

Facet HP Series single-stage coalescers use wafer repacks to remove gross amounts of water and solids from hydrocarbons. They are available in several standard sizes to accommodate flows from 10 to 2000 gpm (38 to 7570 lpm). They provide protection to filtration systems from gross amounts of water and solids that are commonly carried through inbound transport pipelines.

HP Series housings offer an option of using coalescer cartridges for more efficient solids separation and liquid-liquid water separation. Use of an adaptor kit permits returning to the use of repacks at any time.

HP Series housings have no internal moving parts and are designed for easy servicing, thereby reducing maintenance costs. Each housing is manufactured with quality workmanship and materials to give long-lasting and dependable service.

Variations from standard design are available in higher pressures, other materials, special connections or other quick opening closures.

## STANDARD DESIGN FEATURES

- Body: Carbon steel construction
- ASME Code, Section VIII, Div. 1, stamped and certified
- Designed for 150 psi (10.5 kg/cm<sup>2</sup>) @ 250°F
- Housing Closure:
  - Blind cover on housings less than 14" (356 mm) OD
  - Swing bolt closure on housings 14" (356 mm) OD and larger
- Housing Covers:
  - Removable on housing up to 14" (356 mm) OD
  - Hinged on housings 14" (356 mm) thru 36" (914 mm) OD
  - Rotating davits on housings 42" (1067 mm) OD and larger
- Head Gasket: Buna-N — other material available by request
- Exterior: Prime coated
- Saddle supports for pier mounting

## OPTIONS

- Steel stands available
- Internal epoxy coating

## STANDARD CONNECTIONS

- Inlet and outlet: 150# RF (ANSI) flanged
- All other connections are 3000# NPT female type couplings

*Due to our continuing program of improvement, specifications are subject to change without notice.*

**GUIDELINE FOR FLOW CAPACITIES OF EQUIPMENT**  
(Subject To Limitations Contained In Footnotes)

| FOR EXCELSIOR TYPE CARTRIDGES ONLY <small>See (3) (4) and MEDIA CHART</small>                          |                 |             |             |             |             |
|--|-----------------|-------------|-------------|-------------|-------------|
| HP Series Flow Rate in GPM For Specific Gravity Ranges As Shown At 60°F                                |                 |             |             |             |             |
| MODEL  | 0.55 - 0.65     | 0.66 - 0.72 | 0.73 - 0.77 | 0.78 - 0.82 | 0.83 - 0.86 |
| HP-10  | 10              | 10          | 8           | 6           | 5           |
| HP-25  | 25              | 23          | 18          | 15          | 11          |
| HP-50  | 43              | 40          | 31          | 26          | 20          |
| HP-80  | 70              | 65          | 50          | 43          | 32          |
| HP-100   | 100             | 90          | 75          | 60          | 45          |
| HP-120   | 125             | 110         | 90          | 75          | 55          |
| HP-150   | 160             | 150         | 120         | 100         | 75          |
| HP-180   | 205             | 190         | 150         | 125         | 95          |
| HP-200   | 255             | 230         | 185         | 155         | 115         |
| HP-300   | 370             | 330         | 270         | 225         | 165         |
| HP-500   | 585             | 530         | 425         | 350         | 265         |
| HP-750   | 840             | 750         | 600         | 510         | 375         |
| HP-1000  | 1200            | 1080        | 860         | 720         | 540         |
| HP-1500  | 1550            | 1400        | 1130        | 940         | 700         |
| HP-1800  | 1960            | 1800        | 1430        | 1200        | 900         |
| HP-2000  | 2400            | 2200        | 1750        | 1425        | 1100        |
| Estimated Efficiency <sup>(1) (3)</sup>  | 99.95%          | 98-99%      | 98-99%      | 97-98%      | 97-98%      |
| FOR GLASS FIBER, CARBON STEEL, STAINLESS STEEL OR COMBINATION PACKS <small>(4) and MEDIA CHART</small> |                 |             |             |             |             |
| Series HPX Flow Rate In GPM For Specific Gravity Ranges As Shown At 60°F                               |                 |             |             |             |             |
| MODEL  | 0.55 - 0.65     | 0.66 - 0.72 | 0.73 - 0.77 | 0.78 - 0.82 | 0.83 - 0.86 |
| HPX-10   | 6               | 6           | 5           | 4           | 3           |
| HPX-25   | 16              | 15          | 12          | 10          | 7           |
| HPX-50   | 29              | 27          | 21          | 17          | 13          |
| HPX-80   | 47              | 43          | 33          | 28          | 21          |
| HPX-100  | 65              | 60          | 50          | 40          | 30          |
| HPX-120  | 84              | 73          | 60          | 50          | 35          |
| HPX-150  | 105             | 100         | 80          | 65          | 50          |
| HPX-180  | 135             | 125         | 100         | 85          | 63          |
| HPX-200  | 170             | 150         | 120         | 100         | 75          |
| HPX-300  | 245             | 220         | 180         | 150         | 110         |
| HPX-500  | 390             | 350         | 280         | 230         | 175         |
| HPX-750  | 560             | 500         | 400         | 340         | 250         |
| HPX-1000   | 800             | 720         | 570         | 480         | 360         |
| HPX-1500   | 1030            | 930         | 750         | 625         | 465         |
| HPX-1800   | 1300            | 1200        | 960         | 800         | 600         |
| HPX-2000   | 1600            | 1460        | 1160        | 950         | 730         |
| Estimated Efficiency <sup>(2) (3)</sup>  | See Media Chart |             |             |             |             |

