

# DUPLEX BASKET STRAINERS



## FEATURES

- Simple changeover operation
- Compact Design
- Large filtration areas giving low pressure drops
- Quick release filter covers and knobs for easy maintenance
- No contamination between filtered and unfiltered liquids
- Wide range of materials, sizes and accessories
- Handle covers chamber in use, preventing opening of pressurized chamber

## APPLICATIONS

Colton Industries Duplex Strainers are designed for use in fluid handling systems where the flow cannot be shut down for basket cleaning. Some applications include:

- Cooling Water
- Compressors
- Condensers
- Fire Lines
- Fuel Lines
- Lubricating Systems
- Salt and Fresh Water Systems
- Chemical Process Systems
- Positive Suction Head Service

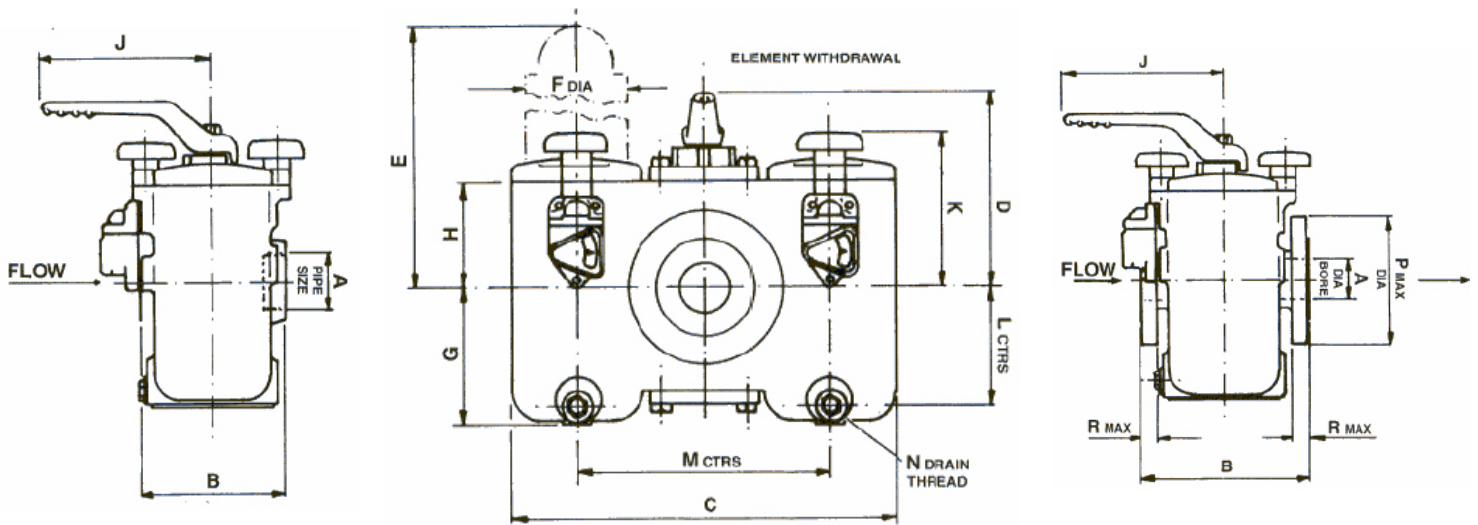


## MATERIALS AND PRESSURE & TEMPERATURE RATINGS

MODEL	691S-AA 691F-AA 693F-AA	691S-AB 691F-AB 693F-AB	691S-AH 691F-AH 693F-AH	692S-BB 692F-BB	692S-DA 692F-DA 694F-DA	692S-DH 692F-DH 694F-DH	692S-HH 692F-HH 694F-HH
<b>Body &amp; Cover Material</b>	Cast Iron BS1452 grade 220 min	Cast Iron BS1452 grade 220 min	Cast Iron BS1452 grade 220 min	Bronze BS1400 LG4C	Cast Steel BS1504-161 grade 480	Cast Steel BS1504-161 grade 480A	Cast Stn. Stl. BS1504 grade 316 C16
<b>Sleeve</b>	Not Applicable	Bronze BS1400 LG2C	Not Applicable	Not Applicable	Not Applicable	Bronze BS1400 LG2C	Not Applicable
<b>Changeover Plugs</b>	SG Iron BS2789 grade 420/12	Bronze BS1400 LG2C	Stn. Stl. BS1504 grade 316 C16 (PTFE Coated)	Bronze BS1400 LG2C	SG Iron BS2789 grade 420/12	Stn. Stl. BS1504 grade 316 C16 (PTFE Coated)	Stn. Stl. BS1504 grade 316 C16 (PTFE Coated)
