



Water Separation

# CLEARPOINT®

water separators designed for maximum efficiency

Truth in Compressed Air.



# CLEARPOINT® Separators

## At a Glance

In-line water separators are typically used at after coolers and refrigeration dryers in order to remove bulk liquid that is present in the compressed air pipework as a result of condensate being formed. All compressed air systems create some level of condensate through the basic function of compression. Poor water or condensate management can result in process contamination, component failure, and high differential pressure. All of which can be very costly when compared to the cost of removal.

## Features and Benefits

### + Energy Efficient by Design

Ultra-low differential pressure for all water separator insert designs

### + Flow Optimized Housing

Unique curved inlet design was engineered for the lowest possible differential pressure

### + Maximum Reliability

Double threaded filter head, extruded, fully anodized, and zero air loss drain option

### + Performance

Superior performance and retention rates even for flows down to 30% or up to 150%

### + Simplified Maintenance

Simple, push-fit element designs without tie-rods — we considered the details in the design

## How it Works

### 1 Compressed Air Inlet

The compressed air enters the inlet of the CLEARPOINT® filter housing, which have all been designed to compliment the connections of the different compressor manufacturers making port-matching easier during installation.

### 2 Water Separation

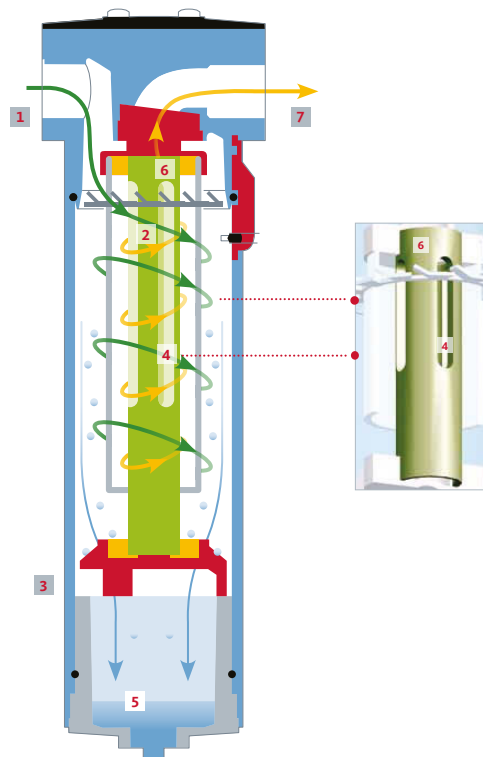
When the compressed air has entered the CLEARPOINT® water separator housing, it reaches a special internal turbine insert that makes the compressed air flow experience a special rotary motion with high velocity. The resulting rotational force is directed outward, forcing the condensate droplets to the separator wall where they flow downward into the collection zone.

### 3 Effective Corrosion Protection

Condensate and bulk water accumulating during compressed air separation is almost always aggressive, so that unprotected housings corrode. All CLEARPOINT® water separator filter housings are made of salt water resistant aluminum and, in addition, are fully anodized and their outside is powder coated.

### 4 Rectifier

The innovative rectifier leads the separated compressed air to the outlet and keeps flow losses to a minimum.



### 5 Condensate Collection and Removal

A large condensate collection zone at the base of the housing coupled with the unique legs of the separator end cap settle the air flow and create a shielded area to prevent the entrainment of already separated liquids. More than 60% of the total amount of condensate will accumulate in the water separator, and is reliably drained with either a float drain or zero air loss BEKOMAT®.

### 6 Rising Pipe

A specially designed rising pipe prevents particle transfer to the upward flowing, rotational compressed air stream that has already been treated.

### 7 Compressed Air Outlet

The fully treated compressed air that is now free of fluids and condensate flows downstream to other inline components or the point-of-use.

