JCB ENERGY ELECTRIC POWER INDUSTRY

MADRID / SPAIN

Perkins · IVECO · Moteurs Baudouin · Schneider Electric · Cummins · DEUTZ · VMAN · VOLVO PENTA · HD HYUNDAI INFRACORE · DOOSAN · ABB

SCAN ME

www.jcbenergy.com

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JCBENERGY GENERATOR FACTORY

JCBENERGY SUCCESS STORY

Electricity has kept its importance since the first day it was discovered. Being dominated by technology, today's world has reached phenomenal speeds that do not allow tolerating even an instantaneous power outage. Through this progress, generator becomes a need more than a luxury. Jcbenergy's trailer system generators are engineered to reliably power your application while protecting your team, your equipment and your working environment. From events and disaster recovery to mining, roadwork and large industrial facilities, Jcbenergy's extensive line of generators is performance driven. This includes use in extreme conditions. That is why we have become the preferred supplier of mobile generators. Our complete range delivers when it counts the most with a host of benefits for rental fleets and end users, including:

- A user-friendly design with simple operation.
- The quietest in-class generators for the most sound-sensitive applications.
- An intuitive control panel that is telematics ready and features diagnostics capability.
- Several factory-installed options, including: positive air shut-off for oil and gas, three-way fuel valve for auxiliary fuel tanks ,,,
- Availability is never a question with Jcbenergy. We are ready to ship with a wide array of in-stock machines, as you need them.

OPTIONS- 1

- Double-braked torsion / scissor-necked
- Mechanical side support feet
- Mounting rings on the stand / side
- Hydraulic bushing for easy tool loading
- Upper platform open bridge ramp hair or indoorplywood
- Side flaps can be opened / fixed or without flaps
- With fixed ramp / with modular ramp
- Hot dip galvanized
- 2 layers epoxy primer painted on top coat
- O1 -O2 type approval certificate

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OPTIONS- 2

- Double-braked torsion / scissor-necked
- Mechanical side support feet
- Mounting rings on the stand / side
- Upper platform flat sheet, pebble sheet or playwood
- Hot dip galvanized
- 2 layers epoxy primer painted on top coat
- O1 - O2 type approval certificate

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OPTIONS- 3

- Double-braked torsion / scissor-necked
- Mechanical side support feet
- Upper platform sheet or playwood
- 2 layers epoxy primer painted on top coat
- Upper platform flat sheet, pebble sheet or playwood
- Superstructure coating GRP (glass fiber reinforced polyester),
- Superstructure Sandwich panel
- Superstructure Coating Aluminum,
- Superstructure covering sliding curtain
- O1-O2 Type approval certificate

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JCBENERGY GENERATOR TRAILER SYSTEM

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OPTIONS- 4

- Double-braked torsion / scissor-necked
- Mechanical side support feet
- Upper platform sheet or playwood
- Hot dip galvanized
- 2 layers epoxy primer painted on top coat
- O1-O2 type approval certificate

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2

2 YEAR WARENTY

GENERATORS WARRANTY TWO (2) YEAR OR 1500 HOURS, WHICH IS FULL EARLY.

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OPTIONS- 5

ATEX Certified

wyndham page

Spark Arrestors

A Range of Low Back Pressure ATEX Certified Spark Arrestors

Designed to prevent the emission of high energy sparks from diesel engine exhaust systems.

ABOUT WYNDHAM PAGE LTD

Based in the UK Wyndham Page specialise in the design and manufacture of safety equipment for diesel engines.

Our product range of Air Intake Shutdown Valves includes our E Series Automatic Valves and our F Series Butterfly Valves with solenoid, pneumatic or manual actuation options. We offer Speedswitch kits for the F Series valves and a range of Spark Arresters designed to prevent the emission of high energy sparks from diesel exhaust systems.

Wyndham Page is headed by Freddy Page-Roberts who brings over 20 years' experience in the diesel safety industry and was previously managing director of Chalwyn Ltd.

All members of the senior management team have considerable experience in organisations specialising in the design and manufacture of hazardous area equipment for diesel engines.

QUALITY ASSURANCE

Wyndham Page Valves are manufactured and tested under our EN ISO 9001: 2015 quality management system.

Wyndham Page Ltd are certified to supply ATEX equipment under Quality assurance Certificate CML ATEXQ11003.

Equipment supplied with an EC Type Examination Certificate is CE marked and meets the provision of the ATEX directive 2014/34/EU.

Self-certified equipment supplied with an EU Type Examination Certificate is CE marked and meets the provision of the ATEX directive 2014/34/EU.

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SPARK ARRESTORS APPLICATION

Diesel Engine exhaust Spark Arrestors are a basic, but key safety feature for both hazardous areas and lower risk applications such as agriculture or forestry where a spark from the exhaust system may cause ignition of combustible material. Virtually all legislation regarding the operation of a diesel engine in a hazardous area includes a mandatory requirement to fit an approved exhaust Spark Arrestor.

Wyndham Page Spark Arrestors are designed as a safety device specifically for preventing the spread of sparks emitted from diesel engines. All diesel engines have the potential to emit sparks, even the latest clean engines. This is due to the high carbon particulate content, carbon build up and the high ratio of free oxygen in the exhaust gas when on and off load. The energy carried by these sparks and the risk of them being transmitted over large areas in the presence of flammable materials, gases or dust can significantly increase the chances of igniting fires or causing explosions.

Under Health and Safety guidelines and legislation, such as ATEX, this potential risk has been identified as the cause of many catastrophic fires and the fitting of a Spark Arrestor alongside other protective measures has been mandated as an important means of reducing this. For this reason Spark Arrestors are mandatory equipment in many industries where potentially explosive environments are common.

Wyndham Page Spark Arrestors have been type tested in accordance with relevant standards for arresting incandescent carbon particles (sparks) from the exhaust gas discharge of diesel engines. (They are not certified for any other type of spark suppression applications). The user must ensure that the Spark Arrestor is suitable for its intended application, and that it is correctly sized to the engine specification and power rating. If necessary, noise levels, back pressure and temperature requirements must be assessed. Reference should be made to product data sheets available through the company's web site or check with Wyndham Page or their representative and if necessary, the engine manufacturer. N.B. The operation of an engine in a hazardous environment may require additional safety precautions. A Spark Arrestor is a SAFETY DEVICE and should be treated accordingly.

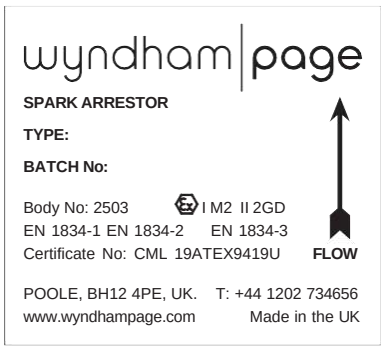
PIRINCIBLE OF OPERATION [CENTRIFUGAL]

All of our Spark Arrestors operate on the principle of a centrifuge whereby the exhaust gas is made to spin rapidly as it passes down the cylindrical body. This causes carbon particles present in the exhaust gas to make repeated contact with the inner wall of the body and in the process heat energy is dissipated to a safe level.

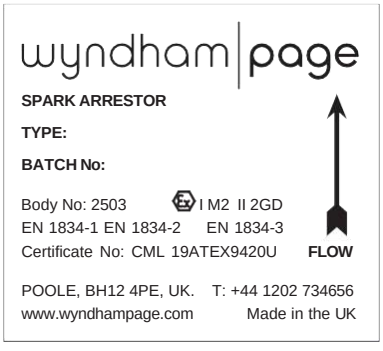
ATEX CERTIFICATION AND MARKING

Our Spark Arrestors are tested and certified to the following standards: EN1834-1 EN1834-2 EN1834-3
They are marked using I.D plates as shown below which include the following information:

Type and size
Batch No and Year of Manufacture
WT1L & WT2L SERIES



ATEX certificate and certification details
Gas flow direction arrow.
NT SERIES



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SPARK ARRESTOR SELECTION

To enable Wyndham Page to select the most suitable Spark Arrestor for a given application the following data is required:
Engine power rating (KW/HP)
Outside diameter of exhaust pipe (OD in mm)
Engine type,model & application (vehicle, generator etc)
Exhaust emission control/cleaning devices: DPF, DOC, SCR or Ad Blue.

