

| Subject             |
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| Required VMAC Hoses |

| System or Parts affected |
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- All VMAC compressor systems
- All VMAC crimped Hoses

| Overview |
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**VMAC air compressor systems require the use of hoses with special liners to stand up to the unique properties of VMAC compressor oil and the high heat that our compressors generate. Examples: Aeroquip- AQP™, Parker-PKR®, and Gates-GTS (CPE)™.**

The three main specifications that are crucial with hose selection are;

1. The inner liner needs to be AQP, PKR, GTS (CPE), or equivalent. If an incorrect liner is used, this will lead to an internal hose failure. This failure will cause plugging up the oil filter, restricting oil flow, and lead to compressor failure.
2. Temperature rating needs to be -40°C to 150°C (-40°F to 302°F) or greater.
3. Pressure rating must be a minimum of 300 psi operating (working) pressure.

This document contains a list of recommended hoses for VMAC systems.



***If alternate hoses without proper liners are used, the hose will fail internally which can lead to compressor failure.***

| Before placing an order |
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- Each table of hose choices (page 2) begins with the preferred product used in VMAC factory production. These VMAC preferred hoses may also be available to order through your local vendor using the manufacturer's part number.
- If you choose to source one of the other listed hoses through a local vendor rather than ordering the VMAC preferred hose, ensure the hose you are ordering is suitable for the location and environment it is being used in.
- To order hose from VMAC, you can;
  - Find the necessary part number by looking it up online in our Illustrated Parts List at <http://www.vmacair.com/support/ipl/> .
  - Contact VMAC sales at 1(888) 514-6656 or [sales@vmacair.com](mailto:sales@vmacair.com) . Supply your VMAC product's System ID number and an accurate description of the hose(s) you need.
- To assist your local vendor in matching hoses produced by VMAC;
  - For ease of installation VMAC hoses will always have either straight fittings at both ends, or one straight and one angled fitting (never two angled fittings)
  - Hose lengths indicated in our Illustrated Parts Lists are measured as shown in figure 1 below.



**All VMAC hoses use JIC fittings**

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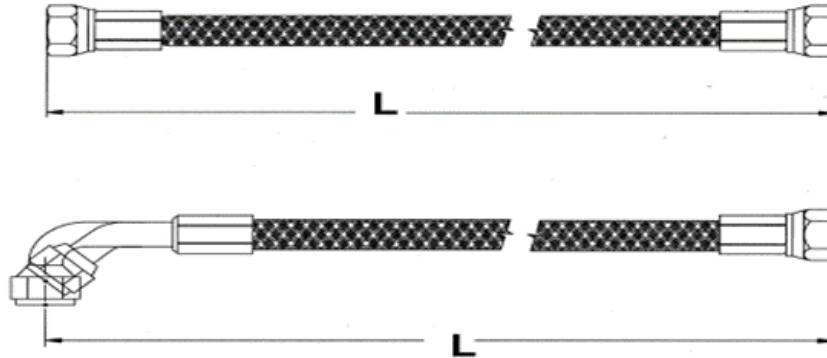


