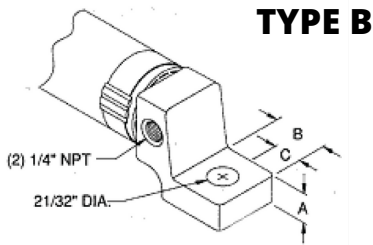


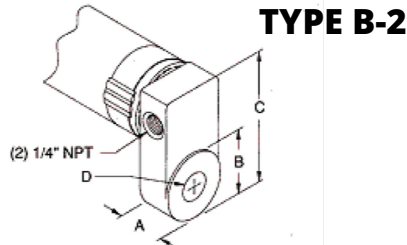
WATER COOLED JUMPER CABLES

Water cooled jumpers (WJ) come equipped with full length filter tubes to insure the free flow of water through the entire cable. Bending or kinking will not reduce water flow.



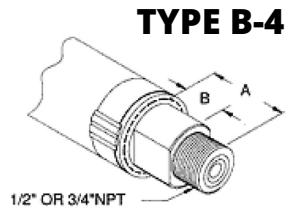
TYPE B

MCM	A	B	C
350/400	9/16"	1-15/16"	9/16"
500/600	9/16"	1-15/16"	5/8"
750	5/8"	1-3/8"	11/16"
1000	3/4"	1-1/2"	3/4"



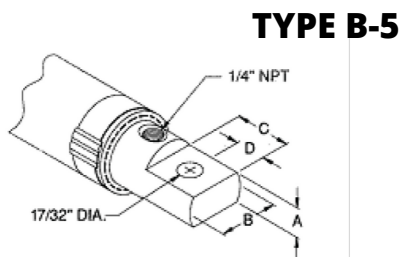
TYPE B-2

MCM	A	B	C	D
350/400	11/16"	1-15/16"	2-11/16"	17/32"
500/600	13/16"	1-3/8"	2-7/8"	17/32"
750	13/16"	1-5/8"	3-1/8"	21/32"
1000	15/16"	1-7/8"	3-1/4"	17/32"



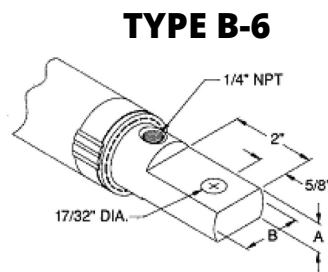
TYPE B-4

MCM	A	B
350/400	1-3/8"	1/2"
500/600	1-7/8"	5/8"
750	1-7/8"	5/8"
1000	2"	11/16"



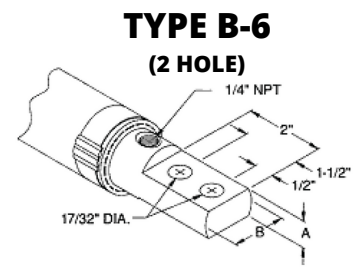
TYPE B-5

MCM	A	B	C	D
350/400	9/16"	1-1/8"	1-1/4"	1/2"
500/600	5/8"	1-1/4"	1-3/8"	5/8"
750	5/8"	1-3/8"	1-3/8"	5/8"
1000	5/8"	1-5/8"	1-3/8"	5/8"



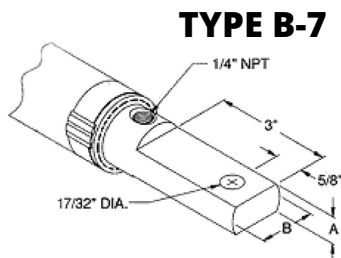
TYPE B-6

MCM	A	B
350/400	9/16"	1-1/8"
500/600	5/8"	1-1/4"
750	5/8"	1-3/8"
1000	5/8"	1-5/8"



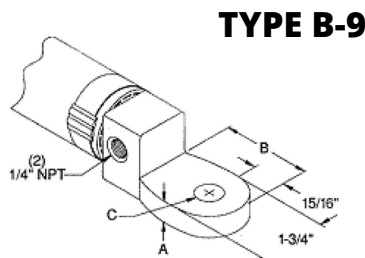
**TYPE B-6
(2 HOLE)**

MCM	A	B
350/400	9/16"	1-1/8"
500/600	5/8"	1-1/4"
750	5/8"	1-3/8"
1000	5/8"	1-5/8"



