

FLANGED SERIES Y-STRAINERS



"Apollo" Valves
manufactured in the USA
by CONBRACO Industries

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A history of Quality, Service and Innovation

Now in its ninth decade, Conbraco Industries, Inc. is a leading manufacturer of flow control products for U.S. and international markets. The company's headquarters is based in Matthews, North Carolina with manufacturing plants and foundries located in Pageland and Conway, South Carolina.

Conbraco has a history of new product development and innovation that dates back to the company's inception in 1928. Today, the Conbraco line of products is marketed under the "Apollo Valves" brand and includes: ball valves, butterfly valves, backflow prevention devices, water pressure reducing valves, mixing valves, safety relief valves, water gauges, strainers, actuation and ApolloXpress products.

Conbraco's vertically integrated manufacturing ensures a consistency of production, testing, quality and availability. You can be assured that Conbraco flow control products will deliver long term reliability. All Conbraco plants are registered to ISO 9001:2008 quality standards.

The Conbraco line continues to expand with new products, designs and advanced materials to better serve the needs of our customers. Markets served include: chemical processing, pulp and paper, petroleum, residential and commercial plumbing and heating, OEM, irrigation, water works, and fire protection.



PAGELAND, SC
Bronze Foundry and Manufacturing Plant



PAGELAND, SC
Final Assembly and Distribution Center



CONWAY, SC
Steel Foundry and Manufacturing Plant



MATTHEWS, NC
Corporate Headquarters

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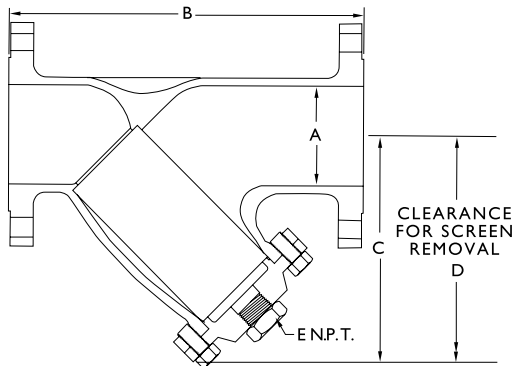
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FLANGED SERIES Y-STRAINERS

Y-Strainers

APOLLO® SERIES 125YF

IRON PIPE FLANGED Y-STRAINERS



FEATURES

- Iron strainers are complete with Flat Face flanges in accordance with ASME B16.1.
- Strainer body meets applicable ASME Standard.
- One piece cast body.
- Strainers equipped with bolted cover flange that utilize a flat gasket seal.
- Low pressure drop.
- Upper and lower machined seats.
- 304 SS perforated screens are standard.
- Drain/Blow-off connection furnished with plug as standard.
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings.
- Compact end to end dimension.

Apollo Model 125YF – Upper Pressure Limits (Non-Shock)

Size	Body Material	M.A.W.P. PSIG (Bars)	Ends
up to 12" size	A126-B - Cast iron	200 (13.79)	FF
14" and up	A126-B - Cast iron	150 (10.34)	FF
Body Material		Lower Limit °F (°C)	
A126-B, A395		-20 (-28.9)	

Parts List and Standard Materials

Part - Apollo Model	Cast Iron - 125YF
Body	A126-B
Cover	A126-B
Screen ¹	304 SS
Plug ²	A126-B
Gasket ¹	Graphite
Bolt/Stud ²	A307-B
Nut ²	A563

Notes:

1. Recommended Spares.
2. Materials of equivalent strength may be substituted at manufacturer's option.

125YF – Dimensional Data – Iron Class 125

Size	A	B	C	D	E	Weight
2"	2.00	8.88	6.00	8.50	1/2	22
50	51	226	152	216	15	10
2-1/2"	2.50	10.75	8.00	11.25	1	35
65	64	273	203	286	25	16
3"	3.00	11.50	8.75	12.25	1	43
80	76	292	222	311	25	20
4"	4.00	13.88	9.50	13.38	11/4	75
100	102	353	241	340	32	34
5"	5.00	16.38	11.50	16.13	11/4	115
125	127	416	292	410	32	52
6"	6.00	18.50	12.63	17.69	11/2	154
150	152	470	321	449	40	70
8"	8.00	21.38	16.38	23.00	11/2	243
200	203	543	416	584	40	110
10"	10.00	26.00	19.00	26.70	2	390
250	254	660	483	678	50	177
12"	12.00	30.00	22.00	31.00	2	650
300	305	762	559	787	50	295
14"	14.00	37.38	29.00	41.00	2	815
350	356	949	737	1041	50	370
16"	16.00	42.50	33.00	46.00	2	1224
400	406	1080	838	1168	50	555

FLANGED SERIES Y-STRAINERS

ENGINEERING DATA Screen Openings for Y-Strainers

FACTORS TO CONSIDER

PURPOSE

If the basket strainer is being used for protection rather than direct filtration, Apollo's standard screens will suffice in most applications.

