

Skillair® LUBRICATOR

The pneumatic lubricator is the simplest way of properly lubricating actuators connected to a circuit.

As air flows from the mains through the lubricator, it encounters the diaphragm which obstructs the flow and the air is forced through the Venturi tube.

The inside of the Venturi tube is connected to the inspection dome, which connects with the bowl via a tube with a regulating needle in between.

The drop in pressure caused by the Venturi tube sucks up air through the dome, the tube and lastly into the bowl containing oil.

The quantity of oil controlled by the regulating needle then flows back from the bowl to the circuit.



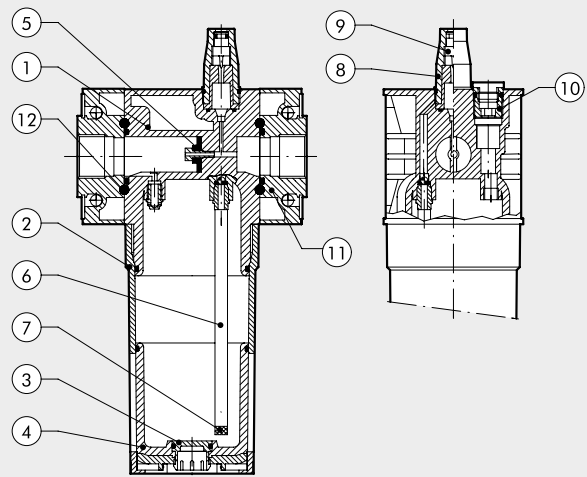
UNITS

Skillair® LUBRICATOR

TECHNICAL DATA	LUB 100		LUB 200			LUB 300			LUB 400			
	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Threaded port												
Type of lubrication	Mist		Mist			Mist			Mist			
Bowl capacity	50		95			160			800			
Versions	Standard - CD		Standard - CD			Standard - CD - ML CD			Standard - CD - ML CD			
Max. inlet pressure	Mpa	1.5	1.3			1.3			1.3		1.3	
	bar	15	13			13			13		13	
	psi	217	188			188			188		188	
Flow rate at 6.3 bar (0.63 MPa to 91 psi)	Nl/min	1100	2200			3500			18000		21000	
ΔP 0.5 bar (0.05 MPa to 7 psi)	scfm	39	71			125			640		750	
Flow rate at 6.3 bar (0.63 MPa to 91 psi)	Nl/min	1500	3700			5500			-		-	
ΔP 1 bar (0.1 MPa to 14 psi)	scfm	53	131			196			-		-	
Max temperature at: 1 MPa; 10 bar; 145 psi	°C	50	50			50			50		50	
	°F	122	122			122			122		122	
Weight	Kg	0.4	0.7			1.4			4.9		5.7	
Wall fixing screws		M4 x 50		M5 x 60			M5 x 70			M6 x 110		M6 x 110
Mounting position		Vertical										
Fluid		Filtered compressed air										
Recommended oils		ISO and UNI FD22 (Energol HPL to Spinesso to Mobil DTE to Tellus Oil).										
Notes on use		Install the lubricator as close as possible to the point of use. Fill the lubricator bowl with oil before pressurizing the system. Do not use cleaning oils, brake fluid oils or solvents in general. For the best lubrication results, set the drip rate to one drop per 300-600 Nl.										

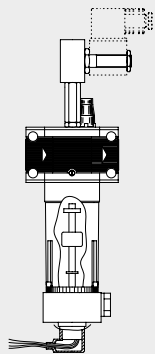
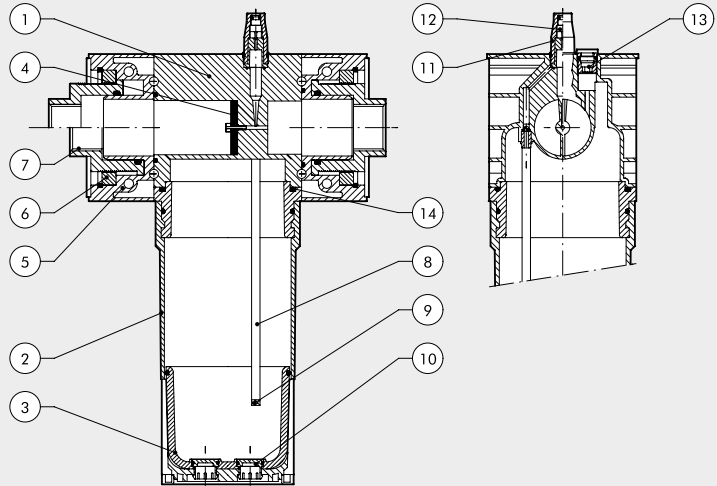
COMPONENTS LUB 100 - LUB 200 - LUB 300

- ① Technopolymer body
- ② Bowl: technopolymer for LUB 100 and 200, metal for LUB 300
- ③ Technopolymer plug
- ④ Clear technopolymer glass
- ⑤ NBR Venturi tube diaphragm
- ⑥ Rilsan® oil suction tube
- ⑦ Filter
- ⑧ Clear technopolymer inspection dome
- ⑨ OT58 brass oil flow regulating needle
- ⑩ OT58 brass oil filling plug
- ⑪ Zamak end plate
- ⑫ NBR gaskets



COMPONENTS LUB 400

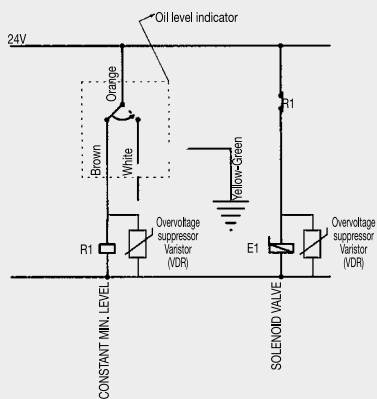
- ① Aluminium body
- ② Aluminium bowl
- ③ Clear technopolymer glass
- ④ NBR Venturi tube diaphragm
- ⑤ Aluminium end plate
- ⑥ OT58 brass retaining ring
- ⑦ Anodized aluminium threaded bush, axial adjustment
- ⑧ Rilsan® oil suction pipe
- ⑨ Filter
- ⑩ Technopolymer plug
- ⑪ Clear technopolymer inspection dome
- ⑫ OT58 brass oil flow regulating needle
- ⑬ OT58 brass oil filling plug
- ⑭ NBR gaskets



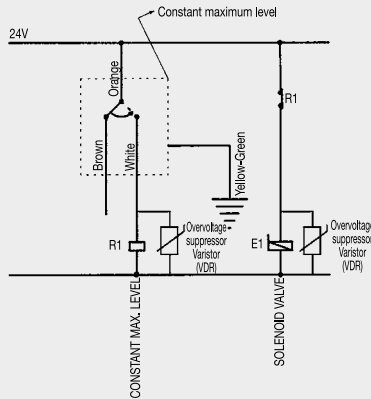
PRESSURE DROP FILLING WITH MINIMUM LEVEL (ML CD AUTOMATIC)

Available in sizes 300 and 400, this lubricator is controlled by a solenoid valve (2/2 NC minimum bore 3) situated on the lubricator body. It reduces pressure inside the bowl allow it to be filled with oil taken from a tank at ambient pressure, which can be located in a lower position than the lubricator (max. difference in height 2 m). The electric indicator inside the bowl sends an electric signal used to activate the valve. When the oil reaches the maximum level, another signal disactivates the valve. In this case, the lubricator system operates with the oil level between minimum and maximum. If it is necessary to keep the oil level in the bowl constant, only one of the two signals can be used. Pressure range 3-10 bar. Connect the oil tank to the G1/4 fitting on the bowl. **N.B.:** for coils and connectors see Skillair accessories.

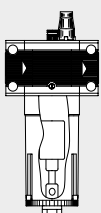
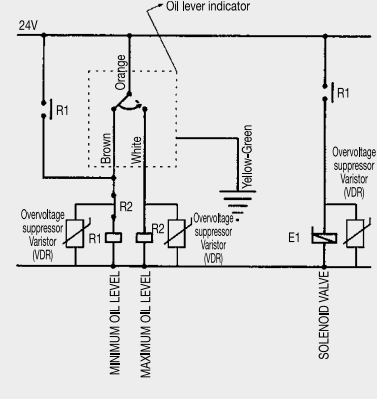
Constant minimum level



Constant maximum level



Oil level between maximum and minimum



FILLING BY PRESSURE DROP (CD MANUAL)

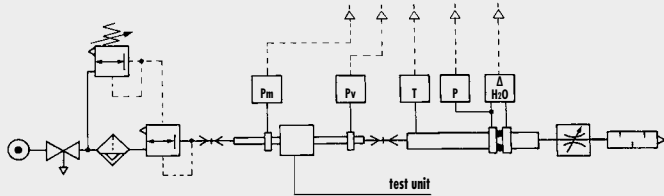
Available in all sizes. It is operated by means of a button on the lubricator body. The pressure inside the bowl drops to allow it to be filled with oil taken from a tank at ambient pressure, which can be located in a lower position than the lubricator (max. difference in height 2 m). Oil filling stops when the level of oil raises the float and shuts off a specific valve. Important - The SK4 lubricator is filled with oil by hand. Filling must stop when the oil level is visible through the spy-hole in the bowl release lever. Pressure range 3-10 bar. Lubrication is discontinued during filling. Connect the oil tank to the G1/4 fitting below the bowl.

FLOW CHARTS



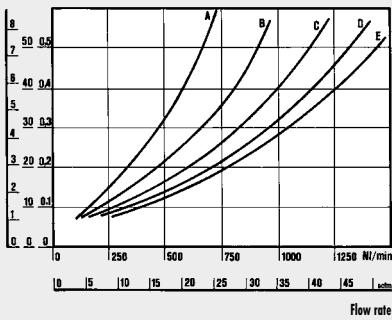
• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

- (A) = 2 bar - 0.2 MPa - 29 psi
- (B) = 4 bar - 0.4 MPa - 58 psi
- (C) = 6 bar - 0.6 MPa - 87 psi
- (D) = 8 bar - 0.8 MPa - 116 psi
- (E) = 10 bar - 1 MPa - 145 psi

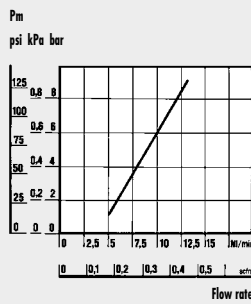


LUB 100 1/4 - 3/8

$\Delta P = (P_m - P_v)$
psi kPa bar

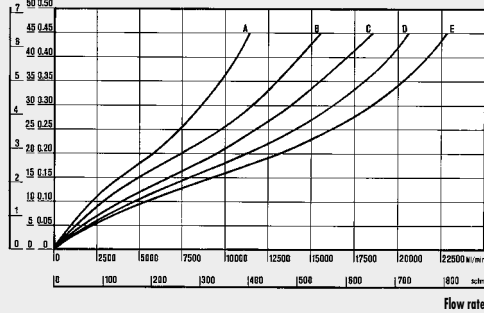


MINIMUM OPERATING FLOW CHART



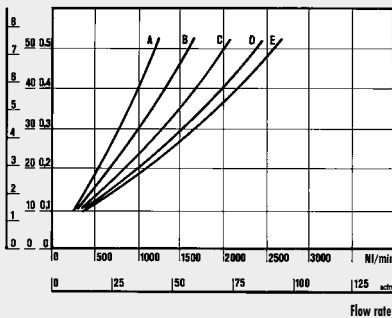
LUB 400 1"

