



AEROSPACE RECOMMENDED PRACTICE

ARP 1232 A

Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE, WARRENDALE, PA. 15096

Issued April 1973
Revised April 1977

GLAND DESIGN, ELASTOMERIC O-RING SEALS, STATIC RADIAL

1. PURPOSE

- 1.1 The purpose of this document is to provide the aerospace industry with standardized dimensional criteria for static radial elastomeric O-ring seal glands. It supplements ARP 1231, "Gland Design, Elastomeric O-ring Seals, General Considerations".

2. SCOPE

- 2.1 This document establishes standard gland dimensions for static radial O-ring seal applications and provides recommendations for modifying these glands in special applications. No provisions are made in this document for anti-extrusion devices. SI unit conversions for U.S. customary units have been provided for reference purposes.

3. GENERAL REQUIREMENTS

3.1 Applicable Documents

- 3.1.1 ANSI B46.1 - 1962 - Surface Texture
3.1.2 AS 568 - Aerospace Size Standard for O-Rings
3.1.3 ARP 1231 - Gland Design, Elastomeric O-Ring Seals, General Considerations
3.1.4 ARP 1233 - Gland Design, Elastomeric O-Ring Seals, Dynamic Radial

3.2 Gland Configurations

- 3.2.1 **Standard Glands** - Figure 1 depicts rod-mounted and bore-mounted radial O-ring seal glands. Standard dimensions for these glands are tabulated in Table 3. These dimensions are designed for use with seals conforming to AS 568 tolerances. They are computed in accordance with the criteria defined in paragraph 4 of this document and in ARP 1231.
- 3.2.2 **Exemption** - Standard glands are not provided for the larger diameter bore-mounted applications. In these larger sizes, Diameter H becomes larger than the outside diameter of the O-ring seal. This condition makes the installation of a seal impractical. Bore-mounted seal glands have been provided up to those sizes where diameter H is equal to or greater than the seal ID plus 1/2 (seal O.D. - seal I.D.).
- 3.2.3 **Modified Glands** - The standard gland dimensions may be modified to achieve an optimum sealing configuration. In selecting or computing gland dimensions, the criteria defined in ARP 1231 and in paragraph 4 of this document should be consulted.

3.3 Surface Texture

- 3.3.1 Figure 1 defines the preferred surface texture to be used with the glands described in this document. The 63 microinch (1.6 micrometre) texture is satisfactory for most static applications. A 32 microinch (0.8 micrometre) texture may be substituted if there is relative motion between seal and gland sealing surfaces during operation. However, if this relative motion be-

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4.2 O-Ring Seal Squeeze

- 4.2.1 To avoid assembly problems and to avoid leakage, static O-ring seal glands should be designed to achieve nominal and minimum squeezes as listed in Table 1. These values have been used in computing the gland dimensions of Table 3. Minimum squeeze should be calculated by considering the following factors: a) diametral tolerances, b) eccentricities, c) offset, and d) seal cross section reduction due to stretch. Offset refers to the condition where the rod has shifted in the bore to the extent that the rod and bore are in contact.

TABLE 1
O-Ring Seal Squeeze

| | Nominal Cross Section Diameter Per AS 568 (W) | Nominal Squeeze % of W Nominal | Minimum Squeeze |
|---|---|--------------------------------------|---------------------|
| ∅ | .070 in. (1.78 mm) | 21.0 | .004 in. (0.102 mm) |
| | .103 in. (2.62 mm) | 19.0 | .005 in. (0.127 mm) |
| | .139 in. (3.53 mm) | 18.5 | .007 in. (0.178 mm) |
| | .210 in. (5.33 mm) | 16.5 | .010 in. (0.254 mm) |
| | .275 in. (6.98 mm) | 15.5 | .013 in. (0.330 mm) |

4.3 O-Ring Seal Swell

- 4.3.1 To accommodate O-ring seal swell, gland widths should be designed to achieve a minimum gland volume equal to 130% of the O-ring seal free state volume. This will permit glands to be used with several different seal materials and operating fluids. The glands in Table 3 provide a minimum gland volume which is 125% to 135% of the O-ring seal free state volume. If the adjacent structure is strong enough, these glands can be used with all material/fluid combinations, including those where the fully soaked O-ring seal volume exceeds the gland volume.

4.4 Diametral Clearances

- 4.4.1 The rod-to-bore diametral clearances must be controlled to prevent O-ring seal extrusion during operation. The diametral clearances listed in Table 2 are suitable for use with most elastomers at operating pressures up to 1500 psi (10340 kPa). The glands in Table 3 incorporate these diametral clearances.

TABLE 2
DIAMETRAL CLEARANCES
IN INCHES

| Seal Cross Section (W) | Bore to Rod Clearances |
|---------------------------|---------------------------|
| .070 (I.D. \leq .500) | .001-.004 |
| .070 (I.D. over .500) | .001-.005 |
| .103 | .001-.006 |
| .139 | .002-.008 |
| .210 | .003-.009 |
| .275 | .004-.012 |

TABLE 2
DIAMETRAL CLEARANCES
IN MILLIMETRES

| Seal Cross Section (W) | Bore to Rod Clearances |
|---------------------------|---------------------------|
| 1.78 (I.D. \leq 12.7) | 0.025-0.102 |
| 1.78 (I.D. over 12.7) | 0.025-0.127 |
| 2.62 | 0.025-0.152 |
| 3.53 | 0.051-0.203 |
| 5.33 | 0.076-0.229 |
| 6.98 | 0.102-0.305 |

Prepared by

Committee E21 Design and General Standards for
Aerospace Propulsion Systems

Committee G4 Elastic Seals

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TABLE 3 - STANDARD GLAND DIMENSIONS IN INCHES

| GLAND & AS 568 DASH NO. | * * * | PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * * * | ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * * * | GLAND WIDTH G |
|-------------------------|-------|---------------|-------------------------|--------------|-------|-------------|--------------------------|--------------|-------|---------------|
| (1) -001 | | .080-.081 | .082-.084 | .034-.035 | | .034-.035 | .035-.038 | .083-.084 | | .101-.111 |
| (1) -002 | | .113-.114 | .115-.117 | .047-.048 | | .047-.048 | .049-.051 | .115-.117 | | .101-.111 |
| (1) -003 | | .146-.147 | .148-.150 | .061-.062 | | .061-.062 | .063-.065 | .149-.150 | | .106-.116 |
| (1) -004 | | .179-.180 | .181-.183 | .076-.077 | | .076-.077 | .078-.080 | .182-.183 | | .114-.124 |
| (1) -005 | | .213-.214 | .215-.217 | .108-.109 | | .108-.109 | .110-.112 | .216-.217 | | .114-.124 |
| (1) -006 | | .227-.228 | .229-.231 | .121-.122 | | .121-.122 | .123-.125 | .230-.231 | | .110-.120 |
| (1) -007 | | .260-.261 | .262-.264 | .153-.154 | | .153-.154 | .155-.157 | .263-.264 | | .110-.120 |
| -008 | | .293-.294 | .295-.297 | .185-.186 | | .185-.186 | .187-.189 | .295-.297 | | .105-.115 |
| -009 | | .324-.325 | .326-.328 | .217-.218 | | .217-.218 | .219-.221 | .327-.328 | | |
| -010 | | .357-.358 | .359-.361 | .249-.250 | | .249-.250 | .251-.253 | .363-.361 | | |
| -011 | | .419-.420 | .421-.423 | .312-.313 | | .312-.313 | .314-.316 | .422-.423 | | |
| -012 | | .484-.485 | .486-.488 | .376-.377 | | .376-.377 | .378-.380 | .487-.488 | | |
| -013 | | .548-.549 | .550-.552 | .440-.441 | | .440-.441 | .442-.444 | .551-.552 | | |
| -014 | | .612-.613 | .614-.616 | .504-.505 | | .504-.505 | .506-.508 | .615-.616 | | |
| -015 | | .677-.679 | .680-.682 | .569-.572 | | .569-.571 | .572-.574 | .679-.682 | | |
| -016 | | .743-.745 | .746-.748 | .635-.638 | | .635-.637 | .638-.640 | .745-.748 | | |
| -017 | | .807-.809 | .810-.812 | .699-.702 | | .699-.701 | .702-.704 | .809-.812 | | |
| -018 | | .871-.873 | .874-.876 | .763-.766 | | .763-.765 | .766-.768 | .873-.876 | | |
| -019 | | .934-.936 | .937-.939 | .826-.829 | | .826-.828 | .829-.831 | .935-.939 | | |
| -020 | | .997-.999 | 1.0-.1.002 | .890-.893 | | .890-.892 | .893-.895 | .999-.1.002 | | |
| -021 | | 1.061-1.063 | 1.064-1.066 | .954-.957 | | .954-.956 | .957-.959 | 1.063-1.066 | | |
| -022 | | 1.126-1.128 | 1.129-1.131 | 1.019-1.022 | | 1.019-1.021 | 1.022-1.024 | 1.128-1.131 | | |
| -023 | | 1.189-1.191 | 1.192-1.194 | 1.082-1.085 | | 1.082-1.084 | 1.085-1.087 | 1.191-1.194 | | |
| -024 | | 1.254-1.256 | 1.257-1.259 | 1.146-1.149 | | 1.146-1.148 | 1.149-1.151 | 1.256-1.259 | | |
| -025 | | 1.318-1.320 | 1.321-1.323 | 1.211-1.214 | | 1.211-1.213 | 1.214-1.216 | 1.323-1.325 | | |
| -026 | | 1.383-1.385 | 1.386-1.388 | 1.275-1.278 | | 1.275-1.277 | 1.278-1.280 | 1.385-1.388 | | |
| -027 | | 1.446-1.448 | 1.449-1.451 | 1.338-1.341 | | 1.338-1.340 | 1.341-1.343 | 1.443-1.445 | | |
| -028 | | 1.512-1.514 | 1.515-1.517 | 1.405-1.408 | | 1.405-1.407 | 1.408-1.410 | 1.514-1.517 | | |
| -029 | | 1.640-1.642 | 1.643-1.645 | 1.532-1.535 | | 1.532-1.534 | 1.535-1.537 | 1.642-1.645 | | |
| -030 | | 1.768-1.770 | 1.771-1.773 | 1.660-1.663 | | 1.660-1.662 | 1.663-1.665 | 1.770-1.773 | | |
| -031 | | 1.897-1.899 | 1.900-1.902 | 1.789-1.792 | | 1.789-1.791 | 1.792-1.794 | 1.899-1.902 | | |
| -032 | | 2.025-2.027 | 2.028-2.030 | 1.917-1.920 | | 1.917-1.919 | 1.920-1.922 | 2.027-2.030 | | |
| -033 | | 2.155-2.157 | 2.158-2.160 | 2.047-2.050 | | 2.047-2.050 | | | | |
| -034 | | 2.283-2.285 | 2.286-2.288 | 2.175-2.178 | | 2.175-2.178 | | | | |
| -035 | | 2.410-2.412 | 2.413-2.415 | 2.302-2.305 | | 2.302-2.305 | | | | |
| -036 | | 2.538-2.540 | 2.541-2.543 | 2.430-2.433 | | 2.430-2.433 | | | | |
| -037 | | 2.665-2.667 | 2.668-2.670 | 2.557-2.560 | | 2.557-2.560 | | | | |
| -038 | | 2.795-2.797 | 2.798-2.800 | 2.687-2.690 | | 2.687-2.690 | | | | |
| -039 | | 2.922-2.924 | 2.923-2.925 | 2.814-2.817 | | 2.814-2.817 | | | | |
| -040 | | 3.050-3.052 | 3.053-3.055 | 2.942-2.945 | | 2.942-2.945 | | | | |
| -041 | | 3.181-3.183 | 3.184-3.186 | 3.073-3.076 | | 3.073-3.076 | | | | |

