



# Agilent TwisTorr 84FS

## Split Flow

### Agilent Quality Assured



## Datasheet

WWW.JEVINSTRUMENTS.COM

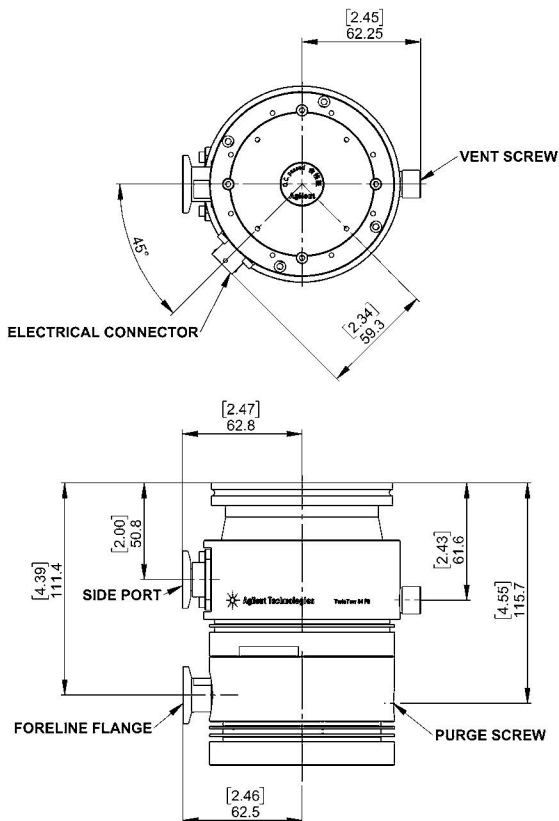


The 84FS Split Flow turbo pump takes advantage of all standard Agilent 84FS pump features and benefits, providing, in addition, a solution for applications with multiple chambers to be pumped as GC-MS, SEM, etc.

### Technical Specifications

|   |  |                              |
|---|--|------------------------------|
| <b>Main Pumping speed</b>   | ISO 63   |                              |
| N <sub>2</sub>  | l/s  | 54                           |
| He  | l/s  | 50                           |
| H <sub>2</sub>  | l/s  | 52                           |
| <b>Gas throughput at full rotational speed (with recommended forepump)</b>    | Air cooling (35°C)   | Water Cooling (25°C, 65 l/h) |
| N <sub>2</sub>  | 100 sccm   | 100 sccm                     |
| <b>K-ratio</b>  | <b>Main-Side</b>   | <b>Main-Foreline</b>         |
| N <sub>2</sub>  | >10 <sup>+5</sup>  | >10 <sup>+10</sup>           |
| He  | >10 <sup>+5</sup>  | >10 <sup>+5</sup>            |
| Ar  | >10 <sup>+5</sup>  | >10 <sup>+10</sup>           |
| <b>Inlet port base pressure with recommended forepump (5 m<sup>3</sup>/h)</b> | < 5 × 10 <sup>-9</sup> mbar (< 3.75 × 10 <sup>-9</sup> Torr) |                              |
| <b>Inlet flange</b>   | ISO 63   |                              |
| <b>Side port flange</b>   | KF16 NW  |                              |
| <b>Foreline flange</b>  | KF16 NW  |                              |
| <b>Rotational speed</b>   | 81000 rpm (1350 Hz driving frequency)                        |                              |
| <b>Start-up time</b>  | < 2 minutes  |                              |
| <b>Recommended forepump</b>   | mechanical:  | Agilent DS 40M / DS 102      |
|   | dry pump:  | Agilent IDP-3 / SH 110       |
| <b>Operating position</b>   | Any  |                              |
| <b>Operating ambient temperature</b>  | +5 °C to +35 °C  |                              |
| <b>Relative humidity of air</b>   | 0 - 90 % (not condensing)                                    |                              |
| <b>Bakeout temperature</b>  | 80°C at inlet ISO flange                                     |                              |
| <b>Lubricant</b>  | Permanent lubrication  |                              |
| <b>Cooling requirements</b>   |  |                              |
| - Air Cooling   | Air flow temperature +5°C to +35 °C                          |                              |
| - Water Cooling   | Cooling water temperature: +15 °C to +25 °C                  |                              |
|   | Minimum flow: 65 l/h (0.30 GPM)                              |                              |
|   | Pressure: 2 to 4 bar (45 to 75 psi)                          |                              |
| <b>Noise Pressure Level (at 1 mt at full speed)</b>                           | 40 dB(A) *   |                              |
| <b>Storage temperature</b>  | -40° C to +70° C   |                              |
| <b>Max altitude</b>   | 3000 m   |                              |
| <b>Certifications</b>   | CE, C-CSA-US, RoHS compliant as per 2011/65/UE               |                              |
| <b>Weight kg (lbs)</b>  | Pump ISO 63  | kg 2.05                      |

