

fiac





CONTENTS

FIAC	<i>Page</i>
Direct Drive Air Compressors	3
Workhorse Belt Drive Air Compressors	4-8
Piston Low Noise Compressors	9
Silver Screw Compressors	10-11
Airblok Industrial Screw Compressors	12
Tundra Refrigerant Dryers	13
Air Accessories	14-19
Compressed Air Guide	20-21

Direct Drive Lubricated

Key Features

- Cast iron cylinder blocks
- Automatic stop/start controls
- requires minimum supervision
- Unique soft start - low current start up
- Supplied with a 13A plug
- Filled with oil
- 12 months warranty



11662170000

Order Code	Model	HP	Tank Litres	Displacement CFM	Max Pressure PSI	Weight Kg	Electrical Phase	Dimensions mm L x W x H
1166217000	COSMOS 255	2.0	50	6	116	49	1	940 x 320 x 700
1129100589	VX50-360	3.0	50	12.7	145	62	1	1070 x 320 x 730

Direct Drive Oil Free

Key Features

- Automatic stop/start controls
- requires minimum supervision
- All 230V models are supplied with 13A plug and cable - ready for use
- Motor overload protection and air receivers to 2014/29EU ensures maximum user protection
- Lightweight with carry handles or wheels, makes this range of compressors convenient and easy to use
- 12 months warranty

Order Code	Model	HP	Tank Litres	Displacement CFM	Max Pressure PSI	Motor Pump RPM	Weight Kg	Electrical Phase	Dimensions mm L x W x H
1027990000	LEONARDO	1.0	6	3.7	116	1450	17	1	430 x 187 x 450
1028010000*	ECU	1.5	6	7.3	116	2850	16	1	410 x 187 x 450
1218010000	FX95	1.5	24	6.0	116	2850	27	1	650 x 315 x 630
1369430000	FX250	2.0	50	8.4	116	2850	46	1	845 x 320 x 665

*110V Option Available



LEONARDO



ECU



FX95



FX250

Workhorse Belt Drive

230V

Key Features

- Cast iron blocks on all models
- Air receivers built to latest European standards 2014/29EU
- Heavy duty industrial motors c/w overload protection
- Twin cylinder pumps
- Fitted aftercoolers
- Aerodynamic flywheels for efficient cooling
- Slow running pump speeds giving lower noise levels & longer life expectancy
- Automatic stop/start controls
- Full back up by our factory trained engineers
- Built & tested to latest European standards in our modern production facility in Manchester, England
- 2 year conditional warranty



WR3HP-50P-1



WR3HP-100P-1

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM	Electrical Phase	Dimensions mm L x W x H
WR3HP-50P-1	3.0	50	13	9	1	1010 x 360 x 730
WR3HP-100P-1	3.0	100	13	9	1	1100 x 400 x 830



WR3HP-150S-1



WR3HP-200S-1

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM	Electrical Phase	Dimensions mm L x W x H
WR3HP-150S-1	3.0	150	13	9	1	1350 x 540 x 1040
WR3HP-200S-1	3.0	200	13	9	1	1520 x 540 x 1040

All above models 10 bar maximum pressure

Workhorse Belt Drive

230V • 400V



WR3HPXX-150S-1



WR3HPXX-200S-1

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM	Electrical Phase	Dimensions mm L x W x H
WR3HPXX-150S	3.0	150	14	10.7	1/3	1350 x 540 x 1075
WR3HPXX-200S	3.0	200	14	10.7	1/3	1520 x 540 x 1040
WR4HP-200S-1*	4.0	200	17.7	13.2	1	1520 x 540 x 1050

*Requires 30 Amp Power Supply

Key Features

- Twin cylinder pumps
- Fitted aftercoolers
- Cast iron blocks on all models
- Automatic stop/start controls
- Air receivers built to latest European standards 2014/29EU
- Heavy duty industrial motors c/w overload protection
- Aerodynamic flywheels for efficient cooling
- Slow running pump speeds giving lower noise levels & longer life expectancy
- Full back up by our factory trained engineers
- Built & tested to latest European standards in our modern production facility in Manchester, England
- 2 year conditional warranty



