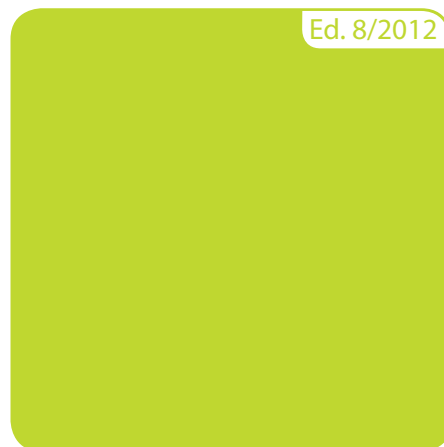


AMARC DHS COMPANY PROFILE

DISTRICT HEATING SYSTEMS



Ed. 8/2012



WiFi M-Bus GPRS GSM EtherNet/IP

CE PED INAIL

DISTRICT HEATING SUBSTATIONS





CHAPTER	PAGE
ABOUT AMARC	4
COMPANY BACKGROUND	5
OUR MISSION, OUR VALUES	6
OUR ORGANISATION	7
AMARC DHS	8
AMARC DHS PRODUCT RANGE	9
AMARC DHS - INSTALLATION	11
CERTIFICATION	12
REFERENCES	13



Amarc operates in the industrial heating and process control industry, and in particular has made a name for itself in the following technological areas:

- Low and high temperature electric heating systems including monitoring and control thyristor (SCR - Silicon-Controlled Rectifier) systems.
- Direct and indirect heating.
- Direct and indirect methane gas heating and combustion chambers.
- Steam, diathermal oil, hot and superheated water transport and heat regulation.
- Ovens and heat and drying systems.
- Measurement, regulation, automation, security and local or remote monitoring of these processes.
- Optimisation of safety regulations for pressure equipment, equipment containing or gaseous fuel, or electrical equipment in hazardous: ISPEL, CE, CE/PED, ASME, U-STAMPED, FM-GLOBAL, BRITISH STANDARDS, ISO/DIN, IEC/CEI, CE/ATEX, etc.

Today Amarc DHS (District Heating Substations) engineers, manufactures and installs district heating substations, with a product portfolio of over 300 models, featuring standard district heating substations with a capacity from 10 to 6,000 kW, as well as remote cooling stations with a capacity from 50 to 1,000 kW, plus optionals and accessories, for one of Europe's most extensive ranges in the industry:

- **User Satellites Unit** for central heating systems
- **Single living unit wall substation** from 10 to 40 kW.
- **Wall Substation** from 10 to 150 kW.
- **Base District Substation** for hot and superheated water certified CE/PED, from 50 to 6.000 kW.
- **Drainage Bag filter** for secondary circuit and district heating network from 15 to 40 m³/h, from PN10 to PN25, for hot and superheated water, max135°C.
- **Management System** to optimize district heating plant, remote setting, telemetering and telecontrol for user substation.
- **Remote control** and hardware tools for communication network specific for district heating plant.



The company has developed from experience consolidated in the industrial heating and process control industry.

