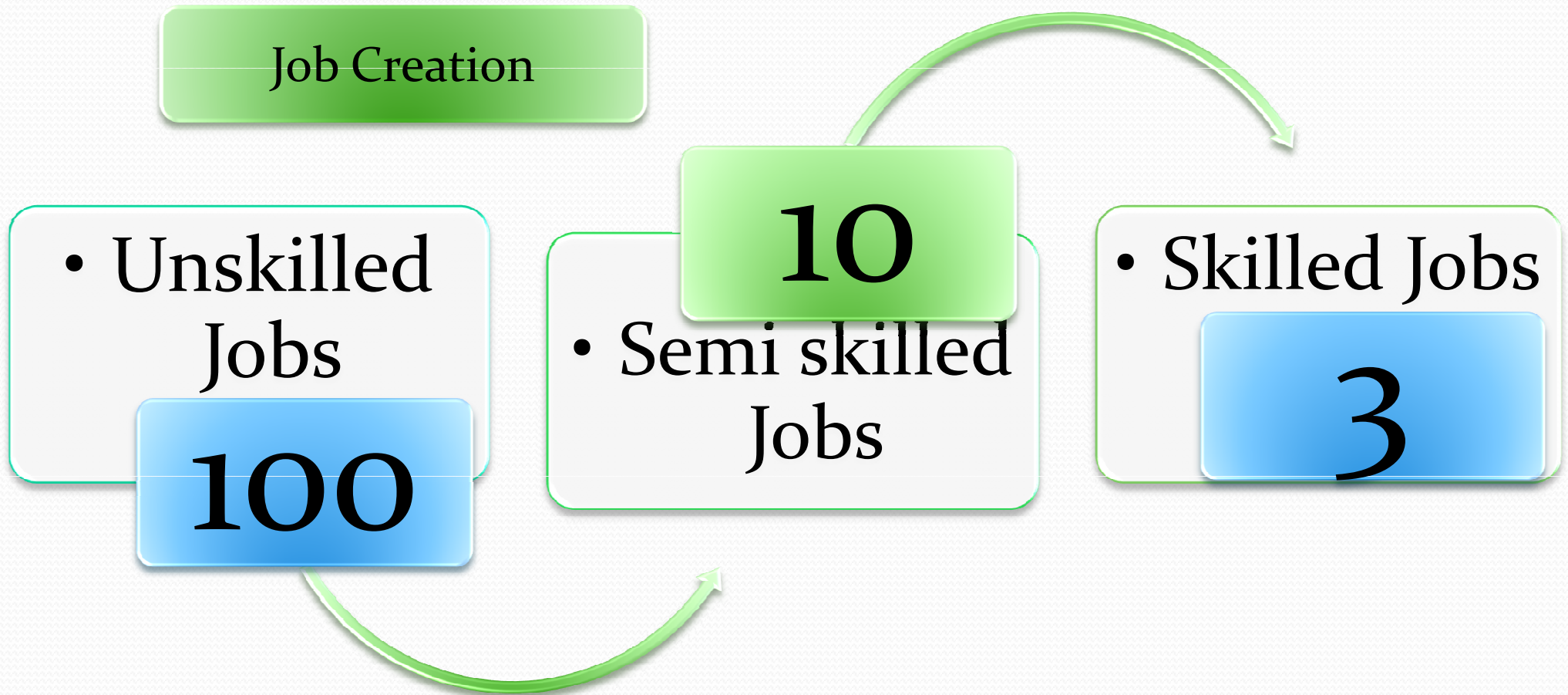


Socio Economic Factors



Beta test unit results

The methodology of the testing for which these results are based was acquired by the following:

- The prototype was built as one self-contained, re-circulatory unit housing +/- 12m³ of air volume.
- The air flow was +/- 0.5m³/second at a speed of +/- 2m/s, producing a 24 second air change over 10 membranes.

