CONDENSATE TRAPS

OUR CONDENSATE TRAPS

CONTROL DEVICES EXPANDED ITS OFFERING FOR COMPRESSED AIR APPLICATIONS WHEN IT ACQUIRED DRAIN-ALL® OF KNOXVILLE, TENNESSEE, IN 2011. DRAIN-ALL®'S EXTENSIVE LINE OF PATENTED "ZERO-LOSS" CONDENSATE TRAPS NICELY COMPLEMENTED CONTROL DEVICES' EXISTING PRODUCT LINE, CONTRIBUTING ENERGY-SAVING, PERFORMANCE-IMPROVING FUNCTIONALITY TO MANY COMPRESSED AIR AND COMPRESSED GAS SYSTEM APPLICATIONS. DRAIN-ALL®'S CONDENSATE HANDLER HAS BECOME AN INDUSTRY STANDARD FOR PURGING WATER FROM COMPRESSED AIR SYSTEMS IN A HIGHLY EFFICIENT AND ENERGY-SAVING WAY, AND THE SAME PATENTED DESIGN HAS BEEN MODIFIED TO ACCOMMODATE A VARIETY OF NON-STANDARD APPLICATIONS INCLUDING HIGH AND LOW-PRESSURE ENVIRONMENTS, HIGH TEMPERATURES, AND HIGH CONCENTRATIONS OF RUST OR OTHER SOLIDS.

CONDENSATE TRAPS

CONDENSATE HANDLER®

THE CONDENSATE HANDLER® REPLACES THE MODEL 1700 AND INCLUDES DRAIN-ALL®'S PATENTED "THROUGHPORT DESIGN" FOR MORE THROUGHPUT CAPACITY OF SOLID DEBRIS. THIS IS THE STANDARD CONDENSATE TRAP IN THE LINE. IT FITS MOST INDUSTRIAL APPLICATIONS AND COMPRESSORS UP TO APPROXIMATELY 1500 HP DEPENDING ON THE AMBIENT CONDITIONS AS WELL AS OTHER FACTORS.

Part Number	Inlet/Outlet (in)	Control Air (in)	Balance Line (in)	Dimensions - in (cm)			Max Liquid Temperature - F (C°)	Max Liquid Pressure - PSIG (BARG)	Control Air Min - PSIG (BARG)	Control Air Max - PSIG (BARG)	Max Flow at 100 PSIG (GPM)	Weight - lbs (kg)
				Height	Width	Depth						
DH50-0LAAA	1/2 NPT	1/4 NPT	1/8 NPT	11 (27.9)	9-1/4 (23.5)	10-1/2 (26.7)	170 (76.7)	170 (11.7)	40 (2.8)	130 (9.0)	1.5	21.0 (9.5)

PRESSURE HANDLER® 300/750/ATM

THE PRESSURE HANDLER® HANDLE APPLICATIONS FROM 0 PSIG TO 1200 PSIG, AND THE 300 & 750 MODELS SPECIFICATIONS REPRESENT ONLY TWO OF THE MANY OPTIONS AVAILABLE FOR POSITIVE PRESSURES. FOR SITUATIONS WHERE ATMOSPHERIC OR ZERO PRESSURE APPLICATIONS ARE REQUIRED, THE PRESSURE HANDLER® ATM IS THE APPROPRIATE SOLUTION, SERVING AS A PRESSURE POWER PUMP BY TAKING A ZERO PRESSURE LIQUID FEED AND PRESSURIZING IT TO PUSH IT OUT AND EVEN UP TO A HIGHER LEVEL.

Part Number	Inlet/Outlet (in)	Control Air (in)	Balance Line (in)	Dimensions - in (cm)			Max Liquid Temperature - F (C°)	Max Liquid Pressure - PSIG (BARG)	Control Air Min - PSIG (BARG)	Control Air Max - PSIG (BARG)	Max Flow at 100 PSIG (GPM)	Weight - lbs (kg)
				Height	Width	Depth						
PH50-0MAAA	1/2 NPT	1/4 NPT	1/8 NPT	11 (27.9)	9-1/4 (23.5)	10-1/2 (26.7)	170 (76.7)	300 (20.7)	40 (2.8)	130 (9.0)	1.7 @ 200 PSIG	21 (9.5)
PH50-0NAAA	1/2 NPT	1/4 NPT	1/8 NPT	11 (27.9)	9-1/4 (23.5)	10-1/2 (26.7)	170 (76.7)	750 (51.7)	40 (2.8)	130 (9.0)	2.2 @ 500 PSIG	21 (9.5)
PH50-0GAAA	1/2 NPT	1/4 NPT	Non	11 (27.9)	10-3/4 (27.3)	13-1/2 (34.3)	170 (76.7)	Atmospheric	50 (3.4)	130 (9.0)	N/A	22 (10.0)

CONDENSATE TRAPS

RUST HANDLER®

THE RUST HANDLER® IS NEEDED WHEN THERE IS SEVERE RUST AND DEBRIS AS IS FOUND IN OLD RECEIVER TANKS AND PIPING, AS WELL AS OLD INTERCOOLERS/AFTERCOOLERS, THAT SLOUGH OFF SCALE.

