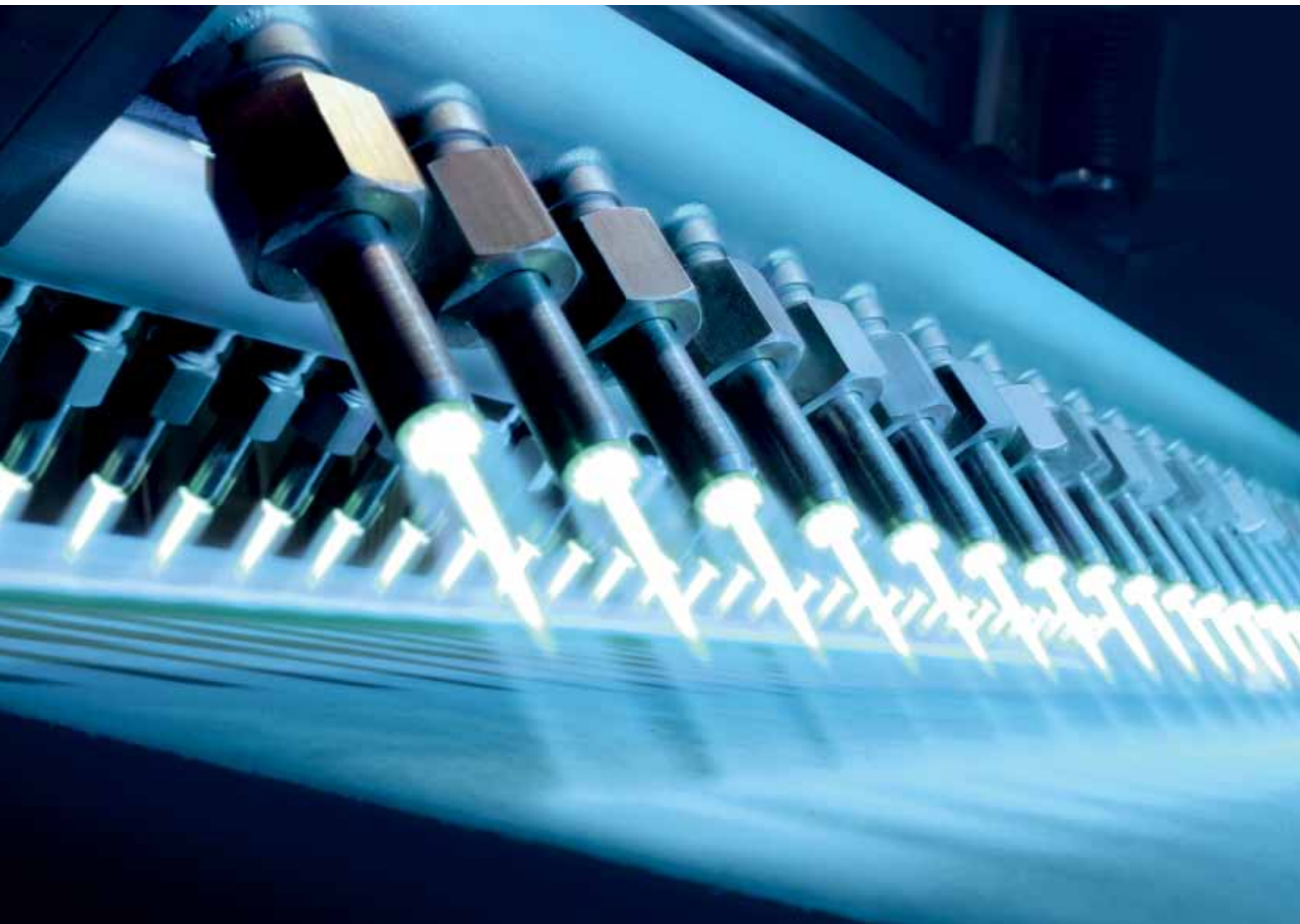


# LINDOFLAMM<sup>®</sup> thermal engineering.

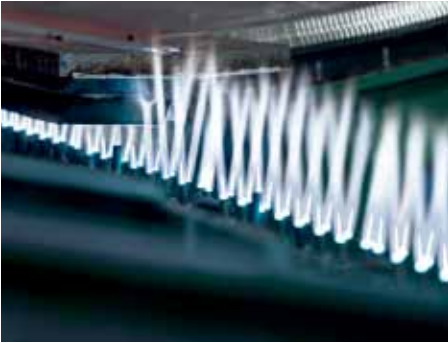
Tailored solutions for every heating application.



