Steel Belt Casters

Berndorf Steel Belt Casters are belt applications which enable a precise production of high quality films and foils by thermal drying processes. The Berndorf Band Group is the only company world wide which is able to supply solvent based film casting equipment based upon complete process simulation from extrusion die to winder. A special production technology allows steel belt manufacturing in endless shapes, which ensures the best achievable steel belt flatness and thickness variation.

Whether individual production casters, a laboratory unit or a complete industrial film production line, we develop and build casters which accept endless steel belts as well as steel belts welded at site. Additionally Berndorf provides the virtual caster as a complete process control system.

Industries

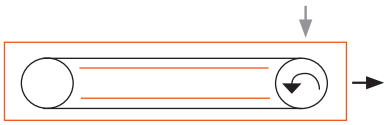
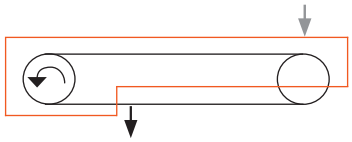
Filter Membranes:	Health Care Pharmacy Industry
PMMA:	Optical Industry Electronic Industry Sanitary Equipment
TAC:	Optical Industry Electronic Industry
Special Films:	Chemical Industry

With branch offices and subsidiaries in Austria, USA, Japan and South Korea the company is represented globally. Additionally Berndorf Group conducts intensive research and development work with universities and research institutes.

Advantages and Benefits

- Fluid dynamics simulated airflow ensures +/-1,5°C temperature uniformity over width and length
- Unique drive system guarantees +/-1% line speed uniformity
- Cost reduction and protection of the environment due to Zero Emission DAC/TAC solvent recovery process
- Virtual caster as process simulation and control system
- Tested design avoids line vibration and production problems
- Specially coated and specially allocated idler rollers prevent steel belt damage
- Unrivaled precision in production coupled with high quality of the finished product

Infeed: Liquid dope Outfeed: Solid film Enclosure/Drying system

Caster Systems		
Type	**TAC**	**Membrane**
Setup		
Solvent	methylene chloride, methyl alcohol	dichloromethane, isopropyl, ethyl acetate, ethanol, water
Explosion protection	Yes	Yes/No
Typical production speed	80 m/min	3 m/min
Typical casting belt length	100 - 120 m	50 - 120 m
Source of thermal energy	hot air generated by steam | air heat exchangers | hot air blown via impingement nozzles onto belt back side and product | drums tempered by hot resp. cold water	
Steel belt surface	high mirror polished	mill finished | buffed | ground

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