## 491 DINS/491 DINL

## Component Seal

## Easy to Install Rotary Component Seal for General Service

The 491 DIN is available in two versions, the 491 DINS with Short non-pinned stationary and the 491 DINL with Long pinned stationary to prevent stationary rotation.

The 491 is designed to minimize damage or fretting to the equipment shaft/sleeve as the dynamic O-Ring is positioned on a replaceable component surface. The balanced monolithic design provides a performance upgrade to standard component seals.

The availability of Spare Parts Kits ensures quick and easy rebuild in the field.


Reliable Upgrade from Original Equipment Seals

- Monolithic seal faces
- Balanced
- Non-clog isolated springs


## Designed not to Fret Shaft or Sleeves

- Dynamic O-Ring is positioned on a replaceable component surface


## Short Axial Length

- Fits EN12756 L1K dimension (former DIN24960)


## SPECIFICATIONS

Operating Parameters

| Sizes | $16 \mathrm{~mm}-110 \mathrm{~mm}\left(0.629^{\prime \prime}-4.375^{\prime \prime}\right)$ |
| :--- | :--- |
| Pressure | 711 mm Vacuum -10 barg $\left(28^{\prime \prime} \mathrm{Hg}-150 \mathrm{psig}\right)$ |
| Temperature | $-55^{\circ} \mathrm{C}-300^{\circ} \mathrm{C}\left(-67^{\circ} \mathrm{F}-570^{\circ} \mathrm{F}\right)$ |
|  | Temperature limits by elastomer selection |
| Speed | $20 \mathrm{~m} / \mathrm{s}(4000 \mathrm{ftp})$ |
| Applicable Standards | ATEX $^{1}, \mathrm{EN} 12756$, ISO30695, WRAS ${ }^{2}, \mathrm{KTW}^{2}, \mathrm{ACS}^{2}$ |

## Materials of Construction

| Rotary Face | Carbon ${ }^{3},\left(\mathrm{CB}^{3}\right)$, <br> Sintered Silicon Carbide ${ }^{3}\left(\mathrm{SSC}^{3}\right)$ |
| :--- | :--- |
| Stationary Face | Sintered Silicon Carbide ${ }^{3}\left(\mathrm{SSC}^{3}\right)$ |
| Elastomers | Fluorocarbon ${ }^{3}\left(\mathrm{FKM}^{3}\right)$, <br>  <br> Ethylene-Propylene ${ }^{3}\left(\right.$ EPDM $\left.^{3}\right)$ <br>  <br>  <br> Tetrafluoroethylene-Propylene (FEPM) <br> Perfluoro-Elastomer (FFKM) |
| Rotary Holder | 316 Stainless Steel / EN 1.4401 |
| Springs | Alloy C-276 / EN 2.4819 |

[^0]491 DINS without anti-rotation pin


491 DINL with anti-rotation pin


## KEY

$d_{1}$ - Shaft Diameter
$d_{3}$ - Seal Outside Diameter
$\mathrm{d}_{4}$ - Seal Chamber Diameter
$\mathrm{d}_{6}$ - Bore Diameter
$d_{7}-$ Static Sealing Diameter
$\mathrm{I}_{1 \mathrm{k}}$ - Installation Length
$I_{3}$ - Rotary Operating Length
$I_{4}$ - Axial Static Length
$I_{5}$ - Chamfer Length
$I_{6}$ - Static Sealing Surface Length
$\mathrm{d}_{8}$ - Anti-rotation Pin
$m_{x}-$ Set Screw Size
T - Static Shaft O-Ring
U - Dynamic O-Ring
V - Static Stationary O-Ring