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# All-round offering.



AGA's range of LINDOFLAMM special burners has the perfect fit for every heating application.

Our all-round heating solutions for semi- and fully-automated heating processes are tailored to customer requirements and deliver outstanding results. At the heart of each heating installation is the LINDOFLAMM burner. Further components and services – from automatic ignition to monitoring, temperature control and documentation – put the perfect finish on our offering.

Our application engineers provide expert advice and work with customers to develop the right solution every time. They also start up installations and provide training on their correct operation. In addition to these services, we can also advise on and deliver the supporting gas supply system – making AGA the preferred provider for all gas supply and heating needs.

# High-performance burner LF-H-4 to LF-H-16 (hand-operated).



Burner type	Gases	Operating pressure bar	Consumption* m <sup>3</sup> /h	Handle	Overall length L/mm	Flame field Ø/mm	Item no.
LF-H-4	Acetylene	0.8	1.4-1.9	LF-S-3-H	375	10	100.004
	Oxygen	2.5-3.5	1.6-2.2				
LF-H-6	Acetylene	0.8	3.3-4.5		440	16	100.006
	Oxygen	2.5-4.0	3.8-5.2				
LF-H-8	Acetylene	1.0	5.0-7.1		500	18	100.008
	Oxygen	2.5-4.0	5.8-8.9				
LF-H-16	Acetylene	1.2	12.4-15.9	LF-S-4-H	650	28	100.016
	Oxygen	3.5-5.0	14.3-18.3				

## Application

- Heating applications for large workpieces
- Flame straightening of large sheet thicknesses
- Thorough heating of heat wedges
- Fusing flame-sprayed coatings
- Heat-shaping of thick-walled plates, pipes and profiles
- Achieving high temperatures during heating

## Design

- Burner head at 45° angle with reinforcement between the mixer and feeder shaft
- Gas-cooled burner
- Injector with O-rings for internal and external tightness
- Brazed components for extra strength

## Extension options

Ball valves on handle for quick opening/closing and reproducible flame adjustment

\* The consumption values, measured at the burner inlet, are related to the burner's power range. By altering the gas flow rate, the power in the specified range can be adjusted to the corresponding tasks. The consumption data should be noted when constructing the gas supply. The operating instructions contain further information about operating LINDOFLAMM burners. Our specialists are always available to provide further information.

# High-performance LF-H-2D burner (hand-operated).



Burner type	Gases	Operating pressure bar	Consumption* m <sup>3</sup> /h	Handle	Overall length L/mm	Flame field Ø/mm	Item no.
LF-H-2D	Acetylene	0.6	0.8-1.7	LF-S-2-H	650	23	100.002
	Compressed Air	2.0-4.0	5.6-11.9				

## Application

- Pre-heating components before welding and cutting
- Drying the area around a weld seam
- Maintaining interpass temperatures
- Post-heating

## Design

- Burner head at 45° angle with reinforcement between the mixer and feeder shaft
- Gas-cooled burner
- Injector with O-rings for external tightness
- Brazed components for extra strength

## Extension options

Ball valves on handle for quick opening/closing and reproducible flame adjustment

\* The consumption values, measured at the burner inlet, are related to the burner's power range. By altering the gas flow rate, the power in the specified range can be adjusted to the corresponding tasks. The consumption data should be noted when constructing the gas supply. The operating instructions contain further information about operating LINDOFLAMM burners. Our specialists are always available to provide further information.

