



# HAFFMANS CPM<sup>®</sup> GAZIJECTOR



# CPM® GAZIJECTOR

## WORT AERATION THE EASY WAY

### INTRODUCTION

The CPM Gazijector is a unique aeration and gas dosing device that combines the functions of sterile gas filtration, a check valve and air atomizer in one unit. This provides advantages over conventional gas injectors typically used in brewing and other fermentation industries.

### GENERAL PRODUCT INFORMATION

At wort aeration, yeast propagation, carbonation, and other fermentation processes, effective dosing of sterile gases to prevent contamination, spoilage and product loss, is an essential part of your production process.

The CPM Gazijector provides 100 percent contamination-free filtration of air, compressed air, carbon dioxide (CO<sub>2</sub>), and other gases when the gas passes through the fumigation chamber and enters the product line. The fumigation chamber is equipped with the patented, flexible Ecofilter® element, consisting of a filter membrane in between segmented stainless steel disks. Made of high-quality PTFE, the filter membrane is permanently hydrophobic, and rejects bacteria transfer and growth. The membrane has an absolute retention rate of 0.2 µm. The Gazijector's innovative design allows for CIP during the cleaning of the product line and in-line steam sterilization from the gas line side.

The filter membrane has a high water intrusion pressure of 2.75 bar (39.9 psi). This functions as a check valve, not allowing any product to enter the gas line, even if the product line's pressure is up to 2.75 bar higher than the pressure in the gas line.

The Gazijector is available in two versions for

- Tank or container installation by welding flange
- Pipe mounting in various pipe sizes with mixing tube and Varivent® connections. Static mixers allow for optimal gas dissolving.

### APPLICATIONS

Brewing and fermentation processes

# ADVANCED MODULAR DESIGN

The CPM Gazijector has the most advanced design of sterile gas injectors on the market today. All CPM Gazijectors are thoroughly tested and proven effective, which provides the greatest reliability and longest life at an economical cost.



## FEATURES

- Sterile filtration when gas enters the product line
- Only the filter membrane is replaced as a wear part
- High temperature resistance of filter membrane that can be sterilized up to 140 °C (284 °F)
- Check valve in the gas line is not required
- Static mixers allow for optimal gas dissolving (in-line application)

## BENEFITS

- Cost savings
  - Sterile filter and check valve not needed in the gas line
  - Robust stainless steel segmented filter elements
  - Easy-to-exchange cost-effective filter membranes
  - Reduced inventory and disposal costs
- High filtration security
  - Easy control of proper filter performance, easy detection of filter damages
- Sustainable solution
  - Less waste due to replacement of just the filter membrane

## SUPERIOR MEMBRANE TECHNOLOGY



CPM sterile filters provide 100 percent membrane efficiency with an absolute retention rate of 0.2 µm. The membrane materials are pure without resins or binders thus preventing growth of any bacteria and other organisms.

## SECURE OPERATION



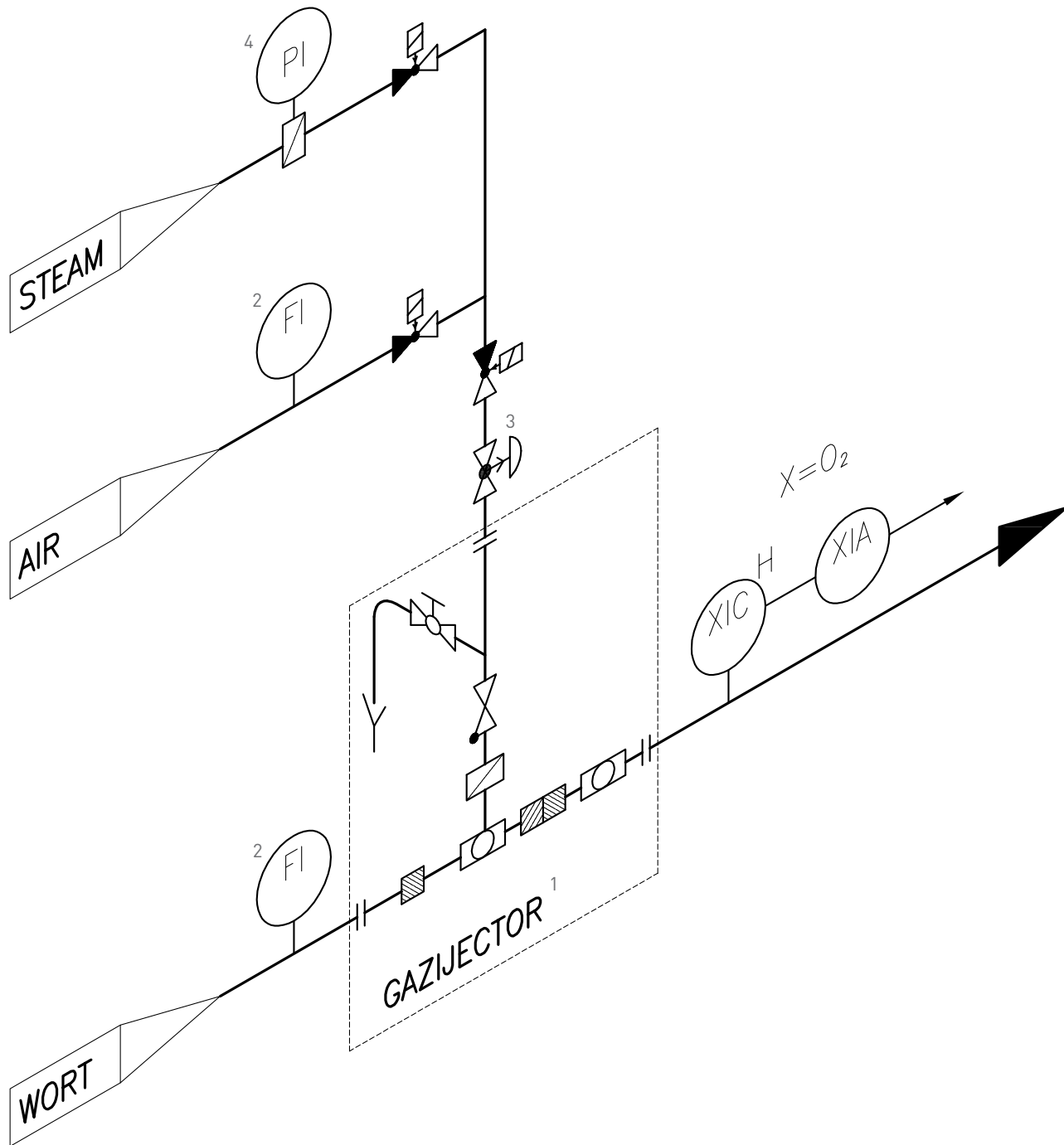
All CPM Gazijectors come standard with a pharma valve to drain condensate.