WRN5.5HP-200S

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM	Electrical Phase	Dimensions mm L x W x H
WRN5.5HP-200S	5.5	200	21	17	3	1520 x 480 x 940
WRN5.5HP-270S	5.5	270	21	17	3	1600 x 500 x 1040
WRN5.5HPXX-200S	5.5	200	23	18.5	3	1520 x 480 x 975
WRN5.5HPXX-270S	5.5	270	23	18.5	3	1600 x 500 x 1075

All above models 10 bar maximum pressure

Workhorse Belt Drive

400V



WRN7.5HP-270S



WRN10HP-270S

Complete with:
Star/Delta Starter

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM	Electrical Phase	Dimensions mm L x W x H
WRN7.5HP-270S	7.5	270	29	23	3	1600 x 500 x 1040
WRN10HP-270S	10	270	38.5	29.5	3	1600 x 500 x 1200

Workhorse Tandem Belt Drive

230V



WRT28-250S-1



WRT36-250S-1

Complete with: Three position starter box

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM	Electrical Phase	Dimensions mm L x W x H
WRT28-250S-1*	2 x 3.0	250	28	18	1	1750 x 480 x 1100
WRT30-250S-1*	2 x 3.0	250	28.2	21.4	1	1750 x 480 x 1100
WRT36-250S-1**	2 x 4.0	250	36.4	26.4	1	1750 x 480 x 1200

*Requires 30 Amp power supply

**Requires 45 Amp power supply

All above models 10 bar maximum pressure

Belt Drive Duplex

400V



ABT500-1196



ABT500-1700

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM	Electrical Phase	Dimensions mm L x W x H
ABT500-1196	2 x 5.5	500	42.4	34	3	2050 x 540 x 1170
ABT500-1700	2 x 7.5	500	58.6	47	3	2050 x 540 x 1170

All models maximum pressure 145 PSI / 10 Bar

Key Features

- Twin cylinder pumps
- Fitted aftercoolers
- Cast iron blocks on all models
- Automatic stop/start controls
- Air receivers built to latest European standards 2014/29EU
- Heavy duty industrial motors c/w overload protection
- Aerodynamic flywheels for efficient cooling
- Slow running pump speeds giving lower noise levels & longer life expectancy
- Full back up by our factory trained engineers



ABT900-1996

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM	Electrical Phase	Dimensions mm L x W x H
ABT900-1996	2 x 10.0	900	75.6	59	3	2150 x 800 x 1600

Workhorse Belt Drive Petrol

Key Features

- Recoil start as standard
- Offering air production where no electricity supply is available
- Cast iron blocks on all models
- Air receivers built to latest European Standards 2014/29EU
- Twin cylinder pumps
- Fitted aftercoolers
- Aerodynamic flywheels for efficient cooling
- Built & tested to latest European standards in our modern production facility in Manchester, England



3 Year Engine Warranty covered by Honda service centres throughout the UK



WRP5.5HP-150S

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM		Dimensions mm L x W x H
WRP5.5HP-50S	5.5	50	15.6	11.2	Static	1100 x 375 x 690
WRP5.5HP-50P	5.5	50	15.6	11.2	Portable	1150 x 375 x 690
WRP5.5HP-150S	5.5	150	15.6	11.2	Static	1350 x 480 x 1020

Above models 10 bar maximum pressure



WRP9HPXX-150S



WRP11HP-150S

Order Code	HP	Tank Litres	Displacement CFM	FAD CFM		Dimensions mm L x W x H
WRP9HP-150S	9.0	150	21	16.5	Static	1350 x 480 x 1020
WRP9HPXX-150S	9.0	150	24.9	19.9	Static	1350 x 480 x 1100
WRP11HP-150S	11.0	150	29.8	23	Static	1350 x 480 x 1100

Above models 10 bar maximum pressure as standard, 12 bar available to special order
Electric Start option available on 9 & 11 HP Please note battery and cables not supplied

Piston Low Noise

230V • Oil Free

Key Features

- Silent air compressor
- Fitted thermal overload
- Only 57 dB(A)
- Oil free
- 13A plug



Order Code	Model	Motor HP	Voltage	PSI	Tank Litres	Displacement CFM	FAD CFM	Noise Level dB(A)	Dimensions mm L x W x H
1703080000	Compact 106	0.75	230	116	6	3.64	2.6	57	615 x 340 x 570

