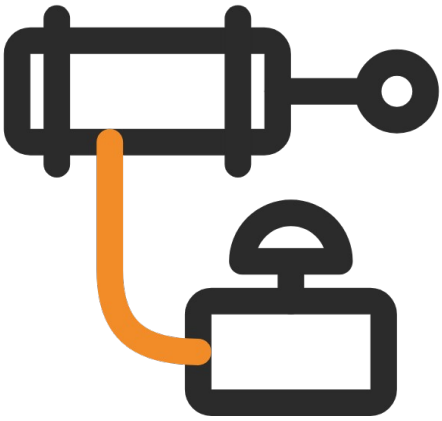
Lesson Pn4 Review Questions

Controlling Speed: Restrictors



Answer every question in your jotter. Show your working. Tap a question below to go to it. Tap **Show answer** under a question to mark it.

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Answers	Review Questions: marking instructions	4

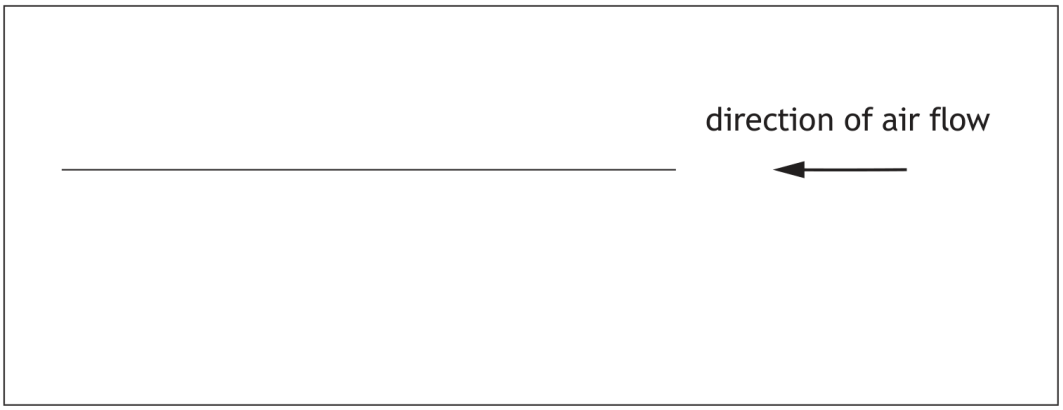
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Questions

2022 Section 2 Question 15 (b)

1. The speed of the piston movement needs to be slowed down.

Draw the symbol for a uni-directional restrictor to slow the air flow in the direction shown. **2**



Show answer ›

2024 Section 2 Question 15 (c)

2. The piston in the double-acting cylinder is required to outstroke **slowly** and **smoothly**. The speed of the instroke should not be changed.

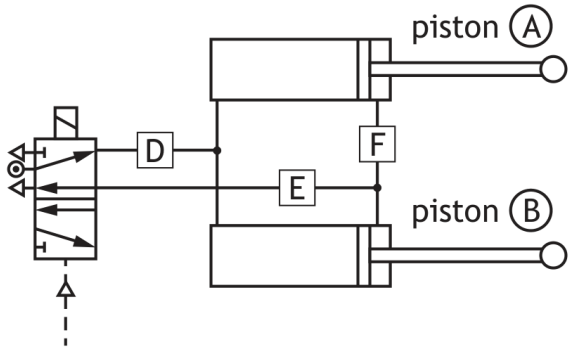
Describe how this would be achieved. **2**

Show answer ›

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3. The circuit is to be modified so that both pistons outstroke slowly.

An engineer tests a uni-directional restrictor in each of the positions shown (D, E and F) to restrict the **exhaust** air as the pistons outstroke.



Describe the effect on the **outstroke** of pistons Ⓐ and Ⓑ of piping a uni-directional restrictor in these positions. **3**

D _____

_____

E _____

_____

F _____

_____

Show answer ›

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Answers

Check your understanding (booklet)

1 A restrictor slows the air in both directions. A uni-directional restrictor slows it in one direction only.

2 A restrictor (two curves with an arrow through) with a non-return valve by-pass beside it.

3 The restriction can be adjusted.

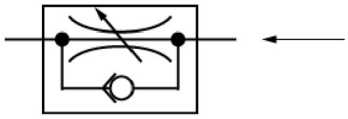
4 The exhaust air: the air leaving the cylinder.

5 It does not say what it does. Say it slows (restricts) the exhaust air leaving the cylinder.

Answer to question 1

2022 Section 2 Question 15 (b)

Marking instructions

Question	Expected response	Max mark	Additional guidance
(b)		2	1 mark for correct symbol of a uni-directional restrictor. 1 mark for correct orientation of by-pass route. Symbol need not be drawn on the given pipe.

‹ Back to question 1

Answer to question 2

2024 Section 2 Question 15 (c)

Marking instructions

Question	Expected response	Max mark	Additional guidance
(c)	Slow the air …on the 5/2 valve's exhaust port. Add a uni-directional restrictor …air in the instroking pipe of the double acting cylinder.	2	Descriptive response. 1 mark for restricting the air flow. 1 mark for exhaust air location. Accept responses shown on the circuit diagram. Do not accept 'UDR' on its own.

‹ Back to question 2

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Answer to question 3

2021 Section 2 Question 12 (b)

Marking instructions

Question	Expected response	Max mark	Additional guidance
(b)		3	Descriptive response.
	Position D The pistons will outstroke at normal speed.		Position D 1 mark for no change to outstroke speed.
	Position E The pistons will outstroke slowly and smoothly.		Position E 1 mark for pistons smooth movement.
	Position F Piston A will outstroke slowly. Piston B will outstroke at normal speed.		Position F 1 mark for piston A **only** outstroking slowly. Correct outstroking statements only.

‹ Back to question 3

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