



D/F MACHINE SPECIALTIES, INC.

"MIG" AND "TIG" WELDING TOOLS

1750 Howard Drive, North Mankato, MN 56003

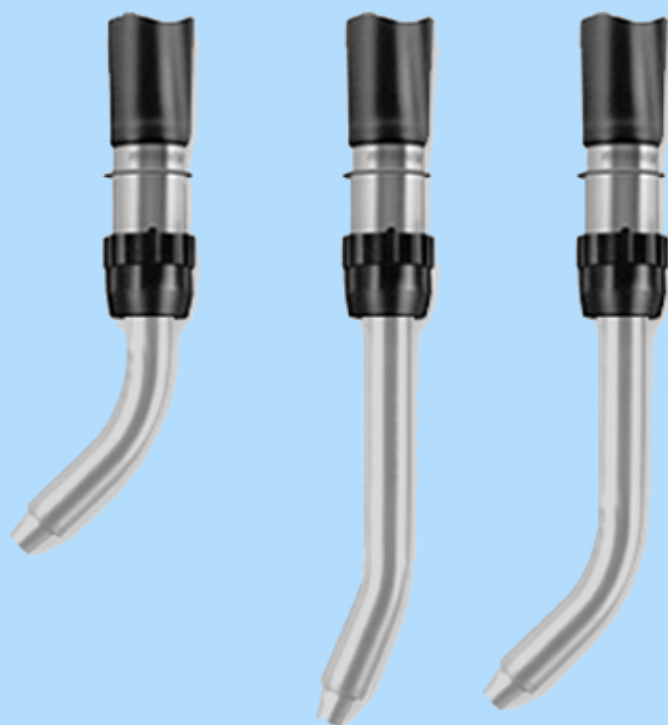
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**MECHANIZED
and
ROBOTIC
WATER COOLED**

**Composite Type
Welding Products**



**Features
Docking Spool Principle
Remote Mount**

MIG



REMOTE MOUNT -- WATER COOLED "MIG" CURVED GUNS

MODEL EXPLANATION

NCC/LRN - Normal Duty, Collet Action (Slip-in Tip) Curved, Nozzle

HTC/LRN - Heavy Duty, Threaded Tip, Curved, Nozzle

SPECIFICATIONS

Current Capacity

NCC/LRN.....	600 amperes in CO ₂ shielding gases
HTC/LRN.....	500 amperes in argon mixtures

Dimensions

Gun Angle.....	45 Degree
Length.....	12.625"
Recommended Wire Diameter Range.....	.030"-.062" Hard .035"-7/64" Cored 3/64"-3/32" Aluminum

Weight (approx.).....	Spool 2.1 lbs.....Gun 2.1 lbs.
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ORDERING INFORMATION

Complete Standard Assemblies Consist of Gun Assembly DOCKING SPOOL® Body & Utility Combination	
NCC/LRN	HTC/LRN
40788	

SPARE WATER COOLED CURVED GUN

Complete Water Cooled Curved Gun 45 Degree Assembly Long 48221
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NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED
Example: Require Model HTC/LRN with 8 Ft. Utilities - Code No. 40788-8
Specify Wire Diameter, Gas Nozzle, Current Tip and Wire Feed Adapter.



45 Degree

MODEL EXPLANATION

NCC/LRN - Normal Duty, Collet Action (Slip-in Tip) Curved, Nozzle

HTC/LRN - Heavy Duty, Threaded Tip, Curved, Nozzle

SPECIFICATIONS

Current Capacity

NCC/LRN.....	600 amperes in CO ₂ shielding gases
HTC/LRN.....	500 amperes in argon mixtures

Dimensions

Gun Angle.....	22 Degree
Length.....	12.625"
Recommended Wire Diameter Range.....	.030"-.062" Hard .035"-7/64" Cored 3/64"-3/32" Aluminum

Weight (approx.).....	Spool 2.1 lbs.....Gun 2.1 lbs.
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ORDERING INFORMATION

Complete Standard Assemblies Consist of Gun Assembly DOCKING SPOOL® Body & Utility Combination	
NCC/LRN	HTC/LRN
40785	

SPARE WATER COOLED CURVED

Complete Water Cooled Curved Gun 22 Degree Assembly Long 48225
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NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED
Example: Require Model HTC/LRN with 8 Ft. Utilities - Code No. 40785-8
Specify Wire Diameter, Gas Nozzle, Current Tip and Wire Feed Adapter.



