GESTRA® Steam Trap
RHOMBUS*line*®
BK 45 and BK 45U

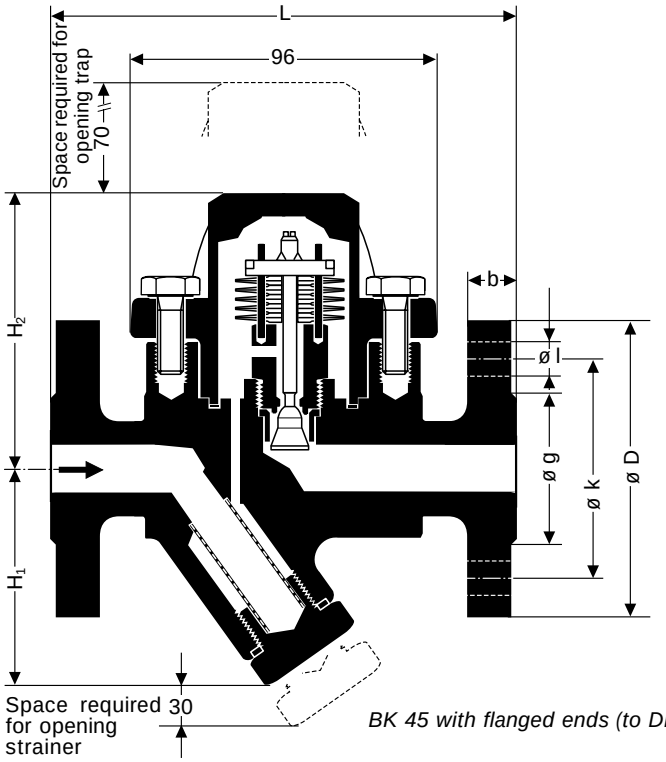
International patents

Issue date: 11/00

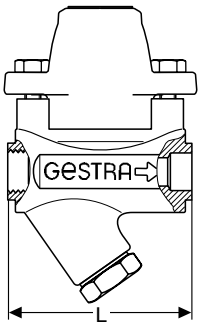
Steam Traps
PN 40
DN 15, 20, 25
½", ¾", 1"

A1

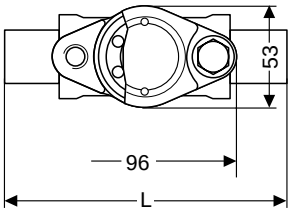
BK 45 and BK 45U



BK 45 with flanged ends (to DIN)



BK 45 with screwed sockets
socket-weld ends

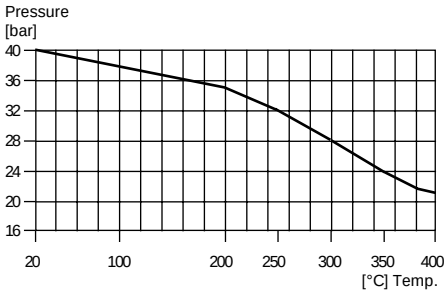


BK 45 with butt-weld ends

Thermostatic steam trap with corrosion-resistant thermostatic element (Duo stainless steel bimetallic regulator) unaffected by water-hammer.
Y-type strainer, non-return valve and asbestos-free cover gasket (graphite) included **as standard**.
The traps with standard regulator discharge the condensate with virtually no banking-up.
Optionally BK 45U with an undercooling of approx. 30 K (to utilize the condensate heat in steam tracers).

Field of application: Draining of saturated steam and superheated steam lines and steam tracers. Can also be used for air-venting.
Installation in any position. In horizontal pipes the cover must be on top.

Pressure/Temperature Ratings				
Max. service pressure	[barg]	32	22	21
	[psig]	465	320	305
Related temperature	[°C]	250	385	400
	[°F]	482	725	752
Max. differential pressure (**inlet** pressure minus **outlet** pressure)		22 barg (320 psig)		



Materials	DIN reference	ASTM equivalent
Body, cover	C 22.8 (1.0460)	A 105
Screws	24 CrMo 5 (1.7258)	A 193 B 7
Bimetallic regulator	Stainless steel	
Other internals	Stainless steel	

Connections

Flanges: DIN, PN 40.
ANSI 150 and 300 lb/in²
Screwed sockets: BSP or NPT (API)
Socket-weld ends
Butt-weld ends

