

Panasonic CO₂/MAG/MIG Welding Machine Guide

Model	Process								Output		Input			Applicable Wire Diameter (mm)	Guide for Applicable Thickness (mm)	Page
	CO ₂ /MAG	Pulse MAG	MIG		Pulse MIG		DC Arc Gouging	DC Stick	Current Range (A)	Duty Cycle (%)	Voltage (V)	Phase	Frequency (Hz)			
			Stainless Steel	Aluminum	Stainless Steel	Aluminum										
Full Digital (Inverter)	350GZ4 YUA	○		○					30 to 350	60	380 to 415	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	2
	350VR1 YU1	○		○					30 to 350	60	380 to 415	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	2
	350GR3 YGA	○		○					30 to 350	60	380	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	3
	500GR3 YGA	○		○					60 to 500	100	380 to 415	3	50/60	1.2/1.4/1.6	1.2 to 25.0	3
	350GY3	○		○					30 to 350	60	380 to 415	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	3
	500GY3	○		○					60 to 500	100	380 to 415	3	50/60	1.2/1.4/1.6	1.2 to 25.0	3
	400GT3 YUA	○	○	○		○			30 to 400	60	380 to 415	3	50/60	0.9/1.0/1.2/1.4	0.8 to 16.0	4
	400GT3 YUD For aluminum	(○)	(○)	(○)	○	(○)	○		30 to 400	60	380 to 415	3	50/60	1.2/1.6	1.2 to 16.0	4
	350GL3	○	○	○		○			30 to 430	60	380 or 415	3	50/60	0.8/0.9/1.0/1.2	0.8 to 12.0	5
	500GL3	○	○	○		○			60 to 550	100	380 or 415	3	50/60	1.2/1.4/1.6	1.2 to 25.0	5
Inverter	350FR1	○							40 to 350	60	380 to 415	3	50/60	0.8/1.0/1.2	1.2 to 12.0	6
	500FR1	○							60 to 500	100	380 to 415	3	50/60	1.0/1.2/1.6	1.2 to 25.0	6
	350RX1	○							50 to 430	60	380 or 415	3	50/60	0.8 or 0.9/1.0/1.2	1.2 to 12.0	6
	400RX1	○							50 to 430	60	380 or 415	3	50/60	0.8 or 0.9/1.0/1.2	1.2 to 16.0	6
	500RX1	○							60 to 550	100	380 or 415	3	50/60	(1.0)/1.2/1.4/1.6	1.2 to 25.0	6
	600RF2 YGA	○							60 to 600	100	380	3	50/60	1.2/1.4/1.6	1.2 to 40.0	7
Thyristor	200KR2	○							50 to 200	60	380	3	50/60	0.8/0.9/1.0/1.2	0.8 to 6.0	8
	350KR2	○							60 to 350	50	380	3	50/60	0.8/0.9/1.0/1.2	1.2 to 12.0	8
	500KR2	○							60 to 500	60	380	3	50/60	1.2/1.4/1.6	1.2 to 25.0	8
	600KH2	○					○	○	60 to 600	100	380	3	50/60	1.2/1.4/1.6	1.2 to 40.0	8
	500CL5	○					● (optional)	● (optional)	60 to 500	60	380	3	50/60	1.2/1.4/1.6	1.2 to 25.0	9
Slide Transformer	180SL7	○							60 to 180	40	380	3	50/60	0.8/1.2	0.8 to 6.0	9

(○): If Steel or Stainless Steel is desired for these standard Aluminum packages, please select the appropriate wire feeder and torch for these alternate materials.

Full Digital (Inverter): Digital display, control and communication for easier operation, increased energy savings, reduced size and weight and superior welding performance compared to non-digital or thyristor welding machines.

Inverter: Inverter control achieves improved welding performance compared to thyristor models while providing increased energy savings in a smaller and lighter design.

Thyristor: Standard welding models.

Full Digital 400GT3

Full Digital Pulse MAG/MIG Welding Machine

Model for Mild Steel
and Stainless Steel
Welding

GT3 with Full Digital Technology, a Versatile Platform with Simple Operation.



CO₂/MAG Pulse MAG Stainless Pulse MIG

400GT3

Made in Japan

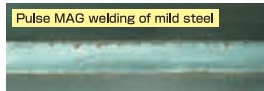
High Welding Performance

400 A rated output allows more efficient and higher-speed welding than 350 A model.

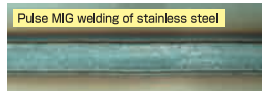
- 100% duty cycle @ 310 A (100% @ 270 for 350A Model)
- 400 A rated output current improves production versatility.

