

## ForgeNet International Global survey 2021 / FC 2022

| PRODUCTION VOLUME OF FORGINGS<br>(metric net tons x 1000)                                 | EUROFORGE<br>countries |         | Japan  |         | USA, Canada,<br>Mexico |         | China   |         | India <sup>1)</sup> |         | Brazil <sup>2)</sup> |         | Korea |         | Taiwan |         | WORLD  |         |
|-------------------------------------------------------------------------------------------|------------------------|---------|--------|---------|------------------------|---------|---------|---------|---------------------|---------|----------------------|---------|-------|---------|--------|---------|--------|---------|
|                                                                                           | 2021                   | FC 2022 | 2021   | FC 2022 | 2021                   | FC 2022 | 2021    | FC 2022 | 2021                | FC 2022 | 2021                 | FC 2022 | 2021  | FC 2022 | 2021   | FC 2022 | 2021   | FC 2022 |
| CLOSED DIE FORGING TOTAL                                                                  | 4.144                  | 4.052   | 1.873  | 1.680   | 1.941                  | 2.404   | 9.406   | 8.936   | 1.900               | 1.900   | 498                  | 498     | 1.379 | 1.450   | 893    | 780     | 22.034 | 21.700  |
| of which production of forging industry<br>(subcontracting)                               | 2.955                  | 2.849   |        |         |                        |         |         |         | 1.900               | 1.900   | 460                  | 460     | 1.379 | 1.450   | 893    | 780     | 7.587  | 7.439   |
| of which inhouse production of the<br>automotive industry                                 | 182                    | 170     |        |         |                        |         |         |         |                     |         |                      |         |       |         |        |         | 182    | 170     |
| of which inhouse production of the<br>finished assembly subcontracting                    | 197                    | 196     |        |         |                        |         |         |         |                     |         | 36                   | 36      |       |         |        |         | 233    | 232     |
| of which catalogue items (flanges+fittings,<br>pipes, connectors, armatures, tools, etc.) | 389                    | 396     |        |         |                        |         |         |         |                     |         | 2                    | 2       |       |         |        |         | 391    | 398     |
| COLD FORGING TOTAL                                                                        | 638                    | 666     | 105    | 102     | 0                      | 0       | 0       | 0       | 250                 | 250     | 3                    | 3       | 142   | 150     | 102    | 93      | 1.240  | 1.264   |
| of which production of cold forging<br>industry (subcontracting)                          | 525                    | 542     |        |         |                        |         |         |         | 250                 | 250     | 2                    | 2       | 142   | 150     | 102    | 93      | 1.021  | 1.037   |
| of which inhouse production of final<br>customer industries                               | 70                     | 80      |        |         |                        |         |         |         |                     |         | 1                    | 1       |       |         |        |         | 71     | 81      |
| OPEN DIE FORGING TOTAL                                                                    | 1.134                  | 1.200   | 368    | 341     | 465                    | 514     | 4.626   | 4.626   | 375                 | 375     | 0                    | 0       | 0     | 0       | 15     | 14      | 6.983  | 7.071   |
| of which ring rolling                                                                     | 413                    | 437     | 252    | 240     | 318                    | 348     | 1.070   | 1.000   | 125                 | 125     |                      |         |       |         | 5      | 5       | 2.183  | 2.155   |
| of which other open die forging (excluding<br>steel bars, blanks and railway stacks)      | 567                    | 601     | 116    | 101     |                        |         | 3.556   | 3.626   | 250                 | 250     |                      |         |       |         | 10     | 9       | 4.498  | 4.587   |
| CLOSE DIE FORGING NON-FERROUS                                                             | 216                    | 215     | 51     | 51      |                        |         |         |         | 160                 | 160     |                      |         | 44    |         | 33     | 43      | 504    | 469     |
|                                                                                           |                        |         |        |         |                        |         |         |         |                     |         |                      |         |       |         |        |         | 0      | 0       |
| TOTAL FORGING PRODUCTION VOLUME                                                           | 6.131                  | 6.133   | 2.397  | 2.174   | 2.407                  | 2.918   | 14.032  | 13.562  | 2.685               | 2.685   | 501                  | 501     | 1.565 | 1.600   | 1.043  | 930     | 30.760 | 30.503  |
| Change to previous year (%)                                                               |                        | 0%      | 23%    | -9%     |                        | 21%     |         | -3%     | -                   | 0%      | 0%                   | 0%      | 2,2%  |         | -11%   |         | -1%    |         |
| NB OF FORGE PLANTS                                                                        | 566                    | 567     |        |         |                        | 490     | 460     | 460     | 430                 | 430     | 37                   | 37      | 101   | 100     | 200    | 200     |        |         |
| NB OF EMPLOYEES                                                                           | 64.884                 | 65.164  | 15.347 |         |                        | 32.400  | 138.000 | 138.000 | 350.000             | 350.000 | 14.000               | 14.000  | 6.903 | 7.000   | 13.000 | 13.000  |        |         |

