

FITTINGS AND AIR TREATMENT



■ Male to male connection Pmax: 20 bar

Max Pressure (20 bar)

METRICAL FITTINGS - 20 BAR		
Male/Male	M 14 x 125	M 18 x 125
M 14 x 125		050.102.133 050.102.142 ⁽¹⁾
M 18 x 125	050.102.133 050.102.142 ⁽¹⁾	050.102.102

METRICAL ADAPTORS TOWARDS BSP - 20 BAR				
Male/Male	M 14 x 125	M 18 x 125	M 26 x 125	M 38 x 150
G 1/8" (BSP) (5 x 10)	050.102.412			
G 1/4" (BSP) (8 x 13)	050.102.405 050.102.441 ⁽¹⁾	050.102.408 050.102.444 ⁽¹⁾		
G 3/8" (BSP) (12 x 17)	050.102.410	050.102.411 050.102.436 ⁽¹⁾		
G 1/2" (BSP) (15 x 21)	050.102.513	050.102.406 050.102.418 ⁽¹⁾	050.102.402 050.102.437 ⁽¹⁾	
G 3/4" (BSP) (20 x 27)		050.102.429	050.102.407	
G 1" (BSP) (26 x 34)				050.102.433

METRICAL ADAPTORS TOWARDS NPT - 20 BAR	
Male/Male	M 26 x 125
1/2" NPT	050.102.507



■ Male to male connection Pmax: 60 bar

FITTINGS BSP (GAZ) - 60 BAR					
Male/Male	G 1/8" (5 x 10)	G 1/4" (8 x 13)	G 3/8" (12 x 17)	G 1/2" (15 x 21)	G 3/4" (20 x 27)
G 1/8" (5x10)		906.314.207 ⁽¹⁾			
G 1/4" (8 x 13)	906.314.207 ⁽¹⁾	050.102.213 906.314.203 ⁽¹⁾	904.523.003 906.314.204 ⁽¹⁾	050.102.211	
G 3/8" (12 x 17)		904.523.003 906.314.204 ⁽¹⁾	050.102.214 906.314.202 ⁽¹⁾	904.523.006 906.314.205 ⁽¹⁾	
G 1/2" (15 x 21)		050.102.211	904.523.006 906.314.205 ⁽¹⁾	050.102.212	904.523.012
G 3/4" (20 x 27)				904.523.012	050.102.215

FITTINGS NPT - 60 BAR		
Male/Male	1/4" NPT	3/8" NPT
1/4" NPT		905.083.201
3/8" NPT	905.083.201	

FITTINGS NPS - 60 BAR		
Male/Male	1/4" NPS	3/8" NPS
1/4" NPS	050.102.630	050.102.632
3/8" NPS	050.102.632	050.102.631 050.102.652 ⁽¹⁾

ADAPTOR NPS TOWARDS BSP (GAZ) - 60 BAR		
Male/Male	1/4" NPS	3/8" NPS
G 1/4" BSP	050.102.624 050.102.644 ⁽¹⁾	050.102.646 ⁽¹⁾
G 3/8" BSP	050.102.627 050.102.647 ⁽¹⁾	050.102.628 050.102.648 ⁽¹⁾
G 1/2" BSP	050.102.633	050.102.629 050.102.649 ⁽¹⁾
G 3/4" BSP		050.102.654 ⁽¹⁾

(1) Stainless steel fittings



Female to female connection Pmax: 60 bar

FITTINGS BSP (GAS) - 60 BAR	
Female/Female	G 1/4" (BSP)
G 1/4" (BSP) (8 x 13)	904.593.002
G 3/8" (BSP) (12 x 17)	904.503.003

ADAPTOR BSP (GAZ) TOWARDS METRIC - 20 BAR	
Female/Female	G 1/4" (BSP)
M 14 x 125	050.221.401

T FEMALE BSP (GAZ) - 60 BAR	
Description	Part number
Fittings 3 x G 1/4" (BSP) (8 x 13)	904.303.002
Fittings 3 x G 3/8" (BSP) (12 x 17)	904.303.003
Fittings 3 x G 1/2" (BSP) (15 x 21)	904.303.004
Fittings 3 x G 3/4" (BSP) (20 x 27)	904.303.006

T FEMALE NPT - 60 BAR	
Description	Part number
Fittings 3 x 1/4" NPT	905.083.301



Male to female connection Pmax: 20 - 60 bar

ADAPTOR NPS TOWARDS JIC, NPS AND METRIC - 20 BAR		
Female/Male	1/4" NPS	3/8" NPS
1/2" JIC	050.123.305 ⁽¹⁾	050.103.537 ⁽¹⁾
1/4" NPS	-	050.103.534 ⁽¹⁾
M 14 x 125	-	050.123.523 ⁽¹⁾

(1) Stainless steel fittings

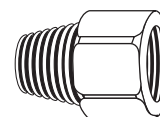
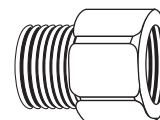
FITTINGS BSP (GAZ) - 60 BAR			
Female/Male	G 1/4" (8 x 13)	G 3/8" (12 x 17)	G 3/4" (20 x 27)
G 1/4" (8 x 13)	050.123.205	904.533.003	-
G 3/8" (12 x 17)	904.513.003	-	-
G 1/2" (15 x 21)	904.513.005	-	904.533.009
G 3/4" (20 x 27)	904.513.011	904.513.012	-
G 1" (26 x 34)	-	-	904.513.020

FITTINGS METRIC - 20 BAR			
Female/Male	M 14 x 125	M 18 x 125	M 26 x 125
M 14 x 125	-	050.123.109	-
M 18 x 125	050.123.101	-	050.123.110
M 26 x 125	-	050.123.106	-

ADAPTOR METRIC TOWARDS NPS - 20 BAR		
Female/Male	M 14 x 125	M 18 x 125
1/4" NPS	050.123.535	050.123.526
3/8" NPS	-	050.123.532