- (1) Estimated efficiency is based on conditions where the inlet water content is between 0.5% and 3% by volume, pH value between 5 and 9, operating temperature does not exceed 250°F, and interfacial tension between liquid and water phase is not less than 35 dynes per centimeter (See Media Chart).
- (2) Estimated efficiency is based on conditions where the inlet water content is between 0.5% and 3% by volume, and interfacial tension between the liquid and water phase is not less than 35 dynes per centimeter. (See Media Chart).
- (3) Efficiencies shown are estimated based on general conditions normally encountered in such applications. These efficiencies are not warranted until all data have been submitted on Facet Application Information Sheet AI-LS for evaluation and statement of efficiency.
- (4) Applications for liquid temperatures less than 60°F should be referred either to your regional sales office or to the factory.

*Due to our continuing program of improvement, specifications are subject to change without notice.*

## EQUIPMENT SELECTION GUIDELINES

Based On Normal Operating Conditions And Subject To Limitations Shown In Flow Guideline

| PERFORMANCE GUIDELINES                                     |  | MODERATELY EFFICIENT REMOVAL OF GROSS SOLIDS AND WATER FROM HEAVY AND LIGHT LIQUIDS |   |  |
|--|--|---|---|--|
| WHEN USED WITH THIS LIQUID                                 | TO REMOVE THESE CONTAMINANTS                           |   |   |  |
| BUTANE / PROPANE   | SOLIDS<br>ENTRAINED WATER<br>WATER HAZE                | RG4<br>RG6-7<br>R6  |   |  |
| AVIATION GASOLINE  | SOLIDS<br>ENTRAINED WATER<br>WATER HAZE                | RG4<br>RG7<br>R7  |   |  |
| MOTOR GASOLINES  | SOLIDS<br>ENTRAINED WATER<br>WATER HAZE                | RG4<br>RG7<br>R7  |   |  |
| NAPHTHA (LIGHT)  | SOLIDS<br>ENTRAINED WATER<br>WATER HAZE                | RG4<br>RG7<br>Q <sup>(1)</sup>  |   |  |
| KEROSENE AND JET FUEL                                      | SOLIDS<br>ENTRAINED WATER<br>WATER HAZE                | RG4<br>RG7<br>Q <sup>(1)</sup>  |   |  |
| DIESEL FUEL  | SOLIDS<br>ENTRAINED WATER<br>WATER HAZE                | RG4<br>RG8<br>N <sup>(1)</sup>  |   |  |
| FUEL OIL   | SOLIDS<br>ENTRAINED WATER<br>WATER HAZE                | RG4<br>RG8<br>N <sup>(1)</sup>  |   |  |
| HYDRAULIC OIL  | SOLIDS<br>ENTRAINED WATER<br>WATER HAZE                | RG4<br>RM9<br>N <sup>(1)</sup>  |   |  |
| LUBE OILS  | SOLIDS<br>ENTRAINED WATER<br>WATER HAZE                | RG4<br>RM9<br>N <sup>(1)</sup>  |   |  |
| RECOMMENDATIONS <sup>(1)</sup>                             | CONTAMINANT LOAD <sup>(1)</sup>                        |   | SOLIDS REMOVAL  | WATER REMOVAL  |
| R Recommended<br>Q With Qualification<br>N Not Recommended | SOLIDS   | WATER   | 1 Nominal 2 to 5 $\mu$<br>2 Nominal 5 to 10 $\mu$<br>3 Nominal 15 to 25 $\mu$<br>4 Nominal 40 $\mu$ | 6 Excellent 100%<br>7 Good 99.5%<br>8 Moderate 98%<br>9 Fair 95% |
|  | L 0-0.5 ppm<br>M 0.6-1.0 ppm<br>G Greater than 1.0 ppm | L 0-0.5% Vol.<br>M 0.6-3.0% Vol.<br>G Grater than 3.0% Vol.                         |   |  |

