



CERTIFIED SAFETY

Worldwide!



**THE WHOLE WORLD OF
GAS NON-RETURN VALVES
AND SAFETY DEVICES IN
ACCORDANCE WITH EN 730-2**



SECURE THE ADVANTAGES!

Effective synergies and new possibilities abound when you combine the IBEDA product lines of Gas Safety Engineering, Flame Spraying, Gas Manifold Systems and Autogenous Engineering.

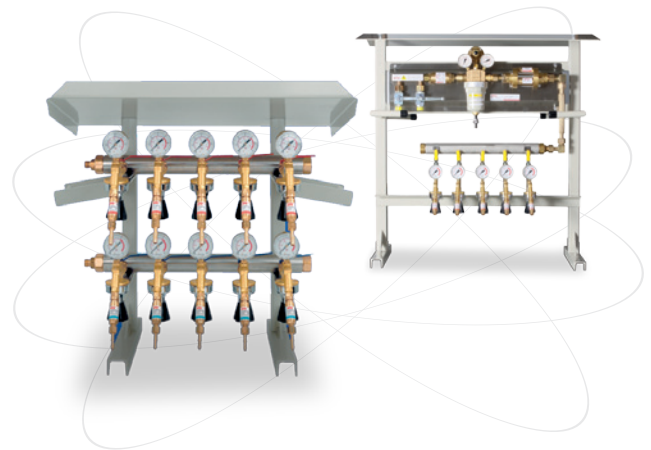
That means: flexible, affordable, certified and safe products and production solutions from a single supplier, as well as conservation of valuable natural resources.

We will never compromise on safety. We are committed to the ongoing development of new products as well as continuing to improve our existing products. We are able to provide well-engineered and reliable safety solutions for every industrial application, all with certification!

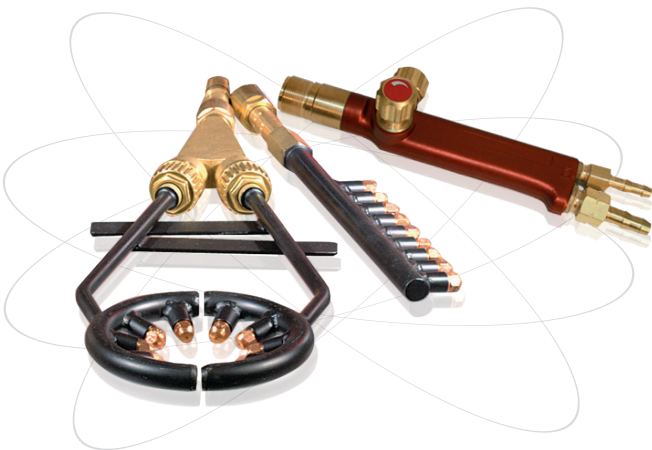
GAS SAFETY ENGINEERING



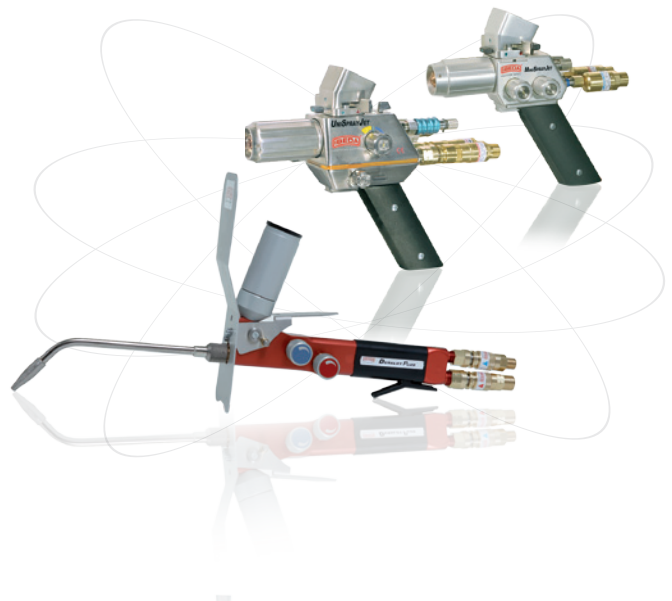
GAS MANIFOLD SYSTEMS



AUTOGENOUS ENGINEERING



FLAME SPRAYING



GAS NON-RETURN VALVES

IN ACCORDANCE WITH EN 730-2

The safety devices are used to safeguard plants, pipeline systems and tapping points. The check valves type GRV prevent gas return. **The flashback-resistant gas non-return valves type GRS prevent gas return as well as flashback if compressed air is used as an oxidant.**

THE GAS NON-RETURN VALVES ARE AVAILABLE IN THREE SIZES, DN 25, DN 32 AND DN 50, WITH THREAD FROM 1/2" TO 2" AS WELL AS SPECIAL FLANGE CONNECTION UP TO NOMINAL DIAMETER OF DN 50.

