

## **POWER CLAMP**

**SHRINKING TECHNOLOGY** 















### **CONTENT**

The Power Clamp System	
Top 10 reasons to use HAIMER shrink fit technology	5
The contact cooling	6
The coil technology	7
Amortization HAIMER Power Clamp	11
Differentiation Basic Line/Profi Line/i4.0 Line	12
Equipment features	14
Power Clamp Basic Line	
Power Clamp Nano	16
Power Clamp Basic	18
Power Clamp Basic & Easy Cooler	20
Power Clamp Profi Line	
The modular system	22
Power Clamp Profi Line program	24
HAIMER Power Clamp New Generation	26
Power Clamp Economic / Economic NG	28
Power Clamp Economic Plus / Economic Plus NG	30
Power Clamp Comfort / Comfort NG	32
Power Clamp Profi Plus NG	34
Power Clamp Preset NG	36
Power Clamp i4.0 Line	
Shrink fit technology industry 4.0-ready	38
Power Clamp i4.0 Line highlights	40
Power Clamp i4.0 Line cooling	41
Power Clamp Nano NG i4.0	42
Power Clamp Economic Plus NG i4.0	44
Power Clamp Air i4.0 Eco	46
Power Clamp Air i4.0 Comfort	48
Power Clamp Comfort i4.0	50
Power Clamp Preset i4.0	52
Power Clamp Premium i4.0	54
Power Clamp Sprint i4.0	56
Accessories	
Carts and inserts	58
Base holder	59
Chuck support	61
Precision chuck support	63
Chuck support for rotary table	65
Chuck support for ER shrink fit collets	66
Simple presetting	68
Length presetting	69
Cooling adapter and cooling adapter blanks	70
Mini shrink and cooling sleeves	71
TME Cooling System with temperature control	72
Tension springs for length presetting for shrink fit chucks	73
Shrink-out device	74
Shrink fit brush	75
Reduction sleeves for shrink fit chucks	76
Auxiliary fume extraction unit	77
Upgrade kit 13 kW HD coil	78
Stop discs	79







### TOP 10 REASONS TO USE HAIMER SHRINKING TECHNOLOGY

1

#### **Unsurpassed machining accuracy**

We guarantee  $< 3 \mu m$  run-out at  $3 \times D$ . This degree of accuracy is consistently repeatable for any number of operators from shift to shift.

6

#### Balance accuracy and repeatability

We hold our shrink fit holders to the highest balance accuracy standards (G2.5 @ 25,000 rpm). Since shrink fit holders have no moving parts, it offers the best balance repeatability of any tool holding system on the market.

2

#### Slim profiles - perfect for 5-axis machining

HAIMER shrink fit tool holders have very slim profiles. They can also be modified to a straight-walled design if needed in order to prevent tool holder collision with the workpiece.

7

### Reduction of tool changing time & less tool holder accessory inventroy

Nothing beats the tool change time of our shrink fit chucks when combined with the HAIMER Power Clamp shrink fit machines. Tool changes can be done in less than 5 seconds.

3

#### **Gripping torque**

Our shrink fit chucks grip the cutting tool 360° around the shank on multiple planes, delivering very high gripping torque that prevents chatter during roughing or finishing operations.

8

#### Clean bores

Run-out accuracy is often compromised if contaminants are introduced to the bore of a tool holder during machining. A shrink fit chuck is a sealed system by design. This minimizes the introduction of contaminants.

4

#### Consistency of setup

A unique benefit of HAIMER shrink fit is that it eliminates any variation between tool changes. Removing these variables means regardless of the operator and their experience level, you will get repeatable uniformity in tooling setup and equally consistent results.

9

#### **Coolant options**

Our shrink fit chucks are available with a variety of coolant options, including our Cool Jet and Cool Flash technology, which delivers coolant down to the cutting edge of the tool. This helps clean out chips and can aid in providing better part finishes.

5

### **Extended reach options**

Shrink fit extensions provide many options. For example, when machining deep cavities, you can place shrink fit extensions into standard shrink fit chucks, getting unsurpassed gage lengths with minimal run-out.

10

### Availability

Our best-selling machines are available and stocked locally. All other configurations and modifications are available per order within just a couple of weeks. Shrink fit holders are available on stock in a big variety of lengths in the most common spindle interfaces.



### The contact cooling

The patented cooling system from HAIMER is the quickest and cleanest method of cooling shrink fit chucks. There is a suitable cooling body for every chuck. The cooling body has full surface contact with the shrink fit chuck and extracts the heat smoothly. A water cycle cools the cooling body.

The cooling procedure takes place evenly and gently. There is no deformation of the chuck. The runout accuracy is preserved. The chucks do not come into contact with the water. They remain dry and do not rust. The work place also remains clean and dry.



### Cooling body for rapid cooling

- Cooling in record time: approx. 30 sec.
- Tool holders remain dry, no build-up of rust
- No time lost through cooling process
- Even cooling, runout accuracy is maintained
- Hot points are always covered, no risk of injury
- Hot parts need not be touched; gentle handling of chuck, no shocking
- No heating of cooling body, even after multiple shrink fit procedures: heat is removed with water cycle
- 5 cooling bodies for all standardized chucks
- No messy water, always a clean work space

### The coil technology

#### The induction coil is the core of inductive shrink fit technology.

HAIMER has been the leading developer of inductive shrink fit technology for tool holders for years. A number of patents, predominantly in the field of induction coils, is the visible proof of our innovation and advancement.

#### **Power electronics**

The second component of shrink fit technology is power electronics. It supplies the coil with power. Frequency and current must be exactly coordinated with one another to do this. Heating must take place within seconds, without overheating the chuck. A specially developed procedure for power regulation makes sure this is the case, independent of the main voltage. HAIMER offers shrink fit equipment with an output of 10 to 20 kW.

#### Operation

Equally decisive for the success of an investment is its acceptance among your employees. A machine used frequently pays for itself within a short period of time. HAIMER shrink fit equipment can be equipped for any purpose and need. From a simple device with one shrink fit station and no cooling, up to fully equipped machines with rotary table, integrated contact cooling and system cart.







### Examples of HAIMER coils:

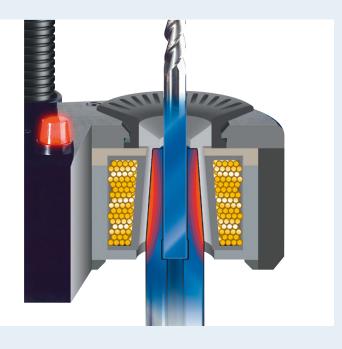
- 1) Standard coil V2008
- 2) Motorized New Generation Coil with auxiliary fume extraction unit
- 3) 13 kW HD coil



### The standard coils

The standard coils have been proven for years with interchangeable stop discs. All shrink fit chucks with a diameter of 3 to 32 mm can be heated with a single coil. Just 5 stop discs are enough to adapt the coil to each chuck, from the smallest to the largest.





### The standard coil

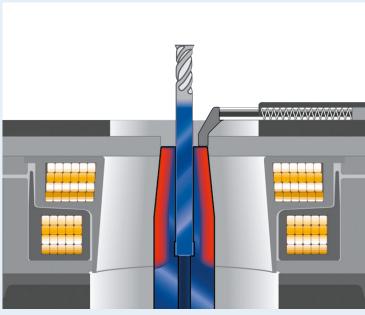
With over 20 years of experience in making inductive shrink fit machine coils, HAIMER has evolved our standard coil to be a very solid and efficient component on our machines.

Through our intelligent control, the coil only activates the inductive zones that will most effectively heat up the shrink fit chuck in order to give long lasting tool holder life.

### The New Generation (NG) Coils

The intelligent NG coils are particularly flexible, comfortable and adjustable. With one turn, you can set the coil to the size of the shrink fit chucks, both in length and diameter. Stop discs are no longer necessary. This means the chuck is only heated where it is intended, even with special sizes.





### The NG Coils have two heating zones

In an effort to maximize the efficiency of the heating process, HAIMER has a revolutionary two heating zone design in their NG (New Generation) intelligent coils. This allows for even and efficient heating across the nose of the shrink fit chuck – leading to longer tool holder life. These coils can also adapt themselves to ultrashort shrink fit chucks easily, which can often provide a benefit in the machining process.



### The motorized New Generation (NG) Coils

For the most convenient and automated shrinking process the **motorized NG coil on a HAIMER i4.0 shrink machine** is highly recommended in conjunction with a hand scanner.

The intelligent, motorized NG coil adjusts automatically to the correct tool diameter and length for heating up the tool holder/shrink fit collet with the right parameters.

Just scan the tool holder or shrink fit collet's data-matrix code and the coil's motor starts to move the coil to the right position.

Place the motorized NG coil on the shrink fit chuck/collet and start inductive heating at the push of a button.

This leads to a very smooth, consistent and operator independent shrinking process.



# 

#### The NG Coils have two heating zones

In an effort to maximize the efficiency of the heating process, HAIMER has a revolutionary two heating zone design in their NG (New Generation) intelligent coils. This allows for even and efficient heating across the nose of the shrink fit chuck – leading to longer tool holder life. These coils can also adapt themselves to ultra-short shrink fit chucks easily, which can often provide a benefit in the machining process.

### **Amortization HAIMER Power Clamp**

#### Purchase price

Amortization Power Clamp with Speed Cooler dependent on the number of shrink cycles per day.

