

# XDS35i DRY SCROLL PUMPS

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# XDS35i and XDS35i Enhanced Family

The XDS35i family of scroll pumps offer proven dry, clean vacuum solutions for a wide range of applications, with smart drive technology to look after the pump and provide world wide performance.

Now, a combination of the patented double start scroll form technology and by-pass valves have enabled Edwards to offer the XDS35i Enhanced range of pumps to complement our original family.

Take another step.

With reduced peak power requirements at roughing pressures and continuous higher roughing speeds these enhanced pumps enable the user to take another step in terms of the performance envelope to address those special applications where roughing performance or the ability to evacuate a large volume is important.

XDS35i and XDS35i Enhanced pumps are available as standard pumps with gas ballast, versions of the pump with no Gas Ballast (well suited for rare gas recirculation and gas recovery applications) and the C versions of the pumps featuring 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  $240~{\rm gh^{\text{-}1}}$ .

#### Simple single sided scroll design

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

#### Take another step

the Enhanced versions offer up to 20% lower peak power requirements during initial pump down which means it has the ability to pump down large volume chambers with no loss of performance and has up to 25% more pumping speed at these roughing pressures which helps on higher frequency cycling applications as well.

**PRODUCT DATA SHEET** 

# Technical data

|                                     | Units                   | XDS35i                    | XDS35i Enhanced |  |  |
|-------------------------------------|-------------------------|---------------------------|-----------------|--|--|
| Peak pumping speed                  | m³h-¹ (cfm)             | 35 (21)                   |                 |  |  |
| Ultimate vacuum (1)                 | mbar (Torr)             | 0.01 (0.008) 0.03 (0.02)  |                 |  |  |
| Ultimate vacuum with gas ballast 1  | mbar (Torr)             | 0.02 (0.015) 0.04 (0.03)  |                 |  |  |
| Ultimate vacuum with gas ballast 2  | mbar (Torr)             | < 10 (7.5)                |                 |  |  |
| Max inlet pressure for water vapour | mbar (Torr)             | 35 (23)                   |                 |  |  |
| Water vapour handling capacity GBII | gh <sup>-1</sup>        | 24                        | 40              |  |  |
| Maximum continuous inlet pressure   | mbar a (Torr a)         | 40 (30)(2)                | 1000 (760) *    |  |  |
| Maximum gas ballast/purge pressure  | bar gauge (psig)        | 0.5                       | (7)             |  |  |
| Motor data                          |                         |                           |                 |  |  |
| Supply voltage                      | V                       | 100-120/200-240 (+/- 10%) |                 |  |  |
| Supply frequency                    | Hz                      | 50/60                     |                 |  |  |
| Nominal rotation speed              | rpm                     | 1750                      |                 |  |  |
| Power at ultimate                   | W                       | 440                       |                 |  |  |
| Motor power                         | W                       | 520                       |                 |  |  |
| Power connector                     |                         | IEC EN60320 C19           |                 |  |  |
| Recommended fuse, 230 V (115 V)     | А                       | 16 <sup>(3)</sup> (15)    |                 |  |  |
| Physical data                       |                         |                           |                 |  |  |
| Weight                              | kg (lb)                 | 48 (105)                  |                 |  |  |
| Inlet connection                    |                         | NW40                      |                 |  |  |
| Exhaust connection                  |                         | NW25                      |                 |  |  |
| Noise level at ultimate             | dB(A)                   | 57                        |                 |  |  |
| Vibration at inlet flange           | mms <sup>-1</sup> (rms) | < 4.5                     |                 |  |  |
| Leak tightness (static)             | mbar Is <sup>-1</sup>   | < 1 x 10 <sup>-6</sup>    |                 |  |  |
| Operating temperature range         | °C (°F)                 | 5 to 40 (41 to 104)       |                 |  |  |







<sup>\*</sup> Use at higher inlet pressure speeds up tip seal wear
(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

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# Ordering information

# **Pumps:**

|  | Order number |
|--|--------------|
| XDS35i 100-120/200-230V 1PH 50/60Hz            | A73001983    |
| XDS35i NGB 100-120/200-230V 50/60Hz            | A73005983    |
| XDS35iC 100-120/200-230V 1PH 50/60Hz           | A73006983    |
| XDS35iE 100-120/200-230V 1PH 50/60Hz Enhanced  | A73003983    |
| XDS35iE NGB 100-120/200-230V 50/60Hz Enhanced  | A73007983    |
| XDS35iCE 100-120/200-230V 1PH 50/60Hz Enhanced | A73008983    |

