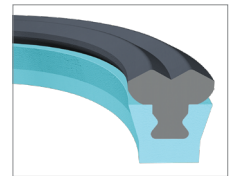
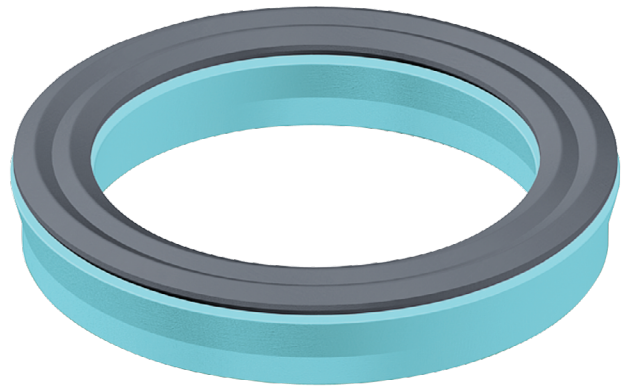


| Seal Materials | Temp. Range |
|---------------------|----------------|
| Nitrile | -40°C to 120°C |
| Low Temp. Nitrile | -54°C to 116°C |
| Viton™/Fluorocarbon | -26°C to 204°C |
| Base Materials | |
| Urethane | -54°C to 105°C |
| Hytrel® | -54°C to 149°C |

Additional compounds are available upon request, including: carboxylated nitrile, hydrogenated nitrile, EPDM, TFE/P, and PTFE.



Standard Z

Product Description

Z-seals are a squeeze type seal primarily used for heavy-duty rod applications. This seal combines excellent sealability, low compression set, and superior anti-extrusion characteristics compared to other lip seals. Under low-pressure conditions the sealing lip provides its own compressive seal force. As the pressure increases, hydrostatic pressure is mechanically transmitted through the elastomer seal element into the anti-extrusion base. The applied force then deflects radially in a controlled manner, closing the extrusion gap behind the sealing lip. Z-seals are also good at compensating for high shock loads, such as bucket impacts.

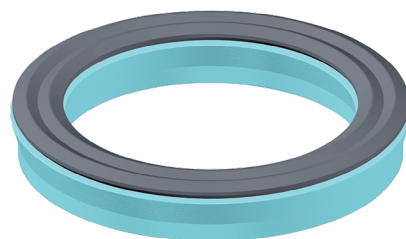
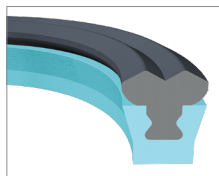
Part Numbers:



Example: Z 5000 3000 750 - Urethane Base, Nitrile Seal Lip, Z-Seal, 1/2" C/S, 3" I.D., 3/4" Height

Z-Seals

IMPERIAL SEALS



Z-seal part numbers are based on a nitrile sealing lip and a urethane base.

| C/S | Part Number | Nominal | | Height |
|---------------|---------------|-----------|----------|--------|
| | | I.D. | O.D. | |
| 1/8" | Z 12500125250 | 1/8 | 3/8 | 1/4 |
| | Z 12500187250 | 3/16 | 7/16 | 1/4 |
| | Z 12500250250 | 1/4 | 1/2 | 1/4 |
| | Z 12500312250 | 5/16 | 9/16 | 1/4 |
| | Z 12500375250 | 3/8 | 5/8 | 1/4 |
| | Z 12500437250 | 7/16 | 11/16 | 1/4 |
| | Z 12500500250 | 1/2 | 3/4 | 1/4 |
| | Z 12500562250 | 9/16 | 13/16 | 1/4 |
| | Z 12500625250 | 5/8 | 7/8 | 1/4 |
| | Z 12500687250 | 11/16 | 15/16 | 1/4 |
| | Z 12500750250 | 3/4 | 1 | 1/4 |
| | Z 12500812250 | 13/16 | 1 - 1/16 | 1/4 |
| | Z 12500875250 | 7/8 | 1 - 1/8 | 1/4 |
| | Z 12500937250 | 15/16 | 1 - 3/16 | 1/4 |
| | Z 12501000250 | 1 | 1 - 1/4 | 1/4 |
| | Z 12501062250 | 1 - 1/16 | 1 - 5/16 | 1/4 |
| | Z 12501125250 | 1 - 1/8 | 1 - 3/8 | 1/4 |
| | Z 12501187250 | 1 - 3/16 | 1 - 7/16 | 1/4 |
| | Z 12501250250 | 1 - 1/4 | 1 - 1/2 | 1/4 |
| | Z 12501312250 | 1 - 5/16 | 1 - 9/16 | 1/4 |
| Z 12501375250 | 1 - 3/8 | 1 - 5/8 | 1/4 | |
| Z 12501437250 | 1 - 7/16 | 1 - 11/16 | 1/4 | |
| Z 12501500250 | 1 - 1/2 | 1 - 3/4 | 1/4 | |
| Z 12501625250 | 1 - 5/8 | 1 - 7/8 | 1/4 | |
| Z 12501750250 | 1 - 3/4 | 2 | 1/4 | |
| Z 12501875250 | 1 - 7/8 | 2 - 1/8 | 1/4 | |
| Z 12502000250 | 2 | 2 - 1/4 | 1/4 | |
| Z 12502125250 | 2 - 1/8 | 2 - 3/8 | 1/4 | |
| Z 12502250250 | 2 - 1/4 | 2 - 1/2 | 1/4 | |
| Z 12502375250 | 2 - 3/8 | 2 - 5/8 | 1/4 | |
| Z 12502500250 | 2 - 1/2 | 2 - 3/4 | 1/4 | |
| 3/16" | Z 18700187312 | 3/16 | 9/16 | 5/16 |
| | Z 18700250312 | 1/4 | 5/8 | 5/16 |
| | Z 18700312312 | 5/16 | 11/16 | 5/16 |
| | Z 18700375312 | 3/8 | 3/4 | 5/16 |

