



**3arm** is a division of the Tecnospiro Machine Tool Company located in Sant Joan de Vilatorrada a small village about 40 miles west of Barcelona. They are a small family owned company that has been in business since the 60's. They have a state of the art manufacturing facility and a dynamic engineering staff that has been very innovative in design and inventing new products.

The 3arm ergonomic arm is the strongest most dependable arm available in the world market place today. It can be used for assistance in assembly, deburring, off line machining, and all types of lifting operations. Where ever operator fatigue is concern for employee safety, productivity, or quality 3arm has a solution.



SAFETY WARNING 3ARM products are engineered and manufactured with safety in mind. The heat treat specifications exceed or meet all standards. All of the products manufactured by 3ARM are designed to perform without any undue safety issues when caution, common sense and proper safety practices are followed. The use of cutting tools and toolholders is safe when proper application and protection guidelines are observed. Even when these proper precautions are taken, it is possible that fragments of a cutting tool, cutting material, or holding device may be thrown at a very high rate of speed and have potential to cause severe bodily harm. It is imperative that general safety precautions and safety glasses be used at all times.



## Integrating a 3arm solution

Each 3arm® is customized for your tool and application at the factory to optimize the arm for your process and achieve out-of-the-box performance.

QUESTIONS:

#### WHAT TOOL DO YOU WANT TO HOLD?

TYPF:

MAKE:

MODEL:

**ORIENTATION:** 

WEIGHT:

TOOL DRAWING (3D STP):

#### WHAT ARE YOUR **APPLICATION** REQUIREMENTS?

HORIZONTAL REACH:

VERTICAL REACH:

#### MOUNTING ORIENTATION:

FLOOR WALL CEILING

#### MOUNTING SOLUTIONS:

□ MOBILE □ BEAM □ ELEVATOR □ COLUMN □ RAIL □ MAGNET

#### **BRAKES:**

□ NOT REQUIRED □ MANUAL □ PNEUMATIC ☐ MANUAL LOCKING BASE □ TOOLTRIGGER ACTIVATED

TORQUE:

#### **Head Member Design**

Determine the tools you need to use with your 3arm®. This will also help you select a head member based on the type of application and neccessary orientations. To ensure proper fit a 3D STP file of the tool is required.

#### **Balanced Design**

Tool weight is key to determining which arm will suit your application. All of our arms are precision calibrated at the factory to balance the weight of the tool.

#### **Great Reach**

A 3arm® can be base-mounted, ceiling-mounted or wallmounted. You can easily add precision reach by applying a rail, make it mobile with a trolley or add vertical reach with a mounting column. Check out our solutions system on page 22.

#### **Integrated Braking**

Tool trigger braking of the arm is available. Effortlessly position your tool, stop it in place, release trigger and float it to the next job. (Brakes are necessary for certain applications)

#### **Handling Force**

The durable closed-case design of 3arm® is able to absorb considerable force. Knowing your requirements for torque can help us determine the best 3arm® configuration.