22 Degree

REMOTE MOUNT -- WATER COOLED "MIG" BARRELS / CURVED GUNS

This Model NCM/LRN - HTM/LRN Water Cooled Machine Barrel is applied to a Remote Mount -- DOCKING SPOOL® body. This ROBOTIC Water Cooled Machine Barrel is designed for long trouble free service.

MODEL EXPLANATION

NCM/LRN - Normal Duty, Collet Action (Slip-in Tip) Machine Barrel, Long Reach, Nozzle
HTM/LRN - Heavy Duty, Threaded Tip, Machine Barrel, Long Reach, Nozzle

SPECIFICATIONS

Current Capacity	
NCM/LRN.....	450/600 amp continuous duty
HTM/LRN.....	600 amp continuous duty
Dimensions	
Length.....	8.375" (5" Nozzle)..... 12.500" (LR)
Recommended Wire Diameter Range.....	
.....0.030"-0.062" Hard	
.....0.035"-7/64" Cored	
.....3/64"-3/32" Aluminum	
Weight (approx.).....	Spool 2.1 lbs..... Barrel 2.1 lbs.

ORDERING INFORMATION

Complete Standard Assemblies Consist of Machine Barrel (Nozzle) Assembly DOCKING SPOOL® Body & Utility Combination	
NCM/LRN	HTM/LRN
40786	
NCM-N	HTM-N
40704	

SPARE WATER COOLED BARREL

Complete Water Cooled Machine Barrel (Nozzle-LR) Assembly
48121
Complete Water Cooled Machine Barrel (Nozzle-S") Assembly
48240

NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED
Example: Require Model HTM/LRN with 8 Ft. Utilities - Code No. 40786-8
Specify Wire Diameter, Gas Nozzle, Current Tip and Wire Feed Adapter.

This 22 Degree ROBOTIC Water Cooled Curved Gun is applied to a Remote Mount -- DOCKING SPOOL® body which is the fixed component at the Robot Wrist.

MODEL EXPLANATION

NCC/N - Normal Duty, Collet Action (Slip-in Tip) Curved, Nozzle
HTC/N - Heavy Duty, Threaded Tip, Curved, Nozzle

SPECIFICATIONS

Current Capacity	
NCC/N.....	450/600 amp continuous duty
HTC/N.....	600 amp continuous duty
Dimensions	
Gun Angle.....	22 Degree
Length.....	7.750"
Recommended Wire Diameter Range.....	
.....0.030"-0.062" Hard	
.....0.035"-7/64" Cored	
.....3/64"-3/32" Aluminum	
Weight (approx.).....	Spool 2.1 lbs..... Gun 1.5 lbs.

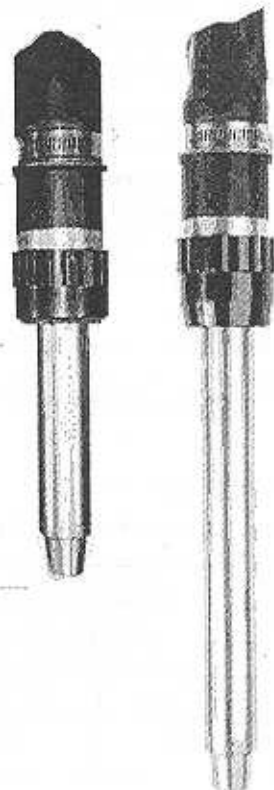
ORDERING INFORMATION

Complete Standard Assemblies Consist of Gun Assembly DOCKING SPOOL® Body & Utility Combination	
NCC/N	HTC/N
40775	

SPARE WATER COOLED GUN

Complete Water Cooled Curved Gun Assembly
48227

NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED
Example: Require Model HTC/N with 8 Ft. Utilities - Code No. 40775-8
Specify Wire Diameter, Gas Nozzle, Current Tip and Wire Feed Adapter.



