



ACCESSORIES



FD & BK Series

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White Hydraulics Products

A White Hydraulics product is defined as products manufactured and/or sold by White Hydraulics Inc. Hopkinsville, Kentucky USA and/or White Hydraulics GmbH Ratingen, Germany.

Important Information

Before selecting or using a White Hydraulics product, it is important that all information concerning the product warranty, limitation of liability and responsibility of the customer be reviewed. This information is located below. Please direct any questions regarding this information to your White Hydraulics representative.

Disclaimer

This catalog provides product options for further investigation by customers having technical expertise with respect to the use of such products. It is the responsibility of the customer to thoroughly analyze all aspects of the customer's application and to review the information concerning the product in the current product catalog. Due to the diversity of possible applications, the customer is solely responsible for making the final selection of the product(s) to be used and to assure that all performance, safety and warning requirements of the application are met. The customer is further responsible for all testing to verify acceptable life and performance of White Hydraulics' products under actual operating conditions.

White Hydraulics has made all reasonable efforts to present accurate information in this catalog and shall not be responsible for any incorrect information which may result from unintentional oversight. Due to continuous product improvement, the product specifications as stated in this catalog are subject to change by White Hydraulics at any time without notice. The customer should consult a sales representative of White Hydraulics for detailed information and to determine any changes in the information in this catalog.

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Warranty

White Hydraulics products are sold subject to a limited warranty and a limitation of remedies policy, both of which constitute part of any and all agreements to purchase White Hydraulics' products. White Hydraulics makes no other warranties or promises other than those specifically noted in its written policies, and no White Hydraulics employee or agent has the power to alter those policies other than in writing.

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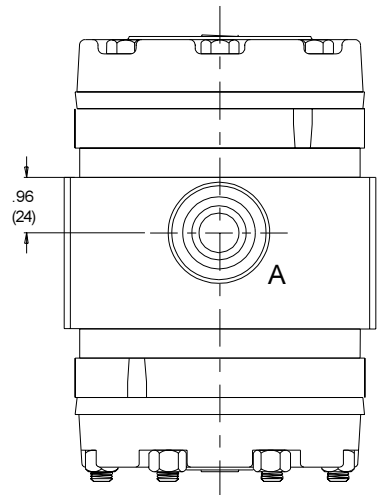
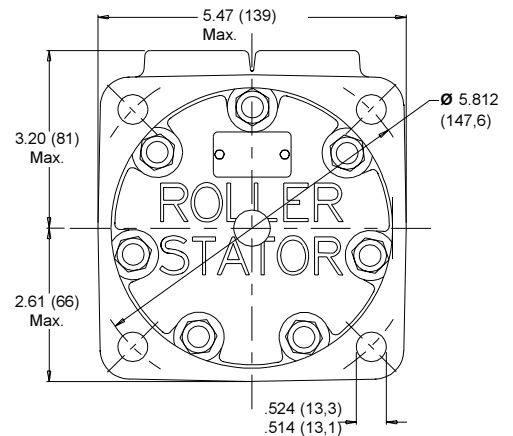
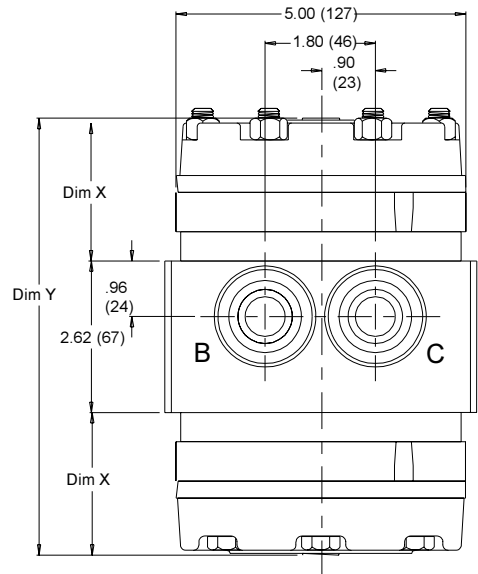
•Description



The White Hydraulics flow dividers represent an ingenious use of the patented Roller Stator® gerotor assembly. These highly effective devices use a common housing to supply the input flow to two gerotor assemblies linked by a common drive link. By linking the two gerotor assemblies together, accurate splitting of the flow is assured. These flow dividers use no bearings or rotating seals, eliminating the typical failures in other designs. By using the highly efficient Roller Stator® gerotor elements, high efficiencies are maintained, even at low flows. Because White Hydraulics' flow dividers work at much lower RPMs than most gear dividers, they are also noticeably quieter. These flow dividers are an excellent way to synchronize cylinders or motors. Because these flow dividers tolerate higher output pressure differentials than other designs, they may also be used for pressure intensification by connecting one output to tank.

