

# VARIO CARBON



شرکت ایمن سازان محیا  
تهران ۱۲۵

# VARIO CARBON

# 13



## ULTRALIGHT

## CFRP - MATERIAL OF **LIGHTNESS** AND STRENGTH

If technical limits have to be exceeded in order to meet sophisticated requirements, new materials with improved structural properties are needed.

More stability, lightness, durability and an enormous versatility; These are the main features of modern carbon fiber composite materials, in short "CFRP".

The revolutionary material has its origin in high-tech areas like aerospace, military or motor sport. Rising demand led to rational production processes, reduced production costs and increased possibilities of use. CFRP has become indispensable in our everyday technical life.



Pressure vessels made of

# CFRP

...are particularly suitable for the manufacturing of fire extinguishers with unprecedented weight and performance ratios. At the same compressive strength, CFRP containers are many times lighter than conventional metal containers. We used this advantage for the development of...

...significantly lighter extinguishers in the conventional performance class.

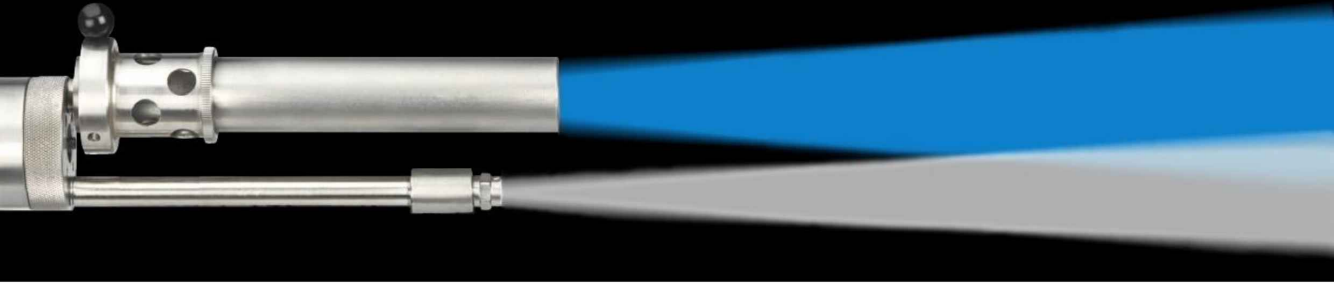
...enormously more powerful devices in the previous weight class.

### Therefore CFRP:

- unbeatable lightweight
- extreme elasticity
- temperature resistant
- easy to process
- more durable
- free of corrosion



OFFERS YOU THE **PERFECT** FOAM FOR ANY SITUATION  
**HiPRESS** • **HiCAFS** • **SPRAY**



## HiPRESS - fluid foam

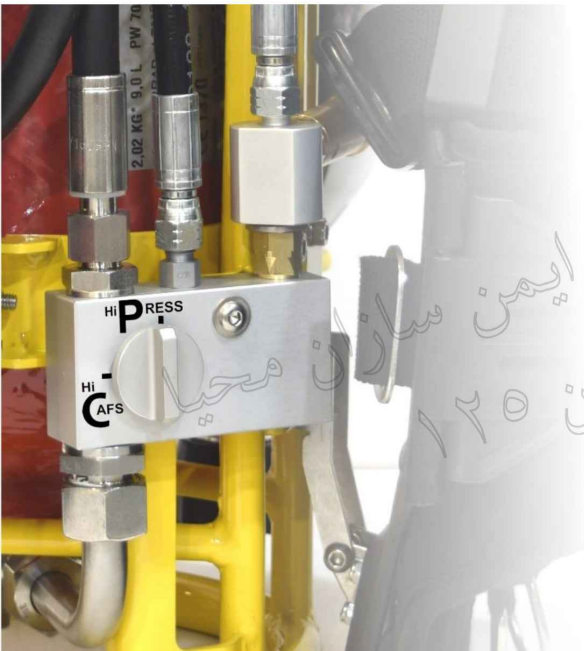
The combination of constant operating pressure of **38 bar** and our optimized air mixing technology generates a compact jet of homogeneous wet foam. The far reaching jet range and high kinetic energy lead to enormous extinguishing effects, while the fluid foam consistency penetrates immediately into smallest interstices of burning objects.

