Genesis Process Technologies

Committed To Excellence

About us

Envisioned with goal to provide world class solution and best value proposition while satisfying customized process needs; **GENESIS PROCESS TECHNOLOGIES** (GPT) is incepted by industry veterans with expertise in wet granulation, drying, milling, blending, material handling machineries for Pharmaceutical, Nutraceutical, Food, Chemical and allied industries.

In our wide range from the smallest lab scale units to large production units required for Granulation, Drying, Milling & Blending; we ensure high quality standards for products and services.

Genesis is your reliable and competent partner for best technologies individually designed for your production process through the team which has experience of more than 25 years in the powder processing industry and pharmaceutical compliances. By collaborating with experts, we also offer compliances such as ATEX, OEB, HAZLOC, CE, 21 CFR part 11 along with country specific certifications like UL, GOST enabling us to serve our customers anywhere on the globe.

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GENESIS High Shear Mixer Graduator :

A precise technique of wet granulation process with high accuracy in uniformity of distribution of API with other ingredients to maintain dose uniformity in tablet and desired granules profile which helps in smooth powder flow and efficient compaction.

In our flexible range of HSMG from 0.25 litre to 2000 Litre the machines are scalable for process.

- **Safety:** 12 bar pressure-shock resistant design, using proven safety concepts
- **Efficiency:** Reproducible processes and automated programmes with low set-up times
- **Containment:** Special solutions for highly active, toxic and hazardous substances
- **Cleanability:** Comprehensive cleaning concepts - WIP
- **Effective:** Elevated tip of impeller gives uniform mixing and the large mixing blades give uniform shear for effective granulation.
- **Flexibility:**Dry Mixing / Wet Granulation / Single Pot Processing
- **Future proof:** Designed for retrofitting of process components when needed
- **Qualification:** Pharma standards according to GAMP 4 including 21 CFR part 11 compliance ATEX, Hazard solutions
- **Quality control:** Integration of PAT Tool

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The processing of highly flammable solids or organic solvents requires special measures for explosion protection. Your safety is guaranteed by reliable protection procedures such as explosion shock-resistant design, a technique mainly used for mixer-fluid bed combinations.

GENESIS considers the appropriate national requirements of the country of use like CE / ATEX / Hazloc / UL etc.

Unique Tangential elevated tip impeller for unique mixing pattern

Safe and reproducible production of high-quality granules – even with most difficult recipes and different filling volumes.

Large mixing blades with enlarged blade tips are positioned tangentially to the central Hub which ensures a good circulation of material even at low speed.

Shaft in Shaft technology for bottom impeller lifting ensures easy visual inspection without completely removing impeller blade and enabling cleaning.

Sealing area also provided with auto-cleaning system

Under Driven Cone mill with round blade and option of square, round sieves

HSMG discharge is linked with cone mill output to ensure smooth wet milling without clogging.

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High Safety Compliance:

Keeping up with industry demand to process hazardous drugs, Genesis Process Technologies have developed special HSMG design with following features:

-Single unit with interchangeable bowls from 10 to 80 Litre

-OEB 4 compliant through the wall model

-Option for Single Pot Processer

Application for Single Pot Processor:

Single pot processors are used to complete wet granulation and drying in single unit without material transfer. This is generally used for heat sensitive material with high binder content, drying in single vessel is useful.

The Single Pot, particularly if used without inert gas, has an advantage that only the pure organic vapours need to be treated. To treat heat sensitive materials successfully, the temperatures and exposure time is carefully controlled along with moisture and oxygen.

Technical Data Sheet	Mixer
GPT HSMG Bowl Size	10:25:60:80
GPT VAC Bowl Size	25 :60 :80
Motor HP	7.5 HP
Speed	0.7 To 7 m/s
Chopper Motor HP	1.5 HP
Chopper RPM	280 To 2880
Machine Weight	750 Kg

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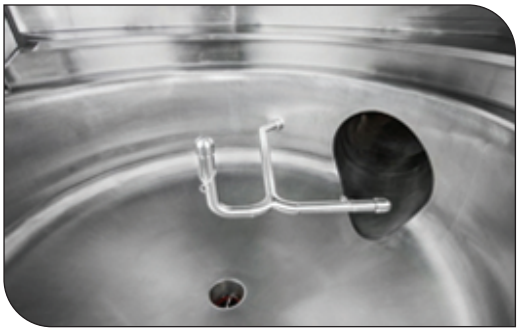
GENESIS Fluid Bed Processor
is the 'State of art' drying, granulating & coating combo unit conforming to the international quality norms and with all latest features incorporated.

Genesis Fluid Bed processor with its efficient design enhances drying capabilities by 18 to 20% as compared to other competitor models in the market while giving uniform fluidization. Along with drying, Genesis Fluid Bed processors have application for granulation and pellet coating using top spray and bottom spray technology.

Tangential spray is Faster process, better (most compact) particles size distribution and higher end product density
With tangential spray decrease your drying time by 20% and to save of binder we can offer

In our flexible range of FBP from 1 litre to 2000 Litre all machines are scalable for process.

