

Tregaskiss™ by DINSE™ TWD

Robotic Water-Cooled MIG Gun

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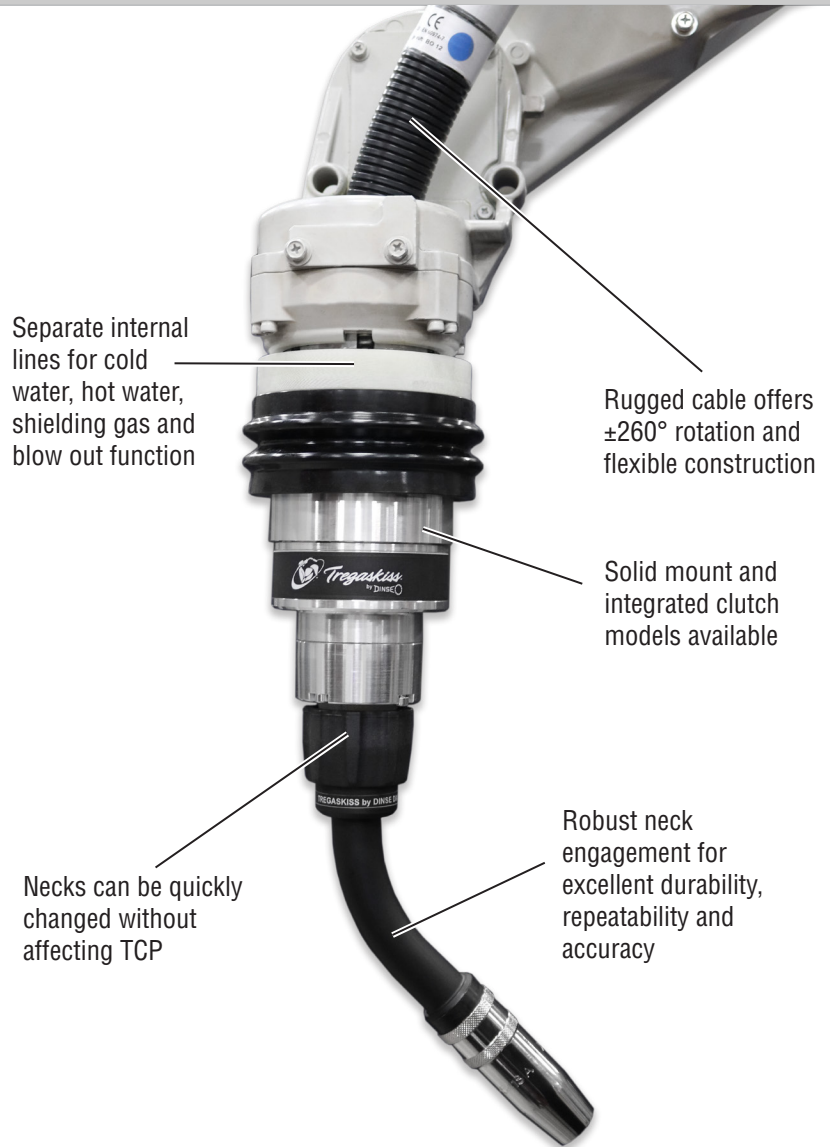
MIG (GMAW) Welding 

Quick Specs	Duty Cycle Rating	Processes	Robots
	100% with Mixed Gases 350 amp, 400 amp 500 amp, 600 amp	MIG (GMAW) Welding	ABB®, FANUC®, KUKA®, Motoman®, OTC Daihen®, Panasonic®, Reis® and Yaskawa®

TWD Robotic Water-Cooled MIG Guns for through-arm robots offer **superior cooling power for longer gun and consumable life** and **zero gas loss** for an unparalleled total cost of ownership. Models are available in a variety of amperages ranging from 350 to 600 amps at 100% duty cycle.

Flowing through a dedicated line from the back of the gun directly to the gas diffuser, costly **shielding gas has zero opportunity to escape**.

Superior cooling is achieved via a **unique dual-circuit cooling system** that runs the length of the front end. Lower operating temperatures result in longer gun and consumable life.

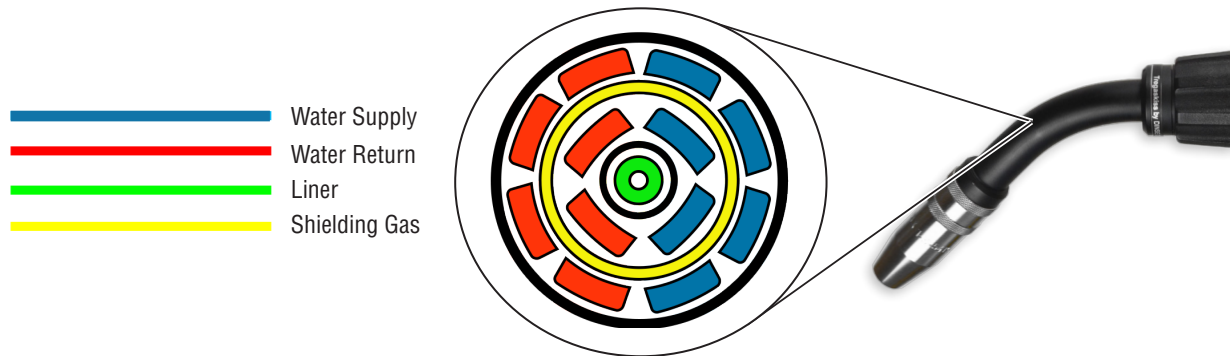


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For more information, visit us at Tregaskiss.com

Unique Internal Design

Tregaskiss by DINSE TWD Robotic Water-Cooled MIG Guns have a unique internal design that maximizes cooling and weld access while eliminating gas loss.



Flowing through a dedicated line from the back of the gun directly to the gas diffuser, costly shielding **gas has zero opportunity to escape.**

Superior cooling is achieved via a **dual-circuit cooling system** that runs the length of the front end in concentric, parallel circuits. Cool water runs to the front while hot water returns to the back via separate internal conduits. This ensures that cold and hot water never mix which can reduce the cooling power. Lower operating temperatures result in longer gun and consumable life.

Know Your Options

What's the difference between clutch and solid mount?

A clutch mount is designed to trigger an emergency stop in the event of a robotic collision, whereas a solid mount is not equipped with this functionality. Although many of today's robots are equipped with independent collision detection software and may not require this functionality in a robotic MIG gun, this option is sometimes selected during gun configuration as an additional safeguard.

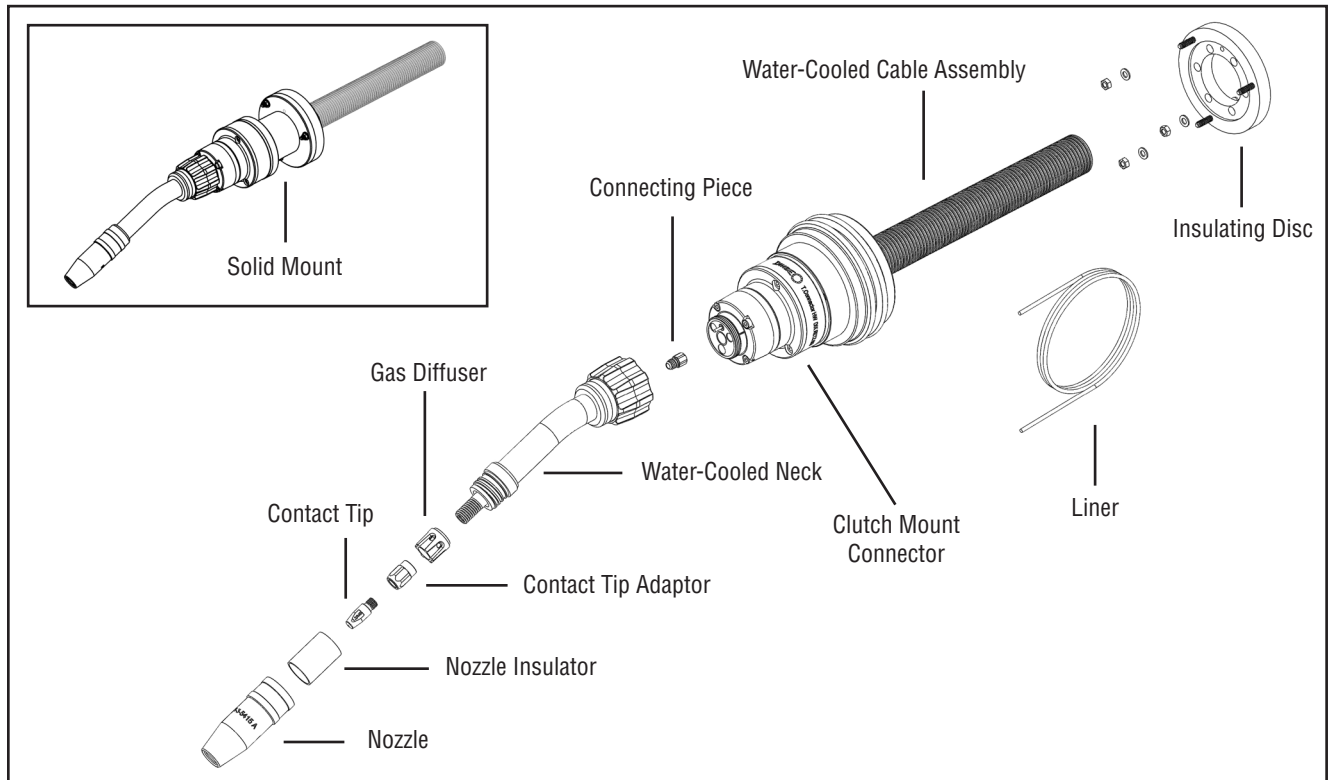
Air Blast

Air blast utilizes compressed shop air to clear loose debris from front-end consumables thereby reducing the frequency of nozzle cleaning. A maximum air supply of 80-100 psi is required for proper operation.

