

**DURATUFF®**

**MAThread**  
The World's Best Fastener



**Ningbo Yishan Hardware Co., LTD**  
**Ningbo Yishan Trading CO., LTD**

Address: Block G, No. 28 Yinxian Avenue, Yinzhou District,  
Ningbo City, Zhejiang Province, China.

Telephone: 0574-28879900

Fax: 0574-28879909

Phone: 13780097565

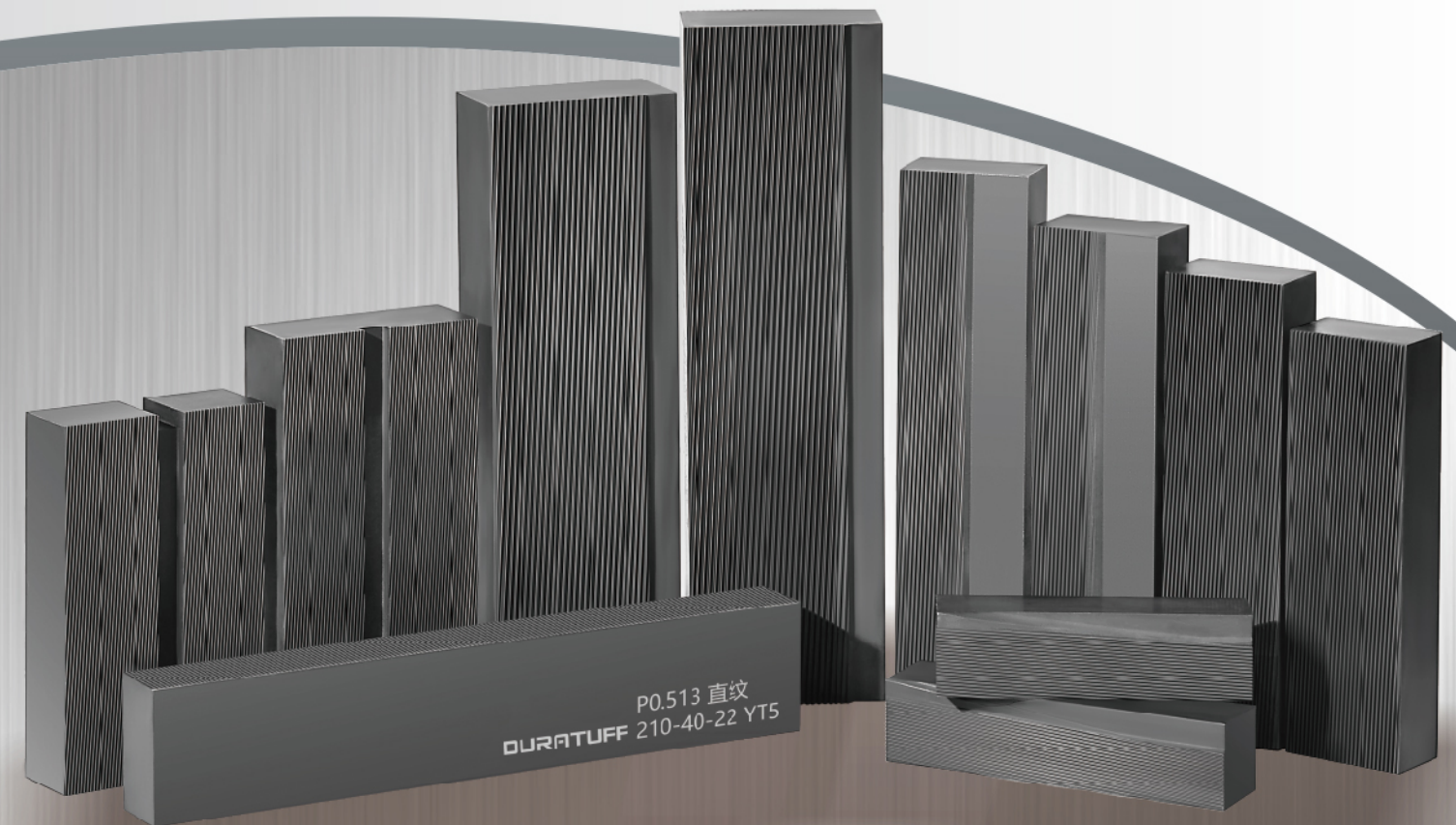
E-mai: james@nbyishan.com

Website: <https://www.duratufftools.com>



**DURATUFF®**

## Flat Thread Rolling Dies



**MAThread**  
The World's Best Fastener





# Company Introduction

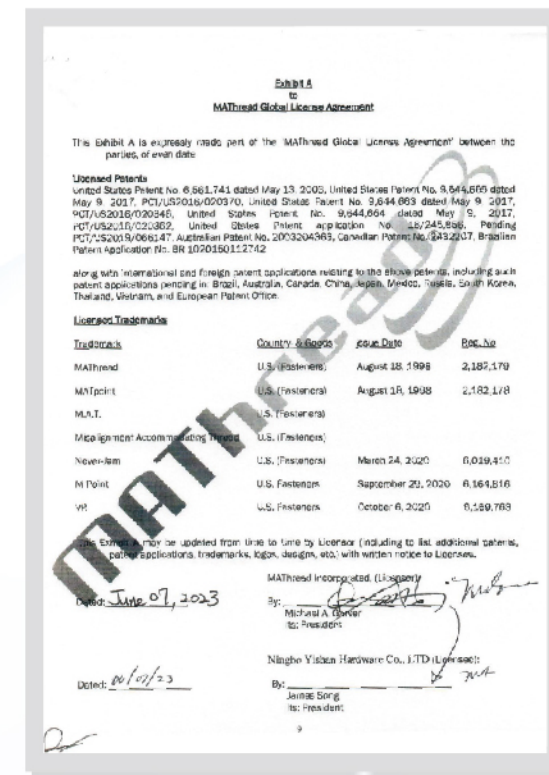
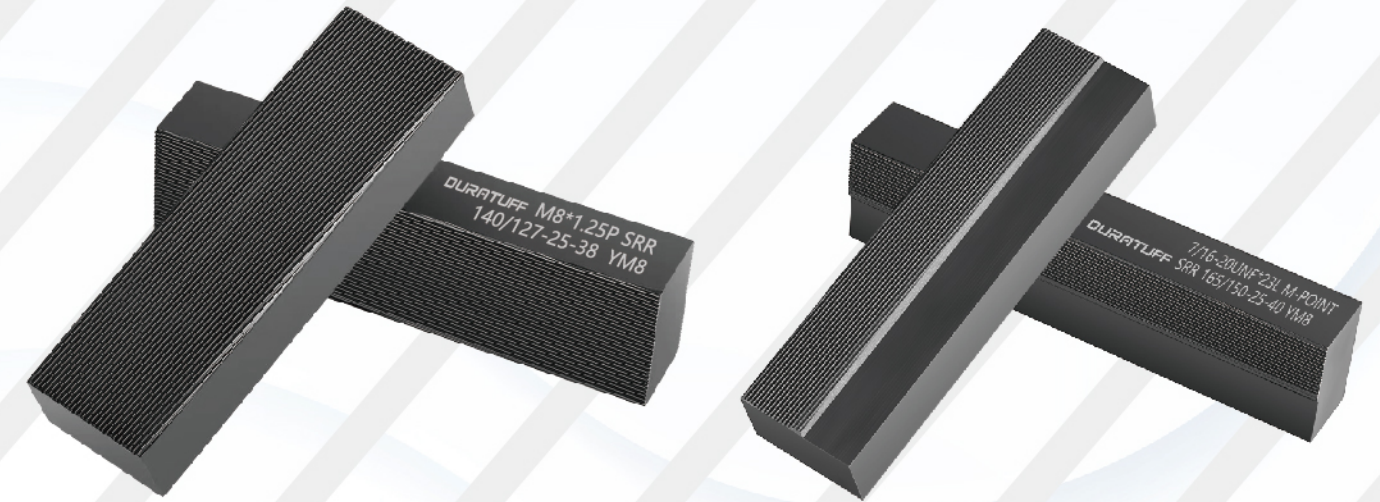
DURATUFF is a specialist in automotive screw industry tooling, supplying Flat Thread Rolling Dies for after heat-treated thread rolling. We are trusted in the fastener industry for our long die life, precise accuracy, and dependable service—helping customers achieve consistent thread quality and better value over time.

