

Metso

Nordwheeler™

Portable crushing and screening plants





When time, flexibility, and capacity are of the essence

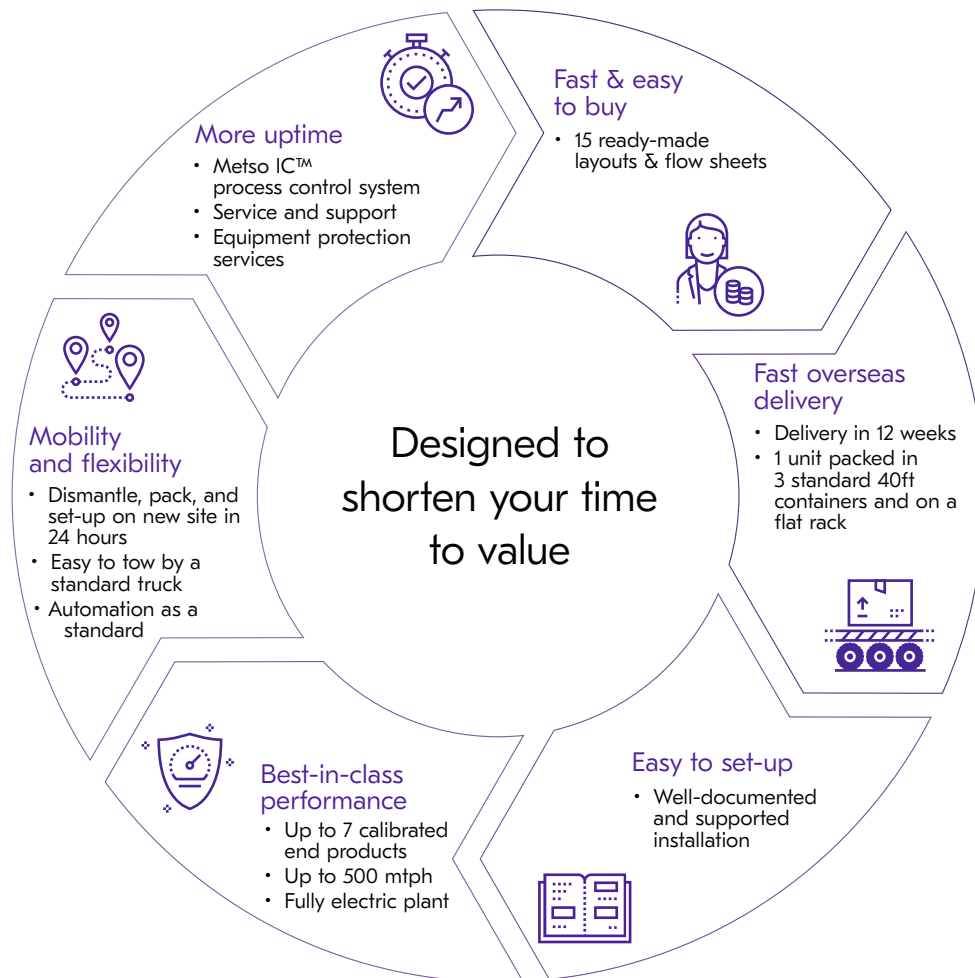
Today, work assignments in new locations can come at short notice, making it difficult for quarries to respond. The faster you can move from idea to action, the better your chances of success.

Civil engineering works, such as road, bridge, airport, and dam construction projects, usually last anything from a couple of months to a couple of years. Projects like these require high volumes of different types of high-precision aggregates. If the material can be sourced on-site or in the surrounding area, the construction company can realize significant economic and environmental benefits, meaning aggregate producers who can deliver on this demand gain a notable competitive edge.

We have designed our fully electric Metso Nordwheeler™ portable crushing and screening solutions especially for the needs of multisite quarries that have to move their equipment between sites periodically. They are easy to tow by a standard truck making it easier to get a crushing permit. With NW Rapid Portable Solutions, you can stop compromising between time, mobility and production capacity, and tap into new business opportunities.

Crush and go

NW Rapid portable solutions are designed to deliver a faster return on investment. We have optimized all the critical milestones in the solution's lifetime – starting from purchase and continuing all the way to after-sales support.



Choose your winning combination

The modular design of NW Rapid portable solutions allows you to choose the optimal equipment combination for your needs. Fifteen ready-made layouts with related flowsheets ensure that you can specify your optimal solution easily.

