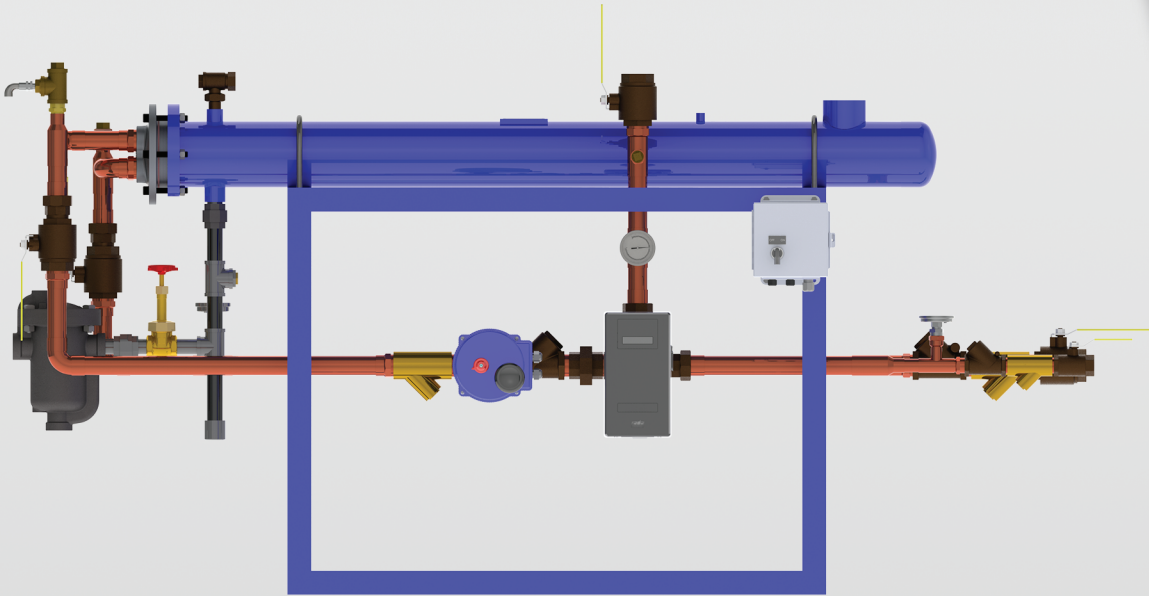


# Digital-Flo® Instantaneous Hot Water





# Armstrong® Digital-Flo® Instantaneous Hot Water

Armstrong blends revolutionary digital water temperature control technology with instantaneous heat exchanger design to deliver Digital-Flo®, an industry changing series of Shell & Tube Steam/Water Heaters.

Digital-Flo uses digital technology featuring The Brain® Digital Recirculating Valve (DRV) to offer a level of hot water system temperature control accuracy previously considered unattainable.

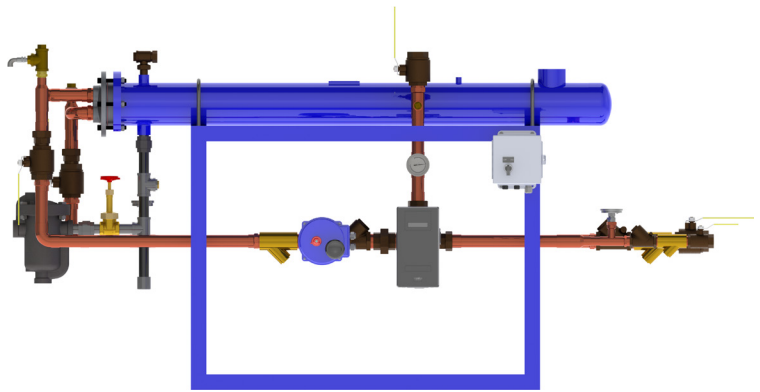
Digital-Flo® is compatible with Building Automation Systems on the BACnet™, LonWorks™, Modbus protocols and can be remotely programmed from and performance data is accessible by a Web browser.

