

**5 1/4" AMERICAN-DARLING® B-84-B-5 FIRE HYDRANT
BY AMERICAN FLOW CONTROL®**



AMERICAN
FLOW CONTROL

THE RIGHT WAY



CONSTRUCTION

Fully complies with ANSI/AWWA C502 and is available UL Listed and FM Approved in applicable configurations.

ONE-PIECE BRONZE OPERATING NUT

Has a removable pipe plug to allow lubrication of operating threads.

TOP TRAVEL STOP NUT

Provides a positive limit to main rod travel. Eliminates contact of valve bottom with interior of base, thereby protecting coating.

HYDRANT ROD

Furnished in two sections of high-tensile steel. Upper section has bronze sleeve where it passes through housing O-rings. Upper and lower sections are connected by gray iron coupling using stainless steel pins.

EPOXY PRIMER AND POLYURETHANE COATING SYSTEM

Upper barrel is provided with an E-coat primer and a two-part polyurethane top coat for improved durability, color and gloss retention.

STAINLESS STEEL HYDRANT SPRING

Assures quick drain closure and allows throttling.

DRAIN LEVER

Rugged bronze lever performs dual function as carrier for drain lever pads and as wrench to remove working parts.

BASE BOLTS AND NUTS

Hydrant is provided with stainless steel fasteners below grade.

HYDRANT SEAT

Seat is constructed of bronze. Design includes a near-vertical machined seating surface with two drain ports.

HYDRANT VALVE

Consists of an epoxy-coated iron valve top and bottom. Hydrant valve rubber constructed of EPDM rubber. Valve has a near-vertical seat taper to minimize entrapment of debris while sealing against an all-bronze hydrant seat. Spherical design provides minimal flow loss.

WEATHER COVER

The word "OPEN" and an arrow show direction to turn the operating nut. The rubber weather shield helps prevent water and debris from entering the housing area.

HOUSING AND HOUSING COVER

Retains operating nut and thrust washer. Rugged construction helps withstand operating forces.

THRUST WASHER

Takes upward thrust when opening hydrant valve and reduces operating torque.

NOZZLES

Patented design allows field replacement of damaged nozzles in minutes by one person. Uses no pins or set screws that can become dislodged or lost.

UPPER BARREL

Ductile iron barrel with markings identifying size, model and year of manufacture.

TRAFFIC FEATURE

Upper barrel is connected to lower barrel with breakable traffic flange and eight bolts and nuts. This feature allows 360° rotation of upper nozzle section.

LOWER BARREL

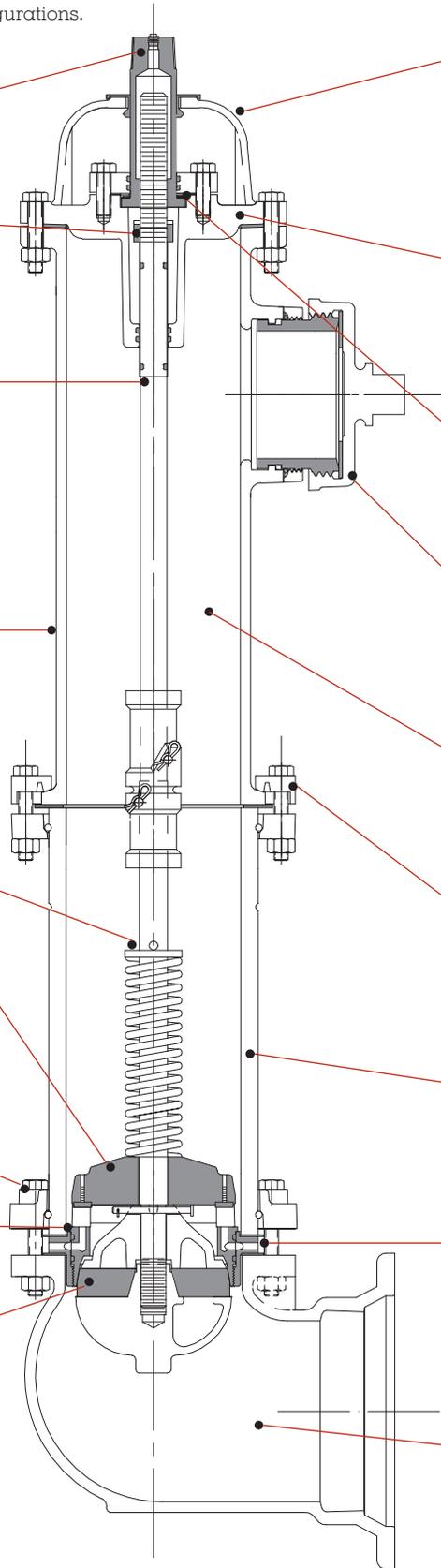
The ductile iron lower barrel provides extra strength against traffic impact damage.