Modularity and automation also make NW Rapid extremely adaptive; you can add modules to existing worksites whenever your requirements change, or modify your equipment to serve different needs and sites.

1. Step							
How many different end products do you need to produce?	Number of end products	4	5	4	4	4	7

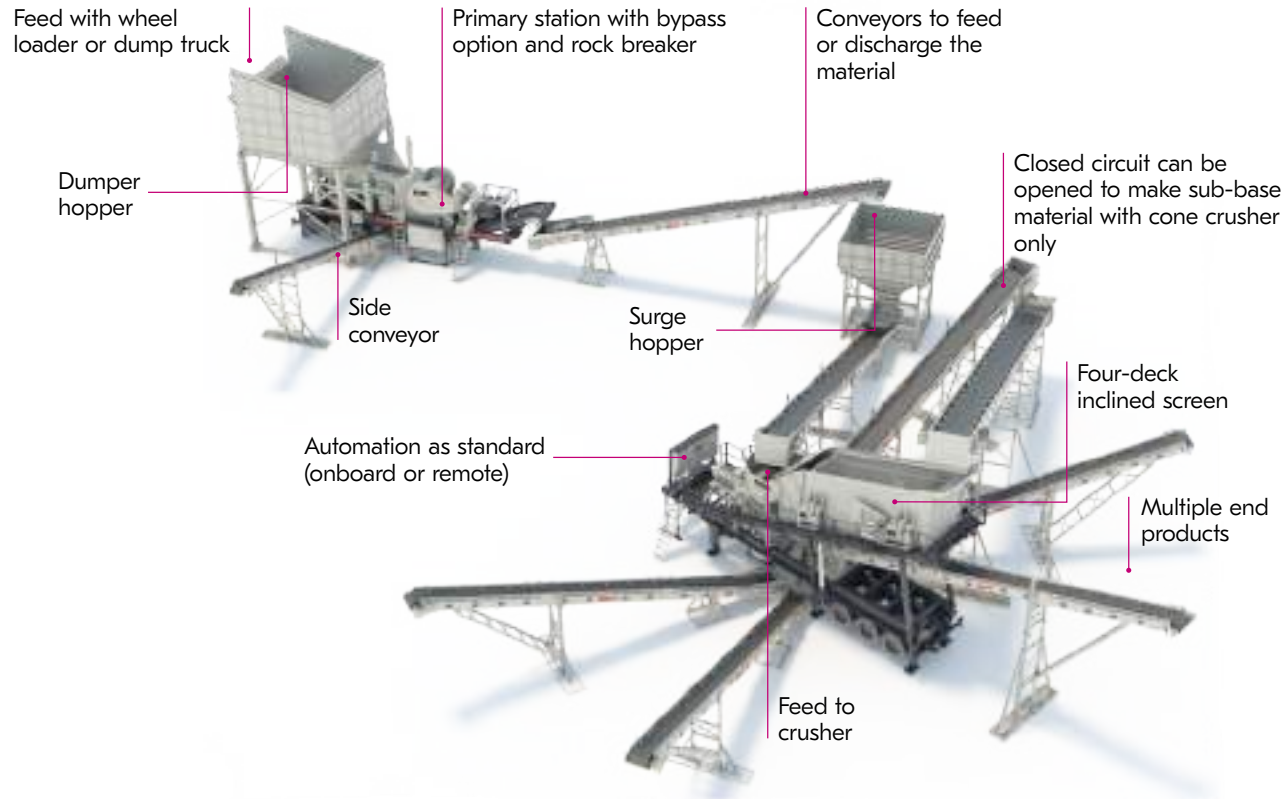
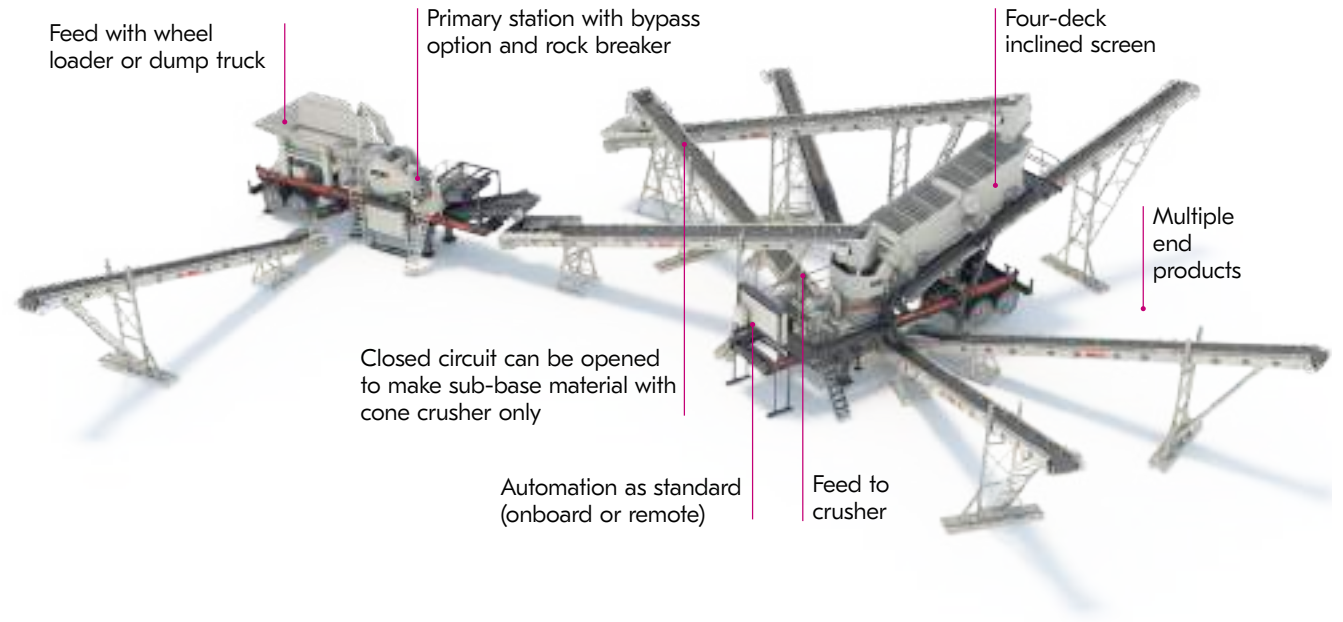
2. Step							
What is the planned production capacity (mtph)?	Plant capacity tph/stph	250 / 275	250 / 275	250 / 275	350 / 375	350 / 375	350 / 375
How consistent is your end product quality?	Product cubicity	...	...	...	..	..	...