Oil Lubricated

230V • 400V

Key Features

- Belt Driven
- Low noise acoustic cabinet
- Heavy duty S1 electric motor
 - Slow running pumps c/w cast iron block
- Automatic stop/start control
 - Hour meter
- Reduced maintenance costs



SCS 415/200



SCS 598/300

Order Code	Model	Motor HP	Voltage	PSI	Tank Litres	Displacement CFM	FAD CFM	Noise Level dB(A)	Dimensions mm L x W x H
1680900000	SCS 415/200	3.0	230	145	200	14.0	10.5	67	1440 x 600 x 1170
1693660000	SCS 598/300	5.5	400	145	270	22.0	18.5	69	1440 x 592 x 1220
1692930000	SCS 958/300	7.5	400	145	270	28.0	23.0	66	1440 x 592 x 1220

Silver Screw Compressors

Key Features

- High efficiency direct drive motor
- Compact & portable
- Low noise level
- Simple maintenance



Silver 3/100

Key Features

- Powerful heavy duty motor
- Reduced maintenance costs
- Encapsulated air end
- Easy control unit
- Aesthetic design



Silver 10/300

Order Code	Model	Motor HP	CFM @ 9 bar	CFM @ 10 bar	Tank Litres	Voltage	Sound Pressure dB(A)	Dimensions mm L x W x H
Silver 3/100	Silver 3/100	3.0	10.6	-	90	230	59	1000 x 400 x 1114
1691250000	Silver 10/300	10.0	-	30.4	270	400	67	1625 x 540 x 1250
1682890000	Silver 15/300	15.0	-	50.5	270	400	65	1625 x 630 x 1300
1682920000	Silver 20/300	20.0	-	67.1	270	400	67	1625 x 630 x 1300
1724420000	Silver 25/500	25.0	-	88.3	500	400	73	2040 x 850 x 1770
Silver 30/500	Silver 30/500	30.0	-	104.9	500	400	74	2040 x 850 x 1770

Silver Screw Compressors c/w Refrigerated Dryer 400V

Key Features

- These silent rotary screw compressors feature an 'Easy Control' unit which manages, monitors and optimises the duty cycle of the unit
- Clear, immediate data readings for air pressure, oil temperature along with all protection and maintenance schedules
- Refrigerated dryer option for clean dry air production
- For applications where there is constantly high demand for air power
- High efficiency IE3 belt drive motors



Order Code	Model	Motor HP	CFM @ 10 bar	Tank Litres	Voltage	Sound Pressure dB(A)	Dimensions mm L x W x H
1691520000	Silver D 10/300	10.0	30.4	270	400	67	1625 x 540 x 1250
1683010000	Silver D 15/300	15.0	50.5	270	400	65	1625 x 630 x 1300
1683040000	Silver D 20/300	20.0	67.1	270	400	67	1625 x 630 x 1300
1724480000	Silver D 25/500	25.0	88.3	500	400	73	2040 x 850 x 1770
Silver D 30/500	Silver D 30/500	30.0	104.9	500	400	74	2040 x 850 x 1770

8 Bar machines also available

Compressors up to 100HP Available

Inverter Compressor

NEW

Key Features

- High efficiency IE3 motor
- Encapsulated air end
- ABB inverter controller
- Integrated refrigerated dryer
- Automatically adjusts motor speed to the air demand
- Average 35% saving on energy
- Ready to run, fully automatic



Model	Motor HP	Voltage	CFM	Max Pressure	Tank Litres	Sound Pressure dB(A)	Dimensions L x W x H
Silver D 15/300 SD	15	400	10.6 - 50.5	10 Bar	270	65	1625 x 630 x 1300
Silver D 20/300 SD	20	400	11.3 - 67.1	10 Bar	270	67	1625 x 630 x 1300



"Workhorse compressors provide more than just air..."

...its dependable air delivery...

...designed & built to the highest European Standards"

Demand... a Workhorse!