$\Delta P = (P_m - P_v)$
psi kPa bar

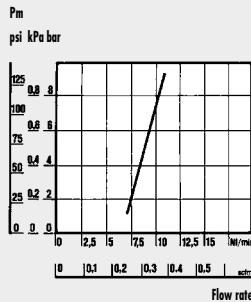


LUB 200 1/4 - 3/8 - 1/2

$\Delta P = (P_m - P_v)$
psi kPa bar

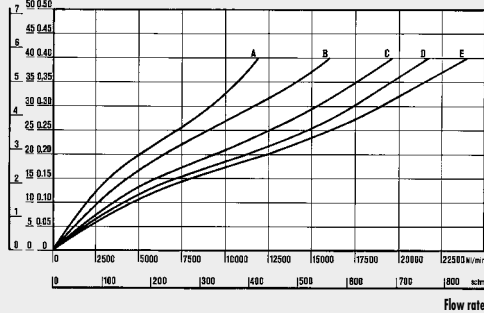


MINIMUM OPERATING FLOW CHART



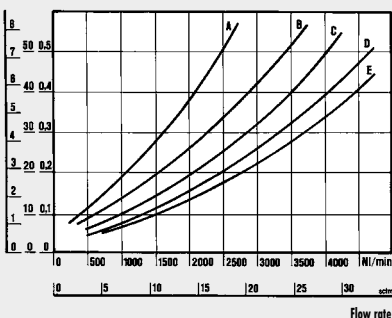
LUB 400 2"

$\Delta P = (P_m - P_v)$
psi kPa bar

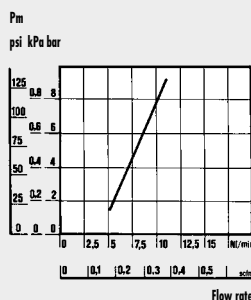


LUB 300 1/2 - 3/4 - 1

$\Delta P = (P_m - P_v)$
psi kPa bar

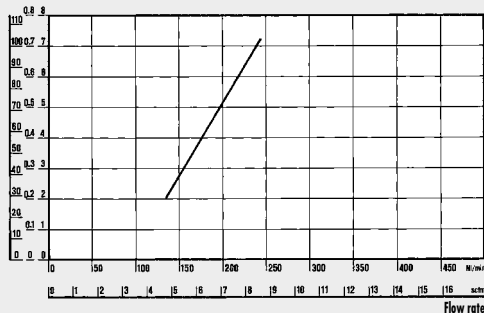


MINIMUM OPERATING FLOW CHART



MINIMUM OPERATING FLOW CHART LUB 400 1" AND 2"

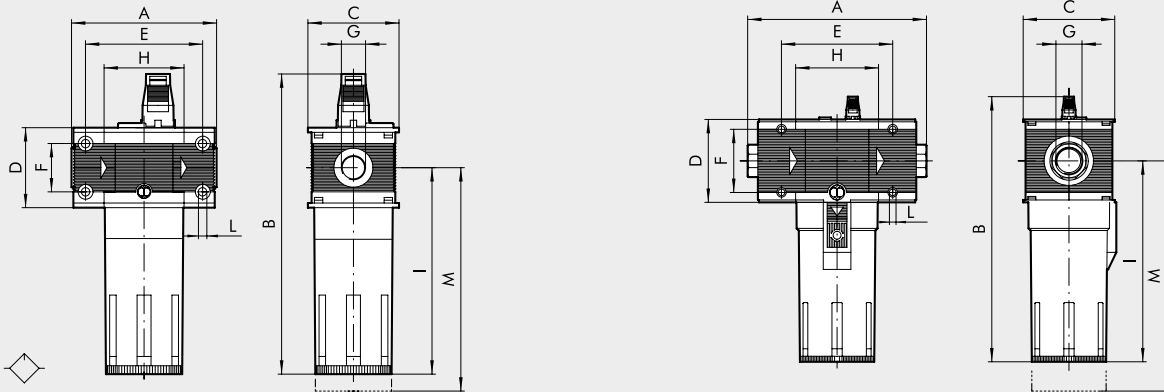
PRESSURE
psi kPa bar



DIMENSIONS

100 - 200 - 300

400



	LUB 100		LUB 200			LUB 300			LUB 400			
Threaded port G	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
A	78		93.5			110		112	225 to 255			
B	162		193			214			338			
C	50		63			72			118			
D	43		55			65			105			
E	63		78.5			92			141.4			
F	26		36			42			80			
H	43		55.5			65			105.4			
I	112		137.5			153			256			
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws			Hole for M6 screws			
M	130		150			160			285			

SYNOPTIC, SIZES AND VERSIONS

LUB ELEMENT	100 SIZE	1/4 THREADED PORT	- TYPE OF OIL FILLING
LUB	100	1/4	- = STD
	200	3/8	ML-CD = AUTOMATIC
		1/4	CD = MANUAL
		3/8	
	300	1/2	
		1/2	
		3/4	
	400	1	
		1	
		1 1/4	
		1 1/2	
		2	

STD: Standard version filled with oil by removing the bowl or through the top cap. Requires circuit relieving.
 ML CD: Pressure drop filling with minimum level and valve
 CD MANUAL: Filling by pressure drop.

ORDERING CODES

Code	Description	Code	Description	Code	Description
Skillair® 100 LUBRICATOR		Skillair® 300 LUBRICATOR		Skillair® 400 LUBRICATOR	
3281001A	LUB 100 without end plates	4481001A	LUB 300 without end plates	6181001A	LUB 400 without end plates
3281005A	LUB 100 CD manual without end plates	4481005A	LUB 300 CD manual without end plates	6181004A	LUB 400 CD manual without end plates
3281001	LUB 100 1/4	4481006A	LUB 300 ML-CD automatic without end plates	6181006A	LUB 400 ML-CD automatic without end plates
3281005	LUB 100 1/4 CD manual	4481001	LUB 300 1/2	6181001	LUB 400 1
3381001	LUB 100 3/8	4481005	LUB 300 1/2 CD manual	6181004	LUB 400 1 CD manual
3381005	LUB 100 3/8 CD manual	4481006	LUB 300 1/2 ML-CD automatic	6181006	LUB 400 1 ML-CD automatic
Skillair® 200 LUBRICATOR		4581001	LUB 300 3/4	6281001	LUB 400 1 1/4
3481001A	LUB 200 without end plates	4581005	LUB 300 3/4 CD manual	6281004	LUB 400 1 1/4 CD manual
3481005A	LUB 200 CD manual without end plates	4581006	LUB 300 3/4 ML-CD automatic	6281006	LUB 400 1 1/4 ML-CD automatic
3481001	LUB 200 1/4	4681001	LUB 300 1	6381001	LUB 400 1 1/2
3481005	LUB 200 1/4 CD manual	4681005	LUB 300 1 CD manual	6381004	LUB 400 1 1/2 CD manual
3581001	LUB 200 3/8	4681006	LUB 300 1 ML-CD automatic	6381006	LUB 400 1 1/2 ML-CD automatic
3581005	LUB 200 3/8 CD manual			6481001	LUB 400 2
3681001	LUB 200 1/2			6481004	LUB 400 2 CD manual
3681005	LUB 200 1/2 CD manual			6481006	LUB 400 2 ML-CD automatic

UNITS
Skillair® LUBRICATOR

Skillair® SHUT-OFF VALVE

The job of this valve is to make the circuit independent from the air supply. It is basically a three-way valve. In the closed position, it cuts off the air supply and discharges the downstream circuit at the same time, which means it is particularly useful during servicing operations. The hand-operated version can be padlocked to lock the knob in a closed position so that it can only be opened by someone with the right key. An interlocked version is available for low pressure operation.

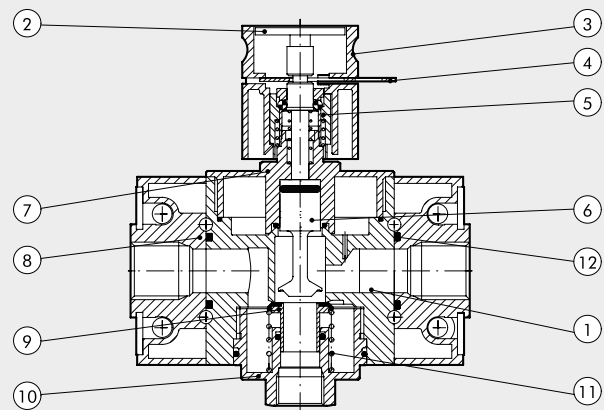
N.B.: With size 400, when the V3V is mounted upstream of the regulator, the pilot regulator must be piloted at a pressure taken upstream of the V3V, otherwise when the system is relieved, most of the air downstream will be relieved by the regulator and not the V3V relief port. For connecting instruction see page C3.23



TECHNICAL DATA		V3V 100		V3V 200			V3V 300			V3V 400			
Threaded port		1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1"1/4"	1"1/2"	2"
Min. inlet pressure for solenoid version **	MPa	0.3		0.3			0.2			0.3			0.3
	bar	3		3			2			3			3
	psi	43.5		43.5			29			43.5			43.5
Max. input pressure*	MPa	1.5		1.3			1.3			1.3			1.3
	bar	15		13			13			13			13
	psi	217		188			188			188			188
Flow rate at 6.3 bar (0.63 MPa to 91 psi)	Nl/min	1300		2400			3200			13000			14000
ΔP 0.5 bar (0.05 MPa to 7 psi)	scfm	46		85			113			460			494
Flow rate at 6.3 bar (0.63 MPa to 91 psi)	Nl/min	1650		3000			4700			-			-
ΔP 1 bar (0.1 MPa to 14 psi)	scfm	58		106			166			-			-
Max temperature	°C	50		50			50			50			50
	°F	122		122			122			122			122
Weight	kg	~ 0.5		~ 0.8			~ 1.2			4.8			5.6
Wall fixing screws		M4 x 50		M5 x 60			M5 x 70			M6 x 110			M6 x 110
Type of control		Manual - Pneumatic - Solenoid						Manual - Pneumatic - Solenoid					
		Solenoid pilot-assisted						Solenoid pilot-assisted - Key-operated					
Mounting position		In any position.											
Fluid		Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.											
Note		* 1 MPa - 10 bar - 145 psi for solenoid version											
		** 0.01 MPa - 0.1 bar - 1.45 psi for manual, pneumatic and pilot-assisted versions with controls min. 0.3 MPa 3 bar 43.5 psi.											

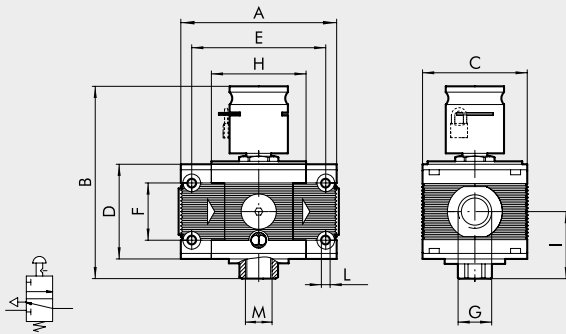
COMPONENTS

- ① Technopolymer body
- ② Operating button
- ③ Technopolymer knob
- ④ Stainless steel safety lamination
- ⑤ Locking unit
- ⑥ OT58 brass piston rod
- ⑦ Anodized aluminium top plug
- ⑧ Zamak end plate
- ⑨ Valve with vulcanized NBR gasket
- ⑩ Anodized aluminium bottom plug
- ⑪ Stainless steel valve spring
- ⑫ NBR gaskets