| C/S | Part Number | Nominal | | Height |
|---------------|---------------|-----------|-----------|--------|
| | | I.D. | O.D. | |
| 3/16" | Z 18700437312 | 7/16 | 13/16 | 5/16 |
| | Z 18700500312 | 1/2 | 7/8 | 5/16 |
| | Z 18700562312 | 9/16 | 15/16 | 5/16 |
| | Z 18700625312 | 5/8 | 1 | 5/16 |
| | Z 18700687312 | 11/16 | 1 - 1/16 | 5/16 |
| | Z 18700750312 | 3/4 | 1 - 1/8 | 5/16 |
| | Z 18700812312 | 13/16 | 1 - 3/16 | 5/16 |
| | Z 18700875312 | 7/8 | 1 - 1/4 | 5/16 |
| | Z 18700937312 | 15/16 | 1 - 5/16 | 5/16 |
| | Z 18701000312 | 1 | 1 - 3/8 | 5/16 |
| | Z 18701062312 | 1 - 1/16 | 1 - 7/16 | 5/16 |
| | Z 18701125312 | 1 - 1/8 | 1 - 1/2 | 5/16 |
| | Z 18701187312 | 1 - 3/16 | 1 - 9/16 | 5/16 |
| | Z 18701250312 | 1 - 1/4 | 1 - 5/8 | 5/16 |
| | Z 18701312312 | 1 - 5/16 | 1 - 11/16 | 5/16 |
| | Z 18701375312 | 1 - 3/8 | 1 - 3/4 | 5/16 |
| | Z 18701437312 | 1 - 7/16 | 1 - 13/16 | 5/16 |
| | Z 18701500375 | 1 - 1/2 | 1 - 7/8 | 3/8 |
| | Z 18701625375 | 1 - 5/8 | 2 | 3/8 |
| | Z 18701687375 | 1 - 11/16 | 2 - 1/16 | 3/8 |
| | Z 18701750375 | 1 - 3/4 | 2 - 1/8 | 3/8 |
| | Z 18701875375 | 1 - 7/8 | 2 - 1/4 | 3/8 |
| | Z 18702000375 | 2 | 2 - 3/8 | 3/8 |
| | Z 18702125375 | 2 - 1/8 | 2 - 1/2 | 3/8 |
| | Z 18702250375 | 2 - 1/4 | 2 - 5/8 | 3/8 |
| | Z 18702375375 | 2 - 3/8 | 2 - 3/4 | 3/8 |
| | Z 18702500375 | 2 - 1/2 | 2 - 7/8 | 3/8 |
| | Z 18702625375 | 2 - 5/8 | 3 | 3/8 |
| | Z 18702750375 | 2 - 3/4 | 3 - 1/8 | 3/8 |
| | Z 18702875375 | 2 - 7/8 | 3 - 1/4 | 3/8 |
| Z 18703000375 | 3 | 3 - 3/8 | 3/8 | |
| Z 18703125375 | 3 - 1/8 | 3 - 1/2 | 3/8 | |
| Z 18703250375 | 3 - 1/4 | 3 - 5/8 | 3/8 | |
| Z 18703375375 | 3 - 3/8 | 3 - 3/4 | 3/8 | |
| Z 18703500375 | 3 - 1/2 | 3 - 7/8 | 3/8 | |

| C/S | Part Number | Nominal | | Height | |
|---------------|---------------|---------------|-----------|--------|-----|
| | | I.D. | O.D. | | |
| 3/16" | Z 18703625375 | 3 - 5/8 | 4 | 3/8 | |
| | Z 18703750375 | 3 - 3/4 | 4 - 1/8 | 3/8 | |
| | Z 18703875375 | 3 - 7/8 | 4 - 1/4 | 3/8 | |
| | Z 18704000375 | 4 | 4 - 3/8 | 3/8 | |
| | Z 18704125375 | 4 - 1/8 | 4 - 1/2 | 3/8 | |
| | Z 18704250375 | 4 - 1/4 | 4 - 5/8 | 3/8 | |
| | Z 18704375375 | 4 - 3/8 | 4 - 3/4 | 3/8 | |
| | Z 18704500375 | 4 - 1/2 | 4 - 7/8 | 3/8 | |
| | 1/4" | Z 25000250375 | 1/4 | 3/4 | 3/8 |
| | | Z 25000312375 | 5/16 | 13/16 | 3/8 |
| Z 25000375375 | | 3/8 | 7/8 | 3/8 | |
| Z 25000437375 | | 7/16 | 15/16 | 3/8 | |
| Z 25000500375 | | 1/2 | 1 | 3/8 | |
| Z 25000562375 | | 9/16 | 1 - 1/16 | 3/8 | |
| Z 25000625375 | | 5/8 | 1 - 1/8 | 3/8 | |
| Z 25000687375 | | 11/16 | 1 - 3/16 | 3/8 | |
| Z 25000750375 | | 3/4 | 1 - 1/4 | 3/8 | |
| Z 25000812375 | | 13/16 | 1 - 5/16 | 3/8 | |
| Z 25000875375 | | 7/8 | 1 - 3/8 | 3/8 | |
| Z 25000937375 | | 15/16 | 1 - 7/16 | 3/8 | |
| Z 25001000375 | | 1 | 1 - 1/2 | 3/8 | |
| Z 25001062375 | | 1 - 1/16 | 1 - 9/16 | 3/8 | |
| Z 25001125375 | | 1 - 1/8 | 1 - 5/8 | 3/8 | |
| Z 25001187375 | | 1 - 3/16 | 1 - 11/16 | 3/8 | |
| Z 25001250375 | | 1 - 1/4 | 1 - 3/4 | 3/8 | |
| Z 25001312375 | | 1 - 5/16 | 1 - 13/16 | 3/8 | |
| Z 25001375375 | | 1 - 3/8 | 1 - 7/8 | 3/8 | |
| Z 25001437375 | | 1 - 7/16 | 1 - 15/16 | 3/8 | |
| Z 25001500375 | | 1 - 1/2 | 2 | 3/8 | |
| Z 25001625375 | | 1 - 5/8 | 2 - 1/8 | 3/8 | |
| Z 25001750375 | | 1 - 3/4 | 2 - 1/4 | 3/8 | |
| Z 25001875375 | | 1 - 7/8 | 2 - 3/8 | 3/8 | |
| Z 25002000375 | | 2 | 2 - 1/2 | 3/8 | |
| Z 25002125375 | | 2 - 1/8 | 2 - 5/8 | 3/8 | |
| Z 25002250375 | | 2 - 1/4 | 2 - 3/4 | 3/8 | |
| Z 25002375375 | | 2 - 3/8 | 2 - 7/8 | 3/8 | |
| Z 25002500375 | | 2 - 1/2 | 3 | 3/8 | |
| Z 25002625375 | | 2 - 5/8 | 3 - 1/8 | 3/8 | |
| Z 25002750375 | | 2 - 3/4 | 3 - 1/4 | 3/8 | |
| Z 25003250375 | | 3 - 1/4 | 3 - 3/4 | 3/8 | |
| Z 25003375375 | | 3 - 3/8 | 3 - 7/8 | 3/8 | |
| Z 25003500375 | | 3 - 1/2 | 4 | 3/8 | |
| Z 25003625375 | | 3 - 5/8 | 4 - 1/8 | 3/8 | |

