

TYPE Economical DMS • DEFENDER SERIES

Standard Equipment includes: 3/16" Thick Black Steel Receiver, Gauge Glass Assembly, Dial Thermometer, 1/2" Mechanical Make-up Valve Assembly, Bronze Fitted Centrifugal Pump(s), 1/3 HP, Single Phase, 3500 RPM Pump

TYPE DMS—ECONOMICAL UNITS—BOILER RELIEF VALVE SETTING OF 15 PSIG OR LESS

Boiler Capacity (in HP)	Pump GPM	Pump PSIG	Pump Disch. Size Inches	Rec. Size	SIMPLEX			DUPLEX		
					CATALOG NO.	\$	SHPG. WT.	CATALOG NO.	\$	SHPG. WT.
8	1	20	3/4	7-1/2	DMS-1A*	1610	105	—	—	—
15	2	20	3/4	15	DMS-3A*	1795	120	DMS-4A*	2515	195
20	3	20	3/4	21	DMS-5	1910	150	DMS-6	2650	225
35	5	20	3/4	35	DMS-7	2315	185	DMS-8	3050	250

DMES-1A, DMES-3A, and DMES-4A units only available with 1/2" solenoid valve & float switch assembly.

If you want a 1/2" solenoid valve & float switch assembly for DMS-5, DMS-6, DMS-7 or DMS-8 units **add \$360.00** List and the letter A to the end of the Catalog number for example DMES-5 becomes DMES-5A with this option.

TYPE Economical DMES • DEFENDER SERIES

Standard Equipment includes: 3/16" Thick Black Steel Receiver, Gauge Glass Assembly, Dial Thermometer, 1/2" Mechanical Make-up Valve Assembly, Bronze Fitted Turbine Pump(s), 1/3 HP, Single Phase, 3500 RPM Pump, 2" Suction Wye Strainer and 2" Isolation Gate Valve in each Pump Suction and 48" Angle Iron Stand.

TYPE DMES OR CES-T—ECONOMICAL UNITS—BOILER RELIEF VALVE SETTING OF 15 PSIG OR LESS

Boiler Capacity (in HP)	Pump GPM	Pump PSIG	Pump Disch. Size Inches	Rec. Size	SIMPLEX			DUPLEX		
					CATALOG NO.	\$	SHPG. WT.	CATALOG NO.	\$	SHPG. WT.
8	1	120	1	7-1/2	DMES-1A*	2860	230	—	—	—
15	2	120	1	15	DMES-3A*	3045	245	DMES-4A*	4390	320
20	3	120	1	21	DMES-5	3160	275	DMES-6	4525	350
20	3	120	1	20	CES-T-7	3160	185	CES-T-8	4525	250

The CES-T units have a receiver 14" diameter x 30" shell length

DMES-1A, DMES-3A, and DMES-4A units only available with 1/2" solenoid valve & float switch assembly.

If you want a 1/2" solenoid valve & float switch assembly for DMES-5, EMES-6, CES-T-7 or CES-T-8 units **add \$360.00** List and the letter A to the end of the Catalog number for example DMES-5 becomes DMES-5A with this option.

TYPE CES-T

ELEVATED Units consist of		
DESCRIPTION	TYPE CES-T	
	SIMPLEX	DUPLEX
Steel Receiver 3/16" Thick	1	1
Mechanical Make-up Valve (up to 1")	1	1
Dial Thermometer	1	1
Water Level Gauge w/ Shut-off Valves	1	1
Lifting Eyes	2	2
2" Suction Piping with 2" Gate Valves	1	2
Suction Wye Strainers 2"	1	2
Turbine Pumps Bronze Fitted	1	2

** Maximum number of boilers on line at one time.
 && Selection based on 150 PSIG design boilers or less with pumps running on-off basis only.
 BHP or boiler horsepower capacity is from a range of up to and including this size.

