

SERVICE INSTRUCTION - PAC

Optional cooling system parts for ROTAX® Aircraft Engines

ATA System: 75-00-00 Cooling system

1) Planning information

“PAC” Service Instruction Documents provide detailed information on ROTAX® Aircraft Engine Parts and Accessories. Depending on the engine type used with referenced parts and accessories may be provided with or without EASA certification or ASTM compliance. Certification / Compliance of referenced Parts and Accessories must in such cases be completed by the aircraft OEM.

To obtain satisfactory results, procedures specified in this publication must be accomplished with accepted methods in accordance with prevailing legal regulations.

BRP-Rotax GmbH & Co KG cannot accept any responsibility for the quality of work performed in accomplishing the requirements of this publication.

1.1) Applicability

Refer to the latest issue of the relevant Illustrated Parts Catalog of your specific engine type.

NOTICE

The optional cooling system parts may be declared as part of the cooling system on aircraft-side and so might not be a part of the Engine Type Design. Such a PAC part has been then tested and released by BRP-Rotax, but it might not be certified for the relevant engine type.

In such a case the correct function in conjunction with the entire system is the responsibility of the aircraft manufacturer and must be carried out jointly with the aircraft.

1.2) Concurrent ASB/SB/SI and SL

In addition to this Service Instruction - PAC the following Service documents must be observed and complied with:

- in general all relevant Alert Service Bulletins (ASB), Service Bulletins (SB), Service Instructions (SI), Service Letters (SL), Service Instruction - Parts and Accessories (SI-PAC)
- Service Instruction SI-912-020 / 914-022, title “Running modifications on ROTAX Engine Type 912/914 (Series)”, current issue

1.3) Reason

In the course of continuous development and standardization, optional cooling system parts have been introduced as an optional extra part.

1.4) Subject

Optional cooling system parts for ROTAX® Aircraft Engines.

1.5) Compliance

None - For Information Only.

1.6) Approval

None.

1.7) Labor time

Estimated labor hours:

Engine installed in the aircraft - - - labor time will depend on airframe installation and therefore no estimate is available from the engine manufacturer.

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1.8) Mass data

Change of weight: - - - none.

Moment of inertia - - - unaffected.

1.9) Electrical load data

No change.

1.10) Software modifications

No change.

1.11) References

In addition to this technical information refer to current issue of

- in general Operators Manual (OM)
- in general Illustrated Parts Catalog (IPC)
- in general Installation Manual (IM)
- in general Maintenance Manual Line (MML)
- in general Maintenance Manual Heavy (MMH)

NOTE: The status of the Manuals can be determined by checking the table of amendments. The 1st column of this table shows the revision status. Compare this number to that listed on the ROTAX website:

www.flyrotax.com. Updates and current revisions can be downloaded for free.

1.12) Other Publications affected

None.

1.13) Interchangeability of parts

- All replacement parts within the same size are interchangeable without limitation with the current equivalent part of the same size. See also the requirements for installation and maintenance in Chapter 3.

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2) Material Information

2.1) Material- cost and availability

Price and availability will be provided on request by ROTAX® Authorized Distributors or their independent Service Centers.

2.2) Company support information

- Any possible support by BRP-Rotax will be provided on request by ROTAX® Authorized Distributors or their independent Service Centers

2.3) Material requirement per engine

See Fig. 2.

Pos. no.	Part no.	Qty/engine	Description	Application
A	922666	(1)	Expansion tank assy.	As delivered with 912 and 914 (Series)
consists of:				
	922072	(1)	Radiator cap 1.2 bar (17.4 psi)	
	-	(1)	Expansion tank	Only available as assy.
	860826	(1)	Rubber plate	
B	922668	(1)	Expansion tank assy.	As delivered with 912 i and 915 i (Series)
consists of:				
	922072	(1)	Radiator cap 1.2 bar (17.4 psi)	
	-	(1)	Expansion tank	Only available as assy.
	860828	(1)	Rubber plate	
C	622052	(1)	Expansion tank assy. 90°	Necessary when water distributor assy. is used
consists of:				
	922072	(1)	Radiator cap 1.2 bar (17.4 psi)	
	-	(1)	Expansion tank 90°	Only available as assy.
D	622053	(1)	Expansion tank assy. 180°	Necessary if water distributor assy. is used
consists of:				
	922072	(1)	Radiator cap 1.2 bar (17.4 psi)	
	-	(1)	Expansion tank 180°	Only available as assy.
4	922265	(1)	Water distributor assy. same angles as part no. 922666	For radiator installation at engine types 912, 914 (Series)
5	922582	(1)	Water distributor assy. same angles as part no. 922668	For radiator installation at engine types 912 i, 915 i (Series)

See Appendix for further details.