<b>Internal Machine Parts</b>	Mild Steel BS970 220 M07	Stn. Stl. BS970 303 S31	Stn. Stl. BS970 303 S31	Phosphor Bronze BS1400 grade PB1	Mild Steel BS970 220 M07	Stn. Stl. BS970 303 S31	Stn. Stl. BS970 303 S31
<b>Baskets</b>	304 Stn. Stl.	304 Stn. Stl.	304 Stn. Stl.	304 Stn. Stl.	304 Stn. Stl.	304 Stn. Stl.	304 Stn. Stl.
<b>Drain Plugs</b>	Brass	Brass	Stn. Stl.	Bronze	Mild Steel	Brass	Stn. Stl.
<b>Seals</b>	Nitrile -30°F to 250°F	Nitrile -30°F to 250°F	Nitrile -30°F to 250°F	Nitrile -30°F to 250°F	Nitrile -30°F to 250°F	Nitrile -30°F to 250°F	Nitrile -10°F to 250°F
<b>Maximum Working Pressure at 100°F</b>	200 psi/691 series 250 psi/693 series	200 psi/691 series 250 psi/693 series	200 psi/691 series 250 psi/693 series	320 psi	320 psi/692 series 740 psi/694 series	320 psi/692 series 740 psi/694 series	320 psi/692 series 740 psi/694 series
<b>Maximum Working Temperature</b>	390°F Depending on seat material	390°F Depending on seat material	390°F Depending on seat material	390°F Depending on seat material	390°F Depending on seat material	390°F Depending on seat material	390°F Depending on seat material
<b>Body Color</b>	Red	Blue	Blue	Natural	Silver	Silver	Natural



# DUPLEX BASKET STRAINERS



## DIMENSIONS

### NPT (THREADED) ENDS

Pipe Size A	B	C	D	E	F	G	H	J	K	L	M	N	Weight (Cast Iron)
3/4	4-3/4	10-5/8	5-7/8	8-11/16	2-7/8	4-1/8	2-1/2	6-7/8	4	3-3/8	6-11/16	1/2	29lb
1	4-3/4	10-5/8	5-7/8	8-11/16	2-7/8	4-1/8	2-1/2	6-7/8	4	3-3/8	6-11/16	1/2	29lb
1-1/4	5-3/8	11-3/16	6-7/8	12	2-7/8	5-3/4	3-1/2	6-7/8	5	4-13/16	7-1/4	1/2	42lb
1-1/2	5-3/8	11-3/16	6-7/8	12	2-7/8	5-3/4	3-1/2	6-7/8	5	4-13/16	7-1/4	1/2	42lb
2	7-1/4	16-3/4	8-3/4	13-13/16	4-1/2	6-1/8	4-13/16	8-1/4	6-1/2	5-1/8	11	1/2	108lb
2-1/2	7-1/4	16-3/4	8-3/4	13-13/16	4-1/2	6-1/8	4-13/16	8-1/4	6-1/2	5-1/8	11	1/2	108lb