SERVICE

With services that require extremely sturdy screens, such as high pressure/ temperature applications or services with high viscosities, Apollo® recommends that perforated screens without mesh liners be used. If mesh is required to obtain a certain level of filtration, then Apollo recommends a trapped perf./mesh/perf. combination.

FILTRATION LEVEL

When choosing a perf. or a mesh/perf. combination attention should be given to ensure overstraining does not occur. As a general rule the specified level of filtration should be no smaller than half the size of the particle to be removed. If too fine a filtration is specified the pressure drop through the strainer will increase very rapidly, possibly causing damage to the basket.

SCREEN TYPES/DIMENSIONS														
1/4" Dia. - 40% O.A.	3/16" Dia. - 50% O.A.	5/32" Dia. - 58% O.A.	1/8" Dia. - 40% O.A.	3/32" Dia. - 39% O.A.	1/16" Dia. - 37% O.A.	3/64" Dia. - 36% O.A.	1/32" Dia. - 40% O.A.	0.027" Dia. - 23% O.A.	20 Mesh - 49% O.A. 0.035" Openings	30 Mesh - 45% O.A. 0.022" Openings	40 Mesh - 41% O.A. 0.016" Openings	60 Mesh - 38% O.A. 0.010" Openings	80 Mesh - 36% O.A. 0.008" Openings	100 Mesh - 30% O.A. 0.006" Openings

Notes:

1. Screen openings other than those shown above are available.
2. Custom manufactured screens are available upon request. Please consult factory.
3. All mesh screens include liner;
 .045 Perf 3" and smaller
 .125 Perf 4" and larger.

Standard Screens	
Size Range	Opening
2" - 3"	0.045 in.
50mm - 80mm	1.2mm
4" and larger	0.125 in.
100mm and larger	3.2mm

FLANGED SERIES Y-STRAINERS

ENGINEERING DATA Y-Strainer Pressure Drop – Liquids

FEATURES & AVAILABILITY

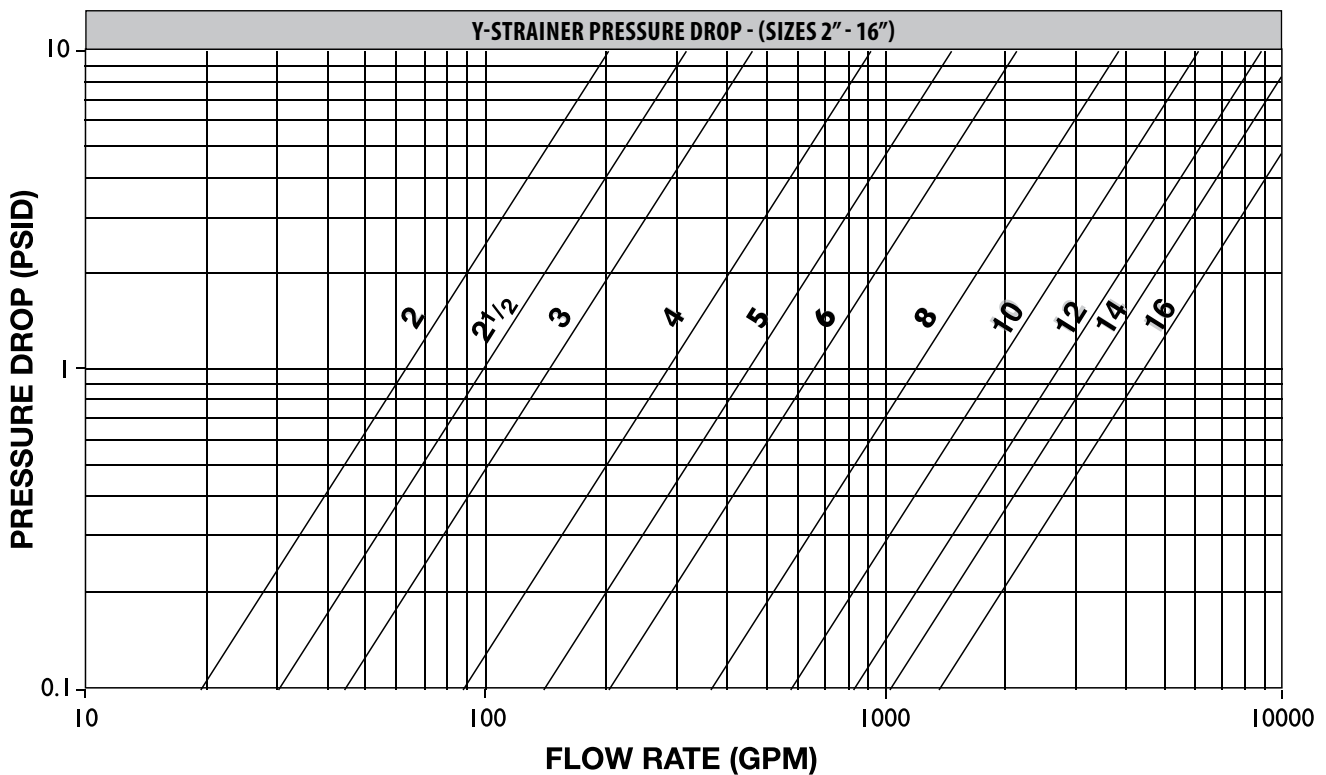
The following optional features are available for most Apollo Y-Strainers. Please consult factory if required feature not shown.