<sup>(1)</sup> Contact Factory For Other Recommendations

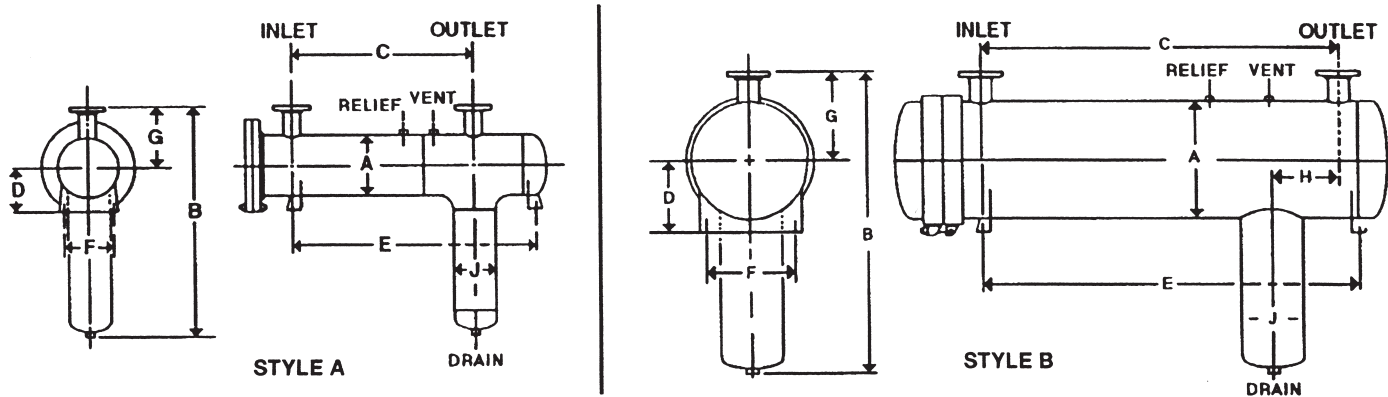
## MEDIA CHART

| MEDIA           | NOMINAL SOLIDS RETENTION | MAX. TEMP. | pH*          | EFFICIENCY     |
|-----------------|--------------------------|------------|--------------|----------------|
| Excelsior       | 40 - 60                  | 250°F      | 5-9          | <sup>(1)</sup> |
| Glass Fiber     | 30 - 40                  | 350°F      | less than 10 | 99.9%          |
| Stainless Steel | 50 - 60                  | 600°F      | more than 4  | 98%            |
| Carbon Steel    | 50 - 60                  | 600°F      | more than 4  | 98%            |
| Combination     | 30 - 40                  | 350°F      | less than 10 | 98%            |

\* Optimum operating condition and should not in itself be restrictive.

<sup>(1)</sup> Estimated efficiency is based on conditions where the inlet water content is between 0.5% and 3% by volume, pH value between 5 and 9, operating temperature does not exceed 250°F, and interfacial tension between liquid and water phase is not less than 35 dynes per centimeter.

