# **Engineering Specification**

Job Name	Contractor
Job Location	Approval
Engineer	Contractor's P.O. No.
Approval	Representative

# UL Listed Ball-Plex<sup>™</sup> Cast Iron Screwed Ends Duplex Strainers

Model: 791USA, Class 125 Sizes: <sup>3</sup>/<sub>4</sub>" - 3" (20 - 80mm)

Strainers provide economical protection for costly pumps, meters, valves, and other similar mechanical equipment by straining foreign matter from the connected piping system. Installation of a strainer before mechanical equipment can ensure trouble free service and avoid costly shutdowns for repair or replacement of equipment damaged by foreign matter. The size of the perforation or mesh in the basket screen will determine the smallest particles captured. See Strainer Information section of the Mueller Steam Specialty Engineering binder for detailed information including sizes and materials available.

### **Typical Service**

- Duplex Strainers are designed for use in fluid handling systems where the flow cannot be shut down for basket cleaning.
- Typical services include cooling water, compressors, condensers, fire lines, fuel lines, lubrication systems, salt and fresh water systems, chemical process systems, pump suction service, and more.
- Consider strainer body and screen material as well as gasket and seat materials for suitability for particular service.

#### **Features**

- Ball-Plex<sup>™</sup> Duplex Strainers use 3-way balls as the diverter valves.
- Balls are 316SS for corrosion resistance, strength, and resistance to build-up of solids on the balls' surfaces.
- PTFE seats provide bubble-tight sealing, superior to metal seats in other designs. This eliminates potentially dangerous leakage into the chamber being cleaned.
- Two part body casting allows true and easy in-line service.
- After removal of the cover and basket, all working parts are easily accessible even with the unit in line.
- The handle covers the pressurized chamber. This prevents accidental opening of the pressurized chamber, and allows easy access to the chamber to be cleaned.



Pressure/Temperature - Non-Shock							
Model	Material	Rating					
791USA	Cast Iron	175psi @-20°F to 150°F 12.07 bar @ 65.56°C 150psi @ 250°F 10.34 bar @ 121.11°C					

## A WARNING

Bolted Covers required above 150 psi or 200°F.

		STANDARD (WATER)					
MODEL	SIZES	MATERIAL	OPENING				
791USA	3⁄4" – 3"	304SS	.062 perf				

#### **Baskets**

- Large open area ratios ensure minimum pressure drop across the unit.
- See Pressure Drop Charts in Technical Data section of the Mueller Steam Specialty Engineering Binder.

#### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Mueller Steam Specialty product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Mueller Steam Specialty Technical Service. Mueller Steam Specialty reserves the right to change or modify product design, construction,

specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Mueller Steam Specialty products previously or subsequently sold.

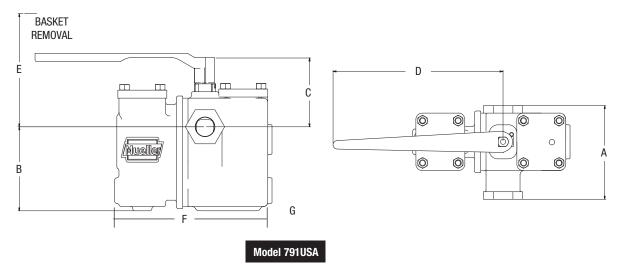


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# Materials

	791USA							
Body	Cast Iron ASTM A126-B							
Cover	Cast Iron ASTM A126-B							
Seats	PTFE							
0-Rings	Buna-N							

\*Cover may also be manufactured from equivalent plate material.



# **Dimensions and Weights**

SI	ZE	DIMENSIONS											WEI	GHT			
			A	E	;	C		D		E Screen Removal		:	G (NPT)				
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
3⁄4"	20	5½	140	<b>4</b> <sup>15</sup> /16	125	45/8	118	10	254	73/4	197	<b>10</b> <sup>3</sup> ⁄16	259	3⁄4	20	30	13.6
1"	25	51/2	140	<b>4</b> <sup>15</sup> /16	125	45/8	118	10	254	73/4	197	<b>10</b> <sup>3</sup> /16	259	3⁄4	32	30	13.6
11/4"	32	71/2	191	63/4	171	43/8	111.1	10	254	10%	264	12¾	324	11/4	32	53	24
11/2"	40	71/2	191	<b>6</b> <sup>3</sup> ⁄4	171	43/8	111.1	10	254	103/8	264	12¾	324	11/4	32	54	24
2"	50	10	254	<b>8</b> <sup>3</sup> /16	208	71/8	181	20	508	125%	321	16¾	416	11/4	40	105	47
21/2"	65	11½	292	12	309	81/16	205	20	508	<b>17</b> <sup>1</sup> / <sub>16</sub>	449	203/8	518	1½	40	195	88
3"	80	11½	292	12	309	<b>8</b> <sup>1</sup> / <sub>16</sub>	205	20	508	<b>17</b> <sup>11</sup> / <sub>16</sub>	449	203/8	518	1½	40	200	90

Apply For Certified Drawings.

Limited Warranty: Mueller Steam Specialty warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. This shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage form adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misuse, misuse for a **PARTICULAR PURPOSE.** Any implied warranties that are imposed by law are limited in duration to one year.

Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights.



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