



COSNOGAS[®]

MADE IN ITALY



condensing D.H.W. production

AISI 316
Ti
TITANIUM

D.H.W.
100%
CONDENSING

AGUApplusTM

Instantaneous D.H.W. water heaters with storage tank



HOT WATER FOR MULTIPLE NEEDS

AGUplus D.H.W. INSTANTANEOUS CONDENSING WATER HEATERS WITH INTEGRATED STORAGE TANK

AGUplus 70 to 140 kW is the new range of D.H.W. instantaneous condensing high-capacity water heaters with integrated storage tank.

- **CONDENSING WITH A TITANIUM HEART**
 Designed for "reduced encumbrance", AGUplus water heaters have a vertical layout to optimize space. Each AGUplus is composed of 1 or 2 70 kW R.V.C. condensing heat exchangers in stainless steel AISI 316Ti (Titanium).
 It can be installed in cascade sequence up to 8 units.
- **INSTANTANEOUS WITH INTEGRATED STORAGE TANK**
 AGUplus is the D.H.W. condensing water heater with rapid reload with integrated 120 litres storage tank and high performances to meet multiple continuous withdrawal needs, without any problems for small withdrawals.
- **INTEGRATED CIRCULATING AND ANTI-LIMESTONE PUMP**
 Besides maximising D.H.W. performances, it has an anti-limestone function to protect the heat exchanger from lime scale deposits.
- **AGUPLUS IS AVAILABLE IN THE FOLLOWING VERSIONS**
 70 - 115 - 140 kW

AGUplus™



NEW

floor standing
from 70 to 140 kW





D.H.W. CONTINUOUS

- Instantaneous D.H.W. supply
- Quick recovery times
- D.H.W. always available



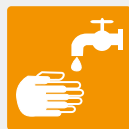
D.H.W. "ON DEMAND"

- Only heat D.H.W. actually necessary
- Energy saving



REDUCED SPACE

- Compact
- Only 0.42 m² floor dimensions



NO IGNITIONS DURING SMALL WITHDRAWALS

- The integrated 120 litres storage tank prevents using energy for small water withdrawals
- Energy saving



ECO-FRIENDLY AND VALUE-FOR-MONEY

- Condensing technology allows saving up to 30% on consumption

STANDARD DETAILS THAT MAKE THE DIFFERENCE

STANDARD AIR FILTER

AGUPlus is equipped with a standard air filter to protect the burner, combustion chamber and heat exchanger from dust and impurities, ensuring enhanced efficiency.

COSMOMIX PREMIX AND FECRALLOY BURNER

The premix burner is made with special metal fibre "Fecralloy" which spreads short and perfectly nourished flames. Thanks to Cosmomix, the air/gas ratio is constant in each point of turndown of the burner: this reduces polluting emissions and optimizes efficiency.

CONDENSATE BLOCKED DRAIN SWITCH

A special inner condensate cup collects condensate and makes it flow freely to the drain; a condensate level sensor blocks the boiler when the condensate level is above the permitted threshold.



INTEGRATED FLUE BACK PREVENTER

A flue back preventer has been installed on the combustion circuit on each AGUPlus water heater as standard equipment, to prevent possible flue gas recirculation between different exchangers.

ACIDITY NEUTRALIZER

To significantly reduce the acidity of condensing water, each AGUPlus instantaneous water heater is standard equipped with a condensate acidity neutraliser, specifically sized to restore tolerable pH values.

ANTI-LIMESTONE CIRCULATING PUMP

The circulating pump not only increases comfort but prevents also the formation of lime scales on the heat exchanger surface, which thus maintains its high performances throughout its life cycle.

BUILT-IN STAINLESS STEEL TANK

The built-in 120 litres storage tank is made with stainless steel, particularly resistant to corrosion. The storage tank is provided with sacrificial anode and high-quality polyurethane thermal insulation.