Single Air passage results (10 membrane scrub):

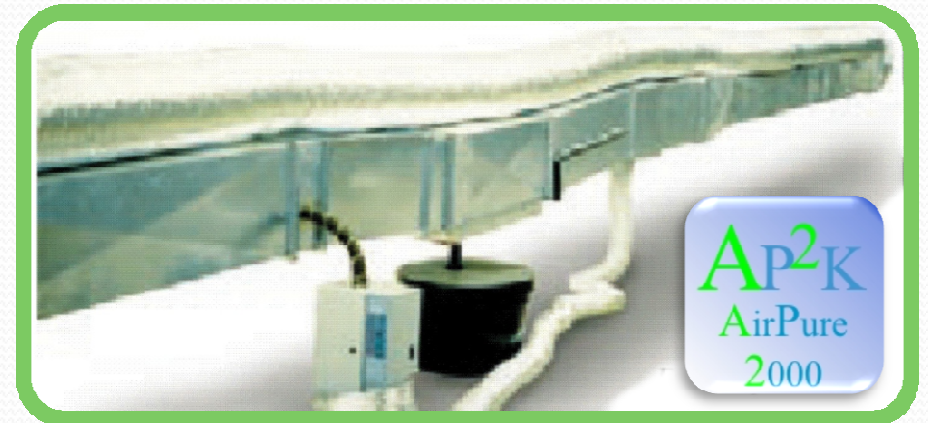
- Fine Dust Particles 99.9% elimination
- Coarse Dust Particles 99.9% elimination
- Bacterial microbes 99.9% elimination

5 x cycles (130 membrane scrub):

- Hexane 38.37% elimination 1825.6 ppm 1125 ppm -700.6 ppm
- Acetone 98.75% elimination 2941.2 ppm 36.6 ppm -2904.6 ppm

24 x Cycle (600 membrane Scrub):

- Sulphur dioxide (SO₂) 58% elimination
- Carbon monoxide (CO) 76% elimination
- Oxygen (O₂) 0.5% increase
- Nitrogen dioxide (NO₂) 91% elimination



Whilst these results were very exciting, we have modeled the AP₂K to these results, noting that there is an immediate reduction of bacterial microbes and dust particulates, we altered the flows to accommodate a single passage across the analytical points in the new units.