# Acetylene/compressed air round head burner.



Burner type	Gases	Operating pressure bar	Consumption* m <sup>3</sup> /h	Number of nozzles	Connecting thread in.	Handle	Overall length mm	Item no.
LF-H-2D-K	Acetylene	0.6	0.8-1.7	9	1/2" LH	LF-S-2-H	218	200.002
	Compressed Air	2.0-4.0	5.6-11.9					

## Application

- Stationary pre-heating before welding and cutting
- Drying before welding
- Maintaining interpass temperatures
- Post-heating

## Design

- Burner head at 45° angle
- Nozzles arranged in a ring on the burner head
- Combination of several round heads available for large flame fields

## Mandatory additional equipment

- Gas mixture distributor
- Feed with mixing chamber
- Handle or machine shaft

## Extension options

- Ignition flame to start up the burner
- Ball valves or solenoid valves for reproducible results

\* The consumption values, measured at the burner inlet, are related to the burner's power range. By altering the gas flow rate, the power in the specified range can be adjusted to the corresponding tasks. The consumption data should be noted when constructing the gas supply. The operating instructions contain further information about operating LINDOFLAMM burners. Our specialists are always available to provide further information.

# Lance burner.



Burner type	Gases	Operating pressure bar	Consumption* m <sup>3</sup> /h	Number of nozzles	Machine shaft	Overall length mm	Burner height mm	Item no.
LF-M-16D	Acetylene	0.8-1.0	1.3-2.3	16	LF-S-2-M	500	100	200.016
	Compressed Air	2.0-4.0	9.0-17.1					
LF-M-33D	Acetylene	0.8-1.0	2.4-4.4	33		1010		200.033
	Compressed Air	2.0-4.0	17.2-31.5					

## Application

- Stationary pre-heating before welding and cutting
- Drying before welding
- Maintaining interpass temperatures
- Post-heating

## Design

- Elongated construction with exchangeable nozzles
- Nozzles arranged in a row
- Bolted flange connections enable several burner elements to be connected (max. length 2m)
- Parallel operation via distributors and bridges (max. number of nozzles: 66)

## Mandatory additional equipment

- Flange
- Feed with mixing chamber
- Machine shaft

## Extension options

- Optional automation using pilot flame and monitoring elements (flame monitoring, temperature monitoring, data capture systems, etc.)
- Ball valves or solenoid valves for reproducible results
- Gas mixture distributor

\* The consumption values, measured at the burner inlet, are related to the burner's power range. By altering the gas flow rate, the power in the specified range can be adjusted to the corresponding tasks. The consumption data should be noted when constructing the gas supply. The operating instructions contain further information about operating LINDOFLAMM burners. Our specialists are always available to provide further information.

# Short lance burner.



Burner type	Gases	Operating pressure bar	Consumption* m <sup>3</sup> /h	Number of nozzles	Connecting thread in.	Machine shaft	Overall length mm	Burner height mm	Item no.
LF-M-8D	Acetylene	0.8-1.0	0.7-1.3	8	1/2" LH	LF-S-2-M	240	110	200.008
	Compressed Air	2.0-4.0	5.3-9.4						
LF-M-12D	Acetylene	0.8-1.0	1.0-1.9	12	1/2" LH		360	110	200.012
	Compressed Air	2.0-4.0	7.5-13.8						

## Application

- Stationary pre-heating before welding and cutting
- Drying before welding
- Maintaining interpass temperatures
- Post-heating

## Design

- Lightweight construction with exchangeable nozzles
- Nozzles arranged in a row
- Combination of several short lances available to cover a large flame field
- Heat shield made of heat-resistant steel

## Mandatory additional equipment

- Feed with mixing chamber
- Machine shaft

## Extension options

- Optional automation using pilot flame, ignition electrode and monitoring elements (flame monitoring, temperature monitoring, data capture systems, etc.)
- Ball valves or solenoid valves for reproducible results
- Gas mixture distributor

\* The consumption values, measured at the burner inlet, are related to the burner's power range. By altering the gas flow rate, the power in the specified range can be adjusted to the corresponding tasks. The consumption data should be noted when constructing the gas supply. The operating instructions contain further information about operating LINDOFLAMM burners. Our specialists are always available to provide further information.



