



**SEC** *Heat Exchangers*

**TECHNICAL CATALOGUE**

**Section 5**

**Shell and Tube Models**

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## Shell and Tube Series



### Shell and Tube

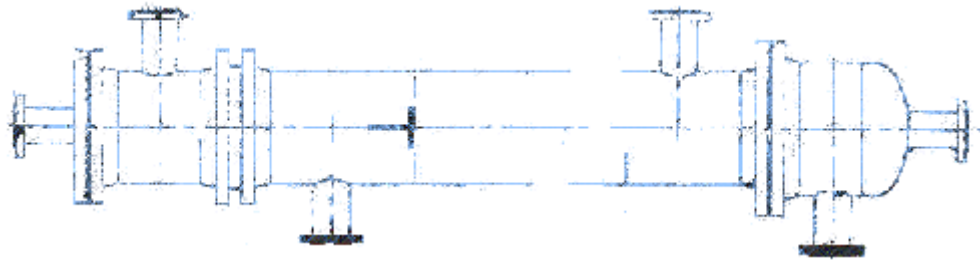
- u-tube, straight tube
- double wall
- single or multi-pass
- stainless, titanium or exotic metals

Fabricated from stainless steel or titanium, using the latest production techniques the extensive line of quality SEC shell and tube heat exchangers encompasses all modern designs and configurations.

These heat transfer devices are engineered to meet to a wide variety of applications. Every unit is designed, manufactured, and tested as per the quality requirements of the ASME code, Section VIII Division #1 and ISO 9002.

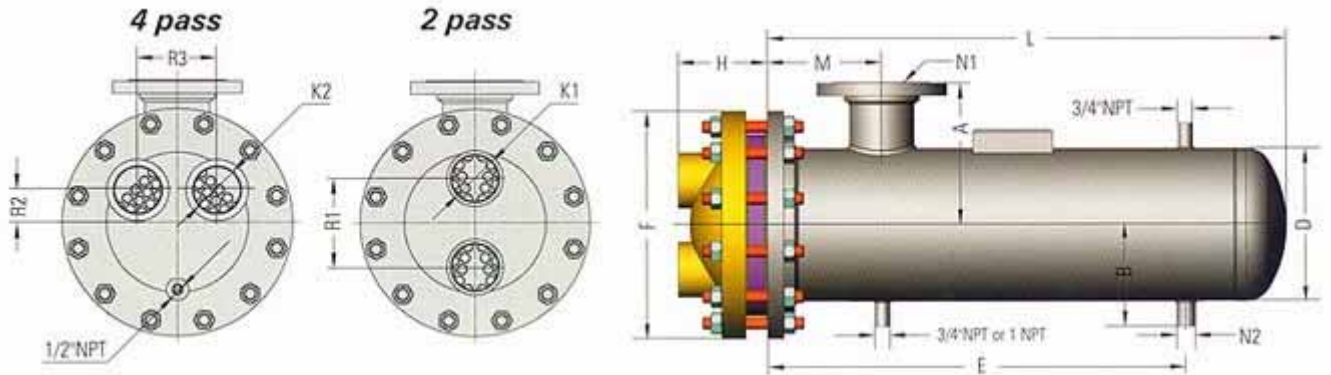
If your applications require straight or u-tube designs we provide fast, professional service. Please review our on-line [Model Sizing Charts](#) then complete our ["Quotation Form"](#). We will send; price, thermal data and delivery schedule to you within three (3) business days depending on project complexity.

**For more information please visit <http://www.secshellandtube.com/>**



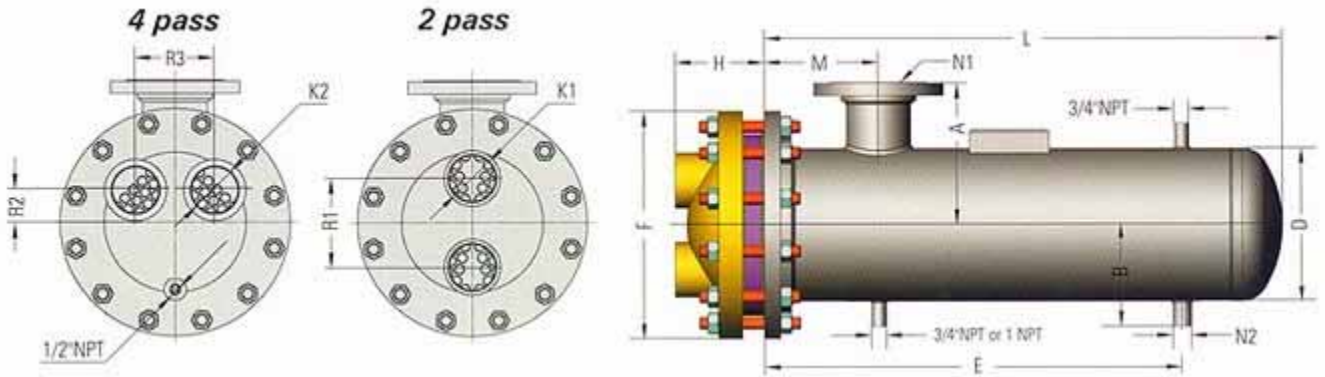
## 4" diameter Steam to Liquids

| Model Number |         | Cast Iron Heads [inches] |         |        |    |     |       | Dimensions [inches] |   |   |         |   |       |         |        |        | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|----|-----|-------|---------------------|---|---|---------|---|-------|---------|--------|--------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |    |     |       | 2 and 4 Pass        |   |   |         |   |       |         |        |        |                    |
|              |         | R1                       | K1 FNPT | R3     | K2 | R2  | H     | D                   | F | M | E       | B | A     | L       | N1     | N2     |                    |
| SA-4201      | SA-4401 | 2 1/2                    | 1 1/2"  | 2 3/8  | 1" | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 19 1/2  | 4 | 4     | 24 1/2  | 2" NPT | 1" NPT | 4.7                |
| SA-4202      | SA-4402 | 2 1/2                    | 1 1/2"  | 2 3/8  | 1  | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 31 1/2  | 4 | 4     | 36 1/2  | 2" NPT | 1" NPT | 6.9                |
| SA-4203      | SA-4403 | 2 1/2                    | 1 1/2"  | 2 3/8  | 1  | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 43 1/2  | 4 | 4     | 48 1/2  | 2" NPT | 1" NPT | 9.1                |
| SA-4204      | SA-4404 | 2 1/2                    | 1 1/2"  | 2 3/8  | 1  | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 55 1/2  | 4 | 4     | 60 1/2  | 2" NPT | 1" NPT | 11.3               |
| SA-4205      | SA-4405 | 2 1/2                    | 1 1/2"  | 2 3/8  | 1  | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 67 1/2  | 4 | 3 7/8 | 72 1/2  | 2" NPT | 1" NPT | 13.6               |
| SA-4206      | SA-4406 | 2 1/2                    | 1 1/2"  | 2 3/8  | 1  | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 79 1/2  | 4 | 3 3/4 | 84 1/2  | 2" NPT | 1" NPT | 15.8               |
| SA-4207      | SA-4407 | 2 1/2                    | 1 1/2"  | 2 3/8  | 1  | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 91 1/2  | 4 | 3 3/4 | 96 1/2  | 2" NPT | 1" NPT | 18                 |
| SA-4208      | SA-4408 | 2 1/2                    | 1 1/2"  | 2 3/8  | 1  | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 103 1/2 | 4 | 3 3/4 | 108 1/2 | 2" NPT | 1" NPT | 20.3               |
| SA-4209      | SA-4409 | 2 1/2                    | 1 1/2"  | 2 3/8  | 1  | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 115 1/2 | 4 | 3 3/4 | 120 1/2 | 2" NPT | 1" NPT | 22.5               |



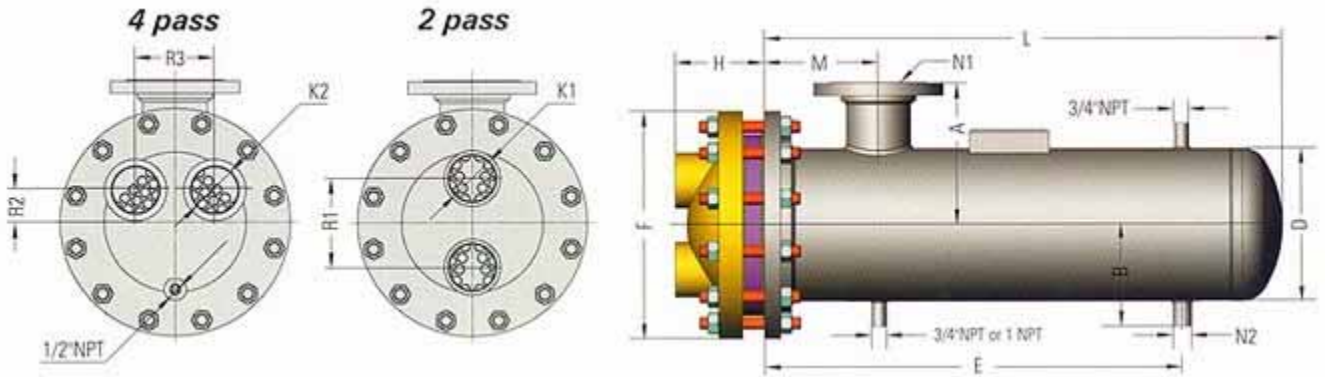
## 6" diameter Steam/Liquids

| Model Number |         | Cast Iron Heads [inches] |         |        |        |       |        | Dimensions [inches] |    |   |         |       |        |     |        |        | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|--------|-------|--------|---------------------|----|---|---------|-------|--------|-----|--------|--------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |        |       |        | 2 and 4 Pass        |    |   |         |       |        |     |        |        |                    |
|              |         | R1                       | K1 FNPT | R3     | K2     | R2    | H      | D                   | F  | M | E       | B     | A      | L   | N1     | N2     |                    |
| SA-6201      | SA-6401 | 4                        | 2"      | 3 3/4  | 1 1/2" | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 18 1/2  | 4 7/8 | 4 7/8  | 25  | 3" NPT | 1" NPT | 10.7               |
| SA-6202      | SA-6402 | 4                        | 2"      | 3 3/4  | 1 1/2" | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 30 1/2  | 4 7/8 | 4 7/8  | 37  | 3" NPT | 1" NPT | 15.9               |
| SA-6203      | SA-6403 | 4                        | 2"      | 3 3/4  | 1 1/2" | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 42 1/2  | 4 7/8 | 5 3/4  | 49  | 3" NPT | 1" NPT | 21.1               |
| SA-6204      | SA-6404 | 4                        | 2"      | 3 3/4  | 1 1/2" | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 54 1/2  | 4 7/8 | 5 3/4  | 61  | 3" NPT | 1" NPT | 26.3               |
| SA-6205      | SA-6405 | 4                        | 2"      | 3 3/4  | 1 1/2" | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 66 1/2  | 4 7/8 | 5 9/16 | 73  | 3" NPT | 1" NPT | 31.5               |
| SA-6206      | SA-6406 | 4                        | 2"      | 3 3/4  | 1 1/2" | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 78 1/2  | 4 7/8 | 5 9/16 | 85  | 3" NPT | 1" NPT | 36.7               |
| SA-6207      | SA-6407 | 4                        | 2"      | 3 3/4  | 1 1/2" | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 90 1/2  | 4 7/8 | 5 9/16 | 97  | 3" NPT | 1" NPT | 41.9               |
| SA-6208      | SA-6408 | 4                        | 2"      | 3 3/4  | 1 1/2" | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 102 1/2 | 4 7/8 | 5 9/16 | 109 | 3" NPT | 1" NPT | 47.1               |
| SA-6209      | SA-6409 | 4                        | 2"      | 3 3/4  | 1 1/2" | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 114 1/2 | 4 7/8 | 5 9/16 | 121 | 3" NPT | 1" NPT | 52.3               |



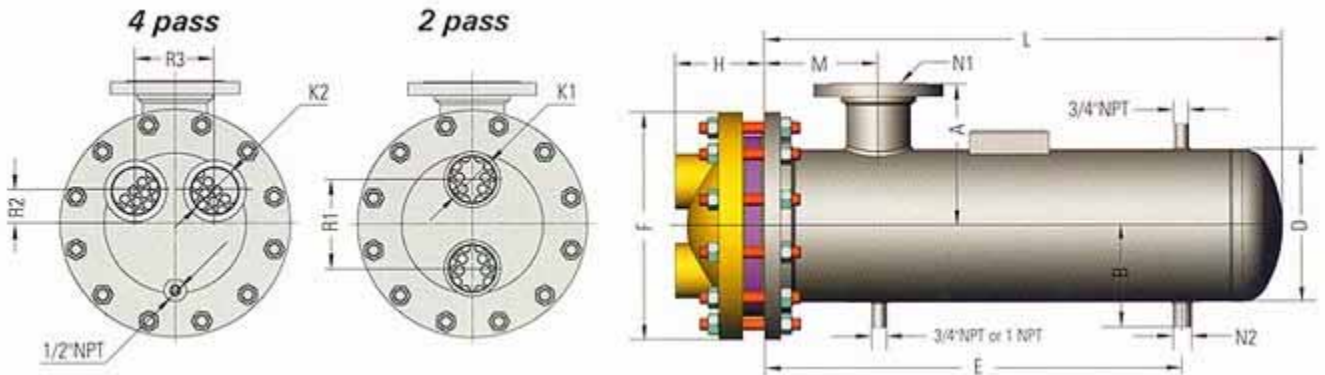
## 8" diameter Steam/Liquids

| Model Number |         | Cast Iron Heads [inches] |         |        |    |    |       | Dimensions [inches] |        |   |     |   |         |     |           |            |      | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|----|----|-------|---------------------|--------|---|-----|---|---------|-----|-----------|------------|------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |    |    |       | 2 and 4 Pass        |        |   |     |   |         |     |           |            |      |                    |
|              |         | R1                       | K1 FNPT | R3     | K2 | R2 | H     | D                   | F      | M | E   | B | A       | L   | N1        | N2         |      |                    |
| SA-8201      | SA-8401 | 5                        | 3       | 4      | 2  | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 18  | 6 | 6       | 24  | 3" NPT    | 1" NPT     | 14.7 |                    |
| SA-8202      | SA-8402 | 5                        | 3       | 4      | 2  | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 30  | 6 | 6 7/8   | 36  | 3" NPT    | 1" NPT     | 22.7 |                    |
| SA-8203      | SA-8403 | 5                        | 3       | 4      | 2  | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 42  | 6 | 6 13/16 | 48  | 3" NPT    | 1" NPT     | 30.7 |                    |
| SA-8204      | SA-8404 | 5                        | 3       | 4      | 2  | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 54  | 6 | 8 7/8   | 60  | 4" Flange | 1" NPT     | 38.7 |                    |
| SA-8205      | SA-8405 | 5                        | 3       | 4      | 2  | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 66  | 6 | 8 7/8   | 72  | 4" Flange | 1 1/4" NPT | 46.6 |                    |
| SA-8206      | SA-8406 | 5                        | 3       | 4      | 2  | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 78  | 6 | 8 7/8   | 84  | 4" Flange | 1 1/4" NPT | 54.6 |                    |
| SA-8207      | SA-8407 | 5                        | 3       | 4      | 2  | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 90  | 6 | 8 7/8   | 96  | 6" Flange | 1 1/4" NPT | 62.6 |                    |
| SA-8208      | SA-8408 | 5                        | 3       | 4      | 2  | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 102 | 6 | 8 7/8   | 108 | 6" Flange | 1 1/4" NPT | 70.6 |                    |
| SA-8209      | SA-8409 | 5                        | 3       | 4      | 2  | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 114 | 6 | 8 7/8   | 120 | 6" Flange | 1 1/4" NPT | 78.6 |                    |



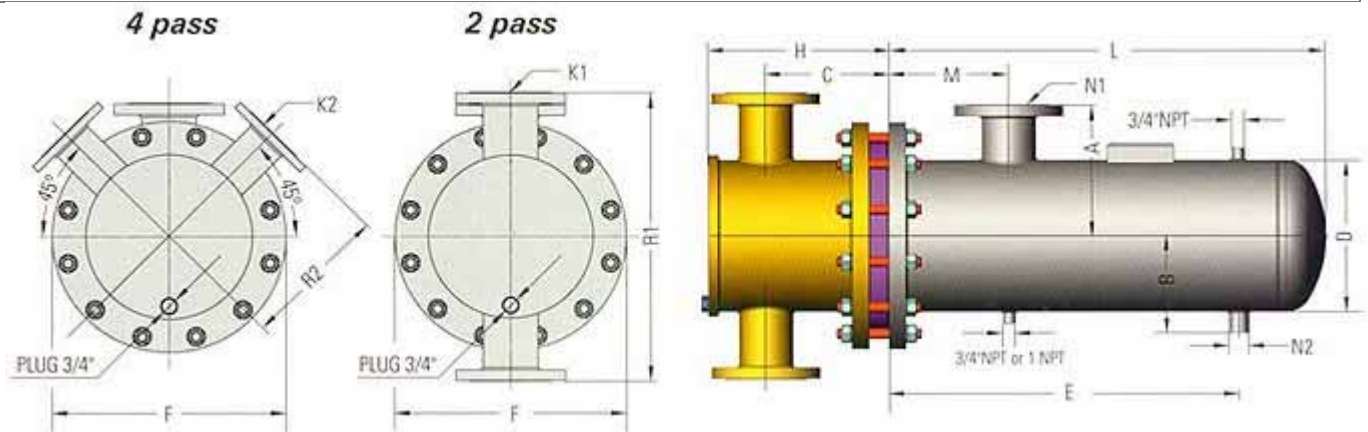
## 10" diameter Steam to Liquids

| Model Number |         | Cast Iron Heads [inches] |         |        |    |       |       | Dimensions [inches] |    |   |         |       |         |     |        |            | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|----|-------|-------|---------------------|----|---|---------|-------|---------|-----|--------|------------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |    |       |       | 2 and 4 Pass        |    |   |         |       |         |     |        |            |                    |
|              |         | R1                       | K1 FNPT | R3     | K2 | R2    | H     | D                   | F  | M | E       | B     | A       | L   | N1     | N2         |                    |
| SA-1021      | SA-1041 | 6 1/4                    | 3       | 5 1/2  | 3  | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 17      | 7 1/8 | 7 15/16 | 24  | 4" Flg | 1" NPT     | 23.7               |
| SA-1022      | SA-1042 | 6 1/4                    | 3       | 5 1/2  | 3  | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 29      | 7 1/8 | 10      | 36  | 4" Flg | 1" NPT     | 37.7               |
| SA-1023      | SA-1043 | 6 1/4                    | 3       | 5 1/2  | 3  | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 41      | 7 1/8 | 10      | 48  | 4" Flg | 1 1/4" NPT | 51.5               |
| SA-1024      | SA-1044 | 6 1/4                    | 3       | 5 1/2  | 3  | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 53      | 7 1/8 | 10      | 60  | 6" Flg | 1 1/4" NPT | 65.5               |
| SA-1025      | SA-1045 | 6 1/4                    | 3       | 5 1/2  | 3  | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 65      | 7 1/8 | 10      | 72  | 6" Flg | 1 1/2" NPT | 79.4               |
| SA-1026      | SA-1046 | 6 1/4                    | 3       | 5 1/2  | 3  | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 77      | 7 1/8 | 10      | 84  | 6" Flg | 1 1/2" NPT | 93.3               |
| SA-1027      | SA-1047 | 6 1/4                    | 3       | 5 1/2  | 3  | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 88 1/2  | 7 1/8 | 10      | 96  | 6" Flg | 2" NPT     | 107.2              |
| SA-1028      | SA-1048 | 6 1/4                    | 3       | 5 1/2  | 3  | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 100 1/2 | 7 1/8 | 10      | 108 | 6" Flg | 2" NPT     | 121.1              |
| SA-1029      | SA-1049 | 6 1/4                    | 3       | 5 1/2  | 3  | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 112 1/2 | 7 1/8 | 10      | 120 | 6" Flg | 2" NPT     | 135.1              |