\*average value ± 4 dB(A) std deviation



Dimensions: millimeters [inches]

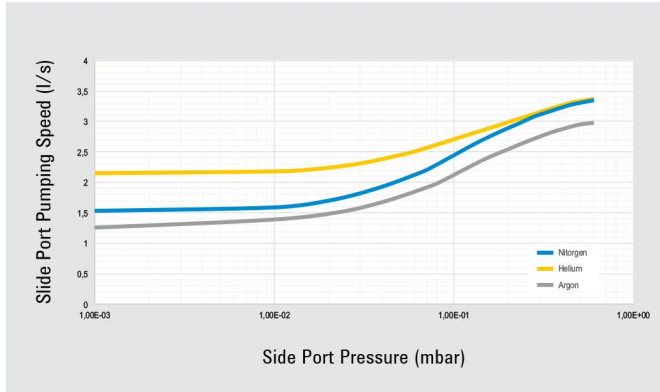


Agilent Technologies

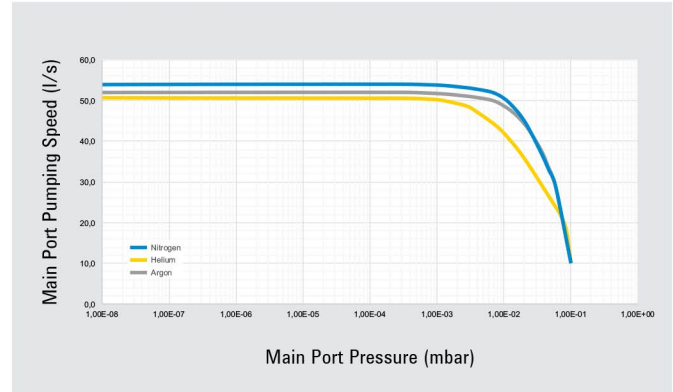
# Agilent TwisTorr 84FS Split Flow

## Datasheet

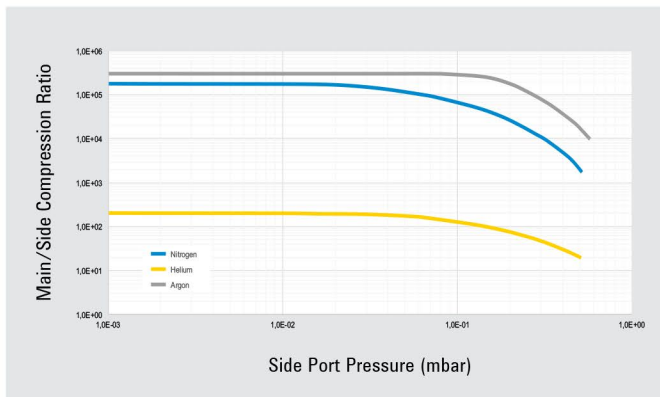
### Side Port Pumping Speed



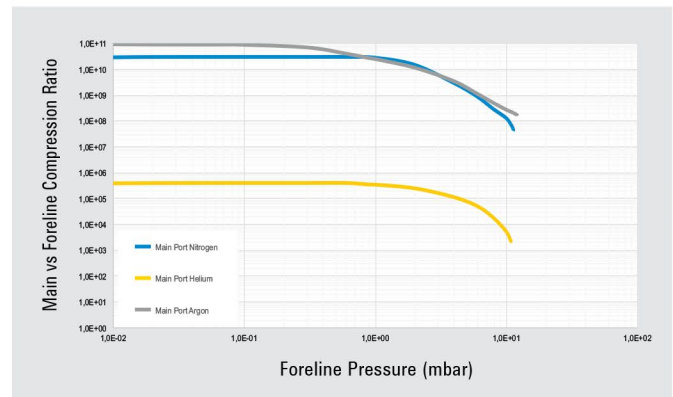
### Main Port Pumping Speed



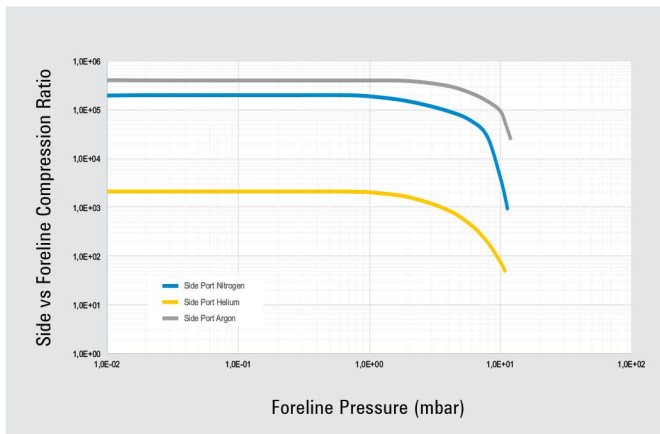
### Main/Side Port Compression Ratio



### Main Port vs Foreline Compression Ratio



### Side Port vs Foreline Compression Ratio



[WWW.JEVINSTRUMENTS.COM](http://WWW.JEVINSTRUMENTS.COM)