RANGES & DESCRIPTION

All Wyndham Page Spark Arrestors are of 100% stainless steel construction. They are available in 3 ranges. Detailed technical information on each range is given on pages 6 to 8.

WT1L - Auxiliary Spark Arrestors. Are designed to be fitted at the end of the exhaust system in addition to the existing silencer. This range is ideal for short term or temporary installations or where there is limited space. Designed for modern and conventional diesel engines with an output of up to 123KW (165 HP) they can also be used for permanent installations if required.

- Single centrifuge type
- Minimal back pressure
- Good silencing
- Swelled and slotted pipe on inlet

WT2L - Standard Spark Arrestors. Are designed for permanent installation in the exhaust system as a replacement for the existing silencer. Designed for modern and conventional diesel engines with an output of up to 560KW (750 HP).

- Twin centrifuge type
- Minimal back pressure
- Good silencing
- Swelled and slotted pipe on inlet and outlet

NT - Ultra Low Back Pressure Spark Arrestors. Are designed for low emission diesel engines. They are suitable for temporary or permanent installation in the exhaust system and can be used alongside or as a replacement for the existing silencer. This range can cover engines with an output of up to 750KW (1006HP).

- Stage IIIA, Euro V, Tier 4 and better
- Turbine type spin blades and improved gas flow dynamics
- Ultra low back pressure
- Good silencing, no noise regeneration
- Can be used with DPF, DOC and SCR
- Swelled and slotted pipe on inlet (and outlet on larger models)

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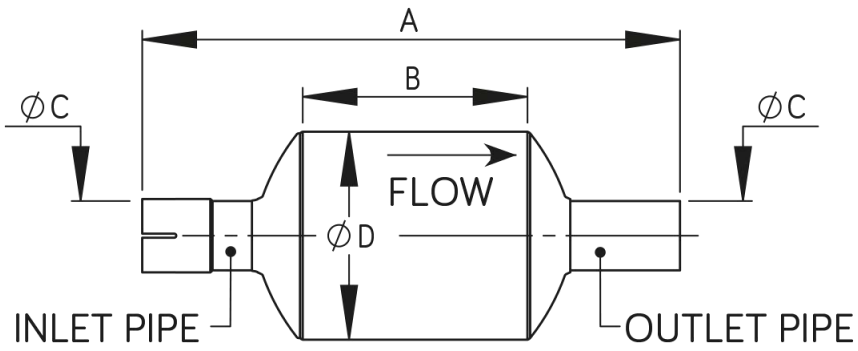
WT1L – AUXILIARY SPARK ARRESTORS: DATA

METRIC TABLE		ENGINE POWER (KW)		DIMENSIONS (MM)				
MODEL	SIZE CODE	MIN	MAX	WEIGHT KG	A	B	C (PIPE SIZE)	D
WT1L	092	4	19	1.6	313	135	32-44	92
	125	11	26	2.5	334	145	38-51	127
	152	15	37	3	352	165	44-63	152
	175	22	52	4	384	200	51-63	177
	205	30	67	5	391	205	57-70	202
	235	52	97	5	427	235	63-89	233
	270	67	123	8	508	275	89-102	273

IMPERIAL TABLE		ENGINE POWER (HP)		DIMENSIONS (INCHES)				
MODEL	SIZE CODE	MIN	MAX	WEIGHT LB	A	B	C (PIPE SIZE)	D
WT1L	092	5	25	3.5	12.3	5.3	1.25-1.75	3.6
	125	15	35	5.5	13.1	5.7	1.50-2.00	5.0
	152	20	50	6.6	13.9	6.5	1.75-2.50	6.0
	175	30	70	8.8	15.1	7.9	2.00-2.50	7.0
	205	40	90	11	15.4	8.1	2.25-2.75	8.0
	235	70	130	11	16.8	9.3	2.50-3.50	9.2
	270	90	165	17.6	20.0	10.8	3.50-4.00	10.7



ORDER CODING

WT1L – XXX - XXX

Pipe Size

Size Code

Use metric value for pipe size, add zero to make 3 digit code

e.g. 63 = 063

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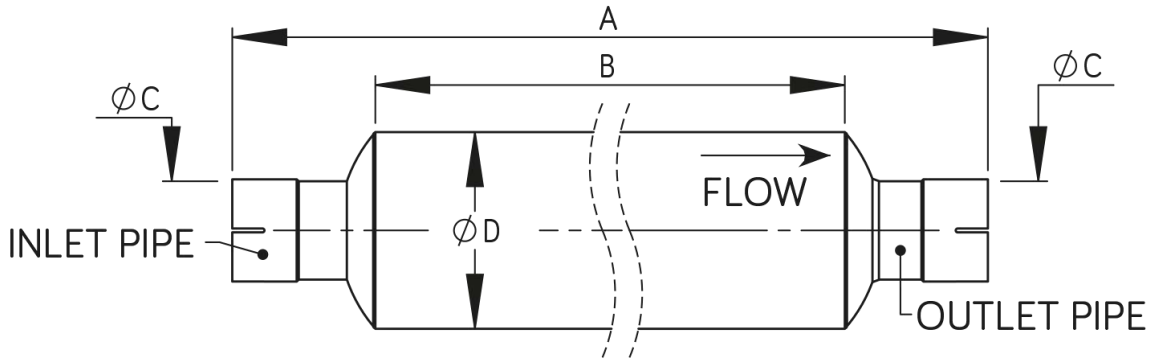
WT1L – AUXILIARY SPARK ARRESTORS: DATA

METRIC TABLE		ENGINE POWER (KW)		DIMENSIONS (MM)				
MODEL	SIZE CODE	MIN	MAX	WEIGHT KG	A	B	C (PIPE SIZE)	D
WT2L	090	15	37	3	640	455	25-51	92
	125	22	60	4	680	500	38-64	127
	150	37	90	6	885	665	51-76	152
	150X	37	90	5.5	728	507	51-76	152
	175	71	149	8	971	750	76-102	177
	175X	71	149	7.5	865	645	76-102	177
	200	112	254	11	1145	910	102-127	202
	235	186	336	15	1335	1110	114-152	233
	300	242	410	25	1490	1250	140-178	305
	360	354	560	47	1758	1500	152-203	356

IMPERIAL TABLE		ENGINE POWER (HP)		DIMENSIONS (INCHES)				
MODEL	SIZE CODE	MIN	MAX	WEIGHT LB	A	B	C (PIPE SIZE)	D
WT2L	090	20	50	6.6	25.2	17.9	1.00-2.00	3.6
	125	30	80	8.8	26.8	19.7	1.50-2.50	5.0
	150	50	120	13.2	34.8	26.2	2.00-3.00	6.0
	150X	50	120	12.1	28.7	20.0	2.00-3.00	6.0
	175	95	200	17.6	38.2	29.5	3.00-4.00	7.0
	175X	95	200	16.5	34.1	25.5	3.00-4.00	7.0
	200	150	340	24.3	45.1	35.8	4.00-5.00	8.0
	235	240	450	33.1	52.6	43.7	4.50-6.00	9.2
	300	325	550	55.1	58.7	49.2	5.50-7.00	12.0
	360	475	750	103.6	69.2	59.1	6.00-8.00	14.0



