

V1 12024

Technical Sheet

Model Z20P16





High pressure compressor designed to work with laser machinery.

## **COMPRESSED AIR**

The FORZA Compressor Z 20 is a complete 4-in-1 air compressor: tank, compressor, dryer, and filters. It guarantees clean compressed air output at constant pressure and flow thanks to its Variable Speed Control (VSC) motor technology.

It is ideal for working with laser machinery since compressed air is required at a constant pressure and flow to prevent damage and obtain clean cuts, eliminating any burrs produced.



# **Specific characteristics**

<u>FEATURE</u>	<u>DETAIL</u>	
Application	Compressed air	
Maximum outlet pressure	16 bar   232 psi	
Output air flow/quantity	1.5 m3 /min   53 cfm	
Main engine power	15 kW   20 HP	
Air tank volume	340 L   90 gal	
Working voltage	220V 3ph 50/60 Hz	
Ideal laser machine to supply	3000W	



### **Special Features**

### **Ultra High Pressure Technology**



All components and connections are designed to work at high pressures without any difficulty.

#### Variable Speed Driver (VSD)



Variable Speed Control technology maintains constant output pressure through varying engine speeds.

#### 4 in 1



It includes a complete 4-in-1 air compression station: Tank, Compressor, Dryer and Filters.

#### **Quiet operation**



Air compression is generated by a screw-driven motor, which guarantees quiet operation compared to other types of compressors.

#### **Multi-stage filtration**



It features several stages of filtration to ensure clean, pure compressed air at the outlet, which is necessary for working with laser cutting machines.

#### **HMI Touch Screen**



It features a built-in touchscreen as a control interface between the user and the machine. The controls are intuitive and operator-friendly.



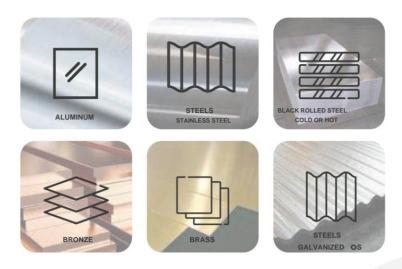
# **General Specifications**

SPECIFICATION	<u>DETAIL</u>			
Model	FORZA COMPRESSOR Z - Z20P16			
Compressor technology type	Screw thrust			
Means of supply	Air			
4-in-1 set	Compressor, tank, dryer, filters			
Refrigeration system	By air			
Output air flow/quantity	1.5 m3 /min   53 cfm			
Maximum outlet pressure	16 bar   232 psi			
Output pressure accuracy	±0.1 MPa			
Maximum air humidity in supply	< 60%			
Nominal atmospheric pressure	0.1 MPa   14.5 psi			
Working temperature	2 – 45 °C			
Noise level	ÿ70 dB			
Vibration level	ÿ7 mm/s			
Male outlet thread diameter	R1"			
Outlet air purity level	ÿ3 ppm			
Main engine power	15 kW   20 hp			
Rated speed of the main engine	2200 rpm			
Main engine start mode	Variable speed drive (VSD)			
Motor insulation class	F			
Main engine weight	50 kg			
Air tank volume	340 L   90 gal			
Working voltage	220V 3ph 50Hz-60Hz			
Maximum current per line	44A @ 220VAC 3ph			
Required wire gauge of the box	3 x 6AWG @ 220VAC 3ph			
breaker	+1 x 10AWG Ground			
Recommended breaker for the machine	60 A @ 220VAC 3ph			
Weight of the complete equipment	500 kg			
Complete equipment measurements	1800 x 750 x 1700mm   6x2.5x5.6ft			
IP protection	IP55			
Certifications	CE, RoHS			



## **Applicable materials**

All materials that can be cut with air are described; cutting thicknesses depend on the power of the laser equipment.



Black steel should be cut with oxygen, however thin thicknesses can be worked with air.

## **Cutting thicknesses by material**

Thicknesses depend on the power of the machine's laser; the following table corresponds to work with a 6000W machine.

MATERIAL	NOMINAL THICKNESS WITH AIR		
ASTM A36 ("Black or Mild") Steel	2mm   5/64in		
ASTM 304 STAINLESS STEEL	7mm   9/32in		
STRUCTURAL ALUMINUM ASTM 6061	5mm   3/16in		
Galvanized Steel ASTM A653	4mm   5/32in		
BRASS C27200	2mm   5/64in		



### **Packing List:**

1 x Compressor Z 20 (Tank, Compressor, Dryer, Filters)



## -POWER CABLES AND HOSE-

7m x 3x6AWG + 1x10AWG (T:Eye-Tip) @220VAC 3ph 



1 x PU hose 10m x 8mm 



## -INSTALLATION KIT-

1 x 1in - 1/2in Reduction 



1 x Reduction 1/2 in - 1/4 in 



2 x 1/4 in. Steel Hex Nipple 



1 x 1/2 in steel tee 



1 x 1/4 in union tee 



1 x 1/2 in Ball Valve 



1 x Reducing valve 



1 x Pressure gauge 



3 x Quick coupling 8mm x 1/2 in thread 



3 x Quick coupling 8mm x 1/4 in thread 



1 x Parrot beak key 



1 x Blow Gun 



1 x Roll of 8mm PU spiral hose



1 x Set of terminals 



Item	Measures	Net Weight	Gross Weight	СВМ
(1)	W: 1800mm L: 750mm H: 1700mm	500kg	550kg	23



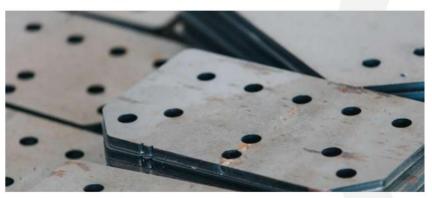
# **Manufactured Parts:**

















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