

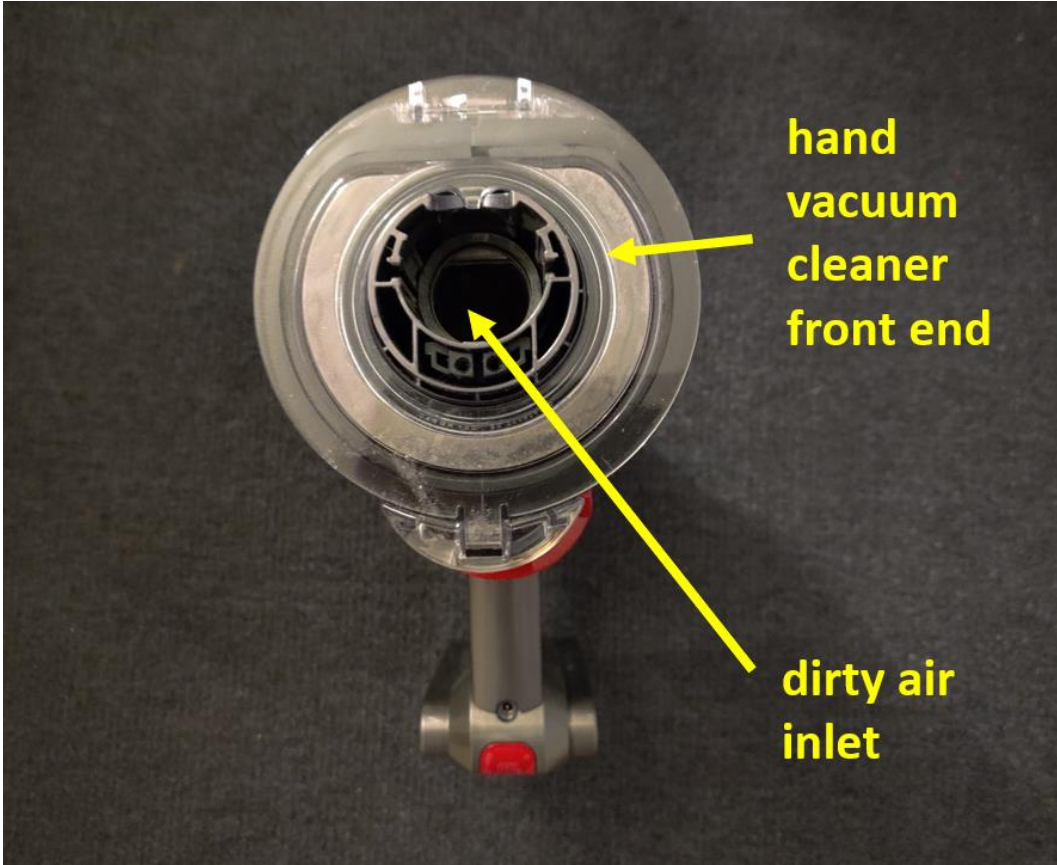
EXHIBIT 28

Pursuant to 19 C.F.R. § 210.12(a)(9)(viii), below is a chart that applies asserted independent claims 1 and 12 U.S. Patent No. 11,910,983 (“the ’983 Patent”) to the accused Dyson V15 Detect (referred to herein as the “Dyson V15”). Based on currently available information, the Dyson V15 is representative of all products accused of infringing the ’983 Patent. The arguments and evidence cited in the chart below are representative and Complainants reserve the right to rely on additional arguments and evidence to show that the Accused Products infringe the asserted claims of the ’983 Patent.

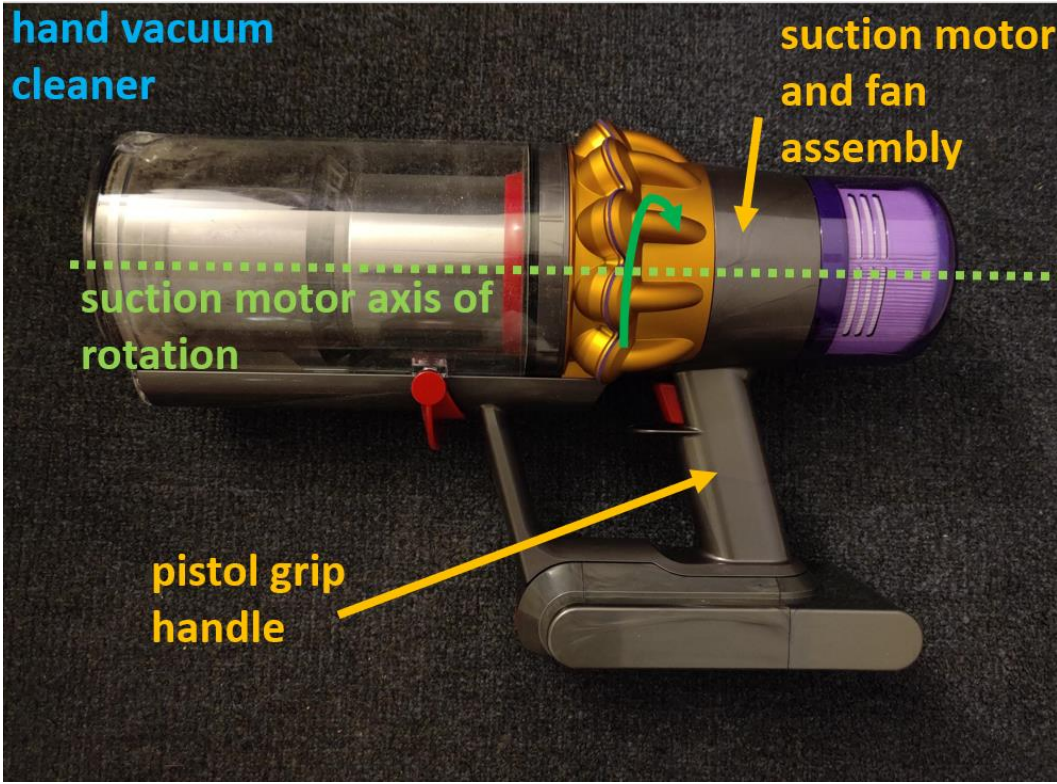
Claim Element	Dyson V15
1. A surface cleaning apparatus comprising	To the extent the preamble is limiting, the Dyson V15 is a surface cleaning apparatus. For example, the below image shows that the Dyson V15 is a surface cleaning apparatus.  Whole-home cleaning versatility The versatility of Dyson cordless vacuum technology, tools, and accessories makes deep cleaning your whole home from floor to ceiling easier. https://www.dyson.com/vacuum-cleaners/cordless/v15 (last accessed Apr. 2, 2024).
(a) a hand vacuum cleaner having a front end having a dirty air inlet, a rear end, a clean air	The Dyson V15 comprises a hand vacuum cleaner, having a front end having a dirty air inlet, a rear end, a clean air outlet, an upper end, a lower end, a cyclone unit comprising a cyclone