Feature	Description of Availability
Screen openings	Range 5 micron to 1/2" perf.
Screen materials	Carbon steel, stainless steel (304/316 and L grades), alloy 20, monel 400, hastalloy C, Titanium, etc.
Screen construction	Perforated plate, mesh and wedge wire.
Gaskets	Any material commercially available.
Special body materials	Consult factory.
Special coatings	FDA Epoxy Coating
Silicon free contamination	Specially cleaned and packed - performed on request.
Canadian Registration (CRN)	Available on most models in province of installation.

Note:

1. Strainer size may effect the ability to apply certain coatings and linings.

Figure 1



Notes:

1. Pressure drop curves are based on water flow with standard screens.
2. See next page for correction factors to be used with other fluids and/or screen openings.

FLANGED SERIES Y-STRAINERS

ENGINEERING DATA Screen Correction Factor Chart

FOR NON-STANDARD AND MESH LINED SCREENS

Chart #1

Size Range	SCREEN OPENINGS							
	Perforated Plate % Screen Material Open Area					Mesh Lined Standard Screens % Screen Material Open Area		
	60%	50%	40%	30%	20%	50%	40%	30%
2" - 16"	0.65	0.8	1	1.4	2.15	1.05	1.05	1.2

* Multiply values obtained from figure 1 thru 4 by the appropriate values shown below

Notes:

- See page 4 for % Open Area's of Apollo inventoried perforated plate.
- Standard screens for sizes 2" and larger is approximately a 40% open area screen media.
- All mesh screens include liner;
 - .045 Perf 3" and smaller
 - .125 Perf 4" and larger.

EXAMPLE

Strainer Size: 2"
 Filtration: 100 Mesh lined
 Flow rate: 65 GPM
 Service: Water

- Using Figure 1 the pressure drop is determined to be 1.0 psid with Apollo's standard screen.
- Looking at page 4 we find that the % open area of 100 mesh is 30%.
- Using Chart #1 we read the correction factor to be 1.2 for 100 mesh lined .045" perf.
- Total pressure drop equals $1.0 \times 1.2 = 1.2$ psid clean.

VISCOSITY AND DENSITY CORRECTION FACTOR CHART

Chart #2

Size Range	Component Factor (CF)
2" - 16"	0.35

Chart #3

Viscosity CP	Body Loss Factor (BF)	Screen Loss Factor			
		Perf Alone (PF)	20 Mesh Lined (MF)	30, 40 Mesh Lined (MF)	60 to 300 Mesh Lined (MF)
10	1	1.15	1.3	1.4	1.5
25	1.2	1.25	2	2.2	2.5
100	1.6	1.4	3	4	6.5
200	2.2	1.5	4.5	7	11.5
500	4.4	1.6	10	15	25
1000	8	1.7	15	30	50
2000	15.2	1.9	30	60	100

HOW TO USE

- Using Figure 1 see page 5 determine the pressure drop (P1) through the strainer with water flow and standard screens.
- If non-standard screens (i.e. 40 mesh, etc.) are being used apply factors in Chart #1 to determine corrected pressure drop (P2).
- Multiply P1 or P2 (is used) by the specific gravity of the fluid actually flowing through the strainer to get P3.
- Using Chart #2 multiply P3 by the appropriate Component Factor (CF) to get P4.
- Let $P5 = P3 - P4$.
- Multiply P4 by the appropriate Body Loss Factor (BF) in Chart #3 to get P6.
- Multiply P5 by the appropriate Screen Loss factor (PF or MF) in Chart #3 to get P7.
- Total pressure drop $P8 = P6 + P7$.