## HiCAFS - adherent foam

Our well known and reliable HiCAFS function is predestined to generate a far reaching stream of sticky air foam with long lasting stability. It is jetted with the same power as HiPRESS and sticks at vertical surfaces and even overhead. The bottom layer penetrates into surfaces immediately after impact and reliably prevents the smoke development and reigniting.

## Spray - area effect

If equipped with a swivel jet gun, the system offers a spraying function with area effect and considerably reduced consumption of the carried extinguishing media. Activated by a simple turn of the jet tubes, it is ideal for preventive wetting or the extinction of small flames and smoldering glow nests.





### DISCOVER THE **ULTRALIGHT** WAY OF FIRE FIGHTING

تھوران ایمر سبازان مہجیا



Time for the next step in the evolution of foam extinguishers! Easier handling, less weight to carry, but yet more options and lifesaving capability than ever before. Thanks to CFRP pressure vessels, consistent lightweight construction and optimized high-pressure technology, the HNE Carbon series achieves previously unattained performance.

### HiPRESS • HiCAFS • SPRAY

Every well-known function of our portable extinguishers is implemented in the new Carbon series. All proven HNE-typical features of performance are even exceeded. The jet range of more than 20 meters allows accurate fire fighting from a safe distance. The foam generation was once more improved by higher operating pressure and is switchable from wet/liquid to adhering consistency. This greatly expands the possibilities of tactical adaptation to the fire situation.



- less than 20 kg in filled condition \*
- more tactical scope of action
- constant working pressure
- superior performance
- 9 or 13 liters capacity
- over 20 m jet range
- improved agility



\* VARIO 9 Carbon  
\*\* if equipped with swivel jet gun



## ...with higher pressure

The VARIO Carbon achieves its outstanding capabilities by a key feature that distinguishes it from all conventional foam extinguishers:

The constant and high working pressure of **38 bar** allows for extinguishing performance that previously seemed unthinkable. The VARIO 9 achieves the highest possible approval rating for portable extinguishers, while the VARIO 13 exceeds them by far.

**VARIO**  
CARBON **9**

**55 A**  
**233 B**

**VARIO**  
CARBON **13**

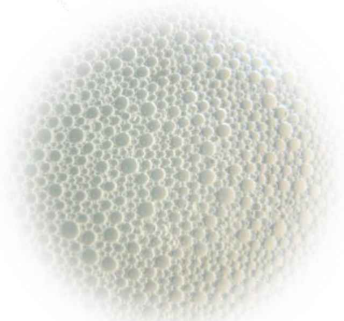
**2 x 55 A**  
**IV B \***

### How is this achieved?

The higher the velocity of jetted extinguishing media, the longer the jet range. This not only means more safety distance to the fire; the foam particles are also less sensitive to wind and more of them reach the burning material before evaporation. The stronger impact force increases the quenching effect additionally.

The finer and homogeneous the bubble size of the extinguishing foam, the higher its output volume and the lower the consumption of water and chemicals. This increases the extinguishing capacity while collateral damage and cleaning costs are reduced significantly.

As always, this superior performance is made possible by two HNE-typical criteria: The precise interaction of all components of our customized air/liquid mixing technology and the extra high working pressure. The results speak for themselves and convince our customers for decades - worldwide!



\* conformation of fire extinguishing performance outside of normative conditions (EN 1866-1, EN 3-7)





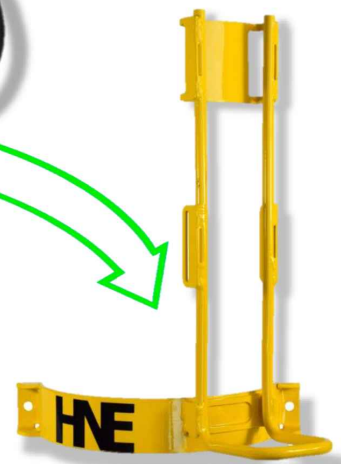
**Swivel jet gun:**  
with spray mode for  
area effect. Perfect  
against small fires or  
to prevent re-ignition,  
smoldering and smoke  
development



**Carry handle**  
foldable, mounting  
parts included



**Carrying frame**  
with adjustable straps and  
quick release buckles.  
Assembly parts included.  
Weight app. 1.4 kg



**Additional  
bottle holder:**  
suitable for breathing  
air cylinders up  
to 2 liters



## VARIO CARBON with 9 or 13 liters

Highly compact and weight-optimized foam extinguisher for professional use. Available as standing version or with carrying frame. Foldable handle, CFRP air cylinder with 2 liter/300 bar, pressure reducer with safety valve and gauge. Jet gun with adjustable air admixture, safety catch, variable actuation and 1.5 m hose.