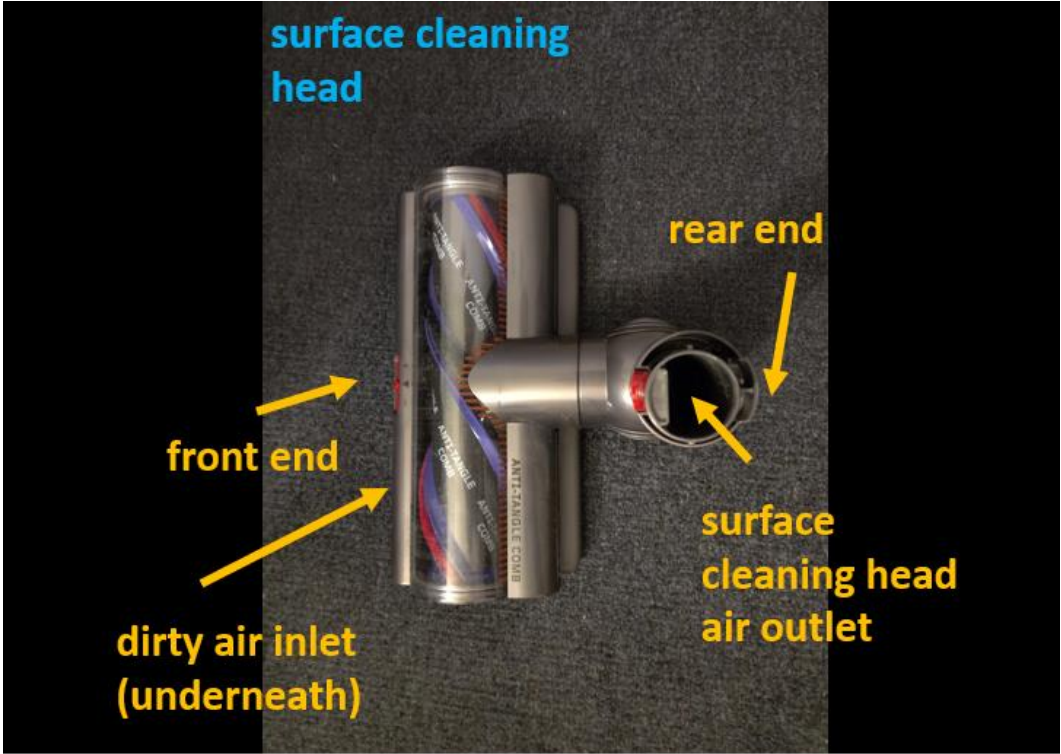
Claim Element	Dyson V15
outlet, an upper end, a lower end, a cyclone unit comprising a cyclone chamber having a cyclone axis of rotation that extends in a forward/rearward direction, a suction motor and fan assembly having a suction motor axis of rotation and a pistol grip handle;	chamber having a cyclone axis of rotation that extends in a forward/rearward direction, a suction motor and fan assembly having a suction motor axis of rotation and a pistol grip handle. For example, the annotated image below shows that the Dyson V15 comprises a hand vacuum cleaner. https://www.dyson.com/vacuum-cleaners/cordless/v15 (last accessed Apr. 2, 2024). Furthermore, the annotated images below show that the Dyson V15 comprises a hand vacuum cleaner having a front end having a dirty air inlet, a rear end, a clean air outlet, an upper end, and a lower end.

Claim Element	Dyson V15
	The image shows a Dyson V15 cordless stick vacuum cleaner lying horizontally on a dark, textured surface. The device is composed of several main sections: a transparent dust bin at the front, a gold-colored motor unit in the middle, and a purple and grey rear section. Yellow arrows point to specific parts: 'front end' points to the front of the dust bin; 'upper end' points to the top of the motor unit; 'lower end' points to the bottom of the motor unit; 'rear end' points to the back of the purple section; and 'clean air outlet' points to the circular vents on the purple section. The text 'hand vacuum cleaner' is written in blue at the top left of the image area. Photo of Dyson V15 (annotated).

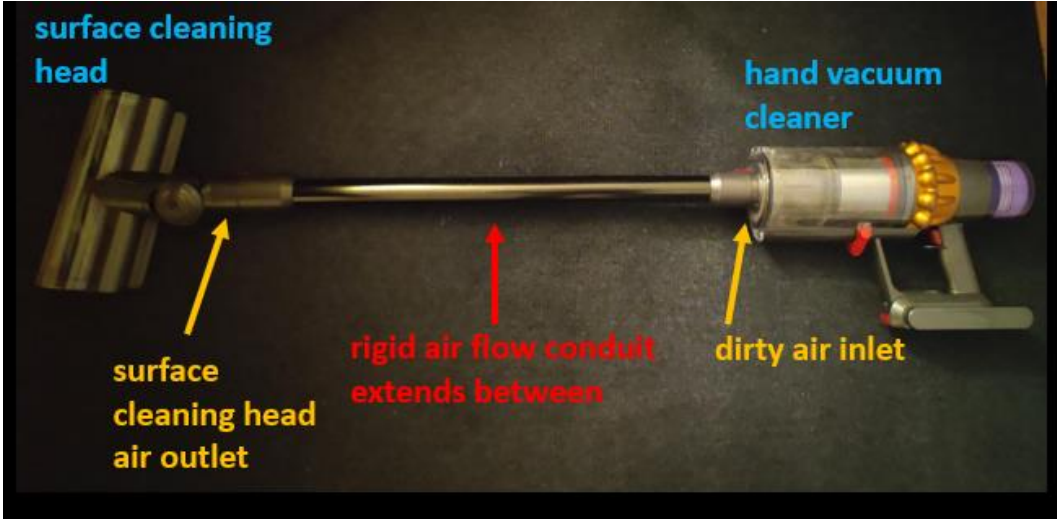
Claim Element	Dyson V15
	 Photo of Dyson V15 (annotated). The annotated image below shows that the hand vacuum of the Dyson V15 has a cyclone unit comprising a cyclone chamber having a cyclone axis of rotation that extends in a forward/rearward direction.

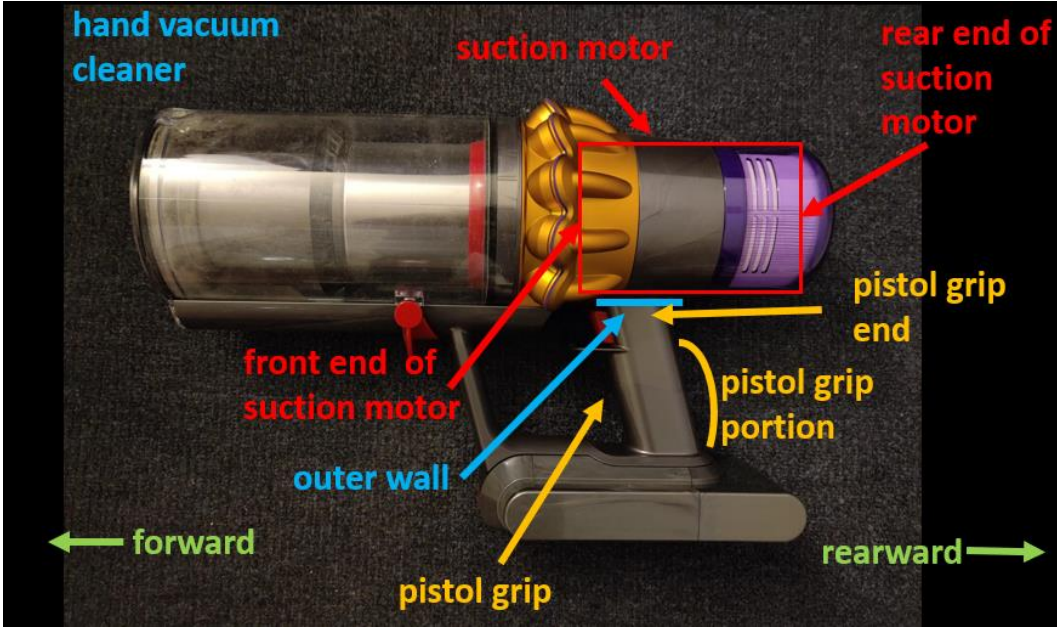
Claim Element	Dyson V15
	The image shows a side profile of a Dyson V15 stick vacuum. The main body is transparent, revealing internal components. A red arrow points to the 'cyclone chamber' inside the main tube. Another red arrow points to the 'cyclone unit' at the base of the tube. A green dashed line runs horizontally through the center of the tube, labeled 'cyclone axis of rotation'. The word 'frontward' is written in yellow at the left end of the tube, and 'rearward' is written in yellow at the right end. The motor and fan assembly are visible at the rear (right) end. The entire unit is labeled 'hand vacuum cleaner' in blue at the top left. Photo of Dyson V15 (annotated). The annotated image below shows that the hand vacuum of the Dyson V15 has a suction motor and fan assembly having a suction motor axis of rotation and a pistol grip handle.

