WHY BUY THE DUROVAC™ ELEVATOR™ VACUUM?

The ELEVATOR™ is an industrial vacuum system designed to fill bulka bags, Gaylord boxes, and plastic totes. It can be used as a **portable**, or it can be connected to a piping system without modification and used as a **central vacuum**.

It's a DuroVac™!

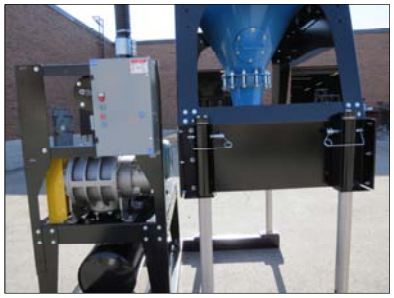
We take our name seriously. So the ELEVATOR™ works with **the lowest possible maintenance costs**.

To do that the system needs to work perfectly. Our reps are the best of the best, and they'll help you select the most reliable system possible.

The people at DuroVac™ have over 160 years combined experience. Our mission is to design the world's most robust and reliable vacuums. Then we back up everything we sell with the world's best warranty - who else guarantees filter life?

It's Compact & Versatile

- The ELEVATOR™ has an astonishingly small footprint, so you can set up almost anywhere.
- Its **"take-anywhere" frame** is easily portable by fork lift truck. The largest is just 1800 Kg!
- Need a "ready to go" central vac? You'll save thousands in installation costs because everything is pre-wired, factory tested, and ready to work.
- In most cases connection to compressed air for filter cleaning is not required to operate properly.



It's Easy to Use

- Disconnect power from the mains, coil the cable and you're ready to move the ELEVATOR™ by lift truck.
- It's **fast and simple to setup and tear down**. Just set the pins, slip a hopper or bag underneath, and you're done.
- The frames can be supplied with bolt down pads when used as a permanent central vac.

Its Filters Actually Work!

- Handle just about any dry powder, pellet, or granule reliably.
- Collect ultra-fine powders with **the most trouble free filters in the industry**. Some of our customers have had their machines TEN YEARS and not yet replaced filters!

It's Fully Configurable

- Configure for continuous or batch discharge.
- **Safely handle explosive materials** indoors or out with NFPA 68 and 654 compliant hardware.
- Available in all world voltages in a dust tight and weather tight IP56 / NEMA 4 panel
- Add an inline or HEPA filter.

It's a Positive Displacement Vacuum

- A positive displacement pump pulls harder and delivers higher vacuum as the hose fills.
- Get industrial duty vacuum, 540 mbar
- Constant velocity means you'll move huge tonnage and easily support very long hoses
- A P.D. vacuum pump means you'll have a more reliable, "clog free" central vac.
- Handle very dense, heavy material

Capabilities & Specifications

	EL20	EL25	EL30	EL40
Hose Size (mm) Density < 800 kg/m^3 Longest Hose 125m [1.]	1 x 75 2 x 50 4 x 38	1 x 88 5 x 38	1 x 100 3 x 50 6 x 38	1 x 125 2 x 65 4 x 50
Hose Size (mm) Density < 1600 kg/m^3 Longest Hose 90m [1.]	1 x 65 1 x 50 3 x 38	1 x 75 2 x 50 4 x 38	1 x 88 3 x 50 5 x 38	1 x 100 2 x 65 3 x 50
Performance (MTPH) [2.]	3.15	3.60	4.05	5.40
Power (kW)	15	18	23	30
Airflow (inlet m3/hr)	680	892	1104	1461
Vacuum (mbar)	542	542	542	542
Standard Filter Area (m2)	7.9	7.9	7.9	11.2
Pulse Filter Areas (m2)	11.1	11.1	11.1	19.5
HEPA Filter	Option	Option	Option	Option
Hopper Size (L) [3.]	200	200	200	200
Noise Level (dBa)	82	85	87	85
Empty Mass (Kg)	1072	1160	1300	1400

1. **Longest hose** includes piping, if applicable. DuroVac "performance" is built into these recommendations!
2. **MTPH** based on dry sand with 16m of hose. Decrease (increase) by 1.5 kg/min/m for longer (shorter) hose.
3. For greater capacity, configure with a continuous discharge valve like a rotary air lock.