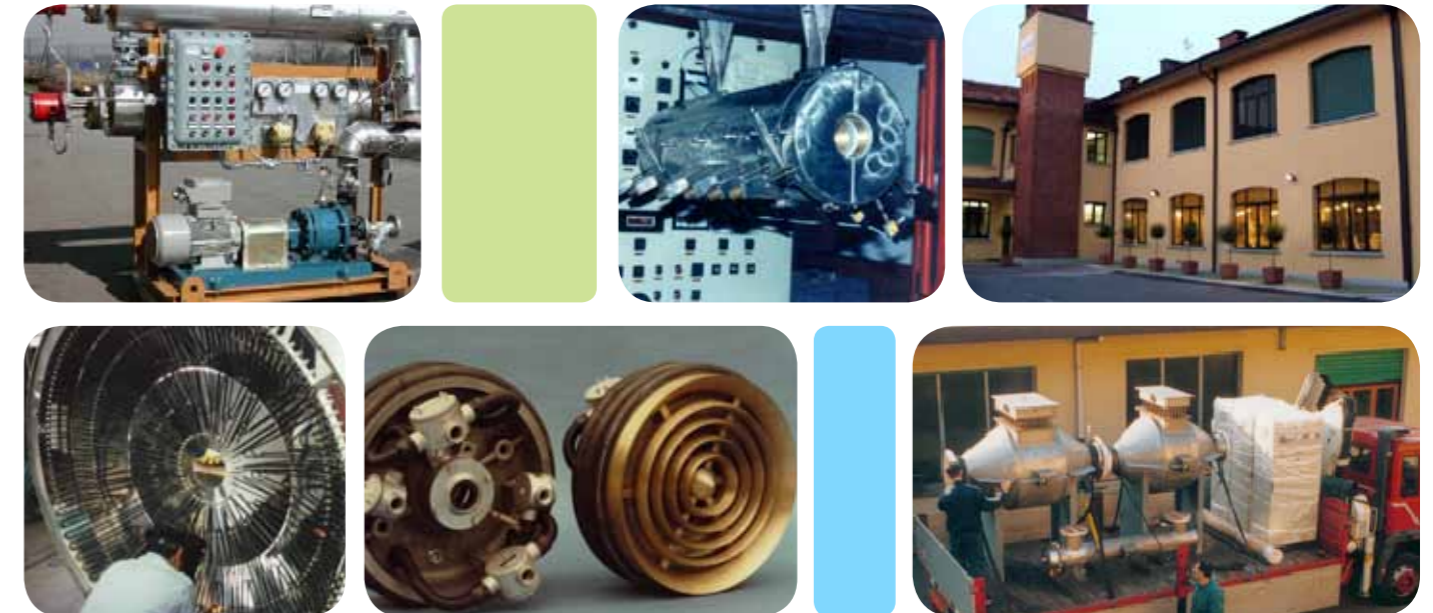
AmarcTecnologie was established in 1998, its aim being to harness the considerable experience gained in the industrial heating and process control industry since 1950, and to consolidate and turn this expertise into reproducible scientific and technological principles.

During this time, the company partnered leading Italian and foreign companies in developing research projects, up to the construction and installation of components, machines and plants, which also involved the registration of some international patents.

More recently, the company became involved, for some applications, in district heating - a technology which is barely known or developed, at least in Italy.

After several years of testing and operations, the company decided to invest heavily in this sector, and above all in technical product and production process development, as well as in automatic control and supervision systems.

More than 10 years of experience in the industry have created a management and optimisation computer system that can integrate network and substation requirements and functions in one software application, which can make all the difference in terms of profitability for district heating systems.





OUR MISSION

With a practical and determined approach that has always set us apart, with expertise and innovation as the

bedrock of our company, and with the enthusiasm of our team and a strong belief in our values, we work each day to create a better environment, manufacturing reliable, quality, hi-tech and excellently designed products, to be an industry leader in Italy and abroad.



We believe that results for our customers, our employees and for all people around us do not depend on what we know but on how much we are willing to learn at any time, in every situation, at any age.

We believe that behaving honestly and with sincerity can be tough but, ultimately, it pays back as far as peace of mind and concrete results are concerned.

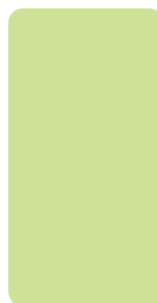
OUR VALUES

We believe that mankind must believe in something before acting. Our ideals are the guiding force taking us to our destination.

We believe that an awareness of limitations and weaknesses makes man free to choose and to decide with dignity and serenity which approach to take.

We believe it is a duty and a pleasure to ensure all our actions are focussed on the environment, on creating, rather than destroying and wearing out, what is made by others.

We believe people must not be judged by their qualifications, positions or successes, but by the dignity in their actions.



Expertise and innovation are the bedrock of our company, and this is why our organisation is based fundamentally on highly professional engineers capable of managing technological and methodological processes above all else.

We train and encourage our employees to increase their knowledge beyond their own expertise and institutional duties. In particular, knowledge focused on processes but also on the core technologies of mechanical and electrical processing, thermal treatment and the physics of materials, measurements and automatic controls.

We manage all special areas with company resources from a project, development, maintenance and organisational background, while we tend to outsource activities that are well-known, routine, and easy to source and reproduce.

This is why we make sure our staff are trained in managing outsourcers, that are often not homogeneous or located in different areas worldwide. We believe it is fundamental to have an operating and manufacturing structure that can deal with emergencies, as well as an external operating structure for routine and extraordinary maintenance.

Job orders are always overseen, organised and managed by company staff. We can offer our customers specific skills for their field as well as for other sectors, where can operate more easily.

Thanks to this organisational model, we are able to lever a technological, organisational and manufacturing flexibility and can operate in different areas, with the best results possible.