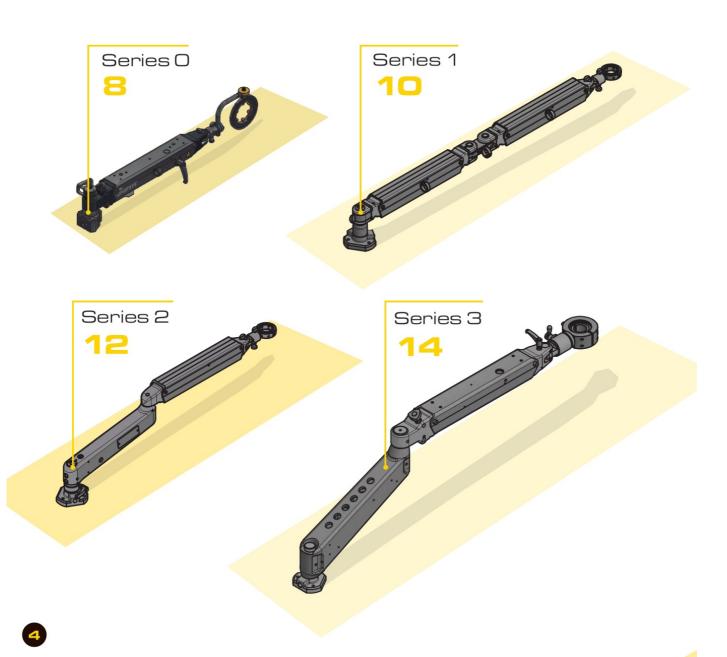
#### WARRANTY

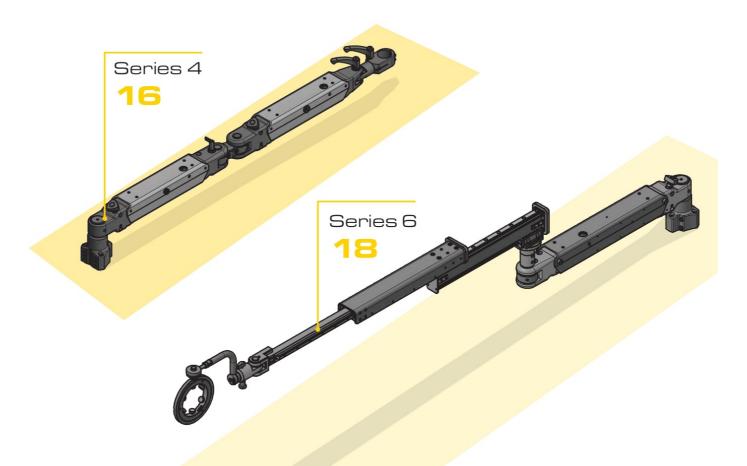
3arm-America® arms carry a full one year warranty of the arm against manufacturer defects. The warranty does not cover any damage caused by overloads, improper use and handling, and using the arm for anything other than its intended use. Our warranty covers labor and parts during the one year period.

### INDEX

Markets and Applications 💍

The Versatile Ergonomic Solution 💙







Head Members + Brakes 22

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Worker Injury 26

Prevent the Problem 27

## INDUSTRIES SERVED



**Automotive** 



Assembly



Mining



Construction



#### Versatility and Productivity

3arm® has been designed to keep weightless any tool and device up to 77 lbs, with different working areas, including more than 29 head systems and be fixed in any position according its accessories and having more than 1 million combinations available.

#### **Ergonomic Safety**

The weightlessness and the skill to absorb a considerable tool torque reaction depending on the headmember and the option to lock the arm in any position and movement helps to prevent the operator fatigue and injuries, giving them high work sensitivity and increasing productivity.

#### The **3arm** Solution

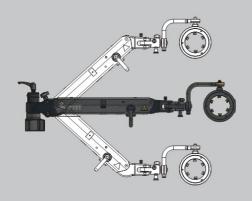
- Allows the full range of motion required to complete any task efficiently and safely.
- Permits use of heavy tools more accurately.
- Eliminates tool weight, providing not only an ergonomic benefit, but also increasing productivity.
- Reduces operator fatigue and the chance of injury due to strain.
- Holds any tool up to 35 Kg, keeping the tool weightless, while eliminating possible damage caused by dropping the tool.







A single tilting arm for the most simple applications. Three different arm lenghts, all the brake options and headmembers offers versatility for any kind of tool.



#### 3arm Solutions

The Balustrade Support for lifters and this simple 3arm fits perfectly construction& electrical applications.