## 12" diameter Steam to Liquids

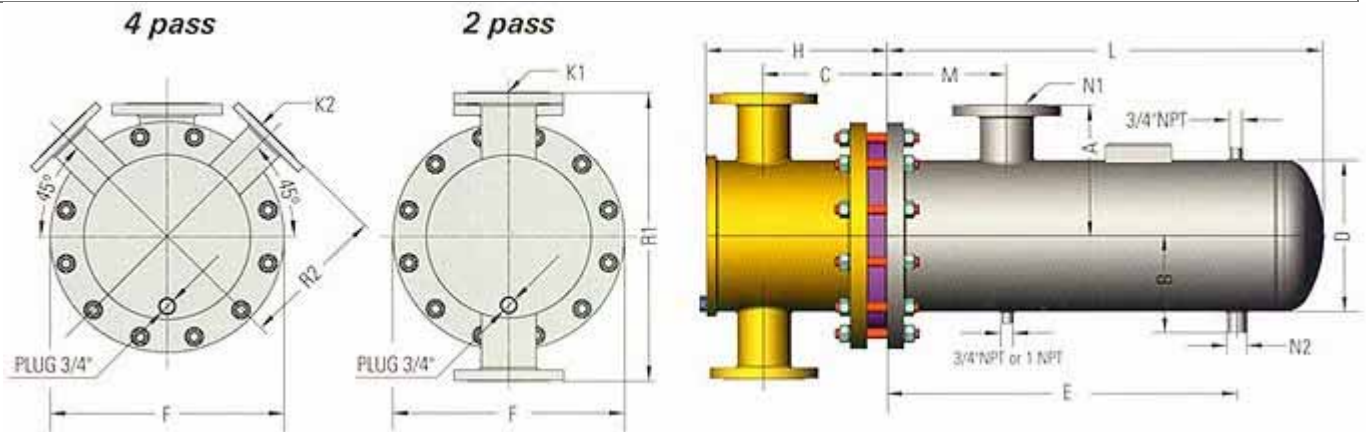
| Model Number |         | Cast Iron Heads [inches] |        |        |        |        |        | Dimensions [inches] |    |    |     |       |    |         |        |            | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|--------|--------|--------|--------|--------|---------------------|----|----|-----|-------|----|---------|--------|------------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        |        |        | 2 and 4 Pass        |    |    |     |       |    |         |        |            |                    |
|              |         | R1                       | K1     | R2     | K2     | C      | H      | D                   | F  | M  | E   | B     | A  | L       | N1     | N2         |                    |
| SA-1221      | SA-1241 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 29  | 8 1/8 | 11 | 36 1/4  | 4" Flg | 1 1/4" NPT | 58.6               |
| SA-1222      | SA-1242 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 41  | 8 1/8 | 11 | 48 1/4  | 6" Flg | 1 1/4" NPT | 79                 |
| SA-1223      | SA-1243 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 53  | 8 1/8 | 11 | 60 1/4  | 6" Flg | 1 1/2" NPT | 99.5               |
| SA-1224      | SA-1244 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 65  | 8 1/8 | 11 | 72 1/4  | 6" Flg | 2" NPT     | 119.9              |
| SA-1225      | SA-1245 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 77  | 8 1/8 | 11 | 84 1/4  | 8" Flg | 2" NPT     | 140.3              |
| SA-1226      | SA-1246 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 88  | 9     | 11 | 96 1/4  | 8" Flg | 2 1/2" NPT | 160.8              |
| SA-1227      | SA-1247 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 100 | 9     | 11 | 108 1/4 | 8" Flg | 2 1/2" NPT | 181.2              |
| SA-1228      | SA-1248 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 112 | 9     | 11 | 120 1/4 | 8" Flg | 2 1/2" NPT | 201.6              |





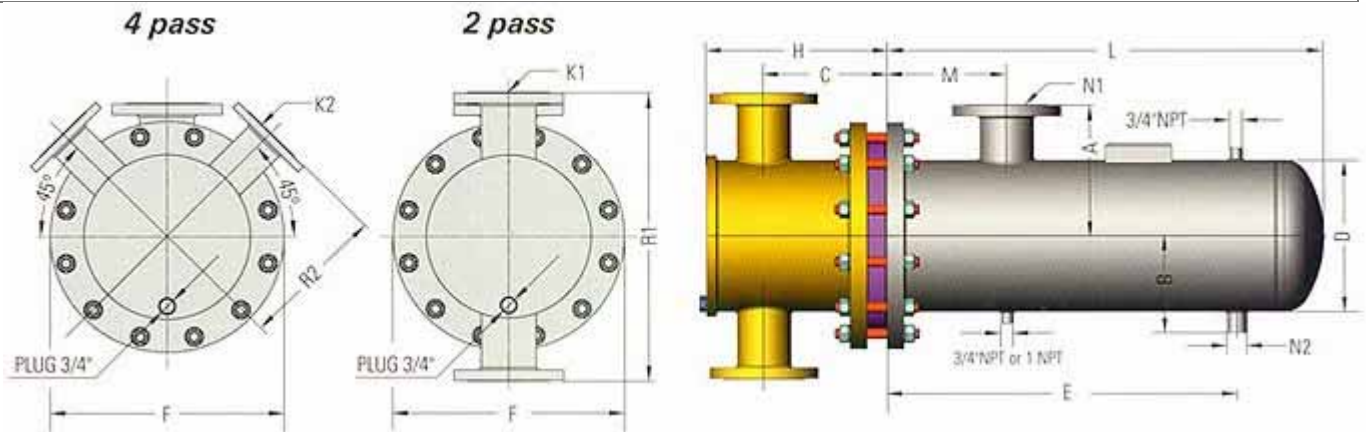
## 14" diameter Steam to Liquids

| Model Number |         | Cast Iron Heads [inches] |        |        |        |        | Dimensions [inches] |    |    |    |        |       |    |         |         |            | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|--------|--------|--------|--------|---------------------|----|----|----|--------|-------|----|---------|---------|------------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        |        | 2 and 4 Pass        |    |    |    |        |       |    |         |         |            |                    |
|              |         | R1                       | K1     | R2     | K2     | C      | H                   | D  | F  | M  | E      | B     | A  | L       | N1      | N2         |                    |
| SA-1421      | SA-1441 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8              | 14 | 21 | 10 | 29     | 8 3/4 | 12 | 37 1/4  | 6" Flg  | 1 1/4" NPT | 75.7               |
| SA-1422      | SA-1442 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8              | 14 | 21 | 10 | 40 1/2 | 8 3/4 | 12 | 49 1/4  | 6" Flg  | 2" NPT     | 102.4              |
| SA-1423      | SA-1443 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8              | 14 | 21 | 10 | 52 1/2 | 8 3/4 | 12 | 61 1/4  | 6" Flg  | 2" NPT     | 129.1              |
| SA-1424      | SA-1444 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8              | 14 | 21 | 10 | 64 1/2 | 8 3/4 | 12 | 73 1/4  | 8" Flg  | 2" NPT     | 155.8              |
| SA-1425      | SA-1445 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 15 5/8              | 14 | 21 | 10 | 76     | 9 5/8 | 12 | 85 1/4  | 8" Flg  | 2 1/2" NPT | 182.5              |
| SA-1426      | SA-1446 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8              | 14 | 21 | 10 | 88     | 9 5/8 | 12 | 97 1/4  | 8" Flg  | 2 1/2" NPT | 209.2              |
| SA-1427      | SA-1447 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8              | 14 | 21 | 10 | 100    | 9 5/8 | 12 | 109 1/4 | 10" Flg | 2 1/2" NPT | 236                |
| SA-1428      | SA-1448 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8              | 14 | 21 | 10 | 112    | 9 5/8 | 12 | 121 1/4 | 10" Flg | 3" NPT     | 262.7              |



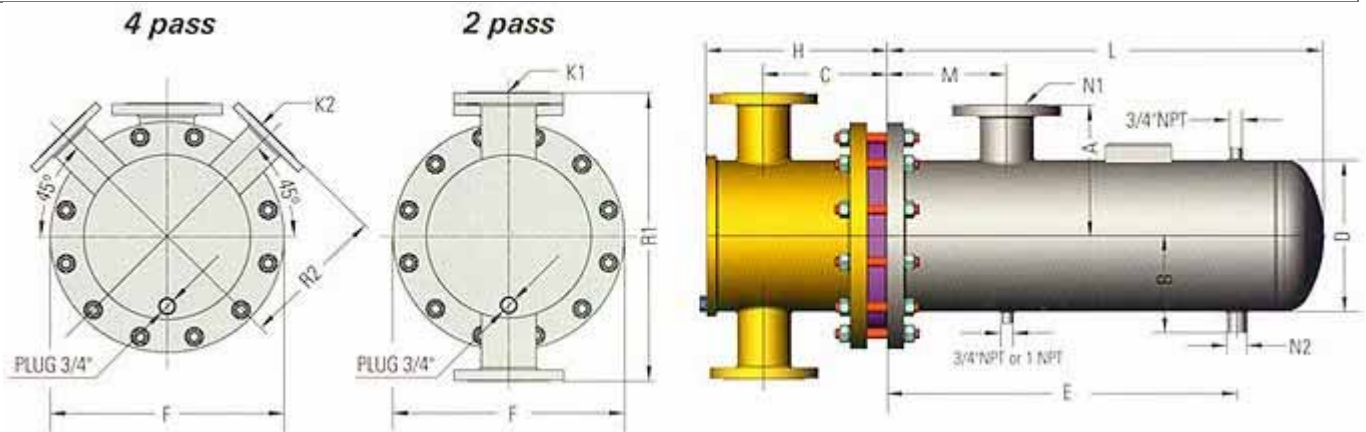
## 16" diameter Steam to Liquids

| Model Number |         | Cast Iron Heads [inches] |        |        |        |        |        | Dimensions [inches] |        |    |         |        |    |     |         |            |       | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|--------|--------|--------|--------|--------|---------------------|--------|----|---------|--------|----|-----|---------|------------|-------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        |        |        | 2 and 4 Pass        |        |    |         |        |    |     |         |            |       |                    |
|              |         | R1                       | K1     | R2     | K2     | C      | H      | D                   | F      | M  | E       | B      | A  | L   | N1      | N2         |       |                    |
| SA-1621      | SA-1641 | 28.5                     | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 28 1/2  | 9 3/4  | 13 | 37  | 6" Flg  | 1 1/2" NPT | 104.5 |                    |
| SA-1622      | SA-1642 | 28.5                     | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 40      | 9 3/4  | 13 | 49  | 6" Flg  | 2" NPT     | 141.4 |                    |
| SA-1623      | SA-1643 | 28.5                     | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 52      | 10 5/8 | 13 | 61  | 8" Flg  | 2 1/2" NPT | 178.4 |                    |
| SA-1624      | SA-1644 | 28.5                     | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 64      | 10 5/8 | 13 | 73  | 8" Flg  | 2 1/2" NPT | 215.3 |                    |
| SA-1625      | SA-1645 | 28.5                     | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 76      | 10 5/8 | 13 | 85  | 10" Flg | 2 1/2" NPT | 252.2 |                    |
| SA-1626      | SA-1646 | 28.5                     | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 87 1/2  | 10 5/8 | 13 | 97  | 10" Flg | 3" NPT     | 289.1 |                    |
| SA-1627      | SA-1647 | 28.5                     | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 99 1/2  | 10 5/8 | 13 | 109 | 10" Flg | 3" NPT     | 326   |                    |
| SA-1628      | SA-1648 | 28.5                     | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 111 1/2 | 10 5/8 | 13 | 121 | 10" Flg | 3" NPT     | 363   |                    |



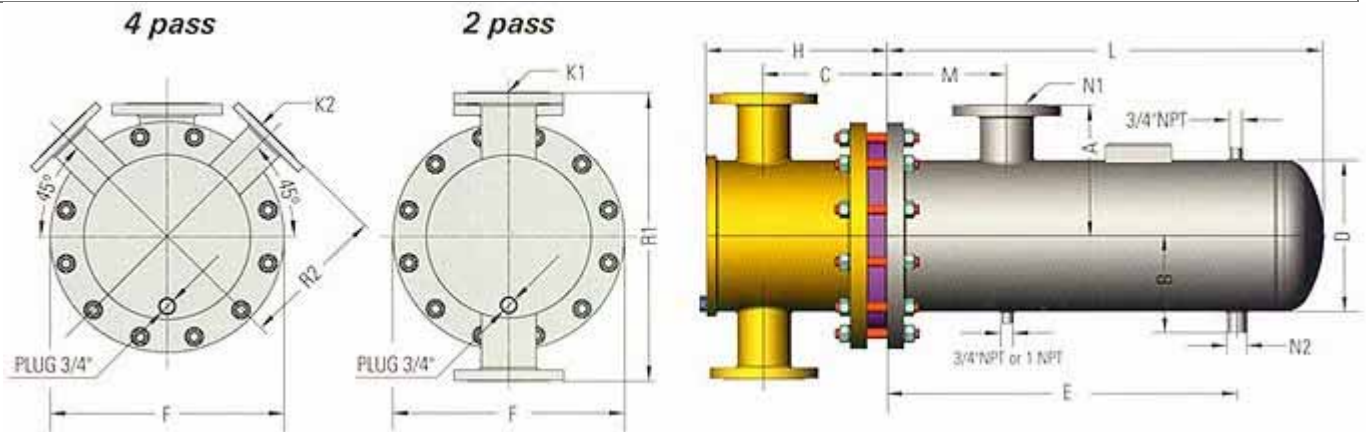
## 18" diameter Steam to Liquids

| Model Number |         | Cast Iron Heads [inches] |        |        |        | Dimensions [inches] |    |    |    |    |         |        |    |         |         | Htg. Surf. [sq.ft] |       |
|--------------|---------|--------------------------|--------|--------|--------|---------------------|----|----|----|----|---------|--------|----|---------|---------|--------------------|-------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        | 2 and 4 Pass        |    |    |    |    |         |        |    |         |         |                    |       |
|              |         | R1                       | K1     | R2     | K2     | C                   | H  | D  | F  | M  | E       | B      | A  | L       | N1      |                    | N2    |
| SA-1821      | SA-1841 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4              | 18 | 18 | 25 | 14 | 27 1/2  | 10 3/4 | 14 | 36 1/2  | 6" Flg  | 2" NPT             | 130.7 |
| SA-1822      | SA-1842 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4              | 18 | 18 | 25 | 13 | 39 1/2  | 10 3/4 | 14 | 48 1/2  | 8" Flg  | 2" NPT             | 177   |
| SA-1823      | SA-1843 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4              | 18 | 18 | 25 | 13 | 51      | 11 5/8 | 14 | 60 1/2  | 8" Flg  | 2 1/2" NPT         | 223.4 |
| SA-1824      | SA-1844 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4              | 18 | 18 | 25 | 13 | 62 1/2  | 11 5/8 | 14 | 72 1/2  | 10" Flg | 3" NPT             | 269.7 |
| SA-1825      | SA-1845 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4              | 18 | 18 | 25 | 13 | 74 1/2  | 11 5/8 | 14 | 84 1/2  | 10" Flg | 3" NPT             | 316.1 |
| SA-1826      | SA-1846 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4              | 18 | 18 | 25 | 13 | 86 1/2  | 11 5/8 | 14 | 96 1/2  | 10" Flg | 3" NPT             | 362.4 |
| SA-1827      | SA-1847 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4              | 18 | 18 | 25 | 13 | 98 1/2  | 11 5/8 | 14 | 108 1/2 | 12" Flg | 3" NPT             | 408.8 |
| SA-1828      | SA-1848 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4              | 18 | 18 | 25 | 13 | 110 1/2 | 12     | 14 | 120 1/2 | 12" Flg | 4" Flg             | 455.1 |



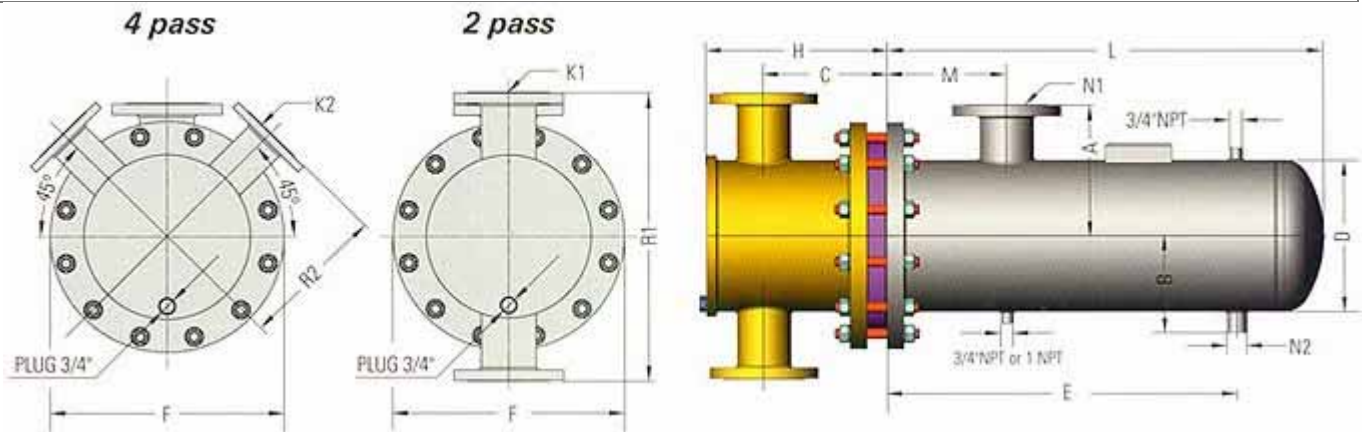
## 20" diameter Steam to Liquids

| Model Number |         | Cast Iron Heads [inches] |        |        |        |        |        | Dimensions [inches] |        |    |       |        |    |         |         |         | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|--------|--------|--------|--------|--------|---------------------|--------|----|-------|--------|----|---------|---------|---------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        |        |        | 2 and 4 Pass        |        |    |       |        |    |         |         |         |                    |
|              |         | R1                       | K1     | R2     | K2     | C      | H      | D                   | F      | M  | E     | B      | A  | L       | N1      | N2      |                    |
| SA-2021      | SA-2041 | 32.5                     | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 27.5  | 11 3/4 | 15 | 36 3/4  | 8" Flg  | 2"NPT   | 163.9              |
| SA-2022      | SA-2042 | 32.5                     | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 39    | 12 2/3 | 15 | 48 3/4  | 8" Flg  | 2.5"NPT | 223.6              |
| SA-2023      | SA-2043 | 32.5                     | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 50.5  | 12 2/3 | 15 | 60 3/4  | 10" Flg | 3" NPT  | 283.3              |
| SA-2024      | SA-2044 | 32.5                     | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 62.5  | 12 2/3 | 15 | 72 3/4  | 10" Flg | 3" NPT  | 343                |
| SA-2025      | SA-2045 | 32.5                     | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 74.5  | 12 2/3 | 15 | 84 3/4  | 12" Flg | 3" NPT  | 402.7              |
| SA-2026      | SA-2046 | 32.5                     | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 86.5  | 13     | 15 | 96 3/4  | 12" Flg | 4" Flg  | 462.4              |
| SA-2027      | SA-2047 | 32.5                     | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 98.6  | 13     | 15 | 108 3/4 | 12" Flg | 4" Flg  | 522.2              |
| SA-2028      | SA-2048 | 32.5                     | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 110.5 | 13     | 17 | 120 3/4 | 14" Flg | 4" Flg  | 581.9              |



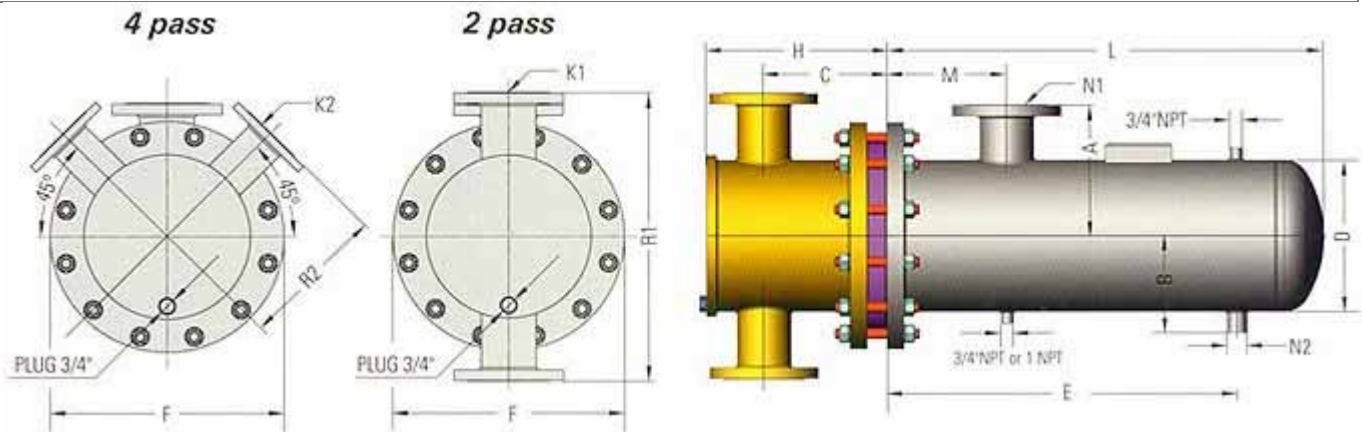
## 22" diameter Steam to Liquids

| Model Number |         | Cast Iron Heads [inches] |         |        |        |    |        | Dimensions [inches] |        |    |         |    |    |         |         |        | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|--------|----|--------|---------------------|--------|----|---------|----|----|---------|---------|--------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |        |    |        | 2 and 4 Pass        |        |    |         |    |    |         |         |        |                    |
|              |         | R1                       | K1      | R2     | K2     | C  | H      | D                   | F      | M  | E       | B  | A  | L       | N1      | N2     |                    |
| SA-2221      | SA-2241 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 25 3/8  | 16 | 17 | 38 3/8  | 12" Flg | 4" Flg | 193.5              |
| SA-2222      | SA-2242 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 37 3/8  | 16 | 17 | 50 3/8  | 12" Flg | 4" Flg | 265                |
| SA-2223      | SA-2243 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 49 3/8  | 16 | 17 | 62 3/8  | 12" Flg | 4" Flg | 336.5              |
| SA-2224      | SA-2244 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 61 3/8  | 16 | 17 | 74 3/8  | 12" Flg | 4" Flg | 408                |
| SA-2225      | SA-2245 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 73 3/8  | 16 | 17 | 86 3/8  | 12" Flg | 4" Flg | 479.5              |
| SA-2226      | SA-2246 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 85 3/8  | 16 | 17 | 98 3/8  | 12" Flg | 4" Flg | 551                |
| SA-2227      | SA-2247 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 15 | 97 3/8  | 16 | 18 | 110 3/8 | 14" Flg | 4" Flg | 622.5              |
| SA-2228      | SA-2248 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 15 | 109 3/8 | 16 | 18 | 122 3/8 | 14" Flg | 4" Flg | 694                |