High-quality welding with GT Pulse control

Pulse arc type	Arc stability	GT Pulse control
1) Hybrid pulse 2) Soft pulse 3) Hard pulse	Increased arc stability across current range	Effect 1: Compensates torch shake. Effect 2: Reduces undercut. Effect 3: Lowers spatter.



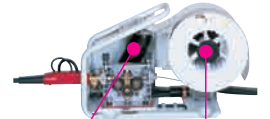
•Process: Pulse MAG
•Parameters: 200 A, 25.2 V
•Speed: 50 cm/min
•Wire: 1.2 mm solid
•Workpiece: 4.5 mm mild steel
•Shielding gas: 80 % Ar/20 % CO₂
•Joint: Fillet



•Process: Pulse MIG
•Parameters: 160 A, 20.2 V
•Speed: 50 cm/min
•Wire: 1.2 mm SUS308 (stainless)
•Workpiece: 3.0 mm SUS304 (stainless)
•Shielding gas: 98 % Ar/2 % O₂
•Joint: Fillet

High-precision Full Digital control allows soft and stable arc.

- High-precision wire feeding system using encoder feedback.
- Consistent results - welding conditions can easily be reproduced from site to site.



Motor with encoder Wire spool brake to prevent wire loosening

2 drive 4 roll wire feeder

Easy Operation

- Simple control panel allows easy setting.



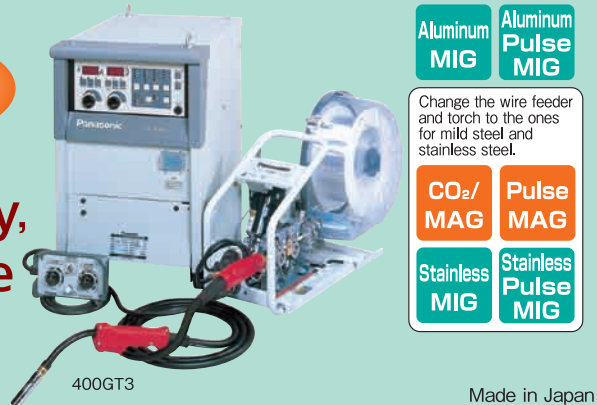
Simple control panel

Full Digital 400GT3

Full Digital Pulse MAG/MIG Welding Machine

Model for
Aluminum
Welding

GT3 with Full Digital Technology, a Versatile Platform with Simple Operation.



Aluminum MIG Aluminum Pulse MIG

Change the wire feeder and torch to the ones for mild steel and stainless steel.

CO₂/MAG Pulse MAG

Stainless MIG Stainless Pulse MIG

400GT3

Made in Japan

High Welding Performance

400 A rated output allows more efficient and higher-speed welding than 350 A model.

- 100% duty cycle @ 310 A (100% @ 270 for 350A Model)
- 400 A rated output current improves production versatility.

High-quality welding with GT Pulse control.

What Is GT Pulse? A control method that creates optimum arc by combining the advantages of three pulse control methods and increasing arc stability.

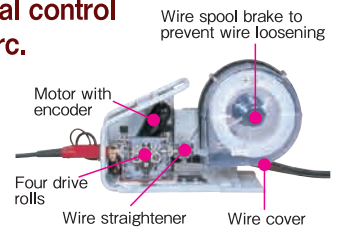
Pulse arc type	Arc stability	GT Pulse control
1) Hybrid pulse 2) Soft pulse 3) Hard pulse	Increased arc stability across current range	Effect 1: Compensates torch shake. Effect 2: Reduces undercut. Effect 3: Lowers spatter.

Smooth arc starting

- Current rapidly increases at arc starting and FTT control creates uniform wire end shapes at welding ends, which ensures stable and smooth arc starting.

High-precision Full Digital control allows soft and stable arc.

- High-precision wire feeding system using encoder feedback.
- Consistent results-welding conditions can easily be reproduced anytime, anywhere.

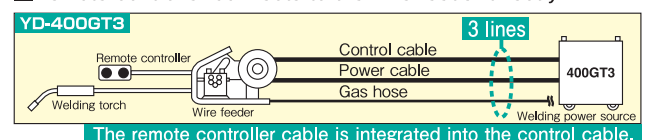


4 drive wire feeder

Improved Mobility

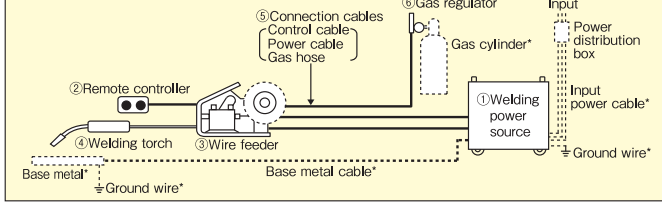
Fewer connection cables

- Remote controller connects to the wire feeder directly.