** SYSTEM LOAD (IN BHP)	BHP EACH PUMP IS SIZED TO FEED	NO. OF PUMPS	HORIZ. PUMP TYPE	PUMP MOTOR HP	PUMP DISCH SIZE (INCHES)	TANK SIZE GALS.	TANK INLET SIZE (INCHES)	TANK DIMENSIONS (INCHES)	\$	SHPG. WT.
20	20	1	B	1/2	1	20	2	14 x 30	3385	340
20	20	2	B	1/2	1	20	2	14 x 30	4720	380
30	30	1	C	3/4	1	33	2	18 x 30	3710	410
30	30	2	C	3/4	1	33	2	18 x 30	5105	460
40	40	1	D	3/4	1	49	2	22 x 30	3895	425
40	40	2	D	3/4	1	49	2	22 x 30	5290	475
40	20	2	B	1/2	1	49	2	22 x 30	5170	455
40	20	3	B	1/2	1	49	2	22 x 30	6505	495
60	60	1	E	1-1/2	1	71	2	24 x 36	4720	465
60	60	2	E	1-1/2	1	71	2	24 x 36	6625	530
60	20	3	B	1/2	1	71	2	24 x 36	6820	520
60	30	2	C	3/4	1	71	2	24 x 36	5605	500
60	30	3	C	3/4	1	71	2	24 x 36	7000	550
75	75	1	G	2	1	71	2	24 x 36	4940	465
75	75	2	G	2	1	71	2	24 x 36	7065	530
75	25	3	C	3/4	1	71	2	24 x 36	7000	550
75	37	2	D	3/4	1	71	2	24 x 36	5605	500
75	37	3	D	3/4	1	71	2	24 x 36	7000	550
90	90	1	J	3	1	94	2	24 x 48	5410	570
90	90	2	J	3	1	94	2	24 x 48	7790	640
90	22	4	C	3/4	1	94	2	24 x 48	8610	700
90	30	3	C	3/4	1	94	2	24 x 48	7215	650
90	30	4	C	3/4	1	94	2	24 x 48	8610	700
90	45	2	E	1-1/2	1	94	2	24 x 48	6840	630
90	45	3	E	1-1/2	1	94	2	24 x 48	8745	695
110	110	1	L	5	1	117	2	24 x 60	6410	725
110	110	2	L	5	1	117	2	24 x 60	9320	845
110	27	4	C	3/4	1	117	2	24 x 60	9080	805
110	36	3	D	3/4	1	117	2	24 x 60	7685	755
110	36	4	D	3/4	1	117	2	24 x 60	9080	805
110	55	2	E	1-1/2	1	117	2	24 x 60	7310	735
110	55	3	E	1-1/2	1	117	2	24 x 60	9215	800
140	140	1	M	5	1	147	2	30 x 48	6580	775
140	140	2	M	5	1	147	2	30 x 48	9490	895
140	36	4	D	3/4	1	147	2	30 x 48	9250	855
140	46	3	E	1-1/2	1	147	2	30 x 48	9385	850
140	46	4	E	1-1/2	1	147	2	30 x 48	11290	915
140	70	2	G	2	1	147	2	30 x 48	7750	785
140	70	3	G	2	1	147	2	30 x 48	9875	850

ACCESSORIES

Water Level Gauge w/shut-off valves

Red Line Glass in lieu of Standard \$ 25

Access Opening & Manholes

Access Opening 345

Black Manholes

12" x 16" (must use to Plasite line a 30" or 36" diameter tank) 1800

14" x 18" (must use to Plasite line a 42" diameter tank & larger) 1850

Switches & Floats

Nema 4 or 7 Float Switch to replace the one Standard Nema 1 Float

Switch for Make-up 400

High Water Float Switch Nema 1 275

High Water Float Switch Nema 4 or 7 675

Low Water Float Switch Nema 1 for Alarm or cut-off 275

Low Water Float Switch Nema 4 or 7 for Alarm or cut-off 675

Cast Iron External Float Switch Assembly

If the tank chosen is 42" diameter and larger you must use two (2)

External Float Switches Nema 1 with a holding relay to control the Solenoid Make-up Valve 1555

If the tank chosen is 42" diameter and larger you must use two (2)

External Float Switches Nema 4 or 7 with a holding relay to control the Solenoid Make-up Valve 2355

If tank chosen is under 42" diameter you only need one (1) Nema 1

External Float Switch for Make-up Control 540

If tank chosen is under 42" diameter you only need one (1) Nema 4

or 7 External Float Switch for Make-up Control 940

Add to change selected high water, low water or low water

cut-off Switch to a Cast Iron External Float Switch Assembly per switch 540

Inlet Strainers

2" Inlet Basket Strainer 340

3" Inlet Basket Strainer 525

4" Inlet Basket Strainer 740

6" Inlet Basket Strainer 1160

8" Inlet Basket Strainer 1225

Thermometers in lieu of standard Dial

Angle 15

Digital 45

To substitute Solenoid Valve and Float Switch Assembly in lieu of standard Mechanical Make-up Valve Assembly

1/2" 360

3/4" 400

1" 440

Boiler Feed Solenoid Make-up Valve Sizing at 40 PSIG Water Supply (usually based on single pump's pumping rate)

1/2" 0 GPM – 19 GPM

3/4" 20 GPM – 42 GPM

1" 43 GPM – 72 GPM

1-1/4" 73 GPM – 111 GPM

1-1/2" 112 GPM – 142 GPM

2" 143 GPM – 250 GPM

To add an air gap fitting or 3 valve bypass you must add in the price for the mechanical make-up to be switched to a solenoid valve & float switch assembly listed above.

Air Gap Fitting for Make-up on Solenoid Valve

1/2" \$ 300

3/4" 300

1" 415

1-1/4" 510

1-1/2" 680

2" 800

3 Valve Bypass & Wye Strainers around Solenoid Valve

1/2" 320

3/4" 510

1" 575

1-1/4" 830

1-1/2" 1025

2" 1180

Penberthy Heater only 950

Temperature Limit Switch with Steam Solenoid Valve (must use Penberthy Heater)

1/2" 1025

3/4" 1110

1" 1625

1-1/4" 1800

1-1/2" 2310

2" 3030

Misc.

Inlet Cascade Baffle 150

Removable Stand 525

Stand made of Tubing (Tanks elevated above 60" must use Tubing

in lieu of Standard Angle Iron) 1600

Seismic Zone Bracing 1313

Expansion Couplings (per P&M) 370

Magnesium Anode 175

Discharge Pressure Gauge Assembly (per P&M) 125

Chemical Feed Quill 225

Stainless steel receivers—see adders

See adders for electrical control panels for boiler feed units

Note: 304 stainless pre-heater tube assembly & regulators are available.

Consult factory for pricing and pump NPSH characteristics.