HYDRANT DRAIN SYSTEM

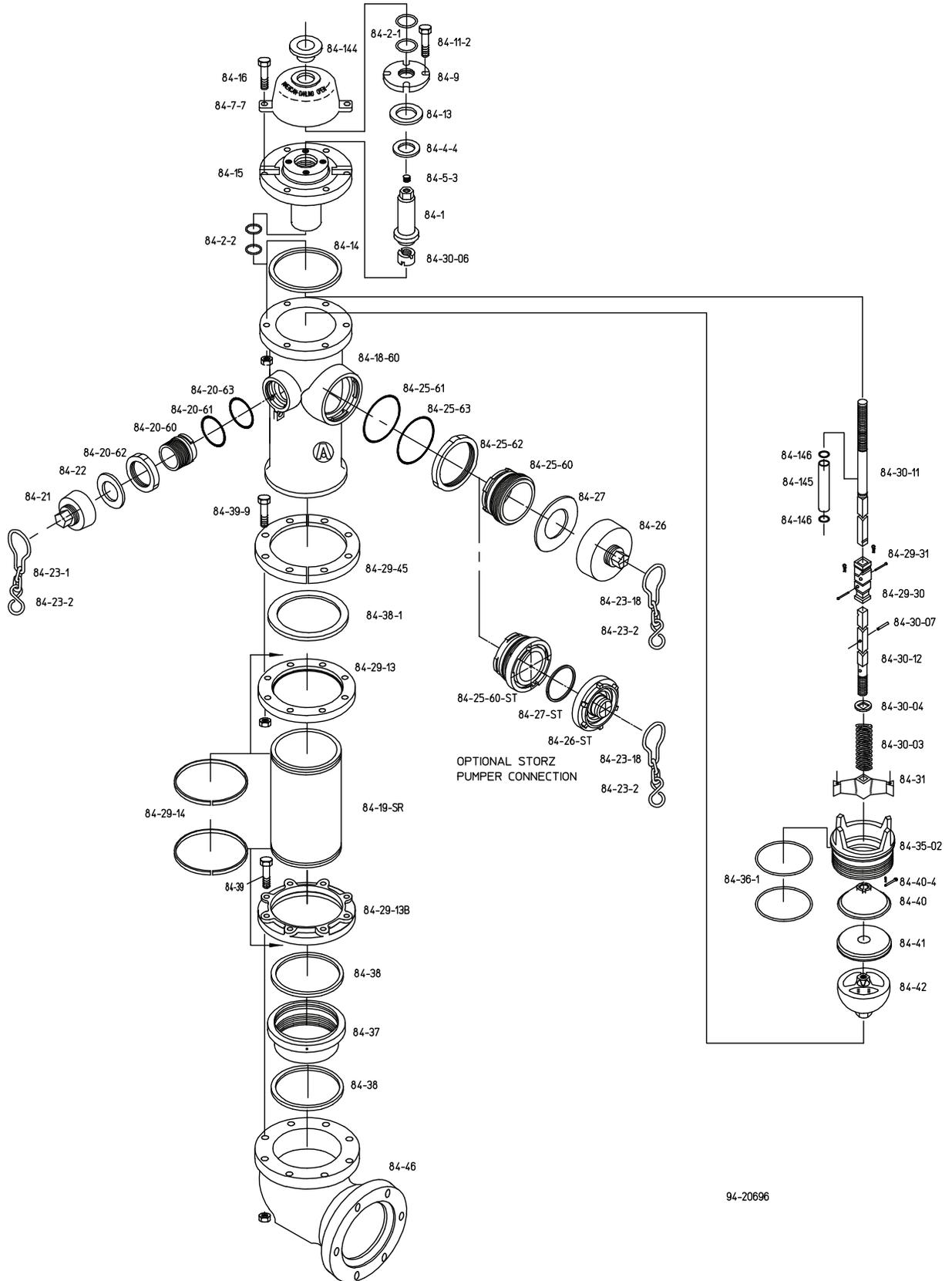
Drain ring is securely held between barrel and base flange, provides bronze-to-bronze threaded connection for hydrant seat. Hydrant is equipped with four drain outlets.

BASE

Spherical-shaped base has no projections or cavities to obstruct flow. Base is epoxy-coated ductile iron.



