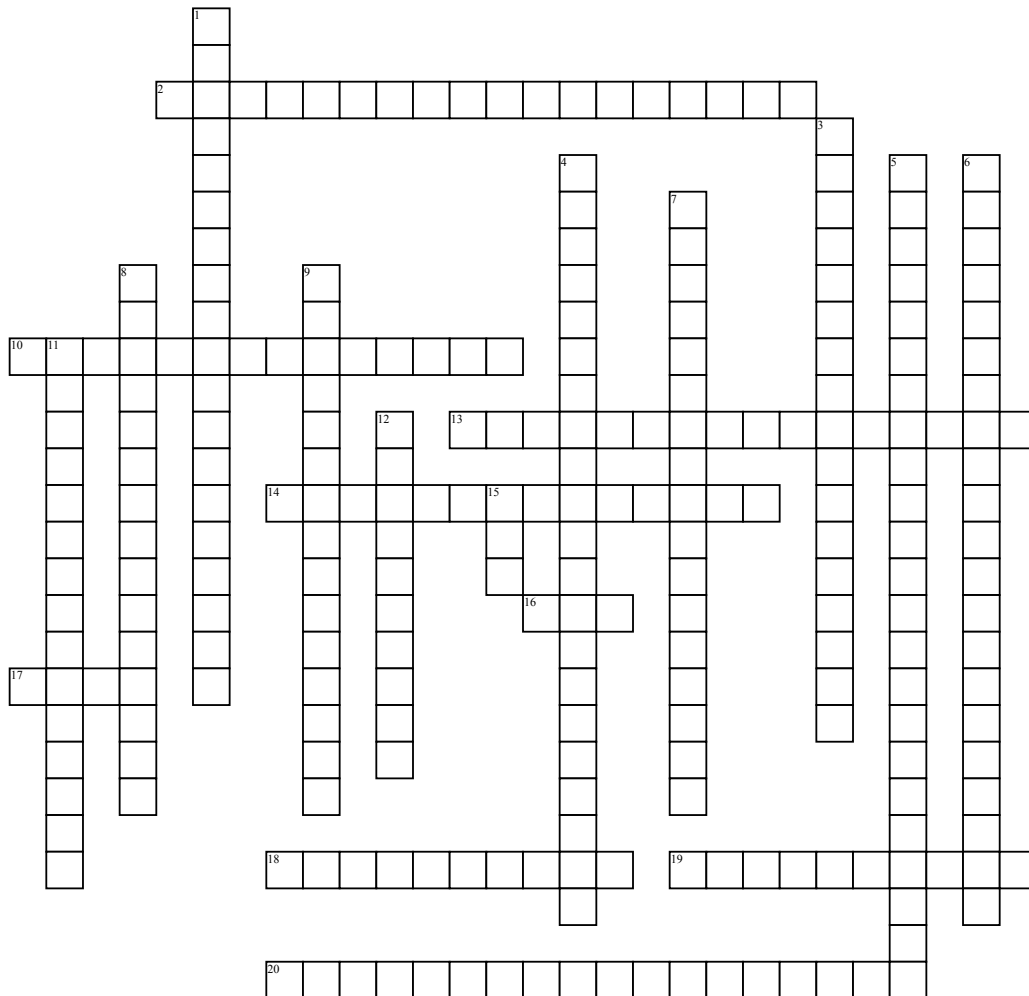


# Underwater Welding



## Across

2. Welder-divers usually use a particular type of air when they dive down to the correct depth, in full diving gear

10. Before entering, the chamber displaces its water into the surrounding ocean or lake.

13. Uses an electric arc but constricts the arc. It allows for high arc speed and intense heat to the weld site.

14. It's placed on the weld site and the welder-diver inserts his or her electrode inside the habitat, which seals around it

16. Underwater wet welds use this type of welding to create an electric arc between the electrode and the metals.

17. The deeper down in water the welding is the harder it is to create a good what

18. Welding with water directly surrounding the welding site in a wet environment

## Word Bank

insulation  
Pressure Welding  
Dry Welding  
two  
Dry Spot Welding

arc  
Wet Welding  
Dry Chamber Welding  
Flux-cored Arc Welding  
Ambient Pressure

19. Welding at higher pressure with insulation from water around the weld site.

20. Also known as "Mig." Known for its diverse metal transfer methods.

## Down

1. Contains a spool that provides a continuous feed of filler metal for welders.

3. The chamber holds the head and shoulders of a welder-diver (dressed in diving gear) and is open at the bottom for the diver to fit in.

4. Also known as "TIG"

5. The most common type of welding in the underwater and topside industry.

6. Wet welds experience this, a process where large amounts of hydrogen (formed from surrounding water vapor) dissolve into the weld.

7. All dry welds involve this type of chamber around the structure needing welded.

8. Fuses metal together through high friction and heat

9. Working in a pressure vessel measuring one atmosphere unit of pressure (same as pressure at sea level).

11. Habitat, dry chamber and dry spot welding all work on the basis of a particular type of pressure.

12. Underwater welders wear rubber suits and gloves to create this between their bodies and the electricity generated by their surface power supply

15. If welder-divers must perform an extensive weld deep underwater in a large hyperbaric habitat, they'll usually work with how many workers

Weld  
Surface-Supplied Air  
Hyperbaric Chamber  
Habitat Welding  
Hydrogen Embrittlement

Gas Tungsten Arc Welding  
Plasma Arc Welding  
Shielded Metal Arc Welding  
Gas Metal Arc Welding  
Friction Welding