CERTIFIED SAFETY YOU CAN RELY ON!

The safety devices satisfy the requirements specified in all relevant standards and directives. They are tested by BAM in Berlin and are registered under the DVGW certification mark:

NG-4390CQ0062 (gas non-return valves/check valves, - Model GRV) and
 DG-4390CQ0061 (gas non-return valves (flashback-resistant), Model GRS)



TECHNICAL DATA

Types	Gas non-return valves / Check valves							
	GRV 25 1/2"	GRV 25 3/4"	GRV 25 1"	GRV 32 1"	GRV 32 1 1/4"	GRV 50 1 1/2"	GRV 50 2"	GRV 50 FLANGE DN 50
Safety elements								
DF (dust filter)	x	x	x	x	x	x	x	x
NV (gas non-return valve)	x	x	x	x	x	x	x	x
FD (flame deflector)	-	-	-	-	-	-	-	-

Gas non-return valves (flashback resistant)							
GRS 25 1/2"	GRS 25 3/4"	GRS 25 1"	GRS 32 1"	GRS 32 1 1/4"	GRS 50 1 1/2"	GRS 50 2"	GRV 50 FLANGE DN 50
x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x

	Maximum working pressure (bar) 1 bar = 0,1 MPa							
Town gas, grid gas (C)	25	25	25	25	25	20	20	20
Hydrogen (H)	25	25	25	25	25	20	20	20
Natural gas (M)	25	25	25	25	25	20	20	20
Propan (P)	25	25	25	25	25	20	20	20
Cleaned Biogas	25	25	25	25	25	20	20	20
Oxygen (O)	25	25	25	25	25	20	20	20
Nitrogen (N)	25	25	25	25	25	20	20	20
Inert gases (N)	25	25	25	25	25	20	20	20
Compressed air (D)	25	25	25	25	25	20	20	20

1,5	1,5	1,5	1,5	1,5	1	1	1
1,5	1,5	1,5	1,5	1,5	1	1	1
5	5	5	5	5	5	5	5
5	5	5	5	5	5	5	5
5	5	5	5	5	5	5	5
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Inlet pressure (mbar)	Flow rate (Nm/h³)*							
20	20	22	24	30	35	95	100	100
40	33	36	40	50	55	150	155	155
60	40	44	48	65	70	195	200	200
80	48	50	52	75	80	210	220	220
100	55	58	65	80	85	240	250	250
500	131	145	155	200	210	500	510	510

19	21	23	29	33	90	95	95
31	34	38	48	52	143	147	147
38	42	46	62	67	185	190	190
46	48	49	71	76	200	209	209
52	55	62	76	81	228	238	238
124	138	147	190	200	475	485	485

*All flow rates are measured with air

GAS NON-RETURN VALVES DN 25 CHECK VALVES



Description	Connection thread	Dimensions		Weight (kg)	Housing material		Sealing material
		Ø (mm)	L (mm)		CW604	1.4305	
GRV25	G 1/2"	50	89	0,7	CW604	1.4305	CR/NBR
GRV25	G 3/4"	50	89	0,6	CW604	1.4305	CR/NBR
GRV25	G 1"	50	89	0,7	CW604	1.4305	CR/NBR
GRV25	NPT 1/2"	50	89	0,7	CW604	1.4305	CR/NBR
GRV25	NPT 3/4"	50	89	0,6	CW604	1.4305	CR/NBR
GRV25	NPT 1"	50	89	0,7	CW604	1.4305	CR/NBR

GAS NON-RETURN VALVES DN 32 CHECK VALVES



Description	Connection thread	Dimensions		Weight (kg)	Housing material		Sealing material
		Ø (mm)	L (mm)		CW604	1.4305	
GRV32	G 1"	60	95	1,0	CW604	1.4305	CR/NBR
GRV32	G 1 1/4"	60	100	1,1	CW604	1.4306	CR/NBR
GRV32	NPT 1"	60	95	1,0	CW604	1.4305	CR/NBR
GRV32	NPT 1 1/4"	60	100	1,1	CW604	1.4305	CR/NBR

