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 **POWERPLUS**
POWERPLUS GROUP INC., USA

OVER 
48
YEARS OF TRUST



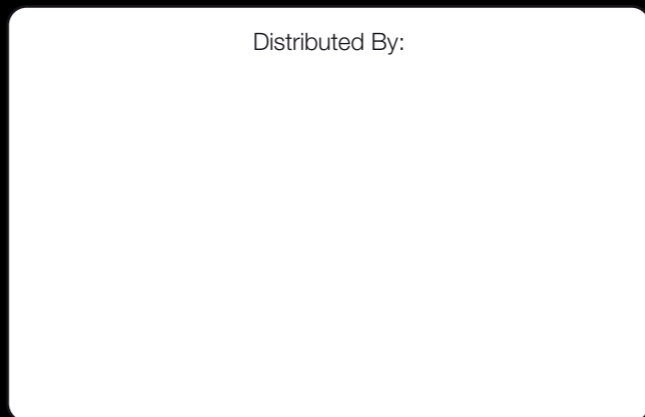
International Division

POWERPLUS GROUP PTE. LTD.
Powerplus Building
39 Ubi Crescent, Singapore 408587
Tel: (65) 63399333
Fax: (65) 63399933
Email: enquiry@powerplus.us

Research & Development Facility

POWERPLUS GROUP INC., U.S.A.
2130 N. Arrowhead Avenue,
San Bernardino, CA 92405, USA
Tel: (1) 909 300 3333
Fax: (1) 909 323 3333
Email: hq@powerplus.us

Distributed By:



EXCAVATOR

PP150E-XI • PP180E-XI • PP220E-XI • PP235E-XI • PP300E-XI • PP350E-XI
PP380E-XI • PP400E-XI • PP520E-XI • PP550E-XI • PP800E-XI • PP880E-XI

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CORPORATE OVERVIEW

POWERPLUS GROUP INC., USA, a leading global manufacturer of a comprehensive range of construction equipment, is part of Worldwide Techno-Equipment Group (1973) Pte Ltd. Established since 1973, POWERPLUS GROUP has evolved into a world-renowned organisation that offers machinery unparalleled in price, quality and performance.

POWERPLUS machinery is manufactured with enhanced capacities to exceed even the most stringent international standards of quality and safety. With the aim of producing machinery that is able to withstand even the most extreme climatic conditions and rugged terrains, POWERPLUS Research & Development team which has its Headquarters in the United States, has been the backbone behind all its innovative engineering solutions.

Optimising the best of technology from the United States, Europe and Japan, POWERPLUS machinery is configured to its ideal technical capabilities. A multinational team of engineers analyses the data collected from our network of distributors worldwide and are on the constant lookout for ways to maximise the life-span of POWERPLUS machinery.

Today the Company's clientele spans over 100 countries across 6 continents.

At the forefront of setting quality standards, every POWERPLUS machine undergoes a technical review after 2 years and is tested rigorously before a new model is churned out of its production facility.

With an emphasis on delivering value and excellent after-sales service to our customers, the POWERPLUS experience outshines and outclasses its competitors in all aspects.



VALUE-ADDED MACHINES WITH MAXIMISED DURABILITY

Designed to last, POWERPLUS Excavators are manufactured with high international standards that are built to withstand harsh working conditions. Years of experience in components integration has given us the capability to architect our range of POWERPLUS Excavators to comply with different operation requirements.

Upon careful selection of premium parts and components from all over the world, this powerful workhorse is engineered to maximise the capacity of every mechanism for optimal performance with high efficiency.

CONDUCTIVE WORKING ENVIRONMENT FOR OPERATOR'S COMFORT AND INCREASED PRODUCTIVITY

- Wide operational view with improved visibility for precise execution of works.
- Ergonomic cabin with personalised amenities including POWERPLUS adjustable suspension seat, MP3 player and air-conditioning.
- Noise and shock reduction cabin for better comfort and reduced operator's fatigue.
- Streamlined dashboard for easy control and simple machine operation.