EXAMPLE

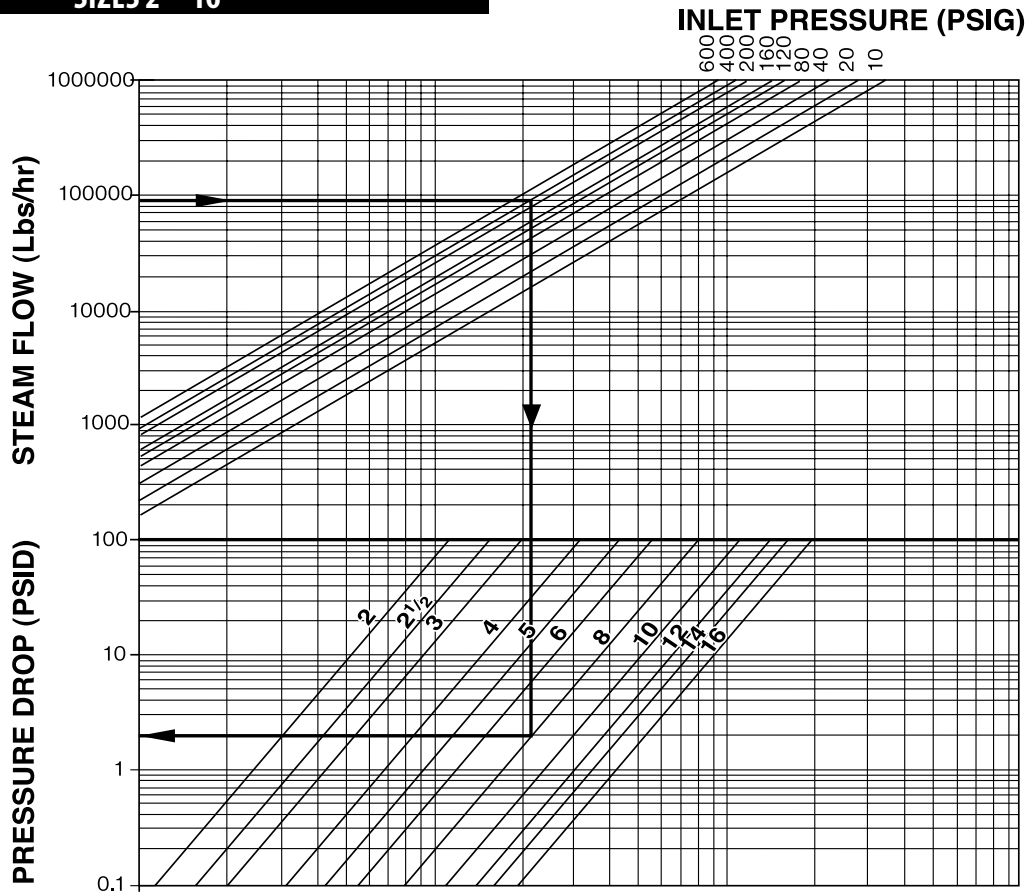
Strainer Size: 2"
 Filtration: 100 Mesh lined
 Flow rate: 65 GPM
 Specific Gravity: 1
 Viscosity: 25 cP

- As shown in the above example, the corrected pressure drop (P2) = 1.2 psid
- Since S.G. = 1, $P3 = P2 = 1.2$ psid
- Using Chart #2 $P4 = 0.35 \times P3 = 0.42$ psid
- $P5 = 1.2 - 0.4 = 0.8$ psid
- Using Chart #3 $P6 = 0.4 \times 1.2 = 0.48$ psid
- Again using Chart #3 $P7 = 0.8 \times 2.5 = 2.0$ psid
- Total pressure drop $P8 = 0.48 + 2.0 = 2.48$ psid

FLANGED SERIES Y-STRAINERS

ENGINEERING DATA Y-Strainer Pressure Drop – Saturated Steam

SIZES 2" - 16"



Notes:

1. Pressure drop curve is based on saturated steam flow with standard screens. See page 5 for correction factors to be used with other screen openings.
2. Chart can be used for air and gas by using the following formula:

$$Q_s = 0.138 Q_g \sqrt{(460+t) \text{ s.g.}} \left\{ \frac{DP}{P_2} < 1.0 \right\}$$

FOR NON-CRITICAL FLOW

WHERE

- Q_s = Equivalent Steam Flow, lbs./hr.
- Q_g = Air or gas flow, SCFM.
- t = Temperature, °F.
- s.g. = Specific gravity (s.g. = 1 for air.)
- DP = Pressure Drop, psid
- P₂ = Outlet Pressure

EXAMPLE

Service: Saturated Steam Flow
 Pressure: 400 psig
 Steam Flow: 90,000 Lbs/hr
 Size: 8"

- A) Locate steam flow.
- B) Follow horizontal line to required pressure.
- C) Follow vertical line downwards to required strainer size.
- D) Follow horizontal line to read pressure drop
- E) Pressure drop equals 2.0 psid.



For additional information, submittal sheets and manuals, visit www.apollovalves.com

Customer Service (704) 841-6000

FLANGED SERIES Y-STRAINERS

Check List and Suggested Specifications

STRAINER CHECK LIST

When selecting a strainer, please take the factors listed below into account. This will assist us when recommending a strainer to suit your specific requirements. Please photocopy this page and fill out the pertinent information.

