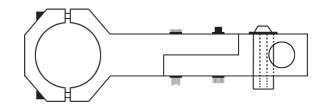
D/F MACHINE SPECIALTIES, INC.

MIG & TIG Welding Products, Consumables & Accessories

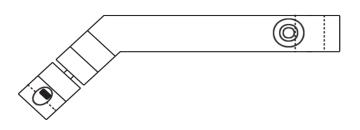
1750 Howard Drive, North Mankato, MN 56003 Phone: (507) 625-6200 Fax: (507) 625-6203 Email: sales@dfmachinespecialties.com www.dfmachinespecialties.com

DEDICATED & ROBOTIC MOUNTING ARMS









MIG & TIG MACHINE BARRELS & GUNS

D/F MACHINE SPECIALTIES is a world leader in the design, development, and manufacture of "MIG" (GMAW) & "TIG" (GTAW) welding products, consumables and accessories. D/F offers several types of manual Air or Water-Cooled "MIG" welding tools, and with the increased use of automated and robotic welding systems, a demand has been created for welding tools of the highest quality, durability and interchangeability. For over forty years, D/F welding products have been used extensively on "MIG" and "TIG" welding applications. This experience, coupled with patented design features, unavailable on any other competitive equipment, has made D/F welding tools the most advanced "MIG" and "TIG" welding guns and barrels for semi-automatic, automatic or robotic welding applications.

This Catalog is a guide to helping you select the proper tool for a given semi-automatic, automatic or robotic welding application. The following is only a partial listing of available semi-automatic, automatic and robotic guns. For further information on special "MIG" and "TIG" requirements, please consult the factory.

Customer satisfaction and customer benefits are the center points of all strategic contents

The spirit of the D/F Machine Specialties personnel is to listen to and to integrate the customer throughout the process, to develop and design marketable products, to present prototypes, to carry out pilot tests and to prepare for and be open to new technology and tasks. We attract and carefully select talented individuals who share our values. Together we will nurture and sustain a work environment with two-way communication, training, mentoring, and rewarding career opportunities.

Innovation and quality

Innovation and quality come from being receptive and willing to learn from others. We encourage our people to be creative and take risks in the pursuit of excellence. Innovative practices are deeply rooted in every one of our employees, a philosophy that leads to continuous product development and industry firsts.

Progress

By remaining confident, focused, and persistent in challenging times, we will discover opportunity. Commitment to quality and the pursuit on innovation ensure that D/F Machine Specialties will remain an industry leader for years to come.

Commitment to excellence

At D/F Machine Specialties we commit to design, build and deliver premium products and superior customer support to quality driven welding professionals. Customers still to this day choose D/F over competitors because of our responsiveness and flexibility. Customers will continue to choose D/F tomorrow for our superior hand-made products and service. To ensure this, we need creative and competent personnel in all business divisions, an intensive exchange of thoughts and ideas with all users, participation in working and study groups within the field of welding technology and intensive cooperation with institutes and universities.

Teamwork

Striving for excellence is a commitment that is an integral component of the D/F Culture. Our team of skilled and dedicated employees takes pride in the excellence products they produce. Each of us willingly accepts personal responsibility for meeting our commitments and we hold each other to a high standard of accountability.

Responsibility

We will continually strive to be environmentally responsible and to support the health and safety of our employees, customers, and neighbors. We continue to support the communities in which we operate and the industries in which we participate.

Thank You for Choosing D/F Machine Specialties



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INTRODUCTION

This catalog provides layouts of Machine Barrel and Curved Gun mounting. A broad selection is available to accommodate a variety of production requirements.

Figure 1, page 5, illustrates the Universal Mounting Arms that utilize a single piece Barrel/Gun Arm Mount. The Mounting Arm arrangement incorporates a Universal Bracket that offers the capability to accomplish various angles such as 15 degrees up, 15 degrees down, horizontal, 30 degrees down, 45 degrees down and 90 degrees.

Bracket #40865 incorporates a wedge bolt for attachment to the Robot Safety Mount.

In Figure 2. a series of Extension Arms are illustrated. Additional reach is accomplished with these arms as illustrated on page 17.

Figure 3 depicts a Flanged Post Mount. The Flanged Post Mount maybe utilized as a Machine/Gun support for dedicated fixturing or as a Robotic Mount.

A Mounting bracket is illustrated in Figure 4. This Bracket accepts all D/F Machine Barrels and Curved Guns and will adapt to the Binzel Mount.

The Mounting Bracket illustrated in Figure 5 offers a means of mounting Machine Barrels and Guns axially to the wrist of a Robot. The Mounting Bracket when used with the Flanged Post offers an excellent means of applying welding equipment to dedicated weld tooling. A phenolic bracket is available for TIG barrel mounting as depicted on page 31.

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Miller and MRK-5 are registered trademarks of Miller Electric Mfg. Co.

General Notice: Other product names mentioned herein are used for identification purposes only and may be trademarks of their respective companies.

REMOTE MOUNT MACHINE BARREL LAYOUT

FIGURE 1 - UNIVERSAL MOUNTING ARM (6", 8" & 10")

Ref.	Code No.	Description
1		Insulating Disc - Ref. Table I Page 6
2	40519-S	Rumble Safety Mount - Medium Duty Standard
	41246-QD	Rumble Safety Mount - Medium Duty Quick-Disconnect
	40520-S	Rumble Safety Mount - Heavy Duty Standard
	41247-QD	Rumble Safety Mount - Heavy Duty Quick-Disconnect
3	40865	Rear Shaft Bracket Only
4	40869	Arm Assembly - Complete 6"
	40870	Arm Assembly - Complete 8"
	40871	Arm Assembly - Complete 10"
5	40539	Bushing
6	40565	Arm - Only 6"
	40566	Arm - Only 8"
	40567	Arm - Only 10"

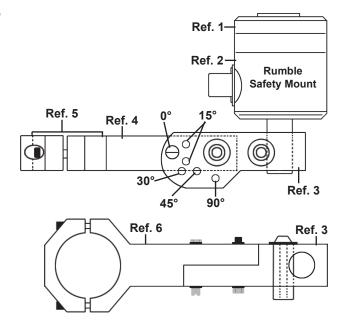


FIGURE 2 - EXTENSION ARMS

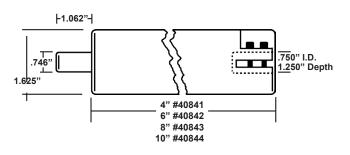


FIGURE 4 - MOUNTING BRACKET (40810) (Binzel Robotic Mount)

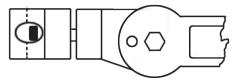


FIGURE 5 - MOUNTING BRACKET (40597) Aluminum - For Flanged Post or Safety Mounts

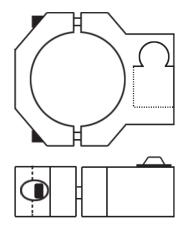


FIGURE 3 - FLANGED POST (40589)

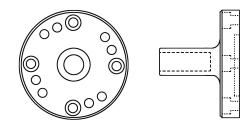
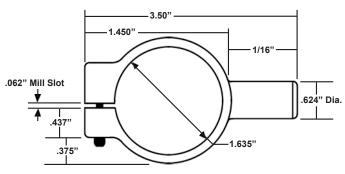
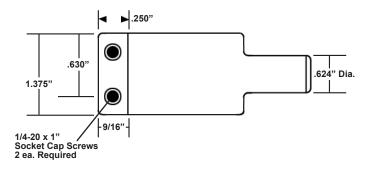


FIGURE 6 - MOUNTING BRACKET (14085)