## 24" diameter Steam to Liquids

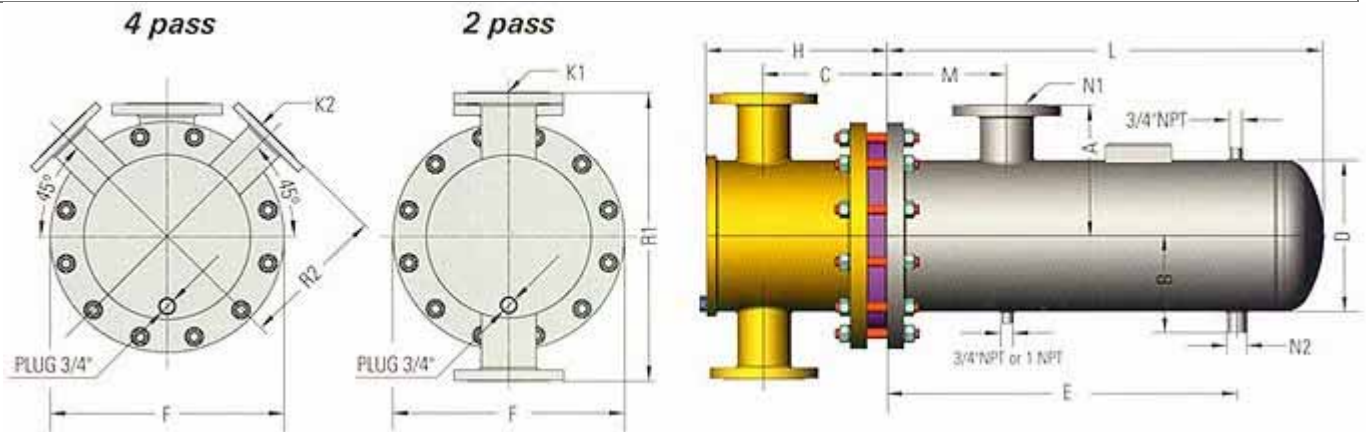
| Model Number |         | Cast Iron Heads [inches] |         |        |        |        |        | Dimensions [inches] |    |    |     |    |    |     |         |        | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|--------|--------|--------|---------------------|----|----|-----|----|----|-----|---------|--------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |        |        |        | 2 and 4 Pass        |    |    |     |    |    |     |         |        |                    |
|              |         | R1                       | K1      | R2     | K2     | C      | H      | D                   | F  | M  | E   | B  | A  | L   | N1      | N2     |                    |
| SA-2421      | SA-2441 | 37.5                     | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 25  | 17 | 18 | 38  | 12" Flg | 4" Flg | 236                |
| SA-2422      | SA-2442 | 37.5                     | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 37  | 17 | 18 | 50  | 12" Flg | 4" Flg | 324                |
| SA-2423      | SA-2443 | 37.5                     | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 49  | 17 | 18 | 62  | 12" Flg | 4" Flg | 412                |
| SA-2424      | SA-2444 | 37.5                     | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 61  | 17 | 18 | 74  | 12" Flg | 4" Flg | 500                |
| SA-2425      | SA-2445 | 37.5                     | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 73  | 17 | 18 | 86  | 12" Flg | 4" Flg | 588                |
| SA-2426      | SA-2446 | 37.5                     | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 85  | 17 | 18 | 98  | 12" Flg | 4" Flg | 676                |
| SA-2427      | SA-2447 | 37.5                     | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 15 | 97  | 17 | 19 | 110 | 14" Flg | 5" Flg | 764                |
| SA-2428      | SA-2448 | 37.5                     | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 15 | 109 | 17 | 19 | 122 | 14" Flg | 5" Flg | 852                |





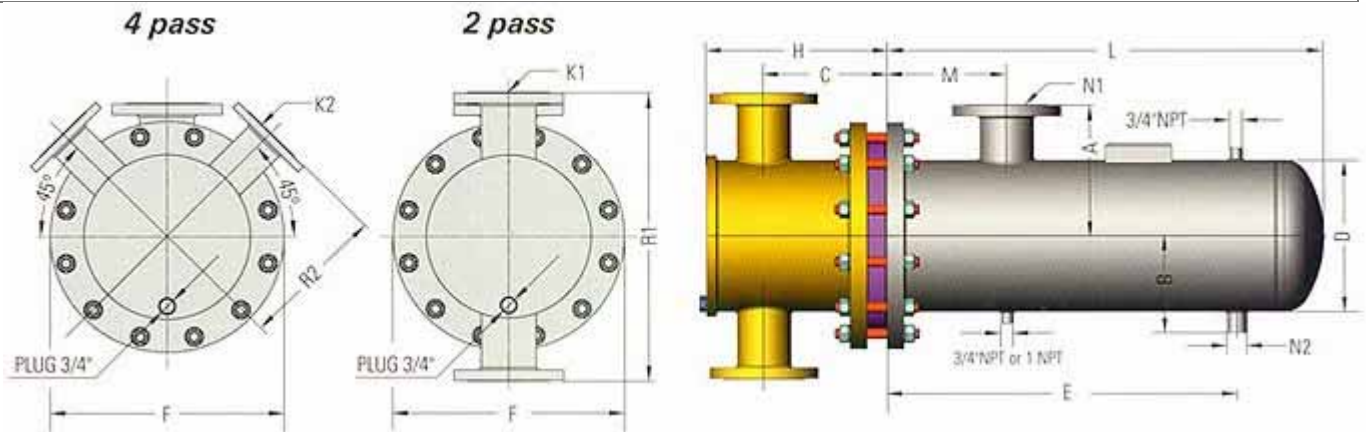
## 26" diameter Steam to Liquids

| Model Number |         | Cast Iron Heads [inches] |         |        |        |    |        | Dimensions [inches] |        |    |         |    |    |     |         |        |        | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|--------|----|--------|---------------------|--------|----|---------|----|----|-----|---------|--------|--------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |        |    |        | 2 and 4 Pass        |        |    |         |    |    |     |         |        |        |                    |
|              |         | R1                       | K1      | R2     | K2     | C  | H      | D                   | F      | M  | E       | B  | A  | L   | N1      | N2     |        |                    |
| SA-2621      | SA-2641 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 23 3/4  | 18 | 20 | 36  | 14" Flg | 5" Flg | 288.6  |                    |
| SA-2622      | SA-2642 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 35 3/4  | 18 | 20 | 48  | 14" Flg | 5" Flg | 393.4  |                    |
| SA-2623      | SA-2643 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 47 3/4  | 18 | 20 | 60  | 14" Flg | 5" Flg | 500.2  |                    |
| SA-2624      | SA-2644 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 59 3/4  | 18 | 20 | 72  | 14" Flg | 5" Flg | 607    |                    |
| SA-2625      | SA-2645 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 71 3/4  | 18 | 20 | 84  | 14" Flg | 5" Flg | 713.8  |                    |
| SA-2626      | SA-2646 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 83 3/4  | 18 | 20 | 96  | 14" Flg | 5" Flg | 820.6  |                    |
| SA-2627      | SA-2647 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 16 | 95 3/4  | 18 | 21 | 108 | 16" Flg | 6" Flg | 927.4  |                    |
| SA-2628      | SA-2648 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 16 | 107 3/4 | 18 | 21 | 120 | 16" Flg | 6" Flg | 1034.4 |                    |



## 30" diameter Steam to Liquids

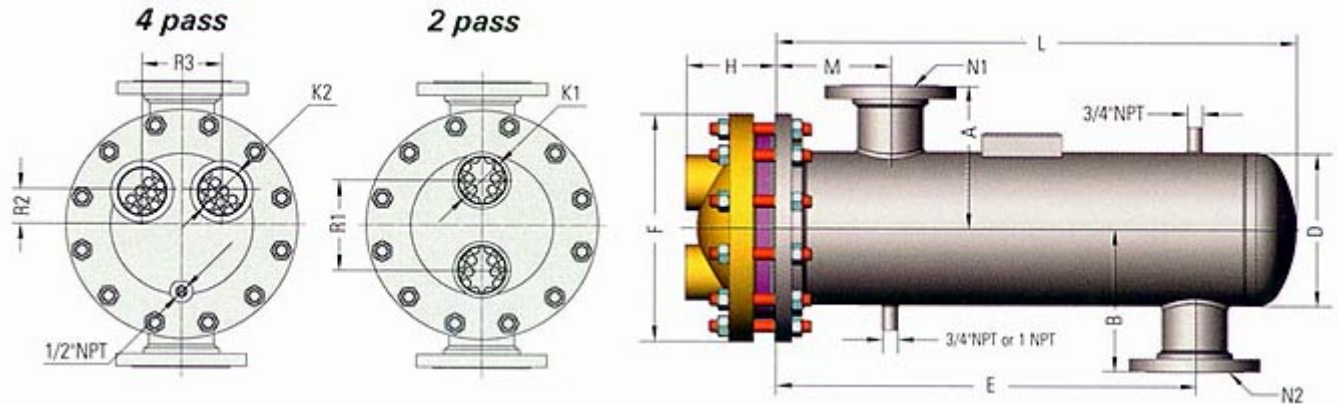
| Model Number |         | Cast Iron Heads [inches] |         |        |         |        |        | Dimensions [inches] |        |    |     |    |    |         |         |        | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|---------|--------|--------|---------------------|--------|----|-----|----|----|---------|---------|--------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |         |        |        | 2 and 4 Pass        |        |    |     |    |    |         |         |        |                    |
|              |         | R1                       | K1      | R2     | K2      | C      | H      | D                   | F      | M  | E   | B  | A  | L       | N1      | N2     |                    |
| SA-3021      | SA-3041 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 23  | 20 | 22 | 38 1/2  | 16" Flg | 6" Flg | 377.6              |
| SA-3022      | SA-3042 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 35  | 20 | 22 | 50 1/2  | 16" Flg | 6" Flg | 520.5              |
| SA-3023      | SA-3043 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 47  | 20 | 22 | 62 1/2  | 16" Flg | 6" Flg | 663.4              |
| SA-3024      | SA-3044 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 59  | 20 | 22 | 74 1/2  | 16" Flg | 6" Flg | 806.3              |
| SA-3025      | SA-3045 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 71  | 20 | 22 | 86 1/2  | 16" Flg | 6" Flg | 949.2              |
| SA-3026      | SA-3046 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 83  | 20 | 22 | 98 1/2  | 16" Flg | 6" Flg | 1092               |
| SA-3027      | SA-3047 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 17 | 95  | 20 | 22 | 110 1/2 | 18" Flg | 8" Flg | 1235               |
| SA-3028      | SA-3048 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 17 | 107 | 20 | 22 | 122 1/2 | 18" Flg | 8" Flg | 1378               |





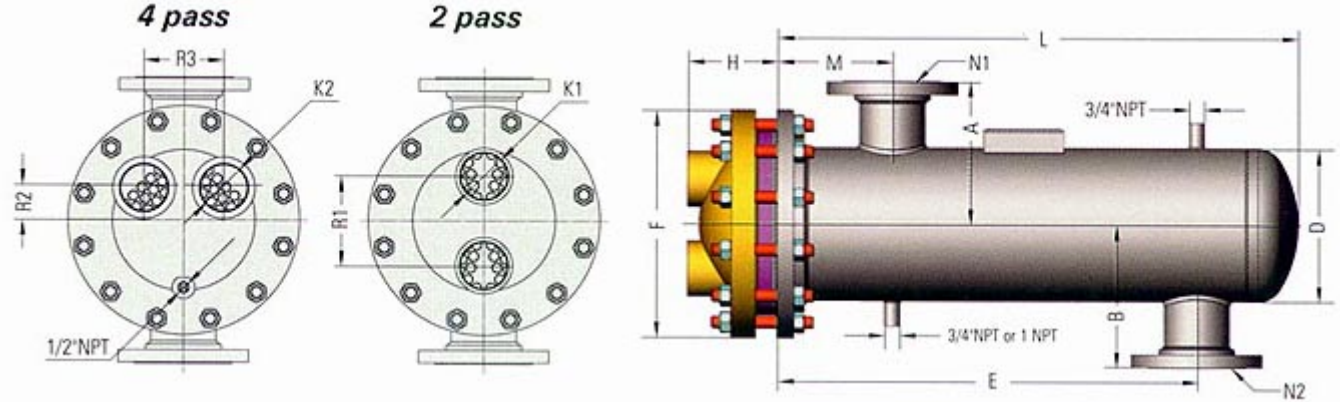
## 4" diameter Liquid to Liquid Models

| Model Number |         | Cast Iron Heads [inches] |        |       |        |     |       | Dimensions [inches] |   |   |         |       |       |         |           |           | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|--------|-------|--------|-----|-------|---------------------|---|---|---------|-------|-------|---------|-----------|-----------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        |       | 4 Pass |     |       | 2 and 4 Pass        |   |   |         |       |       |         |           |           |                    |
|              |         | R1                       | K1FNPT | R3    | K2     | R2  | H     | D                   | F | M | E       | B     | A     | L       | N1        | N2        |                    |
| WA-4201      | WA-4401 | 2.5                      | 1 1/2  | 2 3/8 | 1      | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 19 1/2  | 3 3/4 | 3 3/4 | 24 1/2  | 1 1/2 NPT | 1 1/2 NPT | 4.7                |
| WA-4202      | WA-4402 | 2.5                      | 1 1/2  | 2 3/8 | 1      | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 31 1/2  | 3 3/4 | 3 3/4 | 36 1/2  | 1 1/2 NPT | 1 1/2 NPT | 6.9                |
| WA-4203      | WA-4403 | 2.5                      | 1 1/2" | 2 3/8 | 1"     | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 43 1/2  | 3 3/4 | 3 3/4 | 48 1/2  | 1 1/2 NPT | 1 1/2 NPT | 9.1                |
| WA-4204      | WA-4404 | 2.5                      | 1 1/2  | 2 3/8 | 1      | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 55 1/2  | 3 3/4 | 3 3/4 | 60 1/2  | 1 1/2 NPT | 1 1/2 NPT | 11.3               |
| WA-4205      | WA-4405 | 2.5                      | 1 1/2  | 2 3/8 | 1      | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 67 1/2  | 3 3/4 | 3 3/4 | 72 1/2  | 1 1/2 NPT | 1 1/2 NPT | 13.6               |
| WA-4206      | WA-4406 | 2.5                      | 1 1/2  | 2 3/8 | 1      | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 79 1/2  | 3 3/4 | 3 3/4 | 84 1/2  | 1 1/2 NPT | 1 1/2 NPT | 15.8               |
| WA-4207      | WA-4407 | 2.5                      | 1 1/2  | 2 3/8 | 1      | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 91 1/2  | 3 3/4 | 3 3/4 | 96 1/2  | 1 1/2 NPT | 1 1/2 NPT | 18                 |
| WA-4208      | WA-4408 | 2.5                      | 1 1/2  | 2 3/8 | 1      | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 103 1/2 | 3 3/4 | 3 3/4 | 108 1/2 | 1 1/2 NPT | 1 1/2 NPT | 20.3               |
| WA-4209      | WA-4409 | 2.5                      | 1 1/2  | 2 3/8 | 1      | 7/8 | 2 7/8 | 4 1/2               | 9 | 5 | 115 1/2 | 3 3/4 | 3 3/4 | 120 1/2 | 1 1/2 NPT | 1 1/2 NPT | 22.5               |



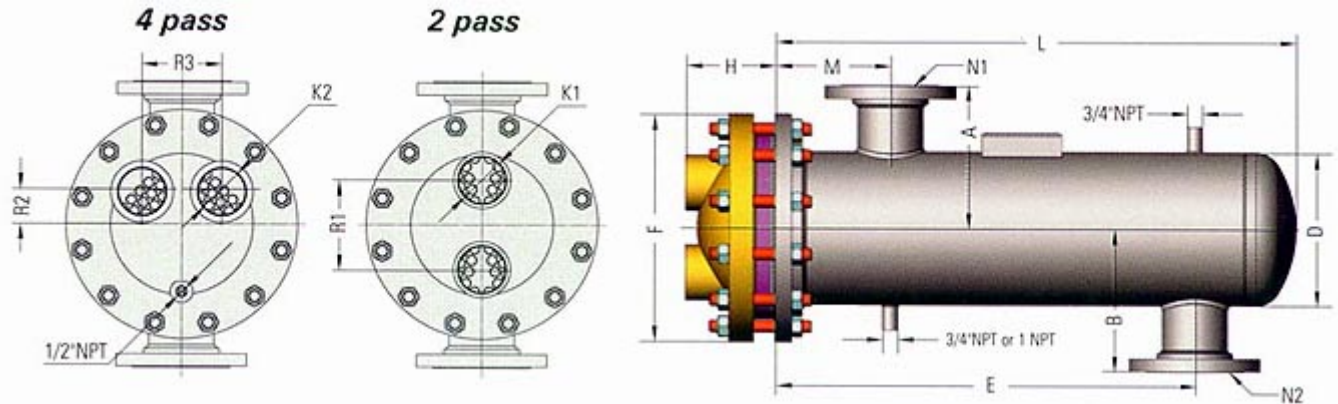
## 6" diameter Liquid to Liquid

| Model Number |         | Cast Iron Heads [inches] |         |        |       |       |        | Dimensions [inches] |    |   |         |       |       |     |           |           | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|-------|-------|--------|---------------------|----|---|---------|-------|-------|-----|-----------|-----------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |       |       |        | 2 and 4 Pass        |    |   |         |       |       |     |           |           |                    |
|              |         | R1                       | K1 FNPT | R3     | K2    | R2    | H      | D                   | F  | M | E       | B     | A     | L   | N1        | N2        |                    |
| WA-6201      | WA-6401 | 4                        | 2       | 3 3/4  | 1 1/2 | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 18 1/2  | 4 7/8 | 4 7/8 | 25  | 2 1/2 NPT | 2 1/2 NPT | 10.7               |
| WA-6202      | WA-6402 | 4                        | 2       | 3 3/4  | 1 1/2 | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 30 1/2  | 4 7/8 | 4 7/8 | 37  | 2 1/2 NPT | 2 1/2 NPT | 15.9               |
| WA-6203      | WA-6403 | 4                        | 2       | 3 3/4  | 1 1/2 | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 42 1/2  | 4 7/8 | 4 7/8 | 49  | 2 1/2 NPT | 2 1/2 NPT | 21.1               |
| WA-6204      | WA-6404 | 4                        | 2       | 3 3/4  | 1 1/2 | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 54 1/2  | 4 7/8 | 4 7/8 | 61  | 2 1/2 NPT | 2 1/2 NPT | 26.3               |
| WA-6205      | WA-6405 | 4                        | 2       | 3 3/4  | 1 1/2 | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 66 1/2  | 4 7/8 | 4 7/8 | 73  | 2 1/2 NPT | 2 1/2 NPT | 31.5               |
| WA-6206      | WA-6406 | 4                        | 2       | 3 3/4  | 1 1/2 | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 78 1/2  | 4 7/8 | 4 7/8 | 85  | 2 1/2 NPT | 2 1/2 NPT | 36.7               |
| WA-6207      | WA-6407 | 4                        | 2       | 3 3/4  | 1 1/2 | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 90 1/2  | 4 7/8 | 4 7/8 | 97  | 2 1/2 NPT | 2 1/2 NPT | 41.9               |
| WA-6208      | WA-6408 | 4                        | 2       | 3 3/4  | 1 1/2 | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 102 1/2 | 4 7/8 | 4 7/8 | 109 | 2 1/2 NPT | 2 1/2 NPT | 47.1               |
| WA-6209      | WA-6409 | 4                        | 2       | 3 3/4  | 1 1/2 | 1 1/4 | 3 7/16 | 6 5/8               | 11 | 5 | 114 1/2 | 4 7/8 | 4 7/8 | 121 | 2 1/2 NPT | 2 1/2 NPT | 52.3               |



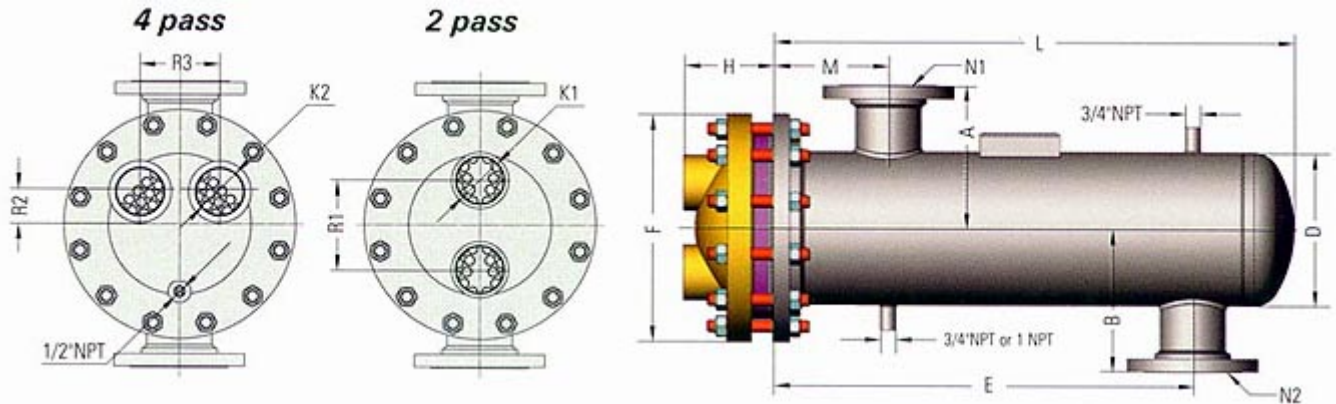
## 8" diameter Liquid to Liquid models

| Model Number |         | Cast Iron Heads [inches] |         |    |        |    |       | Dimensions [inches] |        |   |     |       |       |     |           |           | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|----|--------|----|-------|---------------------|--------|---|-----|-------|-------|-----|-----------|-----------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         |    | 4 Pass |    |       | 2 and 4 Pass        |        |   |     |       |       |     |           |           |                    |
|              |         | R1                       | K1 FNPT | R3 | K2     | R2 | H     | D                   | F      | M | E   | B     | A     | L   | N1        | N2        |                    |
| WA-8201      | WA-8401 | 5                        | 3       | 4  | 2      | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 18  | 7 3/8 | 7 3/8 | 24  | 4" Flange | 4" Flange | 14.7               |
| WA-8202      | WA-8402 | 5                        | 3       | 4  | 2      | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 30  | 7 3/8 | 7 3/8 | 36  | 4" Flange | 4" Flange | 22.7               |
| WA-8203      | WA-8403 | 5                        | 3       | 4  | 2      | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 42  | 7 3/8 | 7 3/8 | 48  | 4" Flange | 4" Flange | 30.7               |
| WA-8204      | WA-8404 | 5                        | 3       | 4  | 2      | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 54  | 7 3/8 | 7 3/8 | 60  | 4" Flange | 4" Flange | 38.7               |
| WA-8205      | WA-8405 | 5                        | 3       | 4  | 2      | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 66  | 7 3/8 | 7 3/8 | 72  | 4" Flange | 4" Flange | 46.6               |
| WA-8206      | WA-8406 | 5                        | 3       | 4  | 2      | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 78  | 7 3/8 | 7 3/8 | 84  | 4" Flange | 4" Flange | 54.6               |
| WA-8207      | WA-8407 | 5                        | 3       | 4  | 2      | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 90  | 7 3/8 | 7 3/8 | 96  | 4" Flange | 4" Flange | 62.6               |
| WA-8208      | WA-8408 | 5                        | 3       | 4  | 2      | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 102 | 7 3/8 | 7 3/8 | 108 | 4" Flange | 4" Flange | 70.6               |
| WA-8209      | WA-8409 | 5                        | 3       | 4  | 2      | 2  | 4 1/4 | 8 5/8               | 13 1/2 | 8 | 114 | 7 3/8 | 7 3/8 | 120 | 4" Flange | 4" Flange | 78.6               |



