



TITAN FLOW CONTROL, INC.

## DUPLEX STRAINER ♦ QUAD BALL TYPE ♦ THREE PIECE BODY

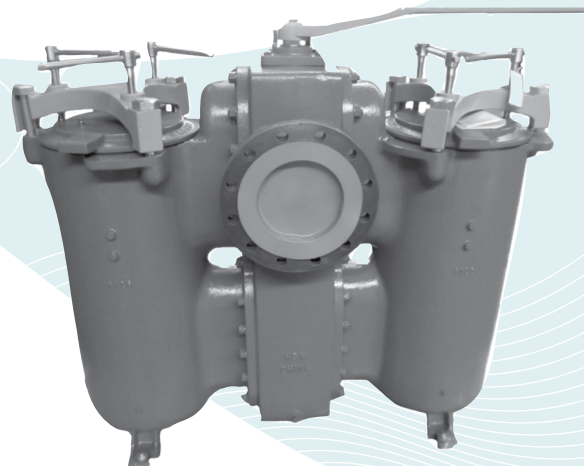
### ASME CLASS 125 (CI) & 150 (CS & SS) ♦ FLANGED

**MODELS: DS 695-CI**  
(Flanged - Cast Iron)

**DS 696-CS**  
(Flanged - Carbon Steel)

**DS 696-SS**  
(Flanged - Stainless Steel)

NEW  
Quad-Ball  
Design!



## FEATURES

- ♦ **UNIQUE QUAD-BALL DIVERSION SYSTEM**  
REVOLUTIONARY FOUR BALL DESIGN THAT EFFICIENTLY DIVERTS THE PIPELINE FLOW FROM ONE CHAMBER TO THE OTHER. TEFLON SEATS ENSURE A POSITIVE SEAL AND HELP TO PREVENT SEEPAGE INTO THE CHAMBER THAT IS BEING CLEANED.
- ♦ **LOW OPERATING TORQUE**  
THE TITAN<sup>†</sup> FCI DUPLEX STRAINER FEATURES A LOW TORQUE, EASY TO OPERATE HANDLE THAT DOES NOT REQUIRE ANY AUTOMATION. ADDITIONALLY, THE HANDLE'S POSITION CLEARLY INDICATES WHICH BASKET IS IN SERVICE AND WHICH BASKET CAN SAFELY BE REMOVED FOR CLEANING.
- ♦ **REDUCED MAINTENANCE**  
THE QUAD BALL DESIGN ISOLATES EACH CHAMBER AND KEEPS THE SERVICING CHAMBER DRY DURING CLEANING. NO SPECIAL TOOLS ARE REQUIRED TO ACCESS AND REMOVE THE STRAINING ELEMENT FROM THE CHAMBER. COVER VENTS, DRAIN PLUGS, AND FOOT PADS ARE PROVIDED ON EACH CHAMBER.
- ♦ **NUMEROUS OTHER BENEFITS**  
TITAN'S NEW DESIGN OFFERS COUNTLESS OTHER ADVANTAGES INCLUDING: NO INTERRUPTION IN SERVICE, COMPACT STRUCTURE, LONG SERVICE LIFE, AND LOW PRESSURE DROP.

SIZE RANGE: 6" ~ 8"

## TECHNICAL

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

WOG (Non-shock): 200 PSI @ 150 °F

PRESSURE/ TEMPERATURE RATING <sup>(1)</sup>  
CARBON STEEL- A216 GR.WCB - CLASS 150

WOG (Non-shock): 285 PSI @ 100 °F

PRESSURE/ TEMPERATURE RATING <sup>(1)</sup>  
STAINLESS STEEL- A351 GR. CF8M - CLASS 150

WOG (Non-shock): 275 PSI @ 100 °F

1. The above listed temperatures are theoretical and may vary during actual operating conditions.
2. Max and min temperatures are for reference only. Prolonged use at these temperatures is not recommended for optimal service life.

## 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.

*Ball-Type Duplex Strainers are not recommended for slurry and fibrous content applications.*

*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<sup>®</sup> FLOW CONTROL, INC.**  
**YOUR PIPELINE TO THE FUTURE!**

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**DUPLEX BASKET STRAINER**  
**Flanged Ends**

