

A2381

KRAISSL® SALES CATALOG – INDEX

A1803A – General Bulletin (overview) – Pages 2-3

STRAINERS AND FILTERS - Pages 4-22

- A1882A KRAISSL SIMPLEX STRAINERS & FILTERS MODEL 72 & 72H SERIES
- A1430B KRAISSL DUPLEX STRAINERS & FILTERS MODEL 72 & 72H SERIES-CAST IRON - NPT-PORTS
- A2054B KRAISSL DUPLEX STRAINERS & FILTERS MODEL 72 & 72FH SERIES-CAST IRON FLANGED PORTS
- A2210A KRAISSL DUPLEX STRAINERS & FILTERS
 MODEL 72S & 72HS SERIES-CAST STEEL OR STAINLESS STEEL-NPT PORTS
- A2211A KRAISSL DUPLEX STRAINERS & FILTERS
 MODEL 72FS & 72FHS SERIES-CAST STEEL OR STAINLESS STEEL-FLANGED
- A1698A KRAISSL DUPLEX STRAINERS & FILTERS MODEL 72 & 72F SERIES-CAST BRONZE OR ALUMINUM
- A1431A KRAISSL THREE-PIECE DUPLEX STRAINERS & FILTERS MODEL 72AF & 72AFH SERIES-CAST IRON
- A1879A KRAISSL 3-PIECE DUPLEX STRAINERS & FILTERS
 MODEL 72AFS & 72AFHS SERIES-CAST STEEL OR STAINLESS STEEL
- A1735A KRAISSL

 MODEL 73 "SEA-VIEW®" STRAINERS & FILTERS-WATER SERVICE
- A2359 "SURE-TITE™" RUBBERIZED VALVE PLUG

TRANSFER (DIVERTER) VALVES – Pages 23-30

- A2293B KRAISSL TRANSFER VALVES
 MODEL 72AAF(H)S(S) SERIES-CAST CARBON OR STAINLESS STEEL-FLANGED
 PORTS
- A2392 KRAISSL TRANSFER VALVES MODEL 72AAF(H) SERIES-CAST IRON-FLANGED PORTS
- A2362 KRAISSL TRANSFER VALVES
 MODEL 72AA(H)S(S) SERIES-CAST IRON, CARBON STEEL OR STAINLESS STEEL NPT PORTS
- A2368 KRAISSL TRANSFER VALVES
 MODEL 72ABF(S)(S) SERIES-CAST IRON, CARBON STEEL OR STAINLESS STEEL-FLANGED PORTS

OIL PUMPS - Pages 31-34

- A1193A KRAISSL FUEL OIL PUMPS MODEL 60E(S)RD REDUCTION DRIVE SERIES
- A1904A KRAISSL ROTARY PUMPS MODEL 60EMD SERIES-DIRECT DRIVE



RUGGED CONSTRUCTION

Cast Iron, Steel, Stainless, Bronze and Other Alloys. Flanged, Threaded or Weld-End.



Model 72 Simplex & Duplex Strainers

For fuel oil, lube oil, cooling water or any fluid service. Protects pumps, nozzles, meters, heat exchangers and process lines. High pressure/ temperature special designs.



Model 73 Sea-View Strainers Simplex-Duplex

Cast bronze body with transparent sump permits visual inspection of flow.



Six (6) port plug valve for duplexing two tanks, heat exchangers, filters, or other systems with minimum piping and space. High pressure/ temperature special designs.



Model 60 Pumps

General line of cast iron fuel and lube oil pumps — direct connected for light oils, reduction drives for heavy oils. High temperature special designs.

BULLETIN A1803A (9706)

STRAINERS, FILTERS, TRANSFER VALVES, TRANSFER PUMPS, AIR PUMPS

KRAISSL COMPANY Incorporated

GENERAL BULLETIN A1803A

COMPANY CAPABILITIES

The Kraissl Company is a long-time manufacturer of heavy duty <u>simplex and duplex strainers and filters</u> for protecting equipment in pipeline service. Materials of construction include cast iron, bronze, aluminum, steel, stainless steel, and other special alloys. Our complete line of duplex three-way (6-port) <u>transfer valves</u> was developed specifically for use with two filters, two heat exchangers, two supply tanks or with other dual systems. Positive displacement <u>Oil transfer pumps</u> and <u>rotary air pumps</u> are also our specialties. All Kraissl products are <u>manufactured in the U.S.A.</u> to assure high quality workmanship and materials at affordable prices. Authorized Kraissl sales representatives and distributors are located in your area to serve your needs.

STANDARD PRODUCTS

MODEL 72 SIMPLEX AND DUPLEX STRAINERS AND FILTERS are designed for minimum pressure loss and easy basket accessibility. Cast alloy construction provides both durability and economy. Duplex models include a tapered plug valve with metal-to-metal seat for long life in rough service. Simple one-stroke valve operation allows for continuous flow transfer from one side to the other without interruptions. Duplex types range from 3/4 to 8 inches in pipe size, and simplex up to 12 inches. Cast iron, cast steel, stainless steel and bronze models are stocked in many sizes. Special units can also be manufactured in other alloys. Threaded N.P.T. and A.N.S.I. flanged port units are standard. Butt-weld and socket weld ports are also available. Models for fuel oil and flammable fluid service bear the <u>Underwriters Laboratories (U.L.) label</u>. Kraissl strainers are manufactured in accordance with international standard ASTM F1199. Units can also be furnished to meet Military, Coast Guard, and other specifications where required. Special ports for strainer back-wash and control sensor installations can be provided. Automatic duplex valve actuators and controls are also available.

MODEL 73 SEA-VIEW SIMPLEX AND DUPLEX STRAINERS with transparent plastic sumps and bronze or aluminum bodies are available in pipe sizes up to 4 inches inclusive for low pressure or suction line water service.

Strainer baskets for both the Model 72 and Model 73 series are made of perforated sheet metal, with or without wire mesh liners. Hole openings typically range from .0015 to .375 inches or larger. Patented <u>double-element baskets</u> are available for Model 72 series strainers, providing 30 to 40% more straining area in the same size housing.

TRANSFER VALVES

MODEL 72AA SERIES Transfer (or Diverter) Valves are used to cost effectively duplex two external pieces of flow equipment with the least amount of associated piping and space. Simple one-stroke valve operation allows for continuous transfer of flow without interruption. Sizes 3/4" through 8 inch are commonly available in cast iron, cast steel, and stainless steel. Internal valve plugs are normally provided in cast iron, stainless steel, or bronze. A broad range of screwed (NPT) port and flanged models including A.N.S.I. Class 125 and 150 through Class 1500 are typically stocked. Cast construction and tapered metal-to-metal valve plug and seat provide durability for long-life. Kraissl Transfer Valves have been accepted for many years in accordance with A.P.I. 614 and other standards for lubrication oil systems.

ROTARY POSITIVE DISPLACEMENT LIQUID PUMPS

MODEL 60 SERIES PUMPS are <u>Underwriters Laboratories listed</u> for fuel oil service. They incorporate an internal gear design which provides a wide range of applications. The speed of operation is chosen based on the viscosity and flow rate of the liquid at pumping temperature. These cast iron pumps are found on many fuel oil burner installations. For No.1 through No.6 fuel oils, our <u>reduction belt-drive</u> pump sets can be rearranged to increase or decrease supply requirements simply by changing belts and pulleys only, without changing pumps. For heavy oils with viscosities from 150 SSU to 8000 SSU and above, our reduction drive pumps are suggested with pump speed of approximately 400 RPM. Direct drive pump sets are also available for light oils and fluids where 1200 RPM, 1800 RPM, or other special fixed speeds are appropriate. Standard models are rated for pressures up to 100 psig. Capacities range from 1/2 to 200 gpm with high suction characteristics. Port sizes include 3/8 to 2 inch NPT.

MODEL 54 AND 55 CHECK AND FOOT VALVES are also available for use in associated piping.

ROTARY AIR PUMPS

MODEL 21 cast iron roller pumps and MODEL 25 cast iron vane-type air pumps are available for both vacuum and low pressure air service. Free displacement capacities range from 3/4 to 70 CFM, for vacuums to 28 inches of mercury and pressures to 50 PSIG. Built in, positive lubrication system with oil supply sump is included.





Model 72 Screwed port duplex strainer.







SIMPLEX STRAINERS & FILTERS

DUPLEX STRAINERS & FILTERS

OIL TRANSFER PUMPS

TRANSFER (DIVERTER) VALVES

LARGE STOCK FOR FAST DELIVERY

HIGH QUALITY HEAVY-DUTY DESIGNS

WEBSITE: www.strainers.com

THE KRAISSL COMPANY INC.

299 Williams Avenue., Hackensack, N.J. 07601-5225 Tel: (201) 342-0008 • Fax: (201) 342-0025 E-Mail: Kraissl@aol.com



Model 73 "Sea-View" duplex strainer.



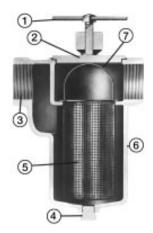
Model 72AA Screwed port transfer valve.



Model 60Reduction drive transfer pump.

BULLETIN A1803A-2





FEATURES

- Hand clamp requires no tools on standard pressure models.
- 2. Top access to basket for easy cleaning.
- Threaded, flanged, weld-end, or special ports available.
- 4. Drain connection on basket chamber.
- Interchangeable, low cost strainer, filter and double element baskets.
- Bodies individually pressure tested to U.L. specifications.
- 7. Spring handle holds basket on seat.



OTHER STRAINERS & FILTERS

Our lines of cast iron, bronze, steel, and stainless steel simplex and duplex models are covered in other bulletins. For larger sizes and other materials, consult factory.

Bulletin No. A1882A (9706)

KRAISSL SIMPLEX STRAINERS AND FILTERS MODEL 72 & 72H SERIES PRESSURE RANGE 200 TO 600 PSIG



PURPOSE

Kraissl pipeline strainers and filters protect pumps, nozzles, valves, heat exchangers and other expensive pipeline equipment from harmful flow contamination by catching dirt and debris.

APPLICATION

Kraissl Model 72 Series <u>simplex strainers</u> and filters provide a simple cost-effective way to separate particle impurities from fluid flow systems. Simplex models described in this bulletin are designed for applications where temporary interruption of a batch process can be permitted for basket cleaning. Where continuous, uninterrupted flow is required, our <u>duplex</u> strainers and filters described in other bulletins should be used. Kraissl strainers are listed by Underwriter's Laboratories, Inc. (U.L.) for fuel and flammable liquid service through size 4 inch, and are individually tested to U.L. quality control specifications. These cast pipeline strainers are designed and manufactured according to international standard A.S.T.M. F-1199 for use in marine and industrial applications.

DESIGN SPECIFICATIONS

Kraissl <u>Model 72</u> series simplex strainers are supplied with quick-opening hand-clamp closure for pressure up to <u>200 psig</u> in sizes up to six inch inclusive. Yoke closures permit easy access without use of tools. The basket is held on its seat by the cover against a spring basket handle. For higher pressure and larger sizes, our <u>Model 72H</u> series with stud and nut closures are available.

Strainer <u>baskets</u> are fabricated from perforated metal. The smallest common perforation size is 1/64 inch in brass and 1/32 inch in stainless steel or monel. Filter baskets are manufactured with fine mesh wire cloth over supporting perforated metal. Optional patented <u>double element baskets</u> provide greatly increased separating area in the same space, and are easily disassembled for cleaning. Interchangeable strainer, filter and double element baskets provide a wide range of operating choices. Baskets are also available with <u>magnet</u> inserts to help eliminate fine metallic ferrous particles.

Internal channels in the Model 72 and 72H Series are 100% full flow, having the same cross sectional area as the equivalent pipe size to avoid flow restriction. Normal flow is through the interior of the basket which contains the collected debris when lifted out for cleaning. Where reverse flow is desired, the fluid travels from the outside to the inside of the basket, and debris collects on the basket exterior.

Both threaded-NPT port and A.N.S.I. flanged port connections are available, as well as metric flanges and other special ports. Drain plugs are furnished on all sizes. Backwash and gage taps can be installed. Weld-end ports and steam-jacketed steel models can also be provided.

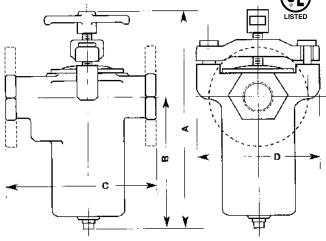
THE KRAISSL COMPANY INC.

299 Williams Avenue., Hackensack, N.J. 07601-5225 Tel: (201) 342-0008 • Fax: (201) 342-0025

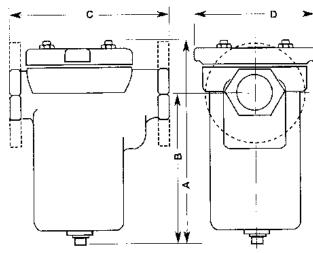


SIZES AND DIMENSIONSSimplex Strainers and Filters

MODEL 72 - STANDARD PRESSURE SERIES YOKE CLOSURE



MODEL 72H - HIGH PRESSURE SERIES STUD AND NUT CLOSURE



SINGLE ELEMENT BASKETS

The open area ratios of two common perforated metal sizes are given in the accompanying table. Strainer baskets are available in many other standard perforations and meshes. Basket materials include brass, stainless steel, carbon steel, monel, and other special alloys.

Basket	Pipe	Pipe Area	Basket	Basket	Scrn.Area	Open Sc	rn. Area	Strainin	g Ratio
Mod. No.	Size	Sq. In.	O. D.	Length	Sq. In.	1/16*	1/32t	1/16*	1/32t
72-1 & 2	3/8	.191	1 1/2	2 7/8	15.3	6.1	4.3	31.9:1	22.5:1
72-3 & 4	1/2	.304	1 1/2	2 7/8	15.3	6.1	4.3	20.1:1	14.1:1
72-5 & 6	3/4	.533	1 15/16	3 15/16	26.9	10.8	7.5	20.3:1	14.1:1
72-7 & 8	1	.864	1 15/16	3 15/16	26.9	10.8	7.5	12.5:1	8.7:1
72-9 & 10	1 1/4	1.495	2 9/16	3 3/4	35.3	14.1	9.9	9.4:7	6.6:1
72-11 & 12	1 1/2	2.036	2 9/16	5	45.4	18.2	12.7	8.9:1	6.2:1
72-13 & 14	2	3.355	3 1/2	5 1/8	66.0	26.4	18.5	7.9:1	5.5:1
72-15	2 1/2	4.788	4 1/8	6 1/4	94.4	37.8	26.4	7.9:1	5.5:1
72-15L, FL, 16L, FL	2 1/2	4.788	3 1/2	7	86.6	34.6	24.2	7.2:1	5.1:1
72-17F	3	7.393	4 1/8	6 3/4	101	40.4	28.3	5.5:1	3.8:1
72-17L, FL, 18L, FL	3	7.393	3 1/2	8 1/2	103	41.2	28.8	5.6:1	3.9:1
72-21F & 22F	4	12.73	4 1/8	10 1/2	149	59.6	41.7	4.7:1	3.3:1
72-23F & 24F	5	20.01	6 7/8	9 1/4	237	94.8	66.4	4.7:1	3.3:1
72-25F & 26F	6	28.89	6 7/8	12	296	118	82.9	4.4:1	2.9:1
72-27F & 28F	8	50.03	9	16	516	206	144	4.1:1	2.9:1

All DIMENSIONS IN INCHES, APPROXIMATE

Madal 70	Thusadad	NDT Darks	200 PSIG Max	Decoure
wodei /2 ·	· inreaded ·	NPI PORTS :	· ZUU PSIG Wax	. Pressure

CAST IRON	CAST STEEL	STAIINLESS STEEL	BRONZE	PIPE SIZE	Α	В	С	D	NET WT. LBS.
72-1	72-1S	72-1SS	72-2	3/8	7 3/16	4 9/16	3 13/16	3 1/2	4
72-3	72-3S	72-3SS	72-4	1/2	7 3/16	4 9/16	3 13/16	3 1/2	4
72-5	72-5S	72-5SS	72-6	3/4	9 5/8	5 11/16	5 3/8	5	8
72-7	72-7S	72-7SS	72-8	1	9 5/8	5 11/16	5 3/8	5	8
72-9	72-9S	72-9SS	72-10	1 1/4	10 1/2	5 15/16	7	5 7/8	15
72-11	72-11S	72-11SS	72-12	1 1/2	12	7 7 /16	7	5 7/8	16
72-13	72-13S	72-13SS	72-14	2	13 3/4	7 13/16	9	8 5/8	34
72-15			72-16	2 1/2	15 9/16	9 5/8	11 1/4	9 5/8	51
72-15L	72-15LS	72-15LSS	72-16L	2 1/2	16	10 5/16	9 1/4	8 5/8	42
72-17L	72-17LS	72-17LSS	72-18L	3	17 9/16	11 1/2	11 1/4	8 5/8	50

Model 72F - Flanged Ports - 200 PSIG Max. Pressure

]	CAST IRON	CAST STEEL	STAIINLESS STEEL	BRONZE	PIPE SIZE	Α	В	С	D	NET WT. LBS.
١	72-7F	72-7FS	72-7FSS	72-8F	1	9 5/8	5 11/16	7 1/4	5	11
4	72-11F	72-11FS	72-11FSS	72-12F	1 1/2	12	7 7/16	8 3/8	5 7/8	21
	72-13F	72-13FS	72-13FSS	72-14F	2	13 3/4	7 13/16	10 1/8	8 5/8	39
'	72-15FL	72-15FLS	72-15FSS	72-16FL	2 1/2	16	10 5/16	11	8 5/8	57
	72-15F				2 1/2	15 9/16	9 5/8	13	9 5/8	66
	72-17FL	72-17FLS	72-17FLSS	72-18FL	3	17 9/16	11 1/2	12 \$/8	8 5/8	67
<u>.</u>	72-17F				3	16 1/4	10 1/8	17 3/4	9 5/8	81
	72-21F	72-21FS	72-21FSS	72-22F	4	21 3/8	14 7/8	17 3/4	9 5/8	115
	72-23F	72-23FS	72-23FSS	72-24F	5	22	13 1/4	18 3/4	10 7/8	172
	72-25F	72-25FS	72-25FSS	72-26F	6	26	16 1/2	19 1/2	11	220
	72-27FH	72-27FHS	72-27FHSS	72-28FH	8	34	21	25 3/8	14 1/2	615