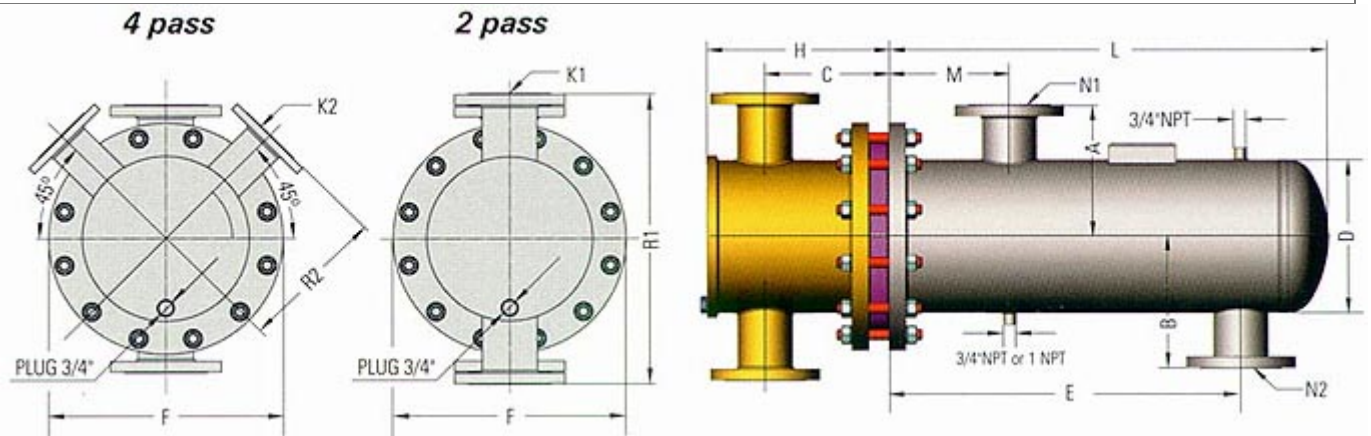
## 10" diameter Liquid to Liquid Models

| Model Number |         | Cast Iron Heads [inches] |         |       |        |       |       | Dimensions [inches] |    |   |         |       |       |     |        |        | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|-------|--------|-------|-------|---------------------|----|---|---------|-------|-------|-----|--------|--------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         |       | 4 Pass |       |       | 2 and 4 Pass        |    |   |         |       |       |     |        |        |                    |
|              |         | R1                       | K1 FNPT | R3    | K2     | R2    | H     | D                   | F  | M | E       | B     | A     | L   | N1     | N2     |                    |
| WA-1021      | WA-1041 | 6 1/4                    | 3       | 5 1/2 | 3      | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 17      | 8 1/2 | 8 1/2 | 24  | 4" Flg | 4" Flg | 23.7               |
| WA-1022      | WA-1042 | 6 1/4                    | 3       | 5 1/2 | 3      | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 29      | 8 1/2 | 8 1/2 | 36  | 4" Flg | 4" Flg | 37.7               |
| WA-1023      | WA-1043 | 6 1/4                    | 3       | 5 1/2 | 3      | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 41      | 8 1/2 | 8 1/2 | 48  | 4" Flg | 4" Flg | 51.5               |
| WA-1024      | WA-1044 | 6 1/4                    | 3       | 5 1/2 | 3      | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 53      | 8 1/2 | 8 1/2 | 60  | 4" Flg | 4" Flg | 65.5               |
| WA-1025      | WA-1045 | 6 1/4                    | 3       | 5 1/2 | 3      | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 65      | 8 1/2 | 8 1/2 | 72  | 4" Flg | 4" Flg | 79.4               |
| WA-1026      | WA-1046 | 6 1/4                    | 3       | 5 1/2 | 3      | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 77      | 8 1/2 | 8 1/2 | 84  | 4" Flg | 4" Flg | 93.3               |
| WA-1027      | WA-1047 | 6 1/4                    | 3       | 5 1/2 | 3      | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 88 1/2  | 8 1/2 | 8 1/2 | 96  | 4" Flg | 4" Flg | 107.2              |
| WA-1028      | WA-1048 | 6 1/4                    | 3       | 5 1/2 | 3      | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 100 1/2 | 8 1/2 | 8 1/2 | 108 | 4" Flg | 4" Flg | 121.1              |
| WA-1029      | WA-1049 | 6 1/4                    | 3       | 5 1/2 | 3      | 2 1/4 | 4 7/8 | 10 3/4              | 16 | 8 | 112 1/2 | 8 1/2 | 8 1/2 | 120 | 4" Flg | 4" Flg | 135.1              |



## 12" diameter Liquid to Liquid Models

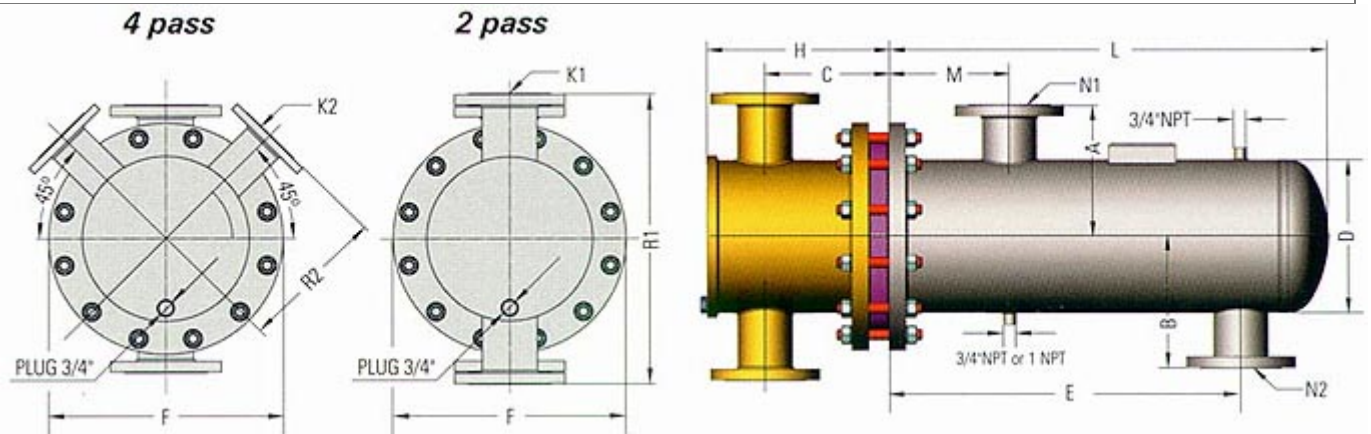
| Model Number |         | Cast Iron Heads [inches] |        |        |        |        |        | Dimensions [inches] |    |    |     |    |    |         |        |        | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|--------|--------|--------|--------|--------|---------------------|----|----|-----|----|----|---------|--------|--------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        |        |        | 2 and 4 Pass        |    |    |     |    |    |         |        |        |                    |
|              |         | R1                       | K1     | R3     | K2     | R2     | H      | D                   | F  | M  | E   | B  | A  | L       | N1     | N2     |                    |
| WA-1221      | WA-1241 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 29  | 11 | 11 | 36 1/4  | 4" Flg | 4" Flg | 58.6               |
| WA-1222      | WA-1242 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 41  | 11 | 11 | 48 1/4  | 6" Flg | 6" Flg | 79.0               |
| WA-1223      | WA-1243 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 53  | 11 | 11 | 60 1/4  | 6" Flg | 6" Flg | 99.5               |
| WA-1224      | WA-1244 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 65  | 11 | 11 | 72 1/4  | 6" Flg | 6" Flg | 119.9              |
| WA-1225      | WA-1245 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 77  | 11 | 11 | 84 1/4  | 8" Flg | 8" Flg | 140.3              |
| WA-1226      | WA-1246 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 88  | 11 | 11 | 96 1/4  | 8" Flg | 8" Flg | 160.8              |
| WA-1227      | WA-1247 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 100 | 11 | 11 | 108 1/4 | 8" Flg | 8" Flg | 181.2              |
| WA-1228      | WA-1248 | 24                       | 4" Flg | 12     | 3" Flg | 10 1/8 | 14 5/8 | 12 3/4              | 19 | 10 | 112 | 11 | 11 | 120 1/4 | 8" Flg | 8" Flg | 201.6              |





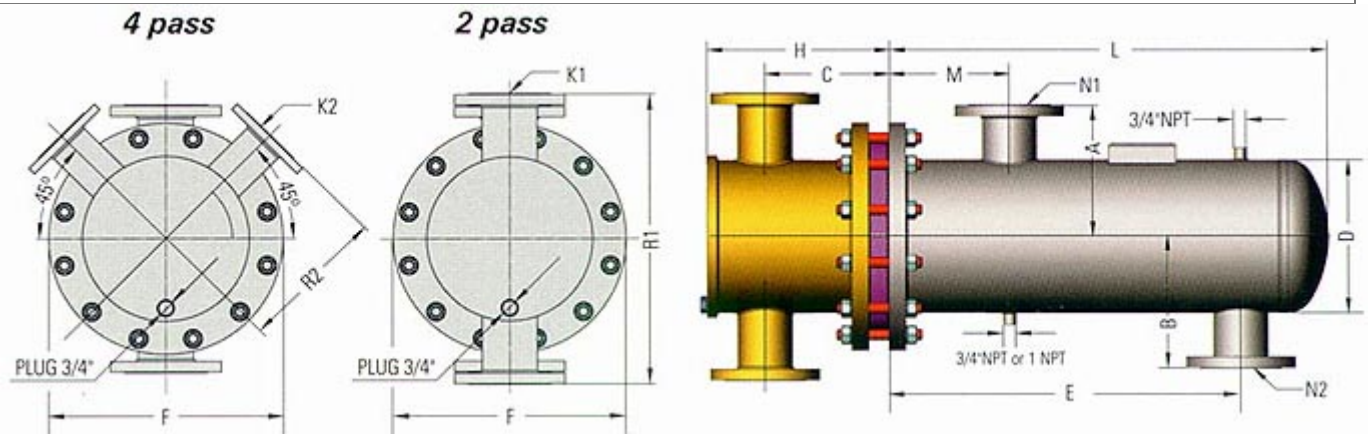
## 14" diameter Liquid to Liquid Models

| Model Number |         | Cast Iron Heads [inches] |        |        |        |        |        | Dimensions [inches] |    |    |        |    |    |         |         |         | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|--------|--------|--------|--------|--------|---------------------|----|----|--------|----|----|---------|---------|---------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        |        |        | 2 and 4 Pass        |    |    |        |    |    |         |         |         |                    |
|              |         | R1                       | K1     | R2     | K2     | C      | H      | D                   | F  | M  | E      | B  | A  | L       | N1      | N2      |                    |
| WA-1421      | WA-1441 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8 | 14                  | 21 | 10 | 29     | 12 | 12 | 37 1/4  | 6" Flg  | 6" Flg  | 75.7               |
| WA-1422      | WA-1442 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8 | 14                  | 21 | 10 | 40 1/2 | 12 | 12 | 49 1/4  | 6" Flg  | 6" Flg  | 102.4              |
| WA-1423      | WA-1443 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8 | 14                  | 21 | 10 | 52 1/2 | 12 | 12 | 61 1/4  | 6" Flg  | 6" Flg  | 129.1              |
| WA-1424      | WA-1444 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8 | 14                  | 21 | 10 | 64 1/2 | 12 | 12 | 73 1/4  | 8" Flg  | 8" Flg  | 155.8              |
| WA-1425      | WA-1445 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8 | 14                  | 21 | 10 | 76     | 12 | 12 | 85 1/4  | 8" Flg  | 8" Flg  | 182.5              |
| WA-1426      | WA-1446 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8 | 14                  | 21 | 10 | 88     | 12 | 12 | 97 1/4  | 8" Flg  | 8" Flg  | 209.2              |
| WA-1427      | WA-1447 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8 | 14                  | 21 | 10 | 100    | 12 | 12 | 109 1/4 | 10" Flg | 10" Flg | 236.0              |
| WA-1428      | WA-1448 | 26                       | 6" Flg | 13     | 4" Flg | 11 5/8 | 16 5/8 | 14                  | 21 | 10 | 112    | 12 | 12 | 121 1/4 | 10" Flg | 10" Flg | 262.7              |



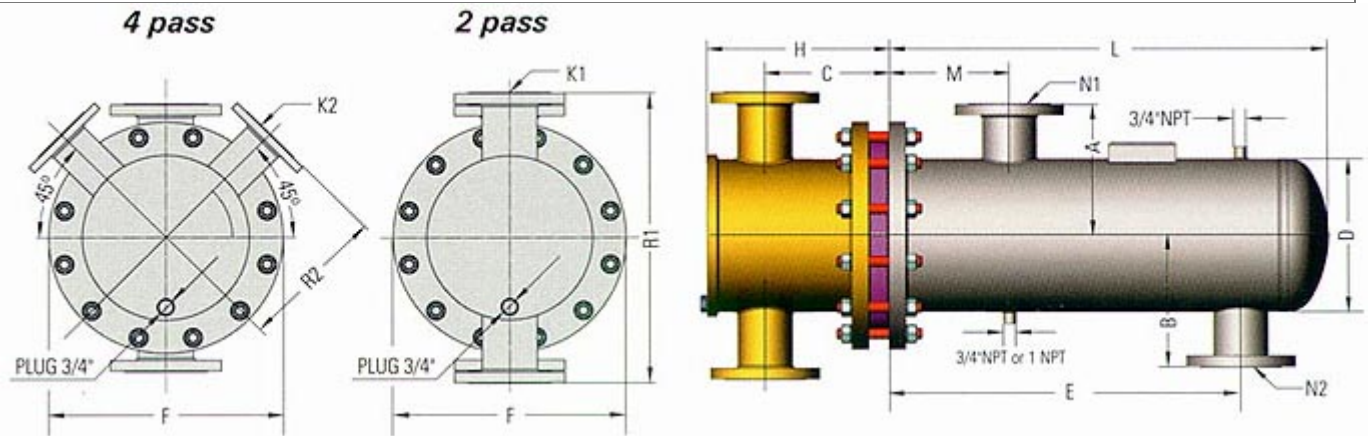
## 16" diameter Liquid to Liquid Models

| Model Number |         | Cast Iron Heads [inches] |        |        |        |        |        | Dimensions [inches] |        |    |         |    |    |     |         |         | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|--------|--------|--------|--------|--------|---------------------|--------|----|---------|----|----|-----|---------|---------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        |        |        | 2 and 4 Pass        |        |    |         |    |    |     |         |         |                    |
|              |         | R1                       | K1     | R2     | K2     | C      | H      | D                   | F      | M  | E       | B  | A  | L   | N1      | N2      |                    |
| WA-1621      | WA-1641 | 28 1/2                   | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 28 1/2  | 13 | 13 | 37  | 6" Flg  | 6" Flg  | 104.5              |
| WA-1622      | WA-1642 | 28 1/2                   | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 40      | 13 | 13 | 49  | 6" Flg  | 6" Flg  | 141.4              |
| WA-1623      | WA-1643 | 28 1/2                   | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 52      | 13 | 13 | 61  | 8" Flg  | 8" Flg  | 178.4              |
| WA-1624      | WA-1644 | 28 1/2                   | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 64      | 13 | 13 | 73  | 8" Flg  | 8" Flg  | 215.3              |
| WA-1625      | WA-1645 | 28 1/2                   | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 76      | 13 | 13 | 85  | 10" Flg | 10" Flg | 252.2              |
| WA-1626      | WA-1646 | 28 1/2                   | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 87 1/2  | 13 | 13 | 97  | 10" Flg | 10" Flg | 289.1              |
| WA-1627      | WA-1647 | 28 1/2                   | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 99 1/2  | 13 | 13 | 109 | 10" Flg | 10" Flg | 326.0              |
| WA-1628      | WA-1648 | 28 1/2                   | 6" Flg | 14 1/4 | 4" Flg | 12 1/8 | 17 3/8 | 16                  | 23 1/2 | 11 | 111 1/2 | 13 | 13 | 121 | 10" Flg | 10" Flg | 363.0              |



## 18" diameter Liquid to Liquid Models

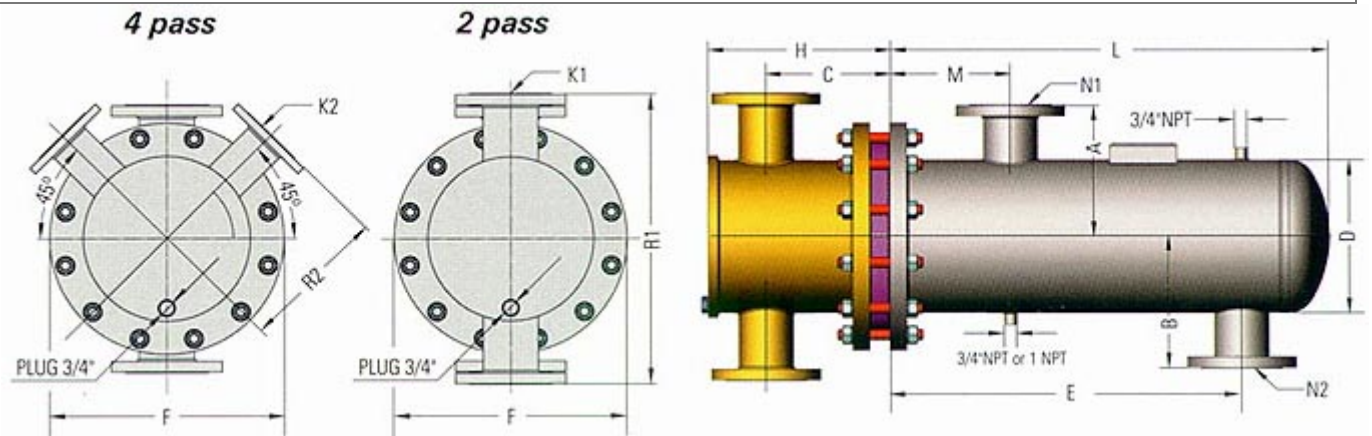
| Model Number |         | Cast Iron Heads [inches] |        |        |        |        |    | Dimensions [inches] |    |    |         |    |    |         |         |         | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|--------|--------|--------|--------|----|---------------------|----|----|---------|----|----|---------|---------|---------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        |        |    | 2 and 4 Pass        |    |    |         |    |    |         |         |         |                    |
|              |         | R1                       | K1     | R2     | K2     | C      | H  | D                   | F  | M  | E       | B  | A  | L       | N1      | N2      |                    |
| WA-1821      | WA-1841 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4 | 18 | 18                  | 25 | 13 | 27 1/2  | 14 | 14 | 36 1/2  | 6" Flg  | 6" Flg  | 130.7              |
| WA-1822      | WA-1842 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4 | 18 | 18                  | 25 | 13 | 39 1/2  | 14 | 14 | 48 1/2  | 8" Flg  | 8" Flg  | 177.0              |
| WA-1823      | WA-1843 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4 | 18 | 18                  | 25 | 13 | 51      | 14 | 14 | 60 1/2  | 8" Flg  | 8" Flg  | 223.4              |
| WA-1824      | WA-1844 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4 | 18 | 18                  | 25 | 13 | 62 1/2  | 14 | 14 | 72 1/2  | 10" Flg | 10" Flg | 269.7              |
| WA-1825      | WA-1845 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4 | 18 | 18                  | 25 | 13 | 74 1/2  | 14 | 14 | 84 1/2  | 10" Flg | 10" Flg | 316.1              |
| WA-1826      | WA-1846 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4 | 18 | 18                  | 25 | 13 | 86 1/2  | 14 | 14 | 96 1/2  | 10" Flg | 10" Flg | 362.4              |
| WA-1827      | WA-1847 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4 | 18 | 18                  | 25 | 13 | 98 1/2  | 14 | 14 | 108 1/2 | 12" Flg | 12" Flg | 408.8              |
| WA-1828      | WA-1848 | 30                       | 6" Flg | 15     | 4" Flg | 12 3/4 | 18 | 18                  | 25 | 13 | 110 1/2 | 14 | 14 | 120 1/2 | 12" Flg | 12" Flg | 455.1              |