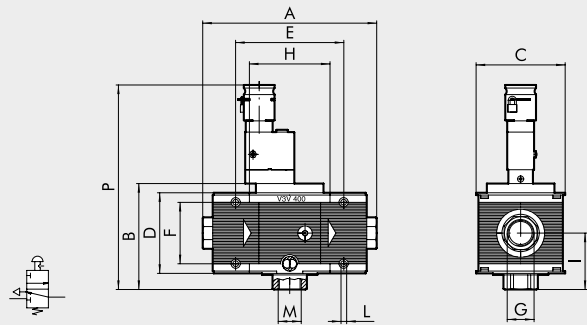


DIMENSIONS OF V3V MANUAL VERSION

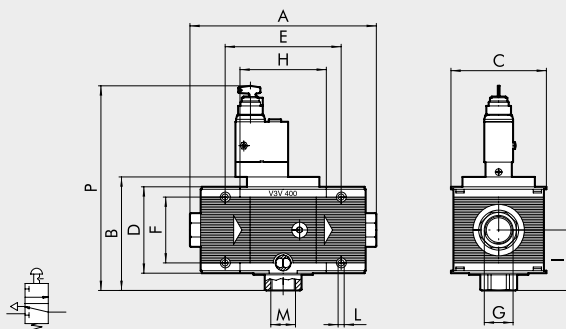
100 - 200 - 300 LOCKABLE



400 LOCKABLE



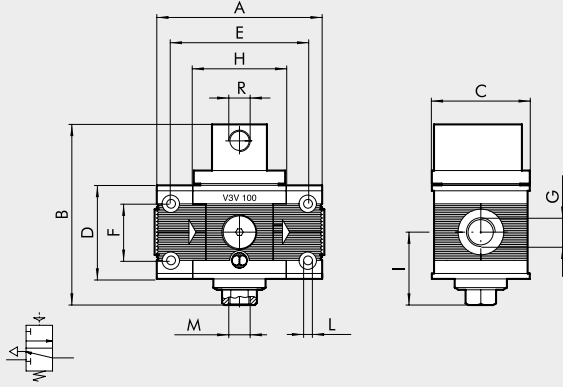
400 KEY-OPERATED



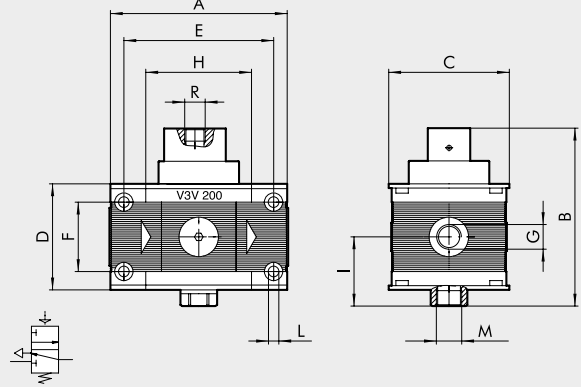
	V3V 100		V3V 200			V3V 300			V3V 400			
Threaded port G	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
A	78			93.5		110		112	225 to 255			283 to 313
B	106			119			132		137			
C	50			63			72		118			
D	43			55			65		105			
E	63			78.5			92		141.4			
F	26			36			42		80			
H	43			55.5			65		105.4			
I	33.5			40			46.5		72.5			
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws			Hole for M6 screws			
M (relief)	1/8"		1/4"			3/8"			1"			
P manual	-		-			-			266			
key-operated	-		-			-			249			

DIMENSIONS OF V3V PNEUMATIC VERSION

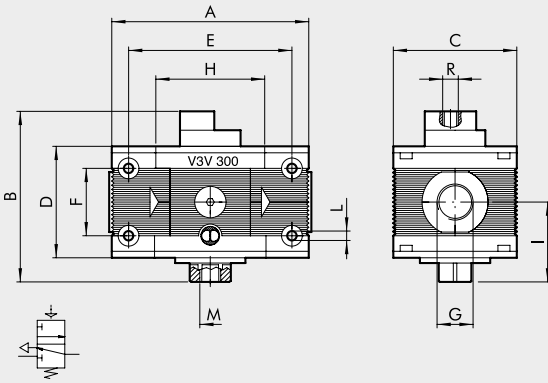
100



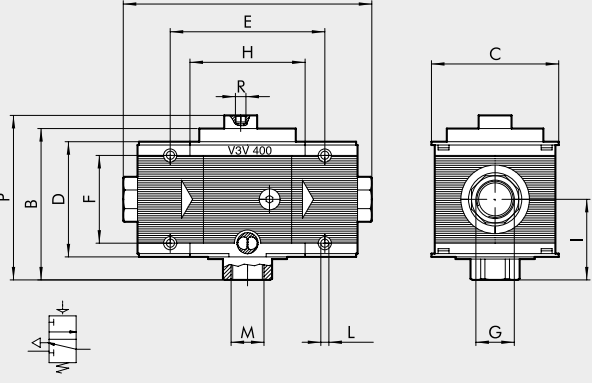
200



300



400



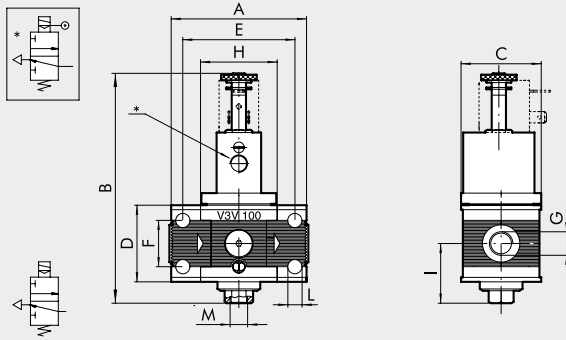
UNITS

Skilair® SHUT-OFF VALVE

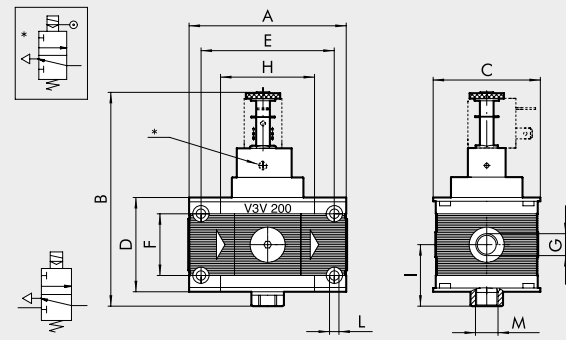
	V3V 100		V3V 200			V3V 300			V3V 400			
Threaded port G	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
A	78		93.5			110		112	225 to 255			
B	83		96			106			137			
C	50		63			72			118			
D	43		55			65			105			
E	63		78.5			92			141.4			
F	26		36			42			80			
H	43		55.5			65			105.4			
I	33.5		40			46.5			72.5			
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws			Hole for M6 screws			
M (relief)	1/8"		1/4"			3/8"			1"			
R (pilot)	1/8"		1/8"			1/8"			1/8"			
P	-		-			-			150			

DIMENSIONS OF V3V SOLENOID/SOLENOID PILOT-ASSISTED VALVE

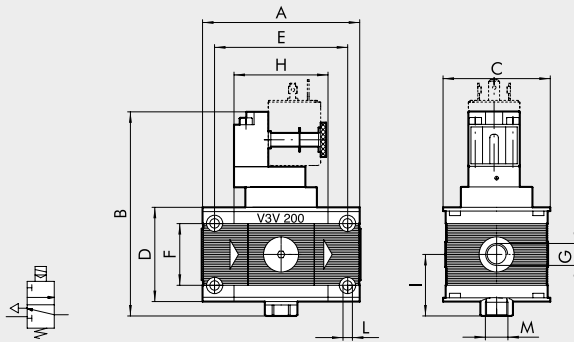
100 SOLENOID/SOLENOID PILOT-ASSISTED VALVE



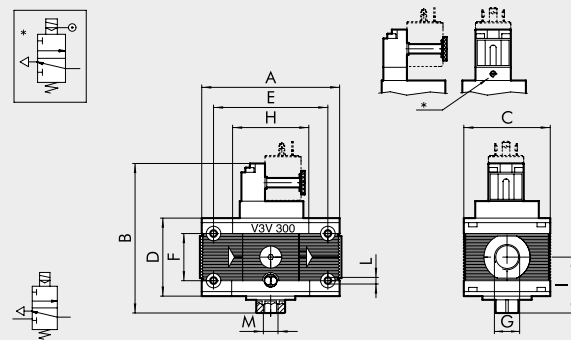
200 SOLENOID/SOLENOID PILOT-ASSISTED VALVE



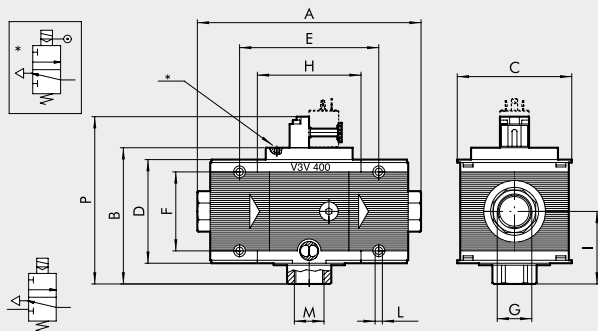
200 CNOMO



300 CNOMO SOLENOID/CNOMO SOLENOID PILOT-ASSISTED VALVE



400 CNOMO SOLENOID/CNOMO SOLENOID PILOT-ASSISTED VALVE



	V3V 100		V3V 200			V3V 300			V3V 400			
Threaded port G	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
A	78		93.5			110		112	225 to 255			283 to 313
B Solenoid	128		129			152			-			
B Solenoid pilot-ass.	129		129			-			-			
CNOMO control	-		123			125			137			
CNOMO pilot-ass.	-		-			138			137			
C	50		63			72			118			
D	43		55			65			105			
E	63		78.5			92			141.4			
F	26		36			42			80			
H	43		55.5			65			105.4			
I	33.5		40			46.5			72.5			
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws			Hole for M6 screws			
M (relief)	1/8"		1/4"			3/8"			1"			
* (pilot)	1/8"		M5			M5			M5			
P	-		-			-			169			

UNITS
Skillair® SHUT-OFF VALVE

SYNOPTIC, SIZES AND VERSIONS

V3V ELEMENT	100 SIZE	1/4 THREADED PORT	MANUAL TYPE OF COMMAND
V3V	100	1/4	Manual (lockable)
		3/8	
	200	1/4	Pneumatic
		3/8	
		1/2	
	300	1/2	Solenoid pilot assisted
		3/4	
		1	
	400	1	Solenoid
		1 1/4	
		1 1/2	
		1 1/2	
		2	

ORDERING CODES

Code	Description	Code	Description	Code	Description
Skillair® 100 3-WAY VALVE					
3270001A	V3V 100 lockable without end plates	4470001A	V3V 300 lockable without end plates	6169010A	V3V 400 key-operated without end plates
3269000A	V3V 100 pneumatic without end plates	4469000A	V3V 300 pneumatic without end plates	6169000A	V3V 400 pneumatic without end plates
3269001A	V3V 100 solenoid without end plates	4469004A	V3V 300 solenoid cnomo without end plates	6169004A	V3V 400 solenoid cnomo without end plates
3269002A	V3V 100 solenoid pilot assisted without end plates	4469005A	V3V 300 solenoid cnomo pilot-assisted w/end plates	6169005A	V3V 400 solenoid cnomo pilot-assisted w/end plates
3270001	V3V 100 1/4 lockable	4470001	V3V 300 1/2 lockable	6170002A	V3V 400 lockable without end plates
3269000	V3V 100 1/4 pneumatic	4469000	V3V 300 1/2 pneumatic	6169010	V3V 400 1 key-operated
3269001	V3V 100 1/4 solenoid	4469004	V3V 300 1/2 solenoid cnomo	6169000	V3V 400 1 pneumatic
3269002	V3V 100 1/4 solenoid pilot assisted	4469005	V3V 300 1/2 solenoid cnomo assisted	6169004	V3V 400 1 solenoid cnomo
3370001	V3V 100 3/8 lockable	4570001	V3V 300 3/4 lockable	6169005	V3V 400 1 solenoid cnomo assisted
3369000	V3V 100 3/8 pneumatic	4569000	V3V 300 3/4 pneumatic	6269010	V3V 400 1 1/4 key-operated
3369001	V3V 100 3/8 solenoid	4569004	V3V 300 3/4 solenoid cnomo	6269000	V3V 400 1 1/4 pneumatic
3369002	V3V 100 3/8 solenoid pilot assisted	4569005	V3V 300 3/4 solenoid cnomo assisted	6269004	V3V 400 1 1/4 solenoid cnomo
Skillair® 200 3-WAY VALVE					
3470001A	V3V 200 lockable without end plates	4669000	V3V 300 1 pneumatic	6269005	V3V 400 1 1/4 solenoid cnomo assisted
3469000A	V3V 200 pneumatic without end plates	4669004	V3V 300 1 solenoid cnomo	6369010	V3V 400 1 1/2 key-operated
3469001A	V3V 200 solenoid without end plates	4669005	V3V 300 1 solenoid cnomo assisted	6369000	V3V 400 1 1/2 pneumatic
3469002A	V3V 200 solenoid pilot assisted without end plates	4670001	V3V 300 1 lockable	6369004	V3V 400 1 1/2 solenoid cnomo
3469004A	V3V 200 solenoid cnomo comm. w/end plate			6369005	V3V 400 1 1/2 solenoid cnomo assisted
3469005A	V3V 200 solenoid cnomo ass. comm. w/end plate			6469010	V3V 400 2 key-operated
3470001	V3V 200 1/4 lockable			6469000	V3V 400 2 pneumatic
3469000	V3V 200 1/4 pneumatic			6469004	V3V 400 2 solenoid cnomo
3469001	V3V 200 1/4 solenoid			6469005	V3V 400 2 solenoid cnomo assisted
3469002	V3V 200 1/4 solenoid pilot assisted			6170002	V3V 400 1 lockable
3469004	V3V 200 1/4 solenoid cnomo comm.			6270002	V3V 400 1 1/4 lockable
3469005	V3V 200 1/4 solenoid cnomo pilot-assisted			6370002	V3V 400 1 1/2 lockable
3570001	V3V 200 3/8 lockable			6470002	V3V 400 2 lockable
3569000	V3V 200 3/8 pneumatic				
3569001	V3V 200 3/8 solenoid				
3569002	V3V 200 3/8 solenoid pilot assisted				
3569004	V3V 200 3/8 solenoid cnomo comm.				
3569005	V3V 200 3/8 solenoid cnomo pilot-assisted				
3670001	V3V 200 1/2 lockable				
3669000	V3V 200 1/2 pneumatic				
3669001	V3V 200 1/2 solenoid				
3669002	V3V 200 1/2 solenoid pilot assisted				
3669004	V3V 200 1/2 solenoid cnomo comm.				
3669005	V3V 200 1/2 solenoid cnomo pilot-assisted				

UNITS

Skillair® SHUT-OFF VALVE

Skillair® PROGRESSIVE START VALVE



The 2/2 progressive valve comes in two versions, with solenoid or pneumatic actuation.