Mode! 72H - Cast Iron - 400 PSIG Max. Pressure

CAST IRON	PIPE SIZE	PORT	Α	В	С	D	NET WT. LBS.
72-1H	3/8	THREADED - NPT	5 7/8	4 9/16	3 13/16	3 3/4	4
72-3H	1/2	THREADED - NPT	5 7/8	4 9/16	3 13/16	3 3/4	4
72-5H	3/4	THREADED - NPT	17 15/16	5 13/16	5 3/8	4 13/16	13
72-7H	1	THREADED - NPT	17 15/16	5 13/16	5 3/8	4 13/16	13
72-9H	1 1/4	THREADED - NPT	9 13/16	7 9 /16	7	5 3/8	16
72-11H	1 1/2	THREADED - NPT	9 13/16	7 9/16	7	5 3/8	16
72-13H	2	THREADED - NPT	11 1/8	7 15/16	9	6 13/16	34
72-15H	2 1/2	THREADED - NPT	12 15/16	9 3/4	11 1/4	9	51
72-15FH	3	CLASS 250 FLANGED	14 1/4	10 1/8	17 3/4	9	94
72-21FH	4	CLASS 250 FLANGED	19 7/8	14 7/8	17 3/4	9	134

Model 72HS - Cast Steel - 600 PSIG Max. Pressure

CAST STEEL	PIPE SIZE	PORT	Α	В	С	D	NET WT. LBS.
72-1HS	3/8	THREADED - NPT	5 7/8	4 9/16	3 13/16	3 3/4	4
72-3HS	1/2	THREADED - NPT	5 7/8	4 9/16	3 13/16	3 3/4	4
72-5HS	3/4	THREADED - NPT	7 15/16	5 13/16	5 3/8	4 13/16	14
72-7HS	1	THREADED - NPT	7 15/16	5 13/16	5 3/8	4 13/16	14
72-9HS	1 1/4	THREADED - NPT	9 13/16	7 9 /16	7	5 3/8	18
72-11HS	1 1/2	THREADED - NPT	9 13/16	7 9/16	7	5 3/8	18
72-13HS	2	THREADED - NPT	11 1/8	7 15/16	9	6 13/16	34
72-13FHS	2	CLASS 300 FLANGED	11 1/8	7 15/16	10 3/4	6 13/16	43
72-15HS	2 1/2	THREADED - NPT	12 15/16	9 3/4	11 1/4	9	51
72-15FHS	2 1/2	CLASS 300 FLANGED	13 1/2	9 3/4	11 1/4	9	73
72-17FHS	3	CLASS 300 FLANGED	14 1/4	10 1/8	17 3/4	9	104
72-21FHS	4	CLASS 300 FLANGED	19 7/8	14 7/8	17 3/4	9	148

All DIMENSIONS IN INCHES, SUBJECT TO CASTING AND PRODUCTION VARIATIONS

DOUBLE ELEMENT BASKETS

These strainers can be supplied with our patented Double Element Baskets which are easily disassembled for cleaning and provide greater straining areas in the same housing. Double Element Baskets are listed by Underwriters Laboratories, Inc. for a variety of sizes.

			o a. o	0.00.0,					u	
Basket	Pipe	Pipe Area			Tot. Scrn. Area				ng Ratio	
Mod. No.	Size	Sq. In.	O. D.	Length	Sq. In.	1/16*	1/32t	1/16*	1/32t	L
72-7/1	1	.864	1 15/16	3 15/16	38.3	15.3	10.7	17.7:1	12.4:1	Γ
72-9/7	1 1/4	1.495	2 9/16	3 3/4	50.5	20.2	14.1	13.5:1	9.4:1	
72-1 1/7	1 1/2	2.036	2 9/16	5	69.0	27.6	19.3	13.6:1	9.5:1	ı
72-13/7	2	3.355	3 1/2	5 1/8	84.9	34.0	23.8	10.1:1	7.1:1	٠
72-15L/7	2 1/2	4.788	3 1/2	7	115	46.0	32.2	9.6:1	6.7:1	ı
72-15/7	2 1/2	4.788	4 1/8	6 1/4	121	48.4	33.9	10.1:1	7.1:1	
72-17L/7	3	7.393	3 1/2	8 1/2	140	56.0	39.2	7.6:1	5.3:3	1
72-17 F/11	3	7.393	4 1/8	6 3/4	141	56.4	39.5	7.6:1	5.3:3	ı
72-21/11	4	12.73	4 1/8	10 1/2	220	88.0	61.6	6.9:1	4.8:1	l٠
72-23/15	5	20.01	6 15/16	9 1/8	300	120	84.0	6.0:1	4.2:1	ı
72-25/15	6	28 89	6 15/16	11 1/2	386	154	108	5.3:1	3.7:1	ı



^{*} Perforated - Based on 40% open area t Perforated - Based on 28% open area Bulletin No. A1882A (9709)

3.6:1

^{*} Perforated - Based on 40% open area t Perforated - Based on 28% open area



KRAISSL DUPLEX STRAINERS AND FILTERS MODEL 72 and 72H SERIES - CAST IRON - NPT PORTS Pressure Range - 200 to 400 PSIG





PURPOSE

Kraissl pipeline strainers and filters protect pumps, nozzles, valves, heat exchangers and other expensive pipeline equipment from harmful contamination by catching dirt and debris.

APPLICATION

Kraissl duplex strainers and filters provide a simple, cost effective way to separate particle impurities from fluid systems. Duplex strainers are ideal for applications where continuous flow must be maintained, with no flow interruption for basket cleaning.

KraissI strainers are listed by Underwriters Laboratories, Inc. (U.L.), and are individually tested to U.L. quality control specifications. These cast pipeline strainers are manufactured according to international standard A.S.T.M. F1199 for use in industrial and marine applications.

DESIGN SPECIFICATIONS

Model 72 and 72H series duplex strainers are furnished in both standard or high pressure models with NPT port connections. Flanged models are also available, described in other bulletins. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size. Standard pressure models are furnished with our quick-opening, hand-clamp closure for easy access. High pressure models are furnished with stud-and-nut body cover closure. Refer to our drawings A2333A and A2334A for sizes, ratings and dimensions.

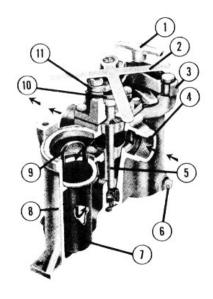
Materials of construction include rugged cast iron bodies, covers, and valve plugs, and brass, carbon steel, stainless steel or monel baskets. Special valve plugs can also be furnished in stainless steel or other materials.

These duplex strainers have a built-in, tapered plug valve that directs flow through either side without shutting off the flow. A valve handle guard shields the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet port can also be furnished. Drain plugs are provided in each of the valve and basket chambers. An adjustable locking flange holds the valve plug on its seat. A separate, external gland is provided to allow easy access to valve stem packing without complete disassembly, even while in service.

Strainer baskets are fabricated from perforated metal. The smallest common perforation size is 1/64 inch in brass and 1/32 inch in stainless steel. Filter baskets are manufactured by using fine mesh wire cloth over supporting perforated metal. Interchangeable strainer, filter and double element baskets provide a flexible range of operating choices. The basket is held on its seat by a spring basket handle. Normal flow is through the interior of the basket which then contains the collected debris when the basket is lifted out for cleaning. Reverse flow is also possible if desired. Magnet inserts are available to help eliminate fine metallic ferrous particles.

All high pressure models with stud-and-nut closure are supplied with balancing valve assemblies to equalize pressure and ease valve turning. These should be specified on standard pressure models when used above the following pressures: 3/4" through 1-1/2" inclusive, 100psig; 2" & 2-1/2", 80 psig.

An optional lifting jack can be provided to lift the valve plug off its seat for ease in valve turning in rough service.



FEATURES

- Hand clamp requires no special tools on low pressure models.
- 2 Valve handle shields side in use.
- 3 Accessible swing yoke closure for easy basket cleaning.
- 4- Continuous flow without interruption during changeover.
- 5- Tapered valve plug for durability.
- 6 Drain connections on each basket chamber.
- 7 Interchangeable strainer, filter and double element baskets.
- 8 Bodies individually pressure tested to U.L. specifications.
- 9 Spring handle holds basket on seat.
- 10- Independent gland for external stem packing access.
- 11- Adjustable locking flange establishes valve clearance.

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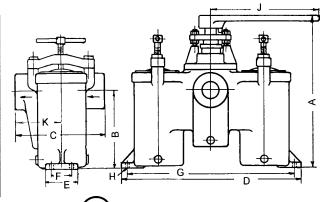
A1430B (9611)

KRAISSL CAST IRON* DUPLEX STRAINERS THREADED (NPT) PORTS

MODEL 72 SERIES HAND CLAMP (YOKE) CLOSURE

For Standard Pressure to 200 psig

MOD NO	PIPE SIZE NPT	APPROX NET WGT LBS	Α	В	С	D	E	F	G	Н	J	К
72-31D	3/4	33	10 1 <i>f</i> 8	51/16	5 1/4	10 7/8	2 1/4	1 1/2	10 1 <i>1</i> 8	7/16	8 1/8	2 3/4
72-33D	1	33	10 1 <i>f</i> 8	5 1/16	5 1/4	10 7/8	2 1/4	1 1/2	10 1 <i>/</i> 8	7/16	8 1/8	2 3/4
72-31	3/4	42	12 1/4	5 5/8	63/4	141/2	2 3/4	1 3/4	13 1/2	7/16	12 1/8	3 5/8
72-33	1	42	12 1/4	5 5/8	6 3/4	141/2	2 3/4	1 3/4	13 1/2	7/16	12 1/8	3 5/8
72-35	1 1/4	56	13 1/4	6 3/4	7 5/8	15 1/4	2 3/4	1 3/4	141/4	7/16	12 1/8	3 7/8
72-37	1 1/2	56	13 1/4	63/4	7 5/8	15 1/4	2 3/4	1 3/4	141/4	7/16	12 1/8	3 7/8
72-39	2	115	143/4	7 7/8	10 5/8	20 1/2	3	1 7 <i>1</i> 8	19 1/2	9/16	12 1 <i>1</i> 8	5 9/16
72-41	2 1/2	115	143/4	7 7/8	10 5/8	20 1/2	3	1 7/8	19 1 <i>[</i> 2	9/16	12 1/8	5 9/16

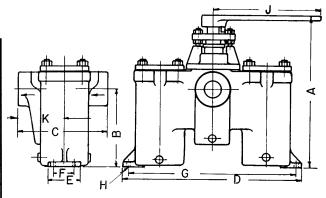


Underwriters Laboratories Inc.®

MODEL 72H SERIES STUD AND NUT COVER CLOSURE

For High Pressure to 400 psig

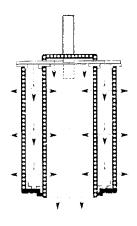
MOD NO	PIPE SIZE NPT	APPROX NET WGT LBS	Α	В	С	D	E	F	G	Н	J	К
72-31H	3/4	42	12 1/4	5 5/8	63/4	141/2	2 3/4	1 3/4	13 1/2	7/16	12 1 <i>1</i> 8	3 5/8
72-33H	1	42	12 1/4	5 5/8	63/4	141/2	2 3/4	1 3/4	13 1/2	7/16	12 1 <i>1</i> 8	35/8
72-35H	1 1/4	56	13 1/4	6 3/4	7 5/8	15 1/4	2 3/4	1 3/4	141/4	7/16	12 1 <i>/</i> 8	3 <i>7/</i> 8
72-37H	1 1/2	56	131/4	63/4	7 5/8	15 1/4	2 3/4	1 3/4	14 1/4	7/16	12 1 <i>/</i> 8	37/8
72-39H	2	115	143/4	7 7/8	10 5/8	20 1/2	3	1 7/8	19 1/2	9/16	12 1 <i>[</i> 8	5 9/16
72-41H	21/2	115	143/4	7 7/8	10 5/8	20 1/2	3	1 7/8	19 1/2	9/16	12 1 <i>/</i> 8	5 9/16



Dimensions are in inches and subject to casting and production variations.

DOUBLE ELEMENT BASKETS

These units can be supplied with our patented double-element baskets which are easily disassembled for cleaning and provide greater straining areas in the same housing.



A1430B (9611)

SINGLE ELEMENT BASKET DATA

Use Double Element Baskets for greater straining area.

					TOTAL	APPRO	K. OPEN	RATIO C	F OPEN
MODEL	INCH	INTERNAL	BAS	SKET	SCREEN	SCREE	N AREA	AR	EA
NO.	PIPE	PIPE	DIME	NSIONS	AREA	SQ.	. IN.	TO PIPI	E AREA
	SIZE	AREA				1/16" HOLE	1/32" HOLE	1/16" HOLE	1/32" HOLE
		SQ. IN.	O. D.	LENGTH	SQ. IN.	DIA.* DIA.**		DIA.*	DIA.**
72-31D	3/4	0.533	1 15/16	3 15/16	26.9	10.8	7.5	20.3:1	14.1:1
72-33D	1	0.864	1 15/16	3 15/16	26.9	10.8	7.5	12.5:1	8.7:1
72-31(H)	3/4	0.533	1 15/16	3 15/16	26.9	10.8	7.5	20.3:1	14.1:1
72-33(H)	1	0.864	1 15/16	3 15/16	26.9	10.8	7.5	12.5:1	8.7:1
72-35(H)	1 1/4	1.495	2 9/16	5	45.4	18.2	12.7	12.2:1	8.5:1
72-37(H)	1 1/2	2.036	2 9/16	5	45.4	18.2	12.7	8.9:1	6.2:1
72-39(H)	2	3.355	3 1/2	5 1/8	66.0	26.4	18.5	7.9.:1	5.5:1
72-41(H)	2 1/2	4.788	3 1/2	5 1/8	66.0	26.4	18.5	5.5:1	3.9:1

^{*} Based on 40% open area.

OTHER PRODUCTS

Our product lines of bronze, steel and stainless steel simplex and duplex strainers including flanged, NPT and weld-end models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure / temperature ratings.

KRAISSL COMPANY, INC. 299 WILLIAMS AVENUE HACKENSACK, NJ 07601-5225

Phone:(201)342-0008, Fax:(201)342-0025 E-mail: Kraissl@aol.com

^{*}ASTM A126 Class B.

^{**}Based on 28% open area.

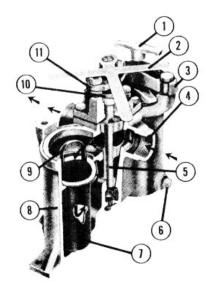


KRAISSL DUPLEX STRAINERS AND FILTERS MODEL 72F and 72FH SERIES - CAST IRON - FLANGED PORTS

Pressure Range - 200 to 400 PSIG







FEATURES

- 1 Hand clamp requires no special tools on low pressure models.
- 2 Valve handle shields side in use.
- 3 Accessible swing yoke closure for easy basket cleaning.
- **Continuous flow without** interruption during changeover.
- Tapered valve plug for durability.
- Drain connections on each basket chamber.
- Interchangeable strainer, filter and double element baskets.
- **Bodies individually pressure** tested to U.L. specifications.
- 9 Spring handle holds basket on seat.
- 10- Independent gland for external stem packing access.
- 11- Adjustable locking flange establishes valve clearance.
- 12- Mounting feet provided.



PURPOSE

Kraissl pipeline strainers and filters protect pumps, nozzles, valves, heat exchangers and other expensive pipeline equipment from harmful flow contamination by catching dirt and debris.

APPLICATION

Model 72F and 72FH series duplex strainers are furnished in both standard or high pressure models with standard ANSI B16.1 flanged port connections. Threaded NPT models are also available, described in other bulletins. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size. Standard pressure models are furnished with our quick-opening, hand-clamp for easy access. High pressure models are furnished with stud-and-nut body cover closure.

Materials of construction include rugged cast iron bodies and covers, iron valve plugs, and brass, carbon steel, stainless steel or monel baskets. Special valve plugs can also be furnished in bronze, stainless steel, or other materials.

These duplex strainers have a built-in, tapered plug valve that directs flow through either side without shutting off the flow. A valve handle guard shields the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet can also be furnished. Drain plugs are provided in each of the valve and basket chambers. An adjustable locking flange holds the valve plug on its seat. A separate, external gland is provided to allow easy access to valve stem packing without complete disassembly, even while in service.

Strainer baskets are fabricated from perforated metal. The smallest common perforation size is 1/64 inch in brass and 1/32 inch in stainless steel. Filter baskets are manufactured by using fine mesh wire cloth over supporting perforated metal. Interchangeable strainer, filter and double element baskets provide a flexible range of operating choices. The basket is held on its seat by a spring basket handle. Normal flow is through the interior of the basket which then contains the collected debris when the basket is lifted out for cleaning. Reverse flow is also possible if desired. Magnet inserts are available to help eliminate fine metallic ferrous particles.

All high pressure models with stud and nut closure are supplied with balancing valve assemblies to equalize pressure and ease valve turning. These should be specified on standard pressure models when used above the following pressures:

3/4" through 1 1/2" inclusive - 100 psig; 2" & 2 1/2" - 80 psig; 4" through 8" - 15 psig. An optional lifting jack can be provided to lift the valve plug off its seat for ease in valve turning in rough service. A lifting jack is standard on 5", 6", and 8" sizes.

KRAISSL COMPANY, INC.

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A2054B (9611)

DOUBLE ELEMENT BASKETS

These strainers can be provided with our patented double-element baskets which are easily disassembled for cleaning, and provide greater straining areas in the same housing. Double-element baskets are listed by Underwriters Laboratories, Inc. for a variety of sizes.

OTHER PRODUCTS

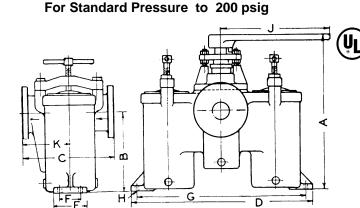
Our product lines of bronze, steel and stainless steel simplex and duplex strainers including flanged, NPT and weld end models are covered in separate bulletins. Units can also be furnished in other special metals.