EXPLODED DRAWINGS



PARTS LIST

REF NO.	QTY.	DESCRIPTION	MATERIAL
84-1	1	Operating Nut	Bronze
84-2-1	2	Cover O-ring	Buna-N
84-2-2	2	Housing O-ring	Buna-N
84-4-4	1	Thrust Washer	Nylatron
84-5-3	1	Pipe Plug	Stainless Steel
84-7-7	1	Weather Cover	Gray Iron
84-9	1	Housing Cover	Gray Iron
84-11-2	4	Housing Cover Cap Screw	Plated Steel
84-13	1	Housing Cover Gasket	Fiber
84-14	1	Housing Gasket	Rubber
84-15	1	Housing	Ductile Iron
84-16	6	Housing Bolt and Nut	Plated Steel
84-18-60	1	Upper Barrel	Ductile Iron
84-19-SR	1	Lower Barrel	Ductile Iron
84-20-60	2	Hose Nozzle	Bronze
84-20-61	2	Hose Nozzle Seal	Buna-N
84-20-62	2	Hose Nozzle Retainer	Ductile Iron
84-20-63	2	Hose Nozzle Retainer Washer	Teflon
84-21	2	Hose Cap	See Note 7
84-22	2	Hose Cap Gasket	Rubber
84-23-1	1	Hose Cap Chain	Steel
84-23-2	3	S-Hook	Steel
84-23-18	1	Pumper Cap Chain	Steel
84-25-60	1	Pumper Nozzle	Bronze
84-25-60-ST	1	Storz Nozzle	Bronze/Aluminum
84-25-61	1	Pumper Nozzle Seal	Buna-N
84-25-62	1	Pumper Nozzle Retainer	Ductile Iron
84-25-63	1	Pumper Nozzle Retainer Washer	Teflon
84-26	1	Pumper Cap	See Note 7
84-26-ST	1	Storz Nozzle Cap	Aluminum
84-27	1	Pumper Cap Gasket	Rubber
84-27-ST	1	Storz Cap Gasket	Rubber
84-29-13	1	Barrel Flange	Ductile Iron
84-29-13B	1	Base Flange	Ductile Iron
84-29-14	2	Snap Ring	Stainless Steel
84-29-30	1	Rod Coupling	Gray Iron
84-29-31	2	Coupling & Clip Pins	Stainless Steel
84-29-45	1	2-Piece Breakable Flange	Gray Iron
84-30-03	1	Hydrant Spring	Stainless Steel
84-30-04	1	Spring Plate	Stainless Steel
84-30-06	1	Travel Stop Nut	Bronze
84-30-07	1	Spring Plate Pin	Stainless Steel
84-30-11	1	Upper Hydrant Rod	Steel
84-30-12	1	Lower Hydrant Rod	Steel
84-31	1	Drain Lever	Bronze
84-35-02	1	Hydrant Seat	Bronze
84-36-1	2	Seat O-ring	Buna-N
84-37	1	Drain Ring	Bronze
84-38	2	Drain Ring Gasket	Composition Rubber
84-38-1	1	Barrel Gasket	Rubber
84-39	8	Base Bolt and Nut	Stainless Steel
84-39-9	8	Barrel Bolt and Nut	Plated Steel
84-40	1	Hydrant Valve Top	Ductile Iron
84-40-4	1	Clevis & Clip Pin	Stainless Steel
84-41	1	Hydrant Valve	EPDM Rubber
84-42	1	Hydrant Valve Bottom	Ductile Iron
84-46-2	1	Flanged Base	Ductile Iron
84-46-5	1	Mechanical Joint Base	Ductile Iron
84-46-TY	1	TYTON® Base	Ductile Iron
84-46-AA	1	ALPHA™ Base	Ductile Iron
84-144	1	Weather Shield	Rubber
84-145	1	Rod Sleeve	Bronze
84-146	2	Sleeve O-ring	Buna-N

NOTES

1. Size and shape of nut on operating nut and cap, threading on nozzles and caps, and the direction of opening made to specifications.
2. Cap chains are not furnished unless specified.
3. Working pressure 250 psig, test pressure 500 psig.
4. Hydrant conforms to ANSI/AWWA C502 standard.
5. Upper barrel can be rotated 360°.
6. UL Listed and FM Approved in allowable configurations.
7. National Standard and other common cap configurations are constructed of ductile iron. Other offerings may be constructed of gray cast iron.
8. Nominal turns to open is 19-1/2.
9. TYTON® is a registered trademark of United States Pipe and Foundry Co., LLC.
10. ALPHA™ is a licensed trademark of Romac Industries, Inc. (U.S. Patent 8,894,100)

AMERICAN Flow Control strongly recommends that you follow routine maintenance on fire hydrants as outlined in AWWA Manual M-17 for Installation, Field Testing and Maintenance of Fire Hydrants. The ease of operation and the frequency of repair depends on the condition of the water system and the maintenance given. Dirt, gravel and other foreign material in the hydrant may prevent it from closing or draining properly, which may result in damage to the hydrant main valve. Under most operating conditions AMERICAN Flow Control recommends semiannual lubrication and inspection of fire hydrants.

