

# XDS DRY SCROLL PUMPS

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XDS dry scroll pumps have become industry standard when dry pumping is essential, proving to be a robust and clean vacuum pump solution in a range of applications. The XDS35i pump has an innovative bearing shield that isolates the vacuum environment, making it not only lubricant-free but hermetically sealed.

XDS35i No Gas Ballast variant has had the gas ballast feature removed for applications such as rare gas recirculation and gas recovery.

The XDS46i shares many of the same features of the XDS35i but with a peak speed of  $40 \text{ m}^3\text{h}^{-1}$ . The pump has been optimised for maximum pumping speed at inlet pressures between 1 mbar and 10 mbar, making it well suited for backing turbomolecular pumps.

For more aggressive applications, 'C' variants are available which features Chemraz® internal valves and stainless steel fittings for extra protection from the pumped media.



## Features and benefits

### Bearing shield

ensures separation between process gases and bearing lubrication to ensure clean vacuum and no possibility of contamination to lubrication from process gases, which prolongs bearing life.

### Smart motor drive

means consistent performance globally, pump overload protection and remote start/stop capability.

### High flow gas ballast feature

allows pumping of vapours including water vapour at up to  $240 \text{ gh}^{-1}$ .

### Axial air gap motor

reduces overall pump size and gives low power and noise.

### Simple single sided scroll design

allows maintenance to be done in minutes for low cost of ownership and maximum up-time.

## Technical data

|  | Units                                | XDS35i                    | XDS46i      |
|--|--------------------------------------|---------------------------|-------------|
| Peak pumping speed                               | m <sup>3</sup> h <sup>-1</sup> (cfm) | 35 (21)                   | 40 (23.5)   |
| Ultimate vacuum <sup>(1)</sup>                   | mbar (Torr)                          | 0.01 (0.008)              | 0.05 (0.04) |
| Ultimate vacuum with gas ballast 1               | mbar (Torr)                          | 0.02 (0.015)              | 0.08 (0.06) |
| Ultimate vacuum with gas ballast 2               | mbar (Torr)                          | < 10 (7.5)                |             |
| Max inlet pressure for water vapour              | mbar (Torr)                          | 35 (23)                   | 40 (30)     |
| Water vapour handling capacity GBII              | gh <sup>-1</sup>                     | 240                       |             |
| Maximum continuous inlet pressure <sup>(2)</sup> | mbar a (Torr a)                      | 40 (30)                   |             |
| Maximum gas ballast/purge pressure               | bar gauge (psig)                     | 0.5 (7)                   |             |
| <b>Motor data</b>                                |                                      |                           |             |
| Supply voltage                                   | V                                    | 100-120/200-240 (+/- 10%) |             |
| Supply frequency                                 | Hz                                   | 50/60                     |             |
| Nominal rotation speed                           | rpm                                  | 1750                      |             |
| Power at ultimate                                | W                                    | 440                       | 380         |
| Motor power                                      | W                                    | 520                       |             |
| Power connector                                  |                                      | IEC EN60320 C19           |             |
| Recommended fuse, 230 V (115 V)                  | A                                    | 16 <sup>(3)</sup> (20)    |             |
| <b>Physical data</b>                             |                                      |                           |             |
| Weight   | kg (lb)                              | 48 (105)                  |             |
| Inlet connection                                 |                                      | NW40                      |             |
| Exhaust connection                               |                                      | NW25                      |             |
| Noise level at ultimate                          | dB(A)                                | 57                        | 55.4        |
| Noise level with acoustic enclosure              | dB(A)                                | 48                        | 46.4        |
| Vibration at inlet flange                        | mms <sup>-1</sup> (rms)              | < 4.5                     |             |
| Leak tightness (static)                          | mbar ls <sup>-1</sup>                | < 1 x 10 <sup>-6</sup>    |             |
| Operating temperature range                      | °C (°F)                              | 5 to 40 (41 to 104)       |             |

(1) measured as total pressure

(2) These pumps are designed to pump down from atmospheric pressure, but prolonged operation at inlet pressures higher than specified may reduce bearing life.

(3) for UK 240 V use 13 A fuse



## Ordering information

### Pumps:

| Product description                | Order number |           |
|------------------------------------|--------------|-----------|
| Standard product                   | XDS35i       | A73001983 |
|                                    | XDS35iC*     | A73006983 |
|                                    | XDS46i       | A73101983 |
|                                    | XDS46iC*     | A73106983 |
| Variants without gas ballast (NGB) | XDS35i       | A73005983 |