ORDER CODING

WT2L – XXX - XXX

Pipe Size

Size Code

Use metric value for pipe size, add zero to make 3 digit code

e.g. 63 = 063

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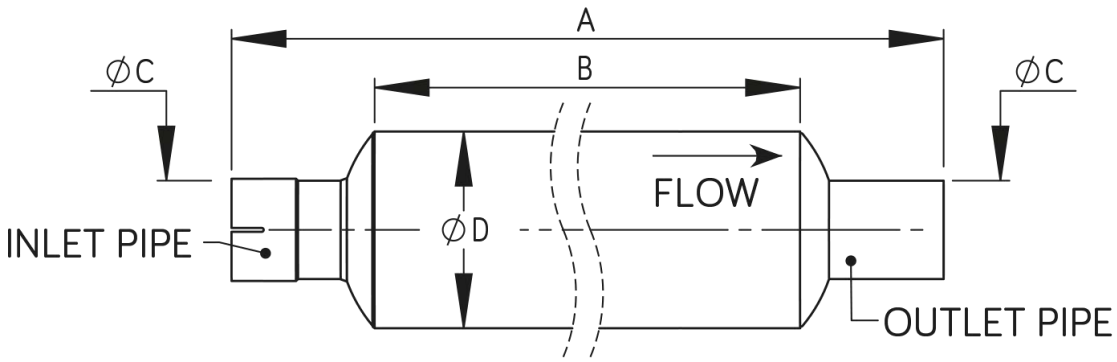
NT – ULTRA LOW BACK PRESSURE SPARK ARRESTORS: DATA

METRIC TABLE		ENGINE POWER (KW)		DIMENSIONS (MM)				
MODEL	SIZE CODE	MIN	MAX	WEIGHT KG	A	B	C (PIPE SIZE)	D
NT	092	10	34	1.75	455	269	32-45	92
	125	23	60	3.2	545	364	51-57	125
	152	30	104	4.5	658	438	51-76	152
	175	55	149	5.7	696	475	76-101	177
	200	75	242	8.7	885	650	89-114	202
	235	100	313	11.8	1020	795	101-129	232
	270	145	384	18.0	1157	932	127-152	272
	300	150	429	23.0	1270	1030	127-165	305
	360	240	559	40.0	1533	1275	152-202	357
	400	400	750	53.0	1760	1500	202-255	398

IMPERIAL TABLE		ENGINE POWER (HP)		DIMENSIONS (INCHES)				
MODEL	SIZE CODE	MIN	MAX	WEIGHT LB	A	B	C (PIPE SIZE)	D
NT	092	13	45	3.9	17.9	10.6	1.30-1.80	3.6
	125	30	80	7.1	21.5	14.3	2.00-2.20	4.9
	152	40	140	9.9	22.4	17.2	2.00-3.00	6.0
	175	75	200	12.6	27.4	18.7	3.00-400	7.0
	200	100	325	19.2	34.8	25.6	3.50-4.50	8.0
	235	135	420	26.0	40.2	31.3	4.00-5.10	9.1
	270	195	515	37.7	45.6	36.7	5.00-6.00	10.7
	300	200	575	50.7	50.0	40.6	5.00-6.50	12.0
	360	320	750	88.2	60.4	50.2	6.00-8.00	14.1
	400	536	1006	116.9	69.3	59.1	8.00-10.00	15.7



ORDER CODING

NT – XXX - XXX

Pipe Size

Size Code

Use metric value for pipe size, add zero to make 3 digit code

e.g. 63 = 063

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SPARK ARRESTOR INSTALLATION

1. Refer to product I.D. plate for type and see product data sheet to ensure suitability for engine size and power.
2. Ensure that the Spark Arrestor is installed with the gas flow in the direction of the flow arrow.
3. Fit the Spark Arrestor into the exhaust pipe at a convenient point, as close to the end of the system as practical, after any other devices such as cleaners or silencers. Attention should be paid to the safe positioning of the tail pipe. It may be possible to replace the silencer with the spark arrestor if adequate silencing is achieved, however emission products should be left in place, or check with the engine manufacturer.
4. Ensure the exhaust system is in good condition with no leaks and that the spark arrestor is adequately supported; extra brackets may be required, fit flexible joints as appropriate.
5. Ensure all the joints are gas tight (if necessary use a proprietary exhaust system sealant).
6. Where surface temperature may form a hazard, consideration must be given to suitable positioning and/or guarding.
7. Test run the engine in a safe, darkened environment, with varying load conditions and examine the exhaust discharge for any sparks, if any are observed do not use, but consult W.P. (NB If running an engine in an enclosed space adequate precautions must be taken to avoid exhaust gas fumes /carbon monoxide poisoning).

ATEX Installations: In order to fully comply with the directive, the Spark Arrestor must be suitable for its intended purpose and shall be included in the temperature assessment of the completed engine prior to commissioning in accordance with the following clauses as appropriate to the particular application:
EN1834-1:2000 clause 5.3
EN1834-2:2000 clause 5.2
EN1834-3:2000 clause 5.1

MAINTENANCE

Wyndham Page spark arrestors contain no serviceable parts and require minimal maintenance.

1. Spark arrestors should be examined daily whilst in use for any signs of damage, to ensure that the outer case is intact with no cracks, holes, dents or evidence of corrosion. The condition of the rest of the exhaust system should also be checked.
2. In normal conditions, the spark arrestor is self-cleaning. However, after prolonged use, particularly if the engine spends a long-time idling, or is sooty; the unit may be cleaned, in a safe area, by bringing the engine to operating temperature, then whilst running at high revs, the spark arrestor case should be lightly tapped to loosen any accumulated carbon; this will then be blown out by the exhaust.
3. Normally the first sign of deterioration in the spark arrestor will be visible externally or audibly, however we recommend that approximately every 500 hours it is removed and examined for damage. Tap the casing lightly as above and shake out any loose soot deposits and check for loose or damaged internal baffles. The spark arrestor may be washed through with water or a mild detergent, but do not clean with a flammable degreaser. Reinstall and run a spark check as above. If large soot deposits have accumulated check the root causes before putting the equipment back into service.

N.B: The year of manufacture is marked next to the Batch Code: age, condition and usage will determine the product's longevity.
Any Defective, Damaged or Suspect Spark Arrestor must be removed from service and replaced. **IF IN DOUBT CONSULT WYNDHAM PAGE.**

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OPTIONS- 6

OTHER OPTIONS

- Reliable and safe emergency shut down for diesel engines
- Simple pull cable activation method, with operator friendly manual reset
- Aluminum flap and housing for durable seal and low weight
- Designed for challenging thermal applications
- Wide range of sizes available
- Robust design; Tested to 18.6 gmrs vibration cycle
- Cycle tested 7300 actuations (2 times a day for 10 years)
- Components corrosion tested to ASTM B117, 96hrs Salt Fog
- Corrosion resistant pull cable

PH1 PRODUCT DATA SHEET

PRODUCT DESCRIPTION

Maximum Intake Boost Air Pressure	2.76 bar (gauge) [40 psig]
Continuous Intake Air Temperature	-67°C to 200°C [-40°F to 392°F]
Ambient Temperature Range	-40°C to 120°C [-40°F to 248°F] (valve body)

Resting Position	Valve open
Activated Position	Valve closed

Standard Mounting Options	Hose to hose
Pipe Sizes Supported	Ø44.5 mm to 70 mm [Ø1.75 in to Ø2.75 in] (more sizes available per request)

