

Performance at Operating Point

Atlas Copco

LPSizer Version: 1.3.02, Database Version: 215

| | | | |
|-------------|----------------|----------------|-------------|
| Customer | Atlas Copco | Date | 14-May-2015 |
| Application | Not applicable | License number | 11269 |

| Simulation Model Name Description | (1) ZB110 Operating point | (2) ZB110 Min Flow at Pressure | (3) ZB110 Max Flow at Pressure |
|-----------------------------------|---------------------------------|---|---|
|-----------------------------------|---------------------------------|---|---|

Customer Conditions

| | | | | |
|---------------------|-------|-------|-------|-------|
| Process gas | | air | air | air |
| Cooling medium | | air | air | air |
| Network frequency | Hz | 50 | 50 | 50 |
| Barometric pressure | mbar | 1000 | 1000 | 1000 |
| Inlet temperature | deg C | 40 | 40 | 40 |
| Relative humidity | % | 80 | 80 | 80 |
| Inlet gas density | kg/m3 | 1.088 | 1.088 | 1.088 |

Reference Conditions

| | | | | |
|-------------------|-------|----|----|----|
| Pressure | bar | 1 | 1 | 1 |
| Temperature | deg C | 40 | 40 | 40 |
| Relative humidity | % | 80 | 80 | 80 |

Tolerance

| | | | | |
|-----------|---|---|---|---|
| Flow +/- | % | 5 | 5 | 5 |
| Power +/- | % | 5 | 5 | 5 |

Model Performance

| | | | | |
|-------------------------------|------------|--------|--------|--------|
| Discharge pressure after CV | mbar | 550 | 550 | 550 |
| Delivered Flow | m3/hr, FAD | 6000 | 2774.1 | 6046.6 |
| Inlet filter pressure drop | mbar | 22.22 | 4.751 | 22.57 |
| Outlet silencer pressure drop | mbar | 0 | 0 | 0 |
| Check valve pressure drop | mbar | 19.95 | 50.9 | 20.18 |
| Package power | kw | 121.7 | 49.99 | 123.3 |
| Air outlet temperature | deg C | 99.27 | 96.04 | 99.42 |
| Specific energy | J/l | 73.05 | 64.87 | 73.38 |
| Motor speed | rpm | 29856 | 24144 | 29986 |
| Stage adiabatic eff. | % | 70.1 | 74.1 | 69.9 |
| Max turndown at op. pressure | % | 62.9 | 62.9 | 62.9 |
| Min n flow | m3/hr, FAD | 2774.1 | 2774.1 | 2774.1 |
| Surge pressure | mbar | 968.3 | 574.4 | 978.7 |
| Stable pressure rise | % | 76.1 | 4.44 | 77.9 |

