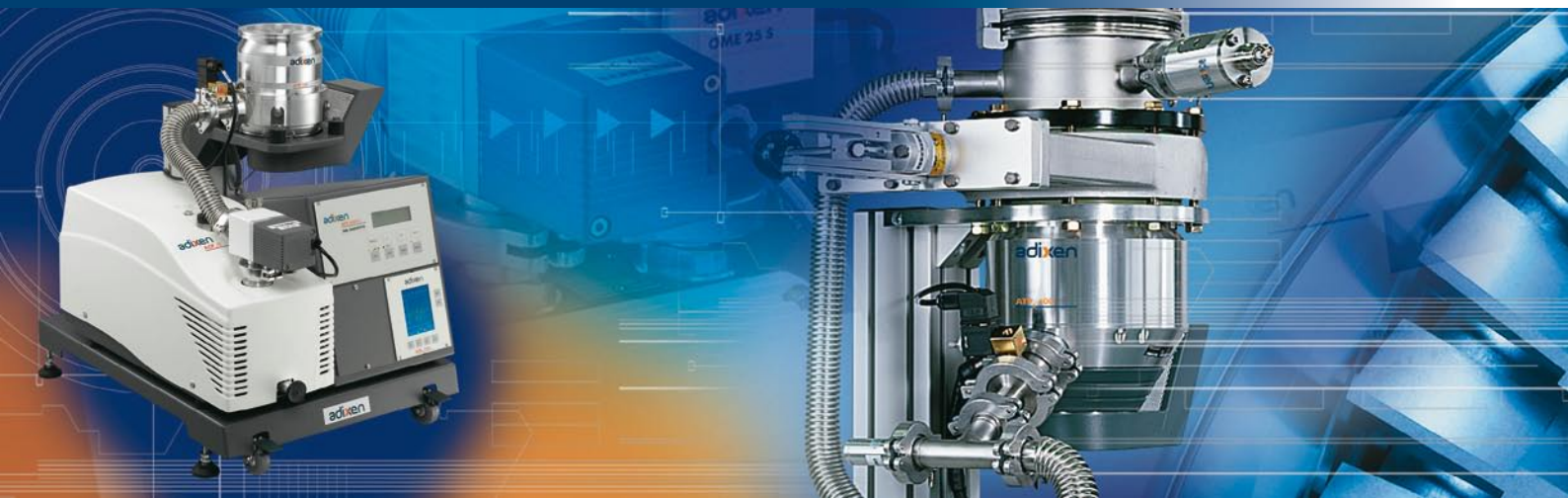




## TURBOMOLECULAR PUMPING SYSTEMS



Turbomolecular pumping systems are the most reliable and cost-effective means of producing high vacuum. They are portable, fast-starting, and require minimal time to install.

**Avoid installation headaches and focus on your experiment rather than your pump system**

No racks to install, space for integration of the secondary pump, installation wiring or pipe connections. Receive a completely tested system, ready to operate.

**Space concerns or multiple experimental platforms ?**

Adixen offers portable compact systems and larger systems with casters.

**Human resource limitations to support your system ?**

The Adixen Dry systems provide an extended maintenance interval, typically 20 000 to 22 000 hours for a clean application.

**PLUG AND PLAY !**

ACP series dry roots pump technology are **particle free** and offer **constant vacuum performance** resulting in a superior advantage over scroll technology.

**Select among our comprehensive range of dry**



Compact Drytel 1025 and 1025 C

TurboPack

TurboStand

More information see Drytel brochure

## Comprehensive packages for every need

Due to a 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) from 80-400 l/s and a Pascal Series Rotary Vane Pump from 5-21m<sup>3</sup>/h or an ACP dry pump from 15-40 m<sup>3</sup>/h.

These components have an excellent reputation for performance, low vibration, reliability and easy field maintainability.

### Built-in flexibility:

- **Compact**, for installation on a workbench or inside an instrument.
- **Adjustable**, for easy integration.
- **Robust** enough to incorporate valves, a vacuum chamber, gauges, ...
- **Portable** for movement throughout your plant or lab.
- **One switch to start, one power connector**, all the components are electrically protected making operation simple.

