

FAST-ACTING ACTUATORS

Safety plant conditions or special production systems may require fast valve acting (opening or enclosing or both). In this case, only for big sizes, fast-acting actuators are needed.

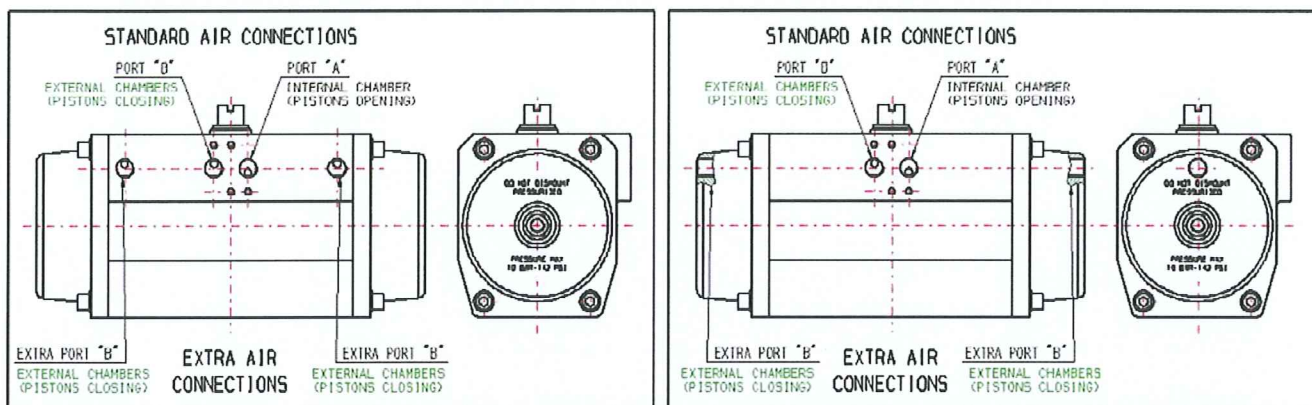
Fast driving can be obtained in two complementary ways:

- 1 - Increasing the diameter of the standard air feeding holes (NAMUR), mainly necessary for Port "A" internal chamber, pistons opening.
- 2 - Making additional holes of communication as extra air connections, only for Port "B" external chambers, pistons closing. They can be made on actuator body or cover.

As for all standard actuators, "DA" double acting requires air supply to both "A" and "B" ports.

As for all standard actuators, "SR" spring return requires air supply and exhaust filtering/recycling to Port "A", and only filtering to port "B".

The following table describes the different ALPHAIR drillings and its related moving times.



TYPE	AIR CONNECTION	AIR BORE (mm.)		MINIMUM OPERATING TIME (sec.)			
		PORT "A"	PORT "B" + EXTRA AIR CONNECTION	"DA" double acting		"SR" spring return	
				open	close	open	close
AP 100	1/4" GAS/NPT	Diam. 7	Diam. 7	0,06	0,09	0,15	0,20
AP 115	1/4" GAS/NPT	Diam. 9	Diam. 8	0,06	0,09	0,15	0,20
AP 125	1/4" GAS/NPT	Diam. 9	Diam. 8	0,07	0,10	0,20	0,25
AP 145	1/4" GAS/NPT	Diam. 10	Diam. 10	0,09	0,12	0,22	0,28
AP 160	1/4" GAS/NPT	Diam. 10	Diam. 10	0,15	0,23	0,28	0,35
AP 180	3/8" GAS/NPT	Diam. 12	Diam. 12	0,20	0,30	0,32	0,40
AP 200	3/8" GAS/NPT	Diam. 12	Diam. 12	0,25	0,35	0,38	0,45
* AP 240	1/2" GAS/NPT	Diam. 13	Diam. 13	0,30	0,40	0,46	0,55
* AP 270	1/2" GAS/NPT	Diam. 15	Diam. 15	0,35	0,45	0,52	0,60
* AP 330	3/4" GAS/NPT	Diam. 20	Diam. 20	0,40	0,50	1,00	1,30
* AP 420	1" GAS/NPT	Diam. 27	Diam. 27	0,40	0,50	1,50	1,40

* AP 240/270/330/420 without NAMUR feeding plate: standard and extra air connections are directly drilled on body and covers.

Test conditions:

Room temperature = 20°C.

Actuator rotation = 90°.

Minimum inside diameter, for air supply circuit, equal to air bore.

Supply circuit without solenoid valve.

Medium = clean air.

Air supply pressure = 6 BAR - 80 PSI.

Actuator without external resistance load.

Every different parameter may modify operative moving times.

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