TABLE 3 - STANDARD GLAND DIMENSIONS IN INCHES CONTINUED

| GLAND & AS 568 DASH NO. | * * * | PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * * * | ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * * * | GLAND WIDTH G |
|-------------------------|-------|---------------|-------------------------|--------------|-------|-------------|--------------------------|--------------|-------|---------------|
| -042 | | 3.436-3.438 | 3.439-3.441 | 3.328-3.331 | | | | | | .105-.115 |
| -043 | | 3.691-3.693 | 3.694-3.696 | 3.583-3.586 | | | | | | |
| -044 | | 3.949-3.951 | 3.952-3.954 | 3.841-3.844 | | | | | | |
| -045 | | 4.204-4.206 | 4.207-4.209 | 4.096-4.099 | | | | | | |
| -046 | | 4.462-4.464 | 4.465-4.467 | 4.354-4.357 | | | | | | |
| -047 | | 4.717-4.719 | 4.720-4.722 | 4.609-4.612 | | | | | | |
| -048 | | 4.972-4.974 | 4.975-4.977 | 4.864-4.867 | | | | | | |
| -049 | | 5.235-5.237 | 5.238-5.240 | 5.127-5.130 | | | | | | |
| -050 | | 5.490-5.492 | 5.493-5.495 | 5.382-5.385 | | | | | | |
| (1) -102 | | .210-.212 | .213-.216 | .055-.059 | | .055-.057 | .058-.061 | .212-.216 | | .182-.192 |
| (1) -103 | | .248-.250 | .251-.254 | .088-.092 | | .088-.090 | .091-.094 | .250-.254 | | .155-.175 |
| (1) -104 | | .282-.284 | .285-.288 | .119-.123 | | .119-.121 | .122-.125 | .284-.288 | | .158-.168 |
| (1) -105 | | .315-.317 | .318-.321 | .151-.155 | | .151-.153 | .154-.157 | .317-.321 | | .158-.168 |
| (1) -106 | | .347-.349 | .350-.353 | .183-.187 | | .183-.185 | .186-.189 | .349-.353 | | .153-.163 |
| -107 | | .379-.381 | .382-.385 | .215-.219 | | .215-.217 | .218-.221 | .381-.385 | | .153-.163 |
| -108 | | .412-.414 | .415-.418 | .247-.251 | | .247-.249 | .250-.253 | .414-.418 | | .146-.156 |
| -109 | | .475-.477 | .478-.481 | .310-.314 | | .310-.312 | .313-.316 | .477-.481 | | |
| -110 | | .538-.540 | .541-.544 | .374-.378 | | .374-.376 | .377-.380 | .540-.544 | | |
| -111 | | .603-.605 | .606-.609 | .438-.442 | | .438-.440 | .441-.444 | .605-.609 | | |
| -112 | | .666-.668 | .669-.672 | .502-.506 | | .502-.504 | .505-.508 | .668-.672 | | |
| -113 | | .731-.733 | .734-.737 | .567-.571 | | .567-.569 | .570-.573 | .733-.737 | | |
| -114 | | .797-.799 | .800-.803 | .633-.637 | | .633-.635 | .636-.639 | .799-.803 | | |
| -115 | | .861-.863 | .864-.867 | .697-.701 | | .697-.699 | .700-.703 | .863-.867 | | |
| -116 | | .926-.928 | .929-.932 | .761-.765 | | .761-.763 | .764-.767 | .928-.932 | | |
| -117 | | .990-.992 | .993-.996 | .825-.829 | | .825-.827 | .828-.831 | .992-.996 | | |
| -118 | | 1.053-1.055 | 1.056-1.059 | .889-.893 | | .889-.891 | .892-.895 | 1.055-1.059 | | |
| -119 | | 1.117-1.119 | 1.120-1.123 | .953-.957 | | .953-.955 | .956-.959 | 1.119-1.123 | | |
| -120 | | 1.181-1.183 | 1.184-1.187 | 1.017-1.021 | | 1.017-1.019 | 1.020-1.023 | 1.183-1.187 | | |
| -121 | | 1.244-1.246 | 1.247-1.250 | 1.080-1.084 | | 1.080-1.082 | 1.083-1.086 | 1.246-1.250 | | |
| -122 | | 1.308-1.310 | 1.311-1.314 | 1.144-1.148 | | 1.144-1.146 | 1.147-1.150 | 1.310-1.314 | | |
| -123 | | 1.374-1.376 | 1.377-1.380 | 1.210-1.214 | | 1.210-1.212 | 1.213-1.216 | 1.376-1.380 | | |
| -124 | | 1.438-1.440 | 1.441-1.444 | 1.274-1.278 | | 1.274-1.276 | 1.277-1.280 | 1.440-1.444 | | |
| -125 | | 1.501-1.503 | 1.504-1.507 | 1.337-1.341 | | 1.337-1.339 | 1.340-1.343 | 1.503-1.507 | | |
| -126 | | 1.565-1.567 | 1.568-1.571 | 1.401-1.405 | | 1.401-1.403 | 1.404-1.407 | 1.567-1.571 | | |
| -127 | | 1.630-1.632 | 1.633-1.636 | 1.465-1.469 | | 1.465-1.467 | 1.468-1.471 | 1.632-1.636 | | |
| -128 | | 1.695-1.697 | 1.696-1.699 | 1.529-1.533 | | 1.529-1.531 | 1.532-1.535 | 1.695-1.699 | | |
| -129 | | 1.759-1.761 | 1.762-1.765 | 1.595-1.599 | | 1.595-1.597 | 1.598-1.601 | 1.761-1.765 | | |
| -130 | | 1.824-1.826 | 1.827-1.830 | 1.660-1.664 | | 1.660-1.662 | 1.663-1.666 | 1.826-1.830 | | |
| -131 | | 1.887-1.889 | 1.890-1.893 | 1.723-1.727 | | 1.723-1.725 | 1.726-1.729 | 1.889-1.893 | | |
| -132 | | 1.951-1.953 | 1.954-1.957 | 1.787-1.791 | | 1.787-1.789 | 1.790-1.793 | 1.953-1.957 | | |

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TABLE 3 - STANDARD GLAND DIMENSIONS IN INCHES CONTINUED

| GLAND & AS 568 DASH NO. | * PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * GLAND WIDTH G |
|-------------------------------|-----------------------|-------------------------------|-----------------|--------------------|--------------------------------|-----------------|--------------------------|
| -133 | 2.015- 2.017 | 2.018- 2.021 | 1.850- 1.854 | 1.850- 1.852 | 1.853- 1.856 | 2.017- 2.021 | .146-.156 |
| -134 | 2.080- 2.082 | 2.083- 2.086 | 1.915- 1.919 | 1.915- 1.917 | 1.918- 1.921 | 2.082- 2.086 | |
| -135 | 2.145- 2.147 | 2.148- 2.151 | 1.981- 1.985 | 1.981- 1.983 | 1.984- 1.987 | 2.147- 2.151 | |
| -136 | 2.208- 2.210 | 2.211- 2.214 | 2.044- 2.048 | 2.044- 2.046 | 2.047- 2.050 | 2.210- 2.214 | |
| -137 | 2.273- 2.275 | 2.276- 2.279 | 2.108- 2.112 | 2.108- 2.110 | 2.111- 2.114 | 2.275- 2.279 | |
| -138 | 2.337- 2.339 | 2.340- 2.343 | 2.172- 2.176 | 2.172- 2.174 | 2.175- 2.178 | 2.339- 2.343 | |
| -139 | 2.400- 2.402 | 2.403- 2.406 | 2.236- 2.240 | 2.236- 2.238 | 2.239- 2.242 | 2.402- 2.406 | |
| -140 | 2.463- 2.465 | 2.466- 2.469 | 2.299- 2.303 | 2.299- 2.301 | 2.302- 2.305 | 2.465- 2.469 | |
| -141 | 2.530- 2.532 | 2.533- 2.536 | 2.366- 2.370 | 2.366- 2.368 | 2.369- 2.372 | 2.532- 2.536 | |
| -142 | 2.594- 2.596 | 2.597- 2.600 | 2.430- 2.434 | 2.430- 2.432 | 2.433- 2.436 | 2.595- 2.599 | |
| -143 | 2.659- 2.661 | 2.662- 2.665 | 2.494- 2.498 | 2.494- 2.496 | 2.497- 2.500 | 2.661- 2.665 | |
| -144 | 2.721- 2.723 | 2.724- 2.727 | 2.557- 2.561 | 2.557- 2.559 | 2.560- 2.563 | 2.723- 2.727 | |
| -145 | 2.785- 2.787 | 2.788- 2.791 | 2.621- 2.625 | 2.621- 2.623 | 2.624- 2.627 | 2.787- 2.791 | |
| -146 | 2.849- 2.851 | 2.852- 2.855 | 2.685- 2.689 | 2.685- 2.687 | 2.688- 2.691 | 2.851- 2.855 | |
| -147 | 2.916- 2.918 | 2.919- 2.922 | 2.751- 2.755 | 2.751- 2.753 | 2.754- 2.757 | 2.918- 2.922 | |
| -148 | 2.978- 2.980 | 2.981- 2.984 | 2.814- 2.818 | 2.814- 2.816 | 2.817- 2.820 | 2.980- 2.984 | |
| -149 | 3.042- 3.044 | 3.045- 3.048 | 2.878- 2.882 | 2.878- 2.880 | 2.881- 2.884 | 3.044- 3.048 | |
| -150 | 3.106- 3.108 | 3.109- 3.112 | 2.942- 2.946 | 2.942- 2.944 | 2.945- 2.948 | 3.108- 3.112 | |
| -151 | 3.235- 3.237 | 3.238- 3.241 | 3.071- 3.075 | 3.071- 3.073 | 3.074- 3.077 | 3.237- 3.241 | |
| -152 | 3.490- 3.492 | 3.493- 3.496 | 3.326- 3.330 | | | | |
| -153 | 3.748- 3.747 | 3.748- 3.751 | 3.581- 3.585 | | | | |
| -154 | 4.004- 4.006 | 4.007- 4.010 | 3.840- 3.844 | | | | |
| -155 | 4.259- 4.261 | 4.262- 4.265 | 4.095- 4.099 | | | | |
| -156 | 4.516- 4.518 | 4.519- 4.522 | 4.352- 4.356 | | | | |
| -157 | 4.771- 4.773 | 4.774- 4.777 | 4.607- 4.611 | | | | |
| -158 | 5.026- 5.028 | 5.029- 5.032 | 4.862- 4.866 | | | | |
| -159 | 5.286- 5.288 | 5.289- 5.292 | 5.122- 5.126 | | | | |
| -160 | 5.541- 5.543 | 5.544- 5.547 | 5.377- 5.381 | | | | |
| -161 | 5.796- 5.798 | 5.799- 5.802 | 5.632- 5.636 | | | | |
| -162 | 6.051- 6.053 | 6.054- 6.057 | 5.887- 5.891 | | | | |
| -163 | 6.306- 6.308 | 6.309- 6.312 | 6.142- 6.146 | | | | |
| -164 | 6.567- 6.569 | 6.570- 6.573 | 6.403- 6.407 | | | | |
| -165 | 6.822- 6.824 | 6.825- 6.828 | 6.658- 6.662 | | | | |
| -166 | 7.077- 7.079 | 7.080- 7.083 | 6.913- 6.917 | | | | |
| -167 | 7.332- 7.334 | 7.335- 7.338 | 7.168- 7.172 | | | | |
| -168 | 7.592- 7.594 | 7.595- 7.598 | 7.428- 7.432 | | | | |
| -169 | 7.847- 7.849 | 7.850- 7.853 | 7.683- 7.687 | | | | |
| -170 | 8.102- 8.104 | 8.105- 8.108 | 7.938- 7.942 | | | | |
| -171 | 8.357- 8.359 | 8.360- 8.363 | 8.193- 8.197 | | | | |
| -172 | 8.617- 8.619 | 8.620- 8.623 | 8.453- 8.457 | | | | |
| -173 | 8.872- 8.874 | 8.875- 8.878 | 8.708- 8.712 | | | | |

