AMERICAN WELDQUIP ARCSAFE™ ADVANTAGE SERIES
AIR AND WATER-COOLED “THRU ARM” ROBOTIC TORCH SYSTEM
300/500 AND 550 AMP

AMERICAN WELDQUIP’s ARCSAFE™ ADVANTAGE Series “Thru the Arm” robotic system offers unsurpassed performance and features not found in competitive equipment. The ArcSafe Advantage Series is designed and engineered using a modular concept and is easily adaptable to all “Hollow Wrist” type robots.

The standard configuration includes the electrical rotary joint common to all robotic systems and the proper insulating adaptor disk which is used on robots with built-in software collision protection. The modular concept makes updating or changing system requirements as easy as adding the necessary modules.

The ArcSafe Advantage Series combination of a rugged heavy-duty torch system, unique gooseneck TCP locating, long life consumables and low maintenance design provide a highly accurate and repeatable “Thru the Arm” robotic package for precision welding and maximum productivity.

Demand genuine American Weldquip products to insure you get the best Service, Quality, Solutions and the performance you expect.

360 DEGREE CONTINUOUS ROTATION
The ArcSafe Advantage system unique rotary joint design provides unlimited freedom of 360 degree continuous rotation. This allows for shorter rotational reorientations when weld programming and reduces cycle times by allowing you to program the shortest off-cycle (air movement) path possible. The additional benefit of no cable twisting or torsional strain substantially increases cable life **.

** Water-Cooled version is limited to 360 degree of rotation only.

300/500 AMP AIR-COOLED

GOOSENECK LINER
Replaceable gooseneck liner system available.

QUICK CHANGE GOOSENECK DESIGN
Heavy-duty, quick change durable gooseneck with thick-walled brass outer tube provides superior bend resistance in crash situations.

TCP LOCATING FLAT
Our unique precision machined “LOCATING FLAT” has proven over and over again to be “FLAT OUT THE BEST”. No pins or keys to fall out. The gooseneck incorporates our unique proven design locating/positioning flat with precision machined mating surfaces to guarantee repeatable and accurate TCP positioning when changing out components.

MODULAR DESIGN
The ArcSafe Advantage Series modular design concept system offers flexibility and lower inventory requirements by utilizing a common front housing build platform across multiple robot manufacturer models. The unique and high flexibility features of the ArcSafe Advantage Series Modular design allows you to easily convert the system to water-cooled, add-on the Xtra-Gard Collision Dampener, Nozzle Touch Sense and/or air-blast. If your requirements change you can easily add or update your configuration by adding features to the existing platform instead of purchasing a whole new system.

www.weldquip.com
AMERICAN WELDQUIP ARCSAFE™ ADVANTAGE SERIES
AIR AND WATER-COOLED “THRU ARM” ROBOTIC TORCH SYSTEM

AMERICAN WELDQUIP’s combination of a heavy-duty torch design with a unique positioning flat, front end rotating electrical joint module and high life consumables provide a highly accurate, repeatable and low maintenance “Thru the Arm” robotic package for precision welding and maximum productivity.

- The ArcSafe Advantage’s Rugged and Simple Design Offers Low Maintenance and Ensures High Productivity.
- American Weldquip’s Extremely Durable, Heavy-Walled Robotic Goosenecks Are Designed For Superior Strength and Heat Dissipation.
- ROBUST GOOSENECK DESIGN — Provides Unparalleled Resistance To Bending In “Crash Situations” Ensuring Less Downtime, Increased Productivity and Lower Maintenance When Compared To Competitive Torch Designs.
- “HEAT SINK” Gooseneck Heat Dissipation Management Technology.
- FLAT OUT THE BEST - Unique TCP Locating Flat.
- Long Lasting, Cool Running Consumable Design.
- Heavy-Duty Thread-On Nozzle System.
- Common Consumable Platform Across All American Weldquip Torches Reduces Inventory Requirements.
- Spring Strain Relief Helps Eliminate Feeding Issues.
- Adaptable To Most Wire Feed Units.
- Special Designs, Custom Configurations Available.
- Manufactured By American Weldquip In Sharon Center, Ohio So You Are Always Guaranteed Of Quality You Can Trust.

EASILY ADAPTABLE
The insulating adaptor disk adapts the ArcSafe to various robot models. It is designed to insulate the robot and controller from welding current and protect the robot in case of non-torch crash in the area of the ArcSafe.

COLLISION DAMPENING
The Xtra Guard Collision Dampening Unit provides integrated crash protection with a little extra cushion to help prevent gooseneck bending in severe crash situations. The Xtra Guard allows for X and Y deflection of 15 degrees and Z axis of 1/4” to protect the torch, robot and equipment from damage.