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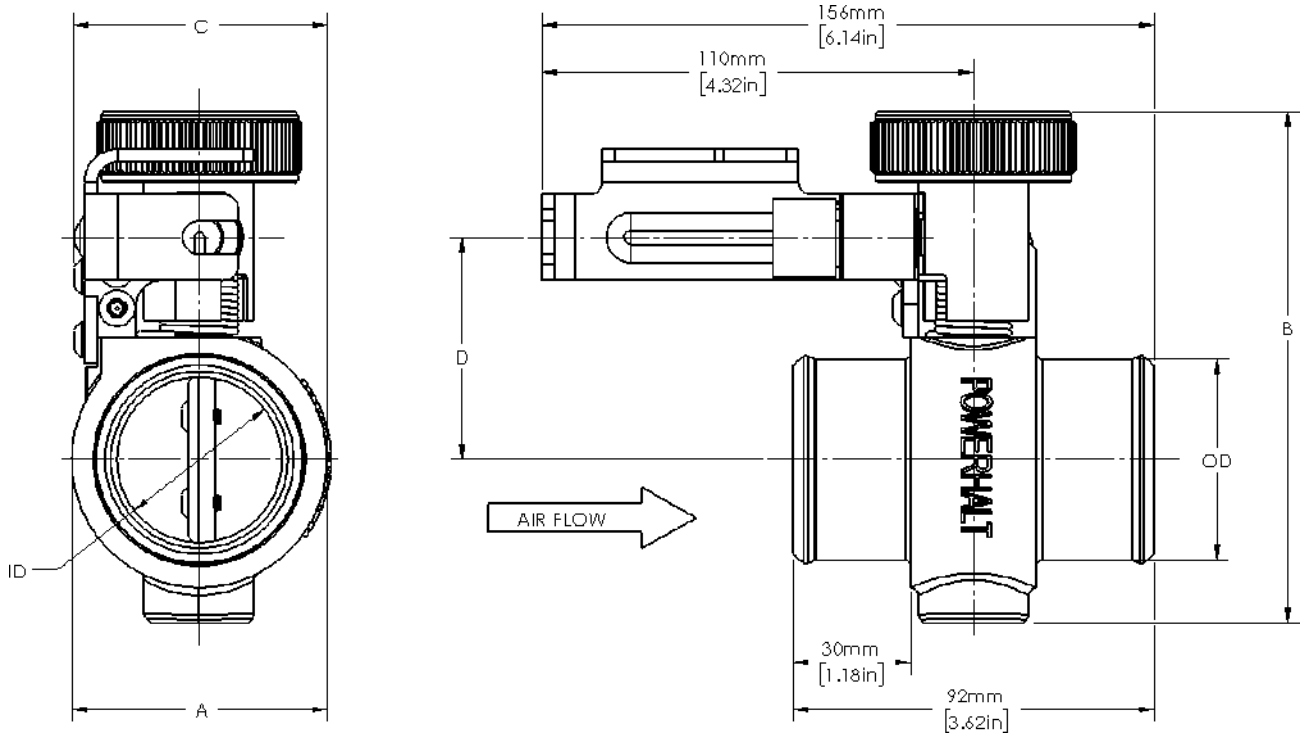
PHYSICAL CHARACTERISTICS



Nominal Valve Size [OD]	Valve Core Dimensions					Weight
	Bore [ID]	Housing OD [A]	Height [B]	Width [C]	Trigger [D]	
44.5 mm [1.75 in]	35.5 mm [1.40 in]	65 mm [2.56 in]	129.8 mm [5.11 in]	61.9 mm [2.44 in]	57 mm [2.22 in]	1.5 kg [3.3 lb]
51 mm [2.0 in]	42 mm [1.65 in]	65 mm [2.56 in]	129.8 mm [5.11 in]	61.9 mm [2.44 in]	57 mm [2.22 in]	1.5 kg [3.3 lb]
57 mm [2.25 in]	48 mm [1.89 in]	65 mm [2.56 in]	129.8 mm [5.11 in]	61.9 mm [2.44 in]	57 mm [2.22 in]	1.4 kg [3.1 lb]
64 mm [2.5 in]	55mm [2.17 in]	81.5 mm [3.21 in]	135.9 mm [5.35 in]	70.1 mm [2.76 in]	59.5 mm [2.34 in]	1.6 kg [3.5 lb]

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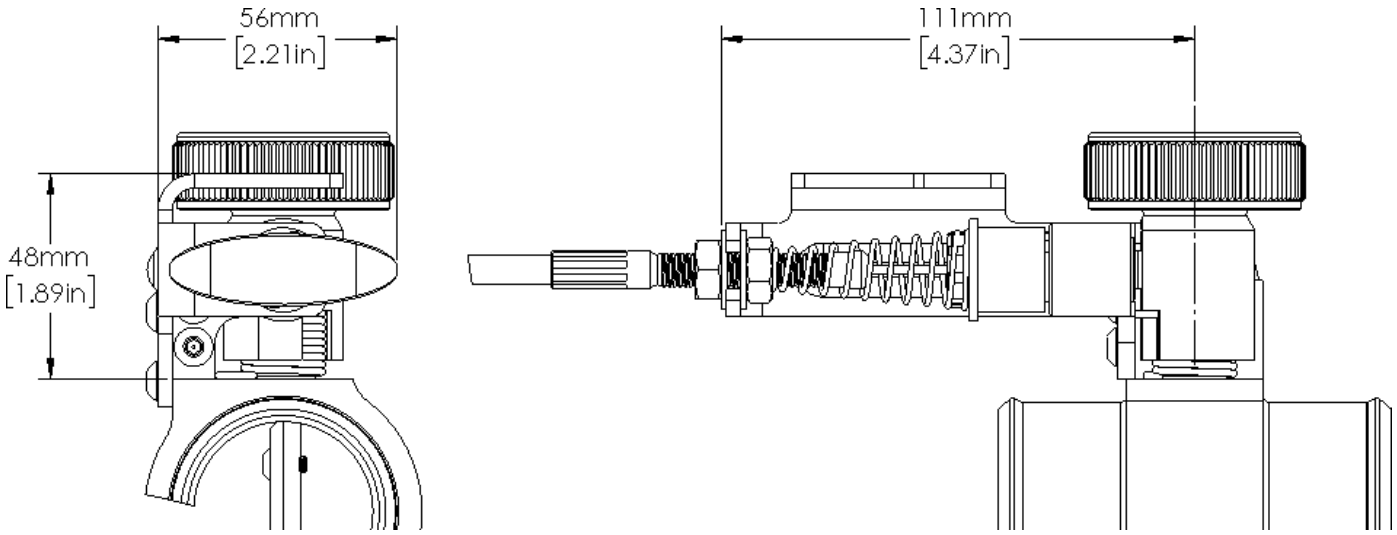
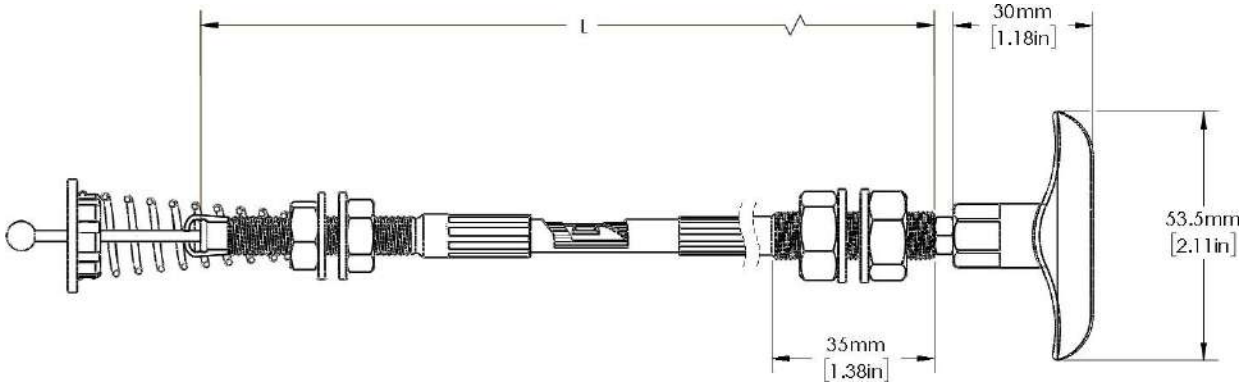
PULL CABLE ACTIVATION



Minimum Cable Activation Pull Force	50 N [11.2 lbf]
Minimum Stroke for Activation	12 mm [0.47 in]
Activation	Pull to shut valve

PULL CABLE



Minimum Cable Bending Radius		90 mm [3.54 in]				
Cable Lengths [L]	**mm**	610	1220	1830	2440	3050
	ft	2	4	6	8	10
Default Position		Handle retracted				
Cable Weight (Reference)		0.29 kg [0.64 lb] for 1830 mm [6 ft] Length				
Total degrees of all bends		360° maximum				
Through-hole size		11 mm [7/16 in]				
Ambient Temperature Range		-40°C to 85°C [-40°F to 185°F]				