Dimensions and weights		End connections								
		Flanged			Screwed Socket-weld			Butt-weld		
Nominal sizes	[mm]	15	20	25	15	20	25	15	20	25
	[inch]	½	¾	1	½	¾	1	½	¾	1
Dimensions [mm]	L	150	150	160		95			200	
	H1		70			70			70	
	H2		88			88			88	
Approx. weight	[kg]	3.7	4.3	4.8	2.2	2.1	2.0	2.5	2.5	2.5

Flange dimensions		End connections								
		DIN			CL 150			CL 300		
Flange dimensions	D	95	105	115	88.9	98.4	107.9	95.2	117.5	123.8
	b	16	18	18	11.1	12.7	14.3	14.3	15.9	17.5
	k	65	75	85	60.3	69.8	79.4	66.7	82.5	88.9
	g	45	58	68	34.9	42.9	50.8	34.9	42.9	50.8
	l	14	14	14	15.9	15.9	15.9	15.9	19.0	19.0
Number of bolts		4	4	4	4	4	4	4	4	4

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Steam Traps
PN 40
DN 15, 20, 25
½", ¾", 1"

BK 45 and BK 45U

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Internet www.gestra.de

FLOWSERVE
Flow Control Division

Capacity Charts

The charts show the maximum capacities for hot and cold condensate.

Curve 1

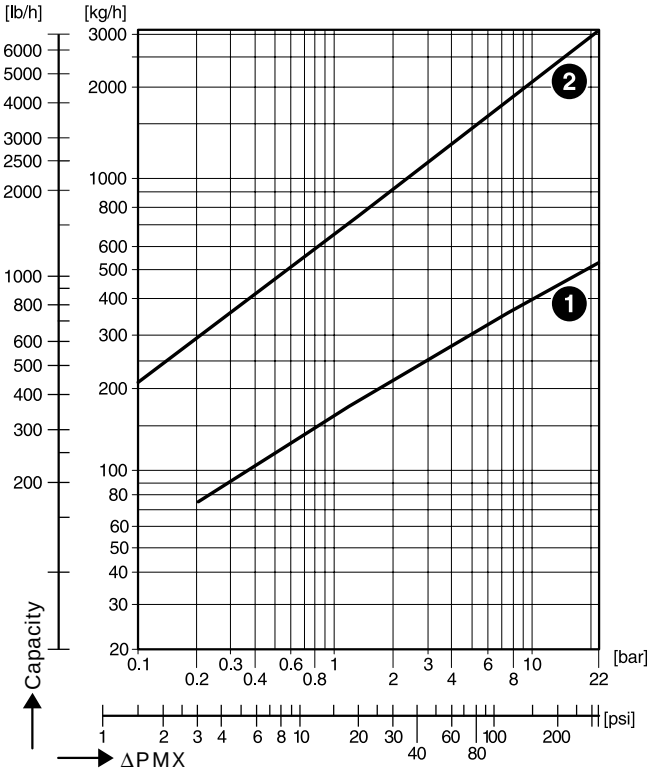
Curve 1 indicates the max. capacity of hot condensate that the BK 45 having a standard regulator can discharge with virtually no banking-up.

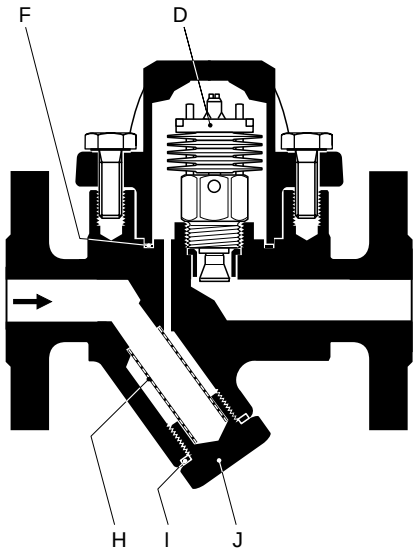
The BK 45U (undercooling) discharges the condensate when it is approx. 30 K (degC) below saturation temperature (banking-up of condensate).

Curve 2

Curve 2 shows the max. capacity of cold condensate that the BK 45 and BK 45U can discharge (condensate temperature 20 °C).

