

# 22"-30" Series Type "WU" Heat Exchangers "U" Tube Design

DESCRIPTION

B & G Types "WU" Heat Exchangers are of the shell and tube type. The tube bundle is of "U" bend construction with tube ends expanded into a stationary tube sheet. This construction permits ample expansion or contraction for wide temperature variations. A fluid entering the tubes is heated or cooled by a fluid being circulated through a baffled shell. The unit is designed primarily for pumped circulation through the shell.

Standard "WU" Heat Exchangers are constructed according to ASME requirements for pressure and temperatures noted

in table on the back. A Manufacturers' Data Report for Pressure Vessels, Form No. U-1, as required by the provisions of the ASME Code Rules, is furnished with each unit upon request. This form is signed by an authorized inspector, holding a national Board Commission, and who is employed by an authorized inspection agency, certifying that construction conforms to the latest ASME code for pressure vessels. The ASME "U" symbol is stamped on each vessel. In addition, each unit is registered with the national Board of Boiler and pressure Vessel Inspectors.

RECOMMENDED "WU" HEAT EXCHANGER

MODEL NO. \_\_\_\_\_

HEATING SURFACE (SQ. FT.) \_\_\_\_\_

|                                                                | TUBE SIDE | SHELL SIDE |
|----------------------------------------------------------------|-----------|------------|
| 1. Fluid Circulated                                            | _____     | _____      |
| 2. Total Flow Expressed in GPM, GRH or lbs./hr                 | _____     | _____      |
| 3. Temperature In/Out                                          | _____     | _____      |
| 4. Transfer BTU/hr                                             | _____     | _____      |
| 5. Pressure Drop                                               | _____     | _____      |
| 6. Fouling Factor or Percentage of Additional Surface          | _____     | _____      |
| <b>Note:</b> Following applies only to fluids other than water |           |            |
| 7. Specific Gravity                                            | _____     | _____      |
| 8. Specific Heat                                               | _____     | _____      |
| 9. Latent Heat                                                 | _____     | _____      |
| 10. Viscosity**                                                | _____     | _____      |
| 11. Thermal Conductivity                                       | _____     | _____      |

APPROVALS

\*\*Expressed in Proper Units and Temperature such as centipoises @ °F

CONSTRUCTION

All units 22" thru 30" diameter have tubes and shell side design pressures of 150 psi and test pressures of 300 psi.

Standard materials include 3/4" OD cooper tubes, fabricated steel bonnet head, steel tubesheet, steel shell, steel flow baffles and compressed asbestos gaskets. Optional materials are available. Consult your B&G Representative.

**Caution:** A properly sized relief valve must be installed on the heated water side to protect heat exchangers from possible damage due to volumetric expansion.

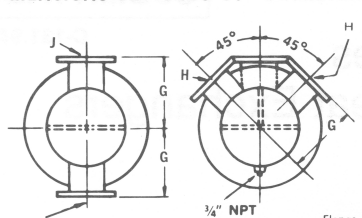
Xylem Inc.  
8200 N. Austin Avenue  
Morton Grove, IL 60053  
Phone: (847)966-3700  
Fax: (847)965-8379  
www.bellgossett.com



# 22"-30" Series Type "WU" Heat Exchangers "U" Tube Design

C-131.9A

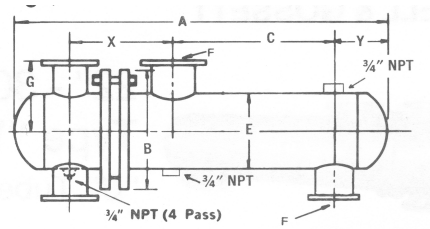
DIMENSIONS 22" THRU 30" DIAMETER



2 PASS HEAD

4 PASS HEAD

Flange connections for field piping drilled and faced per 150# ANSI standards.