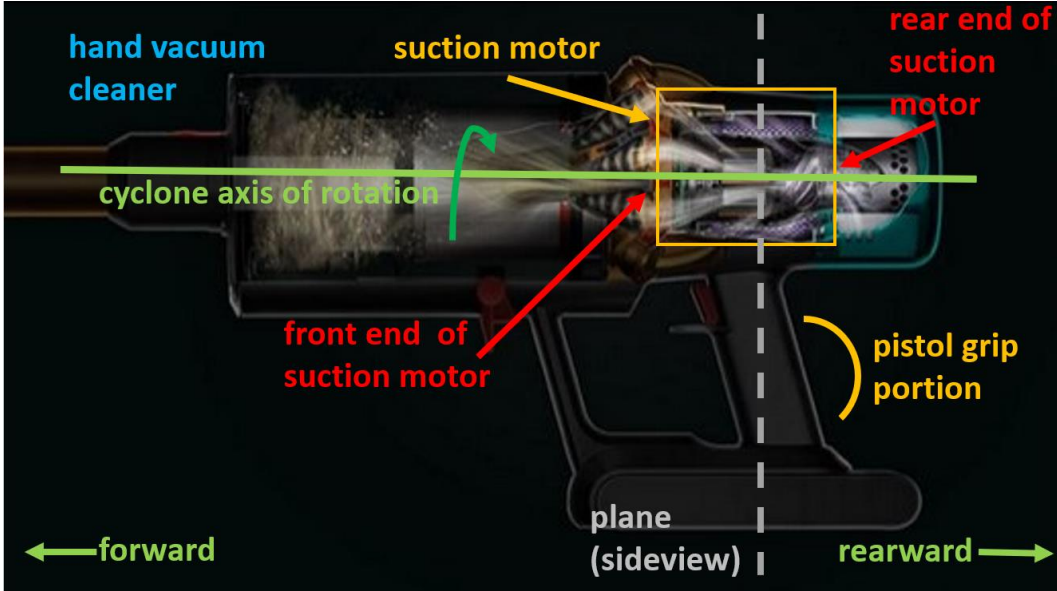
Claim Element	Dyson V15
	 Photo of Dyson V15 (annotated).
(b) a surface cleaning head having a front end, a rear end, a dirty air inlet and a surface cleaning head air outlet; and,	The Dyson V15 comprises a surface cleaning head having a front end, a rear end, a dirty air inlet and a surface cleaning head air outlet. For example, the annotated images below show this element in the Dyson V15.

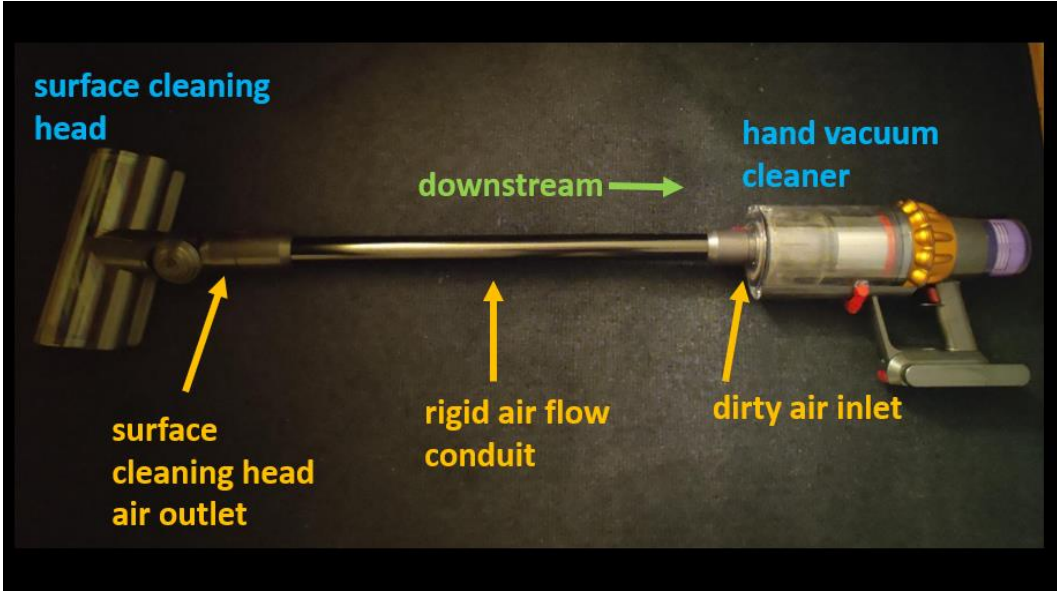
Claim Element	Dyson V15
	 Photo of Dyson V15 (annotated).

Claim Element	Dyson V15
	 The image shows a close-up of the Dyson V15 surface cleaning head. A blue label 'surface cleaning head' points to the top of the head. A yellow arrow points to a red, ribbed component labeled 'dirty air inlet'. The head is open, revealing internal components including a blue and red wavy air flow conduit and three 'ANTI-TANGLE COMB' brushes. Photo of Dyson V15 (annotated).
(c) a rigid air flow conduit which, when mounted to the surface cleaning head and the hand vacuum cleaner, extends between the surface cleaning head air outlet and the dirty air inlet of the hand vacuum cleaner,	The Dyson V15 comprises a rigid air flow conduit which, when mounted to the surface cleaning head and the hand vacuum cleaner, extends between the surface cleaning head air outlet and the dirty air inlet of the hand vacuum cleaner. For example, the annotated image below shows this element in the Dyson V15.

Claim Element	Dyson V15
	 Photo of Dyson V15 (annotated).
wherein the pistol grip handle has a pistol grip portion and an end that is mounted to an outer wall of the hand vacuum cleaner at a location rearward of the front end and forward of a rear end of the suction motor and	The Dyson V15 comprises a pistol grip handle having a pistol grip portion and an end that is mounted to an outer wall of the hand vacuum cleaner at a location rearward of the front end and forward of a rear end of the suction motor. For example, the annotated image below shows this element in the Dyson V15.