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2.4) Material requirement per spare part

None.

2.5) Rework of parts

None.

2.6) Special tooling/lubricants- /adhesives- /sealing compounds

Price and availability will be supplied on request by ROTAX® Authorized Distributors or their independent Service Centers:

Description	Qty/engine	Part no.	Application
Spring clamp pliers	1	877840	Self-compensating clamps

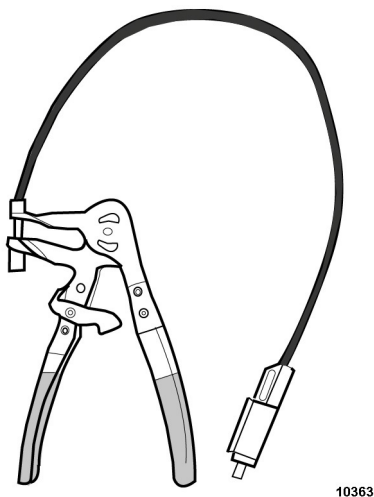


Fig. 1

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3) Accomplishment/Instructions

- ROTAX® reserves the right to make any amendments to existing documents which might become necessary due to this standardization, at the time of next revision or issue.

NOTE: Before maintenance, review the entire documentation to make sure you have a complete understanding of the procedure and requirements.

Accomplishment

All measures must be implemented and confirmed by at least one of the following persons or organizations:

- ROTAX® - Airworthiness representatives
- ROTAX® - Authorized Distributors or their independent Service Centers
- Persons approved by the respective Aviation Authority
- Persons with approved qualifications for the corresponding engine types. Only authorized persons (IRMT, Level Heavy Maintenance) are entitled to carry out this work

General

Further material on general inspection, maintenance and repair can be found also in relevant Advisory Circular AC 43.13 from FAA.

Advisory Circular

The Advisory Circular (AC) contains maintenance methods, techniques and practices.

Safety notice

- Secure aircraft against unauthorized operation
- Disconnect negative terminal of aircraft battery

3.1) Spare Parts - related information



See current Illustrated Parts Catalog (IPC) for the respective engine type.

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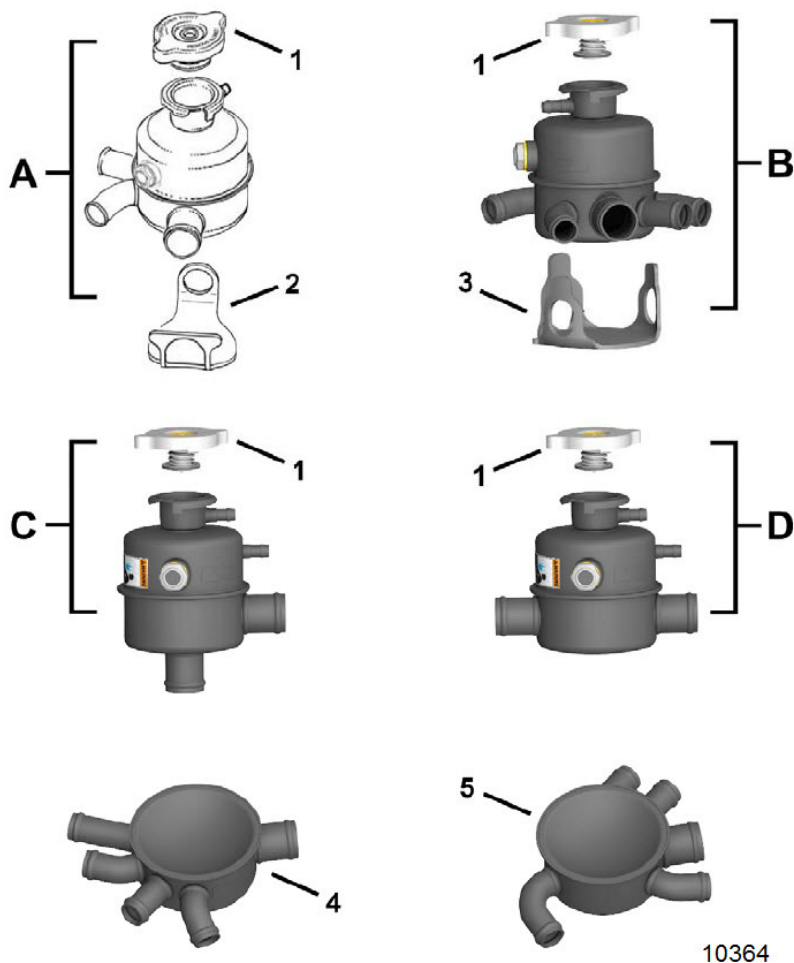