3. Step							
How often do you need to move the plant?	Mobility	..	.	...	..	..	.
How important is production efficiency compared to site mobility?	Efficiency	...	...	..	...	...	...
What is the desired automation level (onboard or remote control)?	Automation	Onboard/Remote	Onboard/Remote	Onboard/Remote	Onboard/Remote	Onboard/Remote	Onboard/Remote

4. Your NW Rapid solution						
NW Rapid layout number	PT1	PT2	PT5-B	PT9-A	PT9-B	PT10
Configuration	NW106/ NW200HPS/ NW220GPS	NW106/ NW200HPS + NW7150S	NW106 + NW220GPS	NW120 + NW300HPS NW120 + NW300HPS/ NW330GPS	NW120 + NW300HPS/ NW330GPS	NW120 + NW330GPS/ NW300HPS + NW330GPS/ NW300HPS/ NW7150S
Process type	Feed to crusher	Feed to crusher	Feed to crusher	Feed to crusher	Feed to screen	Feed to crusher
Stages	2	3	2	2	2	3

NW Rapid Layout PT5-B

Simple layout with high mobility



NW Rapid Layout PT9-A

Close to stationary plant with high efficiency



Metso IC™ series process control for NW Rapid

Process control is a standard feature in Metso NW Rapid portable solutions. When process control system and equipment are provided by the same partner, you can be confident that you're getting the most out of your crushing process.

Metso IC series process control automates, monitors, and controls the crushing process, as well as optimizes it.

Unlike other process control systems, Metso IC offers a Remote User Interface (RUI) which is included with NW Rapid plants with no extra license costs. Instead of controlling the process from machines at the field, you can control the entire process with a PC from the control room. No additional programming or software is needed as the RUI is displayed on a browser.

This has a direct impact on the level of safety at your site and the well-being of your employees, as they don't have to go to the crushing station to start and stop it, or to change settings.

Process control allows you to adjust process without stopping it, leading to improved productivity and a reduction in unplanned downtime through preventive maintenance. Furthermore, the end product quality will be more consistent as the process is automatically controlled.

