Zero Air Loss Condensate Drains

External Float Drains (16 bar / 50 bar)

Electronic Level Sensing Drains (16 bar / 50 bar)

Condensate Removal

Removal of compressor condensate from separation, filtration and refrigeration dryers is simply a case of using a drain valve, however most are purchased on their initial price only, with little thought to their maintenance and running costs.

The hidden cost with the most common drain type, lies within their operation, that is they discharge expensive compressed air.

Parker Zero Air Loss Level Sensing Drains

Parker level sensing drains are totally zero air loss, discharging only compressor condensate and not valuable compressed air.

Parker condensate drains are the reliable, easy to install, cost effective solution for condensate removal, with a model to suit every system or application.

Advantages

- Saves valuable compressed air
- Saving Air – Saves Energy – Saves Money
- Removes liquid condensate efficiently - Eliminates the risk of condensate carryover past purification equipment
- Protects downstream equipment and processes from condensate damage
- Simple to install - multiple inlet design offers flexibility during installation
- Helps protect the environment by using less electrical energy - Helps reduce the release of CO_2 into the environment

Technical Data

Drain Type	Drain Models	Min Operating Pressure		Max Operating Pressure		Min Operating Temperature		Max Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
External Float	HDF 120 ~ 220	1	15	16	232	2	35	60	140
Electronic Level Sensing	ED3002 ~ ED3100	1	15	16	232	2	35	60	140
Electronic Level Sensing	ED4100	16	232	50	725	2	35	50	122

Flow Rates - Zero Air Loss External Float Drains

Model	Pipe Size		Compressed Air Flow Rate				Electrical Supply
	Inlet	Outlet	L/S	m³/min	m³/hr	cfm	
HDF120-A	1/2"	1/2"	1500	90	5400	3178	-
HDF180-A	1"	1/2"	1667	100	6000	3532	-
HDF220-A	1"	1/2"	4167	251	15000	8829	-
External float drain (with built-in air vent)							
HDF120	1/2"	1/2"	1500	90	5400	3178	-
HDF180	1"	1/2"	1667	100	6000	3532	-
HDF220	1"	1/2"	4167	251	15000	8829	-
External float drain (without air vent)							
HDF220BE	1”	1/2"	1806	109	6500	3826	-
External float drains BioEnergy							

Flow Rates - Zero Air Loss Electronic Level Sensing Drains

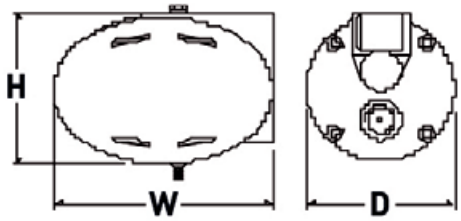
Model	Pipe Size		Compressed Air Flow Rate (Aftercooler / Air Receiver)				Compressed Air Flow Rate (Refrigeration Dryer)				Compressed Air Flow Rate (Filter)				Electrical Supply
	Inlet	Outlet	L/S	m³/min	m³/hr	cfm	L/S	m³/min	m³/hr	cfm	L/S	m³/min	m³/hr	cfm	
ED3002-G230	1 x G ½	G 3/8	-	-	-	-	-	-	-	-	200	12	720	424	230/1/50-60
ED3004-G230	1 x G ½	G 3/8	67	4	240	141	133	8	480	283	667	40	2400	1413	230/1/50-60
ED3007-G230	2 x G ½	G 3/8	117	7	420	247	233	14	840	494	1167	70	4200	2472	230/1/50-60
ED3030-G230	2 x G ½	G 3/8	500	30	1800	1059	1000	60	3600	2119	5000	301	18000	10595	230/1/50-60
ED3100-G230	2 x G ½	G 3/8	1667	100	6000	3532	3334	200	12000	7063	16668	1002	60000	35316	230/1/50-60
230V/1PH/50~60Hz - 16 bar g (232 psi g)															
ED3007-G24D	2 x G ½	G 3/8	117	7	420	247	233	14	840	494	1167	70	4200	2472	24V DC
ED3030-G24D	2 x G ½	G 3/8	500	30	1800	1059	1000	60	3600	2119	5000	301	18000	10595	24V DC
ED3100-G24D	2 x G ½	G 3/8	1667	100	6000	3532	3334	200	12000	7063	16668	1002	60000	35316	24V DC
24V DC - 16 bar g (232 psi g)															
ED4100/50-G230	G ½	G ¼	1667	100	6000	3532	3334	200	12000	7063	16668	1002	60000	35316	230/1/50-60
230V/1PH/50~60Hz - 50 bar g (725 psi g)															
ED4100/50-G24D	G ½	G ¼	1667	100	6000	3532	3334	200	12000	7063	16668	1002	60000	35316	24V DC
24V DC - 50 bar g (725 psi g)															

Stated flows are for operation at max operating pressure shown above, ambient air 25°C (77°F) / 60% RH, compressor discharge temperature 35°C (95°F), refrigeration dryer pressure dewpoint +3°C, with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. . Refrgeration dryer and filter flow rates assume adequate condensate drainge upstream.