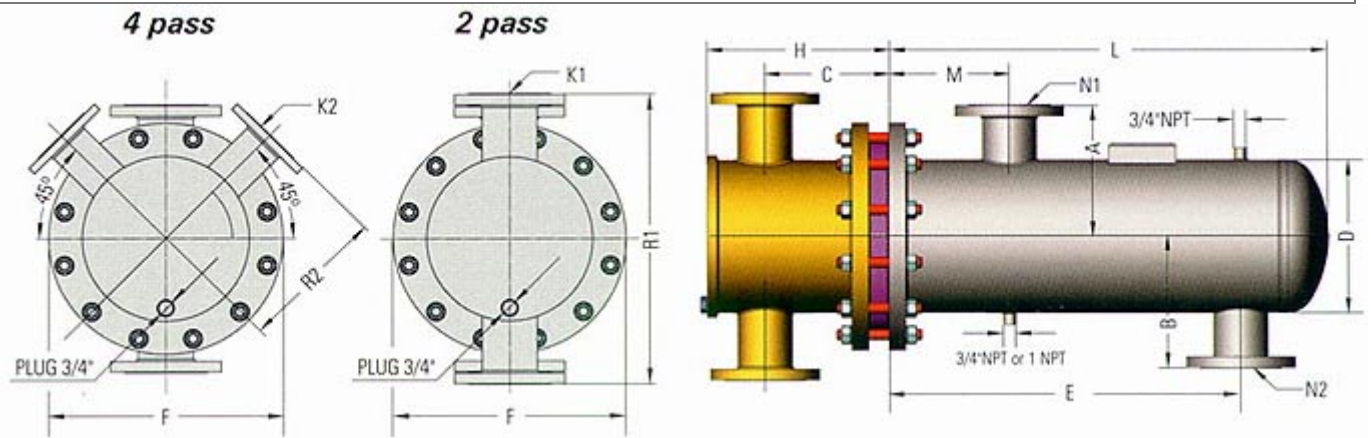
## 20" diameter Liquid to Liquid Models

| Model Number |         | Cast Iron Heads [inches] |        |        |        |        |        | Dimensions [inches] |        |    |         |    |    |         |         |         |       | Htg. Surf. [sq.ft.] |
|--------------|---------|--------------------------|--------|--------|--------|--------|--------|---------------------|--------|----|---------|----|----|---------|---------|---------|-------|---------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |        | 4 Pass |        |        |        | 2 and 4 Pass        |        |    |         |    |    |         |         |         |       |                     |
|              |         | R1                       | K1     | R2     | K2     | C      | H      | D                   | F      | M  | E       | B  | A  | L       | N1      | N2      |       |                     |
| WA-2021      | WA-2041 | 32 1/2                   | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 27 1/2  | 15 | 15 | 36 3/4  | 8" Flg  | 8" Flg  | 163.9 |                     |
| WA-2022      | WA-2042 | 32 1/2                   | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 39      | 15 | 15 | 48 3/4  | 8" Flg  | 8" Flg  | 223.6 |                     |
| WA-2023      | WA-2043 | 32 1/2                   | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 50 1/2  | 15 | 15 | 60 3/4  | 10" Flg | 10" Flg | 283.3 |                     |
| WA-2024      | WA-2044 | 32 1/2                   | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 62 1/2  | 15 | 15 | 72 3/4  | 10" Flg | 10" Flg | 343.0 |                     |
| WA-2025      | WA-2045 | 32 1/2                   | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 74 1/2  | 15 | 15 | 84 3/4  | 12" Flg | 12" Flg | 402.7 |                     |
| WA-2026      | WA-2046 | 32 1/2                   | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 86 1/2  | 15 | 15 | 96 3/4  | 12" Flg | 12" Flg | 462.4 |                     |
| WA-2027      | WA-2047 | 32 1/2                   | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 98 1/2  | 15 | 15 | 108 3/4 | 12" Flg | 12" Flg | 522.2 |                     |
| WA-2028      | WA-2048 | 32 1/2                   | 6" Flg | 16 1/4 | 4" Flg | 14 1/8 | 19 5/8 | 20                  | 27 1/2 | 13 | 110 1/2 | 17 | 17 | 120 3/4 | 14" Flg | 14" Flg | 581.9 |                     |



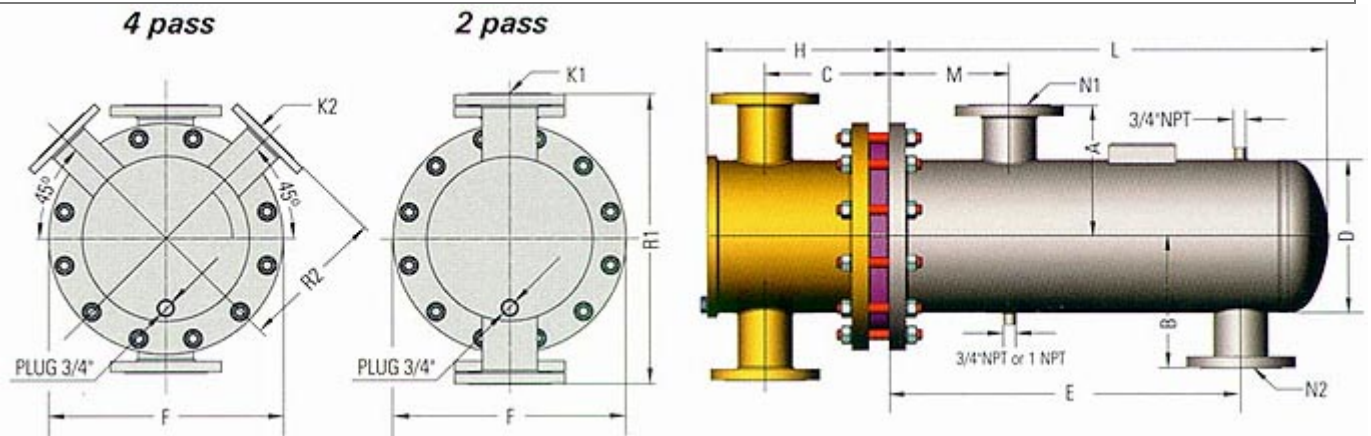
## 22" diameter Liquid to Liquid Models

| Model Number |         | Cast Iron Heads [inches] |         |        |        |    |        | Dimensions [inches] |        |    |         |    |    |         |         |         | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|--------|----|--------|---------------------|--------|----|---------|----|----|---------|---------|---------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |        |    |        | 2 and 4 Pass        |        |    |         |    |    |         |         |         |                    |
|              |         | R1                       | K1      | R2     | K2     | C  | H      | D                   | F      | M  | E       | B  | A  | L       | N1      | N2      |                    |
| WA-2221      | WA-2241 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 25 3/8  | 17 | 17 | 38 3/8  | 12" Flg | 12" Flg | 193.5              |
| WA-2222      | WA-2242 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 37 3/8  | 17 | 17 | 50 3/8  | 12" Flg | 12" Flg | 265.0              |
| WA-2223      | WA-2243 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 49 3/8  | 17 | 17 | 62 3/8  | 12" Flg | 12" Flg | 336.5              |
| WA-2224      | WA-2244 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 61 3/8  | 17 | 17 | 74 3/8  | 12" Flg | 12" Flg | 408.0              |
| WA-2225      | WA-2245 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 73 3/8  | 17 | 17 | 86 3/8  | 12" Flg | 12" Flg | 479.5              |
| WA-2226      | WA-2246 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 14 | 85 3/8  | 17 | 17 | 98 3/8  | 12" Flg | 12" Flg | 551.0              |
| WA-2227      | WA-2247 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 15 | 97 3/8  | 18 | 18 | 110 3/8 | 14" Flg | 14" Flg | 622.5              |
| WA-2228      | WA-2248 | 35                       | 10" Flg | 17 1/4 | 8" Flg | 17 | 24 1/2 | 22                  | 29 1/2 | 15 | 109 3/8 | 18 | 18 | 122 3/8 | 14" Flg | 14" Flg | 694.0              |



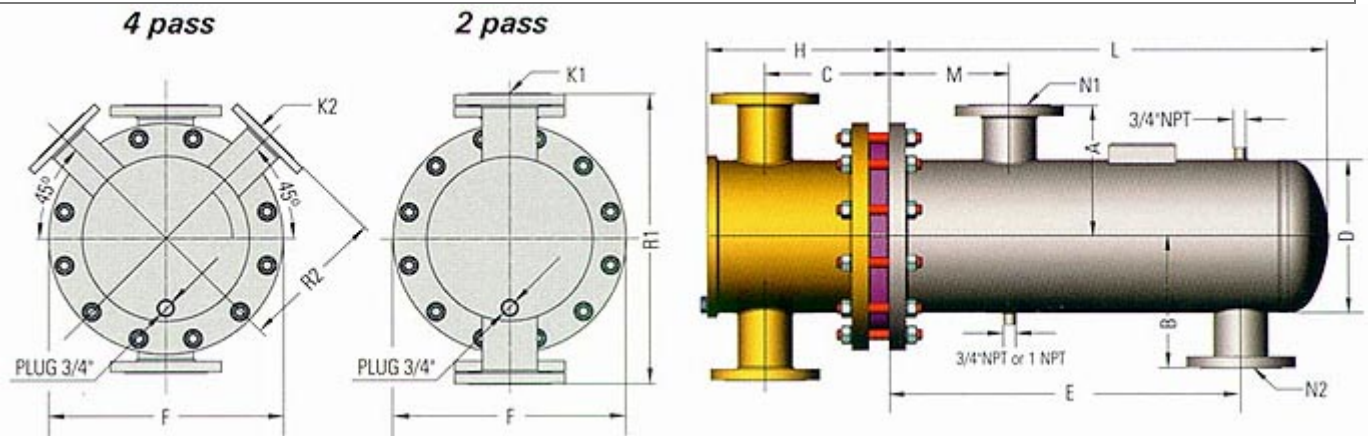
## 24" diameter Liquid to Liquid Models

| Model Number |         | Cast Iron Heads [inches] |         |        |        |        |        | Dimensions [inches] |    |    |     |    |    |     |         |         | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|--------|--------|--------|---------------------|----|----|-----|----|----|-----|---------|---------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |        |        |        | 2 and 4 Pass        |    |    |     |    |    |     |         |         |                    |
|              |         | R1                       | K1      | R2     | K2     | C      | H      | D                   | F  | M  | E   | B  | A  | L   | N1      | N2      |                    |
| WA-2421      | WA-2441 | 37 1/2                   | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 25  | 18 | 18 | 38  | 12" Flg | 12" Flg | 236.0              |
| WA-2422      | WA-2442 | 37 1/2                   | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 37  | 18 | 18 | 50  | 12" Flg | 12" Flg | 324.0              |
| WA-2423      | WA-2443 | 37 1/2                   | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 49  | 18 | 18 | 62  | 12" Flg | 12" Flg | 412.0              |
| WA-2424      | WA-2444 | 37 1/2                   | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 61  | 18 | 18 | 74  | 12" Flg | 12" Flg | 500.0              |
| WA-2425      | WA-2445 | 37 1/2                   | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 73  | 18 | 18 | 86  | 12" Flg | 12" Flg | 588.0              |
| WA-2426      | WA-2446 | 37 1/2                   | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 14 | 85  | 18 | 18 | 98  | 12" Flg | 12" Flg | 676.0              |
| WA-2427      | WA-2447 | 37 1/2                   | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 15 | 97  | 19 | 19 | 110 | 14" Flg | 14" Flg | 764.0              |
| WA-2428      | WA-2448 | 37 1/2                   | 10" Flg | 18 1/2 | 8" Flg | 17 7/8 | 25 5/8 | 24                  | 32 | 15 | 109 | 19 | 19 | 122 | 14" Flg | 14" Flg | 852.0              |



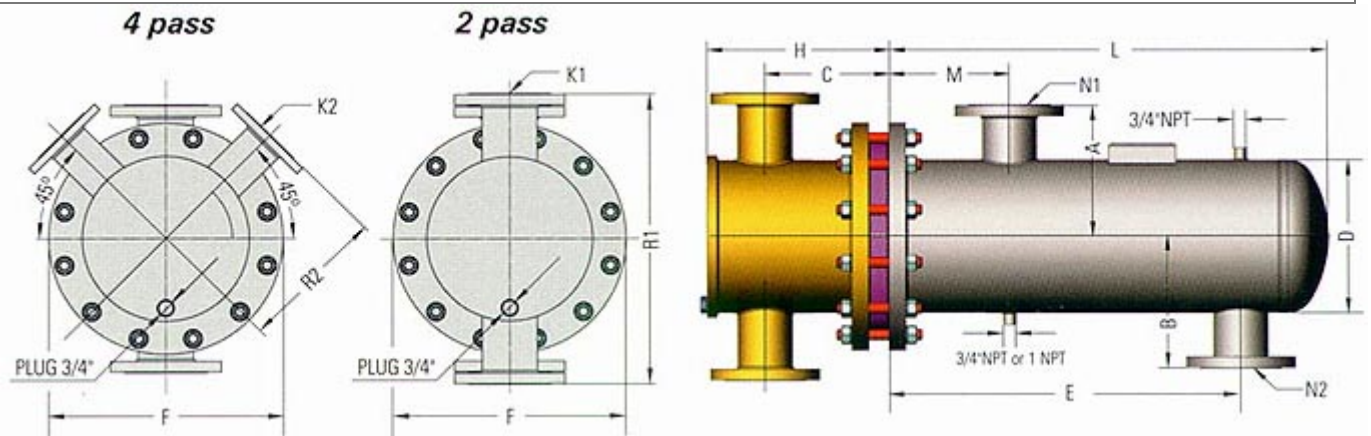
## 26" diameter Liquid to Liquid Models

| Model Number |         | Cast Iron Heads [inches] |         |        |        |    |        | Dimensions [inches] |        |    |         |    |    |     |         |         | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|--------|----|--------|---------------------|--------|----|---------|----|----|-----|---------|---------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |        |    |        | 2 and 4 Pass        |        |    |         |    |    |     |         |         |                    |
|              |         | R1                       | K1      | R2     | K2     | C  | H      | D                   | F      | M  | E       | B  | A  | L   | N1      | N2      |                    |
| WA-2621      | WA-2641 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 23 3/4  | 20 | 20 | 36  | 14" Flg | 14" Flg | 288.6              |
| WA-2622      | WA-2642 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 35 3/4  | 20 | 20 | 48  | 14" Flg | 14" Flg | 393.4              |
| WA-2623      | WA-2643 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 47 3/4  | 20 | 20 | 60  | 14" Flg | 14" Flg | 500.2              |
| WA-2624      | WA-2644 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 59 3/4  | 20 | 20 | 72  | 14" Flg | 14" Flg | 607.0              |
| WA-2625      | WA-2645 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 71 3/4  | 20 | 20 | 84  | 14" Flg | 14" Flg | 713.8              |
| WA-2626      | WA-2646 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 15 | 83 3/4  | 20 | 20 | 96  | 14" Flg | 14" Flg | 820.6              |
| WA-2627      | WA-2647 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 16 | 95 3/4  | 21 | 21 | 108 | 16" Flg | 16" Flg | 927.4              |
| WA-2628      | WA-2648 | 37                       | 12" Flg | 18 1/4 | 8" Flg | 17 | 24 3/4 | 26                  | 34 1/4 | 16 | 107 3/4 | 21 | 21 | 120 | 16" Flg | 16" Flg | 1034.4             |



### 30" diameter Liquid to Liquid Models

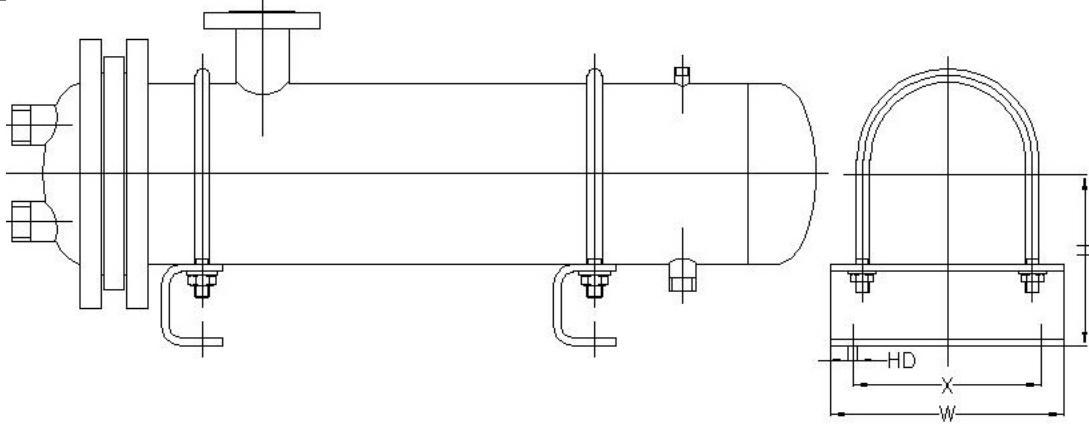
| Model Number |         | Cast Iron Heads [inches] |         |        |         |        |        | Dimensions [inches] |        |    |     |    |    |         |         |         | Htg. Surf. [sq.ft] |
|--------------|---------|--------------------------|---------|--------|---------|--------|--------|---------------------|--------|----|-----|----|----|---------|---------|---------|--------------------|
| 2 Pass       | 4 Pass  | 2 Pass                   |         | 4 Pass |         |        |        | 2 and 4 Pass        |        |    |     |    |    |         |         |         |                    |
|              |         | R1                       | K1      | R2     | K2      | C      | H      | D                   | F      | M  | E   | B  | A  | L       | N1      | N2      |                    |
| WA-3021      | WA-3041 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 23  | 22 | 22 | 38 1/2  | 16" Flg | 16" Flg | 377.6              |
| WA-3022      | WA-3042 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 35  | 22 | 22 | 50 1/2  | 16" Flg | 16" Flg | 520.5              |
| WA-3023      | WA-3043 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 47  | 22 | 22 | 62 1/2  | 16" Flg | 16" Flg | 663.4              |
| WA-3024      | WA-3044 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 59  | 22 | 22 | 74 1/2  | 16" Flg | 16" Flg | 806.3              |
| WA-3025      | WA-3045 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 71  | 22 | 22 | 86 1/2  | 16" Flg | 16" Flg | 949.2              |
| WA-3026      | WA-3046 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 16 | 83  | 22 | 22 | 98 1/2  | 16" Flg | 16" Flg | 1092.0             |
| WA-3027      | WA-3047 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 17 | 95  | 22 | 22 | 110 1/2 | 18" Flg | 18" Flg | 1235.0             |
| WA-3028      | WA-3048 | 42                       | 14" Flg | 20 3/4 | 10" Flg | 19 5/8 | 28 7/8 | 30                  | 38 3/4 | 17 | 107 | 22 | 22 | 122 1/2 | 18" Flg | 18" Flg | 1378.0             |



## TYPICAL SADDLE DIMENSIONS

| Unit Size | Dimensions are in Inches |         |       |     |
|-----------|--------------------------|---------|-------|-----|
|           | H                        | W       | X     | HD  |
| 4         | 5 1/4                    | 6 15/16 | 5 1/2 | 1/2 |
| 6         | 6 5/16                   | 9 1/4   | 7 1/2 | 5/8 |
| 8         | 7 5/16                   | 11 1/4  | 9     | 5/8 |
| 10        | 8 3/8                    | 13 5/8  | 10    | 3/4 |
| 12        | 9 3/8                    | 15 5/8  | 11    | 3/4 |
| 14        | 18                       | 17      | 12    | 3/4 |
| 16        | 12                       | 19      | 13    | 3/4 |
| 18        | 13                       | 21      | 14    | 3/4 |
| 20        | 14                       | 23      | 14    | 3/4 |
| 22        | 17                       | 25      | 18    | 7/8 |
| 24        | 18                       | 27      | 19    | 7/8 |
| 26        | 19                       | 30      | 20    | 7/8 |
| 30        | 21                       | 33      | 22    | 7/8 |

