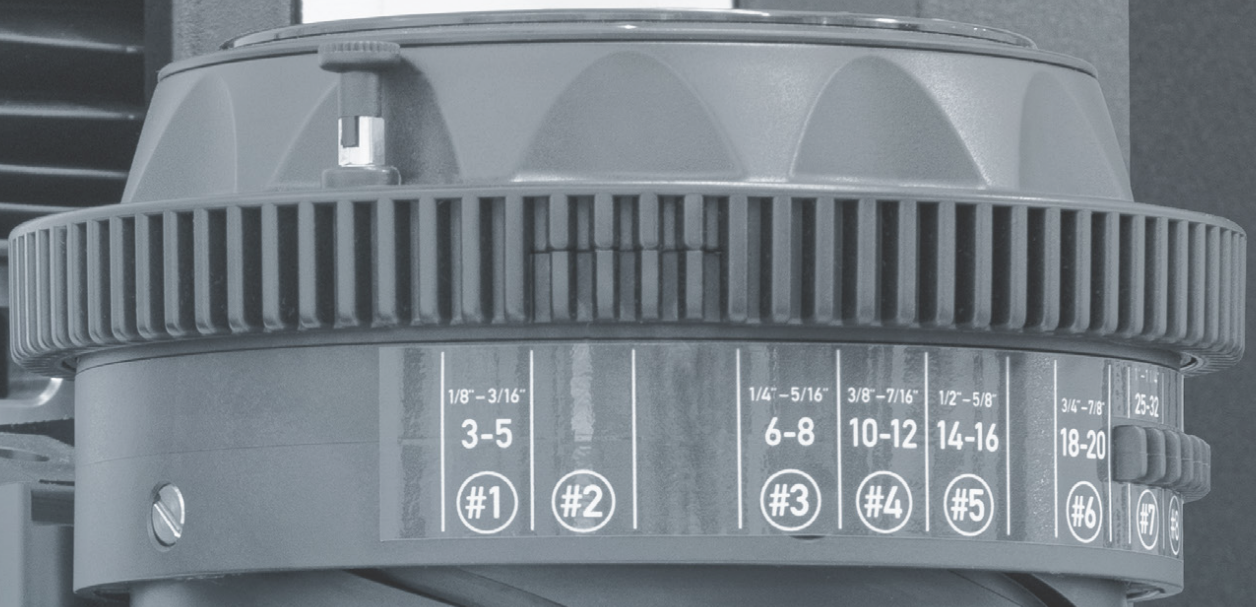


POWER CLAMP

Shrink Fit Teknolojisi
Shrink Fit Technology





SHRINKLEME TEKNOLOJİSİ SHRINKING TECHNOLOGY

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HAIMER Power Clamp Premium i4.0

HAIMER Shrink Fit Teknolojisini Kullanmanız İçin 10 Önemli Sebep

1

Üstün parça işleme hassasiyeti

3xD de 0,003 mm salgı garantisi verir. Bu hassasiyet derecesi, vardiyalar boyunca kaç operatör değişirse değişsin sürekli olarak tekrar edilebilir.

2

İnce profil tasarımı – 5 eksenli işlemler için mükemmel

HAIMER shrink fit tutucuları çok ince profile sahip tasarlanmıştır. Ayrıca, takım tutucunun iş parçası ile temas etmesini önlemek için gerektiğinde düz duvarlı olarak da değiştirilebilirler.

3

Sıkma torku

Shrink tutucularımız kesici takım şaftını 360° silindirik olarak kavrar. Kaba ve finiş operasyonlarınızda yüksek sıkma kuvveti sağlamak sureti ile titreşimleri önler.

4

Ayarlama tutarlılığı

HAIMER shrink fit ayar esnasında takım değişimlerinde oluşan farklılıkların elimine edilmesinde eşsiz fayda sağlar. Operatöre ve onun tecrübesine bağlı kalmadan bu değişkenlikten kurtularak, tekrarlanabilir takım ayarı ve aynı sürekli sonucu elde edin.

5

Çeşitlendirilmiş zengin seçenekler

Shrink fit uzatmalar size bir çok seçenek sunar. Örneğin: derin havuz işleme operasyonlarında standart shrink tutuculara uzatmaları shrinkleyerek, istenen uzunluğa minimum salgı ile erişebilirsiniz.

6

Balans hassasiyeti ve tekrarlanabilirlik

Shrink fit takımlarımızı (G2.5@ 25,000RPM) yüksek balans hassasiyetinde üretmekteyiz. Shrink fit tutucular tekparça olup hareketli hiçbir eleman içermediğinden dolayı pazardaki en iyi balans tekrarlanabilirliğini sunar.

7

Takım değiştirme zamanından ve takım tutucu aksesuar stoğundan tasarruf

Power Clamp Shrink fit makinelerimiz Shrink fit tutucularımızla kullanıldığında takım değiştirme süresinde rakip tanımaz. Takım değiştirme 5 saniyenin altında yapılabilir.

8

Temiz iç yüzeyler

Takım tutucuların iç kısımlarında parça işleme esnasında salgı oluşturacak talaş ve pisliklerin girmesi salgı hassasiyetini düşürür. Shrink fit tutucular ise sızdırmaz bir tasarıma sahiptir. Kir ve talaşın içeriye girmesi bu şekilde minimize edilmektedir.

9

Soğutma seçenekleri

Shrink fit tutucularımız çeşitli soğutma alternatiflerine sahiptir. Cool Jet ve Cool Flash teknolojisi kesme sıvısının takımın kesici ağızlarına erişmesine olanak sağlar. Talaşın uzaklaştırılmasına yardım eder ve daha iyi yüzey kalitesi ve ölçüleri temin etmenize yardım eder.

10

Stok durumu

Çok satan makineler her daim hazır olarak stoklarımızda bulunmaktadır. Diğer tüm konfigürasyonlar ve modifikasyonlar sipariş durumunda yalnızca birkaç hafta içerisinde hazır hale getirilmektedir. Shrink fit tutucular, en yaygın işmili arayüzlerinde ve çok çeşitli uzunluklarda stoklarımızda mevcuttur.

Top 10 Reasons to Use HAIMER Shrink Fit Technology

Unsurpassed machining accuracy

We guarantee < 3µm run-out at 3xD. This degree of accuracy is consistently repeatable for any number of operators from shift to shift.

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.

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.

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.

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.

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.

Reduction of tool changing time & less tool holder accessory inventory

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.

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.

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.

Availability

Bestseller 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.

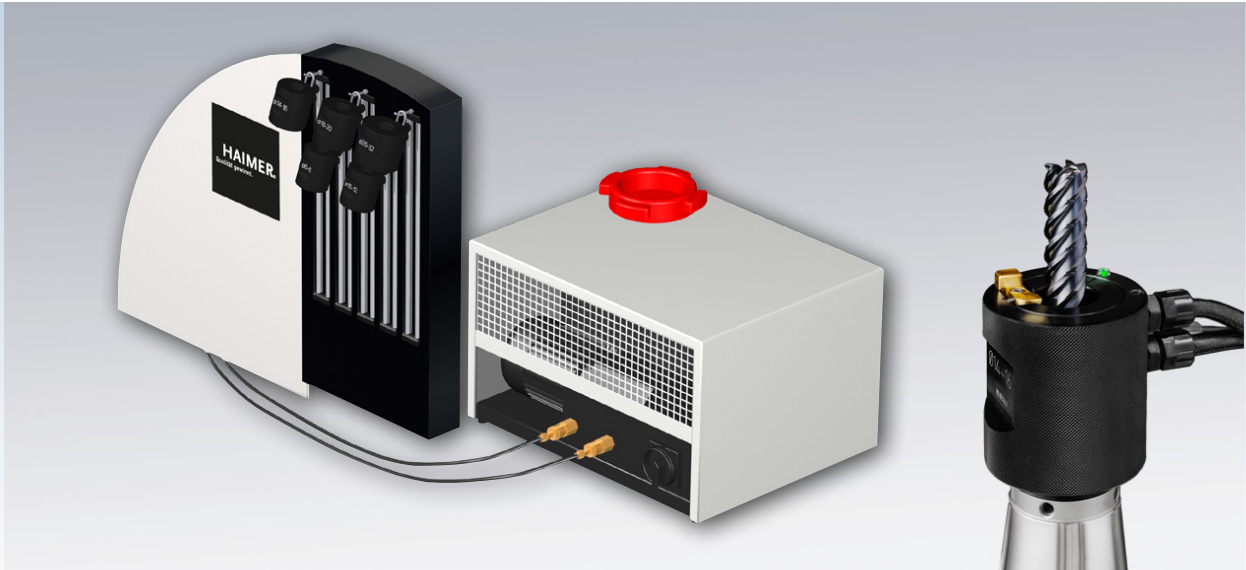
Kontakt Soğutma The Contact Cooling

HAIMER soğutma sistemi, shrink fit tutucuların soğutulması için kullanılan en hızlı ve en temiz yöntemdir. Her tutucu için uygun bir soğutma gövdesi bulunmaktadır. Soğutma gövdesi, tutucunun üzerine yüzey teması ile yerleştirilir ve ısıyı tutucudan alır. Su sirkülasyonu ile de gövdelerin soğutulması sağlanır.

Soğutma işlemi eşit olarak ve zarar vermeden gerçekleşir. Tutucu deformasyona uğramaz. Salgı değeri korunur. Takım tutucu su ile temas etmez. Kuru kalır ve pas oluşmaz. Çalışma alanı da kuru ve temiz kalır.

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.



Hızlı soğutma için soğutma gövdesi

- Rekor sürede soğutma: ort. 30 sn.
- Tutucular kuru kalır, paslanmaya sebep olmaz
- Kurutma işlemine gerek olmadığından zaman kaybı yaşanmaz
- Soğutma sırasında dahi salgı değeri korunur
- Sıcak kısımların üzerini örtmesinden dolayı yaralanma riskini ortadan kaldırır
- Tutucunun sıcak kısımlarına dokunmaya gerek kalmaz
- Tutucuya zarar verilmez, şok soğutma yapılmaz
- Sürekli su sirkülasyonu sayesinde soğutma gövdeleri ısınmaz, ısı sürekli uzaklaştırılır
- Bütün standart tutucular için uygun olan 5 adet soğutma gövdesi mevcuttur
- Su sızdırmazlık özelliği sayesinde her zaman temiz çalışma alanı sağlar

Cooling body for rapid cooling

- Cooling in record time: approx. 30 s
- Tool holders remain dry
- No build-up of rust
- No time lost through drying 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 lots of shrink fit procedures: heat is removed with water cycle
- 5 cooling bodies for all standardized chucks
- No messy water, always a clean work space

POWER CLAMP SİSTEMİ THE POWER CLAMP SYSTEM

Bobin Teknolojisi The Coil Technology

İndüktif bobin, shrink fit teknolojisinin temelidir.

HAIMER uzun yıllardan beri, takım tutucular için indüktif shrink-fit teknolojisi geliştirilmesinde öncü kuruluş olmuştur. Özellikle indüksiyon bobinleri alanında, sahip olduğumuz birçok patentimiz, yenilik ve gelişimin görünür kanıtlarıdır.

Elektronik güç

Shrink fit teknolojisinin ikinci bileşeni güç yönetim ünitesidir. Bobine gereken miktarda gücü verir. Bunu yapabilmek için, frekans ve akımın birbiri ile tam olarak uyumlu bir şekilde olması gerekmektedir. Tutucunun aşırı ısınmasını engellemek için ısıtma işlemi sadece birkaç

saniye içinde yapılmalıdır. Ana gerilimden bağımsız olarak, özel olarak geliştirdiğimiz sistem sayesinde güç ayarlaması yapılmaktadır. HAIMER, 10kW dan 20 kW'a kadar güce sahip olan shrink fit ekipmanları sunmaktadır.

Kullanım

HAIMER shrink cihazları, kısa zamanda kendi değerini kompanze eder ve üst seviye sonuçlar verir. Shrink fit cihazlarımız her amaç ve ihtiyaç için donatılabilir özelliğine sahiptir. Tek istasyonlu ve soğutmasız cihazdan; döner tabla, entegreli soğutma sistemi ve sistem masası ile tam donanımlı cihaza kadar mevcuttur.



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, which is used happily and 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.

HAIMER Bobin Örnekleri/Examples of HAIMER coils:

1) Standart bobin V2008/Standard coil V2008

2) Harici duman emme ünitesi ile motorize NG bobin

Motorised New Generation Coil with auxiliary fume extraction unit

3) 13 kW HD bobin/13 kW HD coil

Standart Bobinler The Standard Coils

Değiştirilebilir durdurma diskleri olan standart bobinlerimiz kendisini yıllar içerisinde kanıtlamıştır. 3-32 mm arasındaki çaplarda olan tüm shrink fit tutucular tek bir bobin ile ısıtılabilir. En küçükten en büyüğe kadar her bir tutucuya bobini adapte etmek için sadece 5 adet durdurma diskli yeterlidir.

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

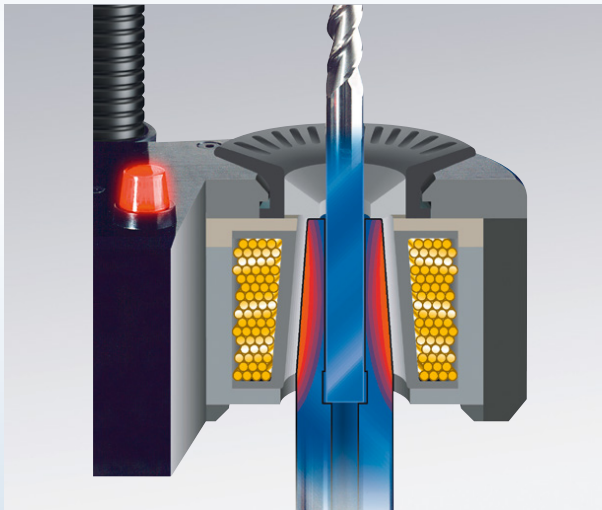


Standart bobin

İndüktif shrink fit makine bobinleri yapımında 20 yılı aşkın deneyime sahip olan HAIMER, standart bobinimizi makinelerimizde çok sağlam ve verimli bir bileşen olacak şekilde geliştirmiştir. Akıllı kontrol sayesinde bobin, uzun süreli takım tutucu ömrü sağlamak için yalnızca shrink fit tutucuyu en etkili şekilde ısıtan indüktif bölgeleri etkinleştirir.

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.



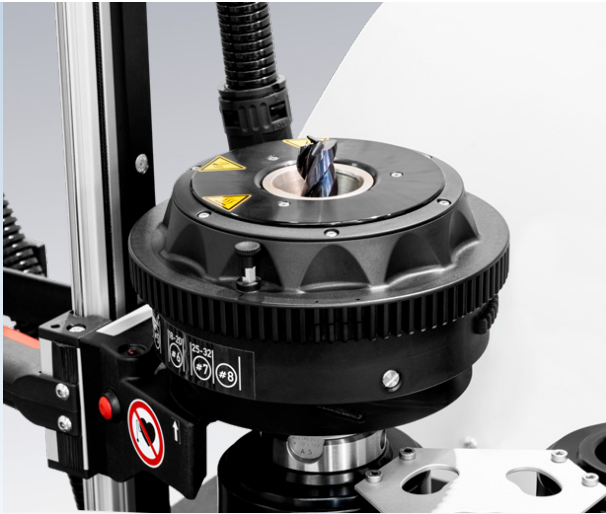
POWER CLAMP SİSTEMİ THE POWER CLAMP SYSTEM

NG Bobinler (New Generation) The New Generation (NG) Coils

Akıllı NG bobinler özellikle esnek ve konforludur.

Ayarlanabilir özelliğe sahiptir. Sadece tek bir döndürme hareketi ile, bobini shrink fit tutucunun hem boyu hem de çapı yönünde ayarlayabilirsiniz. Durdurma disklerini kullanmanıza ihtiyaç kalmamaktadır. Bunun anlamı, "Tutucunun sadece ihtiyaç olan kısmı ısıtılıyor" demektir. Tutucu özel ölçülerde olsa bile.

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 disks are no longer necessary. This means the chuck is only heated where it is intended, even with special sizes.

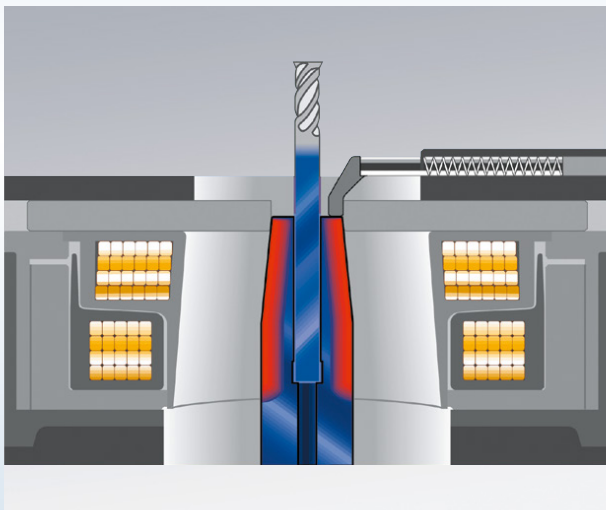


NG bobinler iki adet ısınma bölgesine sahiptir

Isıtma işleminin verimliliğini en üst düzeye çıkarmak için HAIMER, NG (Yeni Nesil) akıllı bobinlerinde devrim niteliğinde iki ısınma bölgesi tasarımına sahiptir. Bu, shrink tutucunun burnunda eşit ve verimli bir ısıtma sağlar ve bu da daha uzun takım tutucu ömrü sağlar. Bu bobinler ayrıca kendilerini ultra kısa shrink tutuculara kolayca ayarlayabilir ve ultra kısa shrink tutucular genellikle işleme sürecinde fayda sağlar.

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 also can adapt themselves to ultra-short shrink fit chucks easily and ultra-short shrink fit chucks can often provide a benefit in the machining process.



Motorize New Generation (NG) Bobinler The motorised New Generation (NG) Coils

En uygun ve otomatik shrinkleme işlemi için, HAIMER i4.0 shrink makinesindeki motorize NG bobini, bir el tarayıcısı ile birlikte kullanılması tavsiye edilir.

Akıllı, motorize NG bobini, doğru parametrelerle takım tutucu / shrink pensi ısıtmak için doğru takım çapına ve uzunluğuna otomatik olarak ayarlanır.

Takım tutucunun veya shrink penslerin veri matrisi kodunu tarayınız, ardından motorize sistem bobini doğru konuma hareket ettirmeye başlayacaktır.

Motorize NG bobini, shrink fit tutucu / pens üzerine yerleştiriniz ve bir düğmeye basarak indüktif ısıtmayı başlatınız.

Bu işlem oldukça düzgün, tutarlı ve operatörden bağımsız shrinkleme işlemine sebebiyet verir.

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

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

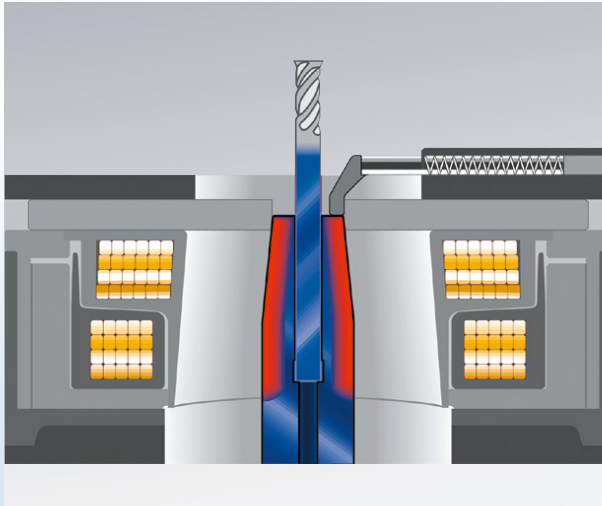
Just scan the tool holder or shrink fit collet's data-matrix code and the coil's motor starts to move the coil to the right position.

Place the motorised 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.



Resim, Harici Duman Emme Ünitesi motorize bobini göstermektedir (opsiyonel)
Picture shows motorised coil with auxiliary fume extraction unit (optional)



NG Bobinlerin iki adet ısınma bölgeleri vardır

Isıtma işleminin verimliliğini en üst düzeye çıkarmak için HAIMER, NG (Yeni Nesil) akıllı bobinlerinde devrim niteliğinde iki ısıtma bölgesi tasarımına sahiptir. Bu, shrink tutucunun burun kısmında eşit ve verimli bir ısıtma sağlar ve bu da daha uzun takım tutucu ömrü sağlar. Bu bobinler ayrıca kendilerini ultra kısa shrink tutuculara kolayca adapte edebilir ve ultra kısa shrink tutucular genellikle işleme sürecinde fayda sağlarlar.