STD progressive start valve: a differential balanced valve automatically opens the air port fully when the downstream pressure is about 50% of the upstream pressure.

Progressive start valve with pneumatic or solenoid actuation: without a pilot, the upstream air flows downstream through the regulation needle.

When an external or pneumatic solenoid signal is generated, the valve opens the main port to create full flow. It does not relieve the downstream circuit.



TECHNICAL DATA		VAP 100	
		1/4"	3/8"
Threaded port		1/4"	3/8"
Min. inlet pressure **	MPa	0.3	
	bar	3	
	psi	43.5	
Max. inlet pressure*	MPa	1.5	
	bar	15	
	psi	217	
Flow rate at 6 bar (0.6 MPa to 87 psi) ΔP 0.5 bar (0.05 MPa to 7 psi)	l/min	1300	
	scfm	46	
Flow rate at 6 bar (0.6 MPa to 87 psi) ΔP 1 bar (0.1 MPa to 14 psi)	l/min	2000	
	scfm	71	
Max temperature	°C	50	
	°F	122	
Weight	kg	0.5 ~	
Wall fixing screws		M4 x 50	
Mounting position		In any position	
Type of control		Automatic - Pneumatic - Solenoid - Solenoid pilot-assisted	
Fluid		Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous	
** 0.01 MPa – 0.1 bar – 1.45 psi for pneumatic and pilot-assisted versions with controls at min. 0.3 MPa 3 bar 43.5 psi.			
* 1 MPa – 10 bar – 145 psi			

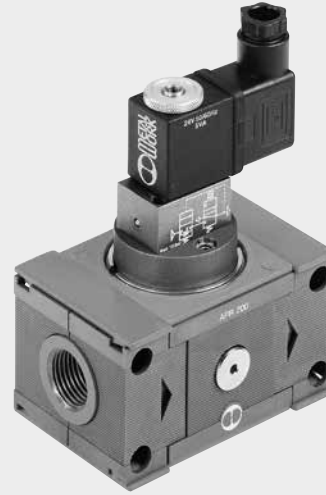
UNITS
Skillair® PROGRESSIVE START VALVE

Skillair® PROGRESSIVE STARTER



The job of the progressive starter is to feed air into the circuit gradually with controlled flow. It comes in two versions with solenoid or pneumatic actuation. Both control signals cause the valve to open, which allows the air controlled by the flow regulator to flow slowly towards the downstream circuit. In the APR, when the pressure in the downstream circuit reaches 50%-60% of the upstream pressure, the valve opens the main inlet duct connecting. The time elapsing between starting and opening the valve can be adjusted via the built-in flow regulator. If it is necessary to relieve the downstream circuit quickly, merely operate the control valve which cuts off air flow in the pipe. This closes the valve and starts relieving the downstream circuit. The progressive starter acts both as an actuator positioner, which eliminates the risk of sudden kickback, and as a valve.

N.B. With size 400, when the APR is mounted upstream of the regulator, the pilot regulator must be piloted at a pressure taken upstream of the APR, otherwise when the system is relieved, most of the air downstream will be relieved by the regulator and not the APR relief port. For connecting instruction see page C3.23

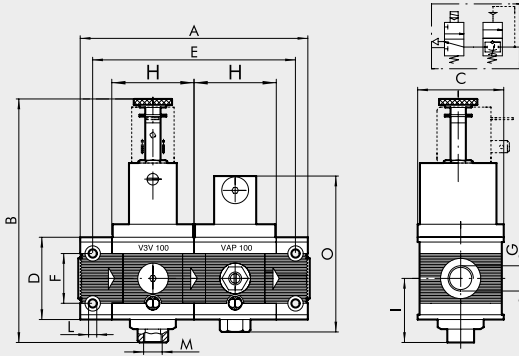


TECHNICAL DATA	APR 100		APR 200			APR 300			APR 400			
	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Threaded port												
Min. inlet pressure	MPa	0.3	0.3	0.3		0.4			0.3			0.3
	bar	3	3	3		4			3			3
	psi	43.5	43.5	43.5		58			43.5			43.5
Max. inlet pressure*	MPa	1.5	1.3	1.3		1.3			1			1
	bar	15	13	13		13			10			10
	psi	217	188.5	188.5		188.5			145			145
Flow rate at 6.3 bar (0.63 MPa to 91 psi)	Nl/min	1300	2000			2400			13000			14000
ΔP 0.5 bar (0.05 MPa to 7 psi)	scfm	46	71			85			460			494
Flow rate at 6.3 bar (0.63 MPa to 91 psi)	Nl/min	2000	3200			3600			-			-
ΔP 1 bar (0.1 MPa to 14 psi)	scfm	71	113			127			-			-
Max temperature	°C	50	50			50			50			50
	°F	122	122			122			122			122
Weight	kg	~ 0.8	~ 0.9			~ 1.5			5.6			6.4
Wall fixing screws		M4 x 50	M5 x 60			M5 x 70			M6 x 110			M6 x 110
Type of control		Pneumatic	Pneumatic			Pneumatic			Pneumatic - Solenoid			
		Solenoid	Solenoid	CNOMO Solenoid		CNOMO Solenoid						
Mounting position		In any position										
Fluid		Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.										
Notes on use		For the pneumatic version 200 the pilot pressure must range between the inlet P and the inlet P + 2 bar.										
		For pneumatic version 300, the pilot pressure must be greater or equal to the input pressure.										
		* 1 MPa - 10 bar - 145 psi for solenoid version										

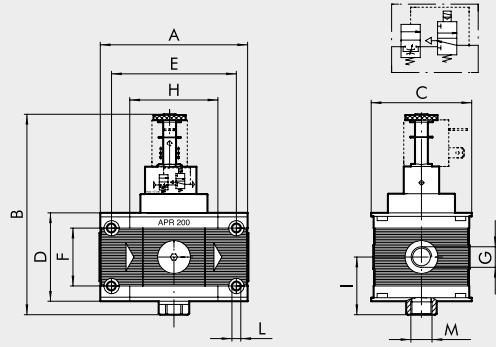
UNITS
Skillair® PROGRESSIVE STARTER

DIMENSIONS APR SOLENOID

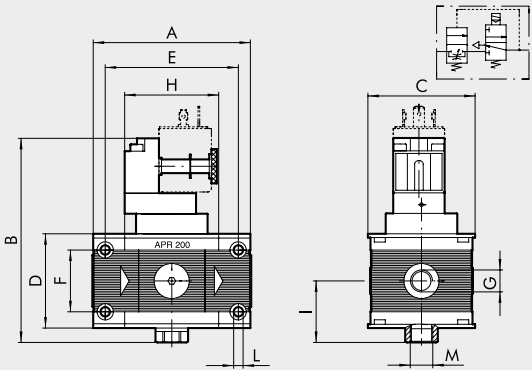
APR 100 SOLENOID



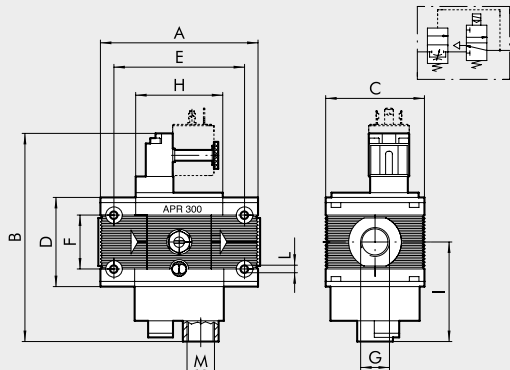
APR 200 SOLENOID



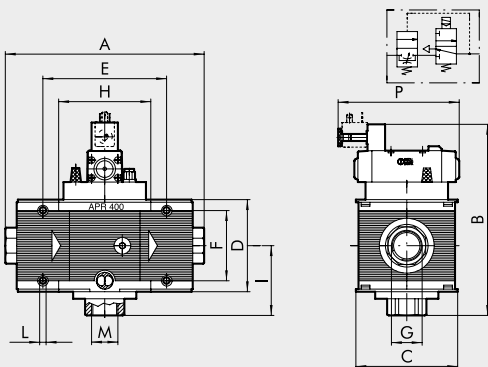
APR 200 CNOMO SOLENOID



APR 300 CNOMO SOLENOID



APR 400 SOLENOID



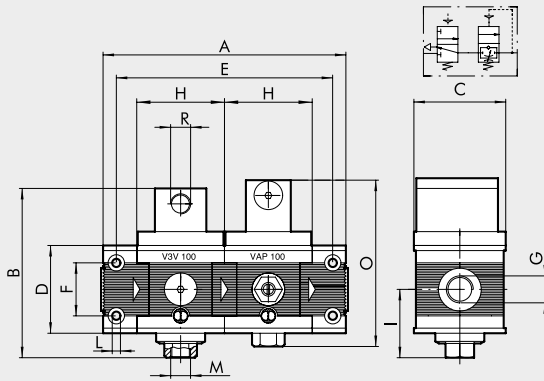
UNITS

Skilair® PROGRESSIVE STARTER

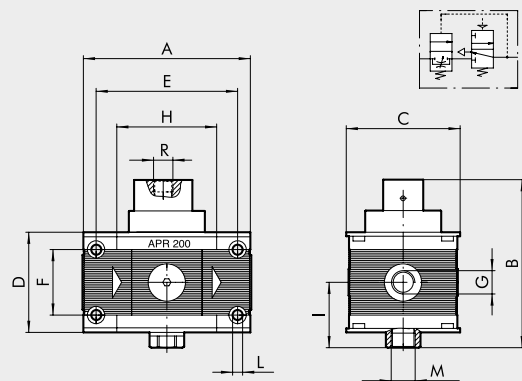
	APR 100 ELPN		APR 200 ELPN			APR 200 ELPN CNOMO			APR 300 ELPN CNOMO			APR 400 ELPN			
Threaded port G	1/4"	3/8"	1/4"	3/8"	1/2"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
A	121		93.5			93.5			110	112		225 to 255			
B	128		125			120				152		218			
C	50		63			63				72		118			
D	43		55			55				65		105			
E	106		78.5			78.5				92		141.4			
F	26		36			36				42		80			
H	43		55.5			55.5				65		105.4			
I	34.5		36			36				74		80			
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws			Hole for M5 screws			Hole for M6 screws			
M (relief)	1/8"		1/4"			1/4"			1/2"			1"			
O	83.5		-			-			-			-			
P	-		-			-			-			138			

