

## LWQ Gas Turbine Flowmeter



### Overview

Gas turbine flowmeter is a velocity instrument. It has high accuracy, good repeatability, simple structure, wide measurement range, small size, light weight, small pressure loss, and easy to maintain. It can be widely used in petroleum, chemical industry, metallurgy, city gas pipeline network and other industries. It has been widely applied, especially in city gas metering, and the metering of transmission pipe network and gas regulator station.

### Working Principle

Gas turbine flowmeter places turbine in the measured fluid, when the gas flows through the meter, the gas was accelerated and rectified under the action of the rectifier with the special structure. The impeller is rotated by the force that the gas acted on the impeller; the blade on the impeller makes the magnetic resistance of magnetic circuit change periodically. The angular velocity of impeller in a certain range of flow is proportional to the flow. On the basis of electromagnetic induction principle, the flow meter inducts the pulse signal which is proportional to the volume flow of the fluid, the signal will be amplified and rectified by the pre-amplifier then be accumulated by the single chip, displayed on the LCD screen and then the pulse signal will be also input with the signal detected by the temperature and pressure sensor into the totalizer to do the accumulate processing, at last display the result on the LCD screen.

**Main Technical Parameters**

Specification and Model	Nominal Diameter (mm)	Working Pressure MPa	Startup Flow (m <sup>3</sup> /h)	Flow Range	Installation Method
LWE-40XL LWE-40XH	40	1.6 2.5 4.0 6.3 10 16 26 42	1.8 2.5	2.5-50 5-100	Thread Flange
LWE-50 XL LWE-50 XH	50		2.5 5	5-100 10-200	Flange
LWE-50 XL LWE-50 XH	80		6 10	10-240 20-480	
LWE-100 XL LWE-100 XH	100		8 12	12-360 27-720	
LWE-150 XL LWE-150 XH	150		10 15	35-1000 50-2000	
LWE-200 XL LWE-200 XH	200		35 60	60-1500 100-4000	
LWE-250 XL LWE-250 XH	250		40	75-3500 Customized	

**Installing Boundary and Dimension**

Nominal Diameter (mm)	40	50	80	100	150	200	250
A (mm)	140 200	200	200	220	300	300	400
H (mm)	250	300	350	400	450	450	500

Model	1	2	3	Illustration
	Nominal Diameter	Nominal Pressure	Connecting Mode	
LWQ				Gas turbine
	4~450mm			Nominal diameter 4~450mm
		1.6~42		Nominal pressure 1.6~42MPa
			A	Indication sensor
			B	Field display type
			C	Temperature and pressure compensation