TABLE 3 - STANDARD GLAND DIMENSIONS IN INCHES CONTINUED

| GLAND & AS 568 DASH NO. | * * * PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * * * GLAND DIA. F | ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * * * GLAND WIDTH G |
|-------------------------|---------------------|-------------------------|--------------|--------------------|--------------|--------------------------|--------------|---------------------|
| -174 | 9.127- 9.129 | 9.130- 9.133 | 8.963- 8.967 | | | | | |
| -175 | 9.382- 9.384 | 9.385- 9.388 | 9.218- 9.222 | | | | | .146-.156 |
| -176 | 9.642- 9.644 | 9.645- 9.648 | 9.478- 9.482 | | | | | |
| -177 | 9.897- 9.899 | 9.900- 9.903 | 9.733- 9.737 | | | | | |
| -178 | 10.152-10.154 | 10.155-10.158 | 9.988- 9.992 | | | | | |
| (1) -201 | .403- .406 | .408- .411 | .180- .186 | .180- .183 | .185- .188 | .405- .411 | .205-.215 | |
| (1) -202 | .467- .470 | .472- .475 | .244- .250 | .244- .247 | .249- .252 | .469- .475 | .205-.215 | |
| -203 | .529- .532 | .534- .537 | .307- .313 | .307- .310 | .312- .315 | .531- .537 | .195-.205 | |
| -204 | .594- .597 | .599- .602 | .371- .377 | .371- .374 | .376- .379 | .596- .602 | | |
| -205 | .658- .661 | .663- .666 | .435- .441 | .435- .438 | .440- .443 | .660- .666 | | |
| -206 | .721- .724 | .726- .729 | .499- .505 | .499- .502 | .504- .507 | .723- .729 | | |
| -207 | .787- .790 | .792- .795 | .564- .570 | .564- .567 | .569- .572 | .789- .795 | | |
| -208 | .853- .856 | .856- .861 | .630- .636 | .630- .633 | .635- .638 | .855- .861 | | |
| -209 | .916- .919 | .921- .924 | .694- .700 | .694- .697 | .699- .702 | .918- .924 | | |
| -210 | .981- .984 | .986- .989 | .759- .765 | .759- .762 | .764- .767 | .983- .989 | | |
| -211 | 1.045- 1.048 | 1.050- 1.053 | .822- .828 | .822- .825 | .827- .830 | 1.047- 1.053 | | |
| -212 | 1.109- 1.112 | 1.114- 1.117 | .886- .892 | .886- .889 | .891- .894 | 1.111- 1.117 | | |
| -213 | 1.172- 1.175 | 1.177- 1.180 | .950- .956 | .950- .953 | .955- .958 | 1.174- 1.180 | | |
| -214 | 1.237- 1.240 | 1.242- 1.245 | 1.014- 1.020 | 1.014- 1.017 | 1.019- 1.022 | 1.239- 1.245 | | |
| -215 | 1.300- 1.303 | 1.305- 1.308 | 1.077- 1.083 | 1.077- 1.080 | 1.082- 1.085 | 1.302- 1.308 | | |
| -216 | 1.365- 1.368 | 1.370- 1.373 | 1.143- 1.149 | 1.143- 1.146 | 1.148- 1.151 | 1.367- 1.373 | | |
| -217 | 1.430- 1.433 | 1.435- 1.438 | 1.207- 1.213 | 1.207- 1.210 | 1.212- 1.215 | 1.432- 1.438 | | |
| -218 | 1.494- 1.497 | 1.499- 1.502 | 1.271- 1.277 | 1.271- 1.274 | 1.276- 1.279 | 1.496- 1.502 | | |
| -219 | 1.557- 1.560 | 1.562- 1.565 | 1.334- 1.340 | 1.334- 1.337 | 1.339- 1.342 | 1.559- 1.565 | | |
| -220 | 1.621- 1.624 | 1.626- 1.629 | 1.398- 1.404 | 1.398- 1.401 | 1.403- 1.406 | 1.623- 1.629 | | |
| -221 | 1.685- 1.688 | 1.690- 1.693 | 1.462- 1.468 | 1.462- 1.465 | 1.467- 1.470 | 1.687- 1.693 | | |
| -222 | 1.752- 1.755 | 1.757- 1.760 | 1.529- 1.535 | 1.529- 1.532 | 1.534- 1.537 | 1.754- 1.760 | | |
| -223 | 1.819- 1.882 | 1.884- 1.887 | 1.656- 1.662 | 1.656- 1.659 | 1.661- 1.664 | 1.881- 1.887 | | |
| -224 | 2.007- 2.010 | 2.012- 2.015 | 1.784- 1.790 | 1.784- 1.787 | 1.789- 1.792 | 2.009- 2.015 | | |
| -225 | 2.138- 2.141 | 2.143- 2.146 | 1.915- 1.921 | 1.915- 1.918 | 1.920- 1.923 | 2.140- 2.146 | | |
| -226 | 2.265- 2.268 | 2.270- 2.273 | 2.042- 2.048 | 2.042- 2.045 | 2.047- 2.050 | 2.267- 2.273 | | |
| -227 | 2.333- 2.396 | 2.398- 2.401 | 2.170- 2.176 | 2.170- 2.173 | 2.175- 2.178 | 2.395- 2.401 | | |
| -228 | 2.522- 2.525 | 2.527- 2.530 | 2.299- 2.305 | 2.299- 2.302 | 2.304- 2.307 | 2.524- 2.530 | | |
| -229 | 2.650- 2.653 | 2.655- 2.658 | 2.427- 2.433 | 2.427- 2.430 | 2.432- 2.435 | 2.652- 2.658 | | |
| -230 | 2.776- 2.779 | 2.781- 2.784 | 2.554- 2.560 | 2.554- 2.557 | 2.559- 2.562 | 2.778- 2.784 | | |
| -231 | 2.904- 2.907 | 2.909- 2.912 | 2.682- 2.688 | 2.682- 2.685 | 2.687- 2.690 | 2.905- 2.912 | | |
| -232 | 3.036- 3.039 | 3.041- 3.044 | 2.813- 2.819 | 2.813- 2.816 | 2.818- 2.821 | 3.038- 3.044 | | |
| -233 | 3.164- 3.167 | 3.169- 3.172 | 2.941- 2.947 | 2.941- 2.944 | 2.946- 2.949 | 3.166- 3.172 | | |
| -234 | 3.290- 3.293 | 3.295- 3.298 | 3.068- 3.074 | 3.068- 3.071 | 3.073- 3.076 | 3.292- 3.298 | | |
| -235 | 3.418- 3.421 | 3.423- 3.426 | 3.196- 3.202 | 3.196- 3.199 | 3.201- 3.204 | 3.420- 3.426 | | |