Part Number	Inlet/Outlet (in)	Control Air (in)	Balance Line (in)	Dimensions - in (cm)			Max Liquid Temperature - F (C°)	Max Liquid Pressure - PSIG (BARG)	Control Air Min - PSIG (BARG)	Control Air Max - PSIG (BARG)	Max Flow at 100 PSIG (GPM)	Weight - lbs (kg)
				Height	Width	Depth						
RH50-0LAAA	1/2 NPT	1/4 NPT	1/8 NPT	11 (27.9)	9-1/4 (23.5)	10-1/2 (26.7)	170 (76.7)	170 (11.7)	40 (2.8)	130 (9.0)	1.5	21 (9.5)

CORROSION HANDLER®

THE CORROSION HANDLER® HANDLES APPLICATIONS WHERE THE CONDENSATE HAS A CORROSIVE ACTION (FROM A GAS LIKE CO2 OR AN AGGRESSIVE LIQUID COMPONENT FROM A PROCESS) AND/OR THE ENVIRONMENT IS CORROSIVE TO THE TRAP PRODUCT (SUCH AS CEMENT FACTORIES OR OIL RIG OPERATIONS AT SEA). THE SPECIFICATIONS SHOWN REPRESENT TWO (2) OF THE MORE THAN 80 CORROSION HANDLER® TRAP OPTIONS AVAILABLE IN THIS LINE.

Part Number	Inlet/Outlet (in)	Control Air (in)	Balance Line (in)	Dimensions - in (cm)			Max Liquid Temperature - F (C°)	Max Liquid Pressure - PSIG (BARG)	Control Air Min - PSIG (BARG)	Control Air Max - PSIG (BARG)	Max Flow at 100 PSIG (GPM)	Weight - lbs (kg)
				Height	Width	Depth						
CH50-0LAA1	1/2 NPT	1/4 NPT	1/8 NPT	11 (27.9)	9-1/4 (23.5)	10-1/2 (26.7)	170 (76.7)	170 (11.7)	40 (2.8)	130 (9.0)	1.5	21.0 (9.5)
CH50-0LP1A	1/2 NPT	1/4 NPT	1/8 NPT	11 (27.9)	9-1/4 (23.5)	10-1/2 (26.7)	170 (76.7)	170 (11.7)	40 (2.8)	130 (9.0)	1.5	14.7 (6.7)

CONDENSATE TRAPS

TEMPERATURE HANDLER®

THE TEMPERATURE HANDLER® IS USED IN HIGH TEMPERATURE APPLICATIONS. SPECIFIC MODELS EXIST FOR 250° F AND 350° F APPLICATIONS.

Part Number	Inlet/Outlet (in)	Control Air (in)	Balance Line (in)	Dimensions - in (cm)			Max Liquid Temperature - F (C°)	Max Liquid Pressure - PSIG (BARG)	Control Air Min - PSIG (BARG)	Control Air Max - PSIG (BARG)	Max Flow at 100 PSIG (GPM)	Weight - lbs (kg)
				Height	Width	Depth						
TH50-0LTAA	1/2 NPT	1/4 NPT	1/8 NPT	11 (27.9)	9-1/4 (23.5)	10-1/2 (26.7)	250 (121)	170 (11.7)	40 (2.8)	130 (9.0)	1.5	21 (9.5)
TH50-0LTAB	1/2 NPT	1/4 NPT	1/8 NPT	11 (27.9)	9-1/4 (23.5)	10-1/2 (26.7)	350 (176.7)	170 (11.7)	40 (2.8)	130 (9.0)	1.5	22.6 (10.3)

VACUUM HANDLER®

THE VACUUM HANDLER® TRAP IS USED WHEN A VACUUM SYSTEM EXISTS THAT IS PRODUCING THE CONDENSATE.

Part Number	Inlet/Outlet (in)	Control Air (in)	Balance Line (in)	Dimensions - in (cm)			Max Liquid Temperature - F (C°)	Max Liquid Pressure - PSIG (BARG)	Control Air Min - PSIG (BARG)	Control Air Max - PSIG (BARG)	Max Flow at 100 PSIG (GPM)	Weight - lbs (kg)
				Height	Width	Depth						
UH50-0LAAA	1/2 NPT	1/4 NPT	1/2 NPT	15 (38.1)	10-3/4 (27.3)	13-1/2 (34.3)	170 (76.7)	28.5 (723.9)	40 (2.8)	130 (9.0)	1.0	22.6 (10.3)

CONDENSATE TRAPS

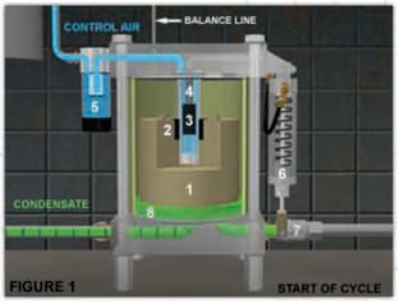
VOLUME HANDLER®

THE VOLUME HANDLER® IS USED IN SITUATIONS WITH A VERY LARGE LIQUID FLOW. A VARIETY OF MODELS ARE AVAILABLE PROVIDING FLOW CAPACITIES FROM 3 GPM TO OVER 100 GPM.

