



TURBOMOLECULAR PUMPING SYSTEMS



## Turbomolecular pumping systems

### Turbopack

Our best selling package: compact, robust, may be installed on a workbench or below a vacuum chamber.

Accommodates an 80 to 400 l/s turbomolecular pump and a 5 to 21 m<sup>3</sup>/h Pascal Rotary Vane Pump, or a 28 m<sup>3</sup>/h dry pump, plus numerous vacuum options and accessories.



### Turbostand

Designed to bring the turbomolecular pump flange to a convenient working height while allowing easy access to components.

Accommodates an 80 to 400 l/s turbomolecular pump and a 5 to 21 m<sup>3</sup>/h Pascal Rotary Vane Pump, or an ACP dry pump, plus numerous vacuum options and accessories.



## Innovative packages for every need

An Adixen Turbomolecular Pumping System is more than just vacuum components. Thanks to an innovative flexible design, the Adixen Turbomolecular Pumping Systems are available in a wide variety of system configurations and performance options.

Adixen Turbomolecular Pumping Systems combine an Adixen Turbomolecular Pump (ATP Series) and a Pascal Series Rotary Vane Pump or an ACP dry pump. These components have an excellent reputation for performance, low vibration, reliability and easy field maintainability.

These vacuum components are installed in a frame that suits your need:

- Compact, to be installed on a workbench or inside an instrument
- Adjustable, to help you integrate your own instruments and bring the turbo flange to a convenient working height
- Robust enough to incorporate valves, a vacuum chamber, gauges, ...
- Casters make it easy to move around your plant or lab.

All the components are electrically protected and control is at your fingertips: one power connector, one switch to start pumping ... A plug and play system.

No wonder our Turbomolecular Pumping Systems are selected for many of the following applications:

- R&D
- Instrumentation
- Industry
- Aerospace
- Optical Systems.



## Superior idea...

The Turbopack/Turbostand pumping systems are available in a wide variety of system configurations and performance options. We present hereafter the following example configuration:

**Turbostand with ATP 400 air cooled Pascal 2015 SD, vent valve, Adixen gauge, isolation valve.**

### HIGH VACUUM PUMP

#### Inlet screen

2.5 mm mesh to prevent foreign material from entering the Turbomolecular pump

#### Adixen vacuum gauge (optional)

#### Oil mist eliminator

To prevent the release of Rotary Vane Pump oil mist to atmosphere

### ROUGHING PUMP

#### Vent valve (option)

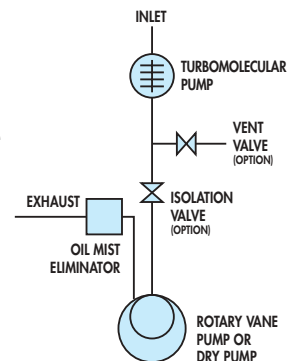
Enables to softly vent back the Turbomolecular pump (and possibly the chamber) to atmosphere

#### Isolation valve (option)

Enables isolation of the Rotary Vane Pump from the Turbomolecular pump and the vacuum chamber





#### Frame

Including casters and leveling pads or rubber pads  
Compact or extended, adjustable height, antivibration pads,...



Vacuum schematic

## ...superior components

	Unit	ATP 80	ATP 100	ATP 150	ATP 400					
										
<b>Secondary pumping speed</b>										
	N <sub>2</sub>	80	100	140	400					
	He	50	60	100	300					
	H <sub>2</sub>	40	40	80	250					
<b>Limit pressure according to Pneurop standard</b>	(1)	RVP	$5 \cdot 10^9$	$5 \cdot 10^9$	$5 \cdot 10^{10}$	$8 \cdot 10^{10}$				
		ACP 28	$1 \cdot 10^7$	$7 \cdot 10^8$	$7 \cdot 10^8$	$7 \cdot 10^8$				
<b>Primary pumping speed according to Pneurop standard</b>	(2)	RVP	5 to 10	5 to 10	5 to 10	15 to 21				
		ACP 28	28	28	28	28				
<b>Maximum inlet pressure in continuous operation</b>	mbar	(1)	$1 \cdot 10^{-1}$	$1 \cdot 10^{-1}$	$1 \cdot 10^{-1}$	$2 \cdot 10^{-2}$				
		(2)	$10^{-1}$	$10^{-1}$	$5 \cdot 10^{-1}$	$2 \cdot 10^{-2}$				
<b>Start-up time</b>		1 mn 45s		2 mn	3 mn					
<b>Cooling</b>		Air	Water	Air	Water	Air	Water	Air	Water	
<b>Min /max ambient temperature</b>	(3)	°C	15	15	15	15	15	15	15	15
			to 35	to 50	to 35	to 50	to 35	to 50	to 35	to 50
<b>Inlet flanges ISO-KF ou CF-F</b>		NV / 63		NW 100				NW 100 or NW 160		
<b>Maximum power</b>	KW	0.8	0.8	1	1					