5" 22 Degree



DIRECT MOUNT - - WATER COOLED "MIG" CURVED GUNS

These Water Cooled 45 Degree and 22 Degree, Curved Nozzle composite type guns are accommodated by a Direct Mount -- DOCKING SPOOL®. The D/F Machine water cooled curved guns composite type are designed to provide long trouble free service.

MODEL EXPLANATION

NCC/LRN - Normal Duty, Collet Action (Slip-in Tip) Curved, Nozzle

HTC/LRN - Heavy Duty, Threaded Tip. Curved, Nozzle

SPECIFICATIONS

Current Capacity

NCC/LRN.....450/600 amp continuous duty

HTC/LRN.....600 amp continuous duty

Dimensions

Gun Angle.....45 Degree

Length.....12.250"

Recommended Wire Diameter Range......030"-.062" Hard

.035"-7/64" Cored

3/64"-3/32" Aluminum

Weight (approx.).....Spool 2.5 lbs.....Gun 2.1 lbs.

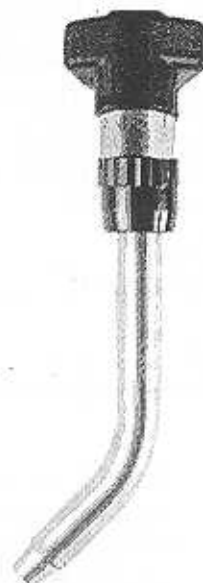
ORDERING INFORMATION

Complete Standard Assemblies Consist of Gun Assembly DOCKING SPOOL® Body & Utility Combination	
NCC/LRN	HTC/LRN
40173	40188

SPARE WATER COOLED CURVED GUN

Complete Water Cooled Curved Gun 45 Degree Assembly Long Direct Mount 48222
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NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED
Example: Require Model HTC/LRN with 8 Ft. Utilities - Code No. 40188-8
Specify Wire Diameter, Gas Nozzle, Current Tip and Wire Feed Adapter.



45 Degree

MODEL EXPLANATION

NCC/LRN - Normal Duty, Collet Action (Slip-in Tip) Curved, Nozzle

HTC/LRN - Heavy Duty, Threaded Tip. Curved, Nozzle

SPECIFICATIONS

Current Capacity

NCC/LRN.....450/600 amp continuous duty

HTC/LRN.....600 amp continuous duty

Dimensions

Gun Angle.....22 Degree

Length.....12.625"

Recommended Wire Diameter Range......030"-.062" Hard

.035"-7/64" Cored

3/64"-3/32" Aluminum

Weight (approx.).....Spool 2.5 lbs.....Gun 2.1

ORDERING INFORMATION

Complete Standard Assemblies Consist of Gun Assembly DOCKING SPOOL® Body & Utility Combination	
NCC/LRN	HTC/LRN
40174	40189

SPARE WATER COOLED CURVED GUN

Complete Water Cooled Curved Gun 22 Degree Assembly Long Direct Mount 48225
--

NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED
Example: Require Model HTC/LRN with 8 Ft. Utilities - Code No. 40189-8
Specify Wire Diameter, Gas Nozzle, Current Tip and Wire Feed Adapter.



22 Degree

DIRECT MOUNT -- WATER COOLED "MIG" BARRELS / CURVED GUNS



The Water Cooled Model NCM/LRN - HTM/LRN series Machine Barrels are designed to be applied directly to the wire drive head by the use of the Direct Mount--DOCKING SPOOL®.