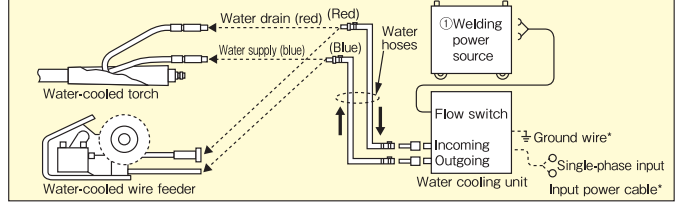
Welding System Configuration

Standard Layout (non-remote type)



*Customer supplied items

Water Cooled Torch & Wire Feeder Additional Configuration



*Customer supplied items

①Welding Power Source	②Remote Controller	③Wire Feeder	④Welding Torch*	⑤Connection Cables	⑥Gas Regulator	Other Items
YD-350GZ4YUA	YD-00DHR1YAA (2 m)	YW-35DH1	•YT-35CS4TAB (Special) •No.34 to 38 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m) •Extension cables optional	YX-25AD1	•Voltage detection wire (5 m) supplied with welding power source •Extension cable (DWC00**) optional
YD-350VR1YU1	YD-35GRR1 (2 m)	•YW-35DG2 (2.1 m control cable) •YW-35DG2CA0 (10 m control cable)	•YT-35CV4 •No.1 to 10 selectable	•Supplied with wire feeder •Extension cables optional	•YX-25AD1 for CO ₂ /MAG/MIG •YX-25CC1 (YX-01GB1) for CO ₂	
YD-350GR3YGA	YD-35GRR1 (2 m)	•YW-35DG1 (1.8 m control cable) •YW-35DG1CA0 (10 m control cable)	•YT-35CV4 •No.1 to 10 selectable	•Supplied with wire feeder •Extension cables optional	•YX-25AD1 for CO ₂ /MAG/MIG •YX-25CC1 (YX-01GB1) for CO ₂	
YD-500GR3YGA	YD-50GGR1 (2 m)	YW-50DG1	•YT-50CS4 •No.12 to 17 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m) •Extension cables optional	•YX-25AD1 for CO ₂ /MAG/MIG •YX-25CC1 (YX-01GB1) for CO ₂	
YD-350GY3		YW-35DG1HA1	YT-35CS4HAE	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500GY3		YW-50DG1HA1	YT-50CS4HAE	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-400GT3YUA (for mild steel/stainless steel)	YD-40GTR1 (2 m)	YW-40DG1	•YT-35CSG4 •No.11 to 18 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m) •Extension cables optional	YX-25AD1	
YD-400GT3YUD (for aluminum)	YD-40GTR1 (2 m)	YW-40DG1TAK	•YT-30MD2 •No.26 to 29 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m) •Extension cables optional	YX-25AD1	
YD-350GL3		YW-35DG1HA3	YT-35CS3VTA	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500GL3		YW-50DG1HA1	YT-50CS3VTA	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-350FR1	Supplied with wire feeder	YW-35KB3HME	•YT-35CS3CTA •No.1 to 10 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500FR1	Supplied with wire feeder	YW-50KB3HME	•YT-50CS3CTA •No.3 to 10, 12 to 17 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-350RX1		YW-35KB3HAJ	YT-35CS3	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-400RX1		YW-40KB3HAF	YT-40CS4	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500RX1		YW-50KB3HRO	YT-50CS4	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1HAK	
YD-600RF2YGA	YD-60RFR1	•YW-50AF1 (air-cooled) •YW-60AFW2 (water-cooled)	•YT-50CS4 (air-cooled) •YT601CCW (water-cooled)	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	•YX-25AD1 for CO ₂ /MAG/MIG •YX-25CC1 for CO ₂	Water cooling unit YX-09KGC1 optional
YD-200KR2	Supplied with wire feeder	YW-20KB3HAE	•YT-20CS3CTA •No.1 to 2 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-350KR2	Supplied with wire feeder	YW-35KB3HAE	•YT-35CS3CTA •No.1 to 10 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-500KR2	Supplied with wire feeder	YW-50KB3HAE	•YT-50CS3CTA •No.12 to 17 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	
YD-600KH2	Supplied with wire feeder	YW-60KCW2HAE	YT-601CCWHAE	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	Water cooling unit YX-09KGC1HGE optional
YD-500CL5	Supplied with wire feeder	YW-50CA2HAJ	•YT-35CSM3CTA •No.3 to 10, 12 to 17 selectable		YX-25CD1	
YD-180SL7		YW-181FK2HAE	•YT-20CS3CTA •No.1 to 2 selectable	•Supplied with wire feeder •Control/Power cables (1.8 m) •Gas hose (4.8 m)	YX-25CD1	