5

TABLE I - INSULATING DISCS

Robot Model	Code No.
ASEA RTB-6 RTB-2000	40591 40595
CYBOTECH H-80 Series H-280 Series WV-15 TH-8 GA-100 (GANTRY)	40507 40507 40507 40507 40507
GMF S100 S200 ArcMate-Jr./Sr.	40547 40547 40547
HITACHI PW-10	40507
MILACRON T3-726 T3-746 T3-776 T3-786 T3-566 T3-586 T3-735 T3-646	40521 40522 40523 40524 40525 40526 40527 40546
MILLER MRK-5	40596
MOTOMAN MOTOMAN-K SERIES	40506 40598
WESTINGHOUSE Komatsu RWL-0005 Unimation 760	40548 40549

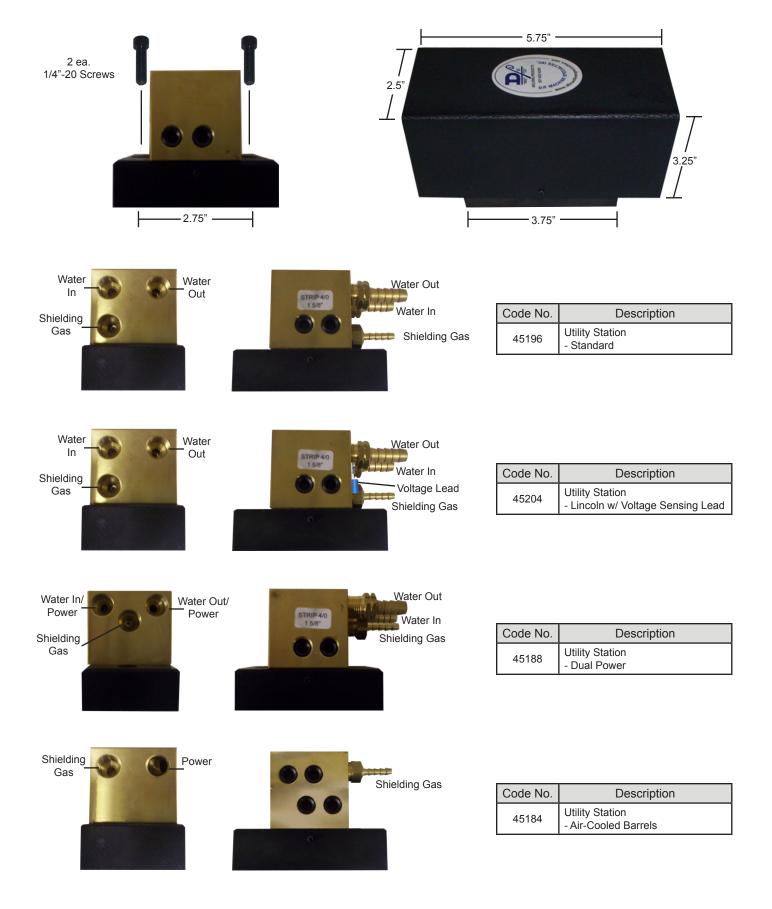
TABLE II - MOUNTING ARM BUSHINGS

Code No.	Description
40539	Docking Spools 1-3/4" I.D.
30248	Conventional Curved Gun (NCC/HTC) 1-1/2" I.D.
30249	Conventional Machine Barrel (NCM/HTM) 1-5/8" I.D.
40545	Hypertherm Torch 2" I.D.
40590	Hypertherm Torch 1-3/8" I.D.

TABLE III - SAFETY MOUNTS

Code No.	Description
40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount Heavy Duty Rumble

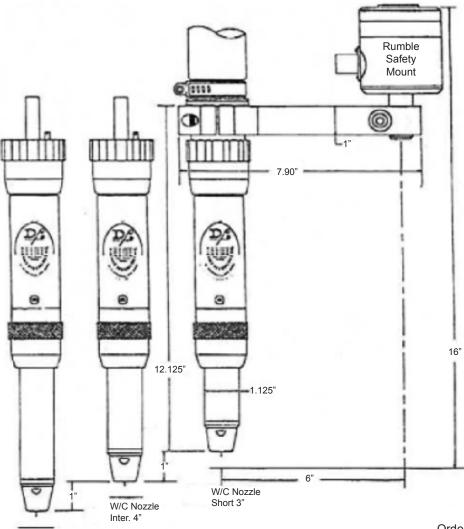
UTILITY STATIONS



REMOTE MOUNT MACHINE BARREL LAYOUT

Straight Mounting Arm 40820

Long 5", Inter. 4", Short 3" Water-Cooled Nozzles



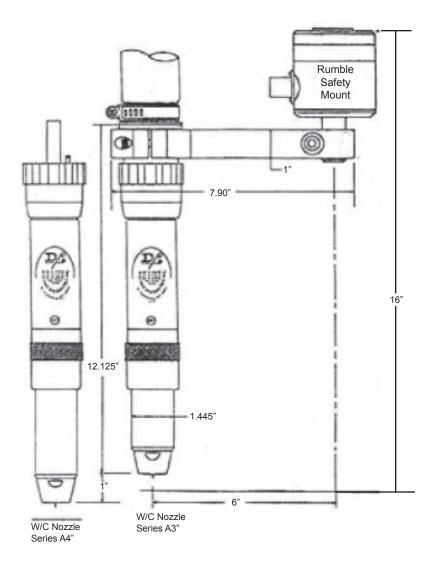


Code No.	Description
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT

Straight Mounting Arm 40820

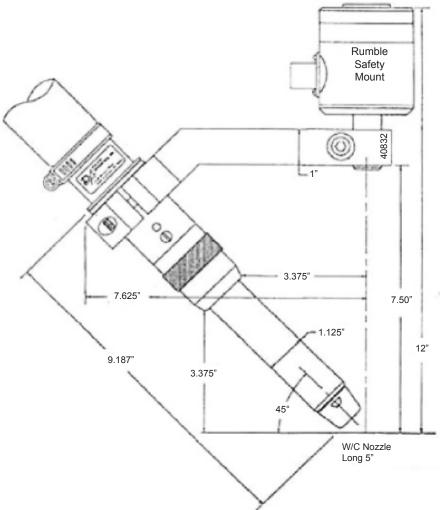
Series A5", Series A4" Water-Cooled Nozzles



CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 45° Mounting Arm 40832

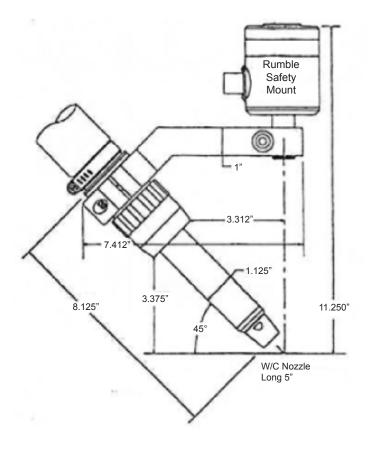
Long 5" Water-Cooled Nozzle

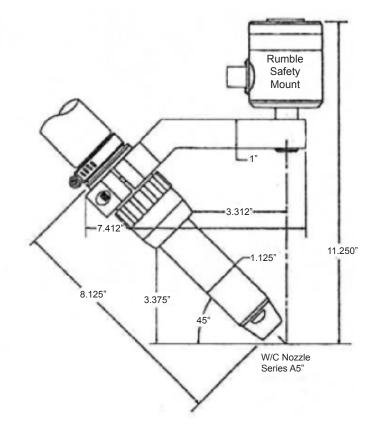


CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 45° Mounting Arm 40532

Long 5" & Series A5" Water-Cooled Nozzles



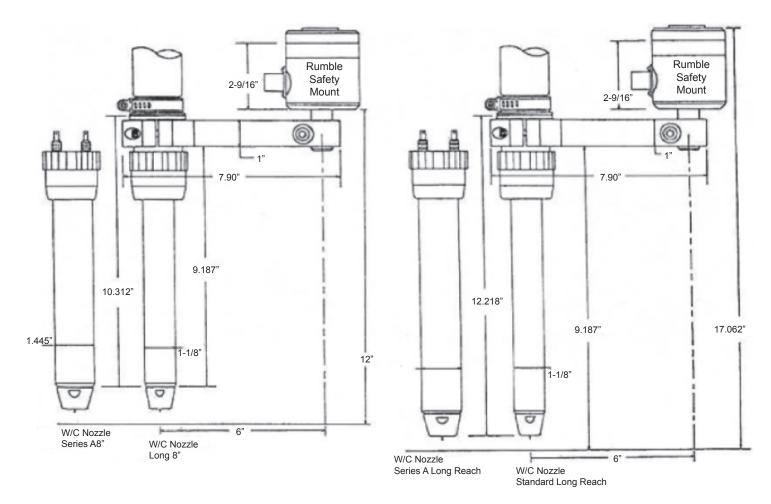


CODE NO.	DESCRIPTION
40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT

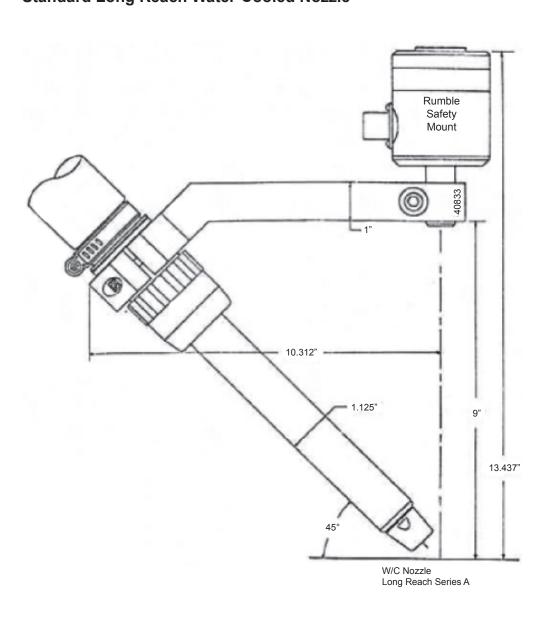
Straight Mounting Arm 40820

Long 8", Series A8", Series A Long Reach & Standard Long Reach Water-Cooled Nozzles



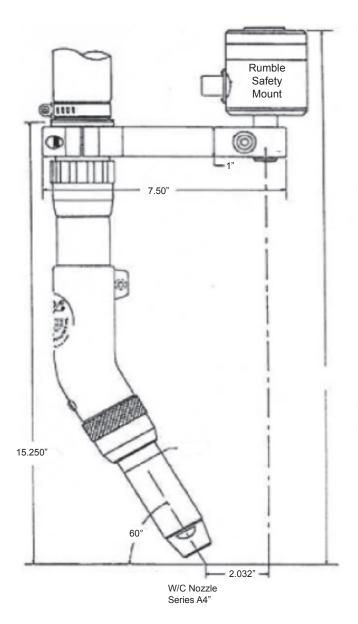
CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 45° Mounting Arm 40833 Standard Long Reach Water-Cooled Nozzle



0	
CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT Straight Mounting Arm 40822 - 30° Water-Cooled Curved Gun Series A3" & Series A4" Water-Cooled Nozzles

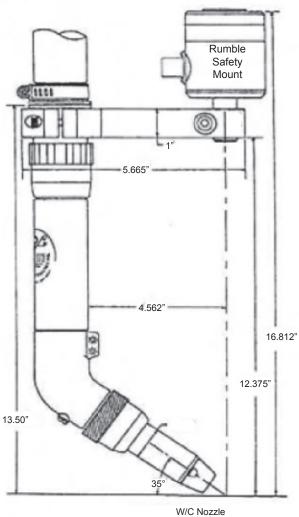


Rumble Safety Mount 8 1111 0 C - 1" 7.50" 17.687" 14.406" 60° 2.500" -W/C Nozzle Series A3"

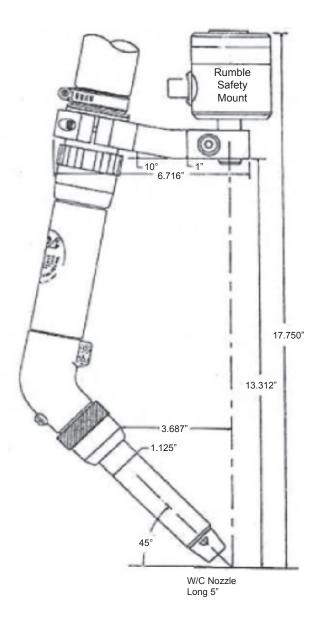
CODE NO.	DESCRIPTION
40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT

Straight 40536 & 10° 40831 Mounting Arms - 55° Water-Cooled Curved Gun Short 3" & Long 5" Water-Cooled Nozzles



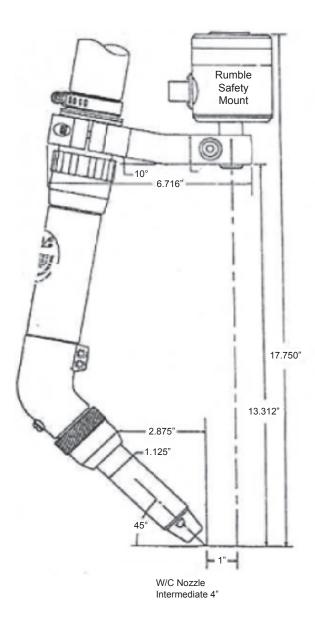
W/C Nozz Short 3"

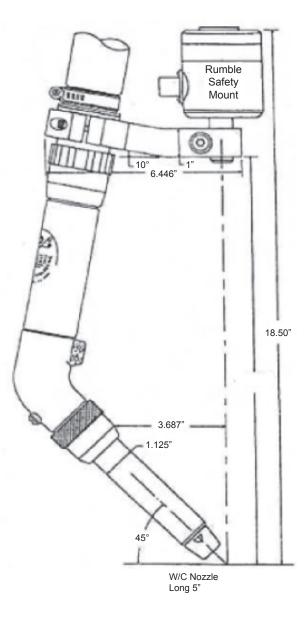


Ordering	Information	- Safety	Mount
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CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arms 40831 & 40821 - 55° Water-Cooled Curved Gun Intermediate 4" & Long 5" Water-Cooled Nozzles

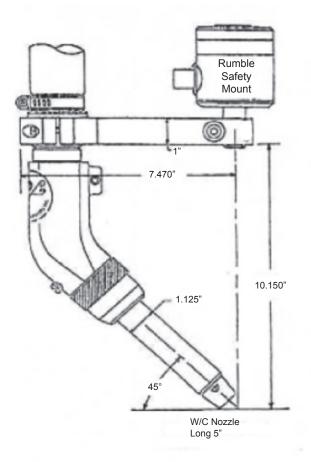


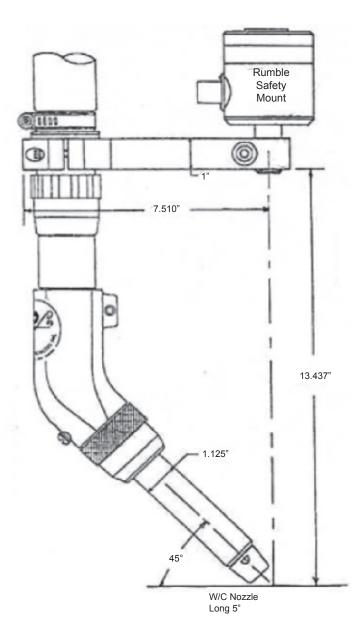


Ordering Information - Safety Mount

CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT Straight Mounting Arms 40849 & 40836 - 45° Water-Cooled Curved Gun Long 5" Water-Cooled Nozzle