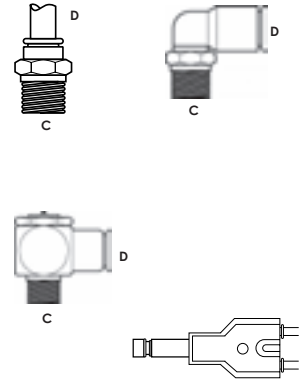
ADAPTOR JIC TOWARDS METRIC - 20 BAR		
Female/Male	M 14 x 125	M 18 x 125
1/2" JIC	050.230.619	050.230.620

ADAPTOR JIC TOWARDS NPS AND METRIC - 20 BAR	
Female/Male	1/2" JIC
1/4" NPS	050.123.304
3/8" NPS	050.123.533
M 18 x 125	050.123.521

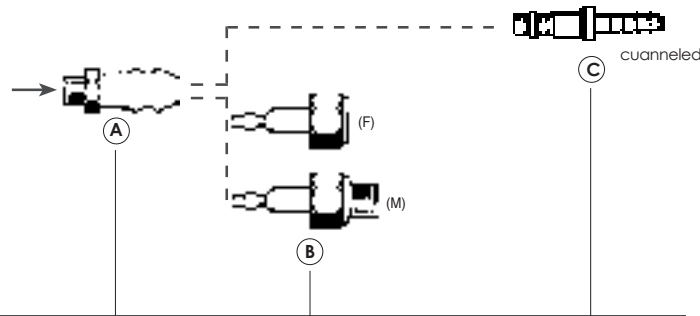


■ Quick fittings for small diameter special air hoses

CONFIGURATION FITTINGS				
C	D	Straight	Right angle 90°	T- piece
G 1/8" (5 x 10) BSP	4	905.120.907	905.120.926	-
G 1/8" (5 x 10) BSP	8	-	905.120.934	-
G 1/4" (8 x 13) BSP	4	-	905.120.927	-
G 1/4" (8 x 13) BSP	6	905.120.965	905.120.905	-
G 1/4" (8 x 13) BSP	8	905.120.904	905.120.912	905.120.920
6 x 8 hose T	T for hose 4 x 6	2,7 x 4 Hose T- piece		4 x 6/2,7 x 4 Reduction T- piece
905.120.915	905.120.903	905.120.957		905.120.928



■ ISO 6150 Quick-fit fittings (maximum pressure: 10 bar)



QUICK FITTINGS					
Type	Complete assembly A and B	Part A with built-in chutter valve	Part B	Part C for rubber hose	
				Ø 7	Ø 10
Ø5 (14x125)	905.030.405	905.030.102	905.030.406 (F)	905.030.203	905.030.204
Ø5 (1/4" BSP)	-	-	905.030.804 (M)	-	-
Ø5 (1/4" BSP)	-	-	905.030.803 (F)	-	-
Ø5 (1/4" NPS)	905.030.105	905.030.104	905.030.106 (F)	-	-
Holding collar	-	-	-	906.311.224	906.311.226

COMPLETE QUICK DISCONNECT 1/4" NPS FOR AIR HOSE	
Description	Part number
Air inlet quick-disconnect fitting	905.030.105

QUICK FITTINGS FOR Ø 8 HOSE		
Type	Part A with on/off press button for hose Ø 8	Part C for hose Ø 8
Ø 5	905.030.801	905.030.802

■ Fittings for low pressure polyamide hoses

FITTINGS CONFIGURATION			
Thread size	Material	Hoses Inter. Diameter (mm)	Part number
M 3/8" NPS	Nickel plated brass	6.35 - 1/4	050.231.350
M 1/4" NPS	Nickel plated brass	6.35 - 1/4	050.231.450
M 3/8" NPS	Nickel plated brass	9.52 - 3/8	905.140.103

■ Crimp fittings for low pressure air and fluid rubber hoses

FITTINGS CONFIGURATION				
Material	Thread size	Hoses Inter. Diameter (mm)	Part number	Collar
Straight fittings				
Nickel plated brass	1/4" NPS	7	050.231.705	906.311.224
Nickel plated brass	1/4" NPS	8	050.231.707	906.311.224
Nickel plated brass	1/4" NPS	10	050.231.702	906.311.226
Nickel plated brass	3/8" NPS	7	050.231.716	906.311.224
Nickel plated brass	3/8" NPS	10	050.231.706	906.311.226
Nickel plated brass	3/8" NPS	16	050.231.701	906.311.232
Stainless steel	M 14 x 125	5	050.230.610	906.311.208
Nickel plated brass	M 14 x 125	10	050.230.602	906.311.226
Nickel plated brass	M 18 x 125	7	050.230.616	906.311.224
Stainless steel	M 18 x 125	10	050.230.614	906.311.226
Nickel plated brass	M 18 x 125	10	050.230.606	906.311.226
Nickel plated brass	M 18 x 125	16	050.230.601	906.311.232
Nickel plated brass	M 26 x 125	16	050.230.603	906.311.232
Elbow fittings				
Nickel plated brass	M 18 x 125	10	050.250.202	906.311.226
Junction fittings without thread				
Nickel plated brass	-	7	050.190.403	906.311.224
Nickel plated brass	-	10	050.190.401	906.311.226



■ Plugs Pmax: 20 - 60 bar

PLUGS CONFIGURATION	
Description	Part number
Male	Male
G 1/8" (5 x 10)	906.333.106
G 1/4" (8 x 13)	906.333.102
G 3/8" (12 x 17)	906.333.104
G 1/2" (15 x 21)	906.333.103
G 3/4" (20 x 27)	906.333.105



■ Male to male fittings (protective coated steel) Pmax: 400 bar

FITTINGS CONFIGURATION			
Male/Male	1/2" JIC	3/4" JIC	7/8" JIC
1/2" JIC	050.102.301	905.160.201	550.914
3/4" JIC	905.160.201	905.160.202 - - 550.545	550.915
7/8" JIC	550.914	550.915	-



■ Male to female fittings (stainless steel) Pmax: 360 bar

FITTINGS CONFIGURATION	
Male/Male	1/2" JIC
3/4" JIC	050.123.301



■ Male to male adapters: Pmax: 360 bar

PROTECTED STEEL FITTINGS CONFIGURATION		
Male/Male	1/2" JIC	3/4" JIC
1/4" NPT	000.972.025	905.160.212
3/8" NPT	000.972.028	905.160.206
1/2" NPT	-	905.160.204
3/4" NPT	-	905.160.203