# CLEARPOINT® Separators

## Compare



Threaded Series



Flanged Series



PN50 High Pressure Series

### Flow Rates

25 - 1,500 scfm

1,900 - 21,000 scfm

100 - 2,065 scfm

### Maximum Operating Pressure

232 psig

230 psig

725 psig

### Standard Pipe Connection Sizes

3/8" - 3" NPT

4" - 12" Flange

3/8" - 2" NPT

### Housing Material

Anodized, powder coated aluminum

Powder coated carbon steel

Anodized, powder coated aluminum

### Available Options

BEKOMAT® drain, Cover3More extended warranty

Cover3More extended warranty

BEKOMAT® drain, Drain connection kit, Cover3More extended warranty

## Product Family



Threaded separators



Flanged separators



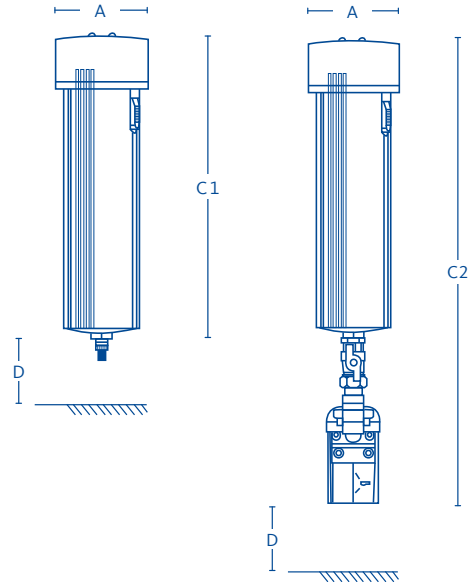
High pressure (PN) separators

## Technical Details

### CLEARPOINT® Threaded Water Separators

with float drain or BEKOMAT® and connection kit

- › Removal of large quantities of condensate
- › Used downstream of aftercoolers
- › CRN approved
- › Max. operating pressure: 232 psig
- › Max. operating temperature: 140 °F



CLEARPOINT®	S040	S045	S050	S075	S0100	M010	M015	M019	M020	M022	M025	M030
Pipe size (NPT)	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/2"	1 1/2"	2"	2 1/2"	2 1/2"	3"
Flow rate (scfm)	25	30	50	100	125	160	250	450	500	600	1000	1500
Element Size	04W	04W	05W	07W	07W	10W	15W	20W	20W	22W	25W	30W
Dimension data												
A (inches)	2.95	2.95	2.95	3.94	3.94	3.94	5.75	5.75	5.75	5.75	10.24	10.24
C1 (inches)	7.09	7.09	8.27	11.02	11.02	13.78	-	-	-	-	-	-
C2 (inches)	15.55	15.55	16.73	19.49	19.49	22.24	22.83	26.89	26.89	30.71	34.88	39.76
D (inches)	5.91	5.91	5.91	5.91	5.91	5.91	6.30	6.30	6.30	6.30	7.87	7.87
Weight (lbs)	1.65	1.65	1.87	3.75	4.18	4.63	9.04	10.61	11.24	13.45	43.87	57.10

ELEMENT GRADE	ELEMENT TYPE	Δ PRESSURE (psid)	REMOVAL RATE
Grade W	Water Separator	.87	99.0%

### Correction Factor

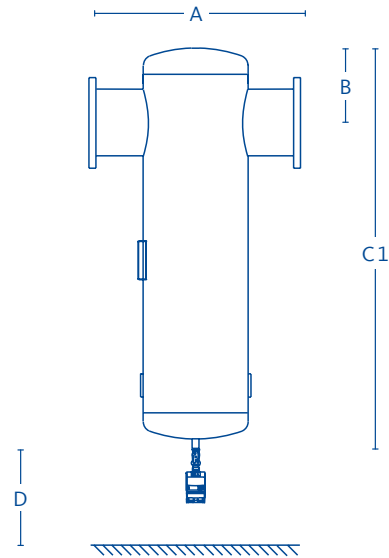
Operating Pressure (psig)	20	40	60	80	90	100	110	120	130	140	160	180	200	230
Correction Factor	.30	.48	.65	.82	.91	1.00	1.09	1.17	1.26	1.35	1.52	1.70	1.87	2.13

## ■ Technical Details

### CLEARPOINT® Flange Water Separators

with BEKOMAT® and connection kit

- › Removal of large quantities of condensate
- › Used downstream of aftercoolers
- › BEKOMAT® drain as standard
- › Designed according to ASME Sec. VII, Div. 1
- › UM stamp standard and CRN optional
- › Max. operating pressure: 232 psig
- › Max. operating temperature: 140 °F