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POWER CLAMP SİSTEMİ THE POWER CLAMP SYSTEM

Amortisman HAIMER Power Clamp Amortisation HAIMER Power Clamp

Yatırım maliyeti

Power Clamp amortismanı
Hızlı soğutma ekipmanı ile günde yapılacak shrink operasyonu adedine göre

Her operasyonda: 5 dk kazanç
Kazanç: 50,- €/saat

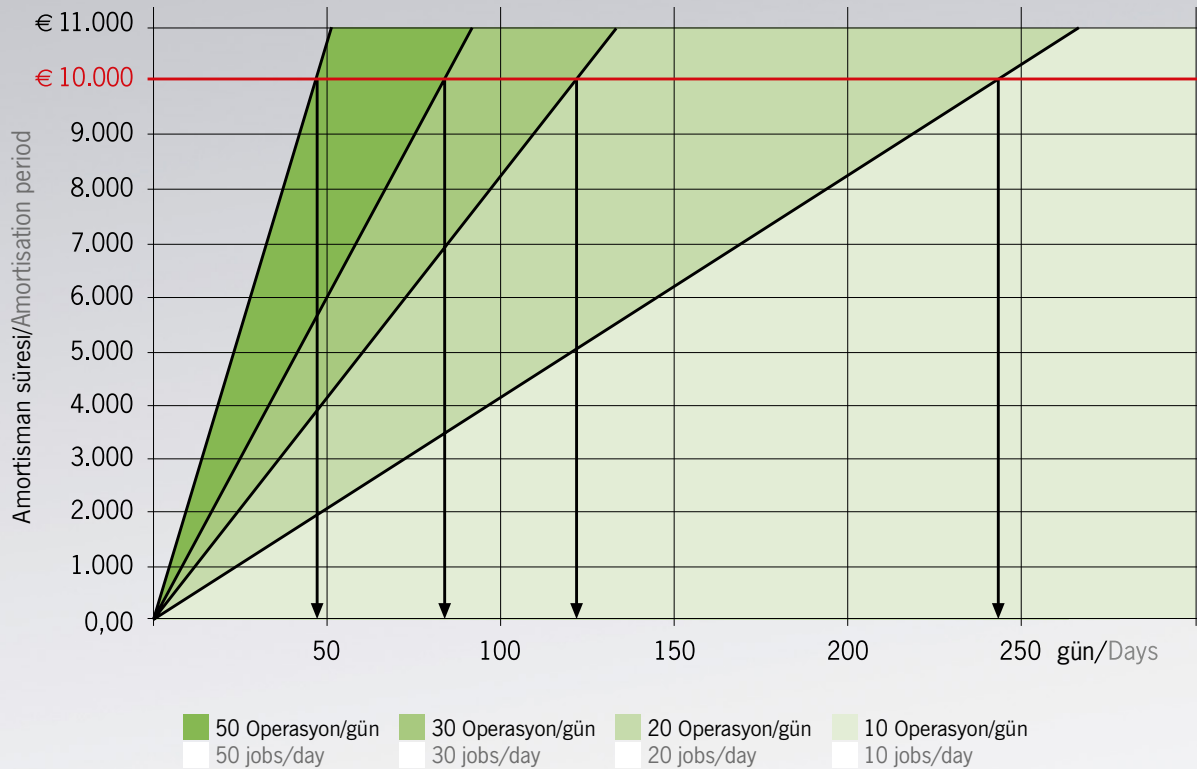
Purchase price

Amortisation 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

Aşağıdaki grafik amortisman süresini göstermektedir.

The following diagram shows the short amortisation periods.



Basic Serisi/Basic Line Profi Serisi/Profi Line i4.0 Serisi/i4.0 Line

HAIMER ile dünyanın en geniş ürün çeşitliliğine sahip shrink fit makina ve bobinlerini tecrübe etme şansına sahip olun.

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 Serisi: Temel ihtiyaçlar üzerine geliştirilmiş teknoloji.

Basic Serisi, indüktif shrink fit teknolojisine hesaplı girişin ilk adımıdır. Güç elektroniği, sorunsuz bir shrinkleme olanağı sağlamaktadır. Bunun yanında, cihazların mekanik yapısı özellikle basit ve fonksiyonel olarak oluşturulmuştur. Sadece tek tutucu çözümleri mevcuttur.

Basic Serisine ait olan shrink fit cihazları sadece standart bobinler ile çalışabilmektedir. Opsiyon ilave etmek sonradan mümkün değildir.

Basic Serisi, günlük olarak birkaç takım shrinklemek isteyen ve ekonomik yönden de hesaplı bir cihazdan yararlanmak isteyen kullanıcılar için idealdir.

Mikro-işlemeler için özel yatay düzlemlili shrink fit cihazı Power Clamp Nano programın bir parçasıdır. Power Clamp Nano, küçük çaplı takımların kullanımı ve hızlı takım değiştirme özelliklerini mükemmel bir şekilde bir araya getirmektedir.

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.

POWER CLAMP SİSTEMİ THE POWER CLAMP SYSTEM



Power Clamp Profi Serisi: Modüler Çok Yönlülük

Profi Serisi yüksek performans sunmaktadır ve sunduğu verimlilik ile rakipsizdir. Yüksek performanslı bobinler, kontakt soğutma ve döner tabla seçenekleri çok kısa bir süre içerisinde eş zamanlı bir shrinkleme ve soğutma garanti etmektedir. Hiçbir talep, yerine getirilmeden eksik bir şekilde bırakılmamaktadır.

Profi Serisi Shrink Fit Cihazları, hem standart bobinler hem de ileri teknolojili ve kullanımı kolay yeni jenerasyon bobinler ile çalışabilmektedir. Cihaz ekipmanı her bobini tanımaktadır ve bu şekilde doğru shrinkleme parametresini seçmektedir.

Profi Serisi Shrink Fit Cihazları modüler bir sistem oluşturmaktadır. Temel Shrink Fit Cihazı Power Clamp Economic, kademeli bir şekilde geliştirilerek en üst seviye Shrink Fit Cihazı Power Clamp Comfort NG'ye denk hale getirilebilir.

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. Of course, 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 Serisi: Ağ uyumlu ve iletişimsel.

Basic ve Profi serisinin iyi bilinen makinelerine ek olarak, tamamen yeni Endüstri 4.0-hazır ve ağ uyumlu seri, Power Clamp Premium i4.0, Sprint i4.0, Preset i4.0, Air i4.0, Comfort i4.0 ve Nano i4.0 modelleri ile geliştirildi.

Makineler, atölye dostu 7" dokunmatik ekran ve eldivenli veya eldivensiz makinenin çalışmasını daha da kolaylaştıran yeni sezgisel yazılımla donatılmıştır. Talep üzerine, Power Clamp i4.0 cihazları, el tipi tarayıcıyla da donatılabilir. Data-Matrix kodlarının shrinkleme parametrelerini okuyabilir. Bu şekilde otomatik shrinkleme her zamankinden daha kolay.

Yeni ve ergonomik shrink istasyonları modern ve kaliteli bir tasarıma sahiptir. Patentli NG bobinleri sayesinde, çapları 3 ila 32 mm arasında olan hem karbür hem de HSS takımları için uygundur.











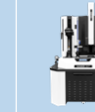
i4.0 Line: Network-compatible and communicative.

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 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 3 to 32 mm.

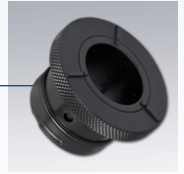
Seri/Line		Basic Serisi/Line		Profi Serisi/Line				
Sembol Symbol	Özellik/Feature	Nano	Basic	Economic	Economic NG	Economic Plus	Economic Plus NG	Comfort
	Tek tutucu versiyonu Single chuck version	•	•	•	•	—	—	—
	Eş zamanlı shrinkleme ve soğutma Cooling and Shrinking simultaneously	—	—	○	○	•	•	•
	Döner tabla Rotary table	—	—	○	○	○	○	•
	Soğutma Cooling	○	—	○	○	•	•	•
	Cooling Manager ile Speed Cooler Speed Cooler with Cooling Manager	—	—	○	○	•	•	•
	TME Soğutma Sistemi TME Cooling system	—	—	—	—	○	○	○
	Modüler Sistem Modular system	—	—	•	•	•	•	•
	Standart Bobin Standard coil	—	•	•	○	•	○	•
	Değişken NG Bobin Variable NG coil	—	—	○	•	○	•	○
	Akıllı motorize bobin Intelligent motor coil	—	—	○	○	○	○	○
	13 kW HD Bobin 13 kW HD coil	—	—	○	○	○	○	○
	20 kW Bobin 20 kW coil	—	—	—	—	—	—	—
	5 tuşlu zar klavye 5 keys membrane keypad	•	•	•	•	•	•	•
	Endüstri 4.0 hazır Industry 4.0 ready	—	—	—	—	—	—	—
	7" Dokunmatik ekran 7" Touchscreen	—	—	—	—	—	—	—
	Tarayıcı Hand-held scanner	—	—	—	—	—	—	—
	Boy Ayarlama Length presetting	○	—	○*	○*	○*	○*	○*
	Sistem kabini System cart	○	○	○	○	○	○	○
	Harici Duman Emme Ünitesi Auxiliary fume extraction unit	—	○	○	○	○	○	○

				i4.0 Serisi/Line						
Comfort NG	Profi Plus NG	Preset NG	Premium Plus	Nano NG i4.0	Air i4.0 Eco	Air i4.0 Comfort	Comfort i4.0	Preset i4.0	Premium i4.0	Sprint i4.0
										
—	—	—	—	•	•	•	—	—	—	—
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•	•	•	—	—	•	•	○	○	—	—
○	○	○	○	—	○	○	○	○	○	○
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○*	○*	•	•	○	○	○	○	•	○	○
○	○	○	—	○	○	○	○	○	—	—
○	○	○	○	—	○	○	○	○	○	○

Power Clamp Nano

Küçük çaplı arayüzler için özel yatay düzlemlı shrinkleme cihazı.

Horizontal shrink fit machine for small tools.



Hava soğutma (opsiyonel)
Küçük shrink fit tutucular için dış formdan bağımsız güvenli ve temiz hava soğutması

Air cooling (optional)
Cooling by compressed air, regardless of contour and safest handling for small tool holders



Durdurma diski
Stop disk



Takım tutucular için bayonet tip sıkma sistemli adaptör
Chuck support for tool holders with bayonet clamping

Boy ayarlama ünitesi (opsiyonel)

Yatay şekilde boy ayarlama
Tolerans 0,05mm

Length presetting (optional)

Horizontal length presetting unit
Tolerance 0,05 mm

POWER CLAMP BASIC SERİSİ/POWER CLAMP BASIC LINE POWER CLAMP NANO

Power Clamp Nano

- Güç: 13kW
- Şebeke voltajı: 3 x 400–480 volt, 16 amper
- Takımlar: Solid karbür ve HSS. Takım çapı Ø 3–16 mm
- Yatay shrinkleme yolu ile kolay kullanım

Power Clamp Nano

- Power: 13 kW
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–16 mm
- Easy tool handling by horizontal shrinking

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 Ampere, 13 kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–16 mm
– Tutucunun maksimum uzunluğu (takım ile beraber)/ Maximum length of shrink fit chuck with tool	230 mm
– Ölçüler/Dimensions WxDxH	715x600x630 mm
– Ağırlık/Weight	75 kg
– Sipariş No./Order No.	PC106-I04-C00-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Power Clamp Nano için shrink cihazı adaptörü/ Chuck support for Power Clamp Nano	Sayfa 59'a bakınız/See page 59
– Power Clamp Nano için hava soğutması/ Power Clamp Nano Air Cooling	80.164.00
– Ø3–12 mm Mini Shrink için soğutma nozulu/Cooling nozzle for Mini Shrink Ø3–12 mm	80.164.02
– Boy Ayarlama/Length presetting	80.165.00.3
– Nano kalibrasyon adaptörü/Calibration adapter Nano	80.165.01
– Takımlar için klips/Clips for tools for length presetting	
– Ø3mm	80.166.03
– Ø4mm	80.166.04
– Ø5mm	80.166.05
– Ø6mm	80.166.06
– Ø8mm	80.166.08
– Ø10mm	80.166.10
– Ø12mm	80.166.12
– Takımlar için klips seti/Set of clips incl. plate	80.166.00



Ön ayar için kalibrasyon adaptörü (opsiyonel)

Ölçme cihazını sıfırlamak için

Calibration adapter for length presetting (optional)

For resetting of the measuring device



Takımlar için klips seti (opsiyonel)

Özellikle küçük çaplı karbür takımlarda güvenli ve hassas takım tutma amaçlı kullanılır.

Clips for tools (optional)

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

Power Clamp Basic

Temel seviye soğutmasız shrink fit cihazı.
Entry-level shrink fit machine without cooling.



POWER CLAMP BASIC SERİSİ/POWER CLAMP BASIC LINE POWER CLAMP BASIC

Power Clamp Basic

- Güç: 10kW
- Şebeke voltajı: 3 x 400–480 volt, 16 amper
- Takımlar: Solid karbür ve HSS. Takım çapı Ø 3–32 mm
- Pakete dahil 1 altlık
- Pakete dahil 1 adaptör

Power Clamp Basic

- Power: 10kW
- Mains voltage: 3 x 400–480 V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm
- With 1 base holder
- With 1 chuck support

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 Ampere, 10 kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk/Maximum total length	350 mm
– Ölçüler/Dimensions WxDxH	650x900x600 mm
– Ağırlık/Weight	45 kg
– Sipariş No./Order No.	PC105-I01-C00-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

- Tek tutucu sistemi için adaptör/
Chuck support for single-chuck system

Sayfa 60'a bakınız/See page 60

Power Clamp Profi Serisi/Power Clamp Profi Line: Modüler Sistem/The modular system

Adım adım daha çok shrink fit teknolojisi

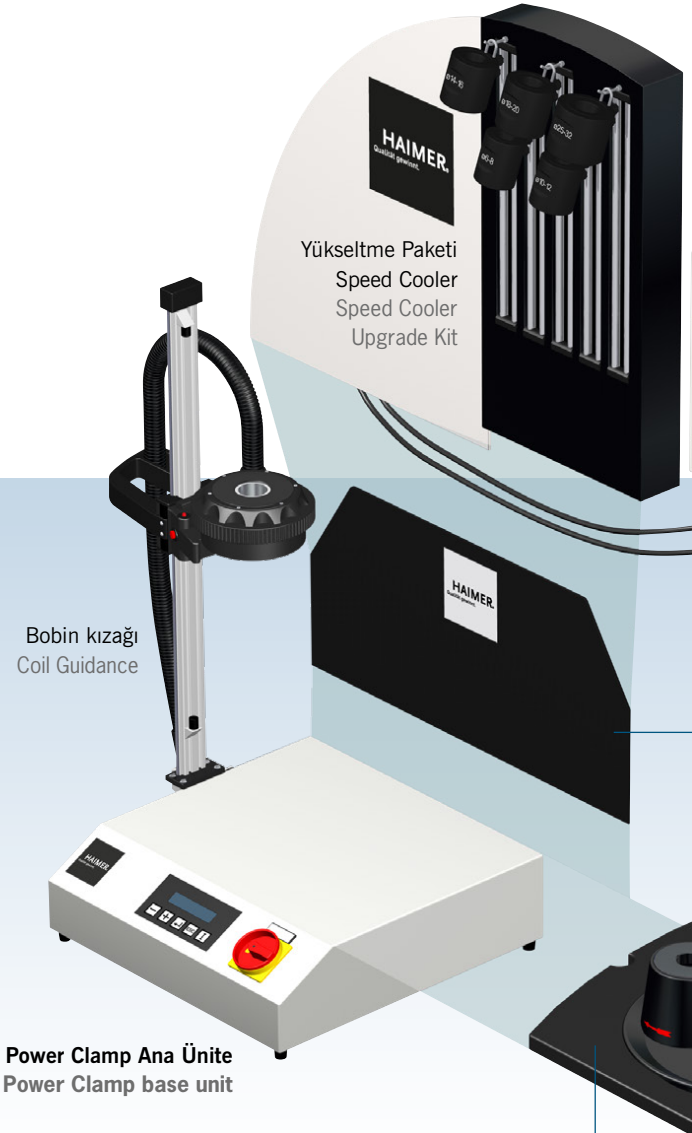
Ana ünite, iki arka duvar ve iki alt tabla ile donatılabilir. Döner tabla için istenilen arayüzde adaptör seçilebilir.

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.

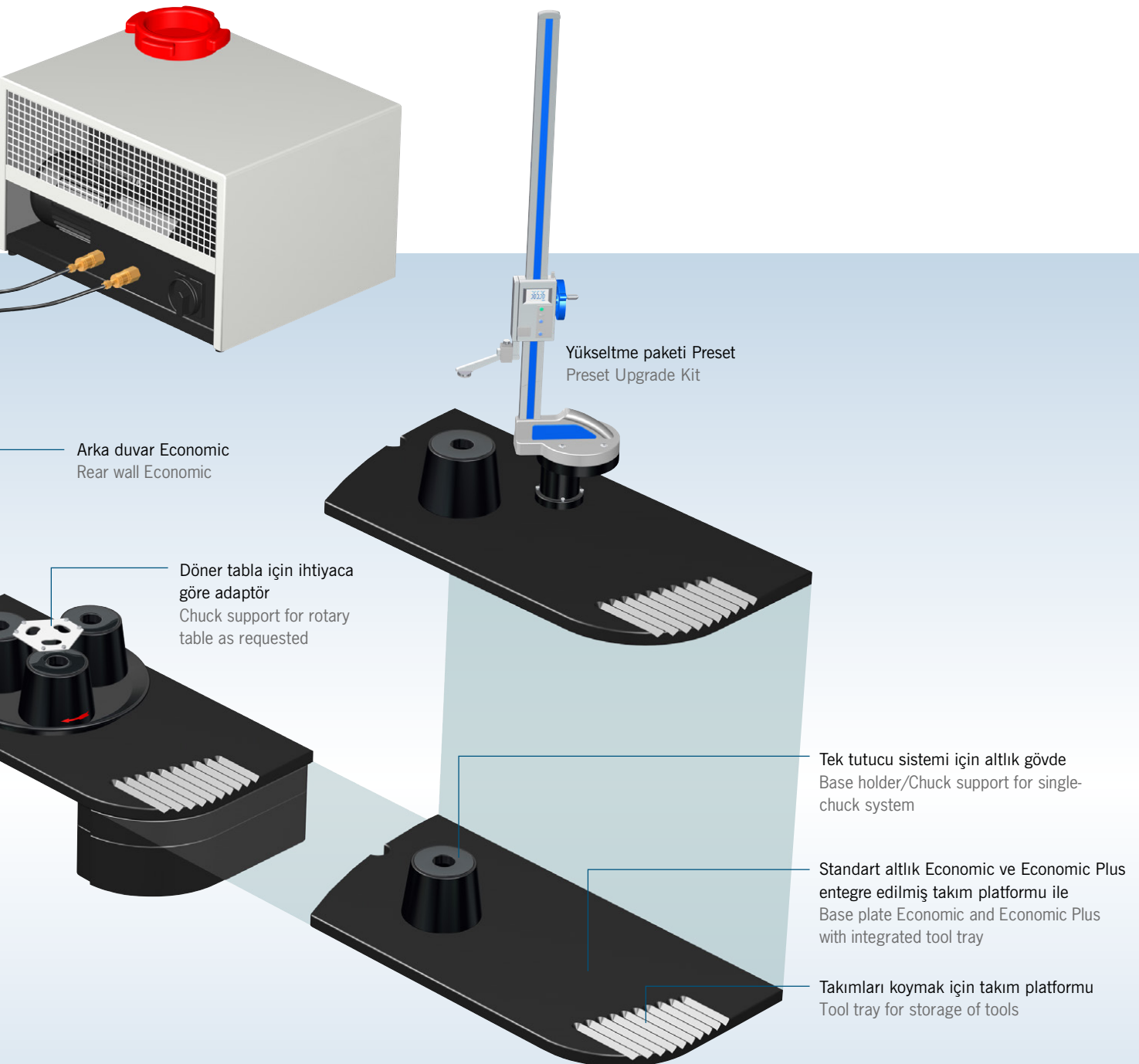
Aksesuarlar/Accessories

- **Yükseltme paketi I Speed Cooler/ Speed-Cooler Upgrade Kit**
Speed Cooler – arka duvarlı ve 5 soğutma gövdesi dahil/
Speed-Cooler with rear wall incl. 5 cooling bodies
Sipariş No./Order No. 80.115.00
- **Yükseltme paketi II döner tabla/Rotary table Upgrade Kit (= Power Clamp Comfort)**
3 adaptörlü döner sistem ile alt tabla, saklama çekmeceleri dahil/Base plate with rotary table for 3 chucks incl. craning boxes
Sipariş No./Order No. 80.116.00
- **Yükseltme paketi III uzunluk ayarlama ünitesi/ Preset Upgrade Kit**
Ölçme tablası ve mihengiri, 2 hassas altlık ve saklama çekmeceleri dahil/Measuring plate, height gage, 2 precision base holders incl. craning boxes
Sipariş No./Order No. 80.117.00



Alüminyum'dan yapılmış ve döner tabla ile donatılmış standart tabla, entegre edilmiş takım platformu ve saklama çekmeceleri
Base plate Standard made of aluminum with rotary table, integrated tool tray and craning boxes

POWER CLAMP PROFI SERİSİ/POWER CLAMP PROFI LINE



Power Clamp Profi Serisi Programı Power Clamp Profi Line Program

**Gerekli olanla başlayın, ardından gerektiği gibi yükseltin:
Geleceğe göz kulak olun.**

Modern Shrink fit teknolojisine bir başlangıç: Düşük maliyetli, teknoloji harikası indüktif bobin. Soru "Ben Shrink fit yatırımı yapmalı mıyım?" değil "Ne zaman Shrink fit yatırımı yapmalı mıyım?" olmalı. İşte şimdi geleceğin teknolojisine yatırım yapma zamanı.

