

# YMB-50 Pressure Loss Examination Report

No. 1

We had tested the pressure loss examinations with Affordable Silencer YMB-50 and compared with predict data as follows.

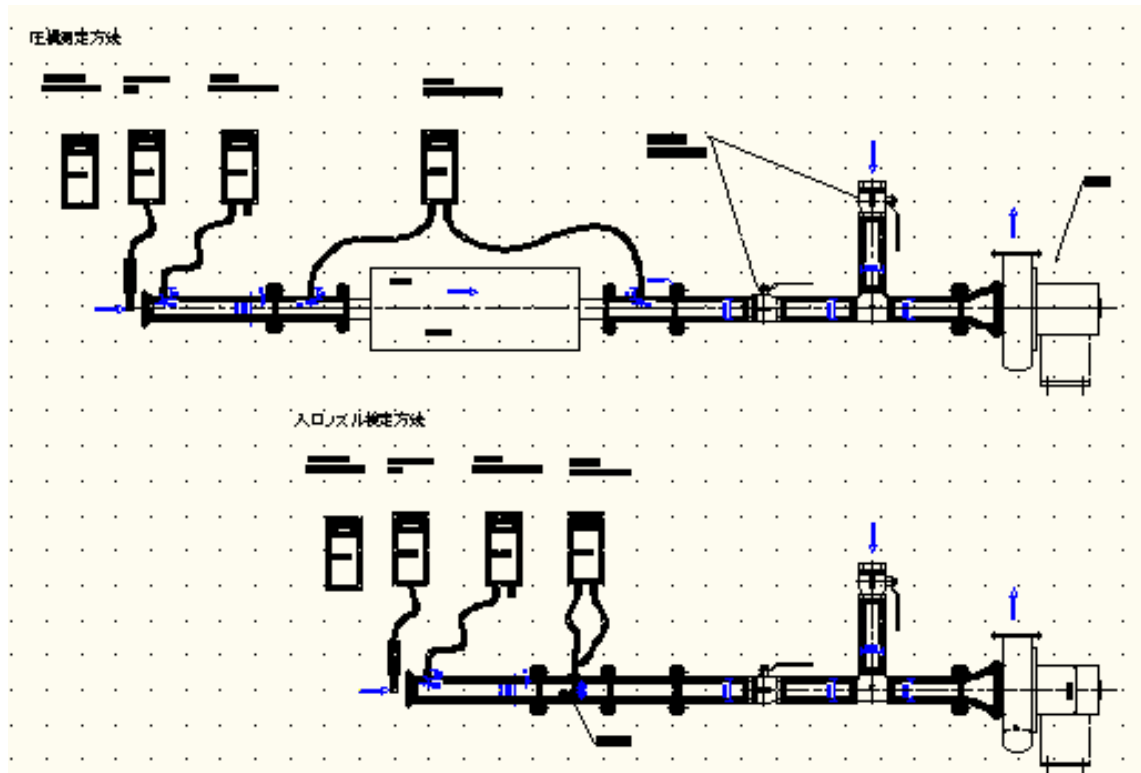
The measuring devices were developed by us for this examination and measuring methods, usage of devices and analyzing methods through the results were examined by us too.

The tested product was Affordable Silencer YMB-50 which inner diameter was 50mm type.

1. Test device
2. Test method
3. Tested product shape
4. Pressure loss plan rate  
Exhaust (450 degree)  
Temperature : fixed temperature
5. Test result parameter
6. Consideration