STAINLESS STEEL FITTINGS CONFIGURATION		
Male/Male	1/2" JIC	3/4" JIC
1/8" NPT	905.210.501	-
1/4" NPT	905.210.502	905.210.512
3/8" NPT	905.210.503	905.210.513
1/2" NPT	905.210.504	905.210.514
3/4" NPT	-	905.210.515

PROTECTED STEEL FITTING CONFIGURATION						
Male/Male	1/2" JIC	3/4" JIC	7/16" JIC	7/8" JIC	1 1/16" JIC	1 5/16" JIC
1/8" G co	550.548	-	550.920	-	-	-
1/4" G co	550.542	-	-	-	-	-
3/8" G co	550.549	550.679	-	550.609	-	-
1/2" G co	-	550.544	-	550.540	550.903	-
3/4" G co	550.905	-	-	550.823	550.864	550.932
1" G co	-	-	-	-	550.900	550.901

NICKEL-COATED FITTINGS CONFIGURATION		
Male/Male	1/2" JIC	3/4" JIC
3/8" NPT	050.470.202	905.160.103

■ Male to female elbow fittings Pmax: 360 bar

FITTINGS CONFIGURATION	
Male/Female (free nut)	1/2" JIC
1/2" JIC	905.160.101



■ Male to male elbow fittings (stainless steel) Pmax: 360 bar

FITTINGS CONFIGURATION		
Male/Male	1/2" JIC	3/4" JIC
1/4" NPT	905.210.602	905.210.612
3/8" NPT	905.210.603	905.210.613
1/2" NPT	905.210.604	-
3/4" NPT	-	905.210.615



■ Male to male elbow fittings (protective coated steel) Pmax: 360 bar

NPT FITTINGS CONFIGURATION		
Male/Male	1/2" JIC	3/4" JIC
1/8" NPT	905.160.105	-
1/4" NPT	000.972.176	905.160.102

G CO FITTING CONFIGURATION		
Male/Male	1/2" JIC	3/4" JIC
1/8" G co	905.160.106	-
1/4" G co	550.596	550.923
3/8" G co	551.819	-

■ Plugs Pmax: 360 bar

PLUGS CONFIGURATION	
Description	Part number
Female	
1/2" JIC	906.333.301
Male	
1/8" NPT	906.333.108

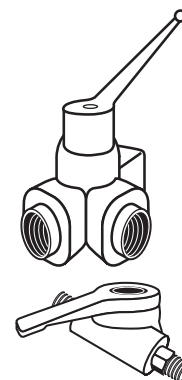


■ Low pressure valves

3 WAYS VALVE PART NUMBERS	
Description	Part number
3 x 1/4" BSP	903.090.804
3 x 1/4" BSP (stainless steel)	903.090.805

2 WAYS MALE/MALE VALVE PART NUMBERS			
Description	Input	Output	Part number
Ball valve	(M) G 1/4" (8 x 13)	(M) M 14 x 125	050.070.205
Inlet (male) G 3/8" (12 x 17) outlet (male) M 14 x 125	(M) G 3/8" (12 x 17)	(M) M 1/4" NPS	050.070.211
Inlet (male) G 1/2" (15 x 21) outlet (male) M 18 x 125	(M) G 1/2" (15 x 21)	(M) M 18 x 125	050.070.204
Inlet (male) G 1/2" (15 x 21) outlet (male) G 1/2 (15 x 21)	(M) G 1/2" (15 x 21)	(M) G 1/2" (15 x 21)	050.070.201
Inlet (male) G 3/8" (12 x 17) outlet (male) M 18 x 125	(M) G 3/8" (12 x 17)	(M) M 18 x 125	050.070.212

2 WAYS FEMALE/FEMALE VALVE PART NUMBERS			
Description	Input	Output	Part number
Valve	(F) 1/4" BSP (8 x 13)	(F) 1/4" BSP (8 x 13)	903.090.806
Valve	(F) 3/8" BSP (12 x 17)	(F) 3/8" BSP (12 x 17)	903.090.206



■ Air bleeding valves

AIR BLEDDING VALVE PART NUMBER	
Description	Part number
Inlet thread (male) G 1/4" (8 x 13)	903.093.302



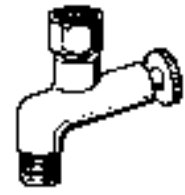
Needle valves

2 WAYS VALVE PART NUMBERS

Description	Input	Output	Part number
Female/Male	M 14 x 125	M 14 x 125	050.070.179
Male/Male	G 1/4" (8 x 13)	M 14 x 125	050.070.101

3 WAYS VALVE PART NUMBERS

Description	Part number
Female/male/male M 14 x 125	050.070.401



AIRLESS fluid valves

PART NUMBER

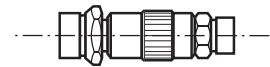
Description	Input	Output	Maximum fluid pressure (bar)	Part number
Female/Female	G 3/8" (12 x 17)	G 3/8" (12 x 17)	250 bar	000.750.040



Air line output control valves

VALVE PART NUMBERS

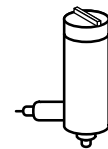
Description	Input	Output	Part number
Female/Male	G 1/4" (8 x 13)	G 1/8" (8 x 13)	050.070.190
Female/Male	M 14 x 125	M 14 x 125	050.070.179



Bleeding valves

BLEEDING VALVES PART NUMBERS

Description	Input	Output	Maximum fluid pressure (bar)	Part number
Male/Male	G 1/4" (8 x 13)	M 18 x 125	400	000.760.000



Fittings - General information

DETAILS

Denomination	Fitting characteristics	Geographical area	Max. operating pressure (bar)
M	cylindrical metric	France	20
G = BSP	conical gas (or cylindrical)	Europe - Asia	60
NPT	conical	USA - Asia	60
NPS	cylindrical	USA - Asia	60
JIC	cylindrical angle 74°	Universal	360

Regulators

1/4" (with grey or red knob) , 1/2" and 3/4" (with red ring) regulators are used on the compressed air lines.