1. Fluid to be strained _____
2. Flow rate _____
3. Density of fluid _____
4. Viscosity of fluid _____
5. Fluid working pressure _____
Maximum pressure _____
6. Fluid working temp. _____
Maximum temp. _____
7. Preferred material of strainer construction _____

8. Present pipeline size & material _____
9. Nature of solids to be strained out _____
10. Size of solids to be strained out _____
Size of mesh or perf. req. _____
11. Clearance Limitation Above _____ Below _____
Left side facing inlet _____
Right side facing inlet _____
12. Maximum pressure drop with clean screen _____
13. Expected cleaning frequency _____
14. Any other information deemed relevant _____

SUGGESTED SPECIFICATIONS

The strainer shall be a Y-Type and have _____ (size) inlet/outlet connections. The end connections shall be flanged and the body shall be complete with a bolted cover assembly. The strainer shall be suitable for _____ PSIG operating pressure at _____°F operating temperature. The body shall be constructed of _____ (body material) while the screen shall be constructed of _____ (screen material). A mesh lining of _____ (size of mesh) is required, allowing a maximum pressure drop of _____ psig. The strainer shall be equipped with a _____ (gasket material) gasket and the strainer screen shall be able to withstand _____ psig differential pressure without any deformation.

Strainers shall be Apollo Model # _____ or approved equivalent.

Name _____

Company _____

Address _____

City _____

State _____ Zip Code _____

Telephone (_____) _____

Fax(_____) _____

FLANGED SERIES Y-STRAINERS

Installation and Maintenance Instructions

STRAINER INSTALLATION INSTRUCTIONS

- A. Ensure all machined surfaces are free of defects and that the inside of the strainer is free of foreign objects.
- B. For horizontal pipelines, the strainer should be installed so that the drain connection is pointed downwards.
- C. For flanged end strainers, the flange bolting should be tightened gradually in a back and forth clockwise motion.
- D. Once installed, increase line pressure gradually and check for leakage around joints.
- E. If the strainer is supplied with a start-up screen, monitor pressure drop carefully.

NOTE: Flat face mating flanges and full face gaskets must be used with 125YF series strainers to avoid damage to the cast iron body.

IMPORTANT

Ultimate responsibility for strainer and material selection rests with the customer, as only the customer knows the particular use to which the strainer will be put and the exact operating parameters to which it will be subjected.

STRAINER REMOVAL INSTRUCTIONS

- A. Drain piping.
- B. Vent line to relieve pressure.
- C. Secure necessary lifting equipment to strainer assembly.
- D. Loosen flange bolts (Pipe flanges only).
- E. Remove inlet/outlet flange bolts and carefully remove strainer.

CAUTION SHOULD BE TAKEN DUE TO POSSIBLE EMISSION OF PROCESS MATERIAL FROM PIPING. ALWAYS ENSURE NO LINE PRESSURE EXISTS WHEN OPENING COVER.

MAINTENANCE INSTRUCTIONS

For maximum efficiency, determine the length of time it takes for the pressure drop to double that in the clean condition. Once the pressure drop reaches an unacceptable value, shut down line and follow the "Screen Replacement Instructions". A pressure gauge installed before and after the strainer in-line will indicate pressure loss due to clogging and may be used to determine when cleaning is required.

SCREEN REPLACEMENT

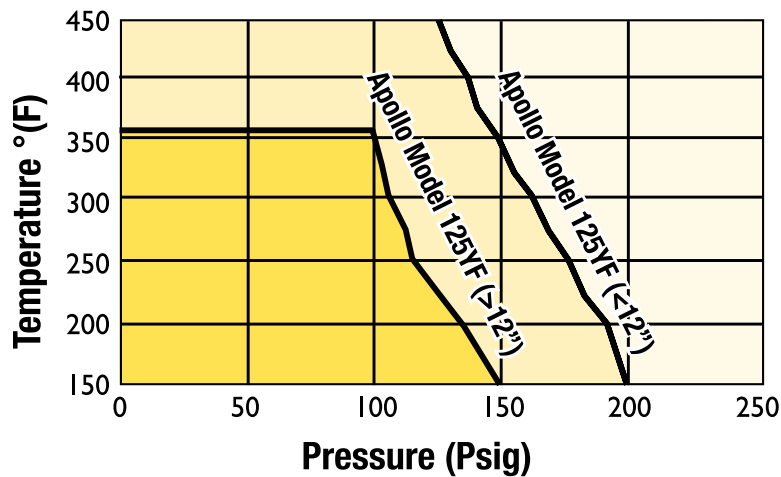
It is recommended that the system and strainer be depressurized before attempting any repair work. After removing all pressure, the system should be drained, any connections to the blow-off plug should be removed, and the following procedure should be used to replace the screen.

- A. Attach cable or chain to strainer cover (1) and apply sufficient tension to prevent cover from dropping.
- B. Remove bolts from cover.
- C. Remove cover, clean and inspect gasket surface of cover.
- D. Remove and discard old gasket.
- E. Remove and clean or discard old screen.
- F. Clean and inspect gasket surface of body. If gasket surface of cover or body is damaged, the damaged component must be replaced.
- G. Push clean screen into position in body.
- H. Position new gasket in place on body.
- I. Line up screen and put cover in place on body.
- J. Be sure gasket, bolt holes, and screen are properly aligned.
- K. Put in bolts and nuts as required.
- L. Tighten bolts, using "star" pattern to prevent damaging parts. Alternate tightening 180° apart. Tighten bolts sufficiently to stop leakage under test and service conditions.

