INDUCTION WELDING PRE-HEATING RING-COIL

Induction heating ring coil are designed for Welding Pre-Heating processes. These coils are used to prepare the two sides of the pipes that have to be welded so that the welding process can be done correctly.
Ring coils are designed to contain the heat within the areas to be welded with high efficiency, extremely short heating time, and perfectly clear and dry surfaces.
Conventional systems, such as open flame or electrical resistances, cannot guarantee any of these advantages.

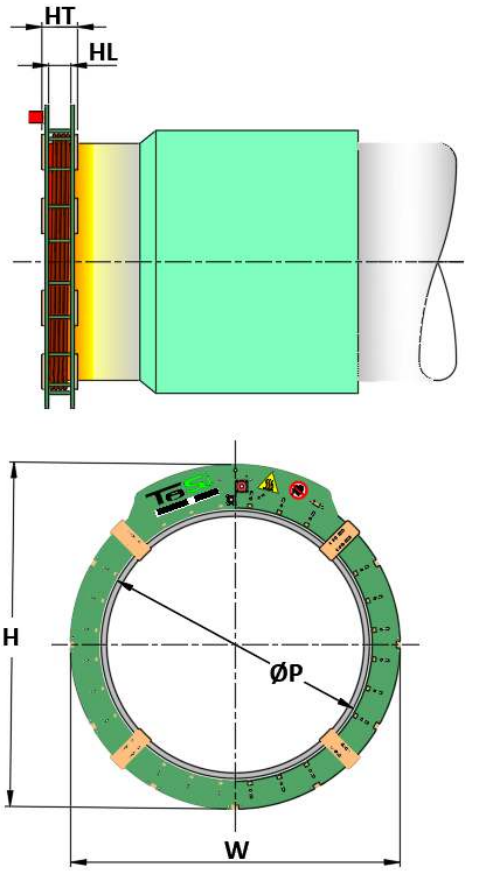
INDUCTION WELDING PRE-HEATING RING-COIL

GENERAL FEATURES	
INPUT POWER	12o - 150 kW (TESI induction generators)
MAX OUTPUT POWER	120 - 150 kW
FREQUENCY	480 Hz
DUTY CYCLE	S3 - 50% (refer to duty cycle of generator)
APPLICATION	Welding Pre-Heating
OPERATING TEMPERATURE	-40°C ÷ +60°C

MATERIALS	
STRUCTURE	Fiberglass G40
MECHANICALS	AISI
TURNS & CONTACT	Copper
PROTECTION	Fiberglass sleeve
Fast Connectore	Powerlock – Gifas - Leviton
Coolig system	Air (water for special application)

P	HL	HT	H	W	WEIGTH
4”	100	130	450	350	?
6”	100	130	450	400	?
8”	100	130	450	450	?
10”	100	130	450	505	?
12”	100	130	450	555	?
16”	100	130	450	655	?
18”	100	130	450	710	?
20”	100	130	450	760	?
24”	100	130	450	860	?
28”	100	130	450	960	?
30”	100	130	450	1010	?
32”	100	130	450	1070	?
36”	100	130	450	1170	?
40”	100	130	450	1270	?
42”	100	130	450	1320	?
48”	100	130	450	1470	?
50”	100	130	450	1520	?
52”	100	130	450	1570	?
56”	100	130	450	1670	?

External type RING COIL



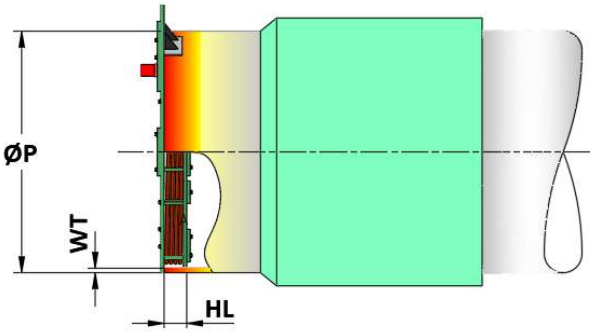
- Dimension are indicative and subject to change.