### FLANGED ENDS

Pipe Size A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Weight (Cast Iron)
1	6	10-5/8	5-7/8	8-3/4	2-7/8	4-1/8	2-1/2	6-7/8	4	3-3/8	6-5/8	1/2	4-7/8	5/8	35lb
1-1/2	6-7/8	11-3/16	6-7/8	12	2-7/8	5-3/4	3-1/2	6-7/8	5	4-3/4	7-1/4	1/2	6-1/8	5/8	49lb
2	8-1/4	16-3/4	8-3/4	13-3/4	4-1/2	6-1/8	4-3/8	8-1/4	6-1/2	5-1/8	11	1/2	6-1/2	3/4	115lb
2-1/2	8-1/4	16-3/4	8-3/4	13-3/4	4-1/2	6-1/8	4-3/8	8-1/4	6-1/2	5-1/8	11	1/2	7-1/2	3/4	117lb
3	10-1/2	19-1/4	10-1/16	17-3/4	5-1/4	8-1/4	5-1/2	9-7/8	7-3/4	7	13	1/2	8-1/4	7/8	172lb
4	12-1/2	21-1/4	11-9/16	22-5/8	5-1/4	10-7/16	6-7/8	9-7/8	9-1/8	9-1/2	15	1/2	10	7/8	242lb
*6	18-9/16	23-1/2	13-9/16	22-5/8	5-1/8	10-9/16	9-1/32	15	11-1/4	8-7/8	15-3/4	1/2	12-1/2	1	550lb
8	22	40-1/8	21-3/4	47-5/8	9-3/4	22-1/2	15-3/8	17-1/4	18-1/2	18-1/2	27-1/2	1/2	15	1-3/16	1251lb

**Notes:** All dimensions are in inches.  
Optional differential pressure indicators are mounted on the ends of the chambers in the sizes 3/4" through 1-1/2". Add 3" to dimension "C" for clearance purposes if you choose this option.

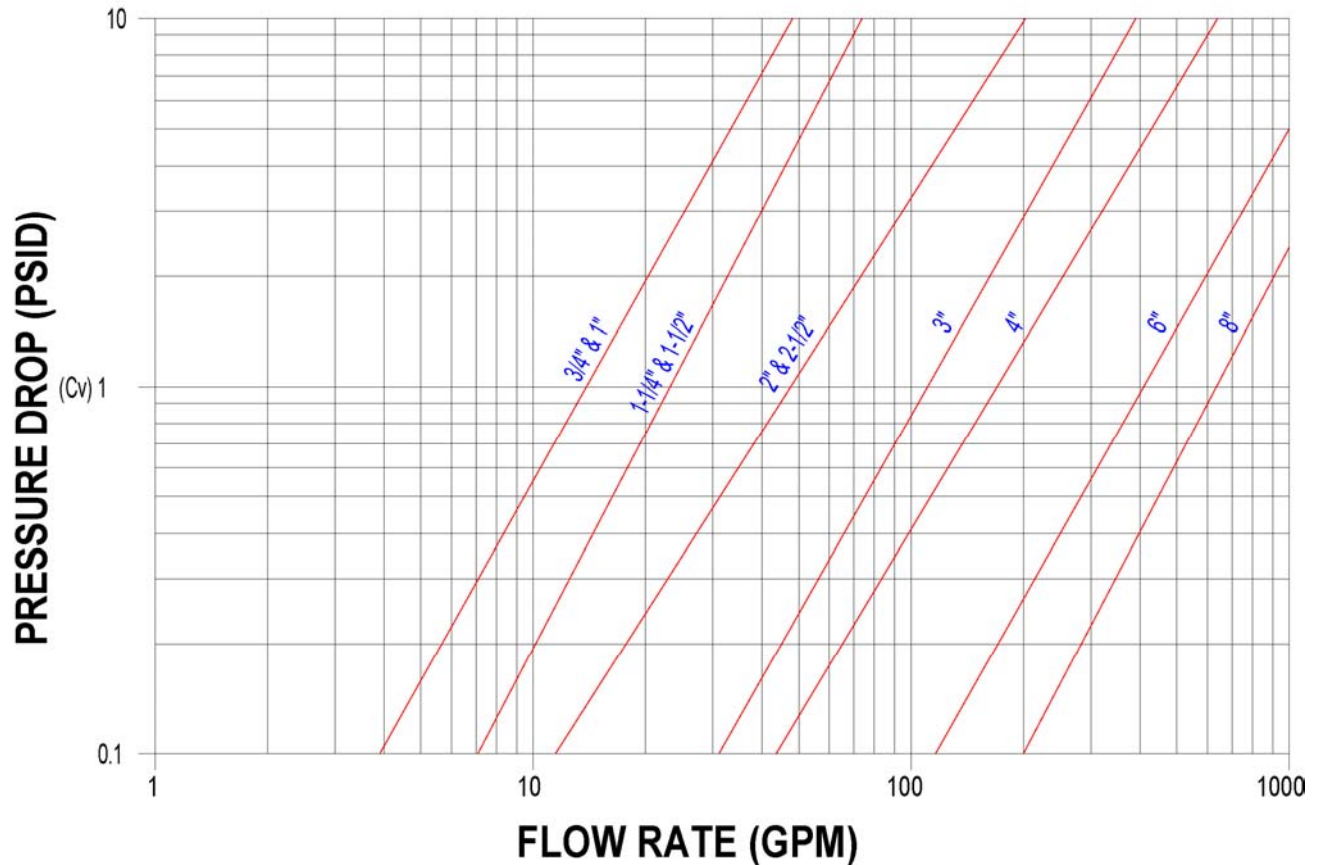
\* The 6" flanged unit is not as shown in picture. The 6" unit has a multi-basket arrangement (total of 4 four screens, instead of the standard 2)