Claim Element	Dyson V15
	 Photo of Dyson V15 (annotated).
wherein a plane that is transverse to the cyclone axis of rotation extends through the pistol grip portion and the hand vacuum cleaner at a location rearward of the front end and forward of a rear end of the suction motor,	The Dyson V15 is configured such that there is a plane that is transverse to the cyclone axis of rotation that extends through the pistol grip portion and the hand vacuum cleaner at a location rearward of the front end and forward of a rear end of the suction motor. For example, the annotated image below shows this element in the Dyson V15.

Claim Element	Dyson V15
	 https://www.dyson.com/vacuum-cleaners/cordless/v15/detect-absolute-hepa-gold (annotated) (last accessed Apr. 2, 2024).
wherein the dirty air inlet of the hand vacuum cleaner is removably drivingly mountable to a downstream end of the rigid air flow conduit whereby when the hand vacuum cleaner is mounted to the downstream end of the rigid air flow conduit, the pistol grip handle is a driving handle for the surface cleaning apparatus, and	The dirty air inlet of the hand vacuum cleaner Dyson V15 is removably drivingly mountable to a downstream end of the rigid air flow conduit whereby when the hand vacuum cleaner is mounted to the downstream end of the rigid air flow conduit, the pistol grip handle is a driving handle for the surface cleaning apparatus For example, the annotated images below show this element in the Dyson V15.

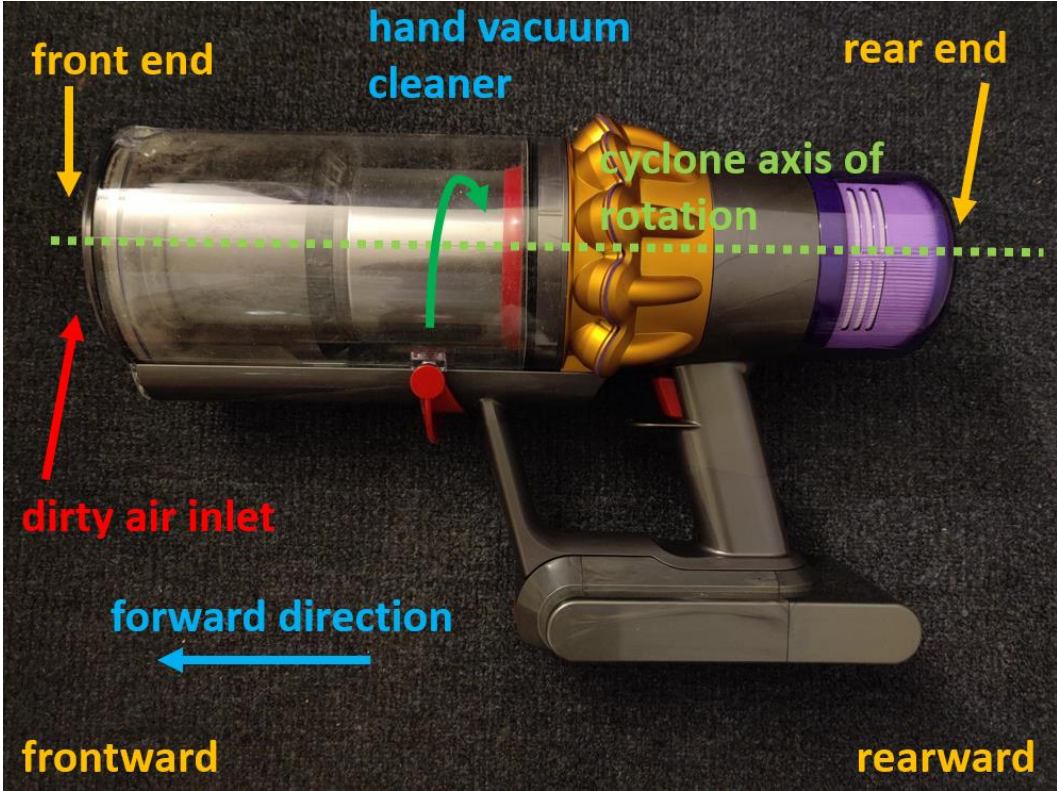
Claim Element	Dyson V15
	 The image shows a Dyson V15 stick vacuum cleaner with several components labeled in blue and yellow text. A green arrow labeled "downstream" points from left to right, indicating the direction of airflow. The components labeled in blue are the "surface cleaning head" at the front and the "hand vacuum cleaner" at the rear. The components labeled in yellow are the "surface cleaning head air outlet" (pointing to the front of the head), the "rigid air flow conduit" (pointing to the long tube), and the "dirty air inlet" (pointing to the rear of the motor unit). Photo of Dyson V15 (annotated).

Claim Element	Dyson V15
	 Photo of Dyson V15 (with rigid air conduit mounted to the dirty air inlet of the hand vacuum cleaner).

Claim Element	Dyson V15
	 Photo of Dyson V15 (with rigid air conduit removed from the dirty air inlet of the hand vacuum cleaner).

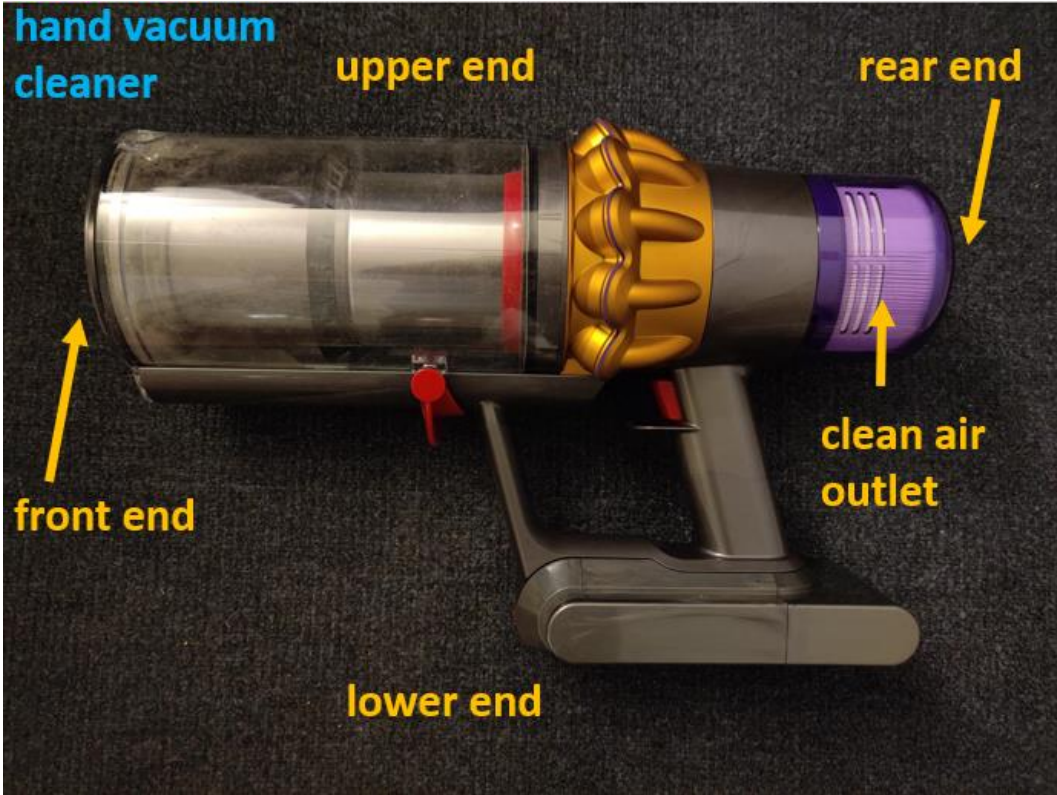
Claim Element	Dyson V15
	 https://www.dyson.com/vacuum-cleaners/cordless/v15/detect-absolute-hepa-gold (showing that when the hand vacuum cleaner is mounted to the downstream end of the rigid air flow conduit, the pistol grip handle is a driving handle for the surface cleaning apparatus) (last accessed Apr. 2, 2024).

