

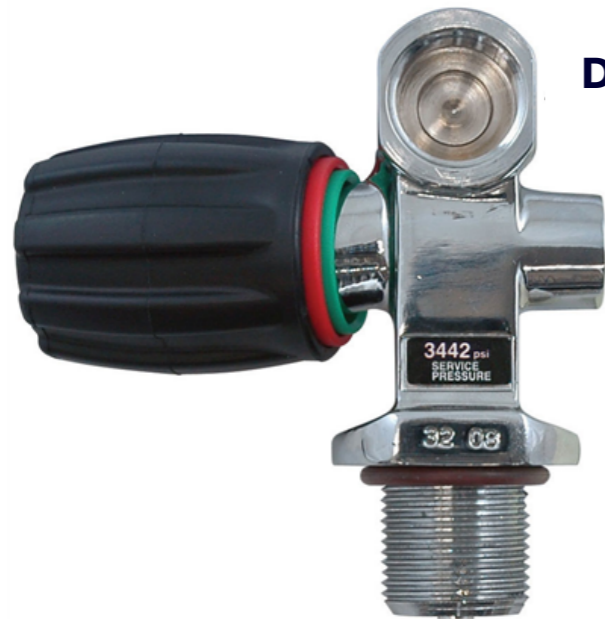


The Villages Scuba Club

DIN vs Yoke Valves and Regulators

WARREN GROSS, 02 NOVEMBER 2022

DIN vs Yoke Valves and Regulators



DIN Tank Valve



DIN 1st Stage Regulator



5/8" thread

O-ring



Yoke Tank Valve

O-ring



Yoke 1st Stage Regulator

clamp-type mount

Yoke Tank Valves and Regulators



- Also known as A-clamp or international connector, widely used in US, Caribbean, Australia, Asia, this type of connection is simple and cheaper to manufacturer.
- Yoke service pressure is 200 (3000 PSI) to 230 bar (3442 PSI)
- O-ring is on the tank valve.
- Clamping screw is screwed down snug to ensure a metal to metal contact between the valve and regulator to constrain the O-ring against extrusion.
 - Once tank valve is opened and seal is created, O-ring blowout is unlikely unless tank is dropped.
 - Overtightening of clamp screw can make the yoke difficult to remove later without tools.
- Typically a Yoke 1st Stage is about 8 ounces heavier than a DIN 1st stage.

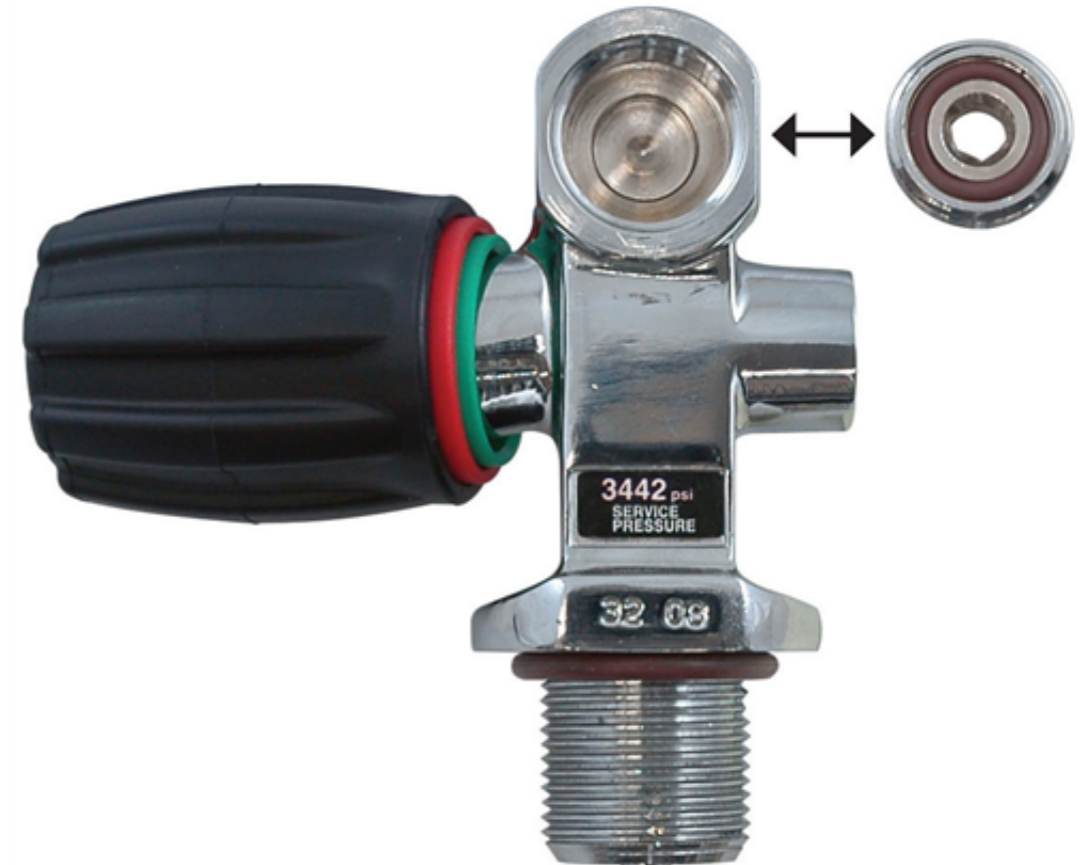
DIN Tank Valves and Regulators



- First released in the US in 1958 by Poseidon as the '5/8" Threaded Connection'. DIN (Deutsche Industrie Norm), an industrial testing and approval agency, selected this valve type over yoke (and other valves) due to its higher working capacity.
- DIN service pressure is 300 bar (4351 PSI).
- The regulator screws into the cylinder valve, trapping the O-ring between the sealing face of the valve and the O-ring groove in the regulator. The captured O-ring is well protected and the assembly is considerably more rigid, and has a lower profile.
- In US, seen as a "technical regulator" due to widespread adoption by technical dive community.
 - Higher capacity
 - Lower profile of 1st stages reduces risk of entanglement
 - Rigid assembly reduces risk of regulator getting bumped with possible O-ring extrusion.

Pro Valve

- Removable tank valve insert that allows conversion from DIN to Yoke style valve.
- Attractive to dive operations, limiting number of valve types required.
- Reduces service pressure to 230 bar (3443 PSI).
- Insert has captive DIN O-ring and Yoke style O-ring.



DIN to Yoke Adapter

- Converts DIN regulator to Yoke style regulator.
- Good back up option for a scuba travelers using a DIN regulator in case the dive operator does not have DIN or Pro Valves on their tanks.
- Reduces service pressure to 3443 PSI.
- Weighs ~ 12 oz

