



# Pfeiffer HiPace 700

## Technical Specifications

	HiPace® 700 with TC 400, Profibus, DN 160 ISO-F
Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^{11}$
Compression ratio for H <sub>2</sub>	$4 \cdot 10^5$
Compression ratio for He	$3 \cdot 10^7$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^{11}$
Cooling method, optional	Air
Cooling method, standard	Water
Cooling water flow	100 l/h
Cooling water flow, max	100 l/h
Cooling water flow, min	100 l/h
Cooling water temperature	15-35 °C   59-95 °F   288-308 K
Current max.	8,75 A
Electronic drive unit	with TC 400
Flange (in)	DN 160 ISO-F
Flange (out)	DN 25 ISO-KF/G ¼"
Fore-vacuum max. for N <sub>2</sub>	11 hPa   8.25 Torr   11 mbar
Gas throughput at full rotational speed for Ar	3.5 hPa·l/s
Gas throughput at full rotational speed for H <sub>2</sub>	$> 14$ hPa·l/s
Gas throughput at full rotational speed for He	10 hPa·l/s
Gas throughput at full rotational speed for N <sub>2</sub>	6.5 hPa·l/s
I/O interfaces	RS-485, Remote, Profibus
Interface, extended	Profibus
Mounting orientation	Any
Operating voltage: V DC	48 (± 5 %) V DC
Permissible radial magnetic field max.	6 mT
Power consumption max.	420 W
Protection category	IP54
Pumping speed for Ar	665 l/s
Pumping speed for H <sub>2</sub>	555 l/s
Pumping speed for He	655 l/s
Pumping speed for N <sub>2</sub>	685 l/s
Rotation speed ± 2 %	49,200 rpm   49,200 min <sup>-1</sup>
Rotation speed variable	60 – 100 %
Run-up time	2 min
Sound pressure level	≤50 dB(A)
Ultimate pressure according to PNEUROP	$< 1 \cdot 10^{-7}$ hPa   $< 7.5 \cdot 10^{-8}$ Torr   $< 1 \cdot 10^{-7}$ mbar
Ultimate pressure without gas ballast	$1 \cdot 10^{-7}$ hPa   $7.5 \cdot 10^{-8}$ Torr   $1 \cdot 10^{-7}$ mbar
Venting connection	G 1/8"
Weight	12.1 kg   26.68 lb





**PROVAC**  
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PHONE: 831-462-8900

FAX: 831-462-3536

WWW.PROVAC.COM

## Pfeiffer HiPace 700 Features & Benefits

- higher pumping speeds, backing pump capability & gas throughputs
- protected against particulate matter or oxidizing gases
- integrated drive electronics reduce need for cables
- proven bearing system, improved rotor design
- compact design makes for minimum footprint
- expanded remote & sensor functionalities
- installation in any orientation
- reduced run-up time
- on-site bearing changes
- quiet operation



## Applications

- mass spectrometry • residual gas analysis • coating (PVD, CVD)
- beamline implantation • transfer chambers • load locks • handling systems • harddisc coating • photovoltaics • CD, DVD, Blu Ray manufacturing • optical coating • wear protection • medical technology
- electron beam welding • nuclear research • plasma research • particle accelerators • cryo technology • nano technology • bio technology