

Powder and sludge handling seals product range

Tamar sealing systems specializes in the development and production of reliable and cost effective rotary shaft sealing systems.

With over 20 years of experience in the sealing industry, we have managed to successfully install thousands of seals on various applications worldwide.

Our patented sealing technology is the best available technology for powder application.



About the Tamar seal

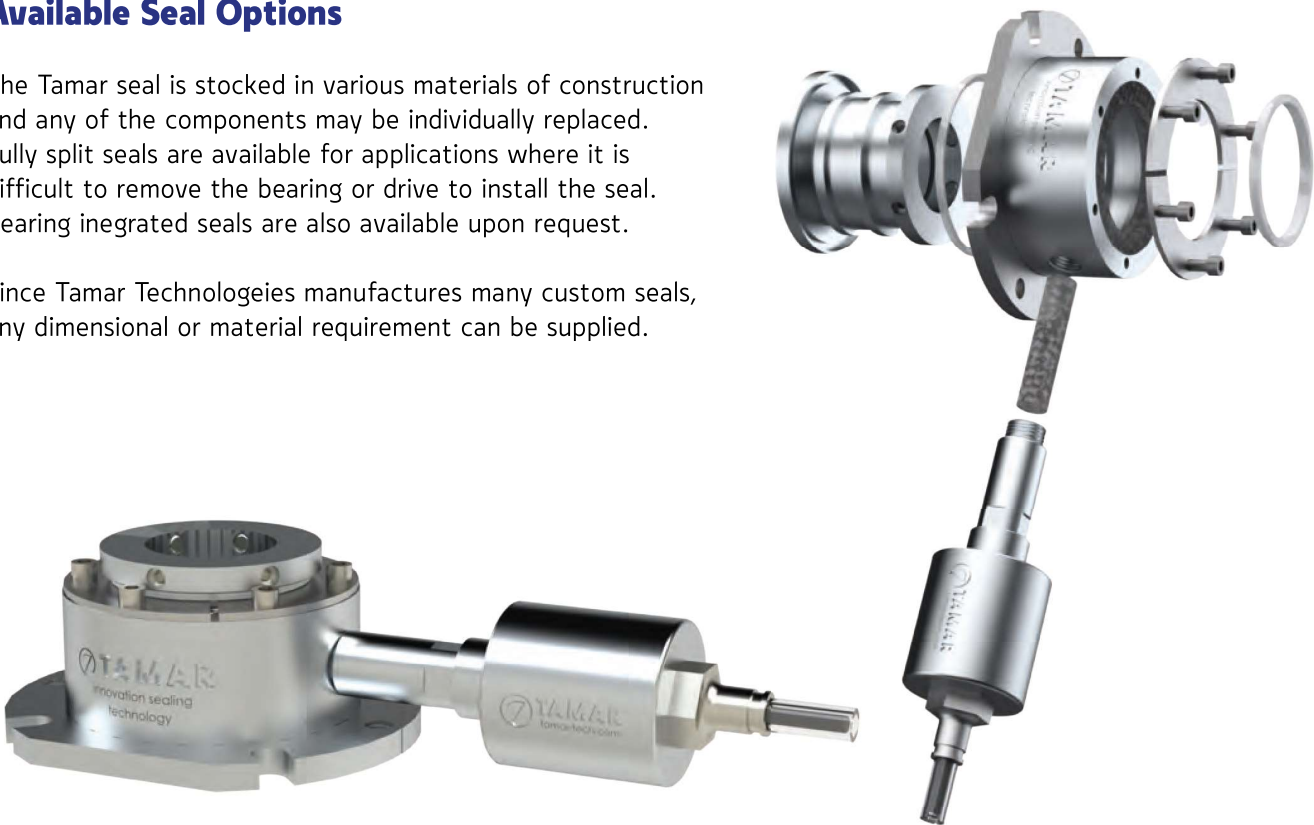
How does it work?

The seals use flexible sealant as the sealing media. The sealant is maintained at a pressure slightly above stuffing box pressure by a gas operated piston. Close-fitting bushings at either end of the seal retain the flexible sealant. The pressurized sealant does not rotate with the shaft. The sealant remains stationary, operating as a flexible stationary seat. The shaft sleeve design is machined in a way to allow square vertical edge landings perpendicular to the shaft as rotating heads. Standard seals do not require any air consumption.

Available Seal Options

The Tamar seal is stocked in various materials of construction and any of the components may be individually replaced. Fully split seals are available for applications where it is difficult to remove the bearing or drive to install the seal. Bearing integrated seals are also available upon request.