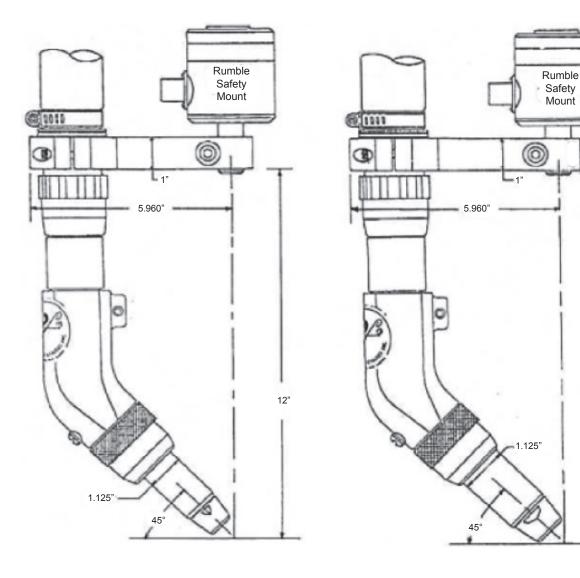




Ordering Information - Safety Mount

CODE NO.	DESCRIPTION	
40501	Light Duty Rumble Safety Mount	
40519	Medium Duty Rumble Safety Mount	
40520	Heavy Duty Rumble	

REMOTE MOUNT MACHINE BARREL LAYOUT Straight Mounting Arm 40834 - 45° Water-Cooled Curved Gun Short 3" & Series A3" Water-Cooled Nozzles

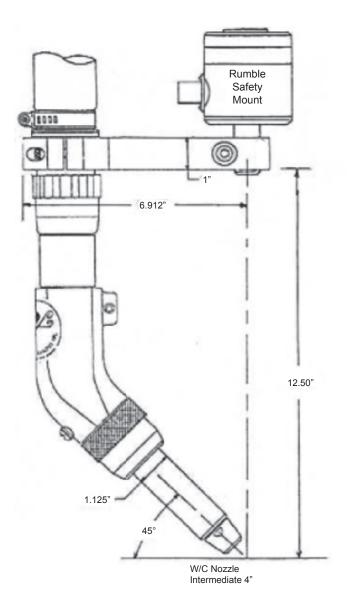


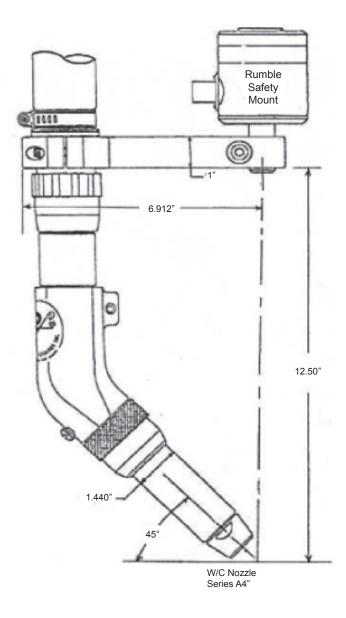
Ordering Information - Safety Mount

CODE NO.	DESCRIPTION	
40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount Heavy Duty Rumble	

12"

REMOTE MOUNT MACHINE BARREL LAYOUT Straight Mounting Arm 40835 - 45° Water-Cooled Curved Gun Intermediate 4" & Series A4" Water-Cooled Nozzles

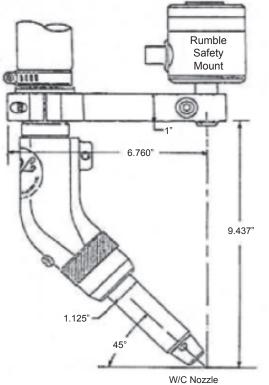




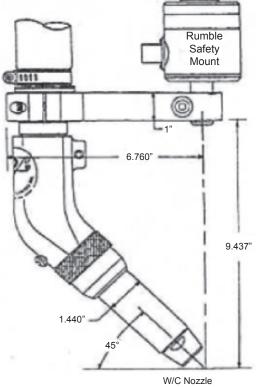
Ordering Information - Safety Mount

CODE NO.	DESCRIPTION	
40501	Light Duty Rumble Safety Mount	
40519	Medium Duty Rumble Safety Mount	
40520	Heavy Duty Rumble	

REMOTE MOUNT MACHINE BARREL LAYOUT Straight Mounting Arm 40848 - 45° Water-Cooled Curved Gun Intermediate 4" & Series A4" Water-Cooled Nozzles



Intermediate 4"

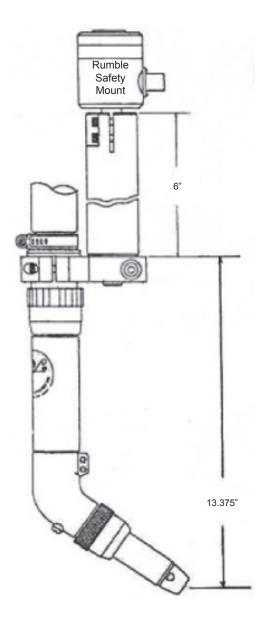


Series A4"

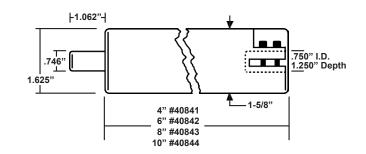
Ordering Information - Safety Mount

CODE NO.	DESCRIPTION
40501 40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT Straight Mounting Arm 40837 - 55° Water-Cooled Curved Gun Extension Bar 40842

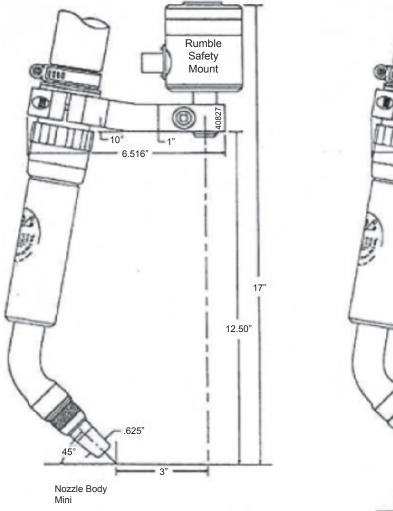


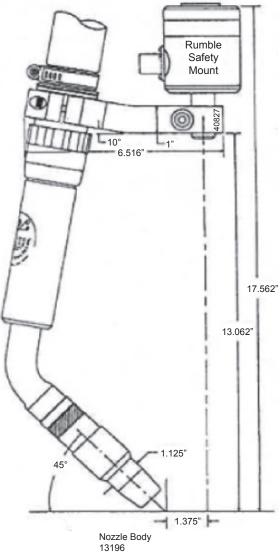
Extension Bracket



CODE NO.	DESCRIPTION	
40501	Light Duty Rumble Safety Mount	
40519	Medium Duty Rumble Safety Mount	
40520	Heavy Duty Rumble	

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arm 40827 - 55° Water-Cooled Curved Gun 13196 Nozzle Body & Mini Nozzle Body

