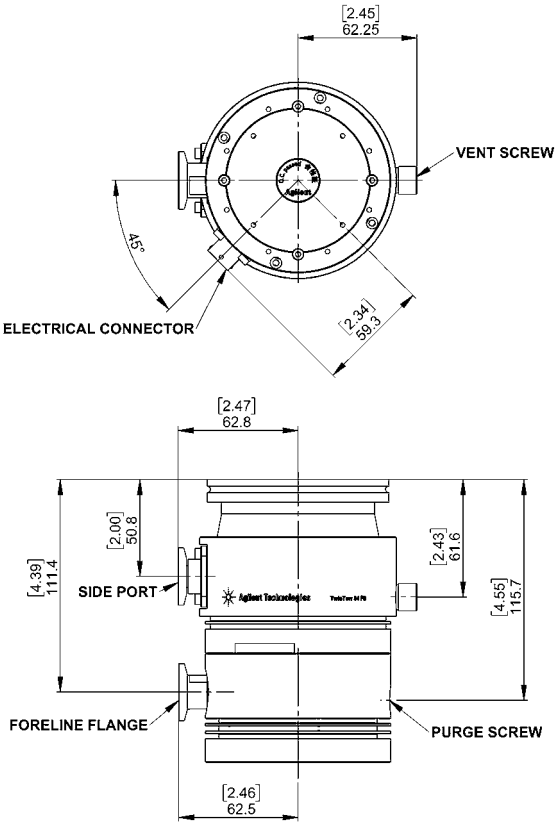
Agilent TwisTorr 84FS Split Flow

Agilent Quality Assured

Datasheet



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.



Dimensions: millimeters [inches]

Technical Specifications

Main Pumping speed		ISO 63	
N_2	l/s	54	
He	l/s	50	
H_2	l/s	52	
Gas throughput at full rotational speed (with recommended forepump)		Air cooling (35°C)	Water Cooling (25°C, 65 l/h)
N_2		100 sccm	100 sccm
K-ratio		**Main-Side**	**Main-Foreline**
N_2		$>10^{+5}$	$>10^{+10}$
He		$>10^{+5}$	$>10^{+5}$
Ar		$>10^{+5}$	$>10^{+10}$
Inlet port base pressure with recommended forepump (5 m^3/h)		< 5 x 10^{-9} mbar (< 3.75 x 10^{-9} Torr)	
Inlet flange		ISO 63	
Side port flange		KF16 NW	
Foreline flange		KF16 NW	
Rotational speed		81000 rpm (1350 Hz driving frequency)	
Start-up time		< 2 minutes	
Recommended forepump	mechanical:	Agilent DS 40M / DS 102	
	dry pump:	Agilent IDP-3 / SH 110	
Operating position		Any	
Operating ambient temperature		+5 °C to +35 °C	
Relative humidity of air		0 - 90 % (not condensing)	
Bakeout temperature		80°C at inlet ISO flange	
Lubricant		Permanent lubrication	
Cooling requirements			
- **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)	
Noise Pressure Level (at 1 mt at full speed)		40 dB(A) *	
Storage temperature		-40° C to +70° C	
Max altitude		3000 m	
Certifications		CE, C-CSA-US, RoHS compliant as per 2011/65/UE	
Weight kg (lbs)		Pump ISO 63	kg 2.05

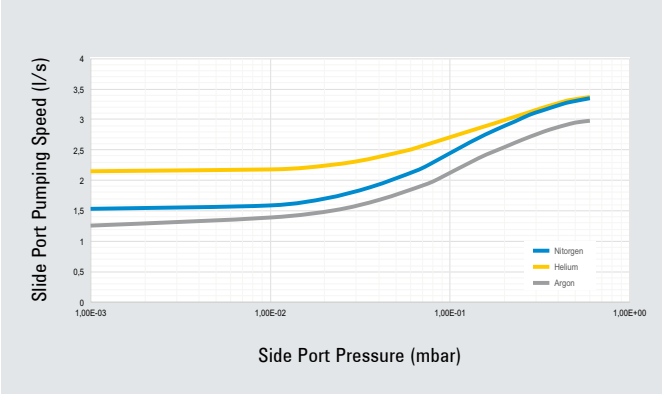
**average value ± 4 dB(A) std deviation*