Fig. 2

- | | | | |
|---|---|---|---|
| A | Expansion tank assy. part no. 922666 | B | Expansion tank assy. part no. 922668 |
| C | Expansion tank assy. 90° part no. 622052 | D | Expansion tank assy. 180° part no. 622053 |
| 1 | Radiator cap 1.2 bar (17.4 psi) part no. 922072 | 2 | Rubber plate part no. 860826 |
| 3 | Rubber plate part no. 860828 | 4 | Water distributor assy. part no. 922265 |
| 5 | Water distributor assy. part no. 922582 | | |

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3.2) Operation - related information



See current Operators Manual (OM) for the respective engine type.

3.3) Installation - related information



See current Installation Manual (IM) for the respective engine type.

3.4) Maintenance (Line) - related information

Points of inspection	Interval Operating hours	Chapter Reference
	100 h	
Visual inspection of the cooling system parts (for cracks, leaks, damages, kinks, secure fit and signs of wear)	x	See current Maintenance Manual (Line) for the respective engine type and its periodical maintenance information.

3.5) Maintenance (Heavy) - related information



See current Maintenance Manual Heavy (MMH) for the respective engine type.



WARNING Danger of severe burns and scalds! Allow the engine to cool to ambient temperature before starting work.

ENVIRONMENTAL NOTE

All the operating fluids and cleaning agents can damage the environment if not disposed of properly. Dispose of operating fluids in an eco-friendly manner!

NOTICE

Use appropriate protective coverings to prevent the ingress of debris particles into all disconnected lines and connections.

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3.6) Test run

In case of uninstalled engines test run can be skipped as this is covered by the mandatory test run after installation.



Conduct test run and perform leakage check. See Chapter 12-20-00 of the latest Maintenance Manual Line (MML) for the respective engine type.

3.7) Summary

The execution of the Service Instruction - PAC must be confirmed in the logbook.

I A revision bar outside of the page margin indicates a change to text or graphic.

Translation into other languages might be performed in the course of language localization but does not lie within ROTAX® scope of responsibility.

In any case the original text in English language and the metric units are authoritative.

3.8) Inquiries

Inquiries regarding this Service Instruction - PAC should be sent to the ROTAX® Authorized Distributor of your area.

A list of all ROTAX® Authorized Distributors or their independent Service Centers is provided on www.dealerlocator.flyrotax.com.