DIMENSIONS APR PNEUMATIC

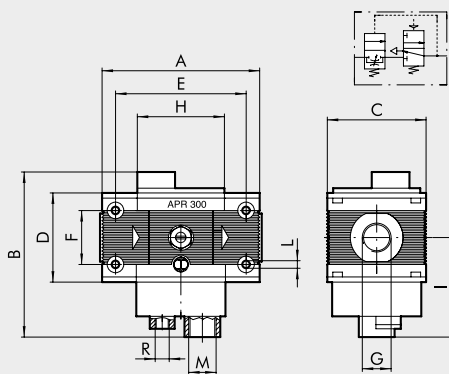
APR 100 PNEUMATIC



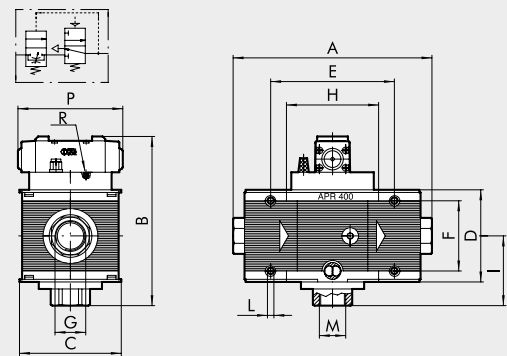
APR 200 PNEUMATIC



APR 300 PNEUMATIC



APR 400 PNEUMATIC



Threaded port G	APR 100 PN		APR 200 PN			APR 300 PN			APR 400 PN			
	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
A	121			93.5		110		112		225 to 255		283 to 313
B	83			92			122			193		
C	50			63			72			118		
D	43			55			65			105		
E	106			78.5			92			141.4		
F	26			36			42			80		
H	43			55.5			65			105.4		
I	34.5			36			74			80		
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws			Hole for M6 screws			
M (relief)	1/8"			1/4"			1/2"			1"		
R (pilot)	1/8"			1/8"			1/4"			M5		
P	-			-			-			119		

SYNOPTIC, SIZES AND VERSIONS

APR ELEMENT	100 SIZE	1/4 THREADED PORT	PNEUMATIC TYPE OF CONTROL
APR	100	1/4	Pneumatic Solenoid
		3/8	
	200	1/4	
		3/8	
		1/2	
	300	1/2	
		3/4	
		1	
	400	1	
		1 1/4	
		1 1/2	
		2	

ORDERING CODES

Code	Description	Code	Description
Skillair® 100 PROGRESSIVE STARTER		Skillair® 300 PROGRESSIVE STARTER	
3267001A	APR 100 pneumatic without end plates	4471900A	APR 300 pneumatic without end plates
3267051A	APR 100 solenoid without end plates	4471901A	APR 300 solenoid cromo without end plates
3267001	APR 100 1/4 pneumatic	4471900	APR 300 1/2 pneumatic
3267051	APR 100 1/4 solenoid	4471901	APR 300 1/2 solenoid cromo control
3367001	APR 100 3/8 pneumatic	4571900	APR 300 3/4 pneumatic
3367051	APR 100 3/8 solenoid	4571901	APR 300 3/4 solenoid cromo control
Skillair® 200 PROGRESSIVE STARTER		Skillair® 400 PROGRESSIVE STARTER	
3471000A	APR 200 pneumatic without end plates	6171002A	APR 400 pneumatic without end plates
3471001A	APR 200 solenoid without end plates	6171003A	APR 400 solenoid without end plates
3471004A	APR 200 solenoid cromo without end plates	6171002	APR 400 1 pneumatic
3471000	APR 200 1/4 pneumatic	6171003	APR 400 1 solenoid
3471001	APR 200 1/4 solenoid	6271002	APR 400 1 1/4 pneumatic
3471004	APR 200 1/4 solenoid cromo control	6271003	APR 400 1 1/4 solenoid
3571000	APR 200 3/8 pneumatic	6371002	APR 400 1 1/2 pneumatic
3571001	APR 200 3/8 solenoid	6371003	APR 400 1 1/2 solenoid
3571004	APR 200 3/8 solenoid cromo control	6471002	APR 400 2 pneumatic
3671000	APR 200 1/2 pneumatic	6471003	APR 400 2 solenoid
3671001	APR 200 1/2 solenoid		
3671004	APR 200 1/2 solenoid cromo control		

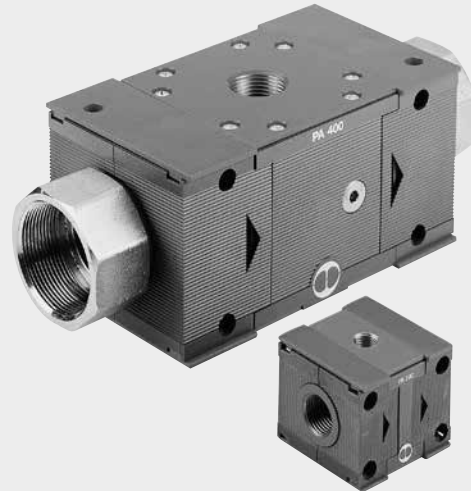
UNITS

AVIATORE PROGRESSIVO Skillair®

Skillair® AIR TAKE-OFF



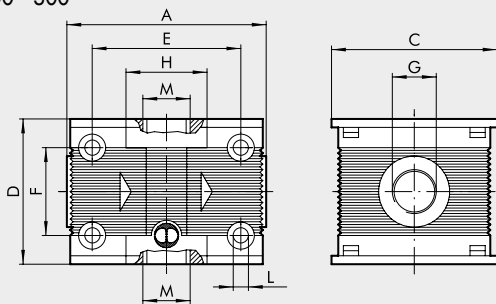
The air take-off takes air from the Skillair® FRL unit irrespective of the assembly position. It is necessary when air needs to be taken from the FRL unit at any stage of the treatment (normal, filtered and regulated, lubricated, etc.). If used separately from the FRL unit, which is infinitely modular, it acts as a distributor allowing air take-off through the threaded ports.



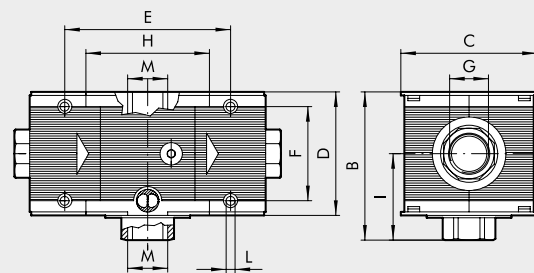
TECHNICAL DATA		PA 100		PA 200			PA 300			PA 400			
Threaded port		1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Max. working temperature	°C	50		50			50			50			
at: 1 MPa; 10 bar; 145 psi	°F	122		122			122			122			
Max. operating pressure	MPa	1.5		1.3			1.3			1.3			
	bar	15		13			13			13			
	psi	217		188			188			188			
Wall fixing screws		M4 x 50		M5 x 60			M5 x 70			M6 x 110			
Threaded port		G 1/4		G 1/4			G 3/8			G 1			
Weight	kg	0.3		0.5			0.8			4.3		5.1	

DIMENSIONS AND ORDERING CODES

100 - 200 - 300



400



	PA 100		PA 200			PA 300			PA 400				Code	Description
Threaded port G	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"	9200402A	PA 100 without end plates
A	59		63			117		119	225 to 255		283 to 313		9200402	PA 100 1/4
B	-		-			-		-	120		-		9300401	PA 100 3/8
C	50		63			72		72	118		-		9300402A	PA 200 without end plates
D	43		55			65		65	105		-		9300404	PA 200 1/2
E	44		48			59		59	141.4		-		9300402	PA 200 1/4
F	26		36			42		42	80		-		9300403	PA 200 3/8
H	24		25			32		32	105.4		-		9400402A	PA 300 without end plates
I	-		-			-		-	67.5		-		9500402	PA 300 1
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws		Hole for M5 screws	Hole for M6 screws		-		9400402	PA 300 1/2
M	1/4"		1/4"			3/8"		3/8"	1"		-		9500401	PA 300 3/4
													9700401A	PA 400 without end plates
													9700401	PA 400 1
													9700403	PA 400 1 1/2
													9700402	PA 400 1 1/4
													9700404	PA 400 2

UNITS

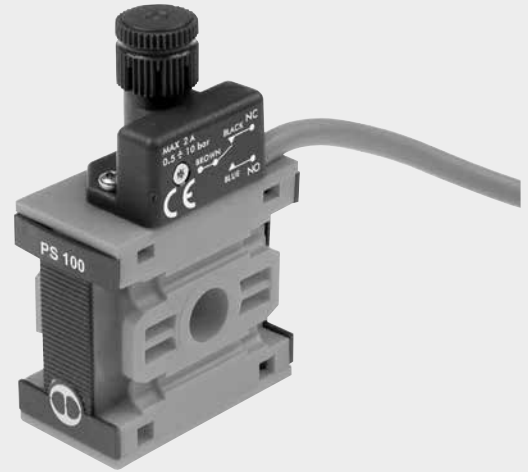
Skillair® AIR TAKE-OFF

Skillair® PRESSURE SWITCHES

Skillair® pressure switches feature a high degree of miniaturisation and a modern attractive design. As they are extremely modular, the Skillair® series can be installed facing up or down.

They come ready assembled with a 2-metre cable or an M8 connector with a 300-mm cable.

The contact is the switching type, which means it can be normally open or normally closed. It can be regulated via a knurled push-lock handle. On the side opposite the regulation handle is a threaded air inlet port that can be used by removing the threaded plug.

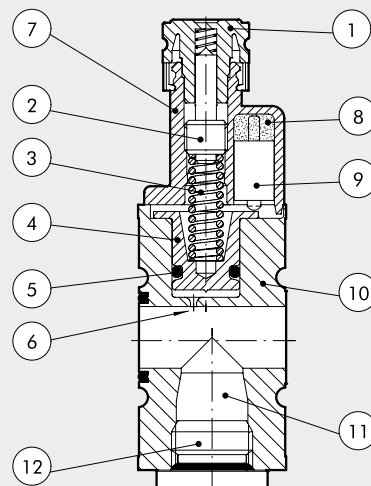


TECHNICAL DATA

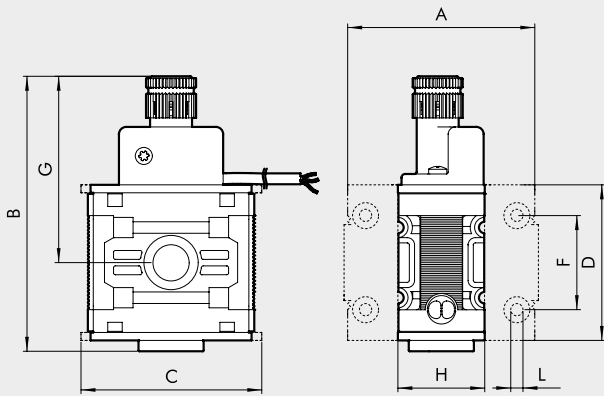
		PS 100	PS 200	PS 300
Adjustable pressure interval	bar		0.5 to 10	
Hysteresis (not adjustable)	bar		from 0.4 to 0.8 (See diagram)	
Maximum pressure	bar	15	13	13
	MPa	1.5	1.3	1.3
Operating temperature range at: 1 MPa; 10 bar; 145 psi	psi	217	188	188
	°C		-10 to 50	
	°F		14 to 122	
Lower threaded port		1/4"	1/4"	3/8"
Maximum current	A		2	
Maximum voltage	V		250	
Outside diameter of cable	mm		4.9	
Number of wires and cross section			3 x 0.5 mm ²	
Contacts			Normally-Open (NO) and Normally-Closed (NC)	
Protection			IP65	
Number of switchings			5 x 10 ⁶	
Fluid			Filtered lubricated or unlubricated compressed air. Lubrication, if used, must be continuous.	
Mounting position			In any position.	
Weight	kg	0.160	0.185	0.250

COMPONENTS

- ① Technopolymer adjusting push-lock handle
- ② Brass adjusting screw
- ③ Steel piston spring
- ④ Brass piston
- ⑤ NBR gasket
- ⑥ Choke to reduce peaks in pressure
- ⑦ Technopolymer pressure switch body
- ⑧ Resin finish for IP65
- ⑨ Electrical contact
- ⑩ Technopolymer body
- ⑪ Supplementary air inlet port
- ⑫ A7 plug