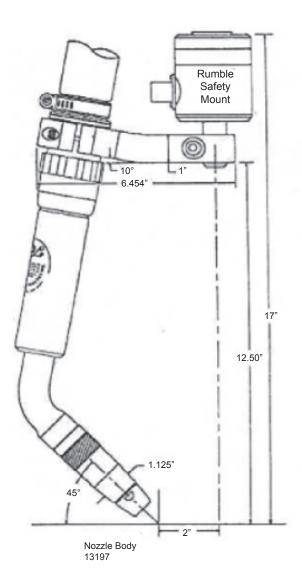


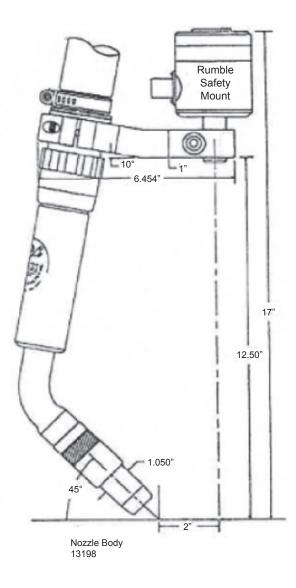


Ordering Information - Safety Mount

CODE NO.	DESCRIPTION	
40501	Light Duty Rumble Safety Mount	
40519	Medium Duty Rumble Safety Mount	
40520	Heavy Duty Rumble	

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arm 40826 - 55° Water-Cooled Curved Gun Nozzle Bodies 13197 & 13198

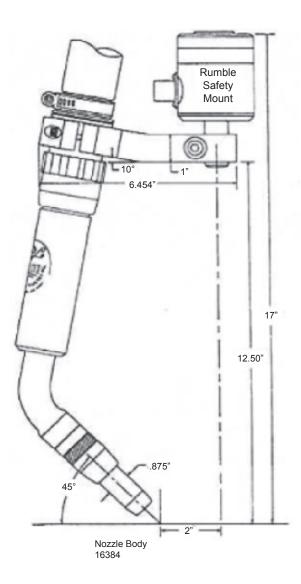


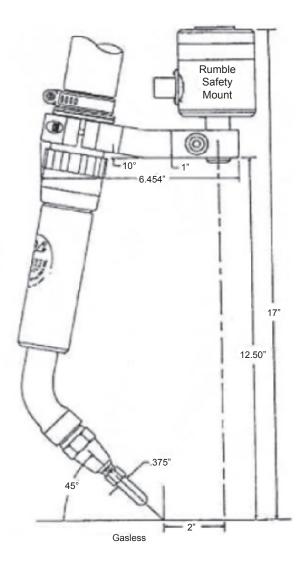


Ordering	Information	- Safety	Mount
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CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arm 40826 - 55° Water-Cooled Curved Gun 13196 Nozzle Body & Mini Nozzle Body

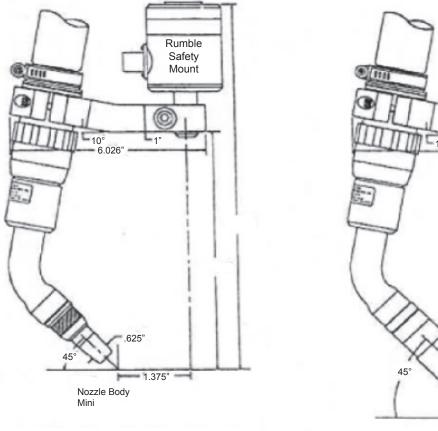




Ordering	Information	- Safety	Mount
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CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arms 40830 & 40829 - 55° Water-Cooled Curved Gun 13198 Nozzle Body & Mini Nozzle Body

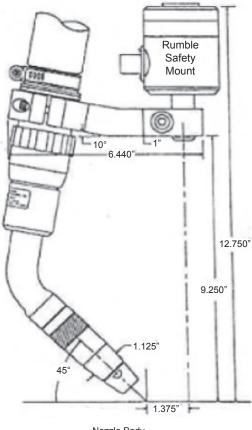


8.250"

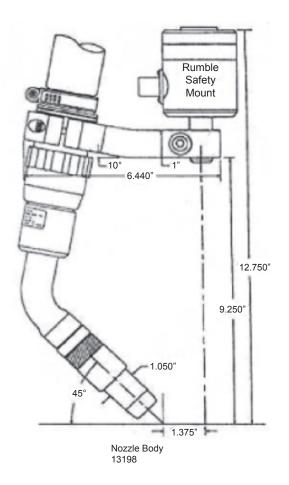
Rumble Safety Mount 10° 8.232" 1.125" 9.875" 9.875" 9.875" 1.125" 9.875" 1.125" 9.875" 1.125" 9.875" 1.125" 9.875"

CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arm 40828 - 55° Water-Cooled Curved Gun Nozzle Bodies 13197 & 13198



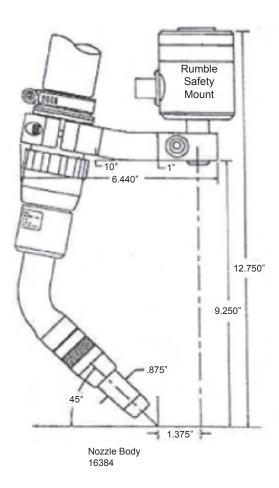
Nozzle Body 13197

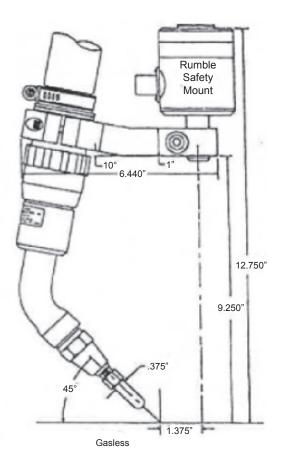


Ordering Information - Safety Mount

CODE NO.	DESCRIPTION
40501 40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arm 40828 - 55° Water-Cooled Curved Gun Nozzle Body 16384 & Gasless

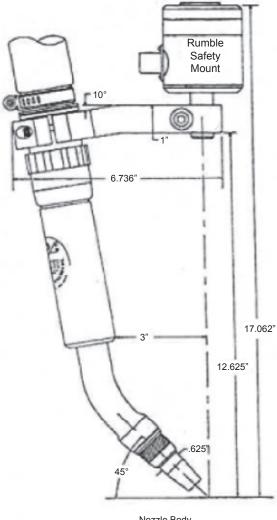




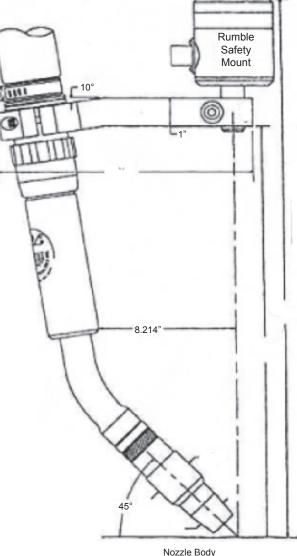
Ordering Information - Safety Mount

CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arms 40825 & 40824 - 35° Water-Cooled Curved Gun Nozzle Bodies 13196 & Mini