Saving of time: 5 min. per cycle Cost set: 50 €/h

### The following diagram shows the short amortization periods:





### BASIC LINE PROFI LINE i4.0 LINE

HAIMER has the right shrink fit technology for any need.

Take advantage of the largest range of shrink fit equipment and coils in the world.



### **BASIC LINE: CONCENTRATING ON THE BASICS**

The Basic Line is the economical entrance into inductive shrink fit technology. The power electronics enables problem free shrinking. The mechanical construction of the equipment has, on the other hand, been kept deliberately simple and functional. There are just single chuck solutions.

The Basic Line equipment is exclusively designed for operation with standard coils. It is not possible to upgrade.

The Basic Line is ideal for the price-conscious user, who only wants to shrink a few tools on a daily basis.

For micro machining purposes the special horizontal shrink fit machine Power Clamp Nano is part of the program. It combines perfectly easy tool handling of small diameters and fast tool exchange.





### PROFI LINE: MODULAR VERSATILITY

The Profi Line offers the full range of performance and is unbeatable in efficiency. High performance coils, contact cooling and a rotary table guarantees simultaneous shrinking and cooling in record time. No wishes remain unfulfilled.

The machines of the Profi Line work with both the standard coils and the intelligent, comfortable NG coils. The equipment recognizes each coil and chooses the correct shrink fit parameters automatically.

The shrink fit machines of the Profi Line form a modular system. The start-up Power Clamp Economic machine can gradually be upgraded to the high-end Power Clamp Comfort NG.

### i4.0 LINE: NETWORK-COMPATIBLE AND COMMUNICATIVE

In addition to the well-known machines of the Basic and Profi line, the all-new Industry 4.0-ready and network-compatible series was developed with its Power Clamp Premium i4.0, Sprint i4.0, Preset i4.0, Air i4.0, Comfort i4.0, Economic Plus NG i4.0 and Nano i4.0 models.

The machines are equipped with a workshop friendly 7" touch display and new intuitive software, which makes machine operation with or without gloves even easier. Upon request, the Power Clamp i4.0 devices can also be equipped with a hand-held scanner that is able to read the shrinking parameters of Data-Matrix codes. This way, automated shrinking is easier than ever before.

The new and ergonomic shrinking stations have a modern and high-quality design. Due to their patented NG coil, they are suited for both solid carbide and HSS tools with diameters from 1/8-1/4" (3–32 mm).

### **EQUIPMENT FEATURES**

LINE		BASIC LINE		PROFI LINE				
SYMBOL	FEATURE	NANO	BASIC	ECONOMIC	ECONOMIC NG	ECONOMIC Plus	ECONOMIC Plus NG	COMFORT
10	Single chuck version	•	•	•	•	_	_	_
1010	Cooling and shrinking simultaneously	_	_	0	0	•	•	•
	Rotary table	_	_	0	0	0	0	•
	Cooling	•	_	0	0	•	•	•
	Speed Cooler with Cooling Manager	_	_	0	0	•	•	•
	TME cooling system	_	_	_	_	0	0	0
	Modular system	_	_	•	•	•	•	•
OLAA	Standard coil	_	•	•	0	•	0	•
	Variable NG coil	_	_	0	•	0	•	0
	Intelligent motor coil	_	_	0	0	0	0	0
	13 kW HD coil	_	_	O	0	0	0	٥
	20 kW coil	_	_	_	_	_	_	_
	5 keys membrane keypad	•	•	•	•	•	•	•
4.0 REALTY	Industry 4.0 ready	_	_	_	_	_	_	_
	7" Touchscreen	_	_	_	_	_	_	_
f	Hand-held scanner	_	_	_	_	_	_	_
	Length presetting	•	_	o <b>*</b>	*	*	*	*
	System cart	0	0	0	0	0	0	0
	Auxiliary fume extraction unit	_	0	0	0	0	0	0

						i4.0	LINE			
COMFORT NG	PROFI PLUS NG	PRESET NG	NANO NG i4.0	ECONOMIC Plus ng 14.0	AIR i4.0 ECO	AIR i4.0 Comfort	COMFORT i4.0	PRESET i4.0	PREMIUM i4.0	SPRINT i4.0
_	_	_	•	_	•	•	_	_	_	_
•	•	•	_	•	•	•	•	•	•	•
•	•	_	_	0	_	_	•	_	_	_
•	•	•	•	•	•	•	•	•	•	•
•	•	•	_	•	•	•	•	•	•	_
0	0	0	_	0	•	•	0	0	•	•
•	•	•	_	•	•	•	0	0	_	_
0	0	0	_	0	0	0	0	0	0	0
•	•	•	_	•	•	0	•	•	•	•
0	0	0	•	0	0	•	0	0	o	0
0	0	0	_	0	0	0	0	0	0	0
_	0	_	_	_	_	_	_	_	_	_
•	•	•	_	_	_	_	_	_	_	_
_	_	_	•	•	•	•	•	•	•	•
_	_	_	•	•	•	•	•	•	•	•
_	_	_	•	0	0	•	0	0	0	0
*	*	•	•	*	0	0	0	•	0	0
0	0	0	0	0	0	0	0	0	_	_
0	0	0	_	0	0	0	0	0	0	0

### **Power Clamp Nano**

### Horizontal shrink fit machine for small tools



Air cooling

small tool holders

### POWER CLAMP BASIC LINE POWER CLAMP NANO

### **Power Clamp Nano**

- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-5/8" (3-16 mm)
- Easy tool handling by horizontal shrinking

Technical details	
Main voltage	3×400–480 Volt, 16 Ampere, 13 kW
Compressed air	87 psi (6 bar)
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-5/8" (3-16 mm)
Maximum length of shrink fit chuck with tool	9" (230 mm)
■ Dimensions W×D×H	28×24×25" (715×600×630 mm)
■ Weight	165 lbs (75 kg)
Power Clamp Nano Order No.	PC106-I04-C20-US*

Accessories	Order No.
Chuck support for Power Clamp Nano	See page 61
Power Clamp Nano Air Cooling	80.164.00
■ Cooling nozzle for Mini Shrink Ø 3−12 mm	80.164.02
Calibration adapter Nano	80.165.01
Clips for tools for length presetting	
■ Ø 3 mm	80.166.03
■ Ø 4 mm	80.166.04
■ Ø 5 mm	80.166.05
■ Ø 6 mm	80.166.06
■ Ø 8 mm	80.166.08
■ Ø 10 mm	80.166.10
■ Ø 12 mm	80.166.12
Set of clips incl. plate	80.166.00



### Calibration adapter for length presetting (optional)

For resetting of the measuring device



### Clips for tools (optional)

For safest and precise handling of high quality carbide tools – especially with smaller diameters

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



### **Power Clamp Basic**

**Entry-level shrink fit machine without cooling** 



### POWER CLAMP BASIC LINE POWER CLAMP BASIC

The Power Clamp Basic is the economical entrance into inductive shrink fit technology. The power electronics enables problem free shrinking. The mechanical construction of the equipment has, on the other hand, been kept deliberately simple and functional.

The Basic Line is ideal for the price-conscious user, who only wants to shrink a few tools on a daily basis.

### **Power Clamp Basic**

■ Power: 10 kW

■ Main voltage: 3×400-480 V, 16 A

■ Tools: solid carbide and HSS from Ø  $1/8-1\frac{1}{4}$  " (3-32 mm)

With 1 base holderWith 1 chuck support

Technical details	
Main voltage	3×400-480 Volt, 16 Ampere, 10 kW
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-1¼ " (3-32 mm)
Maximum length of shrink fit chuck with tool	13.8" (350 mm)
■ Dimensions W×D×H	26 × 35 × 24" (650 × 900 × 600 mm)
■ Weight	99 lbs (45 kg)
Power Clamp Basic Order No.	PC105-I01-C00-EU*

Accessories	Order No.
Chuck support for single-chuck system	See page 62

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



### Power Clamp Basic + Easy Cooler

Entry-level shrink fit machine with simple air cooling



### POWER CLAMP BASIC LINE POWER CLAMP BASIC & EASY COOLER

The Power Clamp Basic is the economical entrance into inductive shrink fit technology. The power electronics enables problem free shrinking. The mechanical construction of the equipment has, on the other hand, been kept deliberately simple and functional.

The new **Easy Cooler cooling unit** is the perfect complement to the Power Clamp Basic, so that tool holders and shrink collets can be cooled quickly and easily.

The Basic Line is ideal for the price-conscious user, who only wants to shrink a few tools on a daily basis.

#### **Power Clamp Basic**

- Power: 10 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)
- With 1 base holderWith 1 chuck support

Technical details	
Main voltage	3×400-480 Volt, 16 Ampere, 10 kW
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-1¼ " (3-32 mm)
Maximum length of shrink fit chuck with tool	13.8" (350 mm)
■ Dimensions W×D×H	26 × 35 × 24" (650 × 900 × 600 mm)
■ Weight	99 lbs (45 kg)
Power Clamp Basic Order No.	PC105-I01-C00-EU*

The Easy Cooler from HAIMER is the new cooling device for tool holders and shrink fit collets from Ø 1/8-11/4" (3-32 mm)

- Also possible as stand-alone unit
- Contour-independent cooling of tool holders and shrink fit collets
- One height level with Power Clamp Basic for easy movement of the base holders
- Operates via compressed air, no power supply necessary

Technical details Easy Cooler	
<ul><li>Compressed air</li></ul>	6 bar
Maximum total length	13.8" (350 mm)
■ Dimensions W×D×H	13.8×22×41.5" (350×570×1055 mm)
Easy Cooler Order No.	PC900-C22

Accessories		Order No.
<ul><li>Chuck support fo</li></ul>	r single-chuck system	See page 62

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



### **POWER CLAMP PROFILINE**

# Power Clamp Profi Line: The modular system

#### Step by step more shrink fit technology

Basic unit can be combined with two rear walls and two base plates. The chuck support for the rotary table will be supplied as requested.