CHARACTERISTICS			
Regulator	1/4"	1/2"	3/4"
Max. inlet pressure (bar)	9	20	21
Max. output (m ³ /h)	25	210	360

CONFIGURATION			
Description	Pressure (bar)	Type	Part number
Red knob regulator	3,5	1/4"	016.240.000
Grey knob regulator	3,5	1/4"	016.380.000
2 regulators 1/4" with isolating valves 2 manometers, 1 inlet valve - 1 outlet valve M 1/4" NPS	3,5 & 9	1/4"	019.400.000
Grey knob regulator	5,5	1/4"	016.390.000
Red knob regulator	5,5	1/4"	016.370.000
Regulator with pressure gauge inlet fitting 1/4" - outlet fitting M1/4" NPS	5,5	1/4"	019.720.000
Grey knob regulator	9	1/4"	016.360.000
Bare regulator	4	1/2"	016.200.000
Bare regulator	9	1/2"	016.280.000
Equipped regulator with pressure gauge and wall bracket	10	1/2"	019.780.100
2 regulators (1/4" + 1/2") with isolating valves 2 manometers, 1 inlet valve - 2 outlet valves M 1/4" NPS	9	1/4"	019.390.000
Red ring regulator	10	1/2"	016.470.000
Red ring regulator	10	3/4"	016.480.000



DE 37 Purifier-regulator with filter cartridges

Usually fitted in the paint spray booths. Its twin-body construction ensures completely water and oil free.

Technical characteristics:

- Maximum operating air output: 37 m³/h
- Maximum operating air pressure: 10 bar
- Height: 290 mm
- Air inlet opening: F1/4"G

Standard equipment:

- One regulated pressure gauge
- One F1/4"G
- One tap valve F1/4"G
- Two air outlet taps: M 1/4" NPS

SPECIFICATIONS	
Air output (m ³ /h)	37
Maximum fluid pressure (bar)	10
Height (cm)	29
Fitting	Air Inlet F8 x 13G
Set-up	1 regulated pressure gauge 1 valve F 1/4" G 1 ball valve F 1/4" G 2 air outlet taps M 1/4" NPS

PART NUMBERS	
Description	Part number
Purifier with DE 37 regulator	015.240.000
Blue cartridge for water	015.230.500
Red cartridge for oil	015.230.200



■ Regulators, filters and lubricators

Regulators with pressure gauges, filters and lubricators with polycarbon reservoirs are all modular, allowing you to put together the best air treatment equipment for your needs.

- Filter with trunnion deflector, transparent polycarbon reservoirs (heat resistant up to 50°C), manual bleed and a bronze filter capable of holding all particles larger than 5 microns.
- Regulator with pressure gauge: self-regulating and vibration free, pressure gauges from 0 to 12 bar/180 psi, equipped with automatic decompression system
- Lubricator with transparent polycarbon lid (heat resistant up to 50°C), flush adjustment screw; it lubricates by fine vaporisation
- Maximum operating pressure: 12 bar/180 psi

REGULATORS, FILTERS, LUBRICATORS CONFIGURATION (PART 1)				
Type	Inlet diameter	Outlet diameter	Output at 9 bar (l/mn)	Part number
Regulator with gauge				
M 150/2	1/4"	1/4"	1000	004.601.100
M 250/3	1/2"	1/2"	5250	004.601.300
Filter with polycarbonate tank				
M 100/2	1/4"	1/4"	1760	004.603.100
M 200/2	3/8"	3/8"	7000	004.603.200
Lubricator with polycarbonate tank				
M 110/2	1/4"	1/4"	2500	004.604.100
M 210/3	1/2"	1/2"	5250	004.604.300

REGULATORS, FILTERS, LUBRICATORS CONFIGURATION (PART 2)				
Type	Inlet diameter	Outlet diameter	Part number	
Bare 3/4" regulator	3/4" G	3/4" G	91.530	
Bare 3/4" regulator + filter	3/4" G	3/4" G	91.532	
3/4" regulator with manometer Ø 62 mm	3/4" G	3/4" G	91.531	
3/4" regulator with manometer Ø 62 mm + filter	3/4" G	3/4" G	91.533	
Filter 3/4" regulator	3/4" G	3/4" G	91.534	
3/4" regulator, filter, lubricator, adjusting valve on wall base	1/2" G	1/2" G	91.398	
Bare 1/4" regulator	1/4" G	1/4" G	91.551	
Bare 1/4" regulator + filter	1/4" G	1/4" G	91.555	
1/4" regulator with manometer Ø 62 mm	1/4" G	1/4" G	91.552	
1/4" regulator with manometer Ø 62 mm + filter	1/4" G	1/4" G	91.558	
Bare 1/4" filter	1/4" G	1/4" G	91.553	
Ø 62 mm manometer side output	-	-	151.080.094	
Ø 62 mm manometer rear output	-	-	151.080.091	
Wall bracket for 3/4" regulators	-	-	210.006	
Retaining ring for regulator (mounting on control panel)	-	-	91.540	
Locking mechanism for regulators	-	-	91.545	
Adjusting valve with lock	-	-	91.544	
Lubrication oil	-	-	149.990.017	



Part 1



Part 2

■ 3000 type filter systems

For a clean spraying air.
With active carbon

The 3000 type filter system with wall mounting kit is made up of:

- 1 Prefilter
with an air regulator, a control gauge and a purge
- 5 microns filtration
- holding dust and water condensats
- 1 coalescent filter
with a purge and 2 quick air fittings outlets
- filtration at 0.01 micron
- holding oil and solid particles
- Option:
An active carbon filter
- for filtering odours and oil vapours (to be mounted after the submicronic filter instead of the quick fitting)

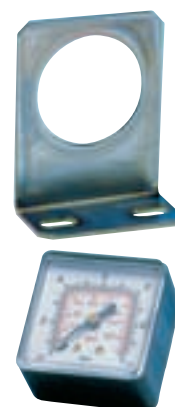
PART NUMBERS	
Description	Part number
Type 3000 filter assembly - inlet fitting: F 1/2" G - outlet fitting: F 1/2" G supplied with a T fitting and 2 quick fittings Ø 5	151.250.550
Cartridge 5m	151.250.501
Cartridge 0.01m	151.250.502
Option: active coal filter type 3000 inlet: M 1/2"G outlet: F 1/2" G	151.250.650
Active coal cartridge	151.250.601



■ Accessories

Allow the easy assembly and fitting of regulators, lubricators and filters to provide the ideal system.

