



SAP S/4HANA Repetitive Manufacturing Simplified



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info@ambikeya.com || www.ambikeya.com || +917746805189

What is Repetitive Manufacturing in SAP?

SAP supports a wide range of industrial processes, including SAP Repetitive Manufacturing (REM). This manufacturing technique is particularly suited to certain sectors. When selecting a manufacturing process, factors such as production rates, consumer needs, and product complexity play a crucial role.

Repetitive Manufacturing Overview

Repetitive manufacturing is a production method primarily based on time, as opposed to order or lot quantities. In this method, the same product is produced for a specific duration, and changes in production are infrequent. Interim items are not stored, as products are processed at a continuous rate. Back-flushing is used to confirm orders, and settlement is handled by the product cost collector. Shop floor activities can be executed with planned orders.

Types of Manufacturing Processes

SAP encompasses several manufacturing processes, with the most commonly used ones being:

- Discrete Manufacturing
- Repetitive Manufacturing
- Process Manufacturing
- Repetitive Manufacturing in Practice

Repetitive Manufacturing in Practice

Repetitive manufacturing is particularly applicable to industries where production is quantity-based rather than order-based. This approach is time-based, often spanning months or years. Industries such as Electronics and Automobiles often utilize SAP Repetitive Manufacturing.

For example, consider a product like a smartphone. Once the design is finalized, it is mass-produced, not based on specific orders. The objective is to produce a certain quantity within a defined time frame, which may extend beyond the launch of a new model. Hence, manufacturing is determined by quantity and time.

Repetitive manufacturing is characterized by a predictable pattern of activities, resulting in straightforward routing with limited route options. To further illustrate the differences, here's a comparison between discrete and repetitive production.

SAP Repetitive Manufacturing Processes

SAP supports both Make-To-Order (MTO) and Make-To-Stock (MTS) repetitive manufacturing processes:

- MTS: This process doesn't reference a specific order during production. Instead, planned independent needs drive demand within the system. When sales orders are received, they are fulfilled from warehouse stock.
- MTO: Known as sales order-based manufacturing, each production order is associated with a sales order. Stocks are updated in real-time to align with the sales order.

SAP Repetitive Manufacturing Profile

An essential element of a successful REM setup in SAP is the Repetitive Manufacturing (REM) profile. This profile defines how REM is executed within the system. You can create or modify REM profiles using transaction code OSPT or follow the SAP configuration method as outlined below. Additionally, transaction code OSP2 is used to modify existing REM profiles.

IMG -> Logistics -> Production -> Repetitive Manufacturing -> Control -> Create repetitive manufacturing profile using assistant.

The REM profile contains the below information:

1. Types of REM production: The first step in creating a profile is to choose a production type. We must decide whether to adopt the MTO or MTS manufacturing approach.
2. During inventory management, reporting points are used to record consumption data such as work in progress and stock management. This is similar to a discrete manufacturing milestone activity.
3. Automatic goods movement: Determines if a backflush or goods movement is required during reporting point confirmation.
4. Backflush activities posting: Determines whether backflush activities must be recorded to a product cost controller.
5. Plan orders are being firmed up: This option ensures that the MRP run does not alter the plan order.
6. Automatic stock determination: The system will offer available stocks for consumption if the automatic stock determination mechanism is defined.
7. Batch determination method: If the material is batch-managed, a batch determination technique can be defined and assigned to the REM profile. The system will then make batch recommendations based on the stated criteria.
8. Posting movement types: We may describe the movement types that will be utilized for various postings. The default movement kinds will be suggested by the system. 261 is the movement type for products issue, for example. We can keep track of all the customizable movement kinds in the REM profile if there are a lot of them.

SAP REM full cycle scenario with basic step

1. Company manufactures product in large numbers and production is quantity-based and period based not order-based.
2. Repetitive manufacturing is mainly used for production scenarios with high product stability, high repetition rates, and low product complexity.
3. In master data **production versions** and **product cost collector** is must where this is not mandatory in discrete manufacturing.
4. Product will not change frequently.
5. Confirmation is from Back flushing.
6. Planned orders are sufficient to carry out shop floor activity.
7. In REM there is no process to convert planned order to production order.