#### **Accessories**

Speed-Cooler Upgrade Kit
 Speed-Cooler with rear wall incl. 5 cooling bodies
 Order No. 80.115.00

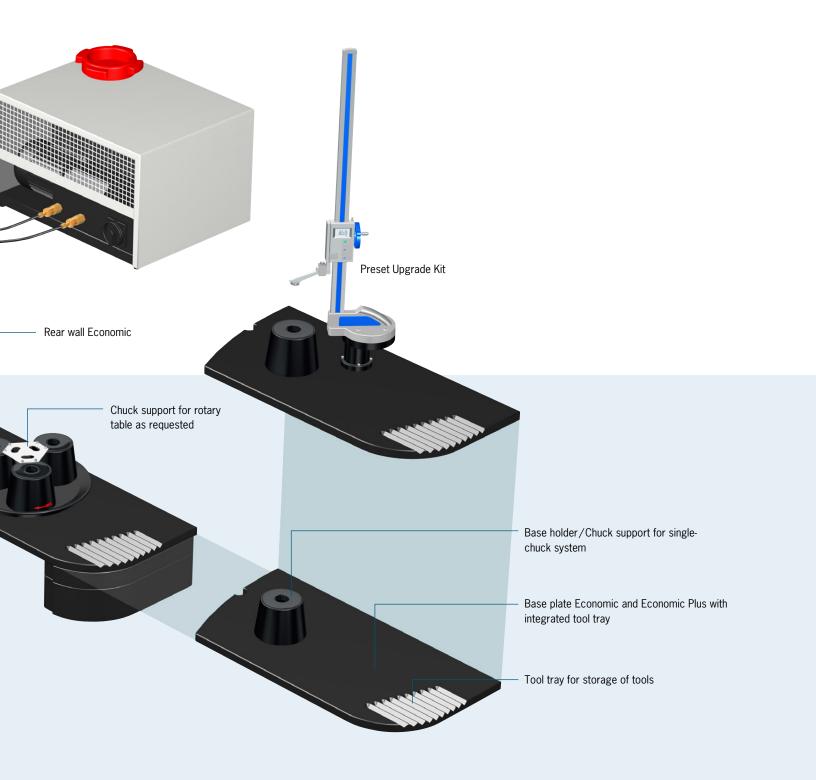
Rotary table Upgrade Kit
 (= Power Clamp Comfort)
 Base plate with rotary table for 3 chucks incl. craning boxes
 Order No. 80.116.00

Preset Upgrade Kit
 Measuring plate, height gage,
 2 precision base holder incl. craning boxes

Order No. 80.117.00



Base plate standard made of aluminum with rotary table, integrated tool tray and craning boxes





### **POWER CLAMP PROFILINE**

### **Power Clamp Profi Line Program**

Start with the essential, then upgrade as needed: keep an eye on the future.

An entrance into modern shrink fit technology: State-of-the-art coil technology at low costs. The question is not "Should I invest in shrink fit technology" but rather "When will I invest in shrink fit technology". It is now time to invest in the technology of the future.

Our modular system offers the ideal start-up solution.



Basic unit Comfort	3×400-480 Volt, 16 Ampere, 13 kW
	, , ,
<ul> <li>Maximum length of shrink fit chuck (longer chucks upon request)</li> </ul>	20" (510 mm)
■ Dimensions W×D×H	$33 \times 24 \times 38$ " (840 × 600 × 970 mm)
■ Weight	154 lbs (70 kg)
Speed-Cooler unit	230 Volt/60 Hz, 1 kW
■ Dimensions W×D×H	22×18×16" (565×450×400 mm)
■ Weight	99 lbs (45 kg)



Power Clamp Economic Plus NG with cooling, without rotary table, incl. 1 base holder and 1 chuck support, with integrated tool tray



**Power Clamp Comfort NG** with cooling, rotary table, 1 chuck support, integrated tool tray and craning boxes



### Power Clamp Profi Plus NG high powered shrink fit machine

- Heating power 20 kW
- For shrinking of tools from 1/8-2" (Ø 3-50 mm)
- For HSS- and solid carbide tools
- Big coil for Ø 1 1/2-2" (40-50 mm) (optional)
- Incl. rotary table and chuck support
- Incl. tool tray
- With craning boxes for accessories



### POWER CLAMP PROFILINE HAIMER POWER CLAMP NEW GENERATION

### Single hand operation

 Positioning of coil and starting of shrink process with one hand

### Cooling bodies for rapid cooling

- Chucks remain dry
- No rust
- Hot spots always covered, no danger of injury
- Hot parts need not to be taken into the hand

### 3 The turning table

- Work fast and efficient
- Heating and cooling at the same time on 3 stations
- No idle periods



Chuck support

### Chuck support for 3 chucks

- For all actual tapers
- Also different tapers combined possible

### 7 The display

- User-friendly operating panel
- Clear, compact and easy to handle

#### The tool tray

- For laying down cutting tools
- Integrated in base plate

### The system cart

 For a clearly arranged and ergonomic work place

### The craning boxes

- For accessories
- Everything close at hand

### The drawer

- Profiled inserts for accessories
- Everything in its place





### Safe, dry, fast cooling

- Efficient: shrink one holder while cooling another
- Water-cooled cooling bodies
- Concentrated cooling efficiency due to contact cooling
- Even cooling: no material deformation

### Intelligent patented coil technology:

The coil adjusts itself to the chuck in length and diameter.

Therefore only the shrinking area of the chuck will be warmed – nothing else. Shrinking and cooling will be much faster.



### Even more efficiency, more flexibility, easier handling.

- Coil adjusts itself to the chuck
- Perfect magnetic flow due to length adjustment of the coil
- Optimal heat distribution due to length adjustment of the coil
- Lower chuck warming
- Shorter shrinking time
- Shorter cooling time
- Simple operation
- Contact discs are no longer necessary
- Suitable for T-shaped groove milling cutters
- Suitable for ultra-short chucks
- Suitable for special shape





Big tool



Small tool



# Power Clamp Economic / Power Clamp Economic NG

Profi Line entry-level shrink fit machine without cooling



Power Clamp Economic NG

# POWER CLAMP PROFILINE POWER CLAMP ECONOMIC POWER CLAMP ECONOMIC NG

#### **Power Clamp Economic**

- With standard coil
- Single chuck version
- Without cooling
- With 1 base holder
- With 1 chuck support
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)

#### **Power Clamp Economic NG**

- With intelligent NG coil
- Single chuck version
- Without cooling
- With 1 base holder
- With 1 chuck support
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)

Technical details	
Main voltage	3×400-480 Volt, 16 Ampere, 13 kW
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-11/4" (3-32 mm)
Maximum length of shrink fit chuck with tool	Economic: 20" (510 mm)/Economic NG: 22" (570 mm)
■ Dimensions W×D×H	33×24×38" (840×600×970 mm)
Weight	132 lbs (60 kg)
Power Clamp Economic Order No.	PC101-I01-C00-EU*
Power Clamp Economic NG Order No.	PC101-I21-C00-EU*

Accessories	Order No.
<ul> <li>Craning boxes</li> </ul>	80.134.00NG
Chuck support for single-chuck system	See page 62

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



# Power Clamp Economic Plus / Power Clamp Economic Plus NG

Advanced Profi Line shrink fit machine with cooling



Power Clamp Economic Plus NG

# POWER CLAMP PROFILINE POWER CLAMP ECONOMIC PLUS POWER CLAMP ECONOMIC PLUS NG

### **Power Clamp Economic Plus**

- With standard coil
- Single chuck version
- With integrated contact cooling
- With 1 base holder
- With 1 chuck support
- Incl. Cooling Manager
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)

#### **Power Clamp Economic Plus NG**

Upgrade possible with HD coil for shrinking of Heavy Duty Shrink Chucks up to  $\emptyset$  2" (50 mm) (on option)

- With intelligent NG coil
- Single chuck version
- With integrated contact cooling
- With 1 base holder
- With 1 chuck support
- Incl. Cooling Manager
- Power: 13 kW
- Main voltage: 3×400-480V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)

Technical details	
Main voltage	3×400-480 Volt, 16 Ampere, 13 kW
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-11/4" (3-32 mm)
Maximum length of shrink fit chuck with tool	Economic Plus: 20" (510 mm)/Economic Plus NG: 22" (570 mm)
■ Dimensions W×D×H	33×24×38" (840×600×970 mm)
• Weight	243 lbs (110 kg)
Power Clamp Economic Plus Order No.	PC102-I01-C10-US*
Power Clamp Economic Plus NG Order No.	PC102-I21-C10-US*

Accessories	Order No.
<ul><li>Craning boxes</li></ul>	80.134.00NG
Chuck support for single-chuck system	See page 62
<ul> <li>Upgrade Kit 13 kW HD coil for Economic Plus NG</li> </ul>	80.151.30.10

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.