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TABLE 3 - STANDARD GLAND DIMENSIONS IN INCHES CONTINUED

| GLAND & AS 568 DASH NO. | * PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * GLAND DIA. * F | * ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * GLAND WIDTH G |
|-------------------------|-----------------|-------------------------|--------------|------------------|--------------|--------------------------|--------------|-----------------|
| -236 | 3.546 | 3.549 | 3.551 | 3.554 | 3.323 | 3.329 | 3.323 | 3.326 |
| -237 | 3.674 | 3.577 | 3.679 | 3.682 | 3.451 | 3.457 | 3.451 | 3.454 |
| -238 | 3.801 | 3.804 | 3.806 | 3.809 | 3.578 | 3.584 | 3.578 | 3.581 |
| -239 | 3.932 | 3.935 | 3.937 | 3.940 | 3.710 | 3.716 | 3.710 | 3.713 |
| -240 | 4.060 | 4.063 | 4.065 | 4.068 | 3.837 | 3.843 | 3.837 | 3.840 |
| -241 | 4.188 | 4.191 | 4.192 | 4.196 | 3.965 | 3.971 | 3.965 | 3.968 |
| -242 | 4.315 | 4.318 | 4.320 | 4.323 | 4.092 | 4.098 | 4.092 | 4.095 |
| -243 | 4.443 | 4.446 | 4.448 | 4.451 | 4.220 | 4.226 | 4.220 | 4.223 |
| -244 | 4.572 | 4.575 | 4.577 | 4.580 | 4.349 | 4.355 | 4.349 | 4.352 |
| -245 | 4.700 | 4.703 | 4.705 | 4.708 | 4.477 | 4.483 | 4.477 | 4.480 |
| -246 | 4.827 | 4.830 | 4.832 | 4.835 | 4.604 | 4.610 | 4.604 | 4.610 |
| -247 | 4.955 | 4.958 | 4.960 | 4.963 | 4.732 | 4.738 | 4.732 | 4.738 |
| -248 | 5.082 | 5.085 | 5.087 | 5.090 | 4.859 | 4.865 | 4.859 | 4.865 |
| -249 | 5.215 | 5.218 | 5.220 | 5.223 | 4.992 | 4.998 | 4.992 | 4.998 |
| -250 | 5.342 | 5.345 | 5.347 | 5.350 | 5.119 | 5.125 | 5.119 | 5.125 |
| -251 | 5.470 | 5.473 | 5.475 | 5.478 | 5.247 | 5.253 | 5.247 | 5.253 |
| -252 | 5.597 | 5.600 | 5.602 | 5.605 | 5.374 | 5.380 | 5.374 | 5.380 |
| -253 | 5.725 | 5.728 | 5.730 | 5.733 | 5.502 | 5.508 | 5.502 | 5.508 |
| -254 | 5.852 | 5.855 | 5.857 | 5.860 | 5.629 | 5.635 | 5.629 | 5.635 |
| -255 | 5.980 | 5.983 | 5.985 | 5.988 | 5.757 | 5.763 | 5.757 | 5.763 |
| -256 | 6.107 | 6.110 | 6.112 | 6.115 | 5.884 | 5.890 | 5.884 | 5.890 |
| -257 | 6.235 | 6.238 | 6.240 | 6.243 | 6.012 | 6.018 | 6.012 | 6.018 |
| -258 | 6.362 | 6.365 | 6.367 | 6.370 | 6.139 | 6.145 | 6.139 | 6.145 |
| -259 | 6.489 | 6.492 | 6.494 | 6.497 | 6.267 | 6.273 | 6.267 | 6.273 |
| -260 | 6.617 | 6.620 | 6.622 | 6.625 | 6.399 | 6.405 | 6.399 | 6.405 |
| -261 | 7.132 | 7.135 | 7.137 | 7.140 | 6.909 | 6.915 | 6.909 | 6.915 |
| -262 | 7.387 | 7.390 | 7.392 | 7.395 | 7.164 | 7.170 | 7.164 | 7.170 |
| -263 | 7.648 | 7.651 | 7.653 | 7.656 | 7.425 | 7.431 | 7.425 | 7.431 |
| -264 | 7.903 | 7.906 | 7.908 | 7.911 | 7.680 | 7.686 | 7.680 | 7.686 |
| -265 | 8.158 | 8.161 | 8.163 | 8.166 | 7.935 | 7.941 | 7.935 | 7.941 |
| -266 | 8.413 | 8.416 | 8.418 | 8.421 | 8.190 | 8.196 | 8.190 | 8.196 |
| -267 | 8.673 | 8.676 | 8.678 | 8.681 | 8.450 | 8.456 | 8.450 | 8.456 |
| -268 | 8.928 | 8.931 | 8.933 | 8.936 | 8.705 | 8.711 | 8.705 | 8.711 |
| -269 | 9.183 | 9.186 | 9.188 | 9.191 | 8.960 | 8.966 | 8.960 | 8.966 |
| -270 | 9.437 | 9.440 | 9.442 | 9.445 | 9.215 | 9.221 | 9.215 | 9.221 |
| -271 | 9.698 | 9.701 | 9.703 | 9.706 | 9.475 | 9.481 | 9.475 | 9.481 |
| -272 | 9.953 | 9.956 | 9.958 | 9.961 | 9.730 | 9.736 | 9.730 | 9.736 |
| -273 | 10.208 | 10.211 | 10.213 | 10.216 | 9.985 | 9.991 | 9.985 | 9.991 |
| -274 | 10.462 | 10.465 | 10.467 | 10.470 | 10.240 | 10.246 | 10.240 | 10.246 |
| -275 | 10.972 | 10.975 | 10.977 | 10.980 | 10.750 | 10.756 | 10.750 | 10.756 |
| -276 | 11.493 | 11.496 | 11.498 | 11.501 | 11.270 | 11.276 | 11.270 | 11.276 |

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TABLE 3 - STANDARD GLAND DIMENSIONS IN INCHES CONTINUED

| GLAND & AS 568 DASH NO. | * PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * GLAND WIDTH G |
|-------------------------|-----------------|-------------------------|---------------|--------------|--------------------------|--------------|-----------------|
| -277 | 12.003-12.006 | 12.008-12.011 | 11.780-11.786 | | | | .195-.205 |
| -278 | 12.512-12.515 | 12.517-12.520 | 12.290-12.296 | | | | |
| -279 | 13.537-13.539 | 13.540-13.543 | 13.310-13.316 | | | | |
| -280 | 14.553-14.556 | 14.558-14.561 | 14.330-14.336 | | | | |
| -281 | 15.573-15.576 | 15.578-15.581 | 15.350-15.356 | | | | |
| -282 | 16.573-16.576 | 16.578-16.581 | 16.351-16.357 | | | | |
| -283 | 17.598-17.601 | 17.603-17.606 | 17.376-17.382 | | | | |
| -284 | 18.623-18.626 | 18.628-18.631 | 18.401-18.407 | | | | |
| -309 | .772-.775 | .778-.781 | .425-.433 | .425-.428 | .431-.434 | .773-.781 | .280-.290 |
| -310 | .837-.840 | .843-.846 | .490-.498 | .490-.493 | .496-.499 | .838-.846 | |
| -311 | .902-.905 | .908-.911 | .555-.563 | .555-.558 | .561-.564 | .903-.911 | |
| -312 | .967-.970 | .973-.976 | .621-.629 | .621-.624 | .627-.630 | .968-.976 | |
| -313 | 1.031-1.034 | 1.037-1.040 | .684-.692 | .684-.687 | .690-.693 | 1.032-1.040 | |
| -314 | 1.097-1.100 | 1.103-1.106 | .750-.758 | .750-.753 | .756-.759 | 1.098-1.106 | |
| -315 | 1.159-1.162 | 1.165-1.168 | .813-.821 | .813-.816 | .819-.822 | 1.160-1.168 | |
| -316 | 1.224-1.227 | 1.230-1.233 | .877-.885 | .877-.880 | .883-.886 | 1.225-1.233 | |
| -317 | 1.286-1.289 | 1.292-1.295 | .940-.948 | .940-.943 | .946-.949 | 1.287-1.295 | |
| -318 | 1.352-1.355 | 1.358-1.361 | 1.005-1.013 | 1.005-1.008 | 1.011-1.014 | 1.353-1.361 | |
| -319 | 1.415-1.418 | 1.421-1.424 | 1.068-1.076 | 1.068-1.071 | 1.074-1.077 | 1.416-1.424 | |
| -320 | 1.481-1.484 | 1.487-1.490 | 1.134-1.142 | 1.134-1.137 | 1.140-1.143 | 1.482-1.490 | |
| -321 | 1.544-1.547 | 1.550-1.553 | 1.197-1.205 | 1.197-1.200 | 1.203-1.206 | 1.545-1.553 | |
| -322 | 1.609-1.612 | 1.615-1.618 | 1.262-1.270 | 1.262-1.265 | 1.268-1.271 | 1.610-1.618 | |
| -323 | 1.672-1.675 | 1.678-1.681 | 1.325-1.333 | 1.325-1.328 | 1.331-1.334 | 1.673-1.681 | |
| -324 | 1.735-1.738 | 1.741-1.744 | 1.389-1.397 | 1.389-1.392 | 1.395-1.398 | 1.736-1.744 | |
| -325 | 1.867-1.870 | 1.873-1.876 | 1.520-1.528 | 1.520-1.523 | 1.526-1.529 | 1.868-1.876 | |
| -326 | 1.994-1.997 | 2.0 - 2.003 | 1.647-1.655 | 1.647-1.650 | 1.653-1.656 | 1.995-2.003 | |
| -327 | 2.121-2.124 | 2.127-2.130 | 1.775-1.783 | 1.775-1.778 | 1.781-1.784 | 2.122-2.130 | |
| -328 | 2.249-2.252 | 2.255-2.258 | 1.902-1.910 | 1.902-1.905 | 1.908-1.911 | 2.250-2.258 | |
| -329 | 2.380-2.383 | 2.386-2.389 | 2.033-2.041 | 2.033-2.036 | 2.039-2.042 | 2.381-2.389 | |
| -330 | 2.507-2.510 | 2.513-2.516 | 2.160-2.168 | 2.160-2.163 | 2.166-2.169 | 2.508-2.516 | |
| -331 | 2.635-2.638 | 2.641-2.644 | 2.288-2.296 | 2.288-2.291 | 2.294-2.297 | 2.636-2.644 | |
| -332 | 2.762-2.765 | 2.768-2.771 | 2.415-2.423 | 2.415-2.418 | 2.421-2.424 | 2.763-2.771 | |
| -333 | 2.892-2.895 | 2.898-2.901 | 2.545-2.553 | 2.545-2.548 | 2.551-2.554 | 2.893-2.901 | |
| -334 | 3.019-3.022 | 3.025-3.028 | 2.672-2.680 | 2.672-2.675 | 2.678-2.681 | 3.020-3.028 | |
| -335 | 3.147-3.150 | 3.153-3.156 | 2.800-2.808 | 2.800-2.803 | 2.805-2.809 | 3.148-3.156 | |
| -336 | 3.273-3.276 | 3.279-3.282 | 2.927-2.935 | 2.927-2.930 | 2.933-2.936 | 3.274-3.282 | |
| -337 | 3.406-3.409 | 3.412-3.415 | 3.059-3.067 | 3.059-3.062 | 3.065-3.068 | 3.407-3.415 | |
| -338 | 3.533-3.536 | 3.539-3.542 | 3.186-3.194 | 3.186-3.189 | 3.192-3.195 | 3.534-3.542 | |
| -339 | 3.661-3.664 | 3.667-3.670 | 3.314-3.322 | 3.314-3.317 | 3.320-3.323 | 3.662-3.670 | |
| -340 | 3.788-3.791 | 3.794-3.797 | 3.441-3.449 | 3.441-3.444 | 3.447-3.450 | 3.789-3.797 | |