Industrial Screw

400V

Key Features

- Compact, totally enclosed design
- Vertically mounted suction valve - no oil return
- Microprocessor controlled - simple to programme and use with incorporated service schedule countdown and internal fault readout
- Models feature patented automatic belt tensioner
- High efficiency IE3 motors
- Quiet noise levels



Key Features

- The FIAC air energy electronic control unit controls and monitors complex screw compressor installation
- It allows you to set the compressed air min/max pressures, standby and warning pressures along with specific functions required



Order Code	Model	Motor HP	Bar	CFM	Sound Pressure dB(A)	Dimensions mm L x W x H
1705556010	Airblok 102 BD	10.0	8	42	65	930 x 695 x 1120
1705576010	Airblok 102 BD	10.0	10	36	65	930 x 695 x 1120
1705616010	Airblok 152 BD	15.0	8	58	67	930 x 695 x 1120
1705636010	Airblok 152 BD	15.0	10	53	67	930 x 695 x 1120
1705676010	Airblok 202 BD	20.0	8	85	68	930 x 695 x 1120
1707386010	Airblok 202 BD	20.0	10	72	68	930 x 695 x 1120
1680807000	Airblok 252 BD	25.0	8	101	66	870 x 1300 x 415
1693577000	Airblok 252 BD	25.0	10	89	66	870 x 1300 x 415
1680827000	Airblok 302 BD	30.0	8	119	67	870 x 1300 x 415
1693567000	Airblok 302 BD	30.0	10	108	67	870 x 1300 x 415
1706476010	Airblok 402 BD	40.0	8	169	65	1000 x 1450 x 707
1706386010	Airblok 402 BD	40.0	10	145	65	1000 x 1450 x 707
1706526010	Airblok 502 BD	50.0	8	200	65	1000 x 1450 x 715
1706376010	Airblok 502 BD	50.0	10	181	65	1000 x 1450 x 715
1684600000	Airblok 602 BD	60.0	10	219	65	1000 x 1450 x 778

Variable speed machines also available



Refrigerant Dryers

Key Features

- Operating pressure range 2 to 16 bar
- Maximum inlet air temperature 60°C
- Ambient air temperature: 0°C to 50°C
- Constant +3°C dewpoint delivered at all times, unlike thermal dryers
- High pressure range available with pressure up to 50 bar
- Dewpoint indicator as standard, digital on larger models
- Option of zero loss or HTD condensate removal
- Illuminated "Power on" switch
- Ultra high efficiency heat exchanger
- Will drive down energy costs by minimising pressure drop and lowering absorbed power

Standard Reference Conditions (in accordance to ISO7183)

Inlet compressed air pressure	7 bar g
Inlet compressed air temperature	35°C @100% RH
Ambient air temperature	25°C
Minimum pressure dew point (PDP)	3°C Class 4 (ISO8573-1)



Order Code	CFM	m3/hr	m3/min	Connection	Weight Kg	Electrical Phase	Dimensions mm L x W x H
TUNDRA21	21	35	583	1/2"	23	1	365 x 455 x 500
TUNDRA36	36	62	1019	1/2"	26	1	365 x 455 x 500
TUNDRA50	50	50	1415	1/2"	28	1	365 x 455 x 500
TUNDRA68	68	68	1925	3/4"	37	1	410 x 560 x 550
TUNDRA90	90	90	2548	1"	39	1	410 x 560 x 550
TUNDRA120	120	120	3400	1"	43	1	350 x 540 x 1010
TUNDRA159	159	159	4502	1 1/2"	47	1	350 x 540 x 1010
TUNDRA210	210	210	5946	1 1/2"	90	1	440 x 600 x 960
TUNDRA295	295	295	835	1 1/2"	95	1	440 x 600 x 960

All Tundra Refrigerant Air Dryers are also available complete with filters: For order code add /FIL

Air Accessories

Vertical Air Receivers

Key Features

- Available in 270 and 500 litre tank sizes
- 11 bar maximum working pressure
- Powder coated RAL5015

Complete with:

- Safety valve
- Pressure gauge
- Drain valve
- Test certificate



Order Code	Capacity	Port Size	Height mm	Diameter mm
V270i	270	1"	1648	500
V500i	500	2"	2050	600

