

Kidney Flange

Catalog 1003C-A

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aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



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Introduction

Parker's Kidney Flange, stainless steel, conforms to IEC 61518:2001 standard. This standard specifies mating dimensions and tolerances, threads, bolts, and gaskets for a maximum allowable working pressure of 41,3 MPa (413 bar) at 38°C. In a process, many Kidney Flanges are directly bolted on to the differential pressure (type) measuring instrument. This standard is only valid for instrument and Kidney Flanges manufactured from a metallic material with yield strength equal to, or larger than, 190 N/mm².

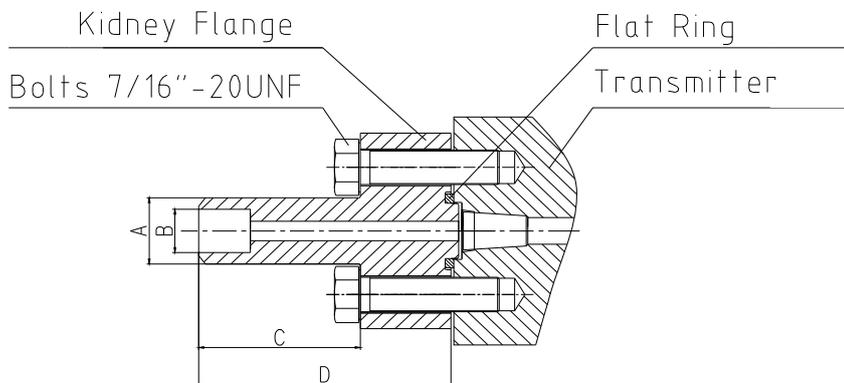
Features

- Kidney Flange bodies are machined from 316L and 321 stainless steel forgings.
- Two gasket ring material optional: PTFE and Graphite
- For chemical and industrial applications.
- 100% factory tested.



Model Shown: **KFBBW8NBSCH40-50-316L**

Assembly Drawing & Dimensions



Part NO.	A	B	C	D
KFBBW8NBSCH40-50-316L 21.5		15.96	50	78
KFBBW8NBSCH40-100-316L	21.5	15.96	100	128
KFBBW8NBSCH40-100-321 21.5		15.96	100	128
KFBBW8NBSCH80-50-316L	21.5	14.04	50	78
KFBBW8NBSCH80-100-316L 21.5		14.04	100	128
KFBBW8NBSCH80-100-321	21.5	14.04	100	128
KFBBW8NBSCH160-50-316L 21.5		11.7	50	78
KFBBW8NBSCH160-100-316L	21.5	11.7	100	128

How to select suitable seal rings and bolts

Seal rings

Materials and temperature limits for the flat rings are for reference only. It is the responsibility of the user to ensure compatibility between the selected gasket ring material and the process requirements, such as pressure, temperature, and chemical compatibility.

Material	PTFE	Graphite
Composition:	Virgin PTFE	98 % graphite, density 1,6 ^{+0,1} _{-0,1} g/cm ³
Dimensions:		
Outside diameter	24,0 ^{+0,0} _{-0,1}	25,1 ^{+0,0} _{-0,1}
Inside diameter	17,7 ^{+0,1} _{0,0}	18,0 ^{+0,1} _{0,0}
Thickness	2,7 ^{+0,1} _{0,0}	2,9 ^{+0,2} _{-0,1}
Temperature limits:	-10 °C to +80 °C	-40 °C to 120 °C (see note)
NOTE The manifold can be rated in accordance with the piping standards. The temperature limits given are based on the limits applicable to the transmitter.		

Bolts

The material for the bolts shall be chosen from the following materials, which are minimum material requirements.

---Medium-carbon steel, type 1, or low-carbon steel, type 2, according to ASTM A449.

---Carbon steel, quenched and tempered, class 8.8, according to ISO 898-1.

---Austenitic steel, carbide solution treated and strain-hardened, according to ASTM A193, Group B8, Class 2.

---Austenitic steel, extra strain-hardened, according to ISO 3506, Group A2 or A4, Class 70

The required bolt length L should be stated as shown below (flange thickness b):

a) For blind threaded transmitters:

---L_{min.} = b + 9 mm

---L_{max.} = b + 14 mm

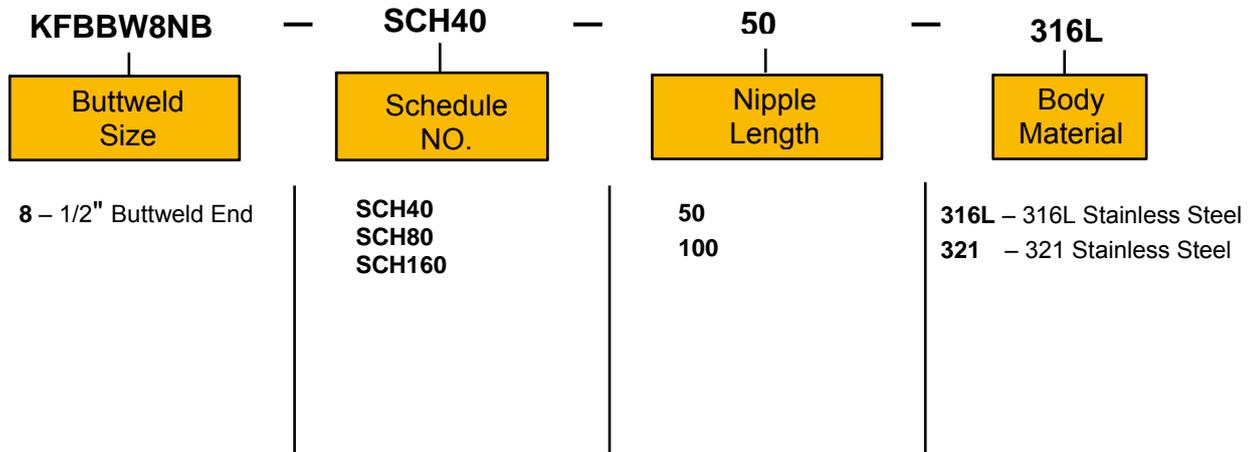
b) For through threaded transmitters:

---L_{min.} = b + 9 mm

How to Order

The correct part number is easily derived from the following number sequence. The four product characteristics required are coded as shown below.

Example: **KFBBW8NBSCH40-50-316L** Describes a Kidney Flange with 1/2" Buttweld end connections, SCH40, Nipple Length 50MM, and 316L stainless steel construction.



WARNING

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Parker Hannifin Instrumentation



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