F	LOOR MOUNTED	VERT	ACH —	MAX LBS	— RE	ACH — HORZ	MAX LBS
SN/ST DS	Extra Short Tilting	500	510	30	19,8	20	65
NS/ST BS	Short Tilting	669	625	35	26,3	24,3	77
SN/ST BM	LargeTilting	1070	925	21	44,5	36,4	43



#### **COMPATIBLE HEAD MEMBERS**

All

See Headmembers, pg 20

#### **BRAKE OPTIONS**

LOO No brakes

**L11** Manual

**L22** Pneumatic

L50 Manual Locking Base

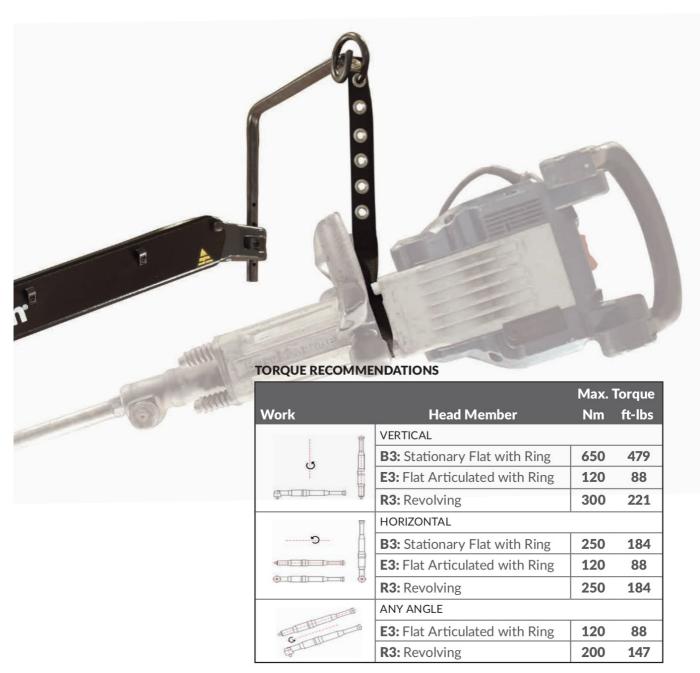
L92 Tool Trigger Activated

8

Pure
Simplicity
for holding
tools



## SIMPLE SIMPLE APPLICATIONS

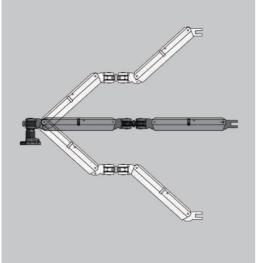








Series 1 arms are capable of the most difficult operations and positions required. The innovative connections between the parts of the arm allow completely free movement of rolling up, down and sideways



1PL1DS Floor Mounted
1AM1DS Ceiling Mounted
Compare Series, pg 26

**ORIENTATION** 

COMPATIBLE HEAD MEMBERS B, BA, C, E, EA, F, G, K, N, T

See Headmembers, pg 20

**LOO** No brakes



#### 3arm Solutions

A Trolley Column with Lifter can add the mobility needed for your application and add even more vertical reach at the same time.

See More Solutions, pg 22









Light and nimble with great vertical reach

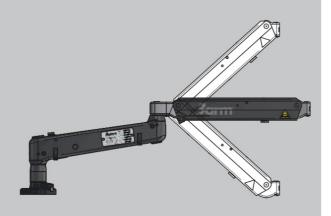








A combination radial arm and tilting arm, each capable of 360° rotation. Two arms of different length give you the ability to reach separate working areas. A range of headmembers options offer solutions for a wide variety of tools and devices.