Capacity Chart for BK 45 and BK 45U





When ordering please state:

Steam pressure, back pressure, quantity of condensate to be discharged, type, size, connections, mounting position of the trap, and details of application.

The following test certificates can be issued on request, at extra cost:
In accordance with EN 10204 – 2.2 and -3.1 B.

All inspection requirements have to be stated with the order. After supply of the equipment certificates can no longer be established. Charges and extent of the above mentioned certificates as well as the different tests confirmed therein are listed in our price list "Test and Inspection Charges for Standard Equipment".

For other tests and inspections than those listed above, please consult us.

Supply in accordance with our general terms of business.

Technical modifications reserved.

810436-01/1100c

Standard Spare Parts

Item. No.	Designation	Order No.	
		BK 45	BK 45U
D, F	Regulator, complete including cover gasket	375234	375235
H, I, J	Strainer set, complete	375113	375113
F*)	Cover gasket (set with 50 items[1]))	375159	375159
I*)	Strainer gasket (set with 50 items[1]))	375162	375162

*) Parts subject to wear
[1]) Contact your local dealer for smaller quantities.

GESTRA® Steam Trap
RHOMBUS*line*®
BK 46

International patents

Issue Date: 11/00

Steam Traps
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DN 15, 20, 25
½", ¾", 1"
BK 46

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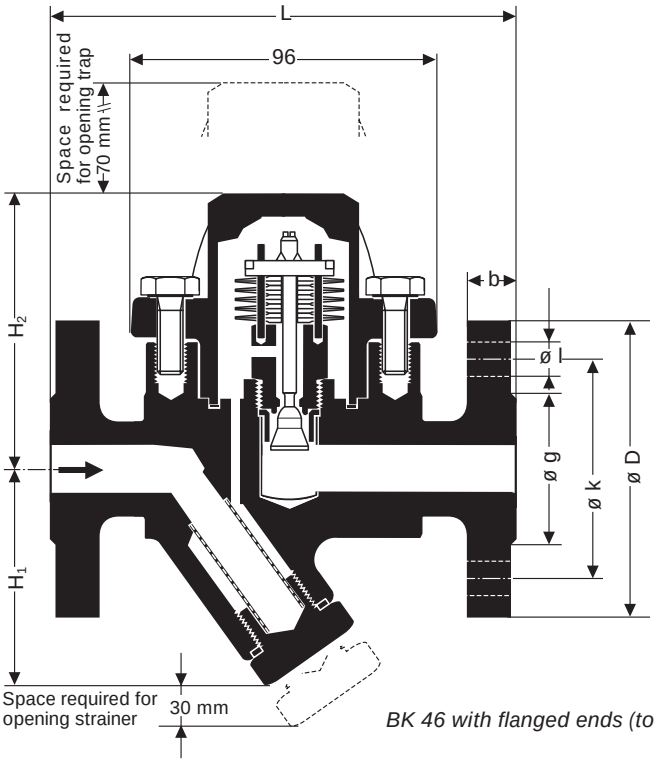
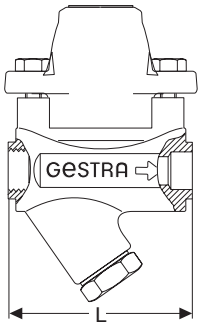


BK 46 with flanged ends (to DIN)



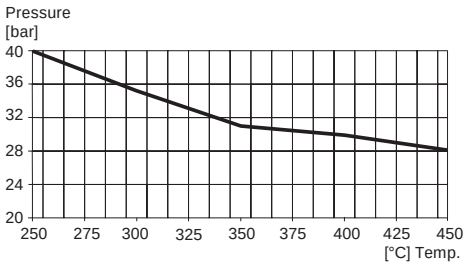
BK 46 with screwed sockets *socket-weld ends*

Thermostatic steam trap with corrosion-resistant thermostatic element (Duo stainless steel bimetallic regulator) unaffected by water-hammer.
Y-type strainer, non-return valve and asbestos-free cover gasket (graphite) included **as standard** to guarantee extended service life of the trap.
The traps with standard regulator discharge the condensate with virtually no banking-up. Automatic air-venting at start-up and during operation.