Wire Brake

Wire brake holds wire to a consistent stick out to allow a repeatable tool center point (TCP) for touch sensing / seam tracking while the torch articulates. Selecting the wire brake option when configuring a gun will impact TCP. A maximum air supply of 80 psi is required for proper operation. Wire brake is available for wire sizes between 0.030" and 1/16", and requires the use of a jump liner.

System Components

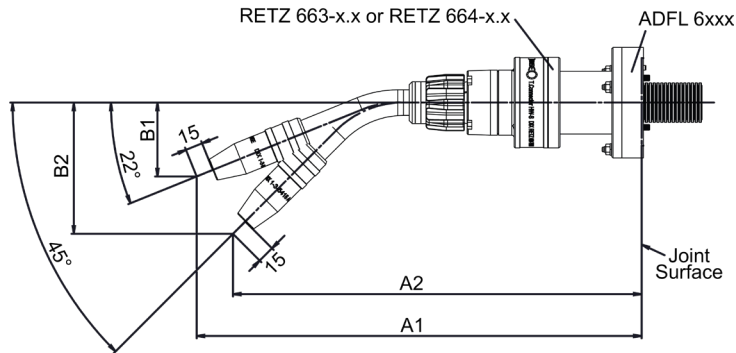


Gun Configurations

NOTE: For Center of Mass information, please visit Tregaskiss.com/TWD

Standard Configurations - 350 amp

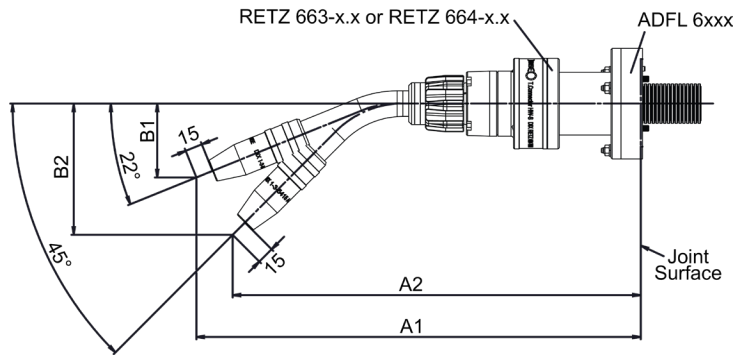
It is important to note that wire brake does not affect TCP



Robot Brand	Robot Model	Neck Part Number	Neck Part Name	Angle	A1	A2	B1	B2
ABB®	IRB 1520 ID, IRB 1600 ID	6390635920	6-3-592 METZ	22	418.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	488.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	568.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	400.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	470.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	550.6	-	58.6
ABB	IRB 2600 ID 15/1.85, IRB 2600 ID 8/2.0, IRB 1660 ID 6/155, IRB 1660ID	6390635920	6-3-592 METZ	22	415.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	485.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	565.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	397.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	467.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	547.6	-	58.6
FANUC®	ARC Mate 120iC, ARC Mate 120iC/10L, ARC Mate 120iC/12L, M 20 iA, M 10 iA/12S, M 10 iA/8L, ArcMate 100iC/8L, 6L, 7L	6390635920	6-3-592 METZ	22	410.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	480.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	560.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	392.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	462.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	542.6	-	58.6
Kawasaki®	BA006N	6390635920	6-3-592 METZ	22	410.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	480.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	560.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	392.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	462.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	542.6	-	58.6
KUKA®	KR 5 arc HW, KR 6 R1820 arc HW, KR 8 R1420 arc HW	6390635920	6-3-592 METZ	22	410.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	480.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	560.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	392.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	462.6	-	58.6
6390635907	6-3-594 XL METZ	45	-	542.6	-	58.6		

Standard Configurations - 350 amp (continued)

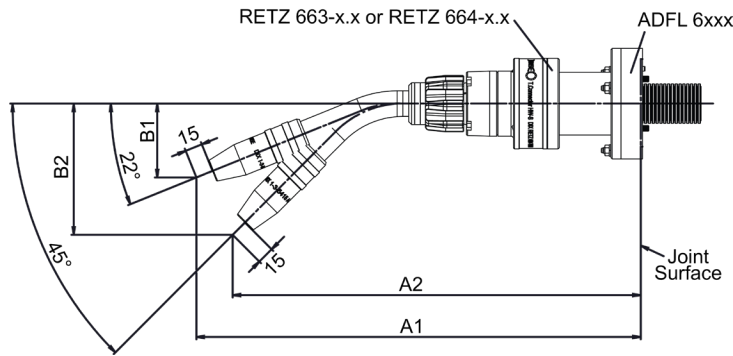
It is important to note that wire brake does not affect TCP



Robot Brand	Robot Model	Neck Part Number	Neck Part Name	Angle	A1	A2	B1	B2
KUKA	KR 16 arc HW	6390635920	6-3-592 METZ	22	410.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	480.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	560.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	392.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	462.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	542.6	-	58.6
Motoman® / Yaskawa®	EA 1400 N, MA 1400, SSA 2000, VA 1400, EA 1800 N, EA 1900 N, MA 1550, MA 3100	6390635920	6-3-592 METZ	22	408.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	478.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	558.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	390.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	460.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	540.6	-	58.6
Motoman / Yaskawa	MA 1440, MA 2010	6390635920	6-3-592 METZ	22	410.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	480.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	560.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	392.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	462.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	542.6	-	58.6
OTC Daihen®	All-B4, All-B4L, FD-B4S	6390635920	6-3-592 METZ	22	409.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	479.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	559.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	391.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	461.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	541.6	-	58.6
Panasonic®	TM 1100, TM 1400, TM 1800	6390635920	6-3-592 METZ	22	410.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	480.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	560.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	392.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	462.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	542.6	-	58.6
Reis®	RV20-6HW, RV20-10HW, RV30-10HW	6390635920	6-3-592 METZ	22	410.1	-	27.7	-
		6390635903	6-3-592 L METZ	22	480.1	-	27.7	-
		6390635906	6-3-592 XL METZ	22	560.1	-	27.7	-
		6390635940	6-3-594 METZ	45	-	392.6	-	58.6
		6390635904	6-3-594 L METZ	45	-	462.6	-	58.6
		6390635907	6-3-594 XL METZ	45	-	542.6	-	58.6

Standard Configurations - 400 amp

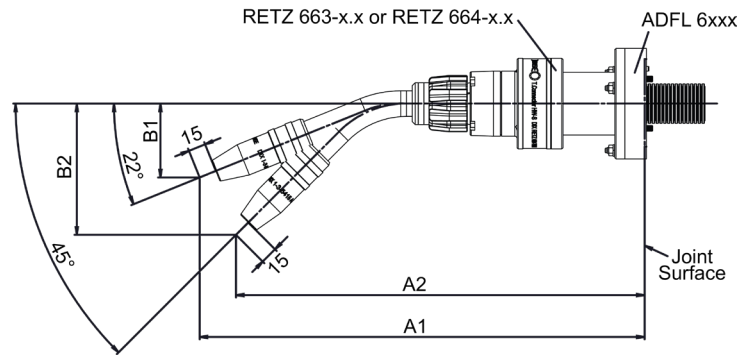
It is important to note that wire brake does not affect TCP



Robot Brand	Robot Model	Neck Part Number	Neck Part Name	Angle	A1	A2	B1	B2
ABB®	IRB 1520 ID, IRB 1600 ID	6390635420	6-3-542 METZ	22	391.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	461.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	541.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	359.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	429.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	509.8	-	112.8
ABB	IRB 2600 ID 15/1.85, IRB 2600 ID 8/2.0, IRB 1660 ID 6/155, IRB 1660ID	6390635420	6-3-542 METZ	22	388.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	458.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	538.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	356.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	426.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	506.8	-	112.8
FANUC®	ARC Mate 120iC, ARC Mate 120iC/10L, ARC Mate 120iC/12L, M 20 iA, M 10 iA/12S, M 10 iA/8L, ArcMate 100iC/8L, 6L, 7L	6390635420	6-3-542 METZ	22	383.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	453.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	533.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	351.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	421.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	501.8	-	112.8
Kawasaki®	BA006N	6390635420	6-3-542 METZ	22	383.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	453.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	533.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	351.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	421.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	501.8	-	112.8
KUKA®	KR 5 arc HW, KR 6 R1820 arc HW, KR 8 R1420 arc HW	6390635420	6-3-542 METZ	22	383.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	453.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	533.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	351.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	421.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	501.8	-	112.8

Standard Configurations - 400 amp (continued)