*Due to our continuing program of improvement, specifications are subject to change without notice.*



## DIMENSIONAL DATA

| MODEL NUMBER | DIMENSIONS |      |     |      |     |      |     |     |     |      |     |      |     |     |     |     |     |     |
|--------------|------------|------|-----|------|-----|------|-----|-----|-----|------|-----|------|-----|-----|-----|-----|-----|-----|
|              | A          |      | B   |      | C   |      | D   |     | E   |      | F   |      | G   |     | H   |     | J   |     |
| STYLE A      | in.        | mm.  | in. | mm.  | in. | mm.  | in. | mm. | in. | mm.  | in. | mm.  | in. | mm. | in. | mm. | in. | mm. |
| HP-10        | 4½         | 114  | 33½ | 851  | 24  | 610  | 5   | 127 | 30½ | 775  | 22  | 559  | 8   | 203 | —   | —   | 4½  | 114 |
| HP-25        | 6⅝         | 168  | 37½ | 953  | 33  | 838  | 6   | 152 | 41  | 1041 | 24  | 610  | 9   | 229 | —   | —   | 6⅝  | 168 |
| HP-50        | 8⅝         | 219  | 45  | 1143 | 39  | 991  | 7   | 178 | 48½ | 1232 | 30  | 762  | 10  | 254 | —   | —   | 8⅝  | 219 |
| HP-80        | 10¾        | 273  | 46  | 1168 | 42  | 1067 | 8   | 203 | 54  | 1372 | 30  | 762  | 11  | 279 | —   | —   | 8⅝  | 219 |
| HP-100       | 12¾        | 324  | 47  | 1193 | 48  | 1219 | 9   | 229 | 60½ | 1537 | 30  | 762  | 12  | 305 | —   | —   | 8⅝  | 219 |
| HP-120       | 14         | 356  | 48½ | 1232 | 50  | 1270 | 10½ | 268 | 47½ | 1206 | 31  | 787  | 13  | 330 | —   | —   | 8⅝  | 219 |
| STYLE B      |            |      |     |      |     |      |     |     |     |      |     |      |     |     |     |     |     |     |
| HP-150       | 16         | 406  | 51  | 1295 | 60  | 1524 | 11  | 279 | 66  | 1676 | 32  | 813  | 14  | 356 | 4   | 102 | 8⅝  | 219 |
| HP-180       | 18         | 457  | 54  | 1372 | 66  | 1676 | 12  | 305 | 72  | 1829 | 33  | 838  | 15  | 381 | 9   | 229 | 10¾ | 273 |
| HP-200       | 20         | 508  | 56  | 1422 | 72  | 1829 | 13  | 330 | 78  | 1981 | 34  | 864  | 16  | 406 | 9   | 229 | 12¾ | 324 |
| HP-300       | 24         | 610  | 60  | 1524 | 75  | 1905 | 15  | 381 | 81  | 2057 | 36  | 914  | 18  | 457 | 9   | 229 | 12¾ | 324 |
| HP-500       | 30         | 762  | 69  | 1753 | 80  | 2032 | 18  | 457 | 86  | 2184 | 42  | 1067 | 21  | 533 | 12  | 305 | 14  | 356 |
| HP-750       | 36         | 914  | 82  | 2083 | 92  | 2337 | 21  | 559 | 98  | 2489 | 51  | 1295 | 24  | 610 | 12  | 305 | 16  | 406 |
| HP-1000      | 42         | 1067 | 91  | 2311 | 106 | 2692 | 24  | 610 | 114 | 2896 | 57  | 1448 | 27  | 686 | 12  | 305 | 16  | 406 |
| HP-1500      | 48         | 1219 | 95  | 2413 | 120 | 3048 | 27  | 686 | 128 | 3251 | 57  | 1448 | 30  | 762 | 12  | 305 | 20  | 508 |
| HP-1800      | 54         | 1372 | 110 | 2794 | 132 | 3353 | 30  | 762 | 142 | 3607 | 69  | 1753 | 33  | 838 | 10  | 254 | 20  | 508 |
| HP-2000      | 60         | 1524 | 119 | 3023 | 144 | 3658 | 30  | 762 | 154 | 3912 | 75  | 1905 | 36  | 914 | 10  | 254 | 20  | 508 |

