

# Mechanical Rotor Suspension without Compound-Stage

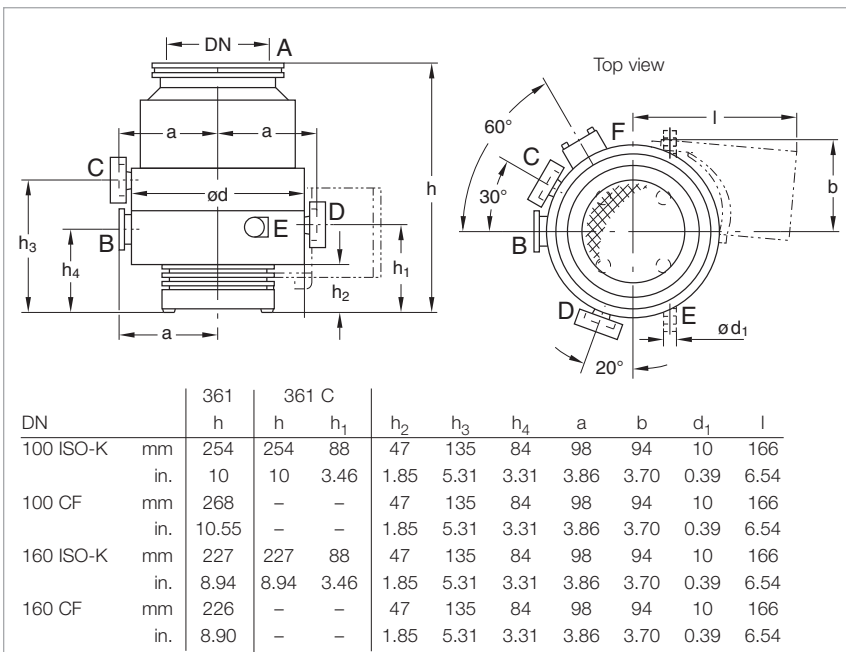
## TURBOVAC 361, 361 C ClassicLine



Turbomolecular pumps without a purge gas facility are only suited for pumping of air or inert gases. They are not suited for pumping of aggressive or reactive gases.

TURBOVAC pumps with a "C" in the type designation are equipped with a purge gas facility.

The purge gas protects only the bearing area and the motor of the TURBOVAC.



Dimensional drawing for the TURBOVAC 361 and 361 C

### Typical Applications

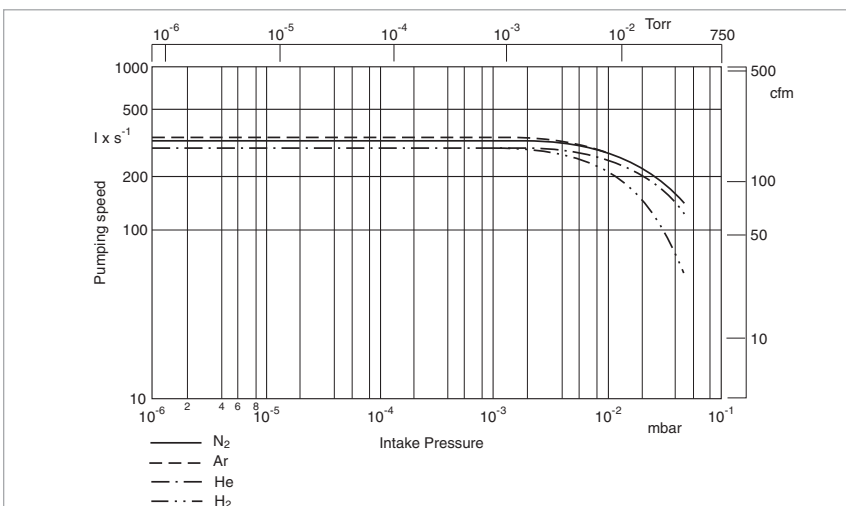
- Leak detectors
- Mass spectrometers
- Data storage
- Optical coating
- R & D
- UHV systems
- Particle accelerators
- Load locks and transfer chambers

### Technical Features

- Small footprint
- Installation in any orientation
- Oil-free pump for generating clean high and ultrahigh vacuum conditions
- Bearing temperature measurement through the TURBO.DRIVE TD 20 classic

### Advantages to the User

- Space-saving
- Easy to integrate into complex vacuum systems
- Low operating costs
- Highly reliable operation also in processes loaded with particles



