Calculation of the air consumption

The air consumption per stroke is calculated in normal litres (NL)[1] at a working pressure of 6 bar. The entire consumption consists of a constant and a variable part that depends on the stroke.

SCHMIDT® PneumaticPress Air consumption per stroke

at 6 bar in normal litres (NL)

Press type	constant	variable (per mm stroke)[4]	Air connection[3]
20	= max. stroke / 50 mm x 1 NL	0.02 NL	G 1/4"
23	= max. stroke / 50 mm x 2.5 NL	0.05 NL	G 1/4"
24	= max. stroke / 50 mm x 2.5 NL	0.1 NL	G 1/4"
25	= max. stroke / 50 mm x 2.5 NL	0.15 NL	G 1/4"
27-1K	= max. stroke / 50 mm x 4 NL	0.08 NL	G 3/8"
27 -2K	= max. stroke / 50 mm x 4 NL	0.16 NL	G 3/8"
27-3K	= max. stroke / 50 mm x 4 NL	0.24 NL	G 3/8"
29 -1K	= max. stroke / 50 mm x 6.5 NL	0.13 NL	G 1/2"
29-2K	= max. stroke / 50 mm x 6.5 NL	0.26 NL	G 1/2"
29 -3K	= max. stroke / 50 mm x 6.5 NL	0.39 NL	G 1/2"
29-4K	= max. stroke / 50 mm x 6.5 NL	0.52 NL	G 1/2"
323 -1K	= max. stroke / 50 mm x 2.5 NL	0.05 NL	G 1/4"[3]
323-2K	= max. stroke / 50 mm x 2.5 NL	0.1 NL	G 1/4"[3]
327 -2K	= max. stroke / 50 mm x 2.5 NL	0.16 NL	G 1/2"[3]
329-2K	= (max. stroke +25 mm) / 50 mm x 6.5 NL	0.26 NL	G 1/2"[3]
329 -3K	= (max. stroke +25 mm) / 50 mm x 6.5 NL	0.39 NL	G 1/2"[3]
329-4K	= (max. stroke +25 mm) / 50 mm x 6.5 NL	0.52 NL	G 1/2"[3]
32-12	1 NL	0.09 NL	G 1/4"
32-40	1.5 NL	0.045 NL	G 1/4"
32-60	2 NL	0.035 NL	G 1/4"
33-12	1 NL	0.09 NL	G 1/4"
33-40	1.5 NL	0.045 NL	G 1/4"
34-12	1.5 NL	0.12 NL	G 1/4"
34-40	2.2 NL	0.08 NL	G 1/4"
34-60	3 NL	0.06 NL	G 1/4"
36-12	4 NL	0.36 NL	G 3/8"
36-40	6 NL	0.2 NL	G 3/8"
36-60	8 NL	0.18 NL	G 3/8"

Total consumption = constant consumption [litre][2] + variable consumption [litre]

variable consumption = air consumption per mm of stroke [litre/mm][2] x working stroke [mm]

Example: Press No. 23-50
Actual working stroke 40 mm
Constant consumption: 2.5 l
Variable air consumption: 0.05 l/mm
Total consumption = 2.5 l + 0.05 l/mm x 40 mm = 4.5 l

SCHMIDT® HydroPneumaticPress Air consumption per stroke

at 6 bar in normal litres (NL)

Press type standard	Rapid approach stroke / return stroke (constant)	Power stroke per mm (variable)	Air connection[3]
61-50-6 / 361-50-6	2 NL	1.25 NL	G 1/4"
61-100-12 / 361-100-12	4 NL	1.9 NL	G 1/4"
62-50-6 / 362-50-6	3 NL	1.85 NL	G 1/4"
62-100-12 / 362-100-12	6 NL	2.6 NL	G 1/4"
65-50-6 / 365-50-6	5 NL	2.1 NL	G 1/4"
65-100-12 / 365-100-12	10 NL	3.1 NL	G 1/4"
64-50-6 / 364-50-6	8 NL	4 NL	G 1/2"
64-100-12 / 364-100-12	16 NL	6 NL	G 1/2"
68-50-6 / 368-50-6	8 NL	3.2 NL	G 1/2"
68-100-12 / 368-100-12	16 NL	5.2 NL	G 1/2"
74-50-6 / 374-50-6	8 NL	4 NL	G 1/2"
74-100-12 / 374-100-12	16 NL	6 NL	G 1/2"
76-100-12 / 376-100-12	26 NL	10 NL	G 1/2"

Total consumption = constant consumption [litre][2] + variable consumption [litre]

variable consumption = air consumption per mm of power stroke [litre/mm][2] x power stroke [mm]

[1] The air volume is measured under standard conditions (1.013 10^5 pascal = 1 atm and a temperature of 25 °Celsius [298 Kelvin]).
[2] Value according to table
[3] For presses with force/stroke monitoring, the air connection refers to the two-channel control block used by us
[4] For the determination of the consumption, the single stroke is used, the return stroke is automatically contained in the result.