# Handles.



Handle with connection for:	Connecting thread in.	Inner Ø of hose mm (ISO 3821)	Special burner	Item no.
LF-S-2-H	3/8" LH	9.5	LF-H-2D	300.002
	3/8" RH	9.5		
LF-S-3-H	3/8" LH	9.5	LF-H-4, LF-H-6, LF-H-8	300.003
	1/4" RH	6.3		
LF-S-4-H	1/2" LH	12.5	LF-H-16	300.004
	3/8" RH	9.5		

## Application

- To adjust the consumption of acetylene-oxygen/compressed air series LF-H burners

## Extension options

- Ball valves on handle for quick opening/closing and a reproducible flame

## Design

- Ergonomic design ensures ease of use as well as comfortable, fatigue-free operation
- Furthermore the sturdy construction ensures that the handles have a long life
- The self-tightening radial seals at the inserts guarantee a quick and secure seal

\* The consumption values, measured at the burner inlet, are related to the burner's power range. By altering the gas flow rate, the power in the specified range can be adjusted to the corresponding tasks. The consumption data should be noted when constructing the gas supply. The operating instructions contain further information about operating LINDOFLAMM burners. Our specialists are always available to provide further information.

# Machine shafts.



Machine shaft for use with:	Connecting thread in.	Inner Ø of hose mm (ISO 3821)	Special burner	Area of application (number of nozzles)	Item no.
LF-S-2-M	3/8" LH 3/8" RH	9.5 9.5	LF-M-8D, LF-M-12D, LF-M-16D, LF-M-33D	8-66	400.002

## Application

- Adjusting the consumption of LF-M series acetylene-compressed air burners with 8-66 nozzles

## Extension options

- Solenoid valves can be used instead of ball valves for automated heating applications.

## Design

- Brass machine shaft with integrated compressed air manometer, adjusting valves and ball valves
- The self-tightening radial seals at the inserts guarantee a quick, secure seal

# Feed with mixing chamber and injector.



Feed	Connecting thread in.	Length mm	External Ø mm	Area of application (number of nozzles)	Item no.
LF-S-2 -F1	1/2" LH	300	16	8-12	400.021
LF-S-2 -F2	1/2" LH	500	16	8-12	400.022
LF-S-2 -F3	1/2" LH	300	16	13-24	400.023
LF-S-2 -F4	1/2" LH	500	16	13-24	400.024
LF-S-2 -F5	1/2" LH	300	16	25-41	400.025
LF-S-2 -F6	1/2" LH	500	16	25-41	400.026
LF-S-2 -F7	1/2" LH	300	16	41-57	400.027
LF-S-2 -F8	1/2" LH	500	16	41-57	400.028
LF-S-2 -F9	1/2" LH	300	16	58-66	400.029
LF-S-2 -F10	1/2" LH	500	16	58-66	400.030

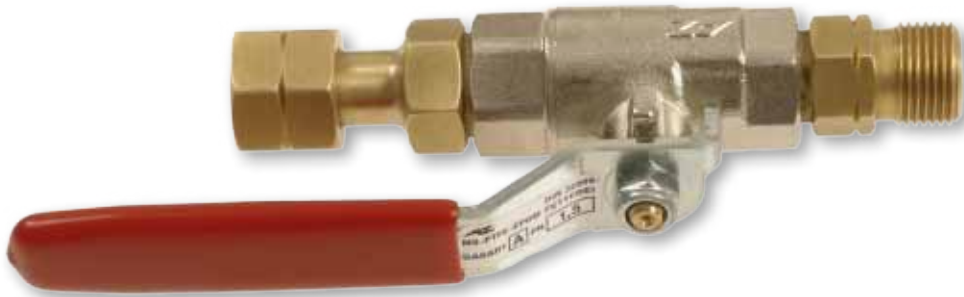
## Application

- Using an injector to mix acetylene and compressed air
- Feeding the acetylene-compressed air mixture to the round head, lance or short lance burner

## Design

- Injector with O-rings for external tightness
- Brazed component joints

# Ball valves.



Gases	Connecting thread in.	Nominal size	Handle/machine shaft	Item no.
Acetylene	3/8" LH	DN 6	LF-S-2-H, LF-S-3-H, LF-S-5-H, LF-S-6-H	500.001
Acetylene	3/8" LH	DN 10	LF-S-2-M	500.002
Acetylene	1/2" LH	DN 10	LF-S-4-H	500.003
Compressed air	3/8" RH	DN 6	LF-S-2-H	500.004
Compressed air	3/8" RH	DN 10	LF-S-2-M	500.005
Oxygen	1/4" RH	DN 6	LF-S-3-H, LF-S-5-H	500.006
Oxygen	3/8" RH	DN 10	LF-S-4-H, LF-S-6-H	500.007