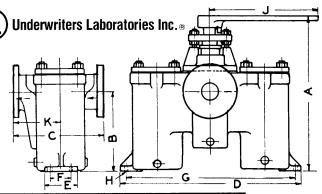
KRAISSL CAST IRON* DUPLEX STRAINERS - FLANGED PORTS

MODEL 72F SERIES - CLASS 125 HAND CLAMP (YOKE) CLOSURE

MODEL 72FH SERIES - CLASS 250** STUD AND NUT COVER CLOSURE

For High Pressure to 400 psig



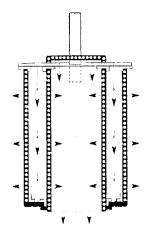


				OUTLINE	DIMEN	SIONS						
MODEL	PIPE	APPROX.										
NUMBER	SIZE	NET WGT.	Α	В	С	D	Ε	F	G	Н	J	к
	NPT	LBS.										
72-31F(H)	3/4"	42	12 1/4	5 5/8	8 3/8	14 1/2	2 3/4	1 3/4	13 1/2	7/16	12 1/8	4 5/8
72-33F(H)	1"	43	12 1/4	5 5/8	8 3/8	14 1/2	2 3/4	1 3/4	13 1/2	7/16	12 1/8	4 5/8
72-35F(H)	1 1/4"	56	13 1/4	6 3/4	9 3/8	15 1/4	2 3/4	1 3/4	14 1/4	7/16	12 1/8	4 3/4
72-37F(H)	1 1/2"	57	13 1/4	6 3/4	9 3/8	15 1/4	2 3/4	1 7/8	14 1/4	7/16	12 1/8	4 3/4
72-39F(H)	2"	115	14 3/4	7 7/8	12	20 1/2	3	1 7/8	19 1/2	9/16	12 1/8	6 7/32
72-41F(H)	2 1/2"	117	14 3/4	7 7/8	12 5/8	20 1/2	3	1 7/8	19 1/2	9/16	12 1/8	6 7/32
72-43F(H)	3"	141	17 5/8	10 3/4	12 1/2	20 3/4	3	1 7/8	19 1/2	9/16	12 1/8	6 7/8
72-47F(H)	4"	310	20 11/16	13 1/32	15 5/8	25 1/4	3 1/4	2	24	5/8	12 1/8	8 15/16
72-49F(H)***	5"	380	26 1/8	15 3/8	17 3/4	27 3/4	3 1/4	2	26 1/2	5/8	14	9 7/8
72-51F(H)***	6"	595	28 1/2	16 1/4	21	36 3/4	4 1/2	2 3/4	35 1/2	9/16	14	12
72-53F(H)***	8"	1600	37 5/16	15 9/16	32 1/2	47 3/8	10 3/4	9	47	5/8	14	15 1/2

Dimensions are in inches and subject to casting and production variations.

DOUBLE ELEMENT BASKETS

These units can be supplied with our patented double-element baskets which are easily disassembled for cleaning and provide greater straining areas in the same housing.



A2054B (9611)

SINGLE ELEMENT BASKET DATA

Use Double Element Baskets for greater straining area.

1						APPROX. OPEN		RATIO OF OPEN	
		INTERNAL	BA	SKET	TOTAL	SCREE	N AREA	AR	EA
MODEL	INCH	PIPE	DIME	VSIONS	SCREEN	SQ. IN.		TO PIPE AREA	
NUMBER	PIPE	AREA			AREA	1/16" HOLE	1/32" HOLE	1/16" HOLE	1/32" HOLE
	SIZE	SQ. IN.	O. D.	LENGTH	SQ. IN.	DIA.* DIA.**		DIA.*	DIA.**
72-31(D)F(H)	3/4	0.533	1 15/16	3 15/16	26.9	10.8	7.5	20.3:1	14.1:1
72-33(D)F(H)	1	0.864	1 15/16	3 15/16	26.9	10.8	7.5	12.5:1	8.7:1
72-35F(H)	1 1/4	1.495	2 9/16	5	45.4	18.2	12.7	12.2:1	8.5:1
72-37F(H)	1 1/2	2.036	2 9/16	5	45.4	18.2	12.7	8.9:1	6.2:1
72-39F(H)	2	3.355	3 1/2	5 1/8	66.0	26.4	18.5	7.4.:1	5.5:1
72-41F(H)	2 1/2	4.788	3 1/2	5 1/8	66.0	26.4	18.5	5.5:1	3.9:1
72-43F(H)	3	7.393	3 1/2	8 3/8	102	40.8	28.6	5.5:1	3.9:1
72-47F(H)	4	12.73	4 1/8	10 1/2	149	59.6	41.7	4.7:1	3.3:1
72-49F(H)	5	20.006	5	13	224	89.6	62.7	4.5:1	3.1:1
72-51F(H)	6	28.891	7	11 1/2	291	116	81.5	4.0:1	2.8:1
72-53F(H)	8	50.03	9	16	516	206	144	4.1:1	2.9:1

^{*} Based on 40% open area.

OTHER PRODUCTS

Our product lines of bronze, steel and stainless steel simplex and duplex strainers including NPT and weld-end models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure / temperature ratings.

KRAISSL COMPANY, INC. 299 WILLIAMS AVENUE HACKENSACK, NJ 07601-5225

Phone:(201)342-0008, Fax:(201)342-0025 E-mail: Kraissl@aol.com

^{*}ASTM A126 Class B.

^{**} Special Model 72FH-125 series also available with stud and nut closure with Class 125 Flanges for 200 psig.

^{***} A lifting jack is standard on these sizes.

^{**}Based on 28% open area.



KRAISSL DUPLEX STRAINERS AND FILTERS MODEL 72S and 72HS SERIES - CAST STEEL and STAINLESS STEEL

Pressure Range - 200 to 720 PSIG





PURPOSE

Kraissl pipeline strainers and filters protect pumps, nozzles, valves, heat exchangers and other expensive pipeline equipment from harmful contamination by catching dirt and debris.

APPLICATION

Kraissl duplex strainers and filters provide a simple, cost effective way to separate particle impurities from fluid systems. Duplex strainers are ideal for applications where continuous flow must be maintained, with no flow interruption for basket cleaning.

KraissI strainers are listed by Underwriters Laboratories, Inc. (U.L.), and are individually tested to U.L. quality control specifications. These cast pipeline strainers are manufactured according to international standard A.S.T.M. F1199 for use in industrial and marine applications.

DESIGN SPECIFICATIONS

Model 72 and 72H series duplex strainers are furnished in both standard or high pressure models with NPT, socket weld or butt weld port connections. Flanged models are also available, described in other bulletins. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size. Standard pressure models are furnished with our quick-opening, hand-clamp closure for easy access. High pressure models are furnished with stud-and-nut body cover closure. Refer to our drawings A2334A and A2345 for sizes, ratings and dimensions.

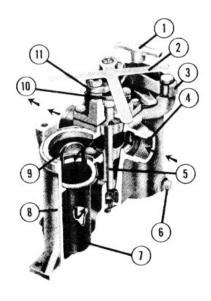
Materials of construction include rugged cast steel or stainless steel bodies and covers; cast iron or bronze valve plugs, and brass, carbon steel, stainless steel or monel baskets. Special valve plugs can also be furnished in stainless steel or other materials.

These duplex strainers have a built-in, tapered plug valve that directs flow through either side without shutting off the flow. A valve handle guard shields the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet port can also be furnished. Drain plugs are provided in each of the valve and basket chambers. An adjustable locking flange holds the valve plug on its seat. A separate, external gland is provided to allow easy access to valve stem packing without complete disassembly, even while in service.

Strainer baskets are fabricated from perforated metal. The smallest common perforation size is 1/64 inch in brass and 1/32 inch in stainless steel. Filter baskets are manufactured by using fine mesh wire cloth over supporting perforated metal. Interchangeable strainer, filter and double element baskets provide a flexible range of operating choices. The basket is held on its seat by a spring basket handle. Normal flow is through the interior of the basket which then contains the collected debris when the basket is lifted out for cleaning. Reverse flow is also possible if desired. Magnet inserts are available to help eliminate fine metallic ferrous particles.

All high pressure models with stud-and-nut closure are supplied with balancing valve assemblies to equalize pressure and ease valve turning. These should be specified on standard pressure models when used above the following pressures: 3/4" through 1-1/2" inclusive, 100psig; 2" & 2-1/2", 80 psig.

An optional lifting jack can be provided to lift the valve plug off its seat for ease in valve turning in rough service.



FEATURES

- 1 Hand clamp requires no special tools on low pressure models.
- 2 Valve handle shields side in use.
- 3 Accessible swing yoke closure for easy basket cleaning.
- 4- Continuous flow without interruption during changeover.
- 5- Tapered valve plug for durability.
- 6 Drain connections on each basket chamber.
- 7 Interchangeable strainer, filter and double element baskets.
- 8 Bodies individually pressure tested to U.L. specifications.
- 9 Spring handle holds basket on seat.
- 10- Independent gland for external stem packing access.
- 11- Adjustable locking flange establishes valve clearance.
- 12- Mounting feet provided.

KRAISSL COMPANY, INC.

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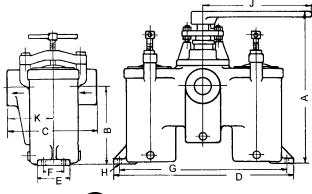
A2210A (9612)

KRAISSL CAST STEEL* DUPLEX STRAINERS THREADED (NPT) PORTS

MODEL 72S(S) SERIES HAND CLAMP (YOKE) CLOSURE

For Standard Pressure to 200 psig

MOD. NO.	PIPE SIZE NPT	APPROX. NET WGT. LBS.		A		В		С		D		E		F		G	Н		J		K
72-31DS	3/4"	33	10	1/8	5	7/16	5	1/4	10	3/4	2	1/4	1	1/2	10	1/8	7/16	8	1/8	2	3/4
72-33DS	1"	33	10	1/8	5	7/16	5	1/4	10	3/4	2	1/4	1	1/2	10	1/8	7/16	8	1/8	2	3/4
72-318	3/4"	42	12	1/4	6	1/8	6	3/4	14	1/2	2	3/4	1	3/4	13	1/2	7/16	12	1/8	3	5/8
72-33S	1"	42	12	1/4	6	1/8	6	3/4	14	1/2	2	3/4	1	3/4	13	1/2	7/16	12	1/8	3	5/8
72-35\$	1 1/4"	56	13	1/4	8	1/8	7	5/8	14	1/8	2	1/4	1	3/4	13	1/4	7/16	12	1/8		4
72-37S	1 1/2"	56	13	1/4	8	1/8	7	5/8	14	1/8	2	1/4	1	3/4	13	1/4	7/16	12	1/8		4
72-39S	2"	115	14	3/4	7	7/8	10	5/8	20	1/2		3	1	7/8	19	1/2	9/16	12	1/8	5	9/16
72 -4 1S	2 1/2"	115	14	3/4	7	7/8	10	5/8	20	1/2		3	1	7/8	19	1/2	9/16	12	1/8	5	9/16

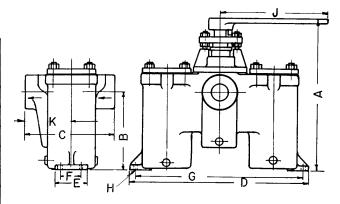


(UL) Underwriters Laboratories Inc.®

MODEL 72HS(S) SERIES STUD AND NUT COVER CLOSURE

For High Pressure to 720 psig

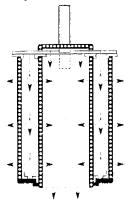
				9								
MOD. No.	PIPE SIZE NPT	APPROX. NET WGT. LBS.	A	В	С	D	E	F	G	Н	J	K
72-31HS	3/4"	42	12 1/4	6 1/8	6 3/4	14 1/2	2 3/4	1 3/4	13 1/2	7/16	12 1/8	3 5/8
72-33HS	1"	42	12 1/4	6 1/8	6 3/4	14 1/2	2 3/4	1 3/4	13 1/2	7/16	12 1/8	3 5/8
72-35HS	1 1/4"	56	13 1/4	8 1/8	7 5/8	14 1/8	2 1/4	1 3/4	13 1/16	7/16	12 1/8	4
72-37HS	1 1/2"	56	13 1/4	8 1/8	7 5/8	14 1/8	2 1/4	1 3/4	13 1/16	7/16	12 1/8	4
72-39HS	2"	115	14 3/4	7 7/8	10 5/8	20 1/2	3	1 7/8	19 1/2	9/16	12 1/8	5 9/16
72-41HS	2 1/2"	115	14 3/4	7 7/8	10 5/8	20 1/2	3	1 7/8	19 1/2	9/16	12 1/8	5 9/16



Dimensions are in inches and subject to casting and production variations.

DOUBLE ELEMENT BASKETS

These units can be supplied with our patented double-element baskets which are easily disassembled for cleaning and provide greater straining areas in the same housing. Double-Element Baskets are listed by Underwriters Laboratories, Inc. for a variety of sizes.



A2210A (9612)

SINGLE ELEMENT BASKET DATA

Use Double Element Baskets for greater straining area.

1						APPRO	K. OPEN	RATIO	OF OPEN
		INTERNAL	BAS	SKET	TOTAL	SCREE	N AREA	AR	EA
MOD. NOS.	INCH	PIPE	DIME	NSIONS	SCREEN	SQ.	IN.	TO PIPI	E AREA
	PIPE	AREA			AREA	1/16" HOLE	1/32" HOLE	1/16" HOLE	1/32" HOLE
	SIZE	SQ. IN.	O. D.	LENGTH	SQ. IN.	DIA.*	DIA.**	DIA.*	DIA.**
72-31DS	3/4	0.533	1 15/16	3 15/16	26.9	10.8	7.5	20.3:1	14.1:1
72-33DS	1	0.864	1 15/16	3 15/16	26.9	10.8	7.5	12.5:1	8.7:1
72-31(H)S	3/4	0.533	1 15/16	3 15/16	26.9	10.8	7.5	20.3:1	14.1:1
72-33(H)S	1	0.864	1 15/16	3 15/16	26.9	10.8	7.5	12.5:1	8.7:1
72-35(H)S	1 1/4	1.495	1 15/16	6 3/8	41.8	16.7	11.7	11.2:1	7.8:1
72-37(H)S	1 1/2	2.036	1 15/16	6 3/8	41.8	16.7	11.7	8.2:1	5.7:1
72-39(H)S	2	3.355	3 1/2	5 1/8	66.0	26.4	18.5	7.9:1	5.5:1
72-41(H)S	2 1/2	4.788	3 1/2	5 1/8	66.0	26.4	18.5	5.5:1	3.9:1

^{*} Based on 40% open area.

OTHER PRODUCTS

Our product lines of bronze, steel and stainless steel simplex and duplex strainers including flanged, NPT and weld-end models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure / temperature ratings.

KRAISSL COMPANY, INC. 299 WILLIAMS AVENUE HACKENSACK, NJ 07601-5225

Phone:(201)342-0008, Fax:(201)342-0025 E-mail: Kraissl@aol.com

^{*}ASTM A216 WCB.

^{**}Based on 28% open area.



KRAISSL DUPLEX STRAINERS & FILTERS MODEL 72FS and 72FHS SERIES CAST STEEL or STAINLESS STEEL

Pressure Range - 200 to 1480 PSIG



PURPOSE

KraissI pipeline strainers and filters protect pumps, engines, nozzles, valves, heat exchangers and other expensive pipeline equipment from harmful flow contamination by catching dirt and debris.

APPLICATION

Kraissl duplex strainers and filters provide a simple, cost effective way to separate particle impurities from fluid systems. Duplex strainers are ideal for applications where continuous flow must be maintained with no flow interruption for basket cleaning.

Kraissl strainers are listed by Underwriters Laboratories, Inc. (U.L.) and are individually tested to U.L. quality control specifications. These cast pipeline strainers are manufactured according to international standard A.S.T.M. F1199 for use in industrial and marine applications.

DESIGN SPECIFICATIONS

Model 72FS and 72FHS series duplex strainers are furnished in both standard or high pressure models with flanged port connections. Threaded NPT, socket weld or butt weld end models are also available, described in other bulletins. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size. Standard pressure models are furnished with our quick-opening, hand-clamp closure for easy access. High pressure models have stud-and-nut / bolted body cover closures.

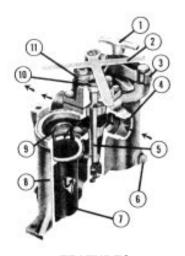
Materials of construction include rugged cast carbon steel bodies, covers, and iron valve plugs, and brass, carbon steel, stainless steel or monel baskets. Special valve plugs can also be furnished in bronze, stainless steel or other materials. All stainless steel models are also available in cast 316 stainless steel, 304 stainless steel or other special stainless alloys.

These duplex strainers have a built-in, tapered plug valve that directs flow through either side without shutting off the flow. A valve handle guard shields the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet port can also be furnished. Drain plugs are provided in each of the valve and basket chambers. An adjustable locking flange holds the valve plug on its seat. A separate external gland is provided to allow easy access to valve stem packing without complete disassembly, even while in service.

Strainer baskets are fabricated from perforated metal. The smallest common perforation size is 1/64 inch in brass and 1/32 inch in stainless steel. Filter baskets are manufactured by using fine mesh wire cloth over supporting perforated metal. Interchangeable strainer, filter and double element baskets provide a flexible range of operating choices. The basket is held on its seat by a spring basket handle. Normal flow is through the interior of the basket which then contains the collected debris when the basket is lifted out for cleaning. Reverse flow is also possible if desired. Magnet inserts are available to help eliminate fine metallic ferrous particles.

All high pressure ("H") models with stud and nut closure are supplied with balancing valve assemblies to equalize pressure and ease valve turning. These should be specified on standard pressure models when used above the following pressures: 3/4 inch through 1 1/2 inch inclusive-100 psig; 2 inch through 3 inch-80 psig; 4 inch through 8 inch-15 psig.

An optional lifting jack can be provided to lift the valve plug off its seat for ease in valve turning in rough service on sizes 1 through 4 inch. A lifting jack is standard on 5, 6 and 8 inch sizes and all "H" High Pressure models except size one inch.