HOW TO CONFIGURE THE DUROVAC™ ELEVATOR™

General Notes

The ELEVATOR™ is an industrial duty vacuum cleaning system designed to discharge collected material into a bulka bag, Gaylord box, or plastic tote. As such, the materials it is designed to collect are *generally* fine powders, pellets, and granules between 400 and 2000 kg/m^3. For sand, gravels, metal chips, steel shot and other abrasive material not normally stored or disposed of in bags anyway, the DuroVac™ PowerLift® Series vacuum is the better choice.

Typical materials include:

Density <800 kg/m^3	**Density <1200 kg/m^3**	**Density <1600 kg/m^3**
Carbon Black	TiO2	Phosphates
Flour	Pigments & Oxides	Salts
Plastic Pellet	Gypsum	Ore Concentrates (Powder)
Wood Dust	Wood Chips	Lead Oxide

Material may be continuously or batch discharged. For material that bridges easily like wood chips or carbon black, or where a large volume of material needs to be collected, use a continuous discharge valve like a rotary air lock or a flap gate valve. In either case, **a level switch is included as standard equipment**.

Filtration

Of all materials listed above, ONLY the wood dust and chips can NOT be handled by the standard DuroVac™ filter system. The standard filters are *so effective* and *last so long* that we actually **guarantee the filters for TWO YEARS**. A system that works perfectly and that does NOT require connection to plant air is highly desirable for any place that does not have compressed air in the area (often the case for a portable), or that has low quality air, or that does not have good capability to maintain a pulse system.

Configure as a pulse cleaned system when:

1. IF the system is configured with a continuous discharge valve.
2. IF the system is being used as a central vacuum system.
3. IF the dust is fibrous like wood dust or chips. Configure with overbags as well.
4. IF the dust is combustible and explosive.

ALL DuroVac™ filters are 100% grounded PTFE 99.95% at 0.5µ efficient and meet the conductivity requirements of NFPA 654 and DIN 54345 Part 5. For classified dusts like lead oxide, configure the system with a HEPA filter, 99.97% at 0.3 micron efficiency.

Combustible Dust

The ELEVATOR™ is the only *portable* industrial duty vacuum of this size to be NFPA 68-2013 and 654-2013 compliant as a standard configuration. When used to collect combustible dust, the K_{st} and P_{max} must be submitted by customer. In general however, the EL Series system is suitable for CL1 dusts as standard, and up to CL3 dusts as “consult factory” options.

Both a NFPA compliant continuous discharge valve AND an inline filter must be used for combustible dust. If the system is to be used as a portable, a flameless vent must be used to counter the reaction force of an explosive "release". Only with a **bolted-down, central vacuum frame** may a system without a flameless vent be used.

The explosion vent ships standard with a burst vent shut down switch and the required Intrinsically Safe 24V relay. The inline filter is required to stop burning embers from releasing before the vacuum pump stops its inertial rotation (since the event is over in microseconds). Combustible material must not be stored within the vessel; it must be continuously discharged per the 2013 version of NFPA 654.

Be aware that a system protected against internal explosion is different from an "explosion proof" vacuum. The standard system is designed to operate in an atmosphere rated for CL 2, Div 2 electrical devices. For this environment IP56 / NEMA 4(X) enclosures and TEFC motors are satisfactory. Only Div 1 classified areas require full explosion proof electrical enclosures and motors.

Final Notes

The unique ELEVATOR™ combines fast and simple setup and industrial class vacuum with a compact, take-anywhere frame. It is UL, C-UL & CE compliant with documentation. It is designed to ship anywhere in the world, and so it is required to be bullet-proof reliable.

We are **so confident of the quality** and the indestructible design that we offer by far the best warranty in the business. We even guarantee our filters!