



- Withstands instantaneous pressure at the Flame front in excess of 500 psig
- Tube bank design ensures consistent functioning
- Carbon steel or 316SS housing construction, 316SS tube bank
- Optional fittings for pressure taps or temperature probes
- Designed & tested in accordance with appendix A, 33 U.S. Code of Federal Regulations part 154
- Standard drain plug
- Pressure and temperature taps optional

The Shand & Jurs Detonation Flame Arresters

The Shand & Jurs Detonation Flame Arresters provide protection against flame propagation through piping runs and vapor recovery systems, while allowing maximum flow efficiencies. This design quenches a flame front approaching from either direction, even if it has transitioned to a detonation. The Arresters contain a detonation while retaining the integrity of both the arresting element and the housing. This is ensured by the design of the passages in the tube bank and the detonation resistant construction.

Standard construction of the housing is available in Carbon Steel or 316 Stainless Steel. The tube bank is Stainless Steel throughout. Special construction materials to withstand the corrosive actions of some vapors and atmospheric conditions are available upon request.

Because of the severe service conditions that the Detonation Flame Arrester encounters, all construction welding is performed in accordance with ASME Boiler and Pressure Vessel Code Section VIII and IX. Class 150lb. hydrostatically tested at 425 psig. Class 300lb. hydrostatically tested at 750 psig.

These models are available in a range of sizes from 2" through 24". Additional sizes available upon request. Standard connections are ANSI 150lb. or 300lb. Class raised face flanges.

Model #	Service / Approval
94311	NEC GRP D / F.M.
94312	NEC GRP D MARINE / F.M., USCG
94313	NEC GRP C & D / F.M.
94314	NEC GRP C & D MARINE / F.M.

SPECIFICATIONS:

Sizes:2", 3", 4", 6", 8", 10", 12",
14", 16", 18", 20", 22", 24"
DIN Sizes Available

Flange Rating:ANSI 150lb. or 300lb.

MATERIALS OF CONSTRUCTION:

Carbon Steel, 316 SS, Carpenter 20, Hastalloy,
or Duplex SS. (Other Material Available)

*Approvals:94311 2"-12" F.M.
94312 2"-12" USCG, F.M.
94313 2"-6" F.M.
94314 2"-6" F.M., Marine

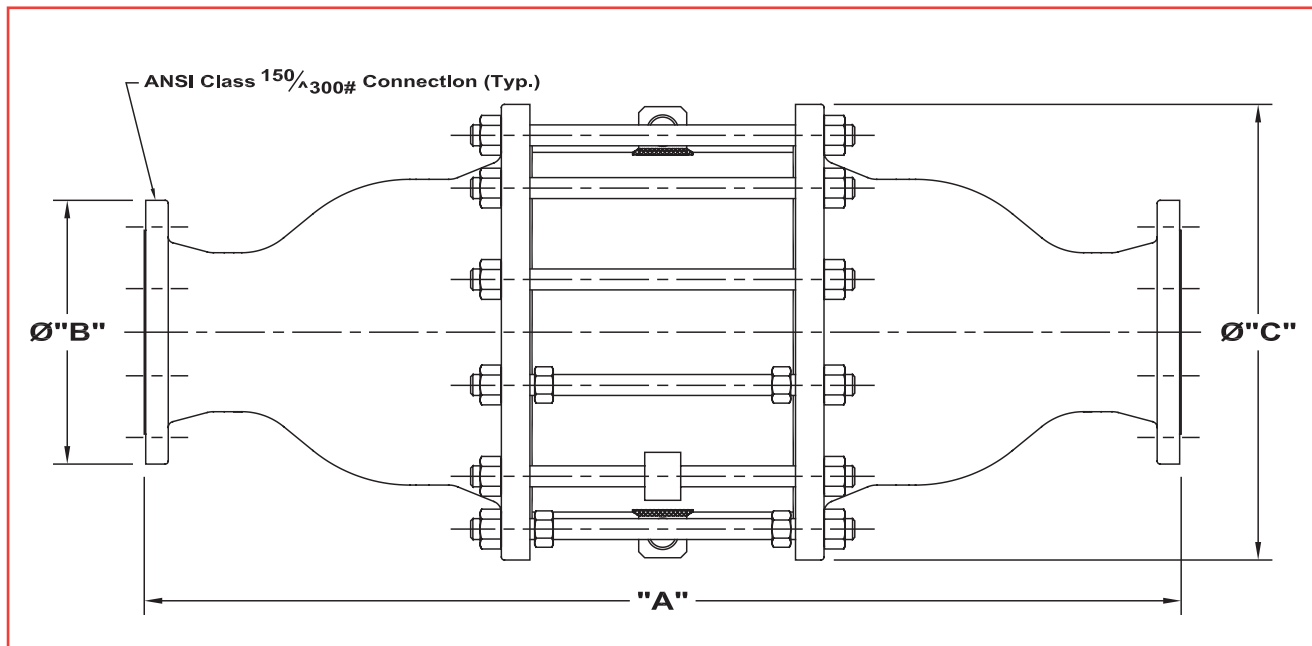
*STEEL, 316, DUPLEX SS

Class 300 lb.