SAP REM Full Cycle scenario

1. Material Master- MM01/MM02
2. BOM- CS01/CS02
3. WC- CR01/CR02
4. Rate Routing- CA21/CA22
5. Production Version- C223
6. REM Profile- OSP2
7. PIR Creation- MD61/62
8. MRP RUN- MD02/MD41
9. Product Cost Collector- KKF6N
10. REM Confirmation- MFBF

Create the REM Profile: By using T-code OSP2

SAP Repetitive Manufacturing Profile ASSISTANT

More ▾ Exit

Repetitive Manufacturing Profile Assistant

Welcome to the Repetitive Manufacturing Profile ASSISTANT.
The assistant takes you through the creation of a repetitive manufacturing profile step by step. The question catalog is flexible depending on your answers.

Choose the scenario for which you want to use the profile.
The entry of a template is optional. If you use one, the following answers are correspondingly predefined.

☒ Make-to-stock - REM
☐ Make-to-order - REM

Recommendations

REM profile template: 

Meaning

Cancel Back Next

SAP Repetitive Manufacturing Profile ASSISTANT

More ▾ Exit

Repetitive Manufacturing Profile Assistant

Movement Types for Make-to-Stock Scenario

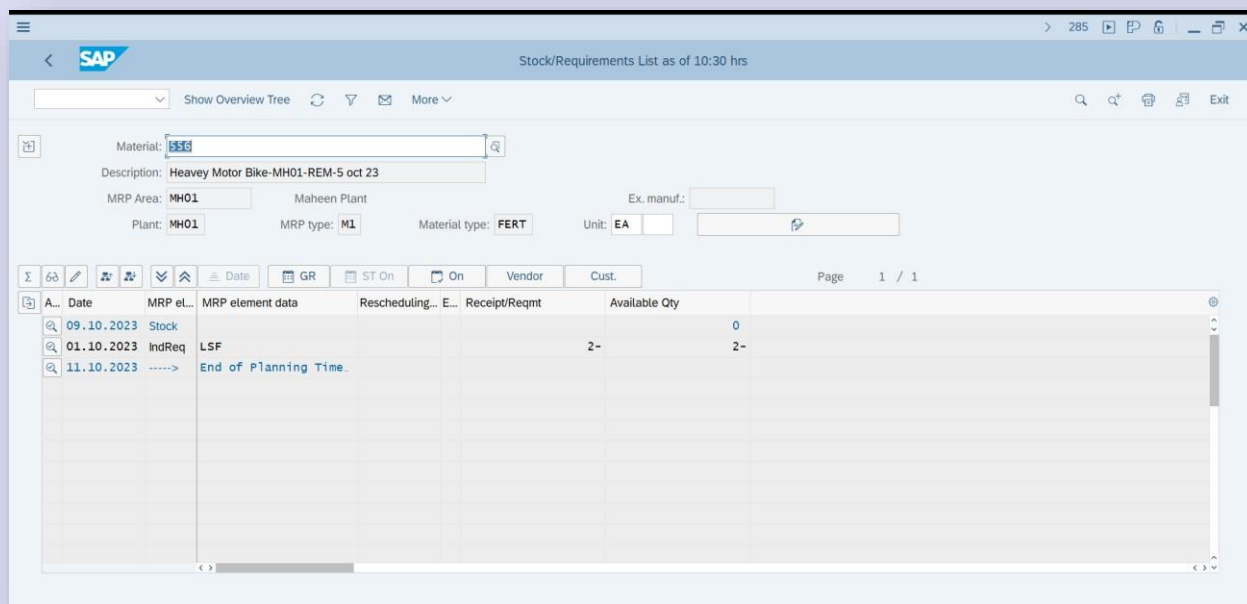
If you want to use your own movement types, adjust the default values here.