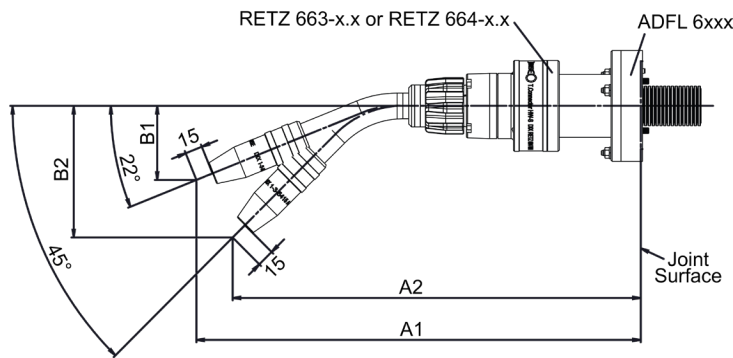
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Robot Brand	Robot Model	Neck Part Number	Neck Part Name	Angle	A1	A2	B1	B2
KUKA	KR 16 arc HW	6390635420	6-3-542 METZ	22	383.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	453.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	533.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	351.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	421.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	501.8	-	112.8
Motoman® / Yaskawa®	EA 1400 N, MA 1400, SSA 2000, VA 1400, EA 1800 N, EA 1900 N, MA 1550, MA 3100	6390635420	6-3-542 METZ	22	381.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	451.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	531.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	349.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	419.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	499.8	-	112.8
Motoman / Yaskawa	MA 1440, MA 2010	6390635420	6-3-542 METZ	22	383.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	453.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	533.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	351.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	421.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	501.8	-	112.8
OTC Daihen®	AII-B4, AII-B4L, FD-B4S	6390635420	6-3-542 METZ	22	382.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	452.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	532.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	350.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	420.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	400.8	-	112.8
Panasonic®	TM 1100, TM 1400, TM 1800	6390635420	6-3-542 METZ	22	383.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	453.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	533.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	351.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	421.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	501.8	-	112.8
Reis®	RV20-6HW, RV20-10HW, RV30-10HW	6390635420	6-3-542 METZ	22	383.0	-	63.5	-
		6390635403	6-3-542 L METZ	22	453.0	-	63.5	-
		6390635406	6-3-542 XL METZ	22	533.0	-	63.5	-
		6390635440	6-3-544 METZ	45	-	351.8	-	112.8
		6390635404	6-3-544 L METZ	45	-	421.8	-	112.8
		6390635407	6-3-544 XL METZ	45	-	501.8	-	112.8

Standard Configurations - 500 amp

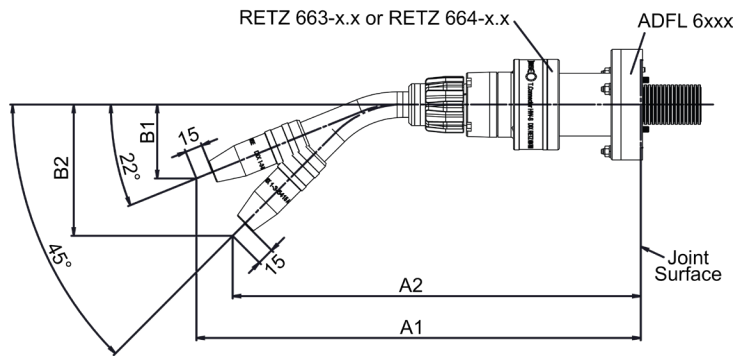
It is important to note that wire brake does not affect TCP



Robot Brand	Robot Model	Neck Part Number	Neck Part Name	Angle	A1	A2	B1	B2
ABB®	IRB 1520 ID, IRB 1600 ID	6390635720	6-3-572 METZ	22	392.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	462.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	542.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	360.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	430.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	510.5	-	113.5
ABB	IRB 2600 ID 15/1.85, IRB 2600 ID 8/2.0, IRB 1660 ID 6/155, IRB 1660ID	6390635720	6-3-572 METZ	22	389.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	459.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	539.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	357.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	427.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	507.5	-	113.5
FANUC®	ARC Mate 120iC, ARC Mate 120iC/10L, ARC Mate 120iC/12L, M 20 iA, M 10 iA/12S, M 10 iA/8L, ArcMate 100iC/8L, 6L, 7L	6390635720	6-3-572 METZ	22	384.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	454.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	534.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	352.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	422.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	502.5	-	113.5
Kawasaki®	BA006N	6390635720	6-3-572 METZ	22	384.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	454.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	534.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	352.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	422.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	502.5	-	113.5
KUKA®	KR 5 arc HW, KR 6 R1820 arc HW, KR 8 R1420 arc HW	6390635720	6-3-572 METZ	22	384.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	454.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	534.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	352.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	422.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	502.5	-	113.5

Standard Configurations - 500 amp (continued)

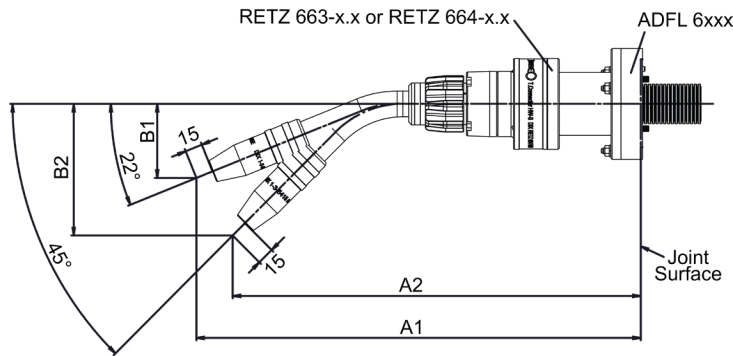
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Robot Brand	Robot Model	Neck Part Number	Neck Part Name	Angle	A1	A2	B1	B2
KUKA	KR 16 arc HW	6390635720	6-3-572 METZ	22	384.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	454.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	534.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	352.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	422.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	502.5	-	113.5
Motoman® / Yaskawa®	EA 1400 N, MA 1400, SSA 2000, VA 1400, EA 1800 N, EA 1900 N, MA 1550, MA 3100	6390635720	6-3-572 METZ	22	382.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	452.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	532.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	350.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	420.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	500.5	-	113.5
Motoman / Yaskawa	MA 1440, MA 2010	6390635720	6-3-572 METZ	22	384.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	454.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	534.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	352.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	422.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	502.5	-	113.5
OTC Daihen®	AII-B4, AII-B4L, FD-B4S	6390635720	6-3-572 METZ	22	383.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	453.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	533.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	351.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	421.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	501.5	-	113.5
Panasonic®	TM 1100, TM 1400, TM 1800	6390635720	6-3-572 METZ	22	384.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	454.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	534.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	352.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	422.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	502.5	-	113.5
Reis®	RV20-6HW, RV20-10HW, RV30-10HW	6390635720	6-3-572 METZ	22	384.0	-	63.8	-
		6390635703	6-3-572 L METZ	22	454.0	-	63.8	-
		6390635706	6-3-572 XL METZ	22	534.0	-	63.8	-
		6390635740	6-3-574 METZ	45	-	352.5	-	113.5
		6390635704	6-3-574 L METZ	45	-	422.5	-	113.5
		6390635707	6-3-574 XL METZ	45	-	502.5	-	113.5

Standard Configurations - 600 amp

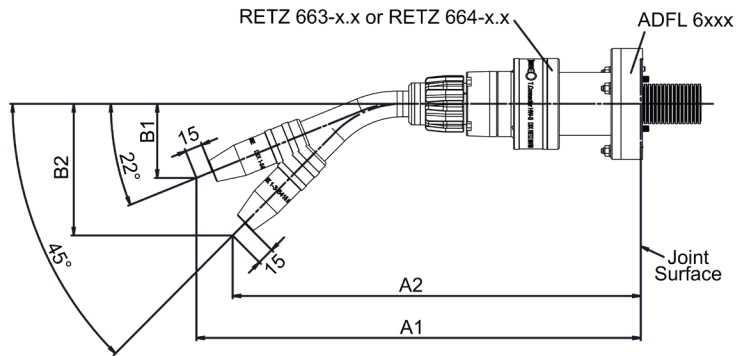
It is important to note that wire brake does not affect TCP



Robot Brand	Robot Model	Neck Part Number	Neck Part Name	Angle	A1	A2	B1	B2
ABB®	IRB 1520 ID, IRB 1600 ID	6390695522	6-3-5522 METZ	22	391.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	461.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	541.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	359.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	429.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	509.8	-	112.8
ABB	IRB 2600 ID 15/1.85, IRB 2600 ID 8/2.0, IRB 1660 ID 6/155, IRB 1660ID	6390695522	6-3-5522 METZ	22	388.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	458.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	538.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	356.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	426.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	506.8	-	112.8
FANUC®	ARC Mate 120iC, ARC Mate 120iC/10L, ARC Mate 120iC/12L, M 20 iA, M 10 iA/12S, M 10 iA/8L, ArcMate 100iC/8L, 6L, 7L	6390695522	6-3-5522 METZ	22	383.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	453.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	533.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	351.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	421.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	501.8	-	112.8
Kawasaki®	BA006N	6390695522	6-3-5522 METZ	22	383.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	453.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	533.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	351.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	421.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	501.8	-	112.8
KUKA®	KR 5 arc HW, KR 6 R1820 arc HW, KR 8 R1420 arc HW	6390695522	6-3-5522 METZ	22	383.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	453.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	533.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	351.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	421.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	501.8	-	112.8

Standard Configurations - 600 amp (continued)