FEATURES

- 1- Hand clamp requires no special tools.
- 2 Valve handle shields side in use.
- 3 Accessible swing yoke closure for easy basket cleaning.
- 4 Continuous flow without interruption during changeover.
- 5 Tapered valve plug for durability.
- 6 Drain connections on each basket chamber.
- 7 Interchangeable strainer, filter and double element baskets.
- 8 Bodies individually pressure tested to U.L specifications.
- 9 Spring handle holds basket on
- 10 Independent gland for external stem packing access.
- 11 Adjustable locking flange establishes valve clearance.
- 12- Mounting feet provided.



A2211B (0302)

KRAISSL CAST STEEL* DUPLEX STRAINERS - FLANGED PORTS

MODEL 72FS SERIES - CLASS 150 HAND CLAMP (YOKE) CLOSURE

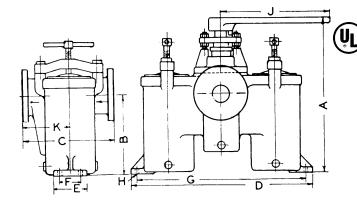
For Standard Pressure to 200 psig

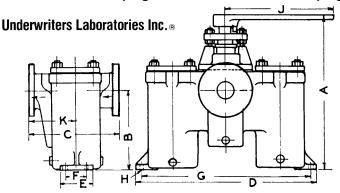
MODEL 72FHS SERIES - CLASS 300**& 600** STUD AND NUT COVER CLOSURE

For High Pressure

Class 300 to 720 psig

Class 600 to 1480 psig





		0	UTLIN	IE DIN	MENSI	ONS in i	nches	, subj	ect to	castir	ng & a	ssem	bly va	riati	ons.			
MODEL	PIPE	ļ	APPROX	(_					
NO	SIZE	NET	r wgt,	LBS	A***	В		С		D	E	F	G	Н	J		K	
	NPT	CL150	CL300	CL600			CL150	CL300	CL600							CL150	CL300	CL600
72-33F(H)S	1"	32	35	41	10 1/8	5 1/8	6 3/4	7 1/4	7 1/2	10 7/8	2 1/4	1 1/2	10 1/8	7/16	12 1/8	3 5/8	3 7/8	4 1/8
72-35F(H)S	1 1/4"	60	66	72	15 5/8	7 15/16	8 1/4	8 5/8	9 3/8	14	2 3/4	1 1/2	12 3/4	7/16	12 1/8	4 1/2	4 3/4	5 1/16
72-37F(H)S	1 1/2"	61	67	74	15 5/8	7 15/16	8 1/4	8 3/4	9 3/8	14	2 3/4	1 1/2	12 3/4	7/16	12 1/8	4 1/2	4 3/4	5 1/16
72-39F(H)S	2"	115	127	139	16	7 1/2	10 3/8	10 1/2	11 5/8	20 1/2	3	1 7/8	19 1/2	9/16	12 1/8	5 3/4	6	6 1/4
72-41F(H)S	2 1/2"	120	132	145	16	7 1/2	10 3/8	11 1/4	12	20 1/2	3	1 7/8	19 1/2	9/16	12 1/8	5 3/4	6 1/16	6 3/4
72-43F(H)S	3"	159	175	193	19 1/4	10 3/4	10 7/8	11 1/2	12 1/4	20 1/2	3	1 7/8	19 1/2	9/16	12 1/8	6 1/4	6 5/8	7
72-47F(H)S	4'	285	314	345	22 1/8	12 3/4	14 3/4	15 3/8	16 3/8	25 1/4	3 - 1/4	2	24	5/8	12 1/8	6 1/4	8 9/16	9 1/8
72-49F(H)S**	5"	390	429	471	26 1/8	15 3/8	17 3/4	18 3/4	19 1/4	27 3/4	3 1/4	2	27	5/8	14	9 7/8	10 1/4	10 3/4
72-51F(H)S**	6"	655	721	793	26 7/8	15 3/16	20 5/8	21 1/2	22 3/8	34 1/2	3 1/4	2	33	5/8	14	11 5/8	12 3/16	12 5/8
72-53F(H)\$**	8"	1675	1865	-	37 5/16	15 9/16	32 1/2	33 3/8		47 3/8	10 3/4	9	46	5/8	14	15 1/2	16 1/4	

^{*}ASTM A216 WCB - Cast Carbon Steel. Cast 304 SS - ASTMA351-CF8. Cast 316 SS - ASTM 351-CF8M.

MODEL

NUMBER

72-31(D)F(H)S

72-33(D)F(H)S

72-35F(H)S

72-37F(H)S

72-39F(H)S

72-41F(H)S

72-43F(H)S

72-47F(H)S

72-49F(H)S

INCH

PIPE

SIZE

3/4

1 1/4

1 1/2

2 1/2

3

INTERNAL

PIPE

AREA

SQ. IN.

0.533

0.864

1.495

2.036

3.355

4.788

7.393

20.006

BASKET

DIMENSIONS

O. D.

1 15/16

1 15/16

1 15/16

1 15/16

3 1/2

3 1/2

3 1/2

LENGTH

3 15/16

3 15/16

6 3/8

6 3/8

5 1/8

5 1/8

8 3/8

13

SINGLE ELEMENT BASKET DATAUse Double Element Baskets for greater straining area.

TOTAL

SCREEN

AREA

SQ. IN.

26.9

26.9

41.8

41.8

66.0

66.0

102

149

224

291

516

APPROX. OPEN

SCREEN AREA

SQ. IN.

DIA.

10.8

10.8

16.7

16.7

26.4

26.4

40.8

59.6

89.6

116

RATIO OF OPEN

AREA

TO PIPE AREA

DIA.**

14.1:1

8.7:1

7.8:1

5.7:1

5.5:1

3.9:1

3.9:1

3.3:1

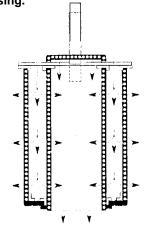
3.1:1

2.8:1

2.9:1

DOUBLE ELEMENT BASKETS

These units can be supplied with our patented double-element baskets which are easily disassembled for cleaning and provide greater straining areas in the same housing.



4 12.73 4 1/8 10 1/2

1/16" HOLE 1/32" HOLE 1/16" HOLE 1/32" HOLE

DIA.*

20.3:1

12.5:1

11.2:1

8.2:1

7.4.:1

5.5:1

5.5:1

4.7:1

4.5:1

4.0:1

4.1:1

DIA.**

7.5

7.5

11.7

11.7

18.5

18.5

28.6

41.7

62.7

81.5

144

OTHER PRODUCTS

Our product lines of cast iron, bronze, aluminum, steel and stainless steel simplex and duplex strainers including threaded port cast iron models are covered in separate bulletins. Units can also be furnished in special metals and higher pressure / temperature ratings.

KRAISSL COMPANY, INC. 299 WILLIAMS AVENUE HACKENSACK, NJ 07601-5225

Phone:(201)342-0008, Fax:(201)342-0025 E-mail: Kraissl@aol.com

A2211B (0302)

^{**} Special Model 72FHS-150 series with Class 150 Flanges for 230 psig Max. W.P.also available. Please contact factory. .

^{***} Dimension includes lifting jack on all except 72-33F(H)S where L.J. is not available. L.J. is standard only on 5", 6" and 8" and all Cl. 300 & 600 models.

⁷²⁻⁵¹F(H)S 6 28.891 7 11 1/2 **72-53F(H)S** 8 50.03 9 16 ** Based on 40% open area.

^{**}Based on 28% open area.



KRAISSL DUPLEX STRAINERS & FILTERS MODEL 72 & 72F SERIES CAST BRONZE OR ALUMINUM

Pressure Range - 200 PSIG



PURPOSE

KraissI pipeline strainers and filters protect pumps, engines, nozzles, valves, heat exchangers and other expensive pipeline equipment from harmful flow contamination by catching dirt and debris. These non-ferrous models are commonly specified for cooling water.

APPLICATION

Kraissl duplex strainers and filters provide a simple, cost effective way to separate particle impurities from fluid systems. Duplex strainers are ideal for applications where continuous flow must be maintained with no flow interruption for basket cleaning.

KraissI strainers are listed by Underwriters Laboratories, Inc. (U.L.) and are individually tested to U.L. quality control specifications. These cast pipeline strainers are manufactured according to international standard A.S.T.M. F1199 for use in industrial and marine applications.

DESIGN SPECIFICATIONS

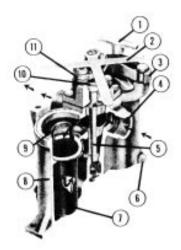
Model 72 and 72F series bronze or aluminum strainers are furnished in both standard and high pressure models with flanged or NPT threaded port connections. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size. Standard pressure models are furnished with our quick-opening, hand-clamp for easy access. High pressure models are stud-and-nut body cover closures. Refer to our drawings A2346 and A2347 for sizes, ratings and dimensions.

Materials of construction include rugged cast bronze or aluminum bodies, covers, and valve plugs, and brass, stainless steel or monel baskets. Special valve plugs can also be furnished in stainless steel or other materials.

These duplex strainers have a built-in, tapered plug valve that directs flow through either side without shutting off the flow. The valve handle guard shields the side in use. The valve handle guard shields the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet port can also be furnished. Drain plugs are provided in each of the valve and basket chambers. An adjustable locking flange holds the valve plug on its seat. A separate external gland is provided to allow easy access to valve stem packing without complete disassembly, even while in service.

Strainer baskets are fabricated from perforated metal. The smallest common perforation size is 1/64 inch in brass and 1/32 inch in stainless steel. Filter baskets are manufactured by using fine mesh wire cloth over supporting perforated metal. Interchangeable strainer, filter and double element baskets provide a flexible range of operating choices. The basket is held on its seat by a spring basket handle. Normal flow is through the interior of the basket which thencontains the collected debris when the basket is lifted out for cleaning. Reverse flow is also possible if desired. Magnet inserts are available to help eliminate fine metallic ferrous particles.

Special high pressure (H") models with stud and nut closure are supplied with balancing valve assemblies to equalize pressure and ease valve turning. These should be specified on standard pressure models when used above the following pressures: 3/4 inch through 1 1/2 inch inclusive-100 psig; 2 inch through 3 inch-80 psig; 4 inch through 8 inch-15 psig. An optional lifting jack can be provided to lift the valve plug off its seat for ease in valve turning in rough service on sizes 1 through 4 inch. A lifting jack is standard on 5, 6 and 8 inch sizes.



FEATURES

- 1- Hand clamp requires no special tools.
- 2 Valve handle shields side in use.
- 3 Accessible swing yoke closure for easy basket cleaning.
- 4 Continuous flow without interruption during changeover.
- 5 Tapered valve plug for durability.
- 6 Drain connections on each basket chamber.
- 7 Interchangeable strainer, filter and double element baskets.
- 8 Bodies individually pressure tested to U.L specifications.
- 9 Spring handle holds basket on
- 10 Independent gland for external stem packing access.
- 11 Adjustable locking flange establishes valve clearance.



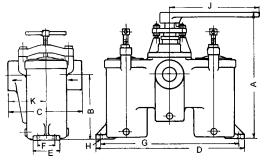
A1698A(9604)

MODEL 72 & 72F SERIES - CAST BRONZE*- DUPLEX STRAINERS FOR MAXIMUM WORKING PRESSURES TO 200 PSIG HAND CLAMP (YOKE) CLOSURE

Stud & Nut Closure also available for higher pressures & temperatures.

THREADED (NPT) PORTS

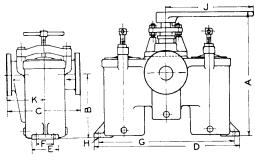
				OUTL	INE DII	MENSI	ONS			-		
MOD. NO.	PIPE SIZE NPT	APPROX. NET WGT. LBS.	А	В	С	D	E	F	G	н	J	к
7230	3/4'	31	10 1/8	5 1/16	5 1/4	10 7/8	2 1/4	1 1/2	10 1/8	7/16	8 1/8	2 3/4
72-32	1"	31	10 1/8	5 1/16	5 1/4	10 7/8	2 1/4	1 1/2	10 1/8	7/16	8 1/8	2 3/4
72-36	1 1'74	55	14 1/8	7 15/16	7 1/4	14	2 1/4	1 1/2	12 3/4	7/16	12 1/8	3 7/8
72-38	1 1/2"	55	14 1/8	7 15/16	7 1/4	14	2 1/4	1 1/2	12 3/4	7/16	12 1/8	3 7/8
72-40	2"	118	14 1/2	7 1/2	10 3/8	20 3/4	3	1 7/8	19 1/2	9/16	12 1/8	5 1/4
72-42	2 1/2"	120	14 1/2	7 1/2	10 3/8	20 3/4	3	1 7/8	19 1/2	9/16	12 1/8	5 1/4



CLASS 150 MSS FLANGED PORTS**

				OUTLI	NE DIME	NSION	S					
MOD. NO.	PIPE SIZE NPT	APPROX. NET WGT. LBS.	Α	В	С	D	E	F	G	н	J	к
72-30F	1"	34	10 1/8	5 1/8	6 3/4	10 7/8	2 1/4	1 1/2	10 1/8	7/16	8 1/8	3 5/8
72-36F	1 1/4"	58	14 1/8	7 15/16	8 1/4	14	2 1/4	1 1/2	12 3/4	7/16	12 1/8	4 1/2
72-38F	1 1/2"	60	14 1/8	7 15/16	8 1/4	14	2 1/4	1 1/2	12 3/4	7/16	12 1/8	4 1/2
72-40F	2"	128	14 1/2	7 1/2	10 3/8	20 3/4	3	1 7/8	19 1/2	9/16	12 1/8	5 3/4
72-42F	2 1/2"	130	14 1/2	7 1/2	10 3/8	20 3/4	3	1 7/8	19 1/2	9/16	12 1/8	5 3/4
72-44F	3"	143	17 3/4	10 3/4	10 7/8	20 3/4	3	1 7/8	19 1/2	9/16	12 1/8	6 1/4
72-48F	4"	285	20 1/8	12 3/4	14 3/4	25 1/4	3 1/4	2	24	5/8	12 1/8	8 1/4
72-50F***	5"	389	26 1/8	15 3/8	17 3/4	27 3/4	3 1/4	2	26 1/2	5/8	14	9 7/8
72-52F***	6"	697	26 7/8	15 3/8	20 1/2	34 1/4	3 1/4	2	33	5/8	14	11 5/8
72-54F***	8"	1600	37 5/16	15 9/16	32 1/2	47 3/8	10 3/4	9	47	5/8	14	15 1/2





DOUBLE ELEMENT

BASKETS

These units can be supplied with our patented double-element baskets which are easily disassembled for cleaning and provide greater straining areas in the same

housing.

Dimensions are in inches and subject to casting and production variations.

APPROX. OPEN

RATIO OF OPEN

SINGLE ELEMENT BASKET DATA

Use Double Element Baskets for greater straining area.

	INTERNAL	BAS	SKET	TOTAL	SCREE	N AREA	AR	EA
INCH	PIPE	DIME	SIONS	SCREEN	SQ	. IN.	TO PIP	E AREA
PIPE	AREA			AREA	1/16" HOLE	1/32" HOLE	1/16" HOLE	1/32" HOLE
SIZE	SQ. IN.	O. D.	LENGTH	SQ. IN.	DIA.*	DIA.**	DIA.*	DIA.**
3/4	0.533	1 15/16	3 15/16	26.9	10.8	7.5	20.3:1	14.1:1
1	0.864	1 15/16	3 15/16	26.9	10.8	7.5	12.5:1	8.7:1
1 1/4	1.495	1 15/16	6 3/8	41.8	16.7	11.7	11.2:1	7.8:1
1 1/2	2.036	1 15/16	6 3/8	41.8	16.7	11.7	8.2:1	5.7:1
2	3.355	3 1/2	5 1/8	66.0	26.4	18.5	7.4.:1	5.5:1
2 1/2	4.788	3 1/2	5 1/8	66.0	26.4	18.5	5.5:1	3.9:1
3	7.393	3 1/2	8 3/8	102	40.8	28.6	5.5:1	3.9:1
4	12.73	4 1/8	10 1/2	149	59.6	41.7	4.7:1	3.3:1
5	20.006	5	13	224	89.6	62.7	4.5:1	3.1:1
6	28.891	7	11 1/2	291	116	81.5	4.0:1	2.8:1
8	50.03	9	16	516	206	144	4.1:1	2.9:1
	PIPE SIZE 3/4 1 1 1/4 1 1/2 2 2 1/2 3 4 5 6	INCH PIPE AREA SIZE SQ. IN. 3/4 0.533 1 0.864 1 1/4 1.495 1 1/2 2.036 2 3.355 2 1/2 4.788 3 7.393 4 12.73 5 20.006 6 28.891	INCH PIPE PIME	NCH PIPE AREA SIZE SQ. IN. O. D. LENGTH	NCH PIPE AREA SQ. IN. O. D. LENGTH SQ. IN.	NCH PIPE DIMENSIONS AREA T/16" HOLE	Name	NCH PIPE AREA SQ. IN. TO PIPE AREA SQ. IN. TO PIPE AREA SQ. IN. O. D. LENGTH SQ. IN. DIA.* DIA.*

^{*} Based on 40% open area.

A1698A(9604)

OTHER PRODUCTS

Our product lines of cast iron, steel and stainless steel simplex and duplex strainers including flanged, NPT and weld-end models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure / temperature ratings.

KRAISSL COMPANY, INC. 299 WILLIAMS AVENUE HACKENSACK, NJ 07601-5225

Phone:(201)342-0008, Fax:(201)342-0025 E-mail: Kraissl@aol.com

^{*}ASTM B62 (standard). ASTM B61 and other materials to order.

^{**}Navy or other flanged connections available to order.

^{***}Includes standard lifting jack.

^{**}Based on 28% open area.



KRAISSL THREE PIECE DUPLEX STRAINERS & FILTERS MODEL 72AF and 72AFH SERIES CAST IRON

Pressure Range - 200 to 400 PSIG



PURPOSE

KraissI pipeline strainers and filters protect pumps, engines, nozzles, valves, heat exchangers and other expensive pipeline equipment from harmful flow contamination by catching dirt and debris.

APPLICATION

Kraissl duplex strainers and filters provide a simple, cost effective way to separate particle impurities from fluid systems. Duplex strainers are ideal for applications where continuous flow must be maintained with no flow interruption for basket cleaning.