| C/S | Part Number | Nominal | | Height | |
|---------------|----------------|---------------|----------|----------|-----|
| | | I.D. | O.D. | | |
| 1/4" | Z 25003750375 | 3 - 3/4 | 4 - 1/4 | 3/8 | |
| | Z 25004000562 | 4 | 4 - 1/2 | 9/16 | |
| | Z 25004125562 | 4 - 1/8 | 4 - 5/8 | 9/16 | |
| | Z 25004250562 | 4 - 1/4 | 4 - 3/4 | 9/16 | |
| | Z 25004375562 | 4 - 3/8 | 4 - 7/8 | 9/16 | |
| | Z 25004500562 | 4 - 1/2 | 5 | 9/16 | |
| | Z 25004625562 | 4 - 5/8 | 5 - 1/8 | 9/16 | |
| | Z 25004750562 | 4 - 3/4 | 5 - 1/4 | 9/16 | |
| | Z 25004875562 | 4 - 7/8 | 5 - 3/8 | 9/16 | |
| | Z 25005000562 | 5 | 5 - 1/2 | 9/16 | |
| | Z 25005125562 | 5 - 1/8 | 5 - 5/8 | 9/16 | |
| | Z 25005250562 | 5 - 1/4 | 5 - 3/4 | 9/16 | |
| | Z 25005375562 | 5 - 3/8 | 5 - 7/8 | 9/16 | |
| | Z 25005500562 | 5 - 1/2 | 6 | 9/16 | |
| | Z 25005625562 | 5 - 5/8 | 6 - 1/8 | 9/16 | |
| | Z 25005750562 | 5 - 3/4 | 6 - 1/4 | 9/16 | |
| | Z 25005875562 | 5 - 7/8 | 6 - 3/8 | 9/16 | |
| | Z 25006000562 | 6 | 6 - 1/2 | 9/16 | |
| | Z 25006250562 | 6 - 1/4 | 6 - 3/4 | 9/16 | |
| | Z 25006500562 | 6 - 1/2 | 7 | 9/16 | |
| | Z 25006750562 | 6 - 3/4 | 7 - 1/4 | 9/16 | |
| | Z 25007000562 | 7 | 7 - 1/2 | 9/16 | |
| | Z 25007250562 | 7 - 1/4 | 7 - 3/4 | 9/16 | |
| | Z 25007500562 | 7 - 1/2 | 8 | 9/16 | |
| | Z 25007750562 | 7 - 3/4 | 8 - 1/4 | 9/16 | |
| | Z 25008000562 | 8 | 8 - 1/2 | 9/16 | |
| | Z 25008250562 | 8 - 1/4 | 8 - 3/4 | 9/16 | |
| | Z 25008500562 | 8 - 1/2 | 9 | 9/16 | |
| | Z 25008750562 | 8 - 3/4 | 9 - 1/4 | 9/16 | |
| | Z 25009000562 | 9 | 9 - 1/2 | 9/16 | |
| | Z 25009250562 | 9 - 1/4 | 9 - 3/4 | 9/16 | |
| | Z 25009500562 | 9 - 1/2 | 10 | 9/16 | |
| | Z 25009750562 | 9 - 3/4 | 10 - 1/4 | 9/16 | |
| | Z 250010000562 | 10 | 10 - 1/2 | 9/16 | |
| | 5/16" | Z 31200375500 | 3/8 | 1 | 1/2 |
| | | Z 31200437500 | 7/16 | 1 - 1/16 | 1/2 |
| | | Z 31200500500 | 1/2 | 1 - 1/8 | 1/2 |
| | | Z 31200562500 | 9/16 | 1 - 3/16 | 1/2 |
| | | Z 31200625500 | 5/8 | 1 - 1/4 | 1/2 |
| | | Z 31200687500 | 11/16 | 1 - 5/16 | 1/2 |
| Z 31200750500 | | 3/4 | 1 - 3/8 | 1/2 | |
| Z 31200812500 | | 13/16 | 1 - 7/16 | 1/2 | |
| Z 31200875500 | 7/8 | 1 - 1/2 | 1/2 | | |