## 1. Test device

### 50A Entrance Nuzzle system Airflow Resistance measuring device

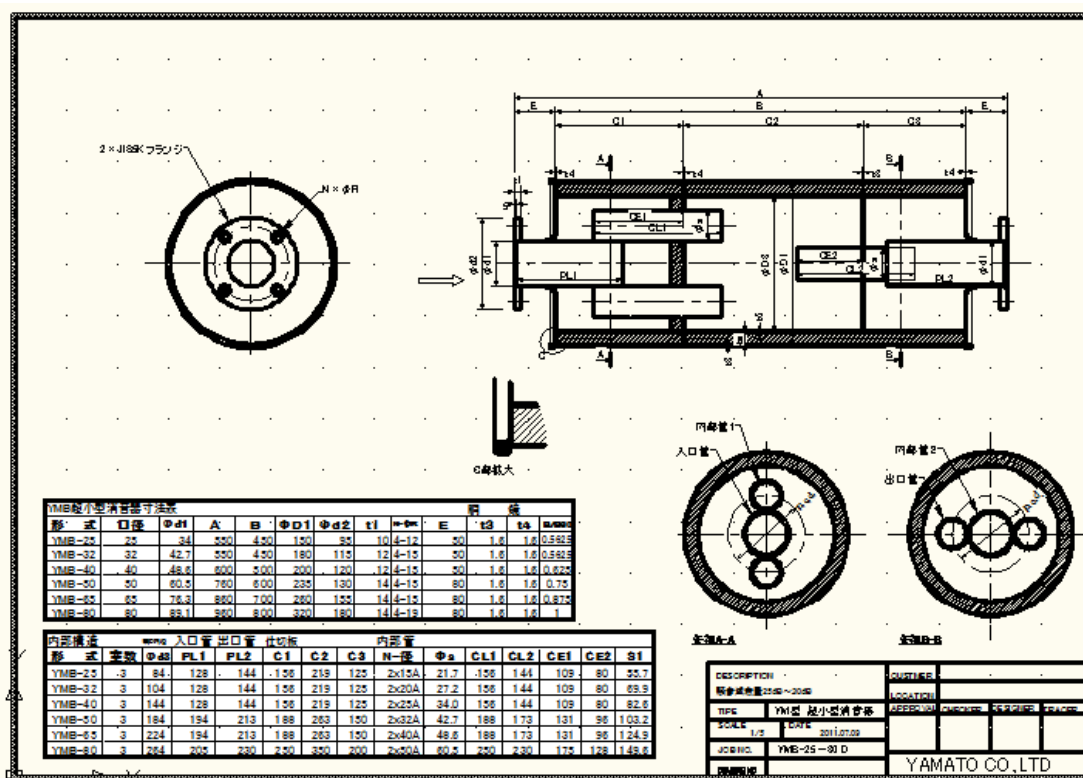


- We used the cleaner at the air intake part.
- We used the pressure measuring machine ( solution 10Pa) to check nozzle static pressure, pitot tube full pressure, static pressure and air flow resistance.

## 2. Test method

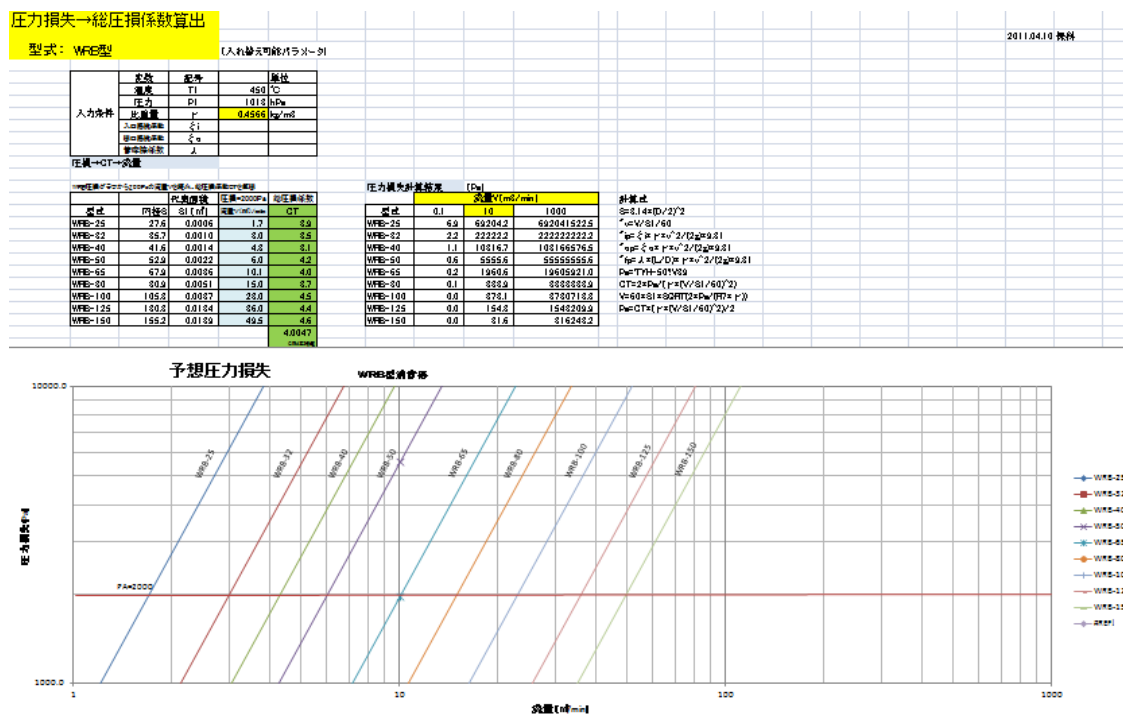
- (1) The product (YMB-50) was set to the intake side of blower and tested the inhalation.
- (2) The measuring of air volume was used the entrance nozzle.
- (3) The control of air volume was done by 2 ball valves which fitted to back side of product. (YMB-50)
- (4) The inspection at the entrance nozzle was using a traverse of pitot tube.
- (5) The measurement of air blow resistance was calculated the rate of pressure when unfitted the product and from the pressure rate of static hole fitting the product at front and back.