Specification	VARIO 9	VARIO 13
filling volume	9 liters	13 liters
propellant	air, 300 bar/2.0 l	air, 300 bar/2.0 l
working pressure	38 bar, constant	38 bar, constant
jet range (water)	up to 21 m	up to 21 m
duration HiPRESS	app. 18 seconds	app. 26 seconds
duration HiCAFS	app. 30 seconds	app. 42 seconds
flow rate HiPRESS	app. 0.5 l per second	app. 0.5 l per second
flow rate HiCAFS	app. 0.3 l per second	app. 0.3 l per second
performance	55 A, 233 B	2 x 55 A, IV B **
range of temperature*	-25 to 60° C	-25 to 60° C
distance to electricity	min. 2 m/max. 1000 V	min. 2 m/max. 1000 V
weight (empty)	app. 10.8 kg	app. 12.5 kg
weight (filled)	app. 19.8 kg	app. 25.5 kg
height	670 mm	670 mm
diameter of vessel	180 mm	210 mm
certification	SQ 62/17	SQ 289/16

\* with frost-proof foam agent

\*\* conformation of fire extinguishing performance outside of normative conditions (EN 1866-1, EN 3-7)



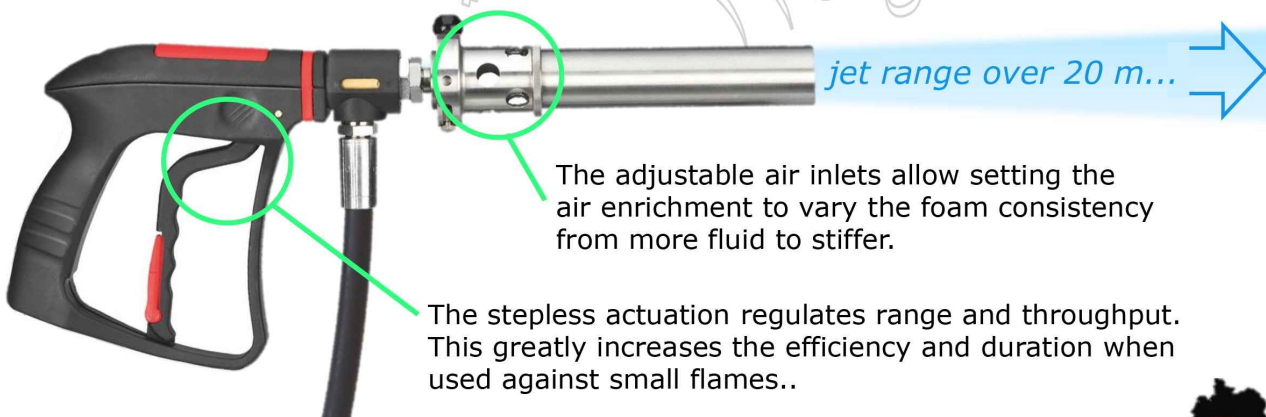
**Image:** VARIO 9 fully equipped with...

- ▶ carry handle
- ▶ additional bottle holder
- ▶ adjustable carrying frame
- ▶ swivel jet gun with spray tube

**VARIO 13 similar!**

## Blow out the fire...

with the recoilless variable jet gun as basic equipment:



jet range over 20 m...

The adjustable air inlets allow setting the air enrichment to vary the foam consistency from more fluid to stiffer.

The stepless actuation regulates range and throughput. This greatly increases the efficiency and duration when used against small flames..



# HNE Technologie AG

HIGH PERFORMANCE FIRE FIGHTING SYSTEMS

SAVING  
LIVES

کے لیے  
سازگار  
محیط



MOBILE



PORTABLE



WORLDWIDE



EXTRA LIGHT



Find out more about our products of **motorized** and **integrated** fire fighting:

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