

**DUPLEX STRAINER ♦ DUAL BALL TYPE ♦ THREE PIECE BODY**  
**ANSI CLASS 125 ♦ CAST IRON ♦ FLANGED & THREADED ENDS**

## Titan Series – 595/695

NEW  
Three-Piece  
Design!



1 1/2" DS 695-CI

**MODELS: DS 595-CI**  
(THREADED - CAST IRON)

**DS 695-CI**  
(FLANGED - CAST IRON)

### FEATURES

SIZE RANGE: 3/4" ~ 4"

- ♦ **DUAL-BALL DIVERTER DESIGN**  
THIS DUPLEX IS DESIGNED WITH TWO STAINLESS STEEL BALLS THAT EFFICIENTLY DIVERT THE PIPELINE FLOW FROM ONE BASKET CHAMBER TO THE OTHER. TEFLON SEATS ENSURE A POSITIVE SEAL AND HELP TO PREVENT SEEPAGE INTO THE CHAMBER THAT IS BEING SERVICED FOR CLEANING.
- ♦ **EASY TO OPERATE**  
TITAN FCI'S DUPLEX STRAINER FEATURES A LOW TORQUE, EASY TO OPERATE HANDLE THAT DOES NOT REQUIRE A GEARBOX. ADDITIONALLY, THE HANDLE'S POSITION CLEARLY INDICATES WHICH BASKET IS IN SERVICE AND WHICH BASKET CAN SAFELY BE REMOVED FOR CLEANING.
- ♦ **REDUCED "IN-LINE" MAINTENANCE**  
TITAN'S DUPLEX HAS NUMEROUS ATTRIBUTES THAT HELP REDUCE MAINTENANCE DURING CLEANING OPERATIONS. FIRST, THE DUAL BALL DESIGN ISOLATES EACH CHAMBER AND KEEPS THE SERVICING CHAMBER DRY DURING CLEANING. THERE ARE ALSO NO SPECIAL TOOLS REQUIRED TO ACCESS AND REMOVE THE STRAINING ELEMENT FROM THE CHAMBER. LASTLY, THE DUPLEX PROVIDES COVER VENTS, DRAIN PLUGS, AND FOOT PADS ON EACH CHAMBER.
- ♦ **ENDLESS SCREEN OPTIONS**  
THIS STRAINER CAN BE FITTED WITH VIRTUALLY ANY CONFIGURATION OF PERFORATION OR MESH LINED STRAINING ELEMENTS. STRAINING ELEMENTS CAN ALSO BE CONSTRUCTED FROM SPECIAL MATERIALS SUCH AS ALLOY 20.

### TECHNICAL

PRESSURE/ TEMPERATURE RATING <sup>(1)</sup>  
CAST IRON - A126 GR. B - CLASS 125

DS 595-CI (Threaded)  
WOG (Non-shock): 200 PSI @ 150 °F

DS 695-CI (Flanged)  
WOG (Non-shock): 200 PSI @ 150 °F

*1. The above listed temperatures are theoretical and may vary during actual operating conditions.*

### APPLICATIONS

**GENERAL APPLICATION:** THE DUPLEX STRAINER IS A UNIQUE PRODUCT WITHIN THE PIPELINE INDUSTRY. LIKE OTHER BASKET STRAINERS, THE DUPLEX STRAINER PROTECTS EXPENSIVE DOWNSTREAM EQUIPMENT BY MECHANICALLY REMOVING SOLIDS FROM FLOWING FLUIDS VIA A PERFORATED, MESH, OR WEDGE WIRE STRAINING ELEMENT. HOWEVER, THE DUPLEX STRAINER IS DESIGNED WITH TWO BASKET CHAMBERS AND A FLOW DIVERTER SYSTEM THAT ALLOWS THE PIPELINE FLOW TO BE SWITCHED FROM ONE CHAMBER TO THE OTHER, COMPLETELY ISOLATING THE FLOW TO A SINGLE CHAMBER. THIS MAKES THE DUPLEX STRAINER IDEAL FOR NON-INTERRUPTIBLE APPLICATIONS THAT CANNOT BE SHUT DOWN DURING ROUTINE MAINTENANCE AND CLEANING OPERATIONS.

*The above data represents common market and service applications. No representation or guarantee, expressed or implied, is given due to the numerous variations of concentrations, temperatures and flow conditions that may occur during actual service.*



# Titan Series – 595/695

**DUPLEX BASKET STRAINER**  
**DS 595-CI (Threaded)**  
**DS 695-CI (Flanged)**  
 Dual Ball Type • 3-Piece Body • Cast Iron