Designed, manufactured, and quality controlled by experienced professionals, DURATUFF develops dies to match different screw types and customer requirements. With a skilled die engineering team and advanced production technologies, we produce the full range of rolling dies you need—built for stability, performance, and efficient operation.

Our DURATUFF high-performance dies deliver longer service life, produce better threads, and minimize downtime during installation with easy setup. As a result, our cost performance is highly competitive versus comparable dies in the market.

In addition, we provide detailed technical support from the initial discussion to the final solution. With 19 years of capability, we have developed hundreds of special thread profile roll dies in our in-house Ningbo, China factory—covering cutting, precision milling, grinding, heat treatment, thread grinding, and surface heat treatment.

Contact DURATUFF today for quotations or technical consultation.

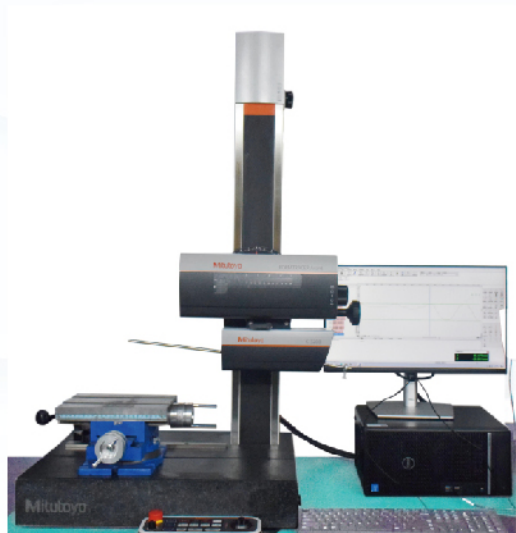




Workshop Photos:



Inspection Equipment Photos:



