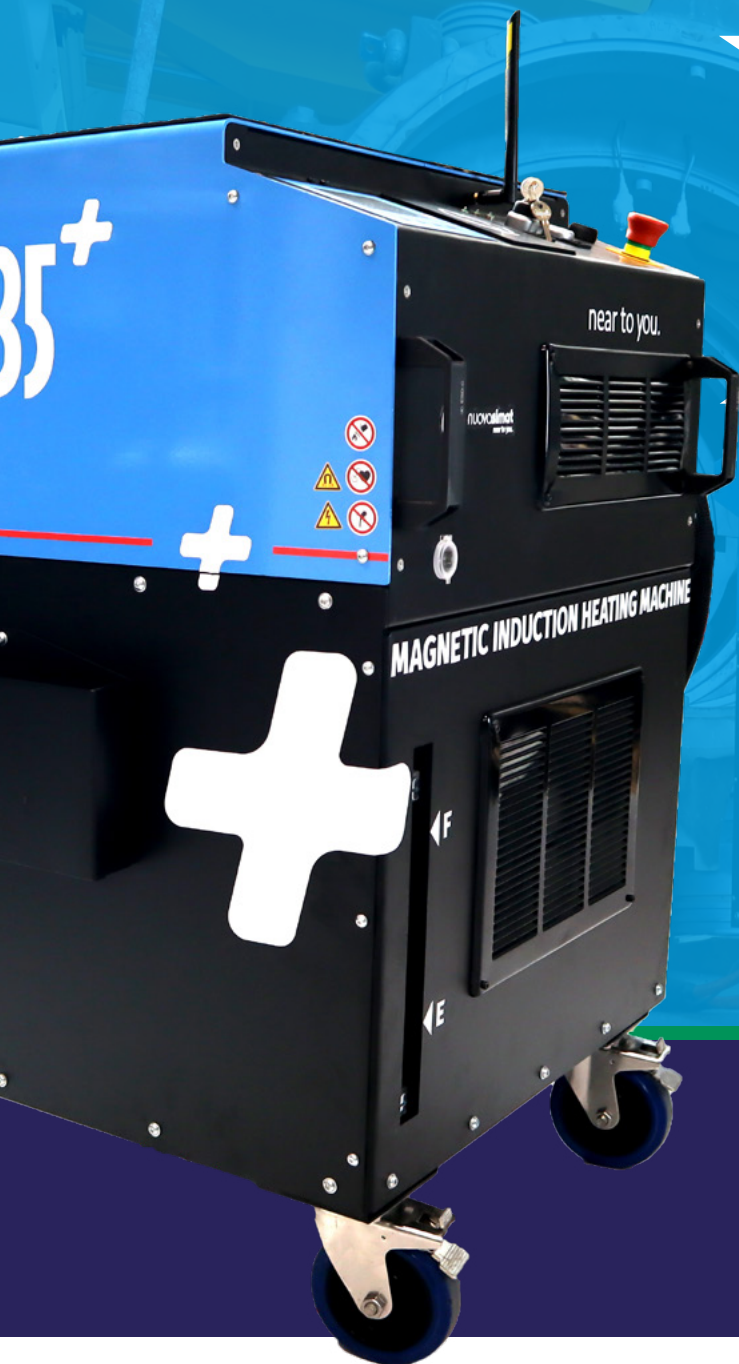




ELIOS-35⁺

MAGNETIC INDUCTION HEATING MACHINE

BOLTING & SHRINK FITTING

FAST



SAFE



PATENTED



ALL IN ONE



INDUSTRY 4.0



BOLTING

STRAIGHT INDUCTORS

For large size bolts / studs removal and installation on gas turbines casings, steam turbines, and other static vessel applications such as heat exchangers. Suitable for hole sizes starting from **Ø 9mm up to more than 32mm**, and lengths up to more than 1500mm



SHRINK FITTING

RING-SHAPED INDUCTORS

Our induction heater Helios35+, when equipped with ring-shaped inductors, can heat up any cylindrical surface for on-site assembly and disassembly operations. Suitable for **diameters up to 600mm and more**.