FLANGED SERIES Y-STRAINERS

ENGINEERING DATA Y-Strainer Effective Screen Area

SERIES 125YF					
Pipe Size (In.)	Std. Opening (In.)	Nominal Area of Pipe Fitting (Sq. In.)	Gross Screen Area (Sq. In.)	Free Area (Sq. In.)	Ratio Free Area to Pipe Area
2	0.045	3.14	30.07	10.82	3.45
2-1/2	0.045	4.91	44.33	15.96	3.25
3	0.045	7.07	56.45	20.32	2.88
4	0.125	12.57	98.91	39.56	3.15
5	0.125	19.63	147.11	58.85	3.00
6	0.125	28.27	179.19	71.68	2.54
8	0.125	50.27	334.38	133.75	2.66
10	0.125	78.54	505.21	202.08	2.57
12	0.125	113.10	665.77	266.31	2.35
14	0.125	137.89	1186.34	474.54	3.44
16	0.125	182.65	1446.85	578.74	3.17



Apollo Flanged Y-Strainer Order Schematic

MODEL	VALVE TYPE/CONNECTION SIZE	SCREEN TYPE	COATING
125Y (Flat Face)	Flanged 2" = F02	20 Mesh = M20	Blank Standard No Coating
	Flanged 2.5" = F25	40 Mesh = M40	E Epoxy Coating, FDA Approved
	Flanged 3" = F03	60 Mesh = M60	
	Flanged 4" = F04	80 Mesh = M80	
	Flanged 5" = F05	100 Mesh = M100	
	Flanged 6" = F06	.045 Perf = P045	
	Flanged 8" = F08	.062 Perf = P062	
	Flanged 10" = F10	.125 Perf = P125	
	Flanged 12" = F12	.250 Perf = P250	
	Flanged 14" = F14		
	Flanged 16" = F16		

NOTES:

*All mesh screens are reinforced with a perforated liner.

2" - 3": .045 Perf

4" - Larger: .125 Perf

FLANGED SERIES Y-STRAINERS

WARRANTY AND LIMITATIONS OF LIABILITY

Conbraco Industries, Inc. warrants, to its initial purchaser only, that its products which are delivered to the initial purchaser will be of the kind described in the order or pricelist and will be free of defects in workmanship or material for a period of TWO years from the date of delivery to you, our initial purchaser.

Should any failure to conform to this warranty appear within two years after the date of the initial delivery to our initial purchaser, Conbraco will, upon written notification thereof and substantiation that the goods have been stored, installed, maintained and operated in accordance with Conbraco's recommendations and standard industry practice, correct such defects by suitable repair or replacement at Conbraco's own expense.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OF QUALITY WHETHER EXPRESSED OR IMPLIED, EXCEPT THE WARRANTY OF TITLE AND AGAINST PATENT INFRINGEMENT. Correction of non-conformities, in the manner and for the period of time provided above, shall constitute fulfillment of all liabilities of Conbraco to our initial purchaser, with respect to the goods, whether based on contract, negligence, strict tort or otherwise. It is the intention of Conbraco Industries, Inc. that no warranty of any kind, whether express or implied, shall pass through our initial purchaser to any other person or corporation.

LIMITATION OF LIABILITY: Conbraco Industries, Inc. SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES SUCH AS, BUT NOT LIMITED TO, DAMAGES OR LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF PROFITS OR REVENUE, COST OF CAPITAL, COST OF PURCHASED OR INITIAL PURCHASER, AND ALL OTHERS, SET FORTH HEREIN ARE EXCLUSIVE, AND THE LIABILITY OF CONBRACO WITH RESPECT TO SAME SHALL NOT, AS EXPRESSLY PROVIDED HEREIN, EXCEED THE PRICE OF THE GOODS UPON WHICH SUCH LIABILITY IS BASED.

