



INVEST IN THE FUTURE



Made in France  
since 1964



# POWERDUCTION Induction Heating Systems


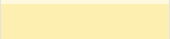









RELEASING - SHRINK-FITTING - STRIPPING - STRAIGHTENING - DENT REMOVAL - BENDING - BRAZING

# WHAT IS INDUCTION ?

*Induction is a highly efficient process for heating metal at its core in an extremely short space of time. Ideal for use in mechanical engineering, vehicle body repair, or general maintenance, this precise and speed heat transfer method only affects metal elements and therefore has no impact on rubber or plastics. The process is completely localised, and as there is no gas or flames involved, it is a significantly safer solution for the workplace.*

## THE EFFECTS OF INDUCTION IN DIFFERENT MATERIALS

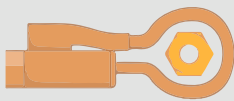
Induction has specific effects on different materials, which can help to differentiate them. For **ferromagnetic materials**, such as **steel**, **iron** and **cast iron**, a magnetic effect occurs: the **inductor is attracted to the workpiece**. The Curie point is reached (the temperature at which the material loses its magnetisation) when it turns cherry red.

	Material heat colouration		C°	F°
Shaping metal	Bright white		1200	2190
	Light yellow		1100	2010
	Yellow		1050	1920
	Light orange		980	1800
	Orange		930	1710
Bending	Light red		870	1600
	Orange-red		810	1490
	Light cherry red		760	1400
	Cherry red		700	1290
	Dark cherry red		650	1200
Releasing	Reddish brown		540	1000

\*This gradient applies specifically to ferromagnetic materials.

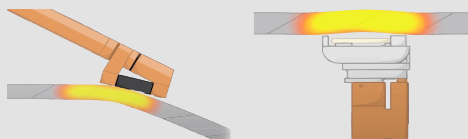
On the other hand, for **non-magnetic materials** such as **copper**, **aluminium**, and **zinc**, the material will be repelled. These materials require a **more powerful power source** because they require **more time to get hot**. This repulsion can make it more difficult to hold the inductor in place when using it by hand.

## THE DIFFERENT APPLICATIONS FOR INDUCTION



### Releasing:

Frees, loosens or unblocks mechanical components that are jammed, locked or difficult to manipulate due to corrosion, wear or other factors.



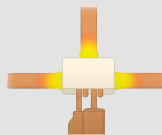
### Straightening / Dent removal :

This involves reshaping a part that has been deformed, twisted or bent. To restore it to its original state without it losing its mechanical properties and becoming brittle.



### Shrinking :

Shrink-fitting is the assembly of two components by means of a press fit. The outer part is called a hoop and the inner part is called a shrink fitting.



### Brazing :

Metal brazing is a permanent assembly process that establishes a metallic bond between the parts being joined. Unlike welding, there is no fusion of the joined edges.

# FLAME VS INDUCTION

## THE DIFFERENCE BETWEEN FLAME AND INDUCTION

Induction offers many advantages over flame in terms of efficiency, precision, safety, environmental impact, and running costs. In many different industries, induction heating is replacing the traditional blowtorch.

	Flame	Induction
Efficiency	<b>✗</b> Heats directly on the surface, wasting energy because the heat is not localised.	<b>✓</b> 15x more effective than the flame. Direct, localised heating of the material, faster temperature rise.
Accuracy	<b>✗</b> Heating temperature is difficult to control precisely, risk of overheating, and damaging.	<b>✓</b> Precise, localised heating system, delivering uniform heat transfer.
Safety	<b>✗</b> A fire permit is required for use, as an open flame can quickly lead to a fire hazard.	<b>✓</b> No accreditation required for induction, no flames, no release of harmful gases.
Environment	<b>✗</b> The combustion of gas produces CO2 emissions.	<b>✓</b> Reduced fossil fuel consumption.
Profitability / Costs	<b>✗</b> Cost of purchasing gas cylinders. Cost of qualified personnel.	<b>✓</b> Speed of installation and durability, low maintenance.



## STANDARD INDUCTORS

### ● **FIXED FERRITE INDUCTORS**

*Small inductors S180; S90; S70*



*Large inductors L180; L90; L70*



### ● **INDUCTEURS FERRITE INTERCHANGEABLE**

*Small inductors S20/B1; S180/B1; S180/B3W; S180/B6*



*Complete inductors C20/B1; C180/B1*



*Large inductors L180/B4; L20/B4*



## SPECIALIST INDUCTORS

● *Small Ring*



*Large Ring*



*HeatTube / PreHeat*



*Alu glove; Spiral L180; L180 Planage*




*Brazing*




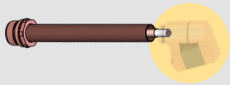

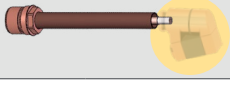
*Spiral*

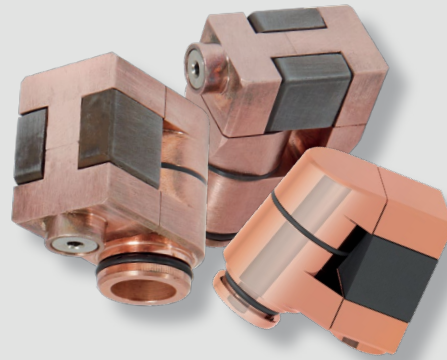


# FIXED FERRITE INDUCTORS SMALL

	<b>S90</b> ↕ 38 x 20 x 35 058927	<b>S180</b> ↕ 38 x 20 x 44 059269	<b>S70</b> ↕ 38 x 20 x 40 061569
* = supplied as standard			
<b>37 LG</b>	✓*		✓
<b>39 &amp; 50 LG</b>		✓ with <b>28S</b> adapter	
<b>110,160 &amp; 220 LG</b>		✓ with <b>32S</b> adapter	




  

ADAPTORS	
	
<b>28S</b> M28 Ø16 Ø 18 x 155 064485	
	
<b>32S</b> M32 Ø16 Ø 18 x 155 064508	
<b>37 LG</b>	—
<b>39 &amp; 50 LG</b>	✓ <b>28S</b> M28 Ø16
<b>110,160 &amp; 220 LG</b>	✓ <b>32S</b> M32 Ø16



Small inductor data sheet.

## Sectors

-  Automotive workshops
-  HGV workshop
-  Maintenance

## Applications:

Small inductors are used to heat small parts, primarily in vehicle maintenance. Because of their small size, they can reach hard-to-reach places and their heating is highly localised.

Small inductors with a ferrite (concentrator) do not need to envelop a workpiece in order to heat it effectively.