# Power Clamp Comfort / Power Clamp Comfort NG

Profi Line high performance shrink fit machine for the ambitious with 3 stations and cooling



Power Clamp Comfort NG

Power Clamp Comfort

# POWER CLAMP PROFILINE POWER CLAMP COMFORT POWER CLAMP COMFORT NG

#### **Power Clamp Comfort**

- With standard coil
- Rotary table with 3 stations
- With integrated contact cooling
- Incl. Cooling Manager
- With 1 chuck support for rotary table
- Without craning boxes
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)

#### **Power Clamp Comfort NG**

Upgrade possible with HD coil for shrinking of Heavy Duty Shrink Chucks up to Ø 2" (50 mm) (on option)

- With intelligent NG coil
- Rotary table with 3 stations
- With integrated contact cooling
- Incl. Cooling Manager
- With 1 chuck support for rotary table
- With craning boxes
- Power: 13 kW
- Main voltage: 3×400-480V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)

Technical details	
Main voltage	3×400-480 Volt, 16 Ampere, 13 kW
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-1¼" (3-32 mm)
Maximum length of shrink fit chuck with tool	Comfort: 20" (510 mm)/Comfort NG: 22" (570 mm)
■ Dimensions W×D×H	33×24×38" (840×600×970 mm)
Weight	254 lbs (115 kg)
Power Clamp Comfort Order No.	PC100-I01-C10-US*
Power Clamp Comfort NG Order No.	PC100-I21-C10-US*

Accessories	Order No.
<ul> <li>Craning boxes for Power Clamp Comfort</li> </ul>	80.134.00NG
Chuck support for rotary table	See page 65
■ Upgrade Kit 13 kW HD coil for Power Clamp Comfort NG	80.151.30.10

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



### Power Clamp Profi Plus NG

High performance shrink fit machine for professionals up to  $\emptyset$  2 " (50 mm) and with cooling



### POWER CLAMP PROFI LINE POWER CLAMP PROFI PLUS NG

### **Power Clamp Profi Plus NG**

- With intelligent NG coil
- Rotary table with 3 stations
- With integrated contact cooling
- Incl. Cooling Manager
- Optional with second coil for Ø 40–50 mm
- With 1 chuck support for rotary table
- With craning boxes
- Power: 20 kW
- Main voltage: 3×400-480V, 32A
- Tools: solid carbide and HSS from Ø 1/8-2" (3-50 mm)

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 20 kW
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-2" (3-50 mm)
Maximum length of shrink fit chuck with tool	22" (570 mm)
■ Dimensions W×D×H	39×24×38" (1000×600×970 mm)
■ Weight	282 lbs (128 kg)
Power Clamp Profi Plus NG Order No.	PC120-I21-C10-US*

Accessories	Order No.
Chuck support for rotary table	See page 65



### **Power Clamp Preset NG**

High performance shrink fit machine for professionals with length presetting and cooling



#### HAIMER.

# POWER CLAMP PROFILINE POWER CLAMP PRESET NG

#### **Power Clamp Preset NG**

Upgrade possible with HD coil for shrinking of Heavy Duty Shrink Chucks up to  $\emptyset$  2" (50 mm) (on option)

- With vertical stop for length presetting
- With intelligent NG coil
- Single chuck version
- With integrated contact cooling
- Incl. Cooling Manager
- With 2 precision base holders
- With 2 precision chuck supports
- With craning boxes
- Power: 13 kW
- Main voltage: 3×400-480V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 13 kW
■ Tools	Solid carbide and HSS
■ Tool diameter	Ø 1/8-1¼ " (3-32 mm)
Maximum length of shrink fit chuck with tool	22" (570 mm)
■ Dimensions W×D×H	33×24×43" (840×600×1110 mm)
■ Weight	243 lbs (110 kg)
Power Clamp Preset NG Order No.	PC103-I21-C10-US*

Accessories	Order No.
<ul><li>Precision chuck support</li></ul>	See page 63
Upgrade Kit 13 kW HD coil	80.151.30.10

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.

## Power Clamp i4.0 Line: Shrinking technology industry 4.0-ready

With the new **Power Clamp i4.0 series**, HAIMER is setting new standards in digital connectivity and communication of tools and machines in the world of manufacturing.



POWER CLAMP NANO NG 14.0





**POWER CLAMP PRESET 14.0** 





POWER CLAMP ECONOMIC PLUS NG i4.0

POWER CLAMP AIR i4.0 ECO/COMFORT



POWER CLAMP PREMIUM i4.0



POWER CLAMP SPRINT i4.0



## **POWER CLAMP 14.0 LINE**

## Power Clamp i4.0 Line Highlights

With the new Power Clamp i4.0 series, HAIMER is setting new standards in digital connectivity and communication of tools and machines in the world of manufacturing.

All Power Clamp i4.0 shrink fit machines are equipped with the following features:

- 7 "-Touch-Display and new intuitive software for simplified usability
- Network-compatible and industry 4.0-ready for communication on the shopfloor
- Scanner to readout shrinking parameters from Data-Matrix codes (optional)
- Patented NG-coil for tool diameters from Ø 1/8–1¼ " (3–32 mm)



#### **Touch-Display**

- 7 " Touch-Display and new intuitive software
- User-friendly interface
- Illustrated functions
- Clear symbols, large font
- Robust color display
- Water, scratch and impact resistant



#### Hand scanner

Scanner to readout shrinking parameters from Data-Matrix codes for easiest automatic shrinking (optional)

### **POWER CLAMP 14.0 LINE**

## Cooling i4.0





#### Contact cooling with signaling of the right cooling station

- Cooling body for rapid cooling
- Automatic signaling of the right cooling station for easy, fast and safe cooling
- Cooling in record time: approx. 30 sec.
- Tool holders remain dry, no build-up of rust
- Gentle handling of chuck by even cooling; runout accuracy is maintained
- Hot points are always covered, no risk of injury



### POWER CLAMP SPRINT i4.0

#### Cooling regardless of the outside contour

- One size fits all cooling for all kinds of cutting tools, no more selecting of cooling bodies
- Safe, smooth and clean cooling without dirt and water residue
- Intelligent cooling system with temperature control

## Power Clamp Nano NG i4.0

# Horizontal i4.0 shrink fit machine for tool holders and shrink fit collets



Horizontal length presetting unit tolerance 0.05 mm



#### Clips for tools (optional)

For safest and precise handling of high quality carbide tools – especially with smaller diameters



## Calibration adapter for length presetting (optional)

For resetting the measuring device

#### HAIMER.

## POWER CLAMP i4.0 LINE POWER CLAMP NANO NG i4.0

**Power Clamp Nano NG i4.0** is especially suitable for small tool holders in high frequency spindles, for shrink fit collets and for shrink fit chucks up to CAT40/HSK-A63.

- Easy tool handling by horizontal shrinking
- With intelligent motor coil
- With scanner to readout shrinking parameters from tool holders (Data-Matrix code)
- With air cooling for tools from Ø 1/8-1¼ " (3-32 mm)
- With 7 "-Touch-Display and new intuitive software
- With length presetting
- Industry 4.0-ready due to scanner connection
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 13 kW
Compressed air	58 psi (4 bar)
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-1¼ " (3-32 mm)
Maximum length of shrink fit chuck with tool	9.8" (250 mm)
■ Dimensions W×D×H	31 × 34 × 26 " (800 × 860 × 670 mm)
Weight	209 lbs (94 kg)
Power Clamp Nano NG i4.0 Order No.	PC406-I42-C20-US*

Accessories	Order No.
■ Chuck support for Power Clamp Nano NG i4.0	See page 61
Set of clips incl. plate	80.166.00
System cart	80.124.00.4
Insert for system cart	80.124.07

#### **Application example**



#### **Shrink Fit Collets**

Power Clamp Nano NG i4.0 is perfectly suitable for process reliable shrinking and cooling of shrink fit collets. See Master Catalog to find the shrink fit collet program.

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



## Power Clamp Economic Plus NG i4.0

i4.0 shrink fit machine with cooling for advanced users



#### HAIMER.

## **POWER CLAMP 14.0 LINE** POWER CLAMP ECONOMIC PLUS NG i4.0

#### With the new Power Clamp i4.0 series, HAIMER is setting new standards in digital connectivity and communication in the world of shrink technology.

A 7"-Touch-Display and a new intuitive software provide simplified usability. Upgrade possible with HD coil for shrinking of Heavy Duty Shrink Chucks up to  $\emptyset$  2" (50 mm) (on option).

- Industry 4.0-ready due to scanner connection
- With 7 "-Touch-Display and new intuitive software
- With intelligent NG coil
- Single chuck version
- With integrated contact cooling
- Incl. Cooling Manager
- With 1 chuck support
- With 1 base holder
- With craning boxes
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)
- Scanner to readout shrinking parameters from tool holders (Data-Matrix code) (optional)
- TME Cooling System (optional)

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 13 kW
Compressed air	87 psi (6 bar)
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-11/4" (3-32 mm)
Maximum length of shrink fit chuck with tool	22" (570 mm)
■ Dimensions W×D×H	33×24×38" (840×600×970 mm)
■ Weight	243 lbs (110 kg)
Power Clamp Economic Plus NG i4.0 Order No.	PC402-I21-C10-EU*

Accessories	Order No.
Scanner to readout shrinking parameters from Data-Matrix codes	80.185.01
Intelligent motor coil	80.101.03NG
Auxiliary fume extraction unit	80.101.02NG.01
System cart	80.124.00.8
Insert for System Cart	80.124.06
Chuck support for single chuck system	See page 62
<ul> <li>Upgrade kit 13 kW HD coil for Economic Plus NG i4.0</li> </ul>	80.151.30.10

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



## Power Clamp Air i4.0 Eco

**Economic i4.0 shrink fit machine for tool holders** and shrink fit collets



#### HAIMER.

## POWER CLAMP i4.0 LINE POWER CLAMP AIR i4.0 ECO

Power Clamp Air i4.0 Eco is a high performance shrink fit machine with integrated cooling for all tools (solid carbide and HSS). It is perfectly suitable for process reliable shrinking and cooling of shrink fit collets and tool holders. Smooth and clean cooling of all kinds of tool holders by air – without dirt and water residue.

