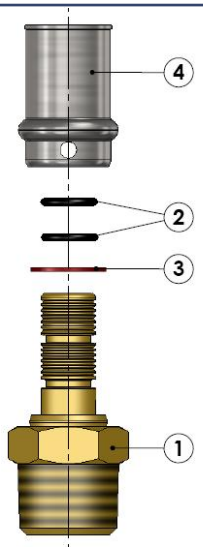
AP series press fittings, manufactured in compliance with UNI EN ISO 21003-3, UNI EN 1254-3 and Italian Ministerial Decree 174, are designed and produced with the aim of increasing tightness and cutting assembly times to simplify procedures for the installer. With two O-rings for sealing and a PE washer to eliminate any stray currents, they are used in heating and hot water systems and are available in a wide range of shapes, with diameters from Ø16 to Ø32.

THE AP SYSTEM

A tight seal between pipe and fitting is guaranteed by the profile of the hose barb and the two O-rings **[2]** fitted within it. A crimping tool fitted with special jaws [see the notes on the crimping profiles below] is used to deform the sleeve permanently **[4]**, while the compression force used when crimping also deforms the multilayer pipe onto the special profile.

The sleeve **[4]** has Two (2) inspection holes used to check that the pipe-fitting coupling is correct and that the pipe has been inserted fully and is resting against the PE washer. The sleeve thickness is designed to withstand high pressures under considerable temperature variations. It is manufactured in AISI 304 steel, which undergoes an additional solubilisation process to relieve any residual stresses in the material and ensure uniform distribution of stresses over time. The solubilisation process is of fundamental importance because it clears the material's memory, eliminating the risk of failure and thus leakage of the fitting.

The PE washer **[3]** insulates the aluminium pipe from the brass fitting, preventing corrosion.



N.	Description	Materials and conformity
1	**Body**	CW617N Conforme norma UNI EN 12164:01; UNI EN 12165:99; UNI EN 12168:01
2	**O-ring**	EPDM perossidico 70 SCH Conforme norma EN 681.1
3	**Washer**	PE (Polietilene)
4	**Sleeve**	AISI 304 steel Conforme norma UNI EN 10088-2

Unlike screw fittings, the press fitting couplings are **solid**: this means that, if correctly crimped, the AP fitting is permanently deformed, guaranteeing its tightness over time. For this reason, press fittings are the only system used and guaranteed in pipe systems sunk into walls or floors.

Technical specifications

Field of application:	Heating and hot water systems
Fluids carried:	Drinking water, water for technical purposes and water containing glycol
Glycol percentage:	max. 30%
Temperature range:	from 5 °C to 80 °C
Operating pressure:	max. 10 bar
Type of pipe:	Multilayer PE-Xb/AL/PE-Xb (compliant with UNI 21003)
Crimping profile:	TH profile from ø16 to ø32

The AP tube fitting system has been certified by the following bodies: KIWA and DVGW

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25068 SAREZZO(BS)

WARE HOUSE
VIA SALVELLA 20/22
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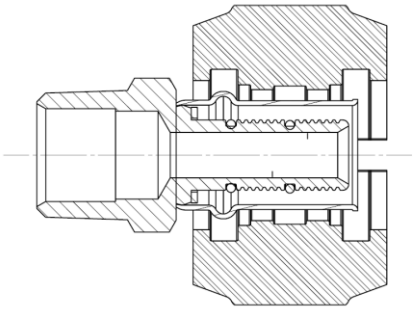
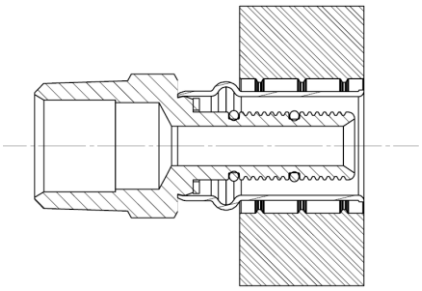
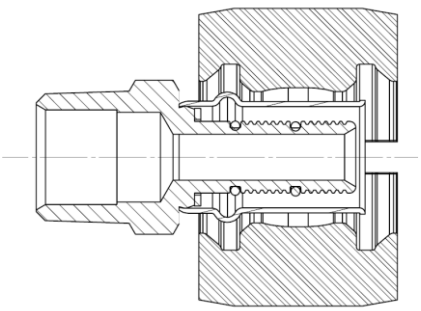
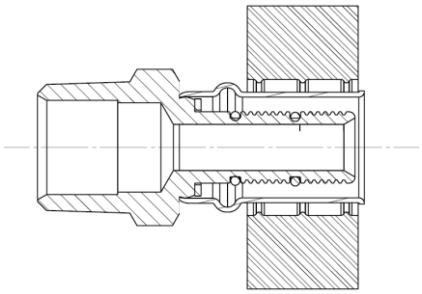
PRESS PROFILES

AP series fittings can be installed using different press profiles (TH, H, B, and U). The use of tools with appropriate press profiles is fundamental to ensure perfect coupling between the pipe and the fitting, guaranteeing the best system performance.

The table below lists the crimping profiles to be used for the various diameters:

Diameter	Crimping profile			
Ø16 (2.0)	TH	H	B	U
Ø18 (2.0)	TH			
Ø20 (2.0)	TH	H	B	U
Ø26 (3.0)	TH	H	B	
Ø32 (3.0)	TH	H	B	

The illustrations below show the correct position for the crimping tool in relation to the profile: crimping must take place at the correct position with respect to the O-rings, in order to ensure the fitting's tightness.

TH: Ø16 – Ø18 – Ø20 – Ø26 – Ø32	**H:** Ø16 – Ø20 – Ø26 – Ø32
	
B: Ø16 – Ø20 – Ø26 – Ø32	**U:** Ø16 – Ø20
	

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Before proceeding to crimp the fittings, always:

1. Ensure that you have chosen the correct crimping tool for the fitting. If the wrong tool, or a tool that does not correspond to the diameter of the pipe (e.g. use of Ø25 on sleeve Ø26) is used, the fitting will never provide a tight seal.

2. Ensure that the crimping tool profile is correct, referring to the table above.

3. Choose original profiles (e.g. REMS tool with KLAUKE jaws or vice-versa): profiles do not always work properly when not used with the original tool.

4. Ensure that the crimping tool profile is not damaged, that the tool is not faulty or worn and that the tool lever springs are not broken or faulty.

5. When using a battery operated crimping tool, check that the battery charge is sufficient for effective crimping.

The system composed by AP fittings and APE Multylayer pipe has been certified by :

- **DVGW** Certificate - DW-8501CN0176
- **KIWA** certificate N° K66358
- **WRAS** Certificate - 1906357
- UNI EN ISO 21003
- DIN 4726
- Ministerial Decree No. 174/2004

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