

# LESER

## The Safety Valve

### TRANSMITTAL OF CERTIFICATES

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

ARMATEC DENMARK A/S  
Mjølnervej 4-8  
2600 Glostrup

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

LESER-Contact: Alexandra Ledebuhr  
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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			
4273.2602	10,50 barg	152,28 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	10296295	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

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### 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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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: H03X00V54V65N72J85			
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	10296295	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> ]		78,5 [mm <sup>2</sup> ]		0,122 [sq.in.]
Certified derated coefficient of discharge	a <sub>w</sub>	D/G: 0,50	K <sub>dr</sub>	G/S: 0,50	K	G/S: 0,458
		F: 0,35		L: 0,35		L: 0,333
Certified capacity						
Lift	H	1,4 [mm]	h	1,4 [mm]	f	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 [barg]	p <sub>e</sub>	10,50 [barg]	cdip	152,3 [psig]
Temperature correction		0,00 [barg]		0,00 [barg]		0,00 [psig]
Backpressure correction		0,00 [barg]		0,00 [barg]		0,00 [psig]
Set pressure	-	10,50 [barg]	p	10,50 [barg]	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 0058  
Environmental Management System DIN EN ISO 14001:2005 Certification No. 07 104 0058  
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 AD 2000-Merkblatt HPD TRD 721 API RP 520 API RP 576

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Job 20072753 / 10 / Ser.No. 10296295 / Page 2

	Directive	DIN EN ISO	DIN EN 12266		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	HPO	TRD 110	LWN
Cdtp test	3.2.3	6.5			UG 136(d)(4)	4.2	2/3/4	6.2.14	11.1				331-12-E
Seal tightness test		6.6	4.4 (P12)		UG 136(d)(5)	4.3	2/3/4	6.2.17					331-13-E 331-16-E
Back seal 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(6)	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 A30F	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:

##### 5.1 Shell test

Design review in respect of stresses and technical safety:

Shell tightness test:

Hydrostatic testing:

Nondestructive testing:

Material identification check for alloyed materials:

The realization of the test took place through:

##### 5.2 Valve setting and testing

Seal tightness

Back seal tightness

Operability

Cold differential test pressure

LWN 300-00-E

LWN 331-14-E

LWN 331-09-E; 331-18-E

LWN 331-03-E bis 331-06-E

LWN 331-07-E

LESER GmbH &amp; Co. KG

LWN 331-13-E; 331-16-E

LWN 331-15-E

LWN 221-17-E

LWN 331-12-E

Setting at

with

at

☒ air☒ ambient temperature☐ water☐ saturated steam temperature10.50 [X] barg ☐ psig☐ saturated steam☐ °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 2009

Martin Leser  
LESER GmbH & Co. KG

Date: 29.08.2008

Manfred Orłowski  
Inspection Representative Works Hohenwestedt  
Certified Individual (CI)LESER GmbH & Co. KG Hamburg HRA 82 424  
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