Kraissl strainers are listed by Underwriters Laboratories, Inc. (U.L.) and are individually tested to U.L. quality control specifications. These cast pipeline strainers are manufactured according to international standard A.S.T.M. F1199 for use in industrial and marine applications.

DESIGN SPECIFICATIONS

Model 72AF and 72AFH series three piece duplex strainers are furnished in both standard or high pressure models with flanged port connections. The center valve section or side bodies can be separately removed and serviced independently. Threaded NPT models are also available, described in other bulletins. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size. Standard pressure models are furnished with our quick-opening, hand-clamp closure for easy access. High pressure models have stud-and-nut / bolted body cover closures.

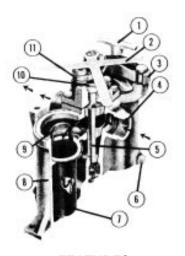
Materials of construction include rugged cast iron bodies, covers, and iron valve plugs, and brass, carbon steel, stainless steel or monel baskets. Special valve plugs can also be furnished in bronze, stainless steel or other materials.

These duplex strainers have a built-in, tapered plug valve that directs flow through either side without shutting off the flow. A valve handle guard shields the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet port can also be furnished. Drain plugs are provided in each of the valve and basket chambers. An adjustable locking flange holds the valve plug on its seat. A separate external gland is provided to allow easy access to valve stem packing without complete disassembly, even while in service.

Strainer baskets are fabricated from perforated metal. The smallest common perforation size is 1/64 inch in brass and 1/32 inch in stainless steel. Filter baskets are manufactured by using fine mesh wire cloth over supporting perforated metal. Interchangeable strainer, filter and double element baskets provide a flexible range of operating choices. The basket is held on its seat by a spring basket handle. Normal flow is through the interior of the basket which then contains the collected debris when the basket is lifted out for cleaning. Reverse flow is also possible if desired. Magnet inserts are available to help eliminate fine metallic ferrous particles.

All high pressure ("H") models with stud and nut closure are supplied with balancing valve assemblies to equalize pressure and ease valve turning. These should be specified on standard pressure models when used above the following pressures: 3/4 inch through 1 1/2 inch inclusive - 100 psig; 2 inch through 3 inch - 80 psig; 4 inch through 8 inch -15 psig.

An optional lifting jack can be provided to lift the valve plug off its seat for ease in valve turning in rough service on sizes 1 through 4 inch. A lifting jack is standard on 5, 6 and 8 inch sizes.



FEATURES

- 1- Hand clamp requires no special tools.
- 2 Valve handle shields side in use.
- 3 Accessible swing yoke closure for easy basket cleaning.
- 4 Continuous flow without interruption during changeover.
- 5 Tapered valve plug for durability.
- 6 Drain connections on each basket chamber.
- 7 Interchangeable strainer, filter and double element baskets.
- 8 Bodies individually pressure tested to U.L specifications.
- 9 Spring handle holds basket on seat.
- 10 Independent gland for external stem packing access.
- 11 Adjustable locking flange establishes valve clearance.
- 12- Mounting feet provided.



A1431A (9705)

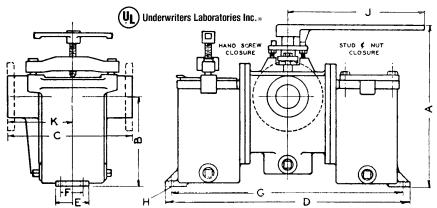
KRAISSL CAST IRON* THREE PIECE DUPLEX STRAINERS

MODEL 72A(F) SERIES - CLASS 125 HAND CLAMP (YOKE) CLOSURE

MODEL 72A(F)H SERIES - CLASS 250** STUD AND NUT COVER CLOSURE

For Standard Pressure to 200 psig

For High Pressure to 400 psig



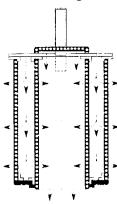
							OUTLINE D	IMENSIONS							
MODEL NUMBER	PIPE SIZE		ROX GT, LBS	А	В		С	D	E	F	G	Н	J	ŀ	(
		CL 125	CL 250			CL 125	CL 250							CL 125	CL 250
72-33AF(H)	1"	73	77	11 9/16	5 1/16	9 3/8	9 3/8	15 1/4	2 1/8	1 1/4	14 3/8	7/16	12 1/4	4 15/16	4 15/16
72-37AF(H)	1 1/2"	93	100	13 1/2	7	9 3/8	9 3/8	16 7/8	2 3/8	1 1/2	16	7/16	12 1/8	4 15/16	4 15/16
72-39AF(H)	2"	165	173	15	7 7/8	12	12	22 3/4	3	1 7/8	21 3/4	9/16	12 1/8	6 1/4	6 1/4
72-41AF(H)	2 1/2"	209	218	16 7/8	9 3/4	12 5/8	12 5/8	25 5/8	3	1 7/8	24 9/16	9/16	12 1/8	6 1/2	6 1/2
72-43AF(H)	3"	250	263	17 1/16	10 5/16	12 1/2	12 1/2	29 1/2	3 1/4	2	28 1/4	9/16	12 1/8	6 7/8	6 7/8
72-47AF(H)	4"	325	339	20 3/4	13 1/2	15 5/8	15 5/8	31 1/2	3 1/4	2	30 3/8	9/16	12 1/8	8 15/16	8 15/16
72-49AF(H)**	5"	670	-	23	13 1/2	18	-	42 9/16	4 1/2	2 3/4	41 9/16	9/16	14	10 1/2	-
72-51AF(H)**	6"	790	-	26 1/4	16 1/4	21	-	44 9/16	4 1/2	2 3/4	43 9/16	9/16	14	12	-

Dimensions are in inches and subject to casting and production variations.

Please contact factory. A lifting jack is standard on 5" and 6" sizes. 5" and 6" sizes not listed by Underwriters' Laboratories, Inc.

DOUBLE ELEMENT BASKETS

These units can be supplied with our patented double-element baskets which are easily disassembled for cleaning and provide greater straining areas in the same housing.



A1431A (9705)

DOUBLE ELEMENT BASKET DATA

The open area ratios of two perforated metal sizes are given below. Baskets are available in all standard perforations and meshes. Filter baskets are made of wire mesh cloth spotwelded over supporting cylinder of perforated metal.

MODEL	INCH	INTERNAL	ВА	SKET	TOTAL	APPRO	X. OPEN	RATIO (OF OPEN
NUMBER	PIPE	PIPE	DIME	NSIONS	SCREEN	SCREE	N AREA	AF	REA
	SIZE	AREA			AREA	sq	. IN.	TO PIP	E AREA
		SQ. IN.			SQ. IN.	1/16" HOLE	1/32" HOLE	1/16" HOLE	1/32" HOLE
			O. D.	LENGTH		DIA.*	DIA.**	DIA.*	DIA.**
72-33A(F)(H)	1	0.864	1 15/16	3 15/16	26 9	10.8	7.5	12.5:1	8.7:1
72-37A(F)(H)	1 1/2	2.036	2 9/16	5	45.4	18.2	12.7	18.9:1	6.2:1
72-39A(F)(H)	2	3.355	3 1/2	5 1/8	66.0	26.4	18.5	7.9:1	5.5:1
72-41A(F)(H)	2 1/2	4.788	4 1/8	6 1/4	94.4	37.8	26.4	7.9:1	5.5:1
72-43AF(H)	3	7.393	4 1/8	6 3/4	101	40.4	28.3	5.5:1	3.8:1
72-47AFH	4	12.73	4 1/8	10 1/2	149	59.6	41.7	4.7:1	3.3:1
72-49AFH	5	20.01	6 7/8	9 1/4	237	94.8	66.4	4.7:1	3.3:1
72-51AFH	6	28.89	6 7/8	12	296	118	82.9	4.1:1	2.9:1

^{*} Based on 40% open area.

OTHER PRODUCTS

Our product lines of cast iron, bronze, aluminum, steel and stainless steel simplex and duplex strainers including NPT cast iron models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure / temperature ratings.

**Based on 28% open area.

KRAISSL COMPANY, INC. 299 WILLIAMS AVENUE HACKENSACK, NJ 07601-5225

Phone:(201)342-0008, Fax:(201)342-0025 E-mail: Kraissl@aol.com

^{*}ASTM A126 -Class B.

^{**}Special Model 72AFH-125 series with Class 125 Flanges for 200 psig.



KRAISSL THREE PIECE DUPLEX STRAINERS & FILTERS MODEL 72AFS and 72AFHS SERIES CAST STEEL or STAINLESS STEEL

Pressure Range - 200 to 720 PSIG



PURPOSE

Kraissl pipeline strainers and filters protect pumps, engines, nozzles, valves, heat exchangers and other expensive pipeline equipment from harmful flow contamination by catching dirt and debris.

APPLICATION

Kraissl duplex strainers and filters provide a simple, cost effective way to separate particle impurities from fluid systems. Duplex strainers are ideal for applications where continuous flow must be maintained with no flow interruption for basket cleaning.

Kraissl strainers are listed by Underwriters Laboratories, Inc. (U.L.) and are individually tested to U.L. quality control specifications. These cast pipeline strainers are manufactured according to international standard A.S.T.M. F1199 for use in industrial and marine applications.

DESIGN SPECIFICATIONS

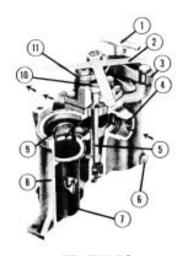
Model 72AFS and 72AFHS series three piece duplex strainers are furnished in both standard or high pressure models with flanged port connections. The center valve section or side bodies can be separately removed and serviced independently. Threaded NPT, socket weld or butt weld end models are also available, described in other bulletins. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size. Standard pressure models are furnished with our quick-opening, hand-clamp closure for easy access. High pressure models have stud-and-nut / bolted body cover closures. Materials of construction include rugged cast carbon steel bodies, covers, and iron valve plugs, and brass, carbon steel, stainless steel or monel baskets. Special valve plugs can also be furnished in bronze, stainless steel or other materials. All stainless steel models are also available in cast 316 stainless steel, 304 stainless steel or other special stainless alloys.

These duplex strainers have a built-in, tapered plug valve that directs flow through either side without shutting off the flow. A valve handle guard shields the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet port can also be furnished. Drain plugs are provided in each of the valve and basket chambers. An adjustable locking flange holds the valve plug on its seat. A separate external gland is provided to allow easy access to valve stem packing without complete disassembly, even while in service.

Strainer baskets are fabricated from perforated metal. The smallest common perforation size is 1/64 inch in brass and 1/32 inch in stainless steel. Filter baskets are manufactured by using fine mesh wire cloth over supporting perforated metal. Interchangeable strainer, filter and double element baskets provide a flexible range of operating choices. The basket is held on its seat by a spring basket handle. Normal flow is through the interior of the basket which then contains the collected debris when the basket is lifted out for cleaning. Reverse flow is also possible if desired. Magnet inserts are available to help eliminate fine metallic ferrous particles.

All high pressure ("H") models with stud and nut closure are supplied with balancing valve assemblies to equalize pressure and ease valve turning. These should be specified on standard pressure models when used above the following pressures: 3/4 inch through 1 1/2 inch inclusive - 100 psig; 2 inch through 3 inch - 80 psig; 4 inch through 8 inch -15 psig.

An optional lifting jack can be provided to lift the valve plug off its seat for ease in valve turning in rough service on sizes 1 through 4 inch. A lifting jack is standard on 5, 6 and 8 inch sizes.



FEATURES

- 1- Hand clamp requires no special tools.
- 2 Valve handle shields side in use.
- 3 Accessible swing yoke closure for easy basket cleaning.
- 4 Continuous flow without interruption during changeover.
- 5 Tapered valve plug for durability.
- 6 Drain connections on each basket chamber.
- 7 Interchangeable strainer, filter and double element baskets.
- 8 Bodies individually pressure tested to U.L specifications.
- 9 Spring handle holds basket on
- 10 Independent gland for external stem packing access.
- 11 Adjustable locking flange establishes valve clearance.
- 12- Mounting feet provided.



A1879A (9704)

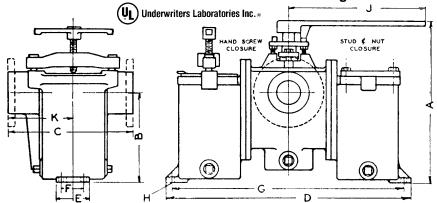
KRAISSL CAST STEEL* THREE PIECE DUPLEX STRAINERS

MODEL 72A(F)S SERIES - CLASS 150 HAND CLAMP (YOKE) CLOSURE

MODEL 72A(F)HS SERIES - CLASS 300** STUD AND NUT COVER CLOSURE

For Standard Pressure to 200 psig

For High Pressure to 720 psig



			****					OUT	LIN	E DIM	IENS	SIONS	S												
MODEL NO	PIPE		ROX GT, LBS			В			С			D		E		F		G	н					К	
NO	SIZE				A	ь	<u>-</u>		-		1	_	l	_		г		9	п		J	<u> </u>		_	
		CL 150	CL 300	<u> </u>			1 6	L 150	_ C	L 300	<u> </u>				<u> </u>							C	L 150	<u> </u>	L 300
72-31A(H)S	3/4"NPT	69	69	11	9/16	5 1/16	7	5/8	7	5/8	15	1/4	2	1/8	1	1/4	14	3/8	7/16	12	1/8	3	7/8	3	7/8
72-33A(H)\$	1" NPT	69	69	11	9/16	5 1/16	7	5/8	7	5/8	15	1/4	2	1/8	1	1/4	14	3/8	7/16	12	1/8	3	7/8	3	7/8
72-35A(H)S	1/4"NP	78	78	12		5 1/2	7	5/8	7	5/8	16	7/8	2	3/8	1	1/2	16		7/16	12	1/8	3	7/8	3	7/8
72-37A(H)S	1/2"NP	87	87	13	1/2	7	7	5/8	7	5/8	16	7/8	2	3/8	1	1/2	16		7/16	12	1/8	3	7/8	3	7/8
72-33AF(H)S	1"	73	77	11	9/16	5 1/16	9	3/8	9	3/8	15	1/4	2	1/8	1	1/4	14	3/8	7/16	12	1/8	4	15/16	4	15/16
72-37AF(H)S	1 1/2"	93	100	13	1/2	7	9	3/8	9	3/8	16	7/8	2	3/8	1	1/2	16		7/16	12	1/8	4	15/16	4	15/16
72-39AF(H)S	2"	165	173	15		7 7/8	12		12		22	3/4	3		1	7/8	21	3/4	9/16	12	1/8	6	1/4	6	1/4
72-41AF(H)S	2 1/2"	209	218	16	7/8	9 3/4	12	5/8	12	5/8	25	5/8	3		1	7/8	24	9/16	9/16	12	1/8	6	1/2	6	1/2
72-43AF(H)S	3"	250	263	17	1/16	9 13/16	12	1/2	12	1/2	29	1/2	3	1/4	2		28	1/4	9/16	12	1/8	6	7/8	6	7/8
72-47AF(H)S	4"	325	339	20	3/4	13 1/2	15	5/8	15	5/8	31	1/2	3	1/4	2		30	3/8	9/16	12	1/8	9		9	
72-49AF(H)S**	5"	670	-	23		13 1/2	18		18		42	9/16	2	3/4	4	1/2	41	9/16	9/16	14		10	1/8	10	1/8
72-51AF(H)\$**	6"	790	-	26	1/4	16 1/4	21		21		44	9/16	2	3/4	4	1/2	43	9/16	9/16	14		12		12	

Dimensions are in inches and subject to casting and production variations.

DOUBLE ELEMENT BASKET DATA

The open area ratios of two perforated metal sizes are given below. Baskets are available in all standard perforations and meshes. Filter baskets are made of wire mesh cloth spotwelded over supporting cylinder of perforated metal.

TOTAL RATIO OF OPEN CAT INCH INTERNAL BASKET APPROX. OPEN NOS. PIPE PIPE DIMENSIONS SCREEN SCREEN AREA AREA SIZE AREA AREA SQ. IN TO PIPE AREA 1/16" HOLE 1/32" HOLE 1/16" HOLE 1/32" HOLE SQ. IN SQ. IN. O. D. LENGTH DIA.** DIA.* DIA.** DIA.* 72-31AS 0.533 1 15/16 3 15/16 26.9 10.8 7.5 20.3:1 14.1:1 12.5:1 8.7:1 3 15/16 7.5 0.864 1 15/16 26.9 10.8 72-33A(F)(H)S 1 72-37A(F)(H)S 1 1/2 2.036 2 9/16 5 45.4 18.2 12.7 12.2:1 8.5:1 72-39A(F)(H)S 2 3.355 3 1/2 5 1/8 66.0 26.4 18.5 7.9:1 5.5:1 4 1/8 6 1/4 94.4 37.8 26.4 791 5.5.1 72-41A(F)(H)S 2 1/2 4 788 4 1/8 7 101 40.4 28.3 5.5:1 3.8:1 72-43AF(H)S 3 7.393 72-47AFHS Δ 12.73 4 1/8 149 59.6 41.7 4 7:1 3.3:1 11 72-49AFHS 20.01 6 7/8 9 1/4 237 94.8 66 4 4.7:1 3.3:1 72-51AFHS 28.89 6 7/8 296 82.9 4.7:1 2.9:1

DOUBLE ELEMENT

BASKETS

These units can be supplied with our

patented double-element baskets which

are easily disassembled for cleaning and

provide greater straining areas in the same

housing.

A1879A (9704)

OTHER PRODUCTS

Our product lines of cast iron, bronze, aluminum, steel and stainless steel simplex and duplex strainers including NPT cast iron models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure / temperature ratings.

KRAISSL COMPANY, INC. 299 WILLIAMS AVENUE HACKENSACK, NJ 07601-5225

Phone:(201)342-0008, Fax:(201)342-0025 E-mail: Kraissl@aol.com

^{*}ASTM A216 WCB - Cast Carbon Steel. Cast 304 SS - ASTMA351-CF8. Cast 316 SS - ASTM 351-CF8M.

^{**}Special Model 72AFHS-150 series with Class 150 Flanges for 230 psig and Model 72AFHS-600 series for 1480 psig Max. W.P.also available. Please contact factory. A lifting jack is standard on 5" and 6" sizes. 5" and 6" sizes not listed by Underwriters' Laboratories, Inc.