## Armstrong Digital Technology

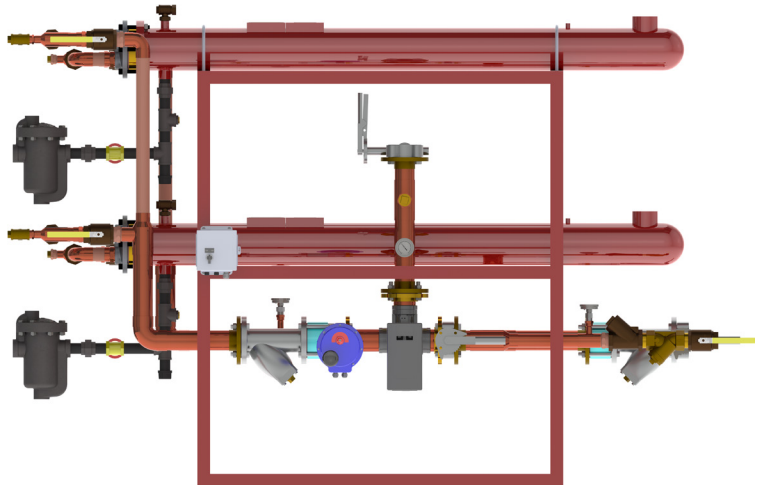
- Powered by low voltage electronics
- Quick response times eliminate the need for pneumatic control valves
- Programmable high/low temperature alert function
- Programmable hot water system safety shutdown
- Self Diagnostic Display Messaging
- Integral Building Automation System (BAS) Modbus Interface
- Serial Connection Point for BAS Interface (BACnet, LonWorks, Web)
- Simplified system commissioning

## Armstrong Heat Exchange Technology

- Constant steam pressure prevents stall - no pump trap
- Low surface temperature option for hard water applications
- Instantaneous - No Storage
- Water raised above Legionella survival temperature



Single Wall



Double Wall

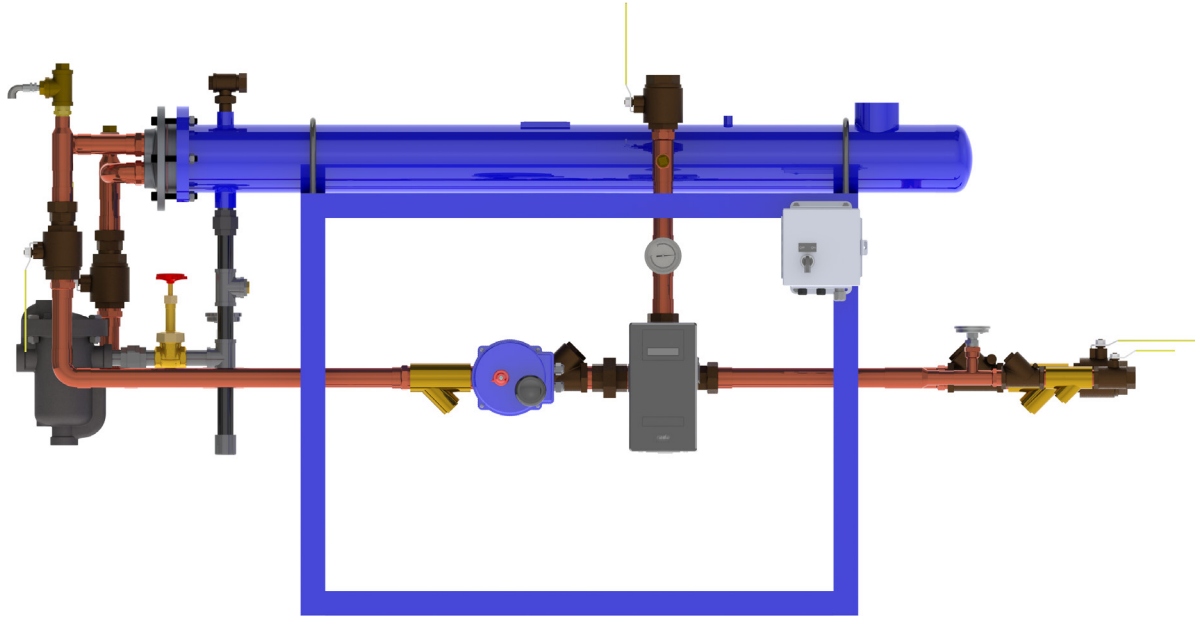
*All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.*