GAS NON-RETURN VALVES DN 50 CHECK VALVES



Description	Connection thread	Dimensions		Weight (kg)	Housing material		Sealing material
		Ø (mm)	L (mm)		CW604	1.4305	
GRV50	G 1 1/2"	94	124	3,6	CW604	1.4305	CR/NBR
GRV50	G 2"	94	145	4,4	CW604	1.4305	CR/NBR
GRV50	NPT 1 1/2"	94	124	3,7	CW604	1.4305	CR/NBR
GRV50	NPT 2"	94	145	4,5	CW604	1.4305	CR/NBR
GRV50	FLANGE DN 50	94	303	14,3	CW604	1.4305	CR/NBR

GAS NON-RETURN VALVES DN 25

Flashback-resistant if compressed air is used as oxidant



Description	Connection thread	Dimensions		Weight (kg)	Housing material		Sealing material
		Ø (mm)	L (mm)		CW604	1.4305	
GRS25	G 1/2"	55	103	1,2	CW604	1.4305	CR/NBR
GRS25	G 3/4"	55	121	1,2	CW604	1.4305	CR/NBR
GRS25	G 1"	55	108	1,1	CW604	1.4305	CR/NBR
GRS25	NPT 1/2"	55	103	1,2	CW604	1.4305	CR/NBR
GRS25	NPT 3/4"	55	121	1,2	CW604	1.4305	CR/NBR
GRS25	NPT 1"	55	108	1,1	CW604	1.4305	CR/NBR

GAS NON-RETURN VALVES DN 32

Flashback-resistant if compressed air is used as oxidant



Description	Connection thread	Dimensions		Weight (kg)	Housing material		Sealing material
		Ø (mm)	L (mm)		CW604	1.4305	
GRS32	G 1"	65	150	2,1	CW604	1.4305	CR/NBR
GRS32	G 1 1/4"	65	157	2,2	CW604	1.4306	CR/NBR
GRS32	NPT 1"	65	150	2,1	CW604	1.4305	CR/NBR
GRS32	NPT 1 1/4"	65	157	2,2	CW604	1.4305	CR/NBR

GAS NON-RETURN VALVES DN 50

Flashback-resistant if compressed air is used as oxidant



Description	Connection thread	Dimensions		Weight (kg)	Housing material		Sealing material
		Ø (mm)	L (mm)		CW604	1.4305	
GRS50	G 1 1/2"	94	175	5,9	CW604	1.4305	CR/NBR
GRS50	G 2"	94	176	6	CW604	1.4305	CR/NBR
GRS50	NPT 1 1/2"	94	175	6	CW604	1.4305	CR/NBR
GRS50	NPT 2"	94	176	6,1	CW604	1.4305	CR/NBR
GRS50	FLANGE DN50	94	334	15,9	CW604	1.4305	CR/NBR

FOR THERMAL PROCESS PLANTS AND PIPELINE SYSTEMS



GAS NON-RETURN VALVES (CHECK VALVES) GRV 25, GRV 32 AND GRV 50

Gas non-return valves for town gas, grid gas, natural and liquid gas, Methane (cleaned biogas), Hydrogen, Oxygen, Nitrogen, inert gases and compressed air



GAS NON-RETURN VALVES (FLASHBACK-RESISTANT) GRS 25, GRS 32 AND GRS 50

Gas non-return valves (flashback resistant) for town gas, grid gas, natural and liquid gas, Methane (cleaned biogas)

HIGHLIGHTS

- Very low cracking pressures of 4–6 mbar
- High flow rates, minimal pressure loss
- Position-independent installation
- Compact design
- Prevents dangerous gas mixtures on the inlet side
- Stainless steel dust filter with large filter surface ensures a long service life
- DVGW-certified

APPLICATION

Application areas of our products are thermal process plants according to EN 746-2 as well as heating processes for welding, cutting and related processes that are operated with mixtures of fuel gas and air.



e.g. in a steel mill



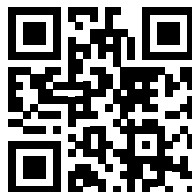
IBEDA GAS SAFETY ENGINEERING WORLDWIDE IN USE

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