

Air Consumption and Compressor Sizing Chart for AVL products

DEVICE	USAGE	UNITS	PER	RECOMMENDED COMPRESSOR RATING	UNITS	NOTES
PDL (16H) Dobby A-Lift	0.96	CFM @ 100 PSI	Loom	3	CFM	Rated @ 60 PPM
TDL (24H) Dobby A-Lift	1.06	CFM @ 100 PSI	Loom	3	CFM	Rated @ 60 PPM
FDL (16H) Dobby A-Lift	0.96	CFM @ 100 PSI	Loom	3	CFM	Rated @ 60 PPM
SDL (16H) Dobby A-Lift	0.96	CFM @ 100 PSI	Loom	3	CFM	Rated @ 60 PPM
SDL (24H) Dobby A-Lift	1.06	CFM @ 100 PSI	Loom	3	CFM	Rated @ 60 PPM
A' Loom Dobby (all models) A-Lift	1.25	CFM @ 100 PSI	Loom	4	CFM	Rated @ 60 PPM
RL 48 in., 72 in., 96 in., 120 in.	0.73	CFM @ 100 PSI	Loom	2	CFM	Rated @ 30 PPM
RL 144 in., 180 in.	1.45	CFM @ 100 PSI	Loom	4	CFM	Rated @ 30 PPM
RL 180 in., 240 in. with dual lift cylinders	2.90	CFM @ 100 PSI	Loom	9	CFM	Rated @ 30 PPM
RL 180 in., 240 in. with 3 lift cylinders	4.35	CFM @ 100 PSI	Loom	13	CFM	Rated @ 30 PPM
Air-Assisted Shuttle Boxes	0.47	CFM @ 100 PSI	Loom	2	CFM	Rated @ 60 PPM
IDL (all functions)	25.00	CFM @ 115 PSI	Loom	25*	CFM	Rated @ 60 PPM
JacqAir-Jacquard (Jacq2G) (336 Hook Head)	2.50	CFM @ 100 PSI	Head	8	CFM	Rated @ 60 PPM
Jacq3G™ Jacquard (7/07) with 1 cylinder A-Lift	1.50	CFM @ 100 PSI	10 - 120 Hook Heads	5	CFM	Rated @ 60 PPM

COMPRESSOR RATING COMMENTS:

(1) Recommendation of the compressor size is based on a consumer grade compressor with a 50% duty cycle. The engineering consideration in this scenario is to double the usage rate as the first step, then add another 50% to the total to insure the compressor is below its maximum capacity. This is done to avoid overtaxing the compressor.

EXAMPLE: PDL classic or positive doobby

- 1) From the chart above we find the usage equals 0.96 CFM | **0.96 CFM**
- 2) Round up | **1 CFM**
- 3) Multiply the rounded up number by 2 | $1 \text{ CFM} \times 2 = 2 \text{ CFM}$ | **2 CFM**
- 4) Add another 50% to the total CFM | $2 \text{ CFM} + (50\% \times 2 \text{ CFM}) = 3 \text{ CFM}$ | **3 CFM**

Thus, a 3 CFM rating at a minimum of 100 PSI output is the recommended compressor size for this application.

(2) *The exception to the above sizing method is for the use of an industrial grade, 100% duty cycle rated compressor. Screw type compressors are often used in higher volume applications such as IDL's, multi-cylinder A-Lifts, or a Jacquard with several heads. No special engineering considerations are necessary when using a 100% duty cycle, industrial compressor.

DEFINITIONS:

PPM = Picks Per Minute
CFM = Cubic Feet Per Minute
PSI = Pounds Per Square Inch