Since Tamar Technologies manufactures many custom seals, any dimensional or material requirement can be supplied.



Standard Construction Materials

Housing	Elastomers	Sealant
1020 cast steel 316 stainless steel Hastelloy C	Viton (FDA Compliant) EPDM (FDA Compliant) FDA silicone (FDA Compliant)	Graphite based Synthetic (fibers) PTFE (FDA Compliant)

Customer nonstandard parameters that exceed the ranges can be accommodated.

Please consult our team of experts in order to meet your requirements.

Tamar manufactures many custom seals. Any dimensional or material requirement can be supplied.

ATEX zone 1 and 2 seals can be certified upon request for selective models.

410-SF / For screw conveyors and feeders

MTZ 410-SF is specially designed for screw conveyors and feeders. The MTZ 41 OSF easily fits any screw feeder designs, This seal design can provide 3-4 weeks notification before maintenance.

1. Optional Split cartridge type for simple and easy installations.
2. Can be serviced while the equipment is running, no downtime.
3. Acts as a third bearing to support the shaft and reduces run outs.
4. Average life before servicing-2 years.

Seal options

Max. sealing pressure

0.5 bar (7 psi)

Max. shaft speed

3 m/s (10 ft/s)

PH 0-14

Max Temperatur 200° (392°F)

Max radial runout 1.5mm (0.06")



Standard dimensions
for typical applications
/split cartridge



Bearing supported
for custom designed
applications



Standard split
design for fixed
drive end



Air flushed seal
for high pressure
applications



Flexible joint
integrated for
high shaft run-out

420-VD / For vacuum dryers

MTZ 420-VD provides the best split sealing solution for vacuum dryers. The MTZ 420VD is ideal for large thermal motion, changing pressures and shaft runout.

1. Split cartridge type-simple and easy installation.
2. Can be serviced while the equipment is running, no downtime.
3. Simple to maintain and repair.
4. Average life before servicing-2 years.

Seal options

Max. sealing pressure

Vacuum 120 mmHg to
0.5 bar (7 psi)

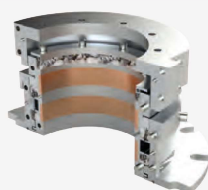
Max. shaft speed

3 m/s (10 ft/s)

PH 0-14

Max Temperatur 200° (392°F)

Max radial runout 1.5mm (0.06")



Split, shaft arrangement
for heat expanding shaft end



Standard split design
for fixed drive end

Customer nonstandard parameters that exceed the ranges can be accommodated.

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ATEX zone 1 and 2 seals can be certified upon request for selective models.

430-RV / for rotary valves and air locks

MTZ 430-RV provides a solution for rotary valves and air locks. The MTZ 430RV easily fits tight compact designs and provides 3-4 weeks notification before maintenance.

- 1.Can be serviced while the equipment is running, no downtime.
- 2.Simple to install and maintain.
- 3.Average life before servicing-3 years.

Max. sealing pressure

1 bar (15 psi)

Max.shaft speed

3 m/s (10ft/s)

PH 0-14 ° °

Max Temperatur 200 (392 F)

Max radial runout 1mm (0.04")

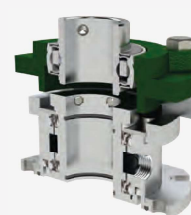
Seal options



Standard design
for compact space
applications



Air/ Nitrogen flushed
for high pressure
applications



Bearing supported
for custom designed
applications

510-RM / for horizontal mixers

MTZ510-RM provides a solution for wet or dry process horizontal ribbon mixers.

The MTZ 51 ORM can handle any process and provides 3-4 weeks notification before maintenance.

- 1.Optional split cartridge type-simple and easy installations.
- 2.Can be serviced while the equipment is running, no downtime.
- 3.Simple to install and maintain.
- 4.Average life before servicing-2 years.

Max. sealing pressure

1 bar (15 psi)

Max.shaft speed

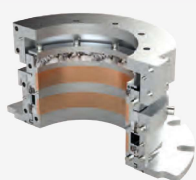
3 m/s (10ft/s)

PH 0-14 ° °

Max Temperatur 120C (248 F)

Max radial runout 1.5mm (0.06")

Seal options



Unique 'floating seal'
design for high run-out
applications



Standard dimensions
for typical applications



Air flushed seal
for high pressure
applications



Split seal arrangement
for large shaft
diameters

Customer nonstandard parameters that exceed the ranges can be accommodated.

Please consult our team of experts in order to meet your requirements.

Tamar manufactures many custom seals. Any dimensional or material requirement can be supplied.