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TABLE 3 - STANDARD GLAND DIMENSIONS IN INCHES CONTINUED

| GLAND & AS 568 DASH NO. | * * * PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * * * ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * * * GLAND WIDTH G |
|-------------------------|---------------------|-------------------------|---------------|------------------|--------------------------|--------------|---------------------|
| -341 | 3.915- 3.918 | 3.921- 3.924 | 3.569- 3.577 | 3.569- 3.572 | 3.575- 3.578 | 3.916- 3.924 | .280-.290 |
| -342 | 4.048- 4.051 | 4.054- 4.057 | 3.701- 3.709 | 3.701- 3.704 | 3.707- 3.710 | 4.049- 4.057 | |
| -343 | 4.175- 4.178 | 4.181- 4.184 | 3.828- 3.836 | 3.828- 3.831 | 3.834- 3.837 | 4.175- 4.184 | |
| -344 | 4.303- 4.306 | 4.309- 4.312 | 3.956- 3.964 | 3.956- 3.959 | 3.962- 3.965 | 4.304- 4.312 | |
| -345 | 4.430- 4.433 | 4.436- 4.439 | 4.083- 4.091 | 4.083- 4.086 | 4.089- 4.092 | 4.431- 4.439 | |
| -346 | 4.557- 4.560 | 4.563- 4.566 | 4.211- 4.219 | 4.211- 4.214 | 4.217- 4.220 | 4.558- 4.566 | |
| -347 | 4.687- 4.690 | 4.693- 4.696 | 4.340- 4.348 | 4.340- 4.343 | 4.346- 4.349 | 4.688- 4.696 | |
| -348 | 4.814- 4.817 | 4.820- 4.823 | 4.468- 4.476 | 4.468- 4.471 | 4.474- 4.477 | 4.815- 4.823 | |
| -349 | 4.942- 4.945 | 4.948- 4.951 | 4.595- 4.603 | 4.595- 4.598 | 4.601- 4.604 | 4.943- 4.951 | |
| -350 | 5.070- 5.073 | 5.076- 5.079 | 4.723- 4.731 | 4.723- 4.726 | 4.729- 4.732 | 5.071- 5.079 | |
| -351 | 5.197- 5.200 | 5.203- 5.206 | 4.850- 4.858 | 4.850- 4.853 | 4.856- 4.859 | 5.198- 5.206 | |
| -352 | 5.325- 5.328 | 5.331- 5.334 | 4.978- 4.986 | 4.978- 4.981 | 4.984- 4.987 | 5.326- 5.334 | |
| -353 | 5.459- 5.462 | 5.465- 5.468 | 5.112- 5.120 | 5.112- 5.115 | 5.118- 5.121 | 5.460- 5.468 | |
| -354 | 5.587- 5.590 | 5.593- 5.596 | 5.240- 5.248 | 5.240- 5.243 | 5.246- 5.249 | 5.588- 5.596 | |
| -355 | 5.714- 5.717 | 5.720- 5.723 | 5.367- 5.375 | 5.367- 5.370 | 5.373- 5.376 | 5.715- 5.723 | |
| -356 | 5.841- 5.844 | 5.847- 5.850 | 5.495- 5.503 | 5.495- 5.498 | 5.501- 5.504 | 5.842- 5.850 | |
| -357 | 5.969- 5.972 | 5.975- 5.978 | 5.622- 5.630 | 5.622- 5.625 | 5.628- 5.631 | 5.970- 5.978 | |
| -358 | 6.097- 6.100 | 6.103- 6.106 | 5.750- 5.758 | 5.750- 5.753 | 5.756- 5.759 | 6.098- 6.106 | |
| -359 | 6.224- 6.227 | 6.230- 6.233 | 5.877- 5.885 | 5.877- 5.880 | 5.883- 5.886 | 6.225- 6.233 | |
| -360 | 6.352- 6.355 | 6.358- 6.361 | 6.005- 6.013 | 6.005- 6.008 | 6.011- 6.014 | 6.353- 6.361 | |
| -361 | 6.479- 6.482 | 6.485- 6.488 | 6.132- 6.140 | 6.132- 6.135 | 6.138- 6.141 | 6.480- 6.488 | |
| -362 | 6.737- 6.740 | 6.743- 6.746 | 6.390- 6.398 | 6.390- 6.393 | 6.396- 6.399 | 6.738- 6.746 | |
| -363 | 6.992- 6.995 | 6.998- 7.001 | 6.645- 6.653 | 6.645- 6.648 | 6.651- 6.654 | 6.993- 7.001 | |
| -364 | 7.247- 7.250 | 7.253- 7.256 | 6.900- 6.908 | 6.900- 6.903 | 6.906- 6.909 | 7.248- 7.256 | |
| -365 | 7.502- 7.505 | 7.508- 7.511 | 7.155- 7.163 | 7.155- 7.158 | 7.161- 7.164 | 7.503- 7.511 | |
| -366 | 7.762- 7.765 | 7.768- 7.771 | 7.415- 7.423 | 7.415- 7.418 | 7.421- 7.424 | 7.763- 7.771 | |
| -367 | 8.017- 8.020 | 8.023- 8.026 | 7.670- 7.678 | 7.670- 7.673 | 7.676- 7.679 | 8.018- 8.026 | |
| -368 | 8.272- 8.275 | 8.278- 8.281 | 7.925- 7.933 | 7.925- 7.928 | 7.931- 7.934 | 8.273- 8.281 | |
| -369 | 8.527- 8.530 | 8.533- 8.536 | 8.180- 8.188 | 8.180- 8.183 | 8.186- 8.189 | 8.528- 8.536 | |
| -370 | 8.788- 8.791 | 8.794- 8.797 | 8.441- 8.449 | 8.441- 8.444 | 8.447- 8.450 | 8.789- 8.797 | |
| -371 | 9.043- 9.046 | 9.049- 9.052 | 8.696- 8.704 | 8.696- 8.704 | 8.701- 8.709 | | |
| -372 | 9.298- 9.301 | 9.304- 9.307 | 8.951- 8.959 | 8.951- 8.959 | 9.206- 9.214 | | |
| -373 | 9.553- 9.556 | 9.559- 9.562 | 9.206- 9.214 | 9.206- 9.214 | 9.466- 9.474 | | |
| -374 | 9.813- 9.816 | 9.819- 9.822 | 9.466- 9.474 | 9.466- 9.474 | 9.721- 9.729 | | |
| -375 | 10.068-10.071 | 10.074-10.077 | 9.721- 9.729 | 9.721- 9.729 | | | |
| -376 | 10.323-10.326 | 10.329-10.332 | 9.976- 9.984 | 9.976- 9.984 | | | |
| -377 | 10.578-10.581 | 10.584-10.587 | 10.231-10.239 | 10.231-10.239 | | | |
| -378 | 11.093-11.096 | 11.099-11.102 | 10.746-10.754 | 10.746-10.754 | | | |
| -379 | 11.603-11.606 | 11.609-11.612 | 11.256-11.264 | 11.256-11.264 | | | |
| -380 | 12.118-12.121 | 12.124-12.127 | 11.771-11.779 | 11.771-11.779 | | | |
| -381 | 12.628-12.631 | 12.634-12.637 | 12.281-12.289 | 12.281-12.289 | | | |

TABLE 3 - STANDARD GLAND DIMENSIONS IN INCHES CONTINUED

| GLAND & AS 568 DASH NO. | * * * PISTON DIA. C | * * * ROD MOUNTED BORE DIA. A | * * * GLAND DIA. F | * * * ROD DIA. B | * * * BORE MOUNTED BORE DIA. H | * * * GLAND DIA. E | * * * GLAND WIDTH G |
|-------------------------|---------------------|-------------------------------|--------------------|------------------|--------------------------------|--------------------|---------------------|
| -382 | 13.648-13.651 | 13.654-13.657 | 13.301-13.309 | | | | .280-.290 |
| -383 | 14.673-14.676 | 14.679-14.682 | 14.326-14.334 | | | | |
| -384 | 15.693-15.696 | 15.699-15.702 | 15.346-15.354 | | | | |
| -385 | 16.697-16.700 | 16.703-16.706 | 16.351-16.359 | | | | |
| -386 | 17.722-17.725 | 17.728-17.731 | 17.376-17.384 | | | | |
| -387 | 18.747-18.750 | 18.753-18.756 | 18.401-18.409 | | | | |
| -388 | 19.772-19.775 | 19.778-19.781 | 19.426-19.434 | | | | |
| -389 | 20.797-20.800 | 20.803-20.806 | 20.451-20.459 | | | | |
| -390 | 21.818-21.821 | 21.824-21.827 | 21.471-21.479 | | | | |
| -391 | 22.843-22.846 | 22.849-22.852 | 22.496-22.504 | | | | |
| -392 | 23.853-23.856 | 23.859-23.862 | 23.506-23.514 | | | | |
| -393 | 24.878-24.881 | 24.884-24.887 | 24.531-24.539 | | | | |
| -394 | 25.903-25.906 | 25.909-25.912 | 25.556-25.564 | | | | |
| -395 | 26.928-26.931 | 26.934-26.937 | 26.581-26.589 | | | | |
| -425 | 5.058- 5.061 | 5.065- 5.069 | 4.598- 4.608 | 4.598- 4.601 | 4.606- 4.610 | 5.059- 5.069 | .350-.360 |
| -426 | 5.186- 5.189 | 5.193- 5.197 | 4.726- 4.736 | 4.726- 4.729 | 4.734- 4.738 | 5.187- 5.197 | |
| -427 | 5.314- 5.317 | 5.321- 5.325 | 4.853- 4.863 | 4.853- 4.856 | 4.861- 4.865 | 5.315- 5.325 | |
| -428 | 5.442- 5.445 | 5.449- 5.453 | 4.981- 4.991 | 4.981- 4.984 | 4.989- 4.993 | 5.443- 5.453 | |
| -429 | 5.572- 5.575 | 5.579- 5.583 | 5.112- 5.122 | 5.112- 5.115 | 5.120- 5.124 | 5.573- 5.583 | |
| -430 | 5.700- 5.703 | 5.707- 5.711 | 5.240- 5.250 | 5.240- 5.243 | 5.248- 5.252 | 5.701- 5.711 | |
| -431 | 5.828- 5.831 | 5.835- 5.839 | 5.367- 5.377 | 5.367- 5.370 | 5.375- 5.379 | 5.829- 5.839 | |
| -432 | 5.956- 5.959 | 5.963- 5.967 | 5.495- 5.505 | 5.495- 5.498 | 5.503- 5.507 | 5.957- 5.967 | |
| -433 | 6.083- 6.086 | 6.090- 6.094 | 5.622- 5.632 | 5.622- 5.625 | 5.630- 5.634 | 6.084- 6.094 | |
| -434 | 6.211- 6.214 | 6.218- 6.222 | 5.750- 5.760 | 5.750- 5.753 | 5.758- 5.762 | 6.212- 6.222 | |
| -435 | 6.337- 6.340 | 6.344- 6.348 | 5.877- 5.887 | 5.877- 5.880 | 5.885- 5.889 | 6.338- 6.348 | |
| -436 | 6.465- 6.468 | 6.472- 6.476 | 6.005- 6.015 | 6.005- 6.008 | 6.013- 6.017 | 6.466- 6.476 | |
| -437 | 6.592- 6.595 | 6.599- 6.603 | 6.132- 6.142 | 6.132- 6.135 | 6.140- 6.144 | 6.593- 6.603 | |
| -438 | 6.850- 6.853 | 6.857- 6.861 | 6.390- 6.400 | 6.390- 6.393 | 6.398- 6.402 | 6.851- 6.861 | |
| -439 | 7.105- 7.108 | 7.112- 7.116 | 6.645- 6.655 | 6.645- 6.648 | 6.653- 6.657 | 7.106- 7.116 | |
| -440 | 7.360- 7.363 | 7.367- 7.371 | 6.900- 6.910 | 6.900- 6.903 | 6.908- 6.912 | 7.361- 7.371 | |
| -441 | 7.616- 7.619 | 7.623- 7.627 | 7.155- 7.165 | 7.155- 7.158 | 7.163- 7.167 | 7.617- 7.627 | |
| -442 | 7.875- 7.878 | 7.882- 7.886 | 7.415- 7.425 | 7.415- 7.418 | 7.423- 7.427 | 7.876- 7.886 | |
| -443 | 8.130- 8.133 | 8.137- 8.141 | 7.670- 7.680 | 7.670- 7.673 | 7.678- 7.682 | 8.131- 8.141 | |
| -444 | 8.385- 8.388 | 8.392- 8.396 | 7.925- 7.935 | 7.925- 7.928 | 7.933- 7.937 | 8.385- 8.396 | |
| -445 | 8.641- 8.644 | 8.648- 8.652 | 8.180- 8.190 | 8.180- 8.183 | 8.188- 8.192 | 8.642- 8.652 | |
| -446 | 9.161- 9.164 | 9.168- 9.172 | 8.701- 8.711 | 8.701- 8.704 | 8.709- 8.713 | 9.162- 9.172 | |
| -447 | 9.671- 9.674 | 9.678- 9.682 | 9.211- 9.221 | 9.211- 9.214 | 9.219- 9.223 | 9.672- 9.682 | |
| -448 | 10.181-10.184 | 10.188-10.192 | 9.721- 9.731 | | | | |
| -449 | 10.692-10.695 | 10.699-10.703 | 10.231-10.241 | | | | |
| -450 | 11.206-11.209 | 11.213-11.217 | 10.746-10.756 | | | | |