Goods issue: 261	Goods issue/reversal: 262	Recommendations
Goods receipt: 131	Goods receipt/reversal: 132	
Scrap: 551	Scrap/reversal: 552	Meaning
By-product: 531	By-product/reversal: 532	

Cancel Back Next

- Create the finished material with Repetitive mfg. indicator and REM profile maintained in material master see view MRP 4 views, (MM02)

- In below pic of the stock requirement list after generating the demand without MRP RUN. (T-codes: MD04)

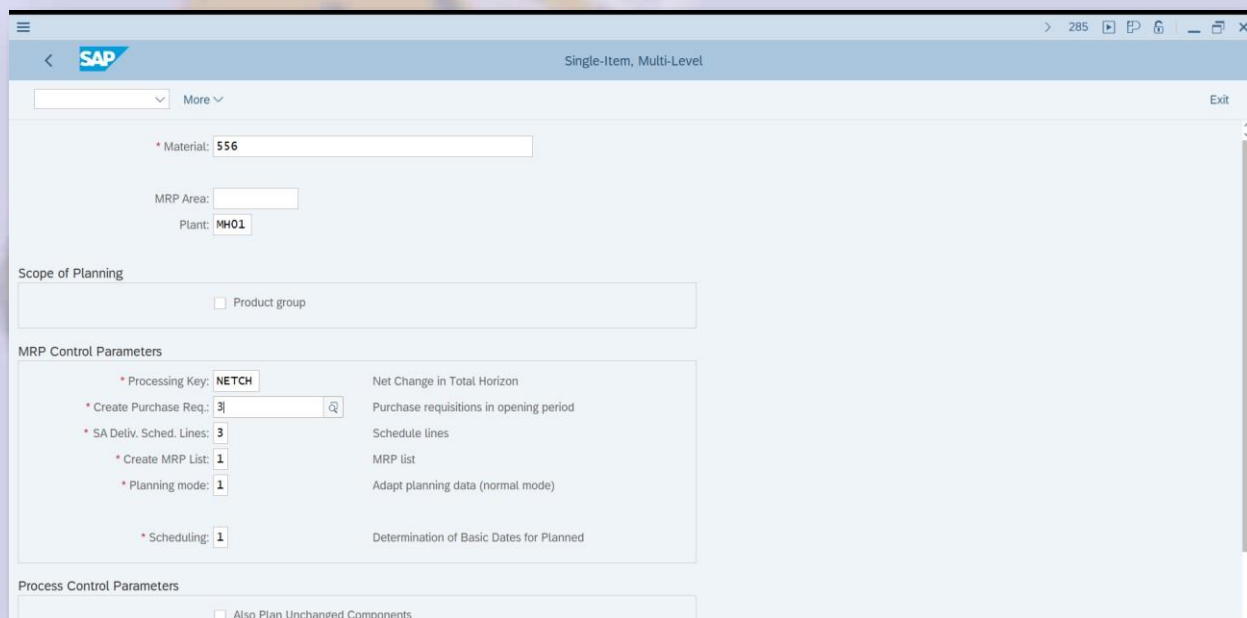


Stock/Requirements List as of 10:30 hrs

Material: 556
Description: Heavy Motor Bike-MH01-REM-5 oct 23
MRP Area: MH01 Maheen Plant
Plant: MH01 MRP type: M1 Material type: FERT Unit: EA

A...	Date	MRP el...	MRP element data	Rescheduling...	E...	Receipt/Reqmt	Available Qty
	09.10.2023	Stock					0
	01.10.2023	IndReq	LSF			2-	2-
	11.10.2023	----->	End of Planning Time				

- After MRP RUN with the help of MD41 for finished material.