It is important to note that wire brake does not affect TCP



Robot Brand	Robot Model	Neck Part Number	Neck Part Name	Angle	A1	A2	B1	B2
KUKA	KR 16 arc HW	6390695522	6-3-5522 METZ	22	383.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	453.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	533.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	351.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	421.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	501.8	-	112.8
Motoman® / Yaskawa®	EA 1400 N, MA 1400, SSA 2000, VA 1400, EA 1800 N, EA 1900 N, MA 1550, MA 3100	6390695522	6-3-5522 METZ	22	381.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	451.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	531.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	349.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	419.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	499.8	-	112.8
Motoman / Yaskawa	MA 1440, MA 2010	6390695522	6-3-5522 METZ	22	383.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	453.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	533.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	351.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	421.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	501.8	-	112.8
OTC Daihen®	AII-B4, AII-B4L, FD-B4S	6390695522	6-3-5522 METZ	22	382.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	452.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	532.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	450.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	420.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	500.8	-	112.8
Panasonic®	TM 1100, TM 1400, TM 1800	6390695522	6-3-5522 METZ	22	383.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	453.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	533.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	351.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	421.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	501.8	-	112.8
Reis®	RV20-6HW, RV20-10HW, RV30-10HW	6390695522	6-3-5522 METZ	22	383.0	-	63.7	-
		631155002	6-3-5522 L METZ	22	453.0	-	63.7	-
		631155005	6-3-5522 XL METZ	22	533.0	-	63.7	-
		6390695545	6-3-5545 METZ	45	-	351.8	-	112.8
		631155003	6-3-5545 L METZ	45	-	421.8	-	112.8
		631155006	6-3-5545 XL METZ	45	-	501.8	-	112.8

Consumable Options

Nozzles - Use with 350 amp Model

Part Number	Part Name	Description	Part Number	Part Name	Description
6390159150	1-3-5915 A	15 mm (0.59") bore, flush	6390159149	1-3-5914	14 mm (0.55") bore
6390159110	1-3-5911 A	11 mm (0.43") bore, flush			

Nozzles - Use with 400 amp Model

Part Number	Part Name	Description
6390154130	1-3-5413 A	13 mm (0.51") bore, flush
6390154150	1-3-5415 A	15 mm (0.59") bore, flush
6390154180	1-3-5418 A	18 mm (0.71") bore, flush
6390154155	1-3-5415 AR	15 mm (0.59") bore, reduced O.D.
6390154151	1-3-5415 AK	15 mm (0.59") bore, short
6390154156	1-3-5415 AKR	15 mm (0.59") bore, short, reduced O.D.

Nozzles - Use with 500 amp Model

Part Number	Part Name	Description	Part Number	Part Name	Description
6390157150	1-3-5715 A	15 mm (0.59") bore, flush	6390257157	1-3-5715 SAD	15 mm (0.59") bore
6390157180	1-3-5718 A	18 mm (0.71") bore, flush	6390257187	1-3-5718 SAD	18 mm (0.71") bore
6390157210	1-3-5721 A	21 mm (0.83") bore, flush	6390257217	1-3-5721 SAD	21 mm (0.83") bore
628145700	SAD 5700	Nozzle adaptor for use with 1-3-57xx SAD nozzles			

Nozzles - Use with 600 amp Model

Part Number	Part Name	Description
6390155150	1-3-5515 A	Nozzle cone: 15 mm (0.59") bore
6390155180	1-3-5518 A	Nozzle cone: 18 mm (0.71") bore
6390155210	1-3-5521 A	Nozzle cone: 21 mm (0.83") bore
6390555000	5-3-550	Nozzle Body for use with all 600 amp nozzle cones

Nozzle Insulators - Use with 400 amp and 600 amp Models

Part Number	Part Name	Description
6390250000	2-3-500	Nozzle insulator for 1-3-54xx A and AK nozzles (400 amp model) and 5-3-550 nozzle body (600 amp model)

Contact Tips M6 x 1.102" (28 mm) - Use with 350 amp Model

Part Number	Part Name	Description	Part Number	Part Name	Description
629030008	3-2-0.8	for 0.8 mm (0.030") wire	629030012	3-2-1.2	for 1.2 mm (0.045") wire
629030009	3-2-0.9	for 0.9 mm (0.035") wire	629030016	3-2-1.6	for 1.6 mm (1/16") wire
629030010	3-2-1.0	for 1.0 mm (0.039") wire			

Contact Tips M6 x 1.102" (28 mm), Chrome Zirconium - Use with 350 and 400 amp Models

Part Number	Part Name	Description	Part Number	Part Name	Description
629033008	3-2-0.8 CR-ZR	for 0.8 mm (0.030") wire	629033012	3-2-1.2 CR-ZR	for 1.2 mm (0.045") wire
629033009	3-2-0.9 CR-ZR	for 0.9 mm (0.035") wire	629033014	3-2-1.4 CR-ZR	for 1.4 mm (0.055") wire
629033010	3-2-1.0 CR-ZR	for 1.0 mm (0.039") wire	629033016	3-2-1.6 CR-ZR	for 1.6 mm (1/16") wire

Contact Tips M8 x 1.102" (28 mm) - Use with 400 and 500 amp Models

Part Number	Part Name	Description	Part Number	Part Name	Description
629030108	3-2-0.8 M8	for 0.8-0.9 mm (0.030"-0.035") wire	629030114	3-2-1.4 M8	for 1.4 mm (0.055") wire
629030110	3-2-1.0 M8	for 1.0 mm (0.039") wire	629030116	3-2-1.6 M8	for 1.6 mm (1/16") wire
629030112	3-2-1.2 M8	for 1.2 mm (0.045") wire			

Contact Tips M8 x 1.102" (28 mm), Chrome Zirconium - Use with 400 and 500 amp Models

Part Number	Part Name	Description
629033110	3-2-1.0 M8 CR-ZR	for 1.0 mm (0.039") wire
629033112	3-2-1.2 M8 CR-ZR	for 1.2 mm (0.045") wire
629033113	3-2-1.3 M8 CR-ZR	for 1.3 mm (0.052") wire
629033114	3-2-1.4 M8 CR-ZR	for 1.4 mm (0.055") wire
629033116	3-2-1.6 M8 CR-ZR	for 1.6 mm (1/16") wire

Contact Tips M9 x 1.102" (28 mm) - Use with 600 amp Model

Part Number	Part Name	Description	Part Number	Part Name	Description
6390355120	3-3-5512	for 1.2 mm (0.045") wire	6390355180	3-3-5518	for 1.8 mm (0.070") wire
6390355140	3-3-5514	for 1.4 mm (0.055") wire	6390355200	3-3-5520	for 2.0 mm (5/64") wire
6390355160	3-3-5516	for 1.6 mm (1/16") wire	6390355240	3-3-5524	for 2.4 mm (3/32") wire

Contact Tip Adaptors - For use with 400 amp Model only

Part Number	Part Name	Description	Part Number	Part Name	Description
628150006	GS 2 M6	M6 contact tip adaptor	628150008	GS 2 M8	M8 contact tip adaptor

Gas Diffusers

Use with 350 amp Model

Part Number	Part Name	Description
6391059001	GVT 590	Gas diffuser
6391059003	GVT 590 K	Gas diffuser (10 pcs)

Use with 500 amp Model

Part Number	Part Name	Description
6291003052	10-2-305	Gas diffuser
6291003051	10-2-305 K	Gas diffuser (10 pcs)

Use with 400 amp Model

Part Number	Part Name	Description
6391054000	10-3-540	Gas diffuser

Use with 600 amp Model

Part Number	Part Name	Description
6391055000	10-3-550	Gas diffuser

Liners

Part Number	Part Name	Description	Length
613000135	DS 4/1.5-3.5	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	3.5 m
613000155	DS 4/1.5-5.5	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	5.5 m
6130001105	DS 4/1.5-10.5	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	10.5 m
613000100	DS 4/1.5-50	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	50.0 m
613000235	DS 4/1.8-3.5	for 1.0 mm - 1.2 mm (0.039" - 0.045") wire	3.5 m
613000255	DS 4/1.8-5.5	for 1.0 mm - 1.2 mm (0.039" - 0.045") wire	5.5 m
6130002105	DS 4/1.8-10.5	for 1.0 mm - 1.2 mm (0.039" - 0.045") wire	10.5 m
613000200	DS 4/1.8-50	for 1.0 mm - 1.2 mm (0.039" - 0.045") wire	50.0 m
623000335	DS 4/2.2-3.5	for 1.2 mm - 1.4 mm (0.045" - 0.052") wire	3.5 m
623000355	DS 4/2.2-5.5	for 1.2 mm - 1.4 mm (0.045" - 0.052") wire	5.5 m
6230003105	DS 4/2.2-10.5	for 1.2 mm - 1.4 mm (0.045" - 0.052") wire	10.5 m
623000300	DS 4/2.2-50	for 1.2 mm - 1.4 mm (0.045" - 0.052") wire	50.0 m
623000435	DS 4/2.4-3.5	for 1.2 mm - 1.6 mm (0.045" - 1/16") wire	3.5 m
623000455	DS 4/2.4-5.5	for 1.2 mm - 1.6 mm (0.045" - 1/16") wire	5.5 m
6230004105	DS 4/2.4-10.5	for 1.2 mm - 1.6 mm (0.045" - 1/16") wire	10.5 m
623000400	DS 4/2.4-50	for 1.2 mm - 1.6 mm (0.045" - 1/16") wire	50.0 m
623000535	DS 4/2.9-3.5	for 1.6 mm - 2.4 mm (1/16" - 3/32") wire	3.5 m
623000555	DS 4/2.9-5.5	for 1.6 mm - 2.4 mm (1/16" - 3/32") wire	5.5 m
6230005105	DS 4/2.9-10.5	for 1.6 mm - 2.4 mm (1/16" - 3/32") wire	10.5 m
623001500	DS 4/2.9-50	for 1.6 mm - 2.4 mm (1/16" - 3/32") wire	50.0 m

