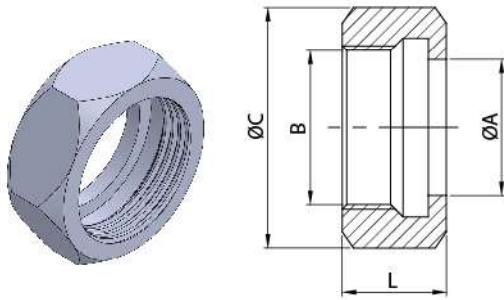
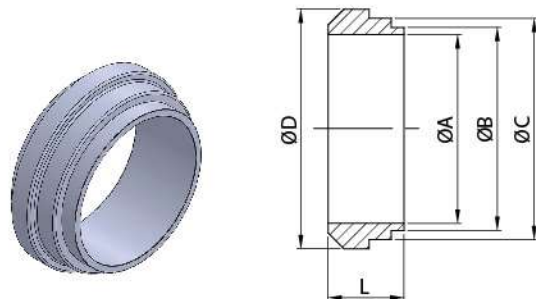


3A Unions



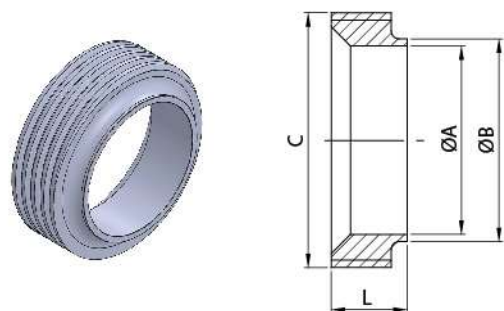
3A-13H HEXAGONAL NUT

| SIZE | ØA | B | ØC | L |
|------|-------|------------------|-------|------|
| 1" | 30.3 | 38.02 ACME 8TPI | 46 | 23 |
| 1.5" | 43.4 | 51.54 ACME 8TPI | 61.1 | 24.6 |
| 2" | 56.5 | 65.05 ACME 8TPI | 76.2 | 27 |
| 2.5" | 69.6 | 78.56 ACME 8TPI | 91.3 | 29.6 |
| 3" | 82.7 | 92.08 ACME 8TPI | 106.4 | 32.5 |
| 4" | 108.9 | 120.14 ACME 6TPI | 137.6 | 38.1 |



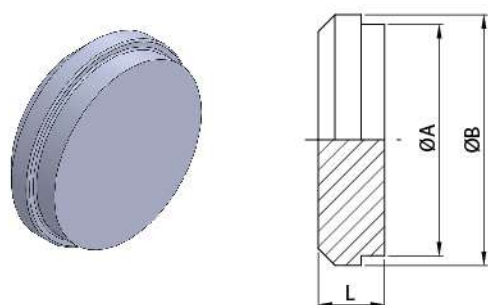
3A-14PRF SHORT BEVEL SEAT WELD LINER

| SIZE | ØA | ØB | ØC | ØD | L |
|------|------|-------|-------|-------|------|
| 1" | 22.1 | 25.4 | 29.5 | 33.3 | 18.3 |
| 1.5" | 34.8 | 38.1 | 42.6 | 46.8 | 18.3 |
| 2" | 47.5 | 50.8 | 55.7 | 60.3 | 19.1 |
| 2.5" | 60.2 | 63.5 | 68.8 | 73.8 | 22.3 |
| 3" | 72.9 | 76.2 | 81.9 | 87.3 | 23.1 |
| 4" | 97.6 | 101.6 | 108.1 | 114.3 | 26.2 |



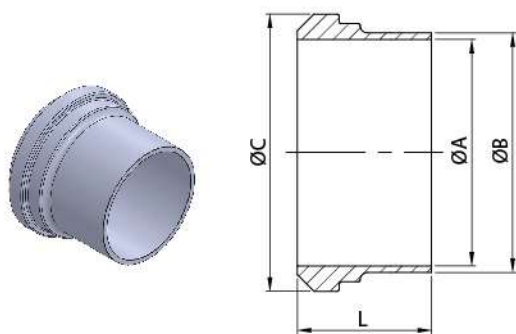
3A-15TRF SHORT BEVEL SEAT WELD MALE

| SIZE | ØA | ØB | C | L |
|------|------|-------|------------------|------|
| 1" | 22.1 | 25.4 | 36.97 ACME 8TPI | 18.3 |
| 1.5" | 34.8 | 38.1 | 50.49 ACME 8TPI | 18.3 |
| 2" | 47.5 | 50.8 | 64 ACME 8TPI | 19.1 |
| 2.5" | 60.2 | 63.5 | 77.51 ACME 8TPI | 22.2 |
| 3" | 72.9 | 76.2 | 91.03 ACME 8TPI | 23.1 |
| 4" | 97.6 | 101.6 | 119.04 ACME 6TPI | 26.2 |



