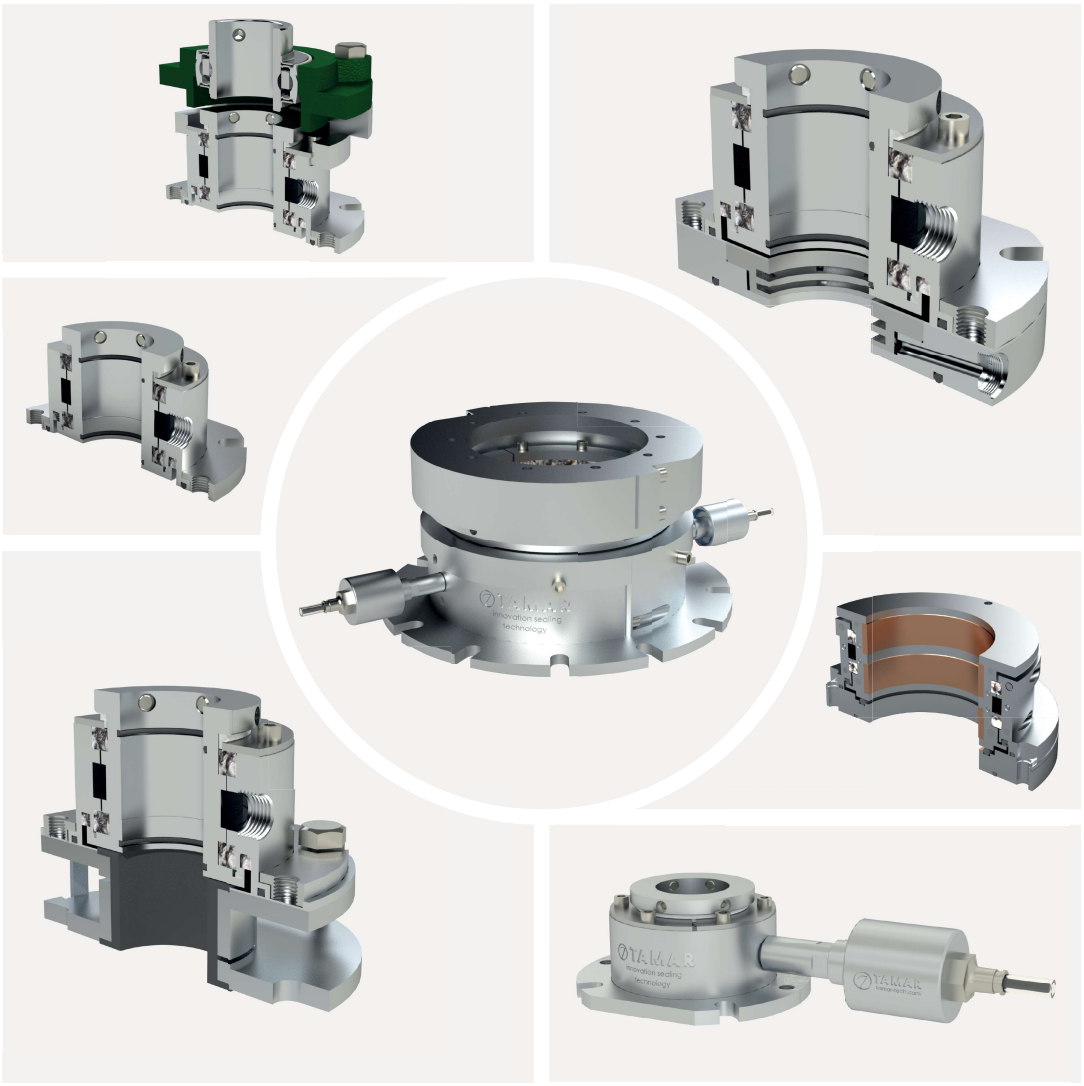
TAMAR SEAL
Innovative sealing technology

www.tamar-tech.com

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 alexible 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 inegrated seals are also available upon request. Since Tamar Technologeies manufactures many custom seals, any dimensional or material requirement can be supplied.