Liners for Aluminum Wire

Part Number	Part Name	Description	Length	
613002003	DSK 1-0.3	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	0.3 m	
613002035	DSK 1-3.5	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	3.5 m	
613002055	DSK 1-5.5	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	5.5 m	
6130020105	DSK 1-10.5	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	10.5 m	
613002000	DSK 1-100	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	100.0 m	
623002003	DSK 2-0.3	for 1.0 mm - 1.4 mm (0.039" - 0.052") wire	0.3 m	
623002035	DSK 2-3.5	for 1.0 mm - 1.4 mm (0.039" - 0.052") wire	3.5 m	
623002055	DSK 2-5.5	for 1.0 mm - 1.4 mm (0.039" - 0.052") wire	5.5 m	
6230020105	DSK 2-10.5	for 1.0 mm - 1.4 mm (0.039" - 0.052") wire	10.5 m	
623002000	DSK 2-100	for 1.0 mm - 1.4 mm (0.039" - 0.052") wire	100.0 m	
6230025030	DSK 3-0.3	for 1.6 mm (1/16") wire	0.3 m	
623002535	DSK 3-3.5	for 1.6 mm (1/16") wire	3.5 m	
623002555	DSK 3-5.5	for 1.6 mm (1/16") wire	5.5 m	
6230025105	DSK 3-10.5	for 1.6 mm (1/16") wire	10.5 m	
623002500	DSK 3-100	for 1.6 mm (1/16") wire	100.0 m	
6130011000	DST 1-10	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	10.0 m	(high temp applications)
613001350	DST 1-3.5	for 0.8 mm - 1.0 mm (0.030" - 0.039") wire	3.5 m	(high temp applications)
623001003	DST 2-0.3	for 1.0 mm - 1.4 mm (0.039" - 0.052") wire	0.3 m	(high temp applications)
623001250	DST 2-2.5	for 1.0 mm - 1.4 mm (0.039" - 0.052") wire	2.5 m	(high temp applications)
623001350	DST 2-3.5	for 1.0 mm - 1.4 mm (0.039" - 0.052") wire	3.5 m	(high temp applications)
623001550	DST 2-5.5	for 1.0 mm - 1.4 mm (0.039" - 0.052") wire	5.5 m	(high temp applications)

Liner Gauge

Part Number	Part Name	Description
628100001	DSH 300	Liner Gauge (Distance sleeve)

Jump Liners (required for MIG guns equipped with wire brake)

See OM-TWD Owner's Manual for liner trim instructions

Components

Water-Cooled Necks

350 amp Models

Part Number	Part Name	Description	Length
6390635920	6-3-592 METZ	22 degree	medium
6390635903	6-3-592 L METZ	22 degree	long
6390635906	6-3-592 XL METZ	22 degree	extended
6390635940	6-3-594 METZ	45 degree	medium
6390635904	6-3-594 L METZ	45 degree	long
6390635907	6-3-594 XL METZ	45 degree	extended

For guns equipped without wire brake: All necks require Connecting Piece part number 639061500041 (MES 300/500)

For guns equipped with wire brake: All necks require Clamp Sleeve part number 629270270 (SH 270)

400 amp Models

Part Number	Part Name	Description	Length
6390635420	6-3-542 METZ	22 degree	medium
6390635403	6-3-542 L METZ	22 degree	long
6390635406	6-3-542 XL METZ	22 degree	extended
6390635440	6-3-544 METZ	45 degree	medium
6390635404	6-3-544 L METZ	45 degree	long
6390635407	6-3-544 XL METZ	45 degree	extended

For guns equipped without wire brake: All necks require Connecting Piece part number 639061500041 (MES 300/500)

For guns equipped with wire brake: All necks require Clamp Sleeve part number 629270270 (SH 270)

500 amp Models

Part Number	Part Name	Description	Length
6390635720	6-3-572 METZ	22 degree	medium
6390635703	6-3-572 L METZ	22 degree	long
6390635706	6-3-572 XL METZ	22 degree	extended
6390635740	6-3-574 METZ	45 degree	medium
6390635704	6-3-574 L METZ	45 degree	long
6390635707	6-3-574 XL METZ	45 degree	extended

For guns equipped without wire brake: All necks require Connecting Piece part number 639061500041 (MES 300/500)

For guns equipped with wire brake: All necks require Clamp Sleeve part number 629270270 (SH 270)

600 amp Models

Part Number	Part name	Description	Length
631355005	6-3-5522 METZ	22 degree	medium
631155002	6-3-5522 L METZ	22 degree	long
631155005	6-3-5522 XL METZ	22 degree	extended
631355006	6-3-5545 METZ	45 degree	medium
631155003	6-3-5545 L METZ	45 degree	long
631155006	6-3-5545 XL METZ	45 degree	extended

For guns equipped without wire brake: All necks require Connecting Piece part number 639061500041 (MES 300/500)

For guns equipped with wire brake: All necks require Clamp Sleeve part number 629270270 (SH 270)

Water-Cooled Cable Assemblies - Clutch (NOTE: Includes connector and cable bundle)

For ABB® IRB1600

Part Number	Part Name	Description	Length
687418003	RETZ 663-1.05 N /0243	cable assembly for Fronius® PAP 1500 feeder	1.05 m

For FANUC® 100iC

Part Number	Part Name	Description	Length
687418011	RETZ 663-0.7 N /0243	cable assembly for Lincoln® 4R220 feeder	0.7 m
687421010	RETZ 663-0.7 N /WB /0243	cable assembly for Lincoln 4R220 feeder; with wire brake	0.7 m

Water-Cooled Cable Assemblies - Clutch *(NOTE: Includes connector and cable bundle) (Continued)*

For FANUC 100iC-6L, 100iC-7L

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687418013	RETZ 663-0.92 N /0243	cable assembly for Lincoln 4R220 feeder	0.92 m
687421012	RETZ 663-0.92 N /WB /0243	cable assembly for Lincoln 4R220 feeder; with wire brake	0.92 m

For FANUC 120iC

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687418012	RETZ 663-0.9 N /0243	cable assembly for Lincoln 4R220 feeder	0.9 m
687421011	RETZ 663-0.9 N /WB /0243	cable assembly for Lincoln 4R220 feeder; with wire brake	0.9 m

For FANUC 120iC-10L

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687418014	RETZ 663-1.1 N /0243	cable assembly for Lincoln 4R220 feeder;	1.1 m
687421013	RETZ 663-1.1 N /WB /0243	cable assembly for Lincoln 4R220 feeder; with wire brake	1.1 m

For Motoman® MA1440

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687418004	RETZ 663-0.75 N /0243	cable assembly for Miller® Auto-Continuum® feeder	0.75 m
687421002	RETZ 663-0.75 N /WB /0243	cable assembly for Miller Auto-Continuum feeder; with wire brake	0.75 m

For Panasonic® TM-1100, TM-1400

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687418002	RETZ 663-0.8 N /0243	cable assembly for Miller Auto-Continuum feeder	0.8 m
687421003	RETZ 663-0.8 N /WB /0243	cable assembly for Miller Auto-Continuum feeder; with wire brake	0.8 m
687418004	RETZ 663-0.75 N /0243	cable assembly for Miller AA 40G feeder	0.75 m

For Panasonic TM-1600

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687418007	RETZ 663-1.00 N /0243	cable assembly for Miller Auto-Continuum feeder	1 m
687421006	RETZ 663-1 N /WB /0243	cable assembly for Miller Auto-Continuum feeder; with wire brake	1 m
687418005	RETZ 663-0.95 N /0243	cable assembly for Miller AA 40G feeder	0.95 m
687421004	RETZ 663-0.95 N /WB /0243	cable assembly for Miller AA 40G feeder; with wire brake	0.95 m

For Panasonic TM-1800

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687418008	RETZ 663-1.02 N /0243	cable assembly for Miller Auto-Continuum feeder	1.02 m
687421007	RETZ 663-1.02 N /WB /0243	cable assembly for Miller Auto-Continuum feeder; with wire brake	1.02 m
687418006	RETZ 663-0.98 N /0243	cable assembly for Miller AA 40G feeder	0.98 m
687421005	RETZ 663-0.98 N /WB /0243	cable assembly for Miller AA 40G feeder; with wire brake	0.98 m

For Panasonic TM-2000

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687418010	RETZ 663-1.25 N /0243	cable assembly for Miller Auto-Continuum feeder	1.25 m
687421009	RETZ 663-1.25 N /WB /0243	cable assembly for Miller Auto-Continuum feeder; with wire brake	1.25 m
687418009	RETZ 663-1.20 N /0243	cable assembly for Miller AA 40G feeder	1.2 m
687421008	RETZ 663-1.2 N /WB /0243	cable assembly for Miller AA 40G feeder; with wire brake	1.2 m

Water-Cooled Cable Assemblies - Solid Mount *(NOTE: Includes connector and cable bundle)*

For ABB IRB1600

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687427007	RETZ 664-1.05 N /0248	cable assembly for Fronius PAP 1500 feeder	1.05 m

For Motoman® EA/MA1440

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687427001	RETZ 664-0.75 N /0248	cable assembly for Miller Auto-Continuum feeder	0.75 m
687429001	RETZ 664-0.75 N /WB /0248	cable assembly for Miller Auto-Continuum feeder; with wire brake	0.75 m

