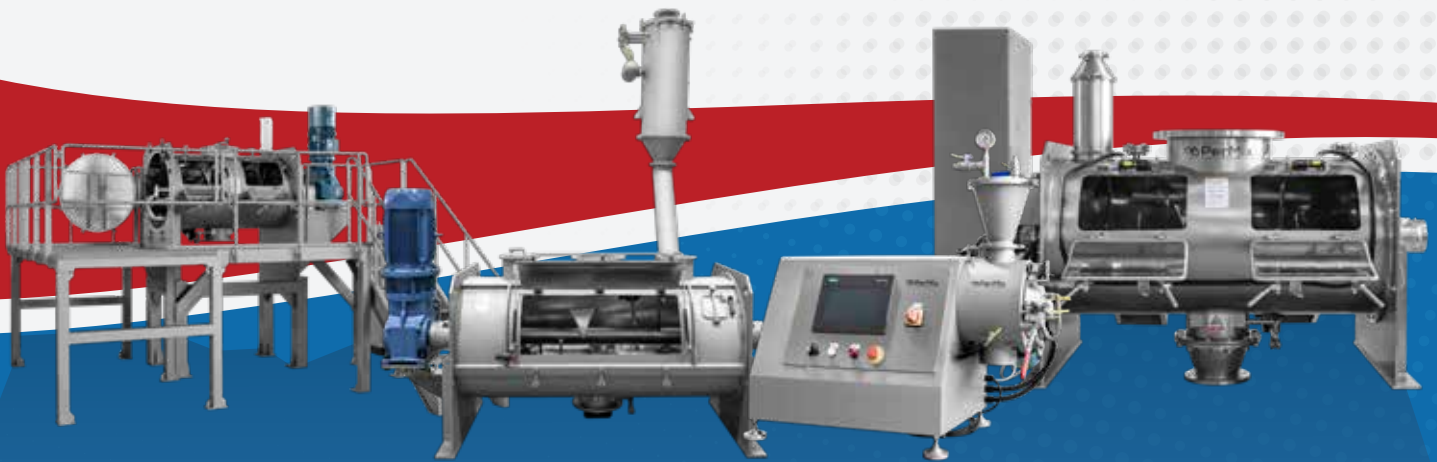




WE OFFER

PERFECT MIXING TECHNOLOGIES



PERMIX PLOW MIXERS:
PRECISION MIXING FOR
EVERY INDUSTRY

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PerMix Plow Mixer

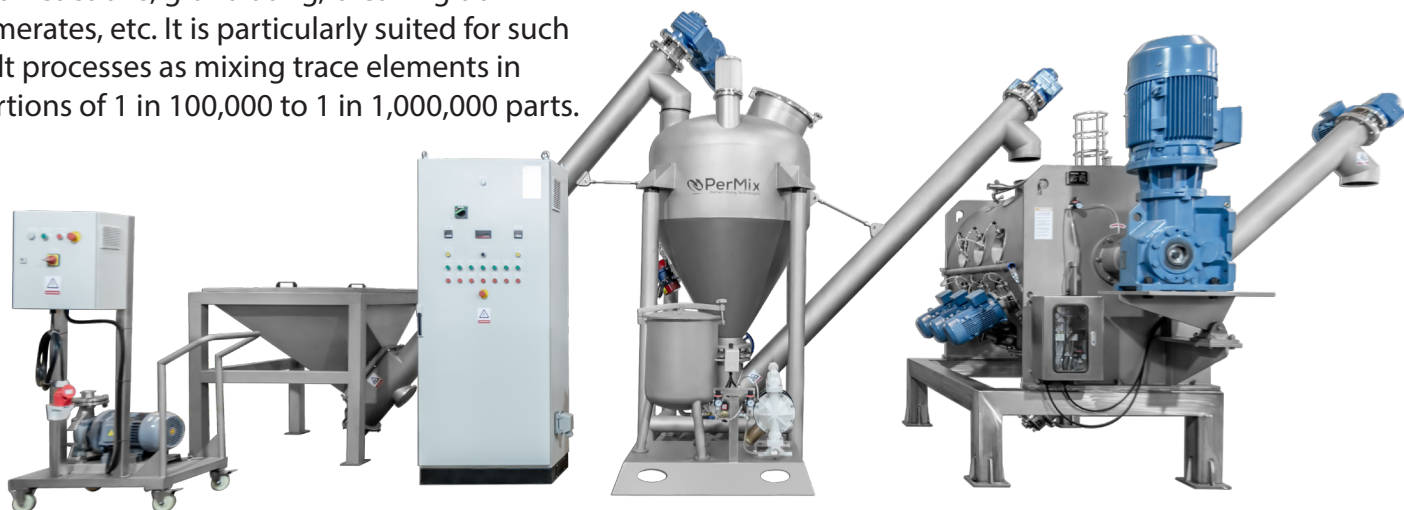
PerMix PTS series Plow Mixer is one of our two types of Turbulent Mixer, which are originally designed by our Israeli engineers. The other one is PerMix PTP series Paddle Mixer.