**DS 696-CS** (Carbon Steel) • **DS 696-SS** (Stainless Steel)  
**DS 695-CI** (Cast Iron)

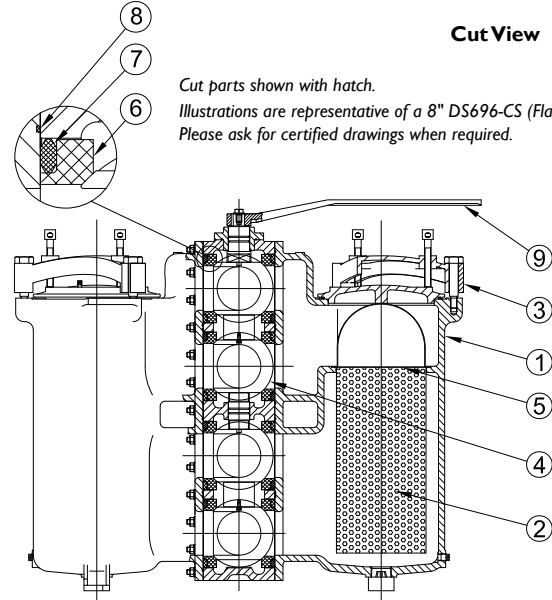
ASME Class  
125 CI

ASME Class  
150 CS & SS

**BILL OF MATERIALS (1)**

No.	Part	DS 696-CS	DS 696-SS	DS 695-CI
1	Body	Carbon Steel A216 Gr.WCB	Stainless Steel A351 Gr. CF8M	Cast Iron AI26 Gr. B
2	Straining Element (3)	Stainless Steel	Stainless Steel	Stainless Steel
3	Cover	Carbon Steel A216 Gr.WCB	Stainless Steel A351 Gr. CF8M	Cast Iron AI26 Gr. B
4	Ball	Stainless Steel Type 304	Stainless Steel Type 304	Stainless Steel Type 304
5	O-Ring	Buna-N	Viton	Buna-N
6	Seat	Teflon (PTFE)	Teflon (PTFE)	Teflon (PTFE)
7	Seal	Buna-N	Viton	Buna-N
8	O-Ring Body	Buna-N	Viton	Buna-N
9	Handle	Carbon Steel Zinc Coated	Carbon Steel Zinc Coated	Carbon Steel Zinc Coated

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



**Cut View**  
Cut parts shown with hatch.  
Illustrations are representative of a 8" DS696-CS (Flanged model).  
Please ask for certified drawings when required.

**DIMENSIONS AND PERFORMANCE DATA (1)**

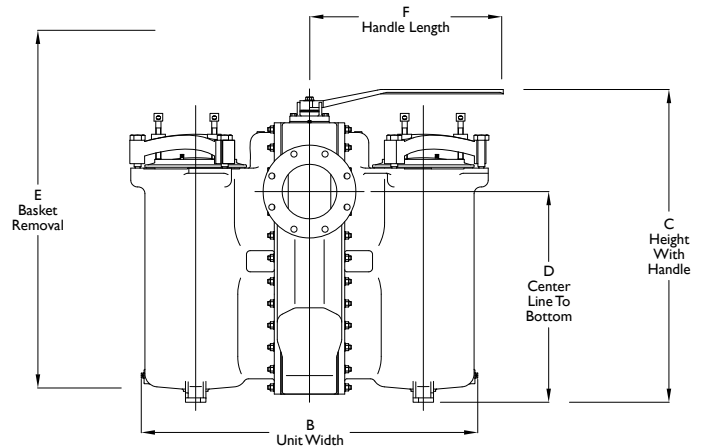
SIZE (2)	in	6"	8"
	mm	300	350
AF DIMENSION FACE TO FACE	in	22	26.75
	mm	559	680
B DIMENSION UNIT WIDTH (INCLUDING PLUG)	in	35.31	48.50
	mm	897	1368
C DIMENSION HEIGHT WITH HANDLE	in	35.63	45.12
	mm	905	1146
D DIMENSION CENTER LINE TO BOTTOM	in	24.45	30.39
	mm	621	772
E DIMENSION BASKET REMOVAL	in	48	62
	mm	1220	1575
F DIMENSION HANDLE LENGTH	in	21.65	29.13
	mm	550	740
APPROXIMATE WEIGHT DS DS695/696, FLANGED	lb	850	1600
	kg	386	726
Flow Coefficient	C <sub>v</sub>	429	776

1. Dimensions, weights, and flow coefficients are provided for reference only. Always request certified drawings.

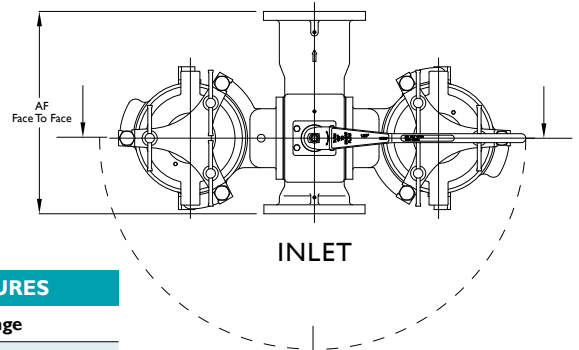
Larger, fabricated duplex strainers are available. Fabricated duplex strainers can be designed to meet any space or application requirements.

Quick-open covers are not recommended for steam or high temperature applications above 200°F.

**Front View**



**Top View**



**PRESSURE - TEMPERATURE RATING**

ASME Class 125	DS 695-CI
WOG (Non-shock)	200 PSI @ 150 °F
ASME Class 150	DS 696-CS      DS 696-SS
WOG (Non-shock)	285 PSI @ 100 °F      275 PSI @ 100 °F

**MATERIAL TEMPERATURES**

Seat/Seal/Ball	Temp Range
Buna-N (Seal)	-20 ~ 250 °F
Viton (Seal)	-40 ~ 400 °F
Stainless Steel Ball	Max 450 °F

1. Max and min temperatures are for reference only. Prolonged use at these temperatures is not recommended for optimal service life.

**REFERENCED STANDARDS & CODES**

Code	Description
ASME B16.5	Pipe Flanges and Flanged Fittings
ASME B16.11	Forged Steel Fittings, Socket-Welding, and Threaded
ASME B16.1	Gray Iron Pipe Flanges and Flanged Fittings

**NPT FITTING SCHEDULE:**

Size	Gauge Taps	Bottom Drain	Side Drain	Cover Vent
6"	1/8"	1"	1/2"	1/8"
8"	1/8"	2"	1/2"	1/8"

**SCREEN SELECTION GUIDELINES**

Size	Liquid	Open Area
6" ~ 8"	1/8" (0.125)	41%

As †Titan product changes occur, there may be short-term differences between actual product specifications and the information contained within our literature. †Titan FCI reserves the right to make design and specification changes to improve our products without prior notification. When required, request certified drawings. †TITAN is a registered trademark of Titan Flow Control Incorporated.