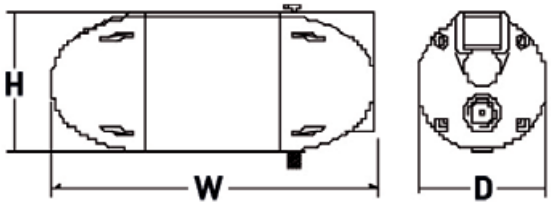
Weight & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
HDF120	111	4.4	156	6.1	108	4.3	0.9	2.0
HDF180	111	4.4	156	6.1	108	4.3	0.9	2.0
HDF220	111	4.4	266	10.5	108	4.3	1.9	4.2
HDF220BE	111	4.4	266	10.5	108	4.3	1.9	4.2
ED3002	146	5.7	110	4.3	67	2.6	0.5	1.1
ED3004	139	5.5	101	4.0	67	2.6	0.6	1.3
ED3007	164	6.5	122	4.8	67	2.6	1	2.2
ED3030	164	6.5	137	5.4	67	2.6	1	2.2
ED3100	164	6.5	197	7.8	67	2.6	2	4.4
ED4100	115	4.5	178	7.0	87	3.4	1.9	4.2

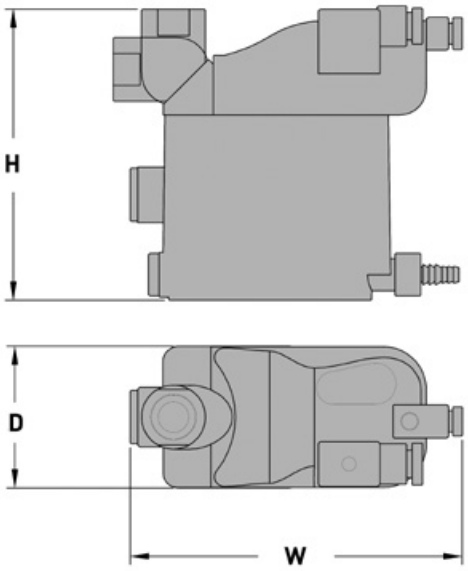
HDF 120 ~ 180



HDF 220



ED 3002 ~ 4100



Quality Assurance / IP Rating / Pressure Vessel Approvals

Development / Manufacture	ISO 9001 / ISO 14001
Ingress Protection Rating	Not Applicable
EU	Pressure vessel approved for fluid group 2 in accordance with the Pressure Equipment Directive 2014/68/EU
USA	Approval to ASME VIII Div. 1 not required
AUS	Approval to AS1210 not required
GUS	TR (formerly GOST-R)
For use with Compressed Air Only	

ENVIRONMENTALLY FRIENDLY

PERFORMANCE

- ZERO COMPRESSED AIR LOSS DRAINS
- COMPRESSOR CONDENSATE OIL/WATER SEPARATORS

COMPRESSED AIR TREATMENT

REDEFINED

Parker

ENGINEERING YOUR SUCCESS.

EFFECTIVE PERFORMANCE

Even a small amount of condensate in a compressed air network can cause serious damage to apparatus or processes. And it only takes a small amount of oil to have a huge impact on the environment. So it is vitally important that all condensate is completely drained away, and oil is removed from the condensate before its disposal.

The challenge is to remove harmful condensate without losing valuable compressed air. However, popular timed solenoid drains are often simply set up and forgotten about. If the timing system is not adjusted to open according to seasonal temperature and load variation, the drain will either waste a significant amount of air in winter; or there could be condensate carryover in summer, resulting in poor quality air.

This inefficient drainage process leads to costly compressed air leaks. For example, typical air loss from a timed solenoid drain set to open 5 seconds every 10 minutes can equate to $1m^3/hr$. That uses approximately 0.10Kw of energy every hour, equating to as much as 873Kw per drain per year, with an environmental impact equivalent to $463kg/CO_2$.

LOW-COST PERFORMANCE

Backed by Parker's engineering excellence, this range of zero compressed air loss condensate drains represents a cost-effective solution for every application – featuring integrated filter float drains, as well as high capacity electronic level sensing solutions for pressures up to 50 bar.

Guaranteed to retain all of the compressed air within the system, Parker zero loss condensate drains provide a return on investment within 12 months. Minimal maintenance and downtime, high efficiency, proven reliability and longer operational life combine to ensure a lower total cost of ownership compared to manual and timed drain solutions.