Metso IC series process control

A field-proven platform

Easy configuration to meet alternative worksite layouts

- Devices can be enabled or disabled from the automatic sequence
- Switch between closed circuit and open circuit

Choice of **automatic control options** (e.g. metal detector, magnetic separator, water sprays, etc.)

Automatic **start and stop sequence** with single button

Touch display with **data logs** and option to export data to USB



Automatic **crushing optimization** by feed-rate control, based on material level and crusher's load conditions

Automatic **CSS** (closed side setting) calibration and control

Automatic **lubrication and hydraulics** control for cooling, heating, and circulation

Crusher condition monitoring and early warning of any problems

Life Cycle Services and Metso Metrics

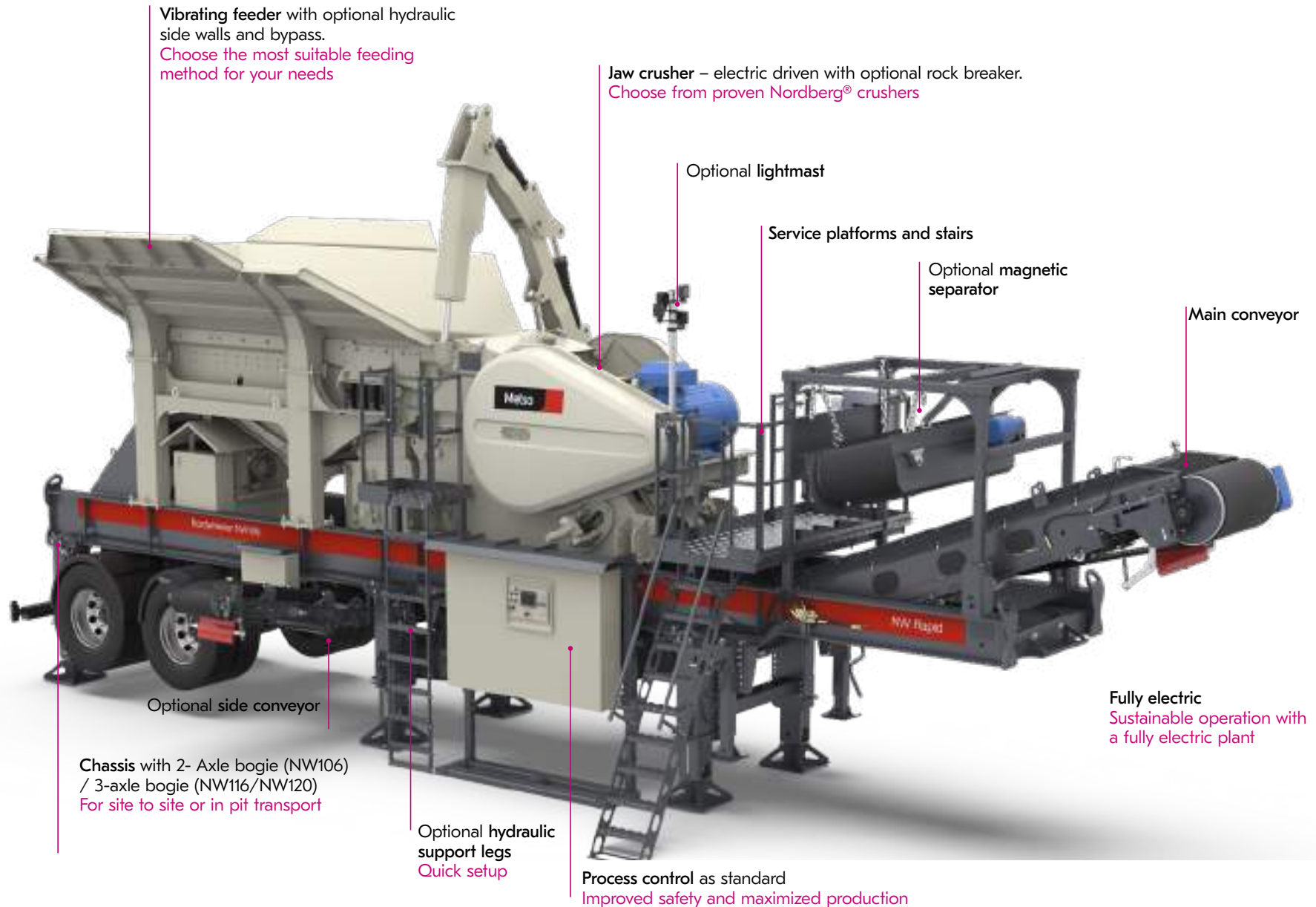
Together with Metso Life Cycle Services (LCS) we offer a digital solution to help further optimize your NW Rapid portable solutions. Through remote data monitoring, Metso Metrics Services gives you access to critical insights on your fleet's performance and maintenance needs, with optional access to expertise that will help you to analyze the data.