*Refer to page 15 for torch numbers

Specifications

① Welding Power Sources

	Rated Input Voltage Phase Rated Frequency	Rated Input Capacity	Output Current Adjustable Range (A)	Output Voltage Adjustable Range (V)	Rated Duty Cycle (%)	Applicable Wire Diameter (mm)	Applicable Welding Wire	Dimensions (W×D×H) (mm)	Weight (kg)
YD-350GZ4YUA	•380/415 V •3-phase •50/60 Hz	17.7 kVA / 16 kW	30 to 350	12 to 36	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×550×640	61
YD-350VR1YU1	•380/415 V •3-phase •50/60 Hz	16.4 kVA / 15 kW	30 to 350	12 to 36	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×540×660	59
YD-350GR3YGA	•380 V •3-phase •50/60 Hz	17 kVA / 16 kW	30 to 350	12 to 36	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×540×640	52
YD-500GR3YUA	•380/415 V •3-phase •50/60 Hz	28.5 kVA / 26.5 kW	60 to 500	14 to 45	100	1.2/1.4/1.6	•Mild steel •Stainless steel	380×540×810	65.5
YD-350GY3	•380 or 415 V •3-phase •50/60 Hz	14.5 kVA / 14 kW	30 to 350	12 to 36	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×550×645	50
YD-500GY3	•380 or 415 V •3-phase •50/60 Hz	23.3 kVA / 22.4 kW	60 to 500	17 to 45	100	1.2/1.4/1.6	•Mild steel •Stainless steel	380×550×815	60
YD-400GT3YUA (Mild steel/ stainless steel)	•380/415 V •3-phase •50/60 Hz	20.5 kVA / 19 kW	30 to 400	12 to 38	60	0.9/1.0/ 1.2/1.4	•Mild steel •Stainless steel	380×540×675	61
YD-400GT3YUD (Mild steel/stainless steel/aluminum)	•380/415 V •3-phase •50/60 Hz	20.5 kVA / 19 kW	30 to 400	12 to 38	60	0.9/1.0/1.2/1.4/1.6 (1.6 is for hard aluminum only.)	•Mild steel •Stainless steel •Hard aluminum	380×540×675	61
YD-350GL3	•380 or 415 V •3-phase •50/60 Hz	14.5 kVA / 14 kW	30 to 430	16 to 35.5	60	0.8/0.9/ 1.0/1.2	•Mild steel •Stainless steel	380×550×645	50
YD-500GL3	•380 or 415 V •3-phase •50/60 Hz	23.3 kVA / 22.4 kW	60 to 500	17 to 45	100	1.2/1.4/1.6	•Mild steel •Stainless steel	380×550×815	60
YD-350FR1	•415 V •3-phase •50/60 Hz	13.5 kVA / 13 kW	40 to 350	16 to 31.5	60	0.8/1.0/1.2	Mild steel	372×545×669	56
YD-500FR1	•415 V •3-phase •50/60 Hz	23.3 kVA / 22.4 kW	60 to 500	17 to 39	100	1.0/1.2/ 1.4/1.6	Mild steel	372×545×669	62
YD-350RX1	•380 or 415 V •3-phase •50/60 Hz	13.1 kVA / 12.6 kW	50 to 430	16.5 to 35.5	60	0.8 or 0.9 1.0/1.2	Mild steel	380×545×570	52
YD-400RX1	•380 or 415 V •3-phase •50/60 Hz	16.2 kVA / 15.6 kW	50 to 430	16.5 to 35.5	60	0.8 or 0.9 1.0/1.2	Mild steel	380×545×570	52
YD-500RX1	•380 or 415 V •3-phase •50/60 Hz	23.1 kVA / 22.2 kW	60 to 550	17 to 41.5	100	(1.0)/1.2/1.4/1.6 (1.0 is type of HGF/HJE.)	Mild steel	380×545×635	60
YD-600RF2YGA	•380 V •3-phase •50/60 Hz	37 kVA / 35 kW	60 to 600	14 to 50	100	1.2/1.4/1.6	Mild steel	440×585×1005	120
YD-200KR2	•380 V •3-phase •50/60 Hz	7.6 kVA / 6.5 kW	50 to 200	15 to 25	60	0.8/1.0/1.2	Mild steel	376×675×747	89
YD-350KR2	•380 V •3-phase •50/60 Hz	18.1 kVA / 16.1 kW	60 to 350	16 to 31.5	50	0.8/1.0/1.2	Mild steel	376×675×747	117
YD-500KR2	•380 V •3-phase •50/60 Hz	31.9 kVA / 28.1 kW	60 to 500	17 to 39	60	1.2/1.4/1.6	Mild steel	436×675×762	158
YD-600KH2	•380 V •3-phase •50/60 Hz	45 kVA / 40 kW	60 to 600	17 to 44	100	1.2/1.4/1.6	Mild steel	500×690×920	232
YD-500CL5	•380 V •3-phase •50/60 Hz	30.4 kVA / 28.1 kW	60 to 500	17 to 39	60	1.2/1.4/1.6	Mild steel	436×675×762	148
YD-180SL7	•380 V •3-phase •50/60 Hz	6.8 kVA / 6.4 kW	60 to 180	17 to 23	40	0.8/1.2	Mild steel	310×430×509	49