ATEX zone 1 and 2 seals can be certified upon request for selective models.

610-AG / For agitators and vertical mixers

MTZ 610-AG provides a solution for vertical agitators and mixers.

- 1.Can be serviced while the equipment is running, no downtime.
- 2.Acts as a third bearing to support the shaft.
- 3.Average life before servicing-3 years.

Max. sealing pressure

vacuum 120HG to 1 bar (14 psi)

Max.shaft speed

3 m/s (10ft/s)

PH 0-14

Max Temperatur 200C (392 F)

Max radial runout 1.5 mm (0.06")

Seal options



Standard dimensions
for typical applications



Air/Nitrogen Flushed
seal for "sniffer" monitored
applications



Bearing supported
for custom designed
applications



Jacketed seal for
extreme temperature
applications

620-BL / For fans and blowers

MTZ620-BL provides the best solution for sealing blowers.

The MTZ620BL is easy to maintain, and provides 3-4 weeks notice before maintenance.

- 1.Can be serviced while the equipment is running, no downtime.
- 2.Simple to install and maintain.
- 3.Free of fragile faces.
- 4.Average life before servicing - 3 years.

Max. sealing pressure

Up to 0.5 bar (7 psi)

Max.shaft speed

3 m/s (10 ft/s)

PH 0-14

Max Temperatur 200C (392F)

Max radial runout 1mm (0.04")

Seal options



Standard dimensions
for typical applications/split
cartridge



Air flushed seal
for high pressure
applications



Bearing supported
for custom designed
applications



Split seal arrangement
for large shaft
diameters

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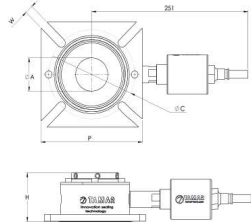
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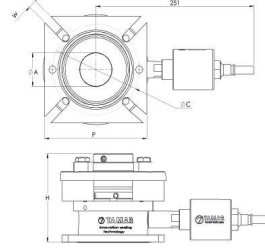
Tamar standard seal dimensions

The Tamar seal comes in 6 standard Imperial and metric sizes. These seals can be easily converted for other shaft sizes and fit within the complete size range. Dimensions other than the standard stocked seals are available upon request.

Cartridge seal without integrated bearing



Cartridge seal with integrated bearing



Standard CEMA (Millimeters)

Shaft	Flange	Min	Max	W	H
40/45	137	125	157	16	78
50/55	165	135	167	19	78
60/65	187	145	177	19	78
70/75/80	197	160	185	22	82
85/90	205	170	195	22	82
100/110	215	180	205	22	82

Standard CEMA (Millimeters) with bearing

Shaft	Flange	Min	Max	W	H
40/45	137	125	157	16	131
50/55	165	135	167	19	131
60/65	187	145	177	19	147
70/75/80	197	160	185	22	146
85/90	205	170	195	22	176
100/110	215	180	205	22	212

Standard CEMA (Inches)

Shaft	Flange	Min	Max	W	H
1.5	5.38	5.65	6.19	5/8	3.07
2.00	6.50	6.19	7.60	3/4	3.07
2.44	7.38	7.25	8.84	3/4	3.07
3	7.75	8.12	9.19	7/8	3.22
3.44	9.25	9.55	11.31	7/8	3.22
4.44	10.88	10.96	12.38	7/8	3.22

Standard CEMA (Inches) with bearing

Shaft	Flange	Min	Max	W	H
1.5	5.38	5.65	6.19	5/8	5.14
2.00	6.50	6.19	7.60	3/4	5.14
2.44	7.38	7.25	8.84	3/4	5.81
3	7.75	8.12	9.19	7/8	6.45
3.44	9.25	9.55	11.31	7/8	6.92
4.44	10.88	10.96	12.38	7/8	8.34



Standard part number decoder

410SRO - **M100** - **A-V** - Elastomer V-Viton; E-EPDM; S-FDA silicone

Construction material A-316; B-1020

Shaft diameter 1-inches; M-millimeters, and integers represents diameter

Model SRO-standard; SRB-bearing integrated seal

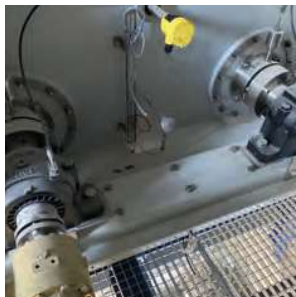
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Tamar seal Gallery



Tamar has numerous success with leading plants worldwide, selected case studies can be found at www.tamar-tech.com



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