Standard Construction Materials

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

Features

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

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

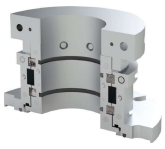
Parameters

- Max. sealing pressure — 0.5 bar (7 psi)
- Max.shaft speed — 3 m/s (10 ft/s)
- PH — 0-14
- Max Temperature — 200°C (392°F)
- Max radial runout — 1.5mm (0.06")

Seal options

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

Features

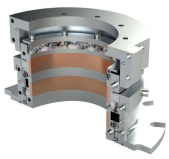
MTZ 420-VD provides the best split sealing solution for vacuum dryers. The MTZ 420VD is ideal for large thermal motion, changing pressures and shaft runout.

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

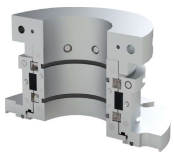
Parameters

- 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 Temperature — 200°C (392°F)
- Max radial runout — 1.5mm (0.06")

Seal options



Split, shaft following arrangement for heat expanding shaft end



Standard split design for fixed drive end

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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

Features

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.

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

Parameters

- Max. sealing pressure — 1 bar (15 psi)
- Max.shaft speed — 3 m/s (10ft/s)
- PH — 0-14
- Max Temperature — 200°C (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

Features

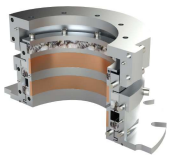
MTZ510-RM provides a solution for wet or dry process horizontal ribbon mixers. The MTZ 510RM can handle any process and provides 3-4 weeks notification before maintenance.

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

Parameters

- Max. sealing pressure — vacuum to 1 bar (15 psi)
- Max.shaft speed — 3 m/s (10 f/s)
- PH — 0-14
- Max Temperature — 120°C (248°F)
- Max radial runout — 1.5mm (0.06")

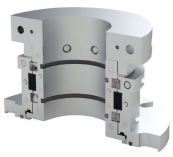
Seal options



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

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

610-AG / For agitators and vertical mixers

Features

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

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

Parameters

- Max. sealing pressure — vacuum 120 mmHG to 1 bar (14 psi)
- Max.shaft speed — 3 m/s (10 ft/s)
- PH — 0-14
- Max Temperature — 200°C (392°F)
- Max radial runout — 1.5mm (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

Features

MTZ620-BL provides the best solution for sealing blowers. The MTZ620BL is easy to maintaine, and provides 3-4 weeks notice before maintenance.

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

Parameters

- Max. sealing pressure — up to 0.5 bar (7 psi)
- Max.shaft speed — 3 m/s (10 ft/s)
- PH — 0-14
- Max Temperature — 200°C (392°F)
- 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

Flexible joint integrated for high shaft run-out

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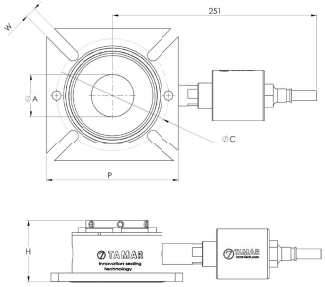
ATEX zone 1 and 2 seals can be certified upon request for selective models.

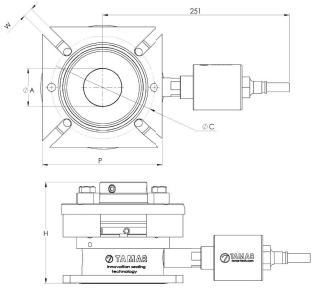
Tamar standard seal dimensions

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 (miillimeters)

ØA Shaft	P (flange)	ØC min	ØC 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 (miillimeters) With bearing

ØA Shaft	P (flange)	ØC min	ØC 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 (Inches)

ØA Shaft	P (flange)	ØC min	ØC 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 (Inches) With bearing

ØA Shaft	P (flange)	ØC min	ØC 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 part number decoder

410SR0- M100 -A-V - Elastomer V-Viton; E-EPFM; S-FDA silicone

Construction material A-316; B-1020

Shaft diameter I-inches; M-milimeters, and integers represents diameter

Model SR0-standard; SRB-bearing integrated seal

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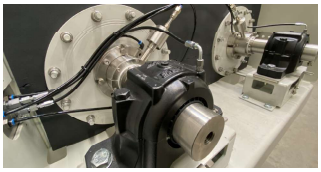
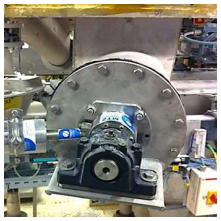
Tamar seal Gallery

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

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Patent No: 8,215, 643 B2