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TABLE 3 - STANDARD GLAND DIMENSIONS IN INCHES CONTINUED

| GLAND & AS 568 DASH NO. | * * * | PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * * * | ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * * * | GLAND WIDTH G |
|-------------------------|-------|---------------|-------------------------|---------------|-------|------------|--------------------------|--------------|-------|---------------|
| -451 | | 11.717-11.720 | 11.724-11.728 | 11.256-11.266 | | | | | | .350-.360 |
| -452 | | 12.226-12.229 | 12.233-12.237 | 11.766-11.776 | | | | | | |
| -453 | | 12.736-12.739 | 12.743-12.747 | 12.276-12.286 | | | | | | |
| -454 | | 13.246-13.249 | 13.253-13.257 | 12.786-12.796 | | | | | | |
| -455 | | 13.756-13.759 | 13.763-13.767 | 13.296-13.306 | | | | | | |
| -456 | | 14.276-14.279 | 14.283-14.287 | 13.816-13.826 | | | | | | |
| -457 | | 14.786-14.789 | 14.793-14.797 | 14.326-14.336 | | | | | | |
| -458 | | 15.296-15.299 | 15.303-15.307 | 14.836-14.846 | | | | | | |
| -459 | | 15.806-15.809 | 15.813-15.817 | 15.346-15.356 | | | | | | |
| -460 | | 16.316-16.319 | 16.323-16.327 | 15.856-15.866 | | | | | | |
| -461 | | 16.811-16.814 | 16.818-16.822 | 16.351-16.361 | | | | | | |
| -462 | | 17.321-17.324 | 17.328-17.332 | 16.861-16.871 | | | | | | |
| -463 | | 17.836-17.839 | 17.843-17.847 | 17.376-17.386 | | | | | | |
| -464 | | 18.351-18.354 | 18.358-18.362 | 17.891-17.901 | | | | | | |
| -465 | | 18.861-18.864 | 18.868-18.872 | 18.401-18.411 | | | | | | |
| -466 | | 19.371-19.374 | 19.378-19.382 | 18.911-18.921 | | | | | | |
| -467 | | 19.886-19.889 | 19.893-19.897 | 19.426-19.436 | | | | | | |
| -468 | | 20.396-20.399 | 20.403-20.407 | 19.936-19.946 | | | | | | |
| -469 | | 20.911-20.914 | 20.918-20.922 | 20.451-20.461 | | | | | | |
| -470 | | 21.931-21.934 | 21.938-21.942 | 21.471-21.481 | | | | | | |
| -471 | | 22.956-22.959 | 22.963-22.967 | 22.496-22.506 | | | | | | |
| -472 | | 23.966-23.969 | 23.973-23.977 | 23.506-23.516 | | | | | | |
| -473 | | 24.991-24.994 | 24.998-25.002 | 24.531-24.541 | | | | | | |
| -474 | | 26.016-26.019 | 26.023-26.027 | 25.556-25.566 | | | | | | |
| -475 | | 27.041-27.044 | 27.048-27.052 | 26.581-26.591 | | | | | | |

(1) The standard gland dimensions for these sizes have been provided for reference purposes only. Due to their small size, a gland cannot be designed which will meet all the stated criteria. The dimensions given in this table will result in max seal stretch, max and min seal squeeze and min gland volume that may differ significantly from the desirable values.

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TABLE 3 - STANDARD GLAND DIMENSIONS IN MILLIMETRES

| GLAND & AS 568 DASH NO. | * * * | PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * * * | ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * * * | GLAND WIDTH G |
|-------------------------|-------|---------------|-------------------------|--------------|---------|------------|--------------------------|--------------|---------|---------------|
| (1) -001 | | 2.032- | 2.057 | 2.134 | 0.864- | 0.889 | 0.914- | 0.965 | 2.138- | 2.134 |
| (1) -002 | | 2.870- | 2.896 | 2.972 | 1.194- | 1.219 | 1.245- | 1.295 | 2.946- | 2.972 |
| (1) -003 | | 3.708- | 3.734 | 3.810 | 1.549- | 1.575 | 1.600- | 1.651 | 3.785- | 3.810 |
| (1) -004 | | 4.547- | 4.572 | 4.648 | 1.930- | 1.956 | 1.981- | 2.032 | 4.623- | 4.648 |
| (1) -005 | | 5.410- | 5.436 | 5.512 | 2.743- | 2.769 | 2.794- | 2.845 | 5.486- | 5.512 |
| (1) -006 | | 5.766- | 5.791 | 5.867 | 3.073- | 3.099 | 3.124- | 3.175 | 5.842- | 5.867 |
| (1) -007 | | 6.604- | 6.629 | 6.706 | 3.886- | 3.912 | 3.937- | 3.988 | 6.680- | 6.706 |
| -008 | | 7.442- | 7.468 | 7.544 | 4.699- | 4.724 | 4.750- | 4.801 | 7.518- | 7.544 |
| -009 | | 8.230- | 8.255 | 8.331 | 5.512- | 5.537 | 5.563- | 5.613 | 8.306- | 8.331 |
| -010 | | 9.068- | 9.093 | 9.169 | 6.325- | 6.350 | 6.375- | 6.426 | 9.144- | 9.169 |
| -011 | | 10.643- | 10.668 | 10.744 | 7.925- | 7.950 | 7.976- | 8.026 | 10.719- | 10.744 |
| -012 | | 12.294- | 12.319 | 12.395 | 9.550- | 9.576 | 9.601- | 9.652 | 12.370- | 12.395 |
| -013 | | 13.919- | 13.945 | 14.021 | 11.176- | 11.201 | 11.227- | 11.278 | 13.995- | 14.021 |
| -014 | | 15.545- | 15.570 | 15.646 | 12.802- | 12.827 | 12.852- | 12.903 | 15.521- | 15.546 |
| -015 | | 17.196- | 17.247 | 17.323 | 14.453- | 14.529 | 14.580 | 14.631 | 17.247- | 17.323 |
| -016 | | 18.872- | 18.923 | 18.999 | 16.129- | 16.205 | 16.256 | 16.307 | 18.923- | 18.999 |
| -017 | | 20.498- | 20.549 | 20.625 | 17.755- | 17.831 | 17.882 | 17.933 | 20.549- | 20.625 |
| -018 | | 22.123- | 22.174 | 22.250 | 19.380- | 19.456 | 19.507 | 19.558 | 22.174- | 22.250 |
| -019 | | 23.724- | 23.774 | 23.851 | 20.980- | 21.057 | 21.057 | 21.107 | 23.774- | 23.851 |
| -020 | | 25.324- | 25.375 | 25.451 | 22.606- | 22.682 | 22.682 | 22.733 | 25.375- | 25.451 |
| -021 | | 26.949- | 27.000 | 27.076 | 24.232- | 24.308 | 24.338 | 24.389 | 27.000- | 27.076 |
| -022 | | 28.600- | 28.651 | 28.727 | 25.863- | 25.939 | 25.959 | 26.010 | 28.551- | 28.727 |
| -023 | | 30.201- | 30.251 | 30.328 | 27.483- | 27.559 | 27.559 | 27.610 | 30.251- | 30.328 |
| -024 | | 31.852- | 31.902 | 31.928 | 29.108- | 29.185 | 29.185 | 29.235 | 31.902- | 31.979 |
| -025 | | 33.477- | 33.528 | 33.553 | 30.759- | 30.836 | 30.836 | 30.885 | 33.528- | 33.604 |
| -026 | | 35.128- | 35.179 | 35.204 | 32.385- | 32.461 | 32.461 | 32.512 | 35.179- | 35.255 |
| -027 | | 36.728- | 36.779 | 36.805 | 33.985- | 34.061 | 34.061 | 34.112 | 36.779- | 36.855 |
| -028 | | 38.405- | 38.456 | 38.481 | 35.687- | 35.763 | 35.763 | 35.814 | 38.456- | 38.532 |
| -029 | | 41.656- | 41.707 | 41.732 | 38.913- | 38.989 | 38.989 | 39.040 | 41.707- | 41.783 |
| -030 | | 44.907- | 44.958 | 44.983 | 42.164- | 42.240 | 42.240 | 42.291 | 44.958- | 45.034 |
| -031 | | 48.184- | 48.235 | 48.260 | 45.441- | 45.517 | 45.517 | 45.568 | 48.235- | 48.311 |
| -032 | | 51.433- | 51.486 | 51.511 | 48.692- | 48.768 | 48.768 | 48.819 | 51.486- | 51.562 |
| -033 | | 54.737- | 54.788 | 54.813 | 51.994- | 52.070 | 52.070 | | | |
| -034 | | 57.988- | 58.039 | 58.064 | 55.245- | 55.321 | 55.321 | | | |
| -035 | | 61.214- | 61.265 | 61.290 | 58.471- | 58.547 | 58.547 | | | |
| -036 | | 64.465- | 64.516 | 64.541 | 61.722- | 61.798 | 61.798 | | | |
| -037 | | 67.691- | 67.742 | 67.767 | 64.948- | 65.024 | 65.024 | | | |
| -038 | | 70.993- | 71.044 | 71.069 | 68.250- | 68.326 | 68.326 | | | |
| -039 | | 74.219- | 74.270 | 74.295 | 71.476- | 71.552 | 71.552 | | | |
| -040 | | 77.470- | 77.521 | 77.546 | 74.727- | 74.803 | 74.803 | | | |
| -041 | | 80.797- | 80.848 | 80.874 | 78.054- | 78.130 | 78.130 | | | |

