ATLAS COPCO
COMPRESSOR TECHNIQUE

Capital Markets Day – Focus on Service
November 17, 2015
Nico Delvaux, Business Area President
AGENDA

1. Facts in Brief
2. Vacuum Solutions
   - Status update
3. Innovation
4. Service
5. Summary
FACTS IN BRIEF
COMPRESSOR TECHNIQUE

Global leader providing innovative compressed air, air and gas treatment and vacuum solutions for sustainable productivity

Profitable growth with asset light and agile organization
COMPRESSOR TECHNIQUE

Compressors & vacuum pumps

Medical gas solutions & air treatment

Textile
Assembly
Wood & paper
Food & beverages

Medical
Electronics
Chemical /petrochemical
...and more
COMPRESSOR TECHNIQUE

In Brief

- Leverage investments in presence and innovation
- Grow market share and customer share
- Grow the vacuum solutions business
- Strengthen service platform and extend service offer
- Support organic growth with more acquisitions

Q3 2015

- Growth in service
- Weak order intake for equipment
- Record revenues and operating profit
  - Operating margin at 22.8% (22.1)

Orders, revenues and operating margin

ROCE 38%
ORDERS RECEIVED - LOCAL CURRENCY

Compressor Technique

September 2015

A  Share of orders received, year-to-date, %
B  Year-to-date vs. previous year, %
C  Last 3 months vs. previous year, %
VACUUM SOLUTIONS

Status update
VACUUM SOLUTIONS

Sub-Sector (%)

Sector: Value:

Rough $0.7bn

Process $0.9bn

Industrial $1.1bn

Semiconductor $2.0bn

Thin Film $0.8bn

Instr’$0.4bn

R&D $0.4bn

Total $6.3bn

Typical operating pressure (mbar)

>1

>10^{-2}

10^{-2} - 10^{-6}

1 - 10^{-4}

10^{-4} - 10^{-6}

10^{-6} - 10^{-10}

10^{-10} - 10^{-14}

Sector:

Value:

Packaging (excl. food)

Central vacuum

Printing & paper handling

Pick-up & Conveying

Medical

Fine chemicals

Petrochemicals

Pharmaceuticals

Plastics

Food

Beverage

Textile

Paper

Ceramics

Freeze drying

Power

Metal degassing

Vacuum metallurgy

Vacuum heat technology

Laser technology

Electron tubes

TV tubes

Lamps, bulbs

Industr. leak detection

Silicon semiconductors

Data storage

Surface coatings

Display coatings

Solar

Automotive

Compound semiconductors

TFT-LCD display

MEMS

Crystal growth

Others

Leak detection

Surface analysis

Gas analysis

X-ray analysis

MRI & NMR

Sample preparation

Space simulation

Universities

Mass spectrometer

Electron microscope

Metrology

Surface analysis

Gas analysis

X-ray analysis

MRI & NMR

Sample preparation

National and government labs

Other scientific research
VACUUM SOLUTIONS

Update

Synergies identified

- Sales and service synergies between vacuum and compressed air
  - Leverage customer relationships of Atlas Copco and Edwards to supply more compressors and vacuum systems
  - Leverage Atlas Copco’s geographical footprint with Edwards product offering
- Cross-breeding of similar technologies
- Cost and efficiency synergies
- Grow service offering

Achievements

- Innovation – new products
- Strengthened position in semiconductor
- Investments in capacity close to customer
- Investments in Atlas Copco’s market organization
- Growth in utility vacuum
- Strengthened position in industrial vacuum
- Accelerated service growth
THE STRATEGIC PILLARS FOR PROFITABLE GROWTH

Presence
Innovation
Service
Operational excellence
People
LIFE CYCLE COST COMPRESSOR / VACUUM INSTALLATION

- Energy cost
- Investment cost
- Maintenance cost
NEW GA45-75VSD+

- Extension of break-throug concept
- Industry-leading performance
  - Specific Energy Requirement: -50%
  - Free Air Delivery: +5%
- Very low noise level: 67 d(B)A
- Compact and smart design
  - Easy service
  - Footprint: -50%
GHS VSD+ VACUUM PUMPS