- 3,000 psi maximum pressure
- 2,500 psi maximum pressure differential between outputs

Caution: The flow dividers are not available with internal relief protection. Inline relief protection for the output lines should be provided due to the possibility of encountering pressure intensification if pressure in one outlet line drops dramatically.



Model	Flow Range GPM (lpm)	Dim X in (mm)	Dim Y in. (mm)	Weight lbs. (kg)
FD00101000	2-10 (7.6-38.0)	2.32 (59)	8.69 (221)	34.0 (15,4)
FD00181800	10-30 (38.0-113.7)	2.78 (71)	9.61 (244)	37.4 (17,0)
FD00242400	30-40 (113.7-151.6)	3.03 (77)	10.11 (257)	39.6 (18,0)

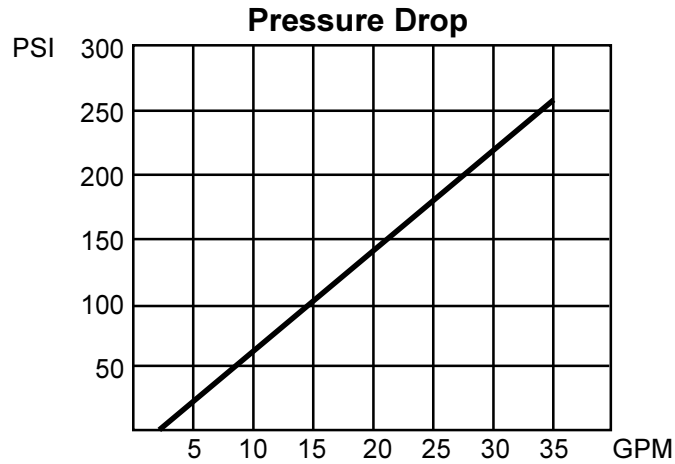
Flow divider weights may vary by - 1 lb. (.45 kg.)