SAFETY AND TIME SAVING



HELIOS-35⁺

METHOD COMPARISON

	INDUCTION HEATING HELIOS 35+	STANDARD METHODS Electric heaters, Flames
Heating time	2-3 min	50 - 60 min
Total operation time	6h (one technician only)	3 work shift /teo technicians)
Bolt heating	The bolt returns at initial temperature after few hours	The bolt returns at initial temperature after daytime
Casing heating	Not subject to significant heating (fast heating)	Subject to high temperatures: expansion risk (slow heating)
Nut rotation	Just after 1 min, the nut can turn by 60-70% without efforts	The nut must be turned by heavy hammering
Safety	Inductors (internally cooled) ca be touched with bare hands	Risk of burn or electrical shocks injuries

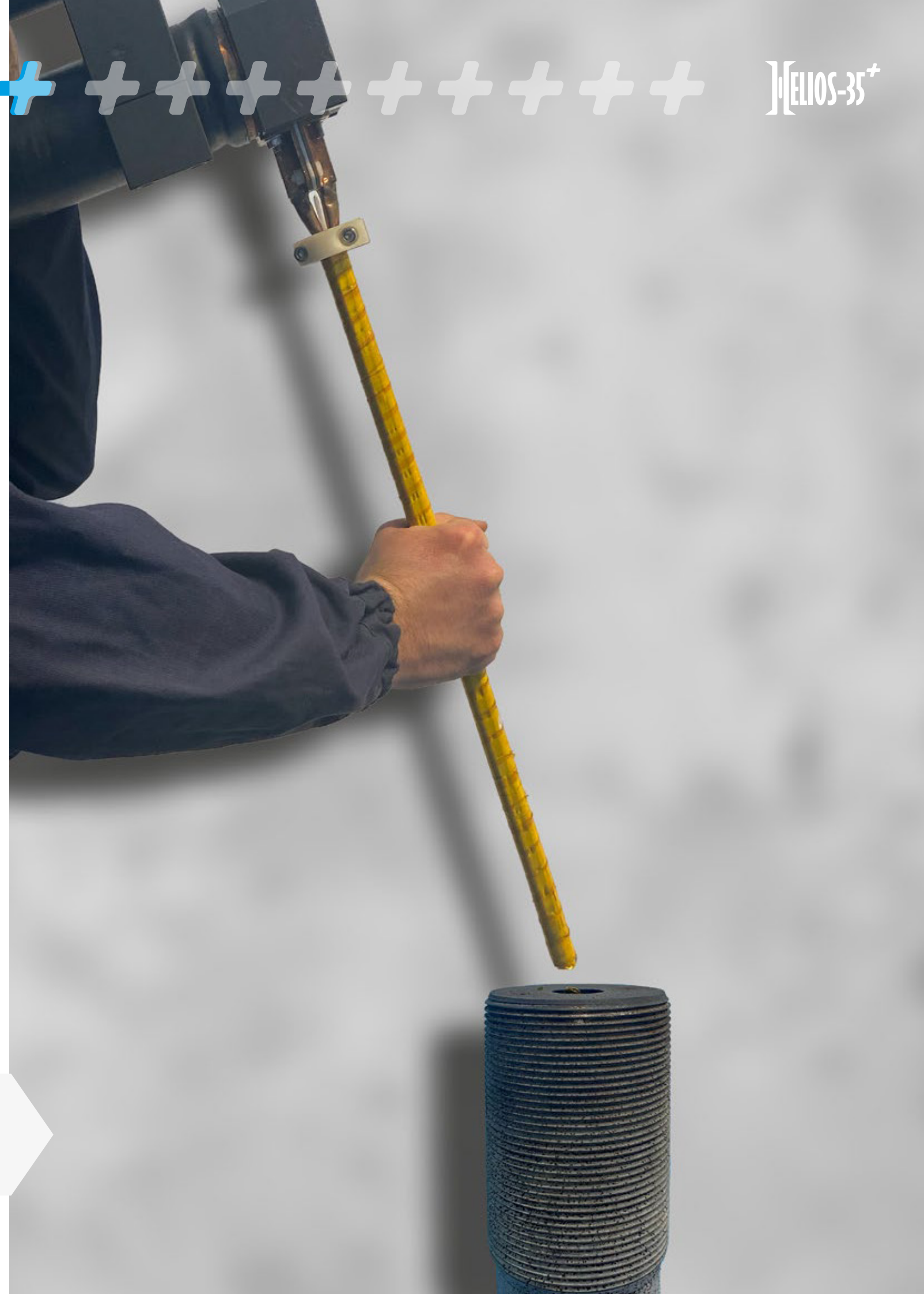
Case: Steam Turbine, Bolt quantity: 44, Bolt size: M64 x L=500mm