Air Filtration



25 Micron Inline Filters 1/2" BSP
Order Code: F1/12

0.01 Micron Coalescing Filters 1/2" BSP
Order Code: CF1/12

0.001 Carbon Filters 1/2" BSP
Order Code: AF1/12

AF1/12

Filter Regulators & Filter Regulator Lubricators



1/2" BSP
Order Code: FR1/12

1/2" BSP
Order Code: FRL/12

FR1/12

Lubricators



1/2" BSP
Order Code: L1/12

1/4" BSP Mini Inline Lubricator
Order Code: MIL/14

L1/12

Air Accessories

Air Control

Sprayshop Filter Systems • AQUA PURGE

- AQP14** 1/4" BSP Pre Filter & Coalescing Filter
- AQP12** 1/2" BSP Pre Filter & Coalescing Filter
- AQPR14** 1/4" BSP Pre Filter Regulator
c/w gauge & Coalescing Filter
- AQPR12** 1/2" BSP Pre Filter Regulator
c/w gauge & Coalescing Filter

- For ultra clean compressed air
- Down to 0.01 micron



AQPR12



97081731

Replacement Filter Elements

- 26PC26/4/6** 1/4" Waist Belt Carbon Element
- 26PC39/112** 1/4"-3/8"-1/2" Current Carbon Element
- 97801731** 1/4"-3/8"-1/2" Current 5 Micron
Pre-Filter Element
- 97801732** 1/4"-3/8"-1/2" Current 25 Micron
Pre-Filter Element
- 6342061** Coalescing Element

Piston Compressor Oil - 1 Litre



Order Code: 6102250000

Pressure Gauges

40mm or 50mm Faces, 0-300 psi,
1/8" or 1/4" BSP, bottom or centre entry

Air Transformers c/w Gauge

- AH100501** 3/8" M x 1/4" Twin Outlet, Lower Air Inlet
- AH100601** 1/2" M x 1/4" Twin Outlet, Lower Air Inlet
- AH102002** 1/4" F x 1/4" M Regulator, Side Air Inlet

PCL Tyre Inflators & Gauges

- AFG4H03** Airline Gauge, Twin Hold On, Open End
- AFG4H05** Airline Gauge, Twin Clip On, Open End, 6" Hose
- AFG4H04** Airline Gauge, Single Clip On, Open End
- ALG5H04** Hi Pressure Gauge
- DAC403** Accura MK4 Tyre inflator, Twin Hold On

PCL Tyre Gauge Accessories

- CO1A03** Tyre Connector, Twin Hold On, Open End
- CO3A03** Tyre Connector, Twin Clip On, Open End
- CO2A03** Tyre Connector, Single Clip On, Open End
- TDG 16C04** Tyre Depth Gauge



AH100501



DAC403



AFG4H03

Air Accessories

PCL Couplings & Adaptors



AC29CM
1/4" BSP Male



AC21CF02
1/4" BSP Male



AC21EF02
3/8" BSP Female



AC21JF02
1/2" BSP Female



AC21CM02
1/4" BSP Male



AC21EM02
3/8" BSP Male



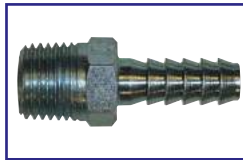
AC21JM02
1/2" BSP Male



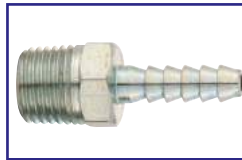
AC91CF02
1/4" BSP Female



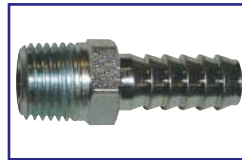
AC91CM02
1/4" BSP Male



HC5656
1/4" Bore Hose



HC1205
3/16" Bore Hose



HC1206
5/16" Bore Hose



HC1217
3/8" Bore Hose



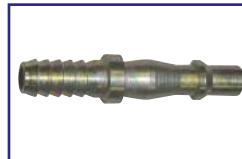
HC2479
1/2" Bore Hose



ACA1793
1/4" Bore



ACA2486
3/16" Bore



ACA2487
5/16" Bore



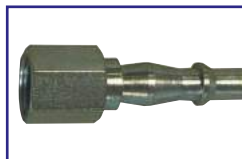
ACA2488
3/8" Bore



ACA2593
1/4" BSP Male



ACA6909
3/8" BSP Male



ACA2746
1/4" BSP Female



AC6103
Y Twin Coupling Set

Air Accessories

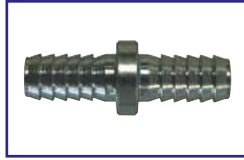
PCL Standard Couplings



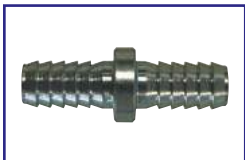
HC2983
Double Hose Tail 1/4"