| C/S | Part Number | Nominal | | |
|-------|---------------|----------|-----------|--------|
| | | I.D. | O.D. | Height |
| 5/16" | Z 31200937500 | 15/16 | 1 - 9/16 | 1/2 |
| | Z 31201000500 | 1 | 1 - 5/8 | 1/2 |
| | Z 31201062500 | 1 - 1/16 | 1 - 11/16 | 1/2 |
| | Z 31201125500 | 1 - 1/8 | 1 - 3/4 | 1/2 |
| | Z 31201187500 | 1 - 3/16 | 1 - 13/16 | 1/2 |
| | Z 31201250500 | 1 - 1/4 | 1 - 7/8 | 1/2 |
| | Z 31201312500 | 1 - 5/16 | 1 - 15/16 | 1/2 |
| | Z 31201375500 | 1 - 3/8 | 2 | 1/2 |
| | Z 31201437500 | 1 - 7/16 | 2 - 1/16 | 1/2 |
| | Z 31201500500 | 1 - 1/2 | 2 - 1/8 | 1/2 |
| | Z 31201625500 | 1 - 5/8 | 2 - 1/4 | 1/2 |
| | Z 31201750500 | 1 - 3/4 | 2 - 3/8 | 1/2 |
| | Z 31201875500 | 1 - 7/8 | 2 - 1/2 | 1/2 |
| | Z 31202000500 | 2 | 2 - 5/8 | 1/2 |
| | Z 31202125500 | 2 - 1/8 | 2 - 3/4 | 1/2 |
| | Z 31202250500 | 2 - 1/4 | 2 - 7/8 | 1/2 |
| | Z 31202375500 | 2 - 3/8 | 3 | 1/2 |
| | Z 31202500500 | 2 - 1/2 | 3 - 1/8 | 1/2 |
| | Z 31202625500 | 2 - 5/8 | 3 - 1/4 | 1/2 |
| | Z 31202750500 | 2 - 3/4 | 3 - 3/8 | 1/2 |
| | Z 31202875500 | 2 - 7/8 | 3 - 1/2 | 1/2 |
| | Z 31203000500 | 3 | 3 - 5/8 | 1/2 |
| | Z 31203125500 | 3 - 1/8 | 3 - 3/4 | 1/2 |
| | Z 31203250500 | 3 - 1/4 | 3 - 7/8 | 1/2 |
| | Z 31203375500 | 3 - 3/8 | 4 | 1/2 |
| | Z 31203500500 | 3 - 1/2 | 4 - 1/8 | 1/2 |
| | Z 31203625500 | 3 - 5/8 | 4 - 1/4 | 1/2 |
| | Z 31203750500 | 3 - 3/4 | 4 - 3/8 | 1/2 |
| | Z 31203875500 | 3 - 7/8 | 4 - 1/2 | 1/2 |
| | Z 31204000562 | 4 | 4 - 5/8 | 9/16 |
| | Z 31204125562 | 4 - 1/8 | 4 - 3/4 | 9/16 |
| | Z 31204250562 | 4 - 1/4 | 4 - 7/8 | 9/16 |
| | Z 31204375562 | 4 - 3/8 | 5 | 9/16 |
| | Z 31204500625 | 4 - 1/2 | 5 - 1/8 | 5/8 |
| | Z 31204625625 | 4 - 5/8 | 5 - 1/4 | 5/8 |
| | Z 31204750625 | 4 - 3/4 | 5 - 3/8 | 5/8 |
| | Z 31204875625 | 4 - 7/8 | 5 - 1/2 | 5/8 |
| | Z 31205000625 | 5 | 5 - 5/8 | 5/8 |
| | Z 31205125625 | 5 - 1/8 | 5 - 3/4 | 5/8 |
| | Z 31205250625 | 5 - 1/4 | 5 - 7/8 | 5/8 |
| | Z 31205375625 | 5 - 3/8 | 6 | 5/8 |
| | Z 31205500625 | 5 - 1/2 | 6 - 1/8 | 5/8 |
| | Z 31205625625 | 5 - 5/8 | 6 - 1/4 | 5/8 |

| C/S | Part Number | Nominal | | |
|-------|---------------|----------|-----------|--------|
| | | I.D. | O.D. | Height |
| 5/16" | Z 31205750625 | 5 - 3/4 | 6 - 3/8 | 5/8 |
| | Z 31205875625 | 5 - 7/8 | 6 - 1/2 | 5/8 |
| | Z 31206000625 | 6 | 6 - 5/8 | 5/8 |
| | Z 31206125625 | 6 - 1/8 | 6 - 3/4 | 5/8 |
| | Z 31206250625 | 6 - 1/4 | 6 - 7/8 | 5/8 |
| | Z 31206375625 | 6 - 3/8 | 7 | 5/8 |
| | Z 31206500625 | 6 - 1/2 | 7 - 1/8 | 5/8 |
| | Z 31206625625 | 6 - 5/8 | 7 - 1/4 | 5/8 |
| | Z 31206750625 | 6 - 3/4 | 7 - 3/8 | 5/8 |
| | Z 31206875625 | 6 - 7/8 | 7 - 1/2 | 5/8 |
| | Z 31207000625 | 7 | 7 - 5/8 | 5/8 |
| | Z 31207125625 | 7 - 1/8 | 7 - 3/4 | 5/8 |
| | Z 31207250625 | 7 - 1/4 | 7 - 7/8 | 5/8 |
| | Z 31207375625 | 7 - 3/8 | 8 | 5/8 |
| 3/8" | Z 37500500625 | 1/2 | 1 - 1/4 | 5/8 |
| | Z 37500562625 | 9/16 | 1 - 5/16 | 5/8 |
| | Z 37500625625 | 5/8 | 1 - 3/8 | 5/8 |
| | Z 37500687625 | 11/16 | 1 - 7/16 | 5/8 |
| | Z 37500750625 | 3/4 | 1 - 1/2 | 5/8 |
| | Z 37500812625 | 13/16 | 1 - 9/16 | 5/8 |
| | Z 37500875625 | 7/8 | 1 - 5/8 | 5/8 |
| | Z 37500937625 | 15/16 | 1 - 11/16 | 5/8 |
| | Z 37501000625 | 1 | 1 - 3/4 | 5/8 |
| | Z 37501062625 | 1 - 1/16 | 1 - 13/16 | 5/8 |
| | Z 37501125625 | 1 - 1/8 | 1 - 7/8 | 5/8 |
| | Z 37501187625 | 1 - 3/16 | 1 - 15/16 | 5/8 |
| | Z 37501250625 | 1 - 1/4 | 2 | 5/8 |
| | Z 37501312625 | 1 - 5/16 | 2 - 1/16 | 5/8 |
| | Z 37501375625 | 1 - 3/8 | 2 - 1/8 | 5/8 |
| | Z 37501437625 | 1 - 7/16 | 2 - 3/16 | 5/8 |
| | Z 37501500625 | 1 - 1/2 | 2 - 1/4 | 5/8 |
| | Z 37501625625 | 1 - 5/8 | 2 - 3/8 | 5/8 |
| | Z 37501750625 | 1 - 3/4 | 2 - 1/2 | 5/8 |
| | Z 37501875625 | 1 - 7/8 | 2 - 5/8 | 5/8 |
| | Z 37502000625 | 2 | 2 - 3/4 | 5/8 |
| | Z 37502125625 | 2 - 1/8 | 2 - 7/8 | 5/8 |
| | Z 37502250625 | 2 - 1/4 | 3 | 5/8 |
| | Z 37502375625 | 2 - 3/8 | 3 - 1/8 | 5/8 |
| | Z 37502500625 | 2 - 1/2 | 3 - 1/4 | 5/8 |
| | Z 37502625625 | 2 - 5/8 | 3 - 3/8 | 5/8 |
| | Z 37502750625 | 2 - 3/4 | 3 - 1/2 | 5/8 |
| | Z 37502875625 | 2 - 7/8 | 3 - 5/8 | 5/8 |
| | Z 37503000625 | 3 | 3 - 3/4 | 5/8 |