PERKS FOR END-USERS

- Option of Cummins or Isuzu engine with excellent fuel economy and energy savings.
- Robust undercarriage designed for longer life expectancy and ease of maintenance.
- Reinforced X-shaped crawler chassis that promotes machine stability and sturdiness over rough terrains.
- Highly efficient Kawasaki hydraulic pump, valve and swing motor for optimal machine productivity.



MINIMISED ENVIRONMENTAL IMPACT

- Excavator manufactured according to International safety and environmental standards.
- Emphasis on Fuel efficiency and control system for low emission levels.
- Up to 90% of recyclable parts and quality parts for longer lifespan.



OPERATOR'S COMFORT

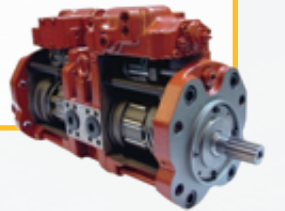
- Pilot control system for precise operations
- Ergonomically designed air-conditioned cabin
- Low-noise and reduced vibration cabin for minimal fatigue
- Easy-to-control levers and panels
- POWERPLUS suspension seat

**EASY ACCESS TO COMPARTMENTS FOR
MACHINE MAINTENANCE**

- Easily accessible components for cleaning and inspection
- Simple replacement procedures for filter and oil elements
- Simplified service routine with reduced service time and work hazards

KAWASAKI PUMP

- Enhanced digging force
- Higher pressure rating and increased power density
- High efficiency and large self-priming capability
- Improved resistance against wear and tear, promoting longer lifespan
- Optimum design of the valve plate and casing rigidity result in lower noise
- Reduced energy and pressure loss
- World-renowned brand with quality assurance



ATTACHMENTS

- Italian technology heat-treated bucket teeth and edges
- Customised solutions to your job requirements
- High adaptability to different attachments

X-FRAME DESIGN UNDERCARRIAGE

- Customised and fabricated to ensure stability and durability even in the harshest environments to prevent damage from foreign objects

CUMMINS, ISUZU & MITSUBISHI ENGINES

- Powerful with high fuel efficiency
- Structurally reinforced to resist bending and torsion while reducing noise output
- Special edge-molded design to eliminate possible leakage and reduce oil consumption
- Reduced environmental impact and carbon footprint
- Comes with international warranty for minimised downtime



*Illustration and statements made are based on standard operations which include optional specifications and attachments.



LEGENDARY DEPENDABILITY AND WORLD CLASS SUPPORT

In every corner of the globe and every construction zone, chances are you will find Cummins, Isuzu, and Mitsubishi engines hard at work.

These engines bring toughness and reliability to every equipment. It is designed to minimise downtime for maximum productivity.



KAWASAKI PUMP Swash plate type axial piston pumps

HIGH POWER DENSITY

A lighter and more compact machine with higher pressure rating and increased power density (output power/mass) is obtained by adopting a half log type wash plate.

In particular, the double pump with its tandem arrangement has eliminated the need for a power divider, which results in an increased transmission efficiency that reduces the time required.

HIGH EFFICIENCY AND LARGE SELF-PRIMING CAPABILITY

The spherical valve plate and improved hydraulic balance provides stable cylinder rotation, thus achieving higher efficiency even in a low-pressure and low-speed operating range.

