



Job Name:		
Job No.:	JWC Representative:	
Tag No.:	Submitted By:	Date:
Engineer:	Approved By:	Date:
Contractor:	Order No.:	Date:

## **JDSR Series**

## **ASME Tangential Air/Dirt Separators** With 304 SS Strainer, & Sediment Removal Bowl

#### **APPLICATION**

- JDSR Series air/dirt separators are designed with tangential openings to enhance the air separation efficiency. The vortex action allows the heavier airfree water to move to the vessel wall area while forcing the separated air into the center where it is vented out of the top of the separator.
- Water exits the vessel through the outlet nozzle connection near the bottom, free of air bubbles, protecting the system from the problems associated with trapped system air.
- The sediment removal bowl on the bottom provides a collection area or sump where heavier particulate can accumulate and be easily removed.
- The optional vertical air collector tube is designed to enhance the air separation performance.

#### **DESIGN PRESSURE AND TEMPERATURE**

- Maximum design pressure:
  - JDSR-20-501 to 509: 150 PSI (1035 kPa) JDSR-20-510 to 514: 125 PSI (862 kPa)
- 175, 200, 250, 300 PSI available upon request
- Maximum design temperature: 375° F (191° C)

## TYPICAL DESIGN SPECIFICATION



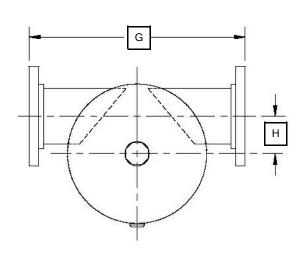
### **SPECIFICATIONS**

- Designed and built in accordance with the ASME BPV Code Section VIII, Division 1
- Installation: vertical
- Shell: Carbon Steel with exterior gray primer finish
- Removable horizontal 304 Stainless Steel strainer
- Strainer access connection: NPT cap for 2" and 21/2" sizes; grooved pipe coupling and cover for 3" to 12" sizes; blinded flange for 14" and larger sizes
- System connections: MNPT for 2" and 21/2" sizes; ANSI 150# RF flanges for 3" and larger
- These air separators can be supported in the piping system if the piping system hangers are located under the inlet and outlet nozzles as close as possible to the outside diameter of the shell of the unit.
- Optional factory welded support brackets on the shell are optionally available, but are required for the 6" and larger sizes for seismic designs.
- Lifting lugs are not designed to support the vessel in the piping system.

Furnish and install as shown on plans a John Wood Model No. JDSR-20 ASME stamped air/dirt separator with sed-
iment removal bowl, 304 Stainless Steel strainer, and vertical air collection tube. The unit shall have"
grooved system connections. A blowdown connection is provided to facilitate preventative maintenance and cleaning of
the sediment bowl and separator . The unit must be designed and constructed in accordance with the ASME Boiler and
Pressure Vessel Code Section VIII, Division 1, with a stamped MAWP ofPSI ( kPa).

# JDSR Series Air/Dirt Separators

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# Ε OPTIONAL COLLECTOR С TUBE D

#### **OPTIONS**

Support brackets with FNPT half couplings factory welded to the shell



Stainless steel collector tube

MODEL NUMBER	CODE SYMBOL	MAWP		OUTLET & TYPE	DIA	A METER	B DIM	OVEF	C RHEADS	D DIM	E DIM	F DIM	G DIM	H DIM	TANK WEIGHT
	UM/U	PSIG	IN	TYPE	IN	ММ	IN	IN	ММ	IN	IN	IN	IN	IN	LBS
JDSR-20-501	UM	150	2	NPT	12	305	13	21¾	552	8	11⁄4	1	16%	41⁄4	40
JDSR-20-502	UM	150	2½	NPT	12	305	13	21¾	552	8	11⁄4	1	16%	41/8	41
JDSR-20-503	UM	150	3	FLG	12	305	13	21¾	552	8	11⁄4	1	19¾	3¾	70
JDSR-20-504	UM	150	4	FLG	14	356	201⁄4	29¾	756	10¾	1½	1½	21¾	41⁄4	100
JDSR-20-505	UM	150	5	FLG	14	356	201⁄4	29¾	756	10¾	1½	1½	21¾	3¾	130
JDSR-20-506	U	150	6	FLG	20	508	29	42¾	1086	14½	2	2	28	61/4	220
JDSR-20-507	U	150	8	FLG	20	508	29	42¾	1086	14½	2	2	28	51⁄4	290
JDSR-20-508	U	150	10	FLG	30	762	39	59½	1511	19	2	2	41	91/8	635
JDSR-20-509	U	150	12	FLG	30	762	42	62½	1588	21	2	2	41	81/8	725
JDSR-20-510	U	125	14	FLG	36	914	58	81¾	2076	31½	2	2	46%	101⁄4	1493
JDSR-20-511	U	125	16	FLG	42	1067	72	1001⁄4	2546	36	2	2	52	101⁄4	1690
JDSR-20-512	U	125	18	FLG	48	1219	77	108	2743	41	2	2	61½	135%	3035
JDSR-20-513	U	125	20	FLG	54	1372	85½	120	3048	45	2	2	66	16	3200
JDSR-20-514	U	125	24	FLG	66	1676	92½	135	3429	47½	2	2	78	19	5210



Dimensions are subject to change Weights are approximate \*Stock model

## **JDSR Series Air/Dirt Separators**



#### PRESSURE DROP CHART FOR TANGENTIAL AIR SEPARATORS WITHOUT STRAINER