- Contour independent air cooling with temperature control
- Pneumatic brake of cooling hood with release-by-touch
- Cooling process finishes automatically
- With 7 "-Touch-Display and new intuitive software
- Industry 4.0-ready due to scanner connection
- With intelligent NG coil
- Single chuck version
- With 2 precision base holders and 2 precision chuck supports
- With craning boxes
- Incl. Cooling Manager

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 13 kW
Compressed air	87 psi (6 bar)
■ Tools	Solid carbide and HSS
■ Tool diameter	Ø 1/8-1¼ " (3-32 mm)
Maximum length of shrink fit chuck (shrinking)	22" (570 mm)
Maximum length of shrink fit chuck (cooling)	10" (260 mm)
■ Dimensions W×D×H	35 × 30 × 43" (880 × 750 × 1100 mm)
■ Weight	231 lbs (105 kg)
Power Clamp Air i4.0 Eco Order No.	PC402-I21-C21-US*

Accessories	Order No.
Scanner to readout shrinking parameters from Data-Matrix codes	80.185.01
Precision chuck support	See page 63
Length presetting	80.188.40
Intelligent motor coil	80.101.03NG
Auxiliary fume extraction unit	80.101.02NG.01
System cart	80.124.00.8
Insert for System Cart	80.124.06

#### **Application example**



#### **Shrink Fit Collets**

Power Clamp Air i4.0 Eco is perfectly suitable for process reliable shrinking and cooling of shrink fit collets. See Master Catalog to find the shrink fit collet program.

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



# Power Clamp Air i4.0 Comfort

Comfort i4.0 shrink fit machine for tool holders and shrink fit collets



Picture shows PC409-I41-C21-EU with length presetting (optional)

## POWER CLAMP i4.0 LINE POWER CLAMP AIR i4.0 COMFORT

Power Clamp Air i4.0 Comfort is a high performance shrink fit machine with integrated cooling for all tools (solid carbide and HSS). It is perfectly suitable for process reliable shrinking and cooling of shrink fit collets and tool holders. Smooth and clean cooling of all kinds of tool holders by air – without dirt and water residue.

- Contour independent air cooling with temperature control
- Pneumatic brake of cooling hood with release-by-touch
- Cooling process finishes automatically
- With 7 "-Touch-Display and new intuitive software
- Industry 4.0-ready due to scanner connection
- With scanner to readout shrinking parameters from tool holders (Data-Matrix code)
- With intelligent motor coil
- Single chuck version
- With 2 precision base holders and 2 precision chuck supports
- With craning boxes
- Incl. Cooling Manager

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 13 kW
Compressed air	87 psi (6 bar)
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-1¼ " (3-32 mm)
Maximum length of shrink fit chuck (shrinking)	22" (570 mm)
Maximum length of shrink fit chuck (cooling)	10" (260 mm)
■ Dimensions W×D×H	35 × 30 × 43" (880 × 750 × 1100 mm)
■ Weight	231 lbs (105 kg)
Power Clamp Air i4.0 Comfort Order No.	PC409-I41-C21-US*

Accessories	Order No.
<ul><li>Length presetting</li></ul>	80.188.40
Precision chuck support	See page 63
Auxiliary fume extraction unit	80.101.02NG.01
System cart	80.124.00.8
■ Insert for System Cart	80.124.06

#### **Application example**



#### **Shrink Fit Collets**

Power Clamp Air i4.0 Comfort is perfectly suitable for process reliable shrinking and cooling of shrink fit collets. See Master Catalog to find the shrink fit collet program.

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



# Power Clamp Comfort i4.0

## i4.0 shrink fit machine for the ambitious



#### HAIMER.

# POWER CLAMP i4.0 LINE POWER CLAMP COMFORT i4.0

With the new Power Clamp i4.0 series, HAIMER is setting new standards in digital connectivity and communication in the world of shrink technology. A 7"-Touch-Display and a new intuitive software provide simplified usability. Upgrade possible with HD coil for shrinking of Heavy Duty Shrink Chucks up to Ø 2" (50 mm) (on option).

- Industry 4.0-ready due to scanner connection
- With 7 "-Touch-Display and new intuitive software
- With intelligent NG coil
- Rotary table with 3 stations
- With integrated contact cooling
- Incl. Cooling Manager
- With 1 chuck support for rotary table
- With craning boxes
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)
- Scanner to readout shrinking parameters from tool holders (Data-Matrix code)
- TME Cooling System (optional)

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 13 kW
■ Tools	Solid carbide and HSS
■ Tool diameter	Ø 1/8-1¼ " (3-32 mm)
Maximum length of shrink fit chuck	22" (570 mm)
■ Dimensions W×D×H	33×26×38" (850×660×970 mm)
• Weight	254 lbs (115 kg)
Power Clamp Comfort i4.0 Order No.	PC400-I21-C10-US*

Accessories	Order No.
<ul><li>Length presetting</li></ul>	80.188.40
Precision chuck support	See page 63
Auxiliary fume extraction unit	80.101.02NG.01
System cart	80.124.00.8
<ul> <li>Insert for system cart</li> </ul>	80.124.06

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



## Power Clamp Preset i4.0

i4.0 shrink fit machine for the ambitious with length presetting



#### HAIMER.

# POWER CLAMP i4.0 LINE POWER CLAMP PRESET i4.0

With the new Power Clamp i4.0 series, HAIMER is setting new standards in digital connectivity and communication in the world of shrink technology. A 7"-Touch-Display and a new intuitive software provide simplified usability. Upgrade possible with HD coil for shrinking of Heavy Duty Shrink Chucks up to Ø 2" (50 mm) (on option).

- Industry 4.0-ready due to scanner connection
- With 7 "-Touch-Display and new intuitive software
- With vertical stop for length presetting
- With intelligent NG coil
- Single chuck version
- With integrated contact cooling
- Incl. Cooling Manager
- With 2 precision base holders and 2 precision chuck supports
- With craning boxes
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)
- Scanner to readout shrinking parameters from tool holders (Data-Matrix code)
- TME Cooling System (optional)

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 13 kW
■ Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-1¼ " (3-32 mm)
Maximum length of shrink fit chuck	22" (570 mm)
■ Dimensions W×D×H	34×26×38" (860×660×970 mm)
• Weight	254 lbs (115 kg)
Power Clamp Preset i4.0 Order No.	PC403-I21-C10-US*

Accessories	Order No.
Scanner to readout shrinking parameters from Data-Matrix codes	80.185.01
Precision chuck support	See page 63
Precision base holder for chuck support	80.131.01
<ul> <li>Upgrade Kit 13 kW HD coil for Power Clamp Preset i4.0</li> </ul>	80.151.30.10
Auxiliary fume extraction unit	80.101.02NG.01
System cart	80.124.00.4
■ TME Cooling System for 13 kW machines (optional)	80.105.19.01

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



# Power Clamp Premium i4.0

## Ergonomic i4.0 high-end shrink station



Picture shows PC407-I22-C11-US with length presetting and scanner (optional)

#### HAIMER.

## POWER CLAMP i4.0 LINE POWER CLAMP PREMIUM i4.0

Ergonomic high-end shrink station in new, premium quality industry design with integrated contact cooling for all cutting tools (solid carbide and HSS) and for perfect handling and simultaneous cool-down at max. five cooling stations.

- With 7 "-Touch-Display and new intuitive software
- Industry 4.0-ready due to scanner connection
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)
- With NG coil
- TME Intelligent Cooling System with temperature control
- Integrated contact cooling with five cooling bodies
- Linear guided cooling bodies with automatic signaling of the right cooling station for easy, fast and safe cooling
- No damage at the edges of the cutting tool
- Incl. Speed Cooler and Cooling Manager
- Incl. 2 precision base holders and 2 precision chuck supports
- Integrated drawer in base cabinet
- Scanner to readout shrinking parameters from tool holders (Data-Matrix code) (optional)
- Length presetting (optional)

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 13 kW
■ Tools	Solid carbide and HSS
■ Tool diameter	Ø 1/8-11/4" (3-32 mm)
Maximum length of shrink fit chuck	21 " (535 mm)
■ Dimensions W×D×H	53×36×71" (1,340×914×1816 mm)
■ Weight	1,179 lbs (535 kg) incl. base cabinet
Power Clamp Premium i4.0 Order No.	PC407-I22-C11-US*

Accessories	Order No.
Scanner to readout shrinking parameters from Data-Matrix codes	80.185.00
Intelligent motor coil for Power Clamp Premium i4.0	80.101.03\$
<ul> <li>Precision chuck support</li> </ul>	See page 63
Precision base holder for chuck support	80.131.01
Length presetting	80.188.00
Auxiliary fume extraction unit	80.101.02NG.03

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



Power Clamp Sprint i4.0

Ergonomic i4.0 shrink station for cooling of all geometries



Picture shows PC408-I22-C21-US with length presetting and scanner (optional)

#### HAIMER.

## POWER CLAMP i4.0 LINE POWER CLAMP SPRINT i4.0

Ergonomic shrink station in new, premium quality industry design with integrated cooling for all kind of cutting tools (solid carbide and HSS) and shrink fit collets in record time.