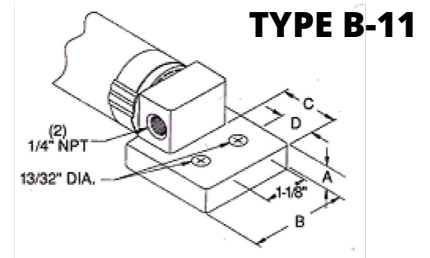
TYPE B-7

MCM	A	B
350/400	9/16"	1-1/8"
500/600	5/8"	1-1/4"
750	5/8"	1-3/8"
1000	5/8"	1-5/8"



TYPE B-9

MCM	A	B	C
350/400	9/16"	2-1/8"	17/32"
500/600	9/16"	2-1/8"	17/32"
750	9/16"	2-5/16"	21/32"
1000	5/8"	2-3/8"	21/32"



TYPE B-11

MCM	A	B	C	D
350/400	3/8"	2"	1-1/8"	9/16"
500/600	3/8"	2"	1-1/8"	9/16"
750	5/8"	2-1/2"	1-1/2"	7/8"
1000	3/4"	2-1/2"	1-1/2"	7/8"

WATER COOLED JUMPER CABLES

DC CABLE / 500 AND 650 MCM

Opposed polarity cables for high amperage, direct current applications.

These heavily reinforced, two conductor water cooled cables are primarily used on heavy duty spot welding stations for joining aluminum panels. This cable is designed to operate at welding currents typically in the range of 45,000 to 55,000 amps D.C.

Several design features maximize cable life and are exclusive to these WATEREDGE-UNIFLEX cables:

- Stranding is press welded to the terminal to provide the lowest possible electrical resistance properties and a virtually indestructible bond (Patent # 4,640,982)
- Opposed polarity for optimum efficiency
- High strength, high temperature teflon reinforced retaining ring throughout the entire cable length
- High pressure, impact resistant cover hose
- 1/2" or 3/8" NPT water port
- 21/32" diameter mounting hole