COMPRESSED AIR TREATMENT
REDEFINED

OUTSTANDING PERFORMANCE

PARKER OIL-X COALESCING FILTERS AND WATER SEPARATOR DRAINS

The new Parker OIL-X coalescing filters and water separators feature an integrated automatic float drain. Ideal for applications with pressures up to 16 or 20 bar, the integrated drains remove condensate with zero compressed air loss, ensuring filter performance exceeds ISO12500-1 standards.

Whilst designed to work as an integral component of our advanced air treatment systems, Parker OIL-X filters are also a drop-in replacement for the OIL-X Plus, and are fully retro-compatible with a wide range of drying equipment.

- **Zero compressed air loss**
- **Validated filtration performance, meeting classifications shown within ISO8573-1 compressed air standards**
- **Low differential pressure**
- **Low total cost of ownership with extended equipment lifespan**

Parker domnick hunter

FOCUSED ON FILTRATION AND SEPARATION

EFFICIENT PERFORMANCE

PARKER HDF SERIES MECHANICAL FLOAT CONDENSATE DRAINS

Parker HDF series drains are compact and highly reliable mechanical float drains for industrial compressed air treatment applications up to 16 bar.

The float drain never runs completely dry, only opening when enough condensate is present. This ensures no valuable compressed air is lost during the discharge process – increasing the overall efficiency of the whole compressed air system.

- **Zero compressed air loss**
- **Large discharge orifice minimises the chance of blockages**
- **Zero air loss during discharge ensures no emulsion is created**
- **Manual override valve for functional checks**
- **Easy to install – no power supply, programming or calibration required**

COMPRESSED AIR TREATMENT
REDEFINED

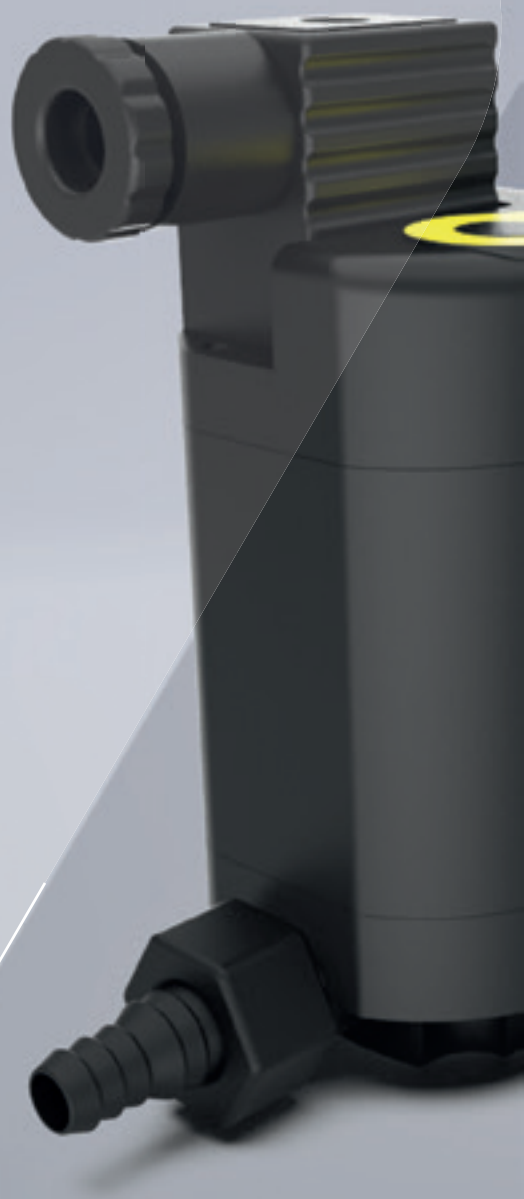
RELIABLE PERFORMANCE

PARKER ED3000 (UP TO 16 BAR) AND ED4100 (UP TO 50 BAR) SERIES ELECTRONIC LEVEL SENSING CONDENSATE DRAINS

Parker ED3000 and ED4100 series level sensing condensate drains are fully equipped to manage changes in the amount of condensate in the compressed air system – easily adapting to variations in temperature and load.

Designed for higher capacity condensate needs, they use internal sensors to determine the exact moment to discharge condensate, resulting in a reduced number of switching cycles – maximizing the service life of the drain valve.

- **Zero compressed air loss**
- **Integrated strainer with alarm monitoring for increased process safety**
- **Large discharge orifice minimizes the chance of blockages**
- **Easy to install and service – no programming or calibration required**



› COMPRESSED AIR TREATMENT
REDEFINED›

ECO-FRIENDLY PERFORMANCE

PARKER ES2000 OIL/WATER SEPARATOR

Once drained, compressed air condensate can have a harmful impact on the environment; just one litre of oil can cover 3500m² of water surface. As a result, discharging oil contaminated condensate from your compressed air systems is illegal.