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TABLE 3 - STANDARD GLAND DIMENSIONS IN MILLIMETRES CONTINUED

| GLAND & AS 568 DASH NO. | * * * PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * * * ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * * * GLAND WIDTH G |
|-------------------------|---------------------|-------------------------|-----------------|------------------|--------------------------|--------------|---------------------|
| -042 | 87.274-87.325 | 87.351-87.401 | 84.531-84.607 | | | | |
| -043 | 93.751-93.802 | 93.828-93.878 | 91.008-91.084 | | | | |
| -044 | 100.305-100.355 | 100.381-100.432 | 97.561-97.638 | | | | |
| -045 | 106.782-106.832 | 106.858-106.909 | 104.038-104.115 | | | | 2.67-2.92 |
| -046 | 113.335-113.386 | 113.411-113.462 | 110.592-110.668 | | | | |
| -047 | 119.812-119.863 | 119.888-119.939 | 117.069-117.145 | | | | |
| -048 | 126.289-126.340 | 126.365-126.416 | 123.546-123.622 | | | | |
| -049 | 132.969-133.020 | 133.045-133.096 | 130.226-130.302 | | | | |
| -050 | 139.446-139.497 | 139.522-139.573 | 136.703-136.779 | | | | |
| (1)-102 | 5.334-5.385 | 5.410-5.486 | 1.40-1.50 | 1.397-1.448 | 1.473-1.543 | 5.38-5.49 | 4.62-4.88 |
| (1)-103 | 6.299-6.350 | 6.375-6.452 | 2.24-2.34 | 2.235-2.286 | 2.311-2.388 | 6.35-6.45 | 4.19-4.44 |
| (1)-104 | 7.163-7.214 | 7.239-7.315 | 3.02-3.12 | 3.023-3.073 | 3.099-3.175 | 7.21-7.32 | 4.01-4.27 |
| (1)-105 | 8.001-8.052 | 8.077-8.153 | 3.84-3.94 | 3.835-3.886 | 3.912-3.988 | 8.05-8.15 | 4.01-4.27 |
| (1)-106 | 8.814-8.865 | 8.890-8.966 | 4.65-4.75 | 4.648-4.699 | 4.724-4.801 | 8.86-8.97 | 3.89-4.14 |
| -107 | 9.627-9.677 | 9.703-9.779 | 5.46-5.56 | 5.461-5.512 | 5.537-5.613 | 9.68-9.78 | 3.89-4.14 |
| -108 | 10.465-10.516 | 10.541-10.617 | 6.27-6.38 | 6.274-6.325 | 6.350-6.425 | 10.52-10.62 | 3.89-4.14 |
| -109 | 12.065-12.116 | 12.141-12.217 | 7.87-7.98 | 7.874-7.925 | 7.950-8.025 | 12.12-12.22 | 3.71-3.95 |
| -110 | 13.865-13.916 | 13.941-14.017 | 9.50-9.60 | 9.500-9.550 | 9.576-9.652 | 13.72-13.82 | |
| -111 | 15.316-15.367 | 15.392-15.469 | 11.13-11.23 | 11.125-11.176 | 11.201-11.278 | 15.37-15.47 | |
| -112 | 16.916-16.967 | 16.993-17.069 | 12.75-12.85 | 12.751-12.802 | 12.827-12.903 | 16.97-17.07 | |
| -113 | 18.567-18.618 | 18.644-18.720 | 14.40-14.50 | 14.402-14.453 | 14.478-14.554 | 18.52-18.72 | |
| -114 | 20.244-20.295 | 20.320-20.396 | 16.08-16.18 | 16.078-16.129 | 16.154-16.231 | 20.29-20.40 | |
| -115 | 21.869-21.920 | 21.946-22.022 | 17.70-17.81 | 17.704-17.755 | 17.780-17.855 | 21.92-22.02 | |
| -116 | 23.520-23.571 | 23.597-23.673 | 19.33-19.43 | 19.329-19.380 | 19.406-19.482 | 23.57-23.67 | |
| -117 | 25.146-25.197 | 25.222-25.298 | 20.96-21.06 | 20.955-21.006 | 21.031-21.107 | 25.20-25.30 | |
| -118 | 26.746-26.797 | 26.822-26.899 | 22.58-22.68 | 22.581-22.631 | 22.657-22.733 | 26.80-26.90 | |
| -119 | 28.372-28.423 | 28.448-28.524 | 24.21-24.31 | 24.206-24.257 | 24.282-24.359 | 28.42-28.52 | |
| -120 | 29.997-30.048 | 30.074-30.150 | 25.83-25.93 | 25.832-25.883 | 25.908-25.984 | 30.05-30.15 | |
| -121 | 31.598-31.648 | 31.674-31.750 | 27.43-27.53 | 27.432-27.483 | 27.508-27.584 | 31.65-31.75 | |
| -122 | 33.223-33.274 | 33.299-33.376 | 29.06-29.16 | 29.058-29.108 | 29.134-29.210 | 33.27-33.38 | |
| -123 | 34.900-34.950 | 34.976-35.052 | 30.73-30.84 | 30.734-30.785 | 30.810-30.886 | 34.95-35.05 | |
| -124 | 36.525-36.576 | 36.601-36.678 | 32.36-32.46 | 32.360-32.410 | 32.436-32.512 | 36.58-36.68 | |
| -125 | 38.125-38.176 | 38.202-38.278 | 33.96-34.06 | 33.960-34.011 | 34.036-34.112 | 38.18-38.28 | |
| -126 | 39.751-39.802 | 39.827-39.903 | 35.59-35.69 | 35.585-35.636 | 35.662-35.738 | 39.80-39.90 | |
| -127 | 41.402-41.453 | 41.478-41.554 | 37.21-37.31 | 37.211-37.262 | 37.287-37.363 | 41.45-41.55 | |
| -128 | 43.002-43.053 | 43.078-43.155 | 38.84-38.94 | 38.837-38.887 | 38.913-38.989 | 43.05-43.15 | |
| -129 | 44.679-44.729 | 44.755-44.831 | 40.51-40.61 | 40.513-40.564 | 40.589-40.665 | 44.73-44.83 | |
| -130 | 46.330-46.380 | 46.406-46.482 | 42.16-42.27 | 42.164-42.215 | 42.240-42.315 | 46.38-46.48 | |
| -131 | 47.930-47.981 | 48.006-48.082 | 43.76-43.87 | 43.764-43.815 | 43.840-43.917 | 47.98-48.08 | |
| -132 | 49.555-49.606 | 49.632-49.708 | 45.39-45.49 | 45.390-45.441 | 45.466-45.542 | 49.61-49.71 | |