| $\mathrm{d}_{1}$ | $\mathrm{d}_{3}$ | $\mathrm{d}_{4}$ | $\mathrm{d}_{6}$ | $\mathrm{d}_{7}$ | $\mathrm{I}_{1 \mathrm{k}}$ | 13 | $\mathrm{I}_{4}$ | $I_{5}$ | $I_{6}$ | $\mathrm{d}_{8}$ | $\mathrm{m}_{\mathrm{X}}$ | T | U | V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16 mm | 28,9 | 31,0 | 23,0 | 27,0 | 35,0 | 30,0 | 5,0 | 2,0 | 4,0 | 3,0 | M4 | -016 | -022 | $21,89 \times 2,62(-118)$ |
| 18 mm | 32,3 | 34,0 | 27,0 | 33,0 | 37,5 | 30,0 | 7,5 | 2,0 | 5,0 | 3,0 | M4 | -017 | -023 | $26,57 \times 3,53(-215)$ |
| 20 mm | 34,3 | 36,0 | 29,0 | 35,0 | 37,5 | 30,0 | 7,5 | 2,0 | 5,0 | 3,0 | M4 | -018 | -024 | $28,17 \times 3,53(-216)$ |
| 22 mm | 36,3 | 38,0 | 31,0 | 37,0 | 37,5 | 30,0 | 7,5 | 2,0 | 5,0 | 3,0 | M4 | -020 | -025 | $29,74 \times 3,53(-217)$ |
| 24 mm | 38,4 | 40,0 | 33,0 | 39,0 | 40,0 | 30,0 | 10,0 | 2,0 | 5,0 | 3,0 | M4 | -021 | -027 | $32,92 \times 3,35(-219)$ |
| 25 mm | 39,3 | 41,0 | 34,0 | 40,0 | 40,0 | 30,0 | 10,0 | 2,0 | 5,0 | 3,0 | M4 | -022 | -027 | $32,92 \times 3,53(-219)$ |
| 28 mm | 42,3 | 44,0 | 37,0 | 43,0 | 42,5 | 35,0 | 7,5 | 2,0 | 5,0 | 3,0 | M5 | -122 | -127 | $36,09 \times 3,53(-221)$ |
| 30 mm | 44,3 | 46,0 | 39,0 | 45,0 | 42,5 | 35,0 | 7,5 | 2,0 | 5,0 | 3,0 | M5 | -123 | -128 | $37,69 \times 3,53(-222)$ |
| 32 mm | 46,4 | 48,0 | 42,0 | 48,0 | 42,5 | 35,0 | 7,5 | 2,0 | 5,0 | 3,0 | M5 | -124 | -130 | $40,87 \times 3,53(-223)$ |
| 33 mm | 48,0 | 49,0 | 42,0 | 48,0 | 42,5 | 35,0 | 7,5 | 2,0 | 5,0 | 3,0 | M5 | -125 | -131 | $40,87 \times 3,53(-223)$ |
| 35 mm | 49,5 | 51,0 | 44,0 | 50,0 | 42,5 | 35,0 | 7,5 | 2,0 | 5,0 | 3,0 | M5 | -126 | -132 | $44,04 \times 3,53(-224)$ |
| 38 mm | 54,3 | 58,0 | 49,0 | 56,0 | 45,0 | 35,0 | 10,0 | 2,0 | 6,0 | 4,0 | M5 | -128 | -134 | $48,00 \times 4,00$ |
| 40 mm | 56,1 | 60,0 | 51,0 | 58,0 | 45,0 | 35,0 | 10,0 | 2,0 | 6,0 | 4,0 | M5 | -129 | -135 | $50,00 \times 4,00$ |
| 43 mm | 59,1 | 63,0 | 54,0 | 61,0 | 45,0 | 35,0 | 10,0 | 2,0 | 6,0 | 4,0 | M5 | -131 | -137 | $53,00 \times 4,00$ |
| 45 mm | 61,1 | 65,0 | 56,0 | 63,0 | 45,0 | 35,0 | 10,0 | 2,0 | 6,0 | 4,0 | M5 | -133 | -139 | $55,00 \times 4,00$ |
| 48 mm | 64,2 | 68,0 | 59,0 | 66,0 | 45,0 | 35,0 | 10,0 | 2,0 | 6,0 | 4,0 | M5 | -134 | -141 | $58,00 \times 4,00$ |