LONG LIFE

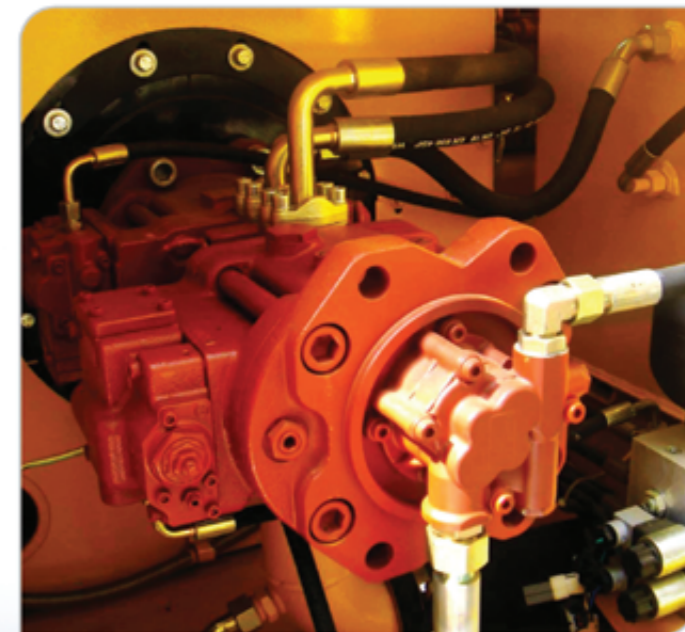
Higher life expectancy with the adoption of large capacity main bearings and usage of piston-return mechanisms. The introduction of this beneficial implementation compensates friction effectively, reducing damage from wear-and-tear to the shoe.

LOW NOISE

Reduced collision and noise level through optimum design of the valve plate and the casing rigidity.

WIDE RANGE OF CONTROLS

The pump can be controlled in various kinds of command methods and is capable of responding to either mechanical, hydraulic or electrical input.





TRAVEL MOTOR

- Hydraulically balanced piston motor ensures a consistent supply of high-pressure and operation performance.
- An offset type speed design ensures reliable changeover of the displacement.
- Floating seals prevent foreign materials like dust or water from entering the motor.
- Heavy duty bearings are used in the motor for longer lifespan.
- Auto-brake system enhances safety operation.
- The motor offers an inbuilt, double counter balance valve and shock-less crossover relief valve, providing speed control and braking with minimum shock.
- Case rotation type gear reducer has improved durability and reliability due to high precision parts and an equally loaded design.



HIGH-STRENGTH FRAME

- Sealed lubricated track, proven to reduce wear and tear
- Heavy excavator elongated base support
- Slope track frame design allow debris to flow down easily
- Robust X-shaped slope type track frame



SUPERIOR VISIBILITY

The ergonomic cabin design provides a wide and clear operational view for the operator to control the mighty workhorse with confidence. The number of blind spots are also minimised, enabling the operator to maintain a high level of concentration while conducting the job in an effective manner.

COMPLETE CONTROL

Extra leg room, adjustable suspension seat, streamline dashboard and user-friendly control levers are designed to suit the human movement. The operator is able to adeptly manoeuvre the machine with excellent bucket visibility, enabling the most delicate finishes to be performed in the harshest conditions with maximum productivity.

