

Pneumatic System Manifolds

1 Supply Challenge

Lubecore was informed that pneumatic system manifolds will not be available for another 4 months. This affects part numbers 11.004, 11.005, 11.007, 11.010, 11.011 and 11.014. Although we are not out of these parts, we will run out before new stock can be delivered.

2 Stock Projections

Table 1, organized by part number shows the projection for when we will run out of manifolds.

Table 1

Part Number	Description	Project Date to no Stock	Comment
11.004	4-port	12/17/2021	Need an alternative solution
11.005	8-port	-	No stock issue
11.007	7-port	1/6/2022	Need an alternative solution
11.010	9-port	-	No stock issue
11.011	18-port	3/4/2022	Need an alternative solution
11.014	14-port	5/22/2022	Expect new stock before this date.

3 Contingency Options

3.1 Using alternative part numbers to fill the stocking gap

8 port manifolds can be used in place of four port manifolds. The additional cost associated with this contingency plan is four additional 11.110 plugs. 9 port manifolds can be modified to become 18 port manifolds. The additional cost associated with this is additional machining of 9 port manifolds which is expected to increase the price of the manifold by 35%. Table 2 shows the new projected no stock dates for this contingency plan.

Table 2

Part Number	Description	Project Date to no Stock	Comment
11.004	4-port	5/22/2022	Expect new stock before this date
11.005	8-port	5/22/2022	Requires 8 port stock to be replenished
11.007	7-port	1/6/2022	Need an alternative solution
11.010	9-port	2023	Possible solution
11.011	18-port	2023	Possible solution
11.014	14-port	5/22/2022	Expect new stock before this date

This contingency provides more time to stock 4 and 18 port blocks but does not solve the 7-port stock issue.

3.2 Alternate machined manifolds (brass)

4-port, 14-port, and 18-port manifold alternate designs are shown in Figure 1. Table 3 shows the expected price impact of machining these alternative manifolds.

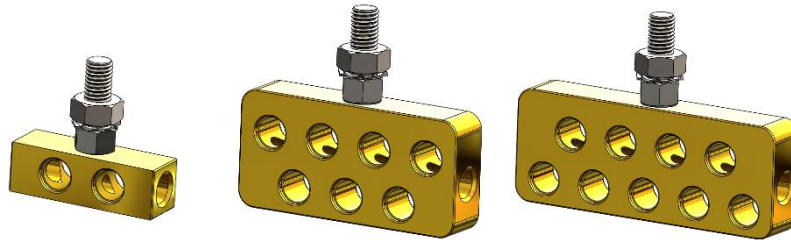


Figure 1

Table 3

Part Number	Description	Expected Price Change
11.004	4-port	-4%
11.014	14-port	+40%
11.011	18-port	+50%

3.3 Alternate machined manifolds (stainless steel)

The price increases associated with option 3.2 are significant for the 14-port and 18-port manifolds. An alternative would be to make the blocks from stainless steel as shown in Figure 2. Table 4 shows the expect price impact of these manifolds in stainless steel.

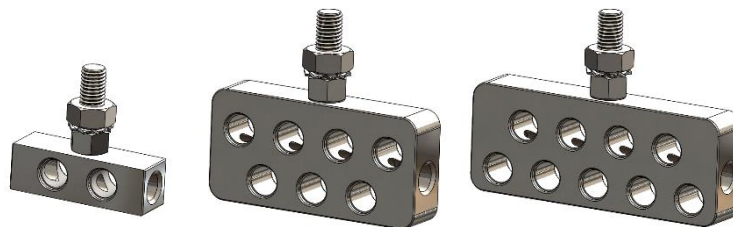


Figure 2

Table 4

Part Number	Description	Expected Price Change
11.004	4-port	-25%
11.014	14-port	-12%
11.011	18-port	-9%

3.4 Alternate machined manifold (one sided 4 port)

It may be that the 4-port manifold suggested in options 3.2 and 3.3 are not feasible because all four injectors must be oriented in the same direction for an installation. In this case a final alternative is suggested as shown in Figure 3 in both brass and stainless-steel variants. Table 5 shows the expected price impact for these manifold options.

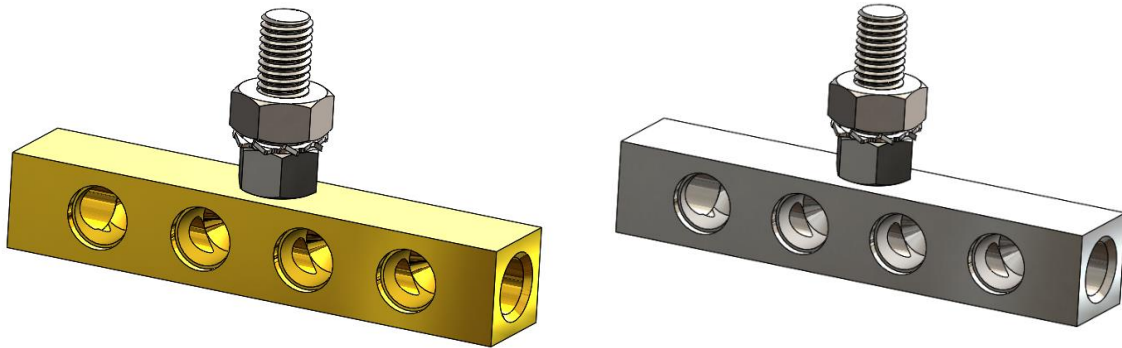


Figure 3

Table 5

Part Number	Description	Expected Price Change
11.004	4-port brass	+20%
11.004	4-port stainless steel	-10%

4 Next Steps

As a Lubecore customer, there may be specific requirements that you have for certain customers which may make one alternative more advantageous than others. We're therefore holding a video conference meeting on Friday December 17, 2021 so that you can provide feedback regarding your constraints so that we can produce the desired configuration for 4, 7, and 18 port blocks.