### 3. Tested product shape



4. Pressure loss plan rate (Exhaust gas 450 degree)

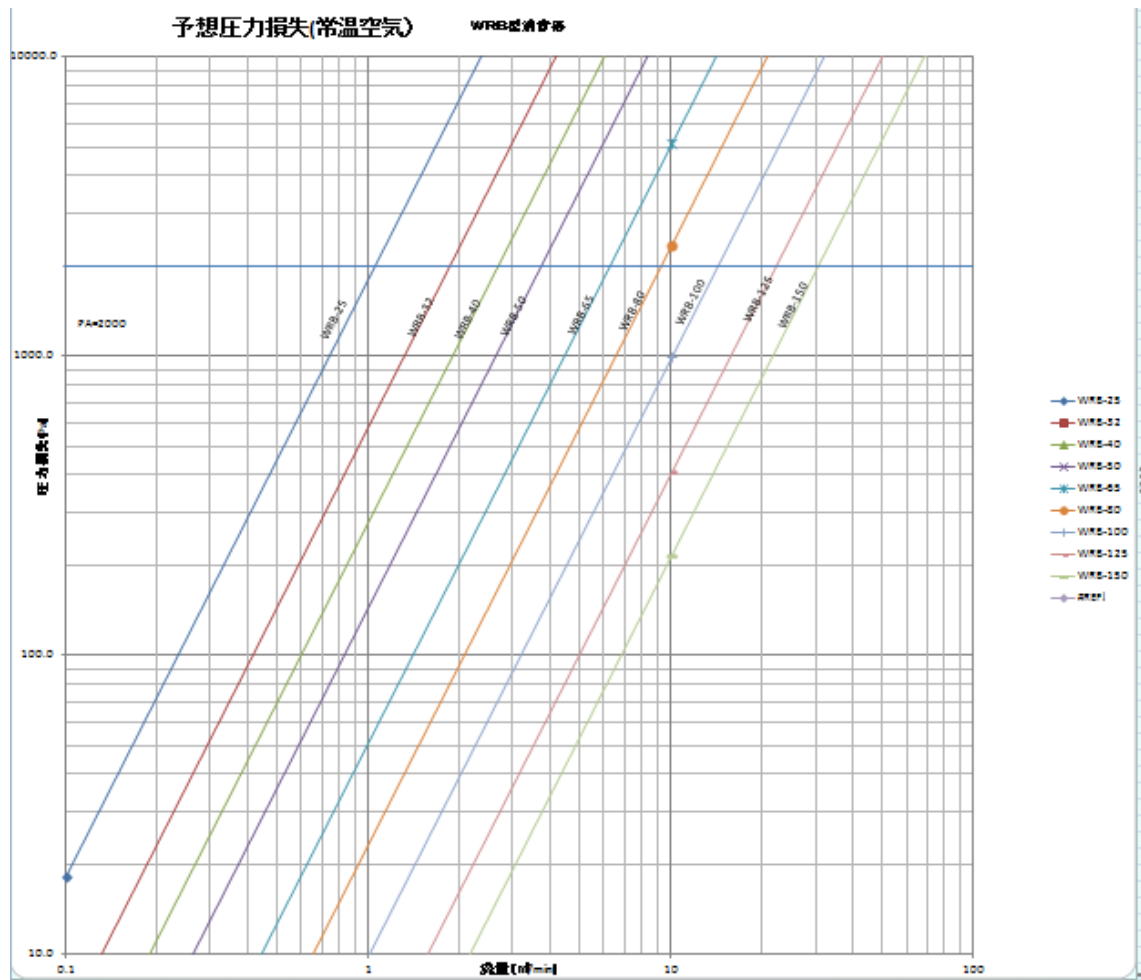
The ventilation resistance plan of exhaust muffler was calculated based on the condition of high temperature engine exhaust gas (temperature 450 degree, specific gravity 0.4566Kg/m3)