Port A (Inlet)- 1-1/16-12 O-ring
Ports B & C (outputs)- 1-1/16-12 O-ring

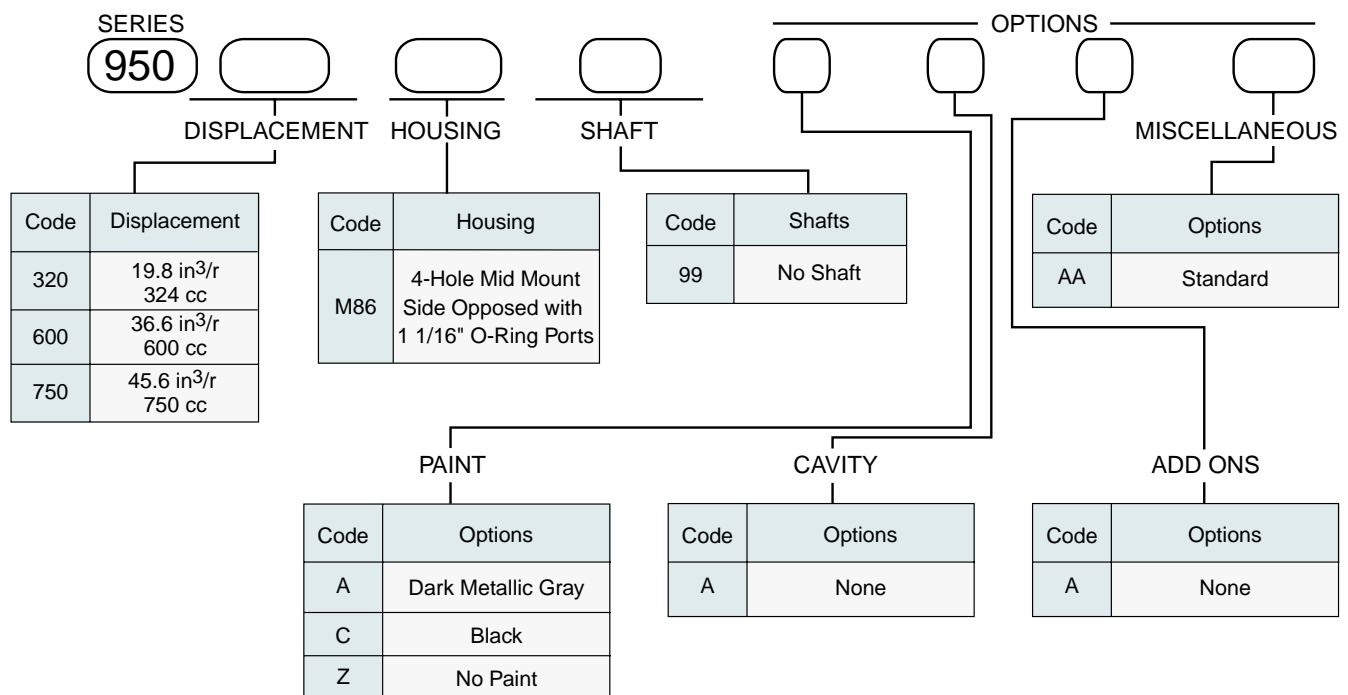
Flow Dividers



•Pressure Drop



•Ordering Information



•Features

- ① **Heavy-duty roller bearings** support high shaft loads and provide long life.
- ② **Dual release ports** allow easier bleeding of brake release cavity.
- ③ **Oil-filled cavity** immerses all components providing quiet operation and reduced wear.
- ④ **Sintered bronze friction material** is used for high clamping force and long life.
- ⑤ **Teflon piston seals** are spring loaded using rubber o-rings to provide positive sealing of the brake release cavity.
- ⑥ **Large locking lugs** transmit shaft load directly to housing for positive holding power.



Superior Design For Reliable Operation

With safety becoming an increasingly important factor in the design and manufacture of equipment, it has become necessary to add a brake to many critical machine functions. In response to that concern, White Hydraulics, Inc. offers the BK10 Series brake. Based on technology proven in White Hydraulics, successful line of integrated motor/brakes, this spring-applied, hydraulically released brake provides 10,000 lb-in of holding torque for static brake applications.

One of the key design features of the BK10 Series brake is its ability to transmit the load directly to the housing of the unit. Some brake designs use an intermediate hub to transmit the load from the shaft to the braking disks. In contrast, the BK10 brake features large locking lugs on the shaft and corresponding slots in the brake disks. This straightforward design allows the load to be transmitted directly from the shaft to the disks, then to the housing, increasing the reliability of the brake.

Many other features contribute to the superior operation and durability of the brake as well. All internal components, including roller bearings, brake disks, springs, and seals were chosen for maximum durability. To further extend the life of the unit and reduce noise, all internal components run in an oil bath. Two brake release ports are also provided to simplify plumbing and bleeding of the brake release circuit during installation. All of these features combine to make the BK10 Series brake the top choice for any static brake application requiring 10,000 lb-in of holding torque.

Specifications

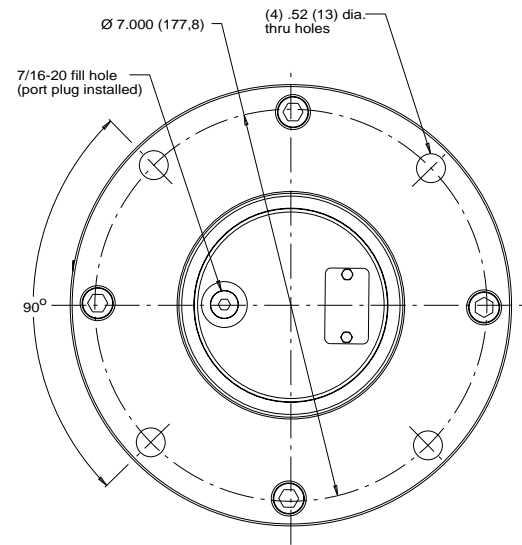
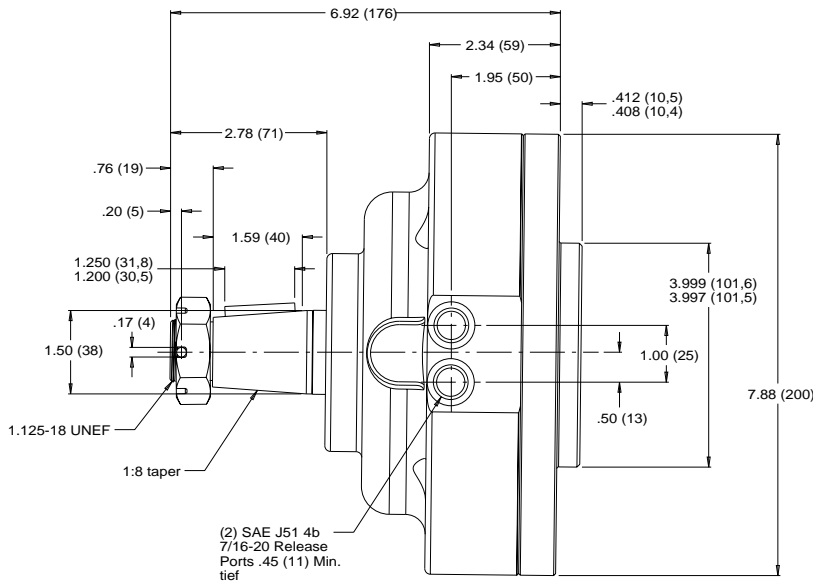
Holding torque 10,000 lb-in (1,130 Nm)
 Release pressure 400 psi (28 bar)
 Max. release pressure 3,500 psi (241 bar)
 Release volume 0.7 cu.in. (11.5 cc)