Mitutoyo Surface Profile Reader



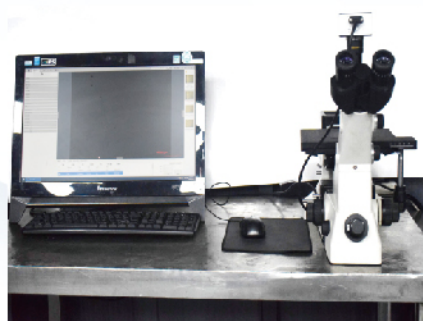
Profiler



Metalogy Polishing



Metalogy Cutting



Metalogy Micro Scope



Digital Profile Scope



Profile Scope



Rockwell Hardness

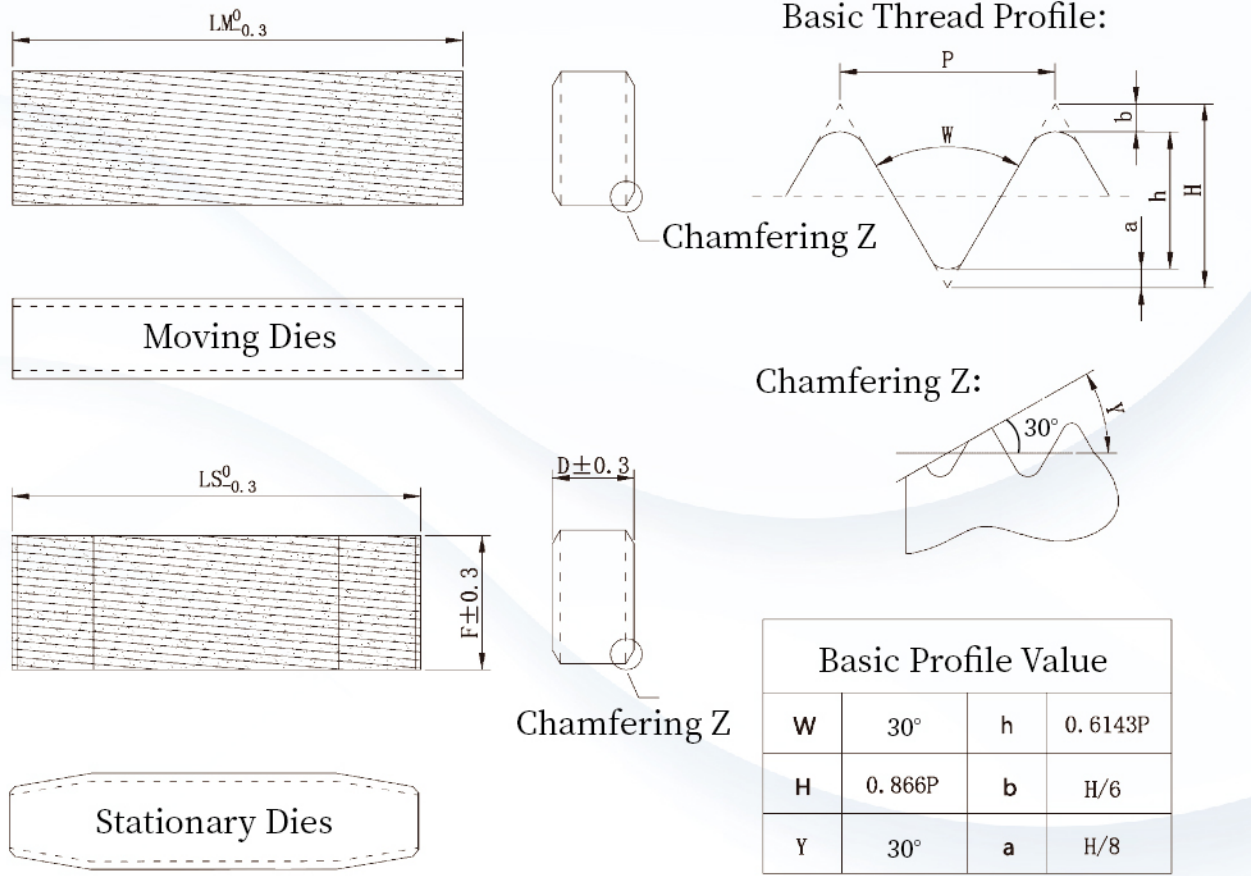


Flat Roll Dies Size:

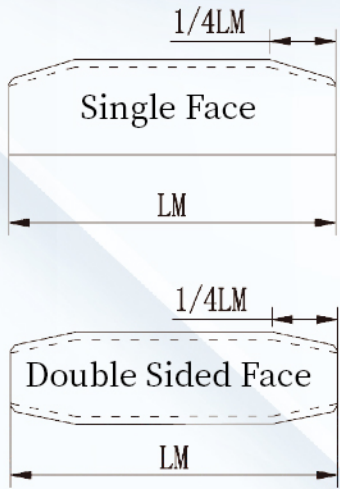
| China | Moving(LM) | Stationary(LS) | Depth(D) | Face Heights              | Applicable Specs |
|-------|------------|----------------|----------|---------------------------|------------------|
| 201   | 55         | 45             | 20       | 20/25/40                  | M2/M3/M4         |
| 202   | 65         | 55             | 20       | 25/40/50                  | M2/M3/M4         |
| 203   | 80         | 70             | 24       | 40/50/55                  | M2/M3/M4/M5      |
| 204   | 100        | 85             | 25       | 40/50/55/60/65            | M4/M5/M6         |
| 205   | 115        | 100            | 25       | 40/50/55/60/65            | M4/M5/M6         |
| 302   | 125        | 110            | 25       | 40/50/55/60/65/80         | M5/M6/M8         |
| 206   | 145        | 125            | 30       | 40/50/55/60/65/80         | M6/M8/M10        |
| 207   | 170        | 150            | 30       | 40/50/55/60/65/80/105/130 | M8/M10/M12       |
| 208   | 210        | 190            | 40       | 40/50/55/60/65/80/105/130 | M8/M10/M12/M14   |
| 209   | 250        | 230            | 45       | 40/50/55/60/65/80/105/130 | M10/M12/M14/M16  |
| 210   | 250        | 230            | 50       | 40/50/55/60/65/80/105/130 | M10/M12/M14/M16  |
| 213   | 310        | 285            | 50       | 40/50/55/60/65/80/105/130 | M12/M14/M16/M18  |
| 234   | 145        | 125            | 40       | 40/50/55/60/65/80/105/130 | M6/M8/M10        |
| 236   | 170        | 150            | 40       | 40/50/55/60/65/80/105/130 | M8/M10/M12       |

| Taiwan | Moving(LM) | Stationary(LS) | Depth(D) | Face Heights                 | Applicable Specs |
|--------|------------|----------------|----------|------------------------------|------------------|
| 003    | 55         | 45             | 15       | 20/25/40                     | M2/M3/M4         |
| 0#     | 64         | 51             | 19       | 25/40/50/55                  | M2/M3/M4         |
| 4R     | 70         | 60             | 20       | 25/40/50/55                  | M2/M3/M4/M5      |
| 5R     | 75         | 65             | 20       | 25/40/50/55                  | M2/M3/M4/M5      |
| 004    | 80         | 65             | 20       | 25/40/50/55                  | M3/M4/M5/M6      |
| 3/16   | 89         | 76             | 25       | 25/40/50/55/60/65/80         | M4/M5/M6         |
| 6R     | 105        | 90             | 25       | 25/40/50/55/60/65/80         | M4/M5/M6         |
| 1/4    | 115        | 100            | 25       | 25/40/50/55/60/65/80/105     | M4/M5/M6         |
| 8R     | 127        | 108            | 25       | 25/40/50/55/60/65/80/105/130 | M5/M6/M8         |
| 5/16   | 140        | 127            | 25       | 40/50/55/60/65/80/105/130    | M6/M8/M10        |
| 3/8    | 165        | 150            | 25       | 40/50/55/60/65/80/105/130    | M8/M10/M12       |
| 1/2    | 215        | 190            | 35       | 40/50/55/60/65/80/105/130    | M8/M10/M12       |
| 3/4    | 265        | 230            | 38       | 40/50/55/60/65/80/105/130    | M10/M12/M14/M16  |
|        | 230        | 200            | 38       | 40/50/55/60/65/80/105/130    | M10/M12/M14      |
|        | 200        | 180            | 35       | 40/50/55/60/65/80/105/130    | M8/M10/M12       |