Colton has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice



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## PRESSURE DROP CURVES



## PRESSURE DROP CORRECTION FACTORS

**Correction Factors for various meshes and viscosities:**

**Specific Gravity:** Multiply pressure drop obtained from chart by the specific gravity of the liquid

**Mesh Lining:** Multiply pressure drop obtained from chart by the following:

20 mesh – 1.1	80 mesh – 1.2
40 mesh – 1.15	100 mesh – 1.3
60 mesh – 1.175	200 mesh – 1.4

**Viscosity:** Divide pressure drop obtained from the chart by the following:

**Example:**

50 gpm of #6 fuel oil through a 4" duplex basket strainer with 40 mesh lined screens.

On the chart we read that 50 gpm of water through a 4" strainer produces a 0.120 psid pressure drop. Correcting for specific gravity – 0.90, Viscosity – 5000 ssu, and 40 mesh lining – 1.15

$$\frac{\text{Pressure Drop} \times \text{Specific Gravity} \times \text{Correction for Mesh Lining}}{\text{Correction For Viscosity}}$$

**Thus:**  $0.120 \times 0.90 \times 1.15 \div 0.29 = 0.43 \text{ psid}$

SSU	Factor	SSU	Factor
40	.96	700	.43
50	.85	800	.42
60	.82	900	.41
70	.79	1000	.39
80	.77	2000	.35
90	.72	3000	.33
100	.70	4000	.31
150	.62	5000	.29
200	.57	6000	.285
300	.52	7000	.28
400	.48	8000	.275
500	.46	9000	.27
600	.44	10000	.26

# DUPLEX BASKET STRAINERS



## ACCESSORIES

### Differential Pressure Indicator

Colton's own purpose-designed product, which indicates when the baskets require cleaning, takes the guesswork out of maintenance. Indicator body has anodized aluminum body as standard. (Stainless steel body and internals also available)

### Heating Jacket

To aid the flow of viscous liquids, etc....

### 100% Shut-Off On Changeover

This can be achieved by the use of a special seal within the changeover plug mechanism and eliminates leakage between chambers during cleaning

### Automatic Air Eliminators

To vent air from filter, eg. after element cleaning

### Magnetic Inserts

Suspended from the cover to capture metallic particles. Magnets can be nylon coated if required

### Mounting Studs or Brackets

To allow the filter to be independently supported

### Pressure Equalizing Valves

Are fitted to sizes 5", 6" and 8" as standard but can be fitted to other sizes on request.

## ORDERING CODES

	BASIC MODEL NUMBER	CONNECTIONTYPE	-	BODY MATERIAL	PLUG MATERIAL	SPECIAL FEATURE
Example:	691	F	-	A	B	X
	691 (ANSI 125#)	S – NPT ends		A – Cast Iron	A – Cast Iron	Issued By Factory
	692 (ANSI 150#)	F – Flanged Ends		B – Bronze	B – Bronze	
	693 (ANSI 250#)			D – Cast Carbon Steel	H – Stainless Steel	
	694 (ANSI 300#)			H – Cast Stainless Steel		

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