Modüler sistemimiz, ideal başlangıç çözümleri sunmaktadır.

**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.



POWER CLAMP PROFI SERİSİ/POWER CLAMP PROFI LINE

Teknik bilgiler/Technical details

– Ana ünite Comfort/Basic unit Comfort	3x400–480 Volt, 16 amper, 13 kW
– Shrink tutucunun maksimum boyu (daha uzun için sorunuz.) Maximum length of shrink fit chuck (longer chucks upon request)	510 mm
– Ölçüler/Dimensions WxDxH	840x600x970 mm
– Ağırlık/Weight	70 kg
– Speed-Cooler/Speed-Cooler unit	230 Volt/50 Hz, 1 kW
– Ölçüler/Dimensions	565x450x400 mm
– Ağırlık/Weight	45 kg



Power Clamp Economic Plus NG
Soğutmalı, döner tablasız, 1 altlık ve 1 adaptör ile, entegre takım platformu ile

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
Soğutmalı, döner tablalı, 1 üçlü adaptör, entegre takım platformu ve saklama çekmeceleri ile

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



Power Clamp Profi Plus NG
Yüksek güçlü shrink fit cihazı
– Güç: 20 kW
– Ø 3–50 mm çaplı takımları shrinklemek için
– Solid karbür ve HSS takımlar
– Büyük bobin çap 40–50 mm için (opsiyonel)
– Pakete dahil: döner tabla ve altlık
– Pakete dahil: takım platformu
– Pakete dahil: aksesuar için saklama çekmeceleri

Power Clamp Profi Plus NG
High powered shrink fit machine
– Heating power 20 kW
– For shrinking of tools from Ø 3–50 mm
– For HSS- and solid carbide tools
– Big coil for Ø 40–50 mm (optional)
– Incl. rotary table and chuck support
– Incl. tool tray
– With craning boxes for accessories

Power Clamp Profi Serisi/Profi Line

HAIMER Power Clamp New Generation

1 Tek elle kullanım

- Tek el ile bobinin pozisyonlanması ve shrink prosesinin başlatılması

Single hand operation

- Positioning of coil and starting of shrink process with one hand

2 Hızlı soğutma için soğutma gövdesi

- Tutucular kuru kalır
- Paslanmaya sebep olmaz
- Sıcak bölümler örtülür, yaralanma riski yoktur
- Tutucunun sıcak kısımlarına dokunmaya gerek kalmaz

Cooling bodies for rapid cooling

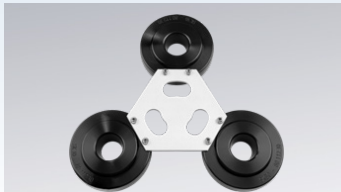
- Chucks remain dry
- No rust
- Hot spots always covered, no danger of injury
- Hot parts need not to be taken into the hand

3 Döner tabla

- Hızlı ve verimli çalışır
- Aynı anda 3 istasyonda ısıtma ve soğutma
- Boşta zaman yok

The turning table

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



Shrink Cihazı Adaptörü/Chuck support

4 3 tutucu için adaptör

- Mevcut tüm konikler için
- Değişik konikler için kombinasyon yapılabilir

Chuck support for 3 chucks

- For all actual tapers
- Also different tapers combined possible

7 Ekran

- Kullanıcı dostu operasyon paneli
- Temiz kompakt ve kolay kullanım

The display

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



Resimde Power Clamp Comfort NG ile aksesuarları ve sistem taşıyıcı gösterilmektedir.
Picture shows Power Clamp Comfort NG with accessories and system cart

5 Takım platformu

- Kesici takımları koymak için
- Tabla üzerine entegre

The tool tray

- For laying down cutting tools
- Integrated in base plate

6 Saklama çekmeceleri

- Aksesuarlar için
- Herşey elinizin altında

The craning boxes

- For accessories
- Everything close at hand

8 Sistem taşıyıcı

- Tam düzenli ve ergonomik çalışma alanı için

The system cart

- For a clearly arranged and ergonomic work place

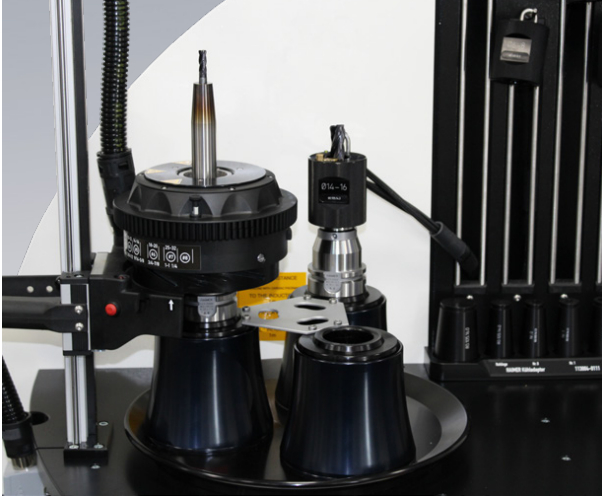
9 Çekmece

- Aksesuarları depolamak için
- Her şey yerli yerinde

The drawer

- Profiled inserts for accessories
- Everything in its place

POWER CLAMP PROFI SERİSİ/POWER CLAMP PROFI LINE HAIMER POWER CLAMP NEW GENERATION



Güvenli, kuru, hızlı soğutma

- Verimli: Bir tutucu soğurken diğerini shrinkleyin
- Su soğutmalı soğutma gövdeleri
- Temaslı soğutma sayesinde konsantre soğutma verimliliği
- Eşit soğutma: Malzeme deformasyonu yok

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

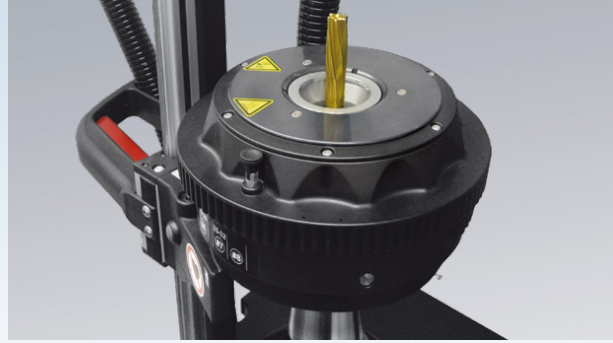
Akıllı ve patentli bobin teknolojisi:

Sadece tek bir döndürme hareketi ile, bobini shrink fit tutucunun hem boyu hem de çapı yönünde ayarlayabilirsiniz. Bu sayede tutucunun sadece shrinkleme yapan kısmı ısıtılacaktır, başka yeri ısıtılmaz. Shrinkleme ve soğutma daha hızlı olacaktır.



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.

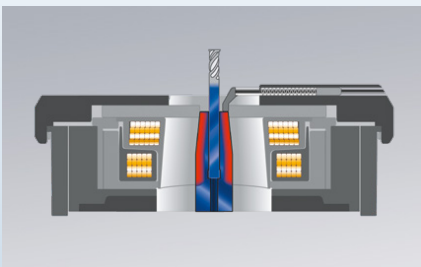


Daha fazla verimlilik, daha fazla esneklik, kolay kullanım.

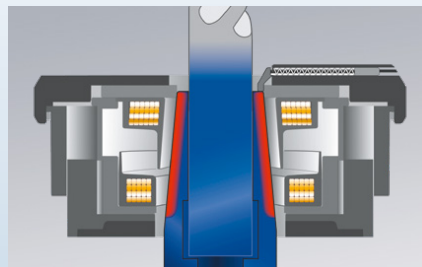
- Bobin, tutucuya göre kendini ayarlar
- Bobin boy ayarlama sayesinde mükemmel manyetik akım
- Bobin boy ayarlama sayesinde optimum ısı dağılımı
- Düşük tutucu ısınması
- Daha kısa shrinkleme zamanı
- Daha kısa soğuma süresi
- Basit kullanım
- Durdurma diskleri gerektirmez
- T tipi frezelere uygundur
- Ultra kısa tutucular için uygundur
- Özel formulu tutucular için uygundur

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 disks are no longer necessary
- Suitable for T-shaped groove milling cutters
- Suitable for ultra-short chucks
- Suitable for special shape



Küçük takım
Small tool



Büyük takım
Big tool

Power Clamp Economic/ Power Clamp Economic NG

Profi Serisi temel seviye soğutmasız shrink fit cihazı.
Profi Line entry-level shrink fit machine without cooling.



Power Clamp Economic

Power Clamp Economic NG

POWER CLAMP PROFİ SERİSİ/POWER CLAMP PROFİ LINE
POWER CLAMP ECONOMIC
POWER CLAMP ECONOMIC NG

Power Clamp Economic

- Standart bobin ile
- Tek tutucu versiyonu
- Soğutmasız
- Pakete dahil 1 adaptör
- Pakete dahil 1 altlık
- Güç: 13 kW
- Şebeke voltajı: 3x400–480 volt, 16 amper
- Solid karbür ve HSS takımlar (takım çapı 3–32 mm)

Power Clamp Economic

- With standard coil
- Single chuck version
- Without cooling
- With 1 base holder
- With 1 chuck support
- Power: 13 kW
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm

Power Clamp Economic NG

- Akıllı NG bobin
- Tek tutucu versiyonu
- Soğutmasız
- Pakete dahil 1 adaptör
- Pakete dahil 1 altlık
- Güç: 13 kW
- Şebeke voltajı: 3x400–480 volt, 16 amper
- Solid karbür ve HSS takımlar (takım çapı 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
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 amper, 13 kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk shrink fit tutucu/ Maximum length of shrink fit chuck	Economic: 510 mm/Economic NG: 570 mm
– Ölçüler/Dimensions WxDxH	840x600x970 mm
– Ağırlık/Weight	60 kg
– Power Clamp Economic Sipariş No./Order No.	PC101-I01-C00-EU
– Power Clamp Economic NG Sipariş No./Order No.	PC101-I21-C00-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Saklama çekmeceleri/Cranning boxes	80.134.00NG
– Tek tutucu sistemi için adaptör/Chuck support for single-chuck system	Sayfa 60'a bakınız/See page 60

Power Clamp Economic Plus/ Power Clamp Economic Plus NG

Profi Serisi ileri seviye soğutmalı shrink fit cihazı.
Advanced Profi Line shrink fit machine with cooling.



Power Clamp Economic Plus



Power Clamp Economic Plus NG

POWER CLAMP PROFI SERİSİ/POWER CLAMP PROFI LINE
POWER CLAMP ECONOMIC PLUS
POWER CLAMP ECONOMIC PLUS NG

Power Clamp Economic Plus

- Standart bobin ile
- Tek tutucu versiyonu
- Entegre edilmiş temaslı soğutma ile
- Pakete dahil 1 adaptör
- Pakete dahil 1 altlık
- Cooling Manager ile
- Güç: 13 kW
- Şebeke voltajı: 3x400–480 volt, 16 amper
- Solid karbür ve HSS takımlar (takım çapı 3–32 mm)

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
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm

Power Clamp Economic Plus NG

- Çap 50 mm'ye kadar Heavy Duty Shrink tutucuları shrinklemek için, HD bobin ilave etmek mümkündür. (Opsiyonel)
- Akıllı NG bobin
 - Tek tutucu versiyonu
 - Entegre edilmiş temaslı soğutma ile
 - Pakete dahil 1 adaptör
 - Pakete dahil 1 altlık
 - Cooling Manager ile
 - Güç: 13 kW
 - Şebeke voltajı: 3x400–480 volt, 16 amper
 - Solid karbür ve HSS takımlar (takım çapı 3–32 mm)

Power Clamp Economic Plus NG

- Upgrade possible with HD coil for shrinking of Heavy Duty Shrink Chucks up to Ø 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
 - Mains voltage: 3x400–480V, 16A
 - Tools: solid carbide and HSS from Ø 3–32 mm

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 amper, 13 kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk shrink fit tutucu/ Maximum length of shrink fit chuck	Economic Plus: 510 mm/Economic Plus NG: 570 mm
– Ölçüler/Dimensions WxDxH	840x600x970 mm
– Ağırlık/Weight	110 kg
– Power Clamp Economic Plus Sipariş No./Order No.	PC102-I01-C10-EU
– Power Clamp Economic Plus NG Sipariş No./Order No.	PC102-I21-C10-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Saklama çekmeceleri/Cranning boxes	80.134.00NG
– Tek tutucu sistemi için adaptör/Chuck support for single-chuck system	Sayfa 60'a bakınız/See page 60
– Economic Plus NG için 13 kW HD bobin kiti ilavesi/ Upgrade Kit 13 kW HD coil for Economic Plus NG	80.151.30.10

Power Clamp Comfort/ Power Clamp Comfort NG

Profi Serisi yüksek performanslı shrink fit cihazı 3 istasyon ve soğutma ile iddialı.

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



Power Clamp Comfort

Power Clamp Comfort NG

POWER CLAMP PROFI SERİSİ/POWER CLAMP PROFI LINE
POWER CLAMP COMFORT
POWER CLAMP COMFORT NG

Power Clamp Comfort

- Standart bobin ile
- 3 istasyonlu döner tabla
- Entegre edilmiş temaslı soğutma ile
- Cooling Manager ile
- Döner tabla için 1 adet adaptör
- Saklama çekmeceleri hariç
- Güç: 13 kW
- Şebeke voltajı: 3x400–480 volt, 16 amper
- Solid karbür ve HSS takımlar (takım çapı 3–32 mm)

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
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm

Power Clamp Comfort NG

Çap 50 mm'ye kadar Heavy Duty Shrink tutucuları shrink-lemek için, HD bobin ilave etmek mümkündür. (Opsiyonel)

- Akıllı NG bobin
- 3 istasyonlu döner tabla
- Entegre edilmiş temaslı soğutma ile
- Cooling Manager ile
- Döner tabla için 1 adet adaptör
- Saklama çekmeceleri dahil
- Güç: 13 kW
- Şebeke voltajı: 3x400–480 volt, 16 amper
- Solid karbür ve HSS takımlar (takım çapı 3–32 mm)

Power Clamp Comfort NG

Upgrade possible with HD coil for shrinking of Heavy Duty Shrink Chucks up to Ø 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
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 amper, 13 kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk shrink fit tutucu/ Maximum length of shrink fit chuck	Power Clamp Comfort: 510 mm/Comfort NG: 570 mm
– Ölçüler/Dimensions WxDxH	840x600x970 mm
– Ağırlık/Weight	115 kg
– Power Clamp Comfort Sipariş No./Order No.	PC100-I01-C10-EU
– Power Clamp Comfort NG Sipariş No./Order No.	PC100-I21-C10-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Saklama çekmeceleri Power Clamp Comfort için/Craining boxes for Power Clamp Comfort	80.134.00NG
– Döner tabla için adaptör/Chuck support for rotary table	Sayfa 63'e bakınız/See page 63
– Comfort NG için 13 kW HD bobin kiti ilavesi/ Upgrade Kit 13 kW HD coil for Power Clamp Comfort NG	80.151.30.10

Power Clamp Profi Plus NG

Profesyoneller için soğutmalı ve yüksek performanslı shrink fit cihazı, Ø 50 mm'ye kadar.

High performance shrink fit machine for professionals up to Ø 50 mm and with cooling.



POWER CLAMP PROFI SERİSİ/POWER CLAMP PROFI LINE POWER CLAMP PROFI PLUS NG

Power Clamp Profi Plus NG

- Akıllı NG bobin
- 3 istasyonlu döner tabla
- Entegre edilmiş temaslı soğutma ile
- Cooling Manager ile
- Ø 40–50 mm için opsiyonel ikinci bobin
- Döner tabla için 1 adet adaptör
- Saklama çekmeceleri dahil
- Güç: 20kW
- Şebeke voltajı: 3x400–480 volt, 16 amper
- Takımlar: Solid karbür ve HSS Ø 3–50 mm arası

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
- Mains voltage: 3x400–480V, 32A
- Tools: solid carbide and HSS from Ø 3–50 mm

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 32 amper, 20 kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk shrink fit tutucu/ Maximum length of shrink fit chuck	570 mm
– Ölçüler/Dimensions WxDxH	1000x600x970 mm
– Ağırlık/Weight	128 kg
– Power Clamp Profi Plus NG Sipariş No./Order No.	PC120-I21-C10-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Döner tabla için adaptör/Chuck support for rotary table	Sayfa 63'e bakınız/See page 63
– Upgrade Kit 20 kW HD Bobin/Upgrade Kit 20 kW HD coil	80.151.40

Power Clamp Preset NG

Profesyoneller için yüksek performanslı shrink fit cihazı, uzunluk ayarlama ünitesi ve soğutma ile.

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



POWER CLAMP PROFI SERİSİ/POWER CLAMP PROFI LINE POWER CLAMP PRESET NG

Power Clamp Preset NG

Çap 50 mm'ye kadar Heavy Duty Shrink tutucuları shrink-lemek için, HD bobin ilave etmek mümkündür. (Opsiyonel)

- Uzunluk mihengiri (dikey durdurma ayarı ile)
- Akıllı NG bobin
- Tek tutucu versiyonu
- Entegre edilmiş temaslı soğutma ile
- Cooling Manager ile
- Pakete dahil 2 adaptör
- Pakete dahil 2 hassas altlık
- Saklama çekmeceleri dahil
- Güç: 20kW
- Şebeke voltajı: 3x400–480 volt, 16 amper
- Takımlar: Solid karbür ve HSS Ø 3–32 mm arası

Power Clamp Preset NG

Upgrade possible with HD coil for shrinking of Heavy Duty Shrink Chucks up to Ø 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
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 amper, 13 kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk shrink fit tutucu/ Maximum length of shrink fit chuck	570 mm
– Ölçüler/Dimensions WxDxH	840x600x1110 mm
– Ağırlık/Weight	110 kg
– Power Clamp Preset NG Sipariş No./Order No.	PC103-I21-C10-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Hassas adaptör/Precision chuck support Upgrade Kit 13kW HD Bobin/ Upgrade Kit 13 kW HD coil	Sayfa 61'e bakınız/See page 61 80.151.30.10
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Power Clamp Premium Plus

Mutlak işlem güvenilirliği için üst düzey shrink fit cihazı.

High-end shrink fit machine for absolute process reliability.



POWER CLAMP PROFI SERİSİ/POWER CLAMP PROFI LINE POWER CLAMP PREMIUM PLUS

İki ayrı elektronik ünite ve bobin ile üst düzey shrink fit cihazı.

- Güç: 33 kW
- Şebeke voltajı: 3x400 volt, 63 amper
- Takımlar: Solid karbür ve HSS Ø 3–50 mm arası
- Akıllı motorize bobin VS32m ve 20 kW bobin
- TME akıllı soğutma sistemi ile sıcaklık kontrolü
- Soğutma işleminin bitiminden sonra otomatik olarak yukarı hareket edebilen soğutma gövdeleri (ısı-zaman kontrollü)
- Entegre edilmiş temaslı soğutma sistemi ve 6 adet soğutma gövdesi
- Lineer hareketli soğutma gövdeleri
- Kesici takımların köşelerinde zarara yol açmaz
- Cooling Manager ile
- 2 adet uzunluk ayarlama ünitesi
- Pakete dahil olanlar: 2 hassas altlık ve 2 hassas adaptör
- 3 entegre edilmiş çekmece

High-end shrink fit machine with two separate electronic units and two coils.