WELL-DESERVED COMFORT

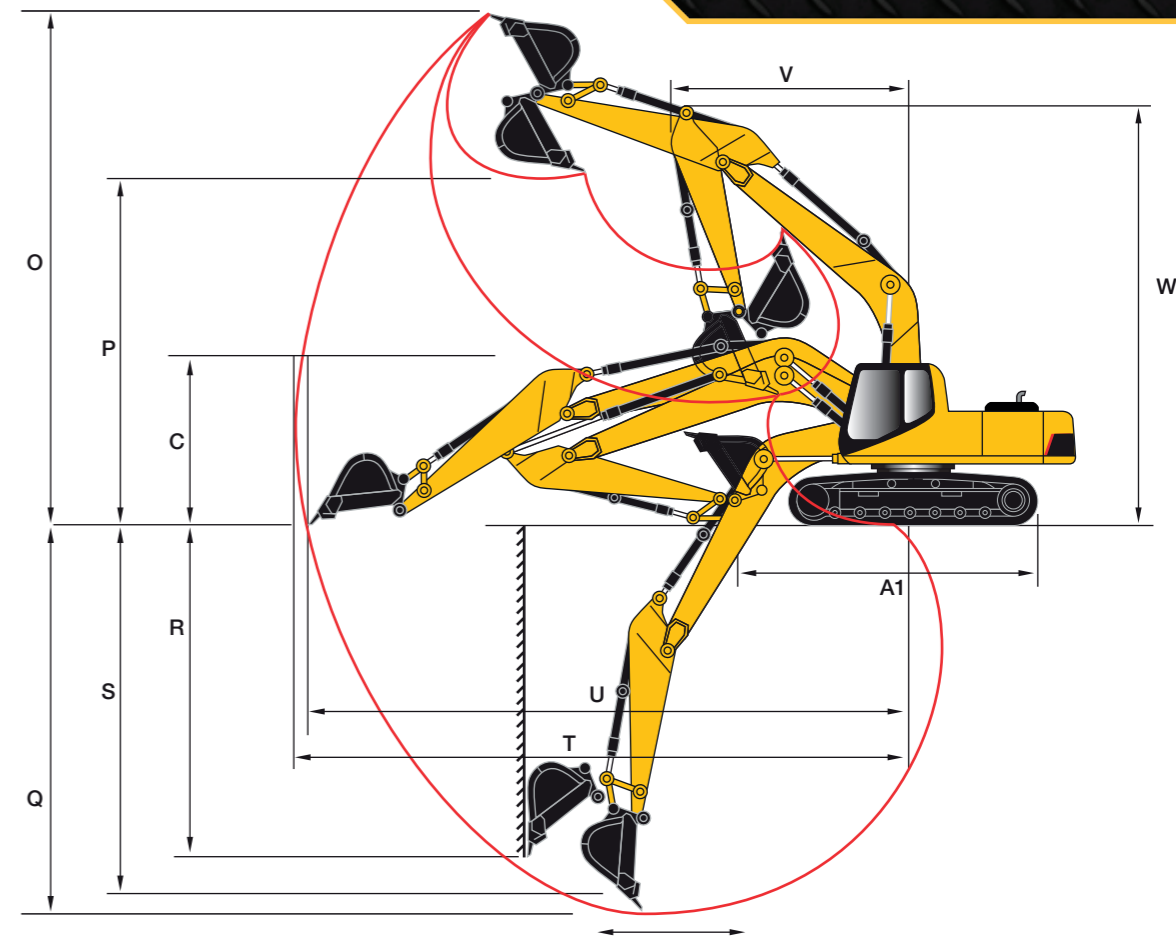
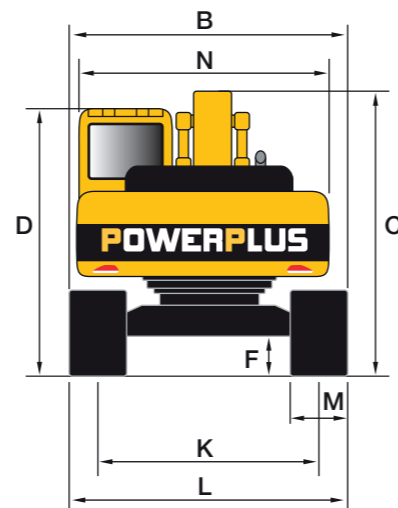
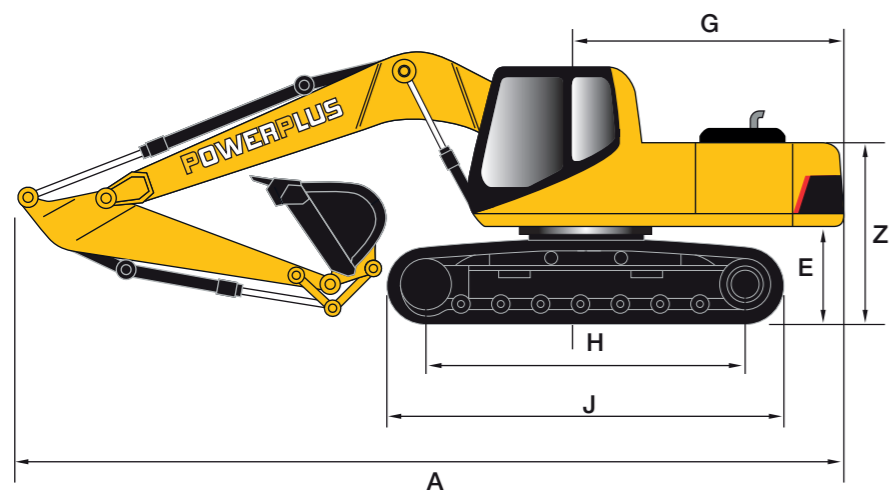
The reinforced structure is coupled with a well-cooled cabin designed to lower noise levels, providing a conducive environment for the operator. With an emphasis on maximising comfort and reducing fatigue for the long hours of work, a safe working cabin is POWERPLUS's way of ensuring that there is maximum efficiency while delivering optimal results.

