



Varian TV-301, TV-551

Technical Specifications

	Turbo-V 301 Navigator		Turbo-V 551 Navigator	
Pump Specification	DN 100	DN 160	DN 100	DN 160
Pumping Speed, l/s				
Nitrogen	250	280	350	550
Helium	220	230	450	600
Hydrogen	200	210	450	510
Compression Ratio				
Nitrogen	7×10^8	7×10^8	$> 1 \times 10^9$	$> 1 \times 10^9$
Helium	1×10^5	1×10^5	1×10^7	1×10^7
Hydrogen	1×10^4	1×10^4	1×10^6	1×10^6
Base pressure, mbar				
with recommended mechanical pump	$< 5 \times 10^{-10}$	$< 5 \times 10^{-10}$	$< 1 \times 10^{-10}$	$< 1 \times 10^{-10}$
with recommended dry pump	$< 5 \times 10^{-9}$	$< 5 \times 10^{-9}$	$< 1 \times 10^{-10}$	$< 1 \times 10^{-10}$
Startup Time, min				
	2.5	2.5	< 5	< 5
Rotational Speed, rpm				
	56,000	56,000	42,000	42,000
Recommended Forepump				
Two-stage mechanical pump	DS 102	DS 102	DS 302	DS 302
Dry pump	SH-100	SH-100	TS300	TS300
Inlet Flange, nominal diameter				
Klump Flange, mm	-	-	-	-
ConFlat®, mm (inches OD)	100 (6)	160 (8)	100 (6)	160 (8)
ISO clamp style, mm	100	160	100	160
Foreline Flange, nominal diameter				
Wheeler, inches ID	-	-	-	-
Klump Flange	NW16	NW16	NW25	NW25
ISO clamp style	-	-	-	-



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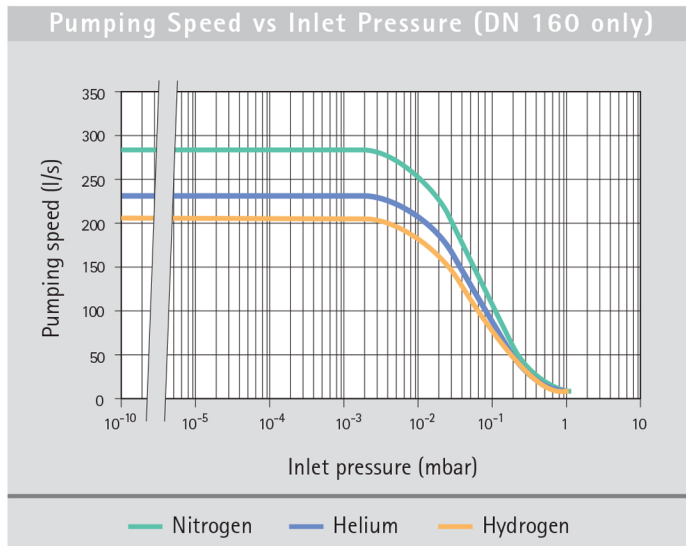
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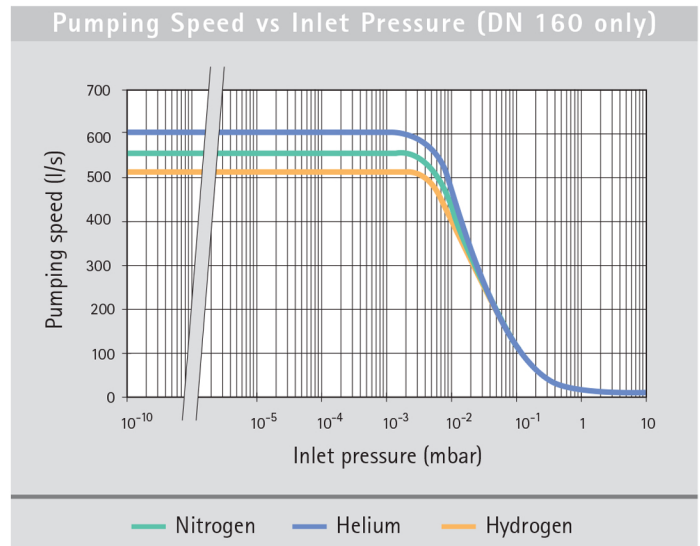
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Pumping Curves

TV-301



TV-551



Features & Benefits

- wide pumping speed range
- high speed and compression
- designed for very high gas load operation
- monolithic rotor
- highly reliable, maintenance-free ceramic ball bearings
- very high foreline tolerance

Applications

- semiconductors • high energy physics • research laboratories • fusion technology • UHV research • analytical instrumentation • electron microscopy • focused ion beam systems • surface analysis