Claim Element	Dyson V15
	 https://www.dyson.com/vacuum-cleaners/cordless/v15/detect-absolute-hepa-gold (showing that when the hand vacuum cleaner is mounted to the downstream end of the rigid air flow conduit, the pistol grip handle is a driving handle for the surface cleaning apparatus) (last accessed Apr. 2, 2024).
wherein when the hand vacuum cleaner is positioned with the front end of the hand vacuum cleaner in front of the rear end of the hand vacuum cleaner and the dirty air inlet faces forwardly, the cyclone axis of rotation is generally horizontal.	When the hand vacuum cleaner of the Dyson V15 is positioned with the front end of the hand vacuum cleaner in front of the rear end of the hand vacuum cleaner and the dirty air inlet faces forwardly, the cyclone axis of rotation is generally horizontal. For example, the annotated image below shows this element in the Dyson V15.

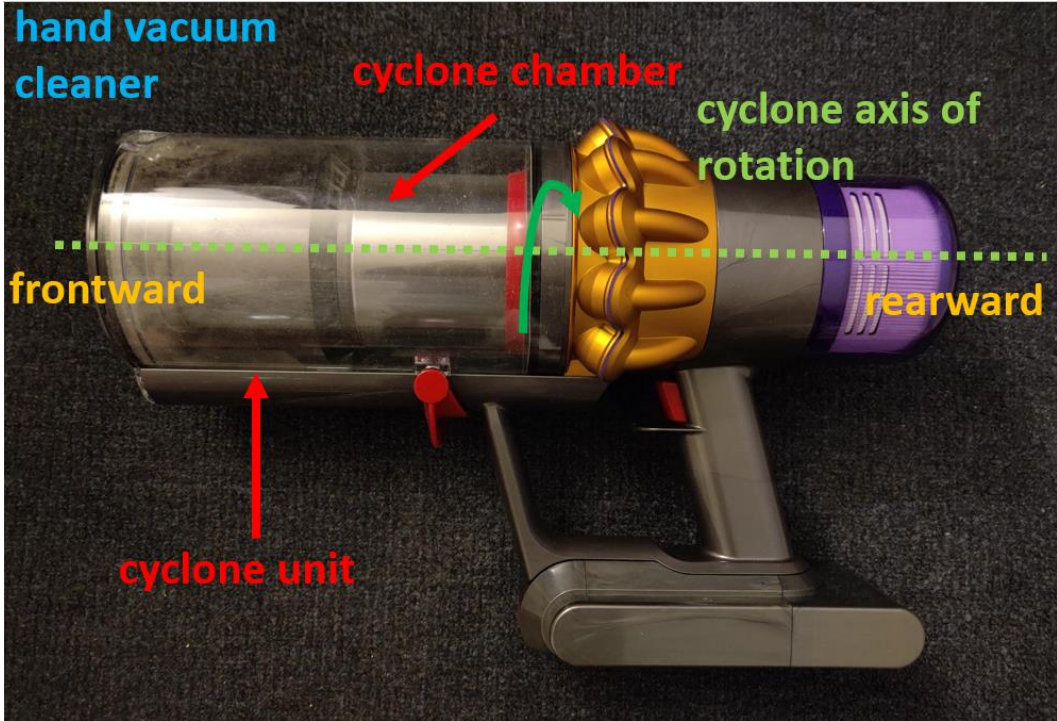
Claim Element	Dyson V15
	 Photo of Dyson V15 (annotated).
12. A surface cleaning apparatus comprising:	To the extent the preamble is limiting, the Dyson V15 is a surface cleaning apparatus. For example, the image below shows that the Dyson V15 is a surface cleaning apparatus.

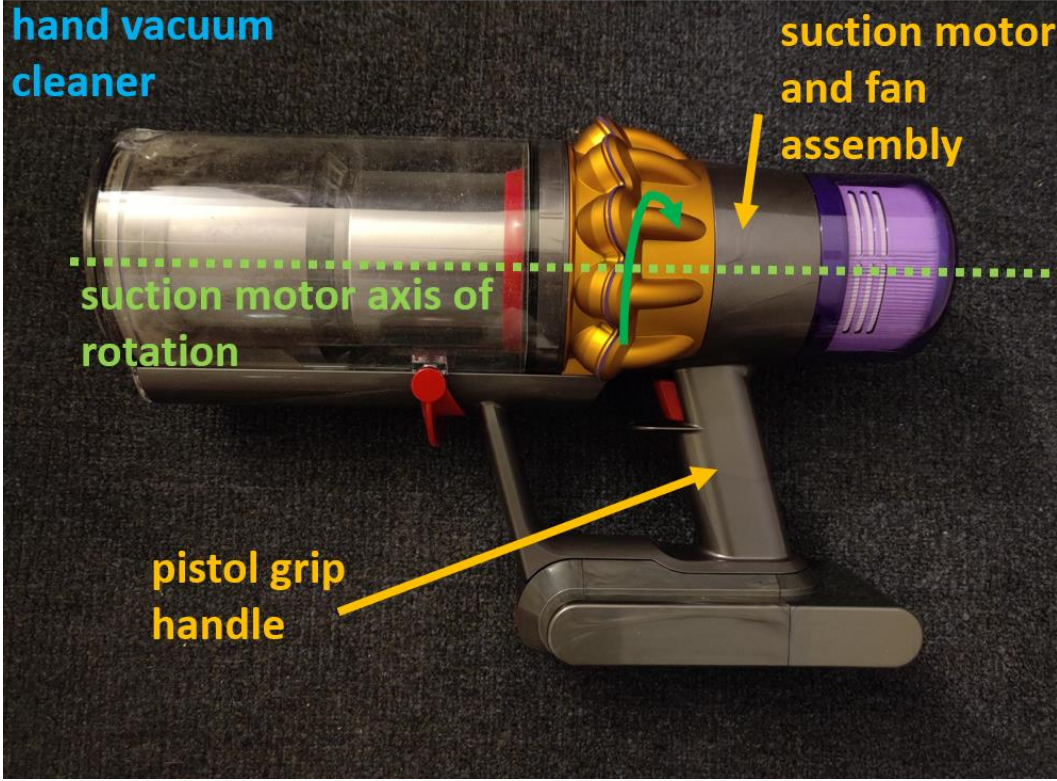
Claim Element	Dyson V15
	 Whole-home cleaning versatility The versatility of Dyson cordless vacuum technology, tools, and accessories makes deep cleaning your whole home from floor to ceiling easier. https://www.dyson.com/vacuum-cleaners/cordless/v15 (last accessed Apr. 2, 2024).
(a) a hand vacuum cleaner having a front end having a dirty air inlet, a rear end, a clean air outlet, an upper end, a lower end, a cyclone unit comprising a cyclone chamber having a cyclone axis of rotation that extends in a forward/rearward direction when the dirty air inlet faces forwardly, a suction motor and fan assembly having a suction motor axis of rotation and a pistol grip handle, wherein the suction motor axis of	The Dyson V15 comprises a hand vacuum cleaner, having a front end having a dirty air inlet, a rear end, a clean air outlet, an upper end, a lower end, a cyclone unit comprising a cyclone chamber having a cyclone axis of rotation that extends in a forward/rearward direction, a suction motor and fan assembly having a suction motor axis of rotation and a pistol grip handle. For example, the image below shows that the Dyson V15 comprises a hand vacuum cleaner.