| C/S | Part Number | Nominal | | Height |
|------|---------------|----------|----------|--------|
| | | I.D. | O.D. | |
| 3/8" | Z 37503125625 | 3 - 1/8 | 3 - 7/8 | 5/8 |
| | Z 37503250625 | 3 - 1/4 | 4 | 5/8 |
| | Z 37503375625 | 3 - 3/8 | 4 - 1/8 | 5/8 |
| | Z 37503500625 | 3 - 1/2 | 4 - 1/4 | 5/8 |
| | Z 37503625625 | 3 - 5/8 | 4 - 3/8 | 5/8 |
| | Z 37503750625 | 3 - 3/4 | 4 - 1/2 | 5/8 |
| | Z 37503875625 | 3 - 7/8 | 4 - 5/8 | 5/8 |
| | Z 37504000625 | 4 | 4 - 3/4 | 5/8 |
| | Z 37504125625 | 4 - 1/8 | 4 - 7/8 | 5/8 |
| | Z 37504250625 | 4 - 1/4 | 5 | 5/8 |
| | Z 37504375625 | 4 - 3/8 | 5 - 1/8 | 5/8 |
| | Z 37504500625 | 4 - 1/2 | 5 - 1/4 | 5/8 |
| | Z 37504625625 | 4 - 5/8 | 5 - 3/8 | 5/8 |
| | Z 37504750625 | 4 - 3/4 | 5 - 1/2 | 5/8 |
| | Z 37504875625 | 4 - 7/8 | 5 - 5/8 | 5/8 |
| | Z 37505000625 | 5 | 5 - 3/4 | 5/8 |
| | Z 37505125625 | 5 - 1/8 | 5 - 7/8 | 5/8 |
| | Z 37505250625 | 5 - 1/4 | 6 | 5/8 |
| | Z 37505375625 | 5 - 3/8 | 6 - 1/8 | 5/8 |
| | Z 37505500625 | 5 - 1/2 | 6 - 1/4 | 5/8 |
| | Z 37505625625 | 5 - 5/8 | 6 - 3/8 | 5/8 |
| | Z 37505750625 | 5 - 3/4 | 6 - 1/2 | 5/8 |
| | Z 37505875625 | 5 - 7/8 | 6 - 5/8 | 5/8 |
| | Z 37506000625 | 6 | 6 - 3/4 | 5/8 |
| | Z 37506250625 | 6 - 1/4 | 7 | 5/8 |
| | Z 37506500625 | 6 - 1/2 | 7 - 1/4 | 5/8 |
| | Z 37506750625 | 6 - 3/4 | 7 - 1/2 | 5/8 |
| | Z 37507000625 | 7 | 7 - 3/4 | 5/8 |
| | Z 37507250625 | 7 - 1/4 | 8 | 5/8 |
| | Z 37507500625 | 7 - 1/2 | 8 - 1/4 | 5/8 |
| | Z 37507750625 | 7 - 3/4 | 8 - 1/2 | 5/8 |
| | Z 37508000625 | 8 | 8 - 3/4 | 5/8 |
| | Z 37508250625 | 8 - 1/4 | 9 | 5/8 |
| | Z 37508500625 | 8 - 1/2 | 9 - 1/4 | 5/8 |
| | Z 37508750625 | 8 - 3/4 | 9 - 1/2 | 5/8 |
| | Z 37509000625 | 9 | 9 - 3/4 | 5/8 |
| | Z 37509250625 | 9 - 1/4 | 10 | 5/8 |
| | Z 37509500625 | 9 - 1/2 | 10 - 1/4 | 5/8 |
| | Z 37509750625 | 9 - 3/4 | 10 - 1/2 | 5/8 |
| | Z 37510000625 | 10 | 10 - 3/4 | 5/8 |
| | Z 37510250625 | 10 - 1/4 | 11 | 5/8 |
| | Z 37510500625 | 10 - 1/2 | 11 - 1/4 | 5/8 |
| | Z 37510750625 | 10 - 3/4 | 11 - 1/2 | 5/8 |