Nozzle Body Mini

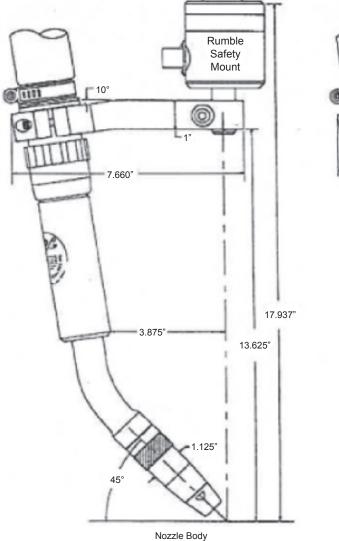


Nozzle Body 13196

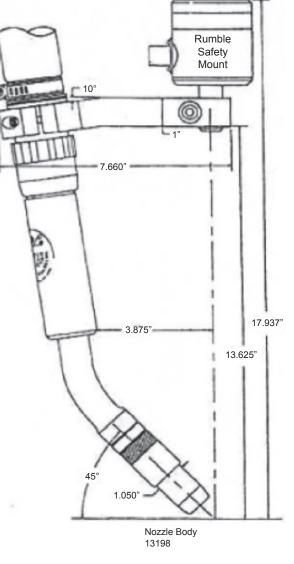
Ordering Information - Safety Mount

-	-
CODE NO.	DESCRIPTION
40501 40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arm 40823 - 35° Water-Cooled Curved Gun Nozzle Bodies 13197 & 13198



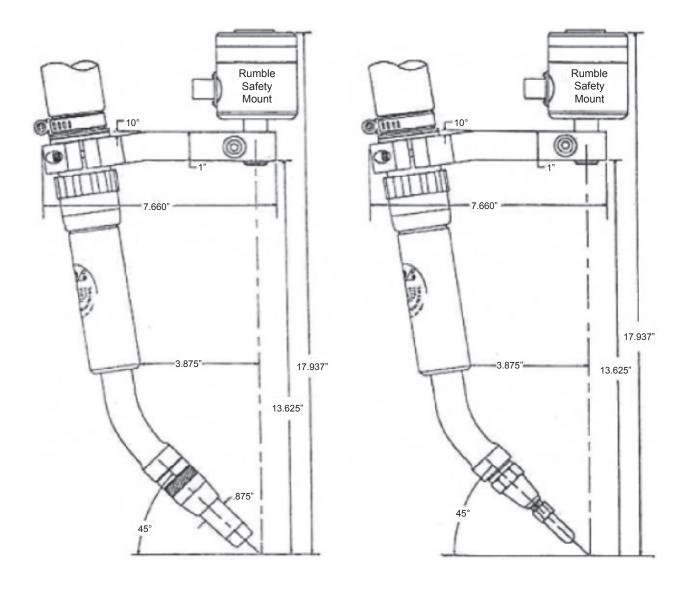
13197



Ordering	Information	- Safety	Mount
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0	5
CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

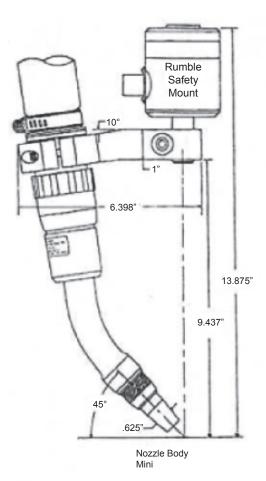
REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arm 40823 - 35° Water-Cooled Curved Gun Nozzle Bodies 16384 & Gasless

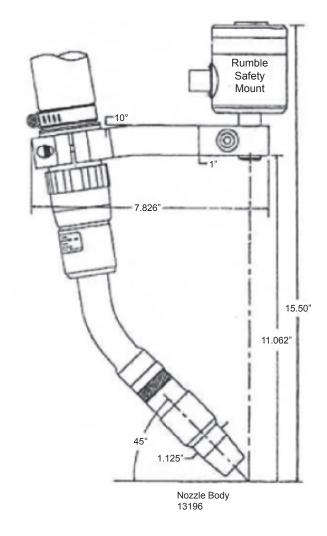


Ordering Information - Safety Mount

CODE NO.	DESCRIPTION
40501	Light Duty Rumble Safety Mount
40519	Medium Duty Rumble Safety Mount
40520	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arms 40534 & 40535 - 35° Water-Cooled Curved Gun Nozzle Bodies 13196 & Mini

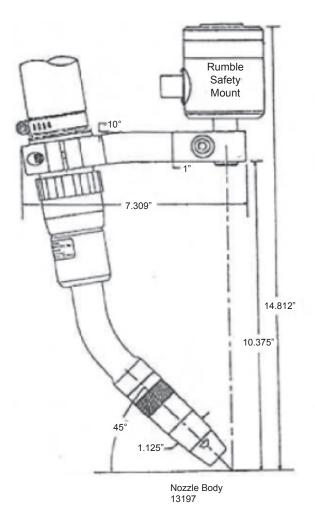


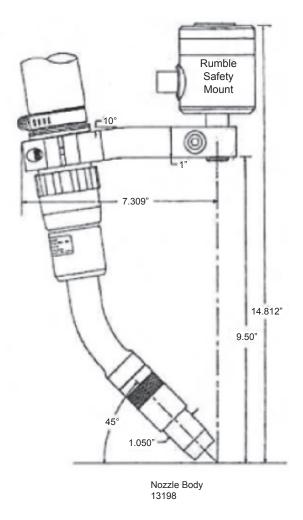


Ordering Information - Safety Mount

CODE NO.	DESCRIPTION
40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount Heavy Duty Rumble

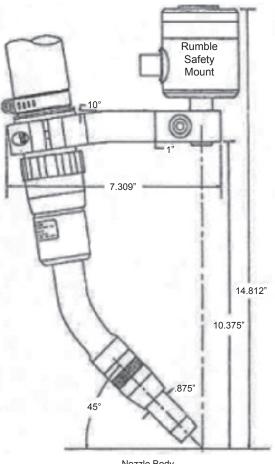
REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arm 40533 - 35° Water-Cooled Curved Gun Nozzle Bodies 13197 & 13198



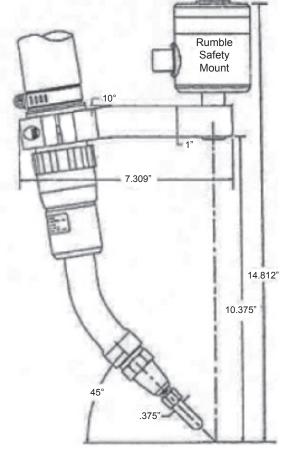


CODE NO.	DESCRIPTION
40501 40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount
	Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT 10° Mounting Arm 40533 - 35° Water-Cooled Curved Gun Nozzle Bodies 16384 & Gasless