## Recirculating Valve (DRV40 & DRV80)



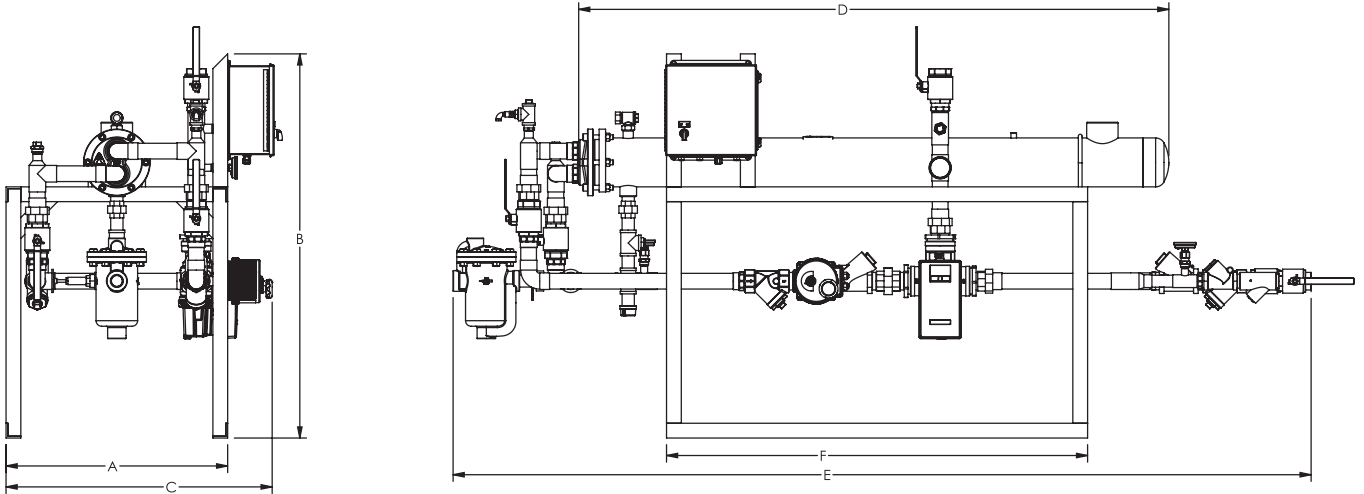


# Armstrong® Digital-Flo® Shell & Tube Heat Exchanger Single Wall



Digital Shell & Tube							
Model	Part Number	Water Side			Steam Side		
		Connections @ 7.5 ft/sec (2.3 m/s)		Flow @ 7.5 ft/sec (2.3 m/s)	Connections		Capacity @ 15 psi (1 bar)
		Hot/Cold	Recirc.	Capacity @ 90°F (50°C) Delta T Typical @120°F (49°C) Setpoint	Steam Inlet	Condensate Outlet	
DF41540	D589672	1"	1"	18 GPM	2 NPT	3/4 NPT	858 lb/hr (389 kg/hr)
DF41540BS	D589680	1"	1"	18 GPM	2 NPT	3/4 NPT	858 lb/hr (389 kg/hr)
DF415P40	D589682	1-1/2"	1"	36 GPM	2 NPT	3/4 NPT	1,716 lb/hr (778 kg/hr)
DF415P40BS	D589684	1-1/2"	1"	36 GPM	2 NPT	3/4 NPT	1,716 lb/hr (778 kg/hr)
DF53540	D589701	1-1/2"	1"	41 GPM	2-1/2 NPT	1 NPT	1,954 lb/hr (886 kg/hr)
DF53540BS	D589705	1-1/2"	1"	41 GPM	2-1/2 NPT	1 NPT	1,954 lb/hr (886 kg/hr)
DF535P50	D589709	2"	1-1/2"	73 GPM	2-1/2 NPT	1 NPT	3,479 lb/hr (1,578 kg/hr)
DF535P50BS	D589711	2"	1-1/2"	73 GPM	2-1/2 NPT	1 NPT	3,479 lb/hr (1,578 kg/hr)
DF66550	D589747	2"	1-1/2"	73 GPM	3 NPT	1-1/4 NPT	3,479 lb/hr (1,578 kg/hr)
DF66550BS	D589756	2"	1-1/2"	73 GPM	3 NPT	1-1/4 NPT	3,479 lb/hr (1,578 kg/hr)
DF665P80	D589758	3"	2"	165 GPM	3 NPT	1-1/4 NPT	7,720 lb/hr (3,502 kg/hr)
DF665P80BS	D589760	3"	2"	165 GPM	3 NPT	1-1/4 NPT	7,720 lb/hr (3,502 kg/hr)
DF812080	D589781	3"	2"	165 GPM	4 FLG	2 NPT	7,863 lb/hr (3,567 kg/hr)
DF812080BS	D589783	3"	2"	165 GPM	4 FLG	2 NPT	7,863 lb/hr (3,567 kg/hr)
DF8120P80	D589787	3"	2"	165 GPM	4 FLG	2 NPT	7,863 lb/hr (3,567 kg/hr)
DF8120P80BS	D589789	3"	2"	165 GPM	4 FLG	2 NPT	7,863 lb/hr (3,567 kg/hr)