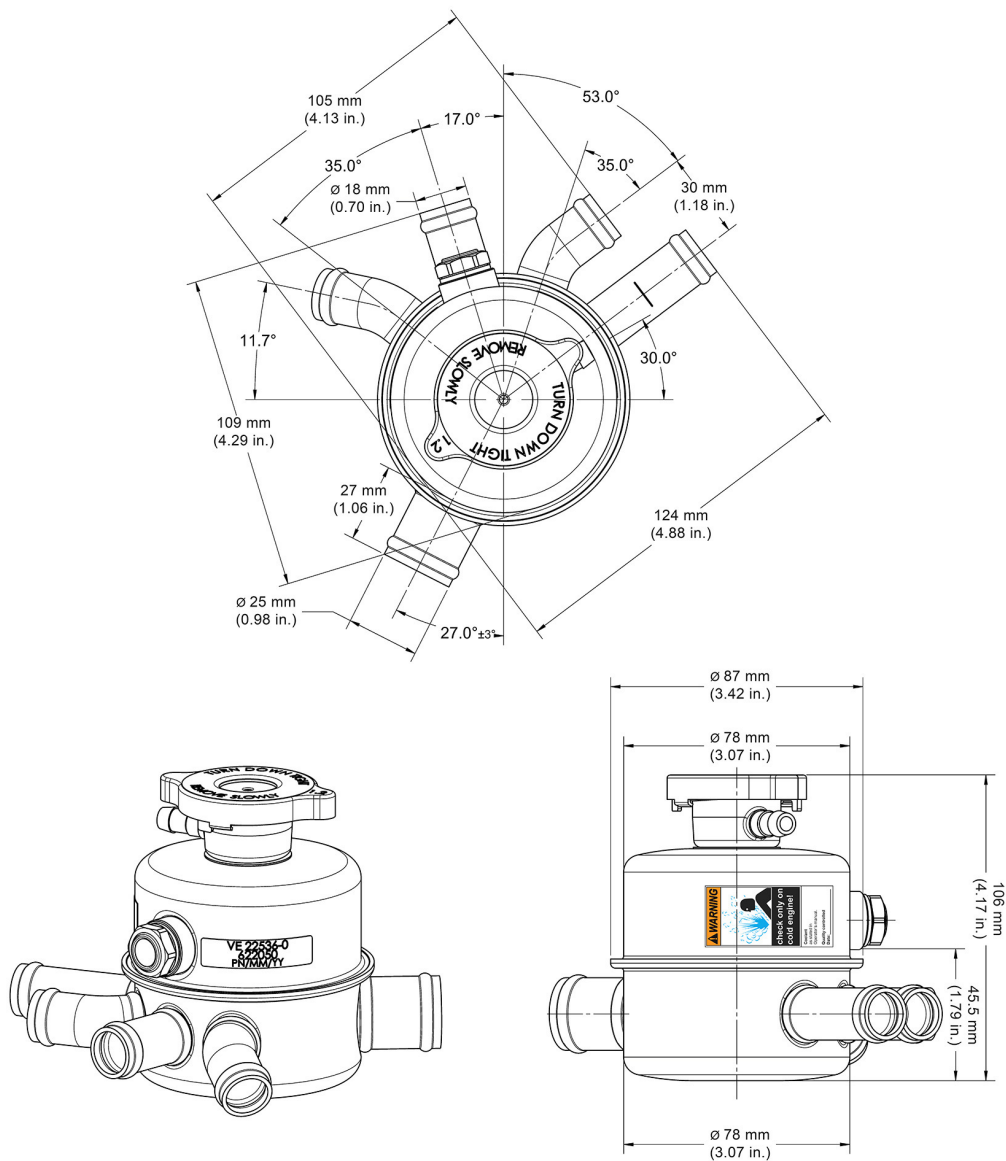
NOTE: The illustrations in this document show the typical construction. They may not represent full detail or the exact shape of the parts which have the same or similar function. Exploded views are **not technical drawings** and are for reference only. For specific detail, refer to the current documents of the respective engine type.

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4) Appendix

The following drawings/schematics/tables should convey additional information:

part no. 922666



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Subject to change without notice!