- With 7 "-Touch-Display and new intuitive software
- Industry 4.0-ready due to scanner connection
- Power: 13 kW
- Main voltage: 3×400-480 V, 16 A
- Tools: solid carbide and HSS from Ø 1/8-1¼ " (3-32 mm)
- With NG coil
- Smooth and clean cooling of all kind of shrink fit chucks and shrink fit collets regardless
  of the outside contour by air nozzles and drizzle without dirt and water residue
- Temperature control for optimized and safe cooling
- No damage at the edges of the cutting tool
- Incl. 2 precision base holders and 2 precision chuck supports
- Integrated drawer in base cabinet
- Scanner to readout shrinking parameters from tool holders (Data-Matrix code) (optional)
- Length presetting (optional)

Technical details	
Main voltage	3×400-480 Volt, 32 Ampere, 13 kW
Compressed air	87 psi (bar)
Tools	Solid carbide and HSS
Tool diameter	Ø 1/8-11/4" (3-32 mm)
Maximum length of shrink fit chuck	21 " (535 mm)
■ Dimensions W×D×H	$53 \times 38 \times 101$ " (1,340 × 962 × 2,560 mm) (max. work height) $53 \times 38 \times 77$ " (1,340 × 962 × 1,960 mm) (transportation height)
Weight	1,213 lbs (550 kg) incl. base cabinet
Power Clamp Sprint i4.0 Order No.	PC408-I22-C21-US*

Accessories	Order No.
Scanner to readout shrinking parameters from Data-Matrix codes	80.185.00
Intelligent motor coil for Power Clamp Premium i4.0	80.101.03\$
Precision chuck support	See page 63
Precision base holder for chuck support	80.131.01
Length presetting	80.188.00
Auxiliary fume extraction unit	80.101.02NG.03

#### **Application example**



#### **Shrink Fit Collets**

Power Clamp Sprint i4.0 Comfort is perfectly suitable for process reliable shrinking and cooling of shrink fit collets. See Master Catalog to find the shrink fit collet program.

<sup>\*</sup> This order number matches the machine configuration as above. If you'd like to request a different configuration, please contact your HAIMER representative for the right order number.



## **CARTS AND INSERTS**

## **Accessories**



#### Drawer insert for system cart (does not include accessories)

Technical details	Order No.
<ul><li>Drawer</li></ul>	80.124.04



#### System cart

- Cart for shrinking machine and accessories
- For a clear and tidy work space
- Ergonomic work height
- Everything at hand
- Optional: drawers with inserts to store accessories

Order No.
$39 \times 24 \times 33$ " ( $1000 \times 620 \times 840$ mm)
80.124.00.8



#### Cart for shrink fit machine

Technical details	Order No.
■ Cart	
Order No.	80.106.00.3



## **BASE HOLDER**



To hold chuck supports of all sizes. Available in two versions:

Base holder for Power Clamp Basic/Economic/Economic Plus/ Economic Plus NG i4.0  $\,$ 



Precision base holder for Power Clamp Preset/Premium Plus/ Preset i4.0/Premium i4.0/Sprint i4.0

High precision version with fine machined functional surfaces for maximum precision at length presetting.

	Order No.
Base holder for Power Clamp Basic/Economic/Economic Plus	80.155.01
<ul> <li>Precision base holder for Power Clamp Preset/Premium Plus/Preset i4.0/Premium i4.0/Sprint i4.0</li> </ul>	80.131.01



## **BASE HOLDER**



#### Precision base holder for HAIMER ER shrink fit collets

High precision version with fine machined functional surfaces for maximum precision at length presetting. Open base design for optimal access to adjust the length.

#### Precision base holder for HAIMER ER shrink fit collets

	Order No.
Precision base holder for HAIMER ER shrink fit collets	80.131.02



## **CHUCK SUPPORT FOR POWER CLAMP NANO**



Chuck support for horizontal shrink fit machine Power Clamp Nano Available in taper sizes CAT30-CAT40, BT30-BT40, JBS T15, HSK-25-HSK-63, PSC40-PSC63, ER11-ER32

#### Precision chuck support for Power Clamp Nano/Nano NG i4.0

For taper size	Order No.
SK/BT30 with pull stud DIN 69872/MAS 403 (also for version with Face Contact)	80.162.30
SK30 without pull stud with thread M12 (also for version with Face Contact)	80.162.30.01
<ul> <li>CAT/SK40 without pull stud with thread M16 (also for version with Face Contact)</li> </ul>	80.162.40.01
<ul> <li>CAT/SK40 with pull stud DIN 69872 (also for version with Face Contact)</li> </ul>	80.162.40.02
CAT/SK40 with pull stud ISO 7388-B (also for version with Face Contact)	80.162.40.04
BT40 with pull stud MAS 403 (also for version with Face Contact)	80.162.40.06
JBS T15 with pull stud JBS R15-45	80.162.T15
■ HSK-25	80.163.25
■ HSK-32	80.163.32
■ HSK-40	80.163.40
■ HSK-50	80.163.50
■ HSK-63	80.163.63
■ PSC 40	80.167.C4
■ PSC 50	80.167.C5
■ PSC 63	80.167.C6
■ ER11	80.168.ER11
■ ER16	80.168.ER16
■ ER20	80.168.ER20
■ ER25	80.168.ER25
■ ER32	80.168.ER32



## **CHUCK SUPPORT**



#### Chuck support for single-chuck system

Available in taper sizes CAT30 – CAT50, SK30 – SK50, HSK-25 – HSK-125, KM4X63\*, KM4X100\*, PSC 32 – PSC 80, HSK-F63 Makino, HSK-F80 Makino

#### Precision chuck support for Power Clamp Basic/Economic/Economic NG/Economic Plus/Economic Plus NG

For taper size	Order No.
CAT/BT/SK30 (also for version with Face Contact)	80.112.30
CAT/BT/SK40 (also for version with Face Contact)	80.112.40
CAT/BT/SK45 (also for version with Face Contact)	80.112.45
CAT/BT/SK50 (also for version with Face Contact)	80.112.50
■ HSK-25	80.113.25
■ HSK-32	80.113.32
■ HSK-40	80.113.40
■ HSK-50/HSK-63F	80.113.50
■ HSK-63/KM4X63*	80.113.63
■ HSK-80	80.113.80
■ HSK-100/KM4X100 *	80.113.10
■ HSK-125	80.113.125
■ PSC 32	80.114.30
■ PSC 40	80.114.40
■ PSC 50	80.114.50
■ PSC 63	80.114.60
■ PSC 80	80.114.80
Makino F63	80.113.F63M
Makino F80	80.113.F80M



## PRECISION CHUCK SUPPORT



#### Precision chuck support for single-chuck system

- Fine machined functional surfaces
- Available in taper sizes CAT30-CAT50, SK30-SK50, HSK-25-HSK-125, KM4X63\*, KM4X100\*, PSC 32-PSC 80, HSK-F63 Makino, HSK-F80 Makino

#### Chuck support for Power Clamp Profi Plus/Profi Plus NG/Comfort/Comfort NG/Comfort i4.0

For taper size	Order No.
CAT/SK/BT30 (also for version with Face Contact)	80.102.30
CAT/SK/BT40 (also for version with Face Contact)	80.102.40
CAT/SK/BT45 (also for version with Face Contact)	80.102.45
CAT/SK/BT50 (also for version with Face Contact)	80.102.50
<ul><li>various sizes</li></ul>	80.103.00
■ HSK-25	80.103.25
■ HSK-32	80.103.32
■ HSK-40	80.103.40
■ HSK-50	80.103.50
■ HSK-63	80.103.63
■ HSK-80	80.103.80
■ HSK-100	80.103.10
■ PSC 32	80.104.30
■ PSC 40	80.104.40
■ PSC 50	80.104.50
■ PSC 63	80.104.60
■ PSC 80	80.104.80



## PRECISION CHUCK SUPPORT FOR POWER CLAMP PREMIUM PLUS



#### **Precision chuck support for Power Clamp Premium Plus**

- Fine machined functional surfaces
- With pin for protection of the chuck

Available in taper sizes CAT30-CAT50, SK30-SK50, BT30-BT50, HSK-25-HSK-125, HSK-F63 Makino, HSK-F80 Makino, PSC 32-PSC 80

#### **Precision chuck support for Power Clamp Premium Plus**

For taper size	Order No.
■ CAT/SK30	80.172.30
CAT/SK40	80.172.40
■ CAT/SK45	80.172.45
■ CAT/SK50	80.172.50
■ BT30	80.175.30
■ BT40	80.175.40
■ BT45	80.175.45
■ BT50	80.175.50
■ HSK-25	80.173.25
■ HSK-32	80.173.32
■ HSK-40	80.173.40
■ HSK-50	80.173.50
■ HSK-63	80.173.63
■ HSK-80	80.173.80
■ HSK-100	80.173.10
■ HSK-125	80.173.125
■ HSK-F63 Makino	80.173.F63M
■ HSK-F80 Makino	80.173.F80M
■ PSC 32	80.174.30
■ PSC 40	80.174.40
■ PSC 50	80.174.50
■ PSC 63	80.174.60
■ PSC 80	80.174.80