^{*} Based on 40% open area.

^{**}Based on 28% open area.



EASY CLEANING SIMPLEX & DUPLEX

BASKET ELEMENTS REMOVABLE FROM TOP

SINGLE ELEMENT BASKETS

Strainer baskets are available in all standard perforations and meshes. Filter baskets are made of wire mesh cloth, spotwelded over a supporting cyclinder of perforatedssible metal. They are available in a wide range of mesh sizes. See drawing A2354 for dimensions.

TRANSPARENT SUMP ACCESSIBLE BY REMOVING TWO WING NUTS

FEATURES:

All models

- -Hand clamp requires no special tools
- -Accessible swing yoke closure for easy basket cleaning
- -Mounting bracket provided DUPLEX MODELS
- -Valve handle shields side in use
- -Continuous flow without interruption during changeover
- -Tapered valve plug for durability
- -Interchangeable strainer, filter and double element baskets

OTHER PRODUCTS

Our product lines of cast iron, bronze, aluminum, steel and stainless steel simplex and duplex strainers and filters including flanged, NPT and weld-end models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure ratings.

A1735A(9604)

KRAISSL MODEL 73 SEA-VIEW STRAINERS & FILTERS COOLING WATER SERVICE

LOW PRESSURE SUCTION SERVICE TO 40 PSIG



PURPOSE

Kraissl pipeline strainers and filters protect pumps, engines, nozzles, valves, heat exchangers and other expensive pipeline equipment from harmful flow contaminated by catching dirt and debris. These non-ferrous models are commonly specified for cooling water.

APPLICATION

Kraissl duplex strainers and filters provide a simple, cost effective way to separate particle impurities from fluid systems. Duplex strainers are ideal for applications where continuous flow must be maintained with no flow interruption for basket cleaning. Kraissl Model Series Sea-View are designed to protect cooling systems on marine engines and cooling water installations requiring pipeline strainers, direct sea water cooling, and indirect heat exchanger cooling. In both cases, cooling water strainers are very important. With direct cooling, marine debris can damage the cooling water pump causing the engine to fail, resulting in major repairs. Marine debris can also clog heat exchangers, requiring downtime until cleaned. Installation of cooling water strainers reduces these hazards, increasing the reliability of marine engines. Fine mesh filter baskets can also be provided for use with water supplies. and other process flow-line installations.

DESIGN

Kraissl Model 73 Sea-View Strainers offer the following advantages:

Transparent plastic sumps permit visibility of cooling water flow and collected material. Interior or exterior flow permit collection of particles in either the removable basket or in the transparent sump. Baskets are easily accessible without the use of tools. The basket is removed via the hand clamp closure and the removable sump by two wing nuts. Mounting brackets are provided on both simplex and duplex models. These units are very light weight while providing large straining area. Both simplex and duplex units are available in a range of sizes from 1/2 to 4-inch. When installed above the cooling water pump, the strainer becomes a quick means of pump priming. Interchangeable basket elements are available for a wide range of particle separations. Standard Kraissl Model 73 series strainers are manufactured of cast bronze, aluminum or stainless steel with transparent plastic basket sumps. Special valve plugs can also be furnished in stainless steel or other materials. Standard strainer baskets are of perforated monel or stainless steel. Duplex strainers are supplied with our special adjustable locking flarge which permits adjustment of the tapered valve plug on its seat. A separate external gland is provided to allow easy access to valve stem packing without complete disassembly, even while in sevice, without changing the valve plug clearance.

The valve lever movement permanent stops and guard on the valve handle shields the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet port can also be furnished. Internal channels are 100% full flow having the same cross-sectional area as the equivalent size pipe. Also refer to our drawings B3523A and A1732E for sizes and dimensions. Kraissl products are individually tested to our stringent quality control specifications. These cast pipeline strainers are manufactured according to international standard A.S.T.M. F-1199 for use in industrial and marine applications.

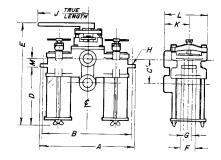
MODEL 73 SERIES DUPLEX SEA VIEW STRAINERS THREADED-NPT PORTS OUTLINE DIMENSIONS

MODEL	SIZE	Α	В	С	D	E	F	G	Н	J	K	L	WGT.LB.
73-30	1/2"	10 1/8	9 1/2	2 1/8	6 5/16	10 3/16	1 1/2	7/8	5/16	8	2 1/4	4 1/8	18
73-32	3/4"	10 1/8	9 1/2	2 5/8	6 1/4	10 7/8	1 1/2	7/8	5/16	8	2 5/8	4 1/2	18
73-34	1"	10 1/8	9 1/2	2 5/8	6 1/4	10 7/8	1 1/2	7/8	5/16	8	2 5/8	4 1/2	18
73-36	1 1/4"	14	13 1/8	4 1/2	6 13/16	12 3/8	2 3/8	1 1/2	7/16	8	3 3/4	6 1/4	43
73-38	1 1/2"	14	13 1/8	4 1/2	8 11/16	14 1/4	2 3/8	1 1/2	7/16	8	3 3/4	6 1/4	44
73-40	2"	14 1/4	13 1/4	5 7/16	12 1/4	17 11/16	3	1 7/8	9/16	8	4	6 1/2	92
73-42	2 1/2"	18	17	7 3/4	17 15/16	26 3/8	3	1 7/8	9/16	8	5 1/16	8 5/16	93

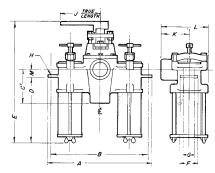
MODEL 73 SERIES SIMPLEX SEA VIEW STRAINERS OUTLINE DIMENSIONS

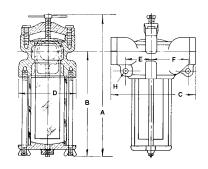
,,,,,,		, , , , , , , , , , , , , , , , , , ,	THRE	ADED	NPT	POR1	s			
MODEL	SIZE	Α	В	С	D	Ε	F	G	Н	WGT.LB.
73-4	1/2"	7 3/8	4 7/8	4	3 3/4	1 1/2	2	7/8	9/64	4 1/2
73-6	3/4"	9 3/8	6 7/8	5 1/2	3 3/4	1 3/4	2 3/8	1 1/4	11/32	5 1/2
73-8	1"	9 3/8	6 7/8	5 1/2	3 3/4	1 3/4	2 3/8	1 1/4	11/32	5 1/2
73-10	1 1/4"	11 3/4	7 13/16	7	5	2	3	1 7/8	7/16	11 1/2
73-12	1 1/2"	13 5/8	9 11/16	7	5	2	3	1 7/8	7/16	12
73-14	2"	15 1/8	10 7/16	9 3/4	5 7/8	2 5/8	4 1/4	2 1/4	9/16	27 1/2
73-16	2 1/2"	18 5/8	13 15/16	9 3/4	5 7/8	2 5/8	4 1/4	2 1/4	9/16	26
73-18	3"	17 13/16	12 1/4	9 3/4	8 3/8	3	4 7/8	2 9/16	9/16	46
			CLASS	150 FL	ANG	D PC	RTS			
73-16F	2 1/2"	18 5/8	13 15/16	9	5 7/8	2 5/8	4 1/4	2 1/4	0.563	38
73-18F	3"	17 13/16	12 1/4	10 3/8	8 3/8	3	4 7/8	2 9/16	0.563	55
73-22F	4"	20 9/16	14 1/2	14 3/8	9 5/8	4 1/8	7 1/8	3 3/8	0.563	98





SIZES 14, 12, 2, 22





Dimensions are in inches and subject to casting and production variations.

DOUBLE ELEMENT BASKETS

These units can be supplied with our patented double-element baskets which are easily disassembled for cleaning and provide greater straining areas in the same housing. Special strainer elongated baskets and sumps are also available.

THE KRAISSL COMPANY, INC. 299 WILLIAMS AVENUE HACKENSACK, NJ 07601-5225 Phone: (201)342-0008, Fax: (201)342-0025

SINGLE ELEMENT BASKET DATA

Use Double Element Baskets for greater straining area.

					APPRO:	X. OPEN	RATIO C	OF OPEN
	INTERNAL	BA	SKET	TOTAL	SCREE	N AREA	AR	EA
INCH	PIPE	DIME	NSIONS	SCREEN	SQ	. IN.	TO PIP	E AREA
PIPE	AREA			AREA	1/16" HOLE	1/32" HOLE	1/16" HOLE	1/32" HOLE
SIZE	SQ. IN.	O. D.	LENGTH	SQ, IN.	DIA.*	DIA.**	DIA.*	DIA.**
1/2	0.304	1 9/16	3	16.6	6.66	4.66	34.9:1	24.4:1
3/4	0.533	1 9/16	5 1/8	27.1	10.8	7.58	20.3:1	14.2:1
1	0.864	1 9/16	5 1/8	27.1	10.8	7.58	12.5:1	8.8:1
1 1/4	1.495	1 15/16	5 1/2	36.4	14.6	10.2	9.8:1	6.8:1
1 1/2	2.036	1 15/16	7 3/8	47.8	19.1	13.4	9.4:1	6.6:1
2	3.355	1 15/16	10 5/8	67.3	27.0	18.8	8.0:1	5.6:1
2 1/2	4.788	2 5/8	11	96.1	38.5	27.0	8.0:1	5.6:1
3	7.393	3 1/2	8 1/2	103	41.2	28.8	5.6:1	3.9:1
4	12.73	4 1/8	10 1/2	149	59.6	41.7	4.7:1	3.3:1

^{*} Based on 40% open area.

^{**}Based on 28% open area.

A2359 - "SURE-TITE™" RUBBERIZED VALVE PLUG

After many years of extensive research, the Kraissl Company has found a new breakthrough in valve plug sealing technology. We have created an excellent, cost effective solution to assure positive, bubble-tight shut-off of our tapered plug valves. This new "SURE-TITETM" process provides durable, neoprene rubber which is permanently bonded to the metal valve plug. This heavy rubber is finished to match the tapered valve seat. Excellent chemical resistance and wear characteristics render this option very effective in oil, water, and many other fluid process applications.

When set up with our standard lifting jack mechanism, the "SURE-TITE™" valve plug completely seals the transfer valve or duplex strainer/filter with simple, "hand-tight" operation. The resilient rubber coating also protects the valve seat for long life in rough service. The "SURE-TITE™" valve plug can be easily replaced in the field, with no other complicated seals, inserts, or parts needed. Existing units can be retrofitted with this new option if desired.

This new feature is available on all our Model 72 AA(F)(H)(SS) series cast iron, steel, and stainless steel transfer valves, as well as our Model 72 and 73 series duplex strainers and filters in cast ferrous and non-ferrous alloys. This rubberized process can be applied to all common valve plug metals. When combined with the inherent, durable design features of our integrally cast, tapered plug valve products, the new "SURE-TITETM" option.



KRAISSL TRANSFER VALVES MODEL 72AAF(H)S(S)SERIES CAST CARBON OR STAINLESS STEEL

FLANGED PORTS - PRESSURE RANGE 200 TO 3600 PSIG & HIGHER

U.S. Patent No. 3.567.181



PURPOSE

Kraissl Transfer Valves are used to "parallel" or duplex two pieces of pipeline equipment in continuous flow without shut off of either one. Examples include duplexing of two heat exchangers, filters or tanks. These rugged units are time tested for many years in a wide variety of fluid applications.

APPLICATION

Transfer valves are available in 3/4 through 8 inch sizes in ANSI flange classes 150, 300, 400, 600, 900, 1500 and higher. Special ring joint flanges can also be furnished. They provide a simple, cost effective way to duplex flow equipment for applications where continuous flow must be maintained, with no flow interruption for down-side servicing.

DESIGN SPECIFICATIONS

Model 72AAF(H)S series transfer valves provide a consistent design for many sizes and pressure ratings with straight through alignment of the single inlet and outlet ports. Other models with same-side inlet and outlet ports are also available.

These transfer valves are furnished in both standard and high pressure models. NPT and weld-end models are also available. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size.

Materials of construction include cast carbon or stainless steel bodies and covers. Valve plugs are of stainless steel, bronze or cast iron. Special valve plugs can be furnished in other materials

The valve handle guard indicates the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet can also be furnished. Drain plugs are provided in the valve chamber. An adjustable locking flange holds the valve plug on its seat on standard models. An optional lifting jack can be provided to lift the tapered valve plug off its seat for ease in valve turning in rough service on models not normally furnished with one. The lifting jack is standard on 6" and 8" sizes and all units having a stainless steel valve plug. There are no internal linkages involved. A separate external gland is provided to allow easy access to stem packing without complete disassembly, even while in service.

The rugged, one-piece, all-cast valve housing construction avoids weld failures and potential non-uniformity of other fabricated designs.

Each valve is tested and serial numbered for accountability and traceability. The test results are provided with each valve. Special tests can also be arranged when specified.

ADJUSTABLE, TAPERED VALVE PLUG

The tapered valve plug design provides inherent compensation for wear, temperature changes and other operating variations. Metal to metal contact of sealing surfaces prolong the life of the valve, even in rough service. No special seals or seats are necessary to restore Kraissl valves to their original condition. Optional surface treatments can be furnished on valve plugs to extend life and improve sealing characteristics.



FEATURES

- 1 Adjustable locking flange establishes valve clearance.
- 2 Independent gland adjustment for external packing access.
- Tapered, all-metal valve plug for durability & renewability.
- 4 Continuous flow without changeover interruption.
- 5 Drain connection on valve chamber.
- 6 Units individually tested.
- 7 Handle indicates side in use.
- 8 Optional gage taps.
- 9 Optional lifting jack.
- 10 Optional valve plug coatings.

OTHER PRODUCTS

Our product lines of cast iron, bronze, aluminum, steel and stainless steel simplex and duplex strainers and filters, including flanged, NPT and weld-end models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure and temperature ratings.

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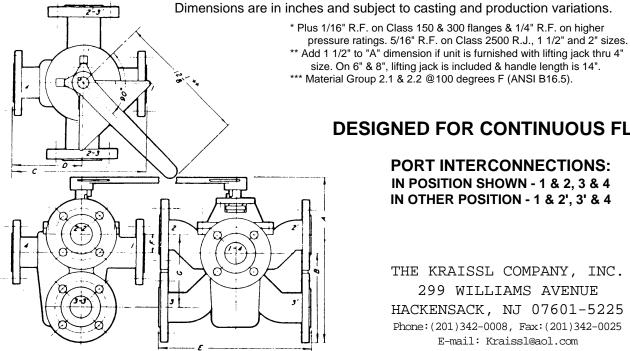
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KRAISSL TRANSFER VALVES

MODEL 72AAF(H)S(S) SERIES SIZES, RATINGS AND DIMENSIONS

					TA	BLE OF	DIMENSIC	NS - INCH	HES						
MODEL	SIZE	FLG.	B.C.	# BOLT	BOLT	R.F.	MIN. FLG.*	APPR0X.	A**	В	С	D	E	F	G
	<u> </u>	DIA.	DIA.	HOLES	HOLE	DIA.	THICK.	WGT.,LB.			+1/8 -0		+1/8 -0		
				AN	SI CLAS	SS 150 FI	ANGES - 27	75 PSIG. M	AX. W. P.	***					
72-33AAFS	1"	4 1/4	3 1/8	4	5/8	2	3/8	50	12 7/8	6 1/4	8 1/2	5 1/4	9 1/4	1	5 1/8
72-37AAFS	1 1/2"	5	3 7/8	4	5/8	2 7/8	1/2	55	14 1/2	7 7/8	9 3/8	4 15/16	10	1	6 3/8
72-39AAFS	2"	6	4 3/4	4	3/4	3 5/8	9/16	90	16 3/8	9 5/16	12	6 1/4	12	7/16	6 3/4
72-41AAFS	2 1/2"	7	5 1/2	4	3/4	4 1/8	5/8	120	17 7/8	10 13/16	12 5/8	6 1/2	13	7/16	7 3/4
72-43AAFS	3"	7 1/2	6	4	3/4	5	11/16	141	18 7/16	11 3/8	12 1/2	6 7/8	14	1/8	7 3/4
72-47AAFS	4"	9	7 1/2	8	3/4	6 3/16	7/8	250	19 3/4	12 1/16	15 5/8	9	21	2 11/16	10 1/4
72-51AAFS	6"	11	9 1/2	8	7/8	8 1/2	15/16	510	29 3/8	12 1/2	24	12	26	4 3/4	11 1/2
72-53AAFS	8"	13 1/2	11 3/4	8	7/8	10 5/8	1 1/16	1300	36 7/8	15 1/8	32 1/2	15 1/2	30 1/2	7 3/8	14
				AN	SI CLAS	SS 300 FI	ANGES - 72	20 PSIG. M	AX. W. P.	***					
72-33AAFHS-300	1"	4 7/8	3 1/2	4	3/4	2	5/8	70	13 3/16	6 9/16	8 1/2	5 1/4	9 1/4	1	5 1/8
72-37AAFHS-300	1 1/2"	6 1/8	4 1/2	4	7/8	2 7/8	3/4	75	15 1/16	8 7/16	9 3/8	4 15/16	10	1	6 3/8
72-39AAFHS-300	2''	6 1/2	5	8	3/4	3 5/8	13/16	110	16 5/8	9 9/16	12	6 1/4	12	7/16	6 3/4
72-41AAFHS-300	2 1/2"	7 1/2	5 7/8	8	7/8	4 1/8	15/16	145	18 1/8	11 1/16	12 5/8	6 1/2	13	7/16	7 3/4
72-43AAFHS-300	3"	8 1/4	6 5/8	8	7/8	5	1 1/16	170	19 3/16	12 1/8	12 1/2	6 7/8	15	1/2	8 1/2
72-47AAFHS-300	4''	10	7 7/8	8	7/8	6 3/16	1 3/16	295	20 1/4	12 9/16	15 5/8	9	21	2 11/16	10 1/4
72-51AAFHS-300	6"	12 1/2	9 1/2	12	7/8	8 1/2	1 3/8	705	30	14	24	12	26	5	12 3/4
				AN	SI CLAS	S 600 FL	ANGES - 14	40 PSIG. M	IAX. W. P	***					
72-33AAFHS-600	1"	4 7/8	3 1/2	4	3/4	2	11/16	75	15 1/8	8 1/2	10 3/8	5 5/8	11	5/16	6 3/8
72-37AAFHS-600	1 1/2"	6 1/8	4 1/2	4	7/8	2 7/8	7/8	80	15 3/4	9 1/8	10 3/8	5 5/8	11	5/16	6 3/8
72-39AAFHS-600	2"	6 1/2	5	8	3/4	3 5/8	1	200	18 1/4	11 7/16	16 3/8	8 5/8	17 1/4	9/16	8 3/4
72-43AAFHS-600	3"	8 1/4	6 5/8	8	7/8	5	1 1/4	292	20	12 3/4	15 3/4	8 1/4	16 1/2	0	8 1/2
				ANS	CLAS	S 1500 FI	ANGES - 36	00 PSIG. N	/IAX. W. F	.***					
72-37AAFHS-1500	1 1/2'*	7	4 7/8	4	1 1/8	2 7/8	1 1/4	117	16 3/16	9 9/16	11 1/8	6	11 3/4	5/16	6 3/8
72-39AAFHS-1500	2"	8 1/2	6 1/2	8	1	3 5/8	1 1/2	290	19 1/4	12 7/16	16 3/8	8 5/8	17 1/4	9/16	8 3/4
72-43AAFHS-1500	3"	10 1/2	8	8	1 1/8	5	1 7/8		23 1/2	16	17 3/8	9 1/8	18	0	10 3/4
			Α	NSI CLA	SS 2500	RING JO	INT FLANG	ES - 6000 F	SIG. MA	X. W. P.*	k*		y	,	
72-37AAFHS-2500	1 1/2"	8	5 3/4	4	1 1/4	4 1/2	1 3/4	350	21 5/8	8 3/4	15 1 <i>/</i> 2	7 3/4	17	3 1/2	8 1/4
72-39AAFHS-2500	2"	9 1/4	6 3/4	8	1 1/8	5 1/4	2		22 1/4	9 3/4	19 5/8	9 5/8	23	4 3/8	9 1/2



DESIGNED FOR CONTINUOUS FLOW.