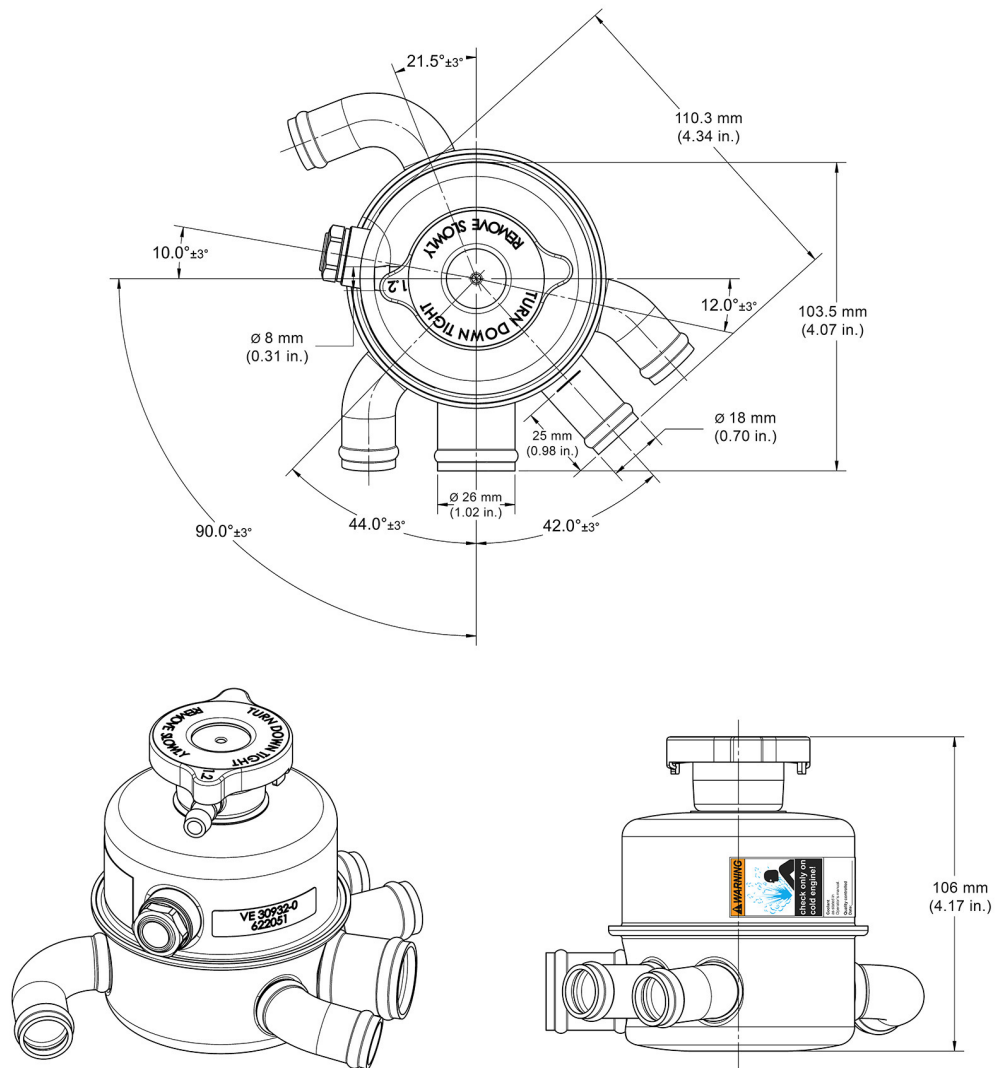
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Fig. 3

