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PERFECT
MIXING
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PDP DOUBLE PLANETARY MIXER

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PerMix PDP series Double Planetary Mixer is also called double planetary kneader, because it can be used to handle very viscous materials up to 1,500,000 cPs. Usually PerMix Double Planetary Mixer has two vertically mounted mixing tools which are driven by one gear to move around the central axis of the tank as well as their own axis.

PerMix Double Planetary Mixer is so versatile that it can be used to mix, knead, stir and deaerate all types of material, including highly viscous pastes, even to granulate wet powders. Industrial pastes produced by PerMix Double Planetary Mixer include concentrated paints and varnishes, printing inks, fillers, silicone and thiocole pastes, plastisols, plastic coatings, synthetic lubricating greases and many other materials.

DESIGN FEATURES

- The standard finger-blade mixing tools are designed to work in an overlapping way, thus create strong axial and radial motions in the mix-product, as well as a highly intensive shearing and dispersing effect. Within a short time, the material is thoroughly mixed and even very difficult formulas may be obtained.
- A quick vessel locking device connects the mixing vessel to the mixer. Because the vessel is mounted on fixed and swivel wheels, it is very easy to transport.
- The standard version of PerMix PDP Double Planetary Mixer features dual mixing tools shafts running in heavy duty ball bearings. Both mixing tools and scrapers can be supplied with a special bayonet locking system for easy disassembly.
- The upper head of the machine is lifted by manual, mechanical or hydraulic elevating systems, depending on the size of the machine. Sometimes it can also be designed with the tank to be lifted from the bottom by pneumatic or hydraulic arrangements.
- Electrical TEFC single speed motors / gearboxes are the standard drive units supplied with PerMix PDP Double Planetary Mixer. Ex-proof design motors are also available. Among the many options available for special applications are: infinity variable speeds, hydraulic drive units, heating/cooling jacket, vacuum/pressurized operation, etc.

HOW IT WORKS

In the mixing process, two vertically mounted mixing tools are driven by the same drive unit thus the the same drive shaft to rotate around a common sun gear and meanwhile they rotate at a higher speed around their own axes, which is according to the planetary principle. At the bottom of the the mixing tools there are detachable scrapers in usually PTFE materials to scrape the materials on the tank bottom.

A swinging type scraper which is mounted at the side of the two mixing tools continually sweeps the inside wall, transporting material from the walls of the vessel to the mixing tools, and transferring the heat efficiently.



SPECIAL DESIGNS

PerMix designs the Double Planetary Mixers according to the special requirements and applications of the customer. Some modifications include:

- For mixed products that must be heated or cooled, PerMix has designed jacketed vessels for hot oil, electrical heating, steam heating and liquid cooling.
- PerMix has designed moveable and tiltable mixing vessels, with or without a bottom discharge valve for less viscous liquids and units with a special no dead area valve for connection to peripheral equipment. Arrangements can be made for the transport of the vessel by forklift or by crane.
- Where necessary, alterations can be made in the shape of the mixing tools; a third mixing tool may be added; a homogenizer unit (with deflector) can be supplied - and other performance proven mixing elements may be supplied for special duties.
- PerMix DISSOLVER UNIT for fine dispersion, with its own drive unit, available with or without variable speed, has proven itself a good process accelerator for dealing with special dispersions.



SPECIFICATIONS

Model	Total volume (liter)	Working volume (liter)	Motor (kW) (*)	Lifting power (kW)	Length (mm)	Width (mm)	Height [closed] (mm)	Height [open] (mm)
PDP-3	3	2	0.75	-	990	520	720	920
PDP-10	10	7	1.5	0.75	1,350	700	900	1,160
PDP-30	30	21	4	0.75	1,660	860	1,050	1,390
PDP-60	60	42	5.5	1.1	1,730	860	1,450	1,860
PDP-100	100	70	7.5	1.1	2,060	1,260	1,450	1,920
PDP-200	200	150	11	1.1	2,460	1,400	1,700	2,300
PDP-300	300	220	15	1.1	2,530	1,700	1,700	2,380
PDP-500	500	360	22	1.5	3,190	1,800	2,000	2,800
PDP-750	750	550	37	2.2	3,660	2,000	2,400	3,300
PDP-1000	1,000	750	45	2.2	3,720	2,190	2,450	3,430

- kW is product dependent and might vary.
- Customized sizes are available against request.
- All specifications and illustrations are as accurate as is reasonably possible, but they are not binding.
- PerMix reserves the right to modify the design without notice.

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Besides, PerMix have been building a network of agents located in Europe (Germany, Denmark, UK, Belgium, France, Spain, Poland, etc), Asia (South Korea, Indonesia, Thailand, Malaysia, Singapore), and several other countries.