- Atlas Copco state of the art oil injected screw elements
  - Breakthrough efficient variable speed drive vacuum pumps
- Superior alternative to the traditional oil injected vane pumps:
  - Reduction in energy consumption – on average 50%
  - Silent technology, best in class noise levels
  - Clean operation: insignificant oil emissions
  - Compact all-in-one package with advanced controls
- Game changer in the utility vacuum segment
- Patented designs
- Extension to higher capacities
SERVICE
GLOBAL SERVICE SUPPORT – 24 HOUR OPERATIONS

- Pro-active support anywhere at anytime
- Energy management & air optimization
- Superior solutions to reduce operational cost and increase up-time
- Committed, trained and experienced people
- Close, long-term customer relationships
- More than 8 600 people in service

“A complete lifecycle offering”
MAINTENANCE ACTIVITY LIST GA7-37VSD+

- Overhaul / change drivetrain
- Change air filter
- Change cubicle filter mats
- Check temperatures & pressures
- Check cooler condition
- Change drain
- Change oil separator
- Change oil filter
- Change oil drain
- Change MPV
- Change thermostatic valve
- Oil drain + change
- Change cubicle filter mats

- A visit
- B visit – covers A visit activities
- D visit – covers B visit activities
SERVICE EXCELLENCE

Correct Service at the Right Time in an Efficient way

PLANNING
- Forward Planning for Service Plan
- Urgent response to Breakdown
- Technician allocation based on competence and travel optimization

LOGISTICS
- Logistic centers across the world
- Voice picking for quality control
- Overnight delivery in Service Van
- Direct Delivery to customers worldwide

SERVICE ACTIVITY
- All Service Job information communicated to technician on mobile devices
- Connected Navigation for travel optimization
- Breakdown jobs communicated through connected navigation
- Service job includes activity list and required parts
- Complete Service Job reporting, Customer signature, Visit Report once the Service Job is finished
Traffic light concept

1 to 1 ratio

Units under direct service in the last 12 months

1 to 1 =

Total units available for direct service

Every unit requires at least one service intervention per year – every machine should get a minimum of one quote per year

Traffic lights

- Not serviced during the last 12 months
- Chargeable service during the last 12 months
- Serviced under contract
MAXIMUM EQUIPMENT AVAILABILITY AT MINIMUM TOTAL OPERATING COST
## SERVICE PLAN - SCOPE OF SUPPLY

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<th></th>
<th>PERIODIC INSPECTION</th>
<th>PARTS FOR MAINTENANCE</th>
<th>MAINTENANCE LABOR</th>
<th>WARRANTY</th>
<th>OVERHAUL</th>
<th>ECB</th>
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MAINTENANCE-RELATED COSTS – EXAMPLE

THE VERY FIRST CONFUSING CUSTOMER PICTURE

- Maintenance by customer
- Fixed price
- Preventive Maintenance Plan
- Total Responsibility Plan

- Customer labor
- Parts supply
- Product price
MAINTENANCE-RELATED COSTS – EXAMPLE

IS IT AN APPLES-TO-APPLES COMPARISON?

- Customer labor
- Parts supply
- Product price
MAINTENANCE-RELATED COSTS – EXAMPLE

- Production loss
- Repair risk
- Overhauls
- Extra energy
- Management
- Execution
- Parts supply
- Product price

Compressor Technique
CONNECTIVITY: SMARTLINK

Operational Efficiency
- Service visits planned on actual running hours
- Pro-active service response towards customers

Customer Benefits
- Service on time
- SMS/E-mail warnings
- Energy consumption analysis

Maximum Productivity
Minimum Operating Cost

Product Development
- Running conditions and machine behavior identifies areas for product improvement
SUMMARY

Compressor Technique

- Leverage investments in presence and innovation
- Grow market share and customer share
- Grow the vacuum solutions business
- Strengthen the service platform and extend the service offer
- Support organic growth with acquisitions
- The organization is strong and “fit for more”
COMMITTED TO SUSTAINABLE PRODUCTIVITY.