### Our Turbomolecular Pumping Systems are selected for the following applications:

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

## and wet Turbomolecular Pumping systems



Compact Packtel 1025

More information see Packtel brochure



TurboPack



TurboStand

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

**Turbostand with ATP 400 air cooled, RVP 2015SD, vent valve, series 2000 gauge, isolation valve.**

**HIGH VACUUM PUMP**

1

**Inlet screen**

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

**Vent valve (option)**

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

**Adixen vacuum gauge & digital controller**

2

**Oil mist eliminator**

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

**Isolation valve (option)**

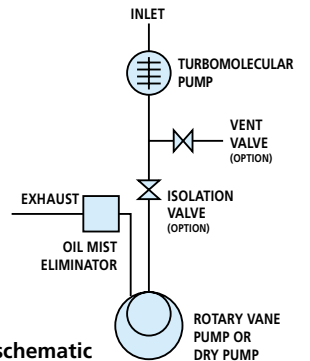
Enables isolation of the Rotary Vane Pump from the Turbomolecular pump and the vacuum chamber

3

**ROUGHING PUMP**

**Frame**

Including casters and leveling pads (GC) or rubber pads (GP). Compact or extended, adjustable height, antivibration pads,...



Vacuum schematic

1

Unit		ATP 80	ATP 100	ATP 150	ATP 400	
						
<b>Secondary pumping speed</b>						
	N <sub>2</sub> He H <sub>2</sub>					
	l/s	80 50 40	100 60 40	140 100 80	400 300 250	
<b>Limit pressure according to Pneurop standard (1)</b>	mbar	with RVP roughing pump	5.10 <sup>-9</sup>	5.10 <sup>-9</sup>	5.10 <sup>-10</sup>	8.10 <sup>-10</sup>
		with ACP roughing pump	1.10 <sup>-7</sup>	7.10 <sup>-8</sup>	7.10 <sup>-8</sup>	7.10 <sup>-8</sup>
<b>Primary pumping speed according to Pneurop standard (2)</b>	m <sup>3</sup> /h	RVP	5 to 10	5 to 10	5 to 10	15 to 21
		ACP	14 to 27	14 to 27	14 to 27	27 to 37
<b>Maximum inlet pressure in continuous operation</b>	mbar	RVP	1.10 <sup>-1</sup>	1.10 <sup>-1</sup>	1.10 <sup>-1</sup>	2.10 <sup>-2</sup>
		ACP	1.10 <sup>-1</sup>	1.10 <sup>-1</sup>	5.10 <sup>-1</sup>	2.10 <sup>-2</sup>
<b>Start-up time</b>			1mn 45s	2 mn	3 mn	
<b>Cooling</b>	°C	Air	15 - 35	15 - 35	15 - 35	15 - 35
<b>Min /max ambient temperature</b>		water	15 - 50	15 - 50	15 - 50	15 - 50
<b>Inlet Flanges ISO-KF or CFF</b>			DN 63	DN 100	DN 100	DN 100-DN160
<b>Maximum power</b>	KW		0,8	0,8	1	1

(1) With standard Pumping system equipped with CFF flange  
 (2) Depends on configurations

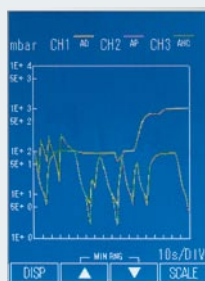
2



**ACS 2000**  
Single channel  
Digital controller



**ACM 2000**  
Graphic controller  
3 channels



**ACM 2000 controller provides a digital display of the pressure or historical data through the graph function. It can operate up to 3 gauges and has 2 set-points per channel.**

3



**Oil Free pumps - ACP series**



- Clean, oil-free
- Avoidance of environmental issues related to oil (leaks, expensive filtration equipment, oil disposal, oil degradation, etc.)
- Reduced maintenance frequency
- Avoidance of oil back-streaming



**Rotary Vane Pumps / Pascal Series**

## Turbopack/Turbostand packages

### 2 frames to choose from :

- The taller, adjustable **TURBOSTAND** brings the Turbomolecular pump flange to a convenient working height and reduces the piping length required.
- The compact **TURBOPACK** can be installed on a workbench or under a vacuum chamber.



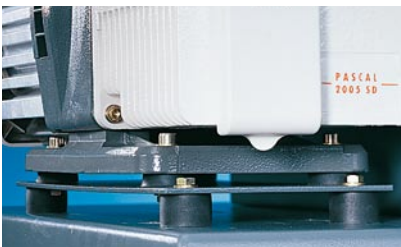
**Turbopack**



**Turbostand**

Pumping systems are shipped with pumps and standard options installed and tested in the frame except the gauge head.