INTERNATIONAL SALES REPS & REGIONAL MANAGERS

	AREAS COVERED	EMAIL	PHONE	FAX	
INTERNATIONAL	Conbraco International Sales:				
	Jose Arias	Mexico	jose.arias@conbraco.com	1-956-631-4542	1-956-631-4681
	Luis Guzman	Puerto Rico/Caribbean	luis.guzman@conbraco.com	1-787-739-5620	
	JR Jefferson	Central & South America	jr.jefferson@conbraco.com	1-832-220-3783	
	Mike Link	United Kingdom	michael.link@peglyorkshire.co.uk	44-07957-843906	
	Luke Liu	China	luke.liu@conbraco.com	86-411-869-02498	
	Jonathan Yap	Asia	jonathan.yap@conbraco.com	65-9626-9241	65-6753-0131
	Brencliff Group	Australia	petermcl@brencliff.com	61-0477-223110	
	Pegler Yorkshire Mid East	Middle East/India	pydubai@mailme.ae	971-4-454-2353	971-4-454-2352
		Europe/Africa/Israel	Contact Customer Service	1-704-841-6000	1-704-841-6021
REGIONAL MANAGERS	APOLLO VALVES REGIONAL SALES DIRECTORS			P.O. BOX 247, Matthews, NC 28106	
	Brian Blalock	East	brian.blalock@conbraco.com	704-614-3744	704-841-6021
	Skip Wilson	West	skip.wilson@conbraco.com	760-330-3293	775-854-5722
	APOLLO VALVES REGIONAL MANAGERS				
	Kevin Ashworth	Mid Atlantic	kevin.ashworth@conbraco.com	757-272-6200	
	Steve Brown	Northwest	steve.brown@conbraco.com	425-985-5095	253-862-3548
	Andy Fretz	Canada - Commercial	andy.fretz@conbraco.com	647-281-3161	905-761-6666
	Ben Lauletta	Northeast	ben.lauletta@conbraco.com	518-795-4629	
	Sanford Pauly	North Central	sanford.pauly@conbraco.com	513-716-7772	513-321-7717
	James Saldivar	South Central - Industrial	james.saldivar@conbraco.com	832-776-5547	
	Nick Shelley	South Central - Commercial	nick.shelley@conbraco.com	214-790-4157	
	Jim Todman	Canada - Industrial	jim.todman@conbraco.com	905-407-8385	905-761-6666
	LASCO FITTINGS IRRIGATION REGIONAL MANAGERS			P.O. BOX 116, Brownsville, TN 38012	
	David Beyer	Northeast	dbeyer@lascofittings.com	561-718-9379	
	Ron Modugno	West	rmodugno@lascofittings.com	661-910-5058	661-775-0713
Jimmy White	Central	jwhite@lascofittings.com	731-234-2372	731-779-3608	
Ben Freeman	Southeast	bfreeman@lascofittings.com	205-919-4944		
Rick Williamson	Eastern Specifications Manager	rwilliamson@lascofittings.com	386-451-2307		

current as of 10/1/12



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Customer Service (704) 841-6000



SALES & CUSTOMER SERVICE:

