



Vacuum Supply

Pumps

Units

Workstations

Application

We have vacuum pumps available of different types to meet each individual need.

Size and capacities vary from 3m³/h bis 510m³/h to guarantee optimal vacuum clamping fixtures whatever the circumstances

Advantages

- Reliable in continuous operation
- Easy to maintain
- Modular unit has integrated liquid separator
- Space saving assembly for easy access
- Integrated air filter, safety valve
- Witte repair service with spare parts in stock
- Pumps from 3m² to over 300m², also on request dry running pumps
- Liquid ring pumps run on regular machining coolant, pump temperature is regulated by an integrated radiator

Handling

- Small light pumps available according to individual need
- Integrated vacuum storage tank
- Different voltages available
- Castors available for mobility in workshop area
- Easy access for emptying liquid separator



Vacuum pumps



Vacuum Units



Modular vacuum unit



Liquid ring pumps



Triplex modular vacuum unit



Vacuum workstations

Choosing a vacuum unit or pump

Depending on your operation Witte offers different vacuum supply systems:

Handheld pumps / Pumps

are standard solution, almost all of which can be used together with our liquid separators if fluids are involved and sucked in during machining process

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Vacuum units

In addition to the pumps mentioned above the vacuum units also have an additional vacuum tank as well as various safety devices.

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Liquid ring pumps

These pumps are highly recommended when large amounts of cooling fluids are involved during the machining process and are sucked in

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Modular vacuum unit

In addition to the pump and tank the modular vacuum units also have an integrated liquid separator and various safety devices

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Area	Suction-capacity	Type	No.
<100cm ²	3m ³ /h	Vacuum pump	98585
<1200cm ²	5m ³ /h	Vacuum pump	99170
	10m ³ /h	Vacuum pump	95969
	10m ³ /h	Vacuum unit	81010
	10m ³ /h	Vacuum unit	81011
	10m ³ /h	Modular unit	80172
	10m ³ /h	Modular unit	80173
<5000cm ²	16m ³ /h	Vacuum pump	82116
	16m ³ /h	Modular unit	82146
<1m ²	21m ³ /h	Vacuum pump	80078
	21m ³ /h	Vacuum unit	80000
	21m ³ /h	Modular unit	80175
	22m ³ /h	Liquid ring pump	93801
<2m ²	63m ³ /h	Vacuum pump	80126
	63m ³ /h	Modular unit, mobile	82150
	65m ³ /h	Liquid ring pump	93803
<3m ²	100m ³ /h	Vacuum pump	84410
	100m ³ /h	Liquid ring pump	93804
<4,5m ²	160m ³ /h	Vacuum pump	84412
	160m ³ /h	Vacuum unit, mobile	84414
	232m ³ /h	Liquid ring pump	93807
	250m ³ /h	Vacuum pump	84413
	250m ³ /h	Vacuum unit, mobile	84208

Witte VAC-MAT™

No. of Mats	Required suction capacity
1	3 - 6m ³ /h
≥ 8	16 - 21m ³ /h
≥ 20	40 - 63m ³ /h
≥ 50	100 - 160m ³ /h

FLIP-POD™

Each m² of FLIP-POD™ surface requires 60-100m³/h vacuum suction

Choosing vacuum supply according to working conditions

Working conditions	Dry machining	Working with fluids
<p>Small clamping area, Small loss of vacuum Low machining forces</p>	 Handheld pump	 Handheld pump with liquid separator
<p>▼</p> <p>Larger clamping area, Higher loss of vacuum, Higher machining forces</p>	 Vacuum Unit	 Vacuum unit with liquid separator
<p>▼</p> <p>Large clamping area High loss of vacuum High machining forces</p>	 Liquid ring pump	 Liquid ring pump
<p>▼</p> <p>Very large clamping area Very high vacuum loss Very high machining forces</p>	 Modular vacuum unit	<p>Modular vacuum units and workstations are suitable for dry and lubricated machining</p>  Vacuum workstation
	 Mobile modular vacuum unit	 Vacuum unit, mobile, with automatic liquid separator

Vacuum pumps

Oil lubricated vacuum pumps offer the following advantages:

- Air-cooled, therefore do not require coolant
- Highly reliable
- Low operating costs
- Good resistance to condensation
- Integrated oil mist separator, oil filter, check valve on suction side with sieve