PART NUMBERS	
Description	Part number
1/8" square pressure gauge - maxi pressure 12 bar	004.601.001
Regulator support bracket F 171/1 for 1/8" and 1/4"	004.601.002
Regulator support bracket F 176/1 for 3/8" and 1/2"	004.601.201



■ Pressure gauges

Built to last in metal with glass lenses, they are completely impact and solvent resistant.

CONFIGURATION			
Description	Internal diameter (mm)	Pressure range (bar)	Part number
Pressure gauge - central inlet	40	0 - 6	910.011.205
	40	0 - 2,5	910.011.208
Pressure gauge - central inlet	50	0 - 6	910.011.403
	50	0 - 10	910.011.402
Pressure gauge - side inlet	50	0 - 4	910.011.404



PRACTICAL PAGES

Choosing a pump

To optimize

- For the best pump capacity, first work out the output you are going to require. This will include the sprayguns themselves, and any circulation you plan to have within this system. Once you have this figure, multiply by 1.2, and then choose the pump of which output at 30 cycles per minute is the nearest.
- The compression ratio you will need is defined by the pressure losses due to the length and diameter of the hosing of your system. To calculate these pressure losses, see page 4.

Example

Let say you want to feed 3 conventional guns with an output of 500 cc/mn each, plus a circulation of 0,5 l/mn. The total output will thus be 2 l/mn. The optimal pump capacity would be: $(2\ 000 \times 1,2) \div 30 = 80$ cc/cycle. The best-suited pumps will be:

- the PMP 150 (output of 100 cc/cycle and pressure ratio of 1:1) for low viscosity materials and a small circulating (pressure loss < 3 bar).
- the 02.75 (output of 85 cc/cycle and pressure ratio of 2:1) for thicker materials and a normal circulating (pressure loss < 6 bar).
- the 04.120 (output of 240 cc/cycle and pressure ratio 4:1) for large pressure loss in circulating (up to 15 bar).

Pump Material Feeding

To guarantee the right delivery of product, we offer the following range of equipment for various product viscosity:

- 0 - 300 cps
 - suction rod.
- 300 to 8 000 cps
 - top outlet pressure pots,
 - pumps (gravity or suction rod),
 - pump with base intake valve.
- 8 000 to 15 000 cps
 - bottom outlet pressure pots,
 - pumps with suction rods,
 - compressor.
- 15 000 to 30 000 cps
 - no more pressure pot,
 - no more suction rod,
 - submerged hydraulic pump,
 - compressor,
 - pump with single action elevator.
- 30 000 à 1 000 000 cps and +
 - pumps with peak feeder and double action elevator.

Filtration equivalence

Mesh (number of holes in 25,4 mm)	Micron	N° filtre (mesh opening in µm)
10	1480	-
16	975	-
20	750	30
25	630	25
30	500	20
40	375	-
45	360	15
50	300	12
60	238	-
70	210	8
80	175	6
100	149	-
140	100	4
170	90	3
200	74	-
250	60	-
270	50	2
325	40	1
400	35	-

Pressure loss in fluid hoses

Pressure drop is the resistance that prevents material from moving forward in the pipe. Two pipe variables influence this resistance: the (inside/internal) diameter and the pipe length. The pump will generate a pressure, strong enough to move the fluid material through the pipe (or hose) to the material pipe outlet. This pressure must be enough to overcome the original pressure drop. While it is hard to reduce the pipe length, it is relatively easy to select an appropriate internal pipe diameter.

PRESSURE DROP CALCULATION

$$\text{Pressure loss (bar/m)} = \frac{6.9 \times \text{Flow (l/min)} \times \text{Viscosity (cps)}}{D^4 \text{ (int dia in mm)}}$$

$$\text{Pressure loss (psi/Ft)} = \frac{2.73 \times \text{Flow (gpm)} \times \text{Viscosity (cps)}}{D^4 \text{ (int dia in inches)}}$$

FLOW RATE CALCULATION

$$\text{Flow (l/min)} = \frac{\text{Pressure loss (bar/m)} \times D^4 \text{ (int dia in mm)}}{6.9 \times \text{Viscosity (cps)}}$$