# Digital-Flo® Shell & Tube Heat Exchanger Single Wall

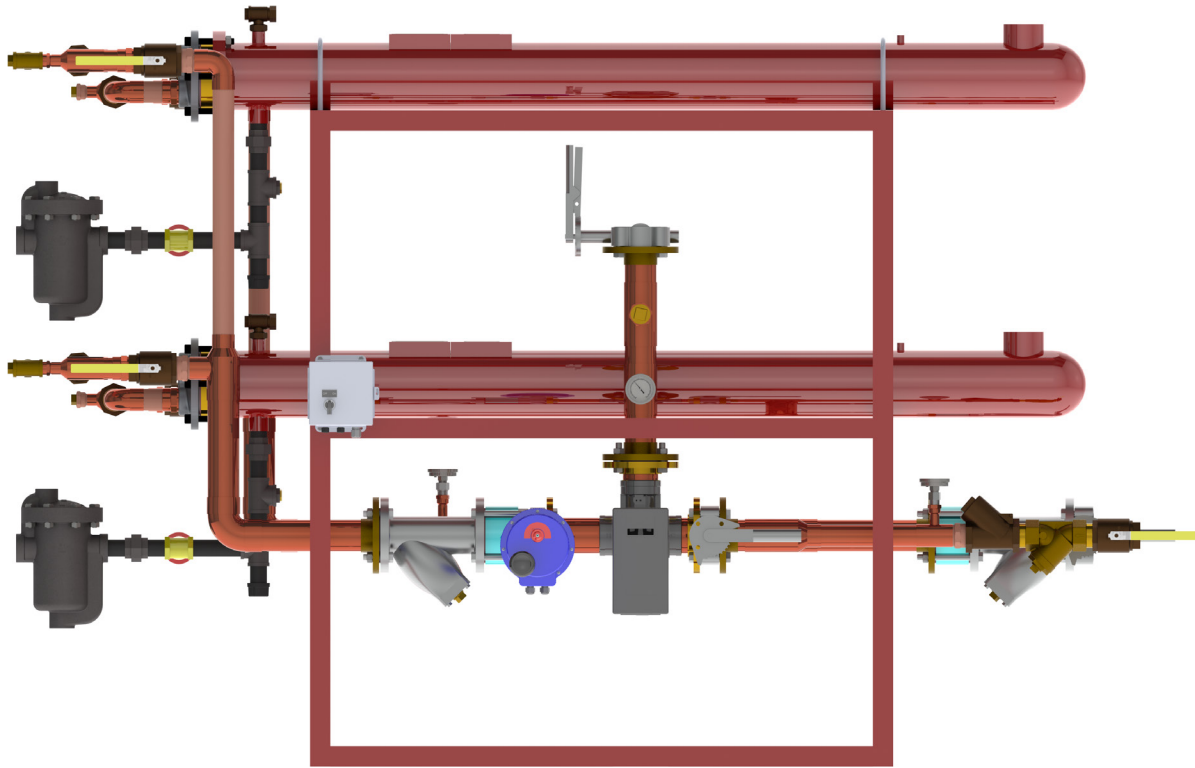


Dimensions and Weight							
Model	Dimensions in (mm)						Weight
	A	B	C	D	E	F	
DF41540	20.0 (508)	43.2 (1,097)	25.4 (645)	54.7 (1,389)	72.3 (1,837)	36.0 (915)	385
DF41540BS	20.0 (508)	52.0 (1,321)	25.4 (645)	54.7 (1,389)	72.3 (1,837)	36.0 (915)	410
DF415P40	20.0 (508)	75.5 (1,918)	26.4 (670)	54.7 (1,389)	79.8 (2,027)	36.0 (915)	580
DF415P40BS	20.0 (508)	75.5 (1,918)	26.4 (670)	54.7 (1,389)	79.8 (2,027)	36.0 (915)	605
DF53540	20.0 (508)	44.5 (1,129)	26.4 (670)	66.9 (1,698)	66.9 (1,698)	45.0 (1,143)	804
DF53540BS	20.0 (508)	52.0 (1,321)	26.4 (670)	66.9 (1,698)	66.9 (1,698)	45.0 (1,143)	829
DF535P50	20.0 (508)	76.7 (1,948)	27.1 (687)	66.9 (1,698)	66.9 (1,698)	45.0 (1,143)	1,234