The electrical centralized power supply is protected and provides power to all vacuum components. Only one power cord is required and provided for the system.



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



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



**Flexibility:** adjustable Turbomolecular pump height



ACP Dry pumps are delivered with a manual gas ballast to improve condensable vapor pumping and base pressure.



RVP is delivered with an Oil Mist Eliminator

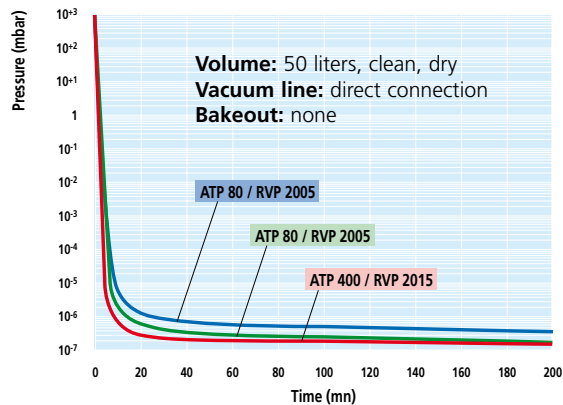
# General specifications

## Weight and power requirements of typical configurations

			ATP 80/RVP 2005	ATP 150/RVP 2010	ATP 400/RVP 2015	ATP 400/RVP 2021
<b>Turbopack</b>	Weight	kg	55	60	64	65
		lbs	121	132	141	143
<b>Turbostand</b>	Weight	kg	60	65	69	70
		lbs	132	143	141	154

			ATP 80 ACP 15	ATP 80 ACP 28	ATP 150 ACP 28	ATP 400 RVP ACP 28	ATP 400 ACP 40
<b>Turbopack</b>	Weight	kg	60	70	74	77	84
		lbs	132	154	163	170	185
<b>Turbostand</b>	Weight	kg	65	75	79	80	87
		lbs	163	165	174	176	192

## Pump down performance



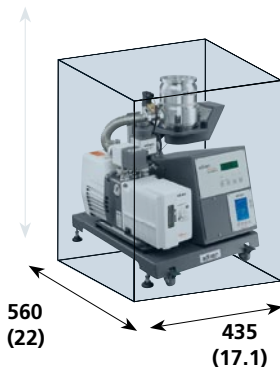
## Dimensions mm (inches)

### Turbostand: Wet

Adjustable:  
 947 - 1157  
 (37.2 - 45.5)

### Turbopack: Wet

Adjustable:  
 447 - 657  
 (17.6 - 25.7)

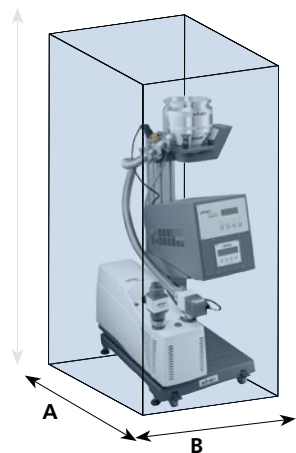


### Turbostand: Dry

Adjustable:  
 947 - 1157  
 (37.2 - 45.5)

### Turbopack: Dry

Adjustable:  
 447 - 657  
 (17.6 - 25.7)



With following pumps	A	B
ACP 15 without ES25S	560 (22)	443 (17,4)
ACP 28 - ACP 40	626 (26,6)	447 (17,6)

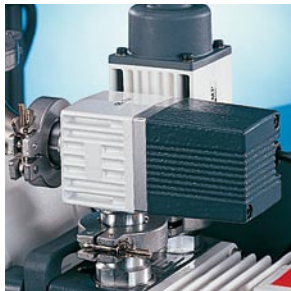
## More than 50,000 possible configurations



Turbomolecular pump vent valve option



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



Isolation valve option



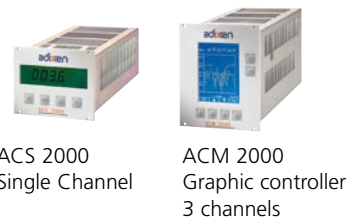
3 ISO-K or CF-F Flanges

5 Air or Water Cooling



AP 2004 ACC 2009 AHC 2010

8 Optional Adixen Vacuum Gauges and controllers



ACS 2000 Single Channel

ACM 2000 Graphic controller 3 channels

9 100 V - 240 V  
10 Several power plugs available

4 Rotary vane pumps 5 to 21 m<sup>3</sup>/h with oilmist eliminator or ACP from 15 to 40 m<sup>3</sup>/h

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

## Our best seller and recommended configurations

Wet systems	
ATP 80 / RVP 2005	Air cooling, Isolation valve
ATP 80 / RVP 2010	ACM 2000 Graphic color controller / ACC 2009 full range gauge
ATP 150 / RVP 2010	or
ATP 150 / RVP 2015	ACS 2000 Single Channel controller / ACC 2009 full range gauge
ATP 400 / RVP 2021	