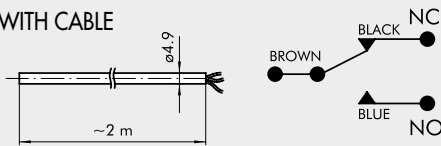
DIMENSIONS



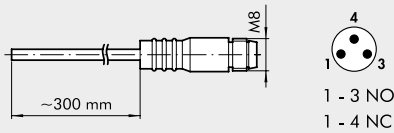
	PS 100	PS 200	PS 300
A	59	63	177
B	76	85	99
C	50	63	72
D	43	55	65
F	26	36	42
G	52	58	63
H	24	25	32
L	Hole for M4 screws	Hole for M5 screws	Hole for M5 screws

WIRING DIAGRAM

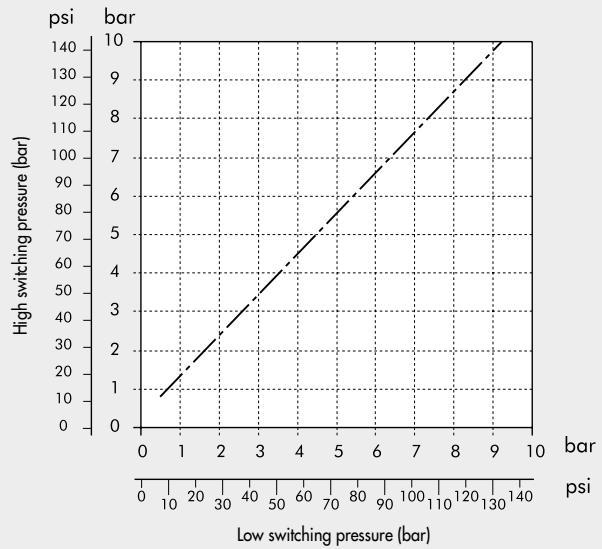
VERSION WITH CABLE



VERSION WITH M8 CONNECTOR



HYSTERESIS GRAPH

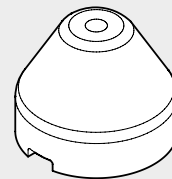


ORDERING CODES

Code	Description
Skillair® 100 PRESSURE SWITCHES	
3240000A	PS 100 2A NO/NC 2 m cable without end plates
3240001A	PS 100 2A NO/NC M8 connector without end plates
Skillair® 200 PRESSURE SWITCHES	
3440000A	PS 200 2A NO/NC 2 m cable without end plates
3440001A	PS 200 2A NO/NC M8 connector without end plates
Skillair® 300 PRESSURE SWITCHES	
4440000A	PS 300 2A NO/NC 2 m cable without end plates
4440001A	PS 300 2A NO/NC M8 connector without end plates

ACCESSORIES

SECURITY KNOB



Code	Description
9200703	Security knob APR / pressure switch

NOTE: Pull outwards to remove the knob from the pressure switch on the unit. Insert the security knob and regulate the pressure switch. Then press the handle firmly to lock it in position. If the pressure switch needs to be reset, remove the security knob by forcing it laterally with a screwdriver.

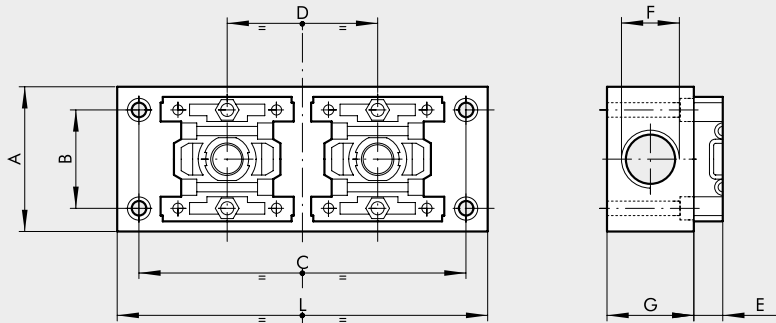
Skillair® SUB-BASE AND ADAPTER BASE

The adapter base is used to adapt the Skillair® FRL system to various assemblies without affecting modularity or servicing.
If you use the universal adapter base plus the intermediate plate, you can assemble several elements of different sizes.

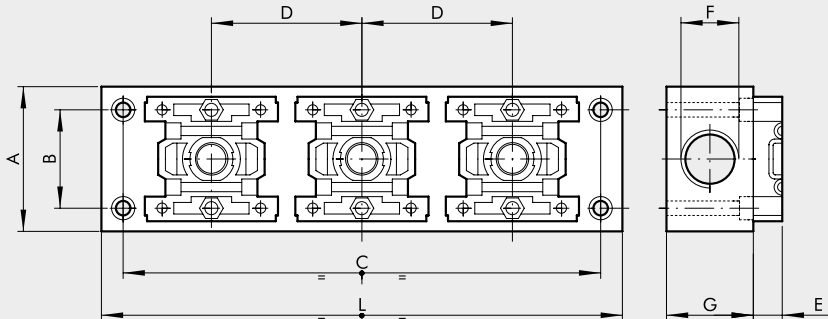


DIMENSIONS

2-POSITION SUB-BASE

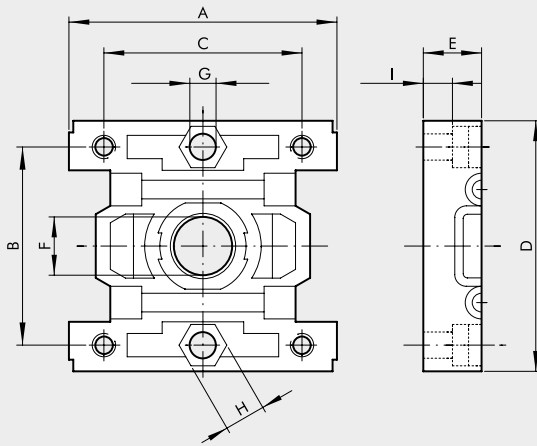


3-POSITION SUB-BASE



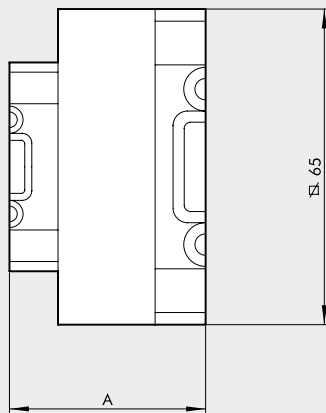
	100 - 2 POS.	100 - 3 POS.	200 - 2 POS.	200 - 3 POS.	300 - 2 POS.	300 - 3 POS.
A	50	50	55	55	60	60
B	34	34	44	44	49	49
C	113	165	135	200	155	230
D	52	52	65	65	75	75
E	10	10	8.5	8.5	10.5	10.5
F	1/2"	1/2"	3/4"	3/4"	3/4"	3/4"
G	30	30	40	40	40	40
L	128	180	150	215	170	245

DIMENSIONS OF ADAPTER BASE



	BA 100	BA 200	BA 300
A	46	59	69
B	34	44	49
C	34	44	49
D	43	55	65
E	10	8.5	10.5
F	10	15	18
G	Hole for M4 screws	Hole for M4 screws	Hole for M5 screws
H	Es. 7	Es. 7	Es. 7
I	5	2	5

DIMENSIONS OF SIZE ADAPTERS



	BA 100 - 200	BA 100 - 300	BA 200 - 300
A	38.5	40.5	39

ORDERING CODES

Code	Description
MULTIPLE SUB-BASES FOR REGULATORS	
9200202	SB 2 100
9300202	SB 2 200
9400202	SB 2 300
9200302	SB 3 100
9300302	SB 3 200
9400302	SB 3 300
ADAPTER BASE	
9201801	BA 100
9321801	BA 200
9401801	BA 300
SIZE ADAPTER	
9301801	BA 100 - 200
9301802	BA 100 - 300
9301803	BA 200 - 300

NOTES

FIL + REG + LUB Skillair®

Refer to the sections on the single modules for a further description, components and other technical data.



TECHNICAL DATA		FRL 100		FRL 200			FRL 300			FRL 400			
Threaded port		1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Setting range		0 to 8 - 0 to 12		0 to 8 - 0 to 12			0 to 8 - 0 to 12			Depending on pilot regulator			
Degree of filtration	µm	5 - 20		5 - 20			5 - 20			5 - 20 - 50			
Max. inlet pressure	MPa	1.5		1.3			1.3			1.3			
	bar	15		13			13			13			
Flow rate at 6.3 bar ΔP 0.5 bar	psi	217		188			188			188			
	Nl/min	300		1300			2500			9000			
	scfm	11		46			89			320			
Flow rate at 6.3 bar ΔP 1 bar	Nl/min	800		3000			4500			-			
	scfm	28		106			160			-			
	Max temperature at 10 bar	°C	50		50			50			50		
	°F	122		122			122			122			
Weight	kg	0.75		1.5			2.9			~ 10			
Wall fixing screws		M4 x 50		M5 x 60			M5 x 70			M6 x 110			
Fluid		Compressed air											
Notes on use		The maximum inlet pressure for the version with RA automatic condensate drainage must not exceed 10 bar. Do not take air from pressure gauge ports.											

SYNOPTIC, SIZES AND VERSIONS

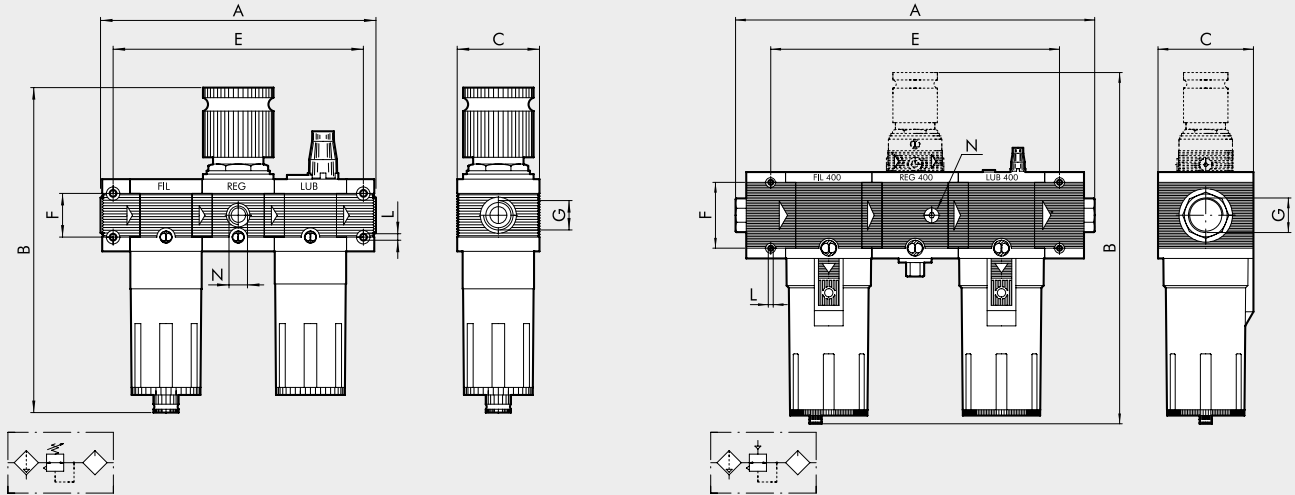
FRL ELEMENT	100 SIZE	1/4 THREADED PORT	20 DEGREE OF FILTRATION	08 SETTING RANGE	RMSA TYPE OF CONDENSATION DRAIN
FRL	100	1/4 3/8	5 = 5 µm 20 = 20 µm 50 = 50 µm	08 = 0 to 8 bar 012 = 0 to 12 bar	RMSA SAC
	200	1/4 3/8 1/2			RMSA SAC RA
	300	1/2 3/4 1			RMSA RA
	400	1 1 1/4 1 1/2 2			

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure and flow rate.
RA: automatic drain with condensate discharge, independent of pressure and flow rate. (for size 200, 300 and 400).
Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port.
SAC: automatic drain with condensate discharge.
Operates by pressure drop – requires variable air take-offs. (for size 100 and 200)