With Metso Metrics integration you get:

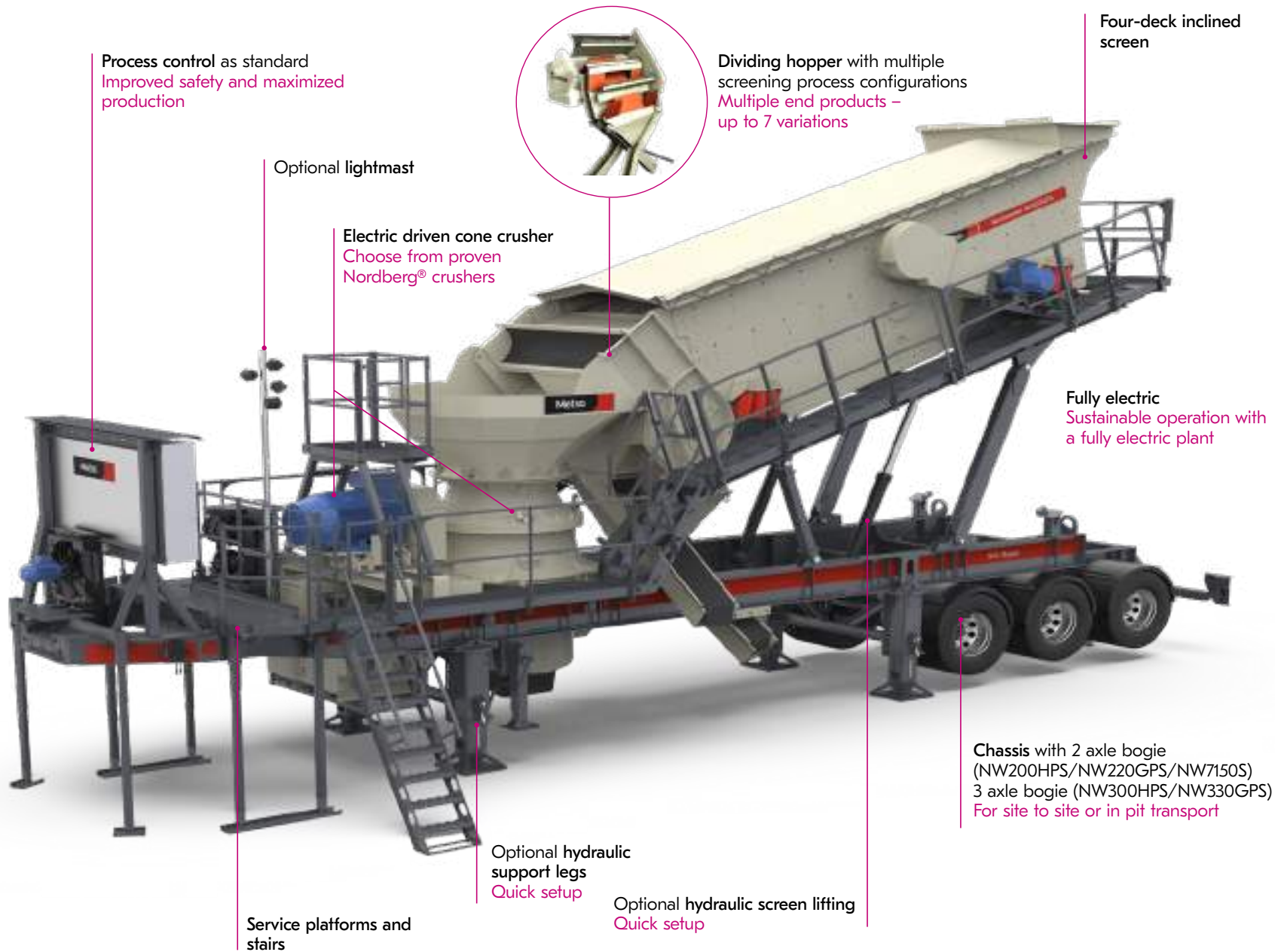
- 24/7 access to your data via computer or tablet, using a secured cloud-based platform
- visibility on your equipment's key operating data, including utilization rates, energy consumption, alarms, and parameter changes
- location data for your entire fleet in map format
- access to equipment specific maintenance plans and required part lists