"WU" type "U" tube  
 Shell diameter in inches  
 Tube bundle length in feet  
 Number of tube passes  
 Baffle spacing in inches

Complete sales number consists of example: WU206-48

| UNIT<br>NUMBER. | UNIT<br>NUMBER. | DIMENSIONS IN INCHES |                 |             |                   |                 |             |                   |             |             |                 |             |                 | HEATING<br>SURFACE |              | APPROX.<br>SHIPPING<br>WEIGHT |
|-----------------|-----------------|----------------------|-----------------|-------------|-------------------|-----------------|-------------|-------------------|-------------|-------------|-----------------|-------------|-----------------|--------------------|--------------|-------------------------------|
|                 |                 | 2 PASS               |                 |             | 4 PASS            |                 |             | 2 AND 4 PASS      |             |             |                 |             |                 |                    |              |                               |
|                 |                 | A                    | X               | J FLG.      | A                 | X               | H FLG.      | C                 | E           | G           | B               | F FLG.      | Y               | 2 PASS             | 4 PASS       |                               |
| WU224-2         | WU224-4         | 91-1/8<br>(2315)     | 21-3/8<br>(543) | 10<br>(254) | 86-5/8<br>(2200)  | 20-7/8<br>(530) | 6<br>(152)  | 38-1/2<br>(978)   | 22<br>(559) | 17<br>(432) | 26-1/8<br>(664) | 12<br>(305) | 15-1/8<br>(384) | 333 (30.9)         | 325 (30.2)   | 1667 (756)                    |
| WU225-2         | WU225-4         | 103-1/8<br>(2619)    | 21-3/8<br>(543) | 10<br>(254) | 98-5/8<br>(2505)  | 20-7/8<br>(530) | 6<br>(152)  | 50-1/2<br>(1283)  | 22<br>(559) | 17<br>(432) | 26-1/8<br>(664) | 12<br>(305) | 15-1/8<br>(384) | 411 (38.2)         | 401 (37.3)   | 1852 (840)                    |
| WU226-2         | WU226-4         | 115-1/8<br>(2924)    | 21-3/8<br>(543) | 10<br>(254) | 110-5/8<br>(2810) | 20-7/8<br>(530) | 6<br>(152)  | 62-1/2<br>(1588)  | 22<br>(559) | 17<br>(432) | 26-1/8<br>(664) | 12<br>(305) | 15-1/8<br>(384) | 489 (45.4)         | 477 (44.3)   | 2037 (924)                    |
| WU227-2         | WU227-4         | 127-1/8<br>(3229)    | 21-3/8<br>(543) | 10<br>(254) | 122-5/8<br>(3115) | 20-7/8<br>(530) | 6<br>(152)  | 74-1/2<br>(1892)  | 22<br>(559) | 17<br>(432) | 26-1/8<br>(664) | 12<br>(305) | 15-1/8<br>(384) | 568 (52.8)         | 554 (51.5)   | 2222 (1008)                   |
| WU228-2         | WU228-4         | 139-1/8<br>(3534)    | 21-3/8<br>(543) | 10<br>(254) | 134-5/8<br>(3419) | 20-7/8<br>(530) | 6<br>(152)  | 86-1/2<br>(2197)  | 22<br>(559) | 17<br>(432) | 26-1/8<br>(664) | 12<br>(305) | 15-1/8<br>(384) | 645 (59.9)         | 630 (58.5)   | 2407 (1092)                   |
| WU229-2         | WU229-4         | 151-5/8<br>(3851)    | 21-3/8<br>(543) | 10<br>(254) | 146-5/8<br>(3724) | 20-7/8<br>(530) | 6<br>(152)  | 98-1/2<br>(2502)  | 22<br>(559) | 17<br>(432) | 26-1/8<br>(664) | 12<br>(305) | 15-1/8<br>(384) | 724 (67.3)         | 706 (65.6)   | 2592 (1176)                   |