A HEART OF TITANIUM

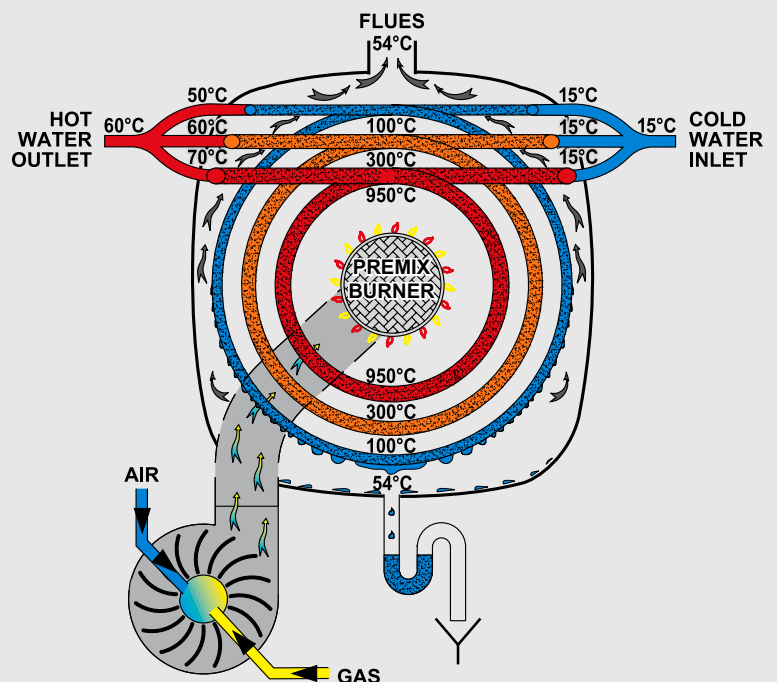
PATENTED AISI 316 Ti (TITANIUM) STAINLESS STEEL R.V.C. PRIMARY HEAT EXCHANGER

- PATENTED EXCLUSIVE DESIGN** - The R.V.C. heat exchanger, heart of the **AGUApplus** system, is the result of research and intensive testing combined with the know-how of Cosmogas which, for 50 years, has designed and patented heating and domestic hot water production systems.
- EXCEPTIONAL RESISTANCE AGAINST CORROSION** - The **AISI 316 Ti (TITANIUM)** stainless steel round tubes composing the R.V.C. heat exchanger **are fastened without weld joints** on the water side to keep Titanium stainless steel characteristics unaltered and grant the highest resistance against corrosion from mains water that sometimes contains a high percentage of chlorine, necessary for the purifying treatment.
- HIGH EFFICIENCY** - The R.V.C. has been designed to reach an optimal exchange along the entire length of the exchanger and grant exceptional **efficiency up to 107%** (savings up to 30%).



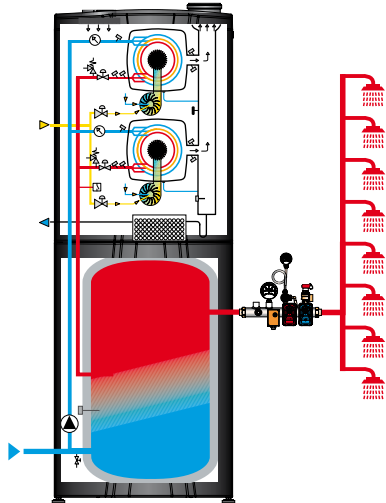
THE ONLY PRIMARY HEAT EXCHANGER THAT CAN WORK IN DIRECT CONTACT WITH MAINS WATER

Cosmogas is the only manufacturer who can offer a Titanium primary heat exchanger that can be directly supplied by mains water guaranteeing a great resistance to the corrosion and the aggressiveness of chlorinated waters. Thanks to low inlet temperatures, the R.V.C. exalts the condensing effect and supplies D.H.W. even at high temperatures, maximising savings and minimising thermal inertia.