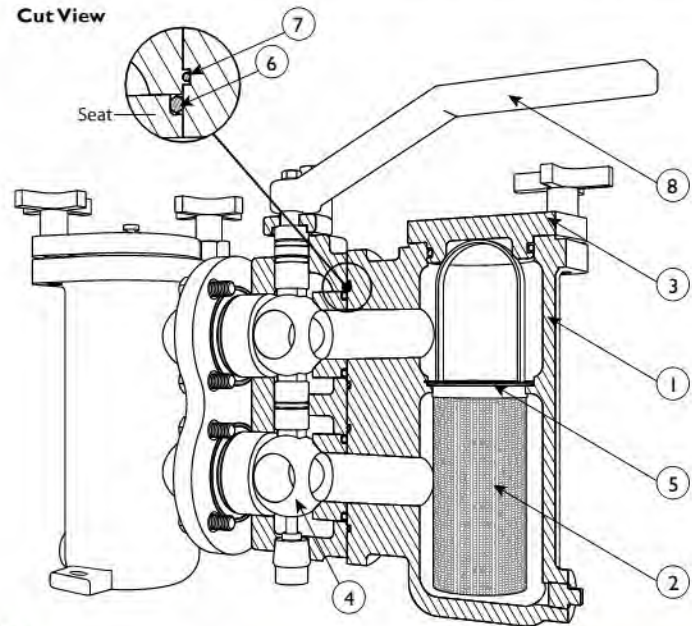
ANSI  
 Class  
 125

### BILL OF MATERIALS<sup>(1)</sup>

No.	Part	DS 595/695-CI
1	Main Body / Basket Housing <sup>(2)</sup>	Cast Iron ASTM A126 Gr. B
2	Straining Element <sup>(2)</sup>	Stainless Steel
3	Cover	Cast Iron ASTM A126 Gr. B
4	Ball	Stainless Steel
5	O-Ring Straining Element	Buna-N
6	Seat Seal	Teflon (PTFE)
7	Seals	Buna-N
8	Handle	Carbon Steel Zinc Coated

1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.
2. Carbon Steel, Stainless Steel, and Aluminum Bronze units are also available.
3. Denotes recommended spare parts.

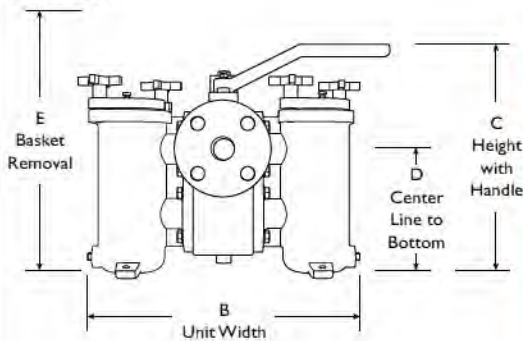
Cut View



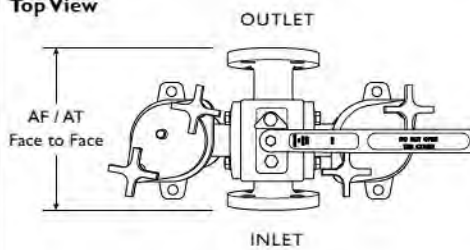
Cut parts shown with hatch.

Illustrations are representative of a 1" DS696-CS (Flanged model). Please ask for certified drawings when required.

Front View



Top View



### DIMENSIONS AND PERFORMANCE DATA<sup>(1)</sup>

SIZE <sup>(2)</sup>	in	3/4 <sup>(3)</sup>	1	1 1/4	1 1/2	2	2 1/2	3 <sup>(3)</sup>	4 <sup>(3)</sup>
	mm	20	25	32	40	50	65	80	100
<b>AF DIMENSION</b>	in	---	7.0	9.37	9.37	10.6	13.5	13.5	16.0
FLANGED FACE TO FACE	mm	---	178	238	238	270	343	343	406
<b>AT DIMENSION</b>	in	5.59	5.59	7.5	7.5	10.0	11.5	---	---
THREADED FACE TO FACE	mm	142	142	191	191	254	292	---	---
<b>B DIMENSION</b>	in	12.95	12.95	15.12	15.12	18.43	22.05	22.0	26.85
UNIT WIDTH (INCLUDING PLUG)	mm	329	329	384	384	468	560	560	682
<b>C DIMENSION</b>	in	11.0	11.0	14.2	14.2	17.7	22.0	22.0	25.2
HEIGHT WITH HANDLE	mm	280	280	360	360	450	560	560	640
<b>D DIMENSION</b>	in	5.83	5.83	8.3	8.3	10.7	13.7	13.7	15.9
CENTER LINE TO BOTTOM	mm	148	148	211	211	271	347	347	403
<b>E DIMENSION</b>	in	15.4	15.4	21.3	21.3	26.4	35.0	35.0	41.0
BASKET REMOVAL	mm	390	390	541	541	670	885	885	1040
<b>APPROXIMATE WEIGHT</b>	lb	---	46.3	73.9	73.9	121.3	237.0	238.1	373.7
DS 695, FLANGED	kg	---	21	33.5	33.5	55	107.5	108	169.5
<b>APPROXIMATE WEIGHT</b>	lb	43.7	43.0	69.9	69.5	119.0	227.0	---	---
DS 595, THREADED	kg	19.8	19.5	31.7	31.5	54	103	---	---
<b>Flow Coefficient</b>	C <sub>v</sub>	13	14	19	24	42	68	105	180

1. Dimensions, weights, and flow coefficients are provided for reference only. Always request certified drawings.
2. Larger sizes (5" ~ 8") are available upon request. Please contact factory for pricing and delivery.
3. Flanged units are not available in 3/4" size; Threaded units are not available in 3" or 4" sizes.

### PRESSURE - TEMPERATURE RATING

ANSI Class 125	DS 595/695-CI
WOG (Non-shock)	200 PSI @ 150 °F

### REFERENCED STANDARDS & CODES

Code	Description
ASME/ANSI B16.1	Cast Iron Pipe Flanges and Flanged Fittings
ASME/ANSI B16.4	Cast Iron Pipe Threaded Fittings

### MATERIAL TEMPERATURES

Seat/Seal/Ball	Temp Range
Buna-N (Seal)	-20 ~ 250 °F
Stainless Steel Ball	Max 450 °F

### STANDARD SCREEN SELECTIONS

Size	Liquid	Open Area	Steam	Open Area
3/4" - 4"	1/16 (.0625)	41%	Not Recommended	