FEATURES

The 5-1/4 in. American-Darling B-84-B-5 fire hydrant, by AMERICAN Flow Control® incorporates more than 100 years of experience in design, manufacture and field experience. This means dependable and efficient operation when needed.

Introduced in 1984, the 5 1/4 in. American-Darling B-84-B-5 hydrant is rated at 250 psig and is seat tested at 500 psig. This hydrant meets or exceeds all requirements of ANSI/AWWA C502 for dry-barrel hydrants.

The 5-1/4 in. American-Darling B-84-B-5 is manufactured with the features you expect from a high-quality fire hydrant. The all-bronze seat and drain ring ensure that the 5 1/4 in. B-84-B-5 hydrant is easily repaired by just one person.

5 1/4" American-Darling B-84-B-5 Standard Features:

- Upper barrel is furnished with an E-coat primer and a two-part polyurethane top coat for durability, gloss and color retention
- Ductile iron upper barrel, lower barrel, base and housing
- Easy 360° rotation of nozzle section
- 250 psig rated working pressure
- Shell tested at 500 psig
- Lubrication chamber
- Stainless steel bolting below grade
- Bronze-to-bronze seating
- Short, lightweight disassembly wrench
- Travel stop nut located in top of hydrant
- Positive compression, fast closing drains

BENEFITS

Spring-Loaded Multiport Drains

Two-port drains and four drain outlets are standard features on the 5-1/4 in. American-Darling B-84-B-5. The stainless steel rod spring helps assure drains close after approximately three turns of the operating nut. This important feature helps prevent washouts and erosion.

Near Vertical Hydrant Valve

Minimal taper on the 5-1/4 in. American-Darling B-84-B-5 hydrant valve helps prevent entrapment of debris in the hydrant seating area.

SPECIFICATIONS

Fire hydrants shall meet or exceed ANSI/AWWA C502, latest revision. Rated working pressure shall be 250 psig, test pressure shall be 500 psig and hydrants shall include the following specific design criteria:

The main valve closure shall be of the compression type. Traffic feature to be designed for easy 360° rotation of nozzle section during field installation.

The main valve opening shall not be less than 5 1/4 in. and be designed so that removal of all working parts can be accomplished without excavating. The hydrant valve shall be constructed of EPDM rubber and have a vertical taper of 20° or less. The bronze seat shall be threaded into a bronze drain ring. The draining system of the hydrant shall be bronze and positively activated by the main operating rod. Hydrant drains shall close completely after no more than three turns of the operating nut. There shall be a minimum of two internal ports and four outlets to the exterior of the hydrant. Drain shutoff to be by direct compression closure. Sliding drains are not permitted.

The 5-1/4 in American-Darling B-84-B-5 fire hydrant is Certified to NSF/ANSI 61 and NSF/ANSI 372, which exhibit compliance with U.S Safe Drinking Water Act.

UL-FM

In applicable configurations, the 5-1/4 in. American-Darling B-84-B-5 hydrant is UL Listed and FM Approved. Both UL and FM Approvals require that we consistently manufacture and test our hydrants in full compliance with their stringent standards. Our facilities are subject to periodic inspections to ensure we are in compliance with their standards.

Lubrication Chamber

Seals operating threads from water and debris. Proper maintenance is required.

Top Travel Stop Nut

Helps prevent stem buckling and damage to bronze components that may occur if excessive torque is applied in the full open position.

Hydrant barrels shall be made of ductile iron. Nozzles shall be retained by collars. Threaded-in nozzles and nozzles using set screws are not allowed.

Hydrant upper barrel shall be factory coated with Electrodeposition (E-coat) epoxy primer and catalyzed two-part polyurethane top coating. Base shall be coated with fusion-bonded epoxy. All bolting below grade shall be 304 stainless steel.

Hydrant shall be UL Listed and FM Approved in applicable configurations. All hydrants are to be Certified to NSF/ANSI 61 and NSF/ANSI 372.

Friction loss not to exceed 3.0 psig at 1000 gpm through 4-1/2 in. pumper nozzle. Hydrants shall be equal to the 5-1/4 in. American-Darling B-84-B-5 by AMERICAN Flow Control®.



AMERICAN

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AMERICAN Flow Control

P.O. Box 2727
Birmingham, AL 35202-2727
Phone: 800-326-8051
Fax: 800-610-3569
Email: afcsales@american-usa.com

Waterous Company

125 Hardman Avenue South
South St. Paul, MN 55075-1191
Phone: 888-266-3686
Fax: 800-601-2809
Email: afcsales@american-usa.com

WWW.AMERICAN-USA.COM

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