Max. speed 250 rpm
 Max. operating temperature .. 180° F (82° C)
 Weight 37 lbs. (16.8 kg)
 Fluid type mineral based oil

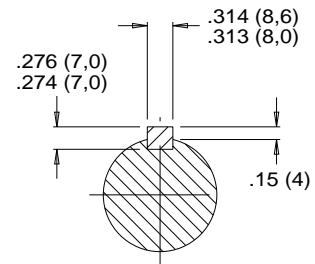
BK10 BRAKE



•Technical



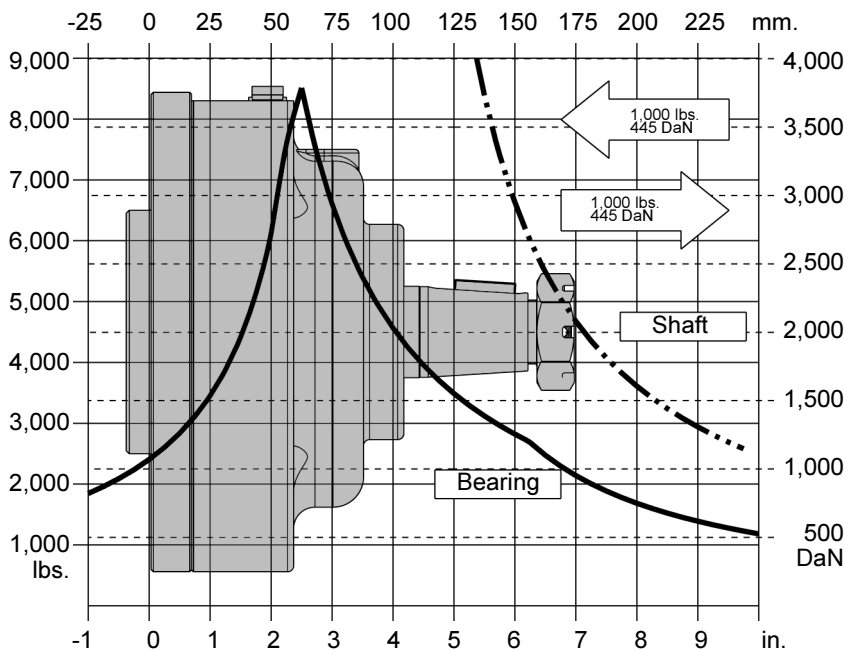
Shaft Key



Allowable Bearing And Shaft Loads

Bearing Curve: The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an L_{10} life of 2000 hours at 100 RPM. Radial loads for speeds other than 100 RPM may be calculated using the multiplication factor table located on the next page.