| 50 mm | 66,1 | 70,0 | 62,0 | 70,0 | 47,5 | 35,0 | 12,5 | 2,5 | 6,0 | 4,0 | M5 | -136 | -142 | $61,00 \times 4,50$ |
| 53 mm | 69,1 | 73,0 | 65,0 | 73,0 | 47,5 | 35,0 | 12,5 | 2,5 | 6,0 | 4,0 | M5 | -137 | -144 | $65,00 \times 4,50$ |
| 55 mm | 71,1 | 75,0 | 67,0 | 75,0 | 47,5 | 35,0 | 12,5 | 2,5 | 6,0 | 4,0 | M5 | -139 | -145 | $65,00 \times 4,50$ |
| 60 mm | 76,1 | 85,0 | 72,0 | 80,0 | 52,5 | 35,0 | 17,5 | 2,5 | 6,0 | 4,0 | M5 | -142 | -148 | $71,00 \times 4,50$ |
| 65 mm | 81,1 | 90,0 | 77,0 | 85,0 | 52,5 | 35,0 | 17,5 | 2,5 | 6,0 | 4,0 | M5 | -145 | -151 | $76,00 \times 4,50$ |
| 68 mm | 86,1 | 93,0 | 81,0 | 90,0 | 52,5 | 35,0 | 17,5 | 2,5 | 7,0 | 4,0 | M5 | -147 | -152 | $78,74 \times 5,33(-338)$ |
| 70 mm | 86,1 | 95,0 | 83,0 | 92,0 | 60,0 | 35,0 | 25,0 | 2,5 | 7,0 | 4,0 | M5 | -148 | -152 | $81,92 \times 5,33(-339)$ |
| 75 mm | 98,6 | 104,0 | 88,0 | 97,0 | 60,0 | 48,0 | 12,0 | 2,5 | 7,0 | 4,0 | M6 | -234 | -238 | $85,09 \times 5,33(-340)$ |
| 80 mm | 104,2 | 109,0 | 95,0 | 105,0 | 60,0 | 48,0 | 12,0 | 3,0 | 7,0 | 4,0 | M6 | -236 | -240 | $94,20 \times 5,70$ |
| 85 mm | 108,1 | 114,0 | 100,0 | 110,0 | 60,0 | 48,0 | 12,0 | 3,0 | 7,0 | 4,0 | M6 | -237 | -241 | $99,20 \times 5,70$ |
| 90 mm | 114,0 | 119,0 | 105,0 | 115,0 | 65,0 | 48,0 | 17,0 | 3,0 | 7,0 | 4,0 | M6 | -239 | -243 | $104,20 \times 5,70$ |
| 95 mm | 117,5 | 124,0 | 110,0 | 120,0 | 65,0 | 48,0 | 17,0 | 3,0 | 7,0 | 4,0 | M6 | -240 | -244 | $109,20 \times 5,70$ |
| 100 mm | 123,8 | 129,0 | 115,0 | 125,0 | 65,0 | 48,0 | 17,0 | 3,0 | 7,0 | 4,0 | M6 | -242 | -246 | $114,20 \times 5,70$ |
| 110 mm | 133,5 | 139,0 | 125,0 | 135,0 | 67,0 | 48,0 | 19,0 | 3,0 | 7,0 | 4,0 | M6 | -246 | -249 | $122,00 \times 6,00$ |

QUICK ORDER REFERENCE EXAMPLE - For quick and easy ordering please have the following information ready for your service representative.

| MODEL | SIZE | FACES | ELASTOMERS | METALS |
| :---: | :---: | :---: | :---: | :---: |
| 491 DINS | SHAFT DIAMETER | CB / SSC | FKM | 316 SS |

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[^0]:    ${ }^{1}$ Must use pinned stationary
    ${ }^{2}$ Food \& Water Approvals with SSC/SSC/EP material combination only
    ${ }^{3}$ Standard materials