	BASE
В	Floor Mounted
BE	Elevating Base
BS	Ceiling Mounted

Compare Series, pg 26

#### **COMPATIBLE HEAD MEMBERS**

B, BA, C, E, EA, F, G, K, N

See Headmembers, pg 20

#### **BRAKE OPTIONS**

L00 No brakes





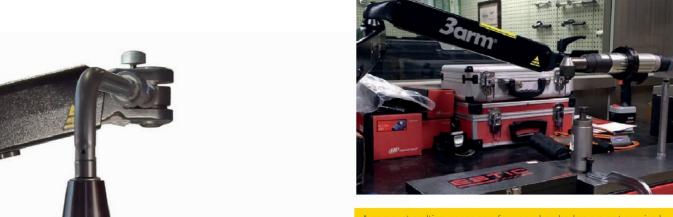
**Small Work** 

**Areas** 



## THE PERFECT BALANCE ...

IN YOUR WORK



A compact multi-purpose arm for use when brakes are not required



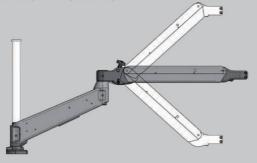


		Max. 1	Torque
Work	Head Member	Nm	ft-lbs
	VERTICAL		
ي ق	<b>B2:</b> Stationary Flat with Ring	120	88
	<b>E2:</b> Flat Articulated with Ring	60	44
Ī	HORIZONTAL		
	<b>B2:</b> Stationary Flat with Ring	90	66
	<b>E2:</b> Flat Articulated with Ring	60	44
THE THE PARTY OF T	ANY ANGLE		
G	<b>E2:</b> Articulated Flat + Ring	60	44





The most popular 3arm® due to versatility. Features "turning & tilting" brake locking systems (pneumatic or manual) allowing the operator to immobilize the arm, in a fixed position, on all axes simultaneously or separately.





		1	—REAC	H mm—	MAX	REAG	CH in—	MAX
FLOO	R MOUNTED/CELING MONTED		VERT	HORZ	Kg	VERT	HORZ	LBS
A/PSBS	Short Radial + Short Tilting	V/	669	1075	35	26.3	41.7	77
A/PSBM	Short Radial + Long Tilting	V/	1070	1375	21	44.5	53.5	40
A/PLBS	Long Radial + Short Tilting	V/	669	1432	35	26.3	55.9	77
A/PLBM	Long Radial + Long Tilting	V/	1070	1733	21	44.5	67.6	40

#### **ELEVATING BASE**

PEBS	Elevating Radial + Short Tilting	V/	1080	1125	35	26.3	43.7	77
PEBM	Elevating Radial + Long Tilting	V/	1519	1425	21	44.5	55.8	40

Compare Series, pg 26

#### **BRAKE OPTIONS**

LOO No brakes

**L11** Manual

**L22** Pneumatic

**L50** Manual Locking Base

L30 Ivialidal Lockling base

L92 Tool Trigger Activated

See Brakes, pg 20



#### COMPATIBLE HEAD MEMBERS

ALL

See Headmembers, pg 20



Series 3 arm

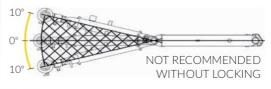
#### THE CAPABILITY TO ...

## CARRYTHE WEIGHT





Long reach and the ability to carry the heaviest loads



**TORQUE RECOMMENDATIONS** 

		Max.	Torque
Work	Head Member	Nm	ft-lbs
1 8	VERTICAL		
	<b>B3:</b> Stationary Flat with Ring	650	479
	E3: Flat Articulated with Ring	120	88
	R3: Revolving	300	221
f	HORIZONTAL		
<u>&gt;</u>	<b>B3:</b> Stationary Flat with Ring	250	184
	E3: Flat Articulated with Ring	120	88
•	R3: Revolving	250	184
T-T-A	ANY ANGLE		
G THE	E3: Flat Articulated with Ring	120	88
The state of the s	R3: Revolving	200	147

#### 3arm Solutions

The Floor Rail plus the Elevator provides a big working area for your application.

See More Solutions, pg 22

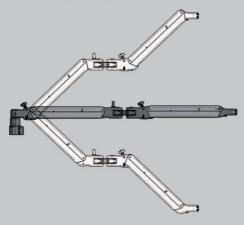
\*Series 3 - LOCKING RECOMMENDED







The innovative connections between the parts of the arm allow completely free movement of rolling up, down and sideways. Capable of reaching the most difficult positions or work with weightless precision.



Floor mou	ınted / Bottom Mounted	REAC VERT	H mm HORZ	MAX Kg	REAC	H in —	MAX LBS
A/DS	Short Arm	1020	1220	19	40	48	43
A/DM	Long Arm	1340	1555	24	52	57.5	53
Compare	Series, pg 26						

#### **COMPATIBLE HEAD MEMBERS**

#### ALL

See Headmembers, pg 20

#### BRAKE OPTIONS

L00	No	brakes	
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L11 Manual

**L22** Pneumatic

**L50** Manual Locking Base

**L92** Tool Trigger Activated

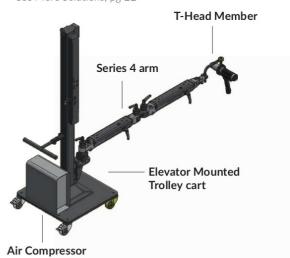
See Brakes, pg 20



#### 3arm Solutions

A Trolley Elevator plus the Compressor makes your application fully mobile.