PTS Plow Mixer is so versatile that it can handle nearly all types of materials including dry powders, granular materials, short fibered substances, moist solids with liquids, pasty materials and highly viscous masses.

PerMix PTS series Plow Mixer can be used for numerous processing, including compounding, fine mixing, dispersing, suspending, emulsifying, deaerating, tempering, accelerating chemical or physical reactions, granulating, breaking down agglomerates, etc. It is particularly suited for such difficult processes as mixing trace elements in proportions of 1 in 100,000 to 1 in 1,000,000 parts.

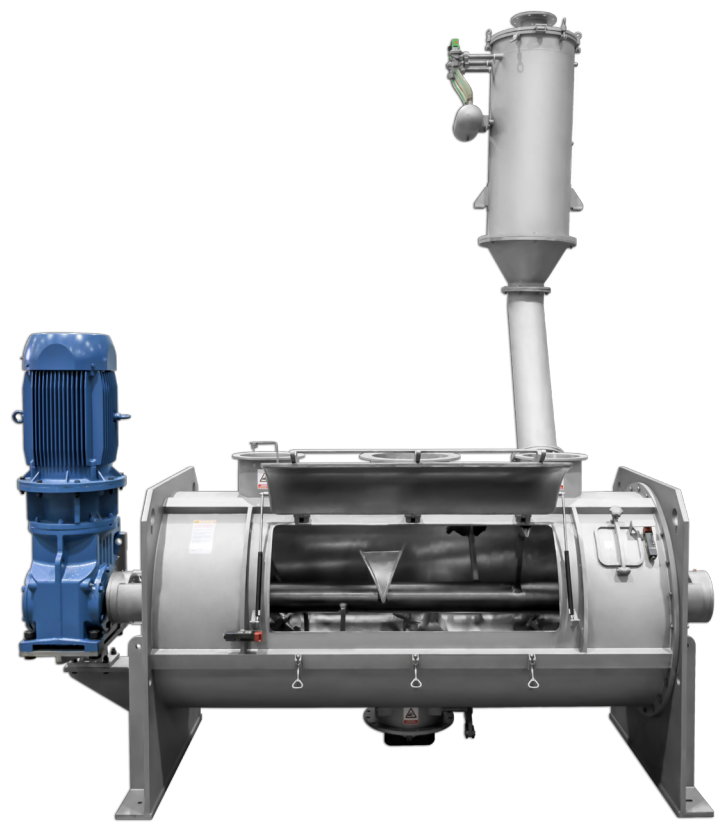
Basic Construction

PerMix PTS series Plow Mixer consists of a centrally mounted horizontal shaft that rotates within a cylindrical container, plough shaped mixing elements that are attached to the centrally mounted shaft, special openings at the top for feeding materials, flush fitting access doors in the front of the mixer, a flush fitting discharge valve at the bottom of the mixer which is pneumatically or manually operated, and a complete drive unit.



Operation Process

The mixing drum of a Plow Mixer is filled from 30% to 70% capacity, allowing space for individual particles to be dispersed within the main area of the mixer. The plough-shaped mixing elements create intense axial and radial movement causing the product to move throughout the mixing area. The shape and angle, together with the adjustment and rotation of the mixing elements and the mixing drum, cause the product to be lifted off the surface of the drum wall. The product is automatically discharged while the machine is still running so that any segregation is prevented.



