

plas@mec



**Series
TRR**

**CONTAINER
MIXER**



APPLICATIONS

- Cold mixing of polymers in powder or granular form with pigments, fillers and additives.
- Concentrated master-batches.
- Compounds of all kinds (PE, PP, PS, PA, TPE, PVC, ABS, EPS...).
- Powder coatings.
- Pre-mixing of all kinds of powders.



CONTAINER MIXER “TRR”

The “TRR” series of mixers is the ideal alternative to traditional turbomixers when production conditions require high levels of flexibility and involve a wide range of different products to be mixed with the same machine. Thanks to the special construction of the machine, which is divided into two distinct and separate parts (the mixing head and the container hopper), cleaning times are reduced to a minimum, as is the risk of contamination when changing from one type of product to another. Storage and transport of the mixtures is also facilitated by direct use of the same containers, which can easily be inserted into a batching system.

TYPE	Total capacity L	Useful capacity L	Weight per batch Kg ⁽¹⁾	Main motors KW ⁽²⁾	Tilting motor KW
TRR 150	150	120	60	11	0,55
TRR 300	300	240	120	18	1,1
TRR 500	500	400	200	22	1,5
TRR 700	700	560	280	37	2,2
TRR 1000	1000	800	400	45	2,2
TRR 1500	1500	1200	600	75	4
TRR 2000	2000	1600	800	90	4

N.B. The data in the table are given merely by way of example and will have to be confirmed by PLAS MEC.

(1) The weights per batch hold for mixer with an apparent density of 0.5 Kg/l.

(2) On request it is possible to apply twin-speed motors or motors with a frequency converter to control the speed of the mixer tool.



Different rotation speeds for the bottom blade (slow) and the top blade (fast). Speed ratio 1:8.

ADVANTAGES

Optimum dispersion in applications involving a high percentage of pigments.



Dual motor with infinite speed ratio.

ADVANTAGES

Ability to mix the top phase and the bottom phase in counter-rotation, allowing a wide range of applications and maximum working flexibility.



Mixing container air exhaust system.

ADVANTAGES

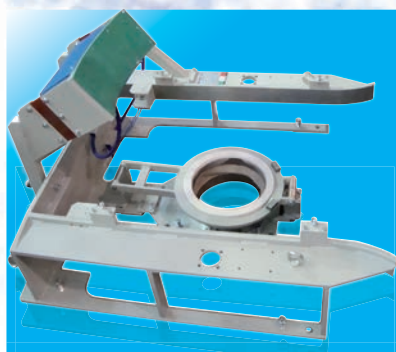
Ability to bleed off pressure from inside the mixing chamber when an air or nitrogen shaft seal is used, connecting to an optional suction filter or central suction system. No cross contamination.



Nitrogen insufflation + Oxygen %O₂ atmosphere control system.

ADVANTAGES

Neutralization of mixing chamber when using potentially explosive materials.



Mixing container connection and unloading station.

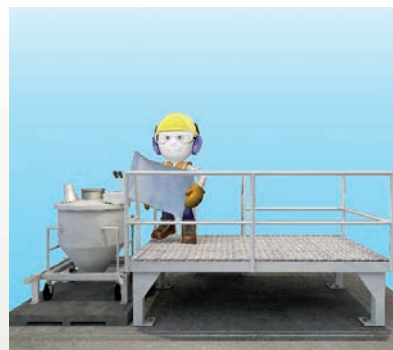
ADVANTAGES

Allows unloading with an automatic powder-sealed and safe container emptying procedure.

Mixing container connection and loading station.

ADVANTAGES

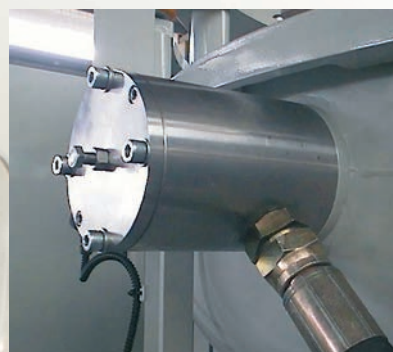
Allows loading of the container and optional weighing of the various components to be mixed.



Liquid injection and relevant dosing system.

