



Advantages of the Centralized High Pressure Air System

The selection of a centralized high pressure air system in your warship will provide lowest life-time-costs and is a prerequisite for up-to-date and affordable warship design.

- **lowest capital costs**
- **lowest ILS costs**
- **lowest maintenance costs**

The centralized air system provides air for all consumers via a ring-main directly or if required through pressure reducing stations. It is versatile and flexible even if consumers requiring air supply will be installed in a later stage of the design or operation. Space and weight is considerably lower than the alternative “point of use” system which requires dedicated air compressors for each application in a warship. Whilst also initial costs are reduced – the major savings in design and operation will come through the reduced number of compressors installed.

Less number of compressors and types installed ensure less integration, ILS and support costs!

PPA Italian Navy	Horizon Italian Navy
4 x 80 m ³ /h water-cooled @ 350 barg	2 x 60 m ³ /h air-cooled @ 30 barg
1 x 30 m ³ /h @ 330 barg diesel-driven	4 x hand operated emergency compressor
	1 x low pressure compressor 350 m ³ /h @ 8 barg
	3 x breathing air compressors 30 m ³ /h @ 330 barg
	2 x portable breathing air compressors 15 m ³ /h @ 330 barg
	2 x weapon air compressors 30 m ³ /h @ 160 barg

Guess which solution is easier and less costly to operate and maintain?



More than 55 of the world's navies rely on Sauer compressors in their aircraft carriers, destroyers, frigates, corvettes, patrol boats, submarines and mine hunters.

Navies that appreciate such special design features as:

- **easy maintenance and accessibility**
- **low noise signature**
- **high reliability**
- **low-weight, compact and shock-proof design**

Based on the feedback of navies' experience, Sauer's know-how results in a steady stream of innovations, e.g. the WP5000 high-pressure air compressor with its 100% balanced free inertial forces and the integration of maintenance free and highly reliable Interstage Membrane Dryers.



SAUER

5000 series

References



Korvette K 130 – German Navy

2 x WP5500, 80 m³/h @ 300 barg
and 1 x SC22, 100 m³/h @ 8 barg



T45 Destroyer – Royal Navy

3 x WP5500, 54 m³/h @ 276 barg



Frigate P 17A – Indian Navy

3 x WP5000, 150 m³/h @ 250 barg



F125 Frigate – German Navy

2 x WP5000 with Interstage Membrane
Dryer, 160 m³/h @ 300 barg



AWD Hobart Class Destroyer – Australian Navy

2 x WP5000, 160 m³/h @ 300 barg
and 2 x SC52, 350 m³/h @ 8 barg



PPA – Italian Navy

4 x WP5500 with Interstage Membrane
Dryer, 80 m³/h @ 350 barg