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part no. 922668



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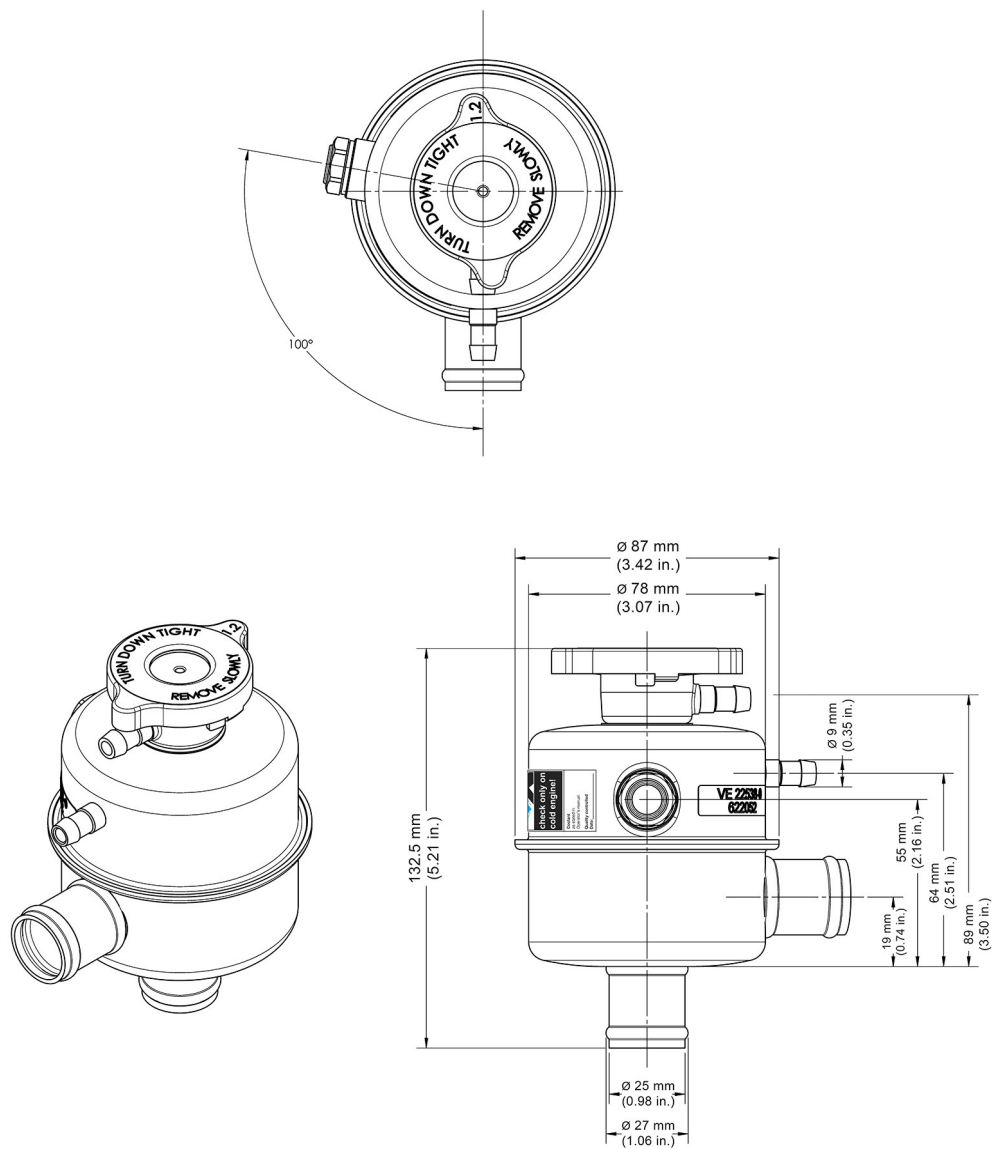
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Fig. 4

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part no. 622052



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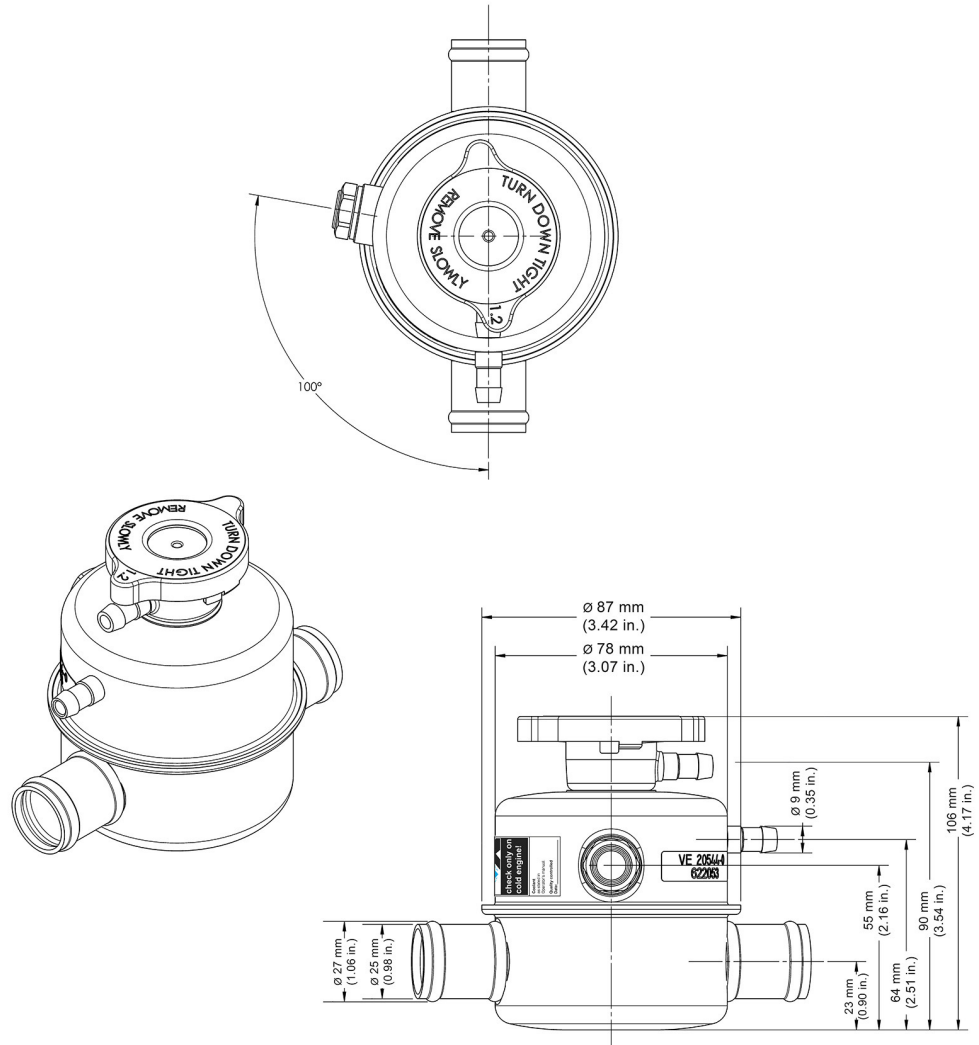
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Fig. 5