DF535P50BS	20.0 (508)	76.7 (1,948)	27.1 (687)	66.9 (1,698)	66.9 (1,698)	45.0 (1,143)	1,259
DF66550	30.0 (915)	50.0 (1,270)	36.0 (915)	79.9 (2,029)	116.2 (2,950)	57.0 (1,448)	1,094
DF66550BS	30.0 (915)	52.0 (1,321)	36.0 (915)	79.9 (2,029)	116.2 (2,950)	57.0 (1,448)	1,119
DF665P80	30.0 (915)	74.1 (1,883)	40.3 (1,024)	79.9 (2,029)	111.0 (2,818)	57.0 (1,448)	1,835
DF665P80BS	30.0 (915)	74.1 (1,883)	40.3 (1,024)	79.9 (2,029)	111.0 (2,818)	57.0 (1,448)	1,860
DF812080	34.0 (864)	53.0 (1,345)	43.5 (1,105)	83.0 (2,107)	128.1 (3,253)	57.0 (1,448)	1,507
DF812080BS	34.0 (864)	53.0 (1,345)	43.5 (1,105)	83.0 (2,107)	128.1 (3,253)	57.0 (1,448)	1,532
DF8120P80	34.0 (864)	75.9 (1,929)	42.9 (1,090)	83.0 (2,107)	129.1 (3,279)	57.0 (1,448)	3,011
DF8120P80BS	34.0 (864)	75.9 (1,929)	42.9 (1,090)	83.0 (2,107)	129.1 (3,279)	57.0 (1,448)	3,036