## Application examples:



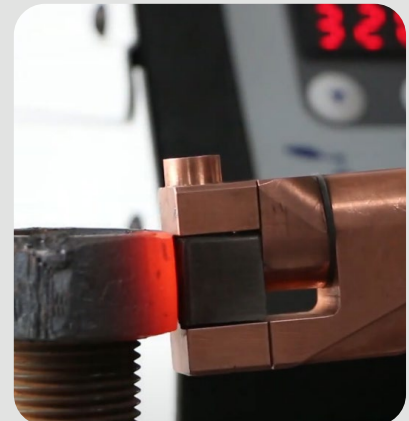
Releasing connecting rods:

- Small S90 inductor
- Powerduction 37LG




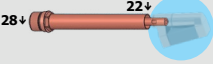
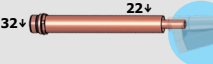
De-sealing an exhaust line assembly:

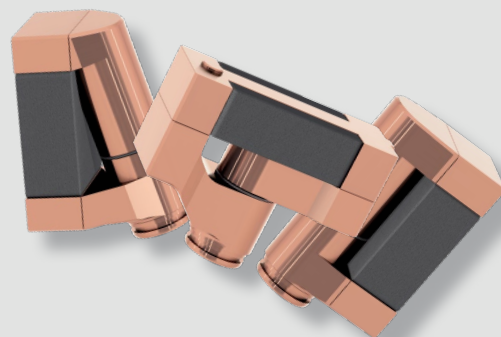
- Small S90 inductor
- Powerduction 37LG



Releasing a bolt:

- Small S180 inductor
- Powerduction 37LG

	<div><div></div><div>L70</div><div>↕ 81 x 31 x 55</div><div>059771</div></div>	<div><div></div><div>L180</div><div>↕ 81 x 31 x 66</div><div>059795</div></div>	<div><div></div><div>L90</div><div>↕ 81 x 31 x 46</div><div>059788</div></div>
* = équipement d'origine			
37 LG	—		
39 & 50 LG	✓ with 28L adaptor		
110, 160 & 220 LG	✓ with 32L adaptor*	✓ with 32L adaptor	
ADAPTORS			
	<div><div></div><div>28L</div><div>M28 Ø22</div><div>Ø 24 x 180</div><div>064492</div></div>		
	<div><div></div><div>32L</div><div>M32 Ø22</div><div>Ø 24 x 180</div><div>064515</div></div>		
37 LG	—		
39 & 50 LG	✓ 28L M28 Ø22		
110, 160 & 220 LG	✓ 32L M32 Ø22		



## Sectors

-  Industry
-  Maintenance
-  Agricultural workshops
-  HGV workshop

## Applications:

Large inductors are used in industrial and maintenance environments. For applications on damaged chassis, agricultural vehicles, etc. Large inductors need to be placed on a support point to avoid any risk of sparking.

## Application examples :



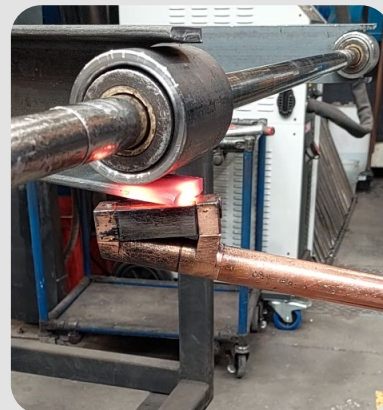
Straightening an HGV chassis:

- Large L90 inductor
- Powerduction 220LG



Agricultural maintenance:






- Large L180 inductor
- Powerduction 220LG











Fabrication of a trailer structure before it is welded:



- Large L70 inductor
- Powerduction 220LG

# INTERCHANGEABLE FERRITE INDUCTORS SMALL / COMPLETE

	 <b>S20/B1</b> ↕ 37 x 20 x 90 064874	 <b>S180/B1</b> ↕ 37 x 44 x 65 064881	 <b>S180/B3W</b> ↕ 33 x 29 x 90 067899	 <b>S180/B6</b> ↕ 102 x 32 x 21 087002
<b>37 LG</b>	✓			
<b>39 &amp; 50 LG</b>	✓ with <b>28S</b> adapter			
<b>110,160 &amp; 220 LG</b>	✓ with <b>32S</b> adapter			

FERRITE / FERRITE PROTECTION					
					
	 <b>B1</b> 053823	 <b>B1 (x5)</b> 079380	<b>B1</b> 056909	<b>B1 (x5)</b> 079397	<b>B3</b> 067875
				<b>B3</b> 072527	

DIFFICULT ACCESS ADAPTER			
 <b>90°-S</b> 082663		✓ compatible with 180/B1 ✓ compatible with 180/B3W ✓ compatible with 180/B6	✓ compatible with S180 HEAT TUBE D37 ✓ compatible with S180 HEAT TUBE D40 ✓ compatible with S180 HEAT TUBE D50

COMPLET (Ø 28)		
	<b>C20/B1 (20°)</b> ↕ 37 x 13 x 250 056862	<b>C180/B1 (90°)</b> ↕ 37 x 39 x 235 056879
	 <b>B1</b>	 <b>B1</b>
<b>37 LG</b>	✓*	✓

\* = supplied as standard



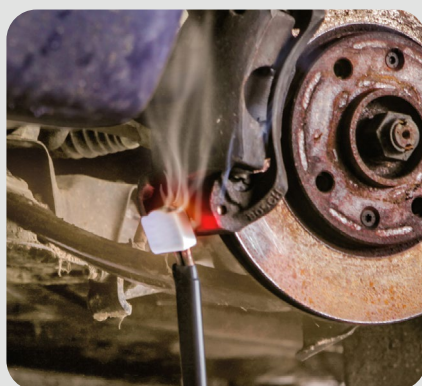
## Sectors

-  Maintenance
-  HGV workshops
-  Automobile
-  Automotive workshops

## Applications :

S inductors are used for precision heating, or where space is at a premium. Fitted with interchangeable ferrites (concentrators), they can be used to heat industrial materials, or for releasing seized parts, etc.

## Application examples:



Releasing seized brake discs:  
- Small S20/B1 inductor  
- Powerduction 50LG

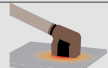

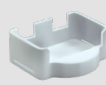


Wheel nut removal:  
- S180/B3W inductor



Loosening steering tie rods:  
- Small S20/B1 inductor

# INTERCHANGEABLE FERRITE INDUCTORS LARGE INDUCTORS

	<b>L180/B4</b> ↕ 124 x 84 x 56 079786	<b>L20/B4</b> ↕ 120 x 57 x 26 067882
<b>37 LG</b>	—	
<b>39 &amp; 50 LG</b>	✓ with <b>28L</b> adaptor	
<b>110, 160 &amp; 220 LG</b>	✓ with <b>32L</b> adaptor	
<b>FERRITE / FERRITE PROTECTION</b>		
		
<b>B4</b> 053755	<b>B4</b> 054844	



Large inductors data sheet.

## Sectors

-  Agricultural workshops
-  Maintenance
-  HGV workshop
-  Industry

## Applications:

Large inductors with interchangeable ferrites (concentrators) are ideal for straightening welded assemblies. They are used for applications in a variety of different sectors, but are regularly used in agricultural maintenance for straightening bucket teeth that may be bent, bulk heating, shrinking etc.