(1) For the standard pumping systems equipped with CF-F flange

(2) Depends on the configuration

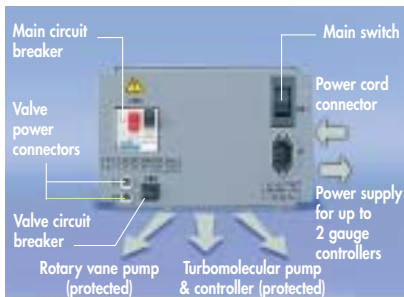
(3) With water cooling, the ambient temperature around the turbomolecular pump can reach 50°C



## Turbopack/Turbostand innovative packages

### 2 frames

- The more compact TURBOPACK can be installed on a workbench or under a vacuum chamber
- The higher, adjustable TURBOSTAND brings the Turbomolecular pump flange to a convenient working height and gives access to all vacuum components



**Low vibration:** antivibration isolation of the turbomolecular pump



**Low vibration:** antivibration isolation of the Rotary Vane Pump

### Electrical safety:

The electrical box provides a protected power supply to all vacuum components (except the vacuum gauges which include an internal protection). Only one power cord is needed for the complete system.



**Flexibility:** adjustable Turbomolecular pump height



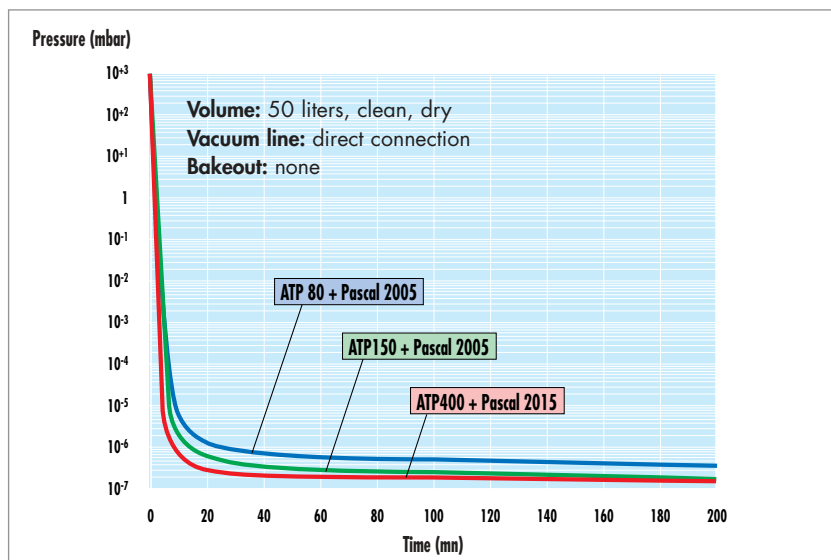
**Robust:** the very sturdy frame allows up to 50 kg (110 lbs) of equipment on the turbomolecular pump flange

## High performance

### Weight and power requirement of typical configurations

		Turbostand ATP 80 Pascal 2005	Turbostand ATP 100 Pascal 2005	Turbostand ATP 150 Pascal 2005	Turbostand ATP 400 Pascal 2015
Weight	kg	60	60	64	69
	lbs	132	132	141	152
Power requirement	kW	0.8	0.8	1	1

### Pump down performance



### Dimensions mm (inches)

#### Turbopack

Adjustable :  
447 - 657  
(17.5" - 25.7")



