

OptiMix[®] 1

Plural Component Liquid Dispensing System

Electronically controlled proportioning and mixing unit for the processing of solvent- and water-based two-component and three-component coatings.



The OptiMix 1 plural component system is an electronically controlled proportioning and mixing unit for the processing of solvent- and water-based coatings. Through its precision and flexibility, the OptiMix unit provides high efficiency and excellent surface quality. As a result, it is an ideal solution for a variety of general industry and trade applications.

The OptiMix unit allows the rapid change of up to 10 different base or catalyst materials. It can be used for low- and high-pressure spraying. The system also processes paints in a wide range of viscosities and flow rates.

Features and Benefits

- **Allows the rapid change of up to 10 different base and catalyst materials** for quick color or coating chemistry change.
- **Processes both solvent- and water-based paints** for application versatility.
- **Dynamic dosing** provides a complete mix of base and catalyst components.
- **Controlled measurement** provides precise ratio verification.
- **Management of up to 10 individual recipes**, allowing the user to flush and change colors or coating chemistries at the push of a button.
- **USB port** allows easy data collection.
- **Ratio error and pot life alarm** alerts user to an off-ratio or end of pot life situation.
- **Five-inch touch screen is easy to see and use.**

Areas of Application

- Agriculture Equipment
- Furniture
- Heavy Equipment
- Transportation
- Aerospace
- General Finishing

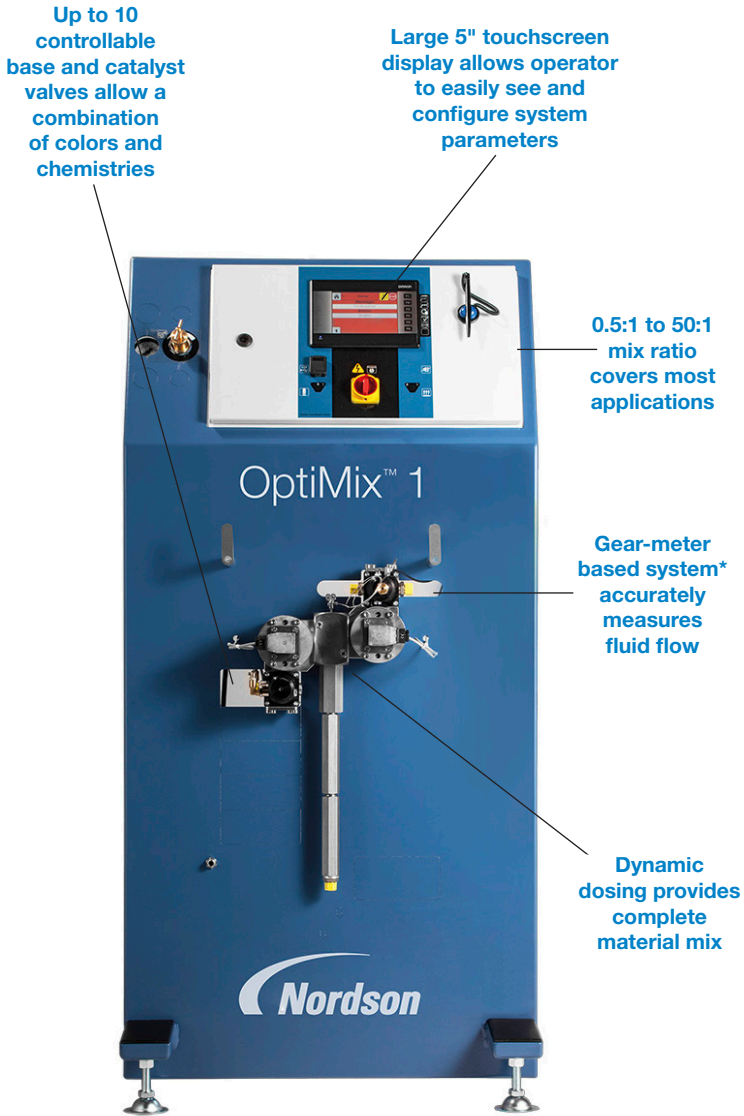


Spraying Technologies

- Airless
- Air Assist Airless
- Air Spray
- HVLP (high volume, low pressure)
- LVLP (low volume, low pressure)
- Electrostatics
- Rotary Atomization



The OptiMix 1 Plural Component System allows the exact metering and mixing of material at both high and low pressures. Highly versatile, the system can accommodate a variety of spray technologies, including airless, air assist airless, air spray, HVLP (high volume, low pressure), LVLP (low volume, low pressure) and electrostatics. It also allows the rapid change of up to 10 different base and catalyst materials.



* Coriolis meter available

Ordering Information

See the selection guide below to choose the Nordson part number corresponding to the OptiMix system that is right for you.