| WU2210-2        | WU2210-4        | 163-1/8<br>(4143)    | 21-3/8<br>(543) | 10<br>(254) | 158-5/8<br>(4029) | 20-7/8<br>(530) | 6<br>(152)  | 110-1/2<br>(2807) | 22<br>(559) | 17<br>(432) | 26-1/8<br>(664) | 12<br>(305) | 15-1/8<br>(384) | 803 (74.6)         | 782 (72.6)   | 2777 (1260)                   |
| WU244-2         | WU244-4         | 90-3/4<br>(2305)     | 23-3/8<br>(594) | 10<br>(254) | 88-5/8<br>(2251)  | 22-1/4<br>(565) | 8<br>(203)  | 38-1/2<br>(978)   | 24<br>(610) | 18<br>(457) | 28-1/8<br>(714) | 12<br>(305) | 14-3/4<br>(375) | 394 (36.6)         | 385 (35.8)   | 2023 (918)                    |
| WU245-2         | WU245-4         | 102-3/4<br>(2610)    | 23-3/8<br>(594) | 10<br>(254) | 100-5/8<br>(2556) | 22-1/4<br>(565) | 8<br>(203)  | 50-1/2<br>(1283)  | 24<br>(610) | 18<br>(457) | 28-1/8<br>(714) | 12<br>(305) | 14-3/4<br>(375) | 490 (45.5)         | 479 (44.5)   | 2240 (1016)                   |
| WU246-2         | WU246-4         | 114-3/4<br>(2915)    | 23-3/8<br>(594) | 10<br>(254) | 112-5/8<br>(2861) | 22-1/4<br>(565) | 8<br>(203)  | 62-1/2<br>(1588)  | 24<br>(610) | 18<br>(457) | 28-1/8<br>(714) | 12<br>(305) | 14-3/4<br>(375) | 586 (54.4)         | 572 (53.1)   | 2458 (1115)                   |
| WU247-2         | WU247-4         | 126-3/4<br>(3219)    | 23-3/8<br>(594) | 10<br>(254) | 124-5/8<br>(3165) | 22-1/4<br>(565) | 8<br>(203)  | 74-1/2<br>(1892)  | 24<br>(610) | 18<br>(457) | 28-1/8<br>(714) | 12<br>(305) | 14-3/4<br>(375) | 681 (63.3)         | 666 (61.9)   | 2676 (1214)                   |
| WU248-2         | WU248-4         | 138-3/4<br>(3524)    | 23-3/8<br>(594) | 10<br>(254) | 136-5/8<br>(3470) | 22-1/4<br>(565) | 8<br>(203)  | 86-1/2<br>(2197)  | 24<br>(610) | 18<br>(457) | 28-1/8<br>(714) | 12<br>(305) | 14-3/4<br>(375) | 777 (72.2)         | 759 (70.5)   | 2894 (1313)                   |
| WU249-2         | WU249-4         | 150-3/4<br>(3829)    | 23-3/8<br>(594) | 10<br>(254) | 148-5/8<br>(3775) | 22-1/4<br>(565) | 8<br>(203)  | 98-1/2<br>(2502)  | 24<br>(610) | 18<br>(457) | 28-1/8<br>(714) | 12<br>(305) | 14-3/4<br>(375) | 873 (81.1)         | 853 (79.2)   | 3112 (1412)                   |
| WU2410-2        | WU2410-4        | 162-3/4<br>(4134)    | 23-3/8<br>(594) | 10<br>(254) | 160-5/8<br>(4080) | 22-1/4<br>(565) | 8<br>(203)  | 110-1/2<br>(2807) | 24<br>(610) | 18<br>(457) | 28-1/8<br>(714) | 12<br>(305) | 14-3/4<br>(375) | 969 (90)           | 946 (87.9)   | 3330 (1510)                   |
| WU264-2         | WU264-4         | 98<br>(2489)         | 27<br>(686)     | 12<br>(305) | 93-3/8<br>(2372)  | 24-3/8<br>(619) | 8<br>(203)  | 38-1/8<br>(968)   | 26<br>(660) | 21<br>(533) | 30-5/8<br>(778) | 14<br>(356) | 16-3/4<br>(425) | 488 (45.3)         | 476 (44.2)   | 2441 (1107)                   |
| WU265-2         | WU265-4         | 110<br>(2794)        | 27<br>(686)     | 12<br>(305) | 105-3/8<br>(2677) | 24-3/8<br>(619) | 8<br>(203)  | 50-1/8<br>(1273)  | 26<br>(660) | 21<br>(533) | 30-5/8<br>(778) | 14<br>(356) | 16-3/4<br>(425) | 600 (55.7)         | 585 (54.3)   | 2685 (1218)                   |
