UNIVERSAL PRODUCT LINE:
STAINLESS STEEL PUMPS
SERIES 724, 4724

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SERIES DESCRIPTION

These pumps feature 316SS construction for handling corrosive liquid applications. They have additional unique features, however, which separate them from other Viking Pump series.

While the wetted components are stainless steel, the footed mounting bracket is cast iron, making the 724 and 4724 Series™ an economical alternative to a fully stainless steel pump.

Optional jacketed head plates (G size) are available to add additional jacketing as required.

These pumps are especially useful in pilot plant service, small metering applications, accurate chemical additive processing, pumping of pharmaceuticals in small capacities and for feed and product pumps on evaporators and distillation systems. They are opposite ported and available with packing or mechanical seals.

RELATED PRODUCTS

Stainless Steel, Non-Jacketed Pumps: Catalog Section 2701

Stainless Steel, Jacketed Pumps: Catalog Section 2702

F724

OPERATING RANGE

SERIES	NOMINAL FLOW		MAXIMUM PRESSURE *		TEMPERATURE RANGE		VISCOSITY RANGE	
	GPM	m^3h	PSI	Bar	°F	°C	SSU	cSt
724	1.5 - 5	0.3 - 1	200	14	−120 to +500	−85 to +260	28 to 2,000,000	1 to 440,000
4724	1.5 - 5	0.3 - 1	150	10	−120 to +500	−85 to +260	28 to 250,000	1 to 55,000

* to 200 PSI (14 BAR) for 100 SSU (21 cSt) and above, to 100 PSI (7 BAR) for 38 to 100 SSU (4 to 21 cSt)

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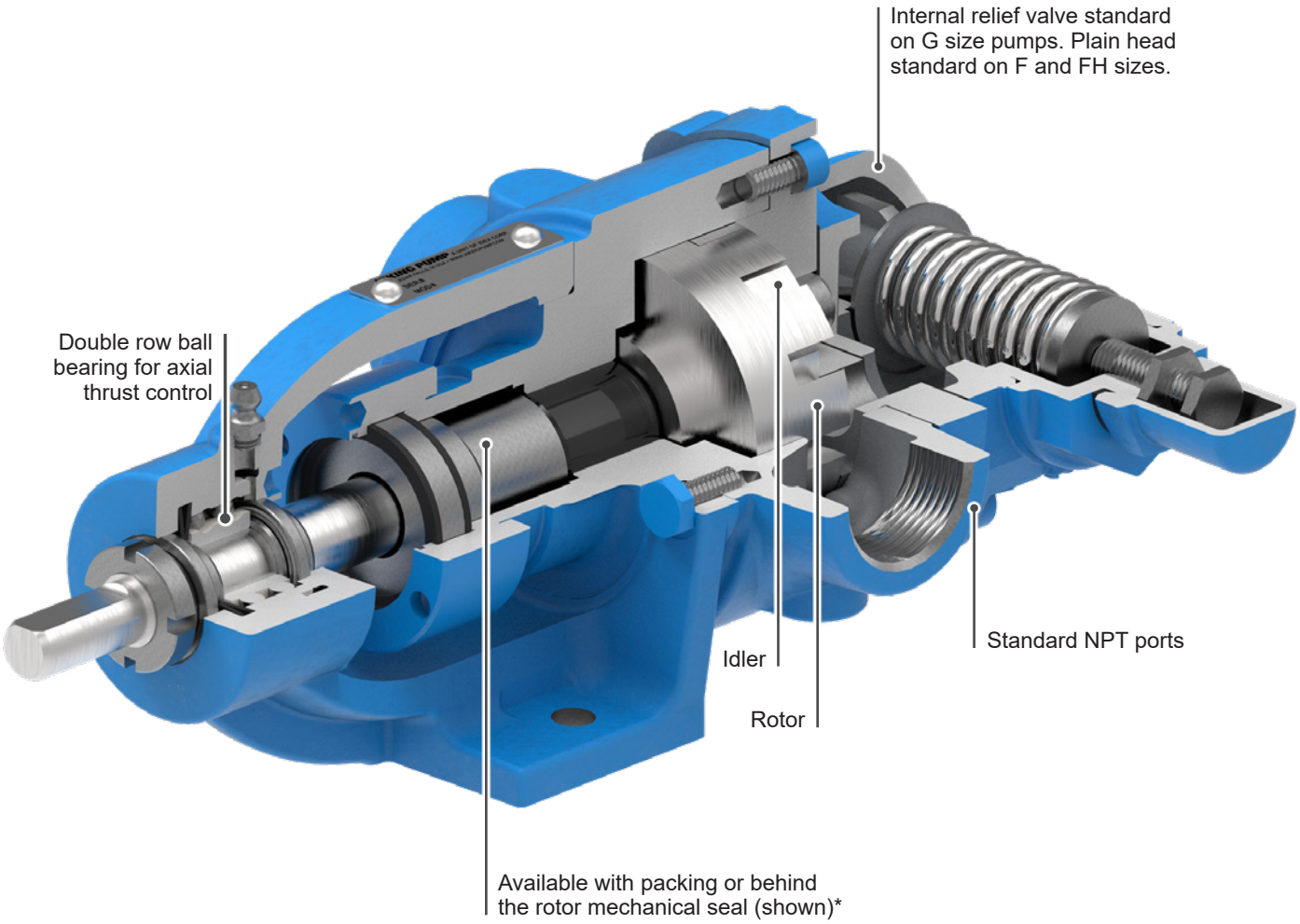
FEATURES & BENEFITS