| C/S | Part Number | Nominal | | Height |
|------|----------------|----------|----------|--------|
| | | I.D. | O.D. | |
| 3/8" | Z 375011000625 | 11 | 11 - 3/4 | 5/8 |
| | Z 375011250625 | 11 - 1/4 | 12 | 5/8 |
| | Z 375011500625 | 11 - 1/2 | 12 - 1/4 | 5/8 |
| | Z 375011750625 | 11 - 3/4 | 12 - 1/2 | 5/8 |
| | Z 375012000625 | 12 | 12 - 3/4 | 5/8 |
| 1/2" | Z 50001000750 | 1 | 2 | 3/4 |
| | Z 50001250750 | 1 - 1/4 | 2 - 1/4 | 3/4 |
| | Z 50001375750 | 1 - 3/8 | 2 - 3/8 | 3/4 |
| | Z 50001500750 | 1 - 1/2 | 2 - 1/2 | 3/4 |
| | Z 50001750750 | 1 - 3/4 | 2 - 3/4 | 3/4 |
| | Z 50002000750 | 2 | 3 | 3/4 |
| | Z 50002250750 | 2 - 1/4 | 3 - 1/4 | 3/4 |
| | Z 50002375750 | 2 - 3/8 | 3 - 3/8 | 3/4 |
| | Z 50002500750 | 2 - 1/2 | 3 - 1/2 | 3/4 |
| | Z 50002750750 | 2 - 3/4 | 3 - 3/4 | 3/4 |
| | Z 50003000750 | 3 | 4 | 3/4 |
| | Z 50003250750 | 3 - 1/4 | 4 - 1/4 | 3/4 |
| | Z 50003500750 | 3 - 1/2 | 4 - 1/2 | 3/4 |
| | Z 50003750750 | 3 - 3/4 | 4 - 3/4 | 3/4 |
| | Z 50004000750 | 4 | 5 | 3/4 |
| | Z 50004250750 | 4 - 1/4 | 5 - 1/4 | 3/4 |
| | Z 50004375750 | 4 - 3/8 | 5 - 3/8 | 3/4 |
| | Z 50004500750 | 4 - 1/2 | 5 - 1/2 | 3/4 |
| | Z 50004750750 | 4 - 3/4 | 5 - 3/4 | 3/4 |
| | Z 50005000750 | 5 | 6 | 3/4 |
| | Z 50005250750 | 5 - 1/4 | 6 - 1/4 | 3/4 |
| | Z 50005375750 | 5 - 3/8 | 6 - 3/8 | 3/4 |
| | Z 50005500750 | 5 - 1/2 | 6 - 1/2 | 3/4 |
| | Z 50005750750 | 5 - 3/4 | 6 - 3/4 | 3/4 |
| | Z 50006000750 | 6 | 7 | 3/4 |
| | Z 50006250750 | 6 - 1/4 | 7 - 1/4 | 3/4 |
| | Z 50006500750 | 6 - 1/2 | 7 - 1/2 | 3/4 |
| | Z 50006750750 | 6 - 3/4 | 7 - 3/4 | 3/4 |
| | Z 50007000750 | 7 | 8 | 3/4 |
| | Z 50007250750 | 7 - 1/4 | 8 - 1/4 | 3/4 |
| | Z 50007500750 | 7 - 1/2 | 8 - 1/2 | 3/4 |
| | Z 50007750750 | 7 - 3/4 | 8 - 3/4 | 3/4 |
| | Z 50008000750 | 8 | 9 | 3/4 |
| | Z 50008250750 | 8 - 1/4 | 9 - 1/4 | 3/4 |
| | Z 50008500750 | 8 - 1/2 | 9 - 1/2 | 3/4 |
| | Z 50008750750 | 8 - 3/4 | 9 - 3/4 | 3/4 |
| | Z 50009000750 | 9 | 10 | 3/4 |
| | Z 50009250750 | 9 - 1/4 | 10 - 1/4 | 3/4 |

| C/S | Part Number | Nominal | | |
|------|----------------|----------|----------|--------|
| | | I.D. | O.D. | Height |
| 1/2" | Z 50009500750 | 9 - 1/2 | 10 - 1/2 | 3/4 |
| | Z 50009750750 | 9 - 3/4 | 10 - 3/4 | 3/4 |
| | Z 500010000750 | 10 | 11 | 3/4 |
| | Z 500010500750 | 10 - 1/2 | 11 - 1/2 | 3/4 |
| | Z 500011000750 | 11 | 12 | 3/4 |
| | Z 500011500750 | 11 - 1/2 | 12 - 1/2 | 3/4 |
| | Z 500012000750 | 12 | 13 | 3/4 |
| | Z 500012500750 | 12 - 1/2 | 13 - 1/2 | 3/4 |
| | Z 500013000750 | 13 | 14 | 3/4 |
| | Z 500013500750 | 13 - 1/2 | 14 - 1/2 | 3/4 |
| | Z 500014000750 | 14 | 15 | 3/4 |
| | Z 500014500750 | 14 - 1/2 | 15 - 1/2 | 3/4 |
| | Z 500015000750 | 15 | 16 | 3/4 |
| 5/8" | Z 62501250100 | 1 - 1/4 | 2 - 1/2 | 1 |
| | Z 62501375100 | 1 - 3/8 | 2 - 5/8 | 1 |
| | Z 62501500100 | 1 - 1/2 | 2 - 3/4 | 1 |
| | Z 62501750100 | 1 - 3/4 | 3 | 1 |
| | Z 62502000100 | 2 | 3 - 1/4 | 1 |
| | Z 62502250100 | 2 - 1/4 | 3 - 1/2 | 1 |
| | Z 62502500100 | 2 - 1/2 | 3 - 3/4 | 1 |
| | Z 62502750100 | 2 - 3/4 | 4 | 1 |
| | Z 62503000100 | 3 | 4 - 1/4 | 1 |
| | Z 62503250100 | 3 - 1/4 | 4 - 1/2 | 1 |
| | Z 62503500100 | 3 - 1/2 | 4 - 3/4 | 1 |
| | Z 62503750100 | 3 - 3/4 | 5 | 1 |
| | Z 62504000100 | 4 | 5 - 1/4 | 1 |
| | Z 62504250100 | 4 - 1/4 | 5 - 1/2 | 1 |
| | Z 62504500100 | 4 - 1/2 | 5 - 3/4 | 1 |
| | Z 62504750100 | 4 - 3/4 | 6 | 1 |
| | Z 62505000100 | 5 | 6 - 1/4 | 1 |
| | Z 62505250100 | 5 - 1/4 | 6 - 1/2 | 1 |
| | Z 62505500100 | 5 - 1/2 | 6 - 3/4 | 1 |
| | Z 62505750100 | 5 - 3/4 | 7 | 1 |
| | Z 62506000100 | 6 | 7 - 1/4 | 1 |
| | Z 62506250100 | 6 - 1/4 | 7 - 1/2 | 1 |
| | Z 62506500100 | 6 - 1/2 | 7 - 3/4 | 1 |
| | Z 62506750100 | 6 - 3/4 | 8 | 1 |
| | Z 62507000100 | 7 | 8 - 1/4 | 1 |
| | Z 62507250100 | 7 - 1/4 | 8 - 1/2 | 1 |
| | Z 62507500100 | 7 - 1/2 | 8 - 3/4 | 1 |
| | Z 62507750100 | 7 - 3/4 | 9 | 1 |
| | Z 62508000100 | 8 | 9 - 1/4 | 1 |
| | Z 62508250100 | 8 - 1/4 | 9 - 1/2 | 1 |