- Power: 33kW
- Mains voltage: 3x400V, 63A
- Tools: solid carbide and HSS from Ø 3–50 mm
- With intelligent motor coil VS32m and 20kW coil
- TME Intelligent Cooling System with temperature control
- Automatic move-up of the cooling bodies after the termination of the cooling process (temperature-time controlled)
- Integrated contact cooling with six cooling bodies
- Linear guided cooling bodies
- No damage at the edges of the cutting tool
- Incl. Cooling Manager
- Two length presetting units with height stop
- Incl. 2 precision base holders and 2 precision chuck supports
- 3 integrated drawers

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400Volt, 63 amper, 33kW
– Basıncılı hava/Compressed Air	6 bar
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–50 mm
– Maksimum uzunluk shrink fit tutucu/ Maximum length of shrink fit chuck	535 mm
– Ölçüler/Dimensions WxDxH	1601 x 890 x 2300 mm
– Ağırlık/Weight	760 kg
– Power Clamp Premium Plus Sipariş No./Order No.	PC107-I41-I03-C11-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Hassas adaptör/Precision chuck support	Sayfa 62'ye bakınız/See page 62
– Hassas altlık/Precision base holder for chuck support	80.131.01



Power Clamp Nano NG i4.0



Power Clamp Air i4.0 Eco/Comfort



Power Clamp Comfort i4.0



Power Clamp Preset i4.0

POWER CLAMP i4.0 Serisi

Power Clamp i4.0 Line:

Shrinkleme Teknolojisi Endüstri 4.0-Hazır
Shrinking Technology Industry 4.0-ready

Yeni Power Clamp i4.0 serisi ile HAIMER, üretim dünyasında takım ve makinelerin birbirleri ile dijital bağlantısı ve iletişimi ile ilgili yeni standartlar ortaya koymaktadır.

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



Power Clamp Premium i4.0



Power Clamp Sprint i4.0

Power Clamp i4.0 Serisi Öne Çıkanlar

Power Clamp i4.0 Line Highlights

Yeni Power Clamp i4.0 serisi ile HAIMER, üretim dünyasında takım ve makinelerin birbirleri ile dijital bağlantısı ve iletişimi ile ilgili yeni standartlar ortaya koymaktadır.

Tüm Power Clamp i4.0 shrink fit cihazları aşağıda yer alan özellikler ile donatılmıştır:

- Kolay kullanım için 7" dokunmatik ekran ve anlaşılabilir yazılım
- Üretim sahasında iletişim için network ağı ile uyumlu endüstri 4.0-hazır
- En kolay otomatik shrinkleme için Data-Matrix kodları üzerinden shrinkleme parametresi okuma tarayıcısı (opsiyonel)
- 3-32 mm çapındaki takımlar için patentli NG/Yeni jenerasyon bobin sistemi

With the new Power Clamp i4.0 series HAIMER is setting new standards regarding 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 in the shopfloor
- Scanner to readout shrinking parameters from Data-Matrix codes (optional)
- Patented NG-coil for tool diameters from 3 – 32 mm



Dokunmatik Ekran

- 7" dokunmatik ekran ve yeni anlaşılabilir yazılım
- Kullanımı kolay arayüz
- Görselleştirilmiş fonksiyonlar
- Açık semboller, büyük yazı tipi
- Sağlam yapıya sahip renkli ekran
- Su geçirmez, çizilme ve darbelere karşı dayanıklı tasarım

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



El tarayıcı

En kolay otomatik shrinkleme işlemi yapabilmek için Data-Matrix kodlarından shrinkleme parametrelerini okumak amacı ile tarayıcı (opsiyonel).

Hand scanner

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

POWER CLAMP i4.0 SERİSİ/POWER CLAMP i4.0 LINE

Soğutma i4.0
Cooling i4.0

POWER CLAMP PREMIUM i4.0

Uygun soğutma gövdesi otomatik sinyal sistemi ile temaslı soğutma

- Hızlı soğutma için soğutma gövdesi
- Kolay, hızlı ve güvenli bir soğutma için uygun soğutma gövdesi üzerinde otomatik sinyal sistemi
- Rekor sürede soğutma: ort. 30 sn.
- Tutucular kuru kalır, paslanmaya sebep olmaz
- Tutucuya zarar verilmez; soğutma sırasında dahi salgı değeri korunur
- Sıcak kısımların üzerini örtmesinden dolayı yaralanma riskini ortadan kaldırır

POWER CLAMP PREMIUM 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 s
- 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

Tutucu dış formundan bağımsız soğutma

- Biri hepsine uygun – soğutma kovani seçimi olmaksızın tüm kesici takımlar için soğutma sistemi
- Kir ve su kalıntısı olmadan güvenli ve temiz soğutma
- Isı kontrollü akıllı soğutma sistemi

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

Takım tutucular ve shrink fit pensler için yatay düzlemlide i4.0 shrink fit cihazı.

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



Akıllı motorize bobin
Intelligent motor coil

Hava soğutma
Air cooling

Takım tutucular için bayonet tip sıkma sistemli adaptör
Chuck support for tool holders with bayonet clamping

El Tarayıcısı
Hand-held scanner

Boy ayarlama ünitesi (opsiyonel)
Yatay şekilde boy ayarlama
Tolerans 0,05 mm

Length presetting (optional)
Horizontal length presetting unit
Tolerance 0,05 mm

Takımlar için klips seti (opsiyonel)
Özellikle küçük çaplı karbür takımlarda güvenli ve hassas takım tutma amaçlı kullanılır.

Clips for tools (optional)
For safest and precise handling of high quality carbide tools – especially with smaller diameters

Ön ayar için kalibrasyon adaptörü (opsiyonel)
Ölçme cihazını sıfırlamak için
Calibration adapter for length presetting (optional)

For resetting the measuring device

POWER CLAMP i4.0 SERİSİ/POWER CLAMP i4.0 LINE POWER CLAMP NANO NG i4.0

Power Clamp Nano NG i4.0 özellikle yüksek frekanslı işmillerindeki küçük takım tutucular, shrink pensler ve SK40/HSK-A63'e kadar shrink tutucular için uygundur.

- Yatay shrinkleme yolu ile kolay kullanım
- Akıllı motorize bobin ile
- Takım tutuculardan shrinkleme parametrelerini okumak için tarayıcı ile (Data-Matrix kod)
- Ø 3 – 32 mm tutucular için hava soğutuculu
- 7" dokunmatik ekran ve yeni anlaşılabilir yazılım
- Tarayıcı bağlantısı sayesinde Endüstri 4.0-Hazır
- Güç: 13 kW
- Şebeke voltajı: 3 x 400 – 480 volt, 16 amper
- Takımlar: Solid karbür ve HSS Ø 3 – 32 mm arası

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 SK40/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 3–32 mm
- With 7"-Touch-Display and new intuitive software
- Industry 4.0-ready due to scanner connection
- Power: 13 kW
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 Ampere, 13 kW
– Basıncılı hava/Compressed Air	4 bar
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Tutucunun maksimum uzunluğu (takım ile beraber)/Maximum length of shrink fit chuck with tool	250 mm
– Ölçüler/Dimensions WxDxH	800x860x670 mm
– Ağırlık/Weight	94 kg
– Power Clamp Nano NG i4.0 Sipariş No./Order No.	PC406-I42-C20-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Power Clamp Nano i4.0 için shrink cihazı adaptörü/ Chuck support for Power Clamp Nano NG i4.0	Sayfa 59'a bakınız/See page 59
– Boy Ayarlama/Length presetting	80.165.20.3
– Nano kalibrasyon adaptörü/Calibration adapter Nano	80.165.01
– Takımlar için klips seti/Set of clips incl. plate	80.166.00
– Sistem taşıyıcı/System Cart	80.124.00.4
– Çekmece düzenleyici tabla/Insert for System Cart	80.124.07

Uygulama örneği/Application example



Shrink Fit Pensler

Power Clamp Nano NG i4.0, shrink fit penslerin güvenilir şekilde shrinklenmesi ve soğutulması için mükemmel şekilde uygundur. Shrink fit pens programını bulmak için büyük kataloğa bakınız.

Shrink Fit Collets

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

Power Clamp Air i4.0 Eco

Takım tutucular ve shrink fit pensler için Economic i4.0 shrink fit cihazları.

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



POWER CLAMP i4.0 SERİSİ/POWER CLAMP i4.0 LINE POWER CLAMP AIR i4.0 ECO

Power Clamp Air i4.0 Eco her türlü takım için uygun (karbür ve HSS) entegre soğutma sistemli bir shrink fit cihazıdır. Cihaz, shrink fit penslerin ve takım tutucuların güvenilir şekilde shrinklenmesi ve soğutulması için mükemmel şekilde uygundur. Her türlü takım tutucunun hava ile pürüzsüz ve temiz soğutulması – kir ve su kalıntısı olmadan.

- Sıcaklık kontrollü dış formdan bağımsız hava soğutma
- Soğutma başlığının pnömatik freni, "dokunma ile serbest bırakma" ile
- Soğutma işlemi otomatik olarak tamamlanır
- 7"-Dokunmatik Ekran ve yeni sezgisel yazılım ile
- Tarayıcı bağlantısı sayesinde Endüstri 4.0-Hazır
- Akıllı NG bobin ile
- Tek tutuculu versiyon
- 2 hassas altlık ve 2 hassas adaptör
- Saklama çekmeceleri dahil
- Cooling Manager dahil

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

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 Ampere, 13 kW
– Basıncılı hava/Compressed Air	6 bar
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum shrink fit tutucusu boyu (shrinklenebilir)/Maximum length of shrink fit chuck (shrinking)	570 mm
– Maksimum shrink fit tutucusu boyu (soğutulabilir)/Maximum length of shrink fit chuck (cooling)	260 mm
– Ölçüler/Dimensions WxDxH	880x750x1100 mm
– Ağırlık/Weight	105 kg
– Power Clamp Air i4.0 Eco Sipariş No./Order No.	PC409-I21-C21-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Data-Matrix kodları üzerinden shrinkleme parametrelerini okuma tarayıcısı Scanner to readout shrinking parameters from Data-Matrix codes	80.185.01
– Hassas adaptör/Precision chuck support	Sayfa 61'e bakınız/See page 61
– Boy Ayarlama/Length presetting	80.188.40
– Akıllı motorize bobin/Intelligent motor coil	80.101.03NG
– Harici Duman Emme Ünitesi/Auxiliary Fume Extraction Unit	80.101.02NG.01
– Sistem taşıyıcı/System Cart	80.124.00.4
– Çekmece düzenleyici tabla/Insert for System Cart	80.124.06

Uygulama örneği/Application example



Shrink Fit Pensler

Power Clamp Air i4.0 Eco, shrink fit penslerin güvenilir şekilde shrinklenmesi ve soğutulması için mükemmel şekilde uygundur. Shrink fit pens programını bulmak için büyük kataloğa bakınız.

Shrink Fit Collets

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

Power Clamp Air i4.0 Comfort

Takım tutucular ve shrink fit pensler için Comfort i4.0 shrink fit cihazı.

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



Resim, boy ayarlamalı (opsiyonel) PC409-I41-C21-EU'yu göstermektedir
Picture shows PC409-I41-C21-EU with length presetting (optional)

POWER CLAMP i4.0 SERİSİ/POWER CLAMP i4.0 LINE POWER CLAMP AIR i4.0 COMFORT

Power Clamp Air i4.0 Comfort her türlü takım için uygun (karbür ve HSS) entegre soğutma sistemli yüksek performanslı bir shrink fit makinesidir. Cihaz, shrink fit penslerin ve takım tutucuların güvenilir şekilde shrinklenmesi ve soğutulması için mükemmel şekilde uygundur. Her türlü takım tutucunun hava ile pürüzsüz ve temiz soğutulması – kir ve su kalıntısı olmadan.

- Sıcaklık kontrollü dış formdan bağımsız hava soğutma
- Soğutma başlığının pnömatik freni, "dokunma ile serbest bırakma" ile
- Soğutma işlemi otomatik olarak tamamlanır
- 7"-Dokunmatik Ekran ve yeni sezgisel yazılım ile
- Tarayıcı bağlantısı sayesinde Endüstri 4.0-Hazır
- Takım tutucuların üzerinden shrinkleme parametrelerini okumak için tarayıcı ile (Data-Matrix code)
- Akıllı motorize bobin ile
- Tek tutuculu versiyon
- 2 hassas altlık ve 2 hassas adaptör
- Saklama çekmeceleri dahil
- Cooling Manager dahil

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

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 Ampere, 13 kW
– Basıncılı hava/Compressed Air	6 bar
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum shrink fit tutucusu boyu (shrinklenebilir)/Maximum length of shrink fit chuck (shrinking)	570 mm
– Maksimum shrink fit tutucusu boyu (soğutulabilir)/Maximum length of shrink fit chuck (cooling)	260 mm
– Ölçüler/Dimensions WxDxH	880x750x1100 mm
– Ağırlık/Weight	105 kg
– Power Clamp Air i4.0 Comfort Sipariş No./Order No.	PC409-I41-C21-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Boy Ayarlama/Length presetting	80.188.40
– Hassas adaptör/Precision chuck support	Sayfa 61'e bakınız/See page 61
– Harici Duman Emme Ünitesi/Auxiliary Fume Extraction Unit	80.101.02NG.01
– Sistem taşıyıcı/System Cart	80.124.00.4
– Çekmece düzenleyici tabla/Insert for System Cart	80.124.06

Uygulama örneği/Application example



Shrink Fit Pensler

Power Clamp Air i4.0 Comfort, shrink fit penslerin güvenilir şekilde shrinklenmesi ve soğutulması için mükemmel şekilde uygundur. Shrink fit pens programını bulmak için büyük kataloğa bakınız.

Shrink Fit Collets

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

Power Clamp Comfort i4.0

İddialı olanlar için i4.0 shrink fit cihazı.
i4.0 shrink fit machine for ambitious.



POWER CLAMP i4.0 SERİSİ/POWER CLAMP i4.0 LINE POWER CLAMP COMFORT i4.0

Yeni Power Clamp i4.0 serisi ile HAIMER, üretim dünyasında takım ve makinelerin birbirleri ile dijital bağlantısı ve iletişimi ile ilgili yeni standartlar ortaya koymaktadır.

Kolay kullanım için 7" dokunmatik ekran ve yeni anlaşılabilir yazılım ile.

Çap 50mm'ye kadar Heavy Duty Shrink tutucuları shrinklemek için, HD bobin ilave etmek mümkündür. (Opsiyonel)

- Tarayıcı bağlantısı sayesinde Endüstri 4.0-Hazır
- 7" dokunmatik ekran ve yeni anlaşılabilir yazılım
- Akıllı NG bobin ile
- 3 istasyonlu döner tabla
- Entegre edilmiş temaslı soğutma ile
- Cooling Manager ile
- Döner tabla için 1 adet adaptör
- Saklama çekmeceleri dahil
- Güç: 13 kW
- Şebeke voltajı: 3 x 400 – 480 volt, 16 amper
- Takımlar: Solid karbür ve HSS Ø 3 – 32 mm arası
- Takım tutuculardan shrinkleme parametrelerini okuması için tarayıcı (Data-Matrix kod) (opsiyonel)
- TME ısı kontrollü soğutma sistemi (opsiyonel)

With the new Power Clamp i4.0 series HAIMER is setting new standards regarding 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 50 mm (optional)

- 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
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm
- Scanner to readout shrinking parameters from tool holders (Data-Matrix code) (optional)
- TME Cooling System (optional)

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 Ampere, 13 kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk shrink fit tutucu/Maximum length of shrink fit chuck	570 mm
– Ölçüler/Dimensions WxDxH	850x660x970 mm
– Ağırlık/Weight	115 kg
– Power Clamp Comfort i4.0 Sipariş No./Order No.	PC400-I21-C10-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Data-Matrix kodları üzerinden shrinkleme parametresi okuma tarayıcısı/ Scanner to readout shrinking parameters from Data-Matrix codes	80.185.01
– Döner tabla için adaptör/Chuck support for rotary table	Sayfa 63'e bakınız/See page 63
– Comfort i4.0 için 13 kW HD bobin kiti ilavesi/ Upgrade Kit 13 kW HD coil for Power Clamp Comfort i4.0	80.151.30.10
– Harici Duman Emme Ünitesi/Auxiliary Fume Extraction Unit	80.101.02NG.01
– Sistem taşıyıcı/System Cart	80.124.00.4
– 13 kW güce sahip cihazlar için TME ısı kontrollü soğutma sistemi (Opsiyonel)/ TME Cooling System for 13 kW machines (optional)	80.105.19.00

Power Clamp Preset i4.0

İddialı olanlar için uzunluk ayarlama ile i4.0 shrink fit cihazı.

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



POWER CLAMP i4.0 SERİSİ/POWER CLAMP i4.0 LINE POWER CLAMP PRESET i4.0

Yeni Power Clamp i4.0 serisi ile HAIMER, üretim dünyasında takım ve makinelerin birbirleri ile dijital bağlantısı ve iletişimi ile ilgili yeni standartlar ortaya koymaktadır.

Kolay kullanım için 7" dokunmatik ekran ve yeni anlaşılabilir yazılım ile.

Çap 50mm'ye kadar Heavy Duty Shrink tutucuları shrinklemek için, HD bobin ilave etmek mümkündür. (Opsiyonel)

- Tarayıcı bağlantısı sayesinde Endüstri 4.0-Hazır
- 7" dokunmatik ekran ve yeni anlaşılabilir yazılım
- Uzunluk mihengiri (dikey durdurma ayarı ile)
- Akıllı NG bobin ile
- Tek tutucu versiyonu
- Entegre edilmiş temaslı soğutma ile
- Cooling Manager ile
- Pakete dahil olanlar: 2 hassas altlık ve 2 hassas adaptör
- Saklama çekmeceleri dahil
- Güç: 13 kW
- Şebeke voltajı: 3 x 400 – 480 volt, 16 amper
- Takımlar: Solid karbür ve HSS Ø 3 – 32 mm arası
- Takım tutuculardan shrinkleme parametrelerini okuması için tarayıcı (Data-Matrix kod) (opsiyonel)
- TME ısı kontrollü soğutma sistemi (opsiyonel)

With the new Power Clamp i4.0 series HAIMER is setting new standards regarding 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 50 mm (optional)

- 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
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 3–32 mm
- Scanner to readout shrinking parameters from tool holders (Data-Matrix code) (optional)
- TME Cooling System (optional)

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480 Volt, 16 Ampere, 13 kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk shrink fit tutucu/Maximum length of shrink fit chuck	570 mm
– Ölçüler/Dimensions WxDxH	860x660x970 mm
– Ağırlık/Weight	115 kg
– Power Clamp Preset i4.0 Sipariş No./Order No.	PC403-I21-C10-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Data-Matrix kodları üzerinden shrinkleme parametresi okuma tarayıcısı/ Scanner to readout shrinking parameters from Data-Matrix codes	80.185.01
– Hassas adaptör/Precision chuck support	Sayfa 61'e bakınız/See page 61
– Preset i4.0 için 13 kW HD bobin kiti ilavesi/ Upgrade Kit 13 kW HD coil for Power Clamp Preset i4.0	80.151.30.10
– Harici Duman Emme Ünitesi/Auxiliary Fume Extraction Unit	80.101.02NG.01
– Sistem taşıyıcı/System Cart	80.124.00.4
– 13 kW güce sahip cihazlar için TME ısı kontrollü soğutma sistemi (Opsiyonel)/ TME Cooling System for 13 kW machines (optional)	80.105.19.00

Power Clamp Premium i4.0

Ergonomik ve yüksek kaliteli i4.0 shrink fit cihazı.
Ergonomic i4.0 high-end shrink station.



Resim, boy ayarlamalı ve tarayıcılı (opsiyonel) PC407-I22-C11-EU'yu göstermektedir
Picture shows PC407-I22-C11-EU with length presetting and scanner (optional)

POWER CLAMP i4.0 SERİSİ/POWER CLAMP i4.0 LINE POWER CLAMP PREMIUM i4.0

Yeni ergonomik ve yüksek kaliteli shrinkleme istasyonu, tüm kesici takımlar için (solid karbür ve HSS) entegre edilmiş temaslı soğutma sistemi ile donatılmış en iyi kaliteye sahip endüstri dizaynı; maksimum 5 soğutma istasyonu ile kolay kullanım ve eş zamanlı soğutma.

- 7" dokunmatik ekran ve yeni anlaşılabilir yazılım
- Tarayıcı bağlantısı sayesinde Endüstri 4.0-Hazır
- Güç: 13 kW
- Şebeke voltajı: 3 x 400 – 480 volt, 16 amper
- Takımlar: Solid karbür ve HSS Ø 3 – 32 mm arası
- Akıllı NG bobin ile
- TME akıllı soğutma sistemi ile sıcaklık kontrolü
- Entegre edilmiş temaslı soğutma sistemi, 5 soğutma gövdesi ile
- Lineer hareketli soğutma gövdeleri; kolay, hızlı ve güvenli soğutma için otomatik sinyal sistemi
- Kesici takımların köşelerinde zarara yol açmaz
- Pakete dahil olanlar: Speed Cooler ve Cooling Manager
- Pakete dahil olanlar: 2 hassas altlık ve 2 hassas adaptör
- Ana kabine entegreli çekmece
- Takım tutuculardan shrinkleme parametrelerini okuması için tarayıcı (Data-Matrix kod) (opsiyonel)
- Boy ayarlama ünitesi (opsiyonel)

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
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 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)

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480Volt, 16Ampere, 13kW
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk shrink fit tutucu/Maximum length of shrink fit chuck	535 mm
– Ölçüler/Dimensions WxDxH	1340x914x1816 mm
– Ağırlık/Weight	535 kg ana kabin ile birlikte/incl. base cabinet
– Power Clamp Premium i4.0 Sipariş No./Order No.	PC407-I22-C11-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Data-Matrix kodları üzerinden shrinkleme parametresi okuma tarayıcısı/ Scanner to readout shrinking parameters from Data-Matrix codes	80.185.00
– Premium i4.0 için 13 kW HD bobin kiti ilavesi/ Upgrade Kit 13 kW HD coil for Power Clamp Premium i4.0	80.151.30.10S
– Hassas adaptör/Precision chuck support	Sayfa 61'e bakınız/See page 61
– Hassas altlık/Precision base holder for chuck support	80.131.01
– Boy Ayarlama/Length presetting	80.188.00
– Harici Duman Emme Ünitesi/Auxiliary Fume Extraction Unit	80.101.02NG.03

Power Clamp Sprint i4.0

Tüm geometrileri soğutma imkanı sunan ergonomik i4.0 shrink istasyonu.