TABLE 3 - STANDARD GLAND DIMENSIONS IN MILLIMETRES CONTINUED

| GLAND & AS 568 DASH NO. | * * * | PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * * * | ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * * * | GLAND WIDTH G | | | |
|-------------------------------|-------------|------------------|-------------------------------|-----------------|-------------|---------------|--------------------------------|-----------------|-------------|---------------------|--------|-------|---------|
| -133 | | 51.181- | 51.232 | 51.257- | 51.333 | 46.99 | - 47.09 | 46.990- | 47.041 | 47.066- | 47.142 | 51.23 | - 51.33 |
| -134 | | 52.832- | 52.883 | 52.908- | 52.984 | 48.64 | - 48.74 | 48.641- | 48.692 | 48.717- | 48.793 | 52.38 | - 52.98 |
| -135 | | 54.483- | 54.534 | 54.559- | 54.635 | 50.32 | - 50.42 | 50.317- | 50.368 | 50.394- | 50.470 | 54.53 | - 54.64 |
| -136 | | 56.083- | 56.134 | 56.159- | 56.236 | 51.92 | - 52.02 | 51.918- | 51.968 | 51.994- | 52.070 | 56.13 | - 56.24 |
| -137 | | 57.734- | 57.785 | 57.810- | 57.887 | 53.54 | - 53.64 | 53.543- | 53.594 | 53.619- | 53.696 | 57.78 | - 57.89 |
| -138 | | 59.360- | 59.411 | 59.436- | 59.512 | 55.17 | - 55.27 | 55.169- | 55.220 | 55.245- | 55.321 | 59.41 | - 59.51 |
| -139 | | 60.960- | 61.011 | 61.036- | 61.112 | 56.79 | - 56.90 | 56.794- | 56.845 | 56.871- | 56.947 | 61.01 | - 61.11 |
| -140 | | 62.560- | 62.611 | 62.636- | 62.713 | 58.39 | - 58.50 | 58.395- | 58.445 | 58.471- | 58.547 | 62.61 | - 62.71 |
| -141 | | 64.262- | 64.313 | 64.338- | 64.414 | 60.10 | - 60.20 | 60.096- | 60.147 | 60.173- | 60.249 | 64.31 | - 64.41 |
| -142 | | 65.888- | 65.938 | 65.964- | 66.040 | 61.72 | - 61.82 | 61.722- | 61.773 | 61.798- | 61.874 | 65.94 | - 66.04 |
| -143 | | 67.539- | 67.589 | 67.615- | 67.691 | 63.35 | - 63.45 | 63.348- | 63.398 | 63.424- | 63.500 | 67.59 | - 67.69 |
| -144 | | 69.113- | 69.164 | 69.190- | 69.266 | 64.95 | - 65.05 | 64.948- | 64.999 | 65.024- | 65.100 | 69.16 | - 69.27 |
| -145 | | 70.739- | 70.790 | 70.815- | 70.891 | 66.57 | - 66.68 | 66.573- | 66.624 | 66.650- | 66.726 | 70.79 | - 70.89 |
| -146 | | 72.365- | 72.415 | 72.441- | 72.517 | 68.20 | - 68.30 | 68.199- | 68.250 | 68.275- | 68.351 | 72.42 | - 72.52 |
| -147 | | 74.066- | 74.117 | 74.143- | 74.219 | 69.88 | - 69.98 | 69.875- | 69.926 | 69.952- | 70.028 | 74.12 | - 74.22 |
| -148 | | 75.641- | 75.692 | 75.717- | 75.794 | 71.48 | - 71.58 | 71.476- | 71.526 | 71.552- | 71.628 | 75.69 | - 75.79 |
| -149 | | 77.267- | 77.318 | 77.343- | 77.419 | 73.10 | - 73.20 | 73.101- | 73.152 | 73.177- | 73.254 | 77.32 | - 77.42 |
| -150 | | 78.892- | 78.943 | 78.969- | 79.045 | 74.73 | - 74.83 | 74.727- | 74.778 | 74.803- | 74.879 | 78.94 | - 79.04 |
| -151 | | 82.169- | 82.220 | 82.245- | 82.321 | 78.00 | - 78.10 | 78.003- | 78.054 | 78.080- | 78.156 | 82.22 | - 82.32 |
| -152 | | 88.646- | 88.697 | 88.722- | 88.798 | 84.48 | - 84.58 | | | | | | |
| -153 | | 95.123- | 95.174 | 95.199- | 95.275 | 90.96 | - 91.06 | | | | | | |
| -154 | | 101.702- | 101.752 | 101.778- | 101.854 | 97.54 | - 97.64 | | | | | | |
| -155 | | 108.179- | 108.229 | 108.255- | 108.331 | 104.01 | - 104.11 | | | | | | |
| -156 | | 114.706- | 114.757 | 114.783- | 114.859 | 110.54 | - 110.64 | | | | | | |
| -157 | | 121.183- | 121.234 | 121.260- | 121.336 | 117.02 | - 117.12 | | | | | | |
| -158 | | 127.660- | 127.711 | 127.737- | 127.813 | 123.49 | - 123.60 | | | | | | |
| -159 | | 134.264- | 134.315 | 134.341- | 134.417 | 130.10 | - 130.20 | | | | | | |
| -160 | | 140.741- | 140.792 | 140.818- | 140.894 | 136.58 | - 136.68 | | | | | | |
| -161 | | 147.218- | 147.269 | 147.295- | 147.371 | 143.05 | - 143.15 | | | | | | |
| -162 | | 153.695- | 153.746 | 153.772- | 153.848 | 149.53 | - 149.63 | | | | | | |
| -163 | | 160.172- | 160.223 | 160.249- | 160.325 | 156.01 | - 156.11 | | | | | | |
| -164 | | 166.802- | 166.853 | 166.878- | 166.954 | 162.64 | - 162.74 | | | | | | |
| -165 | | 173.279- | 173.330 | 173.355- | 173.431 | 169.11 | - 169.21 | | | | | | |
| -166 | | 179.756- | 179.807 | 179.832- | 179.908 | 175.59 | - 175.69 | | | | | | |
| -167 | | 186.233- | 186.284 | 186.309- | 186.385 | 182.07 | - 182.17 | | | | | | |
| -168 | | 192.837- | 192.888 | 192.913- | 192.989 | 188.67 | - 188.77 | | | | | | |
| -169 | | 199.314- | 199.365 | 199.390- | 199.466 | 195.15 | - 195.25 | | | | | | |
| -170 | | 205.791- | 205.842 | 205.867- | 205.943 | 201.63 | - 201.73 | | | | | | |
| -171 | | 212.268- | 212.319 | 212.344- | 212.420 | 208.10 | - 208.20 | | | | | | |
| -172 | | 218.872- | 218.923 | 218.948- | 219.024 | 214.71 | - 214.81 | | | | | | |
| -173 | | 225.349- | 225.400 | 225.425- | 225.501 | 221.18 | - 221.28 | | | | | | |

ARP 1232 A

TABLE 3 - STANDARD GLAND DIMENSIONS IN MILLIMETRES CONTINUED

| GLAND & AS 568 DASH NO. | * * * PISTON DIA. C | ROD MOUNTED BORE DIA. A | GLAND DIA. F | * * * ROD DIA. B | BORE MOUNTED BORE DIA. H | GLAND DIA. E | * * * GLAND WIDTH G |
|-------------------------|---------------------|-------------------------|--------------|------------------|--------------------------|---------------|---------------------|
| -174 | 231.826-231.877 | 231.902-231.978 | 227.66 | -227.76 | | | |
| -175 | 238.303-238.354 | 238.379-238.455 | 234.14 | -234.24 | | | 3.71-3.95 |
| -176 | 244.907-244.958 | 244.983-245.059 | 240.74 | -240.84 | | | |
| -177 | 251.384-251.435 | 251.460-251.536 | 247.22 | -247.32 | | | |
| -178 | 257.861-257.912 | 257.937-258.013 | 253.70 | -253.80 | | | |
| -201 | 10.236-10.312 | 10.363-10.439 | 4.57 | -4.72 | 4.572-4.548 | 4.599-4.775 | 10.29-10.44 |
| -202 | 11.862-11.938 | 11.989-12.065 | 6.20 | -6.35 | 6.198-6.274 | 6.325-6.401 | 11.91-12.06 |
| -203 | 13.437-13.513 | 13.564-13.640 | 7.80 | -7.95 | 7.798-7.874 | 7.925-8.001 | 13.49-13.64 |
| -204 | 15.088-15.164 | 15.215-15.291 | 9.42 | -9.58 | 9.423-9.500 | 9.550-9.627 | 15.14-15.29 |
| -205 | 16.713-16.789 | 16.840-16.916 | 11.05 | -11.20 | 11.049-11.125 | 11.176-11.252 | 16.76-16.92 |
| -206 | 18.313-18.390 | 18.440-18.517 | 12.67 | -12.83 | 12.675-12.751 | 12.802-12.878 | 18.36-18.52 |
| -207 | 19.990-20.066 | 20.117-20.193 | 14.33 | -14.48 | 14.325-14.402 | 14.453-14.529 | 20.04-20.19 |
| -208 | 21.666-21.742 | 21.793-21.869 | 16.00 | -16.15 | 16.002-16.078 | 16.129-16.205 | 21.72-21.87 |
| -209 | 23.266-23.343 | 23.393-23.470 | 17.63 | -17.78 | 17.628-17.704 | 17.755-17.831 | 23.32-23.47 |
| -210 | 24.917-24.994 | 25.044-25.121 | 19.28 | -19.43 | 19.279-19.355 | 19.406-19.482 | 24.97-25.12 |
| -211 | 26.543-26.619 | 26.670-26.746 | 20.88 | -21.03 | 20.879-20.955 | 21.006-21.082 | 26.59-26.75 |
| -212 | 28.169-28.245 | 28.296-28.372 | 22.50 | -22.66 | 22.504-22.581 | 22.631-22.708 | 28.22-28.37 |
| -213 | 29.769-29.845 | 29.896-29.972 | 24.13 | -24.28 | 24.130-24.206 | 24.257-24.333 | 29.82-29.97 |
| -214 | 31.420-31.496 | 31.547-31.623 | 25.76 | -25.91 | 25.756-25.832 | 25.883-25.959 | 31.47-31.62 |
| -215 | 33.020-33.096 | 33.147-33.223 | 27.36 | -27.51 | 27.356-27.432 | 27.483-27.559 | 33.07-33.22 |
| -216 | 34.671-34.747 | 34.798-34.874 | 29.03 | -29.18 | 29.032-29.108 | 29.159-29.235 | 34.72-34.87 |
| -217 | 36.322-36.398 | 36.449-36.525 | 30.66 | -30.81 | 30.658-30.734 | 30.785-30.861 | 36.37-36.53 |
| -218 | 37.948-38.024 | 38.075-38.151 | 32.28 | -32.44 | 32.283-32.360 | 32.410-32.487 | 38.00-38.15 |
| -219 | 39.548-39.624 | 39.675-39.751 | 33.88 | -34.04 | 33.884-33.960 | 34.011-34.087 | 39.60-39.75 |
| -220 | 41.173-41.250 | 41.300-41.377 | 35.51 | -35.66 | 35.509-35.585 | 35.636-35.712 | 41.22-41.38 |
| -221 | 42.799-42.875 | 42.926-43.002 | 37.13 | -37.29 | 37.135-37.211 | 37.262-37.338 | 42.85-43.00 |
| -222 | 44.501-44.577 | 44.628-44.704 | 38.84 | -38.99 | 38.837-38.913 | 38.964-39.040 | 44.55-44.70 |
| -223 | 47.727-47.803 | 47.854-47.930 | 42.06 | -42.21 | 42.062-42.139 | 42.189-42.265 | 47.78-47.93 |
| -224 | 50.978-51.054 | 51.105-51.181 | 45.31 | -45.47 | 45.314-45.390 | 45.441-45.517 | 51.03-51.18 |
| -225 | 54.305-54.381 | 54.432-54.508 | 48.64 | -48.79 | 48.641-48.717 | 48.768-48.844 | 54.36-54.51 |
| -226 | 57.531-57.607 | 57.658-57.734 | 51.87 | -52.02 | 51.867-51.943 | 51.994-52.070 | 57.58-57.73 |
| -227 | 60.782-60.858 | 60.909-60.985 | 55.12 | -55.27 | 55.118-55.194 | 55.245-55.321 | 60.99-61.14 |
| -228 | 64.059-64.135 | 64.186-64.262 | 58.39 | -58.55 | 58.395-58.471 | 58.522-58.598 | 64.11-64.26 |
| -229 | 67.310-67.386 | 67.437-67.513 | 61.65 | -61.80 | 61.646-61.722 | 61.773-61.849 | 67.36-67.51 |
| -230 | 70.510-70.587 | 70.637-70.714 | 64.87 | -65.02 | 64.872-64.948 | 65.099-65.175 | 70.56-70.71 |
| -231 | 73.762-73.838 | 73.889-73.965 | 68.12 | -68.28 | 68.123-68.199 | 68.250-68.325 | 73.31-73.46 |
| -232 | 77.114-77.191 | 77.241-77.318 | 71.45 | -71.60 | 71.450-71.526 | 71.577-71.653 | 77.17-77.32 |
| -233 | 80.366-80.442 | 80.493-80.569 | 74.70 | -74.85 | 74.701-74.778 | 74.828-74.905 | 80.42-80.57 |
| -234 | 83.566-83.642 | 83.693-83.769 | 77.93 | -78.08 | 77.927-78.003 | 78.054-78.130 | 83.62-83.77 |
| -235 | 86.817-86.893 | 86.944-87.020 | 81.18 | -81.33 | 81.178-81.254 | 81.305-81.382 | 86.87-87.02 |

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