| C/S | Part Number | Nominal | | |
|------|----------------|----------|----------|---------|
| | | I.D. | O.D. | Height |
| 5/8" | Z 62508500100 | 8 - 1/2 | 9 - 3/4 | 1 |
| | Z 62508750100 | 8 - 3/4 | 10 | 1 |
| | Z 62509000100 | 9 | 10 - 1/4 | 1 |
| | Z 62509250100 | 9 - 1/4 | 10 - 1/2 | 1 |
| | Z 62509500100 | 9 - 1/2 | 10 - 3/4 | 1 |
| | Z 62509750100 | 9 - 3/4 | 11 | 1 |
| | Z 625010000100 | 10 | 11 - 1/4 | 1 |
| | Z 625010250100 | 10 - 1/4 | 11 - 1/2 | 1 |
| | Z 625010500100 | 10 - 1/2 | 11 - 3/4 | 1 |
| | Z 625010750100 | 10 - 3/4 | 12 | 1 |
| | Z 625011000100 | 11 | 12 - 1/4 | 1 |
| | Z 625011250100 | 11 - 1/4 | 12 - 1/2 | 1 |
| | Z 625011500100 | 11 - 1/2 | 12 - 3/4 | 1 |
| | Z 625011750100 | 11 - 3/4 | 13 | 1 |
| | Z 625012000100 | 12 | 13 - 1/4 | 1 |
| | Z 625012250100 | 12 - 1/4 | 13 - 1/2 | 1 |
| | Z 625012500100 | 12 - 1/2 | 13 - 3/4 | 1 |
| | Z 625012750100 | 12 - 3/4 | 14 | 1 |
| | Z 625013000100 | 13 | 14 - 1/4 | 1 |
| | Z 625013250100 | 13 - 1/4 | 14 - 1/2 | 1 |
| | Z 625013500100 | 13 - 1/2 | 14 - 3/4 | 1 |
| | Z 625013750100 | 13 - 3/4 | 15 | 1 |
| | Z 625014000100 | 14 | 15 - 1/4 | 1 |
| | Z 625014250100 | 14 - 1/4 | 15 - 1/2 | 1 |
| | Z 625014500100 | 14 - 1/2 | 15 - 3/4 | 1 |
| | Z 625014750100 | 14 - 3/4 | 16 | 1 |
| | Z 625015000100 | 15 | 16 - 1/4 | 1 |
| | Z 625015500100 | 15 - 1/2 | 16 - 3/4 | 1 |
| | Z 625016000100 | 16 | 17 - 1/4 | 1 |
| | Z 625016500100 | 16 - 1/2 | 17 - 3/4 | 1 |
| | Z 625017000100 | 17 | 18 - 1/4 | 1 |
| | Z 625017500100 | 17 - 1/2 | 18 - 3/4 | 1 |
| | Z 625018000100 | 18 | 19 - 1/4 | 1 |
| 3/4" | Z 75003000125 | 3 | 4 - 1/2 | 1 - 1/4 |
| | Z 75003250125 | 3 - 1/4 | 4 - 3/4 | 1 - 1/4 |
| | Z 75003500125 | 3 - 1/2 | 5 | 1 - 1/4 |
| | Z 75003750125 | 3 - 3/4 | 5 - 1/4 | 1 - 1/4 |
| | Z 75004000125 | 4 | 5 - 1/2 | 1 - 1/4 |
| | Z 75004250125 | 4 - 1/4 | 5 - 3/4 | 1 - 1/4 |
| | Z 75004500125 | 4 - 1/2 | 6 | 1 - 1/4 |
| | Z 75004750125 | 4 - 3/4 | 6 - 1/4 | 1 - 1/4 |
| | Z 75005000125 | 5 | 6 - 1/2 | 1 - 1/4 |
| | Z 75005250125 | 5 - 1/4 | 6 - 3/4 | 1 - 1/4 |