Ergonomic i4.0 shrink station for cooling of all geometries.



Resim, boy ayarlamalı ve tarayıcılı (opsiyonel) PC408-I22-C21-EU'yu göstermektedir
Picture shows PC408-I22-C21-EU with length presetting and scanner (optional)

POWER CLAMP i4.0 SERİSİ/POWER CLAMP i4.0 LINE POWER CLAMP SPRINT i4.0

Yeni ergonomik ve yüksek kaliteli shrinkleme istasyonu, tüm kesici takımlar için (solid karbür ve HSS) entegre edilmiş soğutma sistemi ile donatılmış en iyi kaliteye sahip endüstri dizaynı; rekor sürede soğutma.

- 7" dokunmatik ekran ve yeni anlaşılabilir yazılım
- Tarayıcı bağlantısı sayesinde Endüstri 4.0-Hazır
- Güç: 13 kW
- Şebeke voltajı: 3 x 400 – 480 volt, 16 amper
- Takımlar: Solid karbür ve HSS Ø 3 – 32 mm arası
- Akıllı NG bobin ile
- Nozullardan hava üfleyerek ve su spreyi vererek dış formlarından bağımsız olarak tüm shrink takım tutucu ve shrink pens tutucuların temiz ve güvenilir soğutma işlemi, kir ve su kalıntısı olmadan
- Optimize edilmiş ve güvenilir soğutma için sıcaklık kontrolü
- Kesici takımların köşelerinde zarara yol açmaz
- Pakete dahil olanlar: 2 hassas altlık ve 2 hassas adaptör
- Ana kabine entegreli çekmece
- Takım tutuculardan shrinkleme parametrelerini okuması için tarayıcı (Data-Matrix kod) (opsiyonel)
- Boy ayarlama ünitesi (opsiyonel)

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
- Mains voltage: 3x400–480V, 16A
- Tools: solid carbide and HSS from Ø 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 optimised 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)

Teknik bilgiler/Technical details

– Şebeke voltajı/Mains voltage	3x400–480Volt, 16Ampere, 13kW
– Basıncılı hava/Compressed Air	6 bar
– Takımlar/Tools	Solid karbür ve HSS/solid carbide and HSS
– Takım çapı/Tool diameter	3–32 mm
– Maksimum uzunluk shrink fit tutucu/Maximum length of shrink fit chuck	535 mm
– Ölçüler/Dimensions WxDxH	1340x962x2560 mm (Maks. çalışma yüksekliği/max. work height) 1340x962x1960 mm (Taşıırken yükseklik/transportation height)
– Ağırlık/Weight	550 kg ana kabin ile birlikte/incl. base cabinet
– Power Clamp Sprint i4.0 Sipariş No./Order No.	PC408-I22-C21-EU

Aksesuarlar/Accessories

Sipariş No./Order No.

– Data-Matrix kodları üzerinden shrinkleme parametresi okuma tarayıcısı/ Scanner to readout shrinking parameters from Data-Matrix codes	80.185.00
– Sprint i4.0 için 13 kW HD bobin kiti ilavesi/ Upgrade Kit 13 kW HD coil for Power Clamp Sprint i4.0	80.151.30S
– Hassas adaptör/Precision chuck support	Sayfa 61'e bakınız/See page 61
– Hassas altlık/Precision base holder for chuck support	80.131.01
– Boy Ayarlama/Length presetting	80.188.00
– Harici Duman Emme Ünitesi/Auxiliary Fume Extraction Unit	80.101.02NG.03



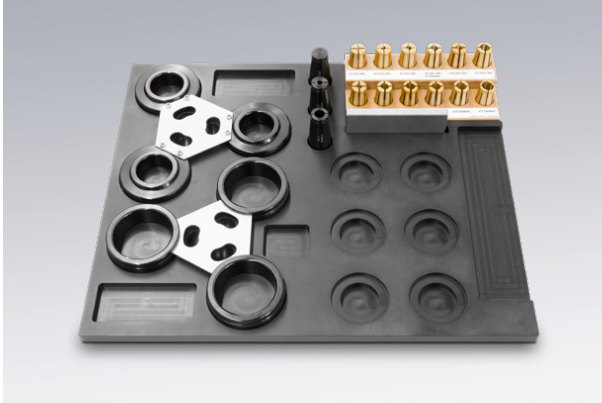
Shrink Fit Pensler

Power Clamp Sprint i4.0, shrink fit penslerin güvenilir şekilde shrinklenmesi ve soğutulması için mükemmel şekilde uygundur. Shrink fit pens programını bulmak için büyük kataloğa bakınız.

Shrink Fit Collets

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

Aksesuarlar/Accessories



Sistem taşıyıcı için çekmece düzenleyici tabla
(aksesuarlar dahil değildir)

Drawer insert for system cart
(does not include accessories)

Teknik bilgiler/Technical details

- Çekmece düzenleyici tabla Sipariş No. 80.124.04
Drawer Order No.



Sistem taşıyıcı

- Shrink Fit Cihazı ve aksesuarlar için sistem taşıyıcısı
- Düzenli ve temiz çalışma yeri sağlar
- Ergonomik çalışma yüksekliği
- Herşey elinizin altında
- Opsiyonel: Aksesuarları yerleştirmek için çekmece içine tabla

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

Teknik bilgiler/Technical details

- **Sistem taşıyıcı/System cart**
Ölçüler/Dimensions 1000x620x840 mm
Sipariş No./Order No. 80.124.00.8



Shrink fit cihazı için taşıyıcı/Cart for shrink fit machine

Teknik bilgiler/Technical details

- Taşıyıcı Sipariş No./Order No. 80.106.00.3

ALTLIK GÖVDE BASE HOLDER



Tüm ölçülerdeki adaptörleri tutmak için altlık gövde.
2 tip mümkündür:
To hold chuck supports of all sizes.
Available in two versions:

Power Clamp Basic/Economic/Economic Plus için altlık gövde

**Base holder for Power Clamp Basic/Economic/
Economic Plus**



Power Clamp Preset/Premium Plus/Preset i4.0/Premium i4.0/Sprint i4.0 için hassas altlık gövde

Yüksek hassasiyetli altlıklar, fonksiyonel yüzeylerindeki hassas işleme sayesinde boy ayarlamada yüksek hassasiyet sağlar.

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.

Sipariş No./Order No.

– Power Clamp Basic/Economic/Economic Plus için altlık gövde Base holder for Power Clamp Basic/Economic/Economic Plus	80.155.01
– Power Clamp Preset/Premium Plus/Preset i4.0/Premium i4.0/Sprint i4.0 için hassas altlık gövde Precision base holder for Power Clamp Preset/Premium Plus/Preset i4.0/Premium i4.0/Sprint i4.0	80.131.01

**HAIMER shrink fit ER pensler için hassas altlık gövde**

Uzunluk ön ayarında maksimum hassasiyet için ince işlenmiş fonksiyonel yüzeylere sahip hassas versiyon. Uzunluğu ayarlamak ve optimum erişim için açık taban tasarımı.

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.

HAIMER shrink fit ER pensler için hassas altlık gövde
Precision base holder for HAIMER ER shrink fit collets**Sipariş No./Order No.**

– HAIMER shrink fit ER pensler için hassas altlık gövde
Precision base holder for HAIMER ER shrink fit collets

80.131.02

POWER CLAMP NANO İÇİN ADAPTÖR CHUCK SUPPORT FOR POWER CLAMP NANO



Yatay shrink makinası Power Clamp Nano için adaptörler.

SK30 – SK40, BT30 – BT40, JBS T15, HSK-25 – HSK-63, PSC40 – PSC63, ER11 – ER32 arayüzleri için mevcut bulunmaktadır.

Chuck support for horizontal shrink fit machine Power Clamp Nano.

Available in taper sizes SK30 – SK40, BT30 – BT40, JBS T15, HSK-25 – HSK-63, PSC40 – PSC63, ER11 – ER32

Power Clamp Nano/Nano NG i4.0 için hassas tutucu adaptörü Precision chuck support for Power Clamp Nano/Nano NG i4.0

Uygun arayüzler/For taper size	Sipariş No./Order No.
– SK/BT30 Çektirme civatası DIN 69872/MAS 403 (Alın temaslı versiyonlara da uygun) SK/BT30 with pull stud DIN 69872/MAS 403 (also for version with Face Contact)	80.162.30
– SK30 Çektirme civatasız M12 vidalı mil ile (Alın temaslı versiyonlara da uygun) SK30 without pull stud with thread M12 (also for version with Face Contact)	80.162.30.01
– SK40 Çektirme civatasız M16 vidalı mil ile (Alın temaslı versiyonlara da uygun) SK40 without pull stud with thread M16 (also for version with Face Contact)	80.162.40.01
– SK40 Çektirme civatası DIN 69872 (Alın temaslı versiyonlara da uygun) SK40 with pull stud DIN 69872 (also for version with Face Contact)	80.162.40.02
– SK40 Çektirme civatası ISO 7388-B (Alın temaslı versiyonlara da uygun) SK40 with pull stud ISO 7388-B (also for version with Face Contact)	80.162.40.04
– BT40 Çektirme civatası MAS 403 (Alın temaslı versiyonlara da uygun) BT40 with pull stud MAS 403 (also for version with Face Contact)	80.162.40.06
– JBS T15 Çektirme civatası JBS R15-45/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

**Tek istasyonlu sistemler için adaptör.**

SK30 – SK50, BT30 – BT50, HSK-25 – HSK-125, KM4X63*, KM4X100*, PSC 32 – PSC 80, HSK-F63 Makino, HSK-F80 Makino arayüzleri için mevcut bulunmaktadır

Chuck support for single-chuck system.

Available in taper sizes SK30 – SK50, BT30 – BT50, HSK-25 – HSK-125, KM4X63*, KM4X100*, PSC 32 – PSC 80, HSK-F63 Makino, HSK-F80 Makino

Power Clamp Basic, Ergonomic/NG,Economic Plus/NG için hassas adaptör

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

Uygun arayüzler/For taper size	Sipariş No./Order No.
– SK/BT30 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.112.30
– SK/BT40 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.112.40
– SK/BT45 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.112.45
– SK/BT50 (Alın temaslı versiyonlara da uygun/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
– HSK-F63 Makino	80.113.F63M
– HSK-F80 Makino	80.113.F80M
– 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
– KM63	80.114.KM63

* KM4X, Kennametal Inc.'in tescilli ticari markası/ticari adıdır.
KM4X is a registered trademark/tradename of Kennametal Inc.

HASSAS ADAPTÖRLER PRECISION CHUCK SUPPORT



Tek istasyonlu sistemler için hassas adaptörler.

– Hassas işlenmiş fonksiyonel yüzeyler

SK30 – SK50, HSK-25 – HSK-125, KM4X63*, KM4X100*, PSC 32 – PSC 80, HSK-F63 Makino, HSK-F80 Makino ölçüleri için mevcuttur.

Precision chuck support for single-chuck system.

– Fine machined functional surfaces

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

Power Clamp Preset NG/Power Clamp Premium Plus/Power Clamp Air i4.0 Eco/Comfort/Power Clamp Preset i4.0/Power Clamp Premium i4.0/Power Clamp Sprint i4.0 için hassas adaptör

Precision chuck support for Power Clamp Preset NG/Power Clamp Premium Plus/Power Clamp Air i4.0 Eco/Comfort/Power Clamp Preset i4.0/Power Clamp Premium i4.0/Power Clamp Sprint i4.0

Uygun arayüzler/For taper size	Sipariş No./Order No.
– SK30 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.132.30
– SK40 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.132.40
– SK50 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.132.50
– HSK-25	80.133.25
– HSK-32	80.133.32
– HSK-40	80.133.40
– HSK-50/HSK-63F	80.133.50
– HSK-63/KM4X63*	80.133.63
– HSK-80	80.133.80
– HSK-100/KM4X100*	80.133.10
– HSK-125	80.133.125
– HSK-F63 Makino	80.133.F63M
– HSK-F80 Makino	80.133.F80M
– PSC 32	80.134.30
– PSC 40	80.134.40
– PSC 50	80.134.50
– PSC 63	80.134.60
– PSC 80	80.134.80

* KM4X, Kennametal Inc.'in tescilli ticari markası/ticari adıdır.
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POWER CLAMP PREMIUM PLUS İÇİN HASSAS ADAPTÖRLER PRECISION CHUCK SUPPORT FOR POWER CLAMP PREMIUM PLUS



Power Clamp Premium Plus için hassas adaptör.

- Hassas işlenmiş fonksiyonel yüzeyler
- Tutucuyu sabitleme pimi ile koruma

SK30 – SK50, BT30 – BT50, HSK-25 – HSK-125, HSK-F63 Makino, HSK-F80 Makino, PSC 32 – PSC 80 arayüzleri için mevcuttur

Precision chuck support for Power Clamp Premium Plus.

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

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

Power Clamp Premium Plus için hassas adaptörler

Precision chuck support for Power Clamp Premium Plus

Uygun arayüzler/For taper size	Sipariş No./Order No.
– SK30	80.172.30
– SK40	80.172.40
– SK45	80.172.45
– 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

DÖNER TABLA İÇİN ADAPTÖRLER CHUCK SUPPORT FOR ROTARY TABLE



Döner tabla için adaptör.

SK30 – SK50, BT30 – BT50, HSK-25 – HSK-100,
PSC 32 – PSC 80 arayüzleri için mevcuttur

Chuck support for rotary table.

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

Power Clamp Profi Plus/Profi Plus NG/Comfort/Comfort NG/Comfort i4.0 için adaptörler

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

Uygun arayüzler/For taper size	Sipariş No./Order No.
– SK/BT30 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.102.30
– SK/BT40 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.102.40
– SK/BT45 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.102.45
– SK/BT50 (Alın temaslı versiyonlara da uygun/also for version with Face Contact)	80.102.50
– farklı arayüzler/various sizes	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

ER SHRINK FIT PENSLER İÇİN ADAPTÖRLER CHUCK SUPPORT FOR ER SHRINK FIT COLLETS



Entegre edilmiş uzunluk ön-ayarlama ile ER shrink fit pensler için adaptör.

- Hassas pens sıkma özelliği
- Durdurma pimi ile birlikte hızlı ve tekrarlanabilir uzunluk ön-ayarı
- Kontra somun ve vidası ile ayarlama
- Adaptör içerisine entegreli, yer kaplamayan form
- Kontra somun ve vidanın döndürülmesi yoluyla kolay kullanım
- Aynı takımların tekrarlanabilir ön-ayarlaması için çok milli tezgahlarda kullanıma uygundur

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

Adaptörler/Chuck support for

Sipariş No./Order No.

– ER11	80.135.11
– ER16	80.135.16
– ER20	80.135.20
– ER25	80.135.25
– ER32	80.135.32
– Altlık Gövde Power Clamp Basic/Economic/Economic Plus Base holder for Power Clamp Basic/Economic/Economic Plus	80.155.01

HAIMER SHRINK FIT ER PENSİLER İÇİN ADAPTÖRLER CHUCK SUPPORT FOR HAIMER ER SHRINK FIT COLLETS



Uzunluk ayarlama ile HAIMER shrink fit ER pensler için altlık gövde.

- Adaptöre vidalanan tutucu fikstürü
- Yüksek proses kararlılığı, pens hareketi mümkün değil
- Durdurma pimi ile birlikte hızlı ve tekrarlanabilir uzunluk ön-ayarı
- Kontra somun ve vidası ile ayarlama
- Adaptör içerisine entegreli, yer kaplamayan form
- Kontra somun ve vidanın döndürülmesi yoluyla kolay kullanım
- Aynı takımların tekrarlanabilir ön-ayarlaması için çok milli tezgahlarda kullanıma uygundur

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

Adaptörler/Chuck support for	Sipariş No./Order No.
– ER11	80.137.ER11
– ER16	80.137.ER16
– ER20	80.137.ER20
– ER25	80.137.ER25
– ER32	80.137.ER32
– Hassas altlık gövde HAIMER ER shrink fit pensler için Precision base holder for HAIMER ER shrink fit collets	80.131.02

EASY SET ÖN AYAR CİHAZI/SIMPLE PRESETTING

Kolay ön ayarlama

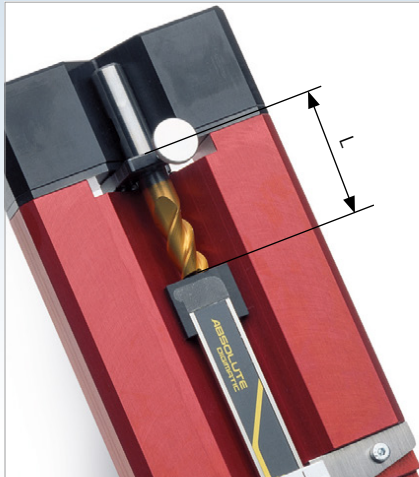
- Takım çıkma uzunluğunun hızlı ve kolay ön ayarını sağlar
- Maksimum takım çıkma uzunluğu: 150 mm
- Hassasiyet: +/-0.05 mm
- Tüm shrink fit tutucular ve cihazlar için uygundur (alev, sıcak hava, temaslı, indüksiyon)
- Fazla yer kaplamaz
- Mükemmel fiyat/ fayda oranı
- İstendiği zaman alınabilir
- Paket içerisine dahil olanlar: 3 adet durdurma klipsi (Ø 3–12, Ø 12–20, Ø 16–25 mm)
- Opsiyonel: Ø 25–32 mm

Simple presetting

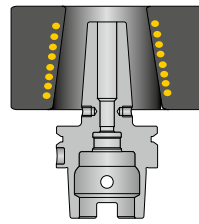
- Quick and simple presetting tool overhang
- Maximum overhang length: 150 mm
- Accuracy: ±0.05 mm
- Suitable for all shrink fit chucks and machines (flame, hot air, contact, induction)
- Space-saving
- Excellent relationship between price and efficiency
- Can be added at any time
- Included in delivery: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



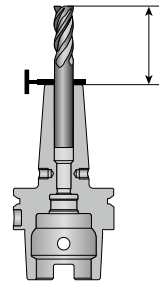
Durdurma klipsleri/
Stop clips



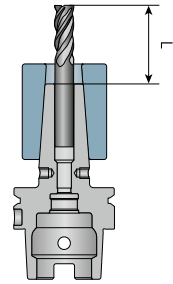
Fonksiyon/Function



Takım tutucuyu ısıtınız.
Heat up shrink fit chuck.



Takımı içeriye doğru duruncaya kadar yerleştiriniz. Daha sonra takım yakalanıncaya kadar takım tutucuyu soğumaya bırakınız.
Insert tool until stop. Let chuck cool down until tool is clamped.



Soğutma gövdesi ile takım tutucuyu tamamen soğutunuz.
Cool down chuck completely with cooling body.

Easy Set

Sipariş No./Order No.