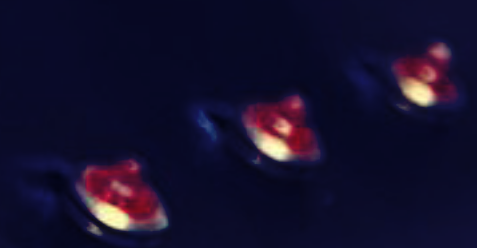
PERFORMANCE

BOLT SIZE	INDUCTOR DIAMETER	HEATING TIME (300° C)
M42	9mm	40-50sec
M72	16mm	2 -3 min
M110	22m	4-5 min
M160	28mm	6-7 min

 **OPERATION TIME
REDUCED BY 80%**

 **NO RISK
OF BURN INJUIRES**



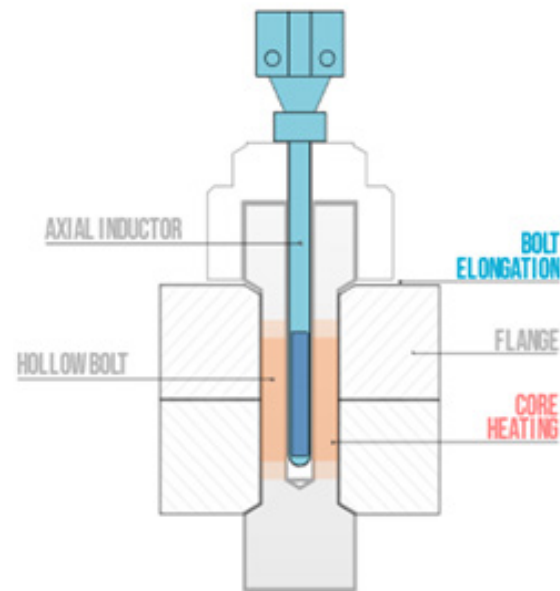


HOW DOES IT WORK?

Our induction generator Helios-35+ converts the current coming from the power supply into a strong electromagnetic field; the inductor, once inserted in-to the bolt hole, will generate heat in the bolt without getting in direct contact with it. Once the bolt has elongated, it will be possible to easily loosen the nut.

The built-in cooling system of Helios-35+ allows to use the inductors for continuous work shifts. Moreover, as the inductor is internally water-cooled, it's even possible to touch it with bare hands after the heating process has been completed!

Our straight inductors are designed to heat up the bolt core only, without reaching the threads; indeed, they are manufactured in accordance with custom technical specifications!



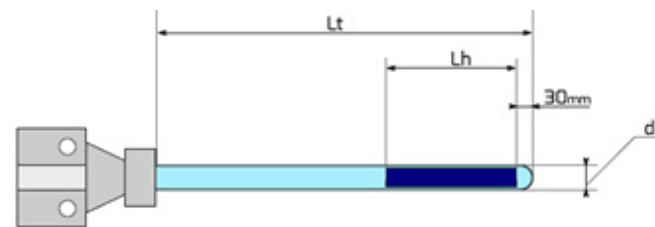
Our Encoding: Inductor code "IND d-Lt/lh"

Example: "IND 20-800/450"

(d) The inductor fits into a 20mm bolt hole, taking into account its dimensional tolerance.

