

AMERICAN FLOW CONTROL



250 P.S.I.G.



AMERICAN DARLING 5 1/4" B-84-B FIRE HYDRANT



5 1/4" B-84-B FIRE HYDRANT

OPERATING NUT-cast one piece bronze operating nut. Design of the operating thread permits slow closing of the hydrant valve, reducing the possibility of water hammer.

O-RINGS-seal lubrication chamber, assure dry-top hydrant, reduce friction, prevent water from reaching the operating mechanism.

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 O-rings. Upper and lower sections are connected by cast iron coupling using stainless steel pins.

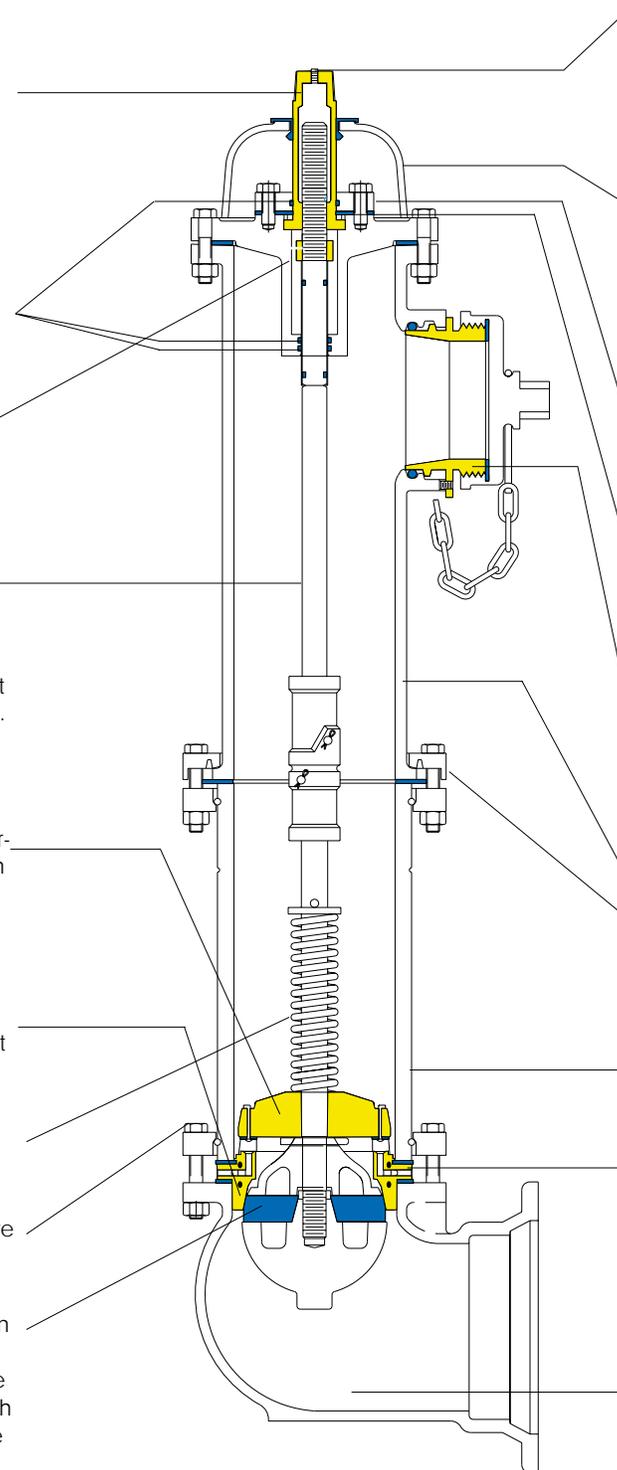
DRAIN LEVER-rugged bronze lever performs dual function as carrier for drain lever washers and as wrench to remove working parts.

HYDRANT SEAT-made of bronze, with accurately machined seat for hydrant valve with (2) drain ports.

HYDRANT SPRING-assures quick drain closure and allows throttling.

BOLTS AND NUTS-all bolts and nuts are plated steel for corrosion resistance.

HYDRANT VALVE-consists of a gray iron valve top and valve bottom and hydrant valve rubber. Rod threads are permanently sealed from contact with water. Hydrant valve seals against the bronze hydrant seat.



PIPE PLUG-provides access to lubrication chamber. Pipe plug can be replaced with lubricating fitting to lubricate the rod threads and thrust washers.

WEATHER COVER (gray iron with rubber weather shield)-The word "open" and an arrow show direction to turn the operating nut. The rubber weather shield prevents water and debris from entering the housing area.