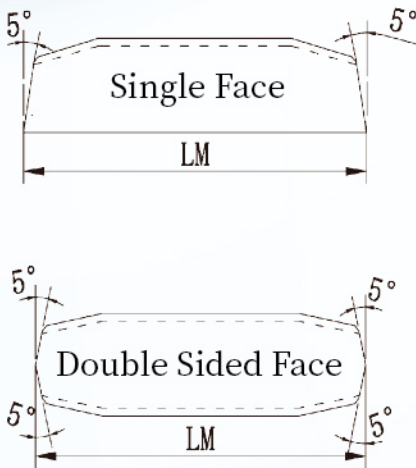
Standard Drawing of Thread Rolling Dies



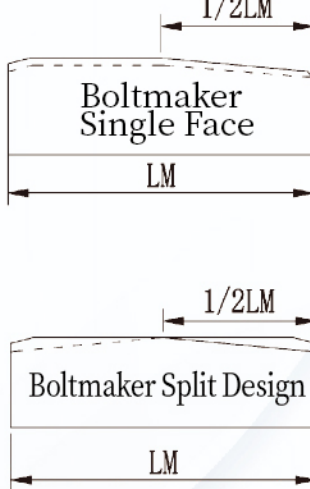
1/4 Entering Taper:



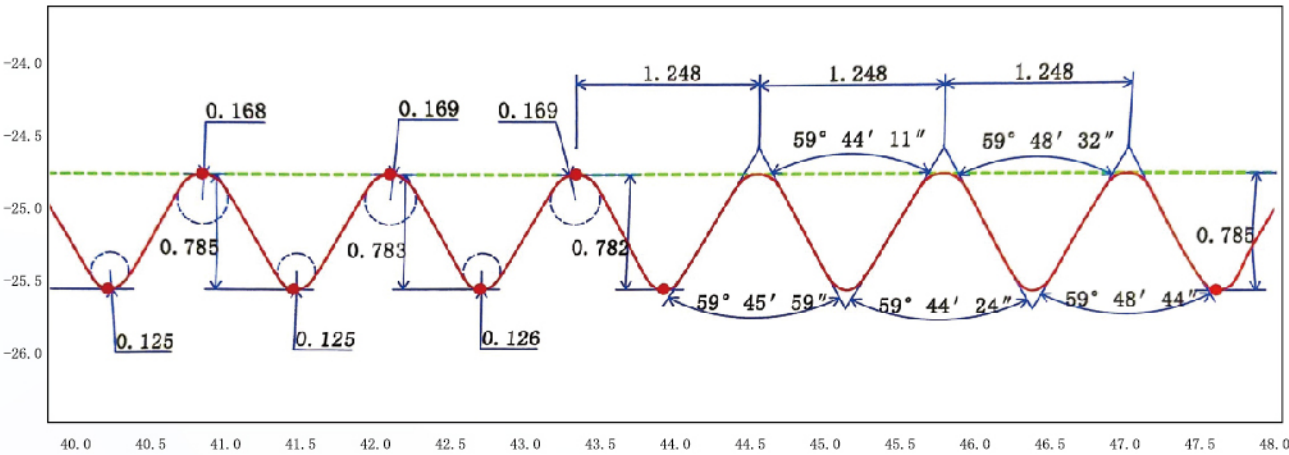
Holding Angle 5°:



1/2 Entering Taper:



M8 1.25P Surface Profile of Thread Rolling Dies





Machine Screw Thread Forming data

| Metric Machine Screw Coarse Thread (M/C) 6g (mm) |       |           |        |        |           |        |        |           |        |
|--------------------------------------------------|-------|-----------|--------|--------|-----------|--------|--------|-----------|--------|
| Spec                                             | Pitch | Major Dia |        |        | Pitch Dia |        |        | Blank Dia |        |
|                                                  |       | Basic     | Max    | Min    | Basic     | Max    | Min    | Max       | Min    |
| M2                                               | 0.4   | 2         | 1.981  | 1.886  | 1.740     | 1.721  | 1.654  | 1.701     | 1.668  |
| M2.3                                             | 0.4   | 2.3       | 2.281  | 2.186  | 2.040     | 2.021  | 1.954  | 2.000     | 1.966  |
| M2.5                                             | 0.45  | 2.5       | 2.480  | 2.380  | 2.208     | 2.188  | 2.117  | 2.167     | 2.131  |
| M2.6                                             | 0.45  | 2.6       | 2.580  | 2.480  | 2.308     | 2.288  | 2.217  | 2.266     | 2.231  |
| M3                                               | 0.5   | 3         | 2.980  | 2.874  | 2.675     | 2.655  | 2.580  | 2.633     | 2.595  |
| M3.5                                             | 0.6   | 3.5       | 3.479  | 3.354  | 3.110     | 3.089  | 3.004  | 3.065     | 3.022  |
| M4                                               | 0.7   | 4         | 3.978  | 3.838  | 3.545     | 3.523  | 3.433  | 3.500     | 3.455  |
| M4.5                                             | 0.75  | 4.5       | 4.478  | 4.338  | 4.013     | 3.991  | 3.901  | 3.969     | 3.924  |
| M5                                               | 0.8   | 5         | 4.976  | 4.826  | 4.480     | 4.456  | 4.361  | 4.432     | 4.385  |
| M6                                               | 1     | 6         | 5.974  | 5.794  | 5.351     | 5.324  | 5.212  | 5.298     | 5.242  |
| M7                                               | 1     | 7         | 6.974  | 6.794  | 6.351     | 6.324  | 6.212  | 6.295     | 6.239  |
| M8                                               | 1.25  | 8         | 7.972  | 7.760  | 7.188     | 7.160  | 7.042  | 7.137     | 7.078  |
| M9                                               | 1.25  | 9         | 8.972  | 8.760  | 8.188     | 8.160  | 8.042  | 8.135     | 8.076  |
| M10                                              | 1.5   | 10        | 9.968  | 9.732  | 9.026     | 8.994  | 8.862  | 8.970     | 8.904  |
| M11                                              | 1.5   | 11        | 10.968 | 10.732 | 10.026    | 9.994  | 9.862  | 9.968     | 9.902  |
| M12                                              | 1.75  | 12        | 11.966 | 11.701 | 10.863    | 10.829 | 10.679 | 10.803    | 10.728 |
| M14                                              | 2     | 14        | 13.962 | 13.682 | 12.701    | 12.663 | 12.503 | 12.638    | 12.558 |
| M16                                              | 2     | 16        | 15.962 | 15.682 | 14.701    | 14.663 | 14.503 | 14.634    | 14.554 |
| M18                                              | 2.5   | 18        | 17.958 | 17.623 | 16.376    | 16.334 | 16.164 | 16.316    | 16.231 |
| M20                                              | 2.5   | 20        | 19.958 | 19.623 | 18.376    | 18.334 | 18.164 | 18.313    | 18.228 |
| M22                                              | 2.5   | 22        | 21.958 | 21.623 | 20.376    | 20.334 | 20.164 | 20.309    | 20.224 |
| M24                                              | 3     | 24        | 23.952 | 23.577 | 22.052    | 22.003 | 21.803 | 21.979    | 21.879 |
| M27                                              | 3     | 27        | 26.952 | 26.577 | 25.052    | 25.003 | 24.803 | 24.975    | 24.875 |

| Unified National Coarse Thread(UNC) 2A (mm) |     |           |        |        |           |        |        |           |        |
|---------------------------------------------|-----|-----------|--------|--------|-----------|--------|--------|-----------|--------|
| Spec                                        | TPI | Major Dia |        |        | Pitch Dia |        |        | Blank Dia |        |
|                                             |     | Basic     | Max    | Min    | Basic     | Max    | Min    | Max       | Min    |
| 1                                           | 64  | 1.854     | 1.839  | 1.742  | 1.598     | 1.582  | 1.532  | 1.571     | 1.546  |
| 2                                           | 56  | 2.184     | 2.169  | 2.065  | 1.890     | 1.875  | 1.821  | 1.864     | 1.837  |
| 3                                           | 48  | 2.515     | 2.497  | 2.383  | 2.172     | 2.154  | 2.096  | 2.144     | 2.114  |
| 4                                           | 40  | 2.845     | 2.824  | 2.695  | 2.433     | 2.413  | 2.350  | 2.405     | 2.373  |
| 5                                           | 40  | 3.175     | 3.155  | 3.025  | 2.764     | 2.743  | 2.677  | 2.732     | 2.699  |
| 6                                           | 32  | 3.505     | 3.485  | 3.332  | 2.990     | 2.969  | 2.898  | 2.964     | 2.928  |
| 8                                           | 32  | 4.166     | 4.143  | 3.990  | 3.650     | 3.627  | 3.553  | 3.617     | 3.580  |
| 10                                          | 24  | 4.826     | 4.801  | 4.618  | 4.138     | 4.112  | 4.028  | 4.109     | 4.067  |
| 12                                          | 24  | 5.486     | 5.461  | 5.278  | 4.798     | 4.773  | 4.686  | 4.765     | 4.722  |
| 1/4                                         | 20  | 6.350     | 6.322  | 6.116  | 5.525     | 5.497  | 5.403  | 5.493     | 5.446  |
| 5/16                                        | 18  | 7.938     | 7.907  | 7.686  | 7.021     | 6.990  | 6.888  | 6.984     | 6.933  |
| 3/8                                         | 16  | 9.525     | 9.492  | 9.253  | 8.494     | 8.461  | 8.349  | 8.453     | 8.397  |
| 7/16                                        | 14  | 11.113    | 11.077 | 10.815 | 9.934     | 9.898  | 9.779  | 9.893     | 9.833  |
| 1/2                                         | 13  | 12.700    | 12.662 | 12.385 | 11.430    | 11.392 | 11.265 | 11.385    | 11.321 |
| 9/16                                        | 12  | 14.288    | 14.247 | 13.957 | 12.913    | 12.873 | 12.741 | 12.866    | 12.800 |
| 5/8                                         | 11  | 15.875    | 15.834 | 15.527 | 14.376    | 14.336 | 14.196 | 14.330    | 14.260 |
| 3/4                                         | 10  | 19.050    | 19.004 | 18.677 | 17.399    | 17.353 | 17.203 | 17.345    | 17.270 |
| 7/8                                         | 9   | 22.225    | 22.177 | 21.824 | 20.391    | 20.343 | 20.183 | 20.335    | 20.255 |