# **Extended warranty:**

| Product    | 2 year    | 3 year    |
|------------|-----------|-----------|
| XDS35i & E | EW2AA5005 | EW3AA5005 |

# Accessories and spares:

| Product desc | cription                                    | Order number |
|--------------|---|--------------|
|              | Exhaust silencer XDS35i                     | A50597001    |
|              | Gas ballast adapter with 0.25 mm restrictor | A50626801    |
|              | Gas ballast adaptor with no restrictor      | A50502000    |
| Ai           | Vibration isolator (pack of 4)              | A24801408    |
| Accessories  | Inlet/exhaust filter NW25                   | A50597805    |
|              | Inlet/exhaust filter NW40                   | A50597806    |
|              | XDS acoustic enclosure 110-120 V            | NRY5C0000    |
|              | XDS acoustic enclosure 200-240 V            | NRD797000    |
|              | Silencer spares kit                         | A50597801    |
| Spares       | 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    |

# XDS35i Family Pump spares kits:

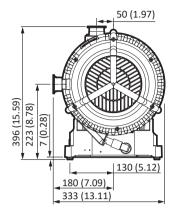
| Product                               | Part number | XDS 35i | XDS 35iC | XDS 35i NGB | XDS 35iE | XDS 35iCE | XDS 35iE NGB |
|---------------------------------------|-------------|---------|----------|-------------|----------|-----------|--------------|
| Tip seal & exhaust service kit XDS35i | A73001801   | Х       | Х        | Χ           | Χ        | Х         | Х            |
| Exhaust valve kit (Chemraz®)          | A73001814   | -       | Х        | -           | -        | Х         | -            |
| Gas ballast kit XDS35i                | A73001803   | Х       | -        | -           | Х        | -         | -            |
| Gas ballast kit (Chemraz®)            | A73001815   | -       | Х        | -           | -        | Х         | -            |
| By-pass valve Kit 35iE                | A73003804   | -       | -        | -           | Х        | -         | Х            |
| By-pass valve Kit 35iEC (Chemraz®)    | A73008804   | -       | -        | -           | -        | Х         | -            |

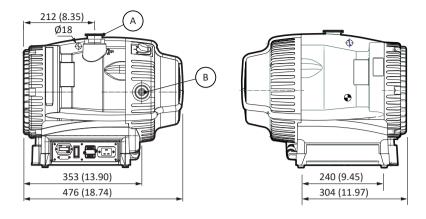
Please remember to order appropriate valve and gas ballast kits as required



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## **Dimensions**

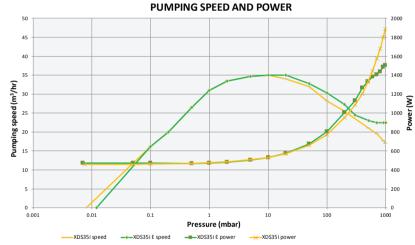




A. NW40 B. NW25

## Performance

# XDS35i



The graph shows typical pump performance

Note that peak power for XDS35i is supplied for a short period of time before the intelligent drive reduces the power and speed XDS35i Enhanced, with its bypass valves, is not limited and will pump down continuously at full speed

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Edwards Ltd, registered in England and Wales No. 6124750, registered office: Innovation Drive, Burgess Hill, West Sussex, RH15 9TW, UK.

## **GLOBAL CONTACTS**

| EMEA    |                           | ASIA PACIFIC |                  |
|---------|---------------------------|--------------|------------------|
| UK      | +44 1444 253 000          | China        | +86 400 111 9618 |
|         | (local rate) 08459 212223 | India        | +91 20 4075 2222 |
| Belgium | +32 2 300 0730            | Japan        | +81 47 458 8836  |
| France  | +33 1 4121 1256           | Korea        | +82 31 716 7070  |
| Germany | 0800 000 1456             | Singapore    | +65 6546 8408    |
| Italy   | + 39 02 48 4471           | Taiwan       | +886 3758 1000   |
| Israel  | + 972 8 681 0633          |              |                  |
|         |                           | AMERICAS     |                  |
|         |                           | USA          | +1 800 848 9800  |
|         |                           | Brazil       | +55 11 3952 5000 |