UNDERSTANDING PART NUMBERS

1000MCMX16-B6/B6

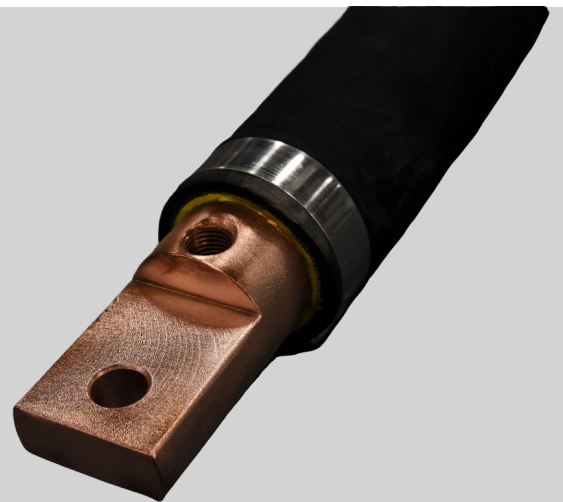


1000- WIRE SIZE

16- LENGTH IN INCHES

B6 - END 1

B6 - END 2

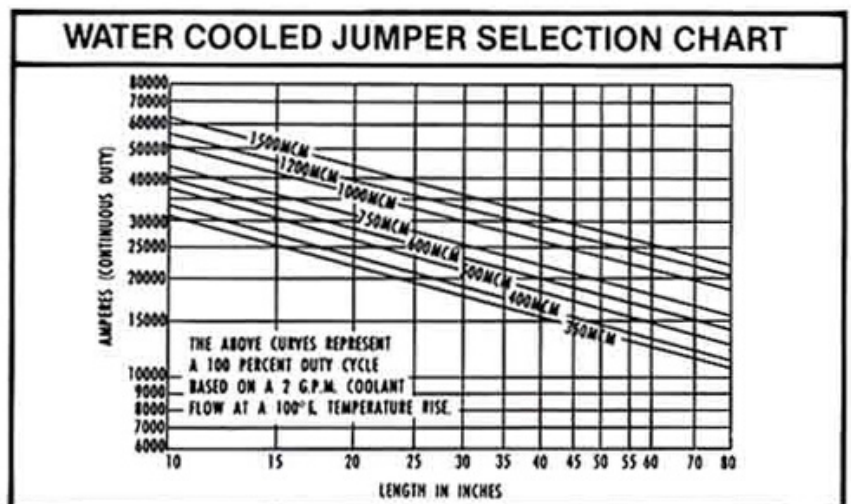
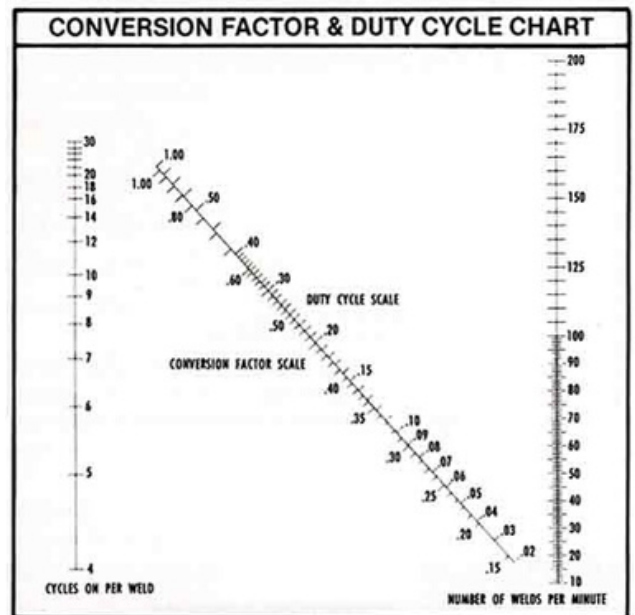


T.J. Snow stocks a wide selection of air and water cooled cables as well as shunts for your resistance welder. If you have questions, please contact our customer service team.

WATER COOLED JUMPER SIZING

Use the following method to determine what size cable should be used for your application. First, use the Conversion Factor chart to determine your "Continuous Duty Current." Then, read the correct size cable on the second chart. An example is worked out below.

- 1 Lay one side of a straight edge across the graph at the six cycles of current "one time" point (the left hand vertical scale of the Conversion Factor Chart).
- 2 Pivot the other end of the straight edge across the line up with the "60 welds per minute" on the far right vertical scale.
- 3 At the intersection of your straight edge with the diagonal conversion factor scale line, you should be able to read a conversion factor of .32 off the lower half of the line.
- 4 Multiply the required current (60,000 amps) by the conversion factor (.32) to get the "continuous duty current" of 19,200 amps. Now, proceed to the Water Cooled Jumper Selection Chart.
- 5 Line up your straight edge on the 19,200 continuous duty amp mark, and find the intersection with your desired length line (from below).
- 6 Any cable whose line is above this point may be safely used, since the load it would carry will be within its thermal capacity. In this example, a 1000 MCM cable would be the best match and will not exceed the design specifications of the jumper cable.



For questions regarding cable sizing, contact our customer service team.

INSTALLATION GUIDELINES

How To Install Water Cooled Cables

Water cooled jumpers should always be installed with a bend radii ranging from 90° to 180°. See the chart below for the minimum recommended radii.

It should be noted that jumper life is inversely related to the operating temperature of the cable; the higher the temperature the shorter the life. The recommended operating temperature is 131°F (55°C) or less, and the maximum operating temperatures should not exceed 158°F (70°C). Making sure there is enough water flow is critical for insuring a low operating temperature.

Recommended Minimum Bend Radii:

350 MCM - 400 MCM: 2"
500 MCM - 600 MCM: 3"
750 MCM - 1000 MCM: 4"

Minimum Distance from the end of the hose to the point where the bend radii should start is:

350 MCM - 400 MCM: 2-1/2"
500 MCM - 600 MCM: 3"
750 MCM - 1000 MCM: 3-1/2"



Questions?
Contact our customer service team.

D.C Resistance of Single Conductor Water Cooled Cable

<u>MCM</u>	<u>D.C. Resistance (Ohms per foot at 70°C)</u>
350	.0000376
400	.0000322
500	.0000263
600	.0000217
750	.0000172
1000	.0000130

<u>MCM</u>	<u>D.C. Resistance</u>
1200	.0000110
1500	.0000088
2000	.0000066