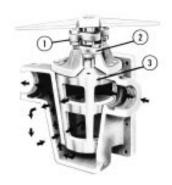
PORT INTERCONNECTIONS: IN POSITION SHOWN - 1 & 2, 3 & 4 IN OTHER POSITION - 1 & 2', 3' & 4

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KRAISSL TRANSFER VALVES MODEL 72AAF(H)SERIES CAST IRON FLANGED PORTS - PRESSURE RANGE 200 TO 400 PSIG & HIGHER

U.S. Patent No. 3,567.181





PURPOSE

Kraissl Transfer Valves are used to "parallel" or duplex two pieces of pipeline equipment in continuous flow without shut off of either one. Examples include duplexing of two heat exchangers, filters or tanks. These rugged units are time tested for many years in a wide variety of fluid applications.

APPLICATION

Transfer valves are available in 3/4 through 8 inch sizes in ANSI flange classes 125 and 250 and higher. They provide a simple, cost effective way to duplex flow equipment for applications where continuous flow must be maintained, with no flow interruption for down-side servicing. Cast construction and tapered metal-to-metal valve plug and seat provide durability for long life. Kraissl Transfer Valves have been accepted for many years in accordance with A.P.I. 614 and other standards for lubrication oil systems.

DESIGN SPECIFICATIONS

Model 72AAF(H) series transfer valves provide a consistent design for many sizes and pressure ratings with straight through alignment of the single inlet and outlet ports. Other models with same-side inlet and outlet ports are also available.

These transfer valves are furnished in both standard and high pressure models. NPT models are also available. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size.

Materials of construction include cast iron bodies and covers. Valve plugs are of cast iron, stainless steel, or bronze. Special valve plugs can be furnished in other materials.

The valve handle guard indicates the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the outlet can also be furnished. Drain plugs are provided in the valve chamber. An adjustable locking flange holds the valve plug on its seat on standard models. An optional lifting jack can be provided to lift the tapered valve plug off its seat for ease in valve turning in rough service on models not normally furnished with one. The lifting jack is standard on 6" and 8" sizes and all units having a stainless steel valve plug. There are no internal linkages involved. A separate external gland is provided to allow easy access to stem packing without complete disassembly, even while in service.

The rugged, one-piece, all-cast valve housing construction avoids weld failures and potential non-uniformity of other fabricated designs.

Each valve is tested and serial numbered for accountability and traceability. The test results are provided with each valve. Special tests can also be arranged when specified.

ADJUSTABLE, TAPERED VALVE PLUG

The tapered valve plug design provides inherent compensation for wear, temperature changes and other operating variations. Metal to metal contact of sealing surfaces prolong the life of the valve, even in rough service. No special seals or seats are necessary to restore Kraissl valves to their original condition. Optional surface treatments can be furnished on valve plugs to extend life and improve sealing characteristics.

FEATURES

- 1 Adjustable locking flange establishes valve clearance.
- 2 Independent gland adjustment for external packing access.
- Tapered, all-metal valve plug for durability & renewability.
- 4 Continuous flow without changeover interruption.
- 5 Drain connection on valve chamber.
- 6 Units individually tested.
- 7 Handle indicates side in use.
- 8 Optional gage taps.
- 9 Optional lifting jack.
- 10 Optional valve plug coatings.

OTHER PRODUCTS

Our product lines of cast iron, bronze, aluminum, steel and stainless steel simplex and duplex strainers and filters, including flanged, NPT and weld-end models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure and temperature ratings.

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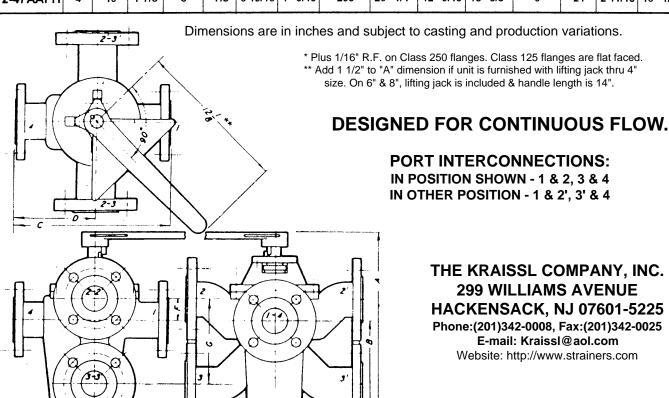
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KRAISSL TRANSFER VALVES

MODEL 72AAF(H) SERIES - CAST IRON SIZES, RATINGS AND DIMENSIONS

TABLE OF DIMENSIONS - INCHES

				NO.	BOLT	R. F.	MIN.	APPROX.							
MODEL	PIPE	FLG.	B. C.	BOLT	HOLE	DIA.	FLG.	WGT.	A**	В	С	D	E	F	G
	SIZE	DIA.	DIA.	HOLES	DIA.		THK.*	LBS.							
				C	LASS	125 AN	ISI FLA	NGES - 2	00 PSIG	MAX. W	I. P.				
72-37AAF	1 1/2	5	3 7/8	4	5/8	N. A.	9/16	55	14 1/2	7 7/8	9 3/8	4 15/16	10	1	6 3/8
72-39AAF	2	6	4 3/4	4	3/4	N. A.	5/8	90	16 3/8	9 5/16	12	6 1/4	12	7/16	6 3/4
72-41AAF	2 1/2	7	5 1/2	4	3/4	N. A.	11/16	120	17 7/8	10 13/16	12 5/8	6 1/2	13	7/16	7 3/4
72-43AAF	3	7 1/2	6	4	3/4	N. A.	3/4	141	18 7/16	11 3/8	12 1/2	6 7/8	14	1/8	7 3/4
72-47AAF	4	9	7 1/2	8	3/4	N. A.	15/16	250	19 3/4	12 1/16	15 5/8	9	21	2 11/16	10 1/4
72-51AAF	6	11	9 1/2	8	7/8	N. A.	1	510	29 3/8	12 1/2	24	12	26	4 3/4	11 1/2
72-53AAF	8	13 1/2	11 3/4	8	7/8	N. A.	1 1/8	1300	36 7/8	15 1/8	32 1/2	15 1/2	30 1/2	7 3/8	14
				С	LASS	250 AN	ISI FLA	NGES - 4	00 PSIG	MAX. W	<i>I</i> . P.				
72-37AAFH	1 1/2	6 1/8	4 1/2	4	7/8	3 9/16	3/4	75	15 1/16	8 7/16	9 3/8	4 15/16	10	1	6 3/8
72-39AAFH	2	6 1/2	5	8	3/4	4 3/16	13/16	110	16 5/8	9 9/16	12	6 1/4	12	7/16	6 3/4
72-41AAFH	2 1/2	7 1/2	5 7/8	8	7/8	4 15/16	15/16	145	18 1/8	11 1/16	12 5/8	6 1/2	13	7/16	7 3/4
72-43AAFH	3	8 1/4	6 5/8	8	7/8	5 11/16	1 1/16	170	19 3/16	12 1/8	12 1/2	6 7/8	15	1/2	8 1/2
72-47AAFH	4	10	7 7/8	8	7/8	6 15/16	1 3/16	295	20 1/4	12 9/16	15 5/8	9	21	2 11/16	10 1/4



A2392 (9712)



KRAISSL TRANSFER VALVES MODEL 72AA(H)S(S)SERIES CAST IRON, CARBON STEEL OR STAINLESS STEEL THREADED NPT OR SOCKET WELD PORTS PRESSURE RANGE 200 TO 500 PSIG & HIGHER

U.S. Patent No. 3,567.181



PURPOSE

Kraissl Transfer Valves are used to "parallel" or duplex two pieces of pipeline equipment in continuous flow without shut off of either one. Examples include duplexing of two heat exchangers, filters or tanks. These rugged units are time tested for many years in a wide variety of fluid applications.

APPLICATION

Transfer valves with threaded NPT, SAE-J1926, or ANSI-B16.11 socket weld ports are available in 3/4 through 3 inch sizes in various pressure ratings. They provide a simple, cost effective way to duplex flow equipment for applications where continuous flow must be maintained, **with no flow interruption** for down-side servicing.

DESIGN SPECIFICATIONS

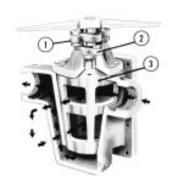
Model 72AA(H)S series transfer valves provide a consistent design for many sizes and pressure ratings with "same-side" orientation of the single inlet and outlet ports. Other models with "straight-through" inlet and outlet ports on opposite sides are also available. These transfer valves are furnished in both standard and high pressure models. Flanged models are also available. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size.

Materials of construction include cast iron, carbon steel or stainless steel bodies and covers. Valve plugs are of cast iron, bronze or stainless steel. Special valve plugs can be furnished in other materials.

The valve handle guard indicates the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the opposite side can also be furnished. The adjustable locking flange holds the valve plug on its seat on standard models. An optional lifting jack can also be provided to lift the tapered valve plug off its seat for ease in valve turning in rough service. There are no internal linkages involved. A separate external gland is provided to allow easy access to stem packing without complete disassembly, even while in service. A drain plug is provided in the valve chamber. Each valve is tested and serial numbered for accountability and traceability. The test results are provided with each valve. Special tests can also be arranged when specified.

ADJUSTABLE, TAPERED VALVE PLUG

The tapered valve plug design provides inherent compensation for wear, temperature changes and other operating variations. Metal to metal contact of sealing surfaces prolong the life of the valve, even in rough service. No special seals or seats are necessary to restore Kraissl valves to their original condition. Optional surface treatments can be furnished on valve plugs to extend life and improve sealing characteristics.



FEATURES

- 1 Adjustable locking flange establishes valve clearance.
- 2 Independent gland adjustment for external packing access.
- Tapered, all-metal valve plug for durability & renewability.
- 4 Continuous flow without changeover interruption.
- 5 Drain connection on valve chamber.
- 6 Units individually tested.
- 7 Handle indicates side in use.
- 8 Optional gage taps.
- 9 Optional lifting jack.
- 10 Optional valve plug coatings.

OTHER PRODUCTS

Our product lines of cast iron, bronze, aluminum, steel and stainless steel simplex and duplex strainers and filters, including flanged, NPT and weld-end models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure and temperature ratings.

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KRAISSL TRANSFER VALVES

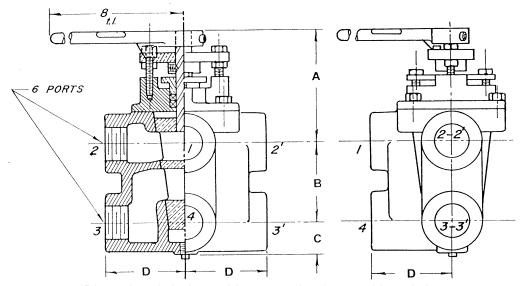
MODEL 72AA(H)S(S) SERIES SIZES, RATINGS AND DIMENSIONS

STANDA	ARD PRES	SURE - MA	X. W. P. 17	5 PSIG C.I	. & 400 PSI	G C.S.
MODEL	SIZE	Α	В	С	D	WGT.LB.
72-31AA(S)	3/4"	3 7/8	2 5/8	1 1/8	2 5/8	14
72-33AA(S)	1"	3 7/8	2 5/8	1 1/8	2 5/8	14
72-35AA(S)	1 1/4"	6 3/4	2 3/4	1 11/16	3 3/4	35
72-37AA(S)	1 1/2"	6 3/4	2 3/4	1 11/16	3 3/4	35
72-39AA(S)	2"	6 3/4	3 13/16	3	5 7/8	85
72-41AA(S)	2 1/2"	6 3/4	3 13/16	3	5 7/8	85
	HIGH P	RESSURE	- MAX. W.	P. 500 PSI	G C.S.	
72-31AAHS	3/4"	3 7/8	2 5/8	1 1/8	2 5/8	14
72-33AAHS	1"	3 7/8	2 5/8	1 1/8	2 5/8	14
72-35AAHS	1 1/4"	6 3/4	2 3/4	1 11/16	3 3/4	35
72-37AAHS	1 1/2"	6 3/4	2 3/4	1 11/16	3 3/4	35
72-39AAHS	2"	6 3/4	3 13/16	3	5 7/8	85
72-41AAHS	2 1/2"	6 3/4	3 13/16	3	5 7/8	85

DESIGNED FOR CONTINUOUS FLOW.

PORT INTERCONNECTIONS:

IN POSITION SHOWN - 1 & 2, 3 & 4 IN OTHER POSITION - 1 & 2', 3' & 4



Dimensions in inches subject to casting & assembly variations.

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A2362 (9609)



KRAISSL TRANSFER VALVES MODEL 72ABF(S)(S)SERIES CAST IRON, CARBON STEEL OR STAINLESS STEEL THREADED NPT OR SOCKET WELD PORTS PRESSURE RANGE 200 TO 275 PSIG & HIGHER

U.S. Patent No. 3,567.181



FEATURES

- Adjustable locking flange establishes valve clearance.
- 2 Independent gland adjustment for external packing access.
- Tapered, all-metal valve plug for durability & renewability.
- 4 Continuous flow without changeover interruption.
- 5 Drain connection on valve chamber.
- 6 Units individually tested.
- 7 Handle indicates side in use.
- 8 Optional gage taps.
- 9 Optional lifting jack.
- 10 Optional valve plug coatings.

OTHER PRODUCTS

Our product lines of cast iron, bronze, aluminum, steel and stainless steel simplex and duplex strainers and filters, including flanged, NPT and weld-end models are covered in separate bulletins. Units can also be furnished in other special metals and higher pressure and temperature ratings.

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A2368 (9703)

PURPOSE

Kraissl Transfer Valves are used to "parallel" or duplex two pieces of pipeline equipment in continuous flow without shut off of either one. Examples include duplexing of two heat exchangers, filters or tanks. These rugged units are time tested for many years in a wide variety of fluid applications, including lubrication oil systems built in accordance with the A.P.I. 614 specification.

APPLICATION

Transfer valves with flanged ports are available in 1 1/2 through 3 inch sizes in various pressure ratings. They provide a simple, cost effective way to duplex flow equipment for applications where continuous flow must be maintained, **with no flow interruption** for downside servicing.

DESIGN SPECIFICATIONS

Model 72ABF(S)(S) series transfer valves provide a consistent design for many sizes and pressure ratings with "same-side" orientation of the single inlet and outlet ports. Other models with "straight-through" inlet and outlet ports on opposite sides are also available. These transfer valves are furnished in both standard and high pressure models. Flanged models are also available. Internal channels are 100% full-flow, having the same cross-sectional area as the equivalent pipe size.

Materials of construction include cast iron, carbon steel or stainless steel bodies and covers. Valve plugs are of cast iron, bronze or stainless steel. Special valve plugs can be furnished in other materials.

The valve handle guard indicates the side in use. The standard valve handle swings over the inlet port. Special reverse valve handles that swing over the opposite side can also be furnished. The adjustable locking flange holds the valve plug on its seat on standard models. An optional lifting jack can also be provided to lift the tapered valve plug off its seat for ease in valve turning in rough service. There are no internal linkages involved. A separate external gland is provided to allow easy access to stem packing without complete disassembly, even while in service. A drain plug is provided in the valve chamber. Each valve is tested and serial numbered for accountability and traceability. The test results are provided with each valve. Special tests can also be arranged when specified.

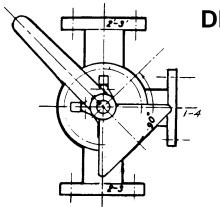
ADJUSTABLE, TAPERED VALVE PLUG

The tapered valve plug design provides inherent compensation for wear, temperature changes and other operating variations. Metal to metal contact of sealing surfaces prolong the life of the valve, even in rough service. No special seals or seats are necessary to restore Kraissl valves to their original condition. Optional surface treatments can be furnished on valve plugs to extend life and improve sealing characteristics. These include our special "Shure-tite™" rubberized valve plug for positive shut-off seal with easy operation.

KRAISSL TRANSFER VALVES

MODEL 72ABF(S)(S) SERIES SIZES, RATINGS AND DIMENSIONS

MAX. WORKING PRESSURE - 200 psig Cast Iron, 275 psig Cast Steel

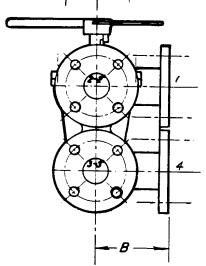


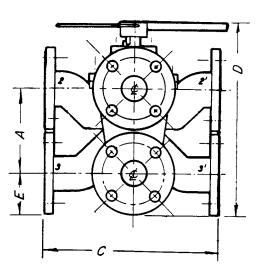
DESIGNED FOR CONTINUOUS FLOW.