Machine Screw Thread Forming data

| Metric Machine Screw Fine Thread (MF) 6g (mm) |       |           |        |        |           |        |        |           |        |
|-----------------------------------------------|-------|-----------|--------|--------|-----------|--------|--------|-----------|--------|
| Spec                                          | Pitch | Major Dia |        |        | Pitch Dia |        |        | Blank Dia |        |
|                                               |       | Basic     | Max    | Min    | Basic     | Max    | Min    | Max       | Min    |
| M4                                            | 0.5   | 4         | 3.980  | 3.874  | 3.675     | 3.655  | 3.580  | 3.630     | 3.593  |
| M4.5                                          | 0.5   | 5         | 4.480  | 4.374  | 4.175     | 4.155  | 4.080  | 4.129     | 4.092  |
| M5                                            | 0.5   | 5         | 4.980  | 4.874  | 4.675     | 4.655  | 4.580  | 4.629     | 4.591  |
| M6                                            | 0.75  | 6         | 5.978  | 5.838  | 5.513     | 5.491  | 5.391  | 5.460     | 5.410  |
| M7                                            | 0.75  | 7         | 6.978  | 6.838  | 6.513     | 6.491  | 6.391  | 6.459     | 6.409  |
| M8                                            | 1     | 8         | 7.974  | 7.794  | 7.351     | 7.324  | 7.212  | 7.293     | 7.237  |
| M9                                            | 1     | 9         | 8.974  | 8.794  | 8.351     | 8.324  | 8.212  | 8.292     | 8.236  |
| M10                                           | 1.25  | 10        | 9.972  | 9.760  | 9.188     | 9.160  | 9.042  | 9.133     | 9.074  |
| M10                                           | 1     | 10        | 9.974  | 9.794  | 9.351     | 9.324  | 9.212  | 9.291     | 9.235  |
| M12                                           | 1.25  | 12        | 11.972 | 11.760 | 11.188    | 11.160 | 11.028 | 11.123    | 11.057 |
| M12                                           | 1.5   | 12        | 11.968 | 11.732 | 11.026    | 10.994 | 10.854 | 10.962    | 10.892 |
| M14                                           | 1.25  | 14        | 13.972 | 13.760 | 13.188    | 13.160 | 13.028 | 13.121    | 13.055 |
| M14                                           | 1.5   | 14        | 13.968 | 13.732 | 13.026    | 12.994 | 12.854 | 12.959    | 12.889 |
| M16                                           | 1.5   | 16        | 15.968 | 15.732 | 15.026    | 14.994 | 14.854 | 14.957    | 14.887 |
| M18                                           | 2     | 18        | 17.962 | 17.682 | 16.701    | 16.663 | 16.503 | 16.631    | 16.551 |
| M18                                           | 1.5   | 18        | 17.968 | 17.732 | 17.026    | 16.994 | 16.854 | 16.955    | 16.885 |
| M20                                           | 2     | 20        | 19.962 | 19.682 | 18.701    | 18.663 | 18.503 | 18.628    | 18.548 |
| M20                                           | 1.5   | 20        | 19.968 | 19.732 | 19.026    | 18.994 | 18.854 | 18.954    | 18.884 |
| M22                                           | 1.5   | 22        | 21.968 | 21.732 | 21.026    | 20.994 | 20.854 | 20.953    | 20.883 |
| M24                                           | 1.5   | 24        | 23.968 | 23.732 | 23.026    | 22.994 | 22.844 | 22.947    | 22.872 |
| M26                                           | 1.5   | 26        | 25.968 | 25.732 | 25.026    | 24.994 | 24.844 | 24.946    | 24.871 |
| M27                                           | 1.5   | 27        | 26.968 | 26.732 | 26.026    | 25.994 | 25.844 | 25.946    | 25.871 |
| M28                                           | 1.5   | 28        | 27.968 | 27.732 | 27.026    | 26.994 | 26.844 | 26.946    | 26.871 |

| Unified National Machine Screw Fine Thread (UNF) 2A (mm) |     |           |        |        |           |        |        |           |        |
|----------------------------------------------------------|-----|-----------|--------|--------|-----------|--------|--------|-----------|--------|
| Spec                                                     | TPI | Major Dia |        |        | Pitch Dia |        |        | Blank Dia |        |
|                                                          |     | Basic     | Max    | Min    | Basic     | Max    | Min    | Max       | Min    |
| 2                                                        | 64  | 2.184     | 2.169  | 2.073  | 1.928     | 1.913  | 1.862  | 1.900     | 1.875  |
| 3                                                        | 56  | 2.515     | 2.497  | 2.393  | 2.220     | 2.202  | 2.146  | 2.189     | 2.161  |
| 4                                                        | 48  | 2.845     | 2.827  | 2.713  | 2.502     | 2.484  | 2.423  | 2.471     | 2.440  |
| 5                                                        | 44  | 3.175     | 3.157  | 3.035  | 2.799     | 2.781  | 2.718  | 2.768     | 2.736  |
| 6                                                        | 40  | 3.505     | 3.485  | 3.355  | 3.094     | 3.073  | 3.007  | 3.061     | 3.028  |
| 8                                                        | 36  | 4.166     | 4.145  | 4.006  | 3.708     | 3.688  | 3.617  | 3.674     | 3.639  |
| 10                                                       | 32  | 4.826     | 4.803  | 4.651  | 4.310     | 4.288  | 4.211  | 4.273     | 4.235  |
| 12                                                       | 28  | 5.486     | 5.461  | 5.296  | 4.897     | 4.872  | 4.790  | 4.858     | 4.818  |
| 1/4                                                      | 28  | 6.350     | 6.325  | 6.160  | 5.761     | 5.735  | 5.652  | 5.718     | 5.676  |
| 5/16                                                     | 24  | 7.938     | 7.910  | 7.727  | 7.249     | 7.221  | 7.127  | 7.202     | 7.155  |
| 3/8                                                      | 24  | 9.525     | 9.497  | 9.314  | 8.837     | 8.809  | 8.712  | 8.786     | 8.737  |
| 7/16                                                     | 20  | 11.100    | 11.067 | 10.861 | 10.287    | 10.254 | 10.147 | 10.231    | 10.178 |
| 1/2                                                      | 20  | 12.700    | 12.667 | 12.461 | 11.875    | 11.841 | 11.732 | 11.816    | 11.761 |
| 9/16                                                     | 18  | 14.288    | 14.252 | 14.031 | 13.371    | 13.335 | 13.221 | 13.310    | 13.252 |
| 5/8                                                      | 18  | 15.875    | 15.839 | 15.618 | 14.958    | 14.923 | 14.803 | 14.893    | 14.833 |
| 3/4                                                      | 16  | 19.050    | 19.012 | 18.773 | 18.019    | 17.981 | 17.854 | 17.950    | 17.887 |
| 7/8                                                      | 14  | 22.225    | 22.184 | 21.923 | 21.046    | 21.006 | 20.869 | 20.975    | 20.906 |
| 1                                                        | 12  | 25.400    | 25.354 | 25.065 | 24.026    | 23.980 | 23.830 | 23.949    | 23.874 |