98585
Vacuum pump 3 m³/h



82115
Vacuum pump 16 m³/h / 10 m³/h



80126
Vacuum pump 63 m³/h



80078
Vacuum pump 21 m³/h



Supply includes:

- 3 m wire spiral hose
- 3/2 way aerated handvalve
- and vacuummeter
- Schuko/CEE-Plug with overvoltage relay included only in supplies inside Europe

Vacuum pumps

230/400 V working voltage

No.	Suction-capacity	Motor V/kw	Lubricant	max. mbar	dB (A)	lxwxh mm	Kg
98585	3 m ³ /h	230/0,12	dry	150,0	60	239x144x143	4,5
99170	5 m ³ /h	230/0,25	dry	150,0	63	172x147x143	7,9
95969	10 m ³ /h	230/0,40	oil	20,0	60	271x258x296	18,0
82115	16 m ³ /h	230/0,55	oil	20,0	60	306x226x182	18,0
82116	16 m ³ /h	400/0,55	oil	20,0	60	306x226x182	18,0
80156	21 m ³ /h	230/0,75	oil	20,0	62	410x230x225	19,0
80078	21 m ³ /h	400/0,75	oil	20,0	62	410x230x225	19,0
80126	63 m ³ /h	400/1,5	oil	0,1	65	602x406x225	52,0
84410	100 m ³ /h	400/3,0	oil	0,1	67	692x406x290	70,0
84412	160 m ³ /h	400/5,5	oil	0,5	70	834x478x407	140,0
84413	250 m ³ /h	400/5,5	oil	0,5	72	957x523x407	190,0

Vacuum Duplex Unit with Tank and electronic control unit.
 Different configuration available on request -
 also for centralized use



Vacuum units

Operating vacuum required can be produced in many ways.

Witte vacuum units feature the following:

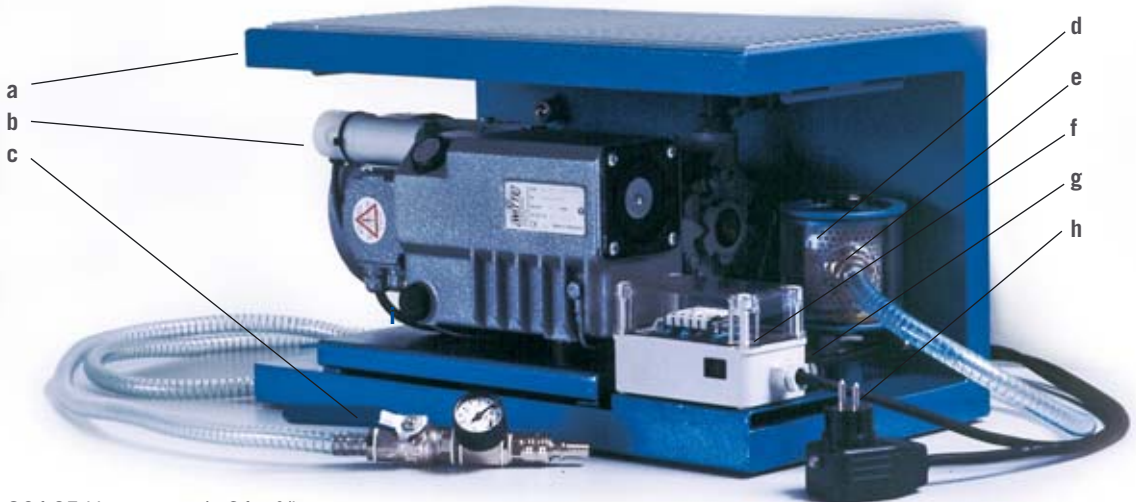
- Oil lubricated vacuum pumps with an end vacuum rate of 20mbar absolute at full suction capability of i.e. 3 m³ upto 250 m³ per hour
- Integrated pressure difference switch, which automatically switches the vacuum pump on or off thereby ensuring vacuum during machining but avoiding unnecessary idle running
- Protection switch which protects electric motor from overheating
- Air filter which protects pump from dirt (made of acrylic glass with exchangeable air filter cartridge)
- Careful assembly of compatible components guarantee trouble-free and almost maintenance-free operation using Witte vacuum units in many applications
- Drainage screw for coolants which have been sucked in
- 3m connecting cable with CEE or Schuko plug

The standard components of these tried and tested vacuum units are:

- a. Vacuum storage tank
- b. Oil lubricated vacuum pump
- c. Vacuum valve unit
- d. Air filter
- e. Vacuum hose connector
- f. Pressure difference switch
- g. On/off switch
- h. Electric cable with plug
- i. Overload protection

Supply includes:

- 1 Pce connection unit complete with
- Vacuum gauge
 - 3/2 way hand valve
 - 3m vacuum hose with quick coupling
 - Schuko/CEE-Plug with overvoltage relay included only in supplies inside Europe



80165 Vacuum unit 21m³/h

Vacuum units

230/400 V working voltage

No.	Suction-capacity	Motor V/kw	mobile	max. mbar	dB (A)	l x w x h mm	Kg
81010	10 m ³ /h	230/0,37	-	20	59	555x315x325	19
85323	16 m ³ /h	230/0,55	-	20	60	555x315x325	44
85324	16 m ³ /h	400/0,55	-	20	60	555x315x325	44
80165	21 m ³ /h	230/0,75	-	20	62	555x315x325	45
80000	21 m ³ /h	400/0,75	-	20	62	555x315x325	45
80001	63 m ³ /h	400/1,5	-	0,1	65	800x500x530	105
92302	100 m ³ /h	400/3	+	0,1	67	1200x800x1240	130
84414	160 m ³ /h	400/5,5	+	0,5	70	1200x800x1350	200
84208	250 m ³ /h	400/5,5	+	0,5	72	1200x800x1350	250



Vacuum unit with automatic liquid separator, see also p. 87



84208 Mobile vacuum unit

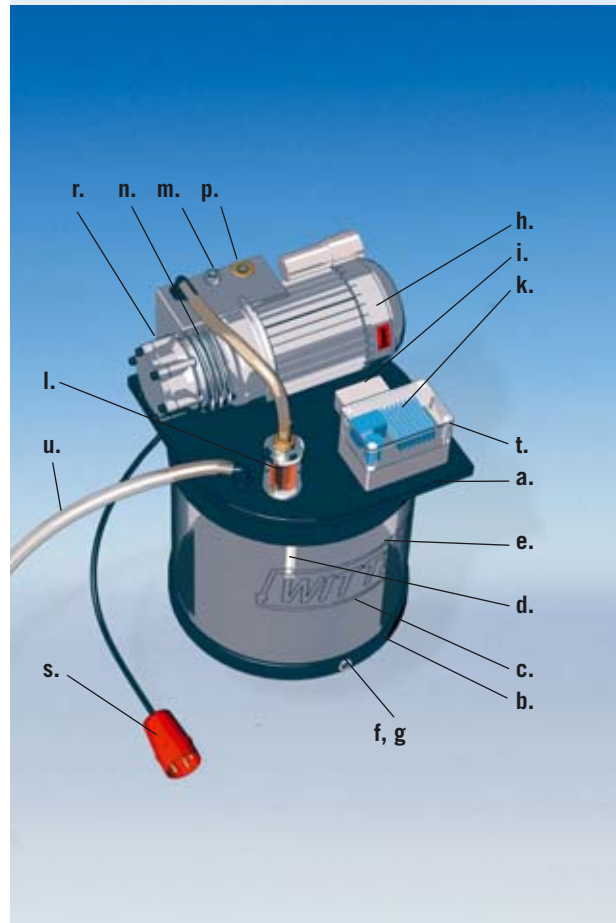
Modular vacuum units

Advantages:

- Vacuum storage unit and liquid separator are integrated - an additional liquid separator is not required
- Space saving assembly of all components
- See-through unit for liquid separator and vacuum storage unit all in one means safety "at a glance"
- Different storage volumes possible simply by changing acrylic glass cylinder
- Integrated air filter, drain separator, overvoltage relay, pressure difference switch
- Available with different pump types from 6 m³ to 63 m³, on request also available with dry running pumps

- | | |
|----|--|
| a. | Storage accumulator cover |
| b. | Storage accumulator bottom |
| c. | Acrylic glass cylinder |
| d. | Threaded stud |
| e. | Mist collector |
| f. | Profile seal |
| g. | Drainage plug |
| h. | E-motor |
| i. | Pressure difference switch |
| k. | Circuit relay |
| l. | Airfilter |
| m. | Oil filling plug |
| n. | Vacuum pump |
| p. | Exhaust air valve |
| r. | Oil level gauge |
| s. | Schuko/CEE-Plug with overvoltage relay
(In Europe only) |
| t. | On/off switch |
| u. | Wire spiral hose |

All pumps and units are also available in 110V/60Hz.