CLEARPOINT®	L100	L102	L150	L156	L200	L204	L254	L304
Pipe size (ANSI)	4"	4"	6"	6"	8"	8"	10"	12"
Flow rate (scfm)	1900	2800	3800	6500	7500	9300	13000	21000
Dimension data								
A (inches)	15.75	18.75	19.10	21.13	22.81	24.80	29.53	34.25
B (inches)	6.96	7.75	7.80	9.75	12.38	11.34	13.07	14.57
C1 (inches)	34.25	37.25	50.24	52.63	64.50	66.93	81.50	95.28
D (inches)	12.40	18.90	18.90	18.50	18.31	17.72	17.72	16.93
Weight (lbs)	150	230	294	350	500	562	653	741

ELEMENT GRADE	ELEMENT TYPE	DRY Δ PRESSURE (psid)	REMOVAL RATE
Grade W	Water Separator	.87	99.0%

### Correction Factor

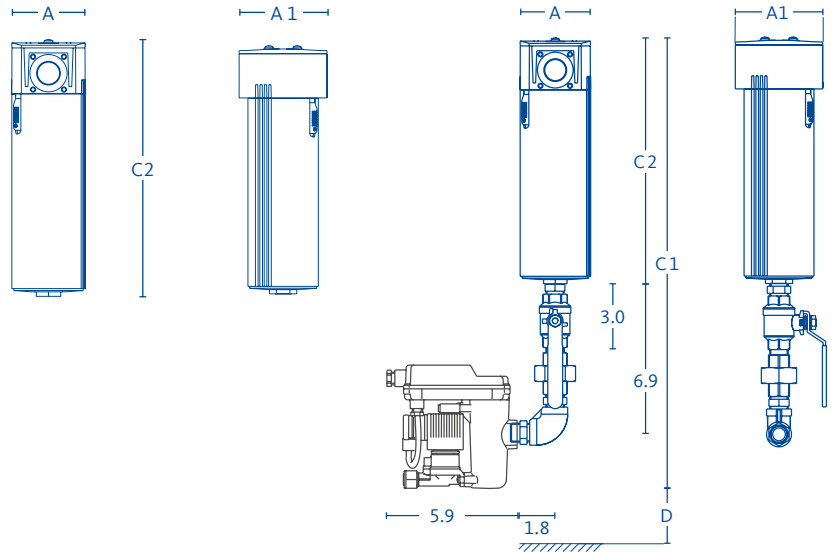
Operating Pressure (psig)	20	40	60	80	90	100	110	120	130	140	160	180	200	230
Correction Factor	.30	.48	.65	.82	.91	1.00	1.09	1.17	1.26	1.35	1.52	1.70	1.87	2.13

## Technical Details

### CLEARPOINT® PN50 Threaded High Pressure Water Separators

with open port or with BEKOMAT® connection kit (drain sold separately) without pressure gauge

- › Removal of large quantities of condensate
- › Used downstream of aftercooler
- › Max. operating temperature: 140 °F
- › Max. operating pressure: 725 psig



CLEARPOINT® PN50	HP50S040	HP50S050	HP50S075	HP50M010	HP50M015	HP50M020	HP50M022
Pipe size (NPT)	3/8"	1/2"	3/4"	1"	1 1/2"	2"	2"
Flow rate (scfm)	100	190	440	600	1000	1720	2065
Element Size	04W	05W	07W	10W	15W	20W	22W
Dimension data							
A (inches)	2.95	2.95	3.95	3.95	5.75	5.75	5.75
A1 (inches)	2.36	2.36	3.15	3.15	4.72	4.72	4.72
C1 (inches)	16.50	16.50	20.50	23.20	23.80	27.80	31.70
C2 (inches)	7.10	8.30	11.00	13.80	14.40	18.40	22.25
D (inches)	7.10	7.10	7.10	7.10	7.10	7.10	7.10
Weight (lbs)	1.65	1.85	3.75	4.63	9.04	11.24	13.51

ELEMENT GRADE	ELEMENT TYPE	Δ PRESSURE (psid)	REMOVAL RATE
Grade W	Water Separator	.87	99.0%