**NOTE: Adjustable saddle shown in preferred locations.**





# Shell & Tube Steam to Fluid Comparison Chart #1

| SEC - SA SERIES |           |         |            |        |           |        |              |                 |              |         |            | TACO - S SERIES |           |        |              |                 |  |
|-----------------|-----------|---------|------------|--------|-----------|--------|--------------|-----------------|--------------|---------|------------|-----------------|-----------|--------|--------------|-----------------|--|
| Shell Dia.      | Model No. |         | Connection |        |           |        | Shell Length | Heating Surface | Model No.    |         | Connection |                 |           |        | Shell Length | Heating Surface |  |
|                 | 2 Pass    | 4 Pass  | Tubeside   |        | Shellside |        |              |                 | 2 Pass       | 4 Pass  | Tubeside   |                 | Shellside |        |              |                 |  |
|                 |           |         | 2 pass     | 4 pass | Inlet     | Outlet | inch         | sq.ft           |              |         | 2 pass     | 4 pass          | Inlet     | Outlet | inch         | Sq.ft           |  |
| 4"              | SA-4201   | SA-4401 | 1.5"       | 1"     | 2"        | 1"     | 24.5         | 4.7             | G4204S       | G4404S  | 1.5"       | 1"              | 1.25"     | 1"     | 24.5         | 4.6             |  |
|                 | SA-4202   | SA-4402 | 1.5"       | 1"     | 2"        | 1"     | 36.5         | 6.9             | G4206S       | G4406S  | 1.5"       | 1"              | 1.25"     | 1"     | 36.5         | 7               |  |
|                 | SA-4203   | SA-4403 | 1.5"       | 1"     | 2"        | 1"     | 48.5         | 9.1             | G4208S       | G4408S  | 1.5"       | 1"              | 1.25"     | 1"     | 48.5         | 9.3             |  |
|                 | SA-4204   | SA-4404 | 1.5"       | 1"     | 2"        | 1"     | 60.5         | 11.3            | G4210S       | G4410S  | 1.5"       | 1"              | 1.25"     | 1"     | 60.5         | 11.7            |  |
|                 | SA-4205   | SA-4405 | 1.5"       | 1"     | 2"        | 1"     | 72.5         | 13.6            | G4212S       | G4412S  | 1.5"       | 1"              | 1.5"      | 1"     | 72.5         | 14.1            |  |
|                 | SA-4206   | SA-4406 | 1.5"       | 1"     | 2"        | 1"     | 84.5         | 15.8            | G4214S       | G4414S  | 1.5"       | 1"              | 1.5"      | 1"     | 84.5         | 16.4            |  |
|                 | SA-4207   | SA-4407 | 1.5"       | 1"     | 2"        | 1"     | 96.5         | 18              | G4216S       | G4416S  | 1.5"       | 1"              | 1.5"      | 1"     | 96.5         | 18.8            |  |
|                 | SA-4208   | SA-4408 | 1.5"       | 1"     | 2"        | 1"     | 108.5        | 20.3            | G4218S       | G4418S  | 1.5"       | 1"              | 1.5"      | 1"     | 108.5        | 21.1            |  |
|                 | SA-4209   | SA-4409 | 1.5"       | 1"     | 2"        | 1"     | 120.5        | 22.5            | G4220S       | G4420S  | 1.5"       | 1"              | 1.5"      | 1"     | 120.5        | 23.5            |  |
| 6"              | SA-6201   | SA-6401 | 2"         | 1.5"   | 3"        | 1"     | 25           | 10.7            | G6204S       | G6404S  | 2"         | 1.5"            | 1.5"      | 1"     | 25           | 9.1             |  |
|                 | SA-6202   | SA-6402 | 2"         | 1.5"   | 3"        | 1"     | 37           | 15.9            | G6206S       | G6406S  | 2"         | 1.5"            | 2"        | 1"     | 37           | 13.8            |  |
|                 | SA-6203   | SA-6403 | 2"         | 1.5"   | 3"        | 1"     | 49           | 21.1            | G6208S       | G6408S  | 2"         | 1.5"            | 2"        | 1"     | 49           | 18.5            |  |
|                 | SA-6204   | SA-6404 | 2"         | 1.5"   | 3"        | 1"     | 61           | 26.3            | G6210S       | G6410S  | 2"         | 1.5"            | 2.5"      | 1"     | 61           | 23.2            |  |
|                 | SA-6205   | SA-6405 | 2"         | 1.5"   | 3"        | 1"     | 73           | 31.5            | G6212S       | G6412S  | 2"         | 1.5"            | 2.5"      | 1"     | 73           | 27.9            |  |
|                 | SA-6206   | SA-6406 | 2"         | 1.5"   | 3"        | 1"     | 85           | 36.7            | G6214S       | G6414S  | 2"         | 1.5"            | 3"        | 1"     | 85           | 32.6            |  |
|                 | SA-6207   | SA-6407 | 2"         | 1.5"   | 3"        | 1"     | 97           | 41.9            | G6216S       | G6416S  | 2"         | 1.5"            | 3"        | 1"     | 97           | 37.3            |  |
|                 | SA-6208   | SA-6408 | 2"         | 1.5"   | 3"        | 1"     | 109          | 47.1            | G6218S       | G6418S  | 2"         | 1.5"            | 3"        | 1"     | 109          | 42.1            |  |
|                 | SA-6209   | SA-6409 | 2"         | 1.5"   | 3"        | 1"     | 121          | 52.3            | G6220S       | G6420S  | 2"         | 1.5"            | 3"        | 1"     | 121          | 46.8            |  |
| 8"              | SA-8201   | SA-8401 | 3"         | 2"     | 3"        | 1"     | 24           | 14.7            | G8204S       | G8404S  | 3"         | 2"              | 2"        | 1"     | 24           | 16.5            |  |
|                 | SA-8202   | SA-8402 | 3"         | 2"     | 3"        | 1"     | 36           | 22.7            | G8206S       | G8406S  | 3"         | 2"              | 2.5"      | 1"     | 36           | 25.1            |  |
|                 | SA-8203   | SA-8403 | 3"         | 2"     | 3"        | 1"     | 48           | 30.7            | G8208S       | G8408S  | 3"         | 2"              | 3"        | 1"     | 48           | 33.7            |  |
|                 | SA-8204   | SA-8404 | 3"         | 2"     | 4"F       | 1"     | 60           | 38.7            | G8210S       | G8410S  | 3"         | 2"              | 4"F       | 1"     | 60           | 42.4            |  |
|                 | SA-8205   | SA-8405 | 3"         | 2"     | 4"F       | 1.25"  | 72           | 46.6            | G8212S       | G8412S  | 3"         | 2"              | 4"F       | 1.25"  | 72           | 51              |  |
|                 | SA-8206   | SA-8406 | 3"         | 2"     | 4"F       | 1.25"  | 84           | 54.6            | G8214S       | G8414S  | 3"         | 2"              | 4"F       | 1.25"  | 84           | 59.7            |  |
|                 | SA-8207   | SA-8407 | 3"         | 2"     | 6"F       | 1.25"  | 96           | 62.6            | G8216S       | G8416S  | 3"         | 2"              | 6"F       | 1.25"  | 96           | 68.3            |  |
|                 | SA-8208   | SA-8408 | 3"         | 2"     | 6"F       | 1.25"  | 108          | 70.6            | G8218S       | G8418S  | 3"         | 2"              | 6"F       | 1.25"  | 108          | 76.9            |  |
|                 | SA-8209   | SA-8409 | 3"         | 2"     | 6"F       | 1.25"  | 120          | 78.6            | G8220S       | G8420S  | 3"         | 2"              | 6"F       | 1.25"  | 120          | 85.6            |  |
| 10"             | SA-1021   | SA-1041 | 3"         | 3"     | 4"F       | 1"     | 24           | 23.7            | G10204S      | G10404S | 3"         | 3"              | 3"        | 1"     | 24           | 26.8            |  |
|                 | SA-1022   | SA-1042 | 3"         | 3"     | 4"F       | 1"     | 36           | 37.7            | G10206S      | G10406S | 3"         | 3"              | 4"F       | 1"     | 36           | 40.9            |  |
|                 | SA-1023   | SA-1043 | 3"         | 3"     | 4"F       | 1.25"  | 48           | 51.5            | G10208S      | G10408S | 3"         | 3"              | 4"F       | 1.25"  | 48           | 55              |  |
|                 | SA-1024   | SA-1044 | 3"         | 3"     | 6"F       | 1.25"  | 60           | 65.5            | G10210S      | G10410S | 3"         | 3"              | 6"F       | 1.25"  | 60           | 69.2            |  |
|                 | SA-1025   | SA-1045 | 3"         | 3"     | 6"F       | 1.5"   | 72           | 79.4            | G10212S      | G10412S | 3"         | 3"              | 6"F       | 1.5"   | 72           | 83.3            |  |
|                 | SA-1026   | SA-1046 | 3"         | 3"     | 6"F       | 1.5"   | 84           | 93.3            | G10214S      | G10414S | 3"         | 3"              | 6"F       | 1.5"   | 84           | 97.5            |  |
|                 | SA-1027   | SA-1047 | 3"         | 3"     | 6"F       | 2"     | 96           | 107.2           | G10216S      | G10416S | 3"         | 3"              | 6"F       | 2"     | 96           | 111.6           |  |
|                 | SA-1028   | SA-1048 | 3"         | 3"     | 6"F       | 2"     | 108          | 121.1           | G10218S      | G10418S | 3"         | 3"              | 6"F       | 2"     | 108          | 125.7           |  |
|                 | SA-1029   | SA-1049 | 3"         | 3"     | 6"F       | 2"     | 120          | 135.1           | G10220S      | G10420S | 3"         | 3"              | 6"F       | 2"     | 120          | 139.9           |  |
| 12"             | SA-1221   | SA-1241 | 4"F        | 3"F    | 4"F       | 1.25"  | 36.2         | 23.7            | G12206S      | G12406S | 4"F        | 3"F             | 4"F       | 1.25"  | 36           | 58.3            |  |
|                 | SA-1222   | SA-1242 | 4"F        | 3"F    | 6"F       | 1.25"  | 48.2         | 37.7            | G12208S      | G12408S | 4"F        | 3"F             | 6"F       | 1.25"  | 48           | 79.2            |  |
|                 | SA-1223   | SA-1243 | 4"F        | 3"F    | 6"F       | 1.5"   | 60.2         | 51.5            | G12210S      | G12410S | 4"F        | 3"F             | 6"F       | 1.5"   | 60.8         | 100             |  |
|                 | SA-1224   | SA-1244 | 4"F        | 3"F    | 6"F       | 2"     | 72.2         | 65.5            | G12212S      | G12412S | 4"F        | 3"F             | 6"F       | 2"     | 72           | 120.7           |  |
|                 | SA-1225   | SA-1245 | 4"F        | 3"F    | 8"F       | 2"     | 84.272       | 79.4            | G12214S      | G12414S | 4"F        | 3"F             | 8"F       | 2"     | 84           | 140.8           |  |
|                 | SA-1226   | SA-1246 | 4"F        | 3"F    | 8"F       | 2.5"   | 96.2         | 93.3            | G12216S      | G12416S | 4"F        | 3"F             | 8"F       | 2.5"   | 96           | 161.5           |  |
|                 | SA-1227   | SA-1247 | 4"F        | 3"F    | 8"F       | 2.5"   | 108.2        | 107.2           | G12218S      | G12418S | 4"F        | 3"F             | 8"F       | 2.5"   | 108          | 182.4           |  |
|                 | SA-1228   | SA-1248 | 4"F        | 3"F    | 8"F       | 2.5"   | 120.2        | 121.1           | G12220S      | G12420S | 4"F        | 3"F             | 8"F       | 2.5"   | 120          | 202.3           |  |
| 14"             | SA-1421   | SA-1441 | 6"F        | 4"F    | 6"F       | 1.25"  | 37.2         | 75.7            | G14206S      | G14406S | 6"F        | 4"F             | 6"F       | 1.25"  | 37           | 75.2            |  |
|                 | SA-1422   | SA-1442 | 6"F        | 4"F    | 6"F       | 2"     | 49.2         | 102.4           | G14208S      | G14408S | 6"F        | 4"F             | 6"F       | 2"     | 49           | 102             |  |
|                 | SA-1423   | SA-1443 | 6"F        | 4"F    | 6"F       | 2"     | 61.2         | 129.1           | G14210S      | G14410S | 6"F        | 4"F             | 6"F       | 2"     | 61           | 127.8           |  |
|                 | SA-1424   | SA-1444 | 6"F        | 4"F    | 8"F       | 2"     | 73.2         | 155.8           | G14212S      | G14412S | 6"F        | 4"F             | 8"F       | 2"     | 73           | 154.6           |  |
|                 | SA-1425   | SA-1445 | 6"F        | 4"F    | 8"F       | 2.5"   | 85.2         | 182.5           | G14214S      | G14414S | 6"F        | 4"F             | 8"F       | 2"     | 85           | 179.5           |  |
|                 | SA-1426   | SA-1446 | 6"F        | 4"F    | 8"F       | 2.5"   | 97.2         | 209.2           | G14216S      | G14416S | 6"F        | 4"F             | 8"F       | 2.5"   | 97           | 207.2           |  |
|                 | SA-1427   | SA-1447 | 6"F        | 4"F    | 10"F      | 2.5"   | 109.2        | 236             | G14218S      | G14418S | 6"F        | 4"F             | 10"F      | 2.5"   | 109          | 235             |  |
|                 | SA-1428   | SA-1448 | 6"F        | 4"F    | 10"F      | 3"     | 121.2        | 262.7           | G14220S<br>S | G14420S | 6"F        | 4"F             | 10"F      | 3"     | 121          | 261.7           |  |

1. Armstrong model names may be presented differently in specifications e.g. WS-86-2 could be listed as WS-0806-200-1  
 2. Armstrong heating surface areas are estimated values.

## Shell & Tube Steam to Fluid Comparison Chart #2

| ITT - SU SERIES |           |          |            |        |           |        |              |                 |           | Armstrong - WS SERIES |            |        |           |        |              |                 |
|-----------------|-----------|----------|------------|--------|-----------|--------|--------------|-----------------|-----------|-----------------------|------------|--------|-----------|--------|--------------|-----------------|
| Shell Dia.      | Model No. |          | Connection |        |           |        | Total Length | Heating Surface | Model No. |                       | Connection |        |           |        | Total Length | Heating Surface |
|                 | 2 Pass    | 4 Pass   | Tubeside   |        | Shellside |        |              |                 | 2 Pass    | 4 Pass                | Tubeside   |        | Shellside |        |              |                 |
|                 |           |          | 2 pass     | 4 pass | Inlet     | Outlet | inch         | Sq.ft           |           |                       | 2 pass     | 4 pass | Inlet     | Outlet | inch         | Sq.ft           |
| 4"              | SU42-2    | SU42-4   | 1.25"      | 1"     | 1.25"     | 1"     | 28.6         | 4.5             | WS-42-2   | WS-42-4               | 1.25"      | 1"     | 2"        | 1"     | 28           | 4.4             |
|                 | SU43-2    | SU43-4   | 1.25"      | 1"     | 1.25"     | 1"     | 40.6         | 6.8             | WS-43-2   | WS-43-4               | 1.25"      | 1"     | 2"        | 1"     | 40           | 6.7             |
|                 | SU44-2    | SU44-4   | 1.25"      | 1"     | 1.25"     | 1"     | 52.6         | 9.2             | WS-44-2   | WS-44-4               | 1.25"      | 1"     | 2"        | 1"     | 52           | 9.1             |
|                 | SU45-2    | SU45-4   | 1.25"      | 1"     | 1.25"     | 1"     | 64.6         | 11.5            | WS-45-2   | WS-45-4               | 1.25"      | 1"     | 2.5"      | 1.25"  | 64           | 11.4            |
|                 | SU46-2    | SU46-4   | 1.25"      | 1"     | 1.5"      | 1"     | 76.6         | 13.9            | WS-46-2   | WS-46-4               | 1.25"      | 1"     | 2.5"      | 1.25"  | 76           | 13.7            |
|                 | SU47-2    | SU47-4   | 1.25"      | 1"     | 2"        | 1"     | 88.6         | 16.3            | WS-47-2   | WS-47-4               | 1.25"      | 1"     | 2.5"      | 1.25"  | 88           | 16.1            |
| 6"              | SU62-2    | SU62-4   | 2"         | 1.5"   | 1.5"      | 1"     | 29           | 8               | WS-62-2   | WS-62-4               | 2"         | 1.5"   | 1.5"      | 1"     | 28.6         | 7.9             |
|                 | SU63-2    | SU63-4   | 2"         | 1.5"   | 2"        | 1"     | 41           | 12.7            | WS-63-2   | WS-63-4               | 2"         | 1.5"   | 2"        | 1"     | 40.6         | 12.4            |
|                 | SU64-2    | SU64-4   | 2"         | 1.5"   | 2.5"      | 1"     | 53           | 17.4            | WS-64-2   | WS-64-4               | 2"         | 1.5"   | 2.5"      | 1"     | 52.6         | 17.3            |
|                 | SU65-2    | SU65-4   | 2"         | 1.5"   | 2.5"      | 1"     | 65           | 22.1            | WS-65-2   | WS-65-4               | 2"         | 1.5"   | 2.5"      | 1"     | 64.6         | 22              |
|                 | SU66-2    | SU66-4   | 2"         | 1.5"   | 3"        | 1"     | 77           | 26.8            | WS-66-2   | WS-66-4               | 2"         | 1.5"   | 3"        | 1"     | 76.6         | 26.5            |
|                 | SU67-2    | SU67-4   | 2"         | 1.5"   | 3"        | 1"     | 89           | 31.5            | WS-67-2   | WS-67-4               | 2"         | 1.5"   | 3"        | 1"     | 88.6         | 31.1            |
| 8"              | SU82-2    | SU82-4   | 3"         | 2"     | 2"        | 1"     | 29.4         | 15              | WS-82-2   | WS-82-4               | 3"         | 2"     | 2"        | 1"     | 29           | 15.1            |
|                 | SU83-2    | SU83-4   | 3"         | 2"     | 2.5"      | 1"     | 41.4         | 23              | WS-83-2   | WS-83-4               | 3"         | 2"     | 2.5"      | 1"     | 41           | 23.1            |
|                 | SU84-2    | SU84-4   | 3"         | 2"     | 3"        | 1"     | 53.4         | 32              | WS-84-2   | WS-84-4               | 3"         | 2"     | 3"        | 1"     | 53           | 32.1            |
|                 | SU85-2    | SU85-4   | 3"         | 2"     | 4"F       | 1"     | 65.4         | 41              | WS-85-2   | WS-85-4               | 3"         | 2"     | 4"F       | 1"     | 65           | 41.2            |
|                 | SU86-2    | SU86-4   | 3"         | 2"     | 4"F       | 1.25"  | 77.4         | 49              | WS-86-2   | WS-86-4               | 3"         | 2"     | 4"F       | 1.25"  | 77           | 49.2            |
|                 | SU87-2    | SU87-4   | 3"         | 2"     | 4"F       | 1.25"  | 89.4         | 58              | WS-87-2   | WS-87-4               | 3"         | 2"     | 4"F       | 1.25"  | 89           | 58.3            |
| 10"             | SU88-2    | SU88-4   | 3"         | 2"     | 6"F       | 1.25"  | 101.4        | 67              | WS-88-2   | WS-88-4               | 3"         | 2"     | 6"F       | 1.25"  | 101          | 67.2            |
|                 | SU89-2    | SU89-4   | 3"         | 2"     | 6"F       | 1.25"  | 113.4        | 75              | WS-89-2   | WS-89-4               | 3"         | 2"     | 6"F       | 1.25"  | 113          | 75.3            |
|                 | SU102-2   | SU102-4  | 4"         | 3"     | 3"        | 1"     | 29.5         | 27/25           | WS-102-2  | WS-102-4              | 4"         | 3"     | 4"F       | 1.5"   | 30.1         | 26              |
|                 | SU103-2   | SU103-4  | 4"         | 3"     | 4"F       | 1"     | 41.5         | 42/39           | WS-103-2  | WS-103-4              | 4"         | 3"     | 4"F       | 1.5"   | 42.1         | 41.5            |
|                 | SU104-2   | SU104-4  | 4"         | 3"     | 4"F       | 1.25"  | 53.5         | 56/53           | WS-104-2  | WS-104-4              | 4"         | 3"     | 6"F       | 2"     | 54.1         | 55              |
|                 | SU105-2   | SU105-4  | 4"         | 3"     | 6"F       | 1.25"  | 65.5         | 71/68           | WS-105-2  | WS-105-4              | 4"         | 3"     | 6"F       | 2"     | 66.1         | 70              |
| 12"             | SU106-2   | SU106-4  | 4"         | 3"     | 6"F       | 1.5"   | 77.5         | 86/82           | WS-106-2  | WS-106-4              | 4"         | 3"     | 6"F       | 2"     | 78.1         | 83              |
|                 | SU107-2   | SU107-4  | 4"         | 3"     | 6"F       | 1.5"   | 89.5         | 101/96          | WS-107-2  | WS-107-4              | 4"         | 3"     | 6"F       | 2"     | 90.1         | 98              |
|                 | SU108-2   | SU108-4  | 4"         | 3"     | 6"F       | 2"     | 101.5        | 116/110         | WS-108-2  | WS-108-4              | 4"         | 3"     | 6"F       | 2"     | 102.1        | 113             |
|                 | SU109-2   | SU109-4  | 4"         | 3"     | 6"F       | 2"     | 113.5        | 131/124         | WS-109-2  | WS-109-4              | 4"         | 3"     | 6"F       | 2"     | 114.1        | 128             |
|                 | SU1010-2  | SU1010-4 | 4"         | 3"     | 6"F       | 2"     | 125.5        | 146/138         | WS-1010-2 | WS-1010-4             | 4"         | 3"     | 6"F       | 2"     | 126.1        | 142             |
|                 | 14"       | SU123-2  | SU123-4    | 4"     | 3"        | 6"F    | 1.25"        | 41.9            | 61/58     | WS-123-2              | WS-123-4   | 4"     | 4"        | 6"F    | 2"           | 42.71           |
| SU124-2         |           | SU124-4  | 4"         | 3"     | 6"F       | 1.25"  | 53.9         | 83/78           | WS-124-2  | WS-124-4              | 4"         | 4"     | 6"F       | 2"     | 54.7         | 81              |
| SU125-2         |           | SU125-4  | 4"         | 3"     | 6"F       | 2"     | 65.9         | 104/98          | WS-125-2  | WS-125-4              | 4"         | 4"     | 6"F       | 2"     | 66.7         | 101             |
| SU126-2         |           | SU126-4  | 4"         | 3"     | 8"F       | 2"     | 77.9         | 126/119         | WS-126-2  | WS-126-4              | 4"         | 4"     | 6"F       | 2"     | 78.7         | 123             |
| SU127-2         |           | SU127-4  | 4"         | 3"     | 8"F       | 2"     | 89.9         | 147/139         | WS-127-2  | WS-127-4              | 4"         | 4"     | 6"F       | 2.5"   | 90.7         | 142             |
| SU128-2         |           | SU128-4  | 4"         | 3"     | 8"F       | 2"     | 101.9        | 169/160         | WS-128-2  | WS-128-4              | 4"         | 4"     | 8"F       | 2.5"   | 102.7        | 165             |
| 14"             | SU129-2   | SU129-4  | 4"         | 3"     | 8"F       | 2.5"   | 113.9        | 191/180         | WS-129-2  | WS-129-4              | 4"         | 4"     | 8"F       | 2.5"   | 114.7        | 186             |
|                 | SU1210-2  | SU1210-4 | 4"         | 3"     | 8"F       | 2.5"   | 125.9        | 212/200         | WS-1210-2 | WS-1210-4             | 4"         | 4"     | 8"F       | 2.5"   | 126.7        | 206             |
|                 | SU143-2   | SU143-4  | 6"         | 4"     | 6"F       | 1.25"  | 46.2         | 86/83           | WS-143-2  | WS-143-4              | 6"         | 4"     | 6"F       | 2"     | 43.7         | 84              |
|                 | SU144-2   | SU144-4  | 6"         | 4"     | 6"F       | 2"     | 58.2         | 116/111         | WS-144-2  | WS-144-4              | 6"         | 4"     | 6"F       | 2"     | 55.7         | 114             |
|                 | SU145-2   | SU145-4  | 6"         | 4"     | 6"F       | 2"     | 70.4         | 146/139         | WS-145-2  | WS-145-4              | 6"         | 4"     | 8"F       | 2.5"   | 67.7         | 142             |
|                 | SU146-2   | SU146-4  | 6"         | 4"     | 8"F       | 2"     | 82.5         | 175/167         | WS-146-2  | WS-146-4              | 6"         | 4"     | 8"F       | 2.5"   | 79.7         | 171             |
| 14"             | SU147-2   | SU147-4  | 6"         | 4"     | 8"F       | 2.5"   | 94.5         | 204/196         | WS-147-2  | WS-147-4              | 6"         | 4"     | 8"F       | 2.5"   | 91.7         | 200             |
|                 | SU148-2   | SU148-4  | 6"         | 4"     | 8"F       | 2.5"   | 106.5        | 234/224         | WS-148-2  | WS-148-4              | 6"         | 4"     | 8"F       | 2.5"   | 103.7        | 229             |
|                 | SU149-2   | SU149-4  | 6"         | 4"     | 106"F     | 2.5"   | 118.6        | 263/252         | WS-149-2  | WS-149-4              | 6"         | 4"     | 86"F      | 2.5"   | 115.7        | 258             |
|                 | SU1410-2  | SU1410-4 | 6"         | 4"     | 106"F     | 3"     | 130.6        | 292/280         | WS-1410-2 | WS-1410-4             | 6"         | 4"     | 8"F       | 2.5"   | 127.7        | 286             |

1. Armstrong model names may be presented differently in specifications e.g. WS-86-2 could be listed as WS-0806-200-1
2. Armstrong heating surface areas are estimated values.