Remarks

1. Model(1)(2)(3) PACKAGE POWER defined as: Measured VSD package power including all auxiliaries;



Performance at Operating Point

Atlas Copco

LPSizer Version: 1.3.02, Database Version: 215

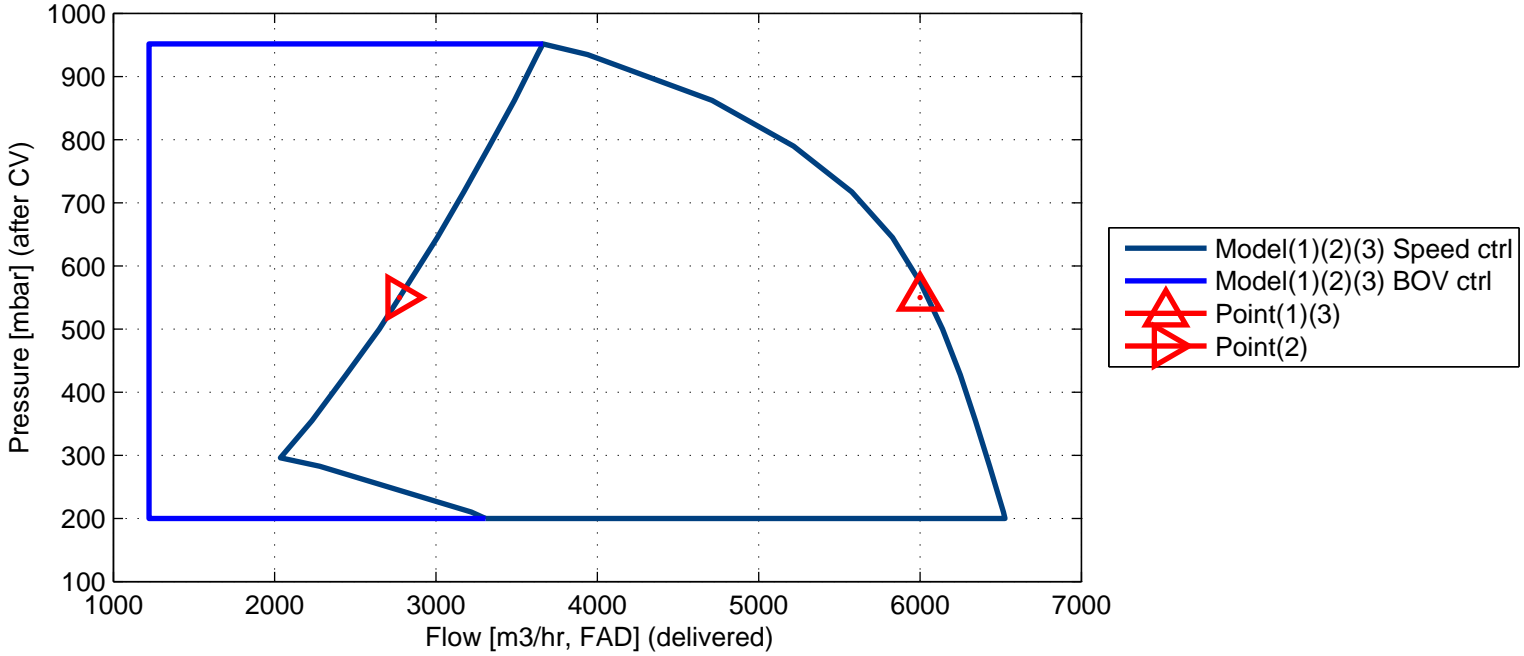
Customer
Application

Atlas Copco
Not applicable

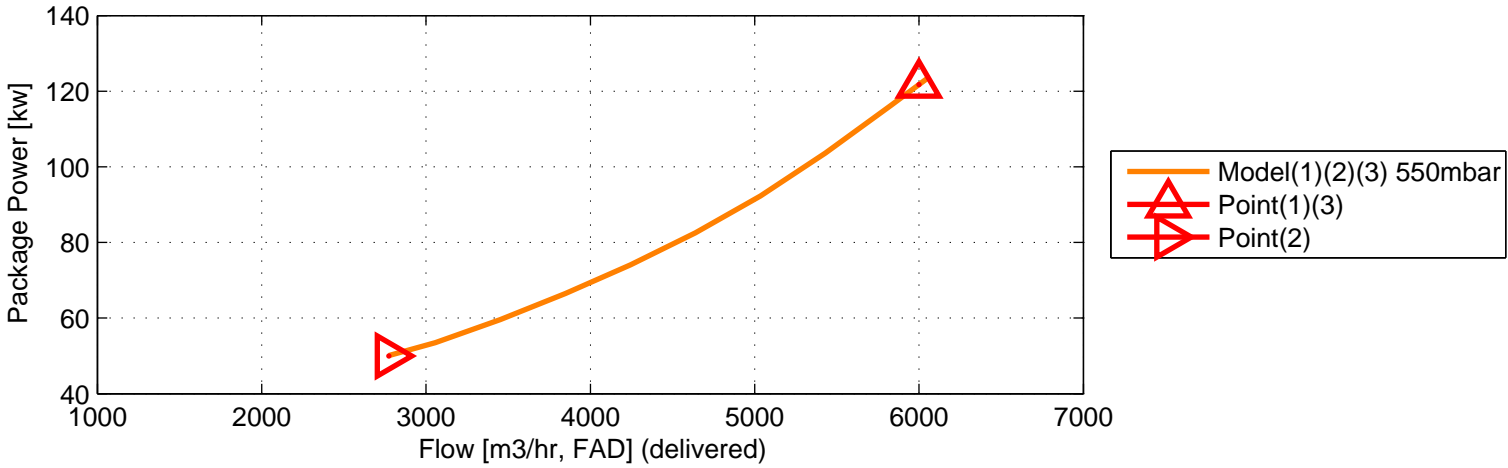
Date
License number

14-May-2015
11269

FLOW vs PRESSURE Working Area



FLOW vs PACKAGE POWER



FLOW vs AIR OUT TEMPERATURE

