



Gear Metering
Pump System

PROCESS GEARMIX



PGM Overview

The **PROCESS GEARMIX** machines range from 0.01 up to 1000 litres/minute and are typically used in the processing of unfilled or filled epoxies, acrylics, PU elastomers, foams or resins. The applications vary, from the Electric and Electronic Industry, Rapid Prototyping to the most demanding needs of the Offshore Industry.

The mechanic construction of the machines is under constant development and improvement. In the latest versions, the metering stations for the respective components are separated into compact elements for better serviceability and function. The gear pump, pressure sensor, material filter, circulation and measuring valves are now mounted onto one single block. All systems share the common design philosophy of geared drive motors directly coupled to the metering pump.

With the processor controlled systems **2KM** uses the latest software technology that offers control and compliance with the highest process safety standards. The system also allows customised software adjustments tailored to company specific demands.



It's all in the **MIX**



The **PGM** Range

The PGM range is designed for Low Viscosity materials

ENTRY LEVEL PGM 100 range

The 101 system utilises medium speed gear pumps designed to process materials at flow rates up to 4 litres per minute, while the 102 uses precision gear pumps for precision dispensing against higher pressures, and larger flow ratio ranges.

The 100 range utilise an operator friendly control system with potentiometers to adjust the flow and ratio on the system.

MEDIUM LEVEL PGM 301

The Process Gear Mix 301 uses the twin drive system found in all PGM machine systems. The 301 version utilises precision gear pumps and a PLC control for machine operation.

The 8.6" touch screen enables the input of application information easily. Up to 10 programmes can be entered and easily recalled from the operating screen.

PGM 320

The Process Gear Mix 320 carries the 2KM designed microprocessor based control system, which has the ability to control the whole process as well as monitor and adjust the ratio of the materials being applied.

The metering of the materials is done with the precision metering pumps fitted with pressure transducers.

HIGH LEVEL PGM 520

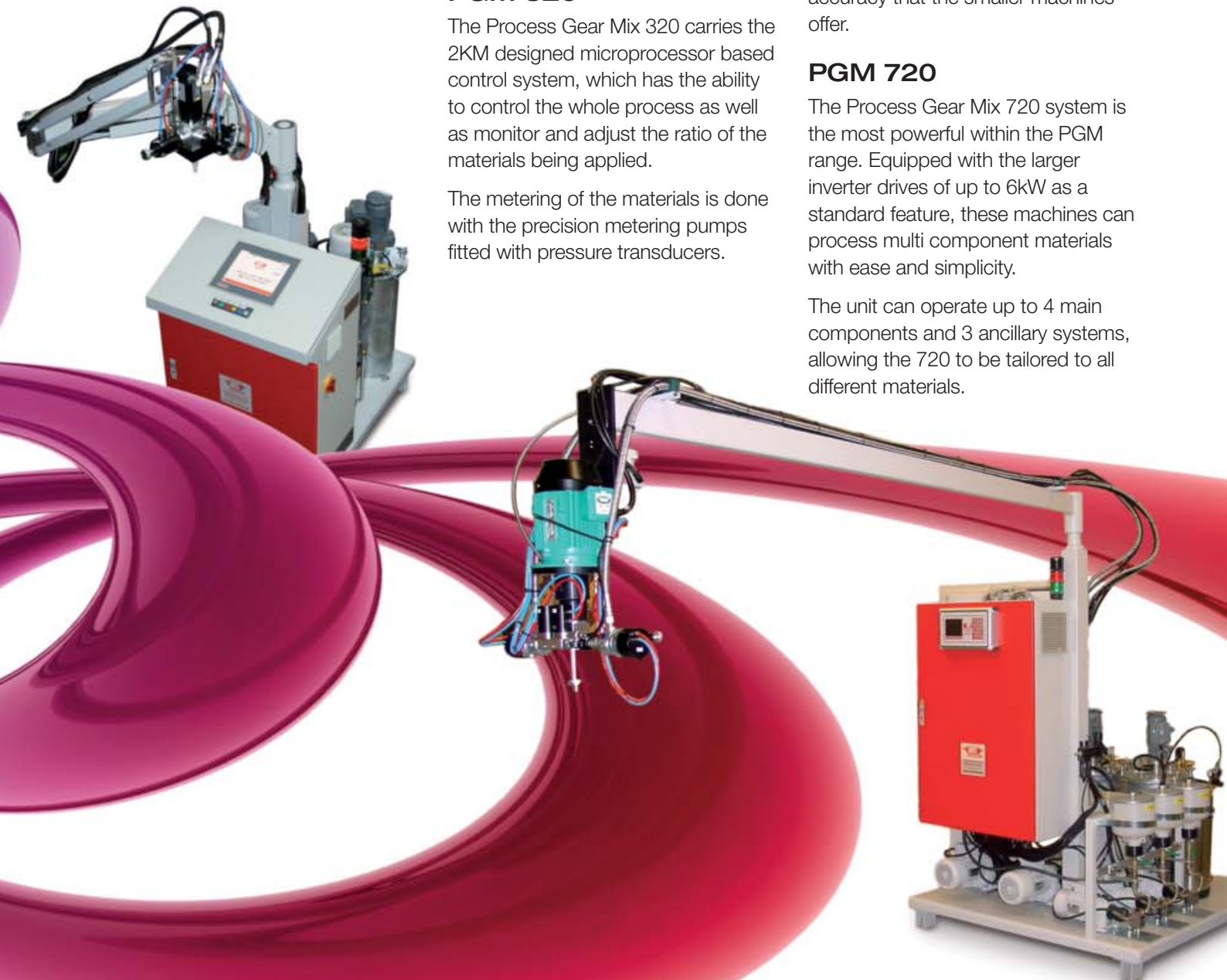
Process Gear Mix 520 is the higher output version of the PGM range. The system can be tailored to process abrasively filled materials and can be adapted to multi component processes.