## Application examples:



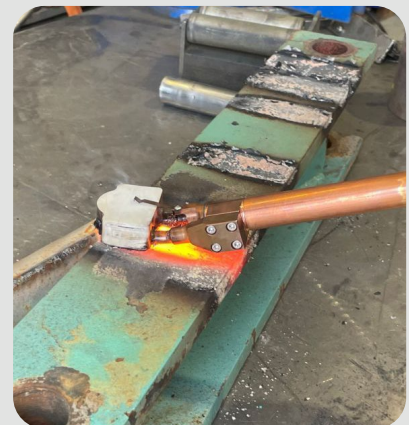
Straightening bucket teeth:

- Large L20B4 inductor
- Powerduction 220LG



Straightening on stainless steel framework:

- Large L20B4 inductor

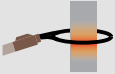


Heating on steel:

- Large L20B4 inductor

# SPECIAL INDUCTORS

## SMALL RINGS

				
Ø Diameter of workpiece to be heated (in mm)	Ø Diameter of the suitable ring inductor (in mm)	$\nabla 20^\circ$	$\nabla 90^\circ$	$\nabla 180^\circ$
16 < d < 18	Ø 20	S20/D20 078796	S90/D20 078871	S180/D20 069985
20 < d < 23	Ø 25	S20/D25 078802	S90/D25 078888	S180/D25 069992
24 < d < 28	Ø 30	S20/D30 078819	S90/D30 078895	S180/D30 070592
28 < d < 33	Ø 35	S20/D35 078826	S90/D35 078901	S180/D35 070608
32 < d < 38	Ø 40	S20/D40 078833	S90/D40 078918	S180/D40 070615
36 < d < 43	Ø 45	S20/D45 078840	S90/D45 078925	S180/D45 070622
40 < d < 48	Ø 50	S20/D50 078857	S90/D50 078932	S180/D50 070639
44 < d < 53	Ø 55	S20/D55 078864	S90/D55 078949	S180/D55 070646
37 LG		✓ S20/D20~D35, S90/D20~D35, S180/D20~D35		
39 & 50 LG		✓ avec adaptateur 28S		
110, 160 & 220 LG		✓ avec adaptateur 32S		



Ring inductor data sheet.

### Sectors



Industry



Maintenance



Automotive workshops

### Applications:

Ring inductors are used for tube bending/heating applications, bolt stripping and release, hydraulic cylinder maintenance, and brazing. They come in a range of different diameters and angles to accommodate any workpiece.

### Application examples:



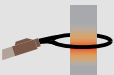
Steel pipe bending:  
- S180/D20 ring inductor







Heating a pipe:  
- S90/D20 ring inductor



Heating a rail:  
- S180/D25 ring inductor

		$\nabla 20^\circ$	$\nabla 90^\circ$	$\nabla 180^\circ$
Ø Diameter of workpiece to be heated (in mm)	Ø Diameter of the suitable ring inductor (in mm)			
48 < d < 55	Ø 60	L20/D60 078956	L90/D60 079106	L180/D60 069923
56 < d < 65	Ø 70	L20/D70 078963	L90/D70 079113	L180/D70 069930
64 < d < 75	Ø 80	L20/D80 078970	L90/D80 079120	L180/D80 069121
72 < d < 85	Ø 90	L20/D90 078987	L90/D90 079137	L180/D90 069947
80 < d < 95	Ø 100	L20/D100 078994	L90/D100 079144	L180/D100 069954
88 < d < 105	Ø 110	L20/D110 079007	L90/D110 079151	L180/D110 069961
96 < d < 115	Ø 120	L20/D120 079014	L90/D120 079168	L180/D120 069978
104 < d < 125	Ø 130	L20/D130 079021	L90/D130 079175	—
112 < d < 135	Ø 140	L20/D140 079038	L90/D140 079182	—
120 < d < 145	Ø 150	L20/D150 079045	L90/D150 079199	—
128 < d < 155	Ø 160	L20/D160 079052	L90/D160 079205	—
136 < d < 165	Ø 170	L20/D170 079069	L90/D170 079212	—
144 < d < 175	Ø 180	L20/D180 079076	L90/D180 079229	—
152 < d < 185	Ø 190	L20/D190 079083	L90/D190 079236	—
160 < d < 195	Ø 200	L20/D200 079090	L90/D200 079243	—
37 LG		—		
39 & 50 LG		✓ with 28L adaptor		
110, 160 & 220 LG		✓ with 32L adaptor		



Brazing - Preheating and Shrink-fitting			
			
> Ø 200 & < Ø 300	Production up on request		
110, 160 & 220 LG	✓ with adapter 32L		

## Sectors



Industry



Maintenance

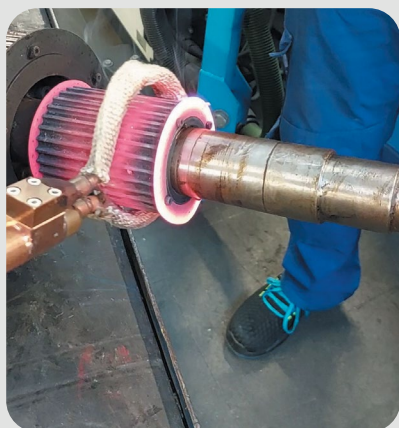


Construction / Earthworks

## Applications:

Ring inductors are used for pipe bending/heating applications, stripping and releasing bolts, and maintenance of hydraulic cylinders. They come in a range of different diameters and angles to accommodate any workpiece.

## Application examples:



Heating a gear:

- L180 ring inductor  
- Powerduction 220LG



Extraction of bushings on an electric motor:




- L20/D200 ring inductor  
- Powerduction 220LG



Cylinder shrink-fitting for hydraulic actuators

- L20/D200 ring inductor  
- Powerduction 220LG




# SPECIAL INDUCTORS HEAT TUBE

	S180 HEAT TUBE D24	S180 HEAT TUBE D30	S180 HEAT TUBE D37	S180 HEAT TUBE D40	S180 HEAT TUBE D50	S20 Pre Heat ↕ 120 x 50 x 38
	086982	086999	078604	078611	078628	086975
37 LG	✓					
39 & 50 LG	✓ with 28S adapter					
110,160 & 220 LG	✓ with 32S adapter					
DIFFICULT ACCESS ADAPTER						
 90°-S 082663		✓ compatible with 180/B1 ✓ compatible with 180/B3W ✓ compatible with 180/B6		✓ compatible with S180 HEAT TUBE D37 ✓ compatible with S180 HEAT TUBE D40 ✓ compatible with S180 HEAT TUBE D50		



Heat Tube inductors data sheet.

## Sectors

-  Maintenance
-  Automobile
-  HGV workshops

## Applications:

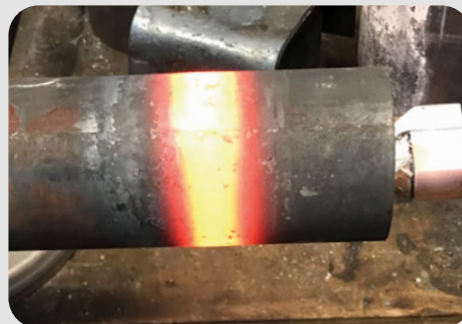
Heat tube inductors are used to instantaneously and precisely heat pipes, tubes or engine parts from within. But they can also be used to extract boiler tubes, worn rings, valve seats, etc.