82150 Modular unit 63 m³/h, (mobile)

Modular vacuum units

230/400 V working voltage

No.	Suction-capacity	Motor V/kw	mobile	max. mbar	dB (A)	l x w x h mm	Kg
80172	10 m ³ /h	230/0,37	-	20	59	∅500x630	25
82147	16 m ³ /h	230/0,55	-	20	60	∅500x630	31
82146	16 m ³ /h	400/0,55	-	20	60	∅500x630	31
80174	21 m ³ /h	230/0,75	-	20	62	∅500x630	45
80175	21 m ³ /h	400/0,75	-	20	62	∅500x630	45
82150	63 m ³ /h	400/1,5	+	0,1	65	600x600x1030	95
83467	100 m ³ /h	400/3	+	0,1	67	700x700x1130	113

All pumps oil lubricated. Dry running pumps for modular units are available on request
All pumps and units are also available in 110V/60Hz.



Supply includes:

1 Pce. connection unit complete with

- Vacuum gauge
- 3/2 way hand valve
- 3m vacuum hose with quick coupling
- Schuko/CEE-Plug with overvoltage relay included only in supplies inside Europe





Roller bar vacuum system for precision machining pre-formed aluminium sheets



Vacuum clamping chuck for bottle caps as used in quality control.

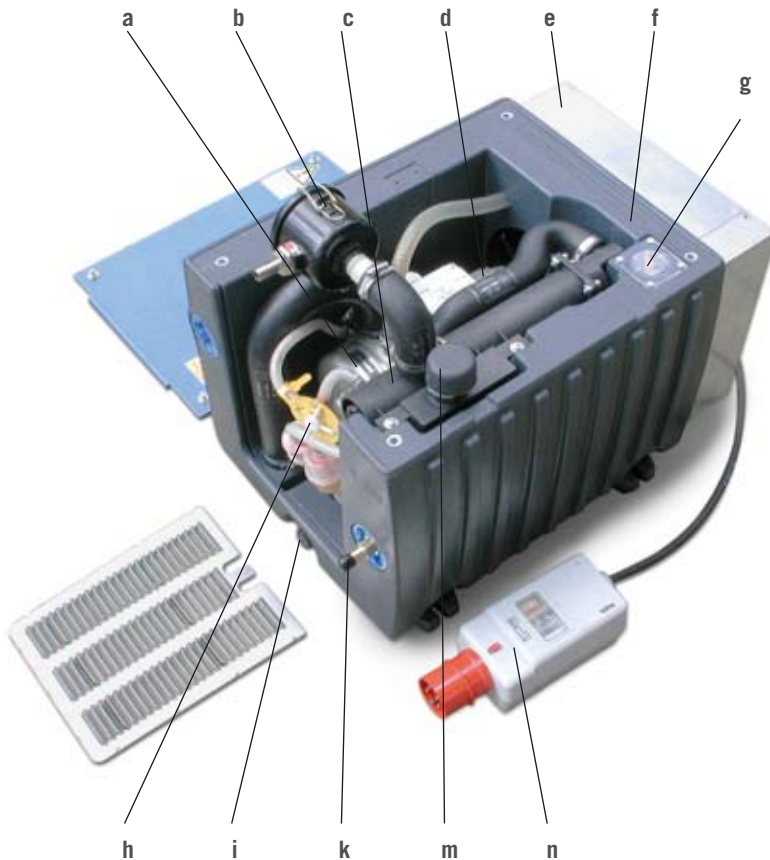
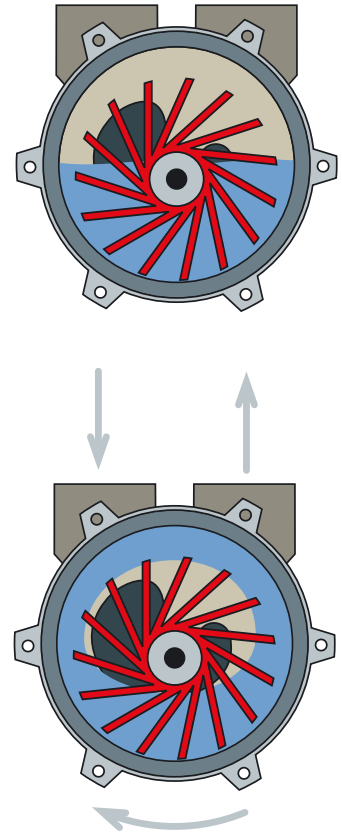