Lab & Pilot Model

PerMix is able to offer lab & pilot size Plow Mixers for Research & Development purpose. The small size machine is very helpful for customers when the ingredients for R&D are expensive, and to meet the budget limit at the first stage.

With the good performance of the lab & pilot mixer, it is easy to scale up for a medium size or even bigger one.

Design With Choppers

The installation of PerMix High Speed Side Choppers in the basic PTS mixer enables the breaking down of agglomerates/lumps, and also accelerates the mixing process. Together with the mixing element, the PerMix Side Chopper removes lumps in the initial product, chops pasty adhesives and hinders the formation of agglomeration during the moisturizing of powdered substances. The PerMix Side Chopper is operated independently by its own motor.



Vacuum Mixer Dryer

With some special modifications - for example heating jacket for the mixing tank, mechanical shaft seal, special segmented discharge valve, dust filter housing, temperature control system - the PerMix PTS series Ploughshare Mixer can be used as a multi stage process vessel eliminating the need for additional specialist equipment. It can be used as a vacuum mixer dryer, mixer-granulator, de-aerator, reactor and cooler.



Applications

PerMix PTS Ploughshare Mixer has a wide range of applications:

Dry powder mixing:

Food flavoring/additives, Sponge/cake mixes, Cosmetics, Pharmaceuticals, Cement, Powdered

Paste mixing:

Biscuit creams, Dough, PVC pastes, Car body fillers/putties, Sugar/marzipan paste, Toiletry pastes, Tile adhesives and grouts rubber

Mixing of wet slurry:

Filter cake re-slurrying, dough, Fiber glass resin dough putty

Drying processing:

Vacuum drying, Hot air drying rubber

Other processing:

Wet granulation, Liquid coating of powders and granules, Fat and oil incorporation

Optional Features

Continuous operation:

PerMix supplies mixers for continuous work when a large capacity per hour is needed for the same material. Continuous plough mixers differ from batch plough mixers in that the mass flow of the product is from the inlet of the container to the discharge of the opposite end.

Heating/Cooling jacket:

Jacketed vessel for heating/cooling operation by steam, thermal oil, or water. ASME/PED certificate can be optional for high pressure operation.

Feeding & Discharging:

A variety of feeding & discharging methods can be selected by the customers. Discharging port can be by manual or pneumatic operation.

Access door:

Access doors can be designed for easy cleaning, inspection & maintenance.

Spray nozzle:

Liquid can be added into the powder by spray nozzles on a pipe which is installed on the top of the mixing vessel. The necessary pump and tank can also be provided by PerMix.

Construction material:

PerMix offers mixers with contact part to be built by Carbon steel, SS304, SS316/316L, Titanium, Duplex stainless steel, Hastelloy, etc. For abrasive materials we offer hardened steel as the contact