The rate of air resistance plan (fixed temperature)

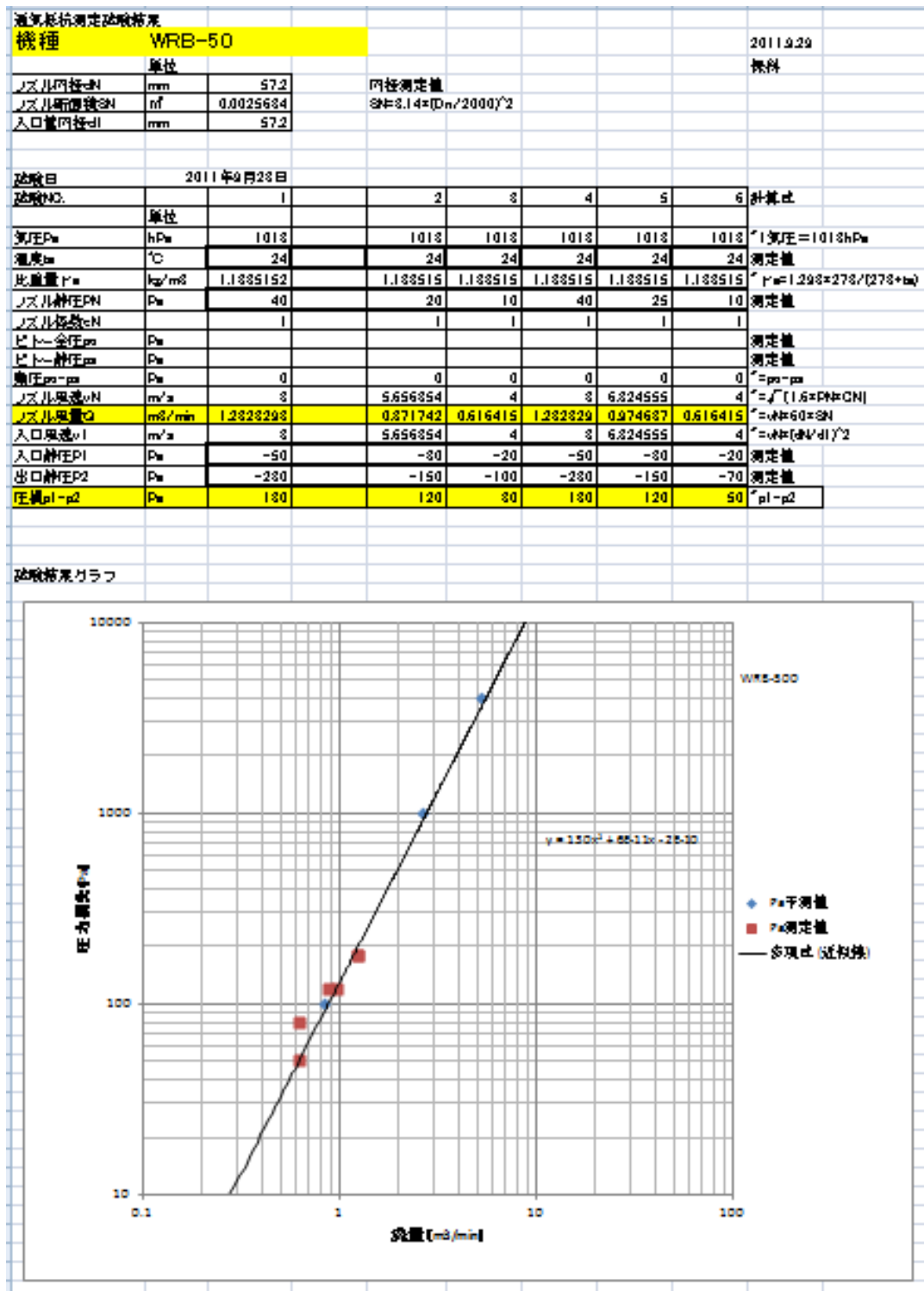
The testing of air resistance is usually measured in the atmosphere so we calculated the temperature in fixed (20 degree, specific gravity 1.2Kg/m3)

The exam data is compared with the following chart.



## 5. Test result

We have compare the data of measured value and plan predict value both as follow.



6. Consideration

The measured value was vary widely but we believe this was caused by pressure meter ability (10Pa). The measured value was almost as same as our plan data.