Figure 1

| Hose Tables |              |              |                                      |                 |                                 |             |             |
|-------------|--------------|--------------|--------------------------------------|-----------------|---------------------------------|-------------|-------------|
| Hose Size   | Manufacturer | Part Number  | Covering Type                        | Min Bend radius | Liner/Tube Type                 |             |             |
| #4 (1/4")   | Aeroquip     | FC699 AQP-04 | Black Textile Braid Cloth            | 1.25"           | AQP                             |             |             |
|             | Aeroquip     | FC300 AQP-04 | Blue Polyester Braid                 | 3.00"           | AQP                             |             |             |
|             | Aeroquip     | FC350 AQP-04 | Black Polyester Braid                | 0.75"           | AQP                             |             |             |
|             | Aeroquip     | FC498 AQP-04 | Blue AQP Elastomer                   | 2.50"           | AQP                             |             |             |
|             | Dayco        | GL04         | Black Textile Braid                  | 3.00"           | Chlorinated Polyethylene (PE-C) |             |             |
|             | Gates        | 76993        | Black Textile Braid/Synthetic Rubber | 5.00"           | GTS (CPE)                       |             |             |
|             | Parker       | 206-4        | Blue Fiber Braid                     | 3.00"           | PKR                             |             |             |
|             | Parker       | 426-4        | Synthetic Rubber                     | 4.00"           | PKR                             |             |             |
| #5 (5/16")  | Aeroquip     | FC300 AQP-05 | Blue Polyester Braid                 | 3.38"           | AQP                             |             |             |
|             | Aeroquip     | FC350 AQP-05 | Black Polyester Braid                | 1.00"           | AQP                             |             |             |
|             | Dayco        | GL05         | Black Textile Braid                  | 3.4"            | Chlorinated Polyethylene (PE-C) |             |             |
|             | Parker       | 206 - 5      | Blue Fiber Braid                     | 3.375"          | PKR                             |             |             |
| Hose Size   | Manufacturer | Part Number  | Covering Type                        | Min Bend radius | Liner/Tube Type                 |             |             |
| #6 (3/8")   | Aeroquip     | FC699 AQP -6 | Black Textile Braid Cloth            | 1.50"           | AQP                             |             |             |
|             | Aeroquip     | FC300 AQP-06 | Blue Polyester Braid                 | 4.00"           | AQP                             |             |             |
|             | Aeroquip     | FC350 AQP-06 | Black Polyester Braid                | 1.25"           | AQP                             |             |             |
|             | Aeroquip     | FC498 AQP-06 | Blue AQP Elastomer                   | 3.00"           | AQP                             |             |             |
|             | Dayco        | GL06         | Black Textile Braid                  | 4.00"           | Chlorinated Polyethylene (PE-C) |             |             |
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# Technical Support

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|                  |        |         |                                      |       |           |
|------------------|--------|---------|--------------------------------------|-------|-----------|
| <b>#6 (3/8")</b> | Gates  | 76994   | Black Textile Braid/Synthetic Rubber | 5.00" | GTS (CPE) |
|                  | Parker | 206 - 6 | Blue Fiber Braid                     | 3.50" | PKR       |
|                  | Parker | 426 - 6 | Synthetic Rubber Cover               | 5.00" | PKR       |

| Hose Size        | Manufacturer | Part Number            | Covering Type                        | Min Bend radius | Liner/Tube Type                 |
|------------------|--------------|------------------------|--------------------------------------|-----------------|---------------------------------|
| <b>#8 (1/2")</b> | Aeroquip     | FC699 AQP -8           | Black Textile Braid Cloth            | 2.00"           | AQP                             |
|                  | Aeroquip     | FC300 AQP-08           | Blue Polyester Braid                 | 4.62"           | AQP                             |
|                  | Aeroquip     | FC350 AQP-08           | Black Polyester Braid                | 1.75"           | AQP                             |
|                  | Aeroquip     | FC498AQP-08            | Blue AQP Elastomer                   | 4.00"           | AQP                             |
|                  | Dayco        | GL08                   | Black Textile Braid                  | 4.60"           | Chlorinated Polyethylene (PE-C) |
|                  | Gates        | 76995                  | Black Textile Braid/Synthetic Rubber | 5.00"           | GTS (CPE)                       |
|                  | Parker       | 206 - 8                | Blue Fiber Braid                     | 3.50"           | PKR                             |
| Parker           | 426 - 8      | Synthetic Rubber cover | 7.00"                                | PKR             |                                 |

| Hose Size         | Manufacturer | Part Number            | Covering Type                        | Min Bend radius | Liner/Tube Type                 |
|-------------------|--------------|------------------------|--------------------------------------|-----------------|---------------------------------|
| <b>#12 (3/4")</b> | Aeroquip     | FC699 AQP-12           | Black Textile Braid Cloth            | 4.00"           | AQP                             |
|                   | Aeroquip     | FC300 AQP-12           | Blue Polyester Braid                 | 6.50"           | AQP                             |
|                   | Aeroquip     | FC350 AQP-12           | Black Polyester Braid                | 2.75"           | AQP                             |
|                   | Aeroquip     | FC498 AQP-12           | Blue AQP Elastomer                   | 6.00"           | AQP                             |
|                   | Dayco        | GL12                   | Black Textile Braid                  | 6.50"           | Chlorinated Polyethylene (PE-C) |
|                   | Gates        | 76996                  | Black Textile Braid/Synthetic Rubber | 6.00"           | GTS (CPE)                       |
|                   | Parker       | 206 - 12               | Blue Fiber Braid                     | 4.00"           | PKR                             |
| Parker            | 426 - 12     | Synthetic Rubber Cover | 9.50"                                | PKR             |                                 |