HC2984
Double Hose Tail 5/16"



HC2985
Double Hose Tail 3/8"



HC2986
Double Hose Tail 1/2"



HC6889
Socket 1/4"



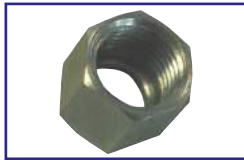
HC6899
3/8" M x 1/4" M Union



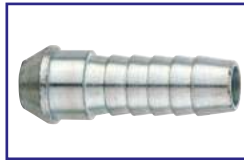
HC6900
1/2" M x 1/4" M Union



HC6901
1/2" M x 3/8" M Union



HC5194
1/4" BSP Union Nut



HC5275
1/4" Bore Coned Tailpiece



HC5276
5/16" Bore Coned Tailpiece



HC6895
3/8" M x 1/4" FR Brush



HC6896
1/2" M x 1/4" FR Brush



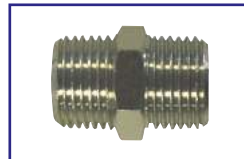
HC6897
1/2" M x 3/8" FR Brush



HC6560
1/4" Double Union



HC4281
3/8" Double Union



HC6898
1/2" Double Union

Air Accessories

Spray Guns

Conventional Spray Guns



Eagle



Golden Eagle



Osprey



Kite Mini

Order Code	Model	Paint Feed	Fluid Nozzle mm	Air Input Pressure PSI	Air Consumption CFM	Recommended Compressor HP
P-5009	Eagle	Suction Cup	1.8	45-65	7-11	3.0
P-5010	Golden Eagle	Suction Cup	1.8	45-65	7-11	3.0
P-5012	Osprey	Gravity Cup	1.7 (1.4,2.0)	45-60	8-12	3.5
P-5013	Kite Mini	Gravity Cup	1.0	25-35	2.5-3	2.0

HVLP Spray Guns



Hawk



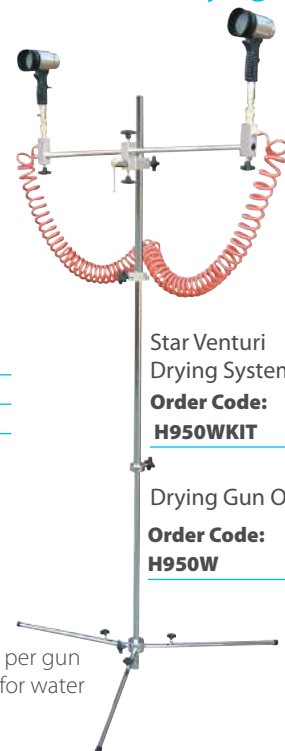
Falcon



Merlin Mini

Order Code	Model	Paint Feed	Fluid Nozzle mm	Air Input Pressure PSI	Air Consumption CFM	Recommended Compressor HP
P-5200	Hawk	Suction Cup	1.7 (1.4)	25-43	9-11	3.5
P-5203	Falcon	Gravity Cup	1.7 (1.4)	25-43	7-9	3.0
P-5208	Merlin Mini	Gravity Cup	1.0	25-43	5-7	2.0

Water Based Drying Kit



Star Venturi Drying System

Order Code:
H950WKIT

Drying Gun Only

Order Code:
H950W

Spray Gun Accessories



NSF1
Nylon Suction Filters



NSF2
Nylon Gravity Filters

Key Features

- A must for the bodyshop
- Adjustable to 2.1m
- Air for consumption 12 CFM per gun
- Accelerates the drying time for water based paints
- Gun available separately