IMPROVED CONTROL SYSTEM

The high-output engine with intercooler, features an ESS (Engine Speed Sensing) system and total horsepower control system that ensures the most efficient usage of the engine at all times. Engine complies with both Tier II & Tier III (European) Regulations depending on the market requirements.

The new monitor is equipped with an intelligent computer CPU control system. With this latest addition, switching between the various operating modes have become exceptionally convenient. "P" for "Priority" mode allows users to work fast and hard; while "E" for "Fuel Economy" mode, has four options—E0, E1, E2, E3, to best meet the users' operational habits and optimise fuel economy.





DIMENSIONS			PP150E-XI	PP180E-XI	PP220E-XI	PP235E-XI	PP330E-XI	PP350E-XI	PP380E-XI	PP400E-XI	PP520E-XI	PP550E-XI	PP800E-XI	PP880E-XI
A	Overall Length	mm	7580	7580	9560	9560	10880	11150	11080	11080	12180	11600	12170	13105
B	Overall Width	mm	2490	2490	2780	2980	3190	3190	3190	3190	3340	3340	4256	4256
C	Overall Height (To Top Of Boom)	mm	2780	2780	3040	3040	3310	3180	3180	3180	3640	3640	5050	5270
D	Overall Height (To Top Of Cab)	mm	2815	2815	3120	3120	3280	3280	3280	3280	3280	3280	3530	3530
E	Counterweight Ground Clearance	mm	870	870	1065	1065	1180	1210	1210	1210	1300	1300	1551	1600
F	Minimum Ground Clearance	mm	430	430	466	446	523	498	498	495	720	720	898	898
G	Rear Swing Radius	mm	2155	2155	2720	2720	3420	3420	3420	3420	3845	3845	4000	4500
H	Track Ground Length	mm	2750	3000	3260	3445	3715	3700	4030	4030	4360	4360	4720	4720
J	Track Length	mm	3485	3735	4060	4260	4625	4622	4950	4955	5390	5390	5957	5957
K	Track Gauge	mm	1960	2000	2180	2380	2590	2590	2590	2590	2740	2740	3350	3350
L	Track Width	mm	2460	2500	2780	2980	3190	3190	3190	3190	3340	3340	4000	4000
M	Track Shoe Width	mm	500	500	600	600	600	600	600	600	600	600	650	650
N	Turntable Width	mm	2490	2490	2700	2700	2995	2995	2995	2995	3045	3045	3995	3995
V	Minimum Swing Radius	mm	2495	2495	3630	3630	4285	4265	4265	4265	4825	4825	5200	5070
W	Maximum Height At Min Swing Radius	mm	6430	6430	7670	7670	8360	8500	8500	8500	9250	9250	9180	9890
Z	Height Of Counterweight	mm	1935	1935	2120	2120	2240	2265	2265	2265	2360	2860	2900	2900
A1	Ground Length (Transportation)	mm	4410	4410	4850	4850	5785	5950	5750	5920	6820	6520	7300	7395
	Boom Length	mm	4600	4600	5700	5700	6250	6470	6470	6470	7060	6560	6600	7100
	Arm Length	mm	2500	2500	2900	2900	2900	3185	3185	2900	2900	2550	3020	3020
WORKING RANGE														
O	Maximum Digging Height	mm	8630	8630	9275	9275	9630	10200	10200	9800	10760	10000	11165	11673
P	Maximum Dumping Height	mm	6180	6180	6560	6560	6650	7135	7135	6830	7400	6660	7040	7642
Q	Maximum Digging Depth	mm	5500	5500	6515	6515	6700	7370	7370	6890	7320	6260	7190	6868
R	Maximum Vertical Digging Depth	mm	4940	4940	5915	5860	5750	6380	6380	6100	6695	5620	6800	5727
S	Maximum Digging Depth For 2.5m	mm	5285	5285	6380	6380	6600	7190	7190	6800	7150	6070	7040	6710
T	Maximum Digging Reach	mm	8305	8305	9865	9865	10600	11100	11100	10800	11660	10580	11750	12064
U	Maximum Digging Reach At Ground Level	mm	8180	8180	9680	9680	10400	10910	10910	10600	11440	10360	11450	11762