– Easy Set 100 mm Takım çıkma uzunluğu/100 mm protruding length	80.123.00
– Easy Set 150 mm Takım çıkma uzunluğu/150 mm protruding length	80.125.00
– Durdurma klipsi Ø 3–12 mm sıkma aralığı/Stop clip for clamping Ø 3–12 mm	80.123.01
– Durdurma klipsi Ø 12–20 mm sıkma aralığı/Stop clip for clamping Ø 12–20 mm	80.123.02
– Durdurma klipsi Ø 16–25 mm sıkma aralığı/Stop clip for clamping Ø 16–25 mm	80.123.03
– Durdurma klipsi Ø 25–32 mm sıkma aralığı/Stop clip for clamping Ø 25–32 mm	80.123.04

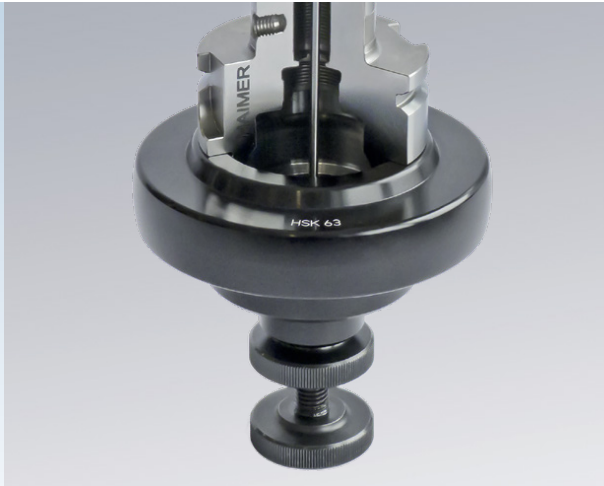
QUICK SET BOY AYARLAMA/LENGTH PRESETTING

Arka dayama vidası olmayan shrink takım tutucular için uzunluk ayarlama cihazı; örn. Mini Shrink

- Durdurma pimi sayesinde toplam takım boyu uzunluğunun hızlı ve tekrarlanabilir ayarlanması
- Kontra somunu ve sabitleme vidası ile ayarlama
- Adaptör içerisine entegreli, yer kaplamayan form
- Kontra somun ve vidanın döndürülmesi sayesinde kolay kullanım
- Aynı takımların tekrarlanabilir boy ayarlaması için çok milli tezgahlarda kullanıma uygundur

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



Resim: Altlık ile birlikte Quick Set
(Altlık paket içerisine dahil değildir)
Picture shows: Quick Set with base holder (Base holder not included in delivery)

Boy ayar cihazı Quick Set/Length Presetting Quick Set for

Sipariş No./Order No.

– SK/BT40	80.136.240
– HSK-E25	80.136.325
– HSK-E32	80.136.332
– HSK-E40	80.136.340
– HSK-E50	80.136.350
– HSK-A63	80.136.363
– HSK-A100	80.136.310
– PSC 40	80.136.440
– PSC 50	80.136.450
– Altlık gövde, siyah, Base holder for Power Clamp Basic/Eco/Eco Plus için	80.155.01
– Pim/Pin L = 125 mm	80.136.003
– Pim/Pin L = 150 mm	80.136.001
– Pim/Pin L = 175 mm	80.136.004
– Pim/Pin L = 200 mm	80.136.002
– Pim/Pin L = 270 mm	80.136.007
– Pim/Pin L = 310 mm	80.136.006

SOĞUTMA REDÜKSİYONLARI VE HAM SOĞUTMA REDÜKSİYONLARI COOLING ADAPTER AND COOLING ADAPTER BLANKS

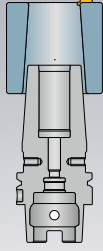


Soğutma redüksiyonları ile tüm formlardaki shrink fit tutucuları soğutabilirsiniz. Redüksiyonlar soğutma gövdeleri içerisine yerleştirilir ve kilitletir. Ardından shrink takım tutucunun üstüne geçirilir.

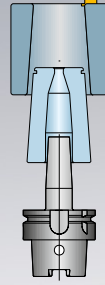
– Ø 14–16 mm ve Ø 25–32 mm olan yandan kilitlemeli soğutma gövdeleri için

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.

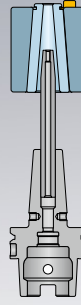
– Cooling bodies for Ø 14–16 mm and Ø 25–32 mm with side lock



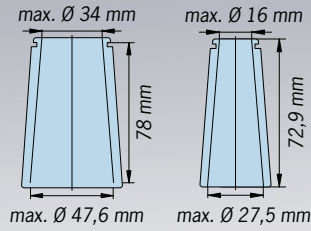
DIN normuna göre, shrink fit tutucular için soğutma gövdesi
Cooling body for shrink fit chuck according to DIN



Özel shrink fit takım tutucular için redüksiyonla birlikte soğutma gövdesi
Cooling body with adapter for special shrink fit chucks



Uzatmalı shrink tutucular için redüksiyon ile birlikte soğutma gövdesi
Cooling body with adapter for shrink fit chuck with extension



Soğutma gövdesi için/For Cooling body:
Ø 25–32 mm Ø 14–16 mm

Ham Soğutma redüksiyonları Kullanıcının her tutucuya özgü adaptasyon yapabilmesi için
Cooling adapter blanks for individual adaption to each shrink fit chuck by the user.

Aksesuarlar/Accessories

Sipariş No./Order No.

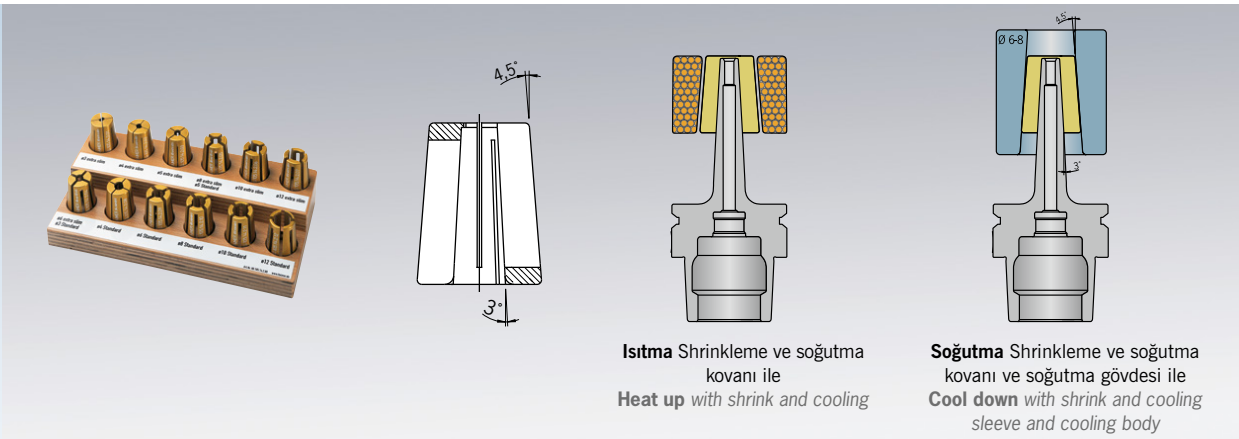
– Soğutma gövdesi için ham soğutma redüksiyonu/Cooling adapter blanks for cooling body Ø 14–16 mm	80.105.14.0
– Soğutma gövdesi için ham soğutma redüksiyonu/Cooling adapter blanks for cooling body Ø 25–32 mm	80.105.16.0
– Soğutma gövdesi için ham soğutma redüksiyonu/Cooling adapter blanks for cooling body Ø 40–50 mm	80.105.19.3.0
– Uzatmalar için için soğutma redüksiyonu/Cooling adapter for extensions Ø 12 mm/Ø 16 mm	80.105.14.1.1
– Uzatmalar için için soğutma redüksiyonu/Cooling adapter for extensions Ø 20 mm	80.105.14.1.2
– Shrink fit tutucular için soğutma redüksiyonu/Cooling adapter for shrink fit chucks Ø 3–5 mm	80.105.14.1.3
– Soğutma gövdesi 80.105.19.1 için Ø 16 mm olan Heavy Duty redüksiyonu/ Cooling adapter Heavy Duty Ø16mm for cooling body 80.105.19.1	80.105.19.3.1
– Soğutma gövdesi 80.105.19.1 için Ø 20 mm olan Heavy Duty redüksiyonu/ Cooling adapter Heavy Duty Ø20mm for cooling body 80.105.19.1	80.105.19.3.2
– Soğutma gövdesi 80.105.19.1 için Ø 25 mm olan Heavy Duty redüksiyonu/ Cooling adapter Heavy Duty Ø25mm for cooling body 80.105.19.1	80.105.19.3.3
– Soğutma gövdesi 80.105.19.1 için Ø 32 mm olan Heavy Duty redüksiyonu/ Cooling adapter Heavy Duty Ø32mm for cooling body 80.105.19.1	80.105.19.3.4
– Soğutma redüksiyonları için ahşap altlık/Base for cooling adapters	80.105.14.1.99

MİNİ SHRINK SHRINKLEME VE SOĞUTMA KOVANLARI MINI SHRINK SHRINK AND COOLING SLEEVES



- Mini Shrink tutucuları shrinklemek ve soğutmak için.
- Mini Shrink tutucunun fazla ısınmasını engeller
 - Uzatılmış shrink fit tutucu ömrü
 - Güvenli ve kolay kullanım
 - Ø 6–8 mm olan standart soğutma gövdesi ile soğutma

- 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



Mini Shrink tutucular için uygun kovanlar/Fitting sleeves for Mini Shrink chucks

Sipariş No./Order No.

– Ekstra ince/Extra slim

Çap/Size [mm]	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12
Sipariş No./Order No.	80.105.14... .2.01	.2.02	.2.03	.2.04	.2.05	.2.06	.2.07

– Standart/Standard

Çap/Size [mm]	Ø 03	Ø 04	Ø 05	Ø 06	Ø 08	Ø 10	Ø 12	Ø 16
Sipariş No./Order No.	80.105.14... .2.04	.2.08	.2.05	.2.09	.2.10	.2.11	.2.12	.2.16

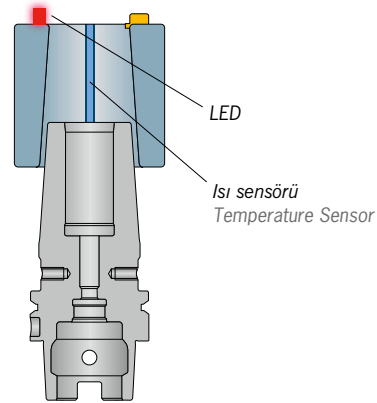
– Ahşap altlık/Base

80.105.14.2.99

– Shrinkleme ve soğutma kovanı seti (12 adet, Çap 3 – 12 mm)/ Set with base (12 pcs., diameter 3 – 12 mm)

80.105.14.2.00

TME SOĞUTMA SİSTEMİ SICAKLIK KONTROLÜ İLE TME COOLING SYSTEM WITH TEMPERATURE CONTROL



Güvenli kullanım için shrinklenen tutucuyu soğutma işlemi esnasında sıcaklık kontrolü yapılır

- Alüminyum gövde içindeki sensör ısıyı ölçer
- Tutucu sıcak ise: Kırmızı ışık yanar
- Tutucu soğuk ise: Yeşil ışık yanar
- Sıcak tutucudan dolayı yaralanma riski minimize edilmiştir
- Patentli sıcaklık kontrollü

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
- Minimises danger of injury due to hot chucks
- Patented temperature control

TME soğutma sistemi/TME Cooling System

Sipariş No./Order No.

– TME soğutma sistemi 13 kW makina için/TME Intelligent Cooling System for 13 kW machines	80.105.19.00
– TME soğutma sistemi 20 kW makina için/TME Intelligent Cooling System for 20 kW machines	80.105.19.10

SHRINK FIT TUTUCULARIN BOY AYARI İÇİN BASKI YAYI TENSION SPRINGS FOR LENGTH PRESETTING FOR SHRINK FIT CHUCKS



*Boy ayarı için baskı yayı
Tension spring for length presetting*

- Yay, takım şaftı altına konulur
- Yay, takımı shrinkleme sırasında durdurma diskinde doğru iter
- Dayama vidası ile birlikte kullanılabilir
- Tüm shrink fit tutucular için uygundur

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

Baskı yayı/Tension Springs										Sipariş No./Order No.
– Baskı yayı/Tension spring	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
Sipariş No./Order No. 85.830...	.06	.08	.10	.12	.14	.16	.18	.20	.25	.32
– Baskı yayı set (10 ad. her ölçüden, 1 çıkarma yakalayıcısıyla)/ Tension spring set (10 pcs. of each size) incl. pull-out gripper										85.830.00

TAKIMLARI ÇIKARMA SETİ SHRINK-OUT DEVICE



Kırılan takımlar için takım çıkarma seti.

- 1 altlık ve 6 itici pim ile (3 farklı çap için 2 farklı boyda pense hariç)
- Tutucuyu korumak için kauçuk altlık
- Saklama çekmecesi için alt tabla
- Tüm Power Clamp cihazları için uygundur

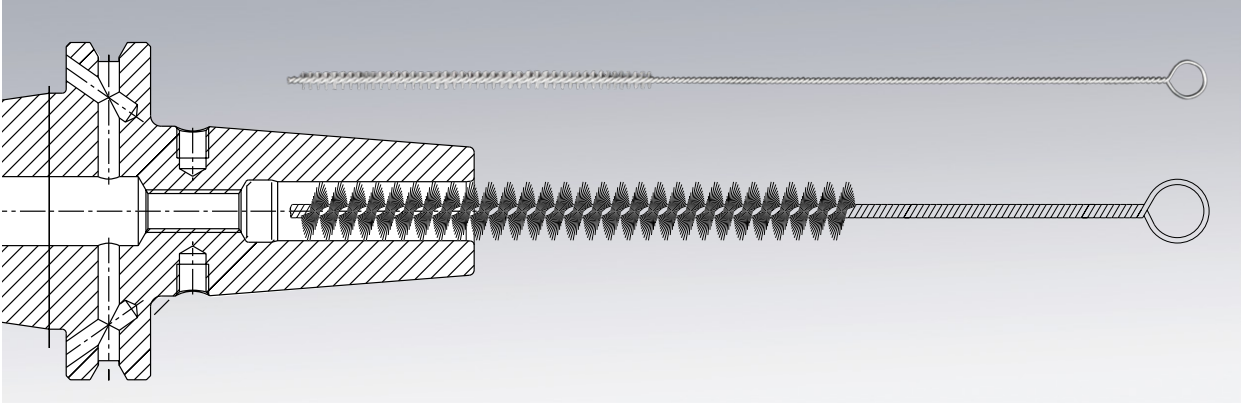
Shrink-out device for broken tools.

- 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

	Sipariş No./Order No.
– Takımları Çıkarma Seti/Shrink-out device	80.126.00
– Pense/Combination pliers	80.107.00

Aksesuarlar/Accessories	Sipariş No./Order No.
– İtici pim//Pin 160 mm x 2,3 mm	113027-0004
– İtici pim//Pin 160 mm x 4,7 mm	113027-0005
– İtici pim//Pin 160 mm x 6,0 mm	113027-0006
– İtici pim//Pin 275 mm x 2,3 mm	113027-0007
– İtici pim//Pin 275 mm x 4,7 mm	113027-0008
– İtici pim//Pin 275 mm x 6,0 mm	113027-0009

SHRINK FIT FIRÇASI SHRINK FIT BRUSH

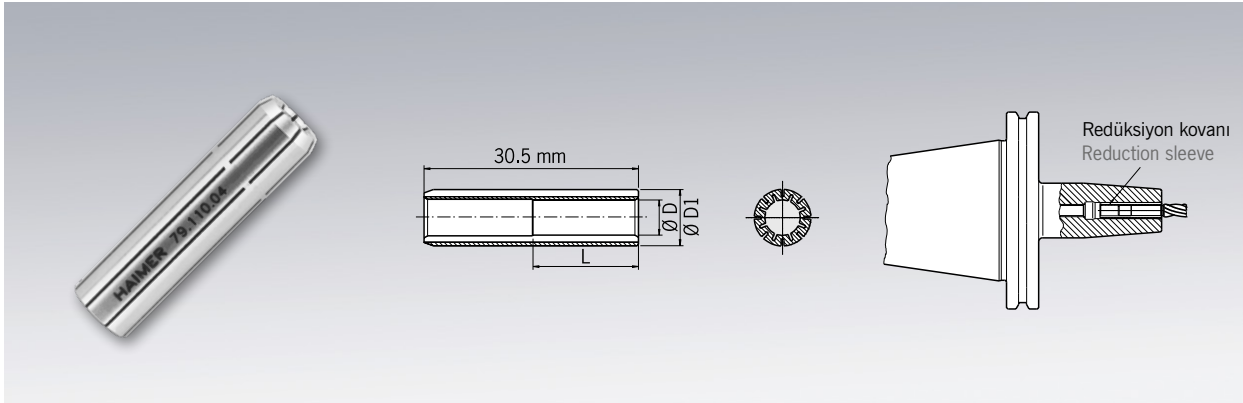


Mümkün olan en iyi shrinklemeyi elde etmek için temiz tutucu yuvası ve takım shaftı gereklidir. Temizlik soğuk solvent (örn fren temizleyici) ile yapılabilir. Uygun bir temizleme fırçası ise tutucu yuvasını temizlemek için gereklidir.

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 Fırçası/Shrink Fit Brush	Sipariş No./Order No.
– Ø [mm] 3	86.200.01
– Ø [mm] 3,5 / 4 / 4,5 / 5	86.200.02
– Ø [mm] 6 / 8	86.200.03
– Ø [mm] 10 / 12	86.200.04
– Ø [mm] 14 / 16	86.200.06
– Ø [mm] 18 / 20	86.200.07
– Ø [mm] 25	86.200.08

SHRINK FIT TUTUCU İÇİN REDÜKSİYON KOVANI REDUCTION SLEEVES FOR SHRINK FIT CHUCKS



Kullanım:

Sıkma çapı 8 mm olan tutuculara küçük çapların bağlanabilmesi için.

İlk Adım: Redüksiyon kovani, tutucunun deliğine yerleştirilir

İkinci adım: Takım şaftı redüksiyon kovani içine bağlanır

– Şaft toleransı h6

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

Sıkma/Clamping	Ø D	Ø D1	L	Sipariş No./Order No.
– Sıkma/Clamping Ø	2,5 mm	8 mm	7,5 mm	79.110.2.5
– Sıkma/Clamping Ø	3,0 mm	8 mm	9,0 mm	79.110.03
– Sıkma/Clamping Ø	3,5 mm	8 mm	10,5 mm	79.110.3.5
– Sıkma/Clamping Ø	4,0 mm	8 mm	12,0 mm	79.110.04
– Sıkma/Clamping Ø	4,5 mm	8 mm	13,5 mm	79.110.4.5
– Sıkma/Clamping Ø	5,0 mm	8 mm	15,0 mm	79.110.05
– Sıkma/Clamping Ø	5,5 mm	8 mm	16,5 mm	79.110.5.5

HARİCİ DUMAN EMME ÜNİTESİ AUXILIARY FUME EXTRACTION UNIT



Shrinkleme işlemi sırasında ortaya çıkan dumanı filtrelemek ve yok etmek için yardımcı duman emme ünitesi.

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

İşlem güvenilirliği için duman emme ünitesini HAIMER sistem taşıyıcısına monte etmenizi öneririz.

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

Harici Duman Emme Ünitesi/ Auxiliary fume extraction unit	Shrink Fit Cihazı/ Shrink fit machine Power Clamp	Sipariş No./ Order No.
Bobin/for coil		
– VS32-H/M	Comfort (i4.0)/Comfort NG/Preset (NG/i4.0)/Profi Plus NG	80.101.02NG.01
– VS32-H	Premium Plus	80.101.02NG.02
– VS32-M	Premium Plus	80.101.03NG.02
– VS32-S	Premium i4.0/Sprint i4.0	80.101.03NG.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 KİT 13 KW HD BOBİN UPGRADE KIT 13 KW HD COIL



50 mm ye kadar Heavy Duty tutucuları shrinklemek için.

For shrinking of Heavy Duty Shrink Chucks
up to Ø 50 mm.

Kullanım:

50 mm ye kadar Heavy Duty tutucuları shrinklemek için.

Teslimatta dahil olanlar:

- 13 kW HD bobin
- Bobin tabanı
- Durdurma disk Seti
- Güncel yazılım
- HD soğutma gövdesi Ø 40 – 50 mm
- HD soğutma gövdesi için hortum seti
- Soğutucu manifold bağlantısı
- Opsiyonel: HD soğutma gövdesi için soğutma redüksiyonları

Sonradan **ilave 01/2012** tarihinden sonra üretilen Power Clamp Economic Plus (NG), Comfort (NG) veya Preset (NG) modelleri için mümkündür.

Use:

For shrinking of Heavy Duty Shrink Chucks
up to Ø 50 mm.

Delivery includes:

- 13 kW HD coil
- Coil base
- Set of stop disks
- Latest software
- HD cooling body Ø 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**.

Sipariş No./Order No.