Specifications

PerMix Plow Mixer

Model	Total L	Working L, 30%	Useful L, 70%	kW	RPM	W (mm)	H (mm)	KG
PTS-5L	5	1.5	3.5	1.1	365	400	600	110
PTS-10L	10	3	7	1.1	365	400	600	120
PTS-15L	15	4.5	10.5	1.1	280	450	620	140
PTS-20L	20	6	14	1.1	280	500	650	160
PTS-5L-CP	5	1.5	3.5	1.1	365	750	610	140
PTS-10L-CP	10	3	7	1.1	365	750	610	160
PTS-15L-CP	15	4.5	10.5	1.1	280	850	640	180
PTS-20L-CP	20	6	14	1.1	280	900	670	200
PTS-30	30	9	21	2.2	210	820	1130	270
PTS-45	45	13.5	31.5	2.2	210	880	1160	280
PTS-50	50	15	35	3	190	900	1200	380
PTS-60	60	18	42	3	190	950	1200	480
PTS-70	70	21	49	4	175	1055	1250	570
PTS-100	100	30	70	5.5	175	1065	1280	680
PTS-150	150	45	105	7.5	170	1100	1300	700
PTS-200	200	60	140	7.5	155	1160	1370	790
PTS-250	250	75	175	11	150	1250	1400	850
PTS-300	300	90	210	11	150	1380	1460	910
PTS-400	400	120	280	18.5	140	1450	1500	1150
PTS-500	500	150	350	18.5	140	1500	1570	1280
PTS-600	600	180	420	22	135	1600	1650	1400
PTS-700	700	210	490	22	135	1610	1650	1460
PTS-750	750	225	525	22	127	1610	1680	1510
PTS-800	800	240	560	22	127	1630	1350	1580
PTS-1000	1000	300	700	22	121	1650	1360	1620
PTS-1200	1200	360	840	30	121	1750	1380	1850
PTS-1500	1500	450	1050	30	115	1860	1415	2000
PTS-2000	2000	600	1400	37	110	1910	1550	2730
PTS-2500	2500	750	1750	37	102	1960	1700	2900
PTS-3000	3000	900	2100	37	102	2000	1780	3250
PTS-4000	4000	1200	2800	45	96	2160	1900	4250
PTS-5000	5000	1500	3500	55	85	2230	2000	4850
PTS-6000	6000	1800	4200	55	75	2280	2100	5300
PTS-7000	7000	2100	4900	75	75	2400	2200	6000
PTS-8000	8000	2400	5600	90	67	2550	2275	6800
PTS-9000	9000	2700	6300	110	67	2550	2500	7800
PTS-10000	10000	3000	7000	132	60	2550	2615	13900
PTS-12000	12000	3600	8400	132	60	2650	2720	14700
PTS-15000	15000	4500	10500	160	54	2780	2860	16300
PTS-20000	20000	6000	14000	200	48	2990	3060	23800
PTS-25000	25000	7500	17500	250	48	3105	3210	28200
PTS-30000	30000	9000	21000	280	42	3270	3420	31000

Specifications

PerMix Continuous Plow Mixer

Model	Total L	Working L, 50%	kW	RPM	W (mm)	H (mm)	KG
PTSC-80	80	40	5.5	175	700	700	550
PTSC-100	100	50	7.5	175	850	750	780
PTSC-150	150	75	11	170	950	800	1000
PTSC-200	200	100	11	155	1065	830	1300
PTSC-250	250	125	15	150	1150	850	1340
PTSC-300	300	150	15	150	1200	880	1380
PTSC-400	400	200	22	140	1250	920	1500
PTSC-500	500	250	22	140	1250	1010	1600
PTSC-600	600	300	30	135	1290	1010	1700
PTSC-700	700	350	30	135	1380	1050	1750
PTSC-750	750	375	30	127	1400	1080	1950
PTSC-800	800	400	30	127	1410	1100	2200
PTSC-1000	1000	500	30	121	1430	1120	2400
PTSC-1200	1200	600	37	121	1450	1200	2600
PTSC-1500	1500	750	37	115	1470	1230	2900
PTSC-2000	2000	1000	45	110	1650	1360	3100
PTSC-2500	2500	1250	45	102	1680	1400	3500
PTSC-3000	3000	1500	45	102	1700	1410	3800
PTSC-4000	4000	2000	55	96	1910	1550	5200
PTSC-5000	5000	2500	75	85	1940	1680	6000
PTSC-6000	6000	3000	75	75	1960	1780	6200
PTSC-7000	7000	3500	90	75	2080	1850	7500
PTSC-8000	8000	4000	110	67	2160	1900	8100
PTSC-9000	9000	4500	132	67	2200	1980	8900
PTSC-10000	10000	5000	160	60	2230	2000	9200