AVAILABLE OPTIONS
Water-Cooling
Xtra-Guard Collision Dampener Module
Voltage & Nozzle Sensing
Air-Blast
HRT - Heat Resistant Technology Extended Life Contact Tips
Gooseneck Liner

XTRA-GUARD COLLISION DAMPENER MODULE

AMERICAN WELDQUIP’S TOTAL ROBOTIC PACKAGE/PRODUCTIVITY SOLUTIONS
HRT Extended Life Consumables - See Page 32
Robo-Quip Robotic Nozzle Cleaning Station - See Page 16
Quip-Mist Anti-Spatter See Page 18

www.weldquip.com
STANDARD TORCH CONFIGURATIONS

SYSTEM SERIES | LINER | TIP SIZE | TIP PART# | DIFFUSER | INS. WASHER | NOZZLE SIZE | NOZZLE PART # | GOOSENECK ANGLE
--- | --- | --- | --- | --- | --- | --- | --- | ---
300 Series - Air-Cooled | 750XX222T | .035"(0.9) - M6 Thread | 75035511 | 75002007 | 75001003 | 9/16"(15.1MM) | 75135601-I | Specify
500 Series - Air-Cooled | 750XX228T | .045"(1.2) - M8 Thread | 75045014 | 75004033 | 75001004 | 5/8"(15.9MM) | 75146202-I | Specify
550 Series - Water-Cooled | 750XX228T | .045"(1.2) - M8 Thread | 75045014 | 75004033 | 75001004 | 5/8"(15.9MM) | 75146202-I | Specify

TORCH SPECIFICATIONS

WEIGHTS
300/500 SERIES = 2.2kg
550 SERIES = 2.5kg

DUTY CYCLE @ 100%
SYSTEM SERIES | CO2 MIXED GAS Ar/CO2
--- | ---
300 Series - Air-Cooled | 350A 300A
500 Series - Air-Cooled | 500A 400A
550 Series - Water-Cooled | 550A 425A

HOW TO ORDER

ARCSAFE ADVANTAGE SERIES | GOOSENECK/SERIES | ROBOT MAKE | ROBOT MODEL | WIRE FEEDER | OPTIONS
--- | --- | --- | --- | --- | ---
AST | 322 | F | 100iC | LU | AS
322 - 300 Series 22 Degree | A = ABB | EXAMPLE | B = EURO | AS = AIR BLAST
345 - 300 Series 45 Degree | F= FANUC | SHOWN | D = DAIHEN/OTC
522 - 500 Series 22 Degree | K = KUKA | FANUC 100iC | DP = DAIHEN/OTC(DP)
545 - 500 Series 45 Degree | M = MOTOMAN | O = DAIHEN/OTC
622 - 550 Series 22 Degree | K = KOBELCO | P = PANASONIC
645 - 550 Series 45 Degree | D = LINCOLN(PF)
LU = LINCOLN UNIVERSAL

** Specify wire size and/or special configurations when ordering if not the standard.
Adaptable to other robot models. Consult website: www.weldquip.com, factory or your AWQ Representative for assistance with part number configuration.

OPTIONS

AS - AIR BLAST
RS - SUPPLIED AS STANDARD - REPLACEABLE NOZZLE SEAT
TS - NOZZLE TOUCH SENSE
VS - SUPPLIED AS STANDARD - VOLTAGE SENSING
AST-2000 XTRA-GUARD COLLISION DAMPER MODULE
** MUST BE PURCHASED SEPARATELY WHEN ORDERING
SYSTEM. WILL BE SHIPPED WITH THE CORRECT INSULATING ADAPTOR

ACCESSORIES

PART # | DESCRIPTION
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200TT230-625 | ROBOTIC TEACH TIP (230 SERIES TIP WITH .625" (15.9mm) WIRE STICKOUT
750TT014-472 | ROBOTIC TEACH TIP (014 SERIES TIP WITH .472" (11.9mm) WIRE STICKOUT
750TT014-500 | ROBOTIC TEACH TIP (014 SERIES TIP WITH .500" (12.7mm) WIRE STICKOUT
750TT014-590 | ROBOTIC TEACH TIP (014 SERIES TIP WITH .590" (15mm) WIRE STICKOUT
750TT014-625 | ROBOTIC TEACH TIP (014 SERIES TIP WITH .625" (15.9mm) WIRE STICKOUT
750TT511-472 | ROBOTIC TEACH TIP (511 SERIES TIP WITH .472" (11.9mm) WIRE STICKOUT
750TT511-590 | ROBOTIC TEACH TIP (511 SERIES TIP WITH .590" (15mm) WIRE STICKOUT
750TT511-625 | ROBOTIC TEACH TIP (511 SERIES TIP WITH .625" (15.9mm) WIRE STICKOUT
AST-WCKIT WATER-COOLED CONVERSION KIT
A-1932 STRAIGHT N' EASY WIRE STRAIGHTENER **
A-2251 HEAVY-DUTY STRAIGHT N' EASY WIRE STRAIGHTENER **
** See Conduit Accessories Page 28 for connector selection.

INSULATING ADAPTOR - Supplied with Advantage System

PART # | DESCRIPTION
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AST-A101 ABB - IRB1600ID, IRB1660ID
AST-A101-SD ABB WITH XTRA-GUARD - IRB2600ID, IRB1660ID
AST-A102 ABB - IRB1600ID, IRB1520ID
AST-A102-SD ABB WITH XTRA-GUARD - IRB1600ID, IRB1520ID
AST-F101 FANUC - 100iC, 120iC SERIES
AST-F101-SD FANUC WITH XTRA-GUARD - 100iC, 120iC SERIES
AST-F101WC FANUC WATER-COOLED VERSION - 100iC, 120iC SERIES
AST-F102 FANUC - 100iD
AST-P101 PANASONIC - TM-2000
AST-P101-SD PANASONIC - TM-1100 THRU TM-2000

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