## Application examples:



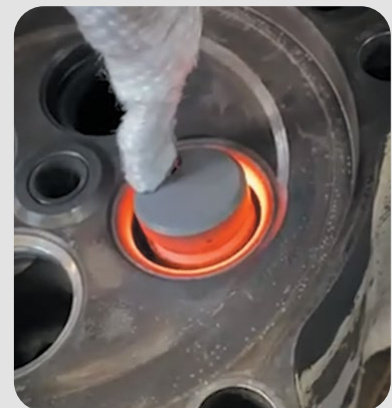
Valve seat heating:

- Heat Tube inductor S180/D40
- Width Ø 40



Gas boiler maintenance:

- Heat Tube inductor S180/D50
- Powerduction 160LG



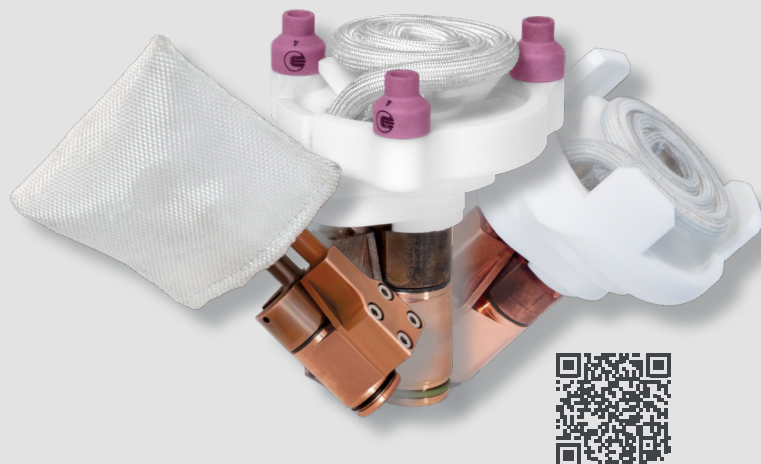
Valve seat heating:

- Heat Tube inductor S180/D37
- Width Ø 40

# SPECIAL INDUCTORS

## L20 ALU GLOVE - L180 SPIRAL

	L180/Spiral Ø 80 x 102 065000	L20 Alu Glove ↕ 127 x 60 x 25 069114	L180 Spiral Planage ↕ 124 x 88 x 88 087729
37 LG		—	
39 & 50 LG		✓ with 28L adaptor	
110, 160 & 220 LG		✓ with 32L adaptor	
FERRITE PROTECTOR			
	Spiral 069701	L180 Levelling 087736	



Spiral inductor data sheet.

### Sectors

- Industry
- Maintenance
- Automotive workshops
- The shipbuilding industry

### Applications:

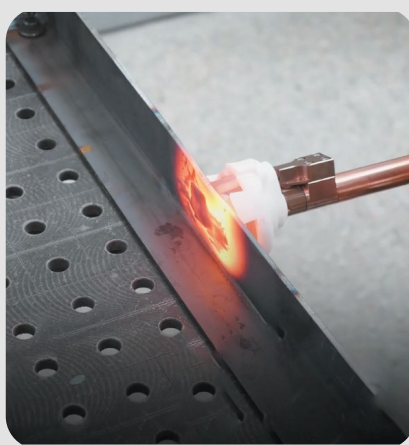
Special inductors are used for more specific applications, such as removing adhesives, stickers, etc.

The Spiral inductor can be used to heat thick material for straightening sheet metal, as well as for heat shrinking. The protective cover ensures that it remains at a safe distance from the workpiece.

### Application examples:



Sticker removal:  
- Inductor L20 Alu Glove




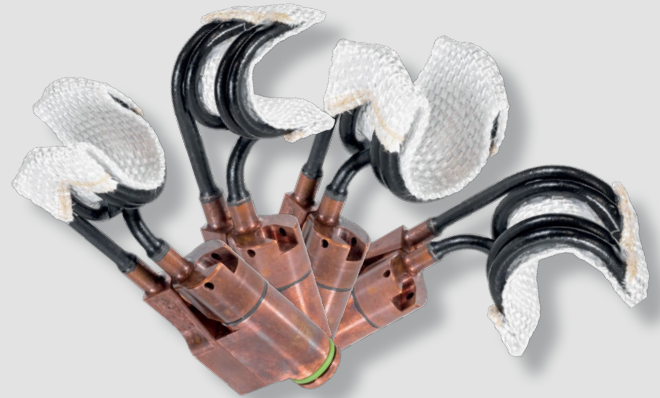
Realigning a welded assembly:  
- L180/Spiral inductor



Heating circles for workpiece rectification prior to welding:  
- L180/Spiral inductor

# SPECIAL INDUCTORS BRAZING

	<b>L90 BRAZ 16</b> Ø 1/2" / 16 mm	<b>L90 BRAZ 28</b> Ø 1" / 28 mm	<b>L180 BRAZ 16</b> Ø 1/2" / 16 mm	<b>L180 BRAZ 28</b> Ø 1" / 28 mm
* = supplied as standard	076907	076921	076914	076938
<b>37, 39 &amp; 50 LG</b>	—			
<b>110, 160 &amp; 220 LG</b>	✓ with 32L adaptor*			



## Brazing

Brazing using our BRAZ inductors, available in 2 positions 90 and 180 degrees, recommended for brazing (600°C to 1000°C). Widely used for plumbing and hydraulics, they produce clean, distortion-free brazing joints.

**The use of flux stripper (chemical substance, ref. 047440) cleans and prepares the surfaces of the parts that are being joined.** The flux helps optimise the brazing process to ensure a durable bond between the two materials. It is recommended when combining two copper components, but is necessary when connecting all other materials.



BRAZ inductors data sheet.

## Sectors



## Applications:

*Specially designed for brazing, they are widely used in plumbing and the hydraulics industry. They provide clean, deformation-free brazing.*

## Application examples:



Brazing with a rod on a Ø28 fitting:  
- L90 BRAZ inductor



Assembly of copper parts :  
- L90 BRAZ inductor  
- Powerduction 220LG



Joining workpieces:  
- L90 BRAZ inductor

# SPECIAL INDUCTORS

## SPIRAL - COILABLE - FIXED



Ø 18 Side	Spiral wire 054806	Ø 18 Front	Spiral wire 079977	Flexible 800 mm	Braided wire for spiral inductor 054813	
Ø 21 Side	Spiral wire 079953	Ø 21 Front	Spiral wire 079984			
Ø 24 Side	Spiral wire 054790	Ø 24 Front	Spiral wire 079991			
Ø 27 Side	Spiral wire 079960	Ø 27 Front	Spiral wire 080003			
Ø 30 Side	Spiral wire 078819	Ø 30 Front	Spiral wire 080010	Length 800 mm	Straight wire for spiral inductor 054868	Heating inductor POWERDUCTION 10R/B5 079472

10R - 10R PRO

### Sectors

- Maintenance
- Automotive workshops
- Agricultural workshops
- Locksmithing

### Applications:

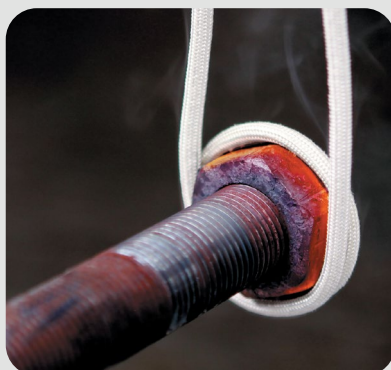
Inductors for the Powerduction 10R are designed to easily release and remove mechanical components in a matter of seconds. They are particularly well suited to applications in the automotive maintenance and agricultural sectors, and locksmithing.