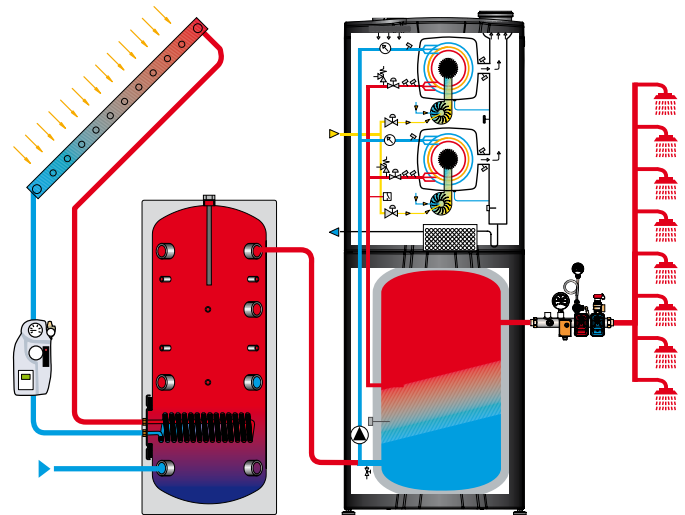


EXAMPLES OF APPLICATION

STANDARD INSTANTANEOUS SYSTEM



INSTANTANEOUS SYSTEM WITH SOLAR PRE-HEATING



EASY MAINTENANCE

AGUPlus has been designed with a front access to all inner components for easy maintenance. AGUPlus features uniformity of functions and components, for quick maintenance and reduced management costs.



IT GETS THROUGH A 65 cm WIDE DOOR

AGUPlus is the best balance between power, weight and size. Being extremely compact, it gets through a 65 cm wide door and allows easy access into thermal power plant. Its light weight makes it easy-to-handle even in case of difficult installations.



COVER BOX PLUS SAFE AGAINST BAD WEATHER

AGUPlus is available for outdoor installation with the additional COVER BOX PLUS, the anodised aluminium weather-resistant cover. Its reduced size and elegant design make it easy to place. Fireproof, with IP X5D protection.



885IF Interface
with module 0-10V
available as optional
to connect the remote
control



NEW

TECHNICAL DATA

MODEL		AGUPlus 70	AGUPlus 115	AGUPlus 140
Storage tank capacity	l	120	120	120
Maximum heat input (LHV)	kW	69.9	115.6	140
Minimum heat input (LHV)	kW	14.7	12.0	14.7
Maximum heat output	kW	67.9	111.7	135.8
Efficiency at 100% full load	%	97	97	97
Minimum heat output	kW	15.6	12.8	15.6
Efficiency at minimum heat output	%	106	106	106
Natural gas flow rate (G20)	m ³ /h	7.40	12.22	14.80
LP gas flow rate (G31)	kg/h	5.43	8.97	10.87
Instantaneous D.H.W. production (Δt 30°C)	l/min	33.4	57.4	69.6
D.H.W. temperature range of adjustment	°C	20 - 80	20 - 80	20 - 80
Minimum water flow rate	l/h	0	0	0
Minimum/maximum water pressure	bar	1 - 11	1 - 11	1 - 11
Power supply	V/Hz	230 - 50	230 - 50	230 - 50
Absorbed electric power	W	472	542	622
Air intake/flue gas outlet duct diameter	mm	80	110	110
Air intake/flue gas outlet duct maximum length	m	10	10	10
Weighted CO (0% O ₂ with Nat. gas)	ppm	15	15	15
Weighted NO _x (0% O ₂ with Nat. gas) (class 5 EN 483 and 297)	ppm	15	15	15
Empty weight	kg	98	142	147