ADVANTAGES

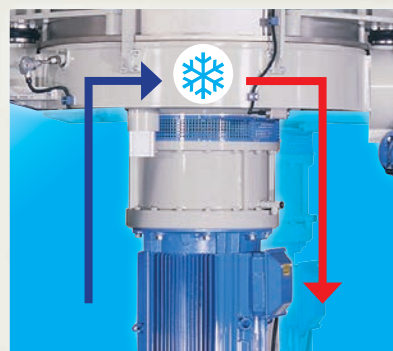
A special injector allows ideal absorption of liquid components into the mix.



Mixing head with double sleeve.

ADVANTAGES

Allows cooling of the material to prevent it from reaching danger levels.



Heat exchanger for circulation of cooling H₂O.

ADVANTAGES

Keeps the H₂O supply circuit separate from the circulation, preventing build-up of materials. Recommended for installation in pressurized closed ring systems.



Produced to ATEX standards.

ADVANTAGES

Mechanical and electrical components suitable to operate in environments where there is a trigger risk.





Container washing station using pressurized hot/cold water.

ADVANTAGES

Optimum cleaning and drying of the container.



Bottom blade lifting system.

ADVANTAGES

Allows better cleaning of the bottom of the bowl and the bottom blade, particularly indicated when various pigments are to be used.



Use existing containers.

ADVANTAGES

Machine designed to use existing containers manufactured by use, and to specific customer requirements.



Special mixing containers for small batches.

ADVANTAGES

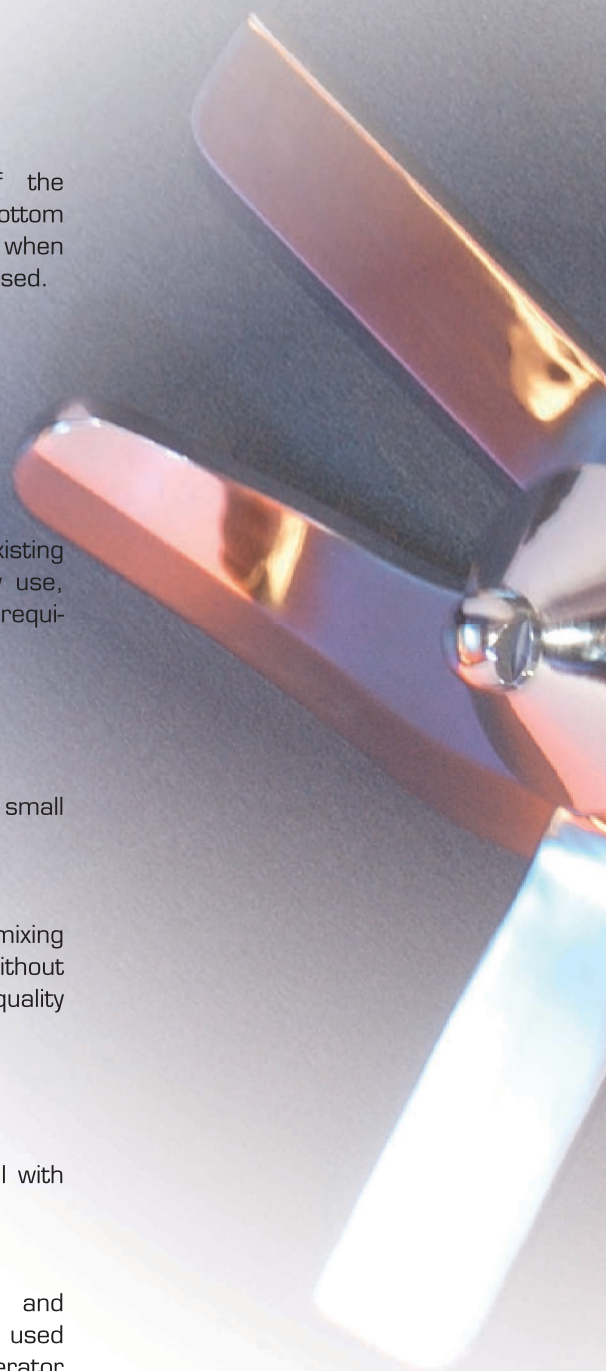
Special design to allow mixing of small batches (-50%) without compromising the mixing quality and increasing flexibility.



Button pad on electric panel with pre-set mixing programs.

ADVANTAGES

Different mixing programs and cycles (recipes) can be used without having to use the operator control panel.