Nozzle Body 16384

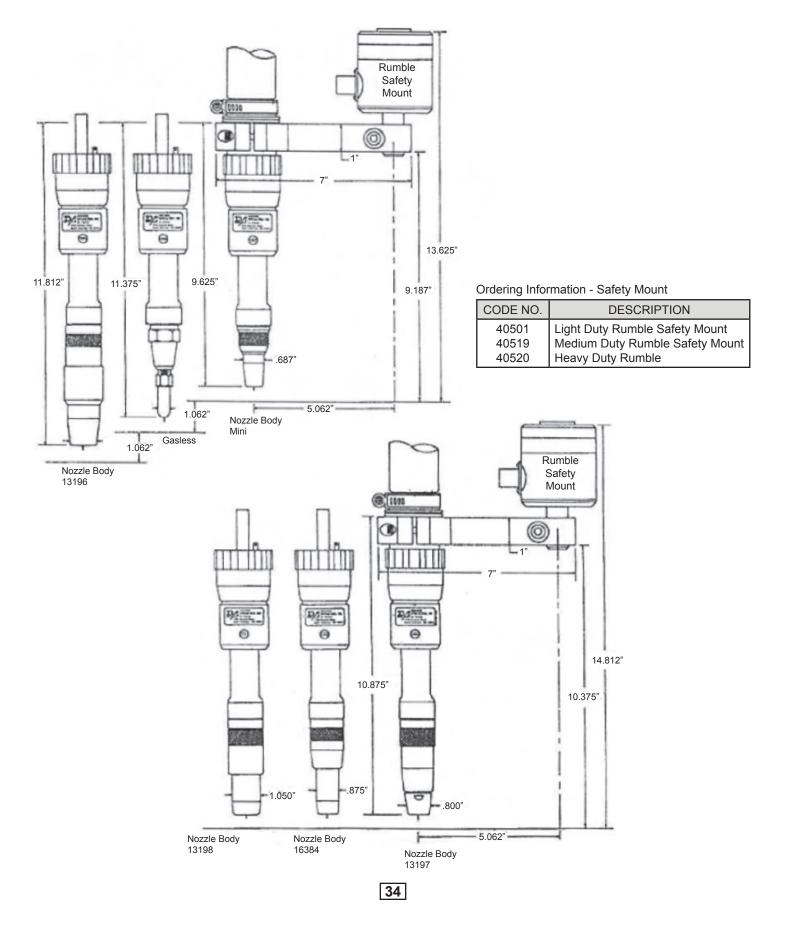


Gasless

Ordering Information - Safety Mount

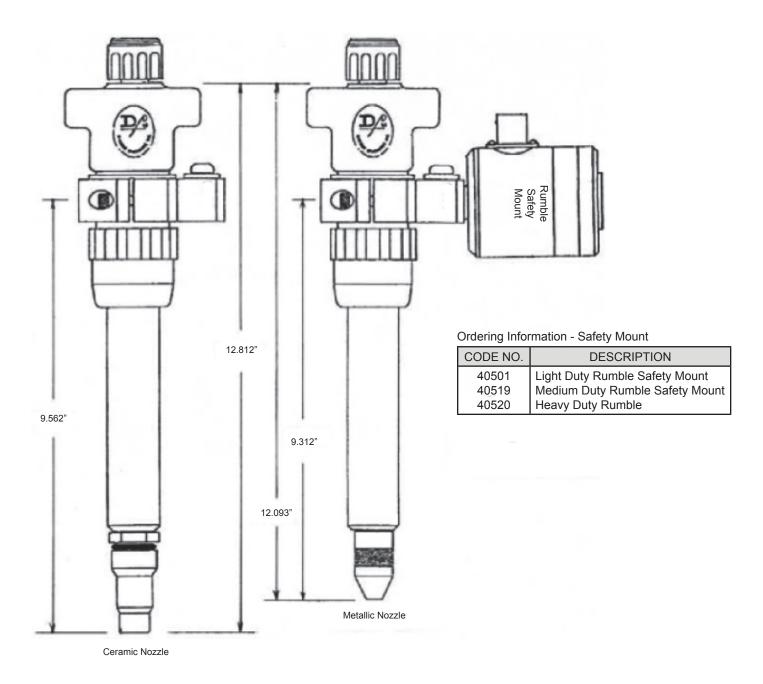
CODE NO.	DESCRIPTION
40519	Light Duty Rumble Safety Mount Medium Duty Rumble Safety Mount Heavy Duty Rumble

REMOTE MOUNT MACHINE BARREL LAYOUT Straight Mounting Arm 40805 - 35° Water-Cooled Curved Gun Gasless & Nozzle Bodies 13196, 13197, 13198 & 16384

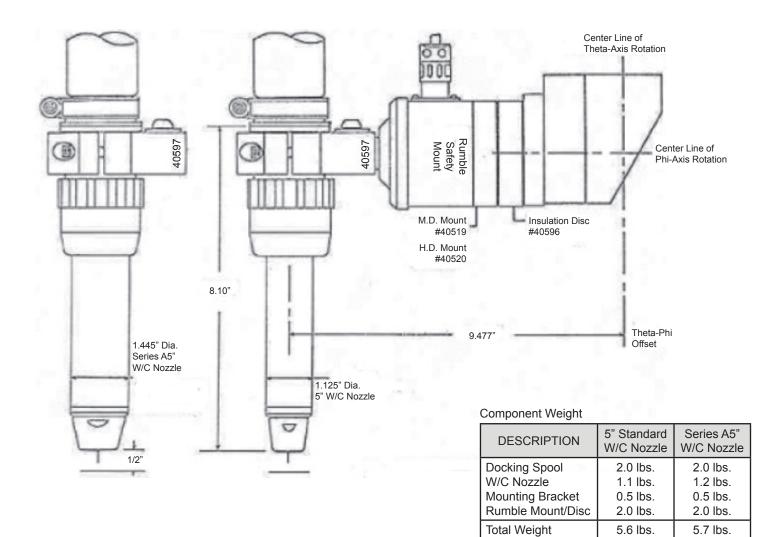


REMOTE MOUNT MACHINE BARREL LAYOUT

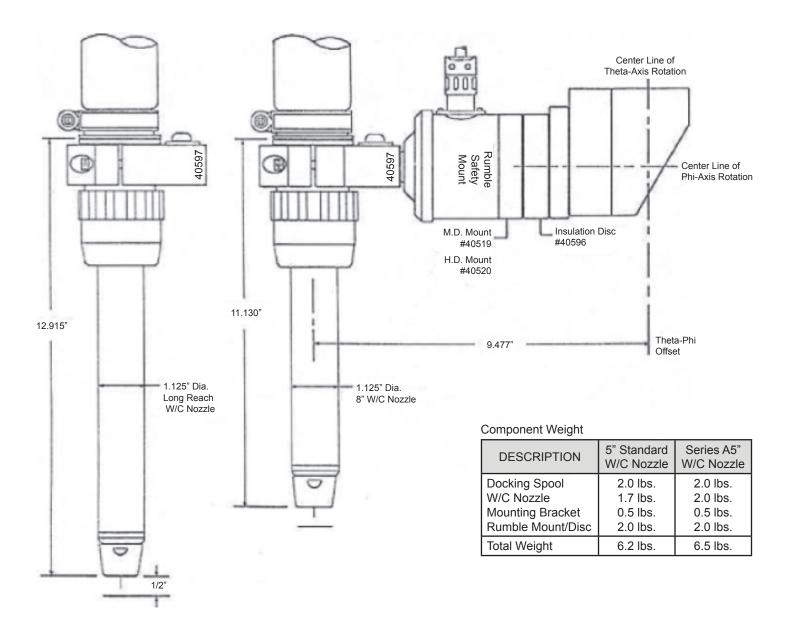
TIG Mounting Bracket 40554 - TIG Docking Spool Torch w/ Metallic & Ceramic Nozzle Nozzle Bodies 16384 & Gasless



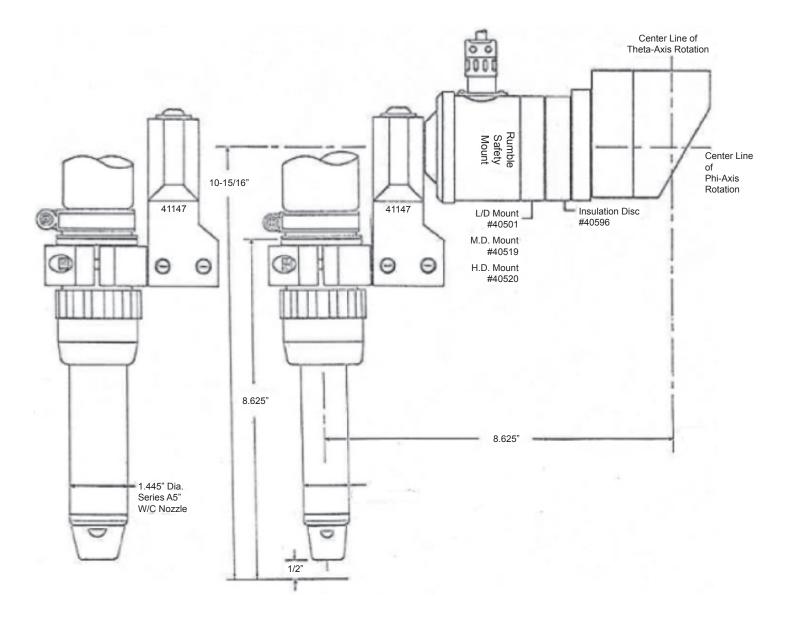
REMOTE MOUNT MACHINE BARREL LAYOUT Mounting Bracket 40597 - 5" & Series A5" Water-Cooled Nozzles