J Profile Thread Forming Data

| Metric “J” Profile Coarse Thread (MJC) 6g (mm) |       |           |        |           |        |           |        |
|------------------------------------------------|-------|-----------|--------|-----------|--------|-----------|--------|
| Spec                                           | Pitch | Major Dia |        | Pitch Dia |        | Minor Dia |        |
|                                                |       | Max       | Min    | Max       | Min    | Max       | Min    |
| MJ1.6                                          | 0.35  | 1.581     | 1.496  | 1.354     | 1.291  | 1.177     | 1.093  |
| MJ2                                            | 0.4   | 1.981     | 1.886  | 1.721     | 1.654  | 1.519     | 1.428  |
| MJ2.5                                          | 0.45  | 2.480     | 2.380  | 2.188     | 2.117  | 1.960     | 1.862  |
| MJ3                                            | 0.5   | 2.980     | 2.874  | 2.655     | 2.580  | 2.403     | 2.297  |
| MJ3.5                                          | 0.6   | 3.479     | 3.354  | 3.089     | 3.004  | 2.786     | 2.665  |
| MJ4                                            | 0.7   | 3.978     | 3.838  | 3.523     | 3.433  | 3.170     | 3.037  |
| MJ5                                            | 0.8   | 4.976     | 4.826  | 4.456     | 4.361  | 4.052     | 3.909  |
| MJ6                                            | 1     | 5.974     | 5.794  | 5.324     | 5.212  | 4.819     | 4.647  |
| MJ8                                            | 1.25  | 7.972     | 7.760  | 7.160     | 7.042  | 6.529     | 6.335  |
| MJ10                                           | 1.5   | 9.968     | 9.732  | 8.994     | 8.862  | 8.236     | 8.013  |
| MJ12                                           | 1.75  | 11.966    | 11.701 | 10.829    | 10.679 | 9.945     | 9.689  |
| MJ14                                           | 2     | 13.962    | 13.682 | 12.663    | 12.503 | 11.653    | 11.371 |
| MJ15                                           | 1     | 14.974    | 14.794 | 14.324    | 14.206 | 13.819    | 13.641 |
| MJ16                                           | 2     | 15.962    | 15.682 | 14.663    | 14.503 | 13.653    | 13.371 |
| MJ17                                           | 1     | 16.974    | 16.794 | 16.324    | 16.206 | 15.819    | 15.641 |
| MJ18                                           | 1.5   | 17.968    | 17.732 | 16.994    | 16.854 | 16.236    | 16.005 |
| MJ20                                           | 2.5   | 19.958    | 19.623 | 18.334    | 18.164 | 17.071    | 16.750 |
| MJ22                                           | 2.5   | 21.958    | 21.623 | 20.334    | 20.164 | 19.071    | 18.750 |
| MJ24                                           | 3     | 23.952    | 23.577 | 22.003    | 21.803 | 20.488    | 20.106 |

| Unified National “J” Profile Coarse Thread (UNJC) 2A (inch) |     |           |        |           |        |           |        |
|-------------------------------------------------------------|-----|-----------|--------|-----------|--------|-----------|--------|
| Spec                                                        | TPI | Major Dia |        | Pitch Dia |        | Minor Dia |        |
|                                                             |     | Max       | Min    | Max       | Min    | Max       | Min    |
| 0.0730                                                      | 64  | 0.0724    | 0.0686 | 0.0623    | 0.0603 | 0.0544    | 0.0515 |
| 0.0860                                                      | 56  | 0.0854    | 0.0813 | 0.0738    | 0.0717 | 0.0648    | 0.0616 |
| 0.0990                                                      | 48  | 0.0983    | 0.0938 | 0.0848    | 0.0825 | 0.0743    | 0.0707 |
| 0.1120                                                      | 40  | 0.1112    | 0.1061 | 0.0950    | 0.0925 | 0.0824    | 0.0784 |
| 0.1250                                                      | 40  | 0.1242    | 0.1191 | 0.1080    | 0.1054 | 0.0954    | 0.0913 |
| 0.1380                                                      | 32  | 0.1372    | 0.1312 | 0.1169    | 0.1141 | 0.1011    | 0.0964 |
| 0.1640                                                      | 32  | 0.1631    | 0.1571 | 0.1428    | 0.1399 | 0.1270    | 0.1222 |
| 0.1900                                                      | 24  | 0.1890    | 0.1818 | 0.1619    | 0.1586 | 0.1409    | 0.1350 |
| 0.2160                                                      | 24  | 0.2150    | 0.2078 | 0.1879    | 0.1845 | 0.1669    | 0.1609 |
| 0.2500                                                      | 20  | 0.2489    | 0.2408 | 0.2164    | 0.2127 | 0.1911    | 0.1844 |
| 0.3125                                                      | 18  | 0.3113    | 0.3026 | 0.2752    | 0.2712 | 0.2471    | 0.2398 |
| 0.3750                                                      | 16  | 0.3737    | 0.3643 | 0.3331    | 0.3287 | 0.3015    | 0.2933 |
| 0.4375                                                      | 14  | 0.4361    | 0.4258 | 0.3897    | 0.3850 | 0.3536    | 0.3446 |
| 0.5000                                                      | 13  | 0.4985    | 0.4876 | 0.4485    | 0.4435 | 0.4096    | 0.4000 |
| 0.5626                                                      | 12  | 0.5609    | 0.5495 | 0.5068    | 0.5016 | 0.4647    | 0.4545 |
| 0.6250                                                      | 11  | 0.6233    | 0.6112 | 0.5643    | 0.5588 | 0.5184    | 0.5074 |
| 0.7500                                                      | 10  | 0.7482    | 0.7353 | 0.6832    | 0.6773 | 0.6324    | 0.6207 |
| 0.8750                                                      | 9   | 0.8735    | 0.8641 | 0.8329    | 0.8280 | 0.8013    | 0.7926 |
| 1.0000                                                      | 8   | 0.9980    | 0.9830 | 0.9168    | 0.9100 | 0.8537    | 0.8393 |