Single-Item, Multi-Level

* Material: 556

MRP Area:
Plant: MH01

Scope of Planning
☐ Product group

MRP Control Parameters

* Processing Key: NETCH	Net Change in Total Horizon
* Create Purchase Req: 3	Purchase requisitions in opening period
* SA Deliv. Sched. Lines: 3	Schedule lines
* Create MRP List: 1	MRP list
* Planning mode: 1	Adapt planning data (normal mode)
* Scheduling: 1	Determination of Basic Dates for Planned

Process Control Parameters
☐ Also Plan Unchanged Components

Statistics	
Materials planned	1
Materials with New Exceptions	1
Materials with Termination MRP List	
Parameters	
MRP Area	MH01
Plant	MH01
Processing Key	NETCH
Create Purchase Requisition	3
SA Schedule Line	3
Create MRP List	1
Planning Mode	1
Scheduling	1
Database Statistics	
Planned orders changed	1

- Preliminary costing for the product cost collector.

Using T-code: **KKF6N** for create Preliminary cost estimation in REM.

Selection	
* Material:	556 to:
* Plant:	MH01 Maheen Plant

Data	Header	Production Process
Profit Center:	BUHQ1	
Business Area:		
Planned Costs Costin:	PREM	Prel. Cstg Cost Collector
Actual Costs Costing:	PPP3	Product Cost Collector
Costing Sheet:	PP-PC1	PP-PC Standard
Overhead key:		
Results analysis key:	000003	WIP Calculation at Target Costs
Variance Key:		

1: Product cost collectors selected

SAP Display Product Cost Collector

Selection

* Material: **556** to:

* Plant: **MH01** Maheen Plant

Data Header Production Process

Description: **MHIN prod version**

Company Code: **1000** IDES Best Run

Material: **556**

Heavy Motor Bike-MH01-

Order Type: **RM01** Product cost collector

Order: **700060**

External order no.:

Functional Area:

Created by: **BEHRAM** BEHRAM

Created on: **05.10.2023**

Last Changed By:

SAP Display Product Cost Collector

Selection

* Material: **556** to:

* Plant: **MH01** Maheen Plant

Data Header Production Process

PVersion:MHIN

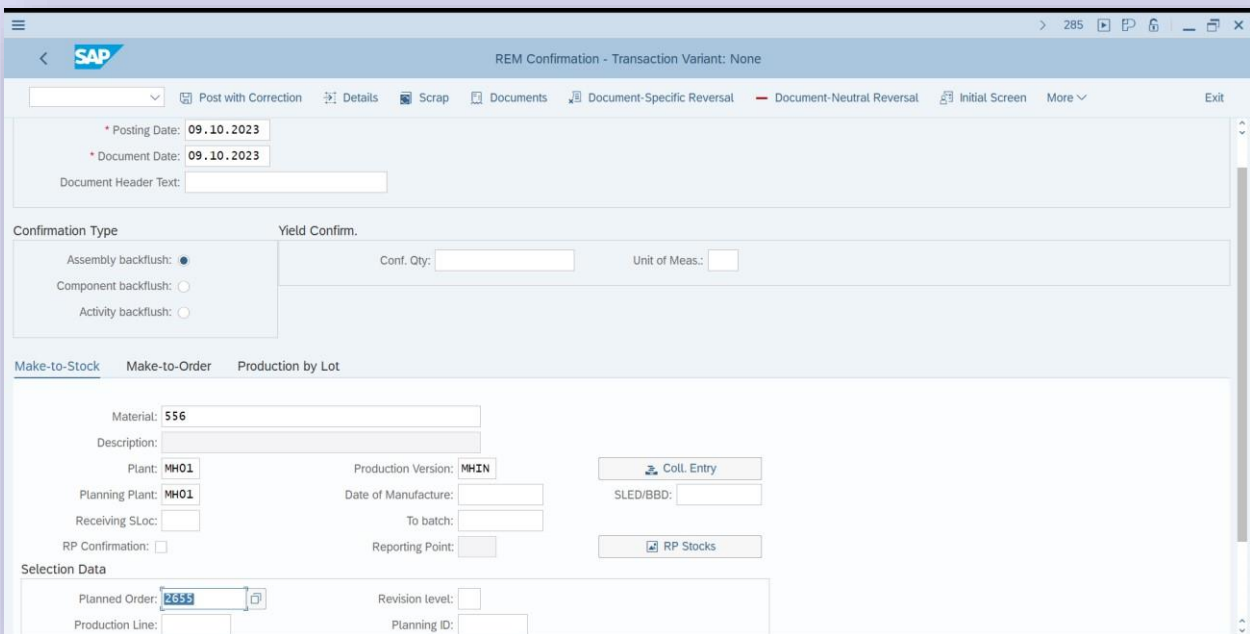
Production Process No: **100305619**

Planning Plant: **MH01** Maheen Plant

Production Version: **MHIN** MHIN prod version

Costing Lot Size: **0.000** EA

- REM Confirmation through planned order or finished material using **MFBB**, here we selected the planned order.



REM Confirmation - Transaction Variant: None

Post with Correction Details Scrap Documents Document-Specific Reversal Document-Neutral Reversal Initial Screen More Exit

* Posting Date: 09.10.2023
* Document Date: 09.10.2023
Document Header Text:

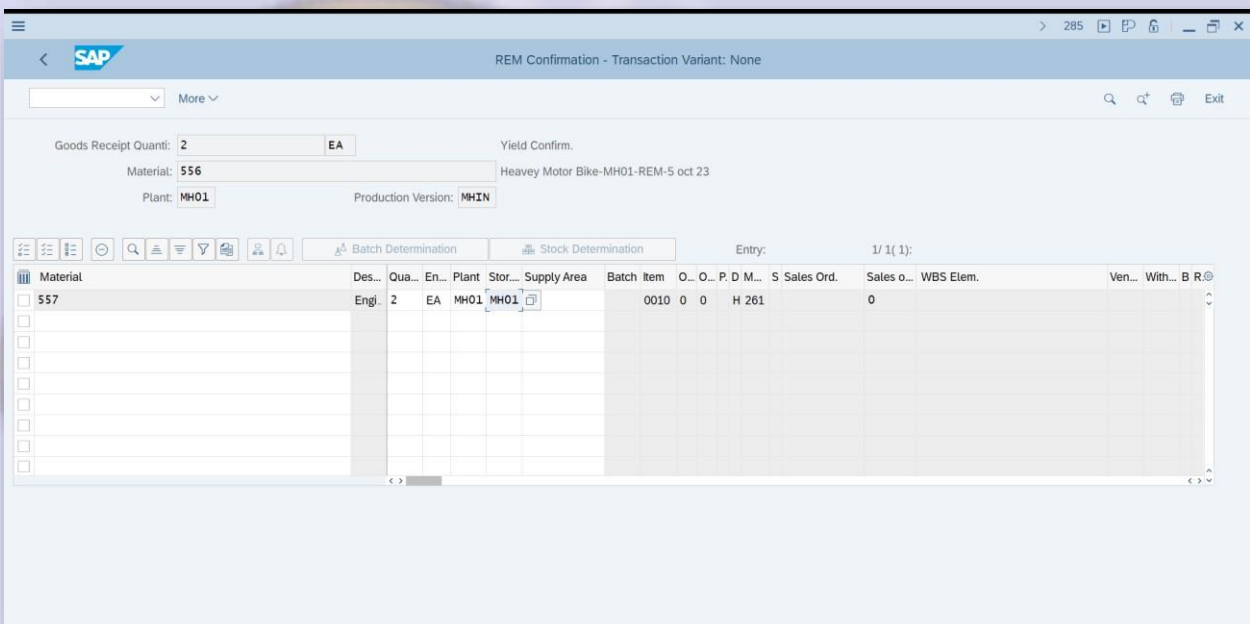
Confirmation Type Yield Confirm.
Assembly backflush: ☒
Component backflush: ☐
Activity backflush: ☐
Conf. Qty: Unit of Meas.:

Make-to-Stock Make-to-Order Production by Lot

Material: 556
Description:
Plant: MH01 Production Version: MHIN Coll. Entry
Planning Plant: MH01 Date of Manufacture: SLED/BBD:
Receiving SLoc: To batch:
RP Confirmation: Reporting Point: RP Stocks

Selection Data
Planned Order: 2655 Revision level:
Production Line: Planning ID:

Post with correction in tool bar of REM confirmation.