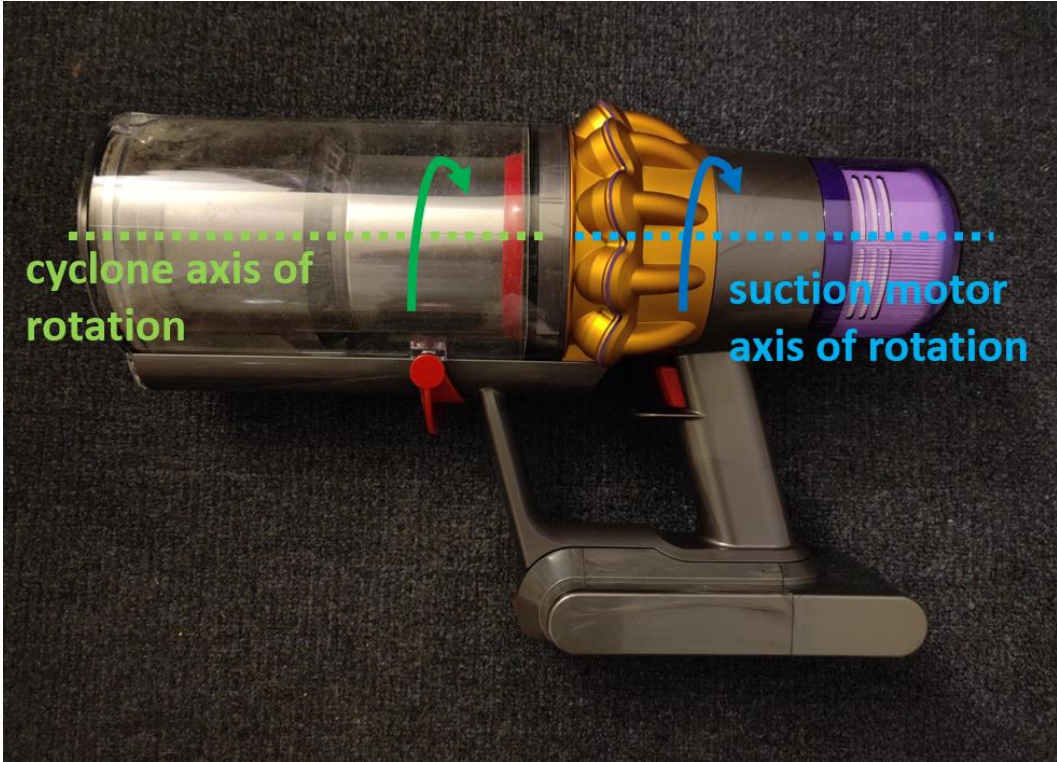
Claim Element	Dyson V15
rotation is generally parallel to the cyclone axis of rotation;	https://www.dyson.com/vacuum-cleaners/cordless/v15 (last accessed Apr. 2, 2024). The annotated images below show that the Dyson V15 comprises a hand vacuum cleaner having a front end having a dirty air inlet, a rear end, a clean air outlet, an upper end, and a lower end.

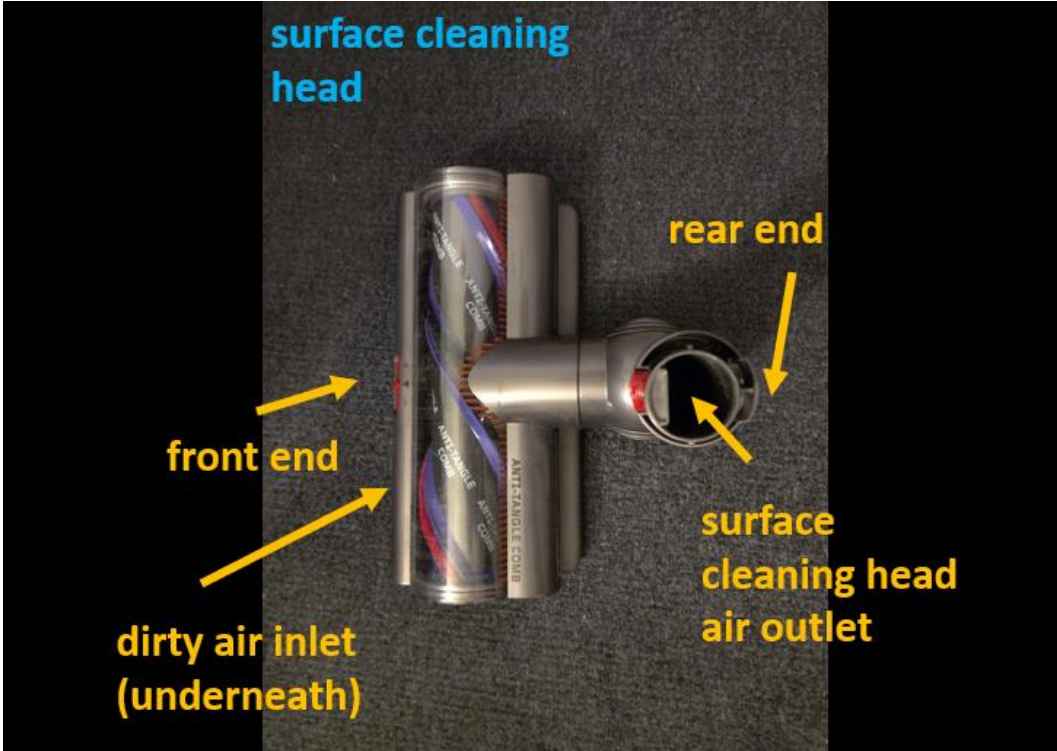
Claim Element	Dyson V15
	 The image shows a side profile of a grey and gold Dyson V15 stick vacuum. It is annotated with yellow text and arrows. 'hand vacuum cleaner' is in blue text at the top left. 'front end' points to the clear dust bin. 'upper end' points to the gold motor housing. 'rear end' points to the purple HEPA filter. 'clean air outlet' points to the bottom of the filter. 'lower end' points to the motor housing and handle area. Photo of Dyson V15 (annotated).

Claim Element	Dyson V15
	Photo of Dyson V15 (annotated). The annotated image below shows that the hand vacuum of the Dyson V15 has a cyclone unit comprising a cyclone chamber having a cyclone axis of rotation that extends in a forward/rearward direction when the dirty air inlet faces forwardly.