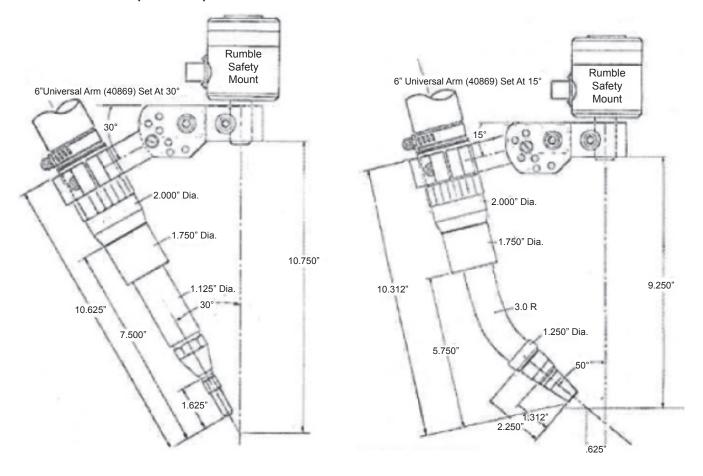
REMOTE MOUNT MACHINE BARREL LAYOUT Mounting Bracket 40597 - 8" & Long Reach Water-Cooled Nozzles



REMOTE MOUNT MACHINE BARREL LAYOUT Mounting Bracket 41147 - 5" & Series A5" Water-Cooled Nozzles



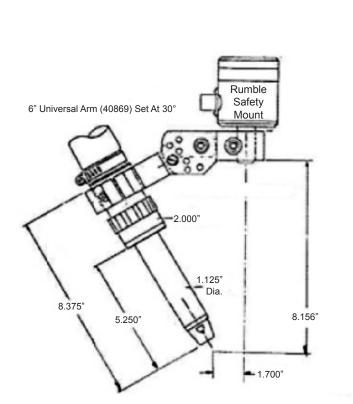
ROBOTIC BARREL/GUN LAYOUT Mounting Bracket 40869 Models MTW-G (Gasless) & CW-T 35° Short Gun



Ordering Information

Description	Code No.
W/C Machine Barrel Assembly - Mini	
W/C Machine Barrel Assembly - 13197	
W/C Machine Barrel Assembly - 13198	
W/C Machine Barrel Assembly - 16384	
W/C Machine Barrel Assembly - Gasless	47458

ROBOTIC MACHINE BARREL LAYOUT Universal Mounting Arms 40869 & 40870 5" & Long Reach Water-Cooled Nozzles



8" Universal Arm (40869) Set At 30°	Т
2.000" 1.125" Dia.	13.250"
10.062" 9.250" 	

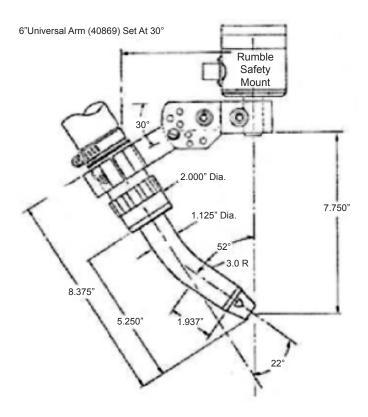
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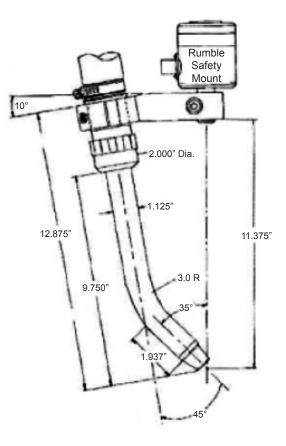
Complete Standard		
Assemblies Consist of		
Machine Barrel Assembly		
Docking Spool® Body		
NCM-N	HTM-N	
40704		

Ordering	Information
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	Complete Standard Assemblies Consist of Machine Barrel Assembly Docking Spool® Body		
NCM-N HTM-N			
	40786		

ROBOTIC CURVED GUN LAYOUT Universal Mounting Arm 40869 at 30° & Mounting Arm 40534 10° 22° 5" & 35° LRN Water-Cooled Nozzles





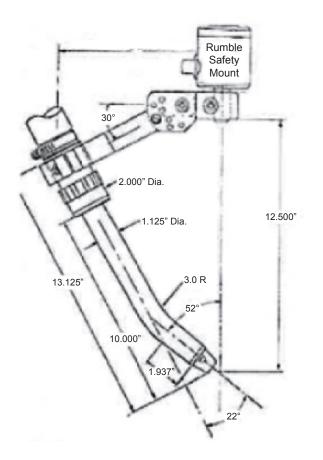
Ordering Information

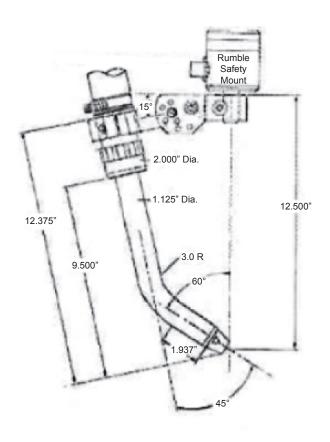
Complete Standard		
Assemblies Consist of		
Machine Barrel Assembly		
Docking Spool® Body		
NCM-N	HTM-N	
40704		

Ordering Information

Complete Standard Assemblies Consist of Machine Barrel Assembly Docking Spool® Body		
NCM-N	HTM-N	
40786		

ROBOTIC CURVED GUN LAYOUT Universal Mounting Arms 40870 at 30° & 40869 at 15° 22° Long Reach & 45° Long Reach Water-Cooled Nozzles





Orderina	Information
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Complete Standard		
Assemblies Consist of		
Machine Barrel Assembly		
Docking Spool® Body		
NCM-N	HTM-N	
40785		

Ordering Information

	Complete Standard		
	Assemblies Consist of		
	Machine Barrel Assembly		
	Docking Spool® Body		
NCM-N HTM-N			
	40700		

D/F MACHINE SPECIALTIES, INC.

MIG & TIG Welding Products, Consumables & Accessories

WARRANTY

This Equipment is sold by D/F Machine Specialties, Incorporated, under the warranty set forth in the following paragraph. Such warranty is extended only to the buyer who purchases the equipment directly from D/F or its authorized distributor as new merchandise.

The barrel and cable assemblies are warranted by D/F to be free from manufacturing defects for 90 days after delivery by D/F, provided that the equipment is properly operated under conditions of normal use and that regular periodic maintenance and service is performed. Expendable parts are not warranted for any specific time. Expendable parts referred to herein would be the nozzles, current tips, spatter discs, insulators, casing liners, and wire inlets. D/F's sole obligation under this warranty is limited to making replacement at its manufacturing facility for barrel assemblies which are returned to it with transportation charges prepaid, and upon D/F's examination have been found to be so defective.



D/F MACHINE SPECIALTIES, INC. 1750 Howard Drive North Mankato, MN 56003 Phone: (507) 625-6200 Fax: (507) 625-6203 www.dfmachinespecialties.com