HOUSING AND HOUSING COVER-retain operating nut and thrust washer. Rugged construction withstands operating forces.

THRUST WASHER-takes upward thrust when opening hydrant valve and reduces operating torque.

NOZZLES-patented Amlok design allows field replacement of damaged nozzles in minutes by one person.

UPPER BARREL-gray iron with markings identifying size, model and year of manufacture.

TRAFFIC FEATURE-Upper barrel is connected to lower barrel with breakable traffic flange and 8 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 RING-securely held between barrel and base flange, provides bronze-to-bronze threaded connection for hydrant seat. Serves as non-corrosive multiport (4) drain channel.

BASE-spherical-shaped base has no projections or cavities to obstruct flow or collect sediment. 6" M.J. base is ductile iron.

Fully complies with AWWA C502 and is available UL 246 and Factory Mutual Approved for allowable configurations.

PART NO.	QTY.	DESCRIPTION	MATERIAL
84-1	1	Operating Nut	Bronze
84-2-1	1	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	Steel
84-7-7	1	Weather Cover	Gray Iron
84-9	1	Housing Cover	Gray Iron
84-11-2	4	Cover Cap Screws	see note 4
84-13	1	Cover Gasket	Fiber
84-14	1	Housing Gasket	Composition Rubber
84-15	1	Housing	Gray Iron
84-16	6	Housing Bolts and Nuts	see note 4
84-18-9	1	Upper Barrel	Gray Iron
84-19-SR	1	Lower Barrel	Ductile Iron
84-20-3	2	Hose Nozzles	Bronze (see note 8)
84-20-4	2	Hose Nozzle O-Rings	Buna N
84-20-5	2	Hose Nozzle Spacer O-Ring	Buna N
84-21	2	Hose Caps	Gray Iron
84-22	2	Hose Cap Gaskets	Rubber
84-23-1	1 Per Nozzle	Cap Chains	Steel
84-23-2	1 Per Nozzle	S Hook	Steel
84-24-3	1 Per Nozzle	Nozzle Set Screws	Stainless Steel
84-24-4	2	Hose Nozzle Internal Set Screw	Stainless Steel
84-24-5	1 Per Nozzle	Pumper Nozzle Internal Set Screw	Stainless Steel
84-25-3	1 or 0	Pumper Nozzle	Bronze (see note 8)
84-25-4	1 Per Nozzle	Pumper Nozzle O-Ring	Buna N
84-25-5	1 Per Nozzle	Pumper Nozzle, Spacer O-Ring	Buna N
84-26	1 Per Nozzle	Steamer Cap	Gray Iron
84-27	1 Per Nozzle	Steamer Cap Gasket	Rubber
84-29-13	2	Barrel Flange	Ductile Iron
84-29-14	2	Snap Rings	Stainless Steel
84-29-30	1	Rod Coupling	Gray Iron
84-29-31	2	Coupling & Cotter Pins	Stainless/Bronze
84-29-45	1	Breakable Flange	Gray Iron
84-30-03	1	Hydrant Spring	Spring Steel
84-30-04	1	Spring Plate	Steel
84-30-06	1	Travel Stop Nut	Bronze
84-30-07	1	Spring Plate Pin	Steel
84-30-11	1	Upper Rod	Steel
84-30-12	1	Lower Rod	Steel
84-31	1	Drain Lever	Bronze (see note 8)
84-33	2	Drain Lever Washers	Rubber
84-34	2	Drain Lever Rivets	Bronze
84-35-02	1	Hydrant Seat	Bronze (see note 8)
84-36-1	2	Seat O-Ring	Buna N
84-37	1	Drain Ring	Bronze (see note 8)
84-38	2	Drain Ring Gasket	Composition Rubber
84-38-1	1	Barrel Gasket	Composition Rubber
84-39	8	Base Bolts and Nuts	see note 4
84-39-9	8	Barrel Bolts and Nuts	see note 4
84-40	1	Valve Top	Gray Iron
84-40-4	1	Valve Top Cotter Pin	Stainless Steel
84-41	1	Hydrant Valve	EPDM
84-42	1	Valve Bottom	Gray 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
84-144	1	Weather Shield	Rubber
84-145	1	Rod Sleeve	Bronze
84-146	2	Sleeve O-Rings	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. All gray iron is ASTM A126 class B.
4. Bolts and nuts are rust-proofed steel ASTM A307 in accordance with AWWA C502.
5. Working pressure 250 p.s.i.g., test pressure 500 p.s.i.g.
6. Hydrant conforms to AWWA specifications C502.
7. Upper Barrel can be rotated 360°.
8. Bronze in contact with water contains less than 16% zinc.
9. All Bases except 4" MJ with lugs are ductile iron.
10. Seat and shell test 500 p.s.i.g.
11. Nominal turns to open is 19½.