MODEL EXPLANATION

NCM/LRN-NCM-N Normal Duty, Collet Action (Slip-in Tip), Machine Barrel, Long Reach & 5" Nozzle
HTM/LRN -HTM-N Heavy Duty, Threaded Tip, Machine Barrel, Long Reach & 5" Nozzle

SPECIFICATIONS

Current Capacity

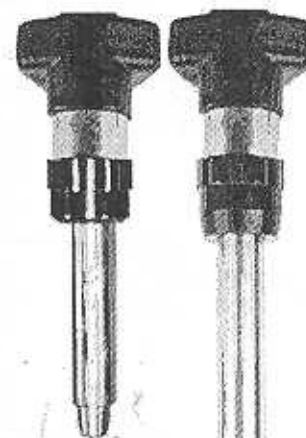
NCM/LRN - NCM-N.....450/600 amp continuous duty
HTM/LRN - HTM-N.....600 amp continuous duty

Dimensions

Length.....9.250" (5" Nozzle).....12.625" (LR)

Recommended Wire Diameter Range......030"-.062" Hard
.035"-7/64" Cored
3/64"-3/32" Aluminum

Weight (approx.).....Spool 2.5 lbs.....Barrel 2.1 lbs.



5" Nozzle

Long Reach

ORDERING INFORMATION

Complete Standard Assemblies Consist of Barrel Assembly DOCKING SPOOL® Body & Utility Combination	
NCM/LRN 40171	HTM/LRN 40186
NCM-N (5") 40172	HTM-N (5") 40187

SPARE WATER COOLED BARREL

Complete Water Cooled Machine Barrel (Nozzle-LR) Assembly Direct Mount 48121
Complete Water Cooled Machine Barrel (Nozzle-5") Assembly Direct Mount 48240

NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED
Example: Require Model HTM/LRN with 8 Ft. Utilities - Code No. 40186-8
Specify Wire Diameter, Gas Nozzle, Current Tip and Wire Feed Adapter.

This Water Cooled 22 Degree, 5" Long, Curved Nozzle composite type gun is accommodated by a Direct Mount -- DOCKING SPOOL®.

MODEL EXPLANATION

NCC/N - Normal Duty, Collet Action (Slip-in Tip), Curved, Nozzle
HTC/N - Heavy Duty, Threaded Tip, Curved, Nozzle

SPECIFICATIONS

Current Capacity

NCC/N.....450/600 amp continuous duty
HTC/N.....600 amp continuous duty

Dimensions

Gun Angle.....22 Degree

Length.....12.625"

Recommended Wire Diameter Range......030"-.062" Hard
.035"-7/64" Cored
3/64"-3/32" Aluminum

Weight (approx.).....Spool 2.5 lbs.....Gun 1.5 lbs.



ORDERING INFORMATION

Complete Standard Assemblies Consist of Gun Assembly DOCKING SPOOL® Body & Utility Combination	
NCC/N 40172	HTC/N 40187

SPARE WATER COOLED CURVED GUN

Complete Water Cooled Curved Gun Assembly Direct Mount 48227
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NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED
Example: Require Model HTC/N with 8 Ft. Utilities - Code No. 40187-8
Specify Wire Diameter, Gas Nozzle, Current Tip and Wire Feed Adapter.



