

Duram Escape Solutions

A short Introduction



Schedule



- Technical basics
- Standards
- Duram's range
- Marketing

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[CO] Carbon Monoxide

Gas Categories - completion



- AX (organics <65 c)
- Hg
- Reactor

Particle Filtration



- Relatively large, solid particles
- Biological agents: Bacteria and viruses
- P1: >50%
- P2: >94%
- P3: >99.95% (High efficiency)

Markings



– ABEK - P

- 1 - 1000 ppm
- 2 - 5000 ppm
- 3 - 10000 ppm

– Colors

For example: A1B2E2K1-Hg-P3

Governing Standards



European Union:

- EN 403:2004 - Smoke Escape Hood
- EN 14387 - Respiratory protective equipment
- 89/686/EEC - Governing Directive

AS/NZS 1716:2012

NIOSH (US and Canada)

Governing Standards - Escape



European Union:

EN 1146 - compressed air

EN 400 - Emergency Escape Breathing Device

EN 404 – Self Rescue with KO2

DIN 58647-7 (~EN 14387)

And many others...

Negative Pressure Hooded Escape Device



- Passive filtration
- Escape purposes
- Hooded
- With / Without CO treatment

		Maskito	Chembayo	Kimi	Kimi Plus	Cogo
Gas Capacity Challenge concentration (ppm)	Organic (A)	100	500 Incl' DMMP	500	1000	100
	Inorganics (B)	100	500 100 for CK	500	1000	400
	Acidic (E)	100	500	500	1000	1000
	Ammonia (K)	-	500	500	1000	-
	Carbon Monoxide	-	-	-	-	10,000
Particles Filtration		>94%	>99.95%	>94%	>94%	>94%
Dimensions (LWH cm)		12.5x6x2	14x12x3.5	14x12x3.5	14x12x6	10x12x14
Weight (grams)		150	250	250	450	650
Certification		Accredited Laboratory testing	CE Mark	CE Mark	EN 14387 CE Mark Pending	CE EN 403:2004
Sectors		Civilian High-rise Medical Transportation Special forces	Defense Military Law enforcement First responders	Chemical Petro-chemical Mining Civilian	Chemical Petro-chemical Mining military	Petro-chemical First responders Hospitals Hotels High-rise

Leading competitors



- Draeger (Parat series)
- MSA (S-Cap)
- Sundstrom (SR 77-3)
- Honeywell (Opengo)
- C.Y Holdings (ASE)



Marketing meetings



- Presenting a hood
- Understanding the emergency drills
- Integrating
- Substituting?
- Cost-Value



Maskito - Compact Escape Mask



Main features:

- Weighs only 150 gr.
- Fits in a pocket
- Filtering ABE gases and particles

Used by:

Armed forces (Spanish Army)

Security Personnel

Safety teams (office buildings and public centers)

Leading clients:

- JP Morgan (SEA)
- Leumi Bank (Israel)
- Samsung Corp.
- Brink's
- Oceania
- Prestige Cruises
- Wärtsila



Maskito - Scenario #1



Spanish Army

- Each soldier carries a hood in his first-aid kit.
- The kit is integrated to his uniforms.
- In case of toxic atmospheric event (mostly tear gas and smoke, but also other gases) hood is being used by the soldiers.



Maskito - Scenario #2



JP Morgan / High rise Buildings

- Each safety person and floor fire warden carries one hood in a pouch.
- In case of an alarm, fire wardens and safety personal arrive and estimate the situation.
- If not manageable, will ex
evacuation procedures.



Maskito - Scenario #2



Use in Emergency Evacuation

- Safety personnel are using the hood to approach the fire and intervene.
- Fire warden deals with staff evacuation.
- Safety personnel try to contain the fire.
Some are sent to bring heavy equipment (SCBA)



Maskito - Scenario #2



Advantages of masks in emergency evacuation

- Emergency Escape Solution minimizes first contact and heavy intervention for safety personnel only.
- Fire Wardens are capable of managing calm and ordered staff and costumers evacuation.
- Small-medium fires can be contained in an early Stage.



Chembayo - Chemical / Biological Escape Mask



Main features:

- 200 gr.
- Fits in a utility belt / vest
- Filtering ABE gases and particles (HEPA / P3)
- Perfect for armed forces & first responders

Used by:

- SWAT/Anti-terror units of IDF, Singapore, Australia, Austria & Belgium.
- Designated first responders



Chembayo - Scenario #1



IDF Anti-terror Unit

- Each soldier carries a black hood in his vest.
- During operational activity, in case atmosphere becomes toxic, soldier use the hood and continue his mission / calmly and thoughtfully aborts.
 - Tear Gas returned
 - Sudden fire
 - Suspicion of toxic gas.



Chembayo - Scenario #2



Singapore Transportation Security

- Each security person carries a hood on his belt for the following:
 - Terror Attack.
 - Fire / Smoke.
- Hood allows time to think and act calmly and wisely.



KIMI- Chemical Escape Mask



Main features:

- Weighs 200 gr.
- Fits in a utility belt / vest
- Filtering ABEK gases and particles
- The perfect mask for industrial use

Used by:

- Chemical / Petro-Chemical industries
- Food Industry (Ammonium)
- Mines

Main clients:

- Shell
- Yara
- Rio Tinto
- ICL
- Intel
- Sasol



KIMI- Scenario #1



ICL

- Each worker carries a hood on his belt.
- In case of emergency, supporting staff evacuate, while current team starts relevant emergency response.
- Calls safety team.
- Meanwhile conducts first actions.
- Allows first response in a toxic environment.



KIMI- Scenario #2



Sasol

- Used during service and maintenance of the production facility.
- Both on-site managers and workers, as well as contractors wear the hood on their belt for the duration of maintenance operations.



KIMI- Scenario #3



Mines

- Carried by underground workers for emergencies situations.
- In case of an emergency, hoods are being used to arrive to “safe-areas”, which are located every 150-100 meters.
- Allows for local and short term intervention.



COGO - Smoke Escape Mask

CE EN 403:2004



Main features:

- Weighs 650 gr.
- Fits in a compartment / with a carry-on strap
- Filtering ABE gases and particles
- Carbon Monoxide Oxidation
- EN 403-2004 Certified
- Used by Petro-Chemical Organizations, Marine, Engineering, High-Rise buildings.
- Standard mask for IDF Navy

Leading clients:

- Statoil
- Pizzarotti-Shafir
- Swiss Post
- Viking Life Saving Equipment
- Noah Marine
- Macrovista Singapore



COGO - Scenario #1



Marine Vessels

- Kept in a sealed box on board. Mandatory in some countries.
- In emergencies, hoods protect the crew until help arrives.
- Used especially in off-shore drilling
Of oil and gas companies



COGO - Scenario #2



High-Rise Buildings

- Kept in a sealed box next to elevators, in emergency staircases, or inside the rooms.
- In case of emergency, hoods are used for peaceful and organized evacuation.
- Hoods for fire-wardens are kept nearby, in drawer or locker.



COGO - Scenario #3



Engineering Companies

- Hoods are used in underground horizontal drilling operations.
- Hoods are kept in a box on a service vehicle.
- Escape solutions are being used in case of emergency, and minimize the time between alarm and tunnel exit.



Duram Escape Masks



- Tailor Made Solutions
- State of the art design and performance
- Meeting Customer's needs and scenarios
- Private labels and OEM
- Flexibility in supply | Right-on-time

Thank you.