Series
TRR

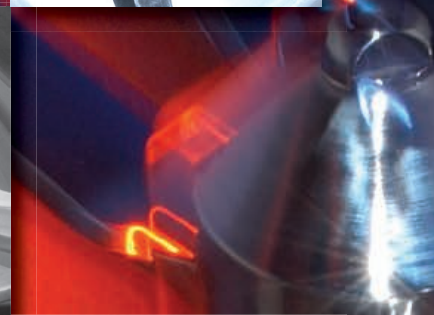
MIXING TOOLS

plasmec

A perfect mix can only be achieved by using extremely high quality tools. Each manufacturing sector has different characteristics and needs, which is why plasmec provides a wide range of mixing tools, with over 50 different types.

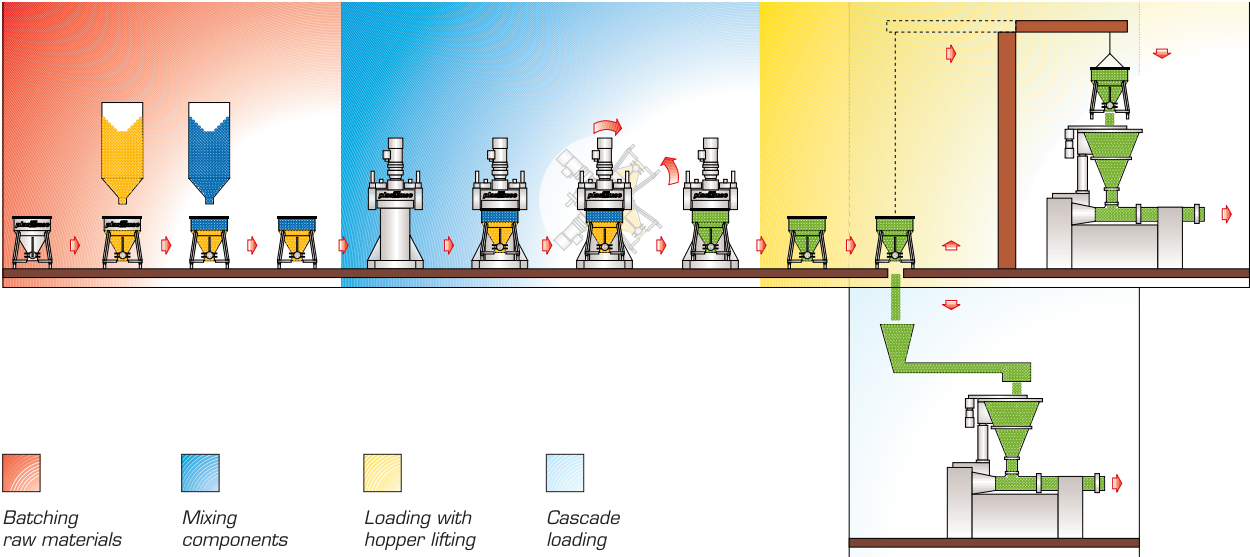
CHARACTERISTICS OF OUR TOOLS

- Many different configurations and profiles
- High quality mirror finish
- Can be made from various types of stainless steel