Air Accessories

Air Guns



9400
Palm Grip Blow Gun



931G
Schutz Underseal Gun

- Uses 1litre Canister
- 70-80 PSI
- 1/4" BSP fitting



059000R
Air powered Vacuum Gun



4086450000
Electronic Auto Drain
1/2" 230V

Paint Containers



2Q
Remote Pressure Cup

- 2 litre remote pressure cup complete with hoses



95200-33
Universal Syphon Cup

- 1 litre universal syphon cup complete assembly

Air Hose

Order Code

AHR5M516	5m x 5/16" hose
AHR10M516	10m x 5/16" hose
AHR15M516	15m x 5/16" hose
AHR20M516	20m x 5/16" hose

AHR5M38	5m x 3/8" hose
AHR10M38	10m x 3/8" hose
AHR15M38	15m x 3/8" hose
AHR20M38	20m x 3/8" hose

Complete with Crimped 1/4" BSP fitting



Air Hose 100 mtr

AHR100M516	100m x 5/16" bore air hose
AHR100M38	100m x 3/8" bore air hose

Paint Fluid Hose

PH5M	5m x 3/8"
PH10M	10m x 3/8"

Complete with
Factory crimped 3/8" BSP fitting



Air Hose Balancers

Order Code	Balance Weight Kg	Cable Length mm
9200	0.4-0.8	1350
9201	0.75-1.5	1350
9202	1.2-2.5	1350

Note:
All with 1/4" BSP connection & 6mm ID hose



Compressed Air Guide

Displacement (Volume)

This term is used to decide the theoretical volume of a compressor, i.e, the swept volume of a cylinder multiplied by the number of compressions in a minute and expressed in cubic feet per minute (CFM). This figure should not be used in calculating the size of compressor required, as it bears no relationship to the free air figure that you may require.

Free Air Delivered

This measurement is the volume of air taken into a compressor and therefore describes more accurately the volume of air available for use. Expressed as CFM/FAD at a given pressure.

Remember:

Displacement is the theory and CFM/FAD is the actual volume available.

Pressure

This is the way force, i.e, in the compressed air system is expressed and is measured in either pounds per square inch (psi) or bar.

Pressure is important because to have too low a pressure would cause the equipment not to work correctly, too high a pressure would at best rapidly wear out the equipment, at worst it could make the equipment lethal.

Single Stage Compressors

One or more cylinders producing the final pressure in one compression. Normal maximum pressure 150 psi. g.

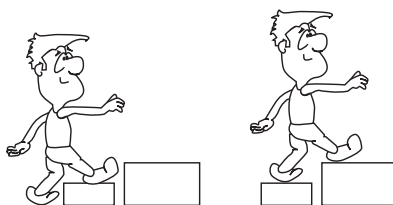


Two Stage Compressors

First Stage: Air is compressed to approximately 30 psi. g, cooled then compressed to final pressure in the second stage

Normal maximum pressure 200 psi. g.

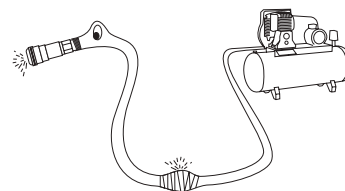
Note: Two stage provides more air for less energy



Cost of Air Leaks

Hissing Sid is at work in most companies you visit. Hissing Sid is a length of air hose which has become the family 'air' loom, It must be because this hose is costing its owner a small fortune and yet to suggest replacement would be a cardinal sin. So what does Hissing Sid cost to run?

Air Leak Size	CFM Lost	Energy
0.75mm dia.	1.6	300W
1.5mm dia.	6.5	1100W



Power Supply

Single Phase

Standard supply for domestic and light industry 230V.

- 5A light circuit not suitable for equipment
- 13A ring main Max 2.5 HP std compressor
- 45A cooker/shower Max 3.0 HP for LC compressors
- Max 3.5HP compressor

Main benefit of Single Phase

- Excellent second-hand resale value

Three Phase

Main electrical supply to industry.