Specifications

PerMix Vacuum Plow Mixer/Dryer

Model	Total L	Useful L, 30%	Useful L, 70%	kW	RPM	W (mm)	H (mm)	KG
PTSD-5L	5	1.5	3.5	1.1	256	520	600	140
PTSD-10L	10	3	7	1.1	256	520	600	160
PTSD-15L	15	4.5	10.5	2.2	196	550	620	180
PTSD-20L	20	6	14	2.2	196	600	650	210
PTSD-5L-CP	5	1.5	3.5	1.1	256	900	610	180
PTSD-10L-CP	10	3	7	1.1	256	900	610	210
PTSD-15L-CP	15	4.5	10.5	2.2	196	1,000	640	230
PTSD-20L-CP	20	6	14	2.2	196	1,050	670	260
PTSD-30	30	9	21	4	126	920	1,130	350
PTSD-45	45	14	32	4	126	980	1,160	360
PTSD-50	50	15	35	5.5	114	1,000	1,200	490
PTSD-60	60	18	42	5.5	114	1,050	1,200	620
PTSD-70	70	21	49	7.5	105	1,155	1,250	740
PTSD-100	100	30	70	11	105	1,165	1,280	880
PTSD-150	150	45	105	15	102	1,200	1,300	910
PTSD-200	200	60	140	15	93	1,260	1,370	1,030
PTSD-250	250	75	175	18.5	90	1,350	1,400	1,110
PTSD-300	300	90	210	22	90	1,480	1,460	1,180
PTSD-400	400	120	280	30	84	1,550	1,500	1,500
PTSD-500	500	150	350	30	84	1,600	1,570	1,660
PTSD-600	600	180	420	37	81	1,700	1,650	1,820
PTSD-700	700	210	490	37	81	1,710	1,650	1,900
PTSD-750	750	225	525	37	76	1,710	1,680	1,960
PTSD-800	800	240	560	37	76	1,730	1,350	2,050
PTSD-1000	1000	300	700	45	73	1,750	1,360	2,110
PTSD-1200	1200	360	840	45	73	1,850	1,380	2,410
PTSD-1500	1500	450	1050	45	69	1,960	1,415	2,600
PTSD-2000	2000	600	1400	55	66	2,010	1,550	3,550
PTSD-2500	2500	750	1750	55	61	2,060	1,700	3,770
PTSD-3000	3000	900	2100	55	61	2,100	1,780	4,230
PTSD-4000	4000	1200	2800	75	58	2,260	1,900	5,530
PTSD-5000	5000	1500	3500	90	51	2,330	2,000	6,310
PTSD-6000	6000	1800	4200	90	45	2,380	2,100	6,890
PTSD-7000	7000	2100	4900	110	45	2,500	2,200	7,800
PTSD-8000	8000	2400	5600	132	40	2,650	2,275	10,200
PTSD-9000	9000	2700	6300	160	40	2,650	2,500	11,700
PTSD-10000	10000	3000	7000	185	36	2,650	2,615	20,850
PTSD-12000	12000	3600	8400	185	36	2,750	2,720	22,050
PTSD-15000	15000	4500	10500	200	32	2,880	2,860	24,450
PTSD-20000	20000	6000	14000	250	29	3,090	3,060	35,700
PTSD-25000	25000	7500	17500	300	29	3,205	3,210	42,300
PTSD-30000	30000	9000	21000	315	25	3,370	3,420	46,500



Headquarter

PerMix Israel

Adi 17940, Israel
Contact: Mr. Arie Srugo
Tel: +972-54-908-0144
Email: srugoa@permixtec.com
www.permixtec.com

Global Factory & Office

PerMix North America (Factory)

Chicago, Illinois, 60601, USA
Contact: Mr. John Paul
Tel: +1 630-649-1357
Email: John.paul@permixtec.com
www.permixmixers.com

PerMix Europe (Factory)

9900 Eeklo - Belgium
Contact: Mr. Dimitri Baeten
Tel: +32 9 430 50 17
Email: dimitri.eu@permixtec.com
www.permixmixers-eu.com

PerMix China (Factory)

Shanghai, 201821, China
Contact: Mr. Aaron Huang
Tel: +86 133 911 68218
Email: aaron.h@permixtec.com
www.permix.cn

PerMix India

Navi Mumbai, 400 708, India
Contact: Mr. Anant Wagh
Tel: +91 99304 69228
Email: india@permixtec.com
www.permixmixers.in

PerMix UK

Scotland, Great Britain
Contact: Mr. James Ryder
Tel: +44 (0) 7554139667
Email: james.ryder@permixtec.com
www.permixmixers.co.uk

PerMix Ukraine

Kyiv, 02095, Ukraine
Contact: Mr. Viacheslav Pishyi
Tel: +38 067 45 44 694
Email: ua@permixtec.com
www.permixtec.com

Besides, PerMix has been building a network of agents located in Southeast Asia, Australia, Russia, Middle East, Africa, and other countries & regions.