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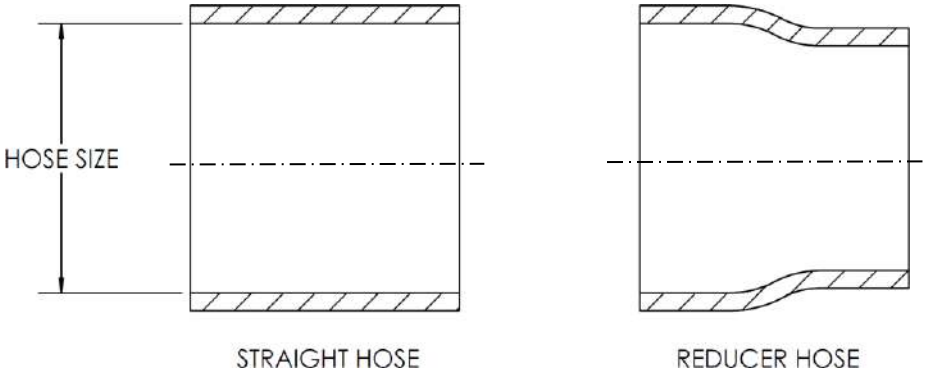
HOSES



Temperature Rating	-55°C to +175°C [-67°F to +347°F]
Pressure Rating	Conforms to SAE J20 (20R1 HD SW)
Hose Sizes	44.5 to 70 mm [1.75 to 2.75 in]

CLAMPS

Description	Clamp, spring loaded constant tension gear/SAE J1508 Type SLHD	
SAE Sizes	#262	#312
Size Range	44.5 mm to 66.7 mm [1.75 in to 2.625 in]	54 mm to 79.4 mm [2.125 in to 3.125 in]
Installation Torque	8.5 Nm [75 in-lbf]	

APPLICATIONS

- Lighting Units
- Bulk Haulers
- Grain Processing Plants
- Refinery Processing
- Fueling Vehicles
- Pump Trucks
- Ambulances
- Tankers
- Cranes
- Vehicles
- Tow Vehicles
- Fire Trucks
- Lighting Trucks
- Power Generators
- Forklifts
- Underground Equipment
- Support Vehicles
- Vacuum Trucks
- Frack Trucks
- Drilling Rigs
- Work Boats
- Barges
- Welders

Notes:

All information contained in this document is for reference only, subject to change without notice.

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OPTIONS- 7

Heavy Duty Air Intake Shut-Off Valve

Model: 7002

OVERVIEW

Hydraulic fracturing technology requires the use of heavy duty high horse power diesel engines. Hydrocarbon release in an area where a diesel engine is operating can lead to diesel engine runaway which can be a highly dangerous situation. Once an engine begins to run on the external fuel source, turning off the ignition will have no effect. The engine will continue to run and overspeed leading to mechanical failure or explosion. The newly released 7002 series air intake shut-off valve was designed for the wear and tear of the frac industry. The valve will effectively shut down a runaway diesel engine by closing off the engine intake air.

FEATURES AND BENEFITS

- Corrosion resistant, anodized aluminum and stainless steel construction
- Rated for continuous working temperature from -40°C to +280°C
- Designed for post-turbo temperatures
- IP67 rated solenoid /actuator
- Desgined for high vibration environments
- Male/female marmon flange connections (can be coupled directly to Cummins QSK50 engine intakes)
- Position switch integrated into actuator housing
- Switch is not exposed to charge air temperature/debris

APPLICATIONS

- Heavy duty high horse power frac diesel engines
- Offshore production engines
- Drilling industry
- Hazardous material vehicles
- Marine engines
- Power generation (gen sets)
- Well service vehicles
- Mining equipment
- Locomotives

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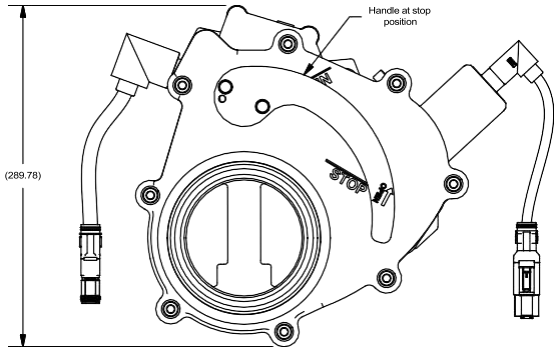
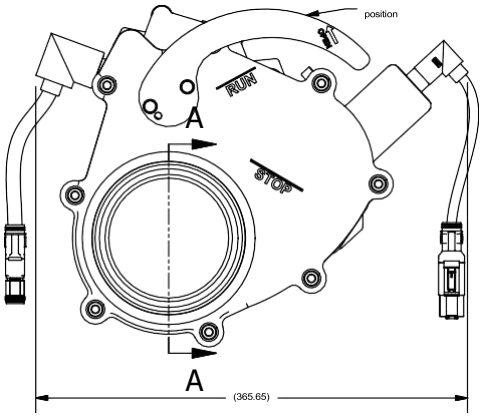
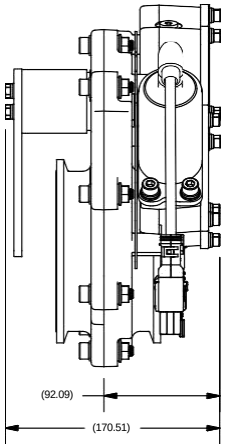
DIMENSIONS

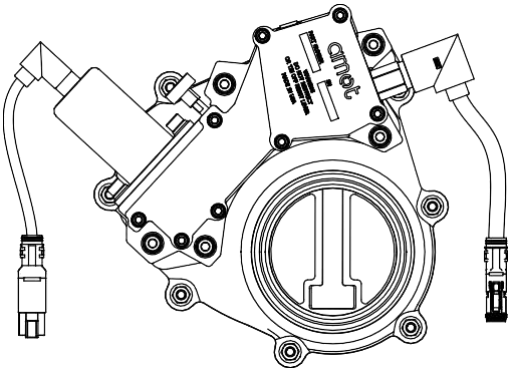
(VALVE IS CLOSED)

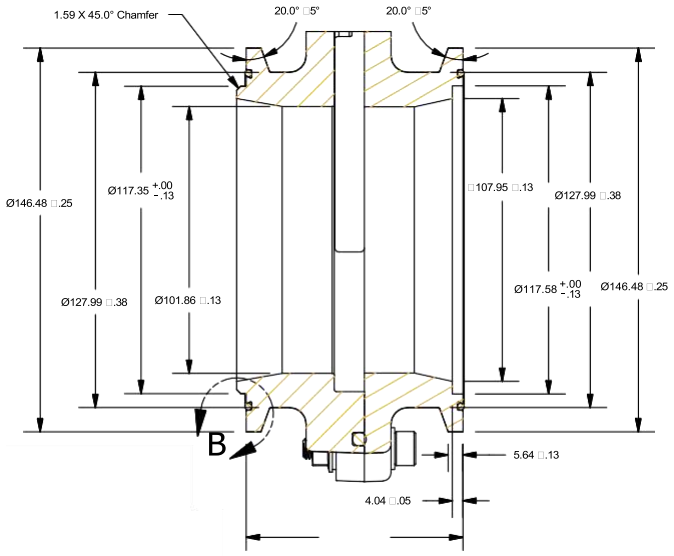


(VALVE IS OPEN)









CE -VERTA-106188
-VERTA-106189

SPECIFICATIONS

Standard materials	Valve body	Hard anodized aluminum
	Gate	Brass
	Seals	Viton/Silicone
	Safety control operator	Anodized aluminum
Maximum intake air temperature	-40°C to 280°C	-40°F to 535°F
Valve Size	4” valve size	102 mm
Net weight	10 kg (21 lbs)	
Max Charge Air Pressure	5 bar	
Solenoid	Voltage	19.2 - 28.8 Volts DC
	Max current draw	38.9 A @ 28.8 VDC & -40°C
	Inductance	3.5mH +40°C
	Duty Cycle @ 125°C	1.3%, Max 1.0s ON Min 75s OFF
Switch	5 Amp resistive load max > 0.25W	

HOW TO ORDER

Use the tables below to select the unique specification of your Model 7002 Intake Air Shut-off Valve:

Example: **7002** **A** **BB** **C** - **DDD**

A	Valve Size
4	4 inch, standard

BB	Valve Operator
72	Electric Solenoid, 24VDC

C	Switch Options
A	Valve Open = Switch Closed
B	Valve Open = Switch Open

DDD	Connection Options
RZX	Deutsch Solenoid Connector (DT04-4P), Deustch Switch Connector with integral 33 kΩ Shunt (DT06-2S)
RZO	Deutsch Solenoid Connector (DT04-4P), PIN Style Plug in 15-4 Layout Switch Connector (38999)
HAC	Weatherpack Solenoid Connector (12015792), Deustch Switch Connector (DT06-2S)

Note: AMOT does not qualify the valve for specific applications. Consult the engine and valve specifications.