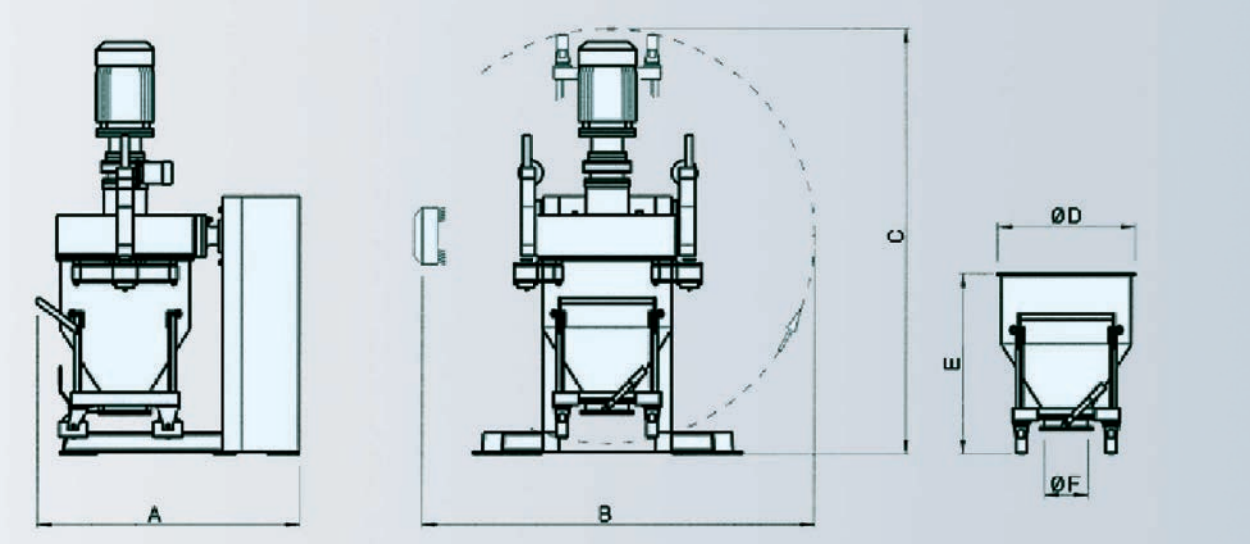


PLAS MEC: MIXING PROCESS,

TRANSFER AND LOADING



“TRR” MIXER OVERALL DIMENSION



TYPE	A	B	C	D	E	F
TRR 150	1620	1900	2200	650	950	150
TRR 300	1900	2330	2680	800	1170	200
TRR 500	2050	3120	3445	950	1450	200
TRR 700	2550	3100	3600	1000	1550	250
TRR 1000	2600	3350	3820	1200	1700	250
TRR 1500	3450	3560	4250	1400	1800	250
TRR 2000	3750	3940	4550	1500	1920	300

N.B. The data in the table are given merely by way of example and will have to be confirmed by PLAS MEC.





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ELECTRICAL EQUIPMENT

PLAS MEC CHOOSES **SIEMENS** TO GUARANTEE
STATE-OF-THE-ART STANDARDS OF QUALITY AND PERFORMANCE!

In an ongoing attempt to provide our customers with solutions to fit their specific sector or technological needs, the Siemens panels mounted on our machines provide additional advantages for our mixing systems.

MULTI PANEL SIMATIC TP 177B • TRR WITH TP177B –TOUCH



OVERVIEW:

Touch Panel with ample service functions and supervision of machines and systems.

Total graphic display with analogue touch-screen
5.7" STN, Bluemode.

The contents of the diagnostics buffer is retained even when the Panel is off, without battery.

ADVANTAGES:

- Can be used all over the world:
Can be planned in 32 languages
(incl. Asian and Cyrillic character sets)
Ability to switch between the various languages online directly on the appliance.
- Standard interfaces for greater flexibility:
External Multi Media Cart, can be used for recipe data sets and to save the design and system data.
- Integrated USB port for connection e.g. to standard printers.

TECHNICAL DATA:

SIMATIC TP177	BLUEMODE
DISPLAY	
Display type	STN, 4 levels of blue
Size	5,7" (120 mm x 90 mm)
Resolution (W x H in pixel)	320 x 240
Backlighting MTBF (at 25°C)	Approx. 50 000h
OPERATING MODE	
Command elements	Touch-screen
Touch-screen	Analogue, resistive
Number/character input	YES/YES
Connection for mouse/keyboard	USB/USB
PROTECTION LEVEL	
Front side	IP65, NEMA 4x, NEMA 12 (as installed)

CHARACTERISTICS:

- Plant status display*
- Commands for manual – automatic cycle operation*
- Machine cycle data input*
- Preset input of 5 cycle recipes*
- Recipes with 5 program steps (speed, time and temperature, if required)*
- Maintenance*
- Alarms and indicators*
- Plc i/o status display*
- Saving of data recipes for backup on memory card sd (optional)*
- Password management*
- Ability to manage several languages on line*
- Ability to connect external usb printer*
- Ability to use electric panel in atex zone 22*

CERTIFICATES AND STANDARDS

SIMATIC TP177	BLUEMODE
CERTIFICATES: CE, GL, ABS, BV, DNV, LRS, FM Class I Div. 2, UL, CSA, cULus, EX-Zone 2 (in prep.), C-TICK, NEMA 4x, NEMA 12.	
INTERFACES	1 x RS422, 1 x RS485 (max. 12 Mbit/s)
	USB 1 x USB
FUNCTIONS UNDER WinCC flexible	
<i>Recipes</i>	
Recipes	100
Data records per recipe	200
Items per data record	200
<i>Number of process pages</i>	
Process pages	500
Variables	1000
<i>Security</i>	
Number of user groups	50
Exportable passwords	YES
Number of users	32
Multi Media Card	YES
SIZE	
Case front (W x H) in mm	212 x 156

MULTI PANEL SIMATIC MP 277 • TRR WITH MP277 –TOUCH OR KEYBOARD



OVERVIEW:

The Multi Panels (MP) are used – like Operator Panels – for on-site control and monitoring of machines.