Nordwheeler NW Rapid Primary crushing units



Nordwheeler NW Rapid

Secondary and tertiary units with integrated screen



Process control as standard
Improved safety and maximized production

Optional lightmast

Electric driven cone crusher
Choose from proven Nordberg® crushers



Dividing hopper with multiple screening process configurations
Multiple end products – up to 7 variations

Four-deck inclined screen

Fully electric
Sustainable operation with a fully electric plant

Chassis with 2 axle bogie (NW200HPS/NW220GPS/NW7150S)
3 axle bogie (NW300HPS/NW330GPS)
For site to site or in pit transport

Optional hydraulic support legs
Quick setup

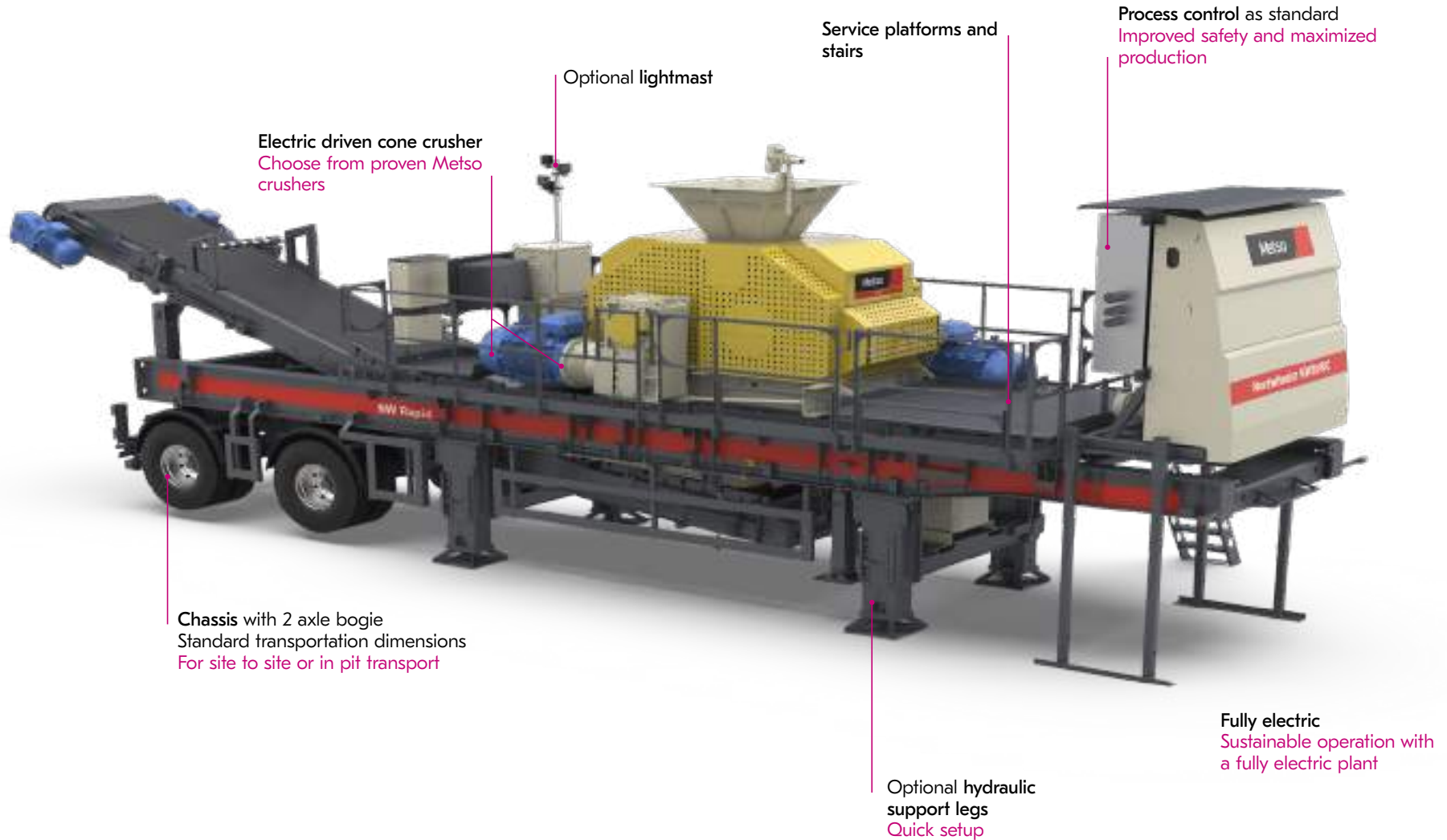
Optional hydraulic screen lifting
Quick setup