- Integral Thrust Bearing
  - » The integral thrust bearing on the series 724 and 4724 alloy pumps makes possible outstanding performance on heavy-duty applications. The positive-lock thrust control allows for accurate axial positioning of rotor and shaft.
- No Reduction in Speed Required
  - » Can be operated at full motor speeds. This means a saving in speed reduction equipment.
- All Parts Contacting Liquid are of Alloy Construction
  - » All parts contacting liquid being pumped are of alloy construction. Mounting bracket is cast iron.

CUTAWAY VIEW & PUMP FEATURES



* Mechanical seal is in stuffing box only.

MODEL NUMBER KEY

F H 4 7 2 4

Size:
F G
FH

Shaft Seal:
4 = Mechanical Seal
Blank = Packing

Series

STANDARD MATERIALS OF CONSTRUCTION

Component		Standard Material
Casing		Stainless Steel, ASTM A743, Grade CF8M
Head		Stainless Steel, ASTM A743, Grade CF8M
Bracket		Cast Iron, ASTM A48, Class 35B
Idler		Stainless Steel, ASTM A743, Grade CF8M, Case Hardened
Rotor		Stainless Steel, ASTM A743, Grade CF8M, Case Hardened
Rotor Shaft		Stainless Steel, ASTM A276 Type XM-19 or 316 Condition B
② **Idler Pin**		Hard Coated Stainless Steel, ASTM A276 Type 316, Colmonoy #6 Coated
Bushings		Carbon Graphite
Shaft Sealing	**724**	PTFE Packing
	4724	Stainless Steel, PTFE, Carbon Graphite and Silicon Carbide
① **Internal Pressure Relief Valve**		Stainless Steel, ASTM A743, Grade CF8M

① Relief valve not available on “F” and “FH” sizes.
② Idler pin on “F” and “FH” size is tungsten carbide.

SPECIFICATIONS

② Model Number	Standard Port Size	Nominal Pump Rating			③ Maximum Hydrostatic Pressure		② Maximum Recommended Temperature for Standard Pump		Maximum Recommended Discharge Pressure (PSIG)			Approx. Shipping Weight with Valve	
	Inches	GPM	m^3/h	RPM	PSIG	BAR	°F	°C	④ 38 to 100 SSU	100 to 2500 SSU	2500 SSU & Up	Lbs.	Kg.
F724 F4724	½	1.5	0.3	1750	400	28	300	149	100	200	200	①11	5
FH724 FH4724	¾	3	0.7	1750	400	28	300	149	100	200	200	①12	5.5
G724 G4724	1	5	1	1150	400	28	300	149	100	200	200	14	6

① Relief valve not available on “F” and “FH” sizes.
② For mechanical seal (4724 Series™) pumps on applications with viscosities above 25,000 SSU (5,500 cSt), provide details for recommendation.
③ Standard seal can be used from 0°F. to +450°F.
④ For handling liquids less than 38 SSU (4 cSt), special construction features may be required. Provide details for recommendations.