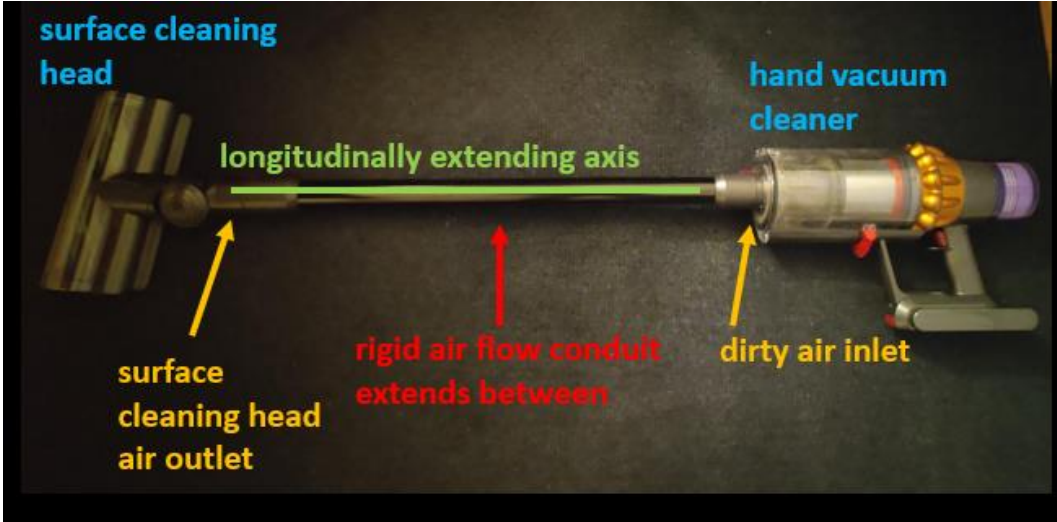
Claim Element	Dyson V15
	 The image shows a side profile of a Dyson V15 stick vacuum. The main body is transparent, revealing internal components. A red arrow points to the 'cyclone chamber' inside the main tube. Another red arrow points to the 'cyclone unit' at the base of the tube. A green dashed line runs horizontally through the center of the tube, labeled 'cyclone axis of rotation'. The word 'frontward' is written in yellow on the left side of the tube, and 'rearward' is written in yellow on the right side. The handle is black and has a red trigger switch. The motor housing is purple and gold. Photo of Dyson V15 (annotated). The annotated image below shows that the hand vacuum of the Dyson V15 has a suction motor and fan assembly having a suction motor axis of rotation and a pistol grip handle.

Claim Element	Dyson V15
	 hand vacuum cleaner suction motor and fan assembly suction motor axis of rotation pistol grip handle Photo of Dyson V15 (annotated).
wherein the suction motor axis of rotation is generally parallel to the cyclone axis of rotation;	The Dyson V15 comprises a hand vacuum cleaner wherein the suction motor axis of rotation is generally parallel to the cyclone axis of rotation. For example, the annotated image below shows this element in the Dyson V15.

Claim Element	Dyson V15
	 Photo of Dyson V15 (annotated).
(b) a surface cleaning head having a front end, a rear end, a dirty air inlet and a cleaning head air outlet; and,	The Dyson V15 comprises a surface cleaning head having a front end, a rear end, a dirty air inlet and a surface cleaning head air outlet. For example, the annotated images below show this element in the Dyson V15.

Claim Element	Dyson V15
	 surface cleaning head front end dirty air inlet (underneath) rear end surface cleaning head air outlet Photo of Dyson V15 (annotated).

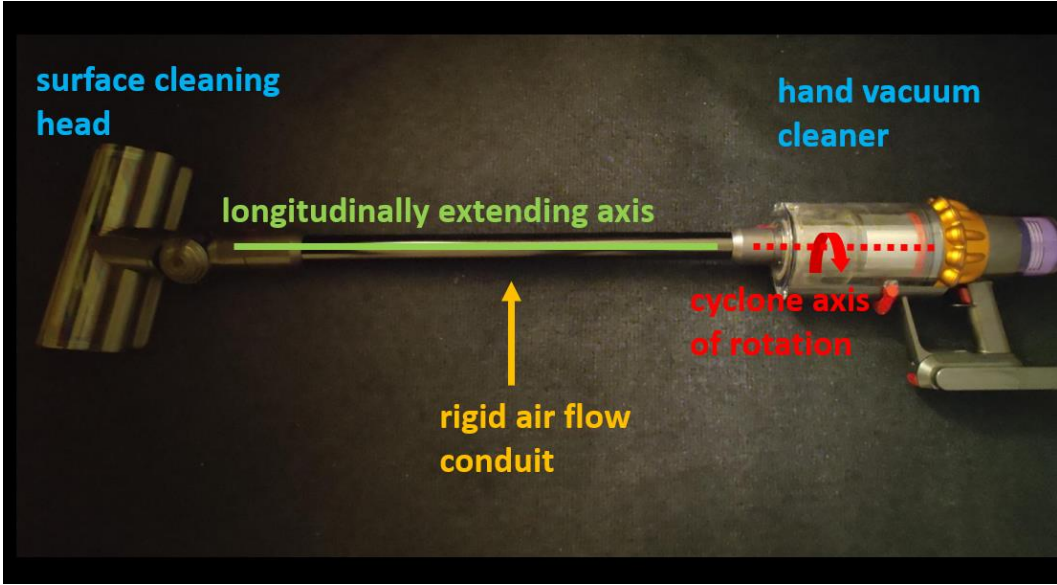
Claim Element	Dyson V15
	 The image shows the internal components of a Dyson V15 cleaning head. A blue rigid air flow conduit is visible, running longitudinally through the head. A yellow arrow points to the 'dirty air inlet' at the rear of the head. The text 'surface cleaning head' is written in blue at the top left, and 'dirty air inlet' is written in yellow at the bottom right. The conduit is labeled 'ANTI-TANGLE COMB'. Photo of Dyson V15 (annotated).
(c) a rigid air flow conduit which is mountable between the cleaning head air outlet and a hand vacuum cleaner air inlet, the rigid air flow conduit having a longitudinally extending conduit axis,	The Dyson V15 comprises a rigid air flow conduit which is mountable between the cleaning head air outlet and a hand vacuum cleaner air inlet, the rigid air flow conduit having a longitudinally extending conduit axis. For example, the annotated image below shows this element in the Dyson V15.