DIMENSIONS FIL + REG + LUB

100 - 200 - 300

400



	FIL + REG + LUB 100		FIL + REG + LUB 200			FIL + REG + LUB 300			FIL + REG + LUB 400			
Threaded port G	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
A	164		204.5			240			436 to 466			
B	RMSA	199	245			278			444			
	RA	-	249			282			448			
	SAC	203	249			282			448			
C	50		63			72			118			
E	149		189.5			222			352			
F	26		36			42			80			
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws			Hole for M6 screws			
N (pressure gauge port)	1/8"		1/8"			1/8"			1/4"			

ORDERING CODES

Code Description

FIL+REG+LUB Skillair® 100

- 3282008 FRL 100 1/4 20 08 RMSA
- 3282011 FRL 100 1/4 20 012 RMSA
- 3382008 FRL 100 3/8 20 08 RMSA
- 3382011 FRL 100 3/8 20 012 RMSA

FIL+REG+LUB Skillair® 200

- 3482008 FRL 200 1/4 20 08 RMSA
- 3482011 FRL 200 1/4 20 012 RMSA
- 3582008 FRL 200 3/8 20 08 RMSA
- 3582011 FRL 200 3/8 20 012 RMSA
- 3682008 FRL 200 1/2 20 08 RMSA
- 3682011 FRL 200 1/2 20 012 RMSA

FIL+REG+LUB Skillair® 300

- 4482005 FRL 300 1/2 20 08 RMSA
- 4482008 FRL 300 1/2 20 012 RMSA
- 4582005 FRL 300 3/4 20 08 RMSA
- 4582008 FRL 300 3/4 20 012 RMSA
- 4682005 FRL 300 1 20 08 RMSA
- 4682008 FRL 300 1 20 012 RMSA

FIL+REG+LUB Skillair® 400

- 6182002 FRL 400 1 20 RMSA
- 6182005 FRL 400 1 20 RA
- 6282002 FRL 400 1 1/4 20 RMSA
- 6382002 FRL 400 1 1/2 20 RMSA
- 6482002 FRL 400 2 20 RMSA

The following versions are available on request:

- with 5 µm or 50 µm degree of filtration
- with SAC or RA condensate discharge

FR + LUB Skillair®

Refer to the sections on the single modules for a further description, components and other technical data.



UNITS

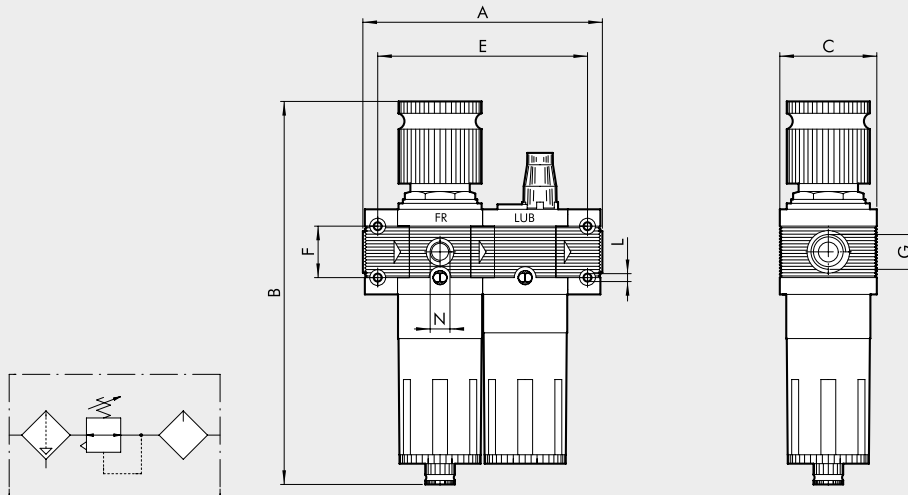
FR + LUB Skillair®

TECHNICAL DATA	FR + LUB 100		FR + LUB 200			FR + LUB 300		
	Threaded port	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"
Setting range	0 to 8 - 0 to 12		0 to 8 - 0 to 12			0 to 8 - 0 to 12		
Degree of filtration	5 - 20 - 50 μ m		5 - 20 - 50			5 - 20 - 50		
Max. inlet pressure	1.5 MPa		1.3			1.3		
	15 bar		13			13		
	217 psi		188			188		
Flow rate at 6.3 bar Δ P 0.5 bar	300 NI/min		1200			2300		
	11 scfm		43			82		
Flow rate at 6.3 bar Δ P 1 bar	800 NI/min		2400			4000		
	28 scfm		85			142		
Max temperature at 10 bar	50 $^{\circ}$ C		50			50		
	122 $^{\circ}$ F		122			122		
Weight	0.7 kg		1.35			2.7		
Wall fixing screws	M4 x 50		M4 x 60			M5 x 70		
Fluid	Compressed air							
Notes on use	<p>The maximum inlet pressure for the version with RA automatic condensate drainage must not exceed 10 bar. Do not take air from pressure gauge ports.</p>							

SYNOPTIC, SIZES AND VERSIONS

FR+L	100	1/4	20	08	RMSA	
ELEMENT	SIZE	THREADED PORT	DEGREE OF FILTRATION	SETTING RANGE	TYPE OF CONDENSATION RANGE	
FR+L	100	1/4 3/8	5 = 5 μ m 20 = 20 μ m 50 = 50 μ m	08 = 0 to 8 bar 012 = 0 to 12 bar	RMSA	<p>RMSA: drain with manual condensate discharge and automatic discharge at zero pressure</p> <p>RA: automatic drain with condensate discharge, independent of pressure and flow rate. (for size 200, 300). Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port.</p> <p>SAC: automatic drain with condensate discharge. Operates by pressure drop – requires variable air take-offs. (for size 100 and 200)</p>
	200	1/4 3/8			RMSA	
		3/8			SAC	
300	1/2	1/2	RA			
	3/4	3/4	RMSA			
	1	1	RA			

DIMENSIONS FR + L



	FR + LUB 100		FR + LUB 200			FR + LUB 300		
	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"
Threaded port G						1/2"	3/4"	1"
A	121		149			175		177
B	RMSA 199		245				278	
	RA -		249				282	
	SAC 203		249				282	
C	50		63				72	
E	106		134				157	
F	26		36				42	
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws		
N (pressure gauge port)	1/8"		1/8"			1/8"		

ORDERING CODES

Codie Description

FR+L Skillair® 100

- 3284008 FR+L 100 1/4 20 08 RMSA
- 3284011 FR+L 100 1/4 20 012 RMSA
- 3384008 FR+L 100 3/8 20 08 RMSA
- 3384011 FR+L 100 3/8 20 012 RMSA

FR+L Skillair® 200

- 3484008 FR+L 200 1/4 20 08 RMSA
- 3484011 FR+L 200 1/4 20 012 RMSA
- 3584008 FR+L 200 3/8 20 08 RMSA
- 3584011 FR+L 200 3/8 20 012 RMSA
- 3684008 FR+L 200 1/2 20 08 RMSA
- 3684011 FR+L 200 1/2 20 012 RMSA

FR+L Skillair® 300

- 4484005 FR+L 300 1/2 20 08 RMSA
- 4484008 FR+L 300 1/2 20 012 RMSA
- 4584005 FR+L 300 3/4 20 08 RMSA
- 4584008 FR+L 300 3/4 20 012 RMSA
- 4684005 FR+L 300 1 20 08 RMSA
- 4684008 FR+L 300 1 20 012 RMSA

The following versions are available on request:

- with 5 µm or 50 µm degree of filtration
- with SAC or RA condensate discharge

V3V + FR + LUB Skillair®

Refer to the sections on the single modules for a further description, components and other technical data.



UNITS

V3V + FR + LUB Skillair®

TECHNICAL DATA	V + FR + L 100		V + FR + L 200			V + FR + L 300			
	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	
Threaded port	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	
Setting range	0 to 8 - 0 to 12		0 to 8 - 0 to 12			0 to 8 - 0 to 12			
Degree of filtration	5 - 20 - 50		5 - 20 - 50			5 - 20 - 50			
Max. inlet pressure	MPa		MPa			MPa			
	1.5		1.3			1.3			
	bar		bar			bar			
Flow rate at 6.3 bar ΔP 0.5 bar	psi		psi			psi			
	217		188			188			
	NI/min		NI/min			NI/min			
Flow rate at 6.3 bar ΔP 1 bar	300		1200			2300			
	scfm		scfm			scfm			
	11		43			82			
Flow rate at 6.3 bar ΔP 1 bar	NI/min		NI/min			NI/min			
	800		2400			4000			
	scfm		scfm			scfm			
Max temperature at 10 bar	28		85			142			
	°C		°C			°C			
	50		50			50			
Weight	°F		°F			°F			
	122		122			122			
Wall fixing screws	kg		kg			kg			
Fluid	1		1.8			3.2			
Notes on use	M4 x 50		M5 x 60			M5 x 70			
	Compressed air.								
	The maximum inlet pressure for the version with RA automatic condensate drainage must not exceed 10 bar.								
	Do not take air from pressure gauge ports.								

SYNOPTIC, SIZES AND VERSIONS

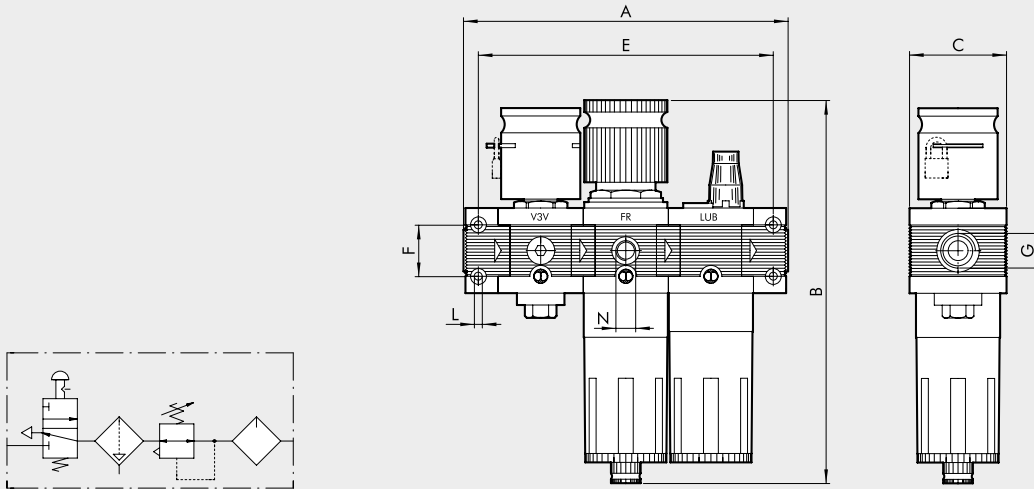
VFR+L	100	1/4	20	08	RMSA
ELEMENT	SIZE	THREADED PORT	DEGREE OF FILTRATION	SETTING RANGE	TYPE OF CONDENSATE DRAIN
VFR+L	100	1/4	5 = 5 µm 20 = 20 µm 50 = 50 µm	08 = 0 to 8 bar 012 = 0 to 12 bar	RMSA
	200	3/8			SAC
		1/4			RMSA
300	3/8	1/2	SAC		
		1/2	RA		
	3/4	RMSA			
		1	RA		

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure

RA: automatic drain with condensate discharge, independent of pressure and flow rate.
(for size 200, 300).
Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port.