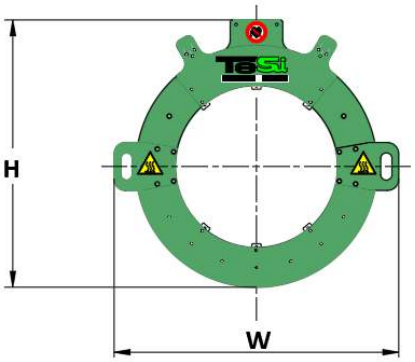
INDUCTION WELDING PRE-HEATING RING-COIL

P	WT	HL	H	W	WEIGTH
20”	*	100	610	630	?
24”	*	100	710	730	?
28”	*	100	810	830	?
30”	*	100	870	890	?
32”	*	100	920	940	?
36”	*	100	1020	1040	?
40”	*	100	1120	1140	?
42”	*	100	1200	1220	?
48”	*	100	1320	1340	?
50”	*	100	1370	1390	?
52”	*	100	1420	1440	?
56”	*	100	1520	1540	?

- Wall (WT) Thickness of the pipe must be confirmed by cust
- Dimension are indicative and subject to change.

Internal type RING COIL





TESI SYSTEMS
DEEP HEATING

Conventional Heating Systems
SKIN HEATING

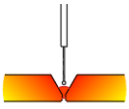
LOW DISSIPATON

Operators has more time to remove coil and start process (welding / coating)

FAST DISSIPATION

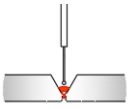
Pipes become cold quickly so process (welding / coating) are made on cold steel