Specifications

③ Wire Feeders

	For Welding Power Source	Applicable Welding Wire	Applicable Wire Diameter (mm)	Connector Type for Welding Torch	Drive Method	Weight (kg)	Accessories
YW-35DH1	YD-350GZ4YUA	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	15	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG2	YD-350VR1YU1	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	12	·Control cables: 2.1 m ·Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG2CA0	YD-350VR1YU1	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	19	·Control cables: 10.3 m ·Power cables: 10 m ·Gas hose: 13.2 m
YW-35DG1	YD-350GR3YGA	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG1CA0	YD-350GR3YGA	·Mild steel ·Stainless steel	(0.8)/0.9/(1.0)/1.2	CC fitting	2 drive 4 roll	19	·Control/Power cables: 10 m ·Gas hose: 13 m
YW-40DG1	YD-400GT3YUA	Stainless steel	0.9/(1.0)/1.2/(1.4)	CC fitting	2 drive 4 roll	12.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50DG1	YD-500GR3YUA	·Mild steel ·Stainless steel	1.2/1.4/(1.6)	CC fitting	2 drive 4 roll	13	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG1HA1	YD-350GY3	·Mild steel ·Stainless steel	(0.8)/(0.9)/1.0/1.2	CC fitting	2 drive 4 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35DG1HA3	YD-350GL3	·Mild steel ·Stainless steel	(0.8)/(0.9)/1.0/1.2	CC fitting	2 drive 4 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-40DG1TAK	YD-400GT3YUD	Aluminum	1.2/1.6	CC fitting	4 drive roll	15	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50DG1HA1	·YD-500GY3 ·YD-500GL3	·Mild steel ·Stainless steel	1.2/(1.4)/1.6	CC fitting	2 drive 4 roll	13.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35KB3HME	YD-350FR1	Mild steel	1.0/1.2	CC fitting	1 drive 2 roll	10	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50KB3HME	YD-500FR1	Mild steel	1.2/1.6	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35KB3HAJ	YD-350RX1	Mild steel	0.8/(0.9)/(1.0)/1.2	CC fitting	1 drive 2 roll	10	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-40KB3HAF	YD-400RX1	Mild steel	(0.8)/0.9/(1.0)/1.2	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50KB3HR0	YD-500RX1	Mild steel	1.2/(1.4)/1.6	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50AF2 (Air cooled)	YD-600RF2YGA	Mild steel	1.2/1.6	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-60AFW2 (Water cooled)	YD-600RF2YGA	Mild steel	1.2/(1.4)/1.6	CC fitting	1 drive 2 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-20KB3HAE	YD-200KR2	Mild steel	0.8/1.0	CC fitting	1 drive 2 roll	10	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-35KB3HAE	YD-350KR2	Mild steel	1.0/1.2	CC fitting	1 drive 2 roll	10	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50KB3HAE	YD-500KR2	Mild steel	1.2/1.6	CC fitting	1 drive 2 roll	10.5	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-60KCW2HAE	YD-600KH2	Mild steel	1.2/1.6	CC fitting	1 drive 2 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-50CA2HAJ	YD-500CL5	Mild steel	1.0/1.2	CC fitting	1 drive 2 roll	12	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m
YW-181FK2HAE	YD-180SL7	Mild steel	0.8/1.2	CC fitting	1 drive 2 roll	9	·Control/Power cables: 1.8 m ·Gas hose: 4.8 m