### Application examples:



Releasing the joint of a wishbone:

- Flexible inductor
- Powerduction 10R



Releasing a bolt:

- L180/Spiral inductor
- Powerduction 10R



Heating on steel bar:

- 10R/B5 inductor
- Powerduction 10R



## Industry



## Maintenance

### Releasing

Bolt / screw / pipe  
S/L ring inductor



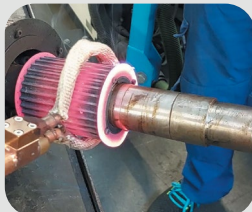
### Unjamming

Industrial tubing  
Heat Tube inductor



### Bushing removal

Gearing  
L ring inductor



### Releasing

Industrial bolt  
L180 ring inductor



### Bushing removal

Motor hubs electric  
L20/D200 inductor



## Truck

### Straightening

Shock absorbers  
L90 inductor



### Unjamming

Leaf spring



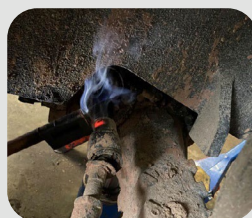
### Straightening

Chassis  
L90 inductor



### Unjamming

Steering tie-rod  
L90 inductor



## Automobile

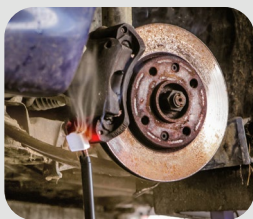
### Unjamming

Steering tie-rod  
L90 inductor



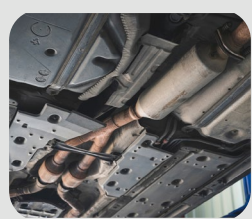
### Unjamming

Brake discs  
Inductor S20/B1



### Disassembly

Exhaust line  
S/L90 inductor



### Releasing

Crankshaft damper / pulley  
S/L70 inductor



### Extraction

Valve seat  
Heat Tube inductor



## Agricultural

### Straightening

Bucket teeth  
L ring inductor



### Unjamming

Steering tie-rod  
L90 inductor



### Straightening

Agricultural maintenance  
L180 Inductor



### Unjamming

Fork tooth  
S35 Inductor



# POWERDUCTION 10R

## THE MULTI-PURPOSE SPIRAL



Ø 21 Side	Spiral wire 079953
Ø 27 Side	Spiral wire 079960
Ø 18 Front	Spiral wire 079977
Ø 21 Front	Spiral wire 079984
Ø 24 Front	Spiral wire 079991
Ø 27 Front	Spiral wire 080003
Ø 30 Front	Spiral wire 080010
Ø 18 Side	Spiral wire 054806
Ø 24 Side	Spiral wire 054790
Ø 30 Side	Spiral wire 078819
800 mm	Flexible braided wire 054813
800 mm	Straight rigid wire 054868
Powerduction 10R Pro 080195	



Ø 18 Side	Spiral wire 054806
Ø 24 Side	Spiral wire 054790
Ø 30 Side	Spiral wire 078819
800 mm	Flexible braided wire 054813
800 mm	Straight rigid wire 054868
Powerduction 10R 062504	

### Areas of application



Automotive workshops



Locksmithing



Maintenance



Construction metalwork

### Advantages

- Compact and **very light (3.5 kg)**
- Highly portable, it can be carried slung over the shoulder
- Can be connected at any location with a **single-phase outlet**
- Quick set-up: connect, use, heat
- Power **1200 W**
- Supplied in a carry case with 5 or 12 inductors, spirals, braided and flexible wires

An induction power source equipped with a spiral inductor, the Powerduction 10R is the ideal tool for de-seizing applications. With 1200 W of power, it's compact and lightweight (3.5 kg), and comes with a shoulder strap. With its simple, fast set-up and single-phase plug, this power source is the perfect choice for all on-site operations.

### References:

10R (5 inductors)

ref. 062504 230V

ref. 068643 230V

10R PRO (12 inductors)

ref. 080195 230V

ref. 080300 230V



**Optional Extra**  
Sticker-removal inductor  
066601



**Optional Extra**  
Decoupling Inductor  
079472

### Areas of application



Motorised machinery workshops



Automotive workshops



Maintenance



Automobile

### Advantages

- Compact and portable (15 kg weight)
- Power: **3,700 W** adjustable in steps of 250 W
- Duty cycle at max. power : 7 min
- Supplied with S90 inductor (ref. 058927) or S180/B3W (ref. 067899)
- Power source with **liquid cooling** (1.5 l)
- Can be powered by a generator (4 kw)

Weighing in at only 15 kg and powered by single-phase 230 V power supply, the POWERDUCTION 37LG represents an excellent combination of power and portability. As it plugs into a 16 A socket, it is particularly recommended for use in machine, automotive or maintenance workshops.

### References:

37LG (S90)

ref. 056992 230V

ref. 072510 230V

37LG (S180/B3W)

ref. 083387 230V

ref. 083394 230V

# POWERDUCTION 37LG

## THE COMBINATION OF POWER AND MOBILITY



**Optional Extra**  
UNIVERSAL 800 trolley  
051331



## POWERDUCTION 39LG

### THE PERFECT BALANCE FOR AUTOMOTIVE WORKSHOPS

#### Areas of application



Automotive workshops



HGV workshop



Maintenance



Automobile

#### Advantages

- Compact and **easy to manoeuvre in the workshop**
- Power: **3,700 W** adjustable in steps of 250 W
- Duty cycle at max. power : 15 min
- Mains supply with **PFC technology** and **PROTEC 400**
- Inductor cable: 3 m + support arm
- Maximum power for **230 V socket with 16 A fuse**
- Liquid-cooled power source (7 L)

This unit is also rated at 3,700 W, and is fitted with a 7-litre coolant tank. Because of this, it can be used continuously at maximum power for 15 minutes.

To make it easier to move around the workshop, the POWERDUCTION 39LG is mounted on castor wheels and has an built-in bracket to support its 3 m lance.

#### References:

39LG (C20/B1)

39LG (S90)

ref. 058583 230V

ref. 080027 230V

## POWERDUCTION 50LG

### QUIET POWER

#### Areas of application



Automotive workshops



HGV workshop



Agricultural & Construction workshops



Maintenance

#### Advantages

- Power: **5,200 W continuous** (100% at 5200 W)
- **Single-phase power supply** with **PFC technology** and **PROTEC 400**
- Power cable: 8 m
- Inductor cable: 3 m + support arm
- Supplied with complete C20/B1 inductor (ref. 056862)
- Power cable for **connection to a 16 A socket**
- Liquid-cooled power source (7 L)

Able to deliver continuous heating at full power, the POWERDUCTION 50LG is the most high-performance model in the single-phase range. Suitable for intensive applications, its high power capability also means it can be used for straightening metal structures. Like the 39LG, it is equipped with a PFC (Power Factor Correction) and PROTEC 400 power supply.

These technologies offer 3 major advantages; can be used on a mains supply of 185 V to 265 V with overvoltage protection up to 400 V, up to 30% energy savings, and can be plugged into a 25 A / 230 V socket for maximum performance.