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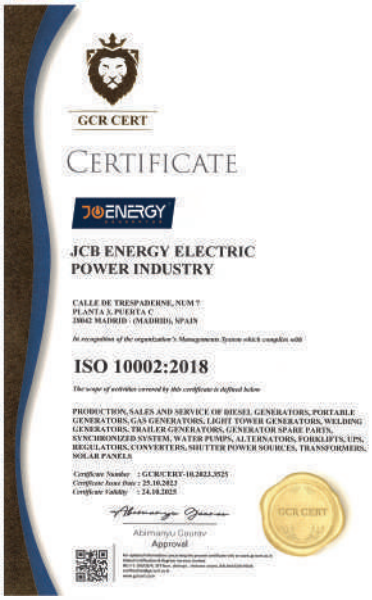
-VERTA-106189

OUR CERTIFICATES


GCR CERT

CERTIFICATE

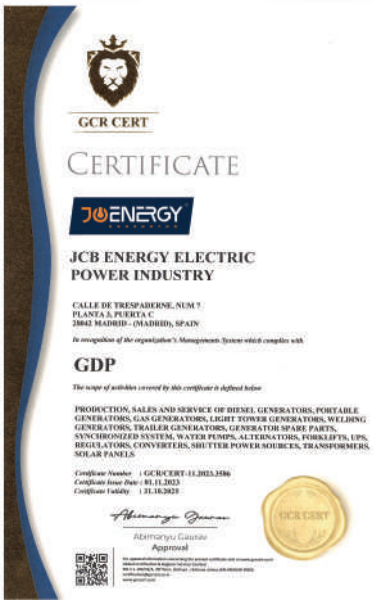
JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7
PLANTA 3, PUERTA C
28042 MADRID - (MADRID), SPAIN

ISO 10002:2018

PRODUCTION, SALES AND SERVICE OF DIESEL GENERATORS, PORTABLE GENERATORS, GAS GENERATORS, LIGHT TOWER GENERATORS, WELDING GENERATORS, TRAILER GENERATORS, GENERATOR SPARE PARTS, SYNCHRONIZED SYSTEM, WATER PUMPS, ALTERNATORS, FORKLIFTS, UPS, REGULATORS, CONVERTERS, SHUTTER POWER SOURCES, TRANSFORMERS, SOLAR PANELS

Abimanyu Gaurav
Approval


GCR CERT

CERTIFICATE

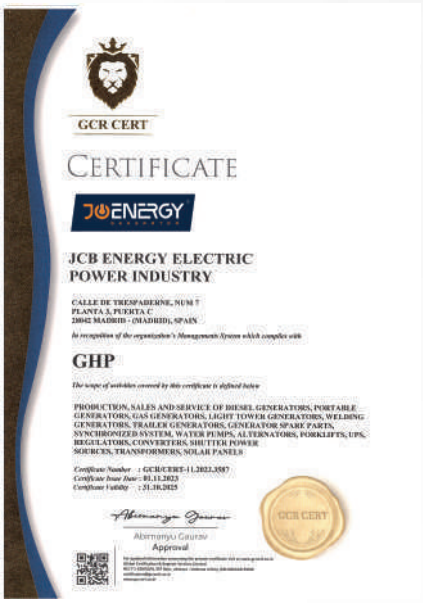
JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7
PLANTA 3, PUERTA C
28042 MADRID - (MADRID), SPAIN

GDP

PRODUCTION, SALES AND SERVICE OF DIESEL GENERATORS, PORTABLE GENERATORS, GAS GENERATORS, LIGHT TOWER GENERATORS, WELDING GENERATORS, TRAILER GENERATORS, GENERATOR SPARE PARTS, SYNCHRONIZED SYSTEM, WATER PUMPS, ALTERNATORS, FORKLIFTS, UPS, REGULATORS, CONVERTERS, SHUTTER POWER SOURCES, TRANSFORMERS, SOLAR PANELS

Abimanyu Gaurav
Approval


GCR CERT

CERTIFICATE

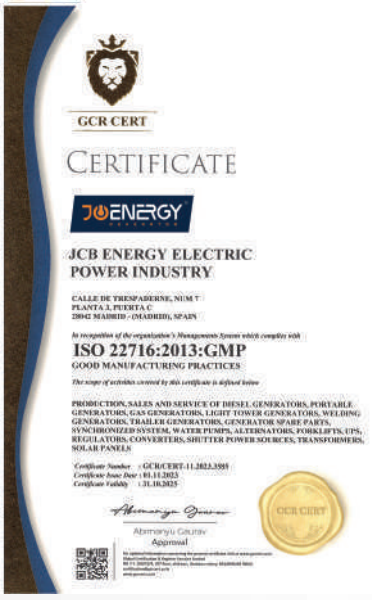
JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7
PLANTA 3, PUERTA C
28042 MADRID - (MADRID), SPAIN

GHP

PRODUCTION, SALES AND SERVICE OF DIESEL GENERATORS, PORTABLE GENERATORS, GAS GENERATORS, LIGHT TOWER GENERATORS, WELDING GENERATORS, TRAILER GENERATORS, GENERATOR SPARE PARTS, SYNCHRONIZED SYSTEM, WATER PUMPS, ALTERNATORS, FORKLIFTS, UPS, REGULATORS, CONVERTERS, SHUTTER POWER SOURCES, TRANSFORMERS, SOLAR PANELS

Abimanyu Gaurav
Approval


GCR CERT

CERTIFICATE

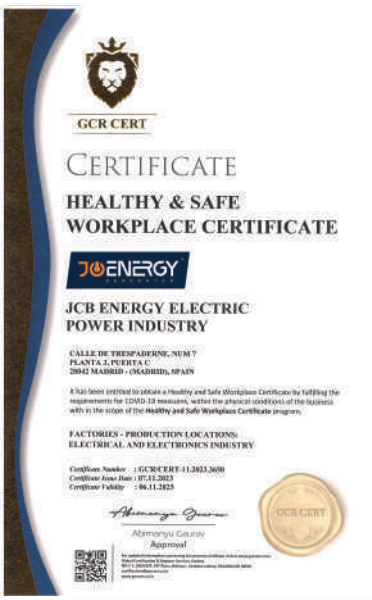
JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7
PLANTA 3, PUERTA C
28042 MADRID - (MADRID), SPAIN

ISO 22716:2013:GMP
GOOD MANUFACTURING PRACTICES

PRODUCTION, SALES AND SERVICE OF DIESEL GENERATORS, PORTABLE GENERATORS, GAS GENERATORS, LIGHT TOWER GENERATORS, WELDING GENERATORS, TRAILER GENERATORS, GENERATOR SPARE PARTS, SYNCHRONIZED SYSTEM, WATER PUMPS, ALTERNATORS, FORKLIFTS, UPS, REGULATORS, CONVERTERS, SHUTTER POWER SOURCES, TRANSFORMERS, SOLAR PANELS