For Panasonic® TM-1100, TM-1400

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687427001	RETZ 664-0.75 N /0248	cable assembly for Miller AA 40G feeder	0.75 m
687427002	RETZ 664-0.8 N /0248	cable assembly for Miller Auto-Continuum feeder	0.8 m
687429002	RETZ 664-0.8 N /WB /0248	cable assembly for Miller Auto-Continuum feeder; with wire brake	0.8 m

For Panasonic TM-1600

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>	<i>Length</i>
687427003	RETZ 664-0.95 N /0248	cable assembly for Miller AA 40G feeder	0.95 m
687429003	RETZ 664-0.95 N /WB /0248	cable assembly for Miller AA 40G feeder; with wire brake	0.95 m
687427005	RETZ 664-1 N /0248	cable assembly for Miller Auto-Continuum feeder	1 m
687429005	RETZ 664-1 N /WB /0248	cable assembly for Miller Auto-Continuum feeder; with wire brake	1 m

Water-Cooled Cable Assemblies - Solid Mount (NOTE: Includes connector and cable bundle) (Continued)

For Panasonic TM-1800

Part Number	Part Name	Description	Length
687427004	RETZ 664-0.98 N /0248	cable assembly for Miller AA 40G feeder	0.98 m
687429004	RETZ 664-0.98 N /WB /0248	cable assembly for Miller AA 40G feeder; with wire brake	0.98 m
687427006	RETZ 664-1.02 N /0248	cable assembly for Miller Auto-Continuum feeder	1.02 m
687429006	RETZ 664-1.02 N /WB /0248	cable assembly for Miller Auto-Continuum feeder; with wire brake	1.02 m

For Panasonic TM-2000

Part Number	Part Name	Description	Length
687427008	RETZ 664-1.2 N /0248	cable assembly for Miller AA 40G feeder	1.2 m
687429007	RETZ 664-1.2 N /WB /0248	cable assembly for Miller AA 40G feeder; with wire brake	1.2 m
687427009	RETZ 664-1.25 N /0248	cable assembly for Miller Auto-Continuum feeder	1.25 m
687429008	RETZ 664-1.25 N /WB /0248	cable assembly for Miller Auto-Continuum feeder; with wire brake	1.25 m

Replacement Water-Cooled Cable Bundles (NOTE: Does not include connector)

Part Number	Part Name	Description	Length
632167003012	VLLITE 661-0.7 /0243	replacement water-cooled cable bundle	0.7 m
632167003005	VLLITE 661-0.75 /0243	replacement water-cooled cable bundle	0.75 m
632167003003	VLLITE 661-0.8 /0243	replacement water-cooled cable bundle	0.8 m
632167003013	VLLITE 661-0.9 /0243	replacement water-cooled cable bundle	0.9 m
632167003014	VLLITE 661-0.92 /0243	replacement water-cooled cable bundle	0.92 m
632167003006	VLLITE 661-0.95 /0243	replacement water-cooled cable bundle	0.95 m
632167003007	VLLITE 661-0.98 /0243	replacement water-cooled cable bundle	0.98 m
632167003008	VLLITE 661-1 /0243	replacement water-cooled cable bundle	1.0 m
632167003009	VLLITE 661-1.02 /0243	replacement water-cooled cable bundle	1.02 m
632167003004	VLLITE 661-1.05 /0243	replacement water-cooled cable bundle	1.05 m
632167003015	VLLITE 661-1.1 /0243	replacement water-cooled cable bundle	1.1 m
632167003010	VLLITE 661-1.2 /0243	replacement water-cooled cable bundle	1.2 m
632167003011	VLLITE 661-1.25 /0243	replacement water-cooled cable bundle	1.25 m

Replacement Water-Cooled Cable Bundles - Wire Brake (NOTE: Does not include connector)

Part Number	Part Name	Description	Length
632167002009	VLLITE 661-0.7 WB1 /0243	replacement water-cooled cable bundle, wire brake	0.7 m
632167002001	VLLITE 661-0.75 WB1 /0243	replacement water-cooled cable bundle, wire brake	0.75 m
632167002002	VLLITE 661-0.8 WB1 /0243	replacement water-cooled cable bundle, wire brake	0.8 m
632167002010	VLLITE 661-0.9 WB1 /0243	replacement water-cooled cable bundle, wire brake	0.9 m
632167002011	VLLITE 661-0.92 WB1 /0243	replacement water-cooled cable bundle, wire brake	0.92 m
632167002003	VLLITE 661-0.95 WB1 /0243	replacement water-cooled cable bundle, wire brake	0.95 m
632167002004	VLLITE 661-0.98 WB1 /0243	replacement water-cooled cable bundle, wire brake	0.98 m
632167002005	VLLITE 661-1 WB1 /0243	replacement water-cooled cable bundle, wire brake	1.0 m
632167002006	VLLITE 661-1.02 WB1 /0243	replacement water-cooled cable bundle, wire brake	1.02 m
632167002012	VLLITE 661-1.1 WB1 /0243	replacement water-cooled cable bundle, wire brake	1.1 m
632167002007	VLLITE 661-1.2 WB1 /0243	replacement water-cooled cable bundle, wire brake	1.2 m
632167002008	VLLITE 661-1.25 WB1 /0243	replacement water-cooled cable bundle, wire brake	1.25 m

Water-Cooled Cable Repair Set

Part Number	Part Name	Description
687400028	TS 360-663	repair set, hoses - for cable bundle lengths to 3.0 m (9' 10"); includes: (1) air blast hose (4.2 m) (2) water plugs (1) cap (blue) (1) gas hose (4.2 m) (1) air blast plug (1) water hose (1.3 m) (1) cap (red) (1) checking gas hose for wire brake (4.2 m)

Rear Handle Assembly Components

Part Number	Part Name	Description
639112007	RETZ 110 N	Plug insert (for power pin version)

Wire Brake System

Part Number	Part Name	Description	Part Number	Part Name	Description
629470100	WB 1	Wire brake for wire 0.8-1.6 mm	62947010016	DBA 100	Wire brake adaptor
62947010010	DBE 100	Wire brake unit	62947010024	DFB 100	Guide sleeve

Mounting Options

Clutch Connectors

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
687400049	RETZ 660	Connection set
62915004014	15-2 MAPT	Contact set for gas nozzle sensor function, not for wire brake
687400024	SR 361	Control ring for clutch
687400016	MAN 361	Dust boot
687400023	ABSC 361	Disconnection (with control ring and dust boot)

Solid Mount Connectors

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
687400049	RETZ 660	Connection set
62915004014	15-2-MAPT	Contact set for gas nozzle sensor function, not for wire brake
687413004	ADH 6700	Adaptor sleeve

Insulating and Transition Discs

For ABB® Robots

<i>Part Number</i>	<i>Part name</i>	<i>Description</i>
687003502	ADFL 6302	for IRB 1520 ID, IRB 1600 ID
687003511	ADFL 6311	for IRB 2600 ID 15/1.85, IRB 2600 ID 8/2.0, IRB 1660 ID 6/185, IRB 1660ID

For FANUC® Robots

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
687003503	ADFL 6303	for ARC Mate 120iC, ARC Mate 120iC-10L, ARC Mate 120iC-12L, M 20iA, M 10iA/12S, M 10iA/8L, ARC Mate 100iC-8L, 6L, 7L
687003507	ADFL 6307	for ARC Mate 100iD

For Kawasaki® Robots

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
687003513	ADFL 6313	for BA006N

For KUKA® Robots

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
687003504	ADFL 6304	for KR 5 arc HW, KR 6 R1820 arc HW, KR 8 R1420 arc HW
68700350511	ADFL 6305	for KR 16 arc HW

For Motoman® / Yaskawa® Robots

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
687003500	ADFL 6300	for EA 1400 N, MA 1400, SSA 2000, VA 1400, EA 1800 N, EA 1900 N, MA 1550, MA 3100
687003503	ADFL 6303	for MA 1440, MA 2010

For OTC Daihen® Robots

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
687003506	ADFL 6306	for AII-B4, AII-B4L, FD-B4S

For Panasonic® Robots

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
687003512	ADFL 6312	for TM-1100, TM-1400, TM-1800, TM-2000

For Reis® Robots

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
687003508	ADFL 6308	for RV20-6HW, RV20-10HW, RV30-10HW

Power Pins

<i>Part Number</i>	<i>Part Name</i>	<i>Description</i>
639118003	PP 102	for Miller Access Feeder 60 Series, Access Feeder 70 Series
639118004	PP 103	for Tweco #4
639118005	PP 104	for Panasonic Gun Slinger 260 standard
639118009	PP 108	for Fronius VR 5000 rob/PAP
639118010	PP 109	for Lincoln Auto Drive 4R90, Auto Drive 4R100, Auto Drive 4R220
639118015	PP 133	for OTC Daihen AF-4001, AFA-4001, AFT-4201, AFU-4201
639118016	PP 114	for Kemppi DT 410

Peripherals & Accessories

Neck Checking Fixtures

Designed to test neck tolerance vs. tool center point (TCP), these checking fixtures are made of a high grade aluminum alloy for extended life. The aligning module allows for separate realignment of the inner and outer parts of the neck, optimizing the accuracy of the TCP.