REM Confirmation - Transaction Variant: None

Goods Receipt Quanti: 2 EA Yield Confirm.
Material: 556 Heavy Motor Bike-MH01-REM-5 oct 23
Plant: MH01 Production Version: MHIN

Batch Determination Stock Determination Entry: 1/ 1(1):

Material	Des...	Qua...	En...	Plant	Stor...	Supply Area	Batch	Item	O...	O...	P. D	M...	S	Sales Ord.	Sales o...	WBS Elem.	Ven...	With...	B R
557	Engl	2	EA	MH01	MH01		0010	0	0	H	261				0				

GR and GI with document 4900015627 posted

Display document log information

SAP Display Document Log Information

Doc. Log Material	Plnt Ver.	Created On Time	P Document	Item
User Name	PrTp	RPnt	Pl.Plant	Pstng Date GI Ac Pos St
Doc. Log Item	MatDoc.No.	Act.Postin	Counter	RP Documen Doc.GMvtEr
3 556	MH01 MHIN	05.10.2023 22:41:31	01	
BEHRAM	B	MH01	04.11.2022	3 EA
3 1 4900015621				
1 556	MH01 MHIN	05.10.2023 22:19:33	01	
BEHRAM	B	MH01	03.11.2022	3 EA
1 1 4900015620				
5 556	MH01 MHIN	09.10.2023 10:38:40	01	
BEHRAM	B	MH01	01.11.2022	2 EA
5 1 4900015627				

See Material document where GR & GI done automatically

SAP Display Material Document 4900015621 - BEHRAM

Display Material Document 4900015621 2022

General Doc. info

Document Date: 05.10.2023 Delivery Note:

Posting Date: 04.11.2022 Doc.Header Text:

☐ Individual Slip

Line	Material	Mat. Short Text	W. Qty in UnE	EUn	SLoc	Order	Profit Center
1	556	Heavy Motor Bike-MH01-REM-5 oct 23	3	EA	Finish Goods SL	700060	BUHQ1
2	557	Engine Motor Bike-EM-MH01-5 oct 23	3	EA	Raw Mat SL	700060	BUHQ1

Material Quantity Where Order Data Account Assignment

G/L account: 895000

MVT 131 for Goods received

MVT 261 for Goods Issuance

SAP Display Material Document 4900015621 - BEHRAM

Display Material Document 4900015621 2022

General Doc. info

Document Date: 05.10.2023 Delivery Note:
 Posting Date: 04.11.2022 Doc. Header Text:
☐ Individual Slip

Line	SLoc	Order	Profit Center	G/L Account	Stock Segment	Batch	Valuation Type	Movement type	D Stock Type	Plant	JIT Call Num...	Item	S
1	Finish Goods SL	700060	BUHQ1	895000				131	+ Unrestricted	Maheen Plant		0	
2	Raw Mat SL	700060	BUHQ1	400000				261	- Unrestricted	Maheen Plant		0	

G/L account: 895000

Go to T code MD04 & see stock level

SAP Stock/Requirements List as of 10:46 hrs

Material: 5553 Description: Heavy Motor Bike-MH01-REM-5 oct 23

MRP Area: MH01 Maheen Plant Ex. manuf.:
 Plant: MH01 MRP type: M1 Material type: FERT Unit: EA

Page 1 / 1

A...	Date	MRP el...	MRP element data	Rescheduling...	E...	Receipt/Reqmt	Available Qty
	09.10.2023	Stock				2	2
	01.10.2023	IndReq	LSF			2-	0
	11.10.2023	----->	End of Planning Time				

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