## Application

- For the quick shutting off of acetylene, oxygen and compressed air
- Reproducible flame adjustment

## Design

- The ball valves are made of chrome-plated brass and are equipped with double threaded connections in accordance with EN 560

# Elbow joints.



Connecting thread in.	Item no.
3/8" RH	501.001
3/8" LH	501.002
1/2" RH	501.003
1/2" LH	501.004

## Application

- Connecting feeds with burners, tubes with machine shafts or feeds with distributors

## Design

- The elbow joints are made of brass in accordance with EN 560

# Flanges.



End flange



Output flange



Input flange



Lance burners with connector

Flange	Connecting thread in.	Item no.
Input flange	1/2" LH	502.001
Output flange	1/2" LH	502.002
End flange		502.003
Connector		502.004

## Application

→ Joining, closing and connecting lance burners

## Design

→ The flanges are made of brass and equipped with O-rings

# Distributor.



150mm bridge



150mm input distributor



100mm input distributor

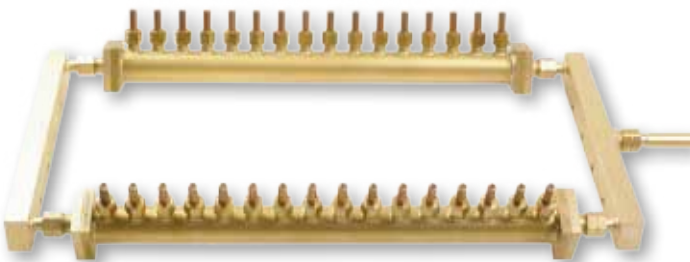
Connection distance	Input connecting thread in.	Output connecting thread in.	Number of output connectors	Item no.
150mm input distributor	1/2" LH	1/2" LH	2	503.001
150mm bridge		1/2" LH	2	503.002
100mm input distributor	1/2" LH	1/2" LH	3	503.003

## Application

→ Operating round head, lance or short lance burners in parallel

## Design

→ Brass distributor with or without input connector



Lance burners with 150mm input distributor and 150mm bridge

# Adjusting valves.



Acetylene valve



Compressed air valve

Gases	Connecting thread in.	Nominal size	Max. operating pressure bar	Item no.
Acetylene	3/8" LH	DN 9	1.5	504.001
Compressed air	3/8" RH	DN 9	40	504.002

## Application

→ Adjusting valve located on the machine shaft for regulating the flow of acetylene and compressed air

## Design

- Adjusting valve with vertical hand wheel and vertical valve cone
- Labelling
- Acetylene: red
- Compressed air: black



# Ignition flame.



Length of ignition flame (with hook, nozzle and adjusting valve)	Connecting thread in.	Item no.
600mm	3/8" LH	505.001

## Application

- Safely igniting hand-operated and stationary burners

## Design

- Two-part brass ignition flame with adjusting valve
- Mixing principle: Acetylene with aspirated air
- With a brazed hook

# Spare parts.



	Acetylene/ compressed air replacement nozzle	Coupling nut M16x1.5	O-ring for lance burner flange	Socket spanners for nozzle assembly	Item no.
Replacement nozzle with cutting ring	1				506.001
Coupling nut for acetylene/ compressed air nozzle		1			506.002
Service package 1	10	5	2	1	506.003
Service package 2	20	10	4	1	506.004

Repairs to LINDOFLAMM special burners must only be carried by competent personnel, authorised by Linde AG. Linde AG is not liable for any damage resulting from unauthorised repairs or alterations carried out by the user or third parties without its approval.

# All-round support. First-class services for LINDOFLAMM special burner applications.

LINDOFLAMM special burner applications can be easily incorporated into customer production processes. Our all-round service package delivers a wide range of benefits for easy installation and operation.

This extensive package comprises a wide range of services including:

- Integration management
- Installation service
- Burner optimisation
- Burner maintenance and service
- Targeted support

For further information about LINDOFLAMM please contact your local AGA supplier.