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STAINLESS STEEL PUMPS
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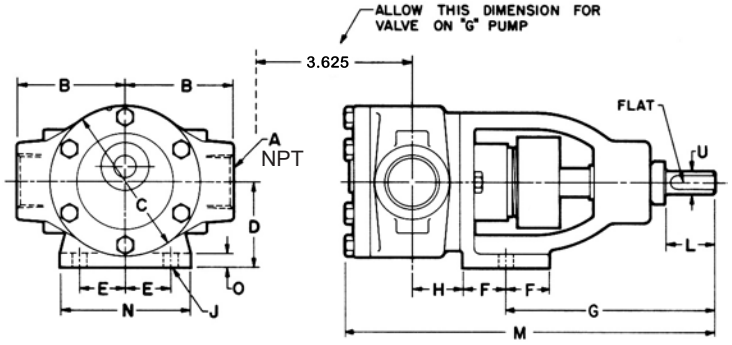
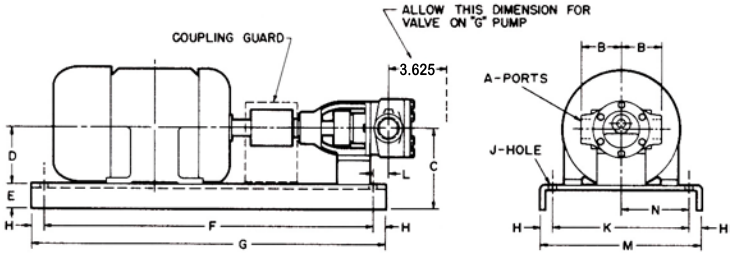
DIMENSIONS – F, FH, G SIZES



Model Number		① A (in)		B	C	D	E	F	G	H	J	U (in)	L	M	N	O
Packed	Mech Seal															
F724	F4724	½	in	2.00	2.50	2.00	1.06	1.00	4.88	1.19	0.34	0.50	1.13	8.44	3.00	0.31
			mm	51	64	51	27	25	124	30	9		29	214	76	8
FH724	FH4724	¾	in	2.00	2.50	2.00	1.06	1.00	4.88	1.19	0.34	0.50	1.13	8.44	3.00	0.31
			mm	51	64	51	27	25	124	30	9		29	214	76	8
G724	G4724	1	in	2.50	3.50	2.00	1.06	1.00	4.88	1.19	0.34	0.50	1.13	8.56	3.00	0.31
			mm	64	89	51	27	25	124	30	9		29	217	76	8

① Ports are suitable for use with 150# ANSI (ASA) companion flanges or flanged fittings.

DIMENSIONS – F, FH, G SIZE (D DRIVE)



Model Number		A (in)		B	C	① D	E	F	G	H	J	K	L	M	N
Packed	Mech Seal														
F724	F4724	½	in	2.00	5.00	3.50	1.50	20.50	22.00	0.75	0.50	8.50	0.94	10.00	4.25
			mm	51	127	89	38	521	559	19	13	216	24	254	108
FH724	FH4724	¾	in	2.00	5.00	3.50	1.50	20.50	22.00	0.75	0.50	8.50	0.94	10.00	4.25
			mm	51	127	89	38	521	559	19	13	216	24	254	108
G724	G4724	1	in	2.50	5.00	3.50	1.50	20.50	22.00	0.75	0.50	8.50	0.94	10.00	4.25
			mm	64	127	89	38	521	559	19	13	216	24	254	108

① For motor frames 56, 143T and 145T.

These dimensions are average and not for construction purposes. Certified prints on request.

NPSH REQUIRED

Printed performance curves are not available.

Performance curves can be electronically generated with the Viking Pump Curve Generator on vikingpump.com.

NPSHR data is not available on the curve generator.

NPSH (Net Positive Suction Head): The $NPSH_R$ (Net Positive Suction Head Required by the pump) is given in the table below and applies for viscosities through 750 SSU. $NPSH_A$ (Net Positive Suction Head – Available in the system) must be greater than the $NPSH_R$. For a complete explanation of NPSH, see Application Data Sheet AD-19.

FOR VISCOSITIES UP TO 750 SSU – See $NPSH_R$ table below.

$NPSH_R$ for high viscosities can be estimated using the following method:

1. Calculate line loss for a 1 foot long pipe of a diameter matching the pump inlet port size. Use your flow rate and max viscosity.

2. Convert this value into Feet of Liquid (S.G. 1.0)

3. Add this value to the $NPSH_R$ value in the chart below.

$NPSH_R$ – FEET OF LIQUID (Specific Gravity 1.0), Viscosities up to 750 SSU

PUMP SIZE	PUMPS SPEED, RPM										
	230	280	350	420	520	640	780	950	1150	1450	1750
F, FH	—	—	—	—	—	1.8	1.9	2.1	2.3	2.8	3.4
G	—	—	—	1.8	2.0	2.2	2.6	3.1	3.9	5.6	7.6
H, HL	1.7	1.8	1.9	2.1	2.4	2.8	3.4	4.5	6.2	9.5	13.5