Dry systems	
ATP 80 / ACP 15	Air cooling, Isolation valve
ATP 80 / ACP 28	ACM 2000 Graphic color controller / ACC 2009 full range gauge
ATP 150 / ACP 28	or
ATP 400 / ACP 28	ACS 2000 Single Channel controller / ACC 2009 full range gauge
ATP 400 / ACP 40	



# Turbomolecular Pumping System: ordering information

1	<b>Frame</b>										0
	Turbopack without casters	Turbopack with casters	Turbostand with casters								
	Code	GP	GC	GS							
2	<b>Turbomolecular pump and inlet screen</b>					(1)					
	ATP80 DN63	ATP100 DN100	ATP150 DN100	ATP400 DN100	ATP400 DN160						
Code	A	B	C	D	E						
3	<b>Turbomolecular pump flange type</b>										
	ISO-K Standard	UHV CF-F									
Code	A	B									
4	<b>Roughing pump</b>							(2) (3) (4)			
	RVP2005SD	RVP2010SD	RVP2015SD	RVP2021SD	ACP15	ACP28	ACP40				
Code	A	B	C	D	R	Q	P				
5	<b>Cooling method</b>										
	Air	Water									
Code	A	W									
6	<b>Roughing pump isolation valve</b>										
	without	with ISV 25									
Code	N	S									
7	<b>Turbomolecular pump venting valve</b>										
	without venting valve	with venting valve									
Code	N	V									
8	<b>Vacuum Gauge (ISO-K flange type)</b>							(5)			
	Without	With ACS 2000 Digital Display Single Channel			With ACM 2000 Color Graphic Display 3 Channels						
		AP 2004 - DN16	ACC 2009 - DN25	AHC2010 - DN25	AP 2004 - DN16	ACC 2009 - DN25	AHC2010 - DN25				
Code	0	1	2	3	7	8	9				
9	<b>Voltage</b>										
	110/130V - 50/60Hz	200/240V - 50/60Hz									
Code	F	G									
10	<b>Power cable and plug</b>										
	Japan	USA	Europe	UK	Italy	Switzerland					
Code	A	B	C	D	E	F					

(1) ATP 400 can not be ordered with RVP 2005SD and RVP 2010SD  
 (2) Oil mist eliminator is always provided with RVP only.  
 (3) ACP 40 can not be ordered with ATP 80 or ATP 100

(4) External exhaust Silencer ES255 and manual gas ballast are provided with ACPs  
 (5) Gauge with CCF are also available: please contact us.

## For example You need ...

- Turbo pack with casters **GC**
- ATP 150 turbo pump **C**
- ISO K **A**
- ACP 28 Dry primary pump **Q**
- Air cooling **A**
- No Isolation valve **N**
- Venting valve **V**
- ACM 2000/ACC 2009 **8**
- 110/130 V 50/60 hz **F**
- USA powercable **B**

= **GCCAQANV8FB0**

### Turbomolecular pump

			ATP 80	ATP 100	ATP 150	ATP 400
Primary pump	Rotary Vane Pump	RVP 2005 SD	++	++	++	
		RVP 2010 SD	++	++	++	
		RVP 2015 SD	+	+	++	++
		RVP 2021 SD	+	+	+	++
Dry pump ACP	ACP	ACP 15	+	+	++	+
		ACP 28	+	+	++	++
		ACP 40			+	++

Possible configuration  
 Recommended configuration  
 Not possible

## Accessories for Turbopack/Turbostand: Ordering Information

### Inlet and exhaust filters for rotary vane pump:

Check "Rotary Vane Pumps" brochure for selection.