## **CHUCK SUPPORT FOR ROTARY TABLE**



#### Chuck support for rotary table

Available in taper sizes CAT30—CAT50, SK30—SK50, BT30—BT50, HSK-25—HSK-100, PSC 32—PSC 80

#### Chuck support for Power Clamp Profi Plus/Profi Plus NG/Comfort/Comfort NG/Comfort i4.0

For taper size	Order No.
<ul> <li>CAT/SK/BT30 (also for version with Face Contact)</li> </ul>	80.102.30
CAT/SK/BT40 (also for version with Face Contact)	80.102.40
CAT/SK/BT45 (also for version with Face Contact)	80.102.45
■ CAT/SK/BT50 (also for version with Face Contact)	80.102.50
<ul><li>various sizes</li></ul>	80.103.00
■ HSK-25	80.103.25
■ HSK-32	80.103.32
■ HSK-40	80.103.40
■ HSK-50	80.103.50
■ HSK-63	80.103.63
■ HSK-80	80.103.80
■ HSK-100	80.103.10
■ PSC 32	80.104.30
■ PSC 40	80.104.40
■ PSC 50	80.104.50
■ PSC 63	80.104.60
■ PSC 80	80.104.80



## **CHUCK SUPPORT FOR ER SHRINK FIT COLLETS**



#### Chuck support for ER shrink fit collets with integrated length presetting

- Precise clamping of the collet
- Fast and repeatable length adjustment with stop pin
- Adjustment with set screw and counter nut
- Integrated in chuck support, thus very space-saving
- Easy handling by turning of set screw and counter nut
- Application suitable also at multi-spindle machines for repeatable length presetting of twin tools



Chuck support for	Order No.
■ ER11	80.135.11
■ ER16	80.135.16
■ ER20	80.135.20
■ ER25	80.135.25
■ ER32	80.135.32
■ Base holder for Power Clamp Basic/Economic/Economic Plus	80.155.01

### **CHUCK SUPPORT FOR HAIMER ER SHRINK FIT COLLETS**



## Chuck support for HAIMER ER shrink fit collets with integrated length presetting

- Fixture of collet by screwing on chuck support.
- High process stability, no movement of collet possible
- Fast and repeatable length adjustment with stop pin
- Adjustment with set screw and counter nut
- Integrated in chuck support, thus very space-saving
- Easy handling by turning of set screw and counter nut
- Application suitable also at multi-spindle machines for repeatable length presetting of twin tools

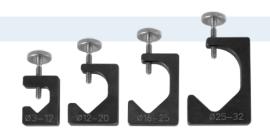


Chuck support for	Order No.
• ER11	80.137.ER11
■ ER16	80.137.ER16
■ ER20	80.137.ER20
■ ER25	80.137.ER25
■ ER32	80.137.ER32
<ul> <li>Precision base holder for HAIMER ER shrink fit collets</li> </ul>	80.131.02

## **EASY SET — SIMPLE PRESETTING**

#### Simple presetting

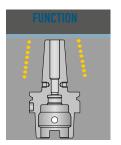
- Quick and simple presetting tool overhang
- Maximum overhang length: 150 mm
- Accuracy: ± 0.05 mm
- Suitable for all shrink fit chucks and machines (flame, hot air, contact, induction)
- Space-saving
- Excellent relationship between price and efficiency
- Can be added at any time
- Included in delivery: 3 stop clips (Ø 3–12, Ø 12–20, Ø 16–25 mm), Optional: Ø 25–32 mm



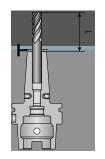
Stop clips



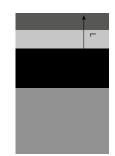




Heat up shrink fit chuck.



Insert tool until stop. Let chuck cool down until tool is clamped.



Cool down chuck completely with cooling body.

Easy Set	Order No.
■ Easy Set 150 mm protruding length	80.125.00
■ Stop clip for clamping Ø 3−12 mm	80.123.01
■ Stop clip for clamping Ø 12–20 mm	80.123.02
■ Stop clip for clamping Ø 16–25 mm	80.123.03
■ Stop clip for clamping Ø 25−32 mm	80.123.04

### QUICK SET - LENGTH PRESETTING

#### Length adjustment for shrink fit chucks without back-up screw, e. g. Mini Shrink

- Fast, repeatable length adjustment of the total tool assembly with stop pin
- Adjustment with set screw and counter nut
- Integrated in chuck support, thus very space-saving
- Easy handling by turning of set screw and counter nut
- Application suitable also at multi-spindle machines for repeatable length presetting of twin tools





Picture shows: Quick Set with base holder (Base holder not included in delivery)

Length Presetting Quick Set for	Order No.
CAT/SK/BT40 (with pin L = 200 mm)	80.136.240
■ HSK-E25 (with pin L = 125 mm)	80.136.325
■ HSK-E32 (with pin L = 150 mm)	80.136.332
■ HSK-E40 (with pin L = 150 mm)	80.136.340
■ HSK-E50 (with pin L = 125 mm)	80.136.350
■ HSK-A50 – 55 (with pin L = 150 mm)	80.136.350.1
■ HSK-A63 (with pin L = 150 mm)	80.136.363
■ HSK-A63 – 55 (with pin L = 150 mm)	80.136.363.1
■ HSK-A100 (with pin L = 270 mm)	80.136.310
■ PSC 40 (with pin L = 150 mm)	80.136.440
■ PSC 50 (with pin L = 150 mm)	80.136.450
Base holder for Power Clamp Basic/Economic/Economic Plus	80.155.01
■ Pin L = 125 mm*	80.136.003
■ Pin L = 150 mm*	80.136.001
■ Pin L = 175 mm*	80.136.004
■ Pin L = 200 mm*	80.136.002
■ Pin L = 270 mm*	80.136.007
■ Pin L = 310 mm*	80.136.006

<sup>\*</sup> Length L = total length of the pin with thread and nut

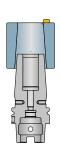


## **COOLING ADAPTER AND COOLING ADAPTER BLANKS**

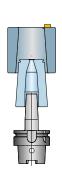


Cooling adapters fit and cool an expanded selection of shrink fit chucks and extensions. The adapter is inserted into the cooling body and locked, then it can be placed onto the shrink fit chuck.

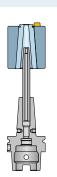
 $\blacksquare$  Cooling bodies for Ø 14–16 mm and Ø 25–32 mm with side lock



Cooling body for shrink fit chuck according to DIN



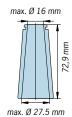
Cooling body with adapter for special shrink fit chucks



Cooling body with adapter for shrink fit chuck with extension



For Cooling body: Ø 25–32 mm

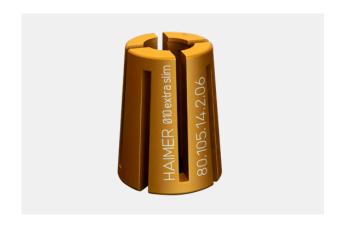


Ø 14–16 mm

Cooling adapter blanks for individual adaption to each shrink fit chuck by the user

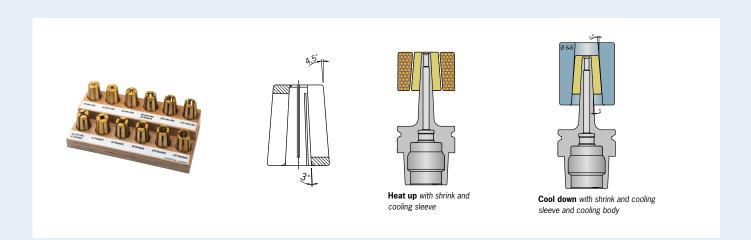
Accessories		Order No.
Cooling adapter blanks for cooling body	Ø 14–16 mm	80.105.14.0
Cooling adapter blanks for cooling body	Ø 25–32 mm	80.105.16.0
Cooling adapter blanks for cooling body	Ø 40–50 mm	80.105.19.3.0
Cooling adapter for extensions	Ø 12 mm/Ø 16 mm	80.105.14.1.1
Cooling adapter for extensions	Ø 20 mm	80.105.14.1.2
Cooling adapter for shrink fit chucks	Ø 3–5 mm	80.105.14.1.3
Cooling adapter Heavy Duty for cooling body	Ø 16 mm	80.105.19.3.1
Cooling adapter Heavy Duty for cooling body	Ø 20 mm	80.105.19.3.2
Cooling adapter Heavy Duty for cooling body	Ø 25 mm	80.105.19.3.3
Cooling adapter Heavy Duty for cooling body	Ø 32 mm	80.105.19.3.4
Base for cooling adapters		80.105.14.1.99

## MINI SHRINK SHRINK AND COOLING SLEEVES



For shrinking and cooling of Mini Shrink chucks.

