



TITAN FLOW CONTROL, INC.

DUPLEX STRAINER ♦ DUAL BALL TYPE ♦ THREE PIECE BODY
ASME CLASS 150 ♦ ALUMINUM BRONZE ♦ FLANGED & THREADED

Lead & Zinc Free

MODELS: DS 596-AB
 (Threaded - Aluminum Bronze)

DS 696-AB
 (Flanged - Aluminum Bronze)



1 1/2" DS 696-AB

FEATURES

- ♦ **ASTM B148 BODY MATERIAL**
ALUMINUM BRONZE IS STRONGER AND LESS LIKELY TO CORRODE THAN OTHER BRONZE ALLOYS, MAKING IT A PREFERRED CHOICE FOR SEA WATER AND OTHER APPLICATIONS WHERE CORROSION IS A CONCERN. BECAUSE OF ITS COPPER CONTENT, MARINE ORGANISMS CANNOT COLONIZE ON THE MATERIAL, THEREFORE MAKING THE DS596-AB AN OPTIMAL CHOICE.
- ♦ **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**
THE TITAN[†] FCI 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.

SIZE RANGE:
 THREADED: 3/4" ~ 2 1/2"
 FLANGED: 1" ~ 4"

TECHNICAL

PRESSURE/TEMPERATURE RATING ⁽²⁾ ⁽³⁾
 AB - ASTM B148 - CLASS 150

WOG (Non-shock): 195 PSI @ 100 °F

1. The DS 596/696-AB series meets requirements for use in potable water systems. The alloy is zinc free and the lead content in the wetted surfaces is 0.25% or less as determined by a weighted average. For more information on lead free requirements, contact Titan Flow Control.
2. The above listed temperatures are theoretical and may vary during actual operating conditions. These ratings are based on ASME B16.24 for ASTM B148 C95200.
3. Optional alloys may increase pressure and/or temperature ratings.

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[®] FLOW CONTROL, INC.
YOUR PIPELINE TO THE FUTURE!

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DUPLEX BASKET STRAINER

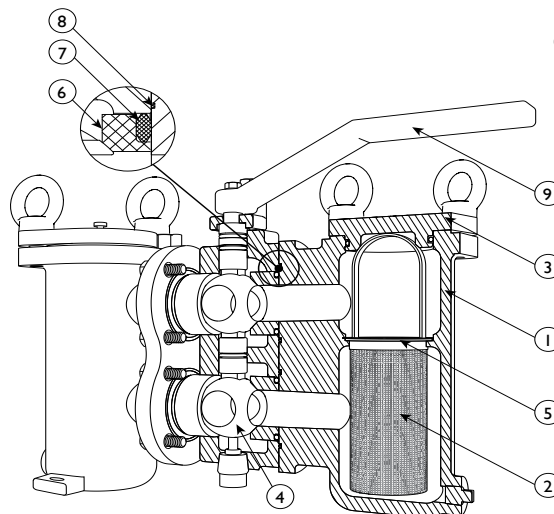
Threaded Ends
DS 596-AB
(Aluminum Bronze)

Flanged Ends
DS 696-AB
(Aluminum Bronze)

ASME
Class
150

BILL OF MATERIALS (1)

No.	Part	DS 596-AB	DS 696-AB
1	Main Body / Basket Housing ⁽³⁾	Aluminum Bronze ASTM B148	Aluminum Bronze ASTM B148
2	Straining Element ⁽²⁾	Stainless Steel	Stainless Steel
3	Cover	Aluminum Bronze ASTM B148	Aluminum Bronze ASTM B148
4	Ball	Stainless Steel	Stainless Steel
5	O-Ring Straining Element	Buna-N	Buna-N
6	Seat	Teflon (PTFE)	Teflon (PTFE)
7	Seal ⁽³⁾	Buna-N	Buna-N
8	O-Ring Body	Buna-N	Buna-N
9	Handle	Carbon Steel Zinc Coated	Carbon Steel Zinc Coated