# Shell & Tube Fluid to Fluid Comparison Chart 4"-14" Diameter Models

| SEC - WA SERIES |           |         |            |        |           |        |              |                 |           | TACO - L SERIES |            |        |           |        |              |                 |
|-----------------|-----------|---------|------------|--------|-----------|--------|--------------|-----------------|-----------|-----------------|------------|--------|-----------|--------|--------------|-----------------|
| Shell Dia.      | Model No. |         | Connection |        |           |        | Shell Length | Heating Surface | Model No. |                 | Connection |        |           |        | Shell Length | Heating Surface |
|                 | 2 Pass    | 4 Pass  | Tubeside   |        | Shellside |        |              |                 | 2 Pass    | 4 Pass          | Tubeside   |        | Shellside |        |              |                 |
|                 |           |         | 2 pass     | 4 pass | Inlet     | Outlet | inch         | sq.ft           |           |                 | 2 pass     | 4 pass | Inlet     | Outlet | inch         | Sq.ft           |
| 4"              | WA-4201   | WA-4401 | 1.5        | 1      | 1.5       | 1.5    | 24.5         | 4.7             | G4204L    | G4404L          | 1.5        | 1      | 1.5       | 1.5    | 24.5         | 4.6             |
|                 | WA-4202   | WA-4402 | 1.5        | 1      | 1.5       | 1.5    | 36.5         | 6.9             | G4206L    | G4406L          | 1.5        | 1      | 1.5       | 1.5    | 36.5         | 7               |
|                 | WA-4203   | WA-4403 | 1.5        | 1      | 1.5       | 1.5    | 48.5         | 9.1             | G4208L    | G4408L          | 1.5        | 1      | 1.5       | 1.5    | 48.5         | 9.3             |
|                 | WA-4204   | WA-4404 | 1.5        | 1      | 1.5       | 1.5    | 60.5         | 11.3            | G4210L    | G4410L          | 1.5        | 1      | 1.5       | 1.5    | 60.5         | 11.7            |
|                 | WA-4205   | WA-4405 | 1.5        | 1      | 1.5       | 1.5    | 72.5         | 13.6            | G4212L    | G4412L          | 1.5        | 1      | 1.5       | 1.5    | 72.5         | 14.1            |
|                 | WA-4206   | WA-4406 | 1.5        | 1      | 1.5       | 1.5    | 84.5         | 15.8            | G4214L    | G4414L          | 1.5        | 1      | 1.5       | 1.5    | 84.5         | 16.4            |
|                 | WA-4207   | WA-4407 | 1.5        | 1      | 1.5       | 1.5    | 96.5         | 18              | G4216L    | G4416L          | 1.5        | 1      | 1.5       | 1.5    | 96.5         | 18.8            |
|                 | WA-4208   | WA-4408 | 1.5        | 1      | 1.5       | 1.5    | 108.5        | 20.3            | G4218L    | G4418L          | 1.5        | 1      | 1.5       | 1.5    | 108.5        | 21.1            |
|                 | WA-4209   | WA-4409 | 1.5        | 1      | 1.5       | 1.5    | 120.5        | 22.5            | G4220L    | G4420L          | 1.5        | 1      | 1.5       | 1.5    | 120.5        | 23.5            |
| 6"              | WA-6201   | WA-6401 | 2          | 1.5    | 2.5       | 2.5    | 25           | 10.7            | G6204L    | G6404L          | 2          | 1.5    | 2.5       | 2.5    | 25           | 9.1             |
|                 | WA-6202   | WA-6402 | 2          | 1.5    | 2.5       | 2.5    | 37           | 15.9            | G6206L    | G6406L          | 2          | 1.5    | 2.5       | 2.5    | 37           | 13.8            |
|                 | WA-6203   | WA-6403 | 2          | 1.5    | 2.5       | 2.5    | 49           | 21.1            | G6208L    | G6408L          | 2          | 1.5    | 2.5       | 2.5    | 49           | 18.5            |
|                 | WA-6204   | WA-6404 | 2          | 1.5    | 2.5       | 2.5    | 61           | 26.3            | G6210L    | G6410L          | 2          | 1.5    | 2.5       | 2.5    | 61           | 23.2            |
|                 | WA-6205   | WA-6405 | 2          | 1.5    | 2.5       | 2.5    | 73           | 31.5            | G6212L    | G6412L          | 2          | 1.5    | 2.5       | 2.5    | 73           | 27.9            |
|                 | WA-6206   | WA-6406 | 2          | 1.5    | 2.5       | 2.5    | 85           | 36.7            | G6214L    | G6414L          | 2          | 1.5    | 2.5       | 2.5    | 85           | 32.6            |
|                 | WA-6207   | WA-6407 | 2          | 1.5    | 2.5       | 2.5    | 97           | 41.9            | G6216L    | G6416L          | 2          | 1.5    | 2.5       | 2.5    | 97           | 37.3            |
|                 | WA-6208   | WA-6408 | 2          | 1.5    | 2.5       | 2.5    | 109          | 47.1            | G6218L    | G6418L          | 2          | 1.5    | 2.5       | 2.5    | 109          | 42.1            |
|                 | WA-6209   | WA-6409 | 2          | 1.5    | 2.5       | 2.5    | 121          | 52.3            | G6220L    | G6420L          | 2          | 1.5    | 2.5       | 2.5    | 121          | 46.8            |
| 8"              | WA-8201   | WA-8401 | 3          | 2      | 4"F       | 4"F    | 24           | 14.7            | G8204L    | G8404L          | 3          | 2      | 4"F       | 4"F    | 24           | 16.5            |
|                 | WA-8202   | WA-8402 | 3          | 2      | 4"F       | 4"F    | 36           | 22.7            | G8206L    | G8406L          | 3          | 2      | 4"F       | 4"F    | 36           | 25.1            |
|                 | WA-8203   | WA-8403 | 3          | 2      | 4"F       | 4"F    | 48           | 30.7            | G8208L    | G8408L          | 3          | 2      | 4"F       | 4"F    | 48           | 33.7            |
|                 | WA-8204   | WA-8404 | 3          | 2      | 4"F       | 4"F    | 60           | 38.7            | G8210L    | G8406L          | 3          | 2      | 4"F       | 4"F    | 60           | 42.4            |
|                 | WA-8205   | WA-8405 | 3          | 2      | 4"F       | 4"F    | 72           | 46.6            | G8212L    | G8406L          | 3          | 2      | 4"F       | 4"F    | 72           | 51              |
|                 | WA-8206   | WA-8406 | 3          | 2      | 4"F       | 4"F    | 84           | 54.6            | G8214L    | G8406L          | 3          | 2      | 4"F       | 4"F    | 84           | 59.7            |
|                 | WA-8207   | WA-8407 | 3          | 2      | 4"F       | 4"F    | 96           | 62.6            | G8216L    | G8406L          | 3          | 2      | 4"F       | 4"F    | 96           | 68.3            |
|                 | WA-8208   | WA-8408 | 3          | 2      | 4"F       | 4"F    | 108          | 70.6            | G8218L    | G8406L          | 3          | 2      | 4"F       | 4"F    | 108          | 76.9            |
|                 | WA-8209   | WA-8409 | 3          | 2      | 4"F       | 4"F    | 120          | 78.6            | G8220L    | G8406L          | 3          | 2      | 4"F       | 4"F    | 120          | 85.6            |
| 10"             | WA-1021   | WA-1041 | 3          | 3      | 4"F       | 4"F    | 24           | 23.7            | G10204L   | G10404L         | 3          | 3      | 4"F       | 4"F    | 24           | 26.8            |
|                 | WA-1022   | WA-1042 | 3          | 3      | 4"F       | 4"F    | 36           | 37.7            | G10206L   | G10406L         | 3          | 3      | 4"F       | 4"F    | 36           | 40.9            |
|                 | WA-1023   | WA-1043 | 3          | 3      | 4"F       | 4"F    | 48           | 51.5            | G10208L   | G10408L         | 3          | 3      | 4"F       | 4"F    | 48           | 55              |
|                 | WA-1024   | WA-1044 | 3          | 3      | 4"F       | 4"F    | 60           | 65.5            | G10210L   | G10410L         | 3          | 3      | 4"F       | 4"F    | 60           | 69.2            |
|                 | WA-1025   | WA-1045 | 3          | 3      | 4"F       | 4"F    | 72           | 79.4            | G10212L   | G10412L         | 3          | 3      | 4"F       | 4"F    | 72           | 83.3            |
|                 | WA-1026   | WA-1046 | 3          | 3      | 4"F       | 4"F    | 84           | 93.3            | G10214L   | G10414L         | 3          | 3      | 4"F       | 4"F    | 84           | 97.5            |
|                 | WA-1027   | WA-1047 | 3          | 3      | 4"F       | 4"F    | 96           | 107.2           | G10216L   | G10416L         | 3          | 3      | 4"F       | 4"F    | 96           | 111.6           |
|                 | WA-1028   | WA-1048 | 3          | 3      | 4"F       | 4"F    | 108          | 121.1           | G10218L   | G10418L         | 3          | 3      | 4"F       | 4"F    | 108          | 125.7           |
|                 | WA-1029   | WA-1049 | 3          | 3      | 4"F       | 4"F    | 120          | 135.1           | G10220L   | G10420L         | 3          | 3      | 4"F       | 4"F    | 120          | 139.9           |
| 12"             | WA-1221   | WA-1241 | 4"F        | 3"F    | 4"F       | 4"F    | 36.2         | 23.7            | G12206L   | G12406L         | 4"F        | 3"F    | 5"F       | 5"F    | 36           | 58.3            |
|                 | WA-1222   | WA-1242 | 4"F        | 3"F    | 6"F       | 6"F    | 48.2         | 37.7            | G12208L   | G12408L         | 4"F        | 4"F    | 5"F       | 5"F    | 48           | 79.2            |
|                 | WA-1223   | WA-1243 | 4"F        | 3"F    | 6"F       | 6"F    | 60.2         | 51.5            | G12210L   | G12410L         | 4"F        | 4"F    | 5"F       | 5"F    | 60           | 100             |
|                 | WA-1224   | WA-1244 | 4"F        | 3"F    | 6"F       | 6"F    | 72.2         | 65.5            | G12212L   | G12412L         | 4"F        | 4"F    | 5"F       | 5"F    | 72           | 120.7           |
|                 | WA-1225   | WA-1245 | 4"F        | 3"F    | 8"F       | 8"F    | 84.2         | 79.4            | G12214L   | G12414L         | 4"F        | 4"F    | 5"F       | 5"F    | 84           | 140.8           |
|                 | WA-1226   | WA-1246 | 4"F        | 3"F    | 8"F       | 8"F    | 96.2         | 93.3            | G12216L   | G12416L         | 4"F        | 4"F    | 5"F       | 5"F    | 96           | 161.5           |
|                 | WA-1227   | WA-1247 | 4"F        | 3"F    | 8"F       | 8"F    | 108.2        | 107.2           | G12218L   | G12418L         | 4"F        | 4"F    | 5"F       | 5"F    | 108          | 182.4           |
|                 | WA-1228   | WA-1248 | 4"F        | 3"F    | 8"F       | 8"F    | 120.2        | 121.1           | G12220L   | G12420L         | 4"F        | 4"F    | 5"F       | 5"F    | 120          | 202.3           |
| 14"             | WA-1421   | WA-1441 | 6"F        | 4"F    | 6"F       | 6"F    | 37.2         | 75.7            | G14206L   | G14406L         | 6"F        | 4"F    | 6"F       | 6"F    | 37           | 75.2            |
|                 | WA-1422   | WA-1442 | 6"F        | 4"F    | 6"F       | 6"F    | 49.2         | 102.4           | G14208L   | G14408L         | 6"F        | 4"F    | 6"F       | 6"F    | 49           | 102             |
|                 | WA-1423   | WA-1443 | 6"F        | 4"F    | 6"F       | 6"F    | 61.2         | 129.1           | G14210L   | G14410L         | 6"F        | 4"F    | 6"F       | 6"F    | 61           | 127.8           |
|                 | WA-1424   | WA-1444 | 6"F        | 4"F    | 8"F       | 8"F    | 73.2         | 155.8           | G14212L   | G14412L         | 6"F        | 4"F    | 6"F       | 6"F    | 73           | 154.6           |
|                 | WA-1425   | WA-1445 | 6"F        | 4"F    | 8"F       | 8"F    | 85.2         | 182.5           | G14214L   | G14414L         | 6"F        | 4"F    | 6"F       | 6"F    | 85           | 179.5           |
|                 | WA-1426   | WA-1446 | 6"F        | 4"F    | 8"F       | 8"F    | 97.2         | 209.2           | G14216L   | G14416L         | 6"F        | 4"F    | 6"F       | 6"F    | 97           | 207.2           |
|                 | WA-1427   | WA-1447 | 6"F        | 4"F    | 10"F      | 10"F   | 109.2        | 236             | G14218L   | G14418L         | 6"F        | 4"F    | 6"F       | 6"F    | 109          | 235             |
|                 | WA-1428   | WA-1448 | 6"F        | 4"F    | 10"F      | 10"F   | 121.2        | 262.7           | G14220L   | G14420L         | 6"F        | 4"F    | 6"F       | 6"F    | 121          | 261.7           |

1. Armstrong model names may be presented differently in specifications e.g. W-86-24 could be listed as W-0806-204
2. Armstrong heating surface areas are estimated values.

# Shell & Tube Fluid to Fluid Comparison Chart 4"-14" Diameter Models

| ITT - WU SERIES |           |          |            |        |           |        |         |          | Armstrong - W SERIES |            |        |          |        |           |         |         |
|-----------------|-----------|----------|------------|--------|-----------|--------|---------|----------|----------------------|------------|--------|----------|--------|-----------|---------|---------|
| Shell Dia.      | Model No. |          | Connection |        |           |        | Total   | Heating  | Model No.            | Connection |        |          |        | Total     | Heating |         |
|                 | 2 Pass    | 4 Pass   | Tubeside   |        | Shellside |        | Length  | Surface  |                      | 2 Pass     | 4 Pass | Tubeside |        | Shellside | Length  | Surface |
|                 |           |          | 2 pass     | 4 pass | Inlet     | Outlet | inch    | Sq.ft    |                      |            |        | 2 pass   | 4 pass | Inlet     | Outlet  | inch    |
| 4"              | WU43-24   | WU43-44  | 1.25       | 1      | 2.5       | 2.5    | 40.875  | 4.1      | W-42-22              | W-42-42    | 1.25   | 1        | 1.5    | 1.5       | 28      | 2.4     |
|                 | WU44-24   | WU44-44  | 1.25       | 1      | 2.5       | 2.5    | 52.875  | 5.7      | W-43-22              | W-43-42    | 1.25   | 1        | 1.5    | 1.5       | 40      | 4       |
|                 | WU45-24   | WU45-44  | 1.25       | 1      | 2.5       | 2.5    | 64.875  | 7.2      | W-44-22              | W-44-42    | 1.25   | 1        | 1.5    | 1.5       | 52      | 5.6     |
|                 | WU46-24   | WU46-44  | 1.25       | 1      | 2.5       | 2.5    | 76.875  | 8.8      | W-45-22              | W-45-42    | 1.25   | 1        | 1.5    | 1.5       | 64      | 7.1     |
|                 | WU47-24   | WU47-44  | 1.25       | 1      | 2.5       | 2.5    | 88.875  | 10.4     | W-46-22              | W-46-42    | 1.25   | 1        | 1.5    | 1.5       | 76      | 8.6     |
|                 | WU47-24   | WU47-44  | 1.25       | 1      | 2.5       | 2.5    | 88.875  | 10.4     | W-47-22              | W-47-42    | 1.25   | 1        | 1.5    | 1.5       | 88      | 10.2    |
| 6"              | WU63-23   | WU63-43  | 2          | 1.5    | 2.5       | 2.5    | 40.125  | 12.7     | W-62-23              | W-62-43    | 2      | 1.5      | 2      | 2         | 28.625  | 7.9     |
|                 | WU64-23   | WU64-43  | 2          | 1.5    | 2.5       | 2.5    | 52.125  | 17.4     | W-63-23              | W-63-43    | 2      | 1.5      | 2      | 2         | 40.625  | 12.4    |
|                 | WU65-23   | WU65-43  | 2          | 1.5    | 2.5       | 2.5    | 64.125  | 22.1     | W-64-23              | W-64-43    | 2      | 1.5      | 2      | 2         | 52.625  | 17.3    |
|                 | WU66-23   | WU66-43  | 2          | 1.5    | 2.5       | 2.5    | 76.125  | 26.8     | W-65-23              | W-65-43    | 2      | 1.5      | 2      | 2         | 64.625  | 22      |
|                 | WU67-23   | WU67-43  | 2          | 1.5    | 2.5       | 2.5    | 88.125  | 31.5     | W-66-23              | W-66-43    | 2      | 1.5      | 2      | 2         | 76.625  | 26.5    |
|                 | WU68-23   | WU68-43  | 2          | 1.5    | 2.5       | 2.5    | 100.125 | 36.2     | W-67-23              | W-67-43    | 2      | 1.5      | 2      | 2         | 88.625  | 31.1    |
| 8"              | WU84-24   | WU84-44  | 3          | 2      | 4°F       | 4°F    | 53      | 32       | W-82-24              | W-82-44    | 3      | 2        | 3      | 3         | 29      | 15.1    |
|                 | WU85-24   | WU85-44  | 3          | 2      | 4°F       | 4°F    | 65      | 41       | W-83-24              | W-83-44    | 3      | 2        | 3      | 3         | 41      | 23.1    |
|                 | WU86-24   | WU86-44  | 3          | 2      | 4°F       | 4°F    | 77      | 49       | W-84-24              | W-84-44    | 3      | 2        | 3      | 3         | 53      | 32.1    |
|                 | WU87-24   | WU87-44  | 3          | 2      | 4°F       | 4°F    | 89      | 58       | W-85-24              | W-85-44    | 3      | 2        | 3      | 3         | 65      | 41.2    |
|                 | WU88-24   | WU88-44  | 3          | 2      | 4°F       | 4°F    | 101     | 67       | W-86-24              | W-86-44    | 3      | 2        | 3      | 3         | 77      | 49.2    |
|                 | WU89-24   | WU89-44  | 3          | 2      | 4°F       | 4°F    | 113     | 75       | W-87-24              | W-87-44    | 3      | 2        | 3      | 3         | 89      | 58.3    |
| 10"             | WU104-25  | WU104-45 | 4          | 3      | 4°F       | 4°F    | 53      | 56/53    | W-88-24              | W-88-44    | 3      | 2        | 3      | 3         | 101     | 67.2    |
|                 | WU105-25  | WU105-45 | 4          | 3      | 4°F       | 4°F    | 65      | 71/68    | W-89-24              | W-89-44    | 3      | 2        | 3      | 3         | 113     | 75.3    |
|                 | WU106-25  | WU106-45 | 4          | 3      | 4°F       | 4°F    | 77      | 86/82    | W-102-25             | W-102-45   | 4      | 3        | 3      | 3         | 30.1    | 26      |
|                 | WU107-25  | WU107-45 | 4          | 3      | 4°F       | 4°F    | 89      | 101/96   | W-103-25             | W-103-45   | 4      | 3        | 3      | 3         | 42.1    | 41.5    |
|                 | WU108-25  | WU108-45 | 4          | 3      | 4°F       | 4°F    | 101     | 116/110  | W-104-25             | W-104-45   | 4      | 3        | 3      | 3         | 54.1    | 55      |
|                 | WU109-25  | WU109-45 | 4          | 3      | 4°F       | 4°F    | 113     | 131/124  | W-105-25             | W-105-45   | 4      | 3        | 3      | 3         | 66.1    | 70      |
| 12"             | WU124-26  | WU124-46 | 4"         | 4"     | 5°F       | 5°F    | 56.5    | 56/53    | W-106-25             | W-106-45   | 4      | 3        | 3      | 3         | 78.1    | 83      |
|                 | WU125-26  | WU125-46 | 4"         | 4"     | 5°F       | 5°F    | 68.5    | 71/68    | W-107-25             | W-107-45   | 4      | 3        | 3      | 3         | 90.1    | 98      |
|                 | WU126-26  | WU126-46 | 4"         | 4"     | 5°F       | 5°F    | 80.5    | 86/82    | W-108-25             | W-108-45   | 4      | 3        | 3      | 3         | 102.1   | 113     |
|                 | WU127-26  | WU127-46 | 4"         | 4"     | 5°F       | 5°F    | 92.5    | 101/96   | W-109-25             | W-109-45   | 4      | 3        | 3      | 3         | 114.1   | 128     |
|                 | WU128-26  | WU128-46 | 4"         | 4"     | 5°F       | 5°F    | 104.5   | 116/110  | W-110-25             | W-110-45   | 4      | 3        | 3      | 3         | 126.1   | 142     |
|                 | WU129-26  | WU129-46 | 4"         | 4"     | 5°F       | 5°F    | 116.5   | 131/124  | W-123-24             | W-123-44   | 4"     | 4"       | 4°F    | 4°F       | 44.2    | 59      |
| 14"             | WU144-25  | WU144-45 | 6"         | 4"     | 4°F       | 4°F    | 57.1    | 116/111  | W-124-24             | W-124-44   | 4"     | 4"       | 4°F    | 4°F       | 56.2    | 81      |
|                 | WU145-25  | WU145-45 | 6"         | 4"     | 4°F       | 4°F    | 69.1    | 146/139  | W-125-24             | W-125-44   | 4"     | 4"       | 4°F    | 4°F       | 68.2    | 101     |
|                 | WU146-25  | WU146-45 | 6"         | 4"     | 4°F       | 4°F    | 81.1    | 175/167  | W-126-24             | W-126-44   | 4"     | 4"       | 4°F    | 4°F       | 80.2    | 123     |
|                 | WU147-25  | WU147-45 | 6"         | 4"     | 4°F       | 4°F    | 93.1    | 204/196  | W-127-24             | W-127-44   | 4"     | 4"       | 4°F    | 4°F       | 92.2    | 142     |
|                 | WU148-25  | WU148-45 | 6"         | 4"     | 4°F       | 4°F    | 105.1   | 234/224  | W-128-24             | W-128-44   | 4"     | 4"       | 4°F    | 4°F       | 104.2   | 165     |
|                 | WU149-25  | WU149-45 | 6"         | 4"     | 4°F       | 4°F    | 117.1   | 263/252  | W-129-24             | W-129-44   | 4"     | 4"       | 4°F    | 4°F       | 116.2   | 186     |
|                 |           |          |            |        |           |        |         | W-140-22 | W-140-44             | 6"         | 4"     | 6°F      | 6°F    | 127.8     | 286     |         |

1. Armstrong model names may be presented differently in specifications e.g. W-86-24 could be listed as W-0806-204
2. Armstrong heating surface areas are estimated values.