Phone: (704) 841-6000

Fax: (704) 841-6020

www.apollovalves.com

	AGENCY	AREAS COVERED	EMAIL	PHONE	FAX
SOUTHEAST REGION	Mid South Marketing, Inc.	VA/MD/Washington, D.C./WV-East	michael.uecker@msmsales1.com	804-213-3801	804-213-3802
	Pro Marketing, Inc.	NC/SC/TN-East	sales@promarketinginc.net	864-578-4334	864-578-4889
	Spirit Group	FL (except Panhandle)	info@spiritgroupinc.com	407-291-6035	407-299-0378
	Tim Morales & Associates, Inc.	AL/FL Panhandle	sales@timmorales.com	251-602-8333	251-602-8339
	White Wolf Group	GA	info@whitewolfgroupinc.com	800-401-4870	888-908-9372
SOUTHERN REGION	BWC Inc.	LA (Commercial Products)	chuck@bwcassoc.com	504-734-0229	504-734-3711
	Marathon Flow Control	TX, OK, KS except Northeast, LA (Industrial)	sales@marathonflowcontrol.com	214-201-0100	214-201-0104
	Southern Marketing Group	MS/TN-West/AR/Bowie Cty.-TX	SMG49@bellsouth.net	901-547-0042	901-547-0035
MIDWESTERN REGION	FourMation Sales	MN/ND/SD/WI-West	ryan@fourmationsales.com	763-420-6900	763-420-6993
	Marshall-Rodeno Heartland	NE/IA (Except River Counties)	trodeno@marshallrodeno.com	303-575-6701	303-575-6706
	Midwest Spec	Northern OH, Western PA, WV	glsales@mwspec.com	330-538-0406	330-538-0410
	Midwest Spec	Southern OH, KY	rvsales@mwspec.com	513-353-9191	513-353-1589
	New Tech Marketing	Northern-IL/WI-East/IN/MI-UP/IA-River Counties	sales@new-techmarketing.com	630-378-4300	630-378-0343
	New Tech Marketing	MO/Southern IL/Northeast Kansas	ntm112@aol.com	618-394-0329	618-394-0427
	V.E. Sales Co., Inc.	MI (Except Upper Peninsula)	tomv@vesalesinc.com	586-774-7760	586-774-1490
WESTERN REGION	Elmco Duddy	CA - South	tduddy@elmcoduddy.com	626-333-9942	626-855-4811
	Gordon & Associates	WA, OR, AK, Northern counties ID	kenn@gordonandassoc.com	907-441-7184	425-228-7777
	HC Fletcher	CA - North (AB 1953 Compliant Product & Fire Protection)	apollosales@hcfletcher.com	800-432-7047	949-660-9072
	Marshall-Rodeno Associated	CO/WY/MT/ID-SE/UT/NV-NE/NM/EI Paso-TX	trodeno@marshallrodeno.com	303-575-6701	303-575-6706
	Romatec	CA - North PVF (Non AB 1953)	apollo@romatec.com	877-530-3530	661-588-3534
	Southwest Valves	CA (Waterworks)	d.burell@southwestvalve.com	559-261-2703	559-261-2711
	Southwestern Industrial Sales Co. Spec Management Group	AZ/Nevada-SW HI	eduardop@sw-ind.com msmarch4@cox.net	480-458-5838 949-481-4225	480-458-5843 949-487-0990
NORTHEAST REGION	Conroy & Griese Sales, Inc.	NY-East/NJ-North	iezz52@aol.com	856-663-4440	856-663-6644
	Keith Engle & Associates	OEM accounts	keith.engle@verizon.net	610-213-5552	610-827-9561
	Layden Company	NY-Upstate/PA-East/DE/NJ-South	joejr@laydencompany.com	610-363-6657	877-529-3361
	Urell, Inc.	MA/New England States	conbraco@urell.com	617-923-9500	617-926-9414
IRRIGATION ONLY REPS	Active Sales Northwest, Inc.	OR, WA, Western ID	skactive@aol.com	541-726-0320	541-726-1148
	Biz Sales Company	OH, KY, MI, IN, parts of PA, WV, WI	dzavelson@bizpvf.com	216-595-2888	216-595-2899
	Fourmation Sales	MN/ND/SD/WI-West	dean@fourmationsales.com	763-262-4700	763-262-4740
	Hall Marketing	AL, LA	hallmarketing@bellsouth.net	228-547-4637	228-832-6666
	J&J Midwest Sales	NE, IA, MO, KS	john@jandjmidwestsales.com	314-422-8419	
	Jim Benton & Associates	AL, FL Panhandle	jim@bentonandassoc.com	205-664-1221	205-664-1277
	John Hart	FL	jhart@lascofittings.com	772-595-7773	772-489-4305
	Larry Perkins	TX - Southern	lperkins@lascofittings.com	936-443-1096	
	Marel Enterprises	New England, NY, DE, MD, VA, DC, parts of PA & WV	marelenterprise@gmail.com	631-271-1718	631-427-8558
	Marshall-Rodeno Associated	CO/WY/MT/ID-SE/UT/NV-NE	trodeno@marshallrodeno.com	303-575-6701	303-575-6706
	NSC Marketing Group Inc.	OK	nsc_tulsa@sbcglobal.net	918-627-5340	918-664-1408
	Pro Marketing, Inc.	NC/SC/TN-East	sales@promarketinginc.net	864-578-4334	864-578-4889
	Sherman Dobbs	TX - Northern	sdobbs@lascofittings.com	469-442-8510	972-417-9733
	Southern Marketing Group	MS/TN-West/AR/Bowie Cty.-TX	SMG49@bellsouth.net	901-547-0042	901-547-0035
	Spec Management Group	CA-South	msmarch4@cox.net	949-481-4225	949-487-0990
	VPC Sales	AZ	chudson@vpcsales.com	661-257-3923	661-257-3928
APOLLO FIRE PROTECTION SYSTEM SOLUTIONS	Brian Fiorisi	US	brian.fiorisi@conbraco.com	574-524-6675	
CANADA	Barclay Sales Ltd.	British Columbia	sales@barclaysales.com	604-945-1010	604-945-3030
	Conbraco Industries, Canada	178 Pennsylvania Ave., Unit 1, Concord, Ontario L4K 4B1	conbraco.canada@conbraco.com	905-761-6161	905-761-6666
	D & M Mechanical Sales	Ontario/East	don@dandmsales.ca	613-384-7084	613-384-3407
	Dynamic Agencies, Ltd.	Saskatchewan	doug.dynamicage@sasktel.net	306-343-1901	306-343-1901
	J. Levandier Sales, Inc.	Nova Scotia, New Brunswick, Prince Edward Island & Newfoundland	service@jlevandiersales	506-858-1615	506-858-1084
	Kern Industries, Ltd.	Alberta-North	kernind@telusplanet.net	780-451-2056	780-454-6687
	Kern Industries Calgary, Ltd.	Alberta-South	marty.yucytus@kernindustries.ca	403-730-7791	403-239-8179
	Key to the North Sales Agency, Inc.	Ontario-North	hmehes@keytothenorth.ca	705-524-6714	705-566-0148
	Task Controls, Inc.	Ontario	infotoronto@taskcontrols.com	416-291-3004	416-754-3481
	Tom Beggs Agencies Ltd.	Manitoba/NW Ontario	tba@mts.net	204-953-1900	204-774-6915
	Ventes Techniques Nimatec	Quebec	nimatec@nimatec.com	450-691-9427	450-691-4949