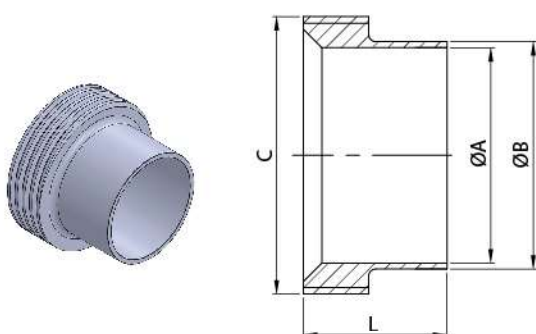
3A-16A BLANK END CAP

| SIZE | ØA | ØB | L |
|------|-------|-------|------|
| 1" | 29.5 | 33.3 | 11.9 |
| 1.5" | 42.6 | 46.8 | 14.3 |
| 2" | 55.7 | 60.3 | 15.9 |
| 2.5" | 68.8 | 73.8 | 16.7 |
| 3" | 81.9 | 87.3 | 18.3 |
| 4" | 108.1 | 114.3 | 20.6 |



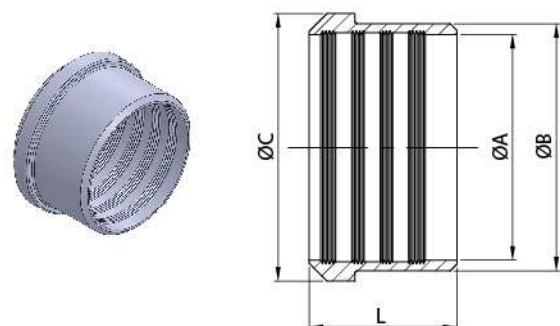
3A-14A LONG WELD LINER

| SIZE | ØA | ØB | ØC | L |
|------|------|-------|-------|------|
| 1" | 22.1 | 25.4 | 33.3 | 34.9 |
| 1.5" | 34.8 | 38.1 | 46.8 | 38.1 |
| 2" | 47.5 | 50.8 | 60.3 | 38.1 |
| 2.5" | 60.2 | 63.5 | 73.8 | 44.5 |
| 3" | 72.9 | 76.2 | 87.3 | 44.5 |
| 4" | 97.6 | 101.6 | 114.3 | 44.5 |



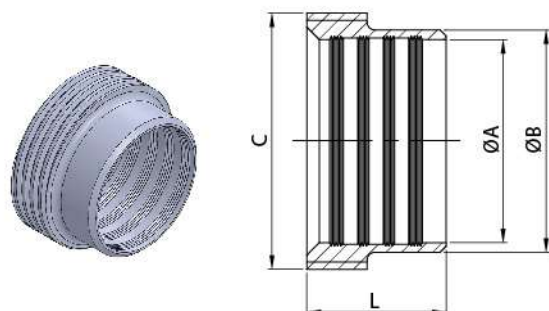
3A-15A LONG WELD MALE

| SIZE | ØA | ØB | C | L |
|------|------|-------|------------------|------|
| 1" | 22.1 | 25.4 | 36.97 ACME 8TPI | 34.9 |
| 1.5" | 34.8 | 38.1 | 50.49 ACME 8TPI | 38.1 |
| 2" | 47.5 | 50.8 | 64 ACME 8TPI | 38.1 |
| 2.5" | 60.2 | 63.5 | 77.51 ACME 8TPI | 44.5 |
| 3" | 72.9 | 76.2 | 91.03 ACME 8TPI | 44.5 |
| 4" | 97.6 | 101.6 | 119.04 ACME 6TPI | 44.5 |



3A-14R RECESSLESS LINER

| SIZE | ØA | ØB | ØC | L |
|------|-------|-------|-------|------|
| 1" | 25.4 | 29.5 | 33.3 | 19.1 |
| 1.5" | 38.1 | 42.6 | 46.8 | 28.6 |
| 2" | 50.8 | 55.7 | 60.3 | 33.3 |
| 2.5" | 63.5 | 68.8 | 73.8 | 34.9 |
| 3" | 76.2 | 81.9 | 87.3 | 36.5 |
| 4" | 101.6 | 108.1 | 114.3 | 38.1 |



3A-15R RECESSLESS MALE

| SIZE | ØA | ØB | C | L |
|------|-------|-------|------------------|------|
| 1" | 25.4 | 29.5 | 36.97 ACME 8TPI | 20.6 |
| 1.5" | 38.1 | 42.6 | 50.49 ACME 8TPI | 28.6 |
| 2" | 50.8 | 55.7 | 64 ACME 8TPI | 34.9 |
| 2.5" | 63.5 | 68.8 | 77.51 ACME 8TPI | 38.1 |
| 3" | 76.2 | 81.9 | 91.03 ACME 8TPI | 41.3 |
| 4" | 101.6 | 108.1 | 119.04 ACME 6TPI | 41.3 |