Application: Draining of saturated steam and superheated steam lines and steam tracers. Can also be used for air-venting.

Installation in any position. When installed in horizontal pipes the cover must be on top.

Pressure/Temperature Ratings			
Max. service pressure [barg] / [psig]	35 / 508	32 / 464	28 / 406
Related temperature [°C] / [°F]	300 / 572	335 / 634	450 / 842
Max. differential pressure (**inlet** pressure minus **outlet** pressure)	32 barg (464 psig)		



Materials	DIN reference	ASTM equivalent [1]
Body, cover	15 Mo 3 (1.5415)	A 182 F1
Screws	42 CrMo 4 (1.7225)	A 193 B7
Bimetallic regulator	Stainless steel	
Other internals	Stainless steel	

[1] Physical and chemical properties comply with DIN grade. ASTM nearest equivalent grade is stated for guidance only.

Connections

Flanges: DIN, PN 40
ASME Class 150 and 300
Screwed sockets: BSP or NPT
Socket-weld ends

Dimensions and Weights		End connections					
		Flanged			Screwed Socket-weld		
Nominal sizes	[mm]	15	20	25	15	20	25
	[inch]	½	¾	1	½	¾	1
Dimensions [mm]	L	150	150	160	95		
	H1		70		70		
	H2		88		88		
Approx. weight	kg	3.7	4.3	4.8	2.2	2.1	2.0

Flange dimensions		End connections								
		DIN			CL 150			CL 300		
Flange dimensions	D	95	105	115	88.9	98.4	107.9	95.2	117.5	123.8
	b	16	18	18	11.1	12.7	14.3	14.3	15.9	17.5
	k	65	75	85	60.3	69.8	79.4	66.7	82.5	88.9
	g	45	58	68	34.9	42.9	50.8	34.9	42.9	50.8
	l	14	14	14	15.9	15.9	15.9	15.9	19.0	19.0
Number of bolts		4	4	4	4	4	4	4	4	4

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Steam Traps
PN 40
DN 15, 20, 25
½", ¾", 1"

BK 46

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FLOWSERVE
Flow Control Division

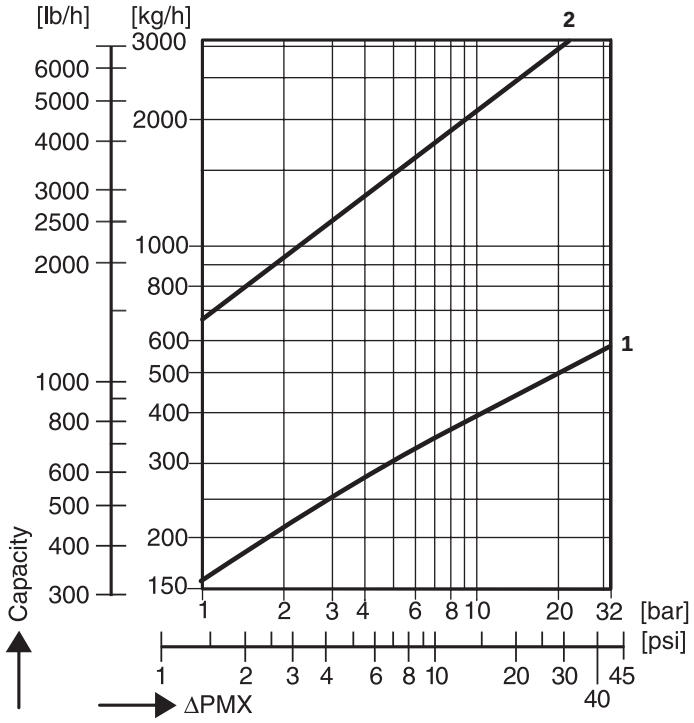
Capacity Charts

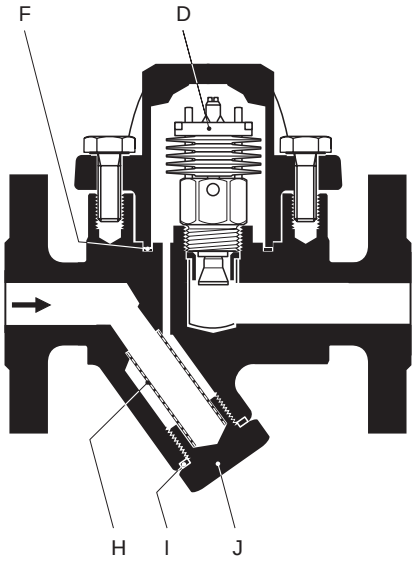
The charts show the maximum capacities for hot and cold condensate.