\* C variants

### Extended warranty:

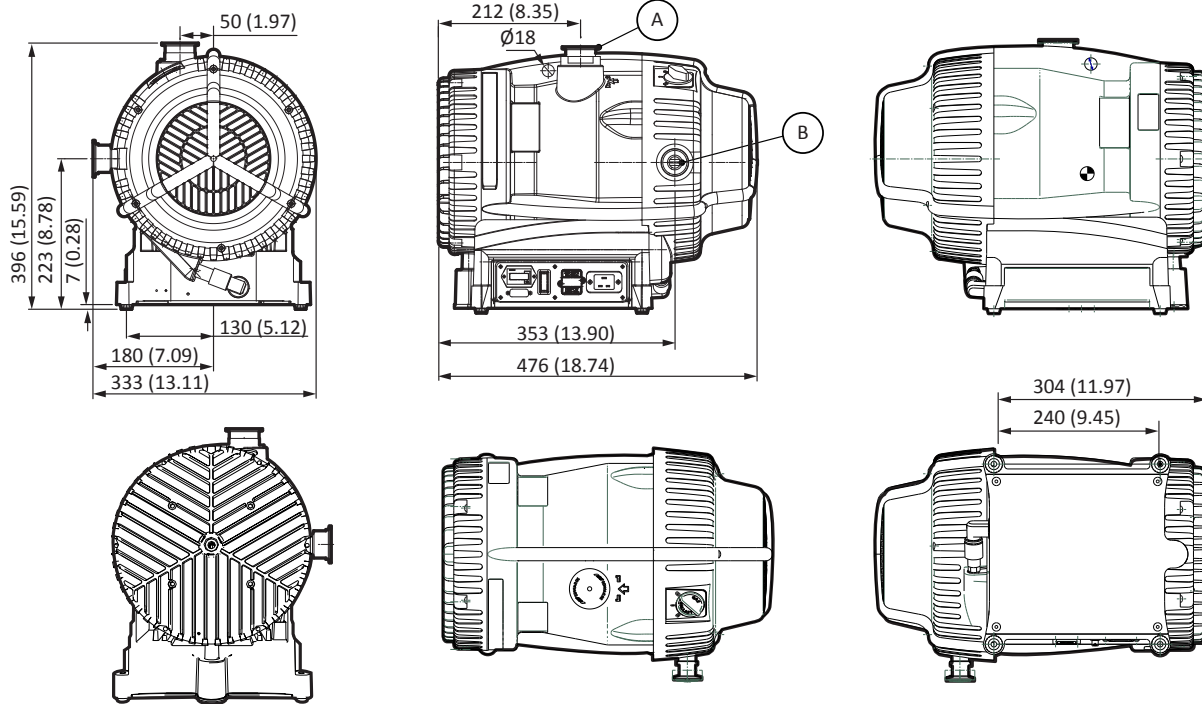
| Product | 2 year    | 3 year    |
|---------|-----------|-----------|
| XDS35i  | EW2AA5005 | EW3AA5005 |
| XDS46i  | EW2AA5006 | EW3AA5006 |

### Accessories and spares:

| Product description | Order number                                |           |
|---------------------|---|-----------|
| Accessories         | Exhaust silencer XDS35i                     | A50597001 |
|                     | Gas ballast adaptor with 0.25 mm restrictor | A50626801 |
|                     | Gas ballast adaptor with no restrictor      | A50502000 |
|                     | Vibration isolator (pack of 4)              | A24801408 |
|                     | Inlet/exhaust filter NW25                   | A50597805 |
|                     | Inlet/exhaust filter NW40                   | A50597806 |
|                     | XDS acoustic enclosure 110-120 V            | NR5C0000  |
|                     | XDS acoustic enclosure 200-240 V            | NRD797000 |
| Spares              | Tip-seal kit XDS35i                         | A73001801 |
|                     | Tip-seal kit XDS46i                         | A73101801 |
|                     | Silencer spares kit                         | A50597801 |
|                     | XDS filter 5 micron element kit             | A50597802 |
|                     | XDS filter 1 micron element kit             | A50597803 |
| Cord sets           | UK, three pin plug                          | A50505003 |
|                     | North European plug                         | A50506003 |
|                     | North America/Japan plug                    | A50507003 |
|                     | No plug                                     | A50508003 |



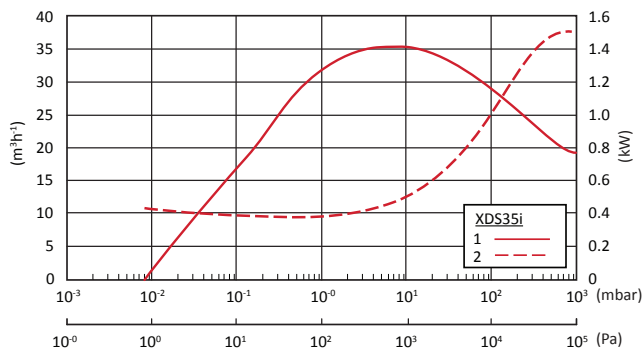
Dimensions



A. NW40  
B. NW25

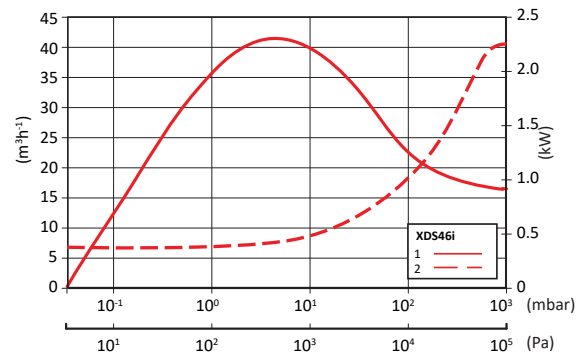
Performance

XDS35i



1. Speed  
2. Power

XDS46i



GLOBAL CONTACTS

Publication Number: 3601 0428 01

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