#### References:

50LG (C20/B1)

ref. 055599 230V



# COMBIDUCTION AUTO 50LG

2 POWER SOURCES IN 1



## Areas of application



Automotive workshops



Automobile



Agricultural workshops



Maintenance

## Advantages

- Power: **5,200 W continuous** (100% at 5200 W)
- **Single-phase power supply** with **PFC technology** and **PROTEC 400**
- Power cable for **connection to a 16 A socket**
- Power cable: 8 m
- Inductor cable: 3 m + support arm
- Supplied with complete C20/B1 inductor (ref. 056862)
- Supplied with glass inductor + adhesive inductor (ref. 053339 & ref. 053373)
- Liquid-cooled power source (7 L)
- Pneumatic foot pedal

The COMBIDUCTION AUTO 50 LG delivers immediate heating power for multipurpose applications on steel or aluminium.

Equipped with two lances, it features a combination of inductors designed for vehicle bodywork and mechanical processes. This induction unit is the ideal tool for garages and body shops.

## Reference:

Combduction Auto 50LG (C20/B1)

ref. 065901 230V



**Includes**  
Adhesive inductor  
Ref. 053339



**Includes**  
Glass inductor  
Ref. 053373



**Optional Extra**  
Spiral inductor  
Ref. 054783



**Optional Extra**  
Dent-Removal Inductor  
Ref. 054776

# POWERDUCTION 110LG

CONCENTRATED PERFORMANCE

## Areas of application



HGV, agricultural & construction workshops



Maintenance



Maritime & railway



Industry

## Advantages

- Power: **11 kW continuous power (max power)**
- Works on **three-phase sockets 16 A / 400 V or 35 A / 230 V**
- Power cable: 5m
- Inductor cable: 4 m + support
- Removable handle for improved usability
- Supplied with a **pneumatic control pedal**
- Liquid-cooled power source (7 L)

Operated at 400 V three-phase, the Powerduction 110LG combines a very impressive 11 kW of power in a compact design. This high-performance unit is effective in a wide range of applications, such as truck workshops and industrial production facilities.

For improved operator convenience, it is supplied with a pneumatic foot pedal.

## References:

110LG (L90)

ref. 058590 400V

ref. 065246 208 - 240V

110LG (L20/B4)

ref. 083400 400V



**Optional Extra**  
POWERDUCTION Heat  
Controller  
061644



## POWERDUCTION 160LG

### HIGH PERFORMANCE



#### Areas of application



HGV, agricultural & construction workshops



Maritime & railway



Maintenance



Industry

#### Advantages

- **16 kW continuous power** (16 kW maximum power)
- Works on **three-phase socket 32 A / 400 V or 45 A / 230 V**
- Liquid-cooled power source (30 L)
- Power cable: 4 m
- Inductor cable: 6 m + support
- Removable handle for improved usability
- Supplied with a **pneumatic control pedal**

Running on a three-phase 400 V power supply, the POWERDUCTION 160LG has an output of 16 kW. With a powerful output, integrated 30-litre coolant tank and advanced on-board technology, it will provide exceptional performance in industrial environments and heavy-duty applications.

The unit is also ergonomically designed, with a support pole to accommodate the 6 m inductor cable, 4 m power lead, pneumatic foot pedal, and 4 castor wheels for complete stability.

#### References:

**160LG (L90)**

ref. 057814 400V

ref. 065253 208 - 240V

**160LG (L20/B4)**

ref. 083417 400V



**Optional Extra**  
POWERDUCTION Heat  
Controller  
061644

## POWERDUCTION 220LG

### THE STRENGTH

#### Areas of application



HGV, agricultural & construction workshops



Maritime & railway



Forge



Maintenance



Industry

#### Advantages

- **Continuous power 22 kW** (22 kW max. power)
- Works on **three-phase socket 32 A / 400 V**
- Liquid-cooled power source (30 L)
- Power cable: 4 m
- Inductor cable: 6 m + support arm (ref. 066861) or 10 m + support arm (ref. 074576)
- Removable handle for improved usability
- Supplied with a **pneumatic control pedal**
- Supplied with L20/B4 inductor (ref. 067882)

The POWERDUCTION 220LG induction heating unit delivers immediate heating power for unsiezing and heating steel and aluminium. The flameless heating process is precise, instantaneous, and safe for use in the workplace. With its liquid cooling system, it can work continuously at its maximum power of 22 kW.

Designed for heavy-duty usage on 32 A sockets, the high performance and outstanding heating quality make it an essential solution in industrial environments.

#### References:

**220LG (L20/B4)**

ref. 066861 6 m cable 400V

ref. 074576 10 m cable 400V



**Optional Extra**  
POWERDUCTION Heat  
Controller  
061644



# SELECTION GUIDE

## POWERDUCTION






10 R	10R PRO	37 LG		39 LG		50 LG	COMBI 50 LG	110 LG		
ref. 062504	ref. 080195	ref. 056992	ref. 083387 ref. 083394 UK	ref. 058583	ref. 080027	ref. 055599	ref. 065901	ref. 065246	ref. 058590	ref. 083400







### TECHNICAL DATA

Power supply (50/60 Hz)	230V, 1~	230V, 1~	230V, 1~	230V, 1~	230V, 1~	230V, 3~	400V, 3~
Fuse	16 A	16 A	16 A	25 A	25 A	35 A	16 A
Power	1.2 kW	3.7 k.	3.7 k.	5.2 kW	5.2 kW	11 kW	
Frequency	45 → 100 kHz	15 → 30 kHz	20 → 60 kHz	20 → 60 kHz	20 → 80 kHz	20 → 60 kHz	
Power Factor Correction (PFC)	—	—	■	■	■	—	
PROTEC 400 (P400)	—	—	■	■	■	—	
Coolant liquid	Air	1.5 L	7 L	7 L	7 L	7 L	
Power Supply Cable	2 m	2 m	6 m	8 m + extension 16 A	8 m + extension 16 A	5m	
Cable inductor	1m	2 m	3 m	3 m	3 m	4 m	
Dimensions	23 x 14 x 10 cm	45 x 28.5 x 25 cm	53 x 70 x 37 cm	59 x 88 x 59 cm	59 x 88 x 59 cm	59 x 90 x 59 cm	
Weight	3 kg	15 kg	50 kg	70 kg	70 kg	80 kg	

### HEATING CAPACITIES

Duty Cycle	35 °C / 100 %	2 min	7 min	15 min	continuous	continuous	continuous
Nut Size		—	M10 → 1 s	M12 → 1 s	M14 → 1 s	M14 → 1 s	M18 → 1 s
Sheet Thickness		—	2 mm → 5 s	2 mm → 5 s	2 mm → 3 s 4 mm → 5 s	2 mm → 3 s 4 mm → 5 s	2 mm → 2 s 4 mm → 4 s
Metal Rod Diameter		Ø 8 → 10 s	Ø 10 → 15 s	Ø 10 → 15 s	Ø 10 → 10 s	Ø 10 → 10 s	Ø 10 → 7 s

### RECOMMENDED USES

Mechanics						
Auto						
PL						
Agri						
Construction industry						
General Maintenance						
Industry						



## 160 LG

## 220 LG

ref. 065253	ref. 057814	ref. 083417	ref. 066861	ref. 074576
----------------	----------------	----------------	----------------	----------------

230 V, 3~	400 V, 3~	400 V, 3~	
45 A	32 A	32 A	
16 kW		22 kW	
20 → 60 kHz		20 → 60 kHz	
—		—	
—		—	
30 L		30 L	
4 m		4 m	
6 m	6 m	10 m	
78 x 118 x 58 cm		78 x 118 x 58 cm	
150 kg		150 kg	
continuous		continuous	
M20 → 1 s		M45 → 2 s	
2 mm → 2 s 4 mm → 4 s		2 mm → 1 s 4 mm → 3 s	
Ø 10 → 5 s		Ø 10 → 4 s	

# On-Board Technologies

Controlling the heat and maintaining a precise temperature is an important consideration for induction. The POWERDUCTION range incorporates the technology essential for this control, to ensure the most effective results.