– Upgrade Kit 13kW HD Bobin/Upgrade Kit 13 kW HD coil

80.151.30.10

DURDURMA DİSKLERİ STOP DISKS

Sıkma/Clamping Ø D [mm]	Durdurma Diskleri/Stop disks	Sipariş No./Order No.
Bobin N29 için/for coil N29 (Power Clamp Nano)		
- 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
-	Durdurma disk seti N29/Stop disc set N29	80.162.00
- 3 – 5 mm	Durdurma disk (bölünmüş)/stop disc splitted	80.162.03.1
- 6 – 8 mm	Durdurma disk (bölünmüş)/stop disc splitted	80.162.06.1
- 10 – 16 mm	Durdurma disk (bölünmüş)/stop disc splitted	80.162.10.1
- 10 – 12 mm	Durdurma disk (bölünmüş)/stop disc splitted	80.162.10.2.1
Bobin 13 kW V2008 için/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
-	Durdurma disk seti 13 kW V2008/Set of stop disks 13 kW V2008	80.152.00
- 3 – 5 mm	Durdurma disk (bölünmüş)/stop disc splitted	80.152.03.1
- 6 – 12 mm	Durdurma disk (bölünmüş)/stop disc splitted	80.152.06.1
- 14 – 16 mm	Durdurma disk (bölünmüş)/stop disc splitted	80.152.14.1
- 18 – 20 mm	Durdurma disk (bölünmüş)/stop disc splitted	80.152.18.1
- 25 – 32 mm	Durdurma disk (bölünmüş)/stop disc splitted	80.152.25.1
-	Durdurma disk seti 13kW V2008 (bölünmüş)/ Set of stop disks 13 kW V2008 (splitted)	80.152.00.1
- 6 – 12 mm	Durdurma disk ultra kısa Power Shrink Tutucu için/ Stop disc for ultra short Power Shrink Chucks	80.152.06.2
- 14 – 20 mm	Durdurma disk ultra kısa Power Shrink Tutucu için/ Stop disc for ultra short Power Shrink Chucks	80.152.14.2
- 25 – 32 mm	Durdurma disk ultra kısa Power Shrink Tutucu için/ Stop disc for ultra short Power Shrink Chucks	80.152.25.2
Bobin 20 kW ve bobin 13 kW HD için/for 20 kW coil and 13 kW HD 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	Durdurma disk 20 kW/13kW HD (bölünmüş)/ stop disc 20 kW/13 kW splitted	80.151.10.42.1
- 25 – 32 mm	Durdurma disk 20 kW/13kW HD (bölünmüş)/ stop disc 20 kW/13 kW splitted	80.151.10.41.1
- 40 – 50 mm	Durdurma disk 20 kW/13kW HD (bölünmüş)/ stop disc 20 kW/13 kW splitted	80.151.40.40.1



Kullanım:

Bobini tutucunun üzerinde hizalamak için değiştirilebilir durdurma diskleri.



Use:

Changeable stop disks for positioning the coil above the chuck.

VERKAUFS- UND LIEFERBEDINGUNGEN (FEBRUAR 2017)

I. Allgemeines

Die nachstehenden Bedingungen gelten für alle - auch künftige - Geschäfte mit den Kunden. Unsere Verkaufs- und Lieferbedingungen gelten ausschließlich; anderslautende Geschäftsbedingungen sowie insbesondere entgegenstehende oder abweichende Bedingungen des Kunden erkennen wir nicht an, es sei denn, wir hätten ausdrücklich ihrer Geltung zugestimmt. Unsere Verkaufs- und Lieferbedingungen gelten ab dem Zeitpunkt der Bestellung des Kunden oder abweichender Bedingungen des Kunden den Auftrag vorbehaltlos ausführen. Alle Vereinbarungen, die zwischen uns und dem Kunden getroffen sind, bedürfen zu ihrer Wirksamkeit der Schriftform. Unsere Verkaufs- und Lieferbedingungen gelten nur gegenüber Kaufleuten, wenn der Vertrag zum Betrieb des Handelsgewerbes gehört, und gegenüber juristischen Personen des öffentlichen Rechts und öffentlich-rechtlichem Sondervermögen.

II. Preise/Preisänderungen, Versand

1. Unsere Angebotspreise verstehen sich in Euro und enthalten keine Mehrwertsteuer. Zu den Preisen kommt daher jeweils die Mehrwertsteuer in der jeweiligen gesetzlichen Höhe hinzu. Die Preise gelten mangels besonderer Vereinbarung ab Werk, ausschließliche Kosten der Verpackung, Porto, Fracht. Sämtliche Angebotspreise sind freibleibend.
2. Unsere Angebotspreise gelten nur für die Auftragsdaten, die der Angebotsabgabe zugrunde liegen. Nachträgliche Änderungen oder Ergänzungen auf Wunsch oder Veranlassung des Kunden sowie dadurch entstehende Mehrkosten werden zusätzlich berechnet. Gleiches gilt für dadurch verursachte Kosten eines etwaigen Maschinenstillstandes. Bei Änderungen von Lohn- und Materialkosten, die zwischen Angebotsabgabe und Auftragserteilung entstehen oder zu einem Zeitpunkt, der länger als vier Monate nach Vertragsschluss liegt, behalten wir uns entsprechende Preisanpassung vor.
3. Der Versand der Ware erfolgt auf Kosten und Gefahr des Kunden und immer zzgl. Verpackungskosten gemäß der jeweilig gültigen Preisliste von Haimer bzw. entsprechend dem jeweils gültigen Angebot. Soweit die Ware auf Wunsch des Kunden auf dessen Gefahr und Kosten versandt wird, wird unsere Haftung, soweit gesetzlich zulässig, auf Vorsatz und grobe Fahrlässigkeit beschränkt. Auf schriftlichen Wunsch des Kunden ist auf seine Kosten die Versendung durch uns gegen Diebstahl, Bruch-, Transport-, Feuer- und Wasserschäden oder andere Risiken, soweit vom Kunden explizit gewünscht und soweit versicherbar, zu versichern.
4. Dem Kunden zumutbare Teillieferungen sind zulässig.

III. Zahlung

1. Die Ware ist innerhalb von 30 Kalendertagen ab Rechnungsdatum ohne Abzug zu bezahlen.
2. Wechsel werden nur nach besonderer Vereinbarung und erfüllungshalber ohne Skontogewährung angenommen. Diskont und Wechselspesen gehen zu Lasten des Kunden und sind sofort zur Zahlung fällig. Für die rechtzeitige Vorlegung, Protestierung und Benachrichtigung und Zurückleitung des Wechsels bei Nichteinlösung haften wir nicht, sofern uns oder unserem Erfüllungsgehilfen nicht Vorsatz oder grobe Fahrlässigkeit zur Last fallen.
3. Aufrechnungssrecht stehen dem Kunden nur zu, wenn seine Gegenansprüche rechtskräftig festgestellt, unbestritten oder von uns anerkannt sind. Wegen beschränkter Gegenansprüche steht dem Kunden auch kein Zurückbehaltungsrecht zu.
4. Bezüglich unbestrittener Gegenansprüche kann der Kunde ein Zurückbehaltungsrecht nur wegen Ansprüchen geltend machen, die auf demselben Vertragsverhältnis beruhen.
5. Im Rahmen dieses Auftrags ist der Kunde verpflichtet im Fall von Lieferungen aus Deutschland in das EU-Ausland den Erhalt der Ware konform zu den umsatzsteuerlichen Regelungen zu bestätigen

IV. Zahlungsverzug

1. Im Falle des Zahlungsverzugs sind wir berechtigt, Verzugszinsen in gesetzlicher Höhe, d. h. in Höhe von 9 % zzgl. dem jeweiligen Basiszinssatz p. a., sowie eine Pauschale in Höhe von 40,00 € je überfälligem Betrag in Rechnung zu stellen, wobei uns die Geltendmachung eines weitergehenden Schadens ausdrücklich vorbehalten bleibt. Sollten Verzugszinsen zunächst nicht geltend gemacht werden, schließt dies eine nachträgliche Geltendmachung im Rahmen der gesetzlichen Verjährung nicht aus; eine Verwirkung ist insoweit ausgeschlossen.
2. Wenn uns ein Verzug bekannt wird, die die Kreditwürdigkeit des Kunden in Frage stellen und damit die Erfüllung unseres Zahlungsanspruches gefährdet erscheint, insbesondere wenn über das Vermögen des Kunden die Eröffnung eines Insolvenzverfahrens beantragt wurde oder das Insolvenzverfahren eröffnet wurde oder wenn ein Scheck nicht eingelöst bzw. erheblich in Verzug mit Inkassodrohung gerät, wird oder der Besteller seine Zahlungen einstellt, so sind wir berechtigt, die gesamte Restschuld sofort fällig zu stellen und sofortige Zahlungen zu verlangen. Ferner sind wir dann berechtigt, Vorauszahlungen oder Sicherheitsleistungen zu verlangen und die Ware bis zur Bezahlung, Leistung der Vorauszahlung oder Leistung der Sicherheitsleistung zurückzubehalten sowie die Weiterarbeit an noch laufenden Aufträgen bis dahin einzustellen. Wenn vom Kunden veranlasste Änderungen des Auftrages die Fertigungszeit beeinflussen, haben wir einen Anspruch darauf, dass eine neue, den neuen Umständen angepasste Lieferzeit vereinbart wird. Liefer- und Leistungsverzögerungen aufgrund höherer Gewalt, aufgrund Umständen, die wir nicht zu vertreten haben und aufgrund von Ereignissen, die uns die Lieferung nicht nur vorübergehend wesentlich erschweren oder unmöglich machen - hierzu gehören insbesondere Streik, Aussperrung, hoheitliche Eingriffe, Kriegshandlungen, Unruhen, Strommangel, Zerstörung oder Beschädigung unserer Produktions- und Betriebsvorrichtungen, die wir nicht zu vertreten haben, sowie Versagen der Verkehrsmittel, Arbeitseinschränkungen usw., auch wenn sie bei unseren Lieferanten oder deren Unterlieferanten eintreten, haben wir auch bei verbindlich vereinbarten Fristen und Terminen nicht zu vertreten. Sie berechtigen uns, die Lieferungen bzw. Leistungen um die Dauer der Behinderung zuzüglich einer angemessenen Anlaufzeit hinauszuschieben. Ferner besteht in einem solchen Fall auch ein Anspruch unsererseits auf Preisanpassung. Die vorbezeichneten Umstände sind auch dann von uns nicht zu vertreten, wenn sie während eines bereits vorliegenden Verzuges entstehen. Beginn und Ende derartiger Hindernisse werden wir in wichtigen Fällen dem Kunden baldmöglichst mitteilen. Die Lieferfrist ist eingehalten, wenn bis zu ihrem Ablauf der Liefergegenstand das Werk verlassen hat oder dem Kunden die Versandbereitschaft mitgeteilt worden ist.

V. Eigentumsvorbehalt

1. Bis zur Erfüllung aller Forderungen aus der Geschäftsbeziehung mit dem Kunden werden vom Kunden die folgenden Sicherheiten gewährt, die wir auf Verlangen des Kunden und nach unserer Wahl freigeben werden, soweit ihr Wert die Forderung nachhaltig um mehr als 10 % übersteigt.
2. Die dem Kunden gelieferten Waren bleiben bis zur vollständigen Bezahlung aller Forderungen aus der Geschäftsbeziehung mit dem Kunden unser Eigentum.
3. Der Liefergegenstand darf vor voller Bezahlung weder verpfändet noch zur Sicherheit an Dritte übereignet werden. Bei Zugriff Dritter auf den Liefergegenstand, insbesondere Pfändungen, wird der Kunde auf unser Eigentum hinweisen und uns unverzüglich schriftlich benachrichtigen, damit wir unsere Eigentumsrechte durchsetzen können. Soweit der Dritte nicht in der Lage ist, uns die in diesem Zusammenhang entstehenden gerichtlichen oder außergerichtlichen Kosten zu erstatten, haftet hierfür der Kunde.
4. Dem Kunden wird gestattet, die Ware im Rahmen eines ordnungsgemäßen Geschäftsverkehrs weiter zu veräußern und zu verarbeiten, solange er nicht in Verzug mit der Erfüllung der gegen ihn bestehenden Forderungen ist. Wir können die Gestattung widerrufen, wenn der Kunde in Zahlungsverzug oder Vermögensverfall gerät, insbesondere wenn über sein Vermögen ein Insolvenzverfahren eröffnet wird.
5. Die Verarbeitung oder Umwidmung der Ware durch den Kunden wird stets für uns vorgenommen. Im Falle der Verbindung, Vermischung oder Vermengung der Ware mit anderen Sachen erwerben wir im Verhältnis des Wertes der Ware (Faktura-Endbetrag einschließlich gesetzlicher Mehrwertsteuer) der übrigen miteinander verbundenen, vermischten oder vermengten Sachen zur Zeit der Verbindung, Vermischung, Vermengung Miteigentum. Sollte das Eigentum an der Ware dadurch untergehen, dass diese wesentlicher Bestandteil einer anderen Sache wird, so räumt uns der Kunde bereits jetzt ein Miteigentum an der Hauptsache zu einem Anteil ein, der dem Verhältnis des Wertes der gelieferten Ware (Faktura-Endbetrag einschließlich gesetzlicher Mehrwertsteuer) zum Wert der Hauptsache zur Zeit der Verbindung, Vermischung, Vermengung entspricht.
6. Für den Fall der Veräußerung der Ware tritt der Kunde bereits jetzt zur Sicherheit für unsere Forderungen aus der gesamten Geschäftsbeziehung alle Forderungen ab, die dem Kunden aus der Weiterveräußerung oder sonstigem Rechtsgrund (Versicherung, unerlaubter Handlung o. ä. gegen seine Abnehmer oder Dritte erwachsen, und zwar unabhängig davon, ob die Ware, an der uns (Mit-)Eigentum zusteht, ohne oder nach Verarbeitung weiterverkauft worden ist. Aus unserer jederzeitigen Verlangen hat der Kunde Auskunft über den Bestand der Forderung zu geben und uns oder einem von uns Bevollmächtigten Einsicht in die diesbezüglichen Geschäftsunterlagen zu gewähren. Wir ermächtigen den Kunden widerruflich, die von uns abgetretenen Forderungen für dessen Rechnung im eigenen Namen einzuziehen. Diese Einzugsermächtigung kann nur widerrufen werden, wenn der Kunde seinen Zahlungsverpflichtungen nicht ordnungsgemäß nachkommt. Unsere Befugnis, die Forderungen selbst einzuziehen, bleibt hiervon unberührt. Wir verpflichten uns jedoch, die Forderungen nicht einzuziehen, solange der Kunde seinen Zahlungsverpflichtungen aus den vereinnahmten Erlösen nachkommt, nicht in Zahlungsverzug ist und insbesondere kein Antrag auf Eröffnung eines Insolvenzverfahrens gestellt ist oder Zahlungsverzug vorliegt. Ist aber dies der Fall, so können wir verlangen, dass der Kunde uns die abgetretenen Forderungen und deren Schuldner auf Verlangen sofort bekannt gibt und alle zum Einzug erforderlichen Angaben macht, die dazugehörigen Unterlagen aushändigt und den Schuldner (Dritten) die Abtretung mitteilt. Auch wir haben das Recht zur Offenlegung der Abtretung gegenüber den Schuldner. Der Kunde ist jedoch nicht zur Abtretung dieser Forderung an Dritte berechtigt.
7. Der Kunde ist entgegen Ziffer 3 nicht berechtigt, die Ware auch im ordnungsgemäßen üblichen Geschäftsverkehr zu veräußern, wenn der Kunde die Abtretung der Forderung aus der Veräußerung der Ware an uns ausschließt.
8. Bei vertragswidrigem Verhalten des Kunden insbesondere bei Zahlungsverzug sind wir zum Rücktritt vom Vertrag berechtigt. Nach Rücktritt können wir die Ware vom Kunden herausverlangen.

VI. Lieferzeit

1. Liefertermine oder -fristen sind nur verbindlich, wenn sie von uns ausdrücklich schriftlich bestätigt worden sind.
2. Der Beginn der bestätigten Liefertermine und -fristen setzt kumulativ voraus: die Abklärung aller technischen Fragen; die Erfüllung der Vertragspflichten des Bestellers, insbesondere die Beibringung der vom Kunden zu beschaffenden Unterlagen, Genehmigungen, Freigaben. Wenn vom Kunden veranlasste Änderungen des Auftrages die Fertigungszeit beeinflussen, haben wir einen Anspruch darauf, dass eine neue, den neuen Umständen angepasste Lieferzeit vereinbart wird. Liefer- und Leistungsverzögerungen aufgrund höherer Gewalt, aufgrund Umständen, die wir nicht zu vertreten haben und aufgrund von Ereignissen, die uns die Lieferung nicht nur vorübergehend wesentlich erschweren oder unmöglich machen - hierzu gehören insbesondere Streik, Aussperrung, hoheitliche Eingriffe, Kriegshandlungen, Unruhen, Strommangel, Zerstörung oder Beschädigung unserer Produktions- und Betriebsvorrichtungen, die wir nicht zu vertreten haben, sowie Versagen der Verkehrsmittel, Arbeitseinschränkungen usw., auch wenn sie bei unseren Lieferanten oder deren Unterlieferanten eintreten -, haben wir auch bei verbindlich vereinbarten Fristen und Terminen nicht zu vertreten. Sie berechtigen uns, die Lieferungen bzw. Leistungen um die Dauer der Behinderung zuzüglich einer angemessenen Anlaufzeit hinauszuschieben. Ferner besteht in einem solchen Fall auch ein Anspruch unsererseits auf Preisanpassung. Die vorbezeichneten Umstände sind auch dann von uns nicht zu vertreten, wenn sie während eines bereits vorliegenden Verzuges entstehen. Beginn und Ende derartiger Hindernisse werden wir in wichtigen Fällen dem Kunden baldmöglichst mitteilen. Die Lieferfrist ist eingehalten, wenn bis zu ihrem Ablauf der Liefergegenstand das Werk verlassen hat oder dem Kunden die Versandbereitschaft mitgeteilt worden ist.

VII. Muster

Eine Anfertigung von Mustern, gleich welcher Art, z. B. Entwürfe, Modelle usw., werden speziell für den Kunden nach seinen Vorgaben erst nach vorheriger diesbezüglicher schriftlicher Beauftragung gefertigt. Diese Muster werden sodann in jedem Fall auch gegenüber dem Kunden gesondert abgerechnet.

VIII. Aufbewahren von Unterlagen und Gegenstände, die der Wiederverwendung dienen

Das Aufbewahren von Unterlagen und anderen der Wiederverwendung dienenden Gegenständen des Kunden erfolgt nur nach vorheriger schriftlicher Vereinbarung und gegen besondere Vergütung über den Auslieferungszeitpunkt der bestellten Ware hinaus. Die vorstehend bezeichneten Unterlagen/Gegenstände werden, soweit sie vom Kunden zur Verfügung gestellt sind, bis zum Auslieferungstermin pfleglich behandelt. Auch diesbezüglich erfolgt eine Aufbewahrung über den Auslieferungszeitpunkt hinaus nur nach vorheriger schriftlicher Vereinbarung und gegen besondere Vergütung. Sollen die vorstehend bezeichneten Unterlagen/Gegenstände gegen Wasser, Feuer, Diebstahl oder andere Gefahren versichert werden, so hat der Kunde die Versicherung selbst zu besorgen. Eine Haftung unsererseits für den Verlust/die Beschädigung/die Zerstörung dieser Unterlagen/Gegenstände ist im Übrigen im Rahmen der gesetzlich zugelassenen Grenzen ausgeschlossen.

IX. Firmentext

Wir können auf den von uns gefertigten Gegenständen mit Zustimmung des Kunden in geeigneter Weise auf unsere Firma hinweisen. Der Kunde kann seine Zustimmung nur verweigern, wenn er daran ein berechtigtes Interesse hat.

X. Rügefrist

Der Kunde hat die Ware unverzüglich nach Erhalt zu untersuchen und für den Fall, dass die Ware offensichtliche Mängel hat, uns dies innerhalb einer Frist von zwei Wochen ab Erhalt der Ware, im Falle der Versendung ab Übernahme vom Spediteur oder Frachtführer anzuzeigen, andernfalls sind seine Ansprüche wegen Mängeln ausgeschlossen. Nicht offensichtliche Mängel können nur innerhalb einer Frist von einem Jahr ab Erhalt der Ware, im Falle der Versendung ab Übernahme vom Spediteur oder Frachtführer, geltend gemacht werden.

XI. Gewährleistung

Die Gewährleistungsfrist beträgt 1 Jahr ab dem Gefahrübergang. Im Falle von Mängeln sind wir nach unserer Wahl zur Nachbesserung oder Ersatzlieferung berechtigt, und zwar bis zur Höhe des Auftragswertes, es sei denn, uns oder unseren Erfüllungsgehilfen fällt Vorsatz oder grobe Fahrlässigkeit zur Last oder es ist eine Garantie für die Beschaffenheit der Ware von uns übernommen worden. Schlägt ein zweimaliger Nachbesserungsversuch oder eine zweimalige Ersatzlieferung fehl, ist die Nachbesserung oder Ersatzlieferung unmöglich, für den Kunden unzumutbar oder wird sie von uns endgültig verweigert, so kann der Kunde eine angemessene Herabsetzung des Preises verlangen oder vom Vertrag zurücktreten. Für wesentliche Fremderzeugnisse beschränkt sich unsere Haftung zunächst auf die Abtretung der Haftungsansprüche, die uns gegen den Lieferant des Fremderzeugnisses zustehen. Eine Haftung unsererseits hierzu erfolgt nur subsidiär und setzt die vorhergehende gerichtliche Inanspruchnahme des Lieferers des Fremderzeugnisses voraus. Etwa entstehende, beim Lieferer des Fremderzeugnisses nicht betreibbare Kosten, die für die Rechtsverfolgung erforderlich waren, werden durch uns ersetzt. Darüber hinausgehende Gewährleistungs- und Schadensersatzansprüche sind, soweit gesetzlich zulässig, ausgeschlossen.