Curve 1
This curve indicates the max. capacity of hot condensate that the BK 46 can discharge with virtually no banking-up.

Curve 2
Curve 2 shows the max. capacity of cold condensate that the BK 46 can discharge (condensate temperature 20 °C).

Capacity Chart for BK 46





When ordering please state:

Steam pressure, back pressure, quantity of condensate to be discharged, type, size, connections, mounting position of the trap, and details of application.

The following test certificates can be issued on request, at extra cost:
In accordance with DIN EN 10204 -2.2 and -3.1B.

All inspection requirements have to be stated with the order. After supply of the equipment certificates can no longer be established. Charges and extent of the above mentioned certificates as well as the different tests confirmed therein are listed in our price list "Test and Inspection Charges for Standard Equipment".

For other tests and inspections than those listed above, please consult us.

Standard Spare Parts		
Item	Designation	Order No.
D, F	Regulator, complete including cover gasket	375464
H, I, J	Strainer set, complete	375113
F*)	Cover gasket, set with 50 items[1])	375159
I*)	Strainer gasket, set with 50 items[1])	375162

*) Parts subject to wear
[1]) Contact your local dealer for smaller quantities

Supply in accordance with our general terms of business.

Technical modifications reserved.

810632-00/1100c

GESTRA Steam Systems

Product Range Group A1

Steam Trap
RHOMBUS*line*® UBK 46
PN 40, DN 15, 20, 25 (½", ¾", 1")

UBK 46

International Patents

System Description

The UBK 46 is a steam trap with adjustable condensate discharge temperature, thereby suppressing the formation of flash steam.

Main field of application: Steam heated tracing systems.

Design: With corrosion-resistant Duo stainless steel (bimetallic) regulator unaffected by waterhammer and Y-type large-surface strainer.

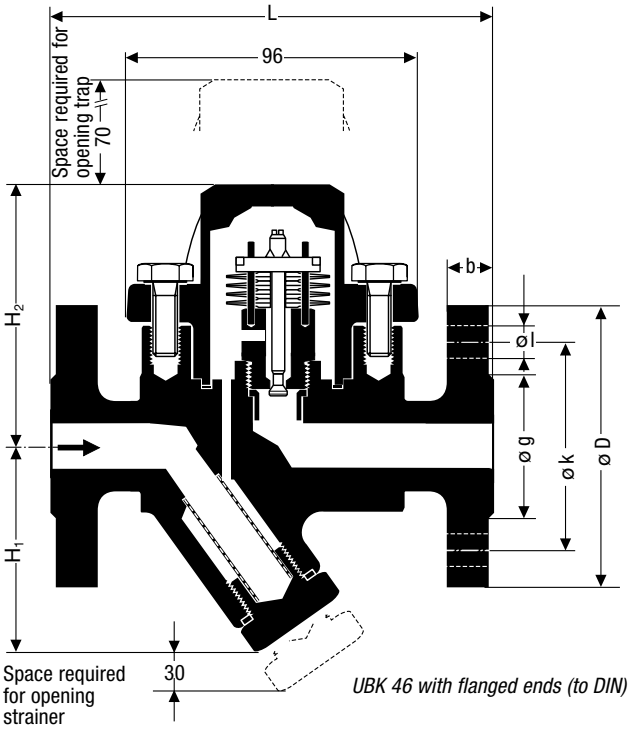
Installation in any position. When installed in horizontal lines cover must be on top.