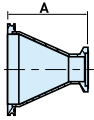


### Tee

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



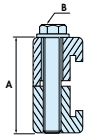
### ISO K / ISO KF Reducing Cones adapters and claw clamps



	Flange DN ISO K	Flange DN ISO KF	Dimension A (mm) Stainless steel	P/N Stainless steel	Dimension A (mm) Aluminium	P/N Aluminium
For ATP 80	63	25	50	303384	52	063268
	63	40	72.4	303323	52	063269
	63	50	72.4	303324	57	063270
For ATP 100,	100	40	61	068912	52	062900
ATP 150, ATP 400	100	50	52	068911	52	062901
For ATP 400	160	50	-	-	80	062904



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



Double claw clamps				P/N Aluminium	
ISO K - Flange DN	A (mm)	B			
63-100 - Set of 4 pcs	45	M8	<b>303056</b>		
160 - Set of 6 pcs	45	M10	<b>303057</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
For ATP 80	<b>63</b>	8	M8 x 1.25	<b>303416</b>
For ATP 100, ATP 150, ATP 400	<b>100</b>	16	M8 x 1.25	<b>303417</b>
For ATP 400	<b>160</b>	20	M8 x 1.25	<b>303418</b>

### Spool piece



Spool piece With 2 x DN 25 port 90° and one DN 16	P/N Stainless steel	Centering rings with O ring	P/N Stainless steel FPM	Blank ISO KF flanges	P/N Stainless steel	Aluminium clamps ISO KF	P/N Aluminium
DN63/DN63	Consult us	DN 16 - Set of 15 pcs	068228	DN 16	068195	DN 16	083333
DN 100/DN 100	Consult us	DN 25 - Set of 6 pcs	068229	DN 25	068196	DN 25	083264
DN 160/DN 160	Consult us						

### Special options

It is possible to provide the Turbopack/Turbostand with more complex options:

- Turbomolecular Pump isolation valve, by-pass (3 valves) ...
- ACP version G option, or RVP and ATP corrosive versions

Please contact your Adixen representative for more information.



## Turbostand 900: for large pumps

The Turbostand 900 is a high performance turbomolecular pumping System that incorporates the 900 l/s ATP 900 or 500 l/s ATH 500 M and a 33 and 63 m<sup>3</sup>/h Pascal RVP or ACP 40 Dry roughing pump.

### High Vacuum Pumps

Model	Inlet flange	Pumping Speed l/s	Ultimate pressure mbar (CFF water cooled)
ATP 900	DN 200	900	5.10 <sup>-10</sup>
ATH 500 M	DN 160	500	8.10 <sup>-9</sup>

### Primary pump

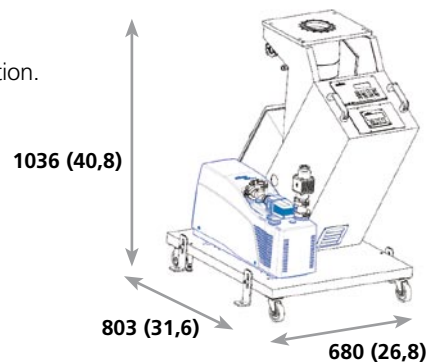
Model	Nominal Pumping Speed m <sup>3</sup> /h	Ultimate pressure without purge mbar
RVP 2033	30	3.10 <sup>-3</sup>
RVP 2063	60	3.10 <sup>-3</sup>
ACP 40	37	3.10 <sup>-2</sup>



## Ordering information

Please contact your Adixen representative for a quotation.

**Dimensions in mm (inches)**



**China**

Alcatel Vacuum  
Technology Shanghai  
Tel: (8621) 5027 0628  
Fax: (8621) 3895 3815

**France**

Alcatel Vacuum  
Technology France  
Tel: (33) 04 50 65 77 77  
Fax: (33) 04 50 65 77 89

**Germany**

Alcatel Hochvakuum  
Technik GmbH  
Tel: (49) 9342 96 10 0  
Fax: (49) 9342 96 10 30

**Italy**

Alcatel Vacuum  
Systems S.p.A.  
Tel: (39) 039 686 3855  
Fax: (39) 039 667 125

**Japan**

Alcatel-Lucent Japan Ltd  
Tel: (81) 3 6431 7130  
Fax: (81) 45 544 0049

**Korea**

Alcatel Vacuum  
Technology Korea  
Tel: (82) 31 206 6277  
Fax: (82) 31 204 6279

**Netherlands**

Alcatel Vacuum  
Technology Netherlands  
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**United Kingdom**

Alcatel Vacuum  
Technology (U.K.)  
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**USA**

Alcatel Vacuum  
Products  
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Fax: (1) 781 331 4230