See More Solutions, pg 22





Dual Tilting Arms Expand the Range of Movement



THE RIGHT ANGLE ...

MAKES ALL THE **DIFFERENCE** 





Extended vertical reach with uncomprimised strength



3arm

TORQUE RECOMMENDATIONS

		Max.	Torque
Work	Head Member	Nm	ft-lbs
1	VERTICAL		
65	<b>B4:</b> Stationary Flat with Ring	300	221
	<b>E4:</b> Flat Articulated with Ring	120	88
	R4: Revolving	300	221
Ħ	HORIZONTAL		
	<b>B4:</b> Stationary Flat with Ring	250	184
	<b>E4:</b> Flat Articulated with Ring	120	88
	R4: Revolving	250	184
	ANY ANGLE		
G	<b>E4:</b> Flat Articulated with Ring	120	88
The state of the s	R4: Revolving	200	147

\*Series 4 - LOCKING REQUIRED







L92 Tool trigger Activated

## 3arm

# VVITHING ... REACH



Extended horizontal reach spans more than 2M.



**TORQUE RECOMMENDATIONS** 

ORQUE RECOMME			
		Max.	Torque
Work	Head Member	Nm	ft-lbs
i ii	VERTICAL		
	<b>B6:</b> Stationary Flat with Ring	300	221
	<b>E6</b> Flat Articulated with Ring	120	88
	<b>R6:</b> Revolving	300	221
Ī	HORIZONTAL		
<u>5</u>	<b>B6:</b> Stationary Flat with Ring	250	184
	<b>E6:</b> Flat Articulated with Ring	120	88
	R6: Revolving	250	184
T. T. T.	ANY ANGLE		
G THE	<b>E6:</b> Flat Articulated with Ring	120	88
The state of the s	R6: Revolving	200	147

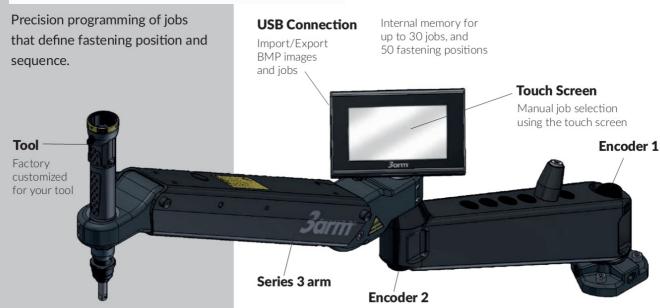
\*Series 6 - LOCKING REQUIRED

## THE ENCODER



Encoder SmartControl system integration available on Series 2 and 3 3arm®





#### **DESCRIPTION**

A/BB2L+L80	Series 2 Base
A/PSBS+L80	Series 3, Short + Short
A/PSBM+L80	Series 3, Short + Long
A/PLBS+L80	Series 3, Long + Short
A/PLBM+L80	Series 3, Long + Long

#### COMPATIBLE HEADMEMBERS

B, BA, C, E, EA

See Headmembers, pg 20



#### Versatile

- Additional programs previously created to add or modify fastening positions and modify the precision parameters and programming of torque (the fastening sequence cannot be edited)
- Possibility of working with up to 7 different fastening programs in the same job
- Communication with the tool controller to select the different fastening programs (I/O)
- Communication with the tool controller to enable or block the functioning of the tool (I/O)
- Communication with the tool controller to receive the correct/ incorrect fastening signal (I/O)

- Counting of parts remaining to complete the current job and parts completed
- Configuration in 3 languages (Spanish, English and French)
- Possibility of password protection for the system
- Possibility of inlaying a representative BMP image into the jobs
- Identifier (overprinted message) of jobs finished correctly