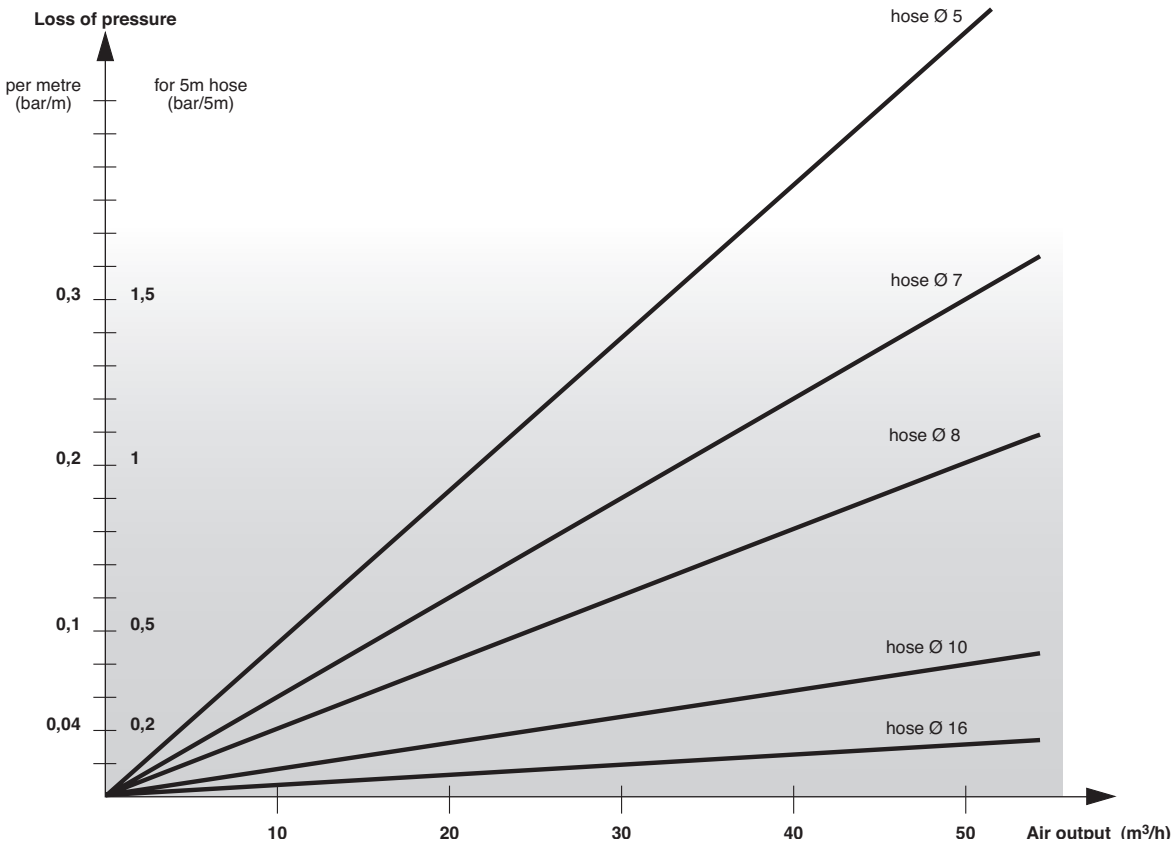
$$\text{Flow (gpm)} = \frac{\text{Pressure loss (psi/Ft)} \times D^4 \text{ (int dia in inches)}}{2.73 \times \text{Viscosity (cps)}}$$

PIPE DIAMETER CALCULATION

$$\text{Interior Dia (mm)} = \sqrt[4]{\frac{6.9 \times \text{Flow (l/min)} \times \text{Viscosity (cps)}}{\text{Pressure Loss (bar/m)}}}$$

$$\text{Interior Dia (in)} = \sqrt[4]{\frac{2.73 \times \text{Flow (gpm)} \times \text{Viscosity (cps)}}{\text{Pressure loss (psi/Ft)}}}$$

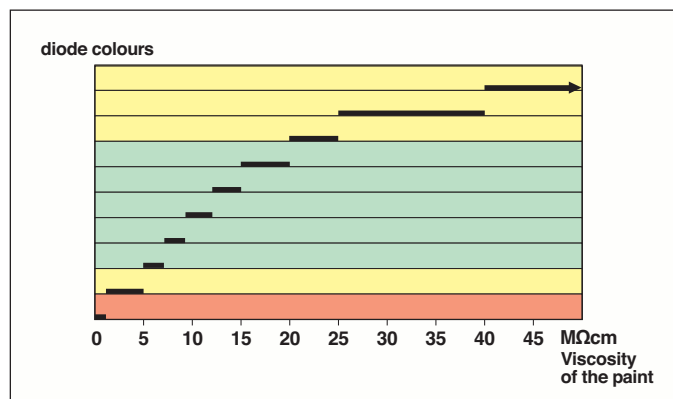
Pressure loss in air hoses



Electrostatic spraying : suitability of the equipment depending on the resistivity of the paints

- The wrap-around affect is optimized with paints of resistivity range of 5 - 50 MΩ.cm..
- Specific hoses allows for wrap-around effects for resistivity range higher than 2MΩcm.
- For water-based materials (0 MΩ.cm), a special ISObubble enclosure allows to benefit from all the advantages of electrostatic spraying in complete safety.

On the Kremlin Rexson resistivometer, resistivity can be read directly on the display.



List showing the compressed air consumption of normal air tools

We generally multiply the instant consumption by a coefficient of 0,5 to 0,9 to allow for the time the tool is not in use.

The average air volume delivered by a compressor of 1 CV is of 8 m³/h.

Tool	Consumption	
	l/mn	m ³ /h
Projection equipment	800 at 1 800	48 at 108
Riveter	450 at 1 500	27 at 90
Pneumatic drill	600 at 1 200	36 at 72
Linisher Ø 230	1 200 at 4 000	72 at 240
Drill 13 mm	600	36
Rotating sander	200 at 400	12 at 24

Tool	Consumption	
	l/mn	m ³ /h
KREMLIN conventional gun	160 at 500	10 at 30
AIRMIX® gun	67 at 134	4 at 8
KREMLIN pumps	160 at 1 350	10 at 80
Blower	200 at 400	12 at 24
Screwdriver	200 at 400	12 at 24

Calculate exactly the maximum air consumption of pump in l/mn : Q

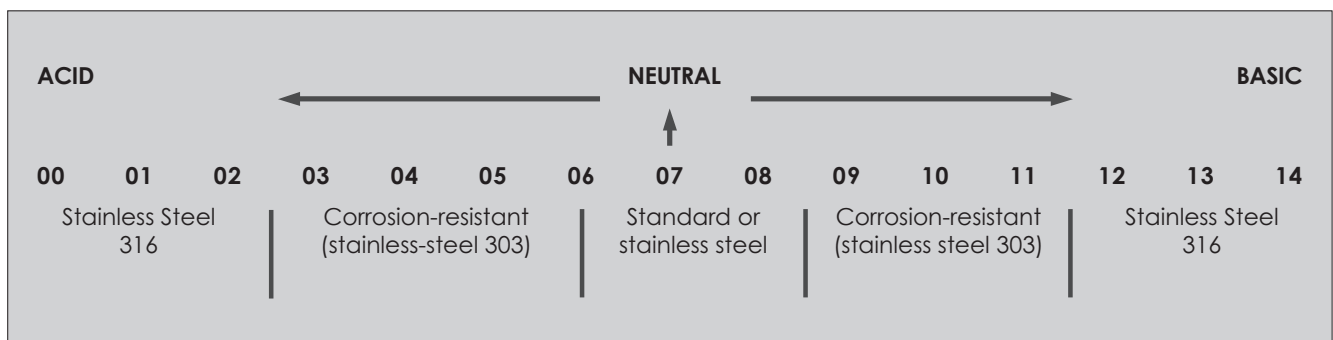
The formula is :

$$Q = 1.2 \times \text{fluid output} \times \text{pressure ratio} \times (\text{air motor feeding pressure in bar} + 1 \text{ bar for atmosphere})$$

$$\text{Example for a pump 16.120 : } Q = 1.2 \times 4,8 \times 16 \times (6 + 1) = 645.12 \text{ l/mn or } (645.12 \times 60) : 1000 = 38.7 \text{ m}^3/\text{h}$$

Value of « PH »

The pH value of a liquid or a solution quantifies its concentration of hydrogen ions and tells us the extend to which it is acidic or alkaline. The PH value dictates the best materials to be used in construction of major paint handling and spraying equipment.