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part no. 622053



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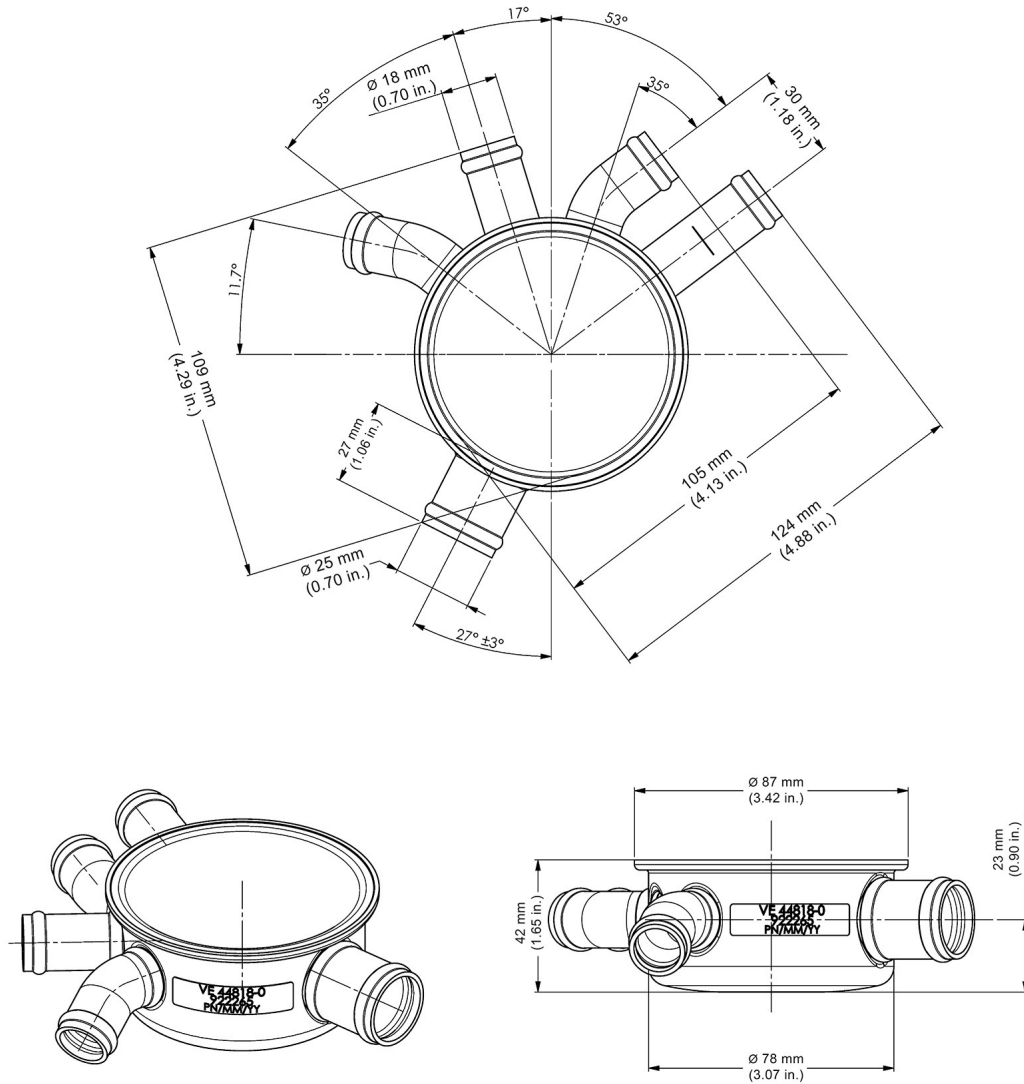
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Fig. 6