SAC: automatic drain with condensate discharge.
Operates by pressure drop – requires variable air take-offs.
(for size 100 and 200)

DIMENSIONS V3V + FR + L



Threaded port G	V3V + FR + LUB 100		V3V + FR + LUB 200			V3V + FR + LUB 300		
	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"
A	164			204.5		240		242
B	RMSA 199			245			278	
	RA -			249			282	
	SAC 203			249			282	
C	50			63			72	
E	149			189.5			222	
F	26			36			42	
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws		
N (pressure gauge port)	1/8"		1/8"			1/8"		

ORDERING CODES

Code Description

VFR+L Skillair® 100

- 3272008 VFR+L 100 1/4 20 08 RMSA
- 3272011 VFR+L 100 1/4 20 012 RMSA
- 3372008 VFR+L 100 3/8 20 08 RMSA
- 3372011 VFR+L 100 3/8 20 012 RMSA

VFR+L Skillair® 200

- 3472008 VFR+L 200 1/4 20 08 RMSA
- 3472011 VFR+L 200 1/4 20 012 RMSA
- 3572008 VFR+L 200 3/8 20 08 RMSA
- 3572011 VFR+L 200 3/8 20 012 RMSA
- 3672008 VFR+L 200 1/2 20 08 RMSA
- 3672011 VFR+L 200 1/2 20 012 RMSA

VFR+L Skillair® 300

- 4472005 VFR+L 300 1/2 20 08 RMSA
- 4472008 VFR+L 300 1/2 20 012 RMSA
- 4572005 VFR+L 300 3/4 20 08 RMSA
- 4572008 VFR+L 300 3/4 20 012 RMSA
- 4672005 VFR+L 300 1 20 08 RMSA
- 4672008 VFR+L 300 1 20 012 RMSA

The following versions are available on request:

- with 5 µm or 50 µm degree of filtration
- with SAC or RA condensate discharge

FIL + LUB Skillair®

Refer to the sections on the single modules for a further description, components and other technical data.



UNITS

FIL + LUB Skillair®

TECHNICAL DATA		F + L 100		F + L 200			F + L 300			F + L 400			
Threaded port		1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Degree of filtration	µm	5 - 20 - 50		5 - 20 - 50			5 - 20 - 50			5 - 20 - 50			
Max. inlet pressure	MPa	1.5		1.3			1.3			1.3			
	bar	15		13			13			13			
Flow rate at 6.3 bar ΔP 0.5 bar	psi	217		188			188			188			
	Nl/min	600		1800			3200			9000		14000	
Flow rate at 6.3 bar ΔP 1 bar	scfm	21		64			113			320		500	
	Nl/min	1200		3200			4500			-		-	
Max temperature at 10 bar	scfm	42		113			160			-		-	
	°C	50		50			50			50			
Weight	°F	122		122			122			122			
	kg	0.5		1.1			2.2			~ 8			
Wall fixing screws		M4 x 50		M5 x 60			M5 x 70			M6 x 110			
Fluid		Compressed air.											
Notes on use		The maximum inlet pressure for the version with RA automatic condensate drainage must not exceed 10 bar.											

SYNOPTIC, SIZES AND VERSIONS

F+L	100	1/4	20	RMSA
ELEMENT	SIZE	THREADED PORT	DEGREE OF FILTRATION	TYPE OF CONDENSATE DRAIN
F+L	100	1/4 3/8	5 = 5 µm 20 = 20 µm 50 = 50 µm	RMSA SAC
	200	1/4 3/8 1/2		RMSA RA
	300	1/2 3/4 1		
	400	1 1 1/4 1 1/2 2		

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure

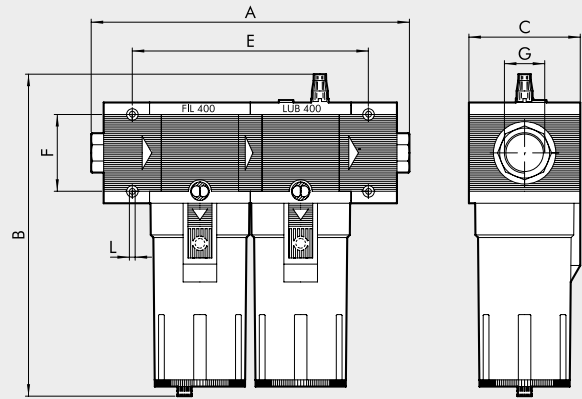
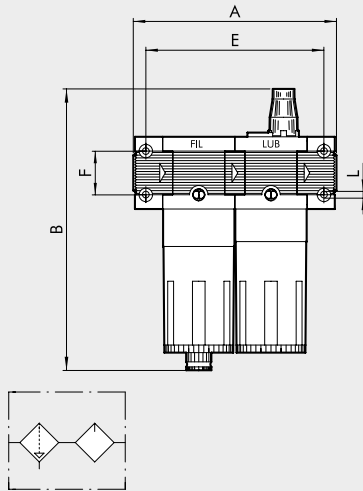
RA: automatic drain with condensate discharge, independent of pressure and flow rate.
(for size 200, 300 and 400).
Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port.

SAC: automatic drain with condensate discharge.
Operates by pressure drop – requires variable air take-offs.
(for size 100 and 200)

DIMENSIONS FIL + LUB

100 - 200 - 300

400



	FIL + LUB 100		FIL + LUB 200			FIL + LUB 300			FIL + LUB 400			
	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Threaded port G												
A	121		149			175		177	330 to 360			388 to 418
B	RMSA 172.5		203.5				223.5		349.5			
	RA -		207.5				227.5		353.5			
	SAC 176.5		207.5				227.5		353.5			
C	50		63				72		118			
E	106		134				157		247			
F	26		36				42		80			
L	Hole for M4 screws		Hole for M5 screws			Hole for M5 screws			Hole for M6 screws			

ORDERING CODES

Code Description

F+L Skillair® 100

- 3285002 F+L 100 1/4 20 RMSA
- 3385002 F+L 100 3/8 20 RMSA

F+L Skillair® 200

- 3485002 F+L 200 1/4 20 RMSA
- 3585002 F+L 200 3/8 20 RMSA
- 3685002 F+L 200 1/2 20 RMSA

F+L Skillair® 300

- 4485002 F+L 300 1/2 20 RMSA
- 4585002 F+L 300 3/4 20 RMSA
- 4585005 F+L 300 3/4 20 RA
- 4685002 F+L 300 1 20 RMSA

F+L Skillair® 400

- 6185002 F+L 400 1 20 RMSA
- 6185005 F+L 400 1 20 RA
- 6285002 F+L 400 1 1/4 20 RMSA
- 6385002 F+L 400 1 1/2 20 RMSA
- 6485002 F+L 400 2 20 RMSA

The following versions are available on request:

- with 5 µm or 50 µm degree of filtration
- with SAC or RA condensate discharge

FIL + DEP Skillair®

Refer to the sections on the single modules for a further description, components and other technical data.



UNITS

FIL + DEP Skillair®

TECHNICAL DATA			F + D 100		F + D 200			F + D 300			F + D 400			
Threaded port			1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Degree of filtration	Filter	µm	5		5			5			5			
	Depurator	µm	0.01		0.01			0.01			0.01			
Max. inlet pressure		MPa	1.5		1.3			1.3			1.3			
		bar	15		13			13			13			
		psi	217		188			188			188			
Max temperature at 10 bar		°C	50		50			50			50			
		°F	122		122			122			122			
Weight		kg	0.6		1.3			2.2			~ 7			
Wall fixing screws			M4 x 50		M5 x 60			M5 x 70			M6 x 110			
Maximun suggested flow rate			Please look at the flow rate curves at page C3.12											
Fluid			Compressed air.											
Notes on use			The maximum inlet pressure for the version with RA automatic condensate drainage must not exceed 10 bar.											

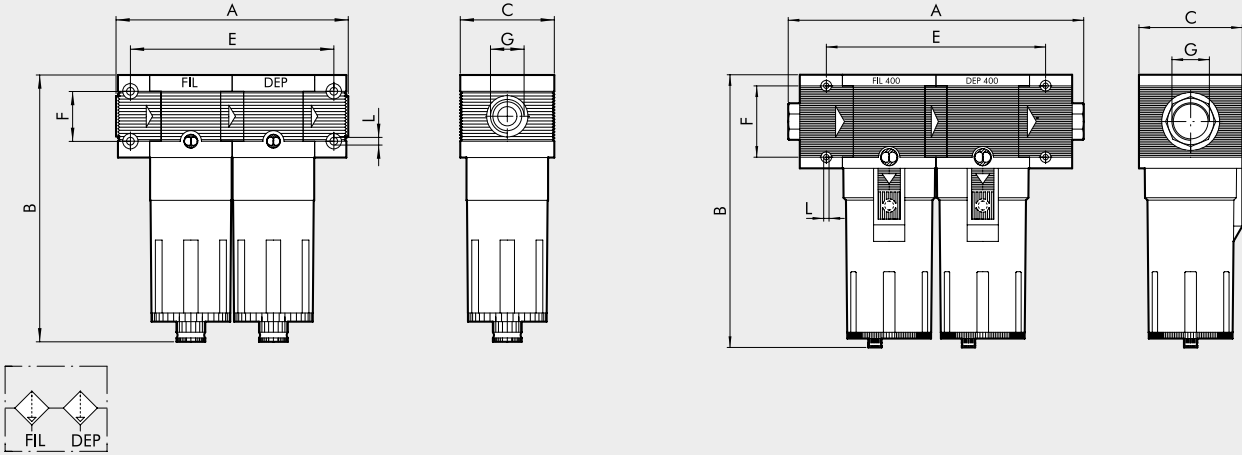
SYNOPTIC, SIZES AND VERSIONS

F+D	100	1/4	5	RMSA	
ELEMENT	SIZE	THREADED PORT	DEGREE OF FILTRATION	TYPE OF CONDENSATE DRAIN	
F+D	100	1/4 3/8	5 = 5 µm	RMSA SAC RMSA RA	RMSA: drain with manual condensate discharge and automatic discharge at zero pressure RA: automatic drain with condensate discharge, independent of pressure and flow rate. (for size 300 and 400). Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port. SAC: automatic drain with condensate discharge. Operates by pressure drop – requires variable air take-offs. (for size 100 and 200)
	200	1/4 3/8 1/2			
	300	1/2 3/4			
	400	1 1 1/4 1 1/2 2			

DIMENSIONS FIL + DEP

100 - 200 - 300

400



	FIL + DEP 100		FIL + DEP 200			FIL + DEP 300			FIL + DEP 400			
		1/4" 3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1" 1/4"	1" 1/2"	2"
Threaded port G												
A		121		149		175	177		330 to 360		388 to 418	
B	RMSA	144		175			195		320			
	RA	-		179			199		324			
	SAC	148		179			199		324			
C		50		63			72		118			
E		106		134			157		247			
F		26		36			42		80			
L		Hole for M4 screws		Hole for M5 screws			Hole for M5 screws		Hole for M6 screws			

ORDERING CODES

F+D Skillair® 100

Code	Description
3289001	F+D 100 1/4 5 RMSA-RMSA
3289005	F+D 100 1/4 5 SAC-RMSA
3289006	F+D 100 1/4 5 SAC-SAC
3389001	F+D 100 3/8 5 RMSA-RMSA
3389005	F+D 100 3/8 5 SAC-RMSA
3389006	F+D 100 3/8 5 SAC-SAC

F+D Skillair® 200

Code	Description
3489001	F+D 200 1/4 5 RMSA-RMSA
3489005	F+D 200 1/4 5 SAC-RMSA
3489006	F+D 200 1/4 5 SAC-SAC
3589001	F+D 200 3/8 5 RMSA-RMSA
3589005	F+D 200 3/8 5 SAC-RMSA
3589006	F+D 200 3/8 5 SAC-SAC
3689001	F+D 200 1/2 5 RMSA-RMSA
3689005	F+D 200 1/2 5 SAC-RMSA
3689006	F+D 200 1/2 5 SAC-SAC

F+D Skillair® 300

Code	Description
4489001	F+D 300 1/2 5 RMSA-RMSA
4489002	F+D 300 1/2 5 RA-RA
4589001	F+D 300 3/4 5 RMSA-RMSA
4589002	F+D 300 3/4 5 RA-RA
4689001	F+D 300 1 5 RMSA-RMSA
4689002	F+D 300 1 5 RA-RA

F+D Skillair® 400

Code	Description
6189001	F+D 400 1 5 RMSA-RMSA
6189002	F+D 400 1 5 RA-RA
6289001	F+D 400 1 1/4 5 RMSA-RMSA
6289002	F+D 400 1 1/4 5 RA-RA
6389001	F+D 400 1 1/2 5 RMSA-RMSA
6389002	F+D 400 1 1/2 5 RA-RA
6489001	F+D 400 2 5 RMSA-RMSA
6489002	F+D 400 2 5 RA-RA