- 400V any size of compressor

Main benefits of Single Phase

- Approx 2/3 cost saving over single phase
- Stable supply
- Longer motor life

Air Equipment Consumption Guide

Tools	FAD/CFM	Pressure PSI.G
3/8" Impact Wrench	2-3	70-90
1/2" Impact Wrench	4-6	70-90
3/4" Impact Wrench	9	70-90
1" Impact Wrench	14	70-90
3/8" Ratchet Wrench	2-5	70-90
1/2" Ratchet Wrench	2-5	70-90
3/8" Drill	5	70-90
1/2" Drill	12	70-90
DA Sander (top quality)	10	70-90
DA Sander (econ. model)	20	70-90
7" Sander/Polisher	25	70-90
Zip/Impact Cutter	4-5	70-90
Cutter Shears	4-8	70-90
4" Angle Grinder	18-25	70-90
7" Angle Grinder	25-35	70-90
Tyre Inflator	2-4	150-230
Tyre Changer (Manual)	4	150
Tyre Changer (Auto)	6	150
Sand Blast Cabinet	10-50	50-100
Sand Blast Hand Gun	8-12	100
Spray Guns:		
Airbrush	0.25	30
Miniature	4-7	20-50
Low Pressure	1.5-4	20-40
Standard	7.14	50-60
HVLP	14-20	70-90
HA/GEO/9000 series LVLP	7-9.5	28-36
Air Fed Mask	5-6	20-40
Oil Pump	1.5	100-150
Grease Pump	4.5	100-150
Air Water Wash	10	150
Car Wash	1.5-5	70-100
Blow Gun (safety nozzle)	3	100
Spark Plug Cleaner	3	100
Underseal Gun	4	100
Rivet Gun	1.5-3	70-90
2 Ton Air/Hydraulic Lift	5-8	130-150
Brake Tester	3-7	75-100
Plasma Cutter	6-8	60-100

Note:

The figures in the Air Equipment Consumption Table are only a guide, for additional information please phone our help desk on 0161 728 7911.

Choosing the Right Compressor

Three-phase compressors are more efficient producers of compressed air than single-phase equivalent units, so where a three-phase supply is available the best option is the three-phase compressor.

Single-phase compressors up to 2.5 HP can operate from a 230V 13A power supply, with the exception of the new 3HP low current models. 3.0HP and above must operate from a 230V 30A supply. Wherever possible choose a larger compressor than you require at present to allow expansion. Compressors with cast iron cylinders running slow, offer a much extended service life.

- 1) Bodyshop** - using the air equipment consumption guide, add all the equipment consumptions together and divide by two, the resulting figure is the minimum free air you require.
- 2) Workshop** - using the air equipment consumption guide, add all the equipment consumptions together and divide by three, the resulting figure is the minimum free air you require.

Note: For calculation purposes always use free air delivered figures.

Compressor Size Guide

A) Ask Questions

- 1 What is the air to be used for?
- 2 What is the maximum pressure required? (see consumption guide)
- 3 What electricity supply is available? (single/three phase)
- 4 What size compressor is currently in use? (See calculation guide below)
- 5 How well does the existing compressor cope?
- 6 What are the future plans for additional staff/ equipment?

B) Complete Following List

- 1 Number of tools and type
- 2 Number of users
- 3 Air consumption of largest tool/equipment using air
- 4 Complete survey form
- 5 Select compressor from catalogue (Use only free air figures)

Note:

Quick guide to CFM/FAD output (approx) of existing compressor

Multiply motor HP by 3.3 = output in CFM/FAD

Multiply motor kW by 4.5 = output in CFM/FAD

Multiply motor kW by 2.1 = output in L/Sec /FAD

Correct Hose Selection

An air tool needs the following:

- Correct size of compressor to ensure sufficient air available
- Correct size of air hose to ensure minimal pressure drop and air flow
- Correct pressure at tool (see chart)
- Correct type of lubricant (Not engine oil)
- Clean dry air (use filters, regulator, dryer and lubricant)

Recommended Air Hose Sizes

Hose	Uses	Max Flow CFM
1/4"	Tyre inflators / Airbrush	5
5/16"	Std Spray Guns / 3/8" Drill / Ratchet Wrench	15
3/8"	HVLP/LVLP Spray Guns / 1/2" & 3/4" Wrenches/Sanders	25
1/2"	1" Impact Wrenches	50

Note: Always keep hose length as short as practical. eg. 1/2" impact wrench with 20 metres of 1/4" bore hose will develop less than 40% of its available power!