Part Number	Inlet/Outlet (in)	Control Air (in)	Balance Line (in)	Dimensions - in (cm)			Max Liquid Temperature °F (C°)	Max Liquid Pressure -	Control Air Min - PSIG (BARG)	Control Air Max - PSIG (BARG)	Max Flow at 100 PSIG	Weight - lbs (kg)
				Height	Width	Depth						
VH10-0LAAA	1 NPT	1/4 NPT	1/8 NPT	12 (30.5)	10-3/4 (27.3)	11-1/2 (29.2)	170 (76.7)	170 (11.7)	50 (3.4)	130 (9.0)	6.0	24.6 (11.2)
VH20-0LAAA	2 NPT	1/4 NPT	1/8 NPT	13-1/2 (34.3)	10-3/4 (27.3)	14 (35.6)	170 (76.7)	170 (11.7)	50 (3.4)	130 (9.0)	36.0	36.5 (16.6)

THE TECHNOLOGY - HOW IT WORKS

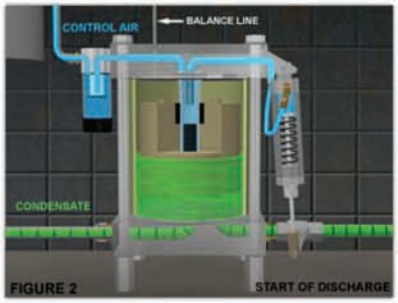
FIGURE 1 - START OF CYCLE



FLOAT (1) WITH INTEGRAL FLOAT MAGNET (2) IS AT LOWEST LEVEL. THE FLOAT MAGNET EXERTS A MAGNETIC FORCE REPELLING THE INNER MAGNET (3) UPWARD, HOLDING IT SEATED AGAINST THE VALVE STEM (4). THIS PREVENTS CONTROL AIR, COMING IN THROUGH THE CONTROL FILTER (5), FROM REACHING THE ACTUATING CYLINDER (6), WHICH STAYS IN THE HOME POSITION WITH THE DISCHARGE BALL VALVE (7) IN THE CLOSED POSITION. THE INNER MAGNET AND VALVE STEM ARE LOCATED IN THE CENTER TUBE AND ARE ISOLATED FROM THE CONDENSATE.

THERE IS ALWAYS A RESIDUAL AMOUNT OF CONDENSATE (8) IN THE BOTTOM OF THE RESERVOIR FROM THE LAST DISCHARGE CYCLE. DRAIN-ALL® STOPS DISCHARGING BEFORE ALL ACCUMULATED CONDENSATE IS REMOVED, PROVIDING A LIQUID SEAL THAT CONSERVES EXPENSIVE COMPRESSED AIR.

FIGURE 2 - START OF DISCHARGE



AS CONDENSATE FLOWS IN, IT RAISES THE FLOAT WITH FLOAT MAGNET TO ITS HIGHEST POSITION. AT THIS POINT, THE DRAIN-ALL® HAS BEEN TRIGGERED TO DISCHARGE. THE FLOAT MAGNET HAS RISEN UP, PAST THE INNER MAGNET, AND REPELLED IT DOWNWARD, OPENING THE FLOW OF CONTROL AIR TO THE ACTUATING CYLINDER. THE ACTUATING CYLINDER OPENS THE BALL VALVE AND BEGINS DISCHARGING THE ACCUMULATED CONDENSATE.

WHEN THE CORRECT AMOUNT OF CONDENSATE HAS BEEN DISCHARGED, LEAVING A LIQUID SEAL, THE FLOAT HAS BEEN LOWERED TO A POINT WHERE THE FLOAT MAGNET HAS PASSED THE INNER MAGNET, REPELLING IT BACK UPWARD AGAINST THE VALVE STEM. THIS STOPS CONTROL AIR FLOW TO THE ACTUATING CYLINDER, WHICH RETURNS TO ITS HOME POSITION, CLOSING THE DISCHARGE BALL VALVE STOPPING THE FLOW OF CONDENSATE. AT THIS POINT IN THE CYCLE, AS SHOWN IN FIGURE 1, CONDENSATE AGAIN BEGINS TO ACCUMULATE IN THE RESERVOIR AND THE CYCLE IS REPEATED.