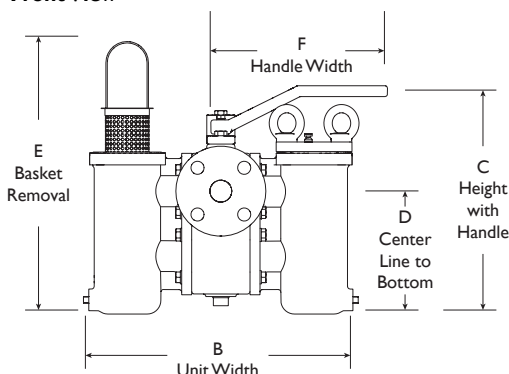


Cut View

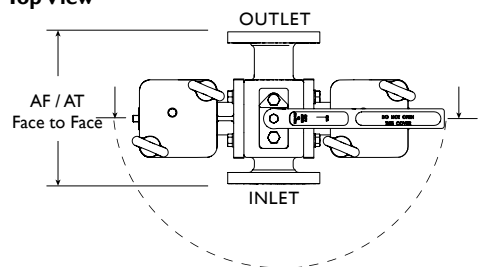
Cut parts shown with hatch.
Illustrations are representative of a 1" DS696-AB (Flanged model).
Please ask for certified drawings when required.

1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.
2. Denotes recommended spare parts.
3. For alternate body or seal materials, contact factory.

Front View



Top View



DIMENSIONS AND PERFORMANCE DATA (1)

SIZE (2)	in	3/4 (3)	1	1 1/4	1 1/2	2	2 1/2	3 (3)	4 (3)
	mm	20	25	32	40	50	65	80	100
AF DIMENSION FLANGED FACE TO FACE	in	---	7.0	9.37	9.37	10.6	13.5	13.5	16.0
	mm	---	178	238	238	270	343	343	406
AT DIMENSION THREADED FACE TO FACE	in	5.59	5.59	7.5	7.5	10.0	11.5	---	---
	mm	142	142	191	191	254	292	---	---
B DIMENSION UNIT WIDTH (INCLUDING PLUG)	in	12.95	12.95	15.12	15.12	18.43	22.05	22.0	26.85
	mm	329	329	384	384	468	560	560	682
C DIMENSION HEIGHT WITH HANDLE	in	12.0	12.0	14.8	14.8	18.4	22.7	22.7	25.5
	mm	305	305	377	377	468	579	579	649
D DIMENSION CENTER LINE TO BOTTOM	in	5.83	5.83	8.3	8.3	10.7	13.7	13.7	15.9
	mm	148	148	211	211	271	347	347	403
E DIMENSION BASKET REMOVAL	in	15.4	15.4	21.3	21.3	26.4	35.0	35.0	41.0
	mm	390	390	541	541	670	885	885	1040
F DIMENSION HANDLE LENGTH	in	7.87	7.87	7.87	7.87	10.03	13.00	13.00	15.00
	mm	200	200	200	200	270	330	330	380
APPROXIMATE WEIGHT DS 696-AB, FLANGED	lb	---	46.3	73.9	73.9	121.3	237.0	238.1	373.7
	kg	---	21	33.5	33.5	55	107.5	108	169.5
APPROXIMATE WEIGHT DS 596-AB, THREADED	lb	43.7	43.0	69.9	69.5	119.0	227.0	---	---
	kg	19.8	19.5	31.7	31.5	54	103	---	---
Flow Coefficient	C _v	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 (6", 8") are available. 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.

NPT FITTING SCHEDULE:

Size	3/4" ~ 1"	1-1/4"	1-1/2"	2" ~ 4"
Cover/Vent	1/8"	1/8"	1/8"	1/8"
Drain	1/4"	1/4"	1/4"	1/2"

MATERIAL TEMPERATURES

Seat/Seal/Ball	Temp Range
Buna-N (Seal)	-20 ~ 250 °F
Viton (Seal) OPTIONAL	-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.
2. Contact factory for use above 200 °F

REFERENCED STANDARDS & CODES

Code	Description
ASME B16.24	Cast Copper Alloy Pipe Flanges, Flanged Fitting & Valves
ASME B16.15	Cast Copper Alloy Threaded Fittings

SCREEN SELECTION GUIDELINES

Size	Liquid	Open Area
3/4" ~ 4"	1/16 (.0625)	41%

PRESSURE - TEMPERATURE RATING

ASME Class 150	DS 596-AB	DS 696-AB
WOG (Non-shock)	195 PSI @ 100 °F	195 PSI @ 100 °F

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.