| Hose Size         | Manufacturer | Part Number | Covering Type          | Min Bend radius | Liner/Tube Type                 |
|-------------------|--------------|-------------|------------------------|-----------------|---------------------------------|
| <b>#16 (1.0")</b> | Aeroquip     | GH194 - 16  | Blue AQP Elastomer     | 12.00"          | AQP                             |
|                   | Dayco        | GL16        | Black Textile Braid    | 7.4"            | Chlorinated Polyethylene (PE-C) |
|                   | Parker       | 206 - 16    | Blue Fiber Braid       | 4.00"           | PKR                             |
|                   | Parker       | 426 - 16    | Synthetic Rubber Cover | 12.00"          | PKR                             |


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## VMAC PTFE Tube Information

The 3/16" (VMAC part # 1700571) and 1/4" (VMAC part # 1700570) PTFE poly tubes are made specifically for VMAC to match DOT specifications (.040" wall thickness for 1/4" tube) and (.030" wall thickness for 3/16" tube). They are an exact fit for the DOT push to connect fitting. If the wall thickness is thinner, the connection can possibly leak at the fitting as the tube collapses and no longer contacts the seal in the fitting. If the wall thickness is thicker, compatibility with the inner tube support inside the fitting is compromised and will not insert properly into the fitting.

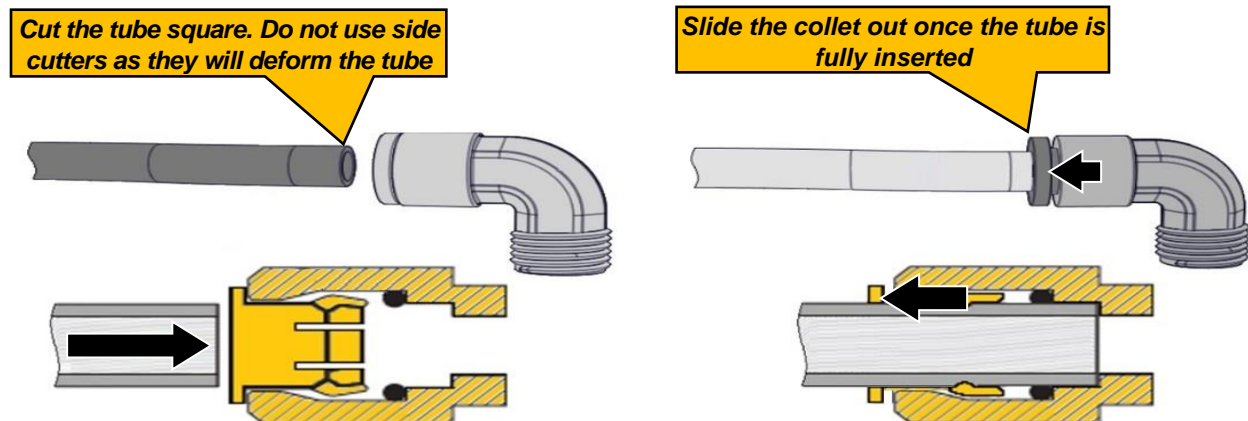
**Note:** For some applications #4 hose can be used for system control line and #5 for scavenge line. This would eliminate the push to connect fittings.

 **Air brake tubing will work temporarily but it does not hold up long term as its not rated for temperature range required.**

 **When routing hoses, ensure cap plugs are installed so that contaminants do not get in the line. Take care when routing hoses, as a hose failure may damage the compressor and/or cause injury.**

 **All hoses, tubes and wires that are installed, rerouted or shifted during the installation must be secured so that they do not contact any hot, sharp or moving parts. Use rubber coated P-clips wherever possible. Follow the routing suggestions in this manual and cover all hoses with plastic loom.**

- Lubricate the tube and firmly push it into the fitting so that the tube fully seats in the fitting.
- Slide the collet out, away from the body of the fitting to lock the tubing in place.
- Ensure the tube does not have any "play" to prevent the O-ring from wearing.



**Figure 2**

If you have any questions, please contact VMAC Technical Support at 1-888-241-2289 or email [tech@vmacair.com](mailto:tech@vmacair.com)

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