- **Safety:** 12 bar pressure-shock resistant design, using proven safety concepts
- **Efficiency:** reproducible processes and automated programmes with low set-up times
- **Containment:** special solutions for highly active, toxic, hazardous substances
- **Cleanability:** comprehensive cleaning concepts - WIP
- **Effective:** optimised rotating air flow using special air distributor plates
- **Flexibility:** Drying /Top Spray / Bottom Spray / Tangential Sprayprocesses
- **Future proof:** designed for retrofitting of process components when needed
- **Qualification:** pharma standards according to GAMP 4 including 21 CFR part 11 compliance, ATEX, Hazard solutions
- **Quality control:** Integration of PAT Tool



Tangential inlet air in plenum for spiral air flow gives uniform core drying. This also avoids rat hole formation eliminating need for racking and stopping fluid bed process before completion.

Water spray nozzles in inlet and outlet ducting also ensures duct cleaning as per GMP requirement.

Provided with multitudes of meshes as per application allowing flexibility for operations.

Conidur mesh provides Spiral flow creating vortex in fluid bed giving higher drying and process efficiency.

Antistatic Finger provided option for Single Bag Shaking & Twin Chamber Bag Shaking System.

Auto Bag Lowering system with telescopic pneumatic cylinder

Special CIP SS cartridge filter bag provided for containment application with Air blow cleaning system & auto lowering with pneumatic telescopic cylinder

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Genesis Fluid Bed Processor designed for single equipment available from 10 to 80 litre with Interchangeable bowl

Specially used in containment OEL 4 & 12 Bar ATEX rated applications

With Top Spray/ Bottom Spray / Tangential Spray, Integrated with RMG &VTS, Mill

Throught the wall design

Different size of Ad plate is available.

Powder Transfer integrate with under driven cone mill

Post FBP, to transfer granules / pellets to next phase of blending, compression, capsule filling or sachet packing; dust free solutions customised to user need are available from Genesis.

Dust free integration of material handling and blending equipment is available.

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Technical Data for HSMG

Technical Data	Bowl Gross Volume in Litre	Impeller HP	Chopper HP	Impeller RPM (0.7 to 0.7 m/s)	Chopper RPM	Compressed Air Consumption @6 Bar	Cleaning Water Consumption 3 @ 3bar g
GPT- HSMG - 100	102	10	2	20-194	280-2880	28 Nm^3/h	2 m^3/h
GPT- HSMG - 150	153	15	3	17-168	280-2880	30 Nm^3/h	2.5 m^3/h
GPT- HSMG - 250	255	30	5	14-145	280-2880	35 Nm^3/h	3 m^3/h
GPT- HSMG - 400	408	40	7.5	12-125	280-2880	40 Nm^3/h	4 m^3/h
GPT- HSMG - 600	612	50	10	11-107	280-2880	50 Nm^3/h	5 m^3/h
GPT- HSMG - 800	816	60	15	10-100	280-2880	60 Nm^3/h	6 m^3/h
GPT- HSMG - 1000	1020	85	20	10-93	280-2880	70 Nm^3/h	6 m^3/h
GPT- HSMG -1250	1275	100	20	9-87	280-2880	80 Nm^3/h	6 m^3/h
GPT- HSMG -1500	1530	120	30	9-82	280-2880	90 Nm^3/h	7 m^3/h
GPT- HSMG -2000	2040	150	20 + 20	8-74	280-2880	100 Nm^3/h	8 m^3/h

Technical Data for FBP

Technical Data	Bowl Gross Volume in Litre	Power Supply HP	Airflow CFM	Compressed Air Consumption (Nm^3/h)@6Ba	Steam Consumption	Cooling Water Consumption	Cleaning Water Consumption 3 @ 3bar g
GPT- FBP - 100	102	15	600	30 Nm^3/h	75 kg/h	02 m^3/h	1-2 m^3/h
GPT- FBP - 150	153	20	1000	33 Nm^3/h	95 kg/h	3.2 m^3/h	1-2 m^3/h
GPT- FBP - 250	255	25	1600	36 Nm^3/h	110 kg/h	4.8 m^3/h	1-3 m^3/h
GPT- FBP - 400	408	30	2000	39 Nm^3/h	120 kg/h	06 m^3/h	1-3 m^3/h
GPT- FBP - 600	612	40	3500	47 Nm^3/h	190 kg/h	09 m^3/h	2-4 m^3/h
GPT- FBP - 800	816	50	4000	52 Nm^3/h	245 kg/h	12 m^3/h	2-4 m^3/h
GPT- FBP - 1000	1020	60	4500	58 Nm^3/h	285 kg/h	16.4 m^3/h	2-4 m^3/h
GPT- FBP -1250	1275	80	5500	62 Nm^3/h	320 kg/h	19.5 m^3/h	2-4 m^3/h
GPT- FBP -1500	1530	100	6500	68 Nm^3/h	400 kg/h	23 m^3/h	2-4 m^3/h
GPT-FBP -2000	2040	120	8000	75 Nm^3/h	500 kg/h	27 m^3/h	3-5 m^3/h