SUBMITTAL DATA

Depth of trench or bury			
Size and type of base connection	4" M.J. FLG	6" M.J. Tyton AC	8" M.J.
Direction to open	LEFT (CCW)	RIGHT (CW)	
Paint color			
Number of hose nozzles	2		
Hose nozzle size			
Steamer nozzle	YES	NO	
Steamer nozzle size			
Nozzle cap chains	YES	NO	
City specified			



FEATURES

American Flow Control's **American-Darling B-84-B** hydrant incorporates over 80 years of experience in design, manufacture and field experience. This means dependable and efficient operation when needed.

Introduced in 1984, the **B-84-B** hydrant is rated at 250 p.s.i.g. and is seat tested at 500 p.s.i.g. This hydrant meets or exceeds all requirements of

AWWA C502 for dry barrel hydrants.

The **B-84-B** hydrant is loaded with the features you expect from a high quality fire hydrant. The all bronze seat and drain ring assure that the **B-84-B** hydrant is easily repaired by just one person.

Optional UL-FM

The **B-84-B** hydrant is listed by Underwriters Laboratories, Inc., as meeting their standard UL 246, latest

edition. The Factory Mutual Research Corporation has approved the **B-84-B**. Both Underwriters Laboratories and Factory Mutual Research Corporation require that we consistently manufacture and test our hydrants in full compliance with their stringent requirements. Our facilities are subject to periodic inspections to assure we are in compliance with their standards.

The **B-84-B hydrant** has these standard features:

- Positive compression, fast closing drains
- Travel stop located in top of hydrant
- Bronze-to-bronze seating
- Short, lightweight, disassembly wrench
- Easy 360° rotation of nozzle section
- All 6" bases are ductile iron
- Centrifugally cast high strength ductile iron lower barrel
- Sealed lubrication chamber

BENEFITS

Spring Loaded Multi-port Drains

There are two drain ports and four drain outlets as a standard feature on the **B-84-B** hydrant. The rod spring assures drains close after approximately three turns of the operating nut. This important safety feature prevents wash-outs that can happen on hydrant designs that do not have this important feature.

Sealed Lubrication Chamber

Seals operating threads from water and debris which greatly reduces routine maintenance.

Top Travel Stop Nut

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



SPECIFICATIONS

Fire hydrants shall meet or exceed AWWA C502, latest revision. Rated working pressure shall be 250 p.s.i.g., test pressure shall be 500 p.s.i.g., and hydrants shall include the following specific design criteria:

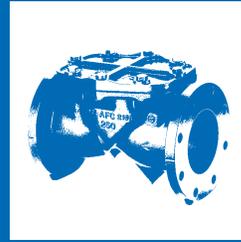
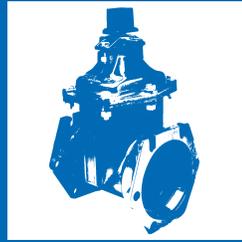
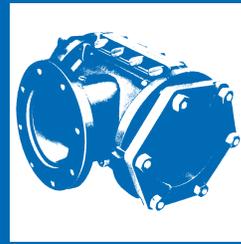
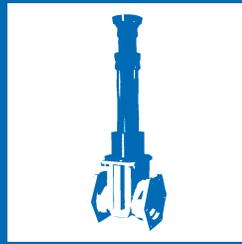
The main valve closure shall be of the compression type. Traffic feature to be designed for easy 360° rotation of nozzle section during field installation.

The main valve opening shall not be less than 5 1/4" and be designed so that removal of all working parts can be accomplished without excavating. The bronze seat shall be threaded into mating threads of bronze. 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 (2) internal ports and (4) drain port outlets to the exterior of the hydrant. Drain shutoff to be by direct compression closure.

Lower hydrant barrel shall be made of centrifugally cast ductile iron.

Friction loss not to exceed 3.0 p.s.i.g. at 1000 gpm through 4 1/2" pumper nozzle. Hydrants shall be equal to American Flow Control's **American-Darling B-84-B**.



American Flow Control®
American-Darling Valve and Waterous
A Division of American Cast Iron Pipe Company

<http://www.acipco.com/afc>

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