.2009Martin Leser  
LESER GmbH & Co. KG

Date: 29.08.2008

Manfred Orlowski  
Inspection Representative Works Hohenwestedt  
Certified Individual (CI)LESER GmbH & Co. KG Hamburg HRA 82 424  
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LESER - The Safety Valve