PORT INTERCONNECTIONS -IN POSITION SHOWN - 1 & 2, 3 & 4. IN OTHER POSITION - 1 & 2', 3' & 4.

PORT FLANGES MATE WITH - C.I. ANSI B16.1 CL 125 C.S. ANSI B16.5 CL150

Optional reverse handle shown.
Standard handle swings over Ports 1-4.





MODEL NO.*	PIPE SIZE	А	B***	C***	D**	E
72-37ABF(S)	1 1/2"	6 3/8	4 7/16	10	14 1/2	2 1/2
72-39ABF(S)	2"	6 3/4	5 3/4	12	17	3
72-43ABF(S)	3"	7 3/4	5 5/8	14	18 3/4	3 3/4
72-47ABF(S)	4"	10 1/4	6 5/8	21	21 5/8	4 1/2

Dimensions in inches subject to casting & assembly variations.

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^{*} Suffix letter "S" denotes Cast Steel (ASTM A216 WCB). "SS304" Cast 304 SS (ASTMA351-CF8). "SS316" Cast 316 SS (ASTM351-CF8M) housing & cover.

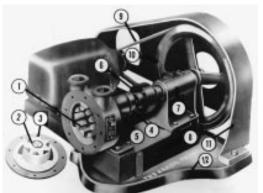
^{**} Add 1 1/2" if furnished with optional lifting jack (See drawing B3522).

^{***} Tolerance +1/8 -0.



KRAISSL FUEL OIL PUMPS MODEL 60E(S) RD REDUCTION DRIVE SERIES STANDARD PRESSURE UP TO 100 PSIG HIGH SUCTION CHARACTERISTICS

FOR ALL FUEL OILS FROM NO.1 TO NO. 6 INCLUSIVE



FEATURES

- Internal gear design provides high suction lift characteristics.
- 2 Hardened idler for minimum wear.
- 3 Integral bearing and idler assembly.
- 4- Adjustable stuffing box fitted with return seal and soft packing keeps shaft lubricated and chance of leakage to a minimum.
- 5- Interchangeable return seal design allows change of rotation in the field.
- 6 Flexible coupling isolates pump bearings from pulley loads and allows fast field replacement.
- 7 Rugged ball bearing unit insures bearing alignment and large grease reservoir with provision for re-lubrication.
 Minimizes maintenance.
- 8 Bearing unit support cast integral with bed plate reduces vulnerability to distortion.
- Adjustable V-Belt drive absorbs shock loads and provides quiet operation with low replacement cost.
- 10 Varied pulley combinations for proper viscosity-speed relationship.
- 11 Cast metal belt guard protects personnel from exposed moving parts and eliminates chance of bending, denting or sharp edges.
- 12 Cast metal bed plate with drip collecting bead around edge insures rigid support and minimum chance of bedplate bending or distortion.
- 13 Pumps are individually tested in accordance with Underwriters' Laboratories requirements.
- 14 Approved by the Board of Standards and Appeals for use in NYC under Cal. No. 517-53-SA.



DESIGN

Kraissl 60E(S)RD Series pumpsets are positive displacement, internal gear type, with precision clearances for various types of oil service. The main rotor and shaft are integral to prevent misalignment due to the deflection of a rotor on a separate shaft. Standard pumps are furnished with heavy duty bronze journal bearings and a special return seal stuffing box. This permits interchange of suction and discharge ports by reversing rotation of pump and changing oil return. It reduces fluid pressure on the stuffing box to suction pressure and thus minimizes leakage while lubricating the pump shaft. Cast iron pump heads are manufactured with manually adjustable, bronze packing glands. Standard shaft packing is graphited synthetic fiber. An optional spring-loaded packing gland can be provided which automatically adjusts the pump shaft packing. Optional Teflon packing in lieu of standard can also be provided. The combination of spring-loaded, Teflon packing can be an effective way to assure pump shaft sealing. The reduction belt drive can be easily rearranged to increase or decrease oil supply simply by changing belt and pulleys only, often without changing pumps. Pulleys for various reduced speeds from nominal 1800 rpm motors are available. The V-belt drive is carried on a special ball bearing transmission unit and is connected to the pump head by a flexible coupling. This prevents side deflection of pump shaft. The ball bearing unit assures that the bearings stay in fixed alignment. Lubricant is supplied directly from a central reservoir and is retained by the grease seals of the ball bearings.

APPLICATION

Kraissl Model 60 series reduction drive pumpsets are designed to meet severe conditions of continuous duty when handling fuel oils for direct burner supply, or as booster pumps for pump type burners. These pumps are used when reduced rotation speeds are required. To avoid cavitation on heavy oil, pumps should never be run at higher speeds than the liquid viscosity will permit. Pumps will also wear less at reduced speeds when handling liquids of limited lubricating value such as No. 2 fuel oil .

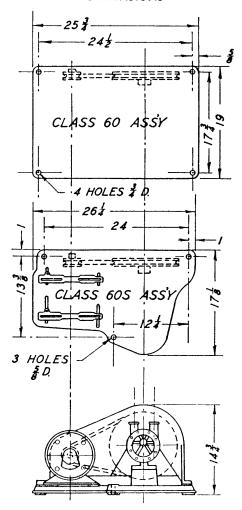
ASSEMBLIES

Kraissl 60 series E(S)RD pumpsets are mounted on solid cast bed plates with drip retention bead. This avoids misalignment when foundation bolts and motor are tightened. Model 60-ESRD assemblies are applicable for motors up to and including frame No. 184. Belt tension can be regulated by slotted adjustment rails. For larger motors, an adjustable sliding motor plate is supplied on 60-ERD assemblies.

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DIMENSIONS



DIMENSIONS ARE IN INCHES & MAY VARY DUE TO CASTING AND ASSEMBLY VARIATIONS.

TABLE OF SIZES

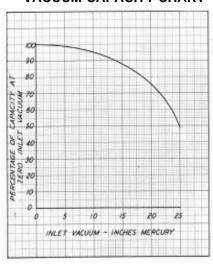
	Approx.		SUGGEST	ED MINIMUN
	Free		PIPE	SIZES
	Displace-	Size		
	ment G.P.H.	of		
	at	Pump	Suction	Discharge
<u>Assembly</u>	400 R.P.M.	_Port	<u>Line</u>	<u>Line</u>
60-3ESRD	130	1/2"	1 1/2"	3/4"
60-5ESRD	250	3/4"	2"	1"
60-5ERD	250	3/4"	2"	1"
60-7ESRD	500	1"	2 1/2"	1 1/4"
60-7ERD	500	1"	2 1/2"	1 1/4"
60-9ERD	835	1 1/4"	3"	1 1/2"
60-11ERD	1150	1 1/2"	4"	2"
60-13ERD	2700	2"	6"	3"

TECHNICAL SELECTION DATA

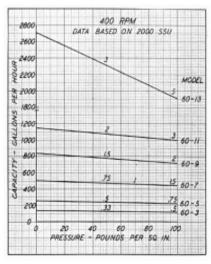
Accompanying capacity/pressure charts indicate appropriate pump shaft speeds with oils of different viscosities together with necessary horsepower. Kraissl pumps are proven performers in daily operation with a wide range of burners. These pumps also have been used in applications for handling fluids other than fuel oil. Suggestions for the selection of pipeline sizes for No. 6 oil are based on appropriate velocities of 30 feet per minute for suction lines and 100 feet per minute for discharge lines. The effect of reduction in pump capacity with increasing suction lift is graphically illustrated in the accompanying charts. This is an important consideration, even with these pumps of such high suction characteristics. Selection of the proper speed is necessary for each range of fluid viscosities. The graphs presented meet most requirements. Capacity versus pressure data are presented, and the suggested motor horse power sizes are shown on each curve at 50 and 100 psig working pressure. Optional OSHA belt guard backs and OSHA coupling guards can be provided if required. Our model 72 series simplex and duplex strainers are designed to protect these pumps, and we recommend that they be specified.

TYPICAL PERFORMANCE DATA

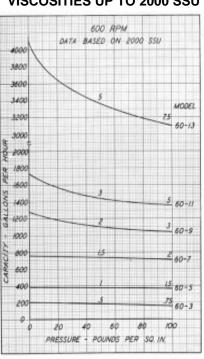
VACUUM-CAPACITY CHART



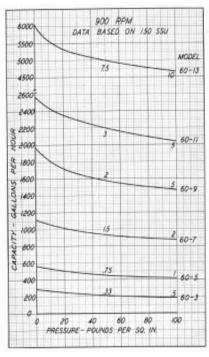
VISCOSITIES UP TO 8000 SSU



VISCOSITIES UP TO 2000 SSU



VISCOSITIES UP TO 1000 SSU

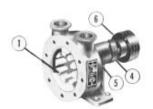


DATA ARE REPRESENTATIVE ONLY. THERE MAY BE VARIATIONS BETWEEN PUMPS OF THE SAME SIZE.



KRAISSL ROTARY PUMPS MODEL 60EMD SERIES DIRECT DRIVE STANDARD PRESSURES UP TO 100 PSIG HIGH SUCTION CHARACTERISTICS

MECHANISM









FEATURES

- 1- Internal gear design provides high suction lift characteristics.
- 2- Hardened idler for long life.
- 3- Integral bearing and idler assembly.
- 4- Adjustable stuffing box with return seal and packing minimizes shaft wear & leakage.
- 5- Interchangeable return seal design allows change of rotation in field.
- 6- Flexible coupling protection and easy field replacement.
- 7- Cap screw closure with steering permits easy access to pump interior.
- 8- Iron pumps are individually tested in accordance with Underwriter's Lab requirements.
- 9- Cast metal bed plate with drip collecting bead around edge ensures rigid support and minimizes bed plate distortion.
- 10- Approved by the Board of Standards and Appeals for use in New York City under Cal. No. 517-53-SA.

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A1904A (9610)

GENERAL DESIGN SPECIFICATIONS

Kraissl Model 60 EMD Series pumpsets are of the internal gear type, with provision made for proper gasketing to control clearances for each type of service. The master rotor and shaft are an integral unit, eliminating misalignment due to the deflection of a rotor on a separate shaft. Standard 60 EMD pumps are furnished with heavy duty journal bearings and return seal stuffing box which permits interchange of suction and discharge ports by reversing rotation of pump and interchanging return by a simple adjustment. This reduces pressure on the stuffing box to suction pressure and minimizes leakage. Standard pumps are furnished with face plates, end plates and housing of high tensile cast iron, The displacement gears are of steel with the idler hardened to ensure minimum wear. Optional OSHA coupling guards can be provided when required.

APPLICATION

It has been sufficiently emphasized in our opinion, that the proper speed for pump operation is controlled by the viscosity of the liquid being pumped. A rapid change in viscosity is very often a function of temperature and the pump speed should reconcile with the lowest average viscosity at pumping temperature. The method of applying this speed is a matter of economics and in some cases, space limitations.

If a pump is run faster than the liquid will fill the displacement chamber, under the suction created, cavitation will result. This proceduces an undesirable audible whine, adverse mechanical effects and the capacity and efficiency are reduced. Where speeds of 1800, 1200 and sometimes 900 rpm do not produce cavitation, direct connection to motor is usually the desirable choice.

If speeds below 900 rpm are necessary loose coupling to our reduction belt drive units may be employed. See our Bulletin A1193. The speed of 900 rpm is a dividing line where the choice could be either way, depending upon other factors, and pump characteristics at 900 and 600 rpm are indicated where connection to other sources of power or reduction drive motors meet the requirements.

In general with light liquids of a viscosity at pumping temperatures of not over 150 SSU, direct motor drive at 1200 rpm is a good selection, if proper attention is given to bearing considerations for non-lubricating materials. There are cases of liquids containing abrasive matter where reduced speed should be used with oils and other hydro-carbons that do not rust and corrode these metals.

Our standard Model 60 series pump heads are manufactured with <u>manually adjustable</u>, bronze <u>packing glands</u>. Periodic examination and adjustment of this gland may be necessary to avoid shaft leakage, especially on light fuel oils. Standard shaft packing is square section, rope-type, made of graphited synthetic fiber.

An optional <u>spring-loaded packing gland</u> can be provided which automatically adjusts the pump shaft packing to compensate for packing wear.

Optional <u>Teflon packing</u> in lieu of standard graphited-fiber packing can also be provided. The combination of <u>spring-loaded</u>, <u>Teflon packing</u> can be a cost-effective way to assure effective pump shaft sealing. Both can be added later to existing pumps.

TECHNICAL SPECIFICATIONS CAPACITY, SPEED, PRESSURE, POWER CONSUMPTION

This information is for comparison only. Capacities and horse power required with different liquids at the same pressures will vary with viscosity and pump sealing characteristics. Request performance curves for accuracy.

	Pun	np Hd	Mod#			1800	RPI	VI					1200	RPM							900	RPM							600	RPM			
Di	scha	arge	psig	2	5	5	0	7	5	2	5	Ę	50	7	5	10	00	2	5	5	0	7	5	10	00	25 50			0	75		100	
			"feet"	5	7	11	5	1	72	5	7	1	15	1	72	23	30	57		7 115		172		23	30	5	7	115		17	72	23	30
3/8		Port	60-01E	3.0	.12	2.9	.18	2.8	.24	2.0	.08	1.9	.12	1.7	.17	1.5	.20	1.5	.07	1.3	.10	1.1	.13	.08	.13	0.9	.06	8.0	.07	0.6	.08	0.4	.10
1/2	!"	NPT	60-03E	7.3	.27	7.0	.44			5.0	.18	4.7	.29	4.3	.41	3.9	.50	3.7	.13	3.4	.22	3.0	.30	2.6	.36	2.3	.08	2.0	.14	1.7	.19	1.4	.22
3/4	,"		60-05E		Not	Reco	omme	- ended	ı	12.0	.39	11.3	.68	10.6	.95	9.8	1.2	8.8	.28	8.1	.50	7.5	.72	6.8	.91	5.5	.17	4.9	.31	4.4	.46	3.8	.58
1"		"	60-07E	l	ı	For O	perat	ion		24.0	.79	22.6	1.4	21.2	1.9	19.7	2.5	17.6	.56	16.3	1.0	15.0	1.4	13.7	1.9	11.0	.33	9.9	.62	8.8	.91	7.7	1.2
1-	/4"	"	60-09E		Ä	At 180	00 RF	PM.		37.8	1.2	36.0	2.1	34.6	3.0	32.8	3.9	27.4	.79	26.4	1.5	25.1	2.3	23.9	3.2	17.3	.47	16.2	.95	15.0	1.5	13.8	2.1
1-	/2"	"	60-11E							52.0	1.6	50.0	2.9	48.0	4.2	45.5	5.4	38.0	1.1	36.5	2.1	34.8	3.2	33.2	4.4	24.0	.65	22.4	1.3	20.8	2.1	19.1	2.9

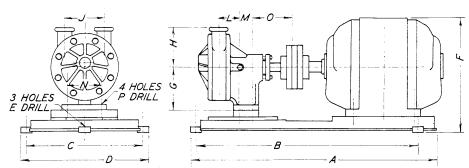
Note - First column under each pressure shows GPM. Second column under each pressure refers to HP and is set in bold face type.

OPERATING INSTRUCTIONS

- 1. Check that electrical characteristics shown on motor name plate reconcile with your electric circuit.
- 2. Mount on solid, non-vibrating foundation, preferably with anti-vibration block underneath.
- 3. Remove plugs from pump ports of iron pumps and pour into suction port a generous amount of fuel oil or SAE 30 lubricating oil. This will provide lubrication for pump when starting up. Do not run pump dry for extended lengths of time.
- 4. Fill grease cup on stuffing box gland with good grade of cup grease and tighten. Lubricate periodically. Pumps are shipped with lubricant in grease cups. Check motor lubrication.
- 5. Check whether rotation is in direction of arrow. Rotation is always toward suction port and is specified clockwise or counterclockwise facing shaft end of pump. Reversing rotation interchanges suction and discharge ports but return seal stuffing box must be changed, if necessary, to accommodate rotation.
- 6. To change return seal stuffing box for opposite rotation, remove the two cap screws from the sides of the stuffing box. Inside the threaded hole in the channel connecting to discharge port will be found an Allen dog point set screw. Unscrew this and screw it into the empty hole on the opposite side so that it firmly seats. Replace the cap screws with washers and tighten. The dog point set screw should be on the discharge side of the pump.

SIZES & DIMENSIONS

Principal dimensions of these pumps are indicated in the following table. A wide variety of pump sets are available to accommodate various frame motors. Most commonly used motor frames have been standardized and separate prints are available. Where standard prints cannot be furnished, we will provide required special dimensions.



Pump Model	NPT Ports	A	В	С	D	Ε	F	G	Н	۲	K	L	M	N	0	Р
60-01EMD	3/8"							2 3/8	2	2	1/2	1 31/64	3/4	2	2 11/16	25/64
60-03EMD	1/2"							3	2 3/4	2 3/4	5/8	1 31/32	7/8	2 1/2	3 7/32	25/65
60-05EMD	3/4"							3 7/8	3 5/8	3 1/2	3/4	2 1/32	1 1/4	3	3 9/32	29/64
60-07EMD	1"							3 7/8	3 5/8	3 3/4	3/4	2 3/8	1 1/4	3	3 9/32	29/64
60-09EMD	1-1/4"							4 3/4	4 5/16	4 3/4	1	3	1 5/8	4 3/8	4	29/64
60-11EMD	1-1/2"							4 3/4	4 5/16	4 3/4	1	3 1/4	1 5/8	4 3/8	4	29/64

Dimensions A through F vary with motor frame size. See Dwg. A1906B. Dimensions are in inches and subject to casting and production variations.

MOTOR DRIVE COMPLETE WITH COUPLING AND BASE PLATE WITHOUT MOTOR INDICATED BY SUFFIX-MD

DR. ASS'Y	FRAME	Н. Р.	RPM	Volt-	Cycles	Phase	Enclo-	Type
MOTOR				age		(s)	sure	
1						1		1

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A1904A (9610)