The SIMATIC MP277 combine, on a Windows CE base, the robustness of an Operator Panel and the flexibility of a PC.

TFT total graphic 7.5" or 10.4" Color Display (64k colors).

MP 277 8" and MP 277 10" Touch:
Touch-screen (analogue/resistive).

MP 277 8 Key 38 system keys, 26 freely settable and definable function keys (28 with LED).

ADVANTAGES:

- Can be used all over the world: Can be planned in 32 languages (incl. Asian and Cyrillic character sets)
Up to 16 languages switchable online.

- Standard hardware and software interfaces for greater flexibility: Slot for SD/MultiMedia Card for memory expansions, backup/restore or additional interfaces. Ethernet (TCP/IP) for central data and project management: possible connection to control SIMATIC S7. Windows standard (CSV) memory formats for archives and recipes allow further processing with standard tools (e. g. MX Excel).

TECHNICAL DATA

SIMATIC MP 277	8" TFT COLOR DISPLAY, TOUCH-SCREEN	10" TFT COLOR DISPLAY, TOUCH-SCREEN	10" TFT COLOR DISPLAY, KEYBOARD
DISPLAY			
Display type	TFT, 65 536colors	TFT, 65 536colors	TFT, 65 536 colors
Size	7,5"	10,4"	10,4"
Resolution (W x H in pixel)	640 x 480	640 x 480	640 x 480
OPERATING MODE			
Command elements	Touch-screen	Touch-screen	Membrane keyboard
Programmable function keys			36, 26 with LEDs
System keys			36
Touch-screen	Analogue, resistive	Analogue, resistive	
Number/character input	USB/USB/USB	USB/USB/USB	USB/USB/USB
PROTECTION LEVEL			
Front side	IP65, NEMA 4x (as installed)	IP65, NEMA 4x (as installed)	IP65, NEMA 4x (as installed)

CHARACTERISTICS:

- Graphic plant status display
- Commands for manual – automatic cycle operation
- Machine cycle data input
- Preset input of up to 10 cycle recipes
- Recipes with 10 program steps (speed, time and temperature, if required)
- Maintenance
- Alarms and indicators
- Speed and temperature absorption graphs
- Plc i/o status display
- Saving of data recipes for backup on memory card sd (optional)
- Export of recipes and/of graphs in csv format to usb device or external pc via ethernet connection
- Password management
- Ability to manage several languages online
- Ability to connect external usb printer
- Ability to use electric panel in atex zone 22

CERTIFICATES AND STANDARDS

SIMATIC MP 277	8" TFT COLOR DISPLAY, TOUCH-SCREEN	10" TFT COLOR DISPLAY, TOUCH-SCREEN	10" TFT COLOR DISPLAY, KEYBOARD
CERTIFICATES: CE, FM Class I Div. 2, UL, cULus, EX-Zone 22, NEMA 4 (Enclosure Type 4X, Type 12)			
Peripherals	Printer, bar code reader	Printer, bar code reader	Printer, bar codereader
Interfaces	1 x RS422, 1 x RS485 (max. 12 Mbit/s)	1 x RS422, 1 x RS485 (max. 12 Mbit/s)	1 x RS422, 1 x RS485 (max. 12 Mbit/s)
USB	2 x	2 x	2 x
Ethernet	1 x	1 x	1 x
Multi Media Card-Slot	1 x	1 x	1 x
Operating system	Windows CE	Windows CE	Windows CE
Recipes	300	300	300
Data records per recipe	500	500	500
Items per data record	1000	1000	1000
Recipes memory	64 kbyte integrated Flash, expandable	64 kbyte integrated Flash, expandable	64 kbyte integrated Flash, expandable
Processpages	500	500	500
Variables	2048	2048	2048
Security			
Number of user groups	50	50	50
Exportable passwords	YES	YES	YES
Number of users	32	32	32

THE TRR CONTAINER MIXER
IS THE IDEAL SOLUTION FOR
FLEXIBILITY REGARDING COLOUR
AND FORMULATION CHANGES.



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