XII. Schadensersatz

Für Schadensersatzforderungen gelten nachfolgende Haftungsbegrenzungen, soweit gesetzlich zulässig: Für alle Schäden infolge schuldhafter Vertragsverletzung haften wir bei eigenem Verschulden oder dem unserer Erfüllungsgehilfen nur bei Vorsatz oder grober Fahrlässigkeit. Dies gilt - soweit gesetzlich zulässig - auch für den Fall des Verzuges oder der Unmöglichkeit der Leistung. Soweit wir auch für einen Schaden wegen einer Vertragsverletzung haften sollen, die auf leichter Fahrlässigkeit oder der unserer Erfüllungsgehilfen beruht, ist die Haftung für mittelbare Schäden ausgeschlossen. Für einen eingetretenen Verzugschaden im Falle unseres Leistungsverzuges haften wir nur bis zur Höhe des Auftragswertes (Eigenleistung ausschließlich Vorleistung und Material), falls uns oder unseren Erfüllungsgehilfen nur leichte Fahrlässigkeit zur Last fällt. Diese Begrenzung der Haftung gilt auch für Schäden bei Dienstleistungen durch Haimer an Waren der Kunden (z.B. Wuchten, Cool Jet, Cool-Flash oder Safe-Lock), wobei die Haftung bis maximal zur Höhe des Auftragswertes der Dienstleistung von Haimer begrenzt ist.

XIII. Abnahme; Gefahrenübergang

Der Kunde hat zum vereinbarten Fertigstellungstermin die Ware bei Abnahmefähigkeit abzunehmen. Kommt er mit dieser Verpflichtung in Verzug, ist ungeachtet Ziffer III.1. der vereinbarte Preis sofort fällig. Kommt der Kunde dieser Verpflichtung nicht nach, sind wir berechtigt, vom Vertrag zurückzutreten und die Ware anderweitig zu verwerten, wobei der diesem Fall erzielte Verkaufserlös auf den vereinbarten Preis in Anrechnung kommt. Der entgangene Gewinn ist uns zu ersetzen. Kommt der Käufer in Annahmeverzug oder verletzt er sonstige Mitwirkungspflichten, so sind wir berechtigt, den insoweit entstandenen Schaden einschließlich etwaiger Mehraufwendungen zu verlangen. Weitergehende Ansprüche unsererseits bleiben vorbehalten. Sofern die Voraussetzungen des Annahmeverzuges des Käufers oder der Verletzung sonstiger Mitwirkungspflichten des Käufers vorliegen, geht die Gefahr eines zufälligen Unterganges oder einer zufälligen Verschlechterung der Ware in dem Zeitpunkt auf den Kunden über, in dem dieser in Annahme- oder Schuldnerverzug geraten ist.

XIV. Eigentum, Urheberrechte, Geheimhaltungsverpflichtung

Die von uns zur Herstellung des Vertragsgegenstandes eingesetzten Betriebsgegenstände, insbesondere Sonderbetriebsmittel (Werkzeuge, Vorrichtungen) bleiben unser Eigentum und werden nicht ausgeliefert. An Kostenveranschlägen, Zeichnungen und anderen Unterlagen behalten wir uns Eigentums- und Urheberrechte vor. Sie dürfen unberechtigten Dritten nur mit unserer vorherigen ausdrücklichen schriftlichen Zustimmung zugänglich gemacht werden. Der Kunde haftet allein, wenn durch die Ausführung seines Auftrages Rechte, insbesondere Urheberrechte, Warenzeichen oder Patente Dritter verletzt werden. Der Kunde stellt uns von allen Ansprüchen Dritter wegen einer solchen Rechtsverletzung frei. Sämtliche von uns entworfenen Ideen und Unterlagen, insbesondere Muster, Skizzen, Entwürfe, technische Informationen, Modelle, technische Zeichnungen usw., unterstehen dem Schutz unseres geistigen Eigentums, sind vertraulich zu behandeln und dürfen ohne unsere vorherige schriftliche Zustimmung in keiner Form genutzt oder verwendet werden.

XV. Export

Im Falle von Weiterveräußerungen bestätigt der Kunde (Käufer) hiermit die Einhaltung aller Vorschriften und Bedingungen des deutschen Exportkontrollrechts sowie des US-Reexportrechts und eventuell weiterer Staaten. Der Kunde (Käufer) erklärt mit der Bestellung die Konformität mit den derzeitigen Gesetzen und Verordnungen. Zudem bestätigt der Kunde mit der Bestellung, dass die Ware im Lieferland verbleiben wird bzw. nicht nach außerhalb der Europäischen Union verbracht wird.

XVI. Geltung deutschen Rechts

Es findet ausschließlich das Recht der Bundesrepublik Deutschland Anwendung. Die Anwendung des UN-Kaufrechts zum internationalen Warenkauf vom 1.1.1991 wird ausgeschlossen.

XVII. Erfüllungsort, Gerichtsstand, Wirksamkeit

Erfüllungsort für alle aus dem Vertragsverhältnis entstehenden Ansprüche ist der Sitz des Verkäufers. Gerichtsstand für sämtliche Rechtsstreitigkeiten aus der Geschäftsbeziehung ist ebenfalls der Sitz des Verkäufers. Wir sind jedoch berechtigt, auch am gesetzlichen Gerichtsstand Klage zu führen. Sollte eine Bestimmung in diesen Verkaufs- und Lieferbedingungen oder eine Bestimmung im Rahmen sonstiger Vereinbarungen ganz oder teilweise unwirksam sein oder werden, so wird hiervon die Wirksamkeit aller sonstigen Bestimmungen oder Vereinbarungen nicht berührt. Anstelle der unwirksamen Bestimmung tritt die der unwirksamen Bestimmung dem Sinne nach am nächsten kommende rechtlich zulässige Bestimmung.

TERMS OF DELIVERY AND PAYMENT (FEBRUARY 2017)

I. Generalities

The following conditions apply to all business transactions - also those in the future - with the customer. Our sales and shipping conditions apply exclusively; we do not recognize other conditions as well as especially contrary or otherwise differing conditions on the part of the customer, unless we explicitly approve of the validity of those conditions. Our sales and shipping conditions also apply in the event that we acknowledge contrary or differing conditions on the side of the customer and unreservedly fulfill the order. All agreements reached between ourselves and the customer must be in written form in order to be valid. Our sales and shipping conditions apply exclusively towards registered businessmen/businesswomen if the contract is integrated in operating their business and towards legal entities under public law and separate estates or assets under public law.

II. Prices/Price changes, shipping

1. Our prices offered are Euro prices, and do not include value-added tax. Therefore, value-added tax must be added to the prices at the rate determined by the law applicable at the time. If not agreed specifically otherwise, our prices are ex works, excluding costs for packaging, postage, and shipping. All offered prices are subject to change.
2. Our prices offered are applicable only for the dates of order upon which the offers are based. Subsequent changes or additions upon request or at the instigation of the customer, including additional costs incurred by the above, shall be charged additionally. The same applies for additional costs which might arise as the result of the above from machine down-time. In the event of changes in wages or material costs which arise either between making the offer and the placing of the order, or at any time exceeding four months following completion of contract, we reserve the right to adjust the price accordingly.
3. Shipping of goods occurs at expense and risk of the customer and always plus cost of packaging following to the at any one time valid price list of Haimer or the relevant valid offer. Inasmuch as goods are shipped at cost and risk of the customer at the customer's request, our liability, as far as is legally permissible, is limited to damage caused intentionally or by gross negligence. At the customer's written request, and at his own expense, goods may be shipped insured by ourselves against theft, breakage, damage to or loss of goods in transit, fire and water damage, or against such other risks as may be expressed explicitly by the customer insofar as such are insurable.
4. As far as can be reasonably expected on the part of the customer, partial shipments are permissible.

III. Payment

1. The goods are to be paid in full, no deductions, within 30 calendar days of date of invoice.
2. Bills of exchange are only accepted upon special agreement and on account of performance without allowance for discount. Discounting and bill charges shall be borne by the customer and become due for payment immediately. We are not liable for the timely presentation of a bill of exchange, its due protest, due notice, or the return of an unpaid bill, unless we or our vicarious agents are guilty of damage by intention or gross negligence.
3. The customer is only entitled to set-off claims if his counterclaims have become res judicata, are uncontested or recognized by ourselves. In the event of contested counterclaims, the customer has no right of retention.
4. In the case of uncontested counterclaims, the customer can only claim a right of retention regarding asserted claims which are based upon the same contractual relationship.
5. With respect to this order the customer is obligated to confirm the receipt of the goods in cases of the delivery from Germany to the foreign countries of Europe; the confirmation has to comply with the regulation concerning turnover tax.

IV. Delay in Payment

1. In the event of delay in payment, we are entitled to charge the legal rate of interest on overdue payments, i.e. the rate of 9% plus the basic annual interest rate current at the time in question and a lump sum of 40,00 € per overdue amount; this notwithstanding, we explicitly reserve the right to assert claims regarding additional damages. If the rate of interest is not claimed firstly this shall not exclude a later enforcement in the frames of the legal limitation; in this regard a forfeiture is excluded.
2. Should we become aware of circumstances which call into question the customer's creditworthiness and therefore deem our claim for payment to be at risk, particularly if the initiation of insolvency proceedings are filed for - or if insolvency proceedings are opened against the customer's property, or if a cheque is not honoured, or the customer stops payments respectively is in extensive default of the payment with collection threat, then we are entitled to declare the residual debt due immediately and to demand immediate payment. Further, we are then entitled to demand advance payment or provisions of security, and to retain the goods until payment, advance payment, or provisions of security are made, and to discontinue processing running orders until the same. If a change of the order required by the customer affects the production time, we can claim for a new delivery time adjusted to the new circumstances. Delay of delivery or performance caused by force majeure, caused by circumstances that are beyond our control and caused by incidents which do make the delivery not only temporary difficult or impossible - this is especially strike, lock out, intervention of public administration, act of war, riots, lack of energy, destruction or damage of our production and operating units, which were beyond our control as well as stoppage of transportation means, restrictions of work, etc., even though this occurs at our supplier or their sub-supplier we are not responsible for even if we agreed on binding delivery deadlines. You allow us to prolong the delivery respectively performance time for the time of interference and an additional initial period. Additionally in such cases we have the right to adjust the price. The above mentioned circumstances do also fall beyond our control if they occur during a already existing delay. Begin and end of such interference will be communicated to the customer as soon as possible. The delivery time is observed in case the product left the premise or we communicated the readiness of shipment to the customer at the end of the delivery time.

V. Reservation of title

1. Until all claims arising from the business relationship with the customer are fulfilled, the customer is required to grant the following securities, which we will release at the customer's request and at our own free will if the securities' value consistently exceeds that of the claims by more than 10%.
2. All goods delivered to the customer remain our property until all claims arising from the business relationship with the customer are paid in full.
3. The object delivered may be neither pledged nor transferred for security to a third party before it is paid in full. In the event of attachment by a third party to the object of delivery, particularly as a pledge, the customer shall refer to our ownership and inform us in writing immediately, so that we can enforce our rights of ownership. The customer is liable for costs which arise judicially or extra-judicially should the third party not be in a position to repay us such costs as arise in relation to the abovementioned.
4. The customer is permitted to sell and process the goods within the context of proper business transactions, as long as he is not in arrears with fulfilling the claims which he owes. We can revoke this permission if the customer is overdue in payments or comes into a state of forfeiture of assets, particularly if insolvency proceedings are opened against his property.
5. The processing or transforming of the goods by the customer shall always be done for us. In the event that the goods are joined, mixed, or blended with other items, we acquire co-ownership in proportion with the value of the goods (sum total of invoice including legal value-added tax) to the remaining items which were joined, mixed, or blended together at the time when they were joined, mixed, or blended together.
6. For the event that ownership of the goods be lost inasmuch as the goods become an integral or necessary part of another item, the customer hereby concedes to us now, in advance, co-ownership of the main item equal to the share which corresponds with the proportion of the value of the goods delivered (sum total of invoice including legal value-added tax) to the value of the main item at the time of said joining, mixing, or blending.
7. In the event that the goods are sold, the customer now and hereby, for the security of our claims arising from the whole of the business relationship, assigns all claims which arise for the customer from resale or from other legal grounds (insurance, tortious act, or the like) against the buyer or third parties, independently of whether the goods, of which we have (partial) ownership, are resold with or without processing. Upon our request, which may be made at any time, the customer must inform us regarding the state of the claim, and allow us or anyone authorized by us to inspect those business records relevant to the above. We grant the customer permission, subject to revocation, to collect the sums due for the claims we assigned, to his own account and in his own name. This direct debit authorization can only be revoked if the customer does not meet his financial obligations in a proper manner. Our authority to collect ourselves the sums due remains unaffected by the above. However, we bind ourselves not to collect the sums due as long as the customer meets his financial obligations with the collected sales revenue, is not overdue for payments, and especially if no initiation for insolvency proceedings has been filed or cessation of payments has been noted. If this is the case, however, we can require that the customer makes known to us immediately the claims assigned and their debtors, including all information required for collection purposes, providing us with all records necessary therefore, and informing the debtors (third parties) of the assignment of claims. We as well have the right of disclosure of assignments against debtors. The customer, however, is not entitled to assign this claim to third parties.
8. Contrary to position 3, the customer is not entitled to sell the goods, even within the context of proper, standard business transactions, if the customer excludes assigning claims based on the sale of the goods to us.
9. In the event of actions contrary to the terms of contract, particularly in the case of delay of payment, we are entitled to rescission of the contract. Following rescission, we can demand return of the goods from the customer.

VI. Delivery time

1. Delivery dates and delivery periods are only binding if they are confirmed by us explicitly in writing.
2. The confirmed delivery dates and delivery periods start when the following cumulative conditions are met: the clarification of all technical questions; the fulfilment of the customer's contractual obligations, particularly that of furnishing records, authorizations, and release statements. When alterations ordered by the customer have an influence upon the duration of production time, we are entitled to insist upon agreeing to a new delivery time which is adjusted to the changed circumstances. We are not liable for delays in delivery and performance, even if binding dates and times have been agreed upon, in case of acts of God, in case of circumstances which we are not responsible for, and in the event of incidents which do not only temporarily substantially impede delivery or make it impossible - this includes in particular strike, lock-out, sovereign intervention, acts of war, riots, electrical shortage, destruction or damage to our production or works fixtures for which we are not liable, as well as transportation failure, work limitations etc., also when the above affect our suppliers or their sub-suppliers. Such circumstances entitle us to postpone delivery or performance for the duration of the impediment plus a reasonable starting-up time. Furthermore, such a case entitles us, for our part, to adjust the price accordingly. We are also not liable for the circumstances mentioned if they arise during an already existing delay. In important cases, we will inform the customer as soon as possible regarding the beginning and end of such hindrances. The delivery deadline is met if by date of its expiry the goods have left the works or the customer has received notice of readiness of dispatch.

VII. Sample

Samples of all kinds, whether designs, models, etc., are prepared especially for the customer according to his instructions and only by prior written commission for the same. In every case, these samples will be billed separately to the customer.

VIII. Storage of documents and items for further use

The storage of the customer's papers and other objects such as may serve some future purpose is undertaken only upon prior written agreement and in exchange for special compensation beyond the date of delivery of the goods ordered. The abovementioned goods a/o objects, if they are placed at our disposal by the customer, shall be handled with care up to the delivery date. In this case as well, storage beyond the delivery date is only granted upon prior written agreement and in return for special compensation. Should the abovementioned documents a/o objects be insured against water, fire, theft, or other dangers, the customer must provide the necessary insurance himself. Further, within legally permissible limits, we are exempt from liability for the loss of, damage to, or destruction of these documents a/o objects.

IX. Company print

On objects of our manufacture, we can, with the customer's permission, make reference to our company in an appropriate manner. The customer can only withhold his permission in the event that he has a justifiable interest in so doing.

X. Time limit for making a claim

Upon delivery, the customer must inspect the goods without delay, and in the event that the goods have obvious defects, these must be reported to us within a period of two weeks following receipt of the goods, in the case of shipping from the point of taking delivery from the shipper or carrier; otherwise, the customer's claims regarding defects are excluded. Claims for non-obvious defects can only be asserted within a period of one year upon receipt of the goods, in the case of shipping upon taking delivery from the shipper or carrier.

XI. Warranty

The warranty period is 1 year after passing of the risk. In the event of defects, we are entitled to choose between rectifying the defects or delivering a substitute, up to the amount of the contractual value, unless we or our vicarious agents are guilty of damage by intent or gross negligence, or if we have given a guarantee for the condition of the goods. If two attempts at rectifying the defects or at delivering a substitute fail, or if rectification or substitution is not possible, not to be reasonably expected for the customer, or finally refused by ourselves, then the customer can demand a reasonable reduction in price or withdraw from the contract. For substantial third-party products, our liability is limited initially to the assignment of liability claims to which we are entitled against the supplier of the third-party products. Any liability ensuing on our part in this instance can only be secondary and requires prior recourse to the courts for the supplier of the third-party product. We will reimburse such costs as may arise if they cannot be collected from the supplier and if they were necessary for prosecution. Guarantee and damage claims which exceed the above are excluded, so far as is permissible by law.

XII. Compensation for Damages

The following liability limits apply for damage claims, within the parameters of the law:
For all damages arising from culpable breach of contract, we are liable if we ourselves or our vicarious agents are at fault, but only in case of damage by intention or gross negligence. Within the limits of the law, this also applies in cases of default or when performance becomes impossible. Insofar as we are considered liable for damages due to breach of contract which results from a slight degree of negligence on our part or on the part of our vicarious agents, liability for indirect damages is excluded. When delay damages arise due to delay in our performance, we are only liable to the extent of contractual value (our own work excluding advance performance and material) if we or our vicarious agents are only at fault for slight negligence. This limitation of liability also applies for damages in connection with services of Haimer for goods of customers (e.g. Balancing, Cool Jet, CoolFlash, DuoLock™ or Safe-Lock™), whereupon the liability is limited to the extent of the contractual value of the service by Haimer.

XIII. Taking Delivery; Passing of Risk

The customer must take delivery of the goods at the completion time agreed upon if the goods are ready for acceptance. If the customer is in default of acceptance, regardless of article III.1 the price agreed upon is due immediately. If the customer does not meet this obligation, we are entitled to withdraw from the contract and to make other use of the goods, whereby the sales revenues gained in this case are credited to the price agreed upon. We must be compensated for profit lost. If the seller is in default of acceptance or fails to perform other participation duties, then we are entitled to demand compensation for damages thus caused, including any additional expenditures which may arise. We reserve the right to further claims on our behalf. In case of default or delay in acceptance by the buyer, or other failure to perform participation duties on the part of the buyer, then the risk of accidental loss of the goods or of accidental worsening of the state of the goods passes over to the buyer from the point in which he entered into the state of default in acceptance or debtor's delay.

XIV. Ownership, Copyright, Duty of Secrecy

Those articles of the trade which we use to manufacture the product of the contract, in particular special means of operation (tools, devices) remain our property and shall not be delivered. We reserve for ourselves the ownership and copyrights of estimates of cost, drawings, and other documents. They may only then be made available to unauthorized third parties if we give our prior explicit written permission. The customer is solely liable if, in the process of executing orders, any rights, particularly copyrights, trademarks, or patents of third parties are infringed upon. The customer indemnifies us against claims of third parties in the event of such violations of rights. All ideas and documents drawn up by ourselves, in particular samples, sketches, designs, technical information, models, technical drawings etc. are under the protection of our intellectual property, have to be treated confidential and may not be used or applied in any manner without our prior written consent.

XV. Export

The customer (Buyer) confirms if he resales Haimer products that he complies with all provisions and regulations of german and international export controls as well as with the US re-export regulations. The customer (Buyer) declares with his order his compliance with this kind of laws and regulations. Additionally the customer (Buyer) confirms with his order that the products will remain in the delivery country respectively will not be delivery out of the European Union.

XVI. Applicability of German Law

The law of the Federal Republic of Germany is exclusively applicable. Application of the UN Convention on Contracts for the International Sale of Goods, dated January 1, 1991, is precluded.

XVII. Place of Performance, Place of Jurisdiction, and Validity

The place of performance for all claims arising from this contractual relationship is place of business of the seller. The place of business of the seller is also the place of jurisdiction for all legal disputes arising from this business connection. We are, however, entitled to bring grievances before the legal place of jurisdiction as well. The partial or complete invalidity of any provision in these terms of sales and delivery, or of any provision within the context of other agreements, whether now or in the future, shall not affect the validity of any part of the remaining provisions or agreements. The invalid provision is then replaced by that lawfully permissible provision which is closest to the meaning of the invalid provision.

HAIMER®

Quality Wins.



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