We can easily deal with requests for large production volumes in the short-term and for very large volumes in the medium-term, and can also operate with the typical structure of a manufacturing company, if a division for a specific activity is required.

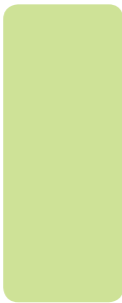
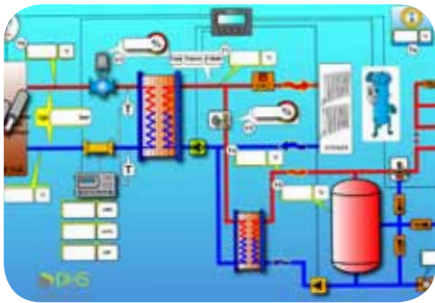
People are the bedrock of our company

Our staff have an average age of 30 and our objective is to recruit at least two young employees to the company each year. We are also supported by the wisdom and experience of our more senior staff. We let younger members of staff configure and coordinate work, drawing on their enthusiasm and technical skills, and giving them practical experience.



Amarc DHS (District Heating Substation) is specialised in the development, engineering, construction, installation, as well as the operation and maintenance, of district heating substations.
In particular:

- User satellite units for individual metering of heating and DHW.
- Single living unit substations for heating and DHW.
- Condominium substations for heating and/or DHW std, max 5000kW.
- Cooling substations.
- Drainage filters and primary and secondary circuit cleaning.
- Remote reading and remote control systems.
- Central unit, network and substation management, operation and optimisation systems.



<div></div> <div>SATBASIC SATPLUS SATDESIGN SATEMBED</div>	User satellite units for remote reading and remote control, max 35 kW	
<div></div> <div>MONOBASIC MONOPLUS MONODESIGN MONOEMBED</div>	Single living unit wall substation for heating and domestic hot water, max 40 kW	
<div></div> <div>BOLZANOBASIC BOLZANOPLUS BOLZANOEMBED</div>	Wall substation for heating and domestic hot water, max 80 kW	
<div></div> <div>FONDODHW FONDOHEATING FONDOCOMBI</div>	Wall substation for heating and/or domestic hot water, max 180 kW	
<div></div> <div>MILANOC-S-D</div>	Substation base with brazed heat exchangers for plants, max 5000 kW	
<div></div> <div>TORINOC-S-D VARESEC-S-D</div>	Base substation with gasketed plate heat exchangers, max 6000 kW	
<div></div> <div>BIELLA BIELLAD</div>	Cooling base substation max1000 kW	
<div></div> <div>COLOGNO 15-25-40</div>	Bag filter for heating systems, district heating networks and power plants with condensation boilers	
<div></div> <div>AVD500</div>	Management system for district heating substations and networks	
<div></div> <div>LIBERO500</div>	Specific management software for district heating substation and network remote reading, management and control	





DHS AMARC		Titolo documento : DICHIARAZIONE DI CONFORMITA' C.T.		Modulo : MR-09-100	
N° documento : 7938-09		Data ultima rev. : /		Pagina : 1/2	
AMARC DHS srl Via Lovati 29 20045 - Besana Brianza (MI)					
DICHIARAZIONE «CE» DI CONFORMITA' (Direttiva 97/23/CE, Allegato VII)					
A		B		C	
Definizione C. Termica d'utenza per TLR		N. di matricola 827809		Modello CTVC-60	
Luglio installazione Via Spadini, 11 - 13 - Milano		N. disegno 054005-01M005		Potenza termica 60 kW	
				Caratteristiche elettriche 230V/1 50 Hz	
B		C		D	
Circuito d'utenza		Pressione max di esercizio		Temp. minima di esercizio	
Via Spadini, 11 - 13		10 bar(g)		0/100 °C	
		14,3 bar(g)		Acqua	
		2" 454 Liri		2" 50 Liri	
		SST 1,81 Liri		SST 2 Liri	
Sottostazioni d'utenza		N. di matricola		N. di certificato	
CTAS 60		1		028809	
				CC-028809	
				N.A.	
C. Categoria : II					
D. Procedura di valutazione di conformità : Modulo B+C1					
E. Organismo notificatore : N. 0100 - I.S.P.E.S.L. Dip. Milano Via Mangiagalli, 5 - 20133 Milano					
F. Norme armonizzate : Direttiva 97/23/CE (PED) Direttiva 98/37/CE (Direttiva Macchine) CEI EN 60439-1 CEI 17-13/1					
G. Altre Direttive applicate : D.M. 1975 Raccolta R D.M. 37 del 22 gennaio 2008 «Norme per la sicurezza degli impianti» D. Lgs. 81 «Sicurezza sui luoghi di lavoro»					
Per quanto sopra esposto, si dichiara che l'insieme a pressione descritto nei punti A e B è verificato in accordo ai punti C, D, E, F, G, H, soddisfa i requisiti essenziali di sicurezza previsti nell'allegato I della Direttiva 97/23/CE ed ad esso applicabili. Si dichiara inoltre che l'insieme è stato sottoposto con esito favorevole a prova idrostatica alla pressione di 22,85 bar per il lato primario e di 14,3 bar per il lato secondario, all'esame dei dispositivi di sicurezza mediante la verifica dell'efficienza degli stessi e dei dispositivi di controllo e che è stato marcato CE con i dati sopra riportati.					
Besana Brianza, 20/10/2009					
AMARC DHS srl Responsabile delegato dal Fabbricante					
Data emissione : 20/10/2009 Preparato da : D. Nicolai Approvato da : G. Sormani					