Pumping speed as a function of the inlet pressure (TURBOVAC 361 with flange DN 100)

## Technical Data

## TURBOVAC 361 (C)

Inlet flange	DN	100 ISO-K • 100 CF	160 ISO-K • 160 CF
<b>Pumping speed</b>			
N <sub>2</sub>	l x s <sup>-1</sup>	345	400
Ar	l x s <sup>-1</sup>	350	-
He	l x s <sup>-1</sup>	340	380
H <sub>2</sub>	l x s <sup>-1</sup>	340	370
<b>Max. gas throughput</b>			
N <sub>2</sub>	mbar x l x s <sup>-1</sup>	3.0	3.0
Ar	mbar x l x s <sup>-1</sup>	2.5	2.5
<b>Compression ratio</b>			
N <sub>2</sub>		1 x 10 <sup>9</sup>	1 x 10 <sup>9</sup>
He		6 x 10 <sup>4</sup>	6 x 10 <sup>4</sup>
H <sub>2</sub>		3 x 10 <sup>3</sup>	3 x 10 <sup>3</sup>
Ultimate pressure	mbar (Torr)	< 1 x 10 <sup>-10</sup> (< 0.75 x 10 <sup>-10</sup> )	< 1 x 10 <sup>-10</sup> (< 0.75 x 10 <sup>-10</sup> )
Max. continuous inlet pressure <sup>1)</sup>	mbar (Torr)	5 x 10 <sup>-2</sup> (4 x 10 <sup>-2</sup> )	5 x 10 <sup>-2</sup> (4 x 10 <sup>-2</sup> )
Max. foreline pressure for N <sub>2</sub>	mbar (Torr)	5 x 10 <sup>-1</sup> (4 x 10 <sup>-1</sup> )	5 x 10 <sup>-1</sup> (4 x 10 <sup>-1</sup> )
Recommended forevacuum pump		from TRIVAC D 16 B to D 25 B	from TRIVAC D 16 B to D 25 B
Run-up time at 95% speed	min	≈ 2	≈ 2
Purge / vent port	DN	10 KF	10 KF
Cooling water connection (hose nozzles)	mm (in.)	10 (0.39)	10 (0.39)
Weight, approx.	kg (lbs)	12 (26)	12 (26)
Max. power consumption / Ultimate pressure	VA	680	680
	VA	480	480

<sup>1)</sup> Water-cooled



## Technical Data

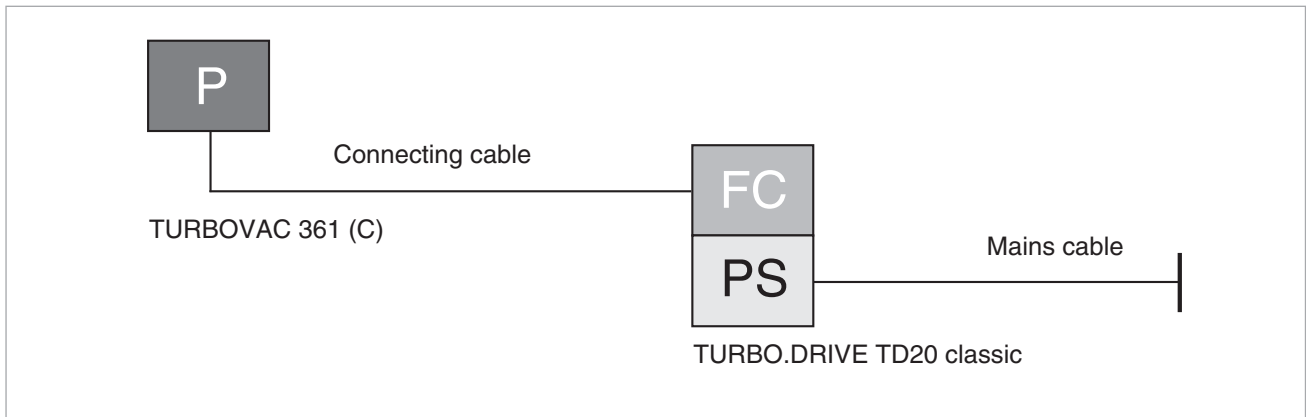
## TURBO.DRIVE TD 20 classic

Mains connection, 50 - 60 Hz; selectable	V	100 to 240 (-15 % / +10 %)
Max. output voltage	V	3 x 47
Overload current limit	A	5
Permissible ambient temperature	°C (°F)	0 to +45 (+32 to +113)
Protection class	IP	20
Dimensions (W x H x D)	mm (in.)	213 x 128 x 315 (1/2 19", 3 HU) 8.39 x 5.04 x 12.40 (1/2 19", 3 HU)
Weight, approx.	kg (lbs)	4 (8.8)