2 Rotating systems (each 3500mm) with vacuum clamping areas on all four sides for machining aluminium profiles

Liquid ring vacuum pumps

Only one unit for vacuum supply and liquid separation

These robust pumps, are low on wear-and-tear and maintenance, work at up to 50 mbar vacuum and do not need an additional liquid separator. A fast turning impeller causes water in the pump to rotate (see picture on right) simultaneously sealing itself off the impeller. A washable filter and a patented condenser clean the air being sucked in before it enters the pump. Cooling lubricant is integrated into pump's operating cycle and a valve allows removal of excess fluid which can be returned to tool machine whilst in operation. An air chiller protects the unit from overheating.



- a Liquid ring vacuum pump
- b Suction filter
- c Condenser
- d Motor
- e Chiller
- f Fluid reservoir
- g Level indicator
- h Operation selection
- i Drain plug
- k Valve
- m Air release valve
- n Shockproof plug

Liquid ring vacuum pump

230/400 V working voltage

No.	Dimensions h x w x l	Suction cap.	Motor, V/kW
93801	463 x 432 x 602	22m ³ /h	3ph. 400 Volt 50/60 HZ, 0,83/1,06kW
93802	515 x 572 x 743	45m ³ /h	3ph. 400 Volt 50/60 HZ, 1,2/1,6kW
93803	515 x 572 x 743	65m ³ /h	3ph. 400 Volt 50/60 HZ, 2,4/3,5kW
93804	525 x 620 x 920	100m ³ /h	3ph. 400 Volt 50/60 HZ, 3,5/5,2 kW
93805	710 x 845 x 1100	150m ³ /h	3ph. 400 Volt 50/60 HZ, 4,0/6,2 kW
93806	710 x 845 x 1100	198m ³ /h	3ph. 400 Volt 50/60 HZ, 5,5/8,2 kW
93807	710 x 845 x 1100	232m ³ /h	3ph. 400 Volt 50/60 HZ, 7,4/11,4 kW

Liquid ring vacuum pump

Accessories

No.	Name	For Pump	Version
13468	Air filter Element 3µm, polyester	Type 22	washable
13469	Air filter Element 3µm, polyester	Type 45-100	washable
13470	Air filter Element 3µm, polyester	Type 150-196	washable
13471	Air filter Element 3µm, polyester	Type 232	washable

Supply includes:

1 Pce. connection unit complete with

- Vacuum gauge
- 3/2 way hand valve
- 3m vacuum hose with quick coupling
- Schuko/CEE-Plug with overvoltage relay included only in supplies inside Europe



Vacuum workstations

Vacuum workstation for mobile use in the workshop, with integrated vacuum pump, liquid separator, 3-fold vacuum distributor, connectors and gauges

- Vacuum storage tank, pressure difference switch and safety appliance guarantee a triple safety factor
- Solid steel design on castors also have drawers for vacuum chucks and accessories
- Vacuum workstations have oil lubricated vacuum pumps

No.	Suction-capacity	Motor V/kw	mobile	max. mbar	dB (A)	l x w x h mm	Kg
81045	21 m ³ /h	400/0,75	+	20	62	1150x650x1050	205
81046	63 m ³ /h	400/1,5	+	20	65	1150x650x1050	215

Also available as 110V/60 Hz unit

Supply includes:

- 1 maintenance and service kit
- 5 l liquid separator
- 10m wire spiral hose
- 1 safety appliance
- 5m electro cable with CEE-plug 10A



Valve units

No.	Type	For hose ϕ
82291	T-shape	6mm
82292	T-shape	12mm
80102	straight	12mm
82519	straight	18mm
82952	straight	24mm
82902	straight	32mm
82953	straight	50mm



Supply includes:

- 1 Pce 3/2 way aerated hand valve
- 3m Vacuum suction hose with wire spiral
- 1 Pce vacuummeter
- 2 Pcs vacuum hose connectors

Additional vacuum tank

- for increasing vacuum storage volume of units
- acts as additional filter and separator for dirt or fluid
- reduces actual running time of vacuum pump