J Profile Thread Forming Data

| Metric “J” Profile Fine Thread (MJF) 6g (mm) |       |           |        |           |        |           |        |
|----------------------------------------------|-------|-----------|--------|-----------|--------|-----------|--------|
| Spec                                         | Pitch | Major Dia |        | Pitch Dia |        | Minor Dia |        |
|                                              |       | Max       | Min    | Max       | Min    | Max       | Min    |
| MJ8                                          | 1     | 7.974     | 7.794  | 7.324     | 7.212  | 6.819     | 6.647  |
| MJ10                                         | 1.25  | 9.972     | 9.760  | 9.160     | 9.042  | 8.529     | 8.335  |
| MJ10                                         | 1     | 9.974     | 9.794  | 9.324     | 9.212  | 8.819     | 8.647  |
| MJ10                                         | 0.75  | 9.978     | 9.838  | 9.491     | 9.391  | 9.112     | 8.967  |
| MJ12                                         | 1.5   | 11.968    | 11.732 | 10.994    | 10.854 | 10.236    | 10.005 |
| MJ12                                         | 1.25  | 11.972    | 11.760 | 11.160    | 11.028 | 10.529    | 10.321 |
| MJ12                                         | 1     | 11.974    | 11.794 | 11.324    | 11.206 | 10.819    | 10.641 |
| MJ14                                         | 1.5   | 13.968    | 13.732 | 12.994    | 12.854 | 12.236    | 12.005 |
| MJ16                                         | 1.5   | 15.968    | 15.732 | 14.994    | 14.854 | 14.236    | 14.005 |
| MJ20                                         | 1.5   | 19.968    | 19.732 | 18.994    | 18.854 | 18.236    | 18.005 |
| MJ20                                         | 1     | 19.974    | 19.794 | 19.324    | 19.206 | 18.819    | 18.641 |
| MJ22                                         | 1.5   | 21.968    | 21.732 | 20.994    | 20.854 | 20.236    | 20.005 |
| MJ24                                         | 2     | 23.962    | 23.682 | 22.663    | 22.493 | 21.653    | 21.361 |
| MJ30                                         | 2     | 29.962    | 29.682 | 28.663    | 28.493 | 27.653    | 27.361 |
| MJ30                                         | 1.5   | 29.968    | 29.732 | 28.994    | 28.844 | 28.236    | 27.995 |

| Unified National “J” Profile Fine Thread(UNJF) 2A (inch) |     |           |        |           |        |           |        |
|----------------------------------------------------------|-----|-----------|--------|-----------|--------|-----------|--------|
| Spec                                                     | TPI | Major Dia |        | Pitch Dia |        | Minor Dia |        |
|                                                          |     | Max       | Min    | Max       | Min    | Max       | Min    |
| 0.0600                                                   | 80  | 0.0595    | 0.0563 | 0.0514    | 0.0496 | 0.0451    | 0.0425 |
| 0.0730                                                   | 72  | 0.0724    | 0.0689 | 0.0634    | 0.0615 | 0.0564    | 0.0536 |
| 0.0860                                                   | 64  | 0.0854    | 0.0816 | 0.0753    | 0.0733 | 0.0674    | 0.0645 |
| 0.0990                                                   | 56  | 0.0983    | 0.0942 | 0.0867    | 0.0845 | 0.0777    | 0.0744 |
| 0.1120                                                   | 48  | 0.1113    | 0.1068 | 0.0978    | 0.0954 | 0.0873    | 0.0836 |
| 0.1250                                                   | 44  | 0.1243    | 0.1195 | 0.1095    | 0.1070 | 0.0980    | 0.0941 |
| 0.1380                                                   | 40  | 0.1372    | 0.1321 | 0.1210    | 0.1184 | 0.1084    | 0.1043 |
| 0.1640                                                   | 36  | 0.1632    | 0.1577 | 0.1452    | 0.1424 | 0.1312    | 0.1267 |
| 0.1900                                                   | 32  | 0.1891    | 0.1831 | 0.1688    | 0.1658 | 0.1530    | 0.1481 |
| 0.2160                                                   | 28  | 0.2150    | 0.2085 | 0.1918    | 0.1886 | 0.1738    | 0.1684 |
| 0.2500                                                   | 28  | 0.2490    | 0.2425 | 0.2258    | 0.2225 | 0.2078    | 0.2023 |
| 0.3125                                                   | 24  | 0.3114    | 0.3042 | 0.2843    | 0.2806 | 0.2632    | 0.2570 |
| 0.3750                                                   | 24  | 0.3739    | 0.3667 | 0.3468    | 0.3430 | 0.3258    | 0.3194 |
| 0.4375                                                   | 20  | 0.4362    | 0.4281 | 0.4037    | 0.3995 | 0.3784    | 0.3712 |
| 0.5000                                                   | 20  | 0.4987    | 0.4906 | 0.4662    | 0.4619 | 0.4409    | 0.4336 |
| 0.5625                                                   | 18  | 0.5611    | 0.5524 | 0.5250    | 0.5205 | 0.4969    | 0.4891 |
| 0.6250                                                   | 18  | 0.6236    | 0.6149 | 0.5875    | 0.5828 | 0.5594    | 0.5514 |
| 0.7500                                                   | 16  | 0.7485    | 0.7391 | 0.7079    | 0.7029 | 0.6763    | 0.6675 |
| 0.8750                                                   | 14  | 0.8734    | 0.8631 | 0.8270    | 0.8216 | 0.7909    | 0.7812 |
| 1.0000                                                   | 12  | 0.9982    | 0.9868 | 0.9441    | 0.9382 | 0.9020    | 0.8910 |