- Protect Mini Shrink chucks from overheating
- Extend lifetime of shrink fit chucks
- Secure and user-friendly handling
- Cooling with standard cooling body Ø 6–8 mm

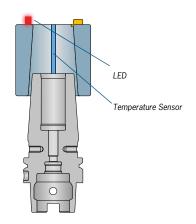


Fitting sleeves for Mini Shrink chucks									Order No.
■ Extra slim									
Size [mm]	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12		
Size [inch]	Ø 1/8	_	Ø 3/16	Ø 1/4	Ø 5/16	Ø 3/8	Ø 1/2		
Order No. 80.105.14	.2.01	.2.02	.2.03	.2.04	.2.05	.2.06	.2.07		
Standard									
Size [mm]	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12	Ø 16	
Size [inch]	Ø 1/8	_	Ø 3/16	Ø 1/4	Ø 5/16	Ø 3/8	Ø 1/2	Ø 5/8	
Order No. 80.105.14	.2.04	.2.08	.2.05	.2.09	.2.10	.2.11	.2.12	.2.16	
■ Base									80.105.14.2.99
Set with base (12 pcs., diameter 3–12 mm)									80.105.14.2.00



## TME COOLING SYSTEM WITH TEMPERATURE CONTROL





## Temperature control of the shrink fit chuck during the cooling process for a safe handling

- Sensor in aluminium body measures temperature
- If temperature is too high: red light
- If temperature is at right level: green light
- Minimizes danger of injury due to hot chucks
- Patented temperature control

TME Cooling System	Order No.
■ TME intelligent cooling system for 13 kW machines	80.105.19.00
■ TME intelligent cooling system for 20 kW machines	80.105.19.10



# TENSION SPRINGS FOR LENGTH PRESETTING FOR SHRINK FIT CHUCKS





- Spring is set into clamping bore
- Spring presses tool against stop disc
- Back-up screw can remain in chuck
- Fits all common shrink fit chucks

Tension springs											Order No.
Size [mm]	Ø 06	Ø 08	Ø 10	Ø 12	Ø 14	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	
Size [inch]	Ø 1/4	Ø 5/16	Ø 3/8	Ø 1/2	-	Ø 5/8	-	Ø 3/4	Ø 1	Ø 1 1/4	
Order No. 80.105.14	.06	.08	.10	.12	.14	.16	.18	.20	.25	.32	
■ Tension spring set (10 pcs. of each size) incl. pull-out gripper										85.830.00	



## **SHRINK-OUT DEVICE**



#### Shrink-out device for broken tools

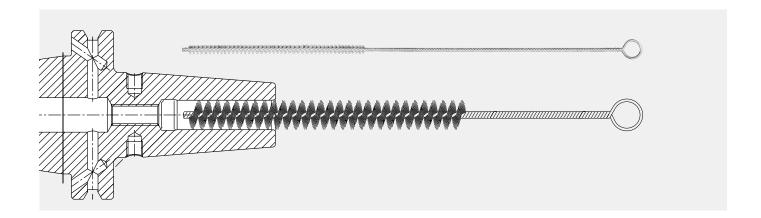
- Set includes 1 base plate and 6 pins (3 diameters in 2 lengths each), without pliers
- Rubber plate for saving the chuck
- Drawer insert for craning box
- Suitable for all Power Clamp shrink fit machines

	Order No.
Shrink-out device	80.126.00
Combination pliers	80.107.00

Accessories	Order No.
■ Pin 160 mm×2.3 mm	113027–0004
■ Pin 160 mm×4.7 mm	113027–0005
■ Pin 160 mm×6.0 mm	113027-0006
■ Pin 275 mm×2.3 mm	113027-0007
■ Pin 275 mm×4.7 mm	113027–0008
■ Pin 275 mm×6.0 mm	113027-0009



## **SHRINK FIT BRUSH**

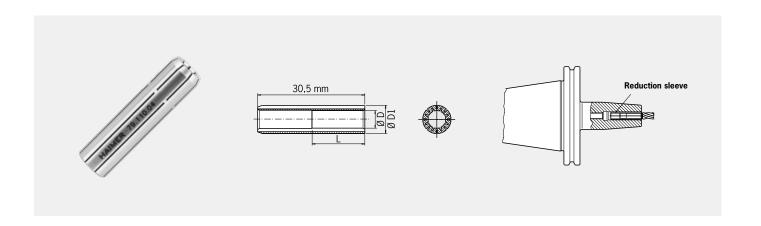


In order to achieve the best possible shrink fit connection, a grease-free socket and shank is necessary. The cleaning can be done by a dry solvent (e. g. brake cleaner). An appropriate cleaning brush is necessary to clean the socket of the Shrink Fit Chuck.

Shrink Fit Brush	Order No.
■ Ø 1/8" / 3 mm	86.200.01
■ Ø 3/16"/3.5 mm/4 mm/4.5 mm/5 mm	86.200.02
■ Ø 1/4 / 5/16" / 6 mm/8 mm	86.200.03
■ Ø 3/8 / 1/2" / 10 mm/12 mm	86.200.04
■ Ø 5/8" / 14 mm/16 mm	86.200.06
■ Ø 3/4" / 18 mm/20 mm	86.200.07
■ Ø 1" / 25 mm	86.200.08



## **REDUCTION SLEEVES FOR SHRINK FIT CHUCKS**



#### Use:

For clamping small shanks in chucks with 8 mm ID's.

First step: shrink sleeve into bore of chuck. Second step: shrink tool shank in reduction sleeve.

■ Shank tolerance h6

Clamping	ØD	Ø D1	L	Order No.
■ Clamping Ø	2.5 mm	8 mm	7.5 mm	79.110.2.5
■ Clamping Ø	3.0 mm	8 mm	9.0 mm	79.110.03
■ Clamping Ø	3.5 mm	8 mm	10.5 mm	79.110.3.5
Clamping Ø	4.0 mm	8 mm	12.0 mm	79.110.04
■ Clamping Ø	4.5 mm	8 mm	13.5 mm	79.110.4.5
■ Clamping Ø	5.0 mm	8 mm	15.0 mm	79.110.05
■ Clamping Ø	5.5 mm	8 mm	16.5 mm	79.110.5.5

## **AUXILIARY FUME EXTRACTION UNIT**





Auxiliary fume extraction unit to remove and filter vapors, which are produced during the shrink process.

For process reliable functionality, we recommend the assembly of the extraction unit directly at a HAIMER system cart.

Auxiliary fume extraction	Shrink fit machine Power Clamp	Order No.
for coil		
■ VS32-H/M	Economic (NG/i4.0)/Comfort (NG/i4.0)/Preset (NG/i4.0)/Profi Plus NG	80.101.02NG.01
■ VS32-H	Premium Plus	80.101.02NG.02
■ VS32-M	Premium Plus (Motor)	80.101.03NG.02
■ VS32-S-H	Premium i4.0/Sprint i4.0	80.101.02NG.03
■ VS32-S-M	Premium i4.0/Sprint i4.0 (Motor)	80.101.03S.03
■ V2008	Economic/Economic Plus/Comfort (i4.0)	80.151.00.01
■ 13 kW HD/20 kW	Economic Plus NG/Comfort NG/Preset NG (i4.0)	80.151.10.01



## **UPGRADE KIT 13 KW HD COIL**



For shrinking of Heavy Duty Shrink Chucks up to Ø 2" (50 mm).

#### Use:

For shrinking of Heavy Duty Shrink Chucks up to Ø 2  $^{\circ}$  (50 mm).

Delivery includes:

- 13 kW HD coil
- Coil base
- Set of stop discs
- Latest software
- HD cooling body Ø 1 1/2-2" (40-50 mm)
- Hose set for HD cooling body
- Coolant Manifold Connection
- Optional: cooling adapter for HD cooling body

Upgrade only possible for existing shrink fit machine Power Clamp Economic Plus (NG), Comfort (NG) or Preset (NG) that were produced **after 01/2012**.

Order No.

Upgrade Kit 13 kW HD coil
 80.151.30.10

## **STOP DISCS**

Clamping Ø D [mm]	Stop discs	Order No.
For coil N29 (Power Clamp Nar	10)	
■ 3-5 mm		80.162.03
■ 6-8 mm		80.162.06
■ 10-16 mm		80.162.10
■ 10-12 mm		80.162.10.2
•	Stop disc set N29	80.162.00
■ 3-5 mm	Stop disc split	80.162.03.1
■ 6-8 mm	Stop disc split	80.162.06.1
■ 10-16 mm	Stop disc split	80.162.10.1
■ 10-12 mm	Stop disc split	80.162.10.2.1
For 13 kW coil V2008		
■ 3-5 mm		80.152.03
■ 6-12 mm		80.152.06
■ 14-16 mm		80.152.14
■ 18-20 mm		80.152.18
■ 25-32 mm		80.152.25
•	Set of stop discs 13 kW V2008	80.152.00
■ 3-5 mm	Stop disc split	80.152.03.1
■ 6-12 mm	Stop disc split	80.152.06.1
■ 14-16 mm	Stop disc split	80.152.14.1
■ 18-20 mm	Stop disc split	80.152.18.1
■ 25-32 mm	Stop disc split	80.152.25.1
•	Set of stop discs 13 kW V2008 (split)	80.152.00.1
■ 6-12 mm	Stop disc for ultra short Power Shrink Chucks	80.152.06.2
■ 14-20 mm	Stop disc for ultra short Power Shrink Chucks	80.152.14.2
■ 25-32 mm	Stop disc for ultra short Power Shrink Chucks	80.152.25.2
For 20 kW coil and 13 kW HD	O coil	
■ 16-20 mm		80.151.10.42
■ 20-32 mm		80.151.10.41
■ 40-50 mm		80.151.40.40
■ 16-20 mm	Stop disc 20 kW/13 kW split	80.151.10.42.1
■ 25-32 mm	Stop disc 20 kW/13 kW split	80.151.10.41.1
■ 40-50 mm	Stop disc 20 kW/13 kW split	80.151.40.40.1





#### Use:

Changeable stop discs for positioning the coil above the chuck.