## STANDARD HOUSING DATA

| MODEL NUMBER | LIQUID VOLUME (APPROXIMATE) |       | SHIPPING WEIGHT (APPROXIMATE) |      | CONNECTIONS          |     |               |     |       |     |             |     |               |     |     |     |
|--------------|-----------------------------|-------|-------------------------------|------|----------------------|-----|---------------|-----|-------|-----|-------------|-----|---------------|-----|-----|-----|
|              |                             |       |                               |      | INLET/OUTLET FLANGED |     | VENT & RELIEF |     | DRAIN |     | LEVEL GAUGE |     | LEVEL CONTROL |     |     |     |
| STYLE A      | gals.                       | ltrs. | lbs.                          | kgs. | in.                  | mm. | in.           | mm. | in.   | mm. | in.         | mm. | in.           | mm. | in. | mm. |
| HP-10        | 2.4                         | 9     | 240                           | 109  | 1                    | 25  | ½             | 13  | ½     | 13  | ¾           | 19  | ¾             | 19  | ¾   | 19  |
| HP-25        | 10.0                        | 38    | 310                           | 141  | 1½                   | 38  | ½             | 13  | ½     | 13  | ¾           | 19  | ¾             | 19  | ¾   | 19  |
| HP-50        | 18.2                        | 69    | 780                           | 354  | 1½                   | 38  | ½             | 13  | ¾     | 19  | ¾           | 19  | ¾             | 19  | ¾   | 19  |
| HP-80        | 30.0                        | 113   | 800                           | 363  | 2                    | 51  | ½             | 13  | 1     | 25  | ¾           | 19  | ¾             | 19  | ¾   | 19  |
| HP-100       | 46.6                        | 176   | 1550                          | 703  | 3                    | 76  | ¾             | 19  | ¾     | 19  | ¾           | 19  | ¾             | 19  | 1   | 25  |
| HP-120       | 46.0                        | 174   | 535                           | 243  | 3                    | 76  | ¾             | 19  | ¾     | 19  | ¾           | 19  | ¾             | 19  | 1½  | 38  |
| STYLE B      |                             |       |                               |      |                      |     |               |     |       |     |             |     |               |     |     |     |
| HP-150       | 77.7                        | 294   | 1815                          | 824  | 3                    | 76  | ¾             | 19  | ¾     | 19  | ¾           | 19  | ¾             | 19  | 1½  | 38  |
| HP-180       | 120.0                       | 454   | 2000                          | 907  | 3                    | 76  | ¾             | 19  | 1     | 25  | ¾           | 19  | ¾             | 19  | 1½  | 38  |
| HP-200       | 152.0                       | 575   | 2100                          | 954  | 3                    | 76  | 1             | 25  | 1     | 25  | ¾           | 19  | ¾             | 19  | 1½  | 38  |
| HP-300       | 201.6                       | 763   | 2300                          | 1045 | 4                    | 102 | 1             | 25  | 1½    | 38  | ¾           | 19  | ¾             | 19  | 1½  | 38  |
| HP-500       | 313.4                       | 1186  | 3100                          | 1407 | 6                    | 152 | 1             | 25  | 1½    | 38  | ¾           | 19  | ¾             | 19  | 1½  | 38  |
| HP-750       | 610.5                       | 2310  | 4000                          | 1816 | 6                    | 152 | 1½            | 38  | 2     | 51  | ¾           | 19  | ¾             | 19  | 1½  | 38  |
| HP-1000      | 742.6                       | 2810  | 4600                          | 2088 | 8                    | 203 | 1½            | 38  | 2     | 51  | ¾           | 19  | ¾             | 19  | 2   | 51  |
| HP-1500      | 969.0                       | 3668  | 5200                          | 2361 | 8                    | 203 | 1½            | 38  | 2     | 51  | ¾           | 19  | ¾             | 19  | 2   | 51  |
| HP-1800      | 1428.0                      | 5405  | 6200                          | 2815 | 10                   | 254 | 1½            | 38  | 2     | 51  | ¾           | 19  | ¾             | 19  | 2   | 51  |
| HP-2000      | 2116.8                      | 8012  | 8000                          | 3632 | 10                   | 254 | 1½            | 38  | 2     | 51  | ¾           | 19  | ¾             | 19  | 2   | 51  |

NOTE: All dimensions, weights, and volumes are approximate and should be used for estimating only.

*Due to our continuing program of improvement, specifications are subject to change without notice.*