

More than 53 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 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.

## References



Korvette K 130 - German Navy 2 x WP 5500, 80 m<sup>3</sup>/h @ 300 bar and 1 x SC22, 100 m<sup>3</sup>/h @ 8 bar



T45 Destroyer - Royal Navy 3 x WP 5500, 54 m<sup>3</sup>/h @ 276 bar



Frigate P17A – Indian Navy  $3 \times WP 5000$ ,  $150 \text{ m}^3/\text{h} @ 250 \text{ bar}$ 



F125 Frigate - German Navy 2 x WP 5000 with Interstage Membrane Dryer, 160 m<sup>3</sup>/h @ 300 bar



AWD Hobart Class Destroyer -**Australian Navy** 2 x WP 5000, 160 m<sup>3</sup>/h @ 300 bar and 2 x SC52, 350 m<sup>3</sup>/h @ 8 bar



PPA - Italian Navy

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





## Advantages of the **Centralized High Pressure Air System**

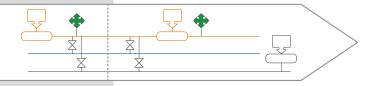
The selection of a centralized high pressure air system in your warship will provide lowest life-time-costs and is a prerequisite for up-to-date and affordable warship design.

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 → less integration, ILS and support costs!

PPA Italian Navy	Horizon Italian Navy
4 x 80 m <sup>3</sup> /h water-cooled @ 350 bar	2 x 60 m³/h air-cooled @ 30 bar
1 x 30 m³/h @ 330 bar diesel-driven	4 x hand operated emergency compressor
	1 x low pressure compressor 350 m³/h @ 8 bar
	3 x breathing air compressors 30 m³/h @ 330 bar
	2 x portable breathing air compressors 15 m³/h @ 330 bar
	2 x weapon air compressors 30 m³/h @ 160 bar

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

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