PERFORMANCE DOMESTIC HOT WATER

MODEL	Cold water inlet (°C)	D.H.W. temperature (°C)	water supply l/min (storage tank 70°C)						Continuous D.H.W. (l/min)	Recovery times (min)
			10 min.	20 min.	30 min.	40 min.	50 min.	60 min.		
AGUPlus 70	10°C	40	493	827	1162	1496	1831	2165	33.4	7.2
		50	370	621	871	1122	1373	1624	25.1	7.2
		60	296	496	697	898	1098	1299	20.1	7.2
		70	247	414	581	748	915	1083	16.7	7.2
AGUPlus 115	10°C	40	687	1236	1785	2335	2884	3434	54.9	4.4
		50	515	927	1339	1751	2163	2575	41.2	4.4
		60	412	742	1071	1401	1731	2060	33.0	4.4
		70	343	618	893	1167	1442	1717	27.5	4.4
AGUPlus 140	10°C	40	794	1463	2132	2801	3470	4138	66.9	3.6
		50	596	1097	1599	2101	2602	3104	50.2	3.6
		60	476	878	1279	1680	2082	2483	40.1	3.6
		70	397	731	1066	1400	1735	2069	33.4	3.6

AGUPLUS: QUICK RECOVERY TIMES

AGUPlus ensures quick recovery times which make the product ideal to meet D.H.W. needs of installations with low peak demands and high continuous withdrawals, such as:



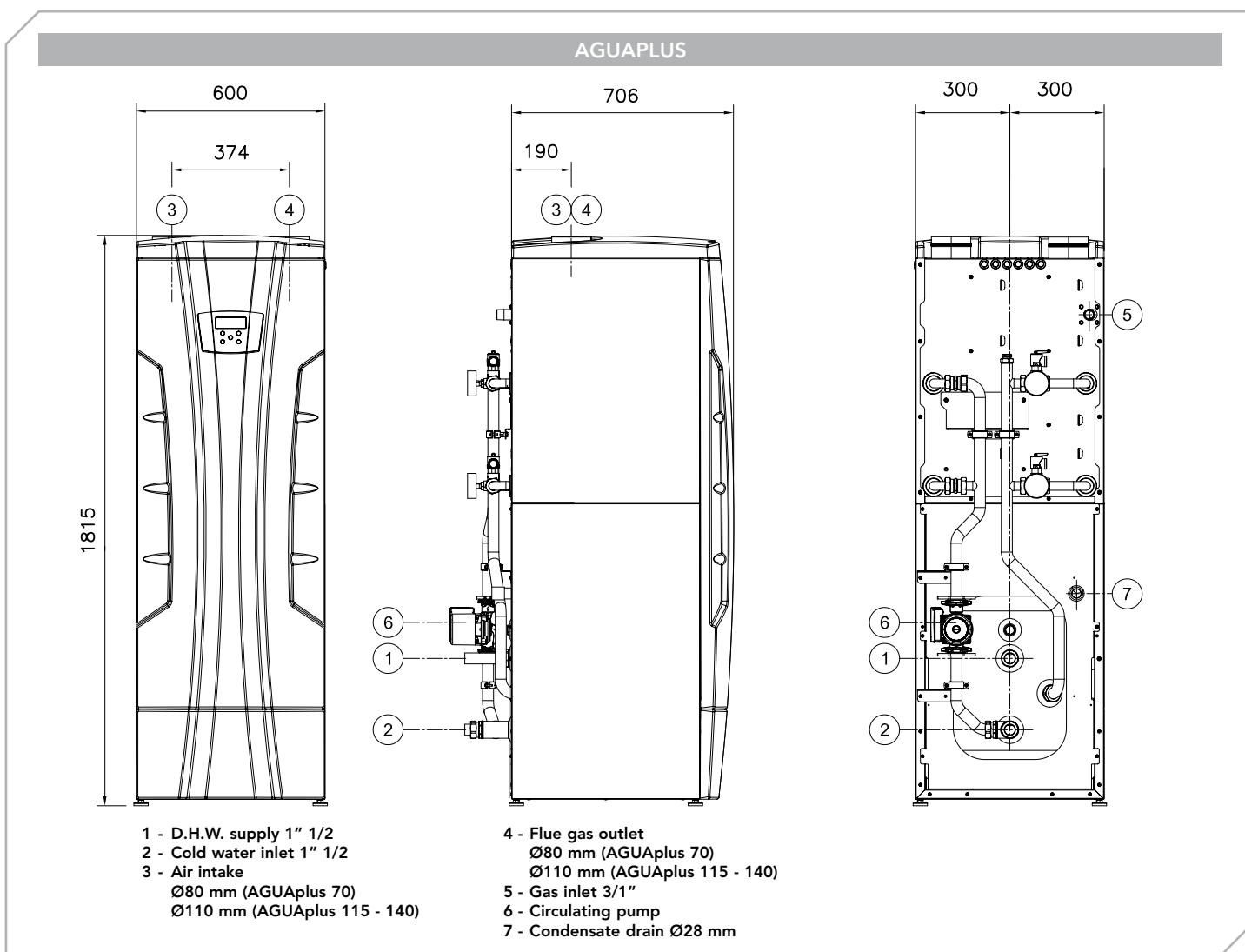
- Canteens
- Restaurants
- Industrial and business applications