## TECHNICAL DATA

Gazijector execution			For tank and container mounting		For pipe mounting							
Type			200 FL		200		400		600		1200	
Flow rates												
Compressed air/other gases at 1 bar/15 psi over the product pressure*			3000 l/h		3000 l/h		6000 l/h		10000 l/h		20.000 l/h	
CO <sub>2</sub>					5.88 kg/h		11.76 kg/h		19.6 kg/h		39.2 kg/h	
Flow range recommendation of product			Injected O <sub>2</sub> content at 1 bar/15 psi air pressure over the product pressure									
Pipe size according to DIN 11850	Min. flow	Max. flow			At max. flow	At min. flow	At max. flow	At min. flow	At max. flow	At min. flow	At max. flow	At min. flow
	l/h	l/h			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DN-40	50	80			107	171						
DN-50	80	150			57	107						
DN-65	150	250			34	57						
DN-80	250	380			23	34	45	69				
DN-100	380	580			15	23	30	45	49	75		
DN-125	580	900			10	15	19	30	32	49	63	99
DN-150	900	1380			6	10	12	19	21	32	41	63
Connection			Welding flange		DIN 11851, male (other connections on request)							
Material			304, other materials available on request									
Fumigation chambers		Quantity	1		1		2		1		2	
		Varivent® connection	68	mm	68	mm	68	mm	123	mm	123	mm
Filter membrane		Quantity	1		1		2		1		2	
		Type	EM-60/0.2T		EM-60/0.2T		EM-60/0.2T		EM-100/0.2T		EM-100/0.2T	
		Material	PTFE		PTFE		PTFE		PTFE		PTFE	
		Absolute retention rate	0.2 µm									
Dimensions (approx.)			Length	Diameter	Length	Width	Length	Width	Length	Width	Length	Width
		mm	95	110								
DN-40		mm			500	140						
DN-50		mm			525	152						
DN-65		mm			575	168						
DN-80		mm			720	183	720	252				
DN-100		mm			780	202	780	270	810	202		
DN-125		mm			860	247	860	315	920	247	920	315
DN-150		mm			1015	252	1015	320	1045	260	1045	330
Weight												
		kg	2.3									
DN-40		kg			9.0							
DN-50		kg			10.0							
DN-65		kg			12.5							
DN-80		kg			14.5		15.5					
DN-100		kg			21.0		23.0		24.0			
DN-125		kg			29.0		31.0		30.0		30.0	
DN-150		kg			38.0		40.0		40.0		40.0	

\* Flow rate increase approx. linear with pressure difference  
Max. differential pressure 5 bar

# FLOW SHEET GAZIJECTOR\*



## KEY PARTS

1. Gazijector
2. Flow meter
3. Flow control valve
4. Steam filter



**HAFFMANS BV**

P.O. BOX 3150, 5902 RD VENLO, NETHERLANDS INFO@HAFFMANS.NL WWW.HAFFMANS.NL

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