| PRODUCTION VOLUME OF FORGINGS<br>(metric net tons x 1000)                              | Germany |         | Italy |         | France |         | Spain |         | United Kingdom |         | Sweden |         | Czech Republic |         | Poland |         | Slovenia |         | Finland <sup>1</sup> |         | Turkey |         | EUROFORGE |         |
|----------------------------------------------------------------------------------------|---------|---------|-------|---------|--------|---------|-------|---------|----------------|---------|--------|---------|----------------|---------|--------|---------|----------|---------|----------------------|---------|--------|---------|-----------|---------|
|                                                                                        | 2021    | FC 2022 | 2021  | FC 2022 | 2021   | FC 2022 | 2021  | FC 2022 | 2021           | FC 2022 | 2021   | FC 2022 | 2021           | FC 2022 | 2021   | FC 2022 | 2021     | FC 2022 | 2021                 | FC 2022 | 2021   | FC 2022 | 2021      | FC 2022 |
| CLOSED DIE FORGING TOTAL                                                               | 1.359   | 1.300   | 961   | 946     | 251    | 253     | 263   | 270     | 181            | 189     | 73     | 73      | 617            | 555     | 170    | 188     | 59       | 60      | 8                    | 8       | 202    | 210     | 4.144     | 4.052   |
| of which production of forging industry (subcontracting)                               | 980     | 930     | 793   | 785     |        |         | 247   | 250     | 145            | 153     | 73     | 73      | 482            | 414     |        |         | 57       | 56      | 3                    | 3       | 175    | 185     | 2.955     | 2.849   |
| of which inhouse production of the automotive industry                                 | 150     | 140     |       |         |        |         |       |         |                |         |        |         | 32             | 30      |        |         |          |         |                      |         |        |         | 182       | 170     |
| of which inhouse production of the finished assembly subcontracting                    | 85      | 80      | 84    | 80      |        |         |       |         |                |         |        |         | 7              | 7       |        |         | 2        | 4       |                      |         | 19     | 25      | 197       | 196     |
| of which catalogue items (flanges+fittings, pipes, connectors, armatures, tools, etc.) | 144     | 150     | 84    | 81      |        |         | 16    | 20      | 36             | 36      |        |         | 96             | 104     |        |         |          |         | 5                    | 5       | 8      |         | 389       | 396     |
| COLD FORGING TOTAL                                                                     | 555     | 580     | 0     | 0       | 32     | 32      | 19    | 20      | 14             | 15      | 0      | 0       | 0              | 0       | 0      | 0       | 10       | 11      | 5                    | 5       | 2      | 3       | 638       | 666     |
| of which production of cold forging industry (subcontracting)                          | 485     | 500     |       |         |        |         | 19    | 20      | 14             | 15      |        |         |                |         |        |         |          |         | 5                    | 5       | 2      | 2       | 525       | 542     |
| of which inhouse production of final customer industries                               | 70      | 80      |       |         |        |         |       |         |                |         |        |         |                |         |        |         |          |         |                      |         |        |         | 70        | 80      |
| OPEN DIE FORGING TOTAL                                                                 | 332     | 365     | 248   | 260     | 51     | 52      | 5     | 6       | 23             | 25      | 161    | 161     | 164            | 167     | 103    | 110     | 0        | 0       | 0                    | 0       | 47     | 54      | 1.134     | 1.200   |
| of which ring rolling                                                                  | 154     | 175     | 71    | 70      |        |         | 5     | 6       |                |         | 10     | 10      | 151            | 154     |        |         |          |         |                      |         | 22     | 22      | 413       | 437     |
| of which other open die forging (excluding steel bars, blanks and railway stacks)      | 178     | 190     | 177   | 190     |        |         |       |         | 23             | 25      | 151    | 151     | 13             | 13      |        |         |          |         |                      |         | 25     | 32      | 567       | 601     |
| CLOSE DIE FORGING NON-FERROUS                                                          | 80      | 75      |       |         | 130    | 134     |       |         |                |         |        |         | 2              | 2       |        |         |          |         |                      |         | 4      | 4       | 216       | 215     |
| TOTAL FORGING PRODUCTION VOLUME                                                        | 2.325   | 2.320   | 1.209 | 1.206   | 464    | 471     | 287   | 296     | 218            | 229     | 234    | 234     | 783            | 724     | 273    | 298     | 69       | 71      | 13                   | 13      | 255    | 271     | 6.131     | 6.133   |
| Change to previous year (%)                                                            |         | 0%      |       | 2%      |        | 2%      |       | 3%      |                | 5%      |        | 0%      |                | -8%     |        | 9%      |          | 3%      |                      | 0%      |        | 6%      |           | 0%      |
| NB OF FORGE PLANTS                                                                     | 235     | 235     | 85    | 85      | 71     | 71      | 32    | 32      | 44             | 44      | 8      | 8       | 19             | 19      | 31     | 31      | 4        | 4       | 6                    | 6       | 31     | 32      | 566       | 567     |
| NB OF EMPLOYEES                                                                        | 31.000  | 31.000  | 9.650 | 9.650   | 7.412  | 7.412   | 2.525 | 2.600   | 3.600          | 3.800   | 1.000  | 1.000   | 3.243          | 3.243   | 3.040  | 3.000   | 820      | 815     | 94                   | 94      | 2.500  | 2.550   | 64.884    | 65.164  |