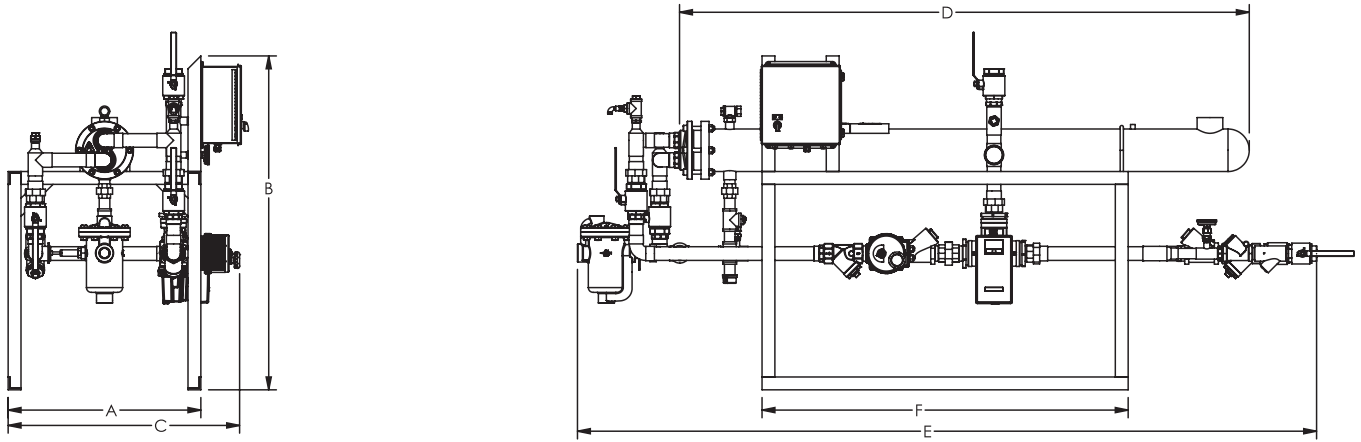


# Armstrong® Digital-Flo® Shell & Tube Heat Exchanger Double Wall



Digital Shell & Tube							
Model	Part Number	Water Side			Steam Side		
		Connections @ 7.5 ft/sec (2.3 m/s)		Flow @ 7.5 ft/sec (2.3 m/s)	Connections		Capacity @ 15 psi (1 bar)
		Hot/Cold	Recirc.	Capacity @ 90°F (50°C) Delta T Typical @120°F (49°C) Setpoint	Steam Inlet	Condensate Outlet	
DF415DW40	D589691	1"	1"	18 GPM	2 NPT	3/4 NPT	858 lb/hr (389 kg/hr)
DF415DW40BS	D589699	1"	1"	18 GPM	2 NPT	3/4 NPT	858 lb/hr (389 kg/hr)
DF415DWP40	D589695	1-1/2"	1"	36 GPM	2 NPT	3/4 NPT	1,716 lb/hr (778 kg/hr)
DF415DWP40BS	D589693	1-1/2"	1"	36 GPM	2 NPT	3/4 NPT	1,716 lb/hr (778 kg/hr)
DF535DW40	D589718	1-1/2"	1"	41 GPM	2-1/2 NPT	1 NPT	1,954 lb/hr (886 kg/hr)
DF535DW40BS	D589723	1-1/2"	1"	41 GPM	2-1/2 NPT	1 NPT	1,954 lb/hr (886 kg/hr)
DF535DWP50	D589725	2"	1-1/2"	73 GPM	2-1/2 NPT	1 NPT	3,479 lb/hr (1,578 kg/hr)
DF535DWP50BS	D589741	2"	1-1/2"	73 GPM	2-1/2 NPT	1 NPT	3,479 lb/hr (1,578 kg/hr)
DF665DW50	D589762	2"	1-1/2"	73 GPM	3 NPT	1-1/4 NPT	3,479 lb/hr (1,578 kg/hr)
DF665DW50BS	D589767	2"	1-1/2"	73 GPM	3 NPT	1-1/4 NPT	3,479 lb/hr (1,578 kg/hr)
DF665DWP80	D589770	3"	2"	165 GPM	3 NPT	1-1/4 NPT	7,720 lb/hr (3,502 kg/hr)
DF665DWP80BS	D589776	3"	2"	165 GPM	3 NPT	1-1/4 NPT	7,720 lb/hr (3,502 kg/hr)
DF8120DW80	D589795	3"	2"	165 GPM	4 FLG	2 NPT	7,863 lb/hr (3,567 kg/hr)
DF8120DW80BS	D589801	3"	2"	165 GPM	4 FLG	2 NPT	7,863 lb/hr (3,567 kg/hr)
DF8120DWP80	D589804	3"	2"	165 GPM	4 FLG	2 NPT	7,863 lb/hr (3,567 kg/hr)
DF8120DWP80BS	D589808	3"	2"	165 GPM	4 FLG	2 NPT	7,863 lb/hr (3,567 kg/hr)

