



Z-PUSH FITTINGS

Braze-Free, No Special Tools Required

Application



Plumbing systems



Air conditioning pipelines



Refrigerator and cold chain pipelines



Heating system pipelines



Natural source thermal energy systems



TRADITIONAL

Installation time 17 min
Safety factor 6.5 min

*Tools required: Degreasant, brazing alloys & flux, gas-regulated ignition, kit Scouring pad, gas container, cool with a rag extinguisher, pipe cutter water supply, fire safety equipment, deburring tool, fire monitor, fire project permit.



Z-PUSH FITTINGS

Installation time 8 min
Safety factor 9.9 min

*Tools required: Press jaw, pipe cutter, rag, deburring tool, scouring pad.

Lineup



Couplings
1/4" - 1 3/4"



End Cap
1/4" - 1 3/4"



Elbow
1/4" - 1 3/4"



Flare Adapter
1/4" - 3/4"



End Cap with Charging Port
1/4" - 1 3/4"



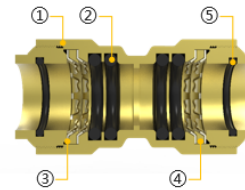
Ball Valve
1/4" - 1 3/4"



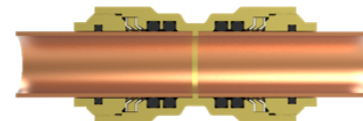
Reducing Coupling
3/8"×1/4" - 1 3/4"×1 3/8"

* Z-PUSH fittings are UL and CE listed, also tested as per ISO14903 standards.

Before installation



After installed



Components	Material	Description
① Main body	Brass	- Main casing - Bearing inner pressure and outer forces
② O-ring	HNBR	- Multiple sealing structure - Inner O-rings prevent connection from leaks, outer O-rings as extra safeguard to the structure - Nominal working temperature -40°F to +300° (-40°C 至 +149°C)
③ Locking ring	SUS 304	- Auxiliary alignment for connecting copper tube - Solidly locking copper tube to avoid loosening, resisting inner expansion thrust.
④ Reinforcing ring	Brass	- Assists locking ring to position - Withstand pressure from locking ring, improving reliability
⑤ Dust-proof O-ring	Rubber	Isolating exterior air, preventing dust, water and corrosion

•Working pressure 48bar (700psi) •Working temperature -40°C ~ 130°C •Tested pressure 250bar (3625psi) No leakage.

Operation procedures



① Cut copper tube

Use a tube cutter to cut the copper tube to the required length to ensure accurate alignment of the ZPUSH fitting and the other end of the copper tube. If the copper tube surface is scratched or deformed, be sure to cut off the damaged section to avoid leakage.



② Rectify tube

If the tube is deformed, use rectifier to round up the end, the insertion length of tube must reach the window on the rectifier.



③ Deburr

Deburr the tube end, both inside and outside, so as to avoid sharp copper to scratch the O-rings in ZPUSH.



④ Clean the tube

Clean the copper tube with a scouring pad with no less than 320 mesh, to remove the oxide skin and slight scratches from the surface, in order to avoid possible leak.



⑤ Check the tube

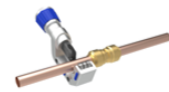
After the copper tube is wiped and polished, it must be carefully checked to ensure that there are no obvious scratches, cutting defects or ring unfastening. If any problems are found, the scratched tube section must be cut off and then steps ②, ③, and ④ must be repeated.



⑥ Insert & Inspect

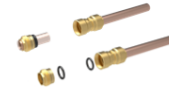
According to the ZPUSH fitting sizes, use a depth gauge to mark the insertion depth on the copper tube, insert the copper tube into the fitting until the mark line is aligned with the edge of it and the copper tube reaches the correct insertion depth.

Secondary use



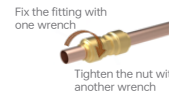
① Cut copper tube

Cut off copper tube at length selected slowly so as to avoid deformation of the tube.



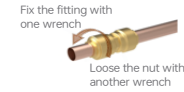
③ Pull out the tube

Take out the cut copper tube in the direction of the arrow and install the O-ring into the fitting body.



⑤ Tighten the nut

Refer to step ② and use two wrenches to tighten the nut.



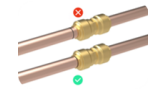
② Loose the nut

Refer to the figure on left, fix the ZPUSH fitting with one wrench to prevent rotating, loose the nut with another wrench.



④ Replace locking ring

Install the two sets of reinforcing rings and locking rings into the fitting body in sequence. Note that new locking rings must be used.



⑥ Reinstall

Reinstall the ZPUSH fitting to copper tubes following SOP.

Installation Tools



Cutter



Deburrer



Scouring Mat



Electric Straightener



Depth Gauge,Marker



Depth Gauge,Marker