| WU266-2         | WU266-4         | 122<br>(3099)        | 27<br>(686)     | 12<br>(305) | 117-3/8<br>(2981) | 24-3/8<br>(619) | 8<br>(203)  | 62-1/8<br>(1578)  | 26<br>(660) | 21<br>(533) | 30-5/8<br>(778) | 14<br>(356) | 16-3/4<br>(425) | 712 (66.1)         | 694 (64.5)   | 2931 (1330)                   |
| WU267-2         | WU267-4         | 134<br>(3404)        | 27<br>(686)     | 12<br>(305) | 129-3/8<br>(3286) | 24-3/8<br>(619) | 8<br>(203)  | 74-1/8<br>(1883)  | 26<br>(660) | 21<br>(533) | 30-5/8<br>(778) | 14<br>(356) | 16-3/4<br>(425) | 823 (76.5)         | 803 (74.6)   | 3176 (1441)                   |
| WU268-2         | WU268-4         | 146<br>(3708)        | 27<br>(686)     | 12<br>(305) | 141-3/8<br>(3591) | 24-3/8<br>(619) | 8<br>(203)  | 86-1/8<br>(2188)  | 26<br>(660) | 21<br>(533) | 30-5/8<br>(778) | 14<br>(356) | 16-3/4<br>(425) | 935 (86.9)         | 912 (84.7)   | 3421 (1552)                   |
| WU269-2         | WU269-4         | 158<br>(4013)        | 27<br>(686)     | 12<br>(305) | 153-3/8<br>(3896) | 24-3/8<br>(619) | 8<br>(203)  | 98-1/8<br>(2492)  | 26<br>(660) | 21<br>(533) | 30-5/8<br>(778) | 14<br>(356) | 16-3/4<br>(425) | 1047 (97.3)        | 1021 (94.9)  | 3666 (1663)                   |
| WU2610-2        | WU2610-4        | 170<br>(4318)        | 27<br>(686)     | 12<br>(305) | 165-3/8<br>(4201) | 24-3/8<br>(619) | 8<br>(203)  | 110-1/8<br>(2797) | 26<br>(660) | 21<br>(533) | 30-5/8<br>(778) | 14<br>(356) | 16-3/4<br>(425) | 1159 (107.7)       | 1130 (105)   | 3911 (1774)                   |
| WU284-2         | WU284-4         | 90-1/8<br>(2289)     | 29<br>(737)     | 12<br>(305) | 87-5/8<br>(2226)  | 27-1/2<br>(698) | 10<br>(254) | 26-1/4<br>(667)   | 28<br>(711) | 22<br>(559) | 32-5/8<br>(829) | 16<br>(406) | 18-1/4<br>(464) | 456 (42.4)         | 447 (41.5)   | 2755 (1250)                   |
| WU285-2         | WU285-4         | 102-1/8<br>(2594)    | 29<br>(737)     | 12<br>(305) | 99-5/8<br>(2530)  | 27-1/2<br>(698) | 10<br>(254) | 38-1/4<br>(972)   | 28<br>(711) | 22<br>(559) | 32-5/8<br>(829) | 16<br>(406) | 18-1/4<br>(464) | 587 (54.5)         | 575 (53.4)   | 3038 (1378)                   |
| WU286-2         | WU286-4         | 116-1/8<br>(2950)    | 29<br>(737)     | 12<br>(305) | 111-5/8<br>(2835) | 27-1/2<br>(698) | 10<br>(254) | 50-1/4<br>(1276)  | 28<br>(711) | 22<br>(559) | 32-5/8<br>(829) | 16<br>(406) | 18-1/4<br>(464) | 717 (66.6)         | 703 (65.3)   | 3321 (1506)                   |
| WU287-2         | WU287-4         | 126-1/8<br>(3204)    | 29<br>(737)     | 12<br>(305) | 123-5/8<br>(3140) | 27-1/2<br>(698) | 10<br>(254) | 62-1/4<br>(1581)  | 28<br>(711) | 22<br>(559) | 32-5/8<br>(829) | 16<br>(406) | 18-1/4<br>(464) | 848 (78.8)         | 831 (77.2)   | 3604 (1635)                   |
| WU288-2         | WU288-4         | 138-1/8<br>(3508)    | 29<br>(737)     | 12<br>(305) | 135-5/8<br>(3445) | 27-1/2<br>(698) | 10<br>(254) | 74-1/4<br>(1886)  | 28<br>(711) | 22<br>(559) | 32-5/8<br>(829) | 16<br>(406) | 18-1/4<br>(464) | 978 (90.9)         | 959 (89.1)   | 3887 (1763)                   |
| WU289-2         | WU289-4         | 150-1/8<br>(3813)    | 29<br>(737)     | 12<br>(305) | 147-5/8<br>(3750) | 27-1/2<br>(698) | 10<br>(254) | 86-1/4<br>(2191)  | 28<br>(711) | 22<br>(559) | 32-5/8<br>(829) | 16<br>(406) | 18-1/4<br>(464) | 1110 (103.1)       | 1088 (101.1) | 4170 (1892)                   |