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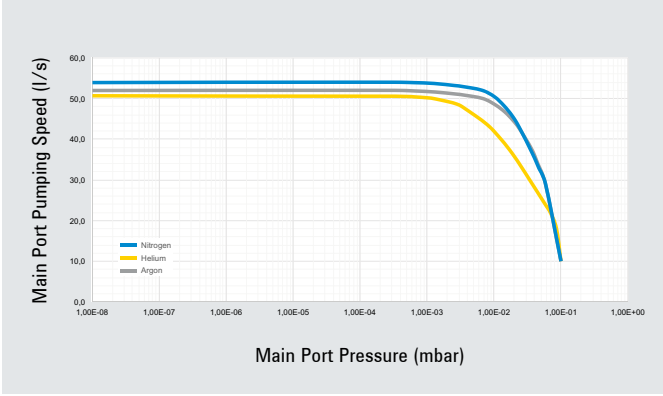
Agilent TwisTorr 84FS Split Flow

Datasheet

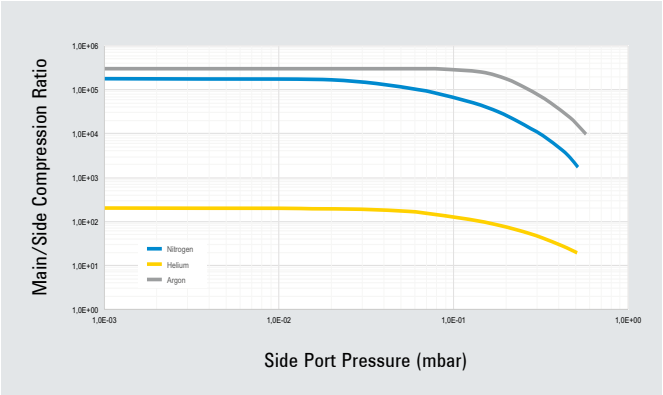
Side Port Pumping Speed



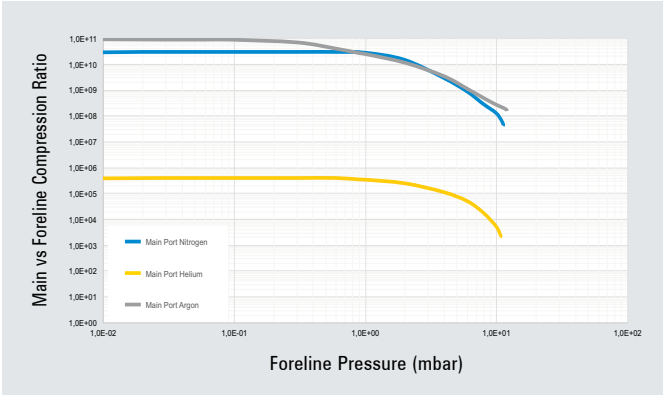
Main Port Pumping Speed



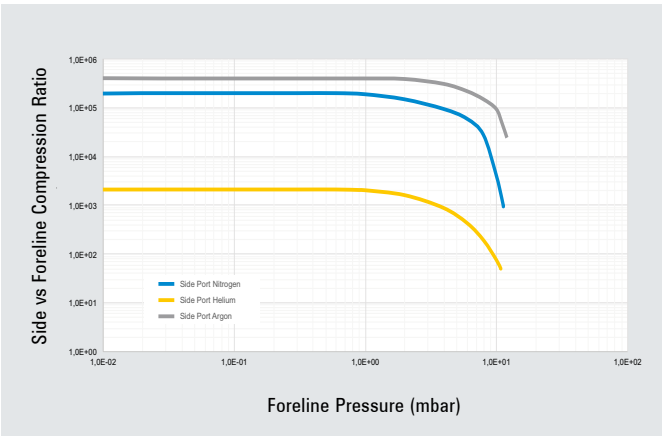
Main/Side Port Compression Ratio



Main Port vs Foreline Compression Ratio



Side Port vs Foreline Compression Ratio



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Agilent TwisTorr 84FS Split Flow

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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	
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	
Inlet screen ISO63	X3502-68001
Cooling	
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	
Vibration isolator ISO 63	969-9375
Venting	
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	
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	
Controller side mounting bracket	X3502-68006
Active Gauges	
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

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