

Aristo[®] RoboFeed 3004HW

The optimum feeding solution for hollow wrist robots

Small feeder for small robots

Aristo[®] RoboFeed 3004HW is especially designed for the use with hollow wrist robots that have the torch package inside the robot arm. Low weight and small size are needed to allow those robots to use their high accelerations and perform all motions.

Sturdy and reliable

Sturdy design with plastic cover for reduced weight and ideal for use in tough environments. The digitally controlled feed unit performs accurate speed control with the aid of a pulse encoder on speeds ranging from 0.8 to 30.0 m/min. The 4-roll feed mechanism with grooves in both feed- and pressure rolls gives stable feeding and low wear on the wire, all of which help to ensure reliable wire feeding. Aristo[®] RoboFeed 3004HW is available with Ø30 mm rollers for wires up to Ø1.6 mm.

Processes

RoboFeed 3004HW supports all MIG/MAG processes offered by ESAB including QSet[™], the short arc welding process with artificial intelligence and SuperPulse[™], the most versatile process to determine heat input and penetration depth. With a maximum feeding speed of 30 m/min it even supports SAT[™], our high deposition rate process.

Designed for hollow wrist robots

Aristo[®] RoboFeed 3004HW is a completely enclosed feeding unit providing operational functions for gas purge and wire inching.

The PCB is separated from the feeder housing in order to provide a small unit with low weight. It sits inside the Aristo[®] FeedControl box that is easier to reach for maintenance.

Aristo[®] U8₂ - The ultimate handheld welding equipment programming unit for advanced applications. It is the standard operational pendant for Aristo[®] robot packages. It can be brought close to the welding process and thus allows efficient access to all settings while adjusting and optimizing the process.

Applications

- Robot applications within general and automotive industry and other applications requiring a small size, low weight feeder with an excellent wire feeding performance. Especially when hollow wrist robots are being used.



With safety in mind

Designed to meet the most rigid safety standard IEC 60974-5 and IEC 60974-10 with low voltage (42 V/AC) operations and overload protection circuit to eliminate breakdowns.

Aristo[®] FeedControlHW

Aristo[®] FeedControl HW is equipped with a box to connect welding cable and water hoses outside the electronics compartment.

Easy service and maintenance

The feeder mechanism is easy to access and all wear parts can be exchanged without tools. One single pressure device makes it easy to adjust the appropriate feeding pressure. All electronic components are protected in a separate compartment.

- The Aristo[®] robot package offers more than 200 pre-programmed synergic lines as well as memory for 255 parameters or schedules
- TrueArcVoltage[™] system for continuous measurement of the arc length
- All control functions are accessible at the feeder or via Aristo[®] U8₂ or external control panels
- CAN-Bus is used for internal communication between the components
- Detects anti-collision through the CAN-Bus
- Touch Sense through gas nozzle or wire
- SCT – Short Circuit Termination
- Wire feed inching for adjusting TCP
- Shielding gas purge

Technical data RoboFeed 3004 HW

Power supply, V, Hz	60 DC (PWM),
Max load @ 60% dc	500 A
Max load @ 100% dc	280 A
Drive mechanism	4 WD
Drive rollers, mm	30
Wire feed speed, m/min	0.8 - 30.0
Dimensions l x w x h, mm	251 x 182 x 221
Weight, kg	5.4
Speed control	Pulse encoder
Wire dimensions:	
steel	0.6-1.6
stainless steel	0.6-1.6
aluminium	1.0-1.6
cored wire	0.8-1.6
Enclosure class	IP 2x
Standards	IEC 60974-5, IEC 60974-10

Technical data FeedControl HW

Power supply, V, Hz	42 AC
Wire feed speed, m/min	0.8 - 30.0
Dimensions l x w x h, mm	330 x 118 x 320
Weight, kg	4.9
Speed control	Digital controller
Wire dimensions:	
steel	0.6-1.6
stainless steel	0.6-1.6
aluminium	1.0-1.6
cored wire	0.8-1.6
Enclosure class	IP2x
Standards	IEC 60974-5, IEC 60974-10

Ordering information

Aristo® RoboFeed 3004 HW	0465 040 880
Aristo® FeedControl HW	0461 080 881

Cable kit assembly (connection cable RoboFeed 3004HW to FeedControl HW 5m)	0465 412 880
---	--------------

Mounting bracket for RoboFeed 3004 HW on:	
ABB IRB 1520 ID	0465 381 880
ABB IRB 1600 ID	0465 388 880
ABB IRB 2600 ID	0465 401 880
Yaskawa Motoman MA 1400	0465 391 880
Yaskawa Motoman MA 1900	0465 394 880
Fanuc ArcMate 100 iC	0465 398 880
Fanuc ArcMater 120 iC	0465 404 880

Interconnection cable between power source and FeedControl HW:	
5.0m air-cooled	0740 538 890
10.0m air-cooled	0740 538 881
15.0m air-cooled	0740 538 882
5.0m water-cooled	0740 538 895
10.0m water-cooled	0740 538 886
15.0m water-cooled	0740 538 887

Accessories:	
Quick connector MarathonPac™*	F102 440 880
Wire conduit 1.8 m	F102 437 881
Wire conduit 3.0 m	F102 437 882
Wire conduit 3.8 m	F102 437 889
Wire conduit 4.5 m	F102 437 883
* Included in RoboFeed 3004 HW	



Aristo® RoboFeed 3004 HW - front



Aristo® RoboFeed 3004 HW - rear

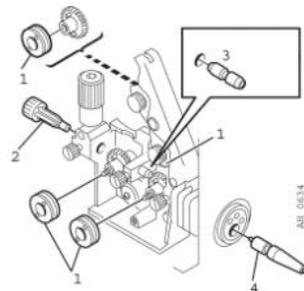


Aristo® FeedControl HW

Wear parts

Wire Ø mm	Wire type	1 Feed roller	2 Inlet nozzle	3 Intermedia te nozzle	4 Outlet nozzle	Groove type	! Marking
0.6 / 0.8	Fe, Ss, C	459052-001	455049-001	455072-002	469837-880	V	0.6 S2 & 0.8 S2
0.8 / 0.9-1.0	Fe, Ss, C	459052-002	455049-001	455072-002	469837-880	V	0.8 S2 & 1.0 S2
0.9-1.0 / 1.2	Fe, Ss, C	459052-003	455049-001	455072-002	469837-880	V	1.0 S2 & 1.2 S2
1.4 / 1.6	Fe, Ss, C	459052-013	455049-001	455072-002	469837-880	V	1.4 S2 & 1.6 S2
0.9-1.0 / 1.2	C	458825-001	455049-001	455072-002	469837-880	V-K	1.0 R2 & 1.2 R2
1.2 / 1.4	C	458825-002	455049-001	455072-002	469837-880	V-K	1.2 R2 & 1.4 R2
1.6	C	458825-003	455049-001	455072-002	469837-880	V-K	1.6 R2
0.8 / 0.9-1.0	Al	458824-001	455049-001	456615-001	469837-881	U	0.8 A2 & 1.0 A2
1.2 / 1.6	Al	458824-003	455049-001	456615-001	469837-881	U	1.2 A2 & 1.6 A2
C=cored wire						K=knurled groove	

* Equipped as standard



www.esab.com