1. Determine the number of required base and catalyst components.
2. Select the valve size based on flow and pressure. 3mm valves are rated for 3625 psi (250 bar), 6 mm valves are rated for 725 psi (50 bar)
3. For most applications requiring ratios of 10:1 and above, use 6 mm/3 mm combo.ro

2K System – 3MM Base and Catalyst Valves (max pressure 3625 psi/250 bar)

		Number of Base Components								
		1	2	3	4	5	6	7	8	9
Number of Catalyst Components	1	1605080	1605081	1605083	1605086	1605090	1605095	1605100	1605105	1605111
	2	1605082	1605084	1605087	1605091	1605096	1605101	1605107	1605112	---
	3	1605085	1605088	1605092	1605097	1605102	1605108	1605113	---	---
	4	1605089	1605093	1605098	1605103	1605109	1605114	---	---	---
	5	1605094	1605099	1605104	1605110	1605115	---	---	---	---

2K System – 6MM Base and Catalyst Valves (max pressure 725 psi/50 bar)

		Number of Base Components								
		1	2	3	4	5	6	7	8	9
Number of Catalyst Components	1	1605116	1605117	1605119	1605122	1605126	1605131	1605136	1605141	1605146
	2	1605118	1605120	1605123	1605127	1605132	1605137	1605142	1605147	---
	3	1605121	1605124	1605128	1605133	1605138	1605143	1605148	---	---
	4	1605125	1605129	1605134	1605139	1605144	1605149	---	---	---
	5	1605130	1605135	1605140	1605145	1605150	---	---	---	---

2K System – *6MM Base and 3MM Catalyst Valves

		Number of Base Components								
		1	2	3	4	5	6	7	8	9
Number of Catalyst Components	1	1605151	1605152	1605154	1605157	1605161	1605166	1605172	1605177	1605182
	2	1605153	1605115	1605158	1605162	1605167	1605173	1605178	1605183	---
	3	1605156	1605159	1605163	1605168	1605174	1605179	1605184	---	---
	4	1605160	1605164	1605169	1605175	1605180	1605185	---	---	---
	5	1605165	1605170	1605176	1605181	1605186	---	---	---	---

*6MM valve max pressure is 725 psi/50 bar; 3MM valve max pressure is 3625 psi/250 bar

3K System – 3MM Base and Catalyst Valves (max pressure 3625 psi/250 bar)

		Number of Base Components							
		1	2	3	4	5	6	7	8
Number of Catalyst Components	1	1605187	1605188	1605190	1605194	1605198	1605203	1605208	1605214
	2	1605189	1605192	1605195	1605199	1605204	1605209	1605215	---
	3	1605193	1605196	1605200	1605205	1605210	1605216	---	---
	4	1605197	1605201	1605206	1605211	1605217	---	---	---
	5	1605202	1605207	1605213	1605218	---	---	---	---

3K System – *6MM Base and 3MM Catalyst Valves

		Number of Base Components							
		1	2	3	4	5	6	7	8
Number of Catalyst Components	1	1605219	1605220	1605222	1605225	1605229	1605234	1605239	1605244
	2	1605221	1605223	1605226	1605230	1605235	1605240	1605245	---
	3	1605224	1605227	1605231	1605236	1605241	1605246	---	---
	4	1605228	1605232	1605237	1605242	1605247	---	---	---
	5	1605233	1605238	1605243	1605248	---	---	---	---

*6MM valve max pressure is 725 psi/50 bar; 3MM valve max pressure is 3625 psi/250 bar

OptiMix™ 1 Plural Component Liquid Dispensing System

Optional Accessories

- **Remote control** – the intrinsically safe (ATEX zone 1 rated) remote control allows control from inside the spray booth with a 98' (30 meter) cable.
- **Wheel kit** – heavy duty casters and all necessary hardware included to mobilize your system, allowing it to be wheeled directly to the job site, reducing the hose length needed to paint your part.
- **Many additional configurations available as an engineered system** – a highly configurable product, the OptiMix 1 system can be customized to meet your needs. When ordered as an engineered system, the following options are available:
 - **Fluid passage air flush** – reduces the total amount of solvent needed to flush your system.
 - **Remote mix manifold mounting** – allows your mix manifold to be located very near to your spraying area, reducing the volume of catalyzed material contained in system hoses.
 - **Controller modifications** – The system controller can be modified to communicate with your automated paint line.
 - **Coriolis meter** – for abrasive or shear-sensitive materials.



Technical Specifications

Mixing Ratio Range	0.5:1 to 50:1
Proportioning Tolerance	+/-3%
Controllable Valves (base + catalyst)	10
Number of recipes	10
Maximum Fluid Pressure, 3mm valve	3625 psi (250 bar)
Maximum Fluid Pressure, 6mm valve	725 psi (50 bar)
Maximum Fluid Temperature	176F (80C)
Viscosity Range	20 – 5000 cps
Fluid Flow Range	100 – 3000 cc/min
Fluid Fitting Thread – inlet	3/8"G, 3/8" NPS, 1/2"-20 JIC*
Fluid Fitting Thread – outlet	3/8" NPS, 1/2"-20 JIC*
Maximum Air Pressure	100psi (7 bar)
Air Fitting Size	1/4G or 1/4 NPT*
Power supply requirements	85-250 VAC, 50/60 Hz
Amperage draw	2 amps
Controller Voltage	24 VDC
Ambient Temperature range	41–122 F (5-50 C)
Wetted parts	Stainless steel, UHMW-PE, PTFE, FKM, Tungsten Carbide
Fluids Handled	Solvent- and water-based, 2K and 3K paints, and adhesives

* Conversion fittings are available to adapt to this thread

Part Numbers For Optional Accessories

PN	Description
1605322	Kit, Wheel, Optimix
1605327	Controller, Remote, Optimix, ATEX
1605339	Adapter, 1/2" – 20 JIC x 3/8" BSPP, SS
1605340	Adapter, 1/2" – 20 JIC x 3/8" NPS, SS
1605363	Adapter, 1/4" BSPT x 1/4" NPT, Brass

Please consult with your Nordson representative to configure an OptiMix 1 system that suits your needs.

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