### Technical Agreement for ZSPY15-20 Direct Drive Smoke Exhaust System

Party A:

Party B: SHANGHAI ZISHU INDUSTRIAL CO., LTD

After friendly negotiation, Party A and Party B have reached the following terms and conditions regarding the technical matters related to Party A's order for Party B's PY15 direct drive smoke exhaust system:

#### 1. overview

ZSPY15-20 is the most common and large-scale vehicle mounted smoke exhaust equipment in the industry. With its diversified configurations, it can achieve landing and positive and negative pressure exhaust on side vehicles. This vehicle mounted smoke exhaust system is very suitable for ventilation and smoke exhaust in large warehouses, commercial buildings, high-rise buildings, subways, tunnels, underground parking lots, public rehabilitation areas and other large places. Equipped with a water mist generator, it can spray water mist, quickly reduce the temperature of the fire, and suppress strong, high temperature, toxic, flammable and other gases.



(Reference image)

# 2. Main performance parameters

Maximum smoke exhaust volume (m  $^3/$  h) : 150000-200000 cubic meters/hour

Endurance time (hours): 4h

Engine power (kW): 192 kW

Fuel: gasoline

# 3. Main configuration

Smoke exhaust system	Air Volume: (m³/h)	150000 to 200000		
dynamical	Type:  Number of Cylinders:	Gasoline engine, inline 4-cylinder, 16 valve, turbocharged, in cylinder direct injection 4-cylinder		
system	(kW@r/min)  Rated Power  (N.m@r/min)	192/5500		
	MAXIMUM TORQUE  Endurance Time (h)	400/1700-4000		

Impeller		1600 (6 or 8 blades, which one is more efficient and			
parameters	(mm)Diameter	which one is used)			
	Material	PAG (Made in Germany) equaivalent CFRP			
	Driving Method	Hydraulic drive (chassis provides power)			
lifting mechanism	ROTATION	360 degrees			
	Lifting Height (mm)	≥1300			
Pitch motion	Pitch	-30 degrees to+30 degrees			
	Power Control System	Control panel/wireless remote control			
Control System	Control Content	Engine start/stop, throttle increase/decrease, one click deployment, one click reset, smoke exhaust fan lifting, pitching, turning, water mist switch, emergency stop, etc			
Water Mist System	Flow: (L/S @1.0MPa)	5. 4			
	Number of nozzles	60pcs			
Additional configuration Overall dimensions	Positive and negative pressure air ducts	3pieces, length 20 meters/piece, foldable  1800*2050*2250			
	W*D*H (mm)				

#### 4. Vehicle configuration requirements

- 1). Provide hydraulic power source for driving (side power take-off);
- 2). Provide water mist pressure source.

#### $5_{\nu}$ Schematic Diagram of Different States of The Organization