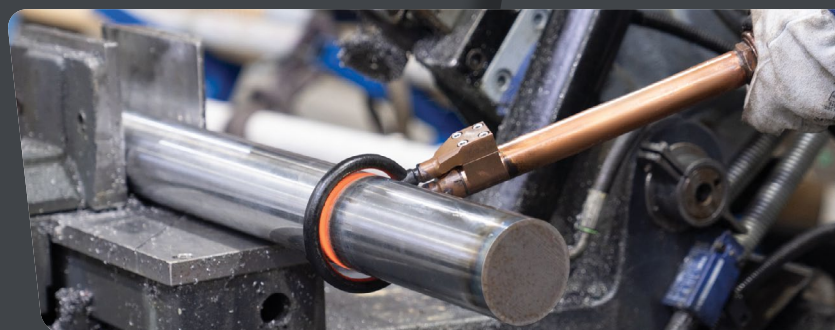
## Regulating the Temperature

The Powerduction 110LG, 160LG & 220LG units can be fitted with the intelligent 'Powerduction Heat Controller' module. It uses thermal sensors, and is connected to the electronic board so that it can be programmed directly via the interface of the Powerduction. This enables a set heating temperature to be maintained between 80°C and 350°C. This is beneficial for pre-heating workpieces prior to welding, shrink-fitting, and paint stripping.



## Controlling the runtime

The latest generation of POWERDUCTION units feature a "Timer" mode. This function allows precise adjustment of the heating time (from 1 to 30 seconds) to help achieve the right degree of precision. (excludes the 37 LG).



* = supplied as standard	S90 (90°) 058927	S70 (70°) 061569	S180 (180°) 059269	S20/B1 (20°) 064874	S180/B1 (180°) 064881	S180/B3W (180°) 067899	S180/B6 (180°) 087002
37 LG	✓*			✓			
39 & 50 LG				✓ with 28S adapter			
110, 160 & 220 LG				✓ with 32S adapter			

Ø 20	S20/D20 078796	S90/D20 078871	S180/D20 069985
Ø 25	S20/D25 078802	S90/D25 078888	S180/D25 069992
Ø 30	S20/D30 078819	S90/D30 078895	S180/D30 070592
Ø 35	S20/D35 078826	S90/D35 078901	S180/D35 070608
Ø 40	S20/D40 078833	S90/D40 078918	S180/D40 070615
Ø 45	S20/D45 078840	S90/D45 078925	S180/D45 070622
Ø 50	S20/D50 078857	S90/D50 078932	S180/D50 070639
Ø 55	S20/D55 078864	S90/D55 078949	S180/D55 070646
37 LG	✓ S20/D20~D35, S90/D20~D35, S180/D20~D35		
39 & 50 LG	✓ with 28S adapter		
110, 160 & 220 LG	✓ with 32S adapter		

- Protection kit for ring inductors 077386	
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S180 Heat Tube		S20 Pre Heat
Ø 24	D24 086982	D24 086975
Ø 30	D30 086999	
Ø 37	D37 078604	
Ø 40	D40 078611	
Ø 50	D50 078628	
39 & 50 LG	✓ with 28S adapter	✓ with 28S adapter
110, 160 & 220 LG	✓ with 32S adapter	✓ with 32S adapter

DIFFICULT ACCESS ADAPTER		
	✓ compatible with 180/B1 ✓ compatible with 180/B3W ✓ compatible with 180/B6	✓ compatible with S180 HEAT TUBE D37 ✓ compatible with S180 HEAT TUBE D40 ✓ compatible with S180 HEAT TUBE D50

ADAPTORS		
	28S M28 Ø16 064485	32S M32 Ø16 064508
39 & 50 LG	✓ 28S M28 Ø16	
110, 160 & 220 LG	✓ 32S M32 Ø16	

Boxes			
	28S/B type W for 39LG & 50LG 072497		32S/B type W for 110LG & 160LG 072503
Includes : S20/B1 (x1) S180/B1 (x1) S180/B3 (x1) 28S (x1) B1 (x1) B3 (x1)		Includes : S20/B1 (x1) S180/B1 (x1) S180/B3 (x1) 32S (x1) B1 (x1) B3 (x1)	
	L box 065796	Includes : L70 (x1) L180 (x1)	

Carriage for 32L adaptor inductor 075955	
4 or 8 wheels	

Ferrites											
B1 053823 B1 (x5) 079380	B2 053458	B3 067875	B4 053755	B5 079489	B1 056909 B1 (x5) 079397	B2 056916	B3 072527	B4 054844	Spiral 069701	Leveling 087736	

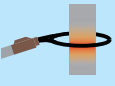



Glue kit for inductor 075948	
Bi-component Power Epoxy adhesive 150°C 054851	

# LARGE Ø32


## INDUCTORS

NEW

								
* = équipement d'origine	L90 (90°) 059788	L70 (70°) 059771	L180 (180°) 059795	L180/Spiral 065000	L180 Leveling 087729	L20/B4 (20°) 067882	L20 Alu Glove 069114	L180/B4 (180°) 079786
39 & 50 LG	✓ with 28L adaptor						—	
110, 160 & 220 LG	✓ with 32L adaptor*		✓ with 32L adaptor		✓ with 32L adaptor*	✓ with 32L adaptor*	✓ with 32L adaptor	✓ with 32L adaptor

			
	∠20°	∠90°	∠180°
Ø 60	L20/D60 078956	L90/D60 079106	L180/D60 069923
Ø 70	L20/D70 078963	L90/D70 079113	L180/D70 069930
Ø 80	L20/D80 078970	L90/D80 079120	L180/D80 069121
Ø 90	L20/D90 078987	L90/D90 079137	L180/D90 069947
Ø 100	L20/D100 078994	L90/D100 079144	L180/D100 069954
Ø 110	L20/D110 079007	L90/D110 079151	L180/D110 069961
Ø 120	L20/D120 079014	L90/D120 079168	L180/D120 069978
Ø 130	L20/D130 079021	L90/D130 079175	—
Ø 140	L20/D140 079038	L90/D140 079182	—
Ø 150	L20/D150 079045	L90/D150 079199	—
Ø 160	L20/D160 079052	L90/D160 079205	—
Ø 170	L20/D170 079069	L90/D170 079212	—
Ø 180	L20/D180 079076	L90/D180 079229	—
Ø 190	L20/D190 079083	L90/D190 079236	—
Ø 200	L20/D200 079090	L90/D200 079243	—
37 LG	—		
39 & 50 LG	✓ with 28L adaptor		
110, 160 & 220 LG	✓ with 32L adaptor		



- Protection kit for ring inductors  
077386

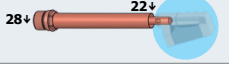
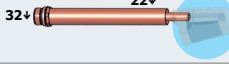