The Parker ES2000 oil/water separator is designed to keep you on the right side of waste regulation. It's the most cost-effective solution – ensuring full compliance through safe and efficient on-site oil disposal.

- **Environmentally friendly**
- **Efficiently separates oil and water on-site and returns up to 99.9% of the condensate to foul sewers**
- **Large oil-absorbing pre-filter(s) protect carbon stage from bulk contamination**
- **Large carbon stage for increased contact time, improving water quality and extending carbon life**
- **Allows users to meet discharge regulations, and to achieve ISO14001 certification**
- **Rapid payback over conventional disposal methods**
- **Easy to install, operate and maintain**

COMPLIANT PERFORMANCE

Parker zero compressed air loss drains and condensate treatment solutions help compressed air systems to run more efficiently, offering lower total cost of ownership and reduced environmental impact. No expensive air leaks, no illegal oil discharge – just reliable, cost-effective solutions that meet all industrial waste regulations.

EFFECTIVE DRAINAGE

All Parker float and level sensing drains are zero air loss.

COST SAVING SOLUTIONS

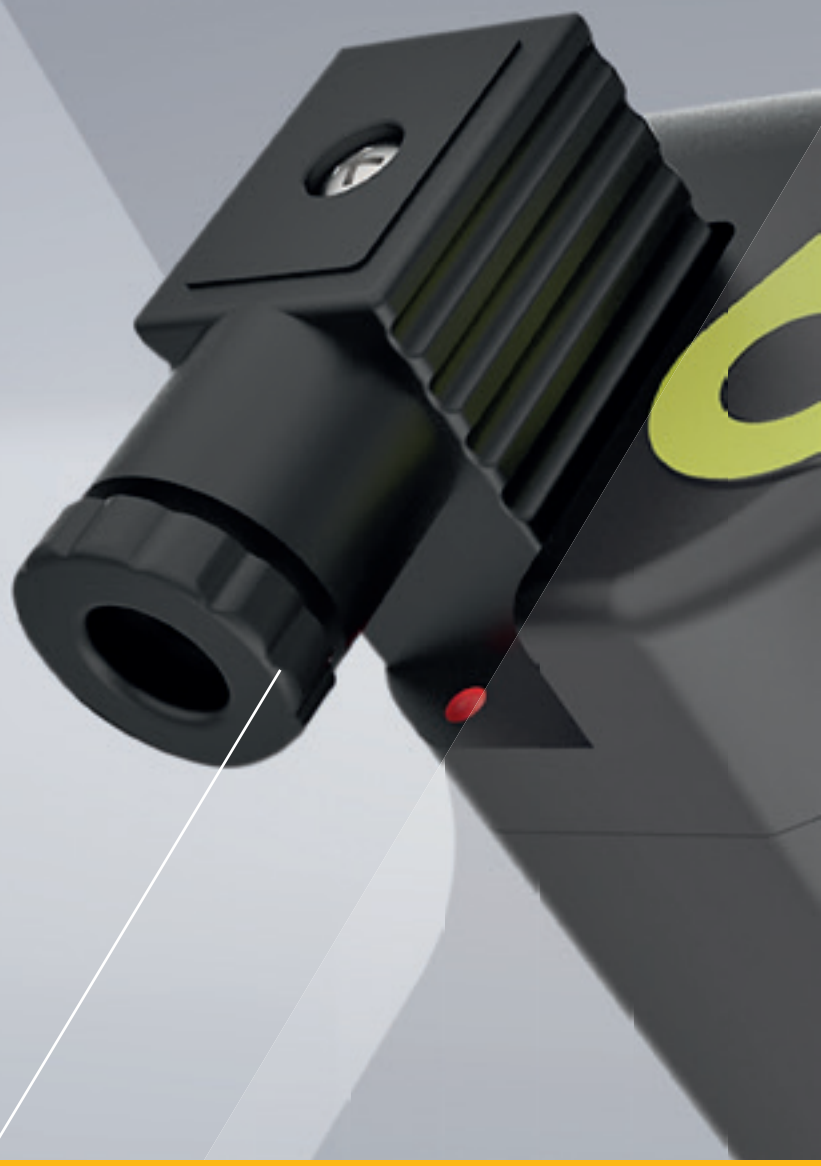
Highly efficient drainage with minimal downtime for a lower total cost of ownership.

EFFICIENT SYSTEMS

Reliable drainage and disposal increases the efficiency of the whole compressed air system.

ECO-FRIENDLY DISPOSAL

The environmentally friendly ES2000 ensures compliance with oil disposal regulations.



WHAT NEXT?

Discover how Parker's drainage and oil/water separation solutions can improve your system efficiency for longer.
Visit parker.com/GSFE

COMPRESSED AIR TREATMENT
REDEFINED