## Ordering Information

## TURBOVAC 361 (C)

TURBOVAC 361 (C) without Compound Stage	P	Part No.		
DN 100 ISO-K, water-cooled DN 100 ISO-K, water-cooled (C version) DN 100 CF, water-cooled DN 160 ISO-K, water-cooled DN 160 ISO-K, water-cooled (C version) DN 160 CF, water-cooled		<b>856 70</b> <b>856 75</b> <b>856 71</b> <b>856 72</b> <b>856 77</b> <b>856 73</b>		
Mandatory Accessories		FC	PS	
TURBO.DRIVE TD 20 <i>classic</i> without interface with RS 232 C interface with RS 485 C interface with Profibus with 25 pol I/O		<b>800075V0001</b> <b>800075V0002</b> <b>800075V0004</b> <b>800075V0003</b> <b>800075V0005</b>		
Connecting cable TURBOVAC - frequency converter 3 m (10.5 ft) 5 m (17.5 ft) 10 m (35.0 ft) 20 m (70.0 ft) 50 m (175.0 ft) 60 m (210.0 ft) 80 m (280.0 ft) 140 m (490.0 ft)		<b>857 65</b> <b>857 66</b> <b>857 67</b> <b>857 68</b> <b>800152V0008</b> <b>800152V0007</b> <b>800152V0080</b> <b>800152V0140</b>		
Mains cable 3 m (10.5 ft) EURO plug UK plug US plug 5-15 P (220 V AC) 2 m (7.5 ft) US plug 115 V AC		<b>800102V0002</b> <b>800102V0003</b> <b>800102V1002</b>  <b>992 76 513</b>		
Forevacuum pump TRIVAC D 16 B 1 phase motor; 230 V, 50 Hz 1 phase motor; 230 V, 50/60 Hz 3 phase motor; 230/400 V, 50 Hz / 250/440 V, 60 Hz		<b>112 65</b> <b>113 25</b> <b>112 66</b>		
TRIVAC D 25 B 1 phase motor; 230 V, 50 Hz 1 phase motor; 230 V, 50/60 Hz 3 phase motor; 230/400 V, 50 Hz / 250/440 V, 60 Hz		<b>112 75</b> <b>113 35</b> <b>112 76</b>		
SCROLLVAC SC 30 D 1 phase motor; 200-230 V, 50/60 Hz 1 phase motor; 100-115 V, 50/60 Hz 3 phase motor; 380-415 V, 50 Hz / 200-230 V, 460 V, 60 Hz		<b>133 002</b> <b>133 102</b> <b>133 004</b>		
For further types, see our Full Line Catalog				



## Ordering Information

## TURBOVAC 361 (C)

Accessories, optional	Part No.
Air cooling unit	
230 V AC	855 31
115 V AC	894 08
100 V AC	800152V0016
Flange heater	
DN 100 CF, 230 V, 50 Hz	854 27
DN 100 CF, 115 V, 60 Hz	854 28
DN 160 CF, 230 V, 50 Hz	854 37
DN 100 CF, 115 V, 60 Hz	854 38
Vibration absorber	
DN 100 ISO-K	800131V0100
DN 100 CF	500 071
DN 160 ISO-K	500 073
DN 160 CF	500 072
Solenoid venting valve, with gas admission filter, normally closed	
24 V DC, DN 16 KF	800120V0011
Power failure venting valve, with gas admission filter, normally open	
24 V DC, DN 16 KF	800120V0021
Purge gas and venting valve	
Gas flow at 1 bar 0.4 mbar x l x s <sup>-1</sup> (24 sccm),	
Pump connection DN 10 KF / gas connection G 1/4"	
230 V AC	800152V0014
100 - 115 V AC	800152V0042
24 V DC	800152V0013
Gas filter to G 1/4-in. for purge gas and venting valve	800110V0012
Replacement filter	200 18 515
<b>Included in the Delivery of the Pump</b>	<b>P</b>
Inlet screen, centering ring with FPM sealing ring, outer ring	ISO-K
Inlet screen	CF
Centering ring with O-ring, clamping ring	Foreline Flange
Pivoted threaded fittings to replace the included hose nipples	Water Cooling