				
* = supplied as standard	L90 BRAZ 16 Ø 1/2" / 16 mm 076907	L90 BRAZ 28 Ø 1" / 28 mm 076921	L180 BRAZ 16 Ø 1/2" / 16 mm 076914	L180 BRAZ 28 Ø 1" / 28 mm 076938
37, 39 & 50 LG	—			
110, 160 & 220 LG	✓ with 32L adaptor*			

- Protection kit for brazing inductors  
077515



	L180R X Made to order	
37, 39 & 50 LG	—	
110, 160 & 220 LG	✓ with 32L adaptor	

ADAPTORS		
	28L M28 Ø22 064492	28+  22+
	32L M32 Ø22 064515	32+  22+
37 LG	—	
39 & 50 LG	✓ 28L M28 Ø22	
110, 160 & 220 LG	✓ 32L M32 Ø22	

COMPLET (Ø 28)			
C20/B1 (20°) 056862		B1	C180/B1 (90°) 056879
			
			B1
			C180/B2 (90°) 056886
			
			B2
* = supplied as standard			
37 LG	—		
39 & 50 LG	✓*		
110, 160 & 220 LG	—		

# THINGS YOU NEED TO KNOW

## ABOUT INDUCTION

### 1. Heating material

Depending on the material and the type of power source used, heating times and efficiency will vary. It's important to choose the right machine for your application and the type of materials you'll be working with.

For the best and quickest results, regardless of the thickness of the material, refer to the comparison table below:

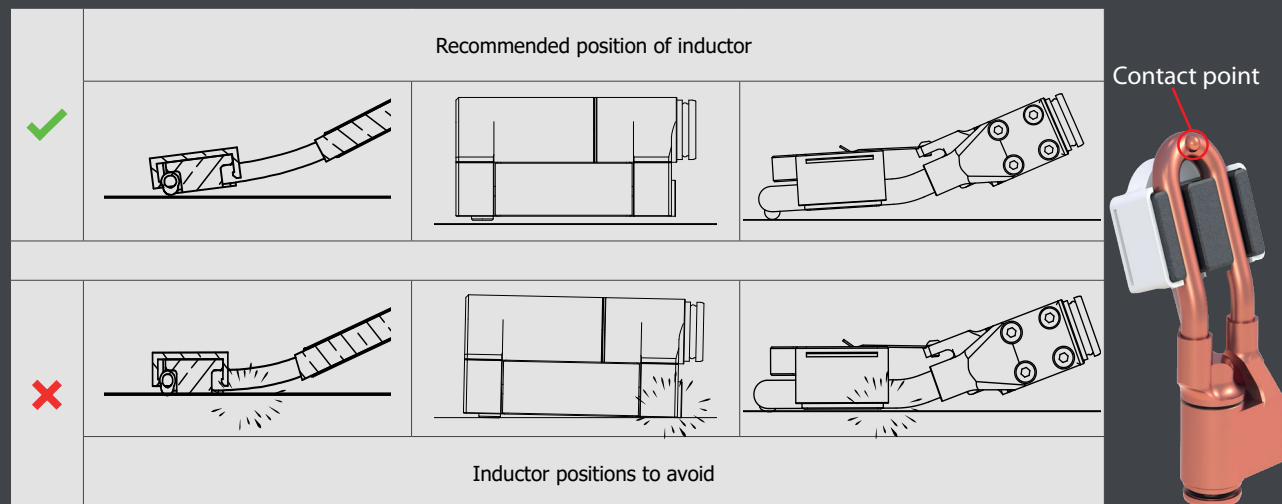
Power sources	Steel	Copper	Brass	Aluminum	Zinc	Iron	Cast iron
10 R	+	-	-	-	-	-	-
37LG / 39LG	+	-	-	-	-	-	-
50 LG	++	-	-	+	-	-	++
110LG / 160LG / 220LG	+++	+++	+++	+++	+	+++	+++

### 2. Ferrite inductors

Positioning the inductor correctly is an essential part of maximising the service life of the ferrite. We therefore recommend being careful with the positioning in order to avoid the risk of sparks.

For ferrite inductors, correct placement is done simply by placing the contact point of the inductor on the surface of the material that you are working on. If the inductor is not positioned as recommended, it could sustain premature wear. To ensure effective heating, keep the inductor moving.

For more details on the best way to use the inductor, please visit the web page: <https://planet.gys.fr/pdf/manual/fr/056862.pdf>



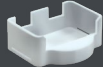
The inductors must be protected at all times to avoid premature wear. See below for ferrite protectors suitable for use with the inductors.



**B1**  
056909



**B3**  
072527



**B4**  
054844



**Spiral**  
069701



### 3. Coolant liquid

To ensure that your machine operates at its optimum duty cycle, please fill the coolant tank to maximum level. Use the coolant specified by GYS, which is available in different volumes:

- 2 L 082212 recommended for 37LG
- 5 L 062511 recommended for 39/50LG
- 10 L 052246 recommended for 39/50/110/160/220LG

For regular and intense usage, we recommend replacing the coolant every year. The coolant must be changed every 2 years, regardless of how often the unit is used, to minimise the risk of deterioration in the Powerduction coolant system.



#### 4. Ring inductors

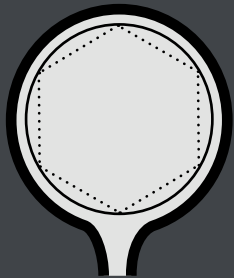
The ring inductor must never come into contact with the workpiece that it is heating (risk of damaging the inductor). We highly recommend applying a protective insulating fabric.



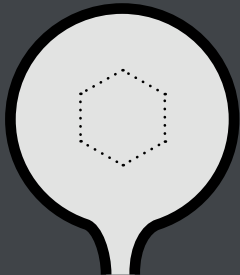
Protection kit for ring inductors  
077386



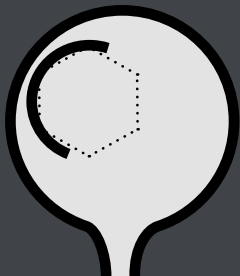
*You should also ensure that you use the correct diameter ring, and position it correctly for heating:*



A gap must be left between the ring and the workpiece to limit the risk of the protective cover overheating, and the workpiece getting stuck in the ring as it expands. (Refer to the tables on pages 5 and 6)



If the diameter is too small, heating will be less effective. The unit will not be able to deliver its maximum power to the workpiece.




If the workpiece is not positioned centrally in the ring, it will not be heated evenly. The side of the workpiece closest to the inductor will be heated more.

For more details on the best way to use the inductor, please visit the web page:  
<https://planet.gys.fr/pdf/manual/fr/069985.pdf>

#### 5. Powering your machine off a generator

All our three-phase and single-phase power sources can be run on generators. When using it on a regular basis, please ensure that the generator is powerful enough for the job.

For the best match for your power source, please refer to the catalogue. Also check that the protection devices on your generator (fuses/circuit breakers) are suitable for your GYS induction units.

	 Protected & compatible power generator (+/-15 %)
10 R	1.5 kW
37LG / 39LG	4 kW
50 LG	6 kW
110 LG	15 kW
160 LG	16 kW
220 LG	22 kW







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since 1964



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