For Use with 350 amp Model

Part Number	Part Name	Description
685300151	PV 150	Neck Checking Fixture
685305230	JS 390/590	Aligning set
685305100	JM 100	Aligning module

Components and Replacements Parts

Neck Checking Fixture

Part Number	Part Name	Description
685301151	PVB 150	Base plate
685302105	PVS 100	Support set
685302115	PVL 106	Set up pin, 0.6 mm OD contact tips
685302114	PVL 108	Set up pin, 0.8 mm OD contact tips
685303112	PVP 100	Torch adaptor

Aligning Set

Part Number	Part Name	Description
685305201	JSZ 104	Aligning cylinder
685305212	JSA 101	Aligning adaptor
685305223	JSL 107	Aligning gauge

Aligning Module

Part Number	Part Name	Description
685305130	JB 100	Aligning socket
685305110	JW 100	Aligning tool
685305120	JH 100	Aligning bracket
685305140	JBW 100	Aligning pin - W
685305150	JBH 100	Aligning pin - H

For Use with 400 amp and 500 amp Models

Part Number	Part Name	Description
685300101	PV 100	Neck Checking Fixture
685305250	JS 570	Aligning set
685305100	JM 100	Aligning module

Components and Replacement Parts

Neck Checking Fixture

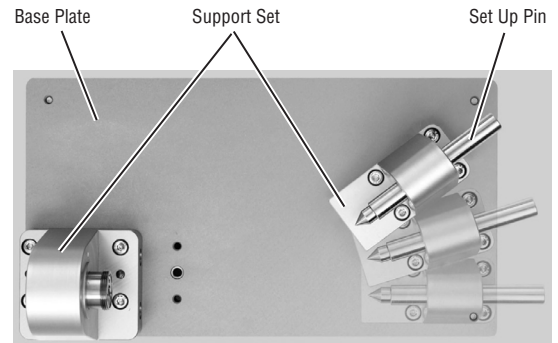
Part Number	Part Name	Description
685301101	PVB 100	Base plate
685302105	PVS 100	Support set
685302115	PVL 106	Set up pin, 0.6 mm OD contact tips
685302114	PVL 108	Set up pin, 0.8 mm OD contact tips
685303112	PVP 100	Torch adaptor

Aligning Set

Part Number	Part Name	Description
685305201	JSZ 104	Aligning cylinder
685305211	JSA 100	Aligning adaptor
685305222	JSL 108	Aligning gauge
685305224	JSL 109 M8	Aligning gauge (M8)
6390454000	4-2-MAS	Clamp nut
628140000	SAD 2-404/540	Screw adaptor

Aligning Module

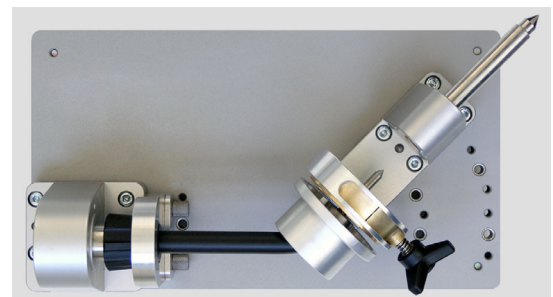
Part Number	Part Name	Description
685305130	JB 100	Aligning socket
685305110	JW 100	Aligning tool
685305120	JH 100	Aligning bracket
685305140	JBW 100	Aligning pin - W
685305150	JBH 100	Aligning pin - H



Neck Checking Fixture PV 150



Aligning module JM 100 (left) and aligning set JS 390/590 (right)



Neck Checking Fixture with neck and aligning module

For Use with 600 amp Model

Part Number	Part Name	Description
685300151	PV 150	Neck Checking Fixture
685305230	JS 5500	Aligning set
685305100	JM 100	Aligning module

Components and Replacements Parts

Neck Checking Fixture

Part Number	Part Name	Description
685301151	PVB 150	Base plate
685302105	PVS 100	Support set
685302115	PVL 106	Set up pin, 0.6 mm OD contact tips
685302114	PVL 108	Set up pin, 0.8 mm OD contact tips
685303112	PVP 100	Torch adaptor

Aligning Set

Part Number	Part Name	Description
685305201	JSZ 104	Aligning cylinder
685305212	JSA 101	Aligning adaptor
685305223	JSL 107	Aligning gauge

Aligning Module

Part Number	Part Name	Description
685305130	JB 100	Aligning socket
685305110	JW 100	Aligning tool
685305120	JH 100	Aligning bracket
685305140	JBW 100	Aligning pin - W
685305150	JBH 100	Aligning pin - H

Service Tools

Below is a complete list of required* and optional tools for Tregaskiss by DINSE TWD Robotic Water-Cooled MIG Gun installation.

Part Number	Part Name	Description
6380160001*	SLAT 4	Hook Spanner; for tightening necks and cables
628010012	SSL 1/2	Special Spanner; for tightening contact tips and contact tip adaptors
6380101080	STLA 3 M8	Socket Spanner; for tightening 3-2-xxxx M8 contact tips
638400002	DMS 100	Torque Wrench; for tightening contact tips (torque bit not included)
638400004	DMV 100	Torque extension (included in DMS 100)
638400001	DMG 100-1.1 Nm	Torque transmitter; for tightening contact tips (included in DMS 100)
638400003	DMB 100-M6	Torque bit (M6)
638400005	DMB 100-M8	Torque bit (M8)



Hook Spanner



Special Spanner



Socket Spanner



Torque Wrench



Torque Bit (M6)

Torque Bit (M8)



Torque Extension



Torque Transmitter

Ordering Information

Tregaskiss by DINSE TWD Robotic Water-Cooled MIG Gun



STEP 1: BEFORE YOU BEGIN!!

It is important that **BEFORE** you proceed, you will need to know the distance between the end face of the robot and the feeder mating feature for the power pin (**Feeder Dimension**) of your actual setup to understand the cable length you require.

Do NOT begin to configure your TWD Robotic Water-Cooled MIG Gun part number without this information.

More information about the Feeder Dimension and how to determine your cable setup is available on page 21.

STEP 2: Configure Your MIG Gun Part Number

TWD Series			Neck	Robot Make & Model	Feeder Make & Model	Gun Mount & Options	Nozzle	Contact Tip*	Wire Size	Cable
T	W	D	N	P A	B	1	N	4	H	X
			350 amp	Motoman®	Miller®	1 Clutch	A 1-3-5915 A†	1 3-2-x.x**	C 0.8 mm	X Cable (must be ordered separately) <i>Continue to Step #3 on page 21 to determine what cable you need to order to complete your system. This will NOT affect the price of your MIG gun.</i>
			<i>Medium Length</i>	M A MA1440	A Auto Access®	3 Solid Mount	B 1-3-5911 A†	2 3-2-x.x	D 1.0 mm (0.035")	
			A 22 degree	FANUC®	B Auto Continuum®	5 Clutch + Wire	C 1-3-5914†	CR-ZR**	D 1.0 mm (0.040")	
			B 45 degree		F A 100IC	Lincoln®	7 Solid Mount + Wire	D 1-3-5413 A‡	3 3-2-x.x M8‡‡	
			<i>Long Length</i>	F B 100IC-6L, 100IC-7L	C 4R220		Brake	E 1-3-5415 A‡	4 3-2-x.x M8	
			C 22 degree	F C 120IC	Fronius®	Mount + Wire	F 1-3-5418 A‡	CR-ZR‡‡	G 1.3 mm (0.052")	
			D 45 degree	F D 120IC-10L		D PAP 1500	Brake	G 1-3-5413 AR‡	5 3-3-55xx^	
			<i>Extended Length</i>	ABB®			H 1-3-5413 AK‡		I 1.4 mm (0.055")	
			E 22 degree		A A IRB1600ID			J 1-3-5413 AKR‡		
			F 45 degree				K 1-3-5415 AR‡		K 1.8 mm (0.070")	
							L 1-3-5415 AK‡		L 2.0 mm (0.078")	
							M 1-3-5415 AKR‡		M 2.4 mm (3/32")	
							N 1-3-5715 A††			
							O 1-3-5718 A††			
							P 1-3-5718 A††			
							Q 1-3-5721 A††			
							R 1-3-5715 SAD††			
							S 1-3-5718 SAD††			
							T 1-3-5721 SAD††			
							U 1-3-5515 A^			
							V 1-3-5518 A^			
							W 1-3-5521 A^			
			400 amp	Panasonic®						
			<i>Medium Length</i>	P A TM-1100, TM-1400						
			G 22 degree	P B TM-1800						
			H 45 degree	P C TM-1600						
			<i>Long Length</i>	P D TM-2000						
			J 22 degree							
			K 45 degree							
			<i>Extended Length</i>							
			L 22 degree							
			M 45 degree							
			500 amp							
			<i>Medium Length</i>							
			N 22 degree							
			P 45 degree							
			<i>Long Length</i>							
			Q 22 degree							
			R 45 degree							
			<i>Extended Length</i>							
			S 22 degree							
			T 45 degree							
			600 amp							
			<i>Medium Length</i>							
			U 22 degree							
			V 45 degree							
			<i>Long Length</i>							
			W 22 degree							
			X 45 degree							
			<i>Extended Length</i>							
			Y 22 degree							
			Z 45 degree							

*x.x and xx represents wire size (i.e. 0.8=0.8 mm, 1.0=1.0 mm or 10=1.0 mm, 12=1.2 mm)

**Compatible with 350 amp and 400 amp model only

‡Compatible with 400 amp model only

‡‡Compatible with 400 amp and 500 amp model only

^Compatible with 600 amp model only

†Compatible with 350 amp model only

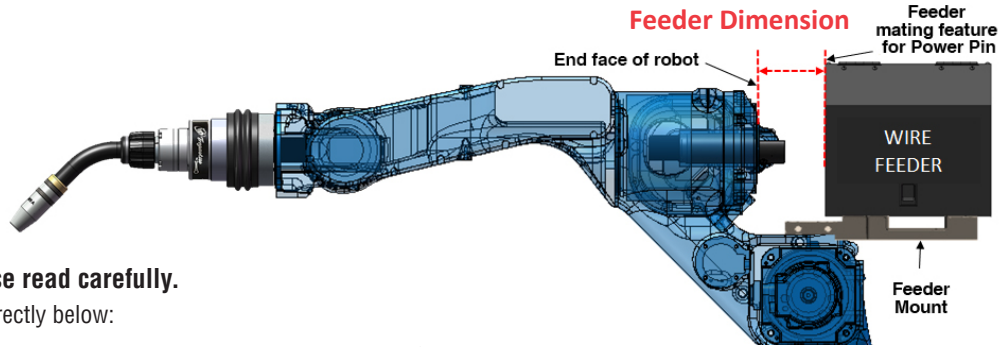
††Compatible with 500 amp model only

Ordering Information (Continued)

STEP 3: How to Determine Your Cable Setup (NOTE: Cable MUST be ordered separately!)