Practical information: Metric - english conversion

CONVERT FROM	TO	MULTIPLY BY
Centimeters	feet	0.03280
Centimeters	inches	0.3937
Centimeters/min.	feet/min.	1.9684
Centimeters/sec.	feet/sec.	0.03281
Cubic centimeters.	cubic feet	3.5314×10^{-5}

CONVERT FROM	TO	MULTIPLY BY
Cubic centimeters	ounces	0.033
Cubic centimeters	liquid gallons	0.0002642
Cubic feet	liquid gallons	7.4805
Cubic feet	cubic inches	1.728
Cubic feet/min.	gallons/min.	7.4805

CONVERT FROM	TO	MULTIPLY BY
Cubic inches	gallons	0.004329
Cubic inches	cubic centimeters	16.387
Cubic inches	cubic feet	0.0005787
Cubic meters	liquid U.S. gallons	264.17
Cubic meters	cubic centimeters	1×10^6

CONVERT FROM	TO	MULTIPLY BY
Cubic meters	cubic feet	35.31
Cubic meters	cubic inches	61,023.38
Feet	centimeters	30.48006
Feet	meters	0.3048006
Feet of water	atmosphère	0.02949

CONVERT FROM	TO	MULTIPLY BY
Feet of water	psi	0.443
Feet/hour	miles/hour	0.00018933
Feet/min.	meters/min.	0.3048
Feet/min.	miles/hour	0.01136
Feet/sec.	miles/hour	0.681818

CONVERT FROM	TO	MULTIPLY BY
Gallons	cubic cm	3 785.43
Gallons	cubic inches	231
Gallons	imperial gallons	0.83268
Gallons	cubic feet	0.13368
Gallons/min.	cubic feet/min.	0.13368

CONVERT FROM	TO	MULTIPLY BY
Inches	feet	0.083333
Inches	meters	0.254
Inches	millimeters	25.40005
Inches	mils	1 000
Kilograms	pounds	2.2046

CONVERT FROM	TO	MULTIPLY BY
Kilogrammes/cm ²	psi	14.2233
Kilogrammes/mm ²	psi	1 422.33
Liters	gallons	0.264178
Meters	feet	3.2808
Meters	inches	39.37

CONVERT FROM	TO	MULTIPLY BY
Poise	centipoise	100.0
Pints of water	gallons	0.11985
PSI	atmosphère (bar)	0.06804
Inches ²	cm ²	6.4516
Inches ²	feet ²	0.006944
Inches ²	mm ²	645.163
Millimètres ²	inches ²	0,0015499
daN	Kilograms	1.0

- For the diameter of a circle, multiply the circumference by 0.31831.
- For the circumference of a circle, multiply the diameter by 3.1416.
- For the surface of a circle, multiply the diameter² by 0.7854.
- For the surface of a sphere, multiply the diameter² by 3.1416.
- To find the side of a square that has the same surface area of a circle, multiply the diameter by 0.8862.
- To find the number of cubic inches in a sphere, multiply the diameter by 0.5236.
- To find the number of gallons inside a pipe or cylinder, divide the volume in liters by 231.
- To find the cubic volume of a cylinder or pipe, multiply the section area by the length.

Practical information: Chemical compatibility charts

MATERIAL IN CONTACT (WETTED PARTS)									
	Carbon steel	Aluminium	Brass	Stainless steel	Nylon	Nitrile	Vitton	Leather	P.U.
Butyl acetate	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	N	N		N
Ethyl acetate	👍👍	👍👍	👍👍	👍👍	👍👍👍	N			
Acetaldehyde	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	N	N	👍👍	N
Amonium acetate				👍👍👍	👍👍👍				
Acedic acid	👍👍👍			👍👍👍	👍👍👍	N	N	N	N
Boric acid	👍👍👍	👍👍👍		👍👍👍	👍👍👍		👍👍👍	👍👍👍	👍👍👍
Hydrobromic acid					👍👍👍	N	👍👍👍		
Chloridic acid	N	N		N	👍👍👍	N	👍👍👍		
Chromic acid	N	N	N	👍	👍👍👍	N			
Citric acid				👍👍👍	👍👍👍		👍👍👍		
Fluorohydric acid						N	👍👍👍		
Fluosilicic acid			👍👍👍		👍👍👍	N	N		
Formic acid	N	👍👍	N	👍	👍👍👍	N	👍		
Nitric acid	N	N	N	👍👍👍	👍👍👍	N	👍👍👍		
Oxylic acid	N	N	N	N	👍👍👍		👍👍👍	👍👍👍	👍👍👍
Phosphoric acid	N	N		👍👍👍	👍👍👍	N	👍👍👍		
Ethylalcohol						👍👍👍	N		
Methylalcohol	👍👍👍						N	👍👍👍	N
Acetic aldehyde	👍👍👍	👍👍👍		👍👍👍	👍👍👍	N	N		N
Formic aldehyde	N	👍👍	N	N	👍👍👍	N	👍👍👍		N
Sodium algenate					👍👍👍		N		
Starch						👍👍👍	👍👍👍		
Amines					👍👍👍	N	N	N	
Acetone	👍👍👍	👍👍👍		👍👍	👍👍👍	N	N		N
Liquid ammonia	👍👍👍	👍👍👍		👍👍👍	👍👍	👍👍	N	N	
Benzene	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	N	👍👍👍	👍👍	👍
Sodium bicarbonate		N	N	👍👍👍	👍👍👍	👍👍👍	👍👍👍		
Chlorine dioxide						N	👍👍👍		
Sodium bisulphate	N	N		N	👍👍👍	N	👍👍👍		
Brominate						N			
Calcium carbonate	👍👍👍			👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	
Sodium carbonate					👍👍👍		👍👍👍		
Chlorinate, gas						👍👍👍	👍👍👍		
Sodium chlorite							👍👍👍		
Aluminium chlorosulfate					👍👍👍	👍👍👍	👍👍👍	👍👍👍	
Calcium chloride	👍👍👍			👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍
Magnesium chloride	👍👍	N		N	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍
Potassium chloride	N	N		👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍
Sodium chloride					👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍
Zinc chloride	N	N		N	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍
Ferrous chloride	N	N	N	N	👍👍👍		👍👍👍		
Ferric chloride	N	N	N	N	👍👍👍		👍👍👍		👍👍👍
Cyclohexane	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍		
Chlorobenzene	👍👍👍			👍👍👍	👍	N	👍👍👍		N
Ethylene chloride		👍👍			👍	N	👍👍		N
Methylene chloride	👍👍	N	👍👍	👍👍	N	N	👍👍		N
Diatoms						👍👍👍	👍👍👍		
Dichloroethylene					👍👍👍				
Diethylene glycol	👍👍👍	👍👍		👍👍👍	👍👍👍	👍👍👍	👍👍👍		N