ACQUACALDA.TECH QUICK RECOVERY TIMES

Cosmogas has designed **acquacalda.tech**, a program to calculate actual D.H.W. needs both for the residential and tertiary sector. This is a useful work tool for technicians and a valuable support to designers to define domestic hot water specific needs to each user such as hotels, camping sites, apartment buildings, gyms, football fields. To speed up and optimise the drafting of estimates and tendering specifications of its products, Cosmogas provides:



- Technical report
- Tendering specifications
- Installation schemes in dwg format
- Installation schemes in pdf format



AGUPlus TENDERING SPECIFICATIONS

Independent instantaneous condensing D.H.W. heater, with integrated storage tank, for indoor installation, type COSMOGAS AGUPLUS.

- R.V.C. water tubes heat exchangers made of AISI 316 Ti (Titanium) stainless steel, without weld joints with variable radial circulation.
- Working pressure up to 6 bar.
- Integrated insulated storage tank up to 120 litres.
- Water heater layout: vertical 1815 mm, floor dimensions 600 x 700 mm.
- Maximum heat output = _____ kW
- Minimum heat output = _____ kW
- Maximum heat input = _____ kW
- Minimum heat input = _____ kW
- Efficiency at 100% full load = 98%.
- Efficiency at minimum heat output = 106%.
- Forced draught and sealed chamber or open chamber.
- Patented air/gas ratio and combustion control.
- Ecologic total modulation premix burner made of metal fibre.
- II2H3P category (natural or LP gas operation).
- Turndown ratio = 1:10
- Compliant with class 5, the most eco-friendly, of the UNI EN 297 and UNI EN 483 standards (low emissions of nitrogen oxides (NOx) = 15 p.p.m. carbon monoxide (CO) = 15 p.p.m.).
- Electronic ignition and ionization flame control.

- Electronic modulating fan, total modulation of the flame and P.I.D. temperature control.
- Modulating pneumatic gas valve.
- Upper limit water and flue gas supply temperature switch.
- Supply temperature range 20-80°C.
- Antifreeze device.
- Anti-smell siphon for condensate drain complete with flexible hose.
- Water heater water pressure switch.
- Water flow meter.
- Drain cock.
- Power supply = 230 V, 50 Hz.
- Bipolar main power switch.
- Electric protection rating = IP 20.
- Antifreeze device.
- Visualization of supply, water heater, boiler temperature, auto-diagnostic of all components and functions and PC serial connection for diagnostic.
- Backlit digital display.
- Remote control connection interface.
- Black painted plate casing complete with window to access condensate acidity neutraliser (standard).

Boilers designed, patented and manufactured by us

COSMOGAS International Certifications



Certified Quality System ISO 9001



EU



Ukraine



Eurasian Union



USA



USA



Canada

AUTHORIZED DEALER

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