DHS AMARC		Titolo documento : DICHIARAZIONE DI CONFORMITA' C.T.		Modulo : MR-09-100	
N° documento : DC-136610		Data ultima rev. : /		Pagina : 1/2	
AMARC DHS srl Via Lovati 29 20045 - Besana Brianza (MI)					
DICHIARAZIONE «CE» DI CONFORMITA' (Direttiva 97/23/CE, Allegato VII)					
A		B		C	
Definizione: SST d'utenza per il riscaldamento		Modello CTAS 600		Cliente/Utilizzatore Finet SpA	
N. di matricola 136610		N. disegno SDZHS10-PA0100		Anno 2010	
				Potenza termica 500 kW	
				Caratteristiche elettriche 230V/1 50Hz	
B		C		D	
CAMERA		Pressione max di esercizio		Temp. mini max di esercizio	
N		Descrizione		Fluidi	
1		Primario 16 bar(g)		22,85 bar(g)	
2		Secondario 10 bar(g)		14,30 bar(g)	
				0/100 °C	
				Acqua	
				Acqua	
				14,46 L	
				14,46 L	
C. Categoria : II					
D. Procedura di valutazione di conformità : Modulo B+C1					
E. Organismo notificatore : N. 0100 - I.S.P.E.S.L. Dip. Milano Via Mangiagalli, 5 - 20133 Milano					
F. Norme armonizzate : Direttiva 97/23/CE (PED) Direttiva 98/37/CE (Direttiva Macchine) CEI EN 60439-1 CEI 17-13/1					
G. Altre Direttive applicate : D.M. 1975 Raccolta R D.M. 37 del 22 gennaio 2008 «Norme per la sicurezza degli impianti» D. Lgs. 81 «Sicurezza sui luoghi di lavoro»					
H. Componenti dell'insieme : Vedi allegato					
Per quanto sopra esposto, si dichiara che l'insieme a pressione descritto nei punti A e B è verificato in accordo ai punti C, D, E, F, G, H, soddisfa i requisiti essenziali di sicurezza previsti nell'allegato I della Direttiva 97/23/CE ed ad esso applicabili. Si dichiara inoltre che l'insieme è stato sottoposto con esito favorevole a prova idrostatica alla pressione di 22,85 bar per il lato primario e di 14,30 bar per il lato secondario, all'esame dei dispositivi di sicurezza mediante la verifica dell'efficienza degli stessi e dei dispositivi di controllo e che è stato marcato CE con i dati sopra riportati.					
Besana Brianza, 15/01/2010					
AMARC DHS Srl Responsabile delegato dal Fabbricante					
Data emissione : 15/01/2010 Preparato da : A. Zuliani Approvato da : A. Cesana					

PED - CE MARKING

All thermal power plants produced by Amarc DHS srl are compliant with PED standards, under the observation of the Milan department of INAIL (ex-ISPEL), the organisation authorised to issue certification by EC directive 97/23/CE No. 0100.

ISO 9001

Amarc DHS is certified in accordance with the requirements of UNI EN ISO 9001:2008 for all business segments, is the design, construction and maintenance of technological systems and district heating substations.

ISO14001

Amarc DHS is certified in accordance with the requirements of UNI EN ISO 14001:2004 for all business segments, is the design, construction and maintenance of technological systems and district heating substations.





www.amarcdhs.it

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