**Agilent Technologies**

# Agilent TwisTorr 84FS Split Flow

## Datasheet

### Ordering Information

| Pumps                    | Part Numbers |
|--------------------------|--------------|
| TwisTorr 84FS Split Flow | X3502-64300  |

| Controllers                                | Part Numbers |
|--|--------------|
| TwisTorr 84FS AG Rack controller RS232/485 | X3508-64001  |
| TwisTorr 84FS AG Rack controller Profibus  | X3508-64002  |
| TwisTorr 84FS on-board controller 110/220V | X3509-64000  |
| TwisTorr 84FS on-board controller 24V      | X3509-64001  |
| TwisTorr 84FS PCB Controller               | X3510-64000  |

| Accessories | Part Numbers |
|-------------|--------------|
|-------------|--------------|

| Cables                              | Part Numbers |
|-------------------------------------|--------------|
| Mains cable NEMA plug, 3 m long     | 969-9958     |
| Mains cable European plug, 3 m long | 969-9957     |
| Serial cable and T-plus software    | 969-9883     |
| PCB cable                           | 969-9869     |
| Pump extension cable (3 m)          | 969-9942     |
| Extension cable 5 m                 | 969-9942M007 |
| Extension cable 10 m                | 969-9942M006 |
| Extension cable 15 m                | 969-9942M005 |
| Extension cable 20 m                | 969-9942M004 |

| Inlet screen       | Part Numbers |
|--------------------|--------------|
| Inlet screen ISO63 | X3502-68001  |

| Cooling                               | Part Numbers |
|---------------------------------------|--------------|
| Metal Water Cooling Kit               | X3502-68002  |
| Plastic Water cooling kit             | X3502-68003  |
| Air cooling kit (0,5 m cable)         | 969-9290     |
| Air cooling kit extension cable (5 m) | 969-9940     |

| Vibration isolator        | Part Numbers |
|---------------------------|--------------|
| Vibration isolator ISO 63 | 969-9375     |

| Venting                                      | Part Numbers |
|--|--------------|
| Vent Valve N.O. 0,5 mm orifice (0,5 m cable) | 969-9844     |
| Vent Valve extension cable (5 m)             | 969-9941     |
| Vent Valve extension cable (10 m)            | 969-9941M003 |
| Vent Valve extension cable (15 m)            | 969-9941M001 |
| Vent Valve extension cable (20 m)            | 969-9941M005 |
| Vent Screw M5                                | X3502-68005  |
| Vent Adapter kit M5-M8                       | X1699-64039  |

| Purge                                       | Part Numbers |
|---|--------------|
| Purge Screw                                 | X3502-68004  |
| Purge valve 10 SCCM NW16KF - M12            | 969-9239     |
| Purge valve 10 SCCM ¼ Swagelok - M12        | 969-9240     |
| Purge valve 20 SCCM NW16KF - M12            | 969-9241     |
| Purge valve 20 SCCM ¼ Swagelok - M12        | 969-9242     |
| Purge valve 10 SCCM ¼ Swagelok - ¼ Swagelok | 969-9232     |
| Purge valve 20 SCCM ¼ Swagelok - ¼ Swagelok | 969-9236     |

| Mounting                         | Part Numbers |
|----------------------------------|--------------|
| Controller side mounting bracket | X3502-68006  |

| Active Gauges                       | Part Numbers            |
|-------------------------------------|-------------------------|
| FRG 700 Full Range Gauge            | Ask Agilent for details |
| PVG 500 Pirani Vacuum Gauge         | Ask Agilent for details |
| PCG 750 Pirani Capacitance Gauge    | Ask Agilent for details |
| CDG-500 Capacitance Diaphragm Gauge | Ask Agilent for details |

#### United States

Agilent Technologies  
121 Hartwell Avenue, Lexington MA 02421, USA  
Tel: +1 781 861 7200, Fax: +1 781 860 5437 -  
Toll free: +1 800 882 7426

#### Europe and other countries

Agilent Technologies Italia SpA  
via F.lli Varian 54, 10040 Leini, (Torino), Italy  
Tel: +39 011 9979 111, Fax: +39 011 9979 350  
Toll free: 00 800 234 234 00



[WWW.JEVINSTRUMENTS.COM](http://WWW.JEVINSTRUMENTS.COM)



This information is subject to change without notice.

© Agilent Technologies, Inc. 2017  
Published in Italy, March, 2017



**Agilent Technologies**