Based on the diagram below, it is important that you carefully measure to find your actual feeder dimension.

(Wire feeder mounting and location is required to specify the correct cable length for through-arm applications. Although many feeder and robot mounting configurations are known to the Tregaskiss Technical and Engineering teams, some differ based on customer application requirements.)



IMPORTANT! Please read carefully.

Based on the chart directly below:

- Find the robot make and model you selected in your gun configuration.
- In the same row as your robot make and model, look for your feeder make and model in the columns to the right.
 - If you do not see your feeder make and model listed**, please contact our Technical Support team at 1-855-MIGWELD (644-9353) or TechServices@tregaskiss.com for assistance with ordering your cable.
 - If your feeder make and model is listed**, continue to next step below.
- Find the Feeder Dimension listed for your robot/feeder combination in the "Default Feeder Dimension (mm)" column of your row.
 - If the Feeder Dimension listed matches your actual Feeder dimension measurement within 5 mm when rounding up** (when measuring as per the diagram above), use the part number listed in the "Part Number" column to order your cable. **You must order your MIG gun part number AND your cable part number separately!** (Important note: The Part Name and Part Number shown below should not be used when ordering replacement cables; Replacement cable part numbers can be found on page 16.)
 - If the Feeder Dimension listed does not match your actual Feeder dimension measurement within 5 mm when rounding up** (when measuring as per the diagram above), please contact our Tregaskiss Technical Support team at 1-855-MIGWELD (644-9353) or TechServices@tregaskiss.com for assistance with ordering your cable.

Cable Lengths and Ordering Information for Default Configurations

Robot Make	Robot Model	Feeder Make	Feeder Model	Default Cable Length (mm)	Default Feeder Dimension (mm)	Gun Mount	Options	Part Name (length referenced in meters)	Part Number
ABB®	IRB1600ID	Fronius®	PAP 1500	1050	120.0	Clutch	None	RETZ 663-1.05 N /0243	687418003
				1050	120.0	Solid Mount	None	RETZ 664-1.05 N /0248	687427007
FANUC®	100iC	Lincoln®	4R220	700	33.8	Clutch	None	RETZ 663-0.7 N /0243	687418011
				700	33.8	Clutch	Wire Brake	RETZ 663-0.7 N /WB /0243	687421010
	100iC-6L, 100iC-7L	Lincoln	4R220	920	33.8	Clutch	None	RETZ 663-0.92 N /0243	687418013
				920	33.8	Clutch	Wire Brake	RETZ 663-0.92 N /WB /0243	687421012
	120iC	Lincoln	4R220	900	33.8	Clutch	None	RETZ 663-0.9 N /0243	687418012
				900	33.8	Clutch	Wire Brake	RETZ 663-0.9 N /WB /0243	687421011
	120iC-10L	Lincoln	4R220	1100	33.8	Clutch	None	RETZ 663-1.1 N /0243	687418014
				1100	33.8	Clutch	Wire Brake	RETZ 663-1.1 N /WB /0243	687421013
Motoman®	MA1440	Miller®	Auto-Continuum®	750	49.5	Clutch	None	RETZ 663-0.75 N /0243	687418004
				750	49.5	Clutch	Wire Brake	RETZ 663-0.75 N /WB /0243	687421002
				750	49.5	Solid Mount	None	RETZ 664-0.75 N /0248	687427001
				750	49.5	Solid Mount	Wire Brake	RETZ 664-0.75 N /WB /0248	687429001
Panasonic®	TM-1100	Miller	Auto Access® 40G	750	134.0	Clutch	None	RETZ 663-0.75 N /0243	687418004
				750	134.0	Clutch	Wire Brake	RETZ 663-0.75 N /WB /0243	687421002
				750	134.0	Solid Mount	None	RETZ 664-0.75 N /0248	687427001
				750	134.0	Solid Mount	Wire Brake	RETZ 664-0.75 N /WB /0248	687429001
			Auto-Continuum	800	184.0	Clutch	None	RETZ 663-0.8 N /0243	687418002
				800	184.0	Clutch	Wire Brake	RETZ 663-0.8 N /WB /0243	687421003
				800	184.0	Solid Mount	None	RETZ 664-0.8 N /0248	687427002
				800	184.0	Solid Mount	Wire Brake	RETZ 664-0.8 N /WB /0248	687429002
	TM-1400	Miller	Auto Access 40G	750	32.0	Clutch	None	RETZ 663-0.75 N /0243	687418004
				750	32.0	Clutch	Wire Brake	RETZ 663-0.75 N /WB /0243	687421002

Cable Lengths and Ordering Information for Default Configurations (Continued)

Robot Make	Robot Model	Feeder Make	Feeder Model	Default Cable Length (mm)	Default Feeder Dimension (mm)	Gun Mount	Options	Part Name <i>(length referenced in meters)</i>	Part Number	
Panasonic	TM-1400	Miller	Auto Access 40G	750	32.0	Solid Mount	None	RETZ 664-0.75 N /0248	687427001	
				750	32.0	Solid Mount	Wire Brake	RETZ 664-0.75 N /WB /0248	687429001	
		Miller	Auto-Continuum	800	82.0	Clutch	None	RETZ 663-0.8 N /0243	687418002	
				800	82.0	Clutch	Wire Brake	RETZ 663-0.8 N /WB /0243	687421003	
				800	82.0	Solid Mount	None	RETZ 664-0.8 N /0248	687427002	
	TM-1600	Miller	Auto Access 40G	950	32.0	Clutch	None	RETZ 663-0.95 N /0243	687418005	
				950	32.0	Clutch	Wire Brake	RETZ 663-0.95 N /WB /0243	687421004	
				950	32.0	Solid Mount	None	RETZ 664-0.95 N /0248	687427003	
				950	32.0	Solid Mount	Wire Brake	RETZ 664-0.95 N /WB /0248	687429003	
		Miller	Auto-Continuum	1000	82.0	Clutch	None	RETZ 663-1.00 N /0243	687418007	
				1000	82.0	Clutch	Wire Brake	RETZ 663-1 N /WB /0243	687421006	
				1000	82.0	Solid Mount	None	RETZ 664-1 N /0248	687427005	
				1000	82.0	Solid Mount	Wire Brake	RETZ 664-1 N /WB /0248	687429005	
		TM-1800	Miller	Auto Access 40G	980	57.0	Clutch	None	RETZ 663-0.98 N /0243	687418006
					980	57.0	Clutch	Wire Brake	RETZ 663-0.98 N /WB /0243	687421005
					980	57.0	Solid Mount	None	RETZ 664-0.98 N /0248	687427004
					980	57.0	Solid Mount	Wire Brake	RETZ 664-0.98 N /WB /0248	687429004
	Miller		Auto-Continuum	1020	107.0	Clutch	None	RETZ 663-1.02 N /0243	687418008	
				1020	107.0	Clutch	Wire Brake	RETZ 663-1.02 N /WB /0243	687421007	
				1020	107.0	Solid Mount	None	RETZ 664-1.02 N /0248	687427006	
				1020	107.0	Solid Mount	Wire Brake	RETZ 664-1.02 N /WB /0248	687429006	
	TM-2000	Miller	Auto Access 40G	1200	57.0	Clutch	None	RETZ 663-1.20 N /0243	687418009	
				1200	57.0	Clutch	Wire Brake	RETZ 663-1.2 N /WB /0243	687421008	
				1200	57.0	Solid Mount	None	RETZ 664-1.2 N /0248	687427008	
				1200	57.0	Solid Mount	Wire Brake	RETZ 664-1.2 N /WB /0248	687429007	
		Miller	Auto-Continuum	1250	107.0	Clutch	None	RETZ 663-1.25 N /0243	687418010	
				1250	107.0	Clutch	Wire Brake	RETZ 663-1.25 N /WB /0243	687421009	
				1250	107.0	Solid Mount	None	RETZ 664-1.25 N /0248	687427009	
				1250	107.0	Solid Mount	Wire Brake	RETZ 664-1.25 N /WB /0248	687429008	

If your robot/feeder combination is not listed in the tables above or if your Feeder Dimension differs from the measurement listed in the "Default Feeder Dimension (mm)" column, additional cable lengths are available. Please contact our Technical Support team at 1-855-MIGWELD (644-9353) or TechServices@tregaskiss.com for assistance with ordering your cable.

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