EXCAVATOR		PP150E-XI	PP180E-XI	PP220E-XI	PP235E-XI	PP330E-XI	PP350E-XI	PP380E-XI	PP400E-XI	PP520E-XI	PP550E-XI	PP800E-XI	PP880E-XI	
Operating Weight	kg	13500	15100	21500	23100	31000	33000	35200	38000	50000	51500	71200	81500	
Rated Bucket Capacity	m³	0.55	0.6	1.0	1.2	1.4	1.6	1.8	2.0	2.5	2.8	4.0	5.0	
Maximum Digging Force	kN	100	100	157	159	227	227	227	256	276	298	365	405	
Swing Speed	rpm	12	12	11.5	11	11	10.6	10.6	8.5	8.6	8.6	7.2	7.2	
Maximum Gradeability	°	35	35	35	35	35	35	35	35	35	35	35	35	
ENGINE														
Model		CUMMINS QSF3.8	CUMMINS QSF3.8	CUMMINS 6BTAA5.9 / CUMMINS QSB7.0 / MITSUBISHI 4M50	CUMMINS 6BTAA5.9 / CUMMINS QSB7.0	CUMMINS QSB7.0	CUMMINS 6LTAA8.9	CUMMINS 6LTAA8.9	CUMMINS 6LTAA8.9	ISUZU 6HK1X	CUMMINS QSM11	ISUZU 6WG1 / CUMMINS QSM11	CUMMINS QSX15	CUMMINS QSX15
Rated Power	hp	116	116	180 / 168 / 160	180 / 168	229	328	328	288	345 / 406	407 / 406	450	450	
Rated Speed	rpm	2200	2200	2000	2000 / 1800	2050	2000	2000	2000	1800	1800	1800	1800	
Displacement	L	3.8	3.8	5.9 / 6.7 / 4.89	5.9 / 6.7	6.7	8.9	8.9	7.79	10.8	10.8	15	15	
No. of Cylinders		4	4	6 / 6 / 4	6	6	6	6	6	6	6	6	6	
Emission		Euro III	Euro III	Euro II / III / III	Euro II / III	Euro III	Euro II	Euro II	Euro III	Euro II / III	Euro III / III	Euro III	Euro III	
UNDERCARRIAGE														
Travel Speed (High/Low)	km/h	5.3 / 3.1	5.3 / 3.1	5.2 / 3.5	5.2 / 3.5	5.2 / 3.3	5.2 / 3.3	5.2 / 3.3	5.2 / 3.3	4.8 / 3.0	4.8 / 3.0	4.8 / 3.0	4.8 / 3.0	
Ground Pressure	kPa	38	39	46.5	48.6	65	65	69.4	70.8	80.6	86	100	100	
Track Rollers		7	7	7	8	7	7	9	9	9	9	8	8	
Carrier Rollers		2	2	2	2	2	2	2	2	2	2	3	3	
No. Of Tracks		45	45	45	47	48	45	48	48	50	50	48	48	
HYDRAULIC SYSTEM														
Main Pump		POWERPLUS						KAWASAKI						
Maximum Flow	L/min	165 x 2	165 x 2	211 x 2	211 x 2	265 x 2	320 x 2	320 x 2	320 x 2	360 x 2	414 x 2	490 x 2	490 x 2	
Working Pressure	MPa	37	37	37	34.3	34.3	37.3	37.3	37	37	37	31.4	33	
REFILL SERVICE CAPACITY														
Fuel Tank	L	247	247	420	420	595	595	595	595	650	650	950	950	
Hydraulic Tank	L	130	130	246	246	310	310	310	310	335	335	335	335	
Engine Oil	L	17.6	17.6	20	20	20	47	47	47	47	47	45	45	
Coolant	L	16.5	16.5	20	20	20	21.2	21.2	21.2	30.6	30.6	33.5	33.5	
Final Drive	L	2.2	2.2	3.3	3.3	3.3	5.5	5.5	5.5	12.5	12.5	13	13	
CABIN														
Type	An ergonomically designed sound proof cabin, enabling wide operational view, comes standard with designer upholstery, adjustable POWERPLUS mechanical suspension driver's seat, streamline dashboard, aircon and radio/mp3 player for extensive operations with well designed comfort.													



