

Industrial Spark Plug ISP-01

for Pre-Combustion Chamber Application

High performance and long duration spark plug for industrial gas engines with pre-combustion chamber concept.

Characteristics

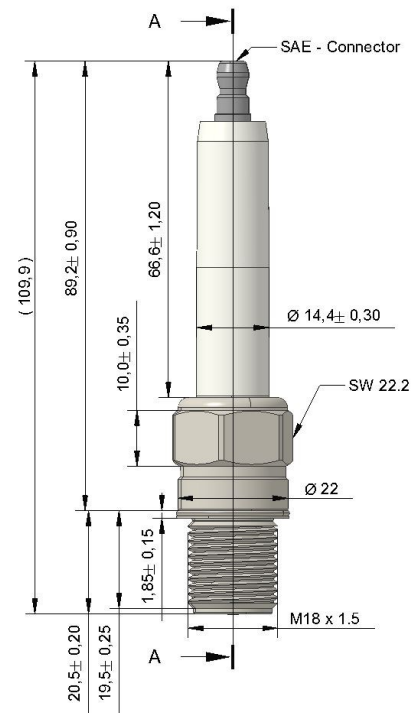
- M18 semi-shielded spark plug design
- High performance Iridium/Rhodium electrodes
- Electrode ring gap design. No re-gapping needed
- Design life expectancy of more than 5,000 h⁽¹⁾



Target Applications:

Industrial medium and large bore gas engines with pre-combustion chamber concepts. For example: Jenbacher Series 6 & 9, Wärtsilä W34SG, Wärtsilä W50 SG and others.

- Industrial stationary engines
- Power generation/CHP
- Open chamber combustion engines
- Heavy-duty start/stop operation
- Natural Gas
- Biogas
- Landfill Gas



Cross reference:

- Innio Jenbacher P611, Goetze G6004, ERS BR 6

(1) Depending on the specific engine operation conditions, i.e. engine BMEP, air/fuel ratio, load operation point, ignition timing, etc.

Technical data ISP-01

SP Thread	M18x1.5mm
SP Wrench Size	22.2mm (7/8")
SP Reach	20.5mm
Thread Length	19.5mm
Tightening Torque	50 Nm
SAE Contact	ISO 28741
Initial Gap Size	0.3mm
SP Total Length	109.9mm
SAE Top to SP Seat	89.2mm
SAE Top to SP Shell	66.6mm
Insulator Length	54.7mm
Insulator Diameter	14.4mm
SP Total Weight	112 g



General specifications

Max. Temperature at Electrodes ⁽²⁾	800°C
Max. Temperature at Terminal Nut ⁽²⁾	150°C
Max. Temperature at Spark Plug Seat ⁽²⁾	200°C
EMC Suppressor Resistor Value	6kOhm (+/-3kOhm)
Max. Spark Voltage ⁽³⁾	< 40 kV
High Voltage Isolation Resistance ⁽⁴⁾	> 55 kV

Product No.

IW-4500

(2) For the temperature measurement reference locations see figure.

(3) The maximum spark voltage depends also on the limits of the ignition system. Overshooting that limits can damages ignition components, like ignition coil or spark plug connector. It could also lead to combustion misfire in case the high voltage demand capability of the ignition system is reached. Typically the spark plug should be replaced latest when 35 kV is reached at engine full load operation.

(4) Overshooting this limit could lead to an internal short and permanent damage of spark plug, and consequential causing cylinder misfiring.