No.	lxwxh	Connection	Volume/ l	kg
80410	555x315x325	Inner thread G 3/4"	54	18
80379	800x500x530	Inner thread G 3/4"	210	30



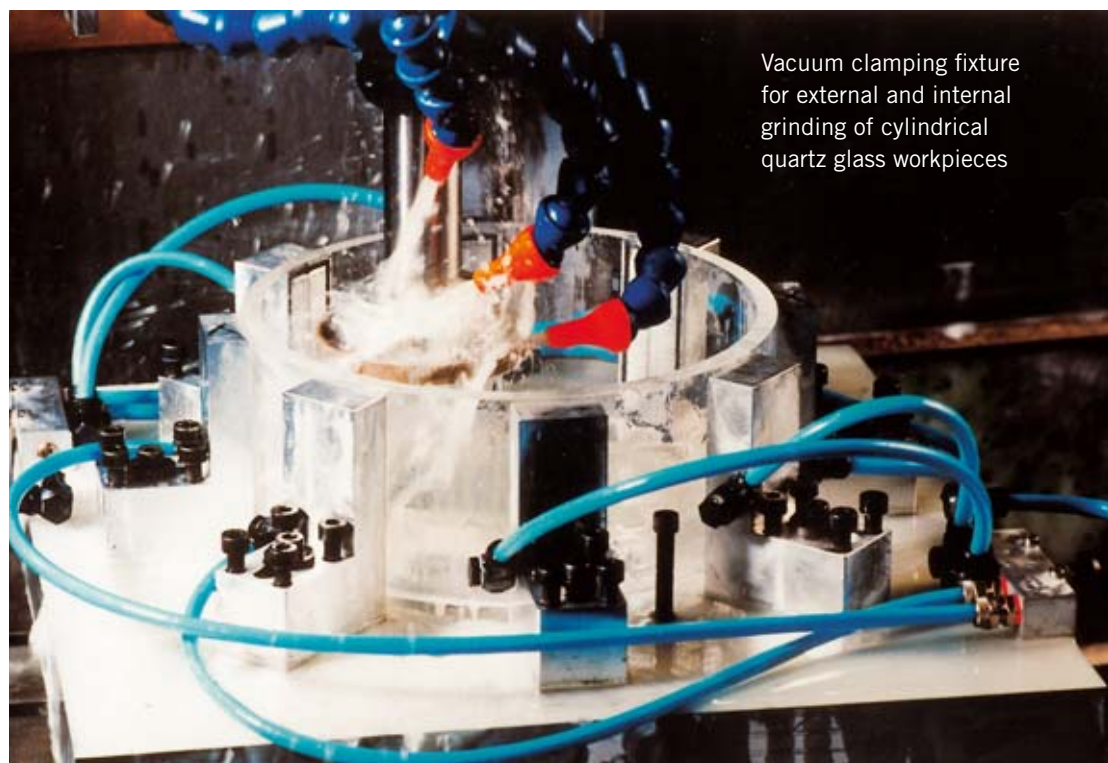
The tank is equipped with two viewing glasses. Dirt and fluid can be seen and drained immediately.

Maintenance and service kits

Maintenance and service kits for regular care of vacuum units and pumps

For pump/unit with suction capacity	Wear parts kit	Service kit	Gasket kit
10m ³ /h - 16m ³ /h	280711	82151	280721
21m ³ /h	280712	80416	280722
63m ³ /h - 100m ³ /h	280713	80417	280723
160m ³ /h	280714	280698	15202
250m ³ /h	280715	280699	15205
Comprising of:	Wear parts, Gaskets	Filter elements, gaskets, oil	Gaskets

Naturally maintenance and service can be carried out in our premises



Vacuum clamping fixture
for external and internal
grinding of cylindrical
quartz glass workpieces



Vacuum Starter Set

No. 94078, Witte Vacuum-Starter-Set, ready to use including all materials to run

Supply includes:

No.	Pcs.	Name
95969	1	Vacuum pump, 10m ³ /h, 230V
81995	1	Vac-Mat adapterplate
89676	1	Modular vakuum grid chuck
11030	5	Vac-Mat – blue
11053	5	Vac-Mat – green
30617	2	Clamps for clamping plates onto worktable
28331	1	Setting up tool for joining modular vacuum tables
00070	1	10 meters O-shaped seal diameter 4 mm

All items needed to operate this kit i.e., spiral vacuum hose and connectors are included