Abimanyu Gaurav
Approval


GCR CERT

CERTIFICATE

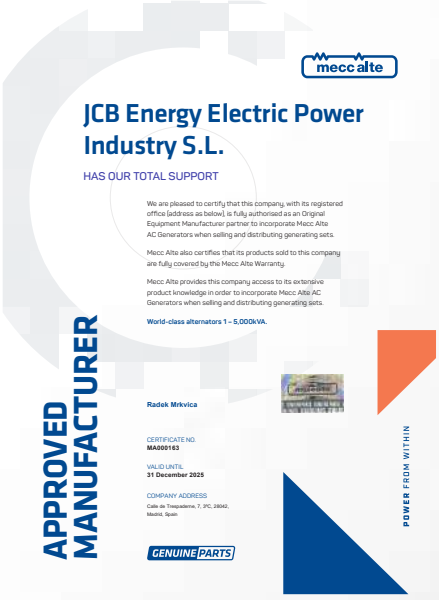
HEALTHY & SAFE WORKPLACE CERTIFICATE

JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7
PLANTA 3, PUERTA C
28042 MADRID - (MADRID), SPAIN

FACTORIES - PRODUCTION LOCATIONS:
ELECTRICAL AND ELECTRONICS INDUSTRY

Abimanyu Gaurav
Approval


meccalte

JCB Energy Electric Power Industry S.L.

HAS OUR TOTAL SUPPORT

We are pleased to certify that this company, with its registered office [address as below], is fully authorised as an Original Equipment Manufacturer partner to incorporate Mecc Alte AC Generators when selling and distributing generating sets.

Mecc Alte also certifies that its products sold to this company are fully covered by the Mecc Alte Warranty.

Mecc Alte provides this company access to its extensive product knowledge in order to incorporate Mecc Alte AC Generators when selling and distributing generating sets.

World-class alternators 1 – 5,000kVA.

APPROVED MANUFACTURER

Radek Mrkvica

CERTIFICATE NO.
MA000163

VALID UNTIL
31 December 2025

COMPANY ADDRESS
Calle de Trespaderne, 7, 7PC, 28042, Madrid, Spain

GENUINE PARTS

POWER FROM WITHIN

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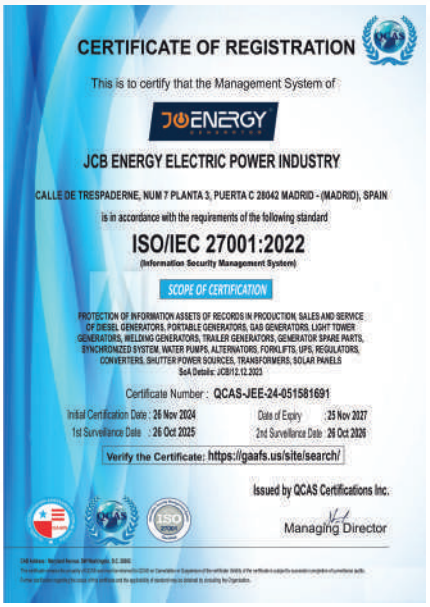
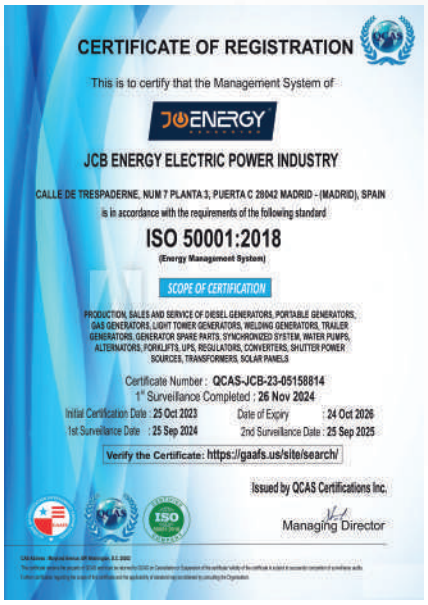
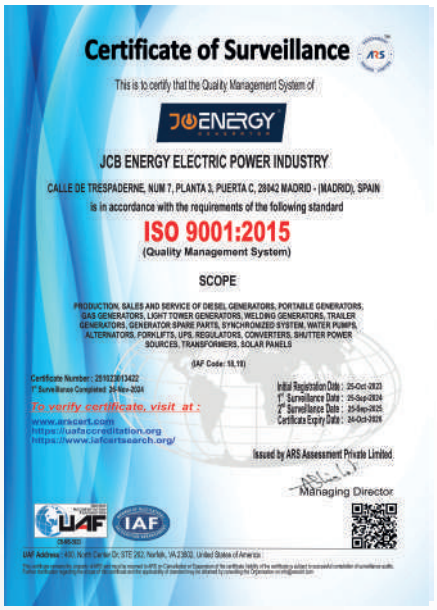
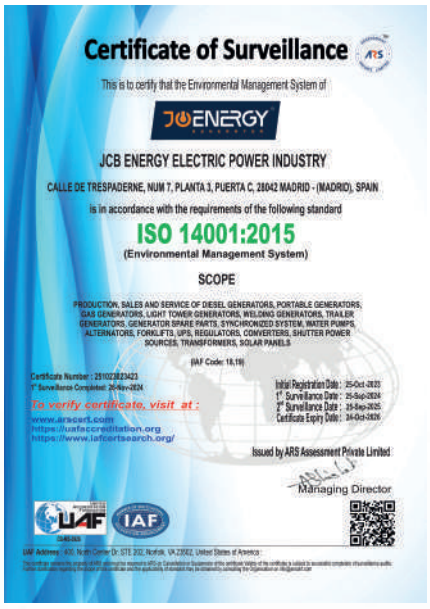
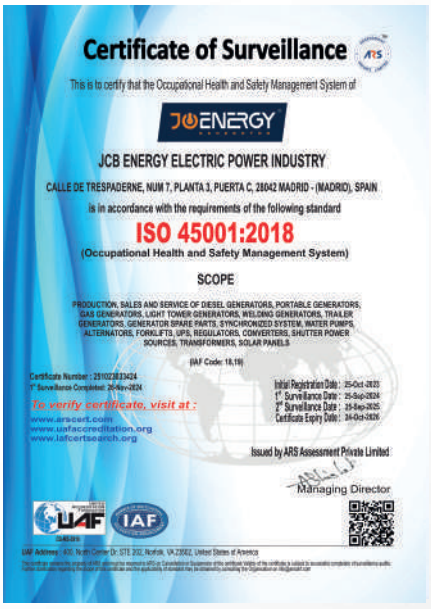
-VERTA-106189











CE -VERTA-106188
-VERTA-106189

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 0012084 | Initial certification date: 14 August 2007 | Valid: 14 October 2023 – 13 October 2026

This is to certify that the management system of

HD Hyundai Infracore Co., Ltd. Head Office & Incheon Plant

489, Injung-ro, Dong-gu, Incheon, 22502, Republic of Korea

and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Environmental Management System standard:

ISO 14001:2015

This certificate is valid for the following scope:

Design, Development, Manufacture, Servicing of Internal Combustion Engine for use in Marine Industry, General Industry and Automotive Industry, and Earth Moving Equipment(Excavator, Wheel Loader, Dozer).
Testing of Earth Moving Equipment(Excavator and Wheel Loader).

Place and date: Barendrecht, 09 October 2023

For the issuing office: DNV - Business Assurance, Zwolseweg 1, 2994 LB Barendrecht, Netherlands

Erie Kaak
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV Business Assurance B.V., Zwolseweg 1, 2994 LB, Barendrecht, Netherlands - TEL: +31(0)102922689. www.dnv.com/assurance

DNV

MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: 0012085 | Initial certification date: 03 January 2006 (based on OHSAS 18001) | Valid: 14 October 2023 – 13 October 2026

This is to certify that the management system of

HD Hyundai Infracore Co., Ltd. Head Office & Incheon Plant

489, Injung-ro, Dong-gu, Incheon, 22502, Republic of Korea

and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Occupational Health and Safety Management System standard:

ISO 45001:2018

This certificate is valid for the following scope:

Design, Development, Manufacture, Servicing of Internal Combustion Engine for use in Marine Industry, General Industry and Automotive Industry, and Earth Moving Equipment(Excavator, Wheel Loader, Dozer).
Testing of Earth Moving Equipment(Excavator and Wheel Loader).