|          |          |                   |             |             |                   |                 |             |                  |             |             |                 |             |                 |              |              |             |
|----------|----------|-------------------|-------------|-------------|-------------------|-----------------|-------------|------------------|-------------|-------------|-----------------|-------------|-----------------|--------------|--------------|-------------|
| WU2810-2 | WU2810-4 | 162-1/8<br>(4118) | 29<br>(737) | 12<br>(305) | 159-5/8<br>(4054) | 27-1/2<br>(698) | 10<br>(254) | 93-1/4<br>(2369) | 28<br>(711) | 22<br>(559) | 32-5/8<br>(829) | 16<br>(406) | 18-1/4<br>(464) | 1240 (115.2) | 1216 (113)   | 4453 (2020) |
| WU304-2  | WU304-4  | 90-1/4<br>(2292)  | 30<br>(762) | 14<br>(356) | 86-1/8<br>(2188)  | 27-1/2<br>(698) | 10<br>(254) | 25-7/8<br>(657)  | 30<br>(762) | 23<br>(584) | 34-5/8<br>(879) | 16<br>(406) | 17-3/4<br>(451) | 539 (50.1)   | 529 (49.1)   | 3181 (1443) |
| WU305-2  | WU305-4  | 102-1/4<br>(2597) | 30<br>(762) | 14<br>(356) | 98-1/8<br>(2492)  | 27-1/2<br>(698) | 10<br>(254) | 37-7/8<br>(962)  | 30<br>(762) | 23<br>(584) | 34-5/8<br>(879) | 16<br>(406) | 17-3/4<br>(451) | 690 (64.1)   | 676 (62.8)   | 3500 (1588) |
| WU306-2  | WU306-4  | 114-1/4<br>(2902) | 30<br>(762) | 14<br>(356) | 110-1/8<br>(2797) | 27-1/2<br>(698) | 10<br>(254) | 49-7/8<br>(1267) | 30<br>(762) | 23<br>(584) | 34-5/8<br>(879) | 16<br>(406) | 17-3/4<br>(451) | 840 (78)     | 822 (76.4)   | 3819 (1732) |
| WU307-2  | WU307-4  | 126-1/4<br>(3207) | 30<br>(762) | 14<br>(356) | 122-1/8<br>(3102) | 27-1/2<br>(698) | 10<br>(254) | 61-7/8<br>(1572) | 30<br>(762) | 23<br>(584) | 34-5/8<br>(879) | 16<br>(406) | 17-3/4<br>(451) | 991 (92.1)   | 970 (90.1)   | 4138 (1877) |
| WU308-2  | WU308-4  | 138-1/4<br>(3512) | 30<br>(762) | 14<br>(356) | 134-1/8<br>(3407) | 27-1/2<br>(698) | 10<br>(254) | 75-5/8<br>(1921) | 30<br>(762) | 23<br>(584) | 34-5/8<br>(879) | 16<br>(406) | 17-3/4<br>(451) | 1139 (105.8) | 1116 (103.7) | 4457 (2022) |
| WU309-2  | WU309-4  | 150-1/4<br>(3816) | 30<br>(762) | 14<br>(356) | 146-1/8<br>(3712) | 27-1/2<br>(698) | 10<br>(254) | 85-7/8<br>(2181) | 30<br>(762) | 23<br>(584) | 34-5/8<br>(879) | 16<br>(406) | 17-3/4<br>(451) | 1289 (119.7) | 1264 (117.4) | 4776 (2166) |
| WU3010-2 | WU3010-4 | 162-1/4<br>(4121) | 30<br>(762) | 14<br>(356) | 158-1/8<br>(4016) | 27-1/2<br>(698) | 10<br>(254) | 97-7/8<br>(2486) | 30<br>(762) | 23<br>(584) | 34-5/8<br>(879) | 16<br>(406) | 17-3/4<br>(451) | 1439 (133.7) | 1410 (131)   | 5095 (2311) |

Dimensions are subject to change. If exact dimensions are needed for layout, write for certified prints.

Xylem Inc.  
8200 N. Austin Avenue  
Morton Grove, IL 60053  
Phone: (847)966-3700  
Fax: (847)965-8379  
[www.bellgossett.com](http://www.bellgossett.com)



Bell & Gossett is a trademark of Xylem Inc. or one of its subsidiaries.  
© 2013 Xylem Inc.