👍👍👍 = High Compatibility 👍 = Low Compatibility
 👍👍 = Good Compatibility N = Not Compatible

Practical information: Chemical compatibility charts

MATERIAL IN CONTACT (WETTED PARTS)									
	Carbon steel	Aluminium	Brass	Stainless steel	Nylon	Nitrile	Vitton	Leather	P.U.
Bleach	N	👍👍		👍👍👍	👍👍👍				👍
Distilled water	N	👍👍👍	👍👍👍	👍👍👍	👍👍👍		👍👍👍	👍👍👍	👍👍👍
Oxygenated water	N		N	👍👍	N		👍👍		👍👍👍
EDTA						👍👍👍	N		
Fertilizer						👍👍👍	N		
Ethanol					👍👍👍	👍👍👍	N		
Ethyl ether	👍👍	👍👍		👍👍	👍👍👍	N	N		👍
Ethylene glycol	👍👍	👍👍	👍👍👍	👍👍	👍👍👍	👍👍👍	👍👍👍		N
Ethyl-mercapan						N	👍👍👍		
Fuel						N	👍👍👍		
Fluosilicate			👍👍👍		👍👍👍	👍👍👍	👍👍👍		
Formaldehyde	N	👍👍		N	👍👍	👍👍👍	👍👍👍		N
Glycol	👍👍	👍👍		👍👍	👍👍👍	👍👍👍	👍👍👍		N
Gelatine	N	👍👍		👍👍👍	👍👍👍	N	N		N
Sodium hydroxide				👍👍👍	👍👍👍	N	N		N
Ammonium hydroxide				👍👍👍	👍👍👍	N	N	👍👍	N
Potassium hydroxide	👍	N		👍👍	👍👍👍	N	N		N
Calcium hypochlorite				👍	👍👍👍	N	👍👍👍	N	
Sodium hypochlorite					👍👍👍	N	👍👍👍		N
Sodium hyposulfite					👍👍👍	N	👍👍👍		
Fruit juice						👍👍👍	👍👍👍		
Methanol	N	👍👍👍		👍👍👍			N		👍
Morpholine	👍👍👍	👍👍👍				N	N		
Methylethylcetone	👍👍👍	👍👍		👍👍👍	👍👍👍	N	N		N
Sodium nitrite					N	N	👍👍👍		
Perchlorethylene (tetrachloret.)	👍👍👍	👍👍		👍👍👍	N	👍👍	👍👍👍		N
Permanganate de potassium	👍👍	👍👍		👍👍	👍👍👍	N	👍👍👍		
Hydrogen peroxide	N	👍👍👍	N	👍👍		N	👍👍		
Chlorohated Peroxyde						N	👍👍👍		
Phenol	N	N			👍👍👍	N	👍👍👍		
Ammonium phosphate			👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍		
Trisodium phosphate	👍👍👍	N		👍👍👍	👍👍👍	👍👍👍	👍👍👍		
Aluminium polychlorite						👍👍👍	👍👍👍		
Polyelectrolytes						👍👍👍	👍👍👍		
Caustic potash		N		👍👍👍		N	👍👍👍		
Sodium silicate					👍👍👍	👍👍👍	👍👍👍		
Soda						N	N		
Aluminium sulfate					👍👍👍	👍👍👍	👍👍👍	👍👍👍	N
Ammonium sulfate					👍👍👍				👍👍👍
Calcium sulfate	👍👍👍	👍👍👍		👍👍👍	👍👍👍		👍👍👍		
Copper sulfate				👍👍👍	👍👍👍	👍👍👍	👍👍👍		👍👍👍
Ferrous sulfate		N		👍👍	👍👍👍	👍👍👍	👍👍👍		
Ferric sulfate	N	N		N	👍👍👍	👍👍👍	👍👍👍		👍👍👍
Sodium sulfate	N				👍👍👍	👍👍👍	👍👍👍		
Hydrogen sulfur	👍👍👍				👍👍👍	👍👍👍	N		
Carbon tetrachloride	👍👍		👍👍👍	👍👍👍	👍👍👍	N	👍👍👍		
Toluene	👍👍👍	👍👍👍		👍👍👍	N	N	👍👍👍		N
Trichlorethane	👍👍	N		👍👍	N	N	👍👍👍		N
Trichlorethylene	👍👍	👍👍👍		👍👍	N	N			N
Triethyleneglycol				👍👍	👍👍👍		👍👍👍		
Urea	👍👍	👍👍		👍👍	👍👍👍		👍👍👍		
Xylenes	👍👍	👍👍		👍👍	👍👍👍	N	👍👍👍		N

NOTES

A series of horizontal dotted lines for writing notes, spanning the width of the page below the 'NOTES' header.

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and pumps for the application of paints,
sealants and adhesives.



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