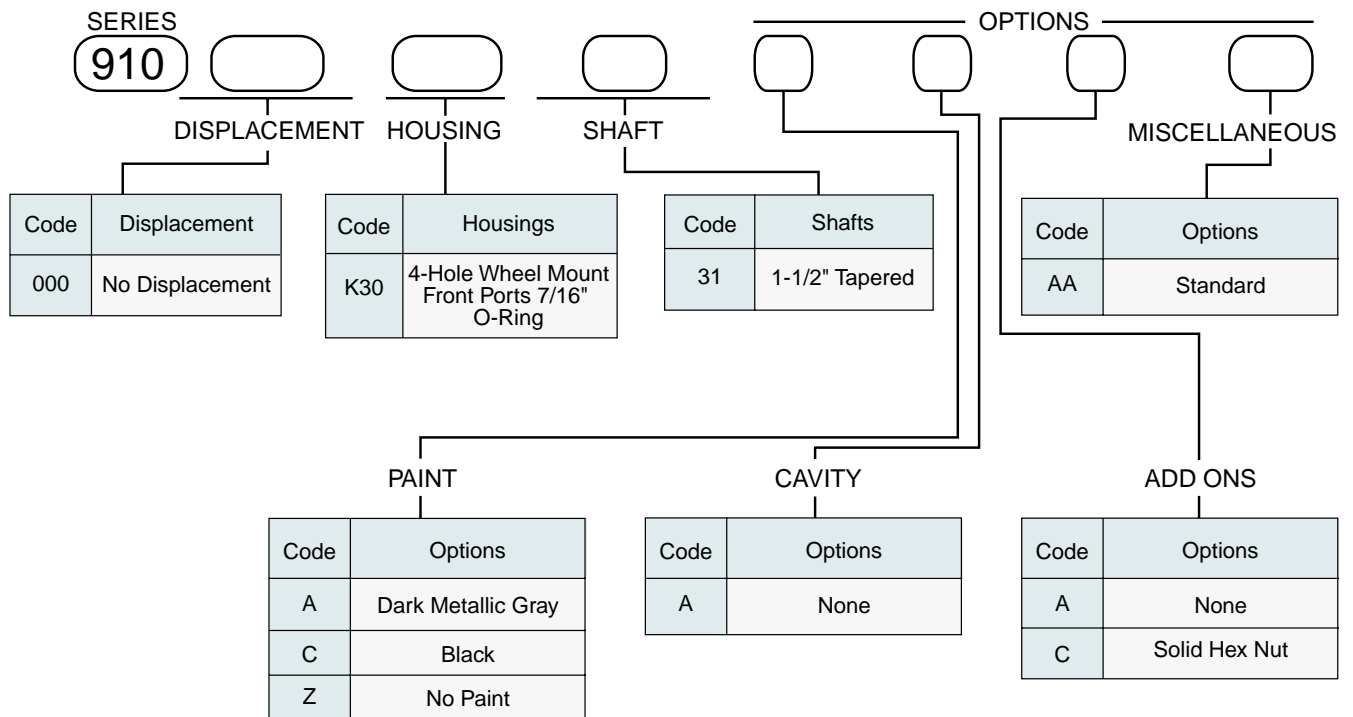
Shaft Curve: The shaft curve represents a 3:1 safety factor based on a tensile strength of 330 kpsi.



**Bearing Load Multiplication
Factor Table**

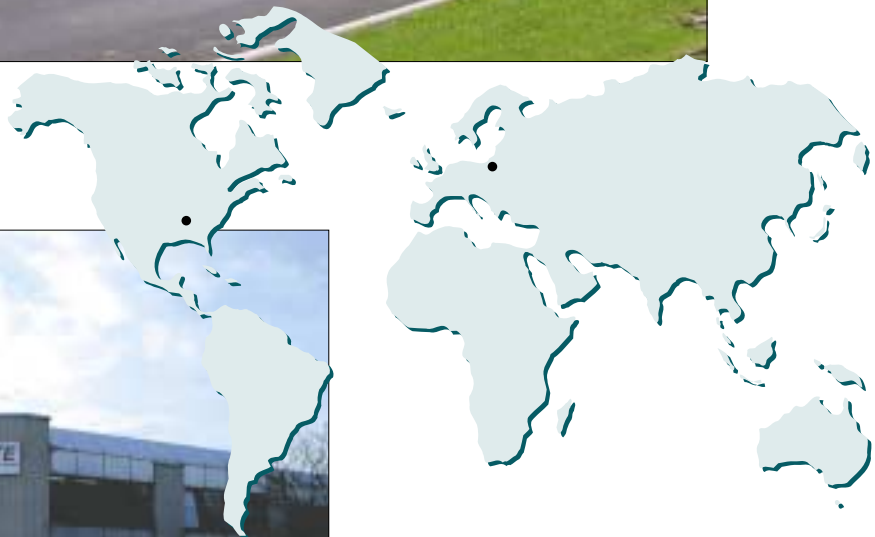
RPM	Multiplication Factor
50	1.23
100	1.00
200	0.81
300	0.72
400	0.66
500	0.62
600	0.58
700	0.56
800	0.50

•Ordering Information





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