Special metering pumps with hardened casings and ceramic bearings, allow materials with large fillers or requiring high back pressures to be processed with the same accuracy that the smaller machines offer.

PGM 720

The Process Gear Mix 720 system is the most powerful within the PGM range. Equipped with the larger inverter drives of up to 6kW as a standard feature, these machines can process multi component materials with ease and simplicity.

The unit can operate up to 4 main components and 3 ancillary systems, allowing the 720 to be tailored to all different materials.



PGM Series of Components

PROCESS GEARMIX Range						
	101/102	103	107	301/320	520	720
Description	Gear metering system with directly coupled, Geared AC motors driving precision pumps.					
Control System	Relay control			Processor control		
Pressure Monitoring	Manometer			Analogue pressure sensors and digital pressure indication in the display		
Pressure Control	Not available			Warning and switch-off values may be programmed freely		
Permanent Mixing Ratio Control	Not available			Optional with gear or mass flowmeters		
Drive Motor Size	0.35				0.35 to 36kW	
Gear Pump Type	Low speed precision pumps.				Medium speed pumps	System manufactured for filled, syntactic, and many other processes.
RPM	10 to 150 rpm				100 to 500 rpm	10 to 1000 rpm
Pump Sizes (ccm/rev)	0.3/0.6/1.2/1.8/3.0 and 6.0				0.5 to 4.0	Range 1 = 3.0 to 35.0 Range 2 = 8.0 to 24.0 Others available upon request
Output Range (cc per min)	0 to 1,800.0				500 to 4000	7,000 to 1,000,000
Max. Working Pressure	100				150	100-150
Material Feeding	Dependant on material viscosity and conditioning, options include: gravity & pressure vessels.				Pressure Vessels from 45 to 10,000 litre capacity	
Mixer Systems	Static mixer heads 4,6,8,10 and 12 mm dia. Dynastat mixer heads 4,6,8,10 and 13 mm dia. Dynamic mixers 25,50,75, 100, 200, 1000 and 5000cc volume.					
Typical Area of Application	Rapid Prototyping, PU & epoxy casting Fabric/Film Coating, Filter manufacture, etc			Casting Moulding Coating	Moulding Coating	Moulding for general, offshore and Composites industries

The PGM range can be adapted for the processing of low to medium viscosity materials with options available for the metering of higher viscosity materials.

Bespoke systems have been manufactured for specific applications for the flexible laminating market, silicone coating of paper and for the application of gel coats in wind blade production.



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