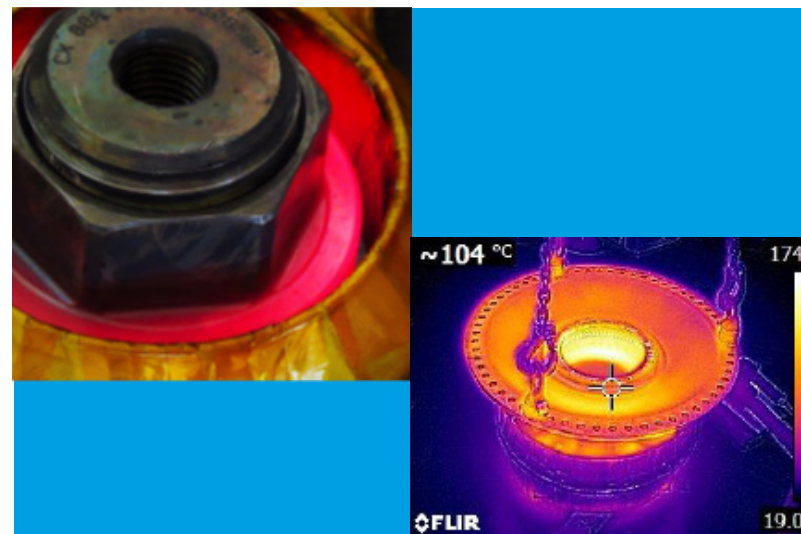
(Lt) The inductor has a total length of 800mm

(Lh) The heating length of 450mm is calculated starting 30mm from the bottom



Moreover, thanks to the power regulation function of Helios 35+, it is possible to control the heat flow rate achieving a slower or a faster heating process according to the specific application.

Such feature, combined with the temperature sensor option, will allow to manage any kind of shrink fitting for assembly or disassembly purposes, using standard ring-shaped inductors or customized ones.





near to you.



MAGNETIC INDUCTION HEATING MACHINE

← F

← E

near to you.



MAGNETIC INDUCTION HEATING MACHINE

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DATASHEET



HELIOS-35⁺

BASE UNIT HELIOS-35⁺

Complete of supply cable (10m), central power unit (integrated cooling system), power cable (10m), heating head.
You just need to choose your inductors to start heating immediately!

POWER	30 KVA
FREQUENCY RANGE	5 ÷ 35 KHz
SUPPLY	380-440V AC-3PH-50Hz/60Hz
ELECTRICAL PLUG	32A 3P+E
WEIGHT	205 Kg
DIMENSIONS	1000 x 830 x H 1000mm
COOLING SYSTEM	 Integrated
FEATURES	4.3" Color graphic display
	 Power regulation
	 Diagnostics (faults detection system) USB Port
CERTIFICATIONS	CE Compliance, 2006/42 EC Machinery Directive, 2014/30 EU Electromagnetic Compatibility

OPTIONS AVAILABLE

HELIOS-35+_T		TIMER to set the desired heating time
HELIOS-35+_SMART		4.0 INDUSTRY to communicate remotely via Wi-Fi connections. This option, through the provided "Helios Manager" software will allow to: - Remotely set up working plans - Record heating data - Generate performance reports
HELIOS-35+_S		TEMPERATURE SENSOR To set up the maximum desired temperature



ACCESSORIES

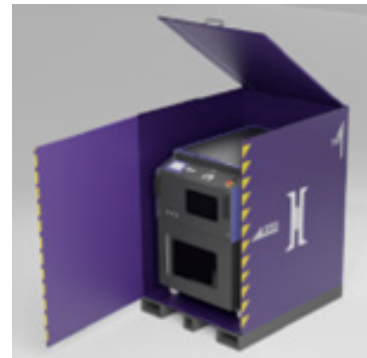
HELIOS-35⁺



CUSTOM
INDUCTORS



PORTABLE TAPING
SYSTEM



METALLIC BOX

REFERENCES

Over the past years we have been working with the most important Oil&Gas and Power Generation Players all over the world.

"The induction machine has proved indispensable in the disassembly of the bolts of the steam turbines of our plants, allowing a significant saving of time for the exercise of operations, an operation previously unthinkable and above all important increase in safety in the execution of heating operations that are no longer restricted due to any kind of flames."

"We are very satisfied with this investment, since it allowed us to work in complete safety and significantly reduced the processing time."



NEAR TO YOU