#### Turbostand

Adjustable :  
947 - 1157  
(37.2" - 45.5")



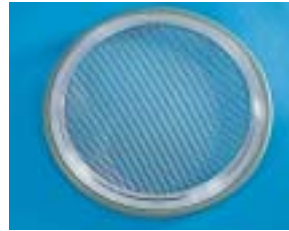
Base dimensions with ACP 28 option:

- 609 x 435 mm
- 23.9 x 17.1 inches

More than 50,000 possible configurations



Turbomolecular pump vent valve option



ATP turbomolecular pump 80 to 400 l/s with inlet screen



Isolation valve option



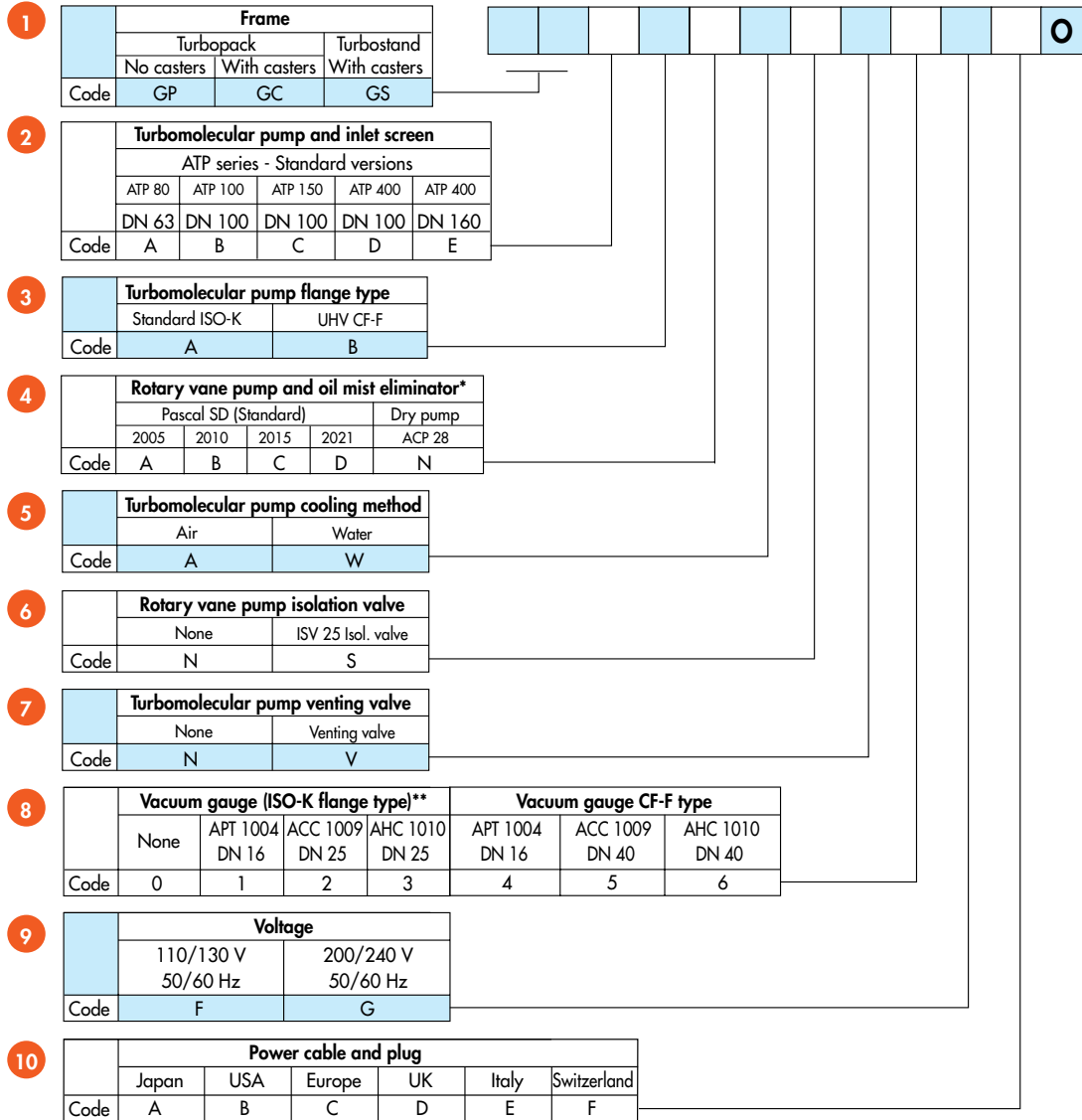
9 10  
100 V - 240 V  
Several power  
plugs available