Quickly and easily create new sequences

Increase productivity and safety

Adaptable headmember for a wide variety of tools



## HEAD MEMBERS







**Articulated** 



**Articulated** with Ring



**Adjustable** 



Adjustable Ball and Socket



Vertical **Pneumatic Ball** and Socket



Horizontal **Adjustable Ball** and Socket



Horizontal **Pneumatic Ball** and Socket



Revolver



**Swing** Revolver



Revolver **Pistol** 



Vertical & Horizontal



Giraffe Revolver







Custom Ask us about a custom toolholding solution.

L22 **Pneumatic Brakes** 



L50 Manual Locking **Base** 



L92 Pneumatic, brakes activated from the tool trigger





## MOUNTING SOLUTIONS



## We will engineer the perfect solution for your application

Our experts will ensure your 3arm® build is properly balanced with your accessory.

#### More Reach





#### Vertical Reach



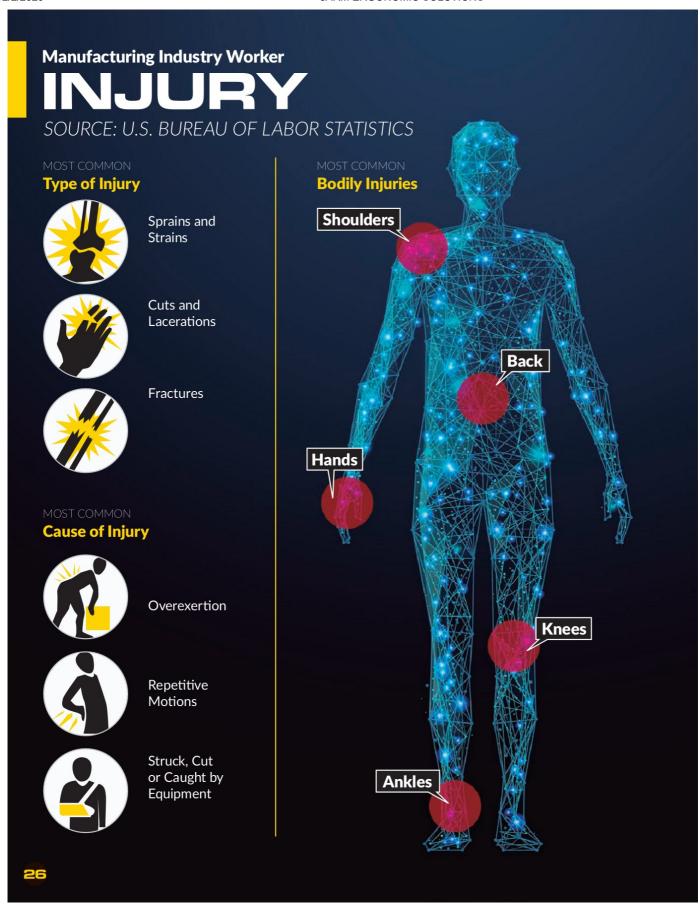
Custom sizes available



#### Mobile Work Space

Custom sizes available







## PREVENT THE PROBLEM WITH

## APPLYING **Ergonomics**



Weightload is Taken Off of the Worker



Worker Can Be More Productive with Less Strain



Eliminate the Most Common Causes of Worker Injury

WORKER **Safety** 



Worker's Limbs are Kept at a Safe Distance from Hazards



Get the Tool into Tight Spaces, While Keeping Workers Safe.



Eliminate the High Costs of Worker Injury

## WE SERVICE WHAT WE MANUFACTURE

www.3arm.net



## TECNOSP%RO

Tecnospiro Machine Tool, S.L.

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#### Customer Committment

To work hard everyday to be regarded in the metal working marketplace as a supplier that is friendly, helpful and easy to do business with - EVERYDAY, EVERYTIME.

To offer innovative high quality solutions at a competitive price.

To be receptive & proactive in identifying solutions for our customers needs & requirements.



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