## Shell & Tube Steam to Fluid Cross Reference Chart 4"-14" Diameter Models

| 2 - PASS  |          |            |         | 4 - PASS  |          |            |         |
|-----------|----------|------------|---------|-----------|----------|------------|---------|
| 4" shell  |          |            |         | 4" shell  |          |            |         |
| SEC       | ITT      | Armstrong* | Taco    | SEC       | ITT      | Armstrong* | Taco    |
| SA-4201   | SU42-2   | WS-42-2    | G4204S  | SA-4401   | SU42-4   | WS-42-4    | G4404S  |
| SA-4202   | SU43-2   | WS-43-2    | G4206S  | SA-4402   | SU43-4   | WS-43-4    | G4406S  |
| SA-4203   | SU44-2   | WS-44-2    | G4208S  | SA-4403   | SU44-4   | WS-44-4    | G4408S  |
| SA-4204   | SU45-2   | WS-45-2    | G4210S  | SA-4404   | SU45-4   | WS-45-4    | G4410S  |
| SA-4205   | SU46-2   | WS-46-2    | G4212S  | SA-4405   | SU46-4   | WS-46-4    | G4412S  |
| SA-4206   | SU47-2   | WS-47-2    | G4214S  | SA-4406   | SU47-4   | WS-47-4    | G4414S  |
| SA-4207   |          |            | G4216S  | SA-4407   |          |            | G4416S  |
| SA-4208   |          |            | G4218S  | SA-4408   |          |            | G4418S  |
| SA-4209   |          |            | G4220S  | SA-4409   |          |            | G4420S  |
| 6" shell  |          |            |         | 6" shell  |          |            |         |
| SEC       | ITT      | Armstrong* | Taco    | SEC       | ITT      | Armstrong* | Taco    |
| SA6201    | SU62-2   | WS-62-2    | G6204S  | SA-6401   | SU62-4   | WS-62-4    | G6404S  |
| SA-6202   | SU63-2   | WS-63-2    | G6206S  | SA-6402   | SU63-4   | WS-63-4    | G6406S  |
|           | SU64-2   | WS-64-2    |         |           | SU64-4   | WS-64-4    |         |
| SA-6203   | SU65-2   | WS-65-2    | G6210S  | SA-6403   | SU65-4   | WS-65-4    | G6410S  |
| SA-6204   | SU66-2   | WS-66-2    | G6212S  | SA-6404   | SU66-4   | WS-66-4    | G6412S  |
| SA-6205   | SU67-2   | WS-67-2    | G6214S  | SA-6405   | SU67-4   | WS-67-4    | G6414S  |
| SA-6206   | SU68-2   | WS-68-2    | G6216S  | SA-6406   | SU68-4   | WS-68-4    | G6416S  |
| SA-6207   |          |            | G6218S  | SA-6407   |          |            | G6418S  |
| SA-6208   |          |            | G6220S  | SA-6408   |          |            | G6420S  |
| 8" shell  |          |            |         | 8" shell  |          |            |         |
| SEC       | ITT      | Armstrong* | Taco    | SEC       | ITT      | Armstrong* | Taco    |
| SA-8201   | SU82-2   | WS-82-2    | G8204S  | SA-8401   | SU82-4   | WS-82-4    | G8404S  |
| SA-8202   | SU83-2   | WS-83-2    | G8206S  | SA-8402   | SU83-4   | WS-83-4    | G8406S  |
| SA-8203   | SU84-2   | WS-84-2    | G8208S  | SA-8403   | SU84-4   | WS-84-4    | G8408S  |
| SA-8204   | SU85-2   | WS-85-2    | G8210S  | SA-8404   | SU85-4   | WS-85-4    | G8410S  |
| SA-8205   | SU86-2   | WS-86-2    |         | SA-8405   | SU86-4   | WS-86-4    |         |
| SA-8206   | SU87-2   | WS-87-2    | G8212S  | SA-8406   | SU87-4   | WS-87-4    | G8412S  |
| SA-8207   |          |            | G8214S  | SA-8407   |          |            | G8414S  |
| SA-8208   | SU88-2   | WS-88-2    | G8216S  | SA-8408   | SU88-4   | WS-88-4    | G8416S  |
| SA-8209   | SU89-2   | WS-89-2    | G8218S  | SA-8409   | SU89-4   | WS-89-4    | G8418S  |
| 10" shell |          |            |         | 10" shell |          |            |         |
| SEC       | ITT      | Armstrong* | Taco    | SEC       | ITT      | Armstrong* | Taco    |
| SA-1021   | SU102-2  | WS-102-2   | G10204S | SA-1041   | SU102-4  | WS-102-4   | G10404S |
| SA-1022   | SU103-2  | WS-103-2   | G10206S | SA-1042   | SU103-4  | WS-103-4   | G10406S |
| SA-1023   | SU104-2  | WS-104-2   | G10208S | SA-1043   | SU104-4  | WS-104-4   | G10408S |
| SA-1024   | SU105-2  | WS-105-2   | G10210S | SA-1044   | SU105-4  | WS-105-4   | G10410S |
| SA-1025   | SU106-2  | WS-106-2   | G10212S | SA-1045   | SU106-4  | WS-106-4   | G10412S |
| SA-1026   | SU107-2  | WS-107-2   | G10214S | SA-1046   | SU107-4  | WS-107-4   | G10414S |
| SA-1027   | SU108-2  | WS-108-2   | G10216S | SA-1047   | SU108-4  | WS-108-4   | G10416S |
| SA-1028   | SU109-2  | WS-109-2   | G10218S | SA-1048   | SU109-4  | WS-109-4   | G10418S |
| SA-1029   | SU1010-2 | WS-1010-2  | G10220S | SA-1049   | SU1010-4 | WS-1010-4  | G10420S |
| 12" shell |          |            |         | 12" shell |          |            |         |
| SEC       | ITT      | Armstrong* | Taco    | SEC       | ITT      | Armstrong* | Taco    |
| SA-1221   | SU123-2  | WS-123-2   | G12206S | SA-1241   | SU123-4  | WS-123-4   | G12406S |
| SA-1222   | SU124-2  | WS-124-2   | G12208S | SA-1242   | SU124-4  | WS-124-4   | G12408S |
| SA-1223   | SU125-2  | WS-125-2   | G12210S | SA-1243   | SU125-4  | WS-125-4   | G12410S |
| SA-1224   | SU126-2  | WS-126-2   | G12212S | SA-1244   | SU126-4  | WS-126-4   | G12412S |
| SA-1225   | SU127-2  | WS-127-2   | G12214S | SA-1245   | SU127-4  | WS-127-4   | G12414S |
| SA-1226   | SU128-2  | WS-128-2   | G12216S | SA-1246   | SU128-4  | WS-128-4   | G12416S |
| SA-1227   | SU129-2  | WS-129-2   | G12218S | SA-1247   | SU129-4  | WS-129-4   | G12418S |
| SA-1228   | SU1210-2 | WS-1210-2  | G12220S | SA-1248   | SU1210-4 | WS-1210-4  | G12420S |
| 14" shell |          |            |         | 14" shell |          |            |         |
| SEC       | ITT      | Armstrong* | Taco    | SEC       | ITT      | Armstrong* | Taco    |
| SA-1421   | SU143-2  | WS-143-2   | G14206S | SA-1441   | SU143-4  | WS-143-4   | G14406S |
| SA-1422   | SU144-2  | WS-144-2   | G14208S | SA-1442   | SU144-4  | WS-144-4   | G14408S |
| SA-1423   |          |            | G14210S | SA-1443   |          |            | G14410S |
| SA-1424   | SU145-2  | WS-145-2   | G14212S | SA-1444   | SU145-4  | WS-145-4   | G14412S |
| SA-1425   | SU146-2  | WS-146-2   | G14214S | SA-1445   | SU146-4  | WS-146-4   | G14414S |
| SA-1426   | SU147-2  | WS-147-2   | G14216S | SA-1446   | SU147-4  | WS-147-4   | G14416S |
| SA-1427   | SU148-2  | WS-148-2   | G14218S | SA-1447   | SU148-4  | WS-148-4   | G14418S |
| SA-1428   | SU149-2  | WS-149-2   | G14220S | SA-1448   | SU149-4  | WS-149-4   | G14420S |
|           | SU1410-2 | WS-1410-2  |         |           | SU1410-4 | WS-1410-4  |         |

\*Armstrong model names may be presented differently in specifications e.g. WS-86-2 could be listed as WS-0806-200-1  
 - This cross reference guide is intended as an aid for product selection only, and does not imply exact interchangeability, as minor differences do exist  
 - We apologize for any errors or omissions. To determine exact compatibility, please consult SEC's product specifications or contact the sales office.  
 - SEC is not responsible for the improper application of its products.

## Shell & Tube Fluid to Fluid Cross Reference Chart 4"-14" Diameter Models

| 2 - PASS  |           |            |         | 4 - PASS  |           |            |         |
|-----------|-----------|------------|---------|-----------|-----------|------------|---------|
| 4" shell  |           |            |         | 4" shell  |           |            |         |
| SEC       | ITT       | Armstrong* | Taco    | SEC       | ITT       | Armstrong* | Taco    |
| WA-4201   |           | W-42-22    | G4204L  | WA-4401   |           | W-42-42    | G4404L  |
| WA-4202   | WU43-24   | W-43-22    | G4206L  | WA-4402   | WU43-44   | W-43-42    | G4406L  |
| WA-4203   | WU44-24   | W-44-22    | G4208L  | WA-4403   | WU44-44   | W-44-42    | G4408L  |
| WA-4204   | WU45-24   | W-45-22    | G4210L  | WA-4404   | WU45-44   | W-45-42    | G4410L  |
| WA-4205   | WU46-24   | W-46-22    | G4212L  | WA-4405   | WU46-44   | W-46-42    | G4412L  |
| WA-4206   | WU47-24   | W-47-22    | G4214L  | WA-4406   | WU47-44   | W-47-42    | G4414L  |
| WA-4207   |           |            | G4216L  | WA-4407   |           |            | G4416L  |
| WA-4208   |           |            | G4218L  | WA-4408   |           |            | G4418L  |
| WA-4209   |           |            | G4220L  | WA-4409   |           |            | G4420L  |
| 6" shell  |           |            |         | 6" shell  |           |            |         |
| SEC       | ITT       | Armstrong* | Taco    | SEC       | ITT       | Armstrong* | Taco    |
| WA-6201   |           | W-62-23    | G6204L  | WA-6401   |           | W-62-43    | G6404L  |
| WA-6202   | WU63-23   | W-63-23    | G6206L  | WA-6402   | WU63-43   | W-63-43    | G6406L  |
|           | WU64-23   | W-64-23    |         |           | WU64-43   | W-64-43    |         |
|           |           |            | G6208L  |           |           |            | G6408L  |
| WA-6203   | WU65-23   | W-65-23    | G6210L  | WA-6403   | WU65-43   | W-65-43    | G6410L  |
| WA-6204   | WU66-23   | W-66-23    | G6212L  | WA-6404   | WU66-43   | W-66-43    | G6412L  |
| WA-6205   | WU67-23   | W-67-23    | G6214L  | WA-6405   | WU67-43   | W-67-43    | G6414L  |
| WA-6206   | WU68-23   | W-68-23    | G6216L  | WA-6406   | WU68-43   | W-68-43    | G6416L  |
| WA-6207   |           |            | G6218L  | WA-6407   |           |            | G6418L  |
| WA-6208   |           |            | G6220L  | WA-6408   |           |            | G6420L  |
| WA-6209   |           |            |         | WA-6409   |           |            |         |
| 8" shell  |           |            |         | 8" shell  |           |            |         |
| SEC       | ITT       | Armstrong* | Taco    | SEC       | ITT       | Armstrong* | Taco    |
| WA-8201   |           | W-82-24    | G8204L  | WA-8401   |           | W-82-44    | G8404L  |
| WA-8202   |           | W-83-24    | G8206L  | WA-8402   |           | W-83-44    | G8406L  |
| WA-8203   | WU84-24   | W-84-24    | G8208L  | WA-8403   | WU84-44   | W-84-44    | G8408L  |
| WA-8204   | WU85-24   | W-85-24    | G8210L  | WA-8404   | WU85-44   | W-85-44    | G8410L  |
| WA-8205   | WU86-24   | W-86-24    |         | WA-8405   | WU86-44   | W-86-44    |         |
| WA-8206   | WU87-24   | W-87-24    | G8212L  | WA-8406   | WU87-44   | W-87-44    | G8412L  |
| WA-8207   |           |            | G8214L  | WA-8407   |           |            | G8414L  |
| WA-8208   | WU88-24   | W-88-24    | G8216L  | WA-8408   | WU88-44   | W-88-44    | G8416L  |
| WA-8209   | WU89-24   | W-89-24    | G8218L  | WA-8409   | WU89-44   | W-89-44    | G8418L  |
|           |           |            | G8220L  |           |           |            | G8420L  |
| 10" shell |           |            |         | 10" shell |           |            |         |
| SEC       | ITT       | Armstrong* | Taco    | SEC       | ITT       | Armstrong* | Taco    |
| WA-1021   |           | W-102-25   | G10204L | WA-1041   |           | W-102-45   | G10404L |
| WA-1022   |           | W-103-25   | G10206L | WA-1042   |           | W-103-45   | G10406L |
| WA-1023   | WU104-25  | W-104-25   | G10208L | WA-1043   | WU104-45  | W-104-45   | G10408L |
| WA-1024   | WU105-25  | W-105-25   | G10210L | WA-1044   | WU105-45  | W-105-45   | G10410L |
| WA-1025   | WU106-25  | W-106-25   | G10212L | WA-1045   | WU106-45  | W-106-45   | G10412L |
| WA-1026   | WU107-25  | W-107-25   | G10214L | WA-1046   | WU107-45  | W-107-45   | G10414L |
| WA-1027   | WU108-25  | W-108-25   | G10216L | WA-1047   | WU108-45  | W-108-45   | G10416L |
| WA-1028   | WU109-25  | W-109-25   | G10218L | WA-1048   | WU109-45  | W-109-45   | G10418L |
| WA-1029   | WU1010-25 | W-1010-25  | G10220L | WA-1049   | WU1010-45 | W-1010-45  | G10420L |
| 12" shell |           |            |         | 12" shell |           |            |         |
| SEC       | ITT       | Armstrong* | Taco    | SEC       | ITT       | Armstrong* | Taco    |
| WA-1221   |           | W-123-24   | G12206L | WA-1241   |           | W-123-44   | G12406L |
| WA-1222   | WU124-26  | W-124-24   | G12208L | WA-1242   | WU124-46  | W-124-44   | G12408L |
| WA-1223   | WU125-24  | W-125-24   | G12210L | WA-1243   | WU125-46  | W-125-44   | G12410L |
| WA-1224   | WU126-26  | W-126-24   | G12212L | WA-1244   | WU126-46  | W-126-44   | G12412L |
| WA-1225   | WU127-26  | W-127-24   | G12214L | WA-1245   | WU127-46  | W-127-44   | G12414L |
| WA-1226   | WU128-26  | W-128-24   | G12216L | WA-1246   | WU128-46  | W-128-44   | G12416L |
| WA-1227   | WU129-26  | W-129-24   | G12218L | WA-1247   | WU129-46  | W-129-44   | G12418L |
| WA-1228   |           | W-1210-24  | G12220L | WA-1248   |           | W-1210-44  | G12420L |
| 14" shell |           |            |         | 14" shell |           |            |         |
| SEC       | ITT       | Armstrong* | Taco    | SEC       | ITT       | Armstrong* | Taco    |
| WA-1421   |           |            | G14206L | WA-1441   |           |            | G14406L |
| WA-1422   |           |            | G14208L | WA-1442   |           |            | G14408L |
| WA-1423   | WU144-24  | W-144-2    | G14210L | WA-1443   | WU144-44  | W-144-44   | G14410L |
| WA-1424   | WU145-24  | W-145-2    | G14212L | WA-1444   | WU145-44  | W-145-44   | G14412L |
| WA-1425   | WU146-24  | W-146-2    | G14214L | WA-1445   | WU146-44  | W-146-44   | G14414L |
| WA-1426   | WU147-24  | W-147-2    | G14216L | WA-1446   | WU147-44  | W-147-44   | G14416L |
| WA-1427   | WU148-24  | W-148-2    | G14218L | WA-1447   | WU148-44  | W-148-44   | G14418L |
| WA-1428   | WU149-24  | W-149-2    | G14220L | WA-1448   | WU149-44  | W-149-44   | G14420L |
|           |           | W-1410-2   |         |           |           | W-1410-44  |         |

\*Armstrong model names may be presented differently in specifications e.g. W-86-24 could be listed as W-0806-204

This cross reference guide is intended as an aid for product selection only, and does not imply exact interchangeability, as minor differences do exist between the To determine exact compatibility, please consult SEC's product specifications or contact the sales office.

We apologize for any errors or omissions - SEC is not responsible for the improper application of its products

## SEC Heat Exchanger Quote Form



**To find out which type of our heat exchangers  
will best suit your requirements  
please complete this form and send it to us**

Name: \_\_\_\_\_ Company: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_

State: \_\_\_\_\_ Country: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

Project Reference: \_\_\_\_\_ Quantity: \_\_\_\_\_

Material of Construction: \_\_\_\_\_

Type Of Heat Exchanger: \_\_\_\_\_ Delivery Required by: \_\_\_\_\_ In Weeks

### SIDE 1

### SIDE 2

FLUID TYPE: \_\_\_\_\_

FLOW RATE: \_\_\_\_\_

INLET TEMPERATURE: \_\_\_\_\_ C° or F° \_\_\_\_\_ C° or F°

OUTLET TEMPERATURE: \_\_\_\_\_ C° or F° \_\_\_\_\_ C° or F°

ALLOWABLE  
PRESSURE DROP: \_\_\_\_\_

DESIGN PRESSURE: \_\_\_\_\_

Optional Data  
If Known: \_\_\_\_\_

HEAT TRANSFERRED  
(CAPACITY): \_\_\_\_\_

DENSITY @  
TEMPERATURE: \_\_\_\_\_

THERMAL  
CONDUCTIVITY: \_\_\_\_\_

SPECIFIC HEAT: \_\_\_\_\_

VISCOSITY: \_\_\_\_\_

PHASE CHANGE: \_\_\_\_\_

**Print and Fax This Form to 1.902.659.2800**



## **SEC** Heat Exchangers

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[www.heatexchangers.ca](http://www.heatexchangers.ca)  
[www.brazedplate.com](http://www.brazedplate.com)  
[www.secplateandframe.com](http://www.secplateandframe.com)  
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