The
United
States
of
America



**The Director of the United States
Patent and Trademark Office**

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

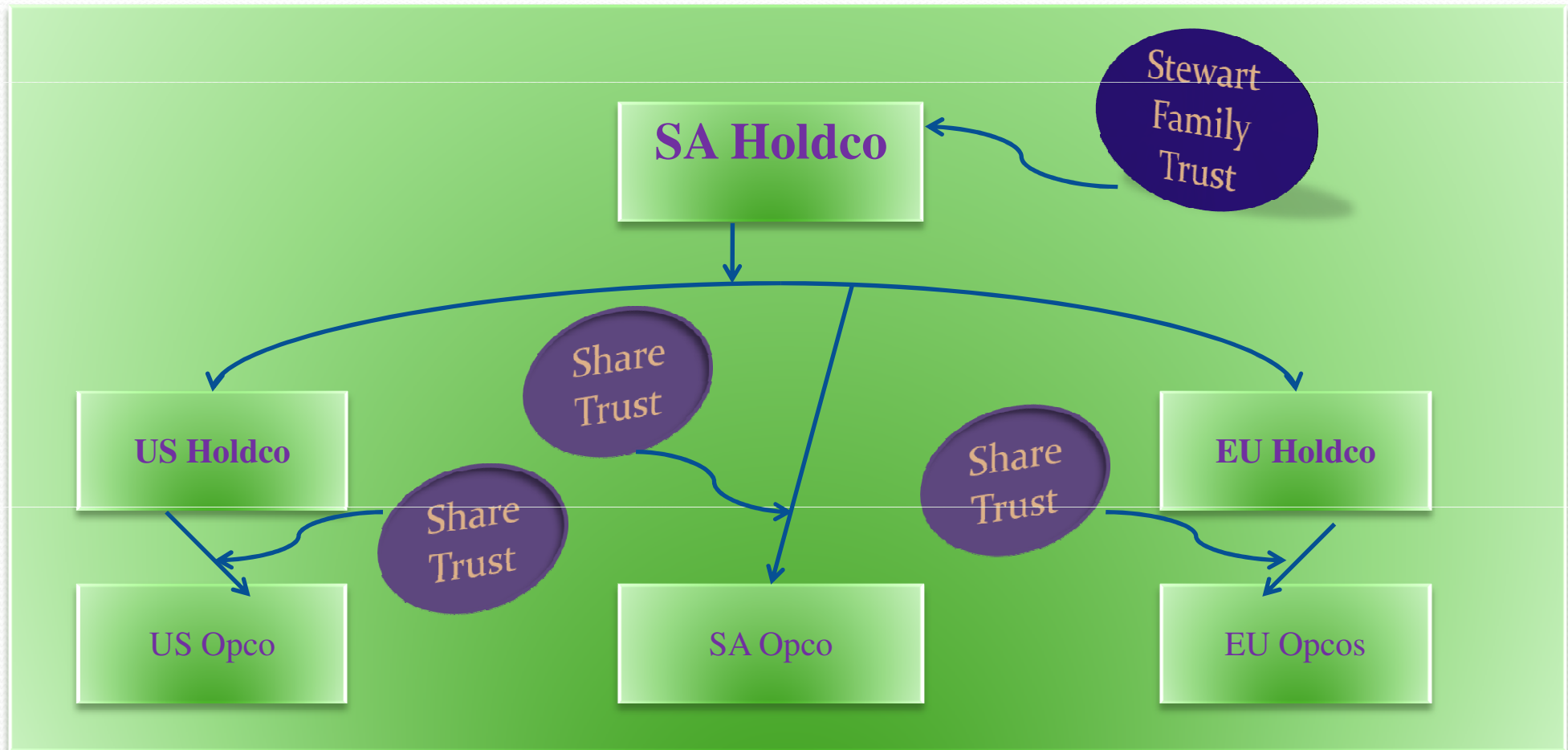
If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extensions.

A handwritten signature in black ink that reads "Jon W. Dudas".

Director of the United States Patent and Trademark Office

Patent Protected

Group Structure



Potential Clients

**Coal Fired Power Stations
Medical Incinerator Companies
Waste Incinerator Companies
Oil Refineries
Steel Refineries
Fertilizer manufacturers
Explosive manufacturers
Glass manufacturing companies
Etc.**

Potential Clients

Estimated Carbon Credits / PROJECT

Enviroserv	+/- 41 000/yr
Lonmin Platinum	+/- 55 000/yr
Phambile Wasteman	+/- 68 000/yr
Willowton Cake and Oil.	+/- 98 000/yr
Mondi (Paper manfr.)	35 – 40 000/m [x5 venues]
Sappi (Paper manfr.)	35 – 40 000/m [x9 venues]
Impala Platinum	51 000/m
SAPREF (Oil refinery)	1 200 000/yr

Mobile Pilot



Mobile Pilot Unit

Unit Specs

Prototype

$1170\text{mm} \times 1700\text{mm} = 1.989\text{m}^2 \times 2\text{m/s} = 3.978\text{m}^3/\text{s}$

$3.978\text{m}^3/\text{s} \times 60 \text{ sec} \times 60 \text{ min} = 14\,320\text{m}^3/\text{hr}$

$14\,320\text{m}^3/\text{hr} \times 10\% (\% \text{CO}_2) = 1432\text{m}^3/\text{hr CO}_2$

$1432\text{m}^3/\text{hr CO}_2 \times 1.98\text{kg}/\text{m}^3 = 2\,835\text{kg CO}_2/\text{hr}$

Average of 2.8 tons / hour @ 12%

$2.5\text{t}/\text{hr} \times 24\text{hr}/\text{d} \times 355\text{d}/\text{yr} = 21\,300\text{t}/\text{yr}$

$50\% \times 21\,300\text{t}/\text{yr} = 10\,650\text{t}/\text{yr} \times \text{€}13\text{cc} = \text{€}138\,450 / \text{yr}$