ROOT PASS
WITH CORRECT TEMPERATURE



Weldings homogeneous

ROOT PASS
WITH COLD STEEL

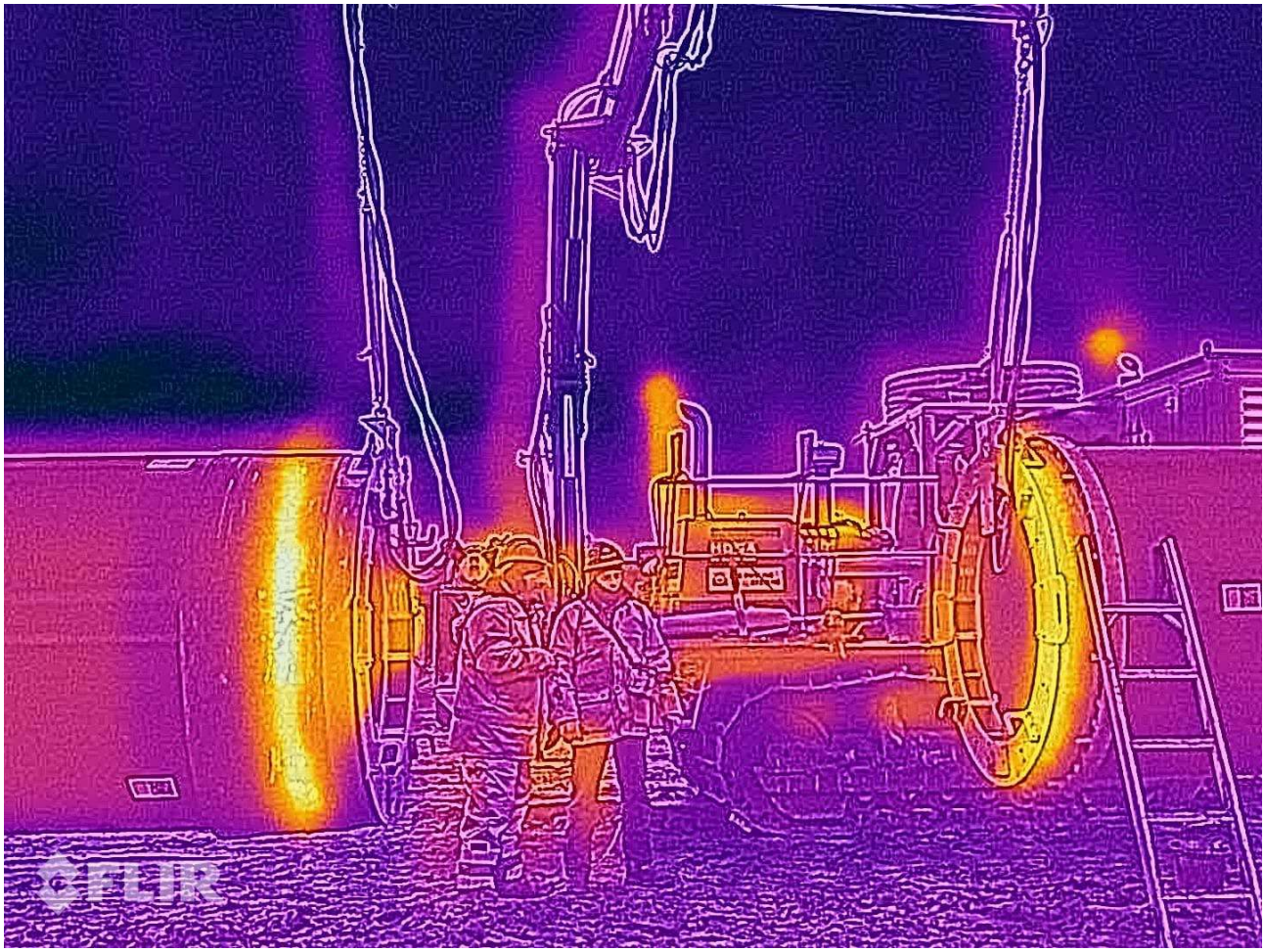


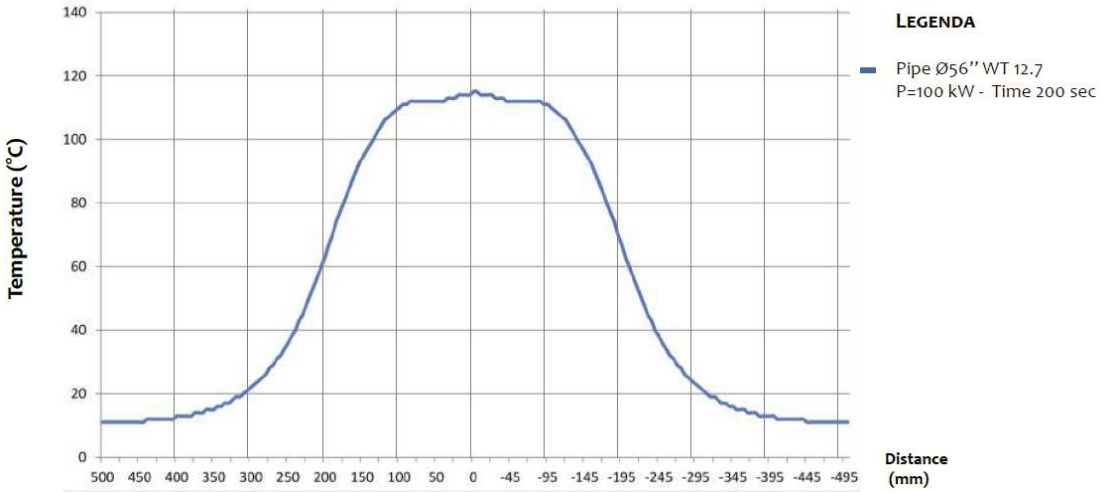
Porous weldings

INDUCTION WELDING PRE-HEATING RING-COIL

External type RING COIL for welding Pre-Heating

Internal type RING COIL for welding Pre-Heating



Images from FLIR Thermo Camera on Eugal Project (Germany)

HEAT DISTRIBUTION ON PIPE AS OF *TESISOFT* SOFTWARE SIMULATION