MACHINE BARREL AND GUN ACCESSORIES

CURRENT TIPS

CURRENT TIPS - 5/16" SLIP-IN

Specification	Wire Size	Wire	Code No.
Tip provides 1/8" set back	.030"	Hard	19390
	.035"	Hard	19391
	.045"	Hard	19392
	.052"	Hard	19393
	1/16"	Hard	19394
Tip provides 3/8" set back	.035"	Cored	19400
	.045"	Cored	19401
	.052"	Cored	19402
	1/16"	Cored	19403
	5/64"	Cored	19404
	3/32"	Cored	19403
Tip provides 1/8" set back	3/64"	Aluminum	19407
	1/16"	Aluminum	19408
	3/32"	Aluminum	19409



CURRENT TIPS - 1/4" SLIP-IN

Specification	Wire Size	Wire	Code No.
Tip provides 1/8" set back	.030"	Hard	10787
	.035"	Hard	10788
	.045"	Hard	10782
	.052"	Hard	10830
	1/16"	Hard	10790
Tip provides 1/8" set back	3/64"	Aluminum	10781
	1/16"	Aluminum	10782
	3/32"	Aluminum	10783



CURRENT TIPS - 1/4" SLIP-IN

Specification	Wire Size	Wire	Code No.
Tip provides 1/8" set back	.030"	Hard	10794
	.035"	Hard	10795
	.045"	Hard	10796



CURRENT TIPS - 7/16" DIAMETER THREADED

Specification	Wire Size	Wire	Code No.
Tip provides 1/8" set back	.035"	Hard	15116
	.045"	Hard	15117
	.052"	Hard	15121
	1/16"	Hard	15118
	5/64"	Cored	15119
	3/32"	Cored	15120
Tip provides 3/8" set back	.045"	Cored	15106
	1/16"	Cored	15107
	5/64"	Cored	15108
	3/32"	Cored	15109



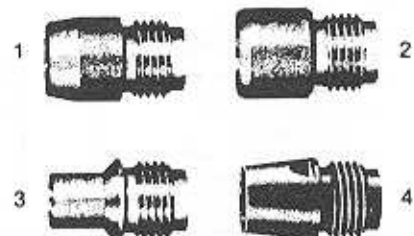
CURRENT TIPS - 5/16" DIAMETER THREADED

Specification	Wire Size	Wire	Code No.
Tip provides 1/8" set back	.035"	Hard	10756
	.045"	Hard	10757
	.052"	Hard	10841
	1/16"	Hard	10759
	5/64"	Hard	10761
	3/32"	Hard	10763
Tip provides 3/8" set back	.045"	Cored	10750
	1/16"	Cored	10751
	5/64"	Cored	10752
	3/32"	Cored	10753



GAS NOZZLES

REF.	Code No.	TYPE	O.D.	I.D.
1	10362	Copper Tapered	15/16"	5/8"
2	10340	Copper Tapered	1"	3/4"
3	10374	Copper Straight	5/8"	7/16"
4	10359	Copper Tapered	15/16"	5/8"



MACHINE BARREL AND GUN ACCESSORIES



CASINGS AND LINERS

CASINGS

Description	Code No.
Casing Assembly (Reinforced) Requires replacement liner below .030"-.035"	46460
Casing Assembly (Flexible) Requires replacement liner below .035" Thru .062"	46370
Casing Assembly (Reinforced) Single Piece .035" - .045"	46420
Single Piece .045" - .062"	46440
Single Piece 5/64" - 3/32"	46460

ORDERING INFORMATION

NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED

Example: Require 8 Ft.Casing(.035"-.045"). Code No.46420-8

LINERS

Description	Wire Size	Code No.
Wire Liner - Hard Wire	.030"-.035"	47020
Wire Liner - Hard Wire	.035"-.045"	47021
Wire Liner - Hard / Cored	.045"-.062"	47022

ORDERING INFORMATION

NOTE: ADD FOOTAGE TO CODE NUMBER FOR LENGTH REQUIRED

Example: Require 8 Ft. liner (.035"-.045"). Code No.47021-8

BARREL LINERS

CODE NO.	WIRE SIZE	TYPE WIRE
16065	.030"-.035"	HARD / CORED
14181	.035"-.045"	HARD / CORED
14182	.045"-1/16"	HARD / CORED
14183	5/64"-3/32"	CORED



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