4 Pascal rotary vane pumps 5 to 21 m<sup>3</sup>/h  
with oil mist eliminator, or ACP 28 Dry pump

1 Compact, low height Turbopack  
(pictured here) or Turbostand with turbo  
flange at working height. Casters and  
leveling pads or rubber pads.

8  
Optional Adixen  
Vacuum Gauges

# Turbomolecular pumping system: ordering information



\* : Oil mist eliminator is not provided with ACP 28  
 \*\* : CFF flanges are available, please consult us

**For example**  
 You need ...

- Turbopack without casters **GP**
- Pump ATP 150 **C**
- UHV CF-F **B**
- Dry pump ACP 28 **N**
- Air **A**
- Without valve **N**
- Venting valve **V**
- AP 1004 gauge **I**
- 200/240 V - 50/60 Hz **G**
- Europe **C**

### Compatibility between Primary Pumps and Secondary Pumps

		Secondary Pumps			
		ATP 80	ATP 100	ATP 150	ATP 400
Primary Pumps	2005	++	++	++	///
	2010	+	+	+	///
	2015	+	+	+	++
	2021	+	+	+	+
	ACP 28	++	++	++	++

= **G P C B N A N V I G C 0**

## Ordering information for Turbopack/Turbostand

### Accessories



**Inlet and exhaust filters for rotary vane pump:**  
Check "Rotary Vane Pumps" brochure for selection.



**One-touch operation:**  
The complete system is driven by the Turbomolecular pump controller.



**Reducing cones and fittings:**  
Check "Flanges and Fittings" brochure for selection.

Designation	P/N
Stainless steel Tee DN 25	<b>068563</b>
DN 25 Centering ring	<b>068189</b>
DN 25 Clamp	<b>083264</b>

### Flange accessories

ISO-KF flanges are supplied with centering ring, o-ring and clamps. CF-F flanges are supplied with copper seals. Please order nuts and bolts separately.

#### Nut and bolt sets for CF flanges

CF Flange DN	Holes	Metric thread	P/N	US thread	P/N
<b>63</b>	8	M8 x 1.25	<b>303416</b>	5/16-24	<b>303304</b>
<b>100</b>	16	M8 x 1.25	<b>303417</b>	5/16-24	<b>303304</b>
<b>160</b>	20	M8 x 1.25	<b>303418</b>	5/16-24	<b>303305</b>

### Special options

It is possible to fit the Turbopack/Turbostand with more complex options: Turbomolecular Pump isolation valve, by-pass (3 valves) option, spool pieces,...

Please contact your Alcatel's representative for more information.

## Turbostand 900

The Turbostand 900 is a high performance turbomolecular pumping system.

It accommodates the 900 l/s ATP 900 or 400 l/s ATH 400 M and typically a 33 m<sup>3</sup>/h Pascal RVP.

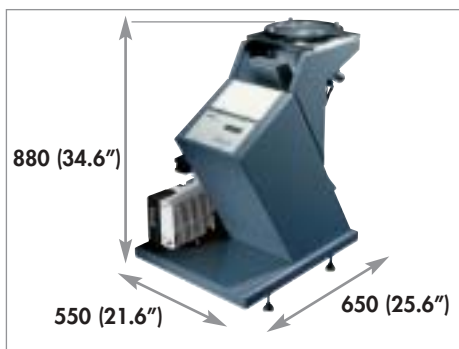
It is available in a corrosive resistant version, but also with dry primary pumps, and many other options.

Please contact your Alcatel's representative for ordering information.

Model	Inlet flange	Pumping speed l/s	Ultimate pressure mbar
ATP 900	DN 200	900	5.10 <sup>-10</sup>
ATH 400 M	DN 200	410	8.10 <sup>-9</sup>



### Dimensions mm (inches)



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