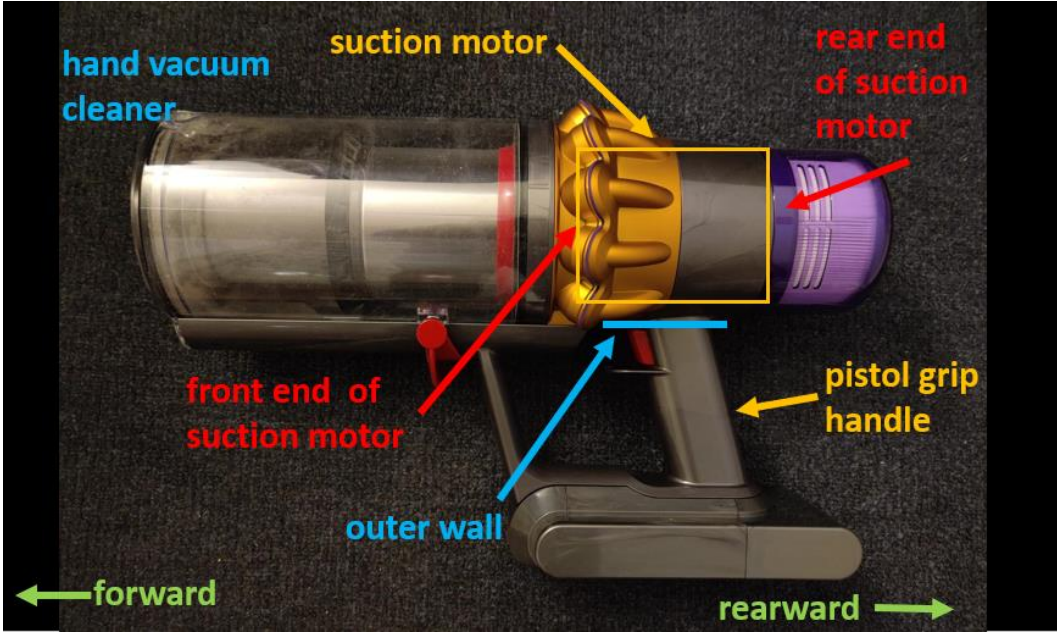
Claim Element	Dyson V15
	 Photo of Dyson V15 (annotated).
wherein when the hand vacuum cleaner is mounted to the downstream end of the rigid air flow conduit, the handle is a driving handle for the surface cleaning apparatus and	When the hand vacuum cleaner of the Dyson V15 is mounted to the downstream end of the rigid air flow conduit, the handle is a driving handle for the surface cleaning apparatus. For example, the annotated images below show this element in the Dyson V15.

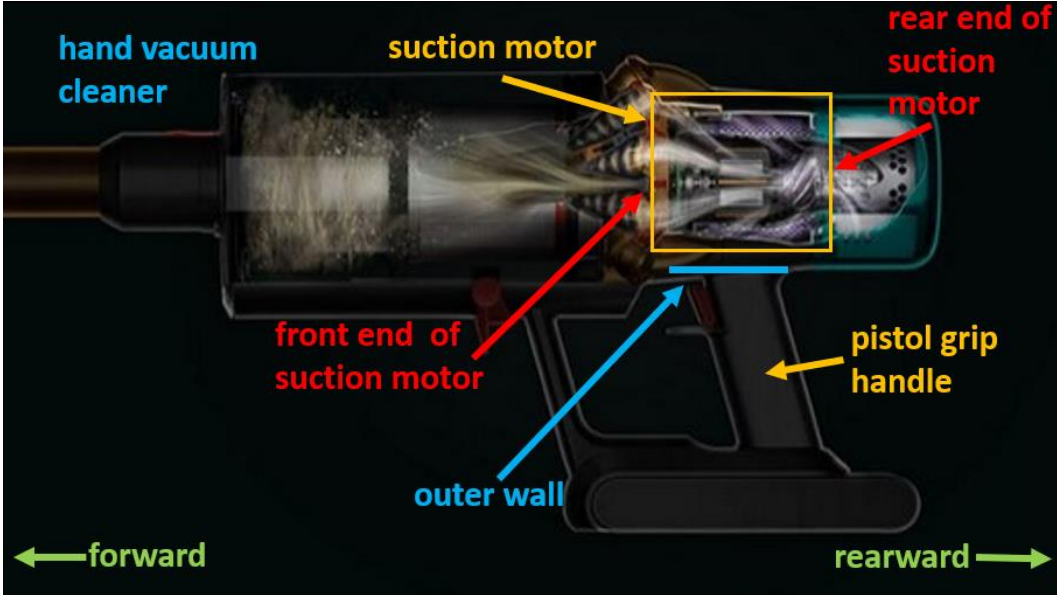
Claim Element	Dyson V15
	The image shows a Dyson V15 stick vacuum cleaner lying horizontally. It is annotated with several labels and arrows to indicate its components and airflow. At the left end is the 'surface cleaning head' (labeled in blue). A yellow arrow points to the 'surface cleaning head air outlet' (labeled in yellow). A long, thin 'rigid air flow conduit' (labeled in yellow) connects the head to the motor unit on the right. A green arrow labeled 'downstream' (labeled in green) points from the head towards the motor unit. At the right end, a yellow arrow points to the 'dirty air inlet' (labeled in yellow), which is part of the 'hand vacuum cleaner' (labeled in blue). The entire image is set against a dark background. Photo of Dyson V15 (annotated).

Claim Element	Dyson V15
	 https://www.dyson.com/vacuum-cleaners/cordless/v15/detect-absolute-hepa-gold (showing that when the hand vacuum cleaner is mounted to the downstream end of the rigid air flow conduit, the pistol grip handle is a driving handle for the surface cleaning apparatus) (last accessed Apr. 2, 2024).

Claim Element	Dyson V15
	 https://www.dyson.com/vacuum-cleaners/cordless/v15/detect-absolute-hepa-gold (showing that when the hand vacuum cleaner is mounted to the downstream end of the rigid air flow conduit, the pistol grip handle is a driving handle for the surface cleaning apparatus) (last accessed Apr. 2, 2024).
the longitudinally extending conduit axis of the rigid air flow conduit is parallel to the cyclone axis of rotation,	When the Dyson V15 hand vacuum cleaner is mounted to the downstream end of the rigid air flow conduit, the longitudinally extending conduit axis of the rigid air flow conduit of the Dyson V15 is parallel to the cyclone axis of rotation. For example, the annotated image below shows this element in the Dyson V15.

Claim Element	Dyson V15
	 Photo of Dyson V15 (annotated).
and wherein the pistol grip handle extends generally radially away from an outer wall of the hand vacuum cleaner at a location rearward of the front end and forward of a rear end of the suction motor.	The Dyson V15 comprises a pistol grip handle that extends generally radially away from an outer wall of the hand vacuum cleaner at a location rearward of the front end and forward of a rear end of the suction motor. For example, the annotated images below show this element in the Dyson V15.

Claim Element	Dyson V15
	 The image is a photograph of a Dyson V15 hand vacuum cleaner, annotated with colored text and arrows to identify specific components and orientation. The vacuum is shown horizontally against a dark background. The main body is a clear, cylindrical dust container. To the right of the container is the motor assembly, which is yellow and black. The handle is black and has a pistol grip shape. The following components are labeled with arrows: hand vacuum cleaner: A blue label pointing to the entire device. suction motor: A yellow label pointing to the yellow motor housing. rear end of suction motor: A red label pointing to the back of the motor housing. front end of suction motor: A red label pointing to the front of the motor housing. pistol grip handle: A yellow label pointing to the black handle. outer wall: A blue label pointing to the clear dust container. forward: A green label with a left-pointing arrow indicating the front direction. rearward: A green label with a right-pointing arrow indicating the rear direction. Photo of Dyson V15 (annotated).

Claim Element	Dyson V15
	 The diagram is a cross-sectional view of a hand vacuum cleaner. It shows a cylindrical body with a motor and internal components. A yellow box highlights the motor area. Labels with arrows point to various parts: 'hand vacuum cleaner' (blue), 'suction motor' (yellow), 'rear end of suction motor' (red), 'front end of suction motor' (red), 'pistol grip handle' (yellow), 'outer wall' (blue), 'forward' (green arrow pointing left), and 'rearward' (green arrow pointing right). The diagram illustrates the internal structure and airflow of the vacuum cleaner. https://www.dyson.com/vacuum-cleaners/cordless/v15/detect-absolute-hepa-gold (annotated) (last accessed Apr. 2, 2024).