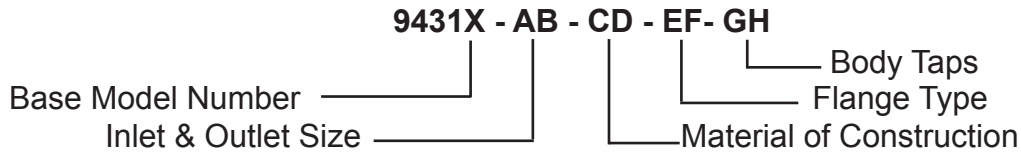
Size	2"	3"	4"	6"	8"	10"	12"	18"
"A"	30 5/16	35 1/16	37 9/16	45 1/16	60 5/16	74 9/16	76 1/16	69 13/16
"B"	6 1/2	8 1/4	10	12 1/2	15	17 1/2	20 1/2	28
"C"	10	12 1/2	15	20 1/2	25 1/2	30 1/2	36	47 1/2

Class 150 lb.

Size	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"
"A"	29 1/16	33 9/16	36 1/16	43 1/16	58 1/16	71 15/16	73 9/16	59 5/16	59 5/16	61 13/16
"B"	6	7 1/2	9	11	13 1/2	16	19	21	23 1/2	25
"C"	9	11	13 1/2	19	23 1/2	27 1/2	32	38 3/4	38 3/4	43 3/4



All designs subject to change. Certified dimensions and specifications available upon request



ORDERING INFORMATION

Specify:

1. Model 9431X Detonation Flame Arrester
2. Size, Body Material, and Service
3. Optional Body Taps (for pressure or temperature sensing or additional drains)
4. Optional Materials of Construction as Required



MODEL NUMBERS AND OPTIONS:

BASE NUMBER

94311
94312

94313
94314

SPECIFICATIONS

NEC Group 'D' Vapor
NEC Group 'D' Vapor -Marine/Offshore Applications
(USCoast Guard)
NEC Group 'C' & 'D' Vapor
NEC Group 'C' & 'D' Vapor - Marine/Offshore

Note: Tube Bank Material on all models is 316 SS, except on Table II - Option 05 for which the Tube Bank material is Hastelloy-C.

TABLE I - (AB) INLET & OUTLET SIZE FOR ALL MODELS

OPTION #	SIZE
02	2 Inch
03	3 Inch
04	4 Inch
06	6 Inch
08	8 Inch
10	10 Inch
12	12 Inch

TABLE III (EF) FLANGE SIZE

OPTION #	DESCRIPTION
01	150# FLANGE RF
02	300# FLANGE RF
03	PN 10 DIN 2632 RF
04	PN 16 DIN 2633 RF

TABLE IV (G) BODY TAPS

OPTION #	TAP TYPE
1	NPT
2	SOCKET WELD
3	FLANGE

TABLE IV (H) BODY TAPS

OPTION #	NO. OF TAPS (On Each End)
1	1
2	2
3	3

Taps are 3/4" size with NPT, Socket Weld or Flange Termination. Taps are located on both the inlet and outlet body sides. Flange size matches Table III connection. Material same as body in Table I and Table II.

TABLE II - (CD) 94311

OPTION #	BODY & SHELL	HARDWARE
01	Steel	Steel
02	316 SS	Steel
03	Steel	316 SS
04	316 SS	316 SS
05	Hastelloy-C	316 SS
06	Carp-20	316SS
07	316 L	316 L
08	Duplex SS	Steel
09	Duplex SS	316 SS

TABLE II - (CD) 94312

OPTION #	BODY & SHELL	HARDWARE
01	Painted Steel	316 SS
02	316 SS	316 SS
05	Hastelloy-C	316 SS
06	CARP-20	316 SS
07	316 L	316 L
09	Duplex SS	316 SS

TABLE II - (CD) 94313

OPTION #	BODY & SHELL	HARDWARE
01	Steel	Steel
02	316 SS	Steel
03	Steel	316 SS
04	316 SS	316 SS
05	Hastelloy-C	316 SS
06	Carp-20	316 SS
07	316 L	316 L
08	Duplex SS	Steel
09	Duplex SS	316 SS

TABLE II - (CD) 94314

OPTION #	BODY & SHELL	HARDWARE
01	Painted Steel	316 SS
02	316 SS	316 SS
05	Hastelloy-C	316 SS
06	Carp-20	316 SS
07	316 L	316 L
09	Duplex SS	316 SS