OPTIONAL

ENGINE
Pre-Heat Starter

HYDRAULIC SYSTEM
Customised Bucket Size
Extended Arm
Quick Coupler

CABIN
Glass Protection
Heater and Ventilation
Solar Film

UNDERCARRIAGE
Track Width
600/700/800 mm

SAFETY
Additional Lights
ROPS/FOPS Cabin
Rear View Camera

ATTACHMENTS

SHEAR
For cutting through
scrap materials



GRAPPLE
For material handling
and sorting of rocks, wood
and waste materials.



**HYDRAULIC
BREAKER**
For demolishing
concrete structures
and rocks



**ROCK
BUCKET**
For digging rubble,
tough rock and minerals
in mining applications



**CLAMSHELL
BUCKET**
For dredging,
excavation
and moving
stockpiles



**BUCKET
CRUSHER**
For crushing rubble and
rocks into usable material

*Availability of equipment may vary across different regions. Kindly consult your POWERPLUS territory sales personnel for details.

GLOBAL NETWORK DISTRIBUTION

POWERPLUS is committed to creating long-term value for its customers, partners and stakeholders. Our Service Centers are strategically located in major construction, industrial and manufacturing hubs in key regions around the world.

Given our years of experience in the industry, it is no doubt that our customers can always rely on us for the expertise, services and solutions we provide. Most importantly, you will find our after-sales service a satisfying experience at all of our Service Centers worldwide.



DURABILITY, RELIABILITY & AFFORDABILITY

POWERPLUS Parts and Service Centers provides a convenient channel for you to order the original spare parts through a network of highly certified OEM manufacturers and an effective distribution of spare parts through our global network of vendors.

From determining the correct part number to locating and ordering, we are committed to working round-the-clock for timely solutions and delivery to ensure we serve our customers promptly and efficiently.

Coupled with affordable parts prices and high interchangeability across the POWERPLUS machinery range, we take pride in being able to offer value to our customers with cost-effective solutions. Most importantly, you are able to retain the machines with high residual value to enhance your return on investment.



SERVICE

Delivering Unsurpassed Customer Service - Because You Matter.

Our dedicated team of customer service executives, skilled engineers and technicians are well-trained to ensure timely and propitious support throughout the customer life cycle. With a comprehensive dealer network coverage and service facilities support, POWERPLUS dedicated team of account managers and service teams from the Customer Service Charter are trained to respond to your queries and requests promptly and efficiently.

To deliver more, our service package includes educating our customers with training, maintenance and servicing to ensure customers are empowered to utilise the machines at its best; therefore optimising the machine's performance and increasing uptime.

At POWERPLUS, we strive to build and maintain long-term relationships with each and every client based on trust, integrity and professionalism.