Pressure / Temperature Ratings				
Max. service pressure	[barg]	32	22	21
	[psig]	465	320	305
Related temperature	[°C]	250	385	400
	[°F]	482	725	842
Max. differential pressure (**inlet** pressure minus **outlet** pressure)		32 barg (465 psig)		

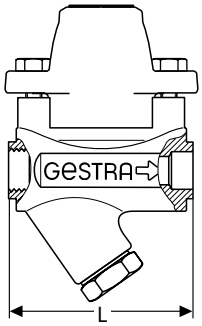
Materials	DIN reference	ASTM equivalent
Body, cover	C 22.8 (1.0460)	A 105
Screws	24 CrMo 5 (1.7258)	A 193 B 7
Bimetallic regulator	Stainless steel	
Other internals	Stainless steel	

Connections

Flanges: DIN, PN 40
ANSI 150 and 300 lb/in²
Screwed sockets: BSP or NPT (API)
Socket-weld ends
Butt-weld ends

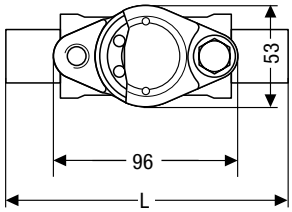


UBK 46 with flanged ends (to DIN)



UBK 46 with screwed sockets

UBK 46 with socket-weld ends



UBK 46 with butt-weld ends

Dimensions and weights		End connections								
		Flanged			Screwed Socket-weld			Butt-weld		
Nominal sizes	[mm]	15	20	25	15	20	25	15	20	25
	[inch]	½	¾	1	½	¾	1	½	¾	1
Dimensions [mm]	L	150	150	160	95			200		
	H_1		70		70			70		
	H_2		88		88			88		
Approx. weight	[kg]	3.7	4.3	4.8	2.2	2.1	2.0	2.5	2.5	2.5

Flange dimensions		End connections								
		DIN			CL 150			CL 300		
Flange dimensions	D	95	105	115	88.9	98.4	107.9	95.2	117.5	123.8
	b	16	18	18	11.1	12.7	14.3	14.3	15.9	17.5
	k	65	75	85	60.3	69.8	79.4	66.7	82.5	88.9
	g	45	58	68	34.9	42.9	50.8	34.9	42.9	50.8
	l	14	14	14	15.9	15.9	15.9	15.9	19.0	19.0
Number of bolts		4	4	4	4	4	4	4	4	4

Steam Trap

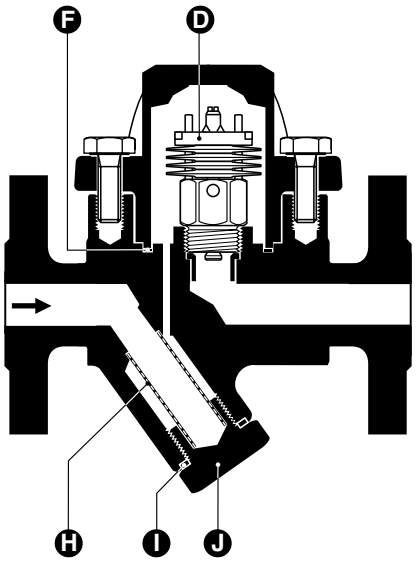
RHOMBUS*line*® UBK 46
PN 40, DN 15, 20, 25 (½", ¾", 1")

Table of Capacities

The capacities indicated in the table assume factory setting and no back pressure (discharge to atmosphere).

Capacities and Opening Temperatures

Max. service pressure	[barg] [psig]	1 14.5	2 29	4 58	8 116	12 174	16 232	20 290	26 377	32 464
Opening temperature (factory setting)	[°C] [°F]	72 162	74 165	78 172	85 185	89 192	93 199	97 206	103 217	109 228
Capacity at Δt 10 K below opening temperature	[kg/h]	94	113	136	164	184	198	211	226	239
Cold condensate capacity at 20 °C (start-up capacity)	[kg/h]	267	390	570	832	1039	1215	1373	1584	1774



When ordering please state:

Steam pressure, back pressure, quantity of condensate to be discharged, type, size, connections, mounting position of the trap, and details of application.

The following test certificates can be issued on request, at extra cost:
In accordance with EN 10204 -2.2 and -3.1 B.

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Spare Parts

Item	Designation	Ref. No.
D F	Regulator with cover gasket	375 324
F	Cover gasket*) 40 x 48 x 2, graphite	375 159
H I J	Strainer set, complete	375 113
I	Strainer gasket*) A 24 x 29, stainless steel	375 162

*) Minimum order quantity 50 items. Contact your local dealer for smaller quantities.

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FLOWSERVE® GESTRA