Service platforms and stairs

Nordwheeler NW Rapid

Secondary and tertiary units without integrated screen

Increased flexibility in plant layout



Equipment Protection Services for Nordwheeler

It's all about protecting your assets

As part of Metso's Life Cycle Services for aggregates, Equipment Protection Services (EPS) brings you added protection for your most valuable assets. The comprehensive EPS service package includes extended warranties, scheduled inspections with Metso certified technicians, and Metso Metrics.

EPS gives you peace of mind through improved cost predictability by anticipating and minimizing unexpected equipment failures. Along with extended warranties that cover repairs or replacements on designated key components, the package includes scheduled inspections and other services to keep your equipment running smoothly throughout its operational lifespan.



Extended warranty 10,000 h/5 yrs

Extended factory warranty up to 4,000h/2 yrs and extended coverage for specified major components on designated equipment up to 10,000h/ 5 years



Scheduled 1,000h inspections

Scheduled 1,000h inspections with recommendations from our certified inspectors/ technicians



Metrics

24/7 access to how your equipment is operating (production data, alarms, parameters and analytics). Maintenance planning made easy through access to equipment specific maintenance plans and required part lists.

Nordwheeler user experiences

Delivering timely results

With over thousands of plants delivered globally, Nordwheeler portable solutions have been helping quarries around the world succeed since 2015.



"With Metso's expert team by our side, our plants are always up and running, and Metso's services differentiates it from all the players in the market."

Chakresh Jain,
Managing Director, PNC Infratech Ltd



"Completing a project on time is the most crucial aspect for us, and Metso has indeed helped us in doing so by generating more production and saving costs."

Mr. Sandeep Reddy,
Managing Director, Gayatri Projects Ltd.



"We define NW Rapid plant as easy to fix and easy to move, which supports the biggest issue of mobility in the construction business. It is aptly suited for those who work on a project-to-project basis, since moving from one project to the next is very critical and involves cost, which can be minimized with the NW Rapid."

Udit Mittal,
Director, M/s M G Contractors Pvt Ltd.



"The NW Rapid™ plant is a perfect fit for our growing need for more eco-friendly, mobile, and economical solutions."

Udit Mittal, Director,
M/s M G Contractors Pvt
Ltd.

Key technical specifications

PRIMARY CRUSHING UNITS – JAW PLANTS		IMPACTOR PLANTS	
	NW106™	NW120™ Foldable- / fixed hopper	NW1213™
TRANSPORT DIMENSIONS			
Length (mm)	13,482	13,983	14,193
Width (mm)	3,130	3,054 / 3,033	2,990
Height (mm)	4,117	3,917 / 4,380	4,113 / 4,303
Weight (kg)	34,000	52,500 / 51,000	39,000 / 40,000
Bogie weight (kg)	19,800	31,000 / 30,000	22,000 / 23,000
King pin weight (kg)	14,200	21,500 / 21,000	
CRUSHER			
Model	Nordberg® C106™	Nordberg® C120™	Nordberg® NP1213M
Feed opening W x D (mm)	1,060 x 700	1,200 x 870	1,300 x 900
Setting range (mm)	70 - 200	70 - 200	20 - 80
Motor power (kW)	110	160	220
FEEDER			
Model	TK11-42-2V	TKF 12-48-2V	TK11-42-2V
Length (mm)	4,200	4,800	4,200
Width (mm)	1,100	1,200	1,100

