

## Sandvik Surcharge Calculation

### One Month Prior Element Average

(\$/lb.)

|           | 5/16/18 -<br>6/15/18 | 6/16/18 -<br>7/15/18 | 7/16/18 -<br>8/15/18 | 8/16/18 -<br>9/15/18 | 9/16/18 -<br>10/15/18 | 10/16/18 -<br>11/15/18 |
|-----------|----------------------|----------------------|----------------------|----------------------|-----------------------|------------------------|
| <b>Cr</b> | \$1.420              | \$1.400              | \$1.380              | \$1.380              | \$1.307               | \$1.240                |
| <b>Ni</b> | \$6.82               | \$6.56               | \$6.13               | \$5.85               | \$5.71                | \$5.38                 |
| <b>Mo</b> | \$12.73              | \$12.21              | \$13.17              | \$13.23              | \$13.13               | \$13.13                |
| <b>Fe</b> | \$0.145              | \$0.149              | \$0.140              | \$0.130              | \$0.136               | \$0.140                |

### Monthly Surcharges

(\$/lb.)

|                    | Oct-18 |        | Nov-18 |        | Dec-18 |        |
|--------------------|--------|--------|--------|--------|--------|--------|
|                    | HF     | CF     | HF     | CF     | HF     | CF     |
| <b>303</b>         | \$0.40 | \$0.47 | \$0.37 | \$0.43 | \$0.31 | \$0.36 |
| <b>304L</b>        | \$0.40 | \$0.47 | \$0.37 | \$0.43 | \$0.31 | \$0.36 |
| <b>321</b>         | \$0.40 | \$0.47 | \$0.37 | \$0.43 | \$0.31 | \$0.36 |
| <b>347</b>         | \$0.40 | \$0.47 | \$0.37 | \$0.43 | \$0.31 | \$0.36 |
| <b>2507</b>        | \$0.87 | \$1.03 | \$0.84 | \$0.98 | \$0.79 | \$0.93 |
| <b>316L</b>        | \$0.71 | \$0.83 | \$0.67 | \$0.79 | \$0.60 | \$0.71 |
| <b>3R60</b>        | \$0.72 | \$0.85 | \$0.68 | \$0.80 | \$0.61 | \$0.72 |
| <b>310</b>         | \$0.62 | \$0.73 | \$0.56 | \$0.66 | \$0.45 | \$0.53 |
| <b>2205</b>        | \$0.73 | \$0.86 | \$0.70 | \$0.83 | \$0.66 | \$0.78 |
| <b>317L</b>        | \$0.84 | \$0.99 | \$0.80 | \$0.94 | \$0.73 | \$0.86 |
| <b>600</b>         | \$1.01 | \$1.19 | \$0.86 | \$1.01 | \$0.52 | \$0.62 |
| <b>800</b>         | \$0.63 | \$0.74 | \$0.55 | \$0.65 | \$0.40 | \$0.47 |
| <b>825</b>         | \$1.08 | \$1.27 | \$0.98 | \$1.16 | \$0.79 | \$0.93 |
| <b>Alloy 20</b>    | \$0.96 | \$1.13 | \$0.87 | \$1.03 | \$0.70 | \$0.83 |
| <b>400</b>         | \$0.80 | \$0.94 | \$0.67 | \$0.79 | \$0.38 | \$0.45 |
| <b>625</b>         | \$2.06 | \$2.42 | \$1.90 | \$2.24 | \$1.61 | \$1.89 |
| <b>904L</b>        | \$1.11 | \$1.30 | \$1.04 | \$1.22 | \$0.91 | \$1.07 |
| <b>2304</b>        | \$0.41 | \$0.48 | \$0.38 | \$0.45 | \$0.35 | \$0.41 |
| <b>253MA</b>       | \$0.42 | \$0.49 | \$0.38 | \$0.45 | \$0.32 | \$0.38 |
| <b>28//</b>        | \$1.10 | \$1.29 | \$1.01 | \$1.19 | \$0.86 | \$1.01 |
| <b>2RE10</b>       | \$0.56 | \$0.66 | \$0.51 | \$0.60 | \$0.40 | \$0.47 |
| <b>2RE69</b>       | \$0.82 | \$0.97 | \$0.76 | \$0.89 | \$0.64 | \$0.75 |
| <b>3RE60</b>       | \$0.66 | \$0.77 | \$0.63 | \$0.74 | \$0.60 | \$0.70 |
| <b>601</b>         | \$0.94 | \$1.11 | \$0.81 | \$0.95 | \$0.52 | \$0.62 |
| <b>HP160</b>       | \$0.70 | \$0.83 | \$0.66 | \$0.78 | \$0.61 | \$0.71 |
| <b>71</b>          | \$1.01 | \$1.19 | \$0.86 | \$1.01 | \$0.52 | \$0.62 |
| <b>80</b>          | \$0.69 | \$0.81 | \$0.65 | \$0.77 | \$0.59 | \$0.70 |
| <b>200</b>         | \$1.12 | \$1.32 | \$0.94 | \$1.10 | \$0.50 | \$0.59 |
| <b>309</b>         | \$0.47 | \$0.55 | \$0.42 | \$0.50 | \$0.35 | \$0.41 |
| <b>330</b>         | \$0.64 | \$0.76 | \$0.56 | \$0.66 | \$0.39 | \$0.46 |
| <b>446</b>         | \$0.36 | \$0.43 | \$0.34 | \$0.40 | \$0.32 | \$0.38 |
| <b>690</b>         | \$1.01 | \$1.18 | \$0.87 | \$1.02 | \$0.58 | \$0.68 |
| <b>702</b>         | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| <b>2707</b>        | \$1.00 | \$1.18 | \$0.96 | \$1.13 | \$0.91 | \$1.08 |
| <b>2906</b>        | \$0.69 | \$0.82 | \$0.66 | \$0.77 | \$0.60 | \$0.71 |
| <b>21.6.9</b>      | \$0.45 | \$0.53 | \$0.42 | \$0.49 | \$0.38 | \$0.44 |
| <b>254SMO</b>      | \$1.21 | \$1.42 | \$1.15 | \$1.36 | \$1.06 | \$1.25 |
| <b>316LVAR</b>     | \$0.75 | \$0.88 | \$0.71 | \$0.84 | \$0.64 | \$0.75 |
| <b>353MA</b>       | \$0.70 | \$0.82 | \$0.61 | \$0.72 | \$0.44 | \$0.52 |
| <b>HAST C276</b>   | \$2.73 | \$3.21 | \$2.59 | \$3.04 | \$2.33 | \$2.74 |
| <b>NANOFLEX</b>    | \$0.79 | \$0.93 | \$0.76 | \$0.90 | \$0.72 | \$0.84 |
| <b>SAFUREX</b>     | \$0.69 | \$0.82 | \$0.66 | \$0.77 | \$0.60 | \$0.71 |
| <b>316Ti</b>       | \$0.64 | \$0.75 | \$0.60 | \$0.71 | \$0.54 | \$0.63 |
| <b>410</b>         | \$0.23 | \$0.28 | \$0.23 | \$0.27 | \$0.22 | \$0.26 |
| <b>SA29</b>        | \$1.21 | \$1.43 | \$1.13 | \$1.32 | \$0.97 | \$1.14 |
| <b>SAN23</b>       | \$1.27 | \$1.50 | \$1.20 | \$1.42 | \$1.09 | \$1.28 |
| <b>Nitronic 50</b> | \$0.71 | \$0.83 | \$0.67 | \$0.78 | \$0.59 | \$0.70 |
| <b>316LVM</b>      |        | \$2.18 |        | \$2.06 |        | \$2.00 |