# Digital-Flo® Shell & Tube Heat Exchanger Double Wall



Dimensions and Weight							
Model	Dimensions in (mm)						Weight
	A	B	C	D	E	F	
DF415DW40	20.0 (508)	43.2 (1,097)	25.4 (645)	76.4 (1,941)	71.6 (1,819)	36.0 (915)	465
DF415DW40BS	20.0 (508)	52.0 (1,321)	25.4 (645)	76.4 (1,941)	71.6 (1,819)	36.0 (915)	490
DF415DWP40	20.0 (508)	75.5 (1,918)	26.4 (670)	76.4 (1,941)	87.9 (2,232)	36.0 (915)	740
DF415DWP40BS	20.0 (508)	75.5 (1,918)	26.4 (670)	76.4 (1,941)	87.9 (2,232)	36.0 (915)	765
DF535DW40	20.0 (508)	44.5 (1,129)	26.4 (670)	76.5 (1,944)	89.6 (2,277)	45.0 (1,143)	1,080
DF535DW40BS	20.0 (508)	52.0 (1,321)	26.4 (670)	76.5 (1,944)	89.6 (2,277)	45.0 (1,143)	1,105
DF535DWP50	20.0 (508)	76.7 (1,948)	27.1 (687)	76.5 (1,944)	98.1 (2,492)	45.0 (1,143)	1,317
DF535DWP50BS	20.0 (508)	76.7 (1,948)	27.1 (687)	76.5 (1,944)	98.1 (2,492)	45.0 (1,143)	1,342
DF665DW50	30.0 (915)	50.0 (1,270)	36.0 (915)	88.7 (2,253)	115.1 (2,923)	57.0 (1,448)	1,373
DF665DW50BS	30.0 (915)	52.0 (1,321)	36.0 (915)	88.7 (2,253)	115.1 (2,923)	57.0 (1,448)	1,398
DF665DWP80	30.0 (915)	74.1 (1,883)	40.3 (1,024)	79.9 (2,029)	110.7 (2,811)	57.0 (1,448)	1,892
DF665DWP80BS	30.0 (915)	74.1 (1,883)	40.3 (1,024)	79.9 (2,029)	110.7 (2,811)	57.0 (1,448)	1,917
DF8120DW80	34.0 (864)	53.0 (1,345)	43.5 (1,105)	77.3 (1,963)	126.6 (3,216)	57.0 (1,448)	1,550
DF8120DW80BS	34.0 (864)	53.0 (1,345)	43.5 (1,105)	77.3 (1,963)	126.6 (3,216)	57.0 (1,448)	1,575
DF8120DWP80	34.0 (864)	75.9 (1,929)	42.9 (1,090)	77.3 (1,963)	127.6 (3,242)	57.0 (1,448)	3,050
DF8120DWP80BS	34.0 (864)	75.9 (1,929)	42.9 (1,090)	77.3 (1,963)	127.6 (3,242)	57.0 (1,448)	3,075

**Armstrong** provides intelligent system solutions that improve utility performance, lower energy consumption, and reduce environmental emissions while providing an “enjoyable experience.”



**Armstrong** Hot Water Group

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Bulletin HW-425-E  
Printed in U.S.A. - 1/14  
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