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Cámara de Madrid
REGISTRO GENERAL
SALIDA
Nº de Registro: 645 / RG 645
Fecha: 29/07/2024 12:03:09

IRENE SANCHEZ ROMAN, MANAGER OF THE DEPARTMENT OF LEGAL ADVISORY SERVICES AND THE DATABASE OF THE OFFICIAL CHAMBER OF COMMERCE, INDUSTRY AND SERVICES OF MADRID, WITH REGISTERED OFFICE AT PLAZA DE LA INDEPENDENCIA 1, MADRID, SPAIN

CERTIFY: That, according to the background data on record at this Chamber and others produced by the Company:

JCB ENERGY ELECTRIC POWER INDUSTRY S.L., a Company with Tax I.D. Number B13975594, and its registered office at street Trespademe no 7, 28042 Madrid is registered on 8 May 2024, under the heading of the 1st Section, companies, of the Economic Activities Tax Tariffs Number 342 to perform the following activity:

- Manufacture of electrical material for use and equipment

In witness whereof, for the appropriate purpose, I have issued and signed this Certificate, to which I affix the stamp of this Chamber, in Madrid on 26 July 2024.

Cámara de Madrid
REGISTRO GENERAL
SALIDA
Nº de Registro: 650 / RG 650
Fecha: 30/07/2024 13:07:28

IRENE SANCHEZ ROMAN, DIRECTORA DEL DEPARTAMENTO DE ASESORIA JURIDICA Y CENSO DE LA CÁMARA OFICIAL DE COMERCIO, INDUSTRIA Y SERVICIOS DE MADRID, CON DOMICILIO SOCIAL EN LA PLAZA DE LA INDEPENDENCIA Nº 1, MADRID – ESPAÑA

CERTIFICA: Que de los antecedentes que obran en esta Corporación y de otros exhibidos por la sociedad, resulta:

PRIMERO.- Que la compañía JCB ENERGY ELECTRIC POWER INDUSTRY S.L., es una sociedad mercantil de nacionalidad española, constituida mediante escritura pública de fecha 23 de junio de 2023, autorizada por don José María Marín Vázquez, Notario del Ilustre Colegio de Madrid con el número 1.251 de orden de su protocolo, e inscrita en el Registro Mercantil al Tomo 45.424, Folio 40, Hoja M-799.035, Inscripción 1ª.

SEGUNDO.- Que según se desprende de la mencionada escritura de constitución, en el artículo 3 de los Estatutos de la compañía JCB ENERGY ELECTRIC POWER INDUSTRY S.L., consta que tiene por objeto social:

"Actividad principal 27.11. Fabricación de motores, generadores y transformadores eléctricos".

TERCERO.- Que según se desprende de la escritura de constitución, el capital social de la compañía JCB ENERGY ELECTRIC POWER INDUSTRY S.L. se fija en la cantidad de 19.920,00 € (DIECINUEVE MIL NOVECIENTOS VEINTE EUROS), dividido en 19.920 participaciones sociales, de 1,00 € (UN EURO) de valor nominal cada una, numeradas correlativamente del 1 al 19.920 ambos inclusive, que son íntegramente asumidas y desembolsadas por el socio fundador.

CUARTO.- Que según consta en la escritura de constitución citada en párrafos anteriores, la compañía JCB ENERGY ELECTRIC POWER INDUSTRY S.L., opta por el sistema de Administrador Único y nombra por tiempo indefinido a don Mohamed A M Ebaiden, con Número de Identidad Extranjero Y6048327P, para que actúe en nombre y representación de la mercantil, con cuantas facultades legal y estatutariamente corresponden a dicho cargo, procediendo el administrador nombrado a la aceptación del mismo.

QUINTO.- Que la compañía JCB ENERGY ELECTRIC POWER INDUSTRY S.L., con domicilio en calle Trespademe número 7, 28042 Madrid y provista de Número de Identificación Fiscal B13975594, consta dada de alta en el grupo/epígrafe 342 de la Sección 1ª empresarial de las Tarifas del Impuesto sobre Actividades Económicas, que faculta para ejercer la actividad *"Fabricación de material eléctrico de utilización y equipamiento"*.

Vertacert international

CE

CE DECLARATION OF CONFORMITY

JCB ENERGY ELECTRIC POWER INDUSTRY SL
C/ ALFREDO MARQUERIE, NUMERO 11, PUERTA A, PLANTA 7 MADRID 28034 MADRID

Description Of The Product : GENERATOS AND PUMPS

Product Brand/Model/Type : DIESEL GENERATORS, GAS GENERATORS, PORTABLE GENERATORS, LIGHT TOWERS, WATER PUMPS, FORKLIFT, UPS, REGULATORS, CONVERTERS, ALTERNATORS, WELDING GENERATORS, TRAILED GENERATORS, SHUTTER POWER SOURCES

Applicable Harmonised Standards : EN ISO 12100:2010,EN ISO 8528-13:2016,EN60204-1:2006/A1:2009/AC:2010, EN ISO 14120:2015,EN ISO 13857:2019/A1:2008,EN 61000-6-4:2019/A1:2021,EN 61000-6-2:2019

Applicable EC Directives : 2006/42/EC MACHINERY DIRECTIVE
: 2014/30/EU ELECTROMAGNETIC COMPABILITY DIRECTIVE

Type /Models : JCN SERIES, JCP SERIES, JCD SERIES, JCC SERIES, JVP SERIES, JCO SERIES, JNC SERIES, PPG SERIES, JPD SERIES, JLT SERIES, JHW SERIES, JEP SERIES, JDP SERIES, JPC SERIES, JCF SERIES, JCG SERIES, JNP SERIES.

In our delivered service, we declare that the product described below complies with the essential safety and health requirements of the 2006/42/EC MACHINERY DIRECTIVE, 2014/30/EU ELECTROMAGNETIC COMPABILITY DIRECTIVE as per the conditions for its use. This declaration will cease to be valid if the product is modified without its consent.

Certificate Number : VERTA-106188
Certificate Issue Date : 04.02.2025
Certificate Validity Date : 04.02.2026
Certificate Period : 1 Year

Vertacert international

CE

CE DECLARATION OF CONFORMITY

JCB ENERGY ELECTRIC POWER INDUSTRY SL
C/ ALFREDO MARQUERIE, NUMERO 11, PUERTA A, PLANTA 7 MADRID 28034 MADRID

Description Of The Product : POWER GENERATORS
Ürünün Tanımı : GÜÇ JENERATÖRLERİ

Applicable Harmonised Standards : TSE E 590, TS ISO 8528-8, TS EN ISO 3744:2010
Geçerli Uyumlaştırılmış Standartlar

Applicable EC Directives : 2006/42/EC MACHINERY DIRECTIVE, 2014/30/EU ELECTROMAGNETIC COMPABILITY DIRECTIVE
Geçerli AT Direktifleri : 2006/42/AT MAKİNE EMNİYETİ YÖNETMELİĞİ VE 2014/30/AT MAKİNE EMNİYETİ YÖNETMELİĞİ

Sertifika Numarası / Certificate Number : VERTA-106189
İlk Veriş Tarihi / Certificate Issue Date : 04.02.2025
Sertifika Geçerlilik Tarihi / Certificate Validity Date : 04.02.2026
Sertifika Periyodu / Certificate Period : 1 YIL / 1 Year

CE -VERTA-106188
-VERTA-106189

JCB ENERGY GENERATOR

SCAN ME

www.jcbenergy.com

CE -VERTA-106188
-VERTA-106189