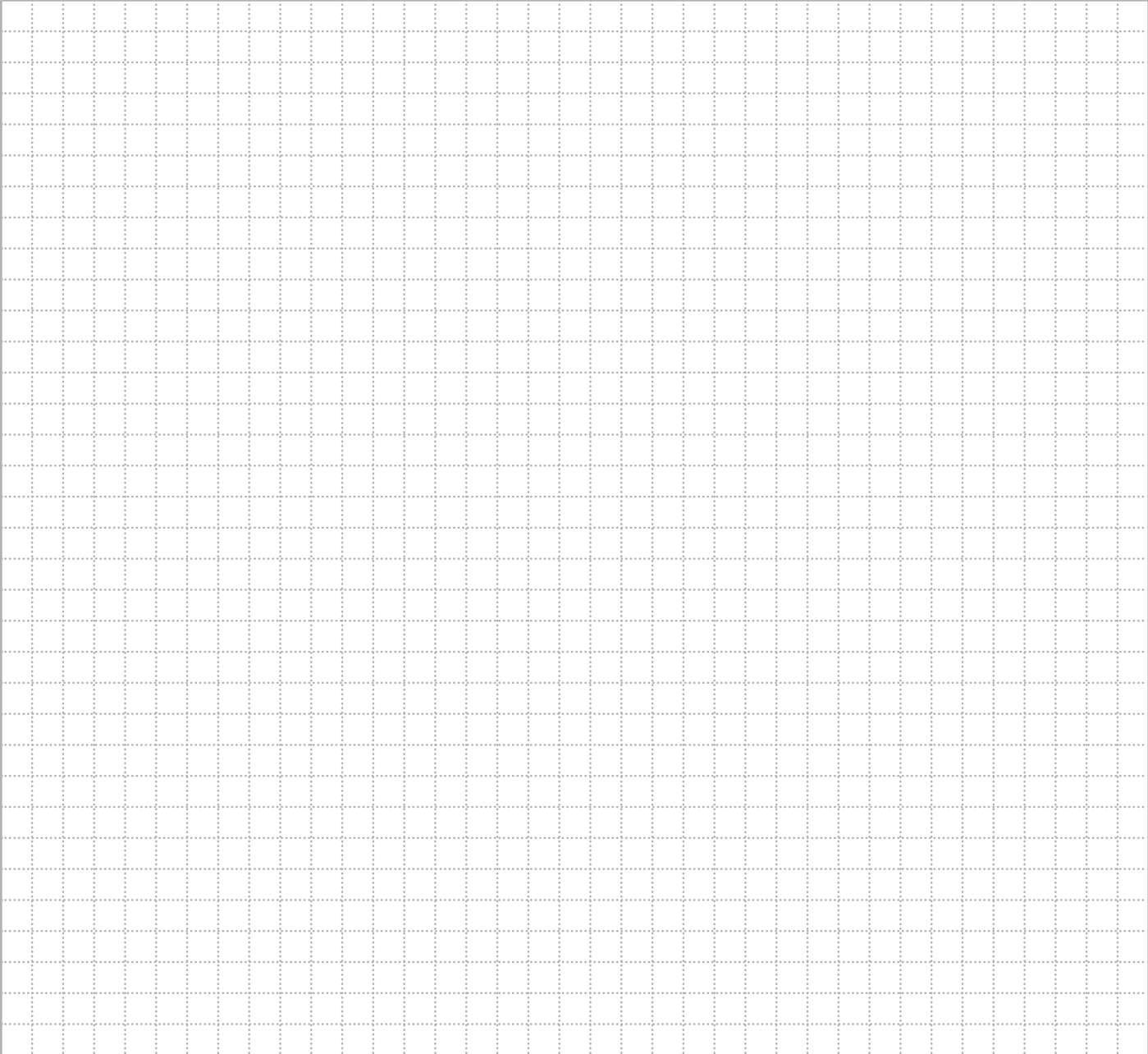
### Correction Factor

Operating Pressure (psig)	60	90	100	150	200	300	450	600	725
Correction Factor	.14	.18	.24	.35	.43	.59	.73	.88	1.00



Reliable | Efficient | Innovative

What can we do for you?



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