| C/S | Part Number | Nominal | | |
|------|----------------|----------|----------|---------|
| | | I.D. | O.D. | Height |
| 3/4" | Z 75005500125 | 5 - 1/2 | 7 | 1 - 1/4 |
| | Z 75005750125 | 5 - 3/4 | 7 - 1/4 | 1 - 1/4 |
| | Z 75006000125 | 6 | 7 - 1/2 | 1 - 1/4 |
| | Z 75006250125 | 6 - 1/4 | 7 - 3/4 | 1 - 1/4 |
| | Z 75006500125 | 6 - 1/2 | 8 | 1 - 1/4 |
| | Z 75006750125 | 6 - 3/4 | 8 - 1/4 | 1 - 1/4 |
| | Z 75007000125 | 7 | 8 - 1/2 | 1 - 1/4 |
| | Z 75007250125 | 7 - 1/4 | 8 - 3/4 | 1 - 1/4 |
| | Z 75007500125 | 7 - 1/2 | 9 | 1 - 1/4 |
| | Z 75007750125 | 7 - 3/4 | 9 - 1/4 | 1 - 1/4 |
| | Z 75008000125 | 8 | 9 - 1/2 | 1 - 1/4 |
| | Z 75008250125 | 8 - 1/4 | 9 - 3/4 | 1 - 1/4 |
| | Z 75008500125 | 8 - 1/2 | 10 | 1 - 1/4 |
| | Z 75008750125 | 8 - 3/4 | 10 - 1/4 | 1 - 1/4 |
| | Z 75009000125 | 9 | 10 - 1/2 | 1 - 1/4 |
| | Z 75009250125 | 9 - 1/4 | 10 - 3/4 | 1 - 1/4 |
| | Z 75009500125 | 9 - 1/2 | 11 | 1 - 1/4 |
| | Z 75009750125 | 9 - 3/4 | 11 - 1/4 | 1 - 1/4 |
| | Z 750010000125 | 10 | 11 - 1/2 | 1 - 1/4 |
| | Z 750010500125 | 10 - 1/2 | 12 | 1 - 1/4 |
| | Z 750011000125 | 11 | 12 - 1/2 | 1 - 1/4 |
| | Z 750011500125 | 11 - 1/2 | 13 | 1 - 1/4 |
| | Z 750012000125 | 12 | 13 - 1/2 | 1 - 1/4 |
| | Z 750012500125 | 12 - 1/2 | 14 | 1 - 1/4 |
| | Z 750013000125 | 13 | 14 - 1/2 | 1 - 1/4 |
| | Z 750013500125 | 13 - 1/2 | 15 | 1 - 1/4 |
| | Z 750014000125 | 14 | 15 - 1/2 | 1 - 1/4 |
| | Z 750014500125 | 14 - 1/2 | 16 | 1 - 1/4 |
| | Z 750015000125 | 15 | 16 - 1/2 | 1 - 1/4 |
| | Z 750015500125 | 15 - 1/2 | 17 | 1 - 1/4 |
| | Z 750016000125 | 16 | 17 - 1/2 | 1 - 1/4 |
| | Z 750016500125 | 16 - 1/2 | 18 | 1 - 1/4 |
| | Z 750017000125 | 17 | 18 - 1/2 | 1 - 1/4 |
| | Z 750017500125 | 17 - 1/2 | 19 | 1 - 1/4 |
| | Z 750018000125 | 18 | 19 - 1/2 | 1 - 1/4 |
| | Z 750018500125 | 18 - 1/2 | 20 | 1 - 1/4 |
| | Z 750019000125 | 19 | 20 - 1/2 | 1 - 1/4 |
| | Z 750019500125 | 19 - 1/2 | 21 | 1 - 1/4 |
| | Z 750020000125 | 20 | 21 - 1/2 | 1 - 1/4 |
| 1" | Z 10003000150 | 3 | 5 | 1 - 1/2 |
| | Z 10003500150 | 3 - 1/2 | 5 - 1/2 | 1 - 1/2 |
| | Z 10004000150 | 4 | 6 | 1 - 1/2 |
| | Z 10004500150 | 4 - 1/2 | 6 - 1/2 | 1 - 1/2 |

| C/S | Part Number | Nominal | | |
|-----|----------------|----------|----------|---------|
| | | I.D. | O.D. | Height |
| 1" | Z 10005000150 | 5 | 7 | 1 - 1/2 |
| | Z 10005500150 | 5 - 1/2 | 7 - 1/2 | 1 - 1/2 |
| | Z 10006000150 | 6 | 8 | 1 - 1/2 |
| | Z 10006500150 | 6 - 1/2 | 8 - 1/2 | 1 - 1/2 |
| | Z 10007000150 | 7 | 9 | 1 - 1/2 |
| | Z 10007500150 | 7 - 1/2 | 9 - 1/2 | 1 - 1/2 |
| | Z 10008000150 | 8 | 10 | 1 - 1/2 |
| | Z 10008500150 | 8 - 1/2 | 10 - 1/2 | 1 - 1/2 |
| | Z 10009000150 | 9 | 11 | 1 - 1/2 |
| | Z 10009500150 | 9 - 1/2 | 11 - 1/2 | 1 - 1/2 |
| | Z 100010000150 | 10 | 12 | 1 - 1/2 |
| | Z 100010500150 | 10 - 1/2 | 12 - 1/2 | 1 - 1/2 |
| | Z 100011000150 | 11 | 13 | 1 - 1/2 |
| | Z 100011500150 | 11 - 1/2 | 13 - 1/2 | 1 - 1/2 |
| | Z 100012000150 | 12 | 14 | 1 - 1/2 |
| | Z 100012500150 | 12 - 1/2 | 14 - 1/2 | 1 - 1/2 |
| | Z 100013000150 | 13 | 15 | 1 - 1/2 |
| | Z 100013500150 | 13 - 1/2 | 15 - 1/2 | 1 - 1/2 |
| | Z 100014000150 | 14 | 16 | 1 - 1/2 |
| | Z 100014500150 | 14 - 1/2 | 16 - 1/2 | 1 - 1/2 |
| | Z 100015000150 | 15 | 17 | 1 - 1/2 |
| | Z 100015500150 | 15 - 1/2 | 17 - 1/2 | 1 - 1/2 |
| | Z 100016000150 | 16 | 18 | 1 - 1/2 |
| | Z 100016500150 | 16 - 1/2 | 18 - 1/2 | 1 - 1/2 |
| | Z 100017000150 | 17 | 19 | 1 - 1/2 |
| | Z 100017500150 | 17 - 1/2 | 19 - 1/2 | 1 - 1/2 |
| | Z 100018000150 | 18 | 20 | 1 - 1/2 |
| | Z 100018500150 | 18 - 1/2 | 20 - 1/2 | 1 - 1/2 |
| | Z 100019000150 | 19 | 21 | 1 - 1/2 |
| | Z 100019500150 | 19 - 1/2 | 21 - 1/2 | 1 - 1/2 |
| | Z 100020000150 | 20 | 22 | 1 - 1/2 |
| | Z 100022000150 | 22 | 24 | 1 - 1/2 |
| | Z 100024000150 | 24 | 26 | 1 - 1/2 |
| | Z 100026000150 | 26 | 28 | 1 - 1/2 |
| | Z 100028000150 | 28 | 30 | 1 - 1/2 |
| | Z 100030000150 | 30 | 32 | 1 - 1/2 |
| | Z 100032000150 | 32 | 34 | 1 - 1/2 |