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part no. 922265



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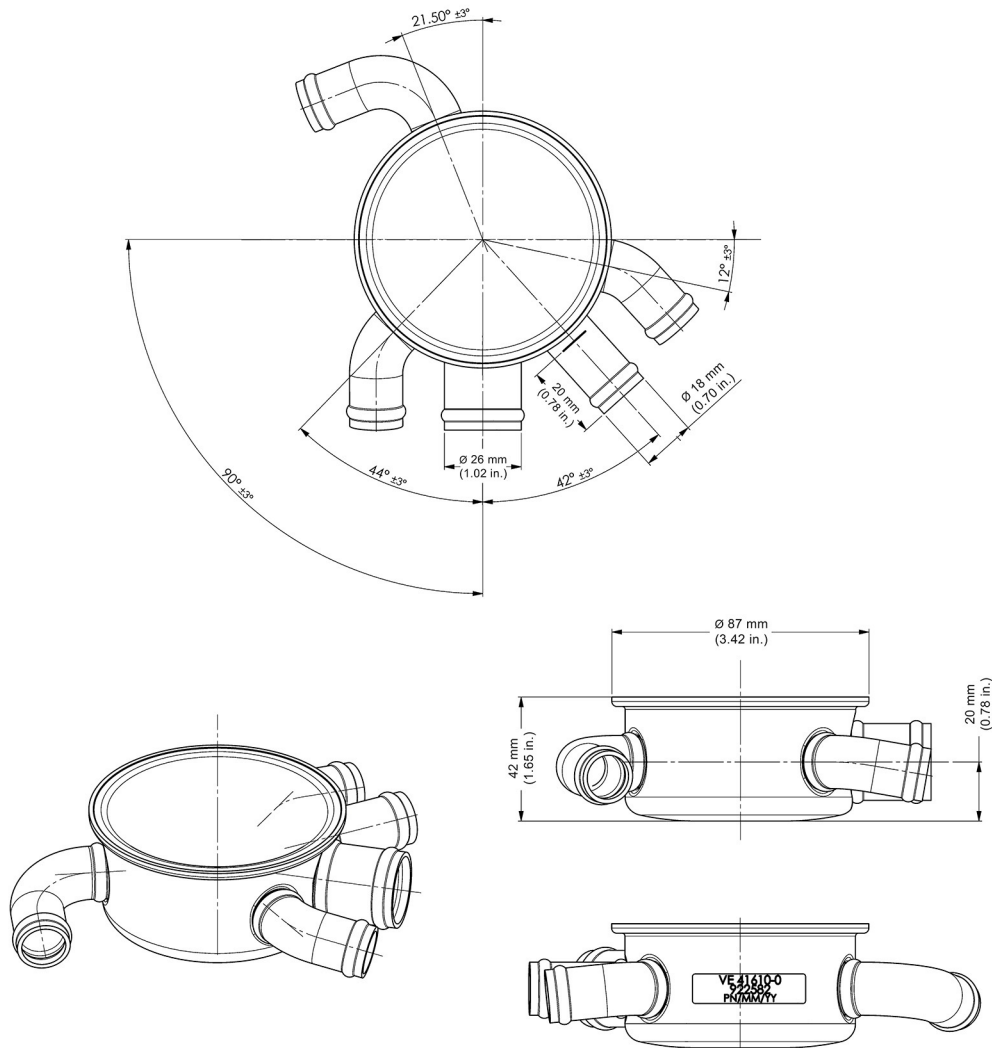
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Fig. 7

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part no. 922582



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Fig. 8

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