SECONDARY AND TERTIARY CRUSHING UNITS – CONE PLANTS					IMPACTOR PLANTS			SCREEN ONLY
	NW200HPS™	NW220GPS™	NW300HPS™	NW330GPS™	NW7150S™ Single drive	NW7150S™ Double drive	NW1213™	NW1855S™
TRANSPORT DIMENSIONS								
Length (mm)	13,738	13,738	15,307	15,000	13,738	13,738	15,579	13,738
Width (mm)	3,029	3,029	3,190	3,190	3,029	3,008	2,990	3,029
Height (mm)	4,504	4,504	4,357	4,200	4,504	4,504	4,113	4,504
Weight (kg)	36,200	36,200	55,900	55,500	34,100	36,000	39,000	24,800
Bogie weight (kg)	22,300	22,300	36,250	36,000	21,100	21,600	22,000	17,800
King pin weight (kg)	13,900	13,900	19,650	19,500	13,000	14,400	17,000	7,000
CRUSHER								
Model	Nordberg® HP200™	Nordberg® GP220	Nordberg® HP300™	Nordberg® GP330™	Barmac® B7150SE VSI	Barmac® B7150SE VSI	Nordberg® NP1213M	
*Max opening/feed size (mm)	135	213	241	225	45	45	1,300 x 900	
*Closed side setting range (mm)	8-35	8-35	10-45	8-35				
Motor power (kW)	132	200	220	315	220	2 x 150	220	
SCREEN								
Model	DS1855-4	DS1855-5	CVB2060-4M	CVB2060-4M	DS18554	DS18555		DS1855-4
Length (mm)	5,500	5,500	6,000	6,000	5,500	5,500		5,500
Width (mm)	1,800	1,800	2,000	2,000	1,800	1,800		1,800
Power (kW)	15	15	22	22	15	15		

*cavity configuration dependant

Check the latest specifications metso.com/nordwheeler

Key technical specifications

CRUSHING UNITS WITHOUT AN INTEGRATED SCREEN

	NW8HRC	NW300HP	NW300GP	NW330GP	NW7150 - single-drive	NW7150 - double-drive	NW9100	NW2060S-4	NW2060S-3P
TRANSPORT DIMENSIONS									
Length (mm)	11,592	11,592	11,592	11,592	11,592	11,592	11,454	14,998	14,652
Width (mm)	2,540	2,530	2,530	2,530	2,530	2,530	2,647	3,190	3,190
Height (mm)	3,990	3,990	3,990	3,990	3,990	3,990	3,932	4,200	4,200
Weight (kg)	30,250	36,000	35,718	35,718	24,475	23,900	29,534	36,928	35,325
Bogie weight (kg)	17,600	19,950	19,947	19,947	14,675	13,182	15,266	28,633	27,433
King pin weight (kg)	12,650	16,050	15,771	15,771	9,800	10,718	14,268	8,295	7,882
CRUSHER									
Model	Metso HRC8	Nordberg HP300	Nordberg GP300S	Nordberg GP330	Barmac B7150SE VSI	Barmac B7150SE VSI	Barmac B9100SE VSI		
*Max opening/feed size (mm)	32	241	320	225	45	45	50		
*Closed side setting range (mm)		10-45	28-53	8-35					
Motor power (kW)	2 x 75 kW	220 kW	250 kW	315 kW	220 kW	2 x 160 kW	2 x 300 kW		
SCREEN									
Model								CVB2060-4	CVB2060-3
Length (mm)								6,000	6,000
Width (mm)								2,000	2,000
Power								22 kW	22kW

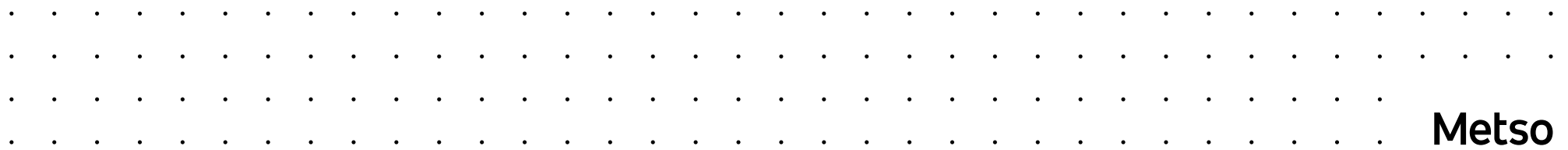
*cavity configuration